

# SPECIFIER'S GUIDE (EMEA)





## Protecting Your Advantage Worldwide



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*The most recognized, preferred brand of enclosures for electrical and electronic applications for over 50 years, Hoffman delivers value, quality and innovation in equipment protection solutions to a global customer base. With annual production of over 10 million products and accessories built to ISO 9001 standards worldwide, Hoffman protection solutions ensure your mission-critical devices achieve optimal performance and service life. [www.hoffmanonline.com](http://www.hoffmanonline.com)*

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Pentair Technical Products Brands



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## Why Hoffman?

- ▶ Built to global standards
- ▶ Global availability
- ▶ Commitment to quality
- ▶ The largest selection of standard products
- ▶ Modifications to meet your needs
- ▶ Custom fabrication
- ▶ Service and expertise
- ▶ Comprehensive testing
- ▶ Application-specific solutions



**COMBINING A  
GLOBAL FOCUS  
WITH DEDICATED  
CUSTOMER SERVICE**





## Considerations When Specifying Enclosures

A number of factors should be considered when specifying the enclosure that will best perform in your application. The environment, application, thermal management requirements, enclosure performance standards, material and size all play a key role in the selection process.

On these pages, we highlight critical issues and questions that you should ask when selecting an enclosure.

## ENVIRONMENT

Whatever your application—offshore, telecommunications, or dairy processing, environment is perhaps the most important factor to consider.

What is your primary environmental concern? Consider the most important potential threat in your environment. This will determine which enclosure offers the best protection.

What type of equipment are you protecting? Different types of equipment require different levels of protection.

## APPLICATION

When selecting an enclosure, application can be associated with market or product. For example, is your enclosure going to be used in a petrochemical refining plant, a food manufacturing system or a water treatment plant? Regarding product, does your application require a disconnect enclosure, pendant arm mounting, arc flash safety products or easy access? The requirements of your application must be taken into consideration.

## MATERIAL

Select the appropriate material for your enclosure based upon the potential environmental hazards and contaminants against which you need to defend.

- ▶ Steel
- ▶ Polycarbonate
- ▶ Stainless Steel





## SIZE

You'll need to consider several factors when specifying enclosure size.

What equipment will you enclose?

Where on the enclosure will equipment be installed?

Are you subpanel-mounting equipment?

Are you door-mounting controls?

Does your application have specific enclosure location requirements?

## STANDARDS

Select an enclosure that has a rating appropriate for your environment and application. Rating systems from NEMA, UL, CSA, IEC and VDE determine an enclosure's ability to withstand environmental conditions. However, these ratings differ in important ways.

## THERMAL

Effective thermal management maximizes the efficiency and lifecycle of electrical components. While it is critical to dissipate and manage heat build-up, it can also be necessary to add heat.

Some key questions for determining the appropriate cooling unit for your application:

What size is my enclosure?

Which enclosure surfaces allow heat transfer?

What type of system do I need? Such as open loop or closed loop.

Is my application indoors or outdoors?

Will the cooling unit be mounted on the top, side or inside the enclosure?

For additional assistance specifying enclosures, see the Search and White Papers on [hoffmanonline.com](http://hoffmanonline.com), contact your local sales representative.

OVER 10,000  
STANDARD  
PRODUCTS

MILLIONS OF  
NON-STANDARD  
POSSIBILITIES

## Modified and Custom Enclosures.

### Look beneath the surface. Hoffman modified and custom enclosures.

If you think Hoffman just offers the largest selection of standard enclosures, you haven't looked beneath the surface. With over 10,000 standard enclosures and accessories, Hoffman is renowned for our selection.

But Hoffman is also one of the major brands that offers a full selection of modifications including sizes, holes and cutouts, panel and door styles, internal barriers, hinges, mounting options, colors and paint finishes, hundreds of accessories and much more.

And for cabinets and enclosures that are even more complex, Hoffman has the most comprehensive custom enclosure engineering and fabrication capabilities in the industry.





# THE MOST UP-TO-DATE INFORMATION AT YOUR FINGERTIPS

hoffmanonline.com

Hoffman's comprehensive and expanding Web site not only offers the industry's largest selection of enclosures and accessories, but it is the most complete information resource for enclosure education and specification.

**ONLINE PRODUCT CATALOG**

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## PROTEK® Wall-Mount Enclosures

- Space-efficient protection
- UL & CSA Type 1, 3R, 4, 4X or 12
- Wide range of sizes & materials for indoor or outdoor use

**Product Categories:**

<p><b>New Products</b></p> <ul style="list-style-type: none"> <li>Mild Steel</li> <li>Stainless Steel</li> </ul> <p><b>Non-Metallic</b></p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Disinfect</li> </ul> <p><b>Modular Enclosure Systems</b></p> <ul style="list-style-type: none"> <li>HMI - Human Machine Interface</li> <li>Contractor</li> <li>Networking</li> <li>Cable and Wire Management</li> <li>Bussbar Systems</li> <li>Thermal Management</li> <li>Hazardous Locations</li> <li>Accessories</li> <li>Technical Information</li> </ul>	<p>We've created standard, modified, and custom-built enclosures for thousands of customers across a diverse range of industries. From the clean-room to the factory floor, Hoffman enclosures protect sensitive equipment from dust, dirt, oil, water, corrosion and other contaminants.</p> <p><b>Stainless Steel</b>                      Disinfect                      HMI - Human Machine Interface                      Contractor                      Networking                      Cable/Wire Management                      Thermal Management</p>
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Find products by catalog #  
 Find products by keyword(s)  
 Enter Catalog Model # or keyword(s)

Need help selecting a product?  
 Search by name, rating or material

**FREE! Order Now!**  
 Specifier's Guide, Vol. 22

**Thermal Management Selection Software**

**Free White Paper**  
 Overview & Design  
 Data Center Cabinets

**News:**  
 Pentair Technical Products' Hoffman™ Solar Controller Box Offers Rugged Protection and Versatility  
 (continued)

View all News Releases

**Customer Successes:**  
 Stainless Steel Enclosure Withstands Hurricane Gusts, Protecting Electrical Equipment at Louisiana IRBty Plant  
 The storm left behind several feet of standing water in the building, putting the plant's electrical equipment at serious risk of being destroyed.


Equipment Protection During Testing Ensures "Peak Performance"  
 Gilbert Pump & Mechanical tests and troubleshoots pumps in their new test pit utilizing Hoffman enclosures.

View all Customer Successes

**PRODUCT SEARCH**



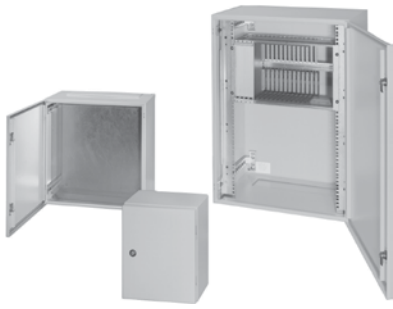
## Using the EMEA Catalog



**EMEA Specifier's Guide: Mild Steel Wall-Mount Enclosures**

### CONCEPTLINE Wall-Mount Enclosures

**PRODUCT NAMES** → CONCEPTLINE



**Specifications**

- Type of protection IP 66
- Dimensions from 300x250x150 mm to 1200x600x420 mm
- Door opening angle 130 degrees
- Seamless foam-in-place gasket
- Seams continuously welded and ground smooth
- Corner-formed doors
- Doors are interchangeable
- Grounding stud on body; bonding provision on door
- Depth adjustable 19-in. rack angles assembly plane or mounting plate
- Includes gland plate
- Illustrated instruction sheet

**Finish**  
RAL 7035

**Accessories**

- 19-in. assembly kit
- 19-in. panel mount
- Depth member
- GND/earthing
- Mounting bracket
- Mounting plate
- T-bar lock
- Wall mounting bracket

**Modification and Customization**

- Special colors and sizes
- Fittings, conversions, cutouts
- Custom solutions

**STANDARDS INFORMATION RELOCATED** →

**Industry Standards**

UL 508, Type 12

Type of protection IP 66 in accordance with IEC 60529  
NEMA 250, Type 12  
CSA-C22.2 No 94, Type 12

**Application**  
CONCEPTLINE Enclosures are ideal robust indoor wall-mounted enclosures for machine control applications with streamlined styling, flush quarter-turn latches and an attractive, durable finish. Available in solid-door versions for application and mounting flexibility.

**PRODUCT DIFFERENTIATOR STATEMENTS** →

- ▶ Pages consecutively numbered
- ▶ All Type ratings are per NEMA standards, unless otherwise indicated





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# CHAPTER

# 1

## Industrial Cabinets





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## Industrial Cabinets

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**PROLINE™ Modular Enclosure Systems****PROLINE™ Modular Enclosures Product Overview**

**T**he PROLINE™ Modular Enclosure system is designed to protect electrical and electronic equipment in industrial, local area networking and telecommunications applications. Each enclosure provides full protection from dirt, dust, moisture, oil and other contaminants.

**P**ROLINE enclosures consist of a rugged frame that protects your equipment from the stresses of movement and shipping. Select from a wide variety of tops, bases, covers, sides and doors to configure a customized solution. After you've selected the external components, the complete PROLINE offering of rack angle, subpanel and grid mounting options allows you to install your equipment securely within the enclosure. Mounting options accommodate rack-mount equipment, operator interfaces, industrial control equipment and computer systems, as well as manage wiring and cabling.

**P**entair Technical Products manufactures and supports PROLINE worldwide to meet the needs of our global customers.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## PROLINE™ Modular Enclosure Systems

### PROLINE™ Modular Enclosures Product Description

#### Industry Standards

##### Gasketed assembled enclosure

UL 508A Listed; Type 12; File Number E61997  
 cUL Listed per CSA C22.2 No 94; Type 12; File Number E61997

NEMA/EEMAC Type 12  
 CSA File Number 42186: Type 12  
 VDE IP55  
 IEC 60529, IP55

#### Specifications

- Frames are a single-roll-formed, robotically welded design made of 2.5-mm steel with solid steel, fully welded corners
- External sides and doors are 1.5- or 2.0-mm steel
- Standard door bars increase strength and rigidity and provide an extra mounting surface
- Seamless, foam-in-place gasket on external accessories provides a water-tight, dust-tight seal against moisture and contaminants
- Latching system assures a solid seal with low closure force
- Integral frame channels support the full weight of the subpanels
- Frames accommodate the 25-mm DIN standard and include rectangular holes for clip nuts and through-holes for use with thread-forming screws

#### Finish

See individual product or component descriptions. Light-gray color is RAL 7035 textured polyester powder paint, and black accent color is RAL 9005 textured polyester powder paint.

#### Options

##### Frames

- Frames available with painted or plated finish
- Single- and double-bay frames for maximum flexibility
- Frames can be joined easily to create multi-bay applications
- Frames available specifically for protecting computer systems and operator interface applications

##### External Components

- Solid doors include standard door bars for additional mounting space and rigidity
- Window doors include safety glass
- Doors accept a variety of aesthetic yet rugged handle options
- Solid sides and covers fasten directly to the frame

##### Internal Components

- Subpanels can be mounted in 25-mm increments from front to rear and on the sides
- Subpanels in joined enclosures provide a flush surface for easier assembly and wire management
- Rack mounting capabilities include 19 in.
- Grid systems support a variety of mounting applications

#### Ordering

PROLINE products can be supplied in any of the following ways to best suit your needs:

#### A-T-O Assemble-to-Order

PROLINE assembled enclosures are a part of our Assemble-to-Order (A-T-O) program. Most external and internal components are available and can be installed in customer-specified locations. In ten working days, the cabinet delivery will be built based on individual components that you decide to use. The solution is ready to use with a minimum order quantity of one.

#### Assembled Enclosures

PROLINE enclosures are available preconfigured for computer system (PC) applications and industrial applications. These options allow you to select a complete system that includes the frame, sides, top, base, doors and internal mounting accessories by simply ordering one catalog number.

#### Modification Services

Pentair Technical Products offers modifications to suit your needs. Depending on the product, you can specify modifications to PROLINE products.

Finally, if your requirements include an application-specific component or accessory, we can work with you to develop a solution that meets your needs. Work with your distributor or sales office for these specific enclosure requirements.

Modifications are those within our standards. By using our engineering and manufacturing experience, we offer you a range of available modifications (cut-outs, color change etc.) within ten working days as a part of the A-T-O program. This proposition is mainly dedicated to small and medium sized projects that you need to deliver fast to your customer.

#### Individual Parts

If your process is better-suited to receiving individual PROLINE parts and completing the assembly yourself, we can accommodate you. Frames and external components are available for shipment from our warehouse or distributor stock.

Customization to your needs – PROLINE is an ideal platform to become the base for your particular cabinet. We offer engineering support to develop your own solution and even integrate cooling and cabling. This service is supported by a global organization making your product globally available in many locations.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROLINE™ Assembled Enclosures**

**PROLINE™ Industrial Packages, Type 12**



**Specifications**

- Frames are a roll-formed, robotically welded design made of 2.0-mm thick steel with solid steel, fully welded corners
- External sides, covers and doors are 1.3- or 1.6-mm thick steel
- Standard door bars increase strength and rigidity and allow for an extra mounting surface
- Seamless foam-in-place gasket provides a water-tight, dust-tight seal against moisture and contaminants
- Gasket and latching system together ensure a solid seal with low closure force
- Solid front doors equipped with a PROLINE latching system and keylocking flush swing handle
- Integral frame channels support the full weight of the subpanels
- Galvanized full subpanel
- Frames accommodate the 25-mm DIN standard and include rectangular holes for clip nuts and through holes for use with thread-forming screws
- PROLINE Overlapping Doors are available for 1200- and 1600-mm widths; they are denoted by an OD in the part number, i.e., PPOD18126

**Industry Standards**

UL 508A Listed; Type 12; File Number E61997

NEMA/EEMAC Type 12  
 CSA File Number 42186: Type 12  
 VDE IP55  
 IEC 60529, IP55

**Application**

PROLINE™ Industrial Packages are full-featured, ready-to-use enclosure solutions that make it unnecessary to order each component separately. For convenience, a single part number includes a frame, a solid front door, a solid rear cover, a solid top, a gland plate, lifting eyes and a full subpanel, so that only the side covers need to be ordered separately.

**Finish**

Enclosure finish is RAL 7035 textured, light-gray polyester powder paint with black accent color of RAL 9005 textured, polyester powder paint.

**Accessories**

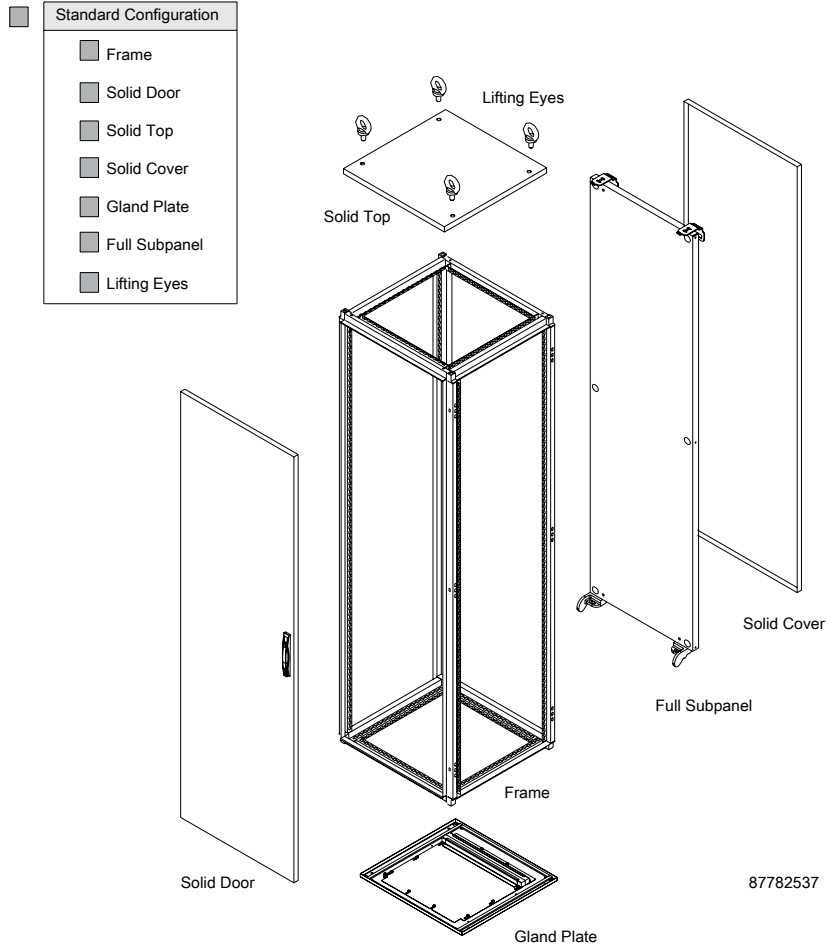
A full selection of accessories is available.

**Standard Product**

Part no	AxBxC mm	AxBxC in.
PP1466	1400 x 600 x 600	55.12 x 23.62 x 23.62
PP1468	1400 x 600 x 800	55.12 x 23.62 x 31.50
PP1666	1600 x 600 x 600	62.99 x 23.62 x 23.62
PP1668	1600 x 600 x 800	62.99 x 23.62 x 31.50
PP1686	1600 x 800 x 600	62.99 x 31.50 x 23.62
PP18105	1800 x 1000 x 500	70.87 x 39.37 x 19.69
PP18106	1800 x 1000 x 600	70.88 x 39.37 x 23.62
PP18108	1800 x 1000 x 800	70.87 x 39.37 x 31.50
PPOD18125	1800 x 1200 x 500	70.87 x 47.24 x 19.69
PPOD18126	1800 x 1200 x 600	70.87 x 47.24 x 23.62
PPOD18128	1800 x 1200 x 800	70.87 x 47.24 x 31.50
<b>PP1866</b>	1800 x 600 x 600	70.87 x 23.62 x 23.62
<b>PP1865</b>	1800 x 600 x 500	70.87 x 23.62 x 19.69
<b>PP1868</b>	1800 x 600 x 800	70.87 x 23.62 x 31.50
PP1884	1800 x 800 x 400	70.87 x 31.50 x 15.75
<b>PP1885</b>	1800 x 800 x 500	70.87 x 31.50 x 19.69
PP1886	1800 x 800 x 600	70.87 x 31.50 x 23.62
PP1888	1800 x 800 x 800	70.87 x 31.50 x 31.50
PP20105	2000 x 1000 x 500	78.74 x 39.37 x 19.69
<b>PP20106</b>	2000 x 1000 x 600	78.74 x 39.37 x 23.62
PP20108	2000 x 1000 x 800	78.74 x 39.37 x 31.50
PPOD20125	2000 x 1200 x 500	78.74 x 47.24 x 19.69
<b>PPOD20126</b>	2000 x 1200 x 600	78.74 x 47.24 x 23.62
PPOD20128	2000 x 1200 x 800	78.74 x 47.24 x 31.50
PP2064	2000 x 600 x 400	78.74 x 23.62 x 15.75
<b>PP2065</b>	2000 x 600 x 500	78.74 x 23.62 x 19.69
<b>PP2066</b>	2000 x 600 x 600	78.74 x 23.62 x 23.62
<b>PP2068</b>	2000 x 600 x 800	78.74 x 23.62 x 31.50
PP2084	2000 x 800 x 400	78.74 x 31.50 x 15.75
<b>PP2085</b>	2000 x 800 x 500	78.74 x 31.50 x 19.69
<b>PP2086</b>	2000 x 800 x 600	78.74 x 31.50 x 23.62
<b>PP2088</b>	2000 x 800 x 800	78.74 x 31.50 x 31.50
PPOD22126	2200 x 1200 x 600	86.61 x 47.24 x 23.62
PPOD22128	2200 x 1200 x 800	86.61 x 47.24 x 31.50
PP2266	2200 x 600 x 600	86.61 x 23.62 x 23.62
PP2268	2200 x 600 x 800	86.61 x 23.62 x 31.50
PP2286	2200 x 800 x 600	86.61 x 31.50 x 23.62
PP2288	2200 x 800 x 800	86.61 x 31.50 x 31.50

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### PROLINE™ Assembled Enclosures



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Assembled Enclosures**

**PROLINE™-PC, Type 12**



**Application**

PROLINE™-PC Modular Enclosures offer effective protection for computer monitors, keyboards, CPUs, printers and other peripheral equipment in industrial environments.

**Features**

- The frame is enclosed with solid sides, a solid top and a 100-mm solid base.
- Three doors, two in front and one in back, provide convenient access
- The sealed keyboard compartment maintains enclosure integrity when the compartment door is opened
- The 483-mm diagonal top window door, hinged on the left, offers viewing access for a variety of monitor sizes and has a small flush swing handle with keylock for system security
- The vented frame shelf in the top compartment is constructed of 1.5-mm steel and is painted with RAL 7035 textured, light-gray polyester powder paint
- The PROLINE keyboard compartment includes a locking feature, an angled palm rest, a cable access port for wiring and integral mouse pad holders for both left-handed and right-handed people
- The bottom compartment includes a solid door, hinged on the left, that has a small flush swing handle with keylocking. This compartment can be used to install computer equipment, panel-mounted equipment or rack mounted control systems.

**Industry Standards**

UL 508A Listed; Type 12; File Number E61997  
 cUL Listed per CSA C22.2 No 94; Type 12; File Number E61997

NEMA/EEMAC Type 12  
 CSA File Number 42186: Type 12  
 VDE IP55  
 IEC 60529, IP55

**Standard Product Mild Steel**

Part no	AxBxC mm/in.	M mm/in.	N mm/in.	P mm/in.	R mm/in.	Top Door Opening, Height mm/in.	Top Door Opening, Width mm/in.	Bottom Door Opening, Height mm/in.	Bottom Door Opening, Width mm/in.
<b>PPC1666</b>	1688 x 608 x 599 66.46 x 23.94 x 23.58	343 13.50	366 14.41	586 23.07	1363 53.66	558 21.97	536 21.10	739 29.09	536 21.10
<b>PPC1668</b>	1688 x 608 x 799 66.46 x 23.94 x 31.46	343 13.50	366 14.41	586 23.07	1363 53.66	558 21.97	536 21.10	739 29.09	536 21.10
<b>PPC1866</b>	1888 x 608 x 599 74.33 x 23.94 x 23.58	343 13.50	366 14.41	786 30.94	1463 57.60	758 29.84	536 21.10	739 29.09	536 21.10
<b>PPC1868</b>	1888 x 608 x 799 74.33 x 23.94 x 31.46	343 13.50	366 14.41	786 30.94	1563 61.54	958 37.72	536 21.10	739 29.09	536 21.10

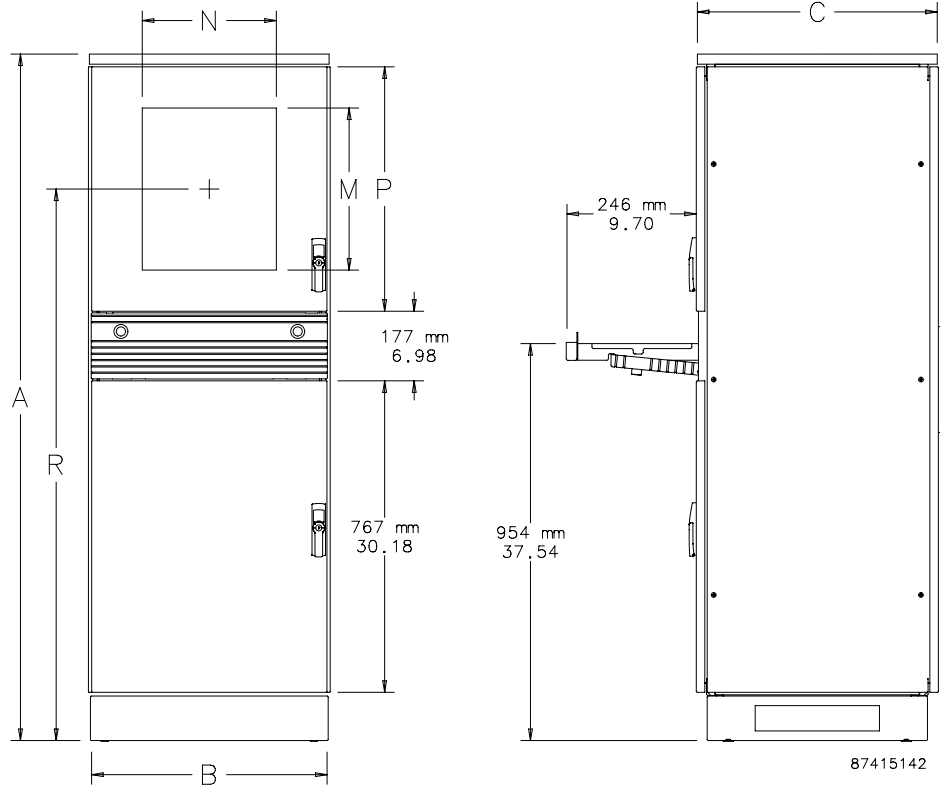
100-mm solid base is included in the A dimension.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

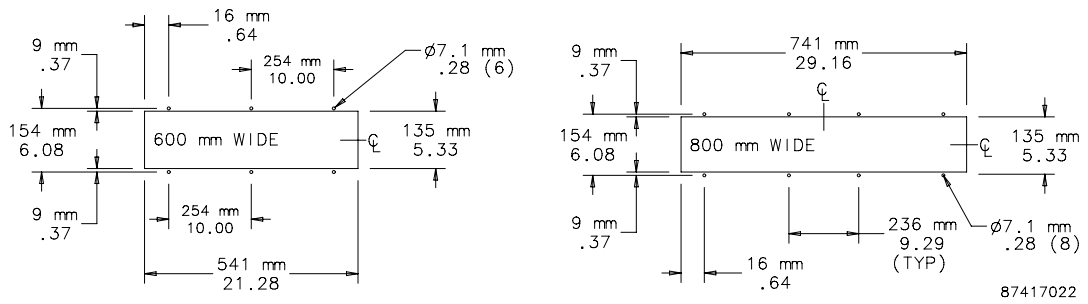


**PROLINE™ Assembled Enclosures**

PROLINE-PC Modular Enclosure



Accessory Front Opening Mounting Cutout



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Frames**
**Single-Bay Frames**

**Specifications**

- Welded corners with steel corner blocks that add strength and rigidity
- 2.5-mm roll-formed frame sections for strength
- Flange on door and side openings deflect liquids away from the enclosure interior
- Rectangular frame holes are designed for metric cage nut fasteners
- Round frame holes allow numerous grounding locations using M5 thread-forming screws
- Access to both sides of frame mounting holes allows standard components to be easily installed
- Provisions for slide-in subpanel, rack mounting and accessory mounting
- Simple means for joining frames to create multiple-bay enclosures
- An open roll-formed profile design affords complete surface corrosion protection and assembly access
- Sealed mounting for all external accessories
- Finished with RAL 7035 textured, gray polyester powder paint

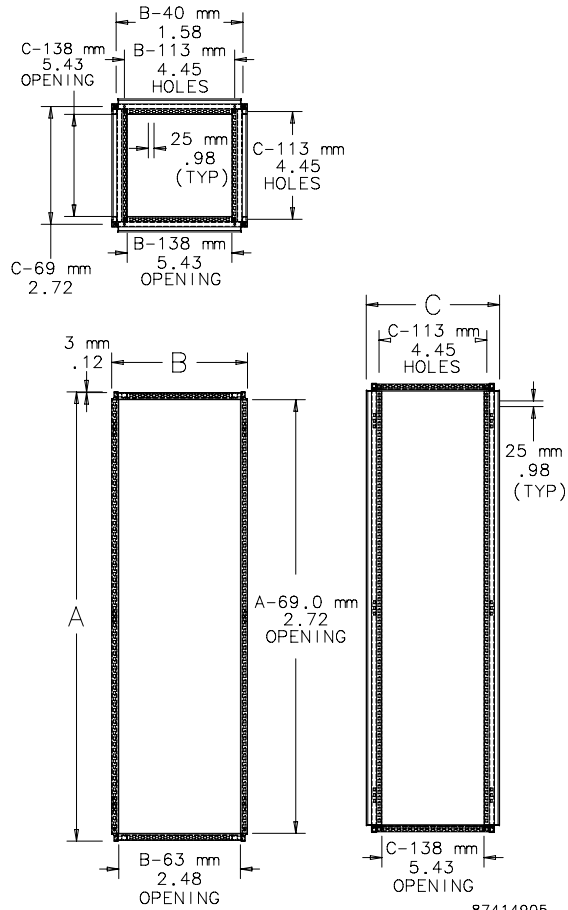
**Standard Product**

Part no	AxBxC mm	AxBxC in.	Nominal Frame Size A x B x C mm	Maximum Subpanel Size mm	Maximum Subpanel Size in.	Maximum Rack Mounting Space
PF1466	1380 x 599 x 588	54.33 x 23.58 x 23.15	1400 x 600 x 600	1285 x 530	50.59 x 20.87	28U
PF1468	1380 x 599 x 788	54.33 x 23.58 x 30.20	1400 x 600 x 800	1285 x 530	50.59 x 20.87	28U
PF1666	1580 x 599 x 588	62.20 x 23.58 x 23.15	1600 x 600 x 600	1485 x 530	58.46 x 20.87	33U
PF1668	1580 x 599 x 788	62.20 x 23.58 x 31.02	1600 x 600 x 800	1485 x 530	58.46 x 20.87	33U
PF1686	1580 x 799 x 588	62.20 x 31.46 x 23.15	1600 x 800 x 600	1485 x 730	58.46 x 28.74	33U
PF1865	1780 x 599 x 488	70.08 x 23.58 x 19.21	1800 x 600 x 500	1685 x 530	66.34 x 20.87	38U
PF1866	1780 x 599 x 588	70.08 x 23.58 x 23.15	1800 x 600 x 600	1685 x 530	66.34 x 20.87	38U
PF1868	1780 x 599 x 788	70.08 x 23.58 x 31.02	1800 x 600 x 800	1685 x 530	66.34 x 20.87	38U
PF1884	1780 x 799 x 388	70.08 x 31.46 x 15.28	1800 x 800 x 400	1685 x 730	66.34 x 28.74	38U
PF1885	1780 x 799 x 488	70.08 x 31.46 x 19.21	1800 x 800 x 500	1685 x 730	66.34 x 28.74	38U
PF1886	1780 x 799 x 588	70.08 x 31.46 x 23.15	1800 x 800 x 600	1685 x 730	66.34 x 28.74	38U
PF1888	1780 x 799 x 788	70.08 x 31.46 x 31.02	1800 x 800 x 800	1685 x 730	66.34 x 28.74	38U
PF18105	1780 x 999 x 488	70.08 x 39.33 x 19.21	1800 x 1000 x 500	1685 x 930	66.34 x 36.61	38U
PF18106	1780 x 999 x 588	70.08 x 39.33 x 23.15	1800 x 1000 x 600	1685 x 930	66.34 x 36.61	38U
PF18108	1780 x 999 x 788	70.08 x 39.33 x 31.02	1800 x 1000 x 800	1685 x 930	66.34 x 36.61	38U
PF2064	1980 x 599 x 388	77.95 x 23.58 x 15.28	2000 x 600 x 400	1885 x 530	74.21 x 20.87	42U
PF2065	1980 x 599 x 488	77.95 x 23.58 x 19.21	2000 x 600 x 500	1885 x 530	74.21 x 20.87	42U
PF2066	1980 x 599 x 588	77.95 x 23.58 x 23.15	2000 x 600 x 600	1885 x 530	74.21 x 20.87	42U
PF2068	1980 x 599 x 788	77.95 x 23.58 x 31.02	2000 x 600 x 800	1885 x 530	74.21 x 20.87	42U
PF2084	1980 x 799 x 388	77.95 x 31.46 x 15.28	2000 x 800 x 400	1885 x 730	74.21 x 28.74	42U
PF2085	1980 x 799 x 488	77.95 x 31.46 x 19.21	2000 x 800 x 500	1885 x 730	74.21 x 28.74	42U
PF2086	1980 x 799 x 588	77.95 x 31.46 x 23.15	2000 x 800 x 600	1885 x 730	74.21 x 28.74	42U
PF2088	1980 x 799 x 788	77.95 x 31.46 x 31.02	2000 x 800 x 800	1885 x 730	74.21 x 28.74	42U
PF20105	1980 x 999 x 488	77.95 x 39.33 x 19.21	2000 x 1000 x 500	1885 x 930	74.21 x 36.61	42U
PF20106	1980 x 999 x 588	77.95 x 39.33 x 23.15	2000 x 1000 x 600	1885 x 930	74.21 x 36.61	42U
PF20108	1980 x 999 x 788	77.95 x 39.33 x 31.02	2000 x 1000 x 800	1885 x 930	74.21 x 36.61	42 U
PF2266	2180 x 599 x 588	85.83 x 23.58 x 23.15	2200 x 600 x 600	2085 x 530	82.09 x 20.87	47U
PF2268	2180 x 599 x 788	85.83 x 23.58 x 31.02	2200 x 600 x 800	2085 x 530	82.09 x 20.87	47U
PF2286	2180 x 799 x 588	85.83 x 31.46 x 23.15	2200 x 800 x 600	2085 x 730	82.09 x 28.74	47U
PF2288	2180 x 799 x 788	85.83 x 31.46 x 31.02	2200 x 800 x 800	2085 x 730	82.09 x 28.74	47U

1 rack unit = 1.75 in. (44 mm)

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Frames**



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROLINE™ Frames**

**Double-Bay Frames**



**Features**

PROLINE™ offers the broadest range of standard sizes in the industry.

**Specifications**

- Welded corners with steel corner blocks that add strength and rigidity
- 2.5-mm roll-formed frame sections for strength
- Flange on door and side openings deflects liquids away from the enclosure interior
- Rectangular frame holes are designed for metric cage nut fasteners
- Round frame holes allow numerous grounding locations using M5 thread-forming screws
- Access to both sides of frame mounting holes allows standard components to be easily installed
- Provisions for slide-in subpanel, rack mounting and accessory mounting
- Simple means for joining frames to create multiple-bay enclosures
- An open roll-formed profile design affords complete surface corrosion protection and assembly access
- Sealed mounting for all external accessories
- Finished with RAL 7035 textured, light-gray polyester powder paint

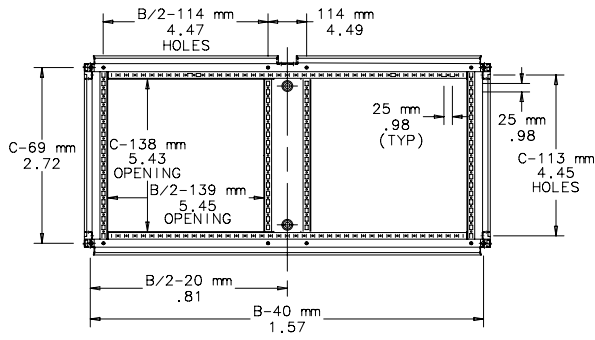
Standard Product

Part no	AxBxC mm/in.	Nominal Frame Size A x B x C mm	Maximum Subpanel Size mm/in.	Maximum Rack Mounting Space
PF18125	1780 x 1199 x 488 70.08 x 47.20 x 19.21	1800 x 1200 x 500	1685 x 1130 66.34 x 44.49	38U x 2
PF18126	1780 x 1199 x 588 70.08 x 47.20 x 23.15	1800 x 1200 x 600	1685 x 1130 66.34 x 44.49	38U x 2
PF18128	1780 x 1199 x 788 70.08 x 47.20 x 31.02	1800 x 1200 x 800	1685 x 1130 66.34 x 44.49	38U x 2
PF20125	1980 x 1199 x 488 77.95 x 47.20 x 19.21	2000 x 1200 x 500	1885 x 1130 74.21 x 44.49	42U x 2
PF20126	1980 x 1199 x 588 77.95 x 47.20 x 23.15	2000 x 1200 x 600	1885 x 1130 74.21 x 44.49	42U x 2
PF20128	1980 x 1199 x 788 77.95 x 47.20 x 31.02	2000 x 1200 x 800	1885 x 1130 74.21 x 44.49	42U x 2
PF22126	2180 x 1199 x 588 85.83 x 47.20 x 23.15	2200 x 1200 x 600	2085 x 1130 82.09 x 44.49	47U x 2
PF22128	2180 x 1199 x 788 85.83 x 47.20 x 31.02	2200 x 1200 x 800	2085 x 1130 82.09 x 44.49	47U x 2

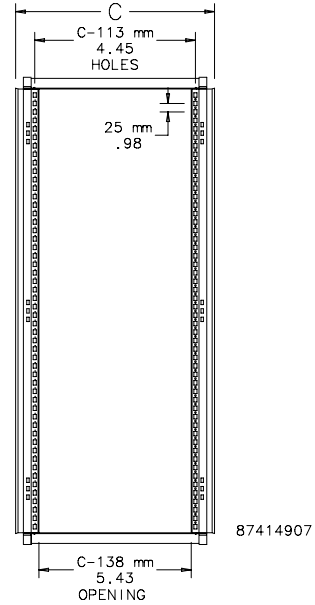
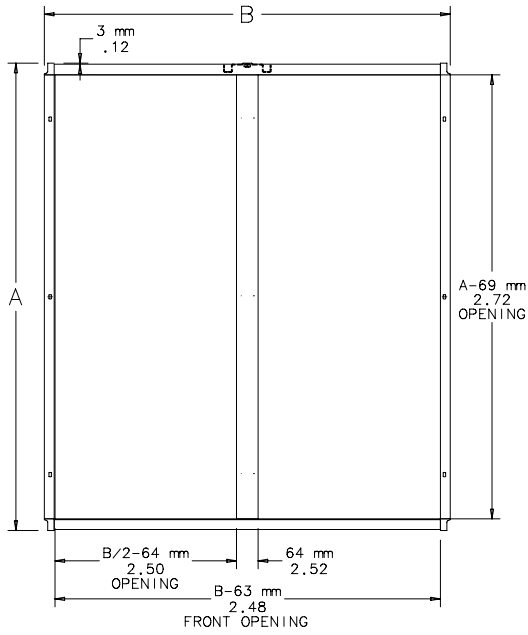
1 rack unit = 1.75 in. (44 mm)

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Frames**



- NOTE:  
 1. Includes frame and frame nuts (12) to attach exterior components  
 2. 700mm tall frames include frame nuts (8)



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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

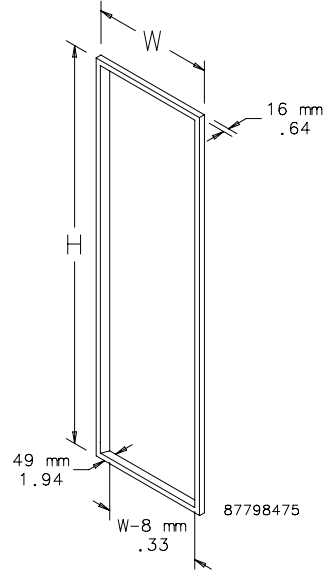
**PROLINE™ Frames**

**Dress Frame**



A Dress Frame provides a decorative trim when a front door or cover is not used. The dress frame can be installed on the front or rear of a PROLINE frame as a substitute for a door. The painted steel dress frame, finished with RAL 7035 textured, light-gray polyester powder paint, is provided with a snap-in design for easy installation with no tools required. Order rack angles separately, if needed.

Part no	Nominal Size mm	H x W mm	H x W in.
PDF166	1600 x 600	1539 x 591	60.56 x 23.26
PDF186	1800 x 600	1739 x 591	68.47 x 23.26
PDF206	2000 x 600	1939 x 591	76.34 x 23.26
PDF226	2200 x 600	2139 x 591	84.21 x 23.26



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



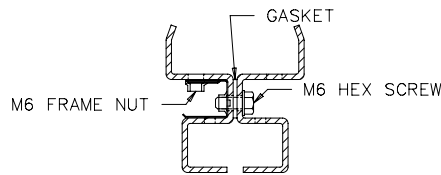
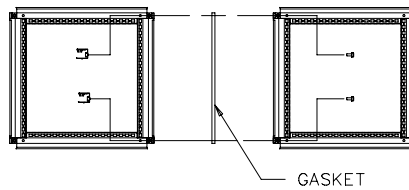
**Frame Accessories**

**Frame Joining Kits**



Standard Frame Joining Kit permits joining two enclosure frames while maintaining an environmental seal. The kit consists of six frame nuts and screws, as well as gasket material to maintain a dust-tight and water-tight seal between ganged frames. Can be used if rack angles are not in the front or rearmost positions, or if a subpanel is not in the rearmost position.

Part no	Description
PJ2F	Standard Frame Joining, Side-to-Side
PJ2FBF	Standard Frame Joining, Front-to-Back



Frame Nut Detail (6 places)

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**L Joining Bracket**



The L Joining Bracket, made of 10 gauge steel, is used in conjunction with the standard joining kit as additional support. Pictured hardware is included.



Part no	Description
PJB2F	L Joining Bracket

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Frame Accessories

#### Lifting Eyes



Lifting Eyes are used for lifting PROLINE™ modular frames and for fastening PROLINE top accessories to the frame. Lifting eyes thread into corner blocks in a frame. Furnished in sets of four with plated finish.

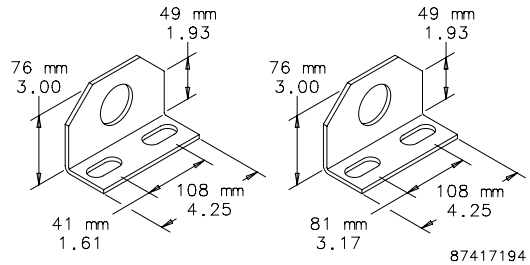
Part no	Description
<b>PLEM12</b>	(4) Lifting Eyes

Lifting Eyes and Lifting Angles are designed for overhead lifting in conjunction with shackles and a spreader bar. Use of shackles instead of hooks is preferred. The angle between the top of the enclosure and the cable or chain must be at least 45 degrees. Use only slings and spreader bars that are designed for the specific application and are in compliance with regulations established by OSHA, ASME, ISA, ASTM and other governing agencies.

#### Lifting Angles



Used to provide best load distribution while lifting enclosures with up to 450 kg of equipment and cabling in each bay. Angles mount to top of enclosure frame corner blocks and do not require removal of top cover for installation. Kit consists of two angles and four bolts and washers. Angles are clear zinc-coated 10 gauge steel.



Part no	Description
<b>PJLBFB</b>	Front-to-back lifting angles
<b>PJLBSS</b>	Side-to-side lifting angles

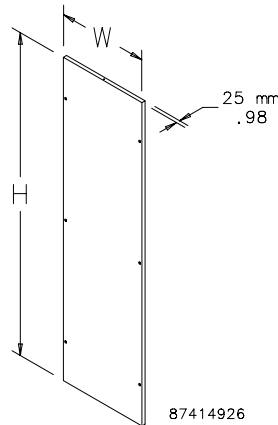
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## External Components

## Solid Sides



Solid Sides close the open sides of an enclosure frame and attach to the enclosure frame with semi-flush screws. Hangers are included for easy alignment of screws. Sides are painted with RAL 7035 textured, light-gray polyester powder paint and have two grounding studs and a foam-in-place gasket. Mounting hardware is included. Solid Sides are not suitable as barriers between joined enclosures. Package includes set of 2 side panels.

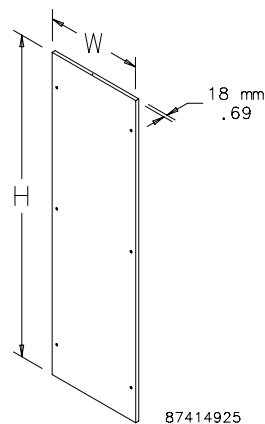


Part no	Type	Thickness mm	Fits Frame A x C mm	H x W mm	H x W in.
PSS146	Steel	1.5	1400 x 600	1339 x 553	52.72 x 21.77
PSS166	Steel	1.5	1600 x 600	1539 x 553	60.59 x 21.77
PSS168	Steel	2.0	1600 x 800	1539 x 753	60.59 x 29.65
PSS184	Steel	1.5	1800 x 400	1739 x 353	68.46 x 13.90
<b>PSS185</b>	Steel	1.5	1800 x 500	1739 x 453	68.46 x 17.83
<b>PSS186</b>	Steel	1.5	1800 x 600	1739 x 553	68.46 x 21.77
<b>PSS188</b>	Steel	2.0	1800 x 800	1739 x 753	68.46 x 29.65
PSS204	Steel	1.5	2000 x 400	1939 x 353	76.34 x 13.90
<b>PSS205</b>	Steel	1.5	2000 x 500	1939 x 453	76.34 x 17.83
<b>PSS206</b>	Steel	1.5	2000 x 600	1939 x 553	76.34 x 21.77
<b>PSS208</b>	Steel	2.0	2000 x 800	1939 x 753	76.34 x 29.65
PSS226	Steel	1.5	2200 x 600	2139 x 553	84.21 x 21.77
PSS228	Steel	2.0	2200 x 800	2139 x 753	84.21 x 29.65

## Solid Covers



Use a Solid Cover on the front or rear of the enclosure frame as a substitute for a door. Solid covers attach to the enclosure frame with semi-flush screws and include hangers for easy alignment of cover screws. Covers are painted RAL 7035 textured, light-gray polyester powder paint. They include a foam-in-place urethane gasket and two ground studs. Mounting hardware is included.



Part no	Cover Type	Thickness mm	Fits Frame A x B mm	H x W mm	H x W in.
PCS146	Steel	1.5	1400 x 600	1339 x 592	52.72 x 23.31
PCS166	Steel	1.5	1600 x 600	1539 x 592	60.59 x 23.31
PCS168	Steel	2.0	1600 x 800	1539 x 792	60.59 x 31.18
PCS186	Steel	1.5	1800 x 600	1739 x 592	68.46 x 23.31
PCS188	Steel	2.0	1800 x 800	1739 x 792	68.46 x 31.18
PCS1810	Steel	2.0	1800 x 1000	1739 x 992	68.46 x 39.06
PCS206	Steel	1.5	2000 x 600	1939 x 592	76.34 x 23.31
PCS208	Steel	2.0	2000 x 800	1939 x 792	76.34 x 31.18
PCS2010	Steel	2.0	2000 x 1000	1939 x 992	76.34 x 39.06
PCS226	Steel	1.5	2200 x 600	2139 x 592	84.21 x 23.31
PCS228	Steel	2.0	2200 x 800	2139 x 792	84.21 x 31.18

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

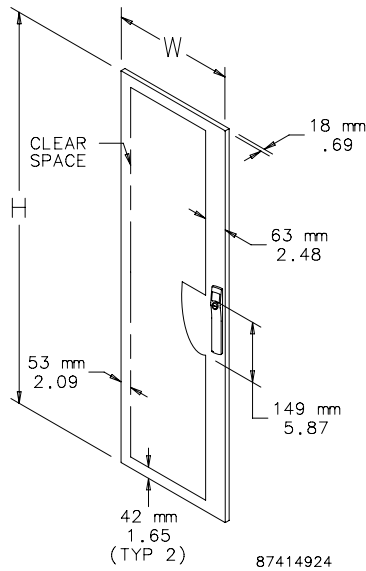
### External Components

#### Solid Doors



Steel doors are finished with RAL 7035 textured, light-gray polyester powder paint. A removable door bar system is included on doors taller than 700 mm and wider than 400 mm. Optional data pockets, door stops, grounding kits and 180-degree hinges are available. Hinge side is reversible. A flush bezel latch operates the 3-point latching system. Doors for 700-mm frames have 2-point latching. Hidden hinges (130-degree swing) permit attachment to the front or back of each enclosure frame. The use of a side-door adapter or a cable entry cabinet allows doors to be attached to the sides of the enclosure frame. Hinges have easy-slide, retained hinge pins. Door gasket is foam-in-place urethane to provide a resilient, seamless seal. Two grounding studs are furnished. All mounting hardware is included.

Part no	Door Type	Thickness mm	Fits Frame A x B mm	H x W mm	H x W in.
PDS146	Steel	1.5	1400 x 600	1339 x 592	52.72 x 23.31
PDS166	Steel	1.5	1600 x 600	1539 x 592	60.59 x 23.31
PDS168	Steel	2.0	1600 x 800	1539 x 792	60.59 x 31.18
PDS186	Steel	1.5	1800 x 600	1739 x 592	68.46 x 23.31
PDS188	Steel	2.0	1800 x 800	1739 x 792	68.46 x 31.18
PDS1810	Steel	2.0	1800 x 1000	1739 x 992	68.46 x 39.06
PDS206	Steel	1.5	2000 x 600	1939 x 592	76.34 x 23.31
PDS208	Steel	2.0	2000 x 800	1939 x 792	76.34 x 31.18
PDS2010	Steel	2.0	2000 x 1000	1939 x 992	76.34 x 39.06
PDS226	Steel	1.5	2200 x 600	2139 x 592	84.21 x 23.31
PDS228	Steel	2.0	2200 x 800	2139 x 792	84.21 x 31.18



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## External Components

### Window Doors **AFO**



#### Standard UL Solution

Window Doors can be used on the front or rear of PROLINE™ frames to provide viewing of electronic equipment. PROLINE window doors are designed around an extruded aluminum profile. They have 140-degree hidden hinges and a flush bezel latch that operates a 3-point latching mechanism. Doors have a clear safety glass window; 180-degree hinges are available (order separately).

#### Window Doors:

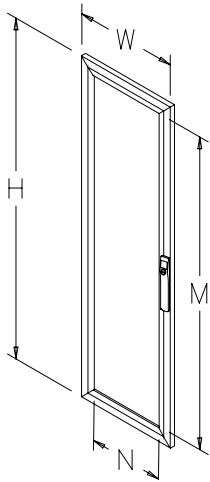
- Install easily on front or rear of enclosure frame; can be hinged on left or right
- Have a 6.4-mm thick window that provides maximum protection and viewing area
- Have foam-in-place, urethane gaskets for door and window to provide optimum sealing
- Have two grounding brackets with RAL 7035 gray textured, polyester powder paint finish

#### Standard Non-UL Solution

Window doors can be used on the front or rear of PROLINE™ frames to provide viewing of electronic equipment. They have 130-degree hidden hinges and a flush bezel latch that operates a 3-point latching mechanism. Doors have a clear safety glass window.

#### Window Doors:

- Install easily on front or rear of enclosure frame; can be hinged on left or right
- Have a 6-mm thick window that provides a maximum protection and viewing area
- Have foam-in-place, urethane gaskets for door and window to provide optimum sealing



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Hoffman Part no	Fits Frame	Window Door Type	Door Size	Window Size
	A x B mm		H x W mm	M x N mm
<b>PDWG146H</b>	1400 x 600	Aluminum and Safety Glass	1339 x 593	1218 x 446
<b>PDWG166H</b>	1600 x 600	Aluminum and Safety Glass	1539 x 593	1418 x 446
<b>PDWG168H</b>	1600 x 800	Aluminum and Safety Glass	1539 x 793	1418 x 646
<b>PDWG186H</b>	1800 x 600	Aluminum and Safety Glass	1739 x 593	1618 x 446
<b>PDWG188H</b>	1800 x 800	Aluminum and Safety Glass	1739 x 793	1618 x 646
<b>PDWG206H</b>	2000 x 600	Aluminum and Safety Glass	1939 x 593	1818 x 446
<b>PDWG208H</b>	2000 x 800	Aluminum and Safety Glass	1939 x 793	1818 x 646
<b>PDWG226H</b>	2200 x 600	Aluminum and Safety Glass	2139 x 593	2018 x 446
<b>PDWG228H</b>	2200 x 800	Aluminum and Safety Glass	2139 x 793	2018 x 646

Hoffman Part no	Fits Frame	Window Door Type	Door Size	Window Size
	A x B mm		H x W mm	M x N mm
<b>PDWG146E</b>	1400 x 600	Steel and Safety Glass	1339 x 591	1217 x 420
<b>PDWG166E</b>	1600 x 600	Steel and Safety Glass	1539 x 591	1417 x 420
<b>PDWG168E</b>	1600 x 800	Steel and Safety Glass	1539 x 791	1417 x 620
<b>PDWG186E</b>	1800 x 600	Steel and Safety Glass	1739 x 591	1617 x 420
<b>PDWG188E</b>	1800 x 800	Steel and Safety Glass	1739 x 791	1617 x 620
<b>PDWG206E</b>	2000 x 600	Steel and Safety Glass	1939 x 591	1817 x 420
<b>PDWG208E</b>	2000 x 800	Steel and Safety Glass	1939 x 791	1817 x 620
<b>PDWG226E</b>	2200 x 600	Steel and Safety Glass	2139 x 591	2017 x 420
<b>PDWG228E</b>	2200 x 800	Steel and Safety Glass	2139 x 791	2017 x 620

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



External Components

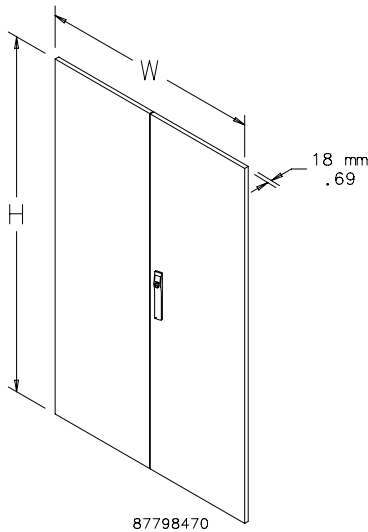
Overlapping Doors



PROLINE™ Overlapping Doors provide a door system for the full-width, open front of 800,1000, 1200- and 1600-mm wide frames. The master door ensures a dust-tight seal using a 3-point roller latch system operated by a PROLINE flush swing handle. The overlapping master/adjacent door design allows unobstructed access. Removable door bar is included on each door. Master door is hinged on the right side. Steel doors are 2.0-mm thick and finished with RAL 7035 light-gray textured, polyester powder paint finish.



Part no	Fits Frame A x B mm	H x W mm	H x W in.
PTOD168	1600 x 800	1539 x 792	60.59 x 31.18
PTOD188	1800 x 800	1739 x 792	68.46 x 31.18
PTOD1810	1800 x 1000	1739 x 992	68.46 x 39.06
PTOD1812	1800 x 1200	1739 x 1191	68.46 x 46.89
PTOD208	2000 x 800	1939 x 792	76.34 x 31.18
PTOD2010	2000 x 1000	1939 x 992	76.34 x 39.06
PTOD2012	2000 x 1200	1939 x 1191	76.34 x 46.89
PTOD228	2200 x 800	2139 x 792	84.21 x 31.18
PTOD2212	2200 x 1200	2139 x 1191	84.21 x 46.89



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Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## External Components

### Disconnect Door for PROLINE™ Enclosures



Disconnect Doors provide a means to mount flange-mount disconnects to PROLINE™ Enclosures. Hinged mullion provides unobstructed access to interior, thus easing equipment installation.

Disconnect mullion is hinged to provide easy disconnect installation and maximum access to subpanel. Removable door bar is included on disconnect door. A flush handle with defearer operates an internal 3-point latch system on disconnect door and latches to the disconnect mullion. Interlocking is provided from master door to disconnect mullion. The disconnect mullion and disconnect door include 140-degree hinges and are gasketed to maintain enclosure integrity. Steel doors are 14 gauge and painted with RAL 7035 light-gray textured polyester powder.

PROLINE enclosures that have preferred cutout doors, right- or left-hand provision will accept the following types of flange-mounted disconnect devices:

#### Allen-Bradley

- Bulletin 1494V disconnect switches with flange-mounted variable-depth operating mechanisms and Bulletin 1494V flange-mounted variable-depth operating mechanisms for circuit breakers
- Bulletin 140U flexible cable operating mechanisms for 140U molded case circuit breakers

#### ABB Controls

- Disconnect switches up to (and including) 200 amp; also operators for ABB circuit breakers up to 800 amp

#### Eaton Cutler-Hammer

- Variable depth disconnect switches up to (and including) 200 amp, also operators for C-H Westinghouse circuit breakers up to 600 amp; also, FLEX SHAFT™ handle mechanisms for circuit breakers

#### General Electric

- Type TDA variable depth mechanisms for disconnect switches up to (and including) 200 amp, also operator mechanisms or SPECTRA FLEX™ cable operator for circuit breakers up to 600 amp

#### Siemens ITE

- MAX-FLEX™ flange-mounted variable depth operating handle for disconnect switches and circuit breakers as well as some fixed depth operators for disconnect switches

#### Schneider Square D™

- Class 9422 disconnect switches up to (and including) 200 amp, with variable depth or cable mechanisms for 30, 60 or 100 amp; also circuit breakers with variable depth operators or cable mechanisms up to 400 amp

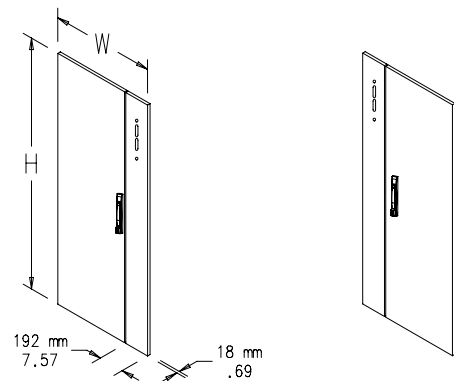
PROLINE enclosures with disconnect doors that have a large cutout provision will accept the following types of flange-mounted disconnect devices:

#### Allen-Bradley

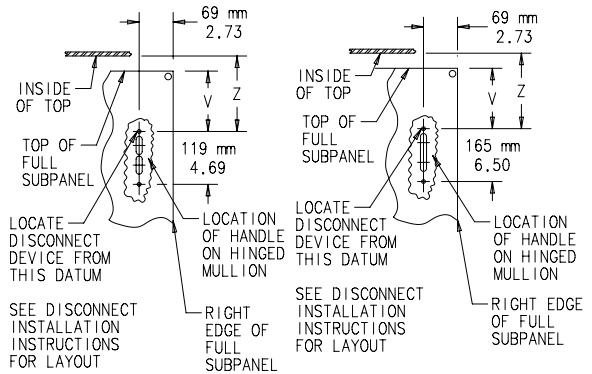
- 1494V-H2 handle used with 400 amp or 600 amp Allen-Bradley disconnect switches

#### Siemens ITE

- MAX-FLEX™ FHOHN handle used with MD 800 amp, ND (1200 amp), PD (1600 amp) and RD (2000 amp)



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### Standard Product

Part no	Cutout Provision	Fits Frame A x B mm	H x W mm	V mm	Z mm
PTDDC166	Preferred right-hand	1600 x 600	1539 x 594	221	269
PTDDC168	Preferred right-hand	1600 x 800	1539 x 794	221	269
PTDDC186	Preferred right-hand	1800 x 600	1739 x 594	321	369
PTDDC188	Preferred right-hand	1800 x 800	1739 x 794	321	369
PTDDC206	Preferred right-hand	2000 x 600	1939 x 594	421	469
PTDDC208	Preferred right-hand	2000 x 800	1939 x 794	421	469
PTDDC2010	Preferred right-hand	2000 x 1000	1939 x 994	421	469

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## External Components

### Flush Swing Handles



Flush Handles are optional for any solid, window or disconnect door that includes 3-point latching. They are ergonomically designed to provide style and function in a low profile. The handle is die-cast zinc finished with RAL 9005 textured black polyester powder paint. Provision to add your logo is included. Handle can be installed to rotate either clockwise or counterclockwise.

#### Handle with Screwdriver Defeater

Enclosure security is provided by the integrated tool-to-open feature that releases the handle when rotated, allowing access to the enclosure.

#### Handle with Keylock

Keylock feature locks the handle to provide security for the enclosure. When the key is in the unlocked position, the pushbutton releases the handle to provide access to the enclosure. Two keys are furnished.

#### Handle for Padlock

Padlocking Handle provides security when using up to a 7.94-mm padlock. Pushbutton releases the handle to provide access to the enclosure.

#### Handle with DIN Profile Provision

DIN Flush Handle is provided with the option to add your DIN profile lock or to accept Hoffman DIN profile lock PDKL (order separately).

Part no	Description
PFHDF	Flush Handle with Defeater
PFHKBL	Keylocking Flush Handle
PFHPBL	Padlocking Flush Handle
PFHDBL	DIN Profile Flush Handle

### DIN Lock Inserts



The DIN profile keylock provides keylocking security for the Flush Swing Handle with DIN provision. Includes profile lock and two keys. Order one profile lock for each handle.

Part no	Description
PDKL	DIN keylock, 2 keys included, key code 333

### 180-Degree Hinge Kit



Optional hinging for steel solid, window or disconnect doors. The 180-degree hinges provide a door opening up to 260-degrees on single-bay enclosures. These hinges mount to the door flange and have a low-profile appearance. The kit includes three hinges with textured black polyester powder paint and all necessary mounting hardware.

Part no	Description
PH180	180-Degree Hinge Kit

### Door Stop Kit



The Door Stop Kit holds doors open at 130 degrees. The kit includes a slotted bracket that mounts to either the top or bottom of the door and a stop arm that attaches to the frame. The Door Stop Kit is plated, mounts without drilling and includes all necessary mounting hardware. Not suitable for use with 180-degree hinging. Drill points in window door brackets for mounting Door Stop Kit.

Part no	Description
PDSK	Door Stop Kit

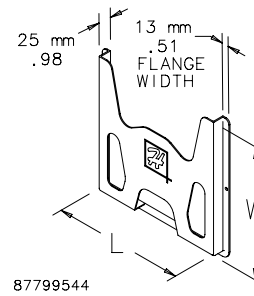
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## External Components

### Thermoplastic Data Pocket



Provides a convenient place to store wiring diagrams, operation manuals and other documentation inside the enclosure. Adhesive-backed pockets mount inside the solid enclosure cover. Mounting hardware included. Thermoplastic pockets are dark gray and have cut-away areas for easy inspection of contents.

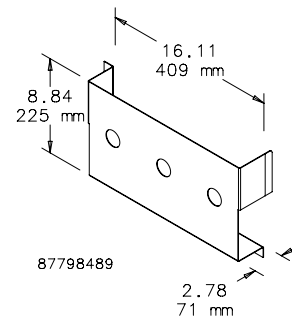


Part no	Description	Size L x W (mm)
ADP1	Small pocket	152 x 152
ADP2	Large pocket	305 x 305

### Steel Data Pocket

Steel Data Pocket fastens to the bottom of the door. Finish is RAL 7035 textured, light-gray polyester powder paint. Door Bar Grid Straps (purchased separately) must be used to change the vertical mounting position of the Data Pocket.

Part no	AxBxC (mm)	Description
PDP1	418 x 224 x 72	Single size fits all door widths



### Grounding Kit



The Grounding Kit allows a PROLINE™ enclosure to be grounded to VDE specifications. Includes seven wires 310-mm long with ring terminations and M6 mounting hardware.

Catalog Number	Wire Size	Length Between Ring Terminals (mm)	Ring Terminal Hole Diameter (mm)
<b>21101-615</b>	4 mm <sup>2</sup>	310	6.5

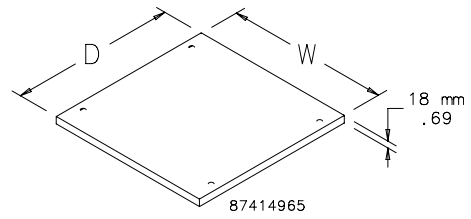
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Tops**

**Solid Tops**



Solid Tops are used to close the top opening on an enclosure frame. Steel Tops are finished in RAL 7035 textured light gray. Tops are made of 2.0-mm steel.



Part no	Type	Frame Type	Fits Frame B x C mm	W mm	W in.	D mm	D in.
PT64	Steel	Single-Bay	600 x 400	592	23.31	399	15.71
PT65	Steel	Single-Bay	600 x 500	592	23.31	499	19.65
PT66	Steel	Single-Bay	600 x 600	592	23.31	599	23.58
PT68	Steel	Single-Bay	600 x 800	592	23.31	799	31.46
PT84	Steel	Single-Bay	800 x 400	792	31.18	399	15.71
PT85	Steel	Single-Bay	800 x 500	792	31.18	499	19.65
PT86	Steel	Single-Bay	800 x 600	792	31.18	599	23.58
PT88	Steel	Single-Bay	800 x 800	792	31.18	799	31.46
PT89	Steel	Single-Bay	800 x 900	792	31.18	799	31.46
PT105	Steel	Single-Bay	1000 x 500	992	39.06	499	19.65
PT106	Steel	Single-Bay	1000 x 600	992	39.06	599	23.58
PT108	Steel	Single-Bay	1000 x 800	992	39.06	799	31.46
PT125	Steel	Double-Bay	1200 x 500	1192	46.93	499	19.65
PT126	Steel	Double-Bay	1200 x 600	1192	46.93	599	23.58
PT128	Steel	Double-Bay	1200 x 800	1192	46.93	799	31.46

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROLINE™ Tops**

**Vented Top with Integral Fan Tray**



Vented Top with Integral Fan Tray provides a cooling/ventilation solution for electronic and networking applications. An integral fan tray with three pre-wired and mounted fans provides up to 200-300 CFM of exhaust.

The deeper vented tops (500- through 800-mm deep) have integral fan trays with cutouts for mounting additional fans (see Additional Fans table). Accessory fan kits (consisting of three pre-wired fans) can be installed to provide additional airflow. Unused fan positions are provided with covers to prevent short-circuiting of airflow. Since the fan pulls air through the enclosure to cool equipment, an optional Inlet Vent (catalog number PPV32 or PPV32B) must be ordered separately. Vented tops are 1,4mm thick steel and finished with RAL 7035 light-gray textured polyester powder paint. EMC tops are finished with paint over plated 1,4mm thick surfaces.

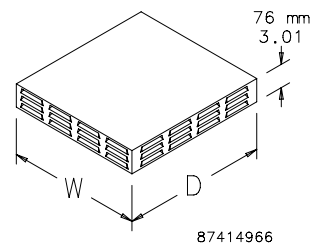
The vented top is designed to be used in place of a standard top. Bolts are provided to secure vented top to frame. The enclosure can be lifted with a vented top installed (requires accessory lifting eyes).

**Industry Standards**

UL Component Recognized; Type 1; File No. E61997  
 This component is rated UL Type 1. Installing this component on an enclosure brings the enclosure rating to UL Type 1.

*This component is rated UL Type 1. Installing this component on an enclosure brings the enclosure rating to UL Type 1.*

NEMA/EEMAC Type 1  
 IEC 60529, IP20



Part no	Type	Voltage	Fits Frame		W (mm)	W (in.)	D (mm)	D (in.)
			Top B x C					
PVT3F662	Steel	230	600 x 600		591	23.26	593	23.34
PVT3F682	Steel	230	600 x 800		591	23.26	793	31.21
PVT3F862	Steel	230	800 x 600		791	31.13	593	23.34
PVT3F882	Steel	230	800 x 800		791	31.13	793	31.21

**Additional Fans**

Part no	Voltage	Description
PVT3F2	230	3-fan kit

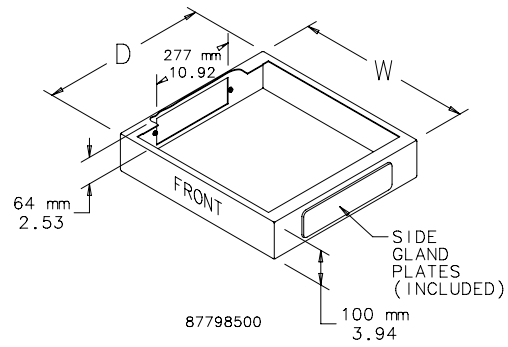
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Bases**

**100-mm Solid Base**



The 100-mm base is finished with RAL 9005 textured, black polyester powder paint.



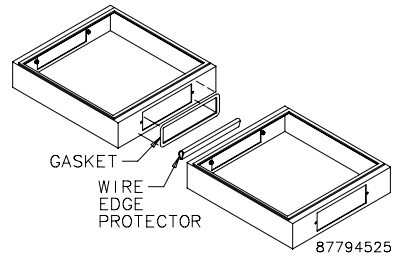
Part no	Fits Frame B x C mm	Thickness mm	W mm	W in.	D mm	D in.
PB164	600 x 400	1.5	599	23.58	359	14.13
PB165	600 x 500	1.5	599	23.58	459	18.07
PB166	600 x 600	1.5	599	23.58	559	22.01
PB168	600 x 800	1.5	599	23.58	759	29.88
PB184	800 x 400	1.5	799	31.46	359	14.13
PB185	800 x 500	1.5	799	31.46	459	18.07
PB186	800 x 600	1.5	799	31.46	559	22.01
PB188	800 x 800	2.0	799	31.46	759	29.88
PB1105	1000 x 500	1.5	999	39.33	459	18.07
PB1106	1000 x 600	1.5	999	39.33	559	22.01
PB1108	1000 x 800	2.0	999	39.33	759	29.88
PB1125	1200 x 500	1.5	1199	47.20	459	18.07
PB1126	1200 x 600	1.5	1199	47.20	559	22.01
PB1128	1200 x 800	2.0	1199	47.20	759	29.88

**100-mm Solid Base Joining, Side-to-Side**



Joining provides a seal between the gland plate openings on adjacent 100-mm solid bases and is used in combination with either of the Side-to-Side Frame Joining Kits. A nylon wire edge protector (see drawing) prevents wear and abrasion of wires and cables.

Part no	Description
PJ2FB	Solid Base Joining, 100-mm Solid Bases, side-to-side
PJ2FBHF2	EMC Solid Base Joining, 100-mm Solid Bases, side-to-side



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Bases**
**Gland Plates**


*Solid Gland Plate is an accessory to 100-mm Solid Base, 100-mm/200-mm Plinth Base, Mobile Base and Transportation Base. These gland plates can be used without a base if casters, levelers or frame feet are installed.*

**Solid Gland Plate**

The Solid Gland Plate can be used with all PROLINE subpanels or rack angles. The gland plate consists of a base mounting surface and two adjustable foam-gasketed plates that permit cable entry. The plate can be rotated 180 degrees for front or rear cable entry.

Gland plates are 2.0-mm steel and are finished with RAL 7035 textured, light-gray polyester powder paint. All installation hardware is included.

**Gland Plates for Single-Bay Frames**

Part no	Type	Fits Frame Size, Width mm	Fits Frame Size, Depth mm
PGP64	Solid	600	400
PGP65	Solid	600	500
PGP66	Solid	600	600
PGPV66	Vented	600	600
PGP68	Solid	600	800
PGPV68	Vented	600	800
PGP84	Solid	800	400
PGP85	Solid	800	500
PGP86	Solid	800	600
PGPV86	Vented	800	600
PGP88	Solid	800	800
PGPV88	Vented	800	800

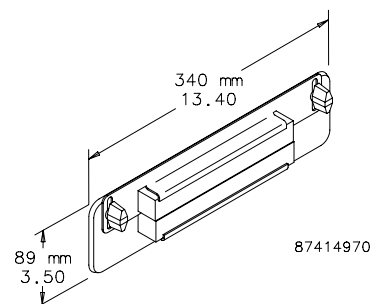
**Gland Plates for Double-Bay Frames**

Part no	Type	Fits Frame Size, Width mm	Fits Frame Size, Depth mm
PGP125	Solid	1200	500
PGP126	Solid	1200	600
PGP128	Solid	1200	800

**Cable Entry Gland Plate**


Fits all standard PROLINE™ 100-mm Solid Base gland openings. Can be used in place of standard solid gland plates furnished with 100-mm Solid Base. Adjustable opening for cable entry is foam-lined to maintain a dust-tight seal. Cable Entry Plate is 2.0-mm steel and finished with RAL 9005 textured, black polyester powder paint.

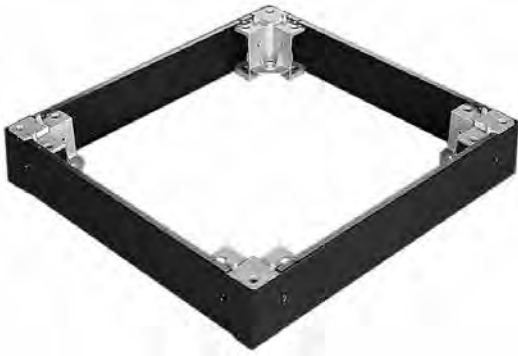
Part no
PCEGP



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Bases**

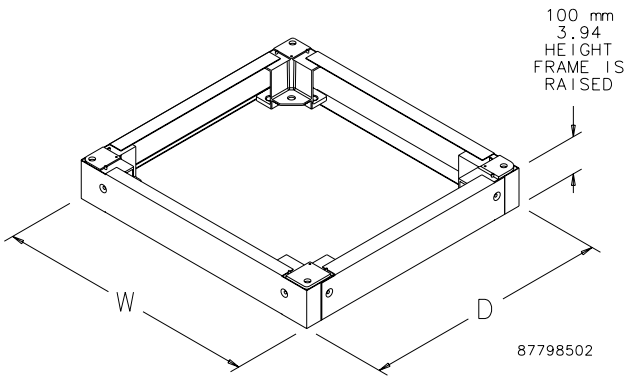
**100-mm Plinth Base**



Plinth Bases install under an enclosure to provide space for cables to enter from below. A Plinth Base consists of four corner supports connected to four access panels.

The corner supports are cast aluminum. The access panels are 2.0-mm steel and attach to the corner supports with screws.

Plinth Bases are finished with RAL 9005 black textured, polyester powder paint and include all necessary mounting hardware.

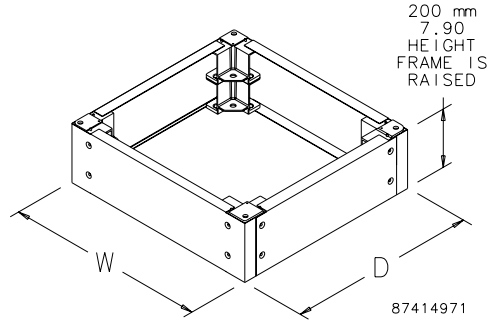


Part no	Fits Frame B x C mm	W mm/in.	D mm/in.
PPB164	600 x 400	599 23.58	359 14.13
<b>PPB165</b>	600 x 500	599 23.58	459 18.07
<b>PPB166</b>	600 x 600	599 23.58	559 22.01
<b>PPB168</b>	600 x 800	599 23.58	759 29.88
PPB184	800 x 400	799 31.46	359 14.13
<b>PPB185</b>	800 x 500	799 31.46	459 18.07
<b>PPB186</b>	800 x 600	799 31.46	559 22.01
<b>PPB188</b>	800 x 800	799 31.46	759 29.88
<b>PPB1105</b>	1000 x 500	999 39.33	459 18.07
<b>PPB1106</b>	1000 x 600	999 39.33	559 22.01
<b>PPB1108</b>	1000 x 800	999 39.33	759 29.88
PPB1125	1200 x 500	1199 47.20	459 18.07
<b>PPB1126</b>	1200 x 600	1199 47.20	559 22.01
PPB1128	1200 x 800	1199 47.20	759 29.88

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

PROLINE™ Bases

200-mm Plinth Base **A.T.O.**



Plinth Bases install under an enclosure to provide space for cables to enter from below. A Plinth Base consists of eight corner supports connected to four access panels.

The corner supports are cast aluminum. The access panels are 2.0-mm steel and attach to the corner supports with screws.

Plinth Bases have are finished with RAL 9005 black textured, polyester powder paint and include all necessary mounting hardware.

Part no	Fits Frame B x C mm	W mm/in.	D mm/in.
PPB264	600 x 400	599 23.58	359 14.13
<b>PPB265</b>	600 x 500	599 23.58	459 18.07
PPB266	600 x 600	599 23.58	559 22.01
PPB268	600 x 800	599 23.58	759 29.88
PPB284	800 x 400	799 31.46	359 14.13
<b>PPB285</b>	800 x 500	799 31.46	459 18.07
PPB286	800 x 600	799 31.46	559 22.01
PPB288	800 x 800	799 31.46	759 29.88
PPB2105	1000 x 500	999 39.33	459 18.07
PPB2106	1000 x 600	999 39.33	559 22.01
PPB2108	1000 x 800	999 39.33	759 29.88
PPB2125	1200 x 500	1199 47.20	459 18.07
PPB2126	1200 x 600	1199 47.20	559 22.01
PPB2128	1200 x 800	1199 47.20	759 29.88

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



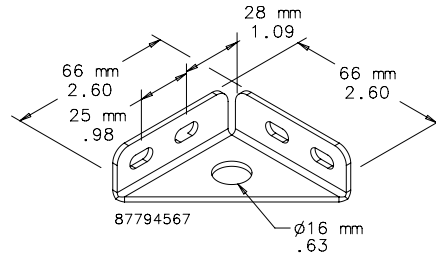
**PROLINE™ Bases**

**PROLINE™ Frame Floor-Mounting Bracket**



Provides a structural method of bolting a PROLINE™ frame to the floor. Fits all frame sizes. Made of 2.5-mm steel with plated finish. Kit includes four brackets and mounting hardware.

Part no	Description
PFBK	PROLINE Frame Floor-Mounting Bracket

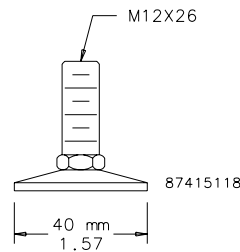


**Levelers**



Four post-type levelers allow adjustment for uneven floors. Levelers can be attached to the bottom of a frame or to a 0-mm solid base. Levelers are plated and the leveler base is capped with plastic to provide resistance to marring. Adjustable for 17-mm to 35-mm height. Ball and socket construction. Four levelers will support a maximum of 450 kg.

Part no	Description
PLM12	Post-type Levelers

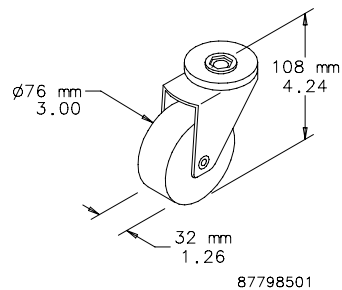


**Caster Kit**



A set of four casters (two locking, two non-locking) that mount directly to the bottom of a PROLINE™ frame, 100-mm Solid Base or a Console. **(Do not use on plinth bases.)** Casters elevate the enclosure 110 mm when installed. Caster frames are plated steel with ball-bearing pivots. Caster wheels are made of a black polyamide material. Kit includes M12 mounting hardware. A set of four casters supports a maximum load of 450 kg. Order separately.

Part no	Description
PC1M12	Set of 4 Casters



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Bases**

**PROLINE™ Fastener Packages**



Use to fasten components to the grid system. PGF Packages include 20 front-loading clip nuts (M6) and 20 combination-drive washer-head bolts (M6).

Grounding Package is used with the rectangular holes in the PROLINE™ frame to provide electrical continuity between the frame and the grid system. ASM5T Package is used with PROLINE frames having round holes. Package includes 20 M5 self-tapping screws.

Part no	Description	Use in	Pkg. Qty.
ASM5T	M5 x 12 mm thread-forming Phillips hex head screws	Round holes	20
PGFM6	Standard Package - M6 cage nuts and bolts	Rectangular holes	20
PGFGM6	Grounding Package - M6 grounding cage nuts and bolts	Tapped holes	20

**Cage Nut Package**



Cage Nut Packages are for use with square-hole rack angles. Cage nuts are plated steel.

Part no	Color	Description	Pkg. Qty.
<b>PM6CN</b>	Silver	M6 cage nut	20

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Internal Components**

**Full Subpanel**



**Full Subpanel**

Part no	Material	H mm	H in.	W mm	W in.
PPF146G	Conductive	1285	50.59	530	20.87
PPF148G	Conductive	1285	50.59	730	28.74
PPF166G	Conductive	1485	58.46	530	20.87
PPF168G	Conductive	1485	58.46	730	28.74
PPF186G	Conductive	1685	66.34	530	20.87
PPF188G	Conductive	1685	66.34	730	28.74
PPF1810G	Conductive	1685	66.34	930	36.61
PPF206G	Conductive	1885	74.21	530	20.87
PPF208G	Conductive	1885	74.21	730	28.74
PPF2010G	Conductive	1885	74.21	930	36.61
PPF2012G	Conductive	1885	74.21	1130	44.49
PPF228G	Conductive	2085	82.09	730	28.74

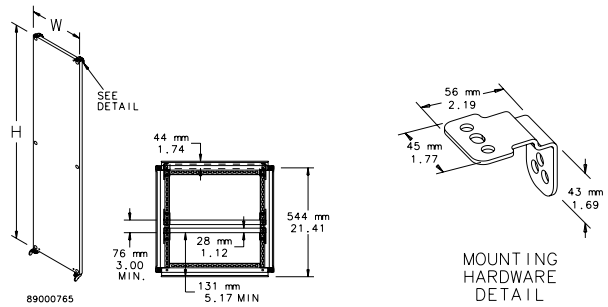
Consult Hoffman for delivery.

**Additional Mounting Hardware**

Part no	Description
<b>PMKPF</b>	Additional Side Mounting Hardware (see Detail in drawing)

PROLINE™ subpanels are designed to provide maximum panel depth, panel size and ease of installation. Full subpanels slide into the frame on nylon glide blocks, which support the entire weight of the subpanel.

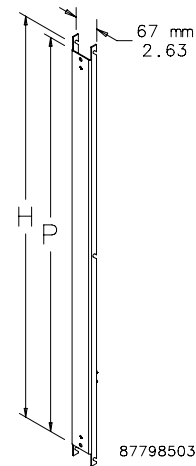
- All necessary mounting hardware is included
- Conductive subpanels are unpainted galvanized steel
- Subpanels can be mounted at nearly any depth in 25-mm increments
- Mounting hardware attaches to the top or to the sides of the frame



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Internal Components**
**Joining Subpanel**


Provides a continuous panel surface in multiple-bay enclosures. The joining subpanel is inserted between full subpanels of equal height. It can be installed from front or rear. Holes for grounding and mounting hardware are provided. Conductive joining subpanels are unpainted galvanized steel.

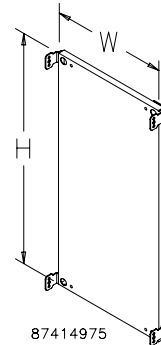


Part no	Material	H mm	H in.	P mm	P in.	Fits between full subpanels
PJP16G	Conductive	1485	58.46	1448	57.00	PPF166, PPF167, PPF168, PPF1612
PJP18G	Conductive	1685	66.34	1648	64.87	PPF186, PPF187, PPF188, PPF1810, PPF1812, PPF1816
PJP20G	Conductive	1885	74.21	1848	72.75	PPF206, PPF207, PPF208, PPF2010, PPF2012, PPF2016
PJP22G	Conductive	2085	82.09	2048	80.62	PPF226, PPF227, PPF228, PPF2210, PPF2212, PPF2216

Consult Hoffman for delivery

**Partial Subpanel**


Partial Subpanels are conductive, unpainted 2.5-mm steel and have flanges on four sides. Panels can be positioned vertically in 25-mm increments and also can be positioned at any depth in 25-mm increments using the optional grid straps. All necessary mounting hardware is included.



Part no	Material	H mm	H in.	W mm	W in.	Fits Frame
PPP46G	Conductive	360	14.17	530	20.87	700 mm or taller
PPP48G	Conductive	360	14.17	730	28.74	700 mm or taller
PPP86G	Conductive	735	28.94	530	20.87	1400 mm or taller
PPP88G	Conductive	735	28.94	730	28.74	1400 mm or taller
PPP106G	Conductive	935	36.81	530	20.87	1400 mm or taller
PPP108G	Conductive	935	36.81	730	28.74	1400 mm or taller

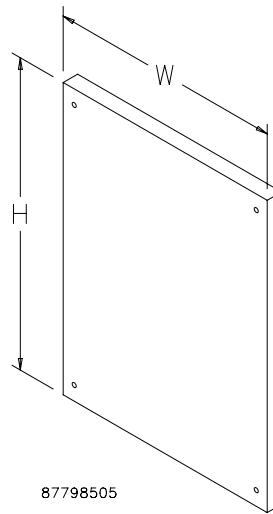
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Internal Components**

**Side-Mount Subpanel**

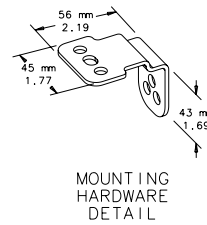
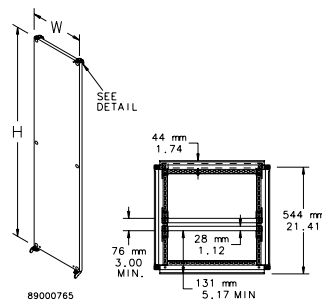


Side-mounted panels can be installed on the interior sides of frames. The panel and all the hardware needed to attach the subpanels to a frame are included. Hardware is plated. Panels are 2.5-mm steel. Conductive panels are unpainted galvanized steel.



87798505

Part no	Material	H mm	H in.	W mm	W in.
PPFSM166G	Conductive	1508	59.37	447	17.60
PPFSM168G	Conductive	1508	59.37	647	25.47
PPFSM185G	Conductive	1708	67.24	347	13.66
PPFSM186G	Conductive	1708	67.24	447	17.60
PPFSM188G	Conductive	1708	67.24	647	25.47
PPFSM204G	Conductive	1908	75.12	247	9.72
PPFSM205G	Conductive	1908	75.12	347	13.66
PPFSM206G	Conductive	1908	75.12	447	17.60
PPFSM208G	Conductive	1908	75.12	647	25.47
PPFSM226G	Conductive	2108	82.99	447	17.60
PPFSM228G	Conductive	2108	82.99	647	25.47



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## PROLINE™ Internal Components

### Notes



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Swing-Out Rack Frames

### Heavy-Duty Swing-Out Rack Frame

- Allows 19-in. rack equipment to pivot out of the enclosure frame for better accessibility; the frames mount on hinges capable of 120-degree rotation; hinges that provide 170-degree rotation are optional
- Spring-loaded pivot post makes installation easy
- Rack Frames are available for 600- and 800-mm wide enclosure frames
- Mounting supports for an 800-mm wide enclosure frame permit you to either center the rack-mounting frame or position it right or left; the frame can also pivot from either the left or the right for maximum flexibility
- Mounting supports can be assembled to the top and bottom of the frame for full-height rack-mounting frames; smaller rack-mounting frames can be mounted to the vertical frame members or to the grid straps; order separately
- Furnished with hinges, two quarter-turn latches and mounting hardware RAL 7035 textured gray finish
- Complies with ANSI/EIA RS-310-D rack-mounting standards
- Maximum equipment load is 136 kg (300 lb.)
- Mounting holes accommodate either English or metric cage nuts, which are ordered separately

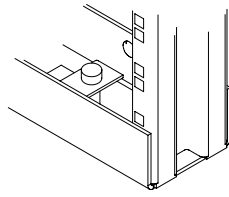
1. *Swing-Out Rack Frame assemblies are supplied with mounting supports. Swing-Out Rack Frames can also be installed in right, left or both bays of 1200-mm wide frames using center uprights.*
2. *Swing-out mounting supports mount to inside of frame at any vertical location.*
3. *Mounting supports and swing-out frame can be located deeper into frame using grid system straps. Deeper mounting affects the degree of opening of swing-out frame.*

Part no	H mm/in.	W mm/in.	Rack Units	Fits Frame Height mm	Fits Frame Width mm
PSF146	1215 47.83	496 19.53	25	1400 or taller	600
PSF148	1215 47.83	496 19.53	25	1400 or taller	800
PSF168	1438 63.58	496 19.53	30	1600 or taller	800
PSF186	1615 63.58	496 19.53	34	1800 or taller	600
PSF188	1615 63.58	496 19.53	34	1800 or taller	800
PSF208	1838 72.36	496 19.53	39	2000 or taller	800
PSF226	2015 79.33	496 19.53	43	2200 tall	600
PSF228	2015 79.33	496 19.53	43	2200 tall	800

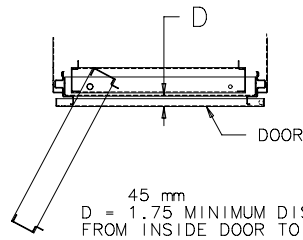
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Swing-Out Rack Frames

Standard 120° Frame Hinging

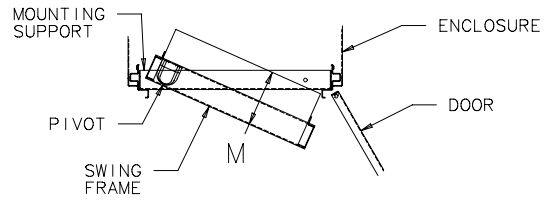
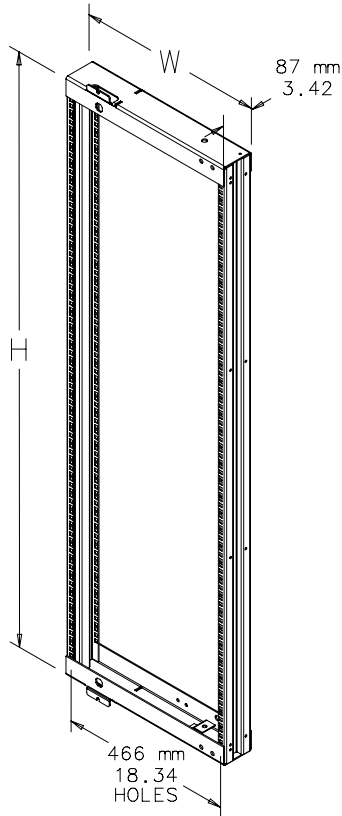


120° Mounting Position



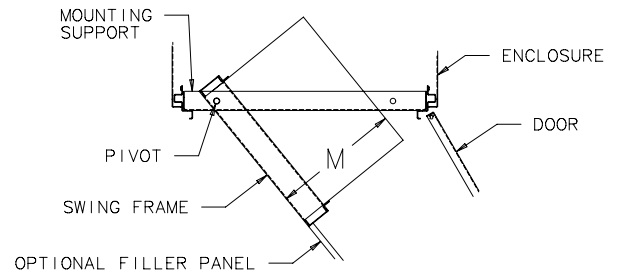
45 mm  
D = 1.75" MINIMUM DISTANCE FROM INSIDE DOOR TO FRONT SURFACE OF SWING FRAME

Maximum Installation Depth for 600 mm Wide Enclosures



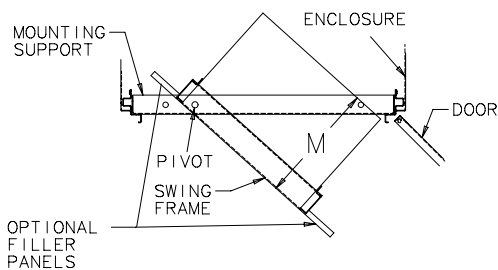
M = Max Installation Depth = 216 mm (8.50 in.)

Maximum Installation Depth for 700 mm Wide Enclosures



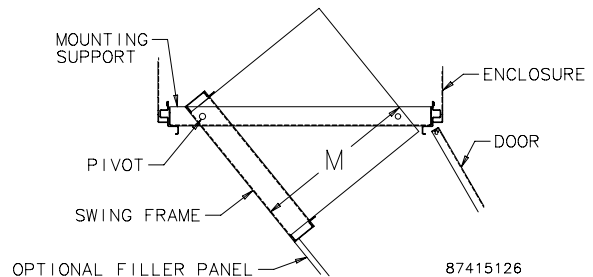
M = Max Installation Depth = 394 mm (15.50 in.)

Maximum Installation Depth for 800 mm Wide Enclosures



Center Position

M = Max Installation Depth = 394 mm (15.50 in.)



Side Position

M = Max Installation Depth = 514 mm (20.25 in.)

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Swing-Out Rack Frames

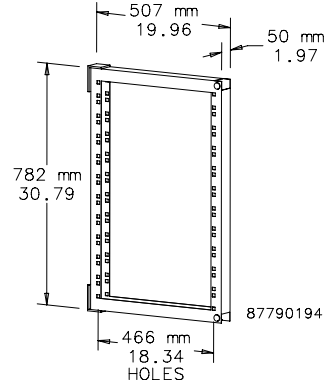
#### Partial Swing-Out Rack Frame



This 19-in. Rack Frame is used when a smaller, medium-duty swing-out frame is desired. Light-weight rack equipment fits nicely into this 800-mm tall swing-out frame providing 90 degrees of rotation and increased accessibility.

- Side hinge brackets are used to mount the swing frame, allowing free access above and below the swing frame
- Used with any height enclosure and hinged on the right or left
- Maximum equipment load is 45.4 kg (100 lb.)
- Furnished with hinges, two quarter-turn latches and mounting hardware
- RAL 7035 textured, gray finish
- Complies with ANSI/EIA RS-310-D rack mounting standards

1. *Swing-Out Rack Frame assemblies are supplied with mounting supports. Swing-Out Rack Frames can also be installed in right, left or both bays of 1200-mm wide frames using center uprights.*
2. *Swing-out mounting supports mount to inside of frame at any vertical location.*
3. *Mounting supports and swing-out frame can be located deeper into frame using grid system straps. Deeper mounting affects the degree of opening of swing-out frame.*



Part no	Fits Frame Width mm	Rack Units
PSF6	600	16
PSF8	800	16

#### Stop Arm Kit

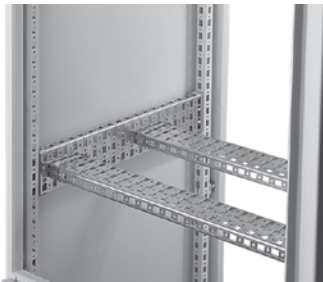
Used with Heavy-Duty Swing-Out Rack Frames to lock the frame in the open position. Consists of stop arm and mounting hardware.

Part no	Description
<b>21127216</b>	Consists of stop arm and mounting hardware.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Grid Systems

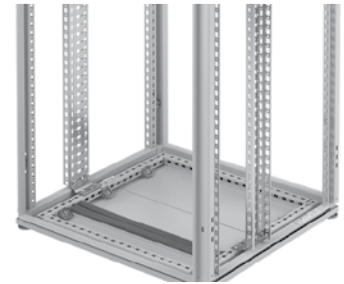
### Grid System **AFO**



Grid strap installation (from side to side).



Grid strap installation (vertical and horizontal grid straps)



Full-height vertical grid strap

A Grid System provides a flexible extension to the internal mounting system already furnished with the PROLINE™ frame. The Grid System allows flexible mounting capabilities in height, width and depth. Accessories or equipment can be attached directly to the Grid System using either cage nuts or front-loading cage nuts.

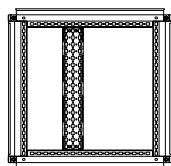
### Grid Straps



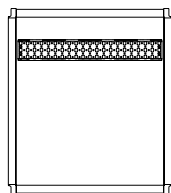
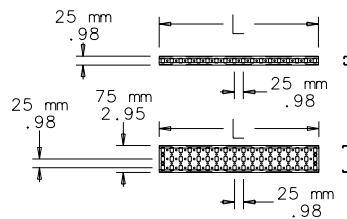
Grid Straps are 2.0-mm plated steel. They are provided with specially designed rectangular holes to allow the use of cage nuts or front-loading cage nuts. Mounting holes are provided on 25-mm centers. Grid Straps are available with either 1 row or 3 rows of holes and are furnished in pairs. Mounting hardware to attach Grid Straps to the frame or to other Grid Straps is included.

- Can be mounted front-to-back horizontally across the bottom or sides of the PROLINE™ frame
- Can be mounted left-to-right horizontally between front-to-back pairs or from the sides of the PROLINE frame
- Can be mounted vertically between horizontally mounted Grid Straps

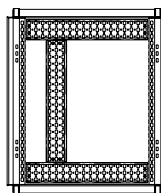
Part no	Hole Pattern	L mm	Fits Frame Depth mm	Fits Frame Width mm
<b>For Depth:</b>				
PGH155	One Row	342	500	—
<b>PGH156</b>	One Row	442	600	—
<b>PGH158</b>	One Row	642	800	700
PGH1511	One Row	942	—	1000
PGH1513	One Row	1142	—	1200
PGH1517	One Row	1542	—	1600
PGH354	Three Row	242	400	—
PGH355	Three Row	342	500	—
<b>PGH356</b>	Three Row	442	600	—
<b>PGH358</b>	Three Row	642	800	700
PGH3513	Three Row	1142	—	1200
PGH3517	Three Row	1542	—	1600
<b>For Width:</b>				
PGH157	One Row	542	700	600
PGH159	One Row	742	900	800
PGH357	Three Row	542	700	600
PGH359	Three Row	742	900	800



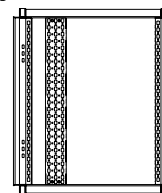
Top View



Front View Horizontal Installation



Side View Vertical and Horizontal Installation



Side View Vertical Installation

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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Grid Systems

### Full-Height Vertical Grid Straps **AFO**



Grid Straps provide a vertical extension of the frame holes in the sides of the PROLINE™ frame. They are sold in pairs with mounting hardware included. Vertical Grid Straps are 2.0-mm plated steel. Three-row 25-mm hole spacing allows the use of cage nuts or front-loading cage nuts.

Part no	L mm	Fits Frame Height mm
PGH3S14V	1295	1400
PGH3S16V	1495	1600
PGH3S18V	1695	1800
PGH3S20V	1895	2000
PGH3S22V	2095	2200

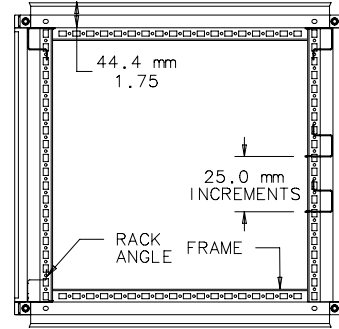
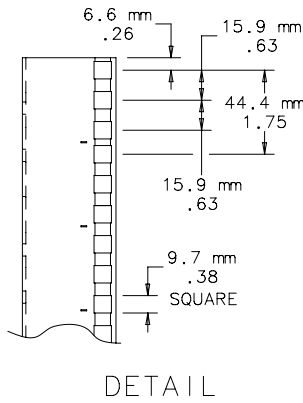
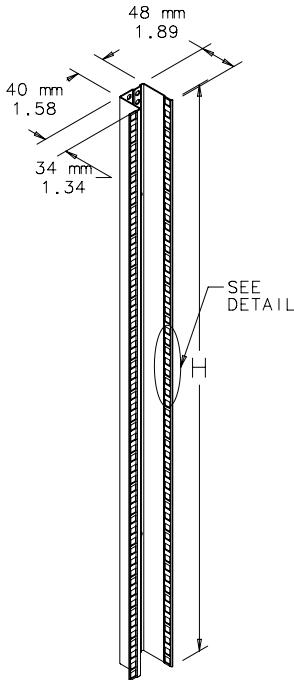
### 19-in. Rack Angles **AFO**



Square-Hole Rack Angles are 2.0-mm plated steel designed to accept metric or English cage nuts. 19-in. Rack Angles are fixed directly into a 600-mm wide enclosure frame. To mount 19-in. Rack Angles in 800-mm wide frames, use frame reducing brackets.

Part no	Hole	H mm	Fits Frame mm	Rack Units
PRA1914TH	Square	1290	1400	19
PRA1916TH	Square	1467	1600	33
<b>PRA1918TH</b>	Square	1690	1800	38
<b>PRA1920TH</b>	Square	1867	2000	42
PRA1922TH	Square	2090	2200	47

*Vertical holes spaced in 44.5-mm increments.*



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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

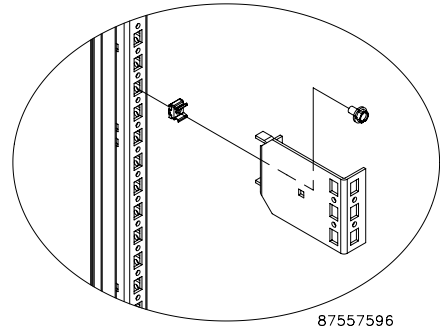
Grid Systems

**Frame-Reducing Brackets for Frames or Grid Straps**



Frame-Reducing Brackets mount directly to 800-mm wide PROLINE® frames or to grid straps. Converts wider frames to 600-mm wide, allowing 19-in. rack angles to fit. Can be used to left- or right-justify the rack-mounted equipment. Furnished in sets of four. 2.0-mm thick plated steel. Mounting hardware is included.

Part no	Reduces Frame Width			Converts Frame Width
	Width	W (mm)	W (in.)	
PRB100	100	100	3.94	From 800 to 600 From 800 to 700 From 700 to 600 mm



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



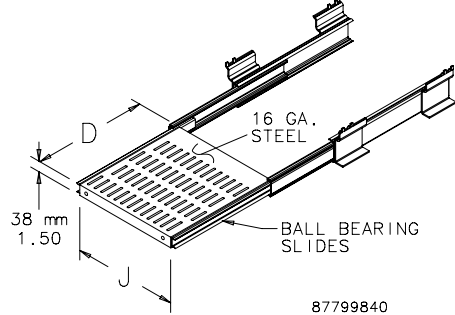
**PROLINE™ Shelves and Rails**

**Frame Pull-Out Shelf**



Frame Pull-Out Shelf allows easy access to shelf-mounted devices. The shelf is 1.5-mm steel with 2.0-mm steel supports. The entire assembly is finished with RAL 7035 textured, gray polyester powder paint. The shelf mounts to the front and rear frame uprights. Mounting hardware included. Load rating is 50 kg.

Part no	D mm	J mm	Shelf Extension mm
<b>PFSHP66</b>	461	475	450
<b>PFSHP68</b>	661	475	670
PFSHP86	461	675	450
<b>PFSHP88</b>	661	675	670

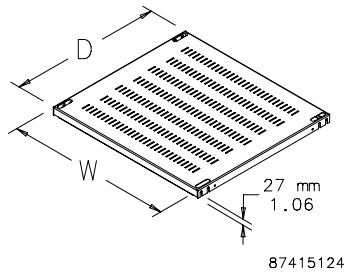


**Frame Shelf**



Vented Frame Shelf mounts to the vertical hole pattern on a frame and provides a stationary surface for equipment. The shelf is 1.5-mm steel finished with RAL 7035 textured, gray polyester powder paint.

Part no	D mm	W mm
<b>PFSH65</b>	400	548
<b>PFSH66</b>	500	548
<b>PFSH68</b>	700	548
PFSH85	400	748
PFSH86	500	748
PFSH88	700	748



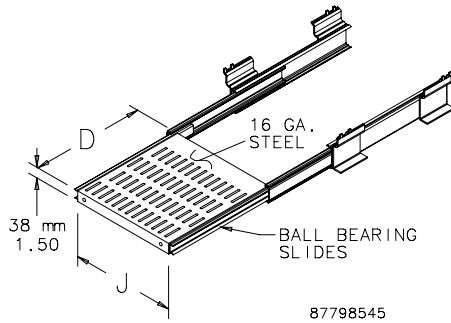
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Shelves and Rails**
**Pull-Out Shelf** 

Pull-Out Shelf allows easy access to shelf-mounted devices. Shelf is 1.5-mm steel. The entire assembly is finished with RAL 7035 textured, light-gray polyester powder paint. The shelf mounts to the front surface of front and back 19-in. rack angles.

Load rating is 68 kg with four rack angle mountings and 34 kg with front rack angle mounting.

*Rack accessories that are shorter than the enclosure depth can be mounted to rack angles or frame accessory brackets attached to grid straps. Order these items separately.*

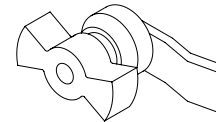


Part no	D mm	J mm	Shelf Extension mm	Fits Rack Width mm
<b>P19PSH5</b>	361	403	350	483
<b>P19PSH6</b>	461	403	450	483
<b>P19PSH8</b>	661	403	670	483

**Pull-Out Shelf Lock** 

Pull-Out Shelf Lock is used in combination with the Pull-Out Shelf to hold the shelf in the recessed position. It can be mounted on either the left or right side. This black quarter-turn lock has a wing knob for easy hand operation.

Catalog Number	Description
<b>PSHLOCK</b>	Pull-Out Shelf Lock

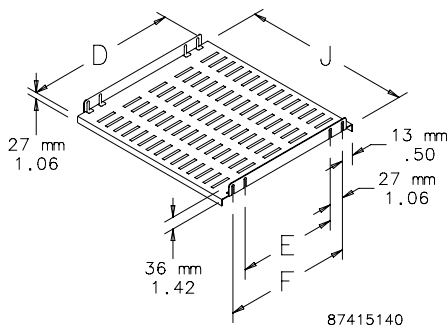


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**Fixed Shelf** 

Fixed Shelves mount to the front and back 19-in. rack angles. The shelf is 2.0-mm steel with adjustable 2.5-mm steel supports. Adjustable to fit multiple-depth enclosures or rack angle placements. Entire assembly is finished with RAL 7035 textured, light-gray polyester powder paint. Load rating is 68 kg.

*Rack accessories that are shorter than the enclosure depth can be mounted to rack angles or frame accessory brackets attached to grid straps. Order these items separately.*



Part no	D mm	E mm	F mm	J mm	Fits Rack Width mm
<b>P19SH5</b>	349	264.8	318.4	477	483
<b>P19SH6</b>	449	364.8	418.4	477	483
<b>P19SH8</b>	649	564.8	618.4	477	483

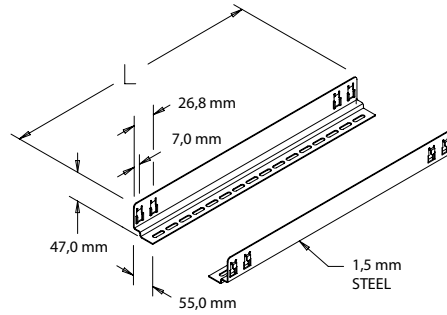
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROLINE™ Shelves and Rails**

**Guides** **A-T-O**



Part no	L mm	Frame Depth mm
22127-092	220	400
22127-093	320	500
22127-094	420	600
22127-095	620	800



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Equipment Guides help support rack-mounted equipment during installation. Guides mount between two pairs of rack angles. Slotted holes are provided for vertical or lateral adjustment. Guides have plated finish. Mounting hardware included. Can be installed on 19-in. rack angles.

*Rack accessories that are shorter than the enclosure depth can be mounted to rack angles or frame accessory brackets attached to grid straps. Order these items separately.*

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## PROLINE™ Shelves and Rails

### Notes



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Selection Matrices

## Doors, Covers and Sides


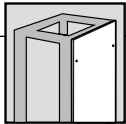
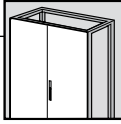
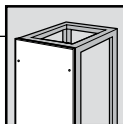
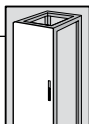
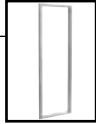
Single-Bay PROLINE Frame										
A	B	C	Solid Side <sup>a</sup>	Solid Cover <sup>a</sup>	Solid Door <sup>a</sup>	Window Door (UL)	Window Door (Non-UL)	Dress Frame	Disconnect Door System <sup>b</sup>	Overlapping Solid Doors <sup>d</sup>
1400	600	600	PSS146	PCS146	PDS146	PDWG146H	PDWG146E			
1400	600	800	PSS146	PCS146	PDS146	PDWG146H	PDWG146E			
1600	600	600	PSS166	PCS166	PDS166	PDWG166H	PDWG166E	PDF166		
1600	600	800	PSS168	PCS166	PDS166	PDWG166H	PDWG166E	PDF166		
1600	800	600	PSS166	PCS168	PDS168	PDWG168H	PDWG168E		PTDCC168	PTOD168
1800	600	500	PSS186	PCS186	PDS186	PDWG186H	PDWG186E	PDF186		
1800	600	600	PSS186	PCS186	PDS186	PDWG186H	PDWG186E	PDF186		
1800	600	800	PSS188	PCS186	PDS186	PDWG186H	PDWG186E	PDF186		
1800	800	400	PSS184	PCS188	PDS188	PDWG188H	PDWG188E		PTDCC188	PTOD188
1800	800	500	PSS185	PCS188	PDS188	PDWG188H	PDWG188E		PTDCC188	PTOD188
1800	800	600	PSS186	PCS188	PDS188	PDWG188H	PDWG188E		PTDCC188	PTOD188
1800	800	800	PSS188	PCS188	PDS188	PDWG188H	PDWG188E		PTDCC188	PTOD188
1800	1000	500	PSS185	PCS1810	PDS1810					PTOD1810
1800	1000	600	PSS186	PCS1810	PDS1810					PTOD1810
1800	1000	800	PSS188	PCS1810	PDS1810					PTOD1810
2000	600	400	PSS204	PCS206	PDS206	PDWG206H	PDWG206E	PDF206		
2000	600	500	PSS205	PCS206	PDS206	PDWG206H	PDWG206E	PDF206		
2000	600	600	PSS206	PCS206	PDS206	PDWG206H	PDWG206E	PDF206		
2000	600	800	PSS208	PCS206	PDS206	PDWG206H	PDWG206E	PDF206		
2000	800	400	PSS204	PCS208	PDS208	PDWG208H	PDWG208E		PTDCC208	PTOD208
2000	800	500	PSS205	PCS208	PDS208	PDWG208H	PDWG208E		PTDCC208	PTOD208
2000	800	600	PSS206	PCS208	PDS208	PDWG208H	PDWG208E		PTDCC208	PTOD208
2000	800	800	PSS208	PCS208	PDS208	PDWG208H	PDWG208E		PTDCC208	PTOD208
2000	1000	500	PSS205	PCS2010	PDS2010				PTDCC2010	PTOD2010
2000	1000	600	PSS206	PCS2010	PDS2010				PTDCC2010	PTOD2010
2000	1000	800	PSS208	PCS2010	PDS2010				PTDCC2010	PTOD2010
2200	600	600	PSS226	PCS226	PDS226	PDWG226 H	PDWG226E	PDF226		
2200	600	800	PSS228	PCS226	PDS226	PDWG226H	PDWG226E	PDF226		
2200	800	600	PSS226	PCS228	PDS228	PDWG228H	PDWG226E			PTOD228
2200	800	800	PSS228	PCS228	PDS228	PDWG228H	PDWG226E			PTOD228

<sup>a</sup>Also available with EMC shielding.

<sup>b</sup>Catalog numbers shown in matrix are for doors with right-hand provision. Doors with left-hand and large cutout provisions also are available.

<sup>d</sup>Fits front of standard frame.

## Selection Matrices

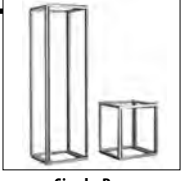
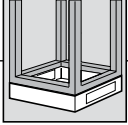
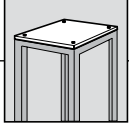

 Double-Bay PROLINE Frame			 Solid Side	 Overlapping Solid Doors <sup>d</sup>	 Solid Cover <sup>c</sup>	 Solid Door <sup>c</sup>	 Dress Frame <sup>c</sup>
A	B	C					
1800	1200	500	PSS185	PTOD1812	PCS186	PDS186	
1800	1200	600	PSS186	PTOD1812	PCS186	PDS186	PDFA186
1800	1200	800	PSS188	PTOD1812	PCS186	PDS186	PDFA186
2000	1200	500	PSS205	PTOD2012	PCS206	PDS206	
2000	1200	600	PSS206	PTOD2012	PCS206	PDS206	PDFA206
2000	1200	800	PSS208	PTOD2012	PCS206	PDS206	PDFA206
2200	1200	600	PSS226	PTOD2212	PCS226	PDS226	PDFA226
2200	1200	800	PSS228	PTOD2212	PCS226	PDS228	PDFA226

<sup>c</sup>Fits back of standard frame.

<sup>d</sup>Fits front of standard frame.

## Selection Matrices


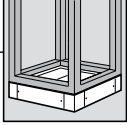
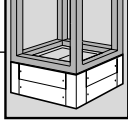
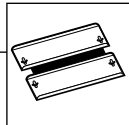
## Tops and Bases

 Single-Bay PROLINE Frames			Tops		 100-mm Solid Base <sup>a</sup>
			 Solid Top <sup>a</sup>	 Vented Top with Integral Fan Tray	
A	B	C	Steel	Vented Top with Integral Fan Tray	Steel
1400	600	600	PT66	PVT3F662	PB166
1400	600	800	PT68	PVT3F682	PB168
1600	600	600	PT66	PVT3F662	PB166
1600	600	800	PT68	PVT3F682	PB168
1600	800	600	PT86	PVT3F862	PB186
1800	600	500	PT86		PB186
1800	600	600	PT66	PVT3F662	PB166
1800	600	800	PT68		PB168
1800	800	400	PT84		PB184
1800	800	500	PT85		PB185
1800	800	600	PT86	PVT3F862	PB186
1800	800	800	PT88	PVT3F882	PB188
1800	1000	500	PT105		PB1105
1800	1000	600	PT106		PB1106
1800	1000	800	PT108		PB1108
2000	600	400	PT64		PB1640
2000	600	500	PT65		PB165
2000	600	600	PT66	PVT3F662	PB166
2000	600	800	PT68	PVT3F682	PB168
2000	800	400	PT84		PB184
2000	800	500	PT85		PB185
2000	800	600	PT86	PVT3F862	PB186
2000	800	800	PT88	PVT3F882	PB188
2000	1000	500	PT105		PB1105
2000	1000	600	PT106		PB1106
2000	1000	800	PT108		PB1108
2200	600	600	PT66	PVT3F662	PB166
2200	600	800	PT68	PVT3F682	PB168
2200	800	600	PT86	PVT3F862	PB186
2200	800	800	PT88	PVT3F882	PB188

<sup>a</sup>Also available with EMC shielding.




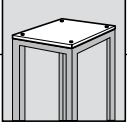
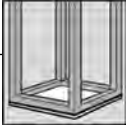
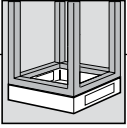
## Selection Matrices

Bases		Gland Plates		 Single-Bay PROLINE Frames		
 100-mm Plinth Base	 200-mm Plinth Base	 Gland Plate for Rack Angles	A	B	C	
PPB166	PPB266	PGP66	1400	600	600	
PPB168	PPB268	PGP68	1400	600	800	
PPB166	PPB266	PGP66	1600	600	600	
PPB168	PPB268	PGP68	1600	600	800	
PPB186	PPB286	PGP86	1600	800	600	
PPB165	PPB265	PGP65	1800	600	500	
PPB166	PPB266	PGP66	1800	600	600	
PPB168	PPB268	PGP68	1800	600	800	
PPB184	PPB284	PGP84	1800	800	400	
PPB185	PPB285	PGP85	1800	800	500	
PPB186	PPB286	PGP86	1800	800	600	
PPB188	PPB288	PGP88	1800	800	800	
PPB1105	PPB2105		1800	1000	500	
PPB1106	PPB2106		1800	1000	600	
PPB1108	PPB2108		1800	1000	800	
PPB164	PPB264	PGP64	2000	600	400	
PPB165	PPB265	PGP65	2000	600	500	
PPB166	PPB266	PGP66	2000	600	600	
PPB168	PPB268	PGP68	2000	600	800	
PPB184	PPB284	PGP84	2000	800	400	
PPB185	PPB285	PGP85	2000	800	500	
PPB186	PPB286	PGP86	2000	800	600	
PPB188	PPB288	PGP88	2000	800	800	
PPB1105	PPB2105		2000	1000	500	
PPB1106	PPB2106		2000	1000	600	
PPB1108	PPB2108		2000	1000	800	
PPB166	PPB266	PGP66	2200	600	600	
PPB168	PPB268	PGP68	2200	600	800	
PPB186	PPB286	PGP86	2200	800	600	
PPB188	PPB288	PGP88	2200	800	800	

<sup>a</sup>Also available with EMC shielding.

<sup>c</sup>Two covers required for 200-mm vented plinth base covers.

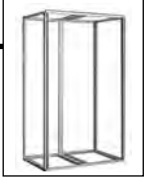
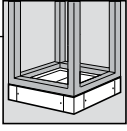
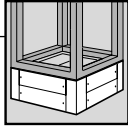
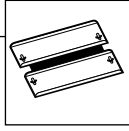
Selection Matrices

 <b>Double-Bay PROLINE Frames</b>			Tops <sup>a</sup>	Bases		
			 <b>Solid Top</b>	 <b>0-mm Solid Base</b>	 <b>100-mm Solid Base<sup>b</sup></b>	
A	B	C	Steel	Steel	Steel	
1800	1200	500	PT125	PB0125	PB1125	
1800	1200	600	PT126	PB0126	PB1126	
1800	1200	800	PT128	PB0128	PB1128	
2000	1200	500	PT125	PB0125	PB1125	
2000	1200	600	PT126	PB0126	PB1126	
2000	1200	800	PT128	PB0128	PB1128	
2200	1200	600	PT126	PB0126	PB1126	
2200	1200	800	PT128	PB0128	PB1128	

<sup>a</sup>Air conditioner tops PTAC126, PTAC128, PTAC166 and PTAC168 are available for mounting single-bay Top Mount Air Conditioners on double-bay frames.

<sup>b</sup>100-mm solid bases for single-bay frames will fit double-bay frames. Two bases required for each application.

### Selection Matrices

Bases		Gland Plate		 Double-Bay PROLINE Frames		
 100-mm Plinth Base	 200-mm Plinth Base	 Gland Plate for Rack Angles	A	B	C	
PPB1125	PPB2125	PGP65	1800	1200	500	
PPB1126	PPB2126	PGP66	1800	1200	600	
PPB1128	PPB2128	PGP68	1800	1200	800	
PPB1125	PPB2125	PGP65	2000	1200	500	
PPB1126	PPB2126	PGP66	2000	1200	600	
PPB1128	PPB2128	PGP68	2000	1200	800	
PPB1126	PPB2126	PGP66	2200	1200	600	
PPB1128	PPB2128	PGP68	2200	1200	800	

<sup>a</sup>Use with a standard plinth base.

<sup>b</sup>Two covers required for 200-mm vented plinth base covers.

## Selection Matrices

## Panel



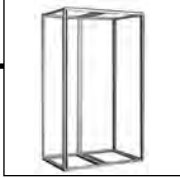

Single-Bay PROLINE Frame


 Full Subpanel<sup>a</sup>

A	B	C	Full Subpanel <sup>a</sup>
1400	600	600	PPF146G
1400	600	800	PPF146G
1600	600	600	PPF166G
1600	600	800	PPF166G
1600	800	600	PPF168G
1800	600	500	PPF186G
1800	600	600	PPF186G
1800	600	800	PPF186G
1800	800	400	PPF188G
1800	800	500	PPF188G
1800	800	600	PPF188G
1800	800	800	PPF188G
1800	1000	500	PPF1810G
1800	1000	600	PPF1810G
1800	1000	800	PPF1810G
2000	600	400	PPF206G
2000	600	500	PPF206G
2000	600	600	PPF206G
2000	600	800	PPF206G
2000	800	400	PPF208G
2000	800	500	PPF208G
2000	800	600	PPF208G
2000	800	800	PPF208G
2000	1000	500	PPF2010G
2000	1000	600	PPF2010G
2000	1000	800	PPF2010G
2200	600	600	PPF226G
2200	600	800	PPF226G
2200	800	600	PPF228G
2200	800	800	PPF228G

<sup>a</sup> Mount to top and bottom of frame. Glide blocks position subpanel on frame bottom. Maximum size subpanel shown in chart.


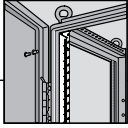
### Selection Matrices

 <p><b>Double-Bay PROLINE Frame</b></p>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>Full Subpanel<sup>a</sup></b>
1800	1200	500	PPF1812G
1800	1200	600	PPF1812G
1800	1200	800	PPF1812G
2000	1200	500	PPF2012G
2000	1200	600	PPF2012G
2000	1200	800	PPF2012G
2200	1200	600	PPF2212G
2200	1200	800	PPF2212G

<sup>a</sup> Mount to top and bottom of frame. Glide blocks position subpanel on frame bottom. Maximum size subpanel shown in chart.

## Selection Matrices


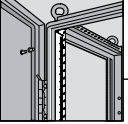
## Rack Mounting (Single-Bay Frames)

 Single-Bay Frames			 19-in. Full Height Rack Angles <sup>a</sup>	
A	B	C	Square Hole	Rack Angles Available
1400	600	600	PRA1914TH	19-in.
1400	600	800	PRA1914TH	19-in.
1600	600	600	PRA1916TH	19-in.
1600	600	800	PRA1916TH	19-in.
1600	800	600		19-in.
1800	600	500	PRA1918TH	19-in.
1800	600	600		19-in.
1800	600	800	PRA1918TH	19-in.
1800	800	400		19-in.
1800	800	500		19-in.
1800	800	600		19-in.
1800	800	800		19-in.
1800	1000	500		19-in.
1800	1000	600		19-in.
1800	1000	800		19-in.
2000	600	400	PRA1920TH	19-in.
2000	600	500	PRA1920TH	19-in.
2000	600	600		19-in.
2000	600	800		19-in.
2000	800	400		19-in.
2000	800	500		19-in.
2000	800	600		19-in.
2000	800	800		19-in.
2000	1000	500		19-in.
2000	1000	600		19-in.
2000	1000	800		19-in.
2200	600	600	PRA1922TH	19-in.
2200	600	800	PRA1922TH	19-in.
2200	800	600		19-in.
2200	800	800		19-in.

<sup>a</sup>Also available with EMC shielding.

## Selection Matrices

## Rack Mounting (Double-Bay Frames)

 <p><b>Double-Bay Frames</b></p>			 <p><b>19-in. Full Height Rack Angles<sup>a</sup></b></p>	
<b>A</b>	<b>B</b>	<b>C</b>	<b>Square Hole</b>	<b>Rack Angles Available</b>
1800	1200	500	PRA1918TH	19-in.
1800	1200	600	PRA1920TH	19-in.
1800	1200	800	PRA1922TH	19-in.
2000	1200	500		
2000	1200	600		
2000	1200	800		
2200	1200	600		
2200	1200	800		

<sup>a</sup> 19-in. rack angles have 23-in. spacing if used in a 700-mm wide frame.

<sup>b</sup> 24-in. rack angles and frame accessory brackets are designed for 700mm wide enclosures. They can be used in 800-mm and 1000-mm wide enclosures only if frame reducing brackets also are ordered.

## Rack Accessories, 19-in.

Accessory	Fits Frame Depth (mm)	Fits Accessory	Rack Units Req'd
<b>Pull-Out Shelf</b>			
P19PSH5	500-900		2U
P19PSH6	600-900		2U
P19PSH8	800-900		2U
<b>Pull-Out Shelf Lock</b>			
PSHLOCK		Pull-Out Shelf	
<b>Screw Package</b>			
		Rack Angles	
		Rack Angles	
<b>Cage Nut Package</b>			
PM6CN		Rack Angles	
<b>Fixed Shelf</b>			
P19SH5	500-900		1U
P19SH6	600-900		1U
P19SH8	800-900		1U
<b>Guides</b>			
PG5	500		1U
PG6	600		1U
PG8	800		1U

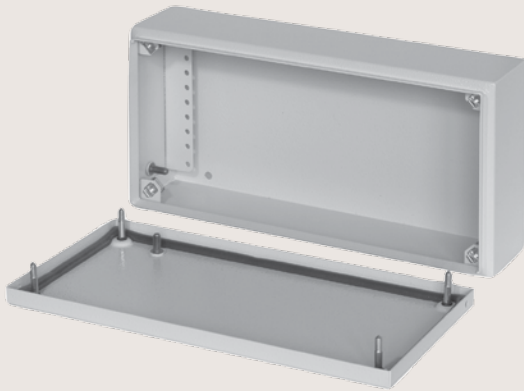
## Rack Accessories, 19-in.

Accessory	Fits Accessory	Rack Units Req'd
<b>Rack Panels Aluminum</b>		
P19RP1UA		1U
P19RP2UA		2U
P19RP3UA		3U
P19RP4UA		4U
P19RP5UA		5U
P19RP6UA		6U
P19RP7UA		7U
P19RP8UA		8U
P19RP9UA		9U
P19RP10UA		10U
P19RP11UA		11U
P19RP12UA		12U
P19RP16A		16U
<b>Rack Panels, Painted Steel</b>		
P19RP1UP		1U
P19RP2UP		2U
P19RP3UP		3U
P19RP4UP		4U
P19RP5UP		5U
P19RP6UP		6U
P19RP7UP		7U
P19RP8UP		8U
P19RP9UP		9U
P19RP10UP		10U
P19RP11UP		11U
P19RP12UP		12U
P19RP16UP		16U
<b>Filler Panel</b>		
PFP19RA	Rack Angles	



# CHAPTER 2

## Mild Steel Wall-Mount Enclosures



# Chapter Contents

## Mild Steel Wall-Mount Enclosures

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## CONCEPTLINE Wall-Mount Enclosures

### CONCEPTLINE



#### Specifications

- Type of protection IP 66
- Dimensions from 300x250x150 mm to 1200x600x420 mm
- Door opening angle 130 degrees
- Seamless foam-in-place gasket
- Seams continuously welded and ground smooth
- Corner-formed doors
- Doors are interchangeable
- Grounding stud on body; bonding provision on door
- Depth adjustable 19-in. rack angles assembly plane or mounting plate
- Includes gland plate
- Illustrated instruction sheet

#### Finish

RAL 7035

#### Accessories

- 19-in. assembly kit
- 19-in. panel mount
- Depth member
- GND/earthing
- Mounting bracket
- Mounting plate
- T-bar lock
- Wall mounting bracket

#### Modification and Customization

- Special colors and sizes
- Fittings, conversions, cutouts
- Custom solutions

#### Industry Standards

UL 508, Type 12

Type of protection IP 66 in accordance with IEC 60529  
 NEMA 250, Type 12  
 CSA-C22.2 No 94, Type 12

#### Application

CONCEPTLINE Enclosures are ideal robust indoor wall-mounted enclosures for machine control applications with streamlined styling, flush quarter-turn latches and an attractive, durable finish. Available in solid-door versions for application and mounting flexibility.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CONCEPTLINE Wall-Mount Enclosures

### Wall-Mount Enclosures



#### Industry Standards

UL 508, Type 12

IP 66 in accordance with IEC 60529

NEMA 250, Type 12

CSA-C22.2 No 94, Type 12

#### Application

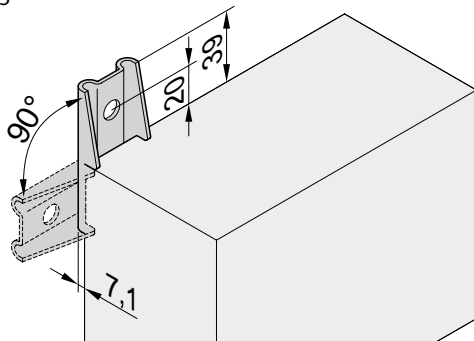
CONCEPTLINE Enclosures are ideal robust indoor wall-mounted enclosures for machine control applications with streamlined styling, flush quarter-turn latches and an attractive, durable finish. Available in solid-door versions for application and mounting flexibility.

#### Specifications

- Type of protection IP 66
- Dimensions from 300x250x150 mm to 1200x600x420 mm
- Door opening angle 130 degrees
- Seamless foam-in-place gasket
- Seams continuously welded and ground smooth
- Corner-formed doors
- Doors are interchangeable
- Grounding stud on body; bonding provision on door
- Depth adjustable 19-in. rack angles assembly plane or mounting plate
- Includes gland plate
- Illustrated instruction sheet

#### Finish

RAL 7035



Wall-mounting bracket

#### Delivery includes

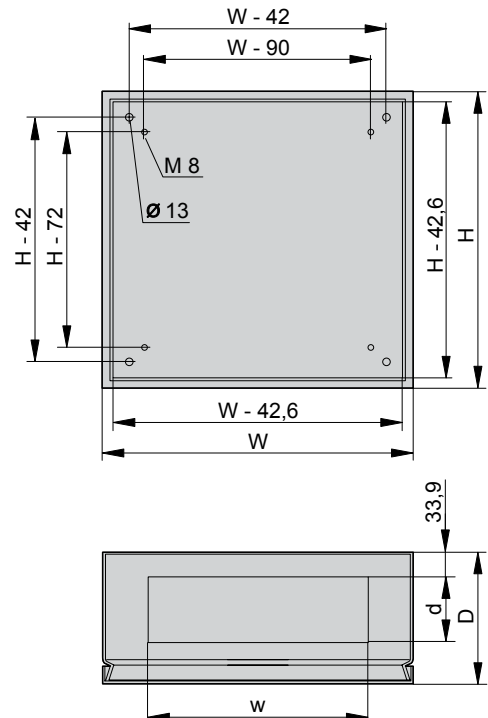
Item	Qty.	Description
1	1	Basic case, St, 1.5 mm, RAL 7035
2	1	Door, St, 1.5 mm, RAL 7035, with gasket
3	1	Gland plate, supplied loose, St, 1.5 mm (800 mm wide cases have 2 gland plates)
4	1 or 2	Lock, 3-mm double bit; case height up to 500 mm, 1 lock; case height over 600 mm, 2 locks
5	1	Assembly Kit

#### Standard Product

Part no	H x W x D mm	Gland Plate W x D mm	Weight kg
<b>12506-004</b>	300 x 250 x 150	187 x 62	5.3
<b>12506-010</b>	300 x 300 x 220	220 x 100	7.4
<b>12506-005</b>	400 x 300 x 150	187 x 62	7.6
<b>12506-011</b>	400 x 300 x 220	220 x 100	9.0
<b>12506-012</b>	400 x 400 x 220	220 x 100	10.5
<b>12506-017</b>	400 x 600 x 220	220 x 100	13.9
<b>12506-013</b>	500 x 400 x 220	220 x 100	13.0
<b>12506-015</b>	500 x 500 x 220	420 x 100	14.4
<b>12506-030</b>	500 x 500 x 320	420 x 100	17.9
<b>12506-003</b>	600 x 500 x 150	318 x 62	15.2
<b>12506-014</b>	600 x 400 x 220	220 x 100	14.9
<b>12506-018</b>	600 x 600 x 220	420 x 100	20.5
<b>12506-031</b>	600 x 600 x 320	420 x 100	24.0
<b>12506-019</b>	800 x 600 x 220	420 x 100	25.4
<b>12506-020 *</b>	800 x 800 x 220	220 x 100	32.0
<b>12506-032</b>	800 x 600 x 320	420 x 100	29.4
<b>12506-054</b>	800 x 600 x 420	420 x 100	31.4
<b>12506-022</b>	1000 x 600 x 220	420 x 100	31.0
<b>12506-041</b>	1000 x 600 x 320	420 x 100	34.0
<b>12506-033</b>	1200 x 600 x 320	420 x 100	40.0
<b>12506-055</b>	1200 x 600 x 420	420 x 100	44.0
<b>CMFK</b>	<b>Wall mounting bracket</b> St, 2.5 mm, zinc-plated, PU 4 pieces		
<b>62406-096</b>	<b>T-bar lock</b> with 2 keys, PU 1 kit		
<b>12406-400</b>	<b>GND/earthing</b> , 2 x Cu wire, green/yellow, PU 1 kit		

\* Includes 2 gland plates 220 x 100 mm

Note: Smaller cases in *INLINE*; other versions available on request



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### CONCEPTLINE Wall-Mount Enclosures

#### Wall-Mount Enclosures with Mounting Plate



#### Delivery includes

Item	Qty.	Description
1	1	Basic case, St, 1.5 mm, RAL 7035
2	1	Door, St, 1.5 mm, RAL 7035, with gasket
3	1	Gland plate, supplied loose, St, 1.5 mm (800 mm wide cases have 2 gland plates)
4	1 or 2	Lock, 3-mm double bit; case height up to 500 mm, 1 lock; case height over 600 mm, 2 locks
5	1	Mounting plate
6	1	Assembly Kit

#### Standard Product

Part no	H x W x D mm	Gland Plate W x D mm	Weight kg
<b>12506-160</b>	300 x 250 x 150	187 x 62	6.4
<b>12506-162</b>	300 x 300 x 220	220 x 100	8.7
<b>12506-161</b>	400 x 300 x 150	187 x 62	9.5
<b>12506-163</b>	400 x 300 x 220	220 x 100	10.9
<b>12506-164</b>	400 x 400 x 220	220 x 100	13.1
<b>12506-168</b>	400 x 600 x 220	420 x 100	20.5
<b>12506-165</b>	500 x 400 x 220	220 x 100	16.4
<b>12506-167</b>	500 x 500 x 220	420 x 100	18.6
<b>12506-166</b>	600 x 400 x 220	220 x 100	18.9
<b>12506-169</b>	600 x 600 x 220	420 x 100	33.2
<b>12506-171</b>	600 x 600 x 320	420 x 100	36.7
<b>12506-170</b>	800 x 600 x 220	420 x 100	41.0
<b>12506-172</b>	800 x 600 x 320	420 x 100	45.0
<b>12506-173</b>	800 x 600 x 420	420 x 100	46.7
<b>12506-174</b>	800 x 800 x 220	420 x 100	48.8
<b>12506-177</b>	1000 x 600 x 320	420 x 100	46.0
<b>12506-175</b>	1200 x 600 x 320	420 x 100	54.0
<b>12506-176</b>	1200 x 600 x 420	420 x 100	59.0
<b>CMFK</b>	<b>Wall mounting bracket</b> St, 2.5 mm, zinc-plated, PU 4 pieces		
<b>62406-096</b>	<b>T-bar lock</b> with 2 keys, PU 1 kit		
<b>12406-400</b>	<b>GND/earthing</b> , 2 x Cu wire, green/yellow, PU 1 kit		

#### Industry Standards

UL 508, Type 12

IP 66 in accordance with IEC 60529

NEMA 250, Type 12

CSA-C22.2 No 94, Type 12

#### Application

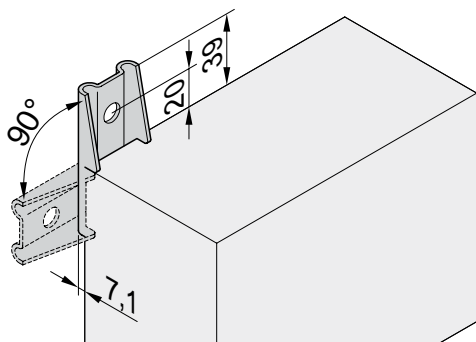
CONCEPTLINE Enclosures are ideal robust indoor wall-mounted enclosures for machine control applications with streamlined styling, flush quarter-turn latches and an attractive, durable finish. Available in solid-door versions for application and mounting flexibility.

#### Specifications

- Type of protection IP 66
- Dimensions from 300x250x150 mm to 1200x600x420 mm
- Door opening angle 130 degrees
- Seamless foam-in-place gasket
- Seams continuously welded and ground smooth
- Corner-formed doors
- Doors are interchangeable
- Grounding stud on body; bonding provision on door
- Depth adjustable 19-in. rack angles assembly plane or mounting plate
- Includes gland plate
- Illustrated instruction sheet

#### Finish

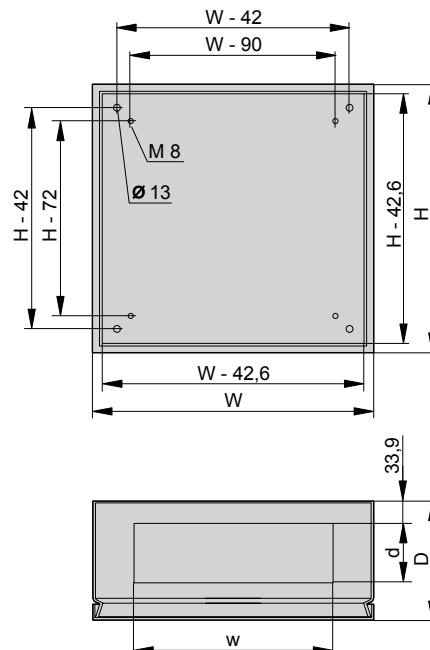
RAL 7035



Wall-mounting bracket

#### Notes:

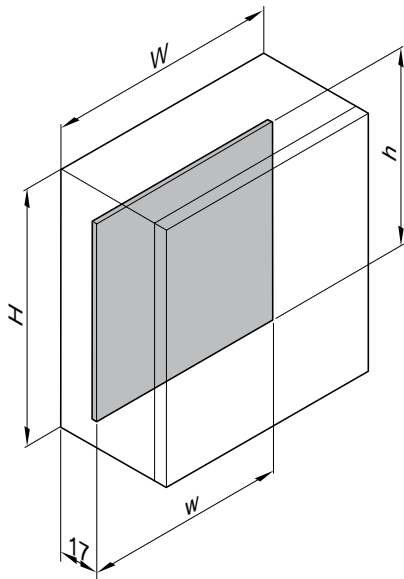
- For depth-adjustable assembly of mounting plate, please order depth members and mounting brackets separately
- Smaller cases in *INLINE* section; other versions available on request



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CONCEPTLINE Wall-Mount Enclosures

### Mounting Plate



#### Application

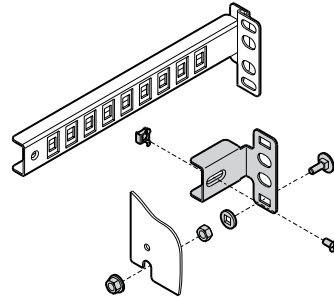
For assembly of electromechanical components.

#### Features

- Mounting position on rear panel
- Recessed installation is possible if depth members are used

#### Finish

Zinc plated



Depth member and mounting bracket

#### Delivery includes

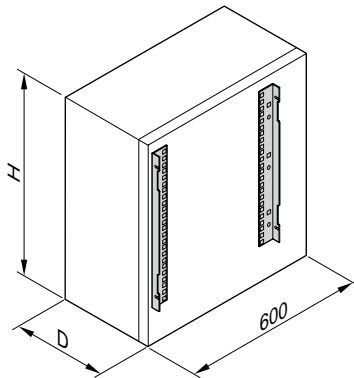
Item	Qty.	Description
1	1	Mounting plate, St, 2.5 mm, zinc-plated
2	1	Assembly kit, incl. GND/earthing

#### Standard Product

Part no	h x w mm	Fits cases H x W mm	Weight kg
<b>12406-801</b>	254 x 204	300 x 250	1.0
<b>12406-810</b>	254 x 254	300 x 300	1.3
<b>12406-802</b>	354 x 254	400 x 300	1.5
<b>12406-812</b>	354 x 354	400 x 400	2.4
<b>12406-821</b>	354 x 554	400 x 400	4.3
<b>12406-813</b>	454 x 354	500 x 400	3.5
<b>12406-815</b>	454 x 454	500 x 500	4.3
<b>12406-814</b>	554 x 354	600 x 400	4.3
<b>12406-816</b>	554 x 454	600 x 500	5.2
<b>12406-818</b>	554 x 554	600 x 600	6.7
<b>12406-819</b>	754 x 554	800 x 600	9.5
<b>12406-419</b>	<b>Depth member</b> , for case depth 220 mm, St, 2 mm, zinc-plated, PU 4 pieces		
<b>12406-418</b>	<b>Depth member</b> , for case depth 320 mm, St, 2 mm, zinc-plated, PU 4 pieces		
<b>12406-411</b>	<b>Depth member</b> , for case depth 420 mm, St, 2 mm, zinc-plated, PU 4 pieces		
<b>12406-730</b>	<b>Mounting bracket</b> , St, 2 mm, zinc-plated, assembly on depth member, for depth-adjustable assembly of a mounting plate, PU 4 pieces		

Note: For depth-adjustable assembly of the mounting plate, please order depth members and mounting bracket separately

### 19-in. Panel Mount



#### Application

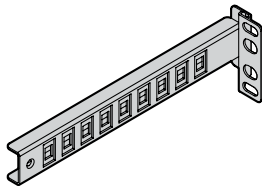
- For fitting of 19-in. equipment in accordance with IEC 60297-3-100 (DIN 41494 part 1)
- Only suitable for 600-mm wide cases

#### Features

- Front mounting position; recessed installation is possible if depth members are used

#### Finish

Zinc plated



Depth member

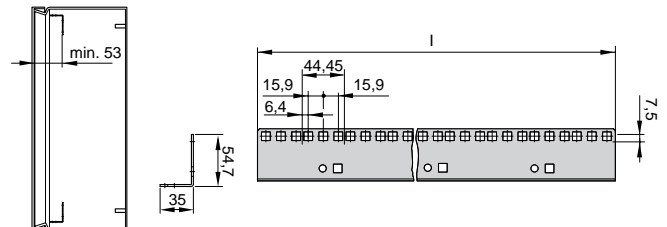
#### Delivery includes

Item	Qty.	Description
1	2	19-in. panel mount/grid, St, 2 mm, zinc-plated
2	1	Assembly kit included. GND/earthing

#### Standard Product

Part no	Usable Height U mm	Overall length l mm	Fits case height H mm
<b>12406-450</b>	8	390	400
<b>12406-451</b>	10	490	500
<b>12406-452</b>	12	590	600
<b>12406-454</b>	17	790	800
<b>21190-435</b>	<b>19-in. assembly kit (screw, washer, nut)</b> (32 x M6 screws x 16, 32 x plastic washers, 32 x cage nuts)		
<b>12406-419</b>	<b>Depth member</b> for case depth 220 mm, St, 2 mm, zinc-plated, PU 4 pieces		
<b>12406-418</b>	<b>Depth member</b> for case depth 320 mm, St, 2 mm, zinc-plated, PU 4 pieces		
<b>12406-411</b>	<b>Depth member</b> for case depth 420 mm, St, 2 mm, zinc-plated, PU 4 pieces		

Note: For depth-adjustable fitting of the 19-in. grid, please order depth members separately



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## INLINE Wall-Mount Enclosures

### INLINE Wall-Mount Enclosures



#### Specifications

- Type of protection up to IP 66
- Dimensions form 150x150x80 mm to 400x400x120 mm
- To accommodate support rails or mounting plates

#### INLINE Terminal Enclosure

- Integrated fixing rail allows assembly on a mounting plate or support rail
- Screw-fixed cover

#### INLINE Installation Enclosure

- Direct fitting of mounting plate
- Support rails fitted with fixing rails; can also be fitted outside the case
- Door opening angle 180 degrees

#### Finish

RAL 7035 light gray

#### Accessories

Earthing kit  
 Fixing rail  
 Mounting plate  
 Support rail  
 Wall mounting

#### Modification and Customization

- Special colors and sizes
- Fittings, conversions, cutouts
- Custom solutions

#### Industry Standards

UL 508, Type 12

IP 66 in accordance with IEC 60529

NEMA 250, Type , 12

CSA-C22.2 No 94, Type 12

#### Application

INLINE Enclosures, robust small enclosures for indoor wall-mounting with an aesthetic styling and attractive light-gray finish, are an excellent choice when style and functionality are important. The enclosures are available in two versions: terminal enclosure and installation enclosure.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## INLINE Wall-Mount Enclosures

### Terminal Case



#### Delivery includes

Item	Qty.	Description
1	1	Basic case, St, 1.4 mm, RAL 7035 with 2 integrated fixing rails
2	1	Cover, St, 1.4 mm, RAL 7035, with gasket
3	1	Assembly Kit for internal assemblies

#### Standard Product

Part no	H x W x D mm	Weight kg
<b>12505-001</b>	150 x 150 x 80	1.5
<b>12505-020</b>	150 x 150 x 120	1.8
<b>12505-002</b>	150 x 300 x 80	2.0
<b>12505-021</b>	150 x 300 x 120	2.7
<b>12505-003</b>	200 x 200 x 80	2.3
<b>12505-022</b>	200 x 200 x 120	2.5
<b>12505-004</b>	200 x 300 x 80	3.0
<b>12505-023</b>	200 x 300 x 120	3.5
<b>12505-005</b>	200 x 400 x 80	3.5
<b>12505-024</b>	200 x 400 x 120	4.5
<b>12505-025</b>	200 x 500 x 120	5.0
<b>12505-028</b>	300 x 300 x 120	4.5
<b>12505-029</b>	300 x 400 x 120	6.0
<b>12505-032</b>	400 x 400 x 120	7.5
<b>21101-836</b>	<b>Grounding Kit</b>	
<b>12405-120</b>	<b>Wall mounting St, 2.6 mm, zinc-plated, incl. assembly kit and seal, PU 4 pieces</b>	

#### Industry Standards

UL 508, Type 12

IP 66 in accordance with IEC 60529  
NEMA 250, Type , 12  
CSA-C22.2 No 94, Type 12

#### Application

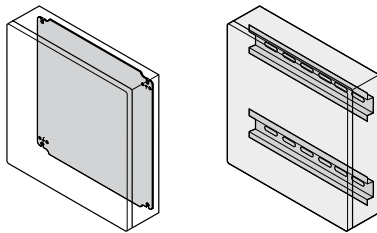
INLINE Enclosures, robust small enclosures for indoor wall-mounting with an aesthetic styling and attractive light-gray finish, are an excellent choice when style and functionality are important. The enclosures are available in two versions: terminal enclosure and installation enclosure.

#### Specifications

- Integrated fixing rail allows assembly on a mounting plate or support rail
- Screw-fixed cover

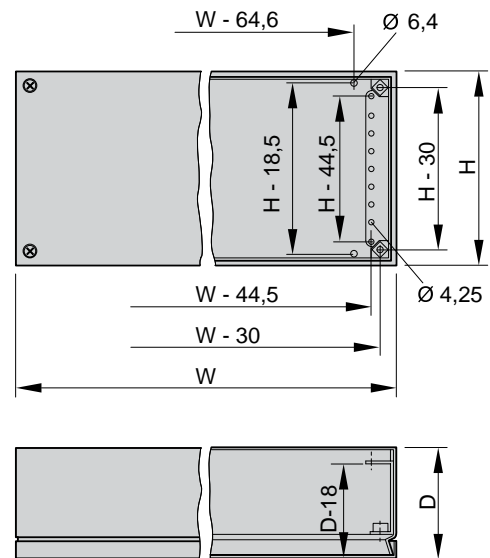
#### Finish

RAL 7035



Assembly of mounting plate or support rail possible

Note: Other dimensions available on request



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## INLINE Wall-Mount Enclosures

### Installation Case



#### Delivery includes

Item	Qty.	Description
1	1	Basic case, St, 1.4 mm, RAL 7035
2	1	Door, St, 1.4 mm, RAL 7035, with gasket
3	1	Lock, 3-mm double bit, with key
4	1	Assembly Kit

#### Standard Product

Part no	H x W x D mm	Weight kg
<b>12505-071</b>	200 x 200 x 80	2.0
<b>12505-081</b>	200 x 200 x 120	2.1
<b>12505-073</b>	300 x 200 x 80	2.5
<b>12505-083</b>	300 x 200 x 120	3.1
<b>12505-084</b>	300 x 300 x 120	4.2
<b>12505-074</b>	400 x 200 x 80	3.5
<b>12505-085</b>	400 x 200 x 120	4.1
<b>12505-086</b>	400 x 300 x 120	5.4
<b>21101-836</b>	<b>Grounding Kit</b>	
<b>12405-120</b>	<b>Wall mounting St, 2.6 mm, zinc-plated, incl. assembly kit and seal, PU 4 pieces</b>	

#### Notes:

- Other dimensions available on request
- A larger wall-mounted enclosure can be found in the pages preceding **INLINE**

#### Industry Standards

UL 508, Type 12  
 IP 66 in accordance with IEC 60529  
 NEMA 250, Type , 12  
 CSA-C22.2 No 94, Type 12

#### Application

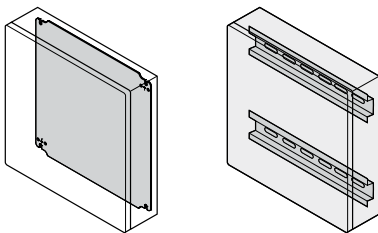
INLINE Enclosures, robust small enclosures for indoor wall-mounting with an aesthetic styling and attractive light-gray finish, are an excellent choice when style and functionality are important. The enclosures are available in two versions: terminal enclosure and installation enclosure.

#### Specifications

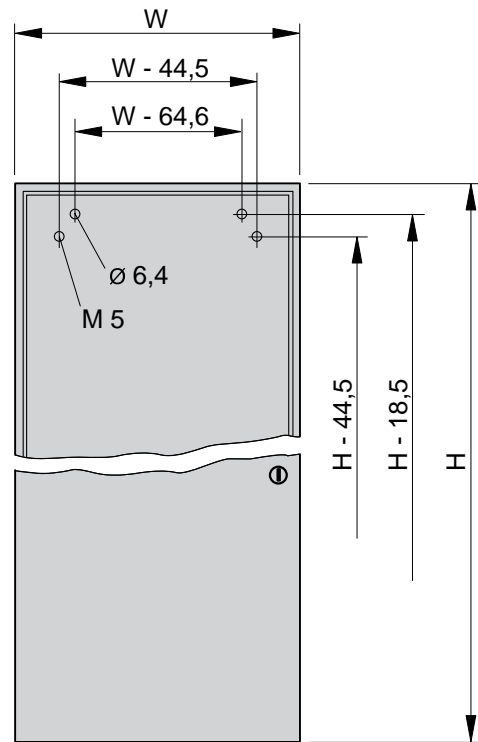
- Direct fitting of mounting plate
- Support rails fitted with fixing rails; can also be fitted outside the case
- Door opening angle 180 degrees

#### Finish

RAL 7035



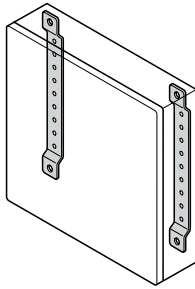
May be expanded with mounting plate or support rails (with fixing rails)



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## INLINE Wall-Mount Enclosures

### Fixing Rail for Internal Configuration

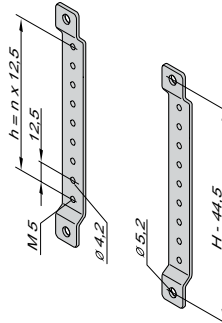


#### Application

Required for mounting support rails in installation case

#### Finish

Zinc plated



#### Delivery includes

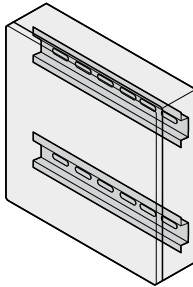
Item	Qty.	Description
1	2	Fixing rail, St, 3.4 mm, zinc-plated, assembly kit included in basic case

#### Standard Product

Part no	Case Height H mm	n mm	h mm
<b>LMK20</b>	200	8	100
<b>LMK30</b>	300	16	200
<b>LMK40</b>	400	24	300

Note: For support rail, see below

### Support Rail

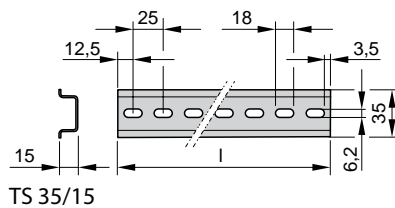
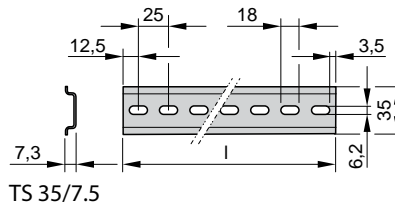


#### Application

- For assembly directly into terminal housing
- To assemble into installation case, fixing rails are required
- Two versions available
  - TS 35/7.5 (EN 50022)
  - TS 35/15 (EN 50022)

#### Finish

Zinc plated



#### Delivery includes

Item	Qty.	Description
1	4	Support rail, St, 1 mm, zinc-plated, assembly kit included in basic case

#### Standard Product

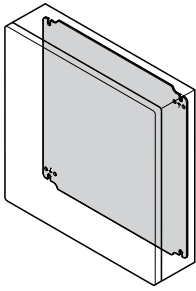
Part no	Support Rail Length l mm	For Cases Width mm	Type
<b>62405-001</b>	125	150	TS 35/7.5
<b>62405-002</b>	175	200	TS 35/7.5
<b>62405-003</b>	275	300	TS 35/7.5
<b>62405-004</b>	375	400	TS 35/7.5
<b>62405-010</b>	125	150	TS 35/15
<b>62405-011</b>	175	200	TS 35/15
<b>62405-012</b>	275	300	TS 35/15
<b>62405-013</b>	375	400	TS 35/15

Notes: For fixing rail, see above.

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## INLINE Wall-Mount Enclosures

### Mounting Plate

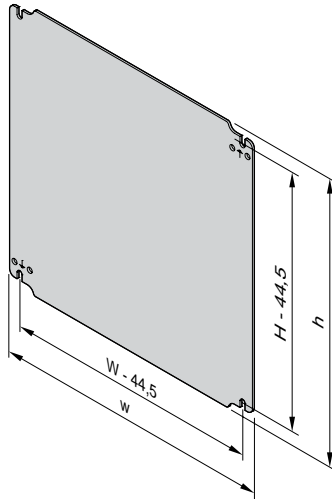


#### Application

- For terminal housing and installation case
- For assembly of electromechanical components

#### Finish

Zinc plated



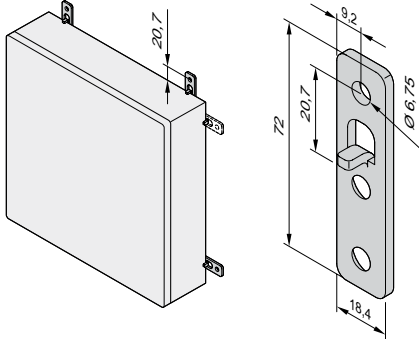
#### Delivery includes

Item	Qty.	Description
1	1	Mounting plate, St, 2,5 mm, zinc-plated, fixing materials kit included in basic case

#### Standard Product

Part no	h x w mm	Weight kg	Fits Cases H x W mm
<b>32405-024</b>	131 x 131	0.4	150 x 150
<b>32405-025</b>	131 x 281	0.7	150 x 300
<b>32405-026</b>	181 x 181	0.7	200 x 200
<b>32405-027</b>	181 x 281	1.1	200 x 300
<b>32405-028</b>	181 x 381	2.3	200 x 400
<b>32405-029</b>	181 x 481	1.7	200 x 500
<b>32405-033</b>	281 x 181	1.1	300 x 200
<b>32405-034</b>	281 x 281	1.5	300 x 300
<b>32405-035</b>	281 x 381	2.3	300 x 400
<b>32405-038</b>	381 x 181	1.4	400 x 200
<b>32405-039</b>	381 x 281	2.4	400 x 300
<b>32405-040</b>	381 x 381	3.1	400 x 400

### Wall-Mounting Bracket



#### Application

For terminal housing and installation cases

#### Finish

Zinc plated

#### Delivery includes

Item	Qty.	Description
1	4	St, 2,6 mm, zinc-plated
2	1	Assembly kit with seals

#### Standard Product

Part no	Description
<b>12405-120</b>	Wall mounting

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



## INLINE Wall-Mount Enclosures

### Notes

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## PROTEK™ Double-Hinged Enclosures

### PROTEK™ Double-Hinged, UL and NEMA Type 4 (IP66) or Type 12 (IP55)



#### Industry Standards

UL 508A Listed; File Number E61997  
 cUL Listed per CSA C22.2 No. 94; File Number E619967  
 Solid Door: Type 4 and 12  
 Window Door: Type 12

NEMA / EEMAC: Type 4 or 12  
 IEC 60529, IP66 or IP55

#### Application

PROTEK Double-Hinged enclosures are an excellent, off-the-shelf choice for mounting 19-in. rack, panel-mounted devices or other electronic equipment. The enclosures are designed to provide both front and rear access to 19-in. rack-mounted equipment. They provide protection against water, dirt, corrosive agents and other contaminants. PROTEK is an excellent choice for applications where space is at a premium and the only option is wall mounting. PROTEK comes in a broad range of sizes, materials and configurations to meet many demanding applications.

#### Features

- Front and rear access to 19-in. rack equipment provided by three-part design: door, center section and wall section
- Solid door provides complete physical and visual protection
- Window door, made of scratch-resistant safety glass, provides visual monitoring of internal equipment while maintaining equipment protection
- All seams are fully welded and ground smooth
- Doors, center section and wall section are provided with ground studs to facilitate proper bonding and grounding of the enclosure
- Premium seamless, foam-in-place gasket prevents contaminants from entering the enclosure
- Keylocking wing knob is included on painted steel enclosure, providing access control to the enclosure; two keys are included with each enclosure
- One set of plated, self-grounding, square hole rack angles per CEA universal spacing standards, which can be adjusted front-to-back.

#### Specifications

- Doors made of 1.5-mm thick steel; center and wall sections made of 2.0-mm thick steel
- Window made of 6-mm thick, scratch- and impact-resistant safety glass
- Rack angles made of plated 2.5-mm steel
- M6 ground studs on door, center and wall sections are masked from paint
- Foam-in-place gasket made of durable polyurethane

#### Finish

- Pretreated steel coated with RAL 7035 light-gray, low-gloss, lightly textured polyester powder paint

#### Load Rating

Center hinged section:

Height	Maximum Load Rating
16 in.	175 lb./79.4 kg
24 in.	250 lb./113.4 kg
36 in.	300 lb./136.1 kg
48 in.	350 lb./158.8 kg
60 in.	400 lb./181.4 kg

#### Accessories

Locks and handles  
 Grounding kits  
 Panels (steel)  
 Wing Knob Latch

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROTEK™ Double-Hinged Enclosures**

Standard Product **Solid Door, NEMA Type 4, IP 66**

Part no	in./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Optional Steel Panel
<b>PTH5162415G4E</b>	17.09 x 23.62 x 14.96 434 x 600 x 380	8	12.66 322	---	---	1.11 28	CP2014
<b>PTH5242415G4E</b>	24.09 x 23.62 x 14.96 612 x 600 x 380	12	12.66 322	---	---	1.11 28	CP2020
<b>PTH5242424G4E</b>	24.09 x 23.62 x 24.02 612 x 600 x 610	12	21.72 552	---	---	1.11 28	CP2020
<b>PTH5362415G4E</b>	36.30 x 23.62 x 14.96 922 x 600 x 380	19	12.66 322	---	---	1.11 28	CP3220
<b>PTH5362424G4E</b>	36.30 x 23.62 x 24.02 922 x 600 x 610	19	21.72 552	---	---	1.11 28	CP3220
PTH5482415G4E	48.54 x 23.62 x 14.96 1233 x 600 x 380	26	12.66 322	---	---	1.11 28	CP4420
PTH5482424G4E	48.54 x 23.62 x 24.02 1233 x 600 x 610	26	21.72 552	---	---	1.11 28	CP4420
PTH5602415G4E	60.04 x 23.62 x 14.96 1525 x 600 x 380	32	12.66 322	---	---	1.11 28	CP5620
PTH5602424G4E	60.04 x 23.62 x 24.02 1525 x 600 x 610	32	21.72 552	---	---	1.11 28	CP5620



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROTEK™ Double-Hinged Enclosures**

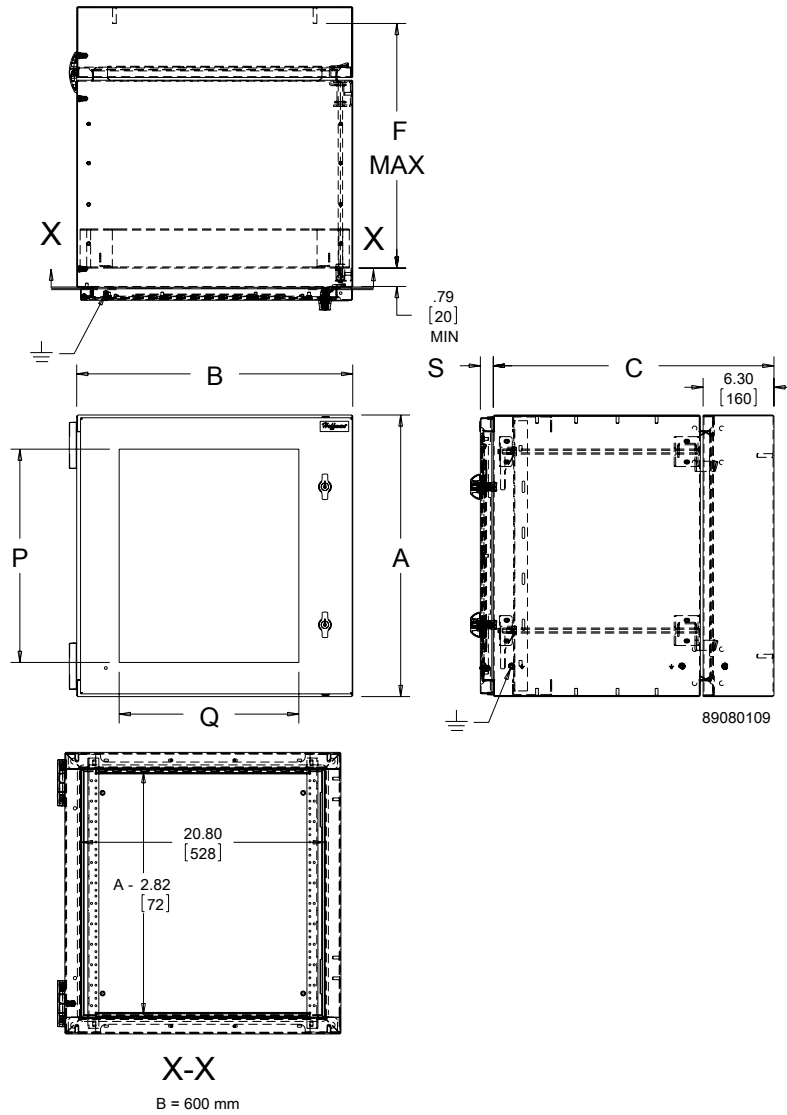
 Standard Product **Window Door, NEMA Type 12, IP 55**

Part no	AxBxC in./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Optional Steel Panel
<b>PTHW162415G2E</b>	17.09 x 23.62 x 14.96 434 x 600 x 380	8	12.66 322	11.87 301	15.38 391	1.11 28	CP2014
<b>PTHW242415G2E</b>	24.09 x 23.62 x 14.96 612 x 600 x 380	12	12.66 322	18.25 464	15.38 391	1.11 28	CP2020
<b>PTHW242424G2E</b>	24.09 x 23.62 x 24.02 612 x 600 x 610	12	21.72 552	18.25 464	15.38 391	1.11 28	CP2020
<b>PTHW362415G2E</b>	36.30 x 23.62 x 14.96 922 x 600 x 380	19	12.66 322	30.75 781	15.38 391	1.11 28	CP3220
<b>PTHW362424G2E</b>	36.30 x 23.62 x 24.02 922 x 600 x 610	19	21.72 552	30.75 781	15.38 391	1.11 28	CP3220
PTHW482415G2E	48.54 x 23.62 x 14.96 1233 x 600 x 380	26	12.66 322	42.70 1085	15.38 391	1.11 28	CP4420
PTHW482424G2E	48.54 x 23.62 x 24.02 1233 x 600 x 610	26	21.72 552	42.70 1085	15.38 391	1.11 28	CP4420
PTHW602415G2E	60.04 x 23.62 x 14.96 1525 x 600 x 380	32	12.66 322	54.39 1377	15.38 391	1.11 28	CP5620
PTHW602424G2E	60.04 x 23.62 x 24.02 1525 x 600 x 610	32	21.72 552	54.39 1377	15.38 391	1.11 28	CP5620


**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROTEK™ Double-Hinged Enclosures**



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

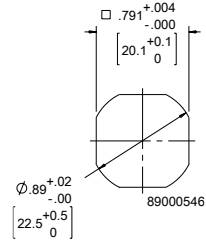
**PROTEK™ Accessories**

**Keylocking Quarter-Turn Wing Knob**



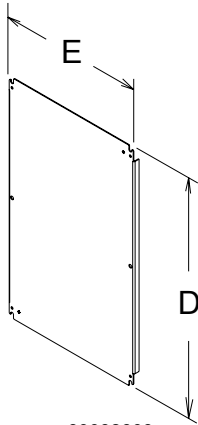
Keylocking quarter-turn wing knob latch. Black finish. Includes gasket, mounting nut and one key with 333 key code. Use existing cam for installation; cam is not included with wing knob. Can be locked in open or closed position. Maintains enclosure rating Type 4, 12.

Part no	Description	Use with
<b>PTWK</b>	Keylocking wing knob, quarter-turn	ACCESSPLUS, COMLINE, PROTEK, L-Box



**2 PROTEK® Wall-Mount Enclosure Accessory Panels**

Where equipment mounting space is limited, Accessory Panels increase enclosure capacity by providing a mounting surface for 19-in. equipment and accessories at the back of the enclosure. The panels mount on collar studs provided in the enclosure. Available in painted mild steel or wood.



89082803

Standard Product

Part no	Panel Type	Panel Size D x E		Thickness
		in./mm		
<b>CP2014</b>	Painted Steel	18.20 x 12.20 462 x 310		1,5 mm
<b>CP2020</b>	Painted Steel	18.20 x 18.20 462 x 462		2,0 mm
<b>CP3220</b>	Painted Steel	30.20 x 18.20 762 x 462		2,0 mm
<b>CP4420</b>	Painted Steel	42.20 x 18.20 1072 x 462		2,0 mm
<b>CP5620</b>	Painted Steel	53.20 x 18.20 1351 x 462		2,0 mm

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROTEK™ Accessories**

**Grounding Kit**



The Grounding Kit allows a PROLINE™ enclosure to be grounded to VDE specifications. Includes seven wires 310-mm long with ring terminations and M6 mounting hardware.

<b>Part no</b>	<b>Wire Size</b>	<b>Length Between Ring Terminals (mm)</b>	<b>Ring Terminal Hole Diameter (mm)</b>
<b>21101-615</b>	4 mm <sup>2</sup>	310	6.5



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

# CHAPTER 3

## Corrosion Resistant Wall-Mount Enclosures



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## Corrosion Resistant Wall-Mount Enclosures

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**Stainless Steel**

**Stainless Steel PCF Series Enclosure**



**Industry Standards**

UL Type 4X

IP66

**Application**

Select the PCF Series Wall-Mount Enclosure to shield critical controls and sensitive components from the harmful effects of dust, moisture, chemicals, gases and other corrosive agents. It is ideal for:

- Power generation control and distribution
- Petrochemical control, processing and distribution
- Chemical production and processing
- Pharmaceutical sanitary environments
- Food and beverage production environments

**Features**

- Available in 53 standard sizes
- Options and accessories to meet your needs
- Modifications and engineered solutions

**Specifications**

- Type 304 or 316 stainless steel; 1.5-mm or 2.0-mm thick
- 53 standard sizes ranging from 300 x 250 x 150 mm to 1200 x 800 x 420 mm
- Hidden hinge allows the door to open 150 degrees
- Galvanized or optional stainless steel latches
- Welded M6 grounding stud
- Optional wall-mounting brackets

Standard Product **Type 304 Stainless Steel**

Part no	Dimensions (H x W x D mm)
PCF302515SSE	300 x 250 x 150
<b>PCF303015SSE</b>	300 x 300 x 150
PCF403015SSE	400 x 300 x 150
<b>PCF404015SSE</b>	400 x 400 x 150
PCF303022SSE	300 x 300 x 220
<b>PCF403022SSE</b>	400 x 300 x 220
<b>PCF404022SSE</b>	400 x 400 x 220
PCF406022SSE	400 x 600 x 220
<b>PCF504022SSE</b>	500 x 400 x 220
<b>PCF505022SSE</b>	500 x 500 x 220
PCF604022SSE	600 x 400 x 220
<b>PCF605022SSE</b>	600 x 500 x 220
<b>PCF606022SSE</b>	600 x 600 x 220
PCF706022SSE	700 x 600 x 220
<b>PCF806022SSE</b>	800 x 600 x 220
PCF505032SSE	500 x 500 x 320
PCF604032SSE	600 x 400 x 320
PCF605032SSE	600 x 500 x 320
<b>PCF606032SSE</b>	600 x 600 x 320
PCF608032SSE	600 x 800 x 320
PCF706032SSE	700 x 600 x 320
<b>PCF806032SSE</b>	800 x 600 x 320
PCF1006032SSE	1000 x 600 x 320
PCF808032SSE	800 x 800 x 320
<b>PCF1008032SSE</b>	1000 x 800 x 320
PCF1206032SSE	1200 x 600 x 320
PCF1208032SSE	1200 x 800 x 320
PCF606042SSE	600 x 600 x 420
PCF706042SSE	700 x 600 x 420
PCF806042SSE	800 x 600 x 420
PCF1006042SSE	1000 x 600 x 420
PCF1008042SSE	1000 x 800 x 420
PCF1206042SSE	1200 x 600 x 420
PCF1208042SSE	1200 x 800 x 420

Standard Product **Type 316 Stainless Steel**

Part no	Dimensions (H x W x D mm)
PCF302515SS6E	300 x 250 x 150
PCF303015SS6E	300 x 300 x 150
PCF403015SS6E	400 x 300 x 150
PCF404015SS6E	400 x 400 x 150
PCF303022SS6E	300 x 300 x 220
PCF403022SS6E	400 x 300 x 220
PCF404022SS6E	400 x 400 x 220
PCF406022SS6E	400 x 600 x 220
PCF504022SS6E	500 x 400 x 220
PCF505022SS6E	500 x 500 x 220
PCF604022SS6E	600 x 400 x 220
PCF605022SS6E	600 x 500 x 220
PCF606022SS6E	600 x 600 x 220
PCF706022SS6E	700 x 600 x 220
PCF806022SS6E	800 x 600 x 220
PCF505032SS6E	500 x 500 x 320
PCF604032SS6E	600 x 400 x 320
PCF605032SS6E	600 x 500 x 320
PCF606032SS6E	600 x 600 x 320
PCF608032SS6E	600 x 800 x 320
PCF706032SS6E	700 x 600 x 320
PCF806032SS6E	800 x 600 x 320
PCF1006032SS6E	1000 x 600 x 320
PCF1008032SS6E	1000 x 800 x 320
PCF1206032SS6E	1200 x 600 x 320
PCF1208032SS6E	1200 x 800 x 320
PCF606042SS6E	600 x 600 x 420
PCF706042SS6E	700 x 600 x 420
PCF806042SS6E	800 x 600 x 420
PCF1006042SS6E	1000 x 600 x 420
PCF1008042SS6E	1000 x 800 x 420
PCF1206042SS6E	1200 x 600 x 420
PCF1208042SS6E	1200 x 800 x 420

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

**Stainless Steel**

**PCF Galvanized Mounting Plate**

Standard Product

Part no	Dimension (H x W mm)
PCF3025	300 x 250
<b>PCF3030</b>	300 x 300
<b>PCF4030</b>	400 x 300
<b>PCF4040</b>	400 x 400
PCF4060	400 x 600
<b>PCF5040</b>	500 x 400
<b>PCF5050</b>	500 x 500
PCF6040	600 x 400
<b>PCF6050</b>	600 x 500
<b>PCF6060</b>	600 x 600
PCF6080	600 x 800
PCF7060	700 x 600
<b>PCF8060</b>	800 x 600
PCF10060	1000 x 600
<b>PCF10080</b>	1000 x 800
PCF12060	1200 x 600
PCF8080	800 x 800
PCF12080	1200 x 800

**PCF Rain-Proof Cover**



Standard Product

Part no	Dimension (H x W mm)
PCF2515TS	250 x 150
PCF3015TS	300 x 150
PCF4015TS	400 x 150
PCF3022TS	300 x 220
PCF4022TS	400 x 220
PCF5022TS	500 x 220
PCF6022TS	600 x 220
PCF8022TS	800 x 220
PCF4032TS	400 x 320
PCF5032TS	500 x 320
PCF6032TS	600 x 320
PCF8032TS	800 x 320
PCF6042TS	600 x 420
PCF8042TS	800 x 420

**PCF Accessories**

Standard Product

Part no	Description	Material
PCFLS	Triangular Stainless Steel Lock	Stainless Steel
PCFTPLS	3-Point Lock for 1000 and 1200 mm high models	Stainless Steel
PCFMB	Mounting Bracket Kits	Galvanized Steel
<b>PCFMBS</b>	Mounting Bracket Kits	Stainless Steel

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Stainless Steel

### INLINE™, Type 4X



#### Industry Standards

Mounting brackets required to meet UL/CSA external mounting requirements.

UL 508A Listed; Type 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 4, 4X, 12  
 CSA File No. 42186: Type 4, 4X, 12  
 IEC 60529, IP66

#### Application

Aesthetic styling, flush latches and an attractive, brushed finish make INLINE™ Enclosures an excellent choice when style and functionality are important. INLINE Enclosures have an outward formed body flange to prevent contaminants from entering the enclosure and are available in three cover styles: hinged window door, hinged solid door and solid screw cover.

#### Specifications

- 1-mm thick covers and doors and 1.5-mm thick bodies; Type 304 or 316L stainless steel
- Seams continuously welded and ground smooth
- External formed body flange trough
- Large perimeter body opening
- Fastening holes in back of body for direct mounting or optional external mounting brackets
- Seamless foam-in-place gasket
- M6 bonding provision on cover, M6 ground stud in body
- Furnished hardware kit includes panel mounting screws, grounding hardware and sealing washers for wall-mounting holes

#### INLINE Screw-Cover Enclosures

- Captivated Type 316 stainless steel cover screws with sealing bushings made of a durable composite material
- Integral compression stops maintain optimal gasket compression

#### Finish

Cover and body have smooth #4 brushed finish.

#### Modification and Customization

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**Stainless Steel**

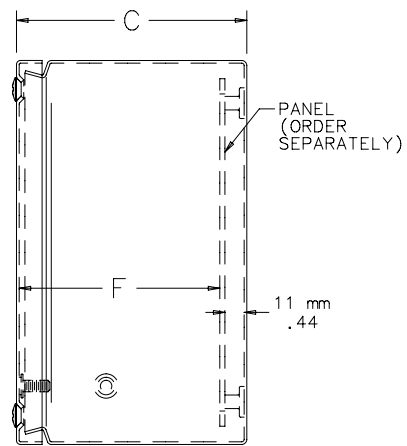
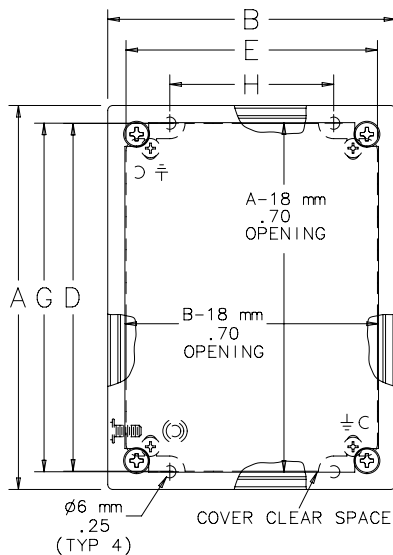
Standard Product **Screw-Cover**

Part no	AxBxC in./mm	Stainless Steel Type	Steel Panel	Conductive Panel	Panel Size D x E mm/in.	Mounting G x H mm/in.	F mm/in.
<b>LSC151512SS</b>	5.91 x 5.91 x 4.72 150 x 150 x 120	304	LP1515	LP1515G	131 x 131 5.16 x 5.16	132 x 85 5.18 x 3.36	105 4.13
LSC151512SS6	5.91 x 5.91 x 4.72 150 x 150 x 120	316L	LP1515	LP1515G	131 x 131 5.16 x 5.16	132 x 85 5.18 x 3.36	105 4.13
LSC201512SS	7.87 x 5.91 x 4.72 200 x 150 x 120	304	LP2015	LP2015G	181 x 131 7.13 x 5.16	182 x 85 7.15 x 3.35	105 4.13
<b>LSC201512SS6</b>	7.87 x 5.91 x 4.72 200 x 150 x 120	316L	LP2015	LP2015G	181 x 131 7.13 x 5.16	182 x 85 7.15 x 3.35	105 4.13
LSC252015SS	9.84 x 7.87 x 5.91 250 x 200 x 150	304	LP2520	LP2520G	231 x 181 9.09 x 7.13	232 x 135 9.12 x 5.33	135 5.31
<b>LSC252015SS6</b>	9.84 x 7.87 x 5.91 250 x 200 x 150	316L	LP2520	LP2520G	231 x 181 9.09 x 7.13	232 x 135 9.12 x 5.33	135 5.31
LSC302515SS	11.81 x 9.84 x 5.91 300 x 250 x 150	304	LP3025	LP3025G	281 x 231 11.06 x 9.09	281 x 185 11.08 x 7.30	135 5.31
LSC302515SS6	11.81 x 9.84 x 5.91 300 x 250 x 150	316L	LP3025	LP3025G	281 x 231 11.06 x 9.09	281 x 185 11.08 x 7.30	135 5.31
LSC353020SS	13.78 x 11.81 x 7.87 350 x 300 x 200	304	LP3530	LP3530G	331 x 281 13.03 x 11.06	331 x 235 13.05 x 9.27	185 7.28
LSC353020SS6	13.78 x 11.81 x 7.87 350 x 300 x 200	316L	LP3530	LP3530G	331 x 281 13.03 x 11.06	331 x 235 13.05 x 9.27	185 7.28

Purchase panels separately.

Catalog numbers ending in 6E are Type 316L stainless steel.

INLINE® Stainless Steel Screw Cover Enclosure



11C59187

- NOTE:
1. Panels are 2.7mm (12 gauge) steel or conductive steel.
  2. Panel screws are M5-0.8 pan head.
  3. Rear mounting holes will accommodate M6-1.0 or 1/4-20 UNC mounting screws (supplied by customer).

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Hazardous Location

### ZONEX™ ATEX- and IECEx-Certified, Type 4X, Screw Cover



#### Application

ZONEX™ Enclosures are designed and certified to meet ATEX Directive 94/9/EC and IECEx standard for increased safety in housing electrical components in Zone 1 and Zone 2 applications.

**Hoffman's ATEX Ex e enclosures are not intended for use in explosion-proof or flame-proof applications.**

#### Features

- 6-mm brass internal/external bonding provision
- 1-piece continuous gasket on door; Type 316 stainless steel cover screws
- Internal weldnuts for panel or DIN rail mounting
- Hardware for panel and bonding provisions included
- Operating temperature range: -40 C to +70 C standard polyurethane gasket; -55 C to +180 C optional silicone gasket

#### Specifications

- Fabricated from Type 316 stainless steel
- Full-width welded-on top and bottom wall-mounting brackets
- Increased safety: Ex e. ATEX and IECEx certified

#### Finish

#4 brushed finish on external surfaces

#### Accessories

Panels

#### Notes

- Intrinsically safe terminal blocks can be installed in populated nonstandard enclosures
- IECEx populated enclosures require IECEx-certified components specifically listed in Certification (see IECEx SIR 09.0100 for more detail)

#### Modification and Customization

Hoffman excels at modifying and customizing products to your specifications. Hoffman offers a ZONEX-specific modification program with certification. Contact your local Hoffman sales office or distributor for complete information.

- Material changes: Type 304 stainless steel, painted mild steel or aluminum
- Gasket changes: High-temperature silicone gasket
- Holes and cutouts
- Paint
- DIN rails
- Ground bars
- Terminal block installation and marking
- Tagging

#### Industry Standards

##### ATEX Directive 94/9/EC ATEX

Sira 09ATEX3224U  
Ex e IIC Gb  
Ex tb IIIC Db IP 66  
EN60079-0:2009  
EN60079-7:2007  
EN61241-0:2006  
EN61241-1:2004

##### IECEx

IECEx SIR 09.0099U  
Ex e IIC Gb  
Ex tb IIIC Db IP 66  
IEC 60079-0:2007-2010  
IEC 60079-7:2006-2007  
IEC 61241-0:2004  
IEC 61241-1:2004

Type 4, 4X, 12; File No. E61997  
cUL C22.2 No. 94 Listed; Type 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 4, 4X, 12  
IEC 60529, IP66



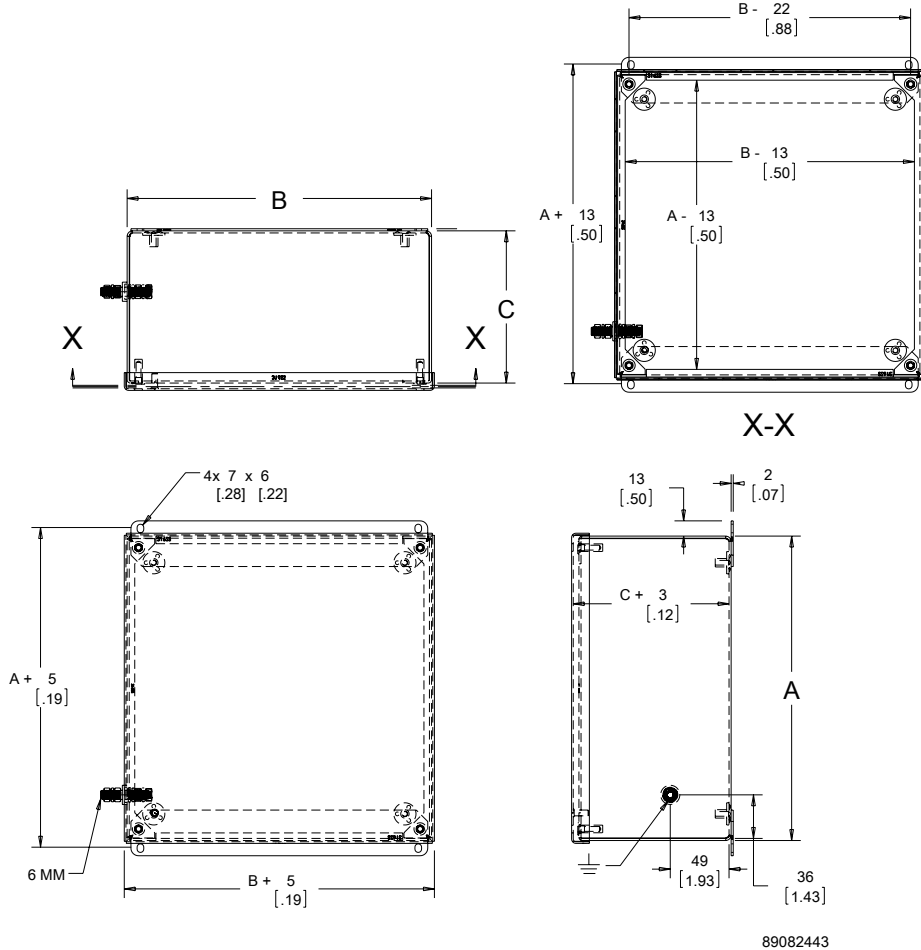
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Hazardous Location

Standard Product

Part no	AxBxC mm	AxBxC in.	Optional Panel	Panel Dimensions mm	Panel Dimensions in.
EXE443SS6	102 x 102 x 76	4.00 x 4.00 x 3.00	A4P4G	73 x 73	2.88 x 2.88
EXE664SS6	152 x 152 x 102	6.00 x 6.00 x 4.00	A6P6G	124 x 124	4.88 x 4.88
EXE774SS6	178 x 178 x 102	7.00 x 7.00 x 4.00	A7P7G	149 x 149	5.88 x 5.88
EXE965SS6	216 x 146 x 127	8.50 x 5.75 x 5.00	A9P6G	187 x 118	7.38 x 4.63
EXE1010SS6	254 x 254 x 127	10.00 x 10.00 x 5.00	A10P10G	226 x 226	8.88 x 8.88

AxBxC dimensions for EXE965SS6 are nominal.



### ATEX Directive and Classification System

Since 2003, manufacturers across the European Union (EU) have been obliged to comply with strict new EU directives governing safety in explosive atmospheres. Called ATEX (from the French ATmosphères EXplosives), ATEX Directive 94/9/EC has an impact not only on European manufacturers, but also on non-European makers of industrial equipment wishing to sell in Europe.

Two of the most common classification systems for hazardous locations are the NEC Division Classification system and the Zone Classification system used by the European Union (EU) and the International Electrotechnical Commission (IEC).

Article 500 of the NEC also classifies hazardous locations according to the properties of the flammable vapors, liquids or gases, or according to the combustible dusts or fibers that may be present and the likelihood that a flammable or combustible concentration or quantity is present. Articles 505 and 506 of the NEC refer to zone classifications. Refer to the Technical Information section of the Specifier's Guide for specific definitions and additional information.

**Hoffman's ATEX enclosures are not intended for use in explosion-proof or flame-proof (Ex d) applications.**

#### NEC Divisions and IEC Zones (Not Interchangeable)

Frequency of Hazard Occurrence	NEC Division Classification System	EU and IEC Zone Classification System
Continuous Hazard	Division 1	Zone 0
Intermittent, Periodic Hazards	Division 1	Zone 1
Abnormal Condition Hazard	Division 2	Zone 2

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**Hazardous Location**

**ZONEX™ ATEX- and IECEx-Certified, Type 4X, Hinged Cover**



**Application**

ZONEX™ Enclosures are designed and certified to meet ATEX Directive 94/9/EC as well as IECEx and AEx standards for increased safety in housing electrical components in Zone 1 and Zone 2 applications.

**Hoffman's ATEX Ex e enclosures are not intended for use in explosion-proof or flame-proof applications.**

**Features**

- 10-mm brass internal/external bonding provision
- Type 304 stainless steel quarter-turn latch with slotted insert
- Large 3-mm-thick, flat gasketed gland plate(s)
- Continuous seal gasket on door and gland plate(s)
- Hardware for panel and bonding provisions included
- Operating temperature range: -40 C to +70 C standard polyurethane gasket; -55 C to +60 C for AEX e applications

**Specifications**

- Fabricated from Type 316 stainless steel
- 3-mm thick individual welded-on top and bottom wall-mounting brackets
- Increased safety: Ex e, IECEx e and AEX e certified

**Finish**

#4 brushed finish

**Accessories**

- Panels
- Security inserts and handles
- Gland Plates
- Stopping plugs
- Vent/drains
- Hazardous Location Thermostat
- Hazardous Location Heater

**Notes**

- Intrinsically safe terminal blocks can be installed in populated nonstandard enclosures
- IECEx populated enclosures require IECEx-certified components specifically listed in Certification (see IECEx SIR 09.0100 for more detail)

**Modification and Customization**

Hoffman excels at modifying and customizing products to your specifications. Hoffman offers a ZONEX-specific modification program with ATEX certification. Contact your local Hoffman sales office or distributor for complete information.

- Material changes: Type 304 stainless steel, painted mild steel or aluminum
- Gasket changes: High-temperature silicone gasket
- Side-mount brackets available
- Holes and cutouts
- Paint
- DIN rails
- Ground bars
- Terminal block installation and marking
- Tagging
- Accessory installations: drain/breathers and stopping plugs

**Industry Standards**

**ATEX Directive 94/9/EC**

**ATEX**

- Sira 09ATEX3224U
- Ex e IIC Gb
- Ex tb IIIC Db IP 66
- EN60079-0:2009
- EN60079-7:2007
- EN61241-0:2006
- EN61241-1:2004

**IECEx**

- IECEx SIR 09.0099U
- Ex e IIC Gb
- Ex tb IIIC Db IP 66
- IEC 60079-0:2007-2010
- IEC 60079-7:2006-2007
- IEC 61241-0:2004
- IEC 61241-1:2004

**AEx/Ex**

UL File E67456 Class I, Zone I AEx e IIC Tamb -20C to +60C Ex e IIC U Tamb -20C to +60C
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Type 4, 4X, 12; File No. E61997 cUL C22.2 No. 94 Listed; Type 4, 4X, 12; File No. E61997
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- NEMA/EEMAC Type 4, 4X, 12
- IEC 60529, IP66



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

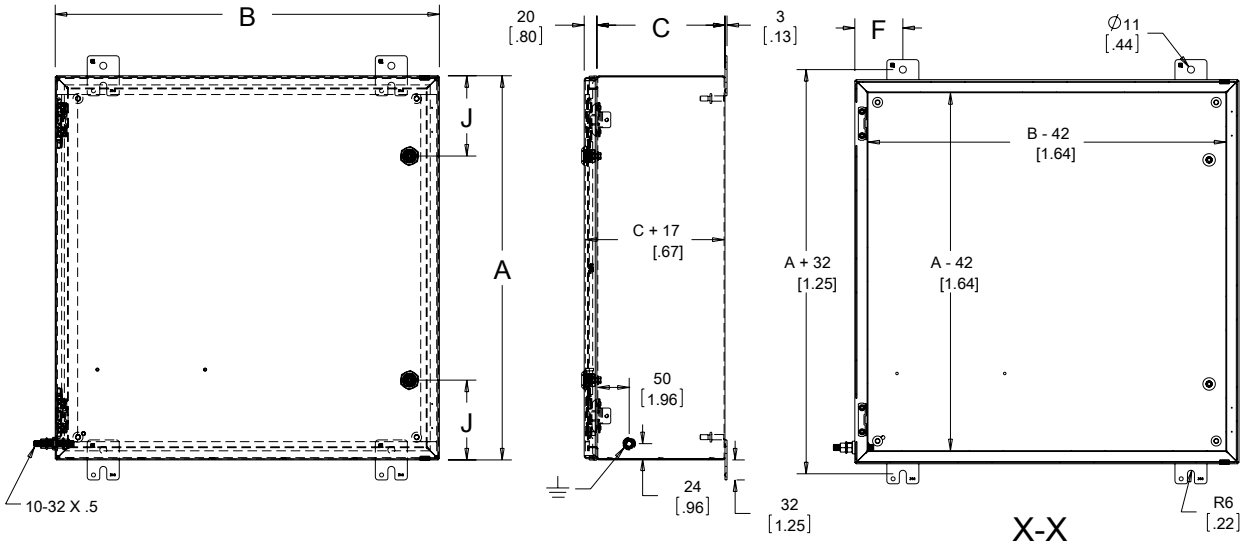
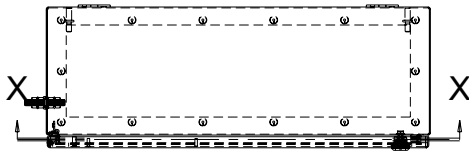
**Hazardous Location**

Standard Product

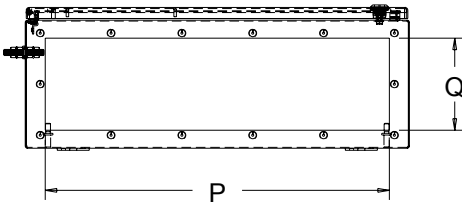
Part no	AxBxC mm/in.	F mm/in.	J mm/in.	P mm/in.	Q mm/in.	No. of latches	Optional Panel
EXE12126SS61	305 x 305 x 152 12.00 x 12.00 x 6.00	32 1.25	152 6.00	241 9.50	95 3.75	1	CP1212G
EXE12128SS61	305 x 305 x 203 12.00 x 12.00 x 8.00	1.25 1.25	152 6.00	241 9.50	146 5.75	1	CP1212G
EXE16126SS61	406 x 305 x 152 16.00 x 12.00 x 6.00	76 3.00	203 8.00	241 9.50	95 3.75	1	CP1612G
EXE16128SS61	406 x 305 x 203 16.00 x 12.00 x 8.00	76 3.00	203 8.00	241 9.50	146 5.75	1	CP1612G
EXE16166SS61	406 x 406 x 152 16.00 x 16.00 x 6.00	76 3.00	203 8.00	343 13.50	95 3.75	1	CP1616G
EXE16168SS61	406 x 406 x 203 16.00 x 16.00 x 8.00	76 3.00	203 8.00	343 13.50	146 5.75	1	CP1616G
EXE20166SS61	508 x 406 x 152 20.00 x 16.00 x 6.00	76 3.00	254 10.00	343 13.50	95 3.75	1	CP2016G
EXE20168SS61	508 x 406 x 203 20.00 x 16.00 x 8.00	76 3.00	254 10.00	343 13.50	146 5.75	1	CP2016G
EXE20208SS61	508 x 508 x 203 20.00 x 20.00 x 8.00	76 3.00	254 10.00	445 17.50	146 5.75	1	CP2020G
EXE24208SS61	610 x 508 x 203 24.00 x 20.00 x 8.00	76 3.00	305 12.00	445 17.50	146 5.75	1	CP2420G
EXE24248SS61	610 x 610 x 203 24.00 x 24.00 x 8.00	76 3.00	305 12.00	546 21.50	146 5.75	2	CP2424G
EXE242412SS61	610 x 610 x 305 24.00 x 24.00 x 12.00	76 3.00	305 12.00	546 21.50	178 7.00	2	CP2424G
EXE30208SS61	762 x 508 x 203 30.00 x 20.00 x 8.00	76 3.00	381 15.00	445 17.50	146 5.75	2	CP3020G
EXE30248SS61	762 x 610 x 203 30.00 x 24.00 x 8.00	76 3.00	381 15.00	546 21.50	146 5.75	2	CP3024G
EXE303012SS61	762 x 762 x 305 30.00 x 30.00 x 12.00	76 3.00	381 15.00	546 21.50	178 7.00	2	CP3030G
EXE36248SS61	914 x 610 x 203 36.00 x 24.00 x 8.00	76 3.00	457 18.00	546 21.50	146 5.75	2	CP3624G

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

**Hazardous Location**



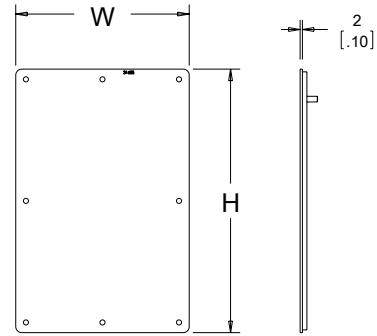
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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**Hazardous Location**

**Gland Plate**



89083184

**Standard Product Gland Plate**

Part no	Description	Cutout Size mm/in.	W x H mm/in.
GPS126SS6	Gland plate for 12-in. x 6-in. side with ground	191 x 95 7.50 x 3.75	228 x 133 8.98 x 5.23
GPS128SS6	Gland plate for 12-in. x 8-in. side with ground	191 x 146 7.50 x 5.75	228 x 184 8.98 x 7.23
GP126SS6	Gland plate for 12-in. x 6-in. surface without ground	241 x 95 9.50 x 3.75	279 x 133 10.98 x 5.23
GP128SS6	Gland plate for 12-in. x 8-in. surface without ground	241 x 146 9.50 x 5.75	279 x 184 10.98 x 7.23
GP166SS6	Gland plate for 16-in. x 6-in. surface without ground	343 x 95 13.50 x 3.75	380 x 133 14.98 x 5.23
GP168SS6	Gland plate for 16-in. x 8-in. surface without ground	343 x 146 13.50 x 5.75	380 x 184 14.98 x 7.23
GP206SS6	Gland plate for 20-in. x 6-in. surface without ground	445 x 95 17.50 x 3.75	482 x 133 18.98 x 5.23
GP208SS6	Gland plate for 20-in. x 8-in. surface without ground	446 x 146 17.50 x 5.75	482 x 184 18.98 x 5.23
GP248SS6	Gland plate for 24-in. x 8-in. surface without ground	546 x 146 21.50 x 5.75	584 x 184 22.98 x 7.23
GP2412SS6	Gland plate for 24-in. x 12-in. surface without ground	246 x 178 21.50 x 7.00	584 x 215 22.98 x 8.48

GP2412SS6 is also used on 30-in. wide, 12-in. deep standard enclosure bottom.

**ATEX Directive and Classification System**

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Two of the most common classification systems for hazardous locations are the NEC Division Classification system and the Zone Classification system used by the European Union (EU) and the International Electrotechnical Commission (IEC).

Article 500 of the NEC also classifies hazardous locations according to the properties of the flammable vapors, liquids or gases, or according to the combustible dusts or fibers that may be present and the likelihood that a flammable or combustible concentration or quantity is present. Articles 505 and 506 of the NEC refer to zone classifications. Refer to the Technical Information section of the Specifier's Guide for specific definitions and additional information.

**Hoffman's ATEX enclosures are not intended for use in explosion-proof or flame-proof (Ex d) applications.**

**NEC Divisions and IEC Zones (Not Interchangeable)**

Frequency of Hazard Occurrence	NEC Division Classification System	EU and IEC Zone Classification System
Continuous Hazard	Division 1	Zone 0
Intermittent, Periodic Hazards	Division 1	Zone 1
Abnormal Condition Hazard	Division 2	Zone 2

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Fiberglass

### Continuous Hinge, Type 4X



#### Application

The efficient design and simple construction of these enclosures make them durable in corrosive environments, yet aesthetically pleasing. Corner latches provide unobstructed access. The continuous hinge provides a secure seal, and double latching creates added security.

#### Specifications

- Compression-molded fiberglass has outstanding chemical- and temperature-resistance qualities and exhibits excellent weatherability and physical properties
- Fiberglass is easily punched, drilled, filed or sawed
- Gasket assures water-tight and dust-tight seal
- Polyester mounting brackets and stainless steel attachment screws are provided with each enclosure
- Scratch-resistant polycarbonate windows are permanently bonded in place
- Molded-in-place threaded brass inserts and plated steel screws are provided for mounting optional panels and terminal block kits
- Removable hinged cover attached to body with Type 316 stainless steel hinge pin
- Screw-cover enclosures are secured with two captivated Type 316 stainless steel slotted cover screws
- Enclosures with quick-release latches have corrosion-resistant polyester latches located in corners that provide unobstructed access to enclosure
- Hinge pin and bail are corrosion-resistant Type 316 stainless steel
- Padlock provisions included in each latch

#### Finish

Fiberglass material is light-gray inside and out. Optional steel panels are painted white. Optional stainless steel, aluminum, conductive and composite panels are unpainted.

#### Modification and Customization

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

#### Industry Standards

Mounting brackets required to meet UL/CSA external mounting requirements.

UL 508A Listed; Type 4, 4X, 12, 13; File No. E61997  
 cUL Listed per CSA C22.2 No 94; Type 4, 4X, 12, 13; File No. E61997  
 Enclosure flammability evaluated per UL 508A  
 Window flammability evaluated per UL 508A

NEMA/EEMAC Type 4, 4X, 12, 13  
 CSA File No. 42186: Type 4, 4X, 12, 13  
 IEC 60529, IP66

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



Fiberglass

Standard Product **Solid Cover**

Part no	AxBxC in./mm	Type	Steel Panel	Alum. Panel	Panel Size D x E in./mm	Mounting G x H in./mm	Overall L x W in./mm	F in./mm	J in./mm	K in./mm	O in./mm	P in./mm	Q in./mm	T in./mm	U in./mm
<b>A664CHSCFG</b>	6.00 x 6.00 x 4.00	Screw Cover	A6P6	A6P6AL	4.88 x 4.88	6.94 x 4.00	6.50 x 6.50	3.45	3.25	1.00	4.25	4.25	5.64	0.12	5.64
	152 x 152 x 102				124 x 124	176 x 102	165 x 165	88	83	25	108	108	143	3	143
	6.00 x 6.00 x 4.00	Quick Release	A6P6	A6P6AL	4.88 x 4.88	6.94 x 4.00	6.50 x 6.50	3.45	3.25	1.00	4.25	4.25	5.64	0.12	5.64
<b>A864CHSCFG</b>	8.00 x 6.00 x 4.00	Screw Cover	A8P6	A8P6AL	6.75 x 4.88	8.94 x 4.00	8.50 x 6.50	3.45	3.25	1.00	4.25	6.25	7.64	0.12	5.64
	203 x 152 x 102				171 x 124	227 x 102	216 x 165	88	83	25	108	159	194	3	143
	8.00 x 6.00 x 4.00	Quick Release	A8P6	A8P6AL	6.75 x 4.88	8.94 x 4.00	8.50 x 6.50	3.45	3.25	1.00	4.25	6.25	7.64	0.12	5.64
<b>A1086CHSCFG</b>	10.00 x 8.00 x 6.00	Screw Cover	A10P8	A10P8AL	8.75 x 6.88	10.94 x 6.00	10.50 x 8.50	5.45	4.94	1.31	6.25	8.25	9.61	0.12	7.61
	254 x 203 x 152				222 x 175	278 x 152	267 x 216	138	125	33	159	210	244	3	193
	10.00 x 8.00 x 6.00	Quick Release	A10P8	A10P8AL	8.75 x 6.88	10.94 x 6.00	10.50 x 8.50	5.45	4.94	1.31	6.25	8.25	9.61	0.12	7.61
<b>A12106CHSCFG</b>	12.00 x 10.00 x 6.00	Screw Cover	A12P10	A12P10AL	10.75 x 8.88	12.94 x 8.00	12.50 x 10.50	5.45	4.69	1.56	8.25	10.25	11.58	0.12	9.58
	305 x 254 x 152				273 x 226	329 x 203	318 x 267	138	119	40	210	260	294	3	243
	12.00 x 10.00 x 6.00	Quick Release	A12P10	A12P10AL	10.75 x 8.88	12.94 x 8.00	12.50 x 10.50	5.45	4.69	1.56	8.25	10.25	11.58	0.12	9.58
<b>A14128CHSCFG</b>	14.00 x 12.00 x 8.00	Screw Cover	A14P12	A14P12AL	12.75 x 10.88	14.94 x 10.00	14.55 x 12.55	7.45	6.50	1.81	10.25	12.25	13.59	0.15	11.59
	356 x 305 x 203				324 x 276	379 x 254	370 x 319	189	165	46	260	311	345	4	294
	14.00 x 12.00 x 8.00	Quick Release	A14P12	A14P12AL	12.75 x 10.88	14.94 x 10.00	14.55 x 12.55	7.45	6.50	1.81	10.25	12.25	13.59	0.15	11.59
<b>A16148CHSCFG</b>	16.00 x 14.00 x 8.00	Screw Cover	A16P14	A16P14AL	14.75 x 12.88	16.94 x 12.00	16.55 x 14.55	7.45	6.23	2.08	12.25	14.25	15.56	0.15	13.56
	406 x 356 x 203				375 x 327	430 x 305	420 x 370	189	158	53	311	362	395	4	344
	16.00 x 14.00 x 8.00	Quick Release	A16P14	A16P14AL	14.75 x 12.88	16.94 x 12.00	16.55 x 14.55	7.45	6.23	2.08	12.25	14.25	15.56	0.15	13.56
<b>A181610CHSCFG</b>	18.00 x 16.00 x 10.00	Screw Cover	A18P16	A18P16AL	16.75 x 14.88	18.94 x 14.00	18.58 x 16.58	9.45	7.66	2.66	14.25	16.25	17.53	0.16	15.53
	457 x 406 x 254				425 x 378	481 x 356	472 x 421	240	195	68	362	413	445	4	394
	18.00 x 16.00 x 10.00	Quick Release	A18P16	A18P16AL	16.75 x 14.88	18.94 x 14.00	18.58 x 16.58	9.45	7.66	2.66	14.25	16.25	17.53	0.16	15.53
457 x 406 x 254				425 x 378	481 x 356	472 x 421	240	195	68	362	413	445	4	394	

Purchase panels separately. Optional stainless steel, aluminum, conductive and composite material panels available for most sizes.

Standard Product **Window Cover**

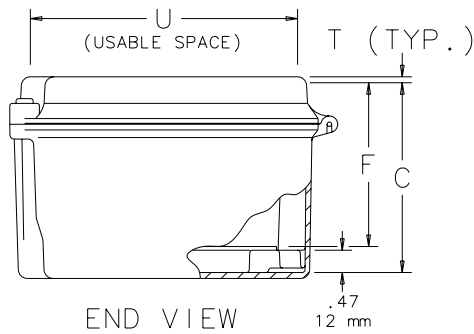
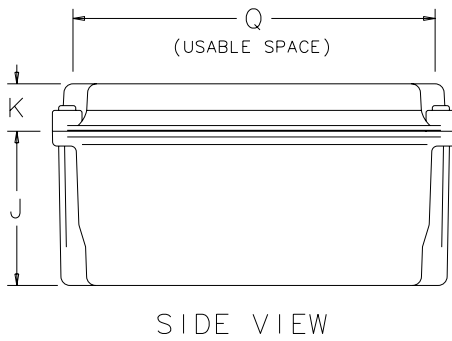
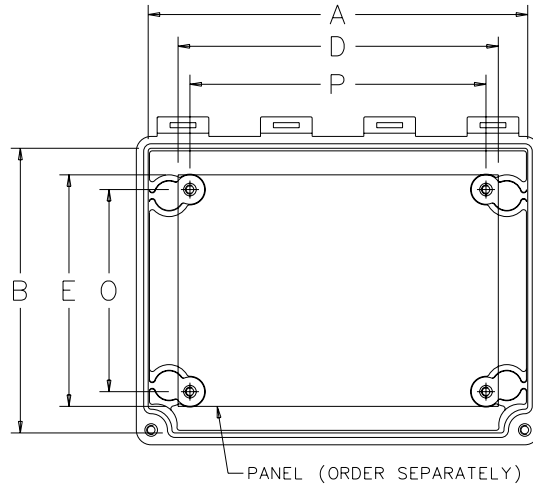
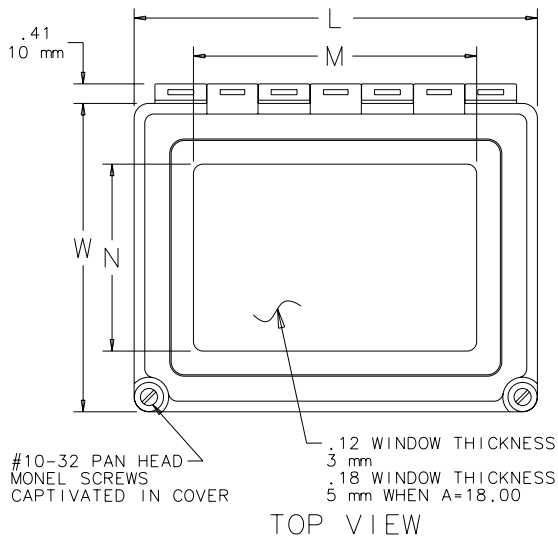
Part no	AxBxC in./mm	Type	Steel Panel	Alum. Panel	Panel Size D x E in./mm	Mounting G x H in./mm	Overall L x W in./mm	F in./mm	J in./mm	K in./mm	M in./mm	N in./mm	O in./mm	P in./mm	Q in./mm	T in./mm	U in./mm
<b>A664CHSCFGW</b>	6.00 x 6.00 x 4.00	Screw Cover	A6P6	A6P6AL	4.88 x 4.88	6.94 x 4.00	6.50 x 6.50	3.45	3.25	1.00	4.25	4.25	4.25	4.25	5.64	0.12	5.64
	152 x 152 x 102				124 x 124	176 x 102	165 x 165	88	83	25	108	108	108	108	143	3	143
	6.00 x 6.00 x 4.00	Quick Release	A6P6	A6P6AL	4.88 x 4.88	6.94 x 4.00	6.50 x 6.50	3.45	3.25	1.00	4.25	4.25	4.25	4.25	5.64	0.12	5.64
<b>A864CHSCFGW</b>	8.00 x 6.00 x 4.00	Screw Cover	A8P6	A8P6AL	6.75 x 4.88	8.94 x 4.00	8.50 x 6.50	3.45	3.25	1.00	6.25	4.25	4.25	6.25	7.64	0.12	5.64
	203 x 152 x 102				171 x 124	227 x 102	216 x 165	88	83	25	159	108	108	159	194	3	143
	8.00 x 6.00 x 4.00	Quick Release	A8P6	A8P6AL	6.75 x 4.88	8.94 x 4.00	8.50 x 6.50	3.45	3.25	1.00	6.25	4.25	4.25	6.25	7.64	0.12	5.64
<b>A1086CHSCFGW</b>	10.00 x 8.00 x 6.00	Screw Cover	A10P8	A10P8AL	8.75 x 6.88	10.94 x 6.00	10.50 x 8.50	5.45	4.94	1.31	8.25	6.25	6.25	8.25	9.61	0.12	7.61
	254 x 203 x 152				222 x 175	278 x 152	267 x 216	138	125	33	210	159	159	210	244	3	193
	10.00 x 8.00 x 6.00	Quick Release	A10P8	A10P8AL	8.75 x 6.88	10.94 x 6.00	10.50 x 8.50	5.45	4.94	1.31	8.25	6.25	6.25	8.25	9.61	0.12	7.61
<b>A12106CHSCFGW</b>	12.00 x 10.00 x 6.00	Screw Cover	A12P10	A12P10AL	10.75 x 8.88	12.94 x 8.00	12.50 x 10.50	5.45	4.69	1.56	10.25	8.25	8.25	10.25	11.58	0.12	9.58
	305 x 254 x 152				273 x 226	329 x 203	318 x 267	138	119	40	260	210	210	260	294	3	243
	12.00 x 10.00 x 6.00	Quick Release	A12P10	A12P10AL	10.75 x 8.88	12.94 x 8.00	12.50 x 10.50	5.45	4.69	1.56	10.25	8.25	8.25	10.25	11.58	0.12	9.58
<b>A14128CHSCFGW</b>	14.00 x 12.00 x 8.00	Screw Cover	A14P12	A14P12AL	12.75 x 10.88	14.94 x 10.00	14.55 x 12.55	7.45	6.50	1.81	12.25	10.25	10.25	12.25	13.59	0.15	11.59
	356 x 305 x 203				324 x 276	379 x 254	370 x 319	189	165	46	311	260	260	311	345	4	294
	14.00 x 12.00 x 8.00	Quick Release	A14P12	A14P12AL	12.75 x 10.88	14.94 x 10.00	14.55 x 12.55	7.45	6.50	1.81	12.25	10.25	10.25	12.25	13.59	0.15	11.59
<b>A16148CHSCFGW</b>	16.00 x 14.00 x 8.00	Screw Cover	A16P14	A16P14AL	14.75 x 12.88	16.94 x 12.00	16.55 x 14.55	7.45	6.23	2.08	14.25	12.25	12.25	14.25	15.56	0.15	13.56
	406 x 356 x 203				375 x 327	430 x 305	420 x 370	189	158	53	362	311	311	362	395	4	344
	16.00 x 14.00 x 8.00	Quick Release	A16P14	A16P14AL	14.75 x 12.88	16.94 x 12.00	16.55 x 14.55	7.45	6.23	2.08	14.25	12.25	12.25	14.25	15.56	0.15	13.56
<b>A181610CHSCFGW</b>	18.00 x 16.00 x 10.00	Screw Cover	A18P16	A18P16AL	16.75 x 14.88	18.94 x 14.00	18.58 x 16.58	9.45	7.66	2.66	16.25	14.25	14.25	16.25	17.53	0.16	15.53
	457 x 406 x 254				425 x 378	481 x 356	472 x 421	240	195	68	413	362	362	413	445	4	394
	18.00 x 16.00 x 10.00	Quick Release	A18P16	A18P16AL	16.75 x 14.88	18.94 x 14.00	18.58 x 16.58	9.45	7.66	2.66	16.25	14.25	14.25	16.25	17.53	0.16	15.53
457 x 406 x 254				425 x 378	481 x 356	472 x 421	240	195	68	413	362	362	413	445	4	394	

Purchase panels separately. Optional stainless steel, aluminum, conductive and composite material panels available for most sizes.

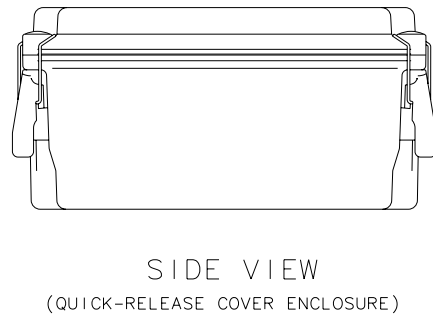
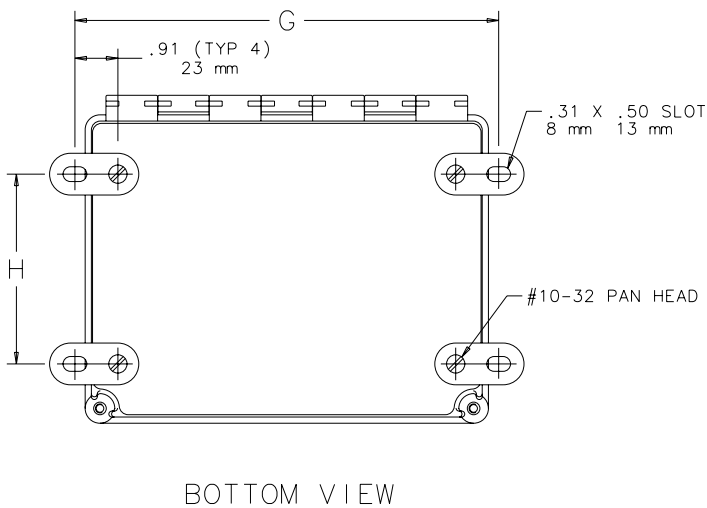
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

Fiberglass

Hinged Window Cover Type 4X



NOTE: 1. Panel screws have #10-32 threads.  
2. Mounting brackets are .16 (4mm) thick.



C2567-C

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### Quick-Release Latch Kit



### Fiberglass

Two fiberglass-reinforced gray polyester latches with 316L stainless steel bail and screw-hole plugs are included in each package. Supplied with Continuous Hinge, Type 4X enclosures and available for Fiberglass Hinged Cover WiFi Enclosures, Type 4X. Kit converts screw-cover enclosures to quick-release without modification. No tools needed to install. Padlocking provision is included.

Part no	Description	Kit Qty.
<b>AL48</b>	Quick-Release Latch Kit	2

### Fiberglass Mounting Bracket Kit



Bracket is molded from fiberglass reinforced polyester. Kit includes four brackets, hardware and installation instructions. Mounting hole dimensions with mounting brackets installed are: [G + 2.50 (64 mm)] x [H + .50 (13 mm)]

See *Screw- or Hinged-Cover with Quick-Release Latch, Type 4X tables for G and H dimensions.*

Part no
<b>A50MFKR</b>

### Swing-Out Panel Kit



The Swing-Out Panel Kit provides an attractive, cost-effective solution for installing front-mounted panels in Continuous Hinge, Type 4X, and Overlapping Cover, Type 4X enclosures. No drilling required.

Part no	Fits Enclosure	Fits Enclosure
	A x B (in.)	A x B (mm)
<b>A6SPK6C</b>	6.00 x 6.00	152 x 152
<b>A8SPK6C</b>	8.00 x 6.00	203 x 152
<b>A10SPK8C</b>	10.00 x 8.00	254 x 203
<b>A12SPK10C</b>	12.00 x 10.00	305 x 254
<b>A14SPK12C</b>	14.00 x 12.00	356 x 305
<b>A16SPK14C</b>	16.00 x 14.00	406 x 356
<b>A18SPK16C</b>	18.00 x 16.00	457 x 406

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



## Polycarbonate

### QLINE™ D, Type 4X



#### Application

QLINE™ D polycarbonate enclosures have contoured bodies with flush cover screws for an attractive, contemporary appearance. Tough as well as stylish, they are functional in corrosive environments and can withstand occasional submersion.

#### Specifications

- Body is impact-resistant polycarbonate
- Opaque and clear covers are impact-resistant polycarbonate
- Polycarbonate material is easily punched, drilled, filed or sawed
- Straight side walls permit ganging of multiple enclosures
- Cross-point captivated cover screws are stainless steel
- Mounting holes molded directly adjacent to cover screws
- Cover screws protected by removable caps that are aesthetic and provide tamper resistance
- Molded internal pads for mounting optional panels, rails and other components
- Panel mounting feature on both body and cover
- Seamless foam-in-place gasket assures water-tight and dust-tight seal
- Screws provided for mounting optional panel
- Material is halogen free

#### Finish

Polycarbonate enclosures are light-gray (RAL 7035) inside and out. Optional panels are plated steel.

#### Modification and Customization

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

#### Industry Standards

##### Polycarbonate Enclosure

UL 508A Listed; Type 4, 4X, 6, 12, 13; File No. E61997  
 cUL Listed per CSA C22.2 No 94; Type 4, 4X, 6, 12, 13; File No. E61997  
 Enclosure flammability evaluated per UL 508A

NEMA/EEMAC Type 4, 4X, 6, 12, 13  
 CSA File No. 42186: Type 4, 4X, 6, 12, 13  
 IEC 60529, IP67

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Polycarbonate

Standard Product

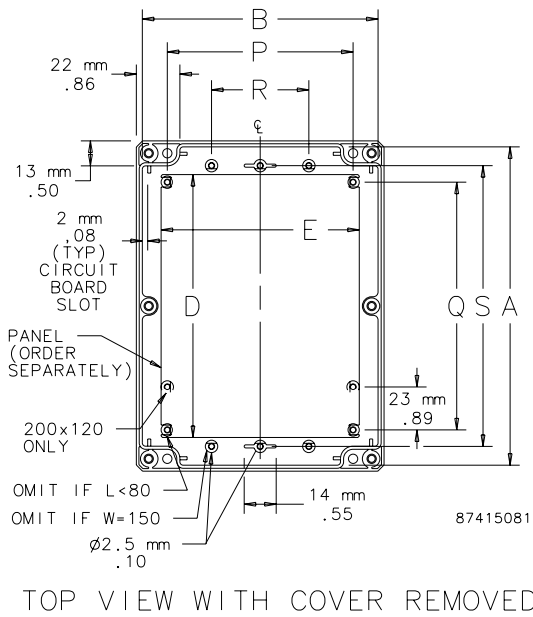
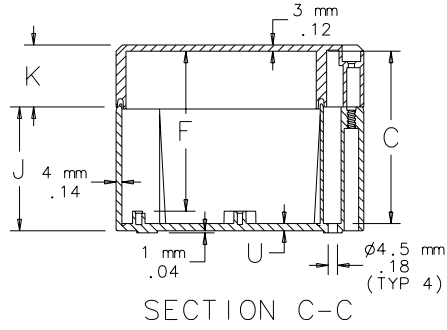
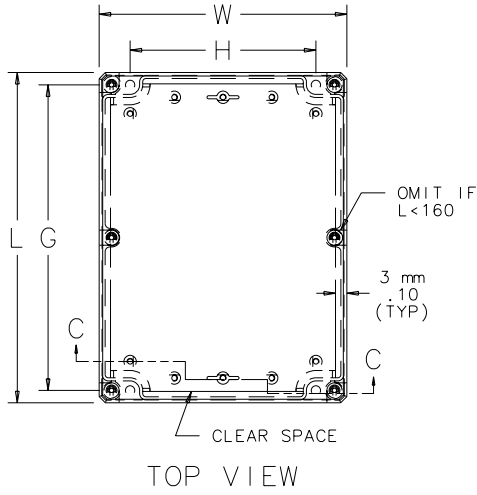
Part no	Ax B x C mm/in.	Cover Style	External Dimensions		Panel	Panel Size		Mounting						
			L x W mm/in.	mm/in.		D x E mm/in.	G x H mm/in.	F mm/in.	J mm/in.	K mm/in.	P mm/in.	Q mm/in.	R mm/in.	S mm/in.
<b>Q554PCD</b>	50 x 48 x 31	Opaque	55 x 53	—	—	43 x 41	28	25	10	16	—	—	—	2
	1.97 x 1.89 x 1.22		2.17 x 2.09	—	—	1.69 x 1.61	1.10	0.98	0.39	0.63	—	—	—	0.08
Q554PCDCC	50 x 48 x 31	Clear	55 x 53	—	—	43 x 41	28	25	10	16	—	—	2	
	1.97 x 1.89 x 1.22		2.17 x 2.09	—	—	1.69 x 1.61	1.10	0.98	0.39	0.63	—	—	0.08	
<b>Q886PCD</b>	76 x 74 x 49	Opaque	82 x 80	Q88PD	68 x 55	70 x 50	42	40	15	58	44	—	58	3
	2.96 x 2.89 x 1.93		3.23 x 3.15	Q88PD	2.68 x 2.17	2.76 x 1.97	1.65	1.57	0.59	2.28	1.73	—	2.28	0.12
Q886PCDCC	76 x 74 x 49	Clear	82 x 80	Q88PD	68 x 55	70 x 50	42	40	15	58	44	—	58	3
	2.99 x 2.91 x 1.93		3.23 x 3.15	Q88PD	2.68 x 2.17	2.76 x 1.97	1.65	1.57	0.59	2.28	1.73	—	2.28	0.12
Q1286PCD	114 x 74 x 49	Opaque	120 x 80	Q128PD	91 x 65	108 x 50	42	40	15	58	82	—	96	3
	4.49 x 2.91 x 1.93		4.72 x 3.15	Q128PD	3.58 x 2.56	4.25 x 1.97	1.65	1.57	0.59	2.28	3.23	—	3.78	0.12
Q1286PCDCC	114 x 74 x 49	Clear	120 x 80	Q128PD	91 x 65	108 x 50	42	40	15	58	82	—	96	3
	4.49 x 2.91 x 1.93		4.72 x 3.15	Q128PD	3.58 x 2.56	4.25 x 1.97	1.65	1.57	0.59	2.28	3.23	—	3.78	0.12
<b>Q1686PCD</b>	154 x 74 x 49	Opaque	160 x 80	Q168PD	131 x 65	148 x 50	42	40	15	58	122	—	136	3
	6.06 x 2.91 x 1.93		6.30 x 3.15	Q168PD	5.16 x 2.56	5.83 x 1.97	1.65	1.57	0.59	2.28	4.80	—	5.35	0.12
Q1686PCDCC	154 x 74 x 49	Clear	160 x 80	Q168PD	131 x 65	148 x 50	42	40	15	58	122	—	136	3
	6.06 x 2.91 x 1.93		6.30 x 3.15	Q168PD	5.16 x 2.56	5.83 x 1.97	1.65	1.57	0.59	2.28	4.80	—	5.35	0.12
<b>Q12126PCD</b>	116 x 114 x 49	Opaque	122 x 120	Q1212PD	105 x 93	110 x 90	42	40	15	98	84	—	98	3
	4.57 x 4.49 x 1.93		4.80 x 4.72	Q1212PD	4.13 x 3.66	4.33 x 3.54	1.65	1.57	0.59	3.86	3.31	—	3.86	0.12
Q12126PCDCC	116 x 114 x 49	Clear	122 x 120	Q1212PD	105 x 93	110 x 90	42	40	15	98	84	—	98	3
	4.57 x 4.49 x 1.93		4.80 x 4.72	Q1212PD	4.13 x 3.66	4.33 x 3.54	1.65	1.57	0.59	3.86	3.31	—	3.86	0.12
<b>Q20158PCD</b>	193 x 143 x 69	Opaque	200 x 150	Q2015PD	170 x 128	188 x 120	62	60	15	118	160	118	176	3
	7.60 x 5.63 x 2.72		7.87 x 5.91	Q2015PD	6.69 x 5.04	7.40 x 4.72	2.44	2.36	0.59	4.65	6.30	4.65	6.93	0.12
Q20158PCDCC	193 x 143 x 69	Clear	200 x 150	Q2015PD	170 x 128	188 x 120	62	60	15	118	160	118	176	3
	7.60 x 5.63 x 2.72		7.87 x 5.91	Q2015PD	6.69 x 5.04	7.40 x 4.72	2.44	2.36	0.59	4.65	6.30	4.65	6.93	0.12
Q889PCD	76 x 74 x 79	Opaque	82 x 80	Q88PD	68 x 55	70 x 50	72	70	15	58	44	37	58	3
	2.99 x 2.91 x 3.11		3.23 x 3.15	Q88PD	2.68 x 2.17	2.76 x 1.97	2.83	2.76	0.59	2.28	1.73	1.46	2.28	0.12
Q889PCDCC	76 x 74 x 79	Clear	82 x 80	Q88PD	68 x 55	70 x 50	72	70	15	58	44	37	58	3
	2.99 x 2.91 x 3.11		3.23 x 3.15	Q88PD	2.68 x 2.17	2.76 x 1.97	2.83	2.76	0.59	2.28	1.73	1.46	2.28	0.12
<b>Q1289PCD</b>	113 x 73 x 79	Opaque	120 x 80	Q128PD	91 x 65	108 x 50	72	70	15	58	82	—	96	3
	4.45 x 2.87 x 3.11		4.72 x 3.15	Q128PD	3.58 x 2.56	4.25 x 1.97	2.83	2.76	0.59	2.28	3.23	—	3.78	0.12
Q1289PCDCC	113 x 73 x 79	Clear	120 x 80	Q128PD	91 x 65	108 x 50	72	70	15	58	82	—	96	3
	4.45 x 2.87 x 3.11		4.72 x 3.15	Q128PD	3.58 x 2.56	4.25 x 1.97	2.83	2.76	0.59	2.28	3.23	—	3.78	0.12
<b>Q1689PCD</b>	153 x 73 x 79	Opaque	160 x 80	Q168PD	131 x 65	148 x 50	72	70	15	58	122	—	136	3
	6.02 x 2.87 x 3.11		6.30 x 3.15	Q168PD	5.16 x 2.56	5.83 x 1.97	2.83	2.76	0.59	2.28	4.80	—	5.35	0.12
Q1689PCDCC	153 x 73 x 79	Clear	160 x 80	Q168PD	131 x 65	148 x 50	72	70	15	58	122	—	136	3
	6.02 x 2.87 x 3.11		6.30 x 3.15	Q168PD	5.16 x 2.56	5.83 x 1.97	2.83	2.76	0.59	2.28	4.80	—	5.35	0.12
<b>Q12129PCD</b>	116 x 114 x 79	Opaque	122 x 120	Q1212PD	105 x 93	110 x 90	72	70	15	98	84	97	98	3
	4.57 x 4.49 x 3.11		4.80 x 4.72	Q1212PD	4.13 x 3.66	4.33 x 3.54	2.83	2.76	0.59	3.86	3.31	3.82	3.86	0.12
Q12129PCDCC	116 x 114 x 79	Clear	122 x 120	Q1212PD	105 x 93	110 x 90	72	70	15	98	84	97	98	3
	4.57 x 4.49 x 3.11		4.80 x 4.72	Q1212PD	4.13 x 3.66	4.33 x 3.54	2.83	2.76	0.59	3.86	3.31	3.82	3.86	0.12
Q20129PCD	193 x 113 x 79	Opaque	200 x 120	Q2012PD	170 x 100	188 x 90	72	70	15	90	160	40	176	3
	7.60 x 4.45 x 3.11		7.87 x 4.72	Q2012PD	6.69 x 3.94	7.40 x 3.54	2.83	2.76	0.59	3.54	6.30	1.57	6.93	0.12
Q20129PCDCC	193 x 113 x 79	Clear	200 x 120	Q2012PD	170 x 100	188 x 90	72	70	15	90	160	40	176	3
	7.60 x 4.45 x 3.11		7.87 x 4.72	Q2012PD	6.69 x 3.94	7.40 x 3.54	2.83	2.76	0.59	3.54	6.30	1.57	6.93	0.12
Q30239PCD	293 x 223 x 79	Opaque	300 x 230	Q3023PD	265 x 210	288 x 200	73	55	30	198	255	160	275	4
	11.54 x 8.78 x 3.11		11.81 x 9.05	Q3023PD	10.43 x 8.27	11.34 x 7.87	2.87	2.17	1.18	7.80	10.04	6.30	10.83	0.16
Q30239PCDCC	293 x 223 x 79	Clear	300 x 230	Q3023PD	265 x 210	288 x 200	73	55	30	198	255	160	275	4
	11.54 x 8.78 x 3.11		11.81 x 9.05	Q3023PD	10.43 x 8.27	11.34 x 7.87	2.87	2.17	1.18	7.80	10.04	6.30	10.83	0.16
Q16129PCD	153 x 113 x 84	Opaque	160 x 120	Q1612PD	130 x 100	148 x 90	78	60	30	90	120	—	136	3
	6.02 x 4.45 x 3.31		6.30 x 4.72	Q1612PD	5.12 x 3.94	5.83 x 3.54	3.07	2.36	1.18	3.54	4.72	—	5.35	0.12
Q16129PCDCC	153 x 113 x 84	Clear	160 x 120	Q1612PD	130 x 100	148 x 90	78	60	30	90	120	—	136	3
	6.02 x 4.45 x 3.31		6.30 x 4.72	Q1612PD	5.12 x 3.94	5.83 x 3.54	3.07	2.36	1.18	3.54	4.72	—	5.35	0.12
<b>Q24169PCD</b>	233 x 153 x 84	Opaque	240 x 160	Q2416PD	211 x 148	228 x 130	78	75	15	138	202	75	215	4
	9.17 x 6.02 x 3.31		9.45 x 6.30	Q2416PD	8.31 x 5.83	8.98 x 5.12	3.07	2.95	0.59	5.43	7.95	2.95	8.46	0.16
Q24169PCDCC	233 x 153 x 84	Clear	240 x 160	Q2416PD	211 x 148	228 x 130	78	75	15	138	202	75	215	4
	9.17 x 6.02 x 3.31		9.45 x 6.30	Q2416PD	8.31 x 5.83	8.98 x 5.12	3.07	2.95	0.59	5.43	7.95	2.95	8.46	0.16
Q302311PCD	293 x 223 x 104	Opaque	300 x 230	Q3023PD	265 x 210	288 x 200	98	55	55	198	255	160	275	4
	11.54 x 8.78 x 4.09		11.81 x 9.06	Q3023PD	10.43 x 8.27	11.34 x 7.87	3.86	2.17	2.17	7.80	10.04	6.30	10.83	0.16
Q302311PCDCC	293 x 223 x 104	Clear	300 x 230	Q3023PD	265 x 210	288 x 200	98	55	55	198	255	160	275	4
	11.54 x 8.78 x 4.09		11.81 x 9.06	Q3023PD	10.43 x 8.27	11.34 x 7.87	3.86	2.17	2.17	7.80	10.04	6.30	10.83	0.16
<b>Q241612PCD</b>	233 x 153 x 114	Opaque	240 x 160	Q2416PD	211 x 148	228 x 130	108	75	45	75	202	75	215	4
	9.17 x 6.02 x 4.49		9.45 x 6.30	Q2416PD	8.31 x 5.83	8.98 x 5.12	4.25	2.95	1.77	2.95	7.95	2.95	8.46	0.16
Q241612PCDCC	233 x 153 x 114	Clear	240 x 160	Q2416PD	211 x 148	228 x 130	108	75	45	75	202	75	215	4
	9.17 x 6.02 x 4.49		9.45 x 6.30	Q2416PD	8.31 x 5.83	8.98 x 5.12	4.25	2.95	1.77	2.95	7.95	2.95	8.46	0.16

A x B x C are internal dimensions.

Purchase panels separately.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

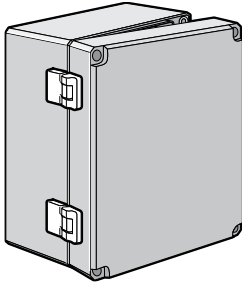
Polycarbonate



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### Polycarbonate

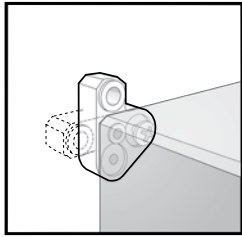
#### Hinge Kit



Hinge Kit includes two polyamide hinges, eight M4 self-tapping, plated screws, eight flat washers and drilling templates. Use on all QLINE™ D enclosures. *Hinge Kit meets Type 4 requirements.*

Part no
<b>QDEHK</b>

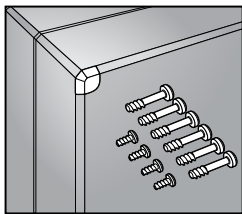
#### Mounting Bracket Kit



Mounting Bracket Kit has four polycarbonate brackets and four M4 self-tapping, plated screws. Kit is field-installable. Use on all QLINE™ D enclosures. Maintains listed ratings for enclosure.

Part no
<b>QDMFK</b>

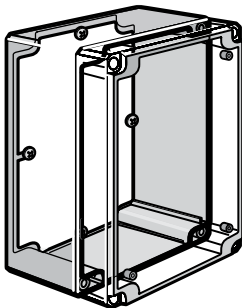
#### Hardware Kit



Hardware Kit includes six self-tapping, stainless steel cover screws, four self-tapping plated panel screws and six removable plastic caps that fit over the screws to provide tamper resistance as well as a clean aesthetic appearance. This kit is offered as a replacement kit for lost or damaged hardware originally furnished with the enclosure.

Part no
<b>QDHK</b>

#### Panels



Part no	Panel Size	Mounting
	D x E mm/in.	G x H mm/in.
<b>Q88PD</b>	68 x 55 2.68 x 2.17	70 x 50 2.76 x 1.97
<b>Q128PD</b>	91 x 65 3.58 x 2.56	108 x 50 4.25 x 1.97
<b>Q168PD</b>	131 x 65 5.16 x 2.56	148 x 50 5.83 x 1.97
<b>Q1212PD</b>	105 x 93 4.13 x 3.66	110 x 90 4.33 x 3.54
<b>Q1612PD</b>	130 x 100 5.12 x 3.94	148 x 90 5.83 x 3.54
<b>Q2012PD</b>	170 x 100 6.69 x 3.94	188 x 90 7.40 x 3.54
<b>Q2015PD</b>	170 x 128 6.69 x 5.04	188 x 120 7.40 x 4.72
<b>Q2416PD</b>	211 x 148 8.31 x 5.83	228 x 130 8.98 x 5.12
<b>Q3023PD</b>	265 x 210 10.43 x 8.27	288 x 200 11.34 x 7.87

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Polycarbonate

### QLINE™ I, Type 4X



#### Specifications

- Body is impact-resistant polycarbonate
- Opaque and clear covers are impact-resistant polycarbonate
- Polycarbonate material is easily punched, drilled, filed or sawed
- Mounting holes molded directly under cover screws
- Molded internal pads for mounting optional panels, rails and other components
- Molded internal rails for mounting adjustable-depth panel kit
- Screws provided for mounting optional panel
- Optional extension rings are molded polycarbonate
- Cover includes a molded-in hole for wire lead
- Seamless foam-in-place gasket assures water-tight and dust-tight seal
- Material is halogen free

**Screw Cover Enclosures** have easy-to-remove covers attached to body with strong, durable polyamide cross-point cover screws.

**Enclosures with Quick-Release Latches** have polycarbonate hinges and polyester latches with a padlock provision.

#### Finish

Polycarbonate enclosure material is RAL 7035 light-gray inside and out. Optional panels are plated steel.

#### Modification and Customization

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

#### Industry Standards

##### Polycarbonate Enclosure

UL 508A Listed; Type 4, 4X, 12, 13; File No. E61997  
 cUL Listed per CSA C22.2 No 94; Type 4, 4X, 12, 13; File No. E61997  
 Enclosure flammability evaluated per UL 508A

NEMA/EEMAC Type 4, 4X, 12, 13  
 CSA File No. 42186: Type 4, 4X, 12, 13  
 IEC 60529, IP67

#### Application

The largest-sized QLINE™ enclosure, QLINE I provides easy access and protects larger controls from corrosive environments. Choose from screw cover, hinge, internal mounting, variable depth and quick-release latch options to meet your design and security requirements.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



Polycarbonate

Standard Product

Part no	Ax B x C mm/in.	Cover Style	Cover Fastener	External Dim's		Panel D x E mm/in.	Extension Ring	Mounting									
				L x W mm/in.	Panel			G x H mm/in.	F mm/in.	P mm/in.	Q mm/in.	R mm/in.	S mm/in.	T mm/in.	U mm/in.	Y mm/in.	Z mm/in.
Q202013PCI	188 x 188 x 123 7.40 x 7.40 x 4.84	Opaque	Screw	200 x 200 7.87 x 7.87	Q2020PI	160 x 160 6.30 x 6.30	Q2020EXTI	180 x 180 7.09 x 7.09	115 4.53	150 5.91	150 5.91	140 5.51	140 5.51	120 4.72	110 4.33	100 3.94	100 3.94
<b>Q202013PCICC</b>	188 x 188 x 123 7.40 x 7.40 x 4.84	Clear	Screw	200 x 200 7.87 x 7.87	Q2020PI	160 x 160 6.30 x 6.30	Q2020EXTI	180 x 180 7.09 x 7.09	115 4.53	150 5.91	150 5.91	140 5.51	140 5.51	120 4.72	110 4.33	100 3.94	100 3.94
Q302013PCI	288 x 188 x 123 11.34 x 7.40 x 4.84	Opaque	Screw	300 x 200 11.81 x 7.87	Q3020PI	260 x 160 10.24 x 6.30	Q3020EXTI	280 x 180 11.02 x 7.09	115 4.53	150 5.91	250 9.84	140 5.51	240 9.45	120 4.72	210 8.27	100 3.94	200 7.87
<b>Q302013PCICC</b>	288 x 188 x 123 11.34 x 7.40 x 4.84	Clear	Screw	300 x 200 11.81 x 7.87	Q3020PI	260 x 160 10.24 x 6.30	Q3020EXTI	280 x 180 11.02 x 7.09	115 4.53	150 5.91	250 9.84	140 5.51	240 9.45	120 4.72	210 8.27	100 3.94	200 7.87
Q402013PCI	388 x 188 x 123 15.28 x 7.40 x 4.84	Opaque	Screw	400 x 200 15.75 x 7.87	Q4020PI	360 x 160 14.17 x 6.30	Q4020EXTI	380 x 180 14.96 x 7.09	115 4.53	150 5.91	350 13.78	140 5.51	340 13.39	120 4.72	310 12.20	100 3.94	300 11.81
Q402013PCICC	388 x 188 x 123 15.28 x 7.40 x 4.84	Clear	Screw	400 x 200 15.75 x 7.87	Q4020PI	360 x 160 14.17 x 6.30	Q4020EXTI	380 x 180 14.96 x 7.09	115 4.53	150 5.91	350 13.78	140 5.51	340 13.39	120 4.72	310 12.20	100 3.94	300 11.81
Q303013PCI	288 x 288 x 123 11.34 x 11.34 x 4.84	Opaque	Screw	300 x 300 11.81 x 11.81	Q3030PI	260 x 260 10.24 x 10.24	Q3030EXTI	280 x 280 11.02 x 11.02	115 4.53	250 9.84	250 9.84	240 9.45	240 9.45	220 8.66	210 8.27	200 7.87	200 7.87
<b>Q303013PCICC</b>	288 x 288 x 123 11.34 x 11.34 x 4.84	Clear	Screw	300 x 300 11.81 x 11.81	Q3030PI	260 x 260 10.24 x 10.24	Q3030EXTI	280 x 280 11.02 x 11.02	115 4.53	250 9.84	250 9.84	240 9.45	240 9.45	220 8.66	210 8.27	200 7.87	200 7.87
Q403013PCI	388 x 288 x 123 15.28 x 11.34 x 4.84	Opaque	Screw	400 x 300 15.75 x 11.81	Q4030PI	360 x 260 14.17 x 10.24	Q4030EXTI	380 x 280 14.96 x 11.02	115 4.53	250 9.84	350 13.78	240 9.45	340 13.39	220 8.66	310 12.20	200 7.87	300 11.81
<b>Q403013PCICC</b>	388 x 288 x 123 15.28 x 11.34 x 4.84	Clear	Screw	400 x 300 15.75 x 11.81	Q4030PI	360 x 260 14.17 x 10.24	Q4030EXTI	380 x 280 14.96 x 11.02	115 4.53	250 9.84	350 13.78	240 9.45	340 13.39	220 8.66	310 12.20	200 7.87	300 11.81
Q603013PCI	588 x 288 x 123 23.15 x 11.34 x 4.84	Opaque	Screw	600 x 300 23.62 x 11.81	Q6030PI	560 x 260 22.05 x 10.24	Q6030EXTI	580 x 280 22.83 x 11.02	115 4.53	250 9.84	550 21.65	240 9.45	540 21.26	220 8.66	510 20.08	200 7.87	500 19.69
Q603013PCICC	588 x 288 x 123 23.15 x 11.34 x 4.84	Clear	Screw	600 x 300 23.62 x 11.81	Q6030PI	560 x 260 22.05 x 10.24	Q6030EXTI	580 x 280 22.83 x 11.02	115 4.53	250 9.84	550 21.65	240 9.45	540 21.26	220 8.66	510 20.08	200 7.87	500 19.69
Q604013PCI	588 x 388 x 123 23.15 x 15.28 x 4.84	Opaque	Screw	600 x 400 23.62 x 15.75	Q6040PI	560 x 360 22.05 x 14.17	Q6040EXTI	580 x 380 22.83 x 14.96	115 4.53	350 13.78	550 21.65	340 13.39	540 21.26	320 12.60	510 20.08	300 11.81	500 19.69
Q604013PCICC	588 x 388 x 123 23.15 x 15.28 x 4.84	Clear	Screw	600 x 400 23.62 x 15.75	Q6040PI	560 x 360 22.05 x 14.17	Q6040EXTI	580 x 380 22.83 x 14.96	115 4.53	350 13.78	550 21.65	340 13.39	540 21.26	320 12.60	510 20.08	300 11.81	500 19.69
Q202018PCI	188 x 188 x 173 7.40 x 7.40 x 6.81	Opaque	Screw	200 x 200 7.87 x 7.87	Q2020PI	160 x 160 6.30 x 6.30	Q2020EXTI	180 x 180 7.09 x 7.09	165 6.50	150 5.91	150 5.91	140 5.51	140 5.51	120 4.72	110 4.33	100 3.94	100 3.94
<b>Q202018PCICC</b>	188 x 188 x 173 7.40 x 7.40 x 6.81	Clear	Screw	200 x 200 7.87 x 7.87	Q2020PI	160 x 160 6.30 x 6.30	Q2020EXTI	180 x 180 7.09 x 7.09	165 6.50	150 5.91	150 5.91	140 5.51	140 5.51	120 4.72	110 4.33	100 3.94	100 3.94
Q302018PCI	288 x 188 x 173 11.34 x 7.40 x 6.81	Opaque	Screw	300 x 200 11.81 x 7.87	Q3020PI	260 x 160 10.24 x 6.30	Q3020EXTI	280 x 180 11.02 x 7.09	165 6.50	150 5.91	250 9.84	140 5.51	240 9.45	120 4.72	110 4.33	100 3.94	200 7.87
Q302018PCICC	288 x 188 x 173 11.34 x 7.40 x 6.81	Clear	Screw	300 x 200 11.81 x 7.87	Q3020PI	260 x 160 10.24 x 6.30	Q3020EXTI	280 x 180 11.02 x 7.09	165 6.50	150 5.91	250 9.84	140 5.51	240 9.45	120 4.72	110 4.33	100 3.94	200 7.87
Q402018PCI	388 x 188 x 173 15.28 x 7.40 x 6.81	Opaque	Screw	400 x 200 15.75 x 7.87	Q4020PI	360 x 160 14.17 x 6.30	Q4020EXTI	380 x 180 14.96 x 7.09	165 6.50	150 5.91	350 13.78	140 5.51	340 13.39	120 4.72	310 12.20	100 3.94	300 11.81
<b>Q402018PCICC</b>	388 x 188 x 173 15.28 x 7.40 x 6.81	Clear	Screw	400 x 200 15.75 x 7.87	Q4020PI	360 x 160 14.17 x 6.30	Q4020EXTI	380 x 180 14.96 x 7.09	165 6.50	150 5.91	350 13.78	140 5.51	340 13.39	120 4.72	310 12.20	100 3.94	300 11.81
Q303018PCI	288 x 288 x 173 11.34 x 11.34 x 6.81	Opaque	Screw	300 x 300 11.81 x 11.81	Q3030PI	260 x 260 10.24 x 10.24	Q3030EXTI	280 x 280 11.02 x 11.02	165 6.50	250 9.84	250 9.84	240 9.45	240 9.45	220 8.66	210 8.27	200 7.87	200 7.87
<b>Q303018PCICC</b>	288 x 288 x 173 11.34 x 11.34 x 6.81	Clear	Screw	300 x 300 11.81 x 11.81	Q3030PI	260 x 260 10.24 x 10.24	Q3030EXTI	280 x 280 11.02 x 11.02	165 6.50	250 9.84	250 9.84	240 9.45	240 9.45	220 8.66	210 8.27	200 7.87	200 7.87
Q403018PCI	388 x 288 x 173 15.28 x 11.34 x 6.81	Opaque	Screw	400 x 300 15.75 x 11.81	Q4030PI	360 x 260 14.17 x 10.24	Q4030EXTI	380 x 280 14.96 x 11.02	165 6.50	250 9.84	350 13.78	240 9.45	340 13.39	220 8.66	310 12.20	200 7.87	300 11.81
Q403018PCICC	388 x 288 x 173 15.28 x 11.34 x 6.81	Clear	Screw	400 x 300 15.75 x 11.81	Q4030PI	360 x 260 14.17 x 10.24	Q4030EXTI	380 x 280 14.96 x 11.02	165 6.50	250 9.84	350 13.78	240 9.45	340 13.39	220 8.66	310 12.20	200 7.87	300 11.81
Q603018PCI	588 x 288 x 173 23.15 x 11.34 x 6.81	Opaque	Screw	600 x 300 23.62 x 11.81	Q6030PI	560 x 260 22.05 x 10.24	Q6030EXTI	580 x 280 22.83 x 11.02	165 6.50	250 9.84	550 21.65	240 9.45	540 21.26	220 8.66	510 20.08	200 7.87	500 19.69
Q603018PCICC	588 x 288 x 173 23.15 x 11.34 x 6.81	Clear	Screw	600 x 300 23.62 x 11.81	Q6030PI	560 x 260 22.05 x 10.24	Q6030EXTI	580 x 280 22.83 x 11.02	165 6.50	250 9.84	550 21.65	240 9.45	540 21.26	220 8.66	510 20.08	200 7.87	500 19.69
Q604018PCI	588 x 388 x 173 23.15 x 15.28 x 6.81	Opaque	Screw	600 x 400 23.62 x 15.75	Q6040PI	560 x 360 22.05 x 14.17	Q6040EXTI	580 x 380 22.83 x 14.96	165 6.50	350 13.78	550 21.65	340 13.39	540 21.26	320 12.60	510 20.08	300 11.81	500 19.69
Q604018PCICC	588 x 388 x 173 23.15 x 15.28 x 6.81	Clear	Screw	600 x 400 23.62 x 15.75	Q6040PI	560 x 360 22.05 x 14.17	Q6040EXTI	580 x 380 22.83 x 14.96	165 6.50	350 13.78	550 21.65	340 13.39	540 21.26	320 12.60	510 20.08	300 11.81	500 19.69
Q202013PCIQRR	188 x 188 x 123 7.40 x 7.40 x 4.84	Opaque	QR	200 x 200 7.87 x 7.87	Q2020PI	160 x 160 6.30 x 6.30	—	180 x 180 7.09 x 7.09	115 4.53	150 5.91	150 5.91	140 5.51	140 5.51	120 4.72	110 4.33	100 3.94	100 3.94
Q202013PCIQRCCR	188 x 188 x 123 7.40 x 7.40 x 4.84	Clear	QR	200 x 200 7.87 x 7.87	Q2020PI	160 x 160 6.30 x 6.30	—	180 x 180 7.09 x 7.09	115 4.53	150 5.91	150 5.91	140 5.51	140 5.51	120 4.72	110 4.33	100 3.94	100 3.94
Q302013PCIQRR	288 x 188 x 123 11.34 x 7.40 x 4.84	Opaque	QR	300 x 200 11.81 x 7.87	Q3020PI	260 x 160 10.24 x 6.30	—	280 x 180 11.02 x 7.09	115 4.53	150 5.91	250 9.84	140 5.51	240 9.45	120 4.72	210 8.27	100 3.94	200 7.87
Q302013PCIQRCCR	288 x 188 x 123 11.34 x 7.40 x 4.84	Clear	QR	300 x 200 11.81 x 7.87	Q3020PI	260 x 160 10.24 x 6.30	—	280 x 180 11.02 x 7.09	115 4.53	150 5.91	250 9.84	140 5.51	240 9.45	120 4.72	210 8.27	100 3.94	200 7.87
Q402013PCIQRR	388 x 188 x 123 15.28 x 7.40 x 4.84	Opaque	QR	400 x 200 15.75 x 7.87	Q4020PI	360 x 160 14.17 x 6.30	—	380 x 180 14.96 x 7.09	115 4.53	150 5.91	350 13.78	140 5.51	340 13.39	120 4.72	310 12.20	100 3.94	300 11.81
Q402013PCIQRCCR	388 x 188 x 123 15.28 x 7.40 x 4.84	Clear	QR	400 x 200 15.75 x 7.87	Q4020PI	360 x 160 14.17 x 6.30	—	380 x 180 14.96 x 7.09	115 4.53	150 5.91	350 13.78	140 5.51	340 13.39	120 4.72	310 12.20	100 3.94	300 11.81
Q303013PCIQRR	288 x 288 x 123 11.34 x 11.34 x 4.84	Opaque	QR	300 x 300 11.81 x 11.81	Q3030PI	260 x 260 10.24 x 10.24	—	280 x 280 11.02 x 11.02	115 4.53	250 9.84	250 9.84	240 9.45	240 9.45	220 8.66	210 8.27	200 7.87	200 7.87

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

Polycarbonate

Part no	Ax B x C mm/in.	Cover Style	Cover Fastener	External Dim's		Panel mm/in.	Panel Size D x E mm/in.	Extension Ring	Mounting										
				L x W mm/in.					G x H mm/in.	F mm/in.	P mm/in.	Q mm/in.	R mm/in.	S mm/in.	T mm/in.	U mm/in.	Y mm/in.	Z mm/in.	
Q303013PCIQRCCR	288 x 288 x 123	Clear	QR	300 x 300		Q3030PI	260 x 260	—	280 x 280	115	250	250	240	240	220	210	200	200	
	11.34 x 11.34 x 4.84		Latch	11.81 x 11.81			10.24 x 10.24		11.02 x 11.02	4.53	9.84	9.84	9.45	9.45	8.66	8.27	7.87	7.87	
Q403013PCIQRRR	388 x 288 x 123	Opaque	QR	400 x 300		Q4030PI	360 x 260	—	380 x 280	115	250	350	240	340	220	310	200	300	
	15.28 x 11.34 x 4.84		Latch	15.75 x 11.81			14.17 x 10.24		14.96 x 11.02	4.53	9.84	13.78	9.45	13.39	8.66	12.20	7.87	11.81	
Q403013PCIQRCCR	388 x 288 x 123	Clear	QR	400 x 300		Q4030PI	360 x 260	—	380 x 280	115	250	350	240	340	220	310	200	300	
	15.28 x 11.34 x 4.84		Latch	15.75 x 11.81			14.17 x 10.24		14.96 x 11.02	4.53	9.84	13.78	9.45	13.39	8.66	12.20	7.87	11.81	
Q603013PCIQRRR	588 x 288 x 123	Opaque	QR	600 x 300		Q6030PI	560 x 260	—	580 x 280	115	250	550	240	540	220	510	200	500	
	23.15 x 11.34 x 4.84		Latch	23.62 x 11.81			22.05 x 10.24		22.83 x 11.02	4.53	9.84	21.65	9.45	21.26	8.66	20.08	7.87	19.69	
Q603013PCIQRCCR	588 x 288 x 123	Clear	QR	600 x 300		Q6030PI	560 x 260	—	580 x 280	115	250	550	240	540	220	510	200	500	
	23.15 x 11.34 x 4.84		Latch	23.62 x 11.81			22.05 x 10.24		22.83 x 11.02	4.53	9.84	21.65	9.45	21.26	8.66	20.08	7.87	19.69	
Q604013PCIQRRR	588 x 388 x 123	Opaque	QR	600 x 400		Q6040PI	560 x 360	—	580 x 380	115	350	550	340	540	320	510	300	500	
	23.15 x 15.28 x 4.84		Latch	23.62 x 15.75			22.05 x 14.17		22.83 x 14.96	4.53	13.78	21.65	13.39	21.26	12.60	20.08	11.81	19.69	
Q604013PCIQRCCR	588 x 388 x 123	Clear	QR	600 x 400		Q6040PI	560 x 360	—	580 x 380	115	350	550	340	540	320	510	300	500	
	23.15 x 15.28 x 4.84		Latch	23.62 x 15.75			22.05 x 14.17		22.83 x 14.96	4.53	13.78	21.65	13.39	21.26	12.60	20.08	11.81	19.69	
Q202018PCIQRRR	188 x 188 x 173	Opaque	QR	200 x 200		Q2020PI	160 x 160	—	180 x 180	115	150	150	140	140	120	110	100	100	
	7.40 x 7.40 x 6.81		Latch	7.87 x 7.87			6.30 x 6.30		7.09 x 7.09	6.50	5.91	5.91	5.51	5.51	4.72	4.33	3.94	3.94	
Q202018PCIQRCCR	188 x 188 x 173	Clear	QR	200 x 200		Q2020PI	160 x 160	—	180 x 180	165	150	150	140	140	120	110	100	100	
	7.40 x 7.40 x 6.81		Latch	7.87 x 7.87			6.30 x 6.30		7.09 x 7.09	6.50	5.91	5.91	5.51	5.51	4.72	4.33	3.94	3.94	
Q302018PCIQRRR	288 x 188 x 173	Opaque	QR	300 x 200		Q3020PI	260 x 160	—	280 x 180	165	150	250	140	240	120	110	100	200	
	11.34 x 7.40 x 6.81		Latch	11.81 x 7.87			10.24 x 6.30		11.02 x 7.09	6.50	5.91	9.84	5.51	9.45	4.72	4.33	3.94	7.87	
Q302018PCIQRCCR	288 x 188 x 173	Clear	QR	300 x 200		Q3020PI	260 x 160	—	280 x 180	165	150	250	140	240	120	110	100	200	
	11.34 x 7.40 x 6.81		Latch	11.81 x 7.87			10.24 x 6.30		11.02 x 7.09	6.50	5.91	9.84	5.51	9.45	4.72	4.33	3.94	7.87	
Q402018PCIQRRR	388 x 188 x 173	Opaque	QR	400 x 200		Q4020PI	360 x 160	—	380 x 180	165	150	350	140	340	120	310	100	300	
	15.28 x 7.40 x 6.81		Latch	15.75 x 7.87			14.17 x 6.30		14.96 x 7.09	6.50	5.91	13.78	5.51	13.39	4.72	12.20	3.94	11.81	
Q402018PCIQRCCR	388 x 188 x 173	Clear	QR	400 x 200		Q4020PI	360 x 160	—	380 x 180	165	150	350	140	340	120	310	100	300	
	15.28 x 7.40 x 6.81		Latch	15.75 x 7.87			14.17 x 6.30		14.96 x 7.09	6.50	5.91	13.78	5.51	13.39	4.72	12.20	3.94	11.81	
Q303018PCIQRRR	288 x 288 x 173	Opaque	QR	300 x 300		Q3030PI	260 x 260	—	280 x 280	165	250	250	240	240	220	210	200	200	
	11.34 x 11.34 x 6.81		Latch	11.81 x 11.81			10.24 x 10.24		11.02 x 11.02	6.50	9.84	9.84	9.45	9.45	8.66	8.27	7.87	7.87	
Q303018PCIQRCCR	288 x 288 x 173	Clear	QR	300 x 300		Q3030PI	260 x 260	—	280 x 280	165	250	250	240	240	220	210	200	200	
	11.34 x 11.34 x 6.81		Latch	11.81 x 11.81			10.24 x 10.24		11.02 x 11.02	6.50	9.84	9.84	9.45	9.45	8.66	8.27	7.87	7.87	
Q403018PCIQRRR	388 x 288 x 173	Opaque	QR	400 x 300		Q4030PI	360 x 260	—	380 x 280	165	250	350	240	340	220	310	200	300	
	15.28 x 11.34 x 6.81		Latch	15.75 x 11.81			14.17 x 10.24		14.96 x 11.02	6.50	9.84	13.78	9.45	13.39	8.66	12.20	7.87	11.81	
Q403018PCIQRCCR	388 x 288 x 173	Clear	QR	400 x 300		Q4030PI	360 x 260	—	380 x 280	165	250	350	240	340	220	310	200	300	
	15.28 x 11.34 x 6.81		Latch	15.75 x 11.81			14.17 x 10.24		14.96 x 11.02	6.50	9.84	13.78	9.45	13.39	8.66	12.20	7.87	11.81	
Q603018PCIQRRR	588 x 288 x 173	Opaque	QR	600 x 300		Q6030PI	560 x 260	—	580 x 280	165	250	550	240	540	220	510	200	500	
	23.15 x 11.34 x 6.81		Latch	23.62 x 11.81			22.05 x 10.24		22.83 x 11.02	6.50	9.84	21.65	9.45	21.25	8.66	20.08	7.87	19.69	
Q603018PCIQRCCR	588 x 288 x 173	Clear	QR	600 x 300		Q6030PI	560 x 260	—	580 x 280	165	250	550	240	540	220	510	200	500	
	23.15 x 11.37 x 6.81		Latch	23.62 x 11.81			22.05 x 10.24		22.83 x 11.02	6.50	9.84	21.65	9.45	21.26	8.66	20.08	7.87	19.69	
Q604018PCIQRRR	588 x 388 x 173	Opaque	QR	600 x 400		Q6040PI	560 x 360	—	580 x 380	165	350	550	340	540	320	510	300	500	
	23.15 x 15.28 x 6.81		Latch	23.62 x 15.75			22.05 x 14.17		22.83 x 14.96	6.50	13.78	21.65	13.39	21.28	12.60	20.08	11.81	19.69	
Q604018PCIQRCCR	588 x 388 x 173	Clear	QR	600 x 400		Q6040PI	560 x 360	—	580 x 380	165	350	550	340	540	320	510	300	500	
	23.15 x 15.28 x 6.81		Latch	23.62 x 15.75			22.05 x 14.17		22.83 x 14.96	6.50	13.78	21.65	13.39	21.26	12.60	20.08	11.81	19.69	

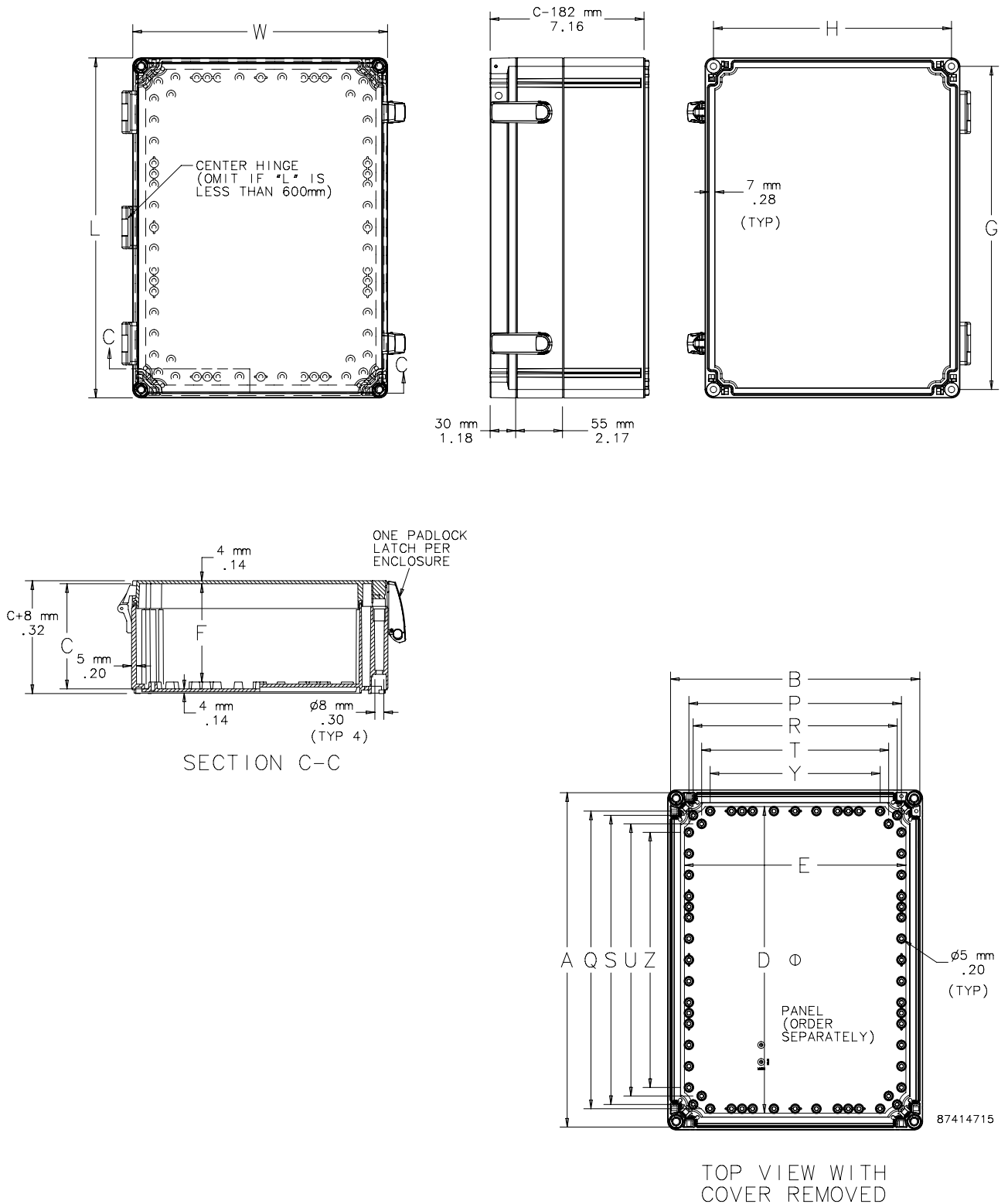
A x B x C are internal dimensions.

Purchase panels and extension rings separately.

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

Polycarbonate

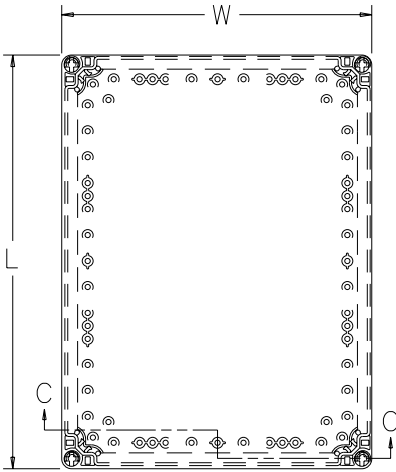
QLINE I Type 4X Enclosures with Quick-Release Latches



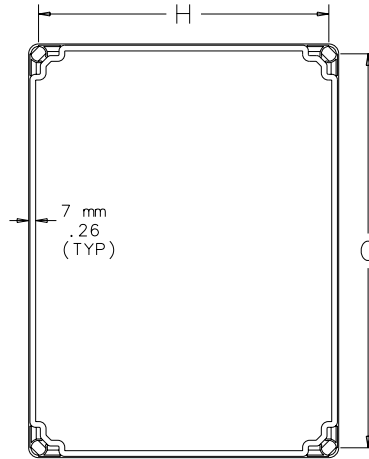
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

**Polycarbonate**

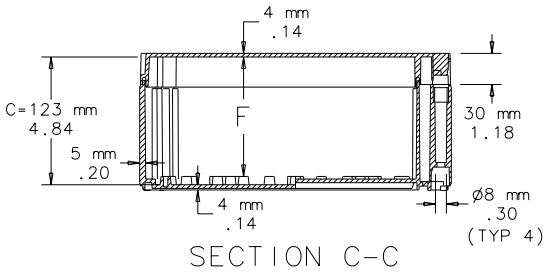
QLINE I Type 4X Enclosures with Screw Cover



TOP VIEW

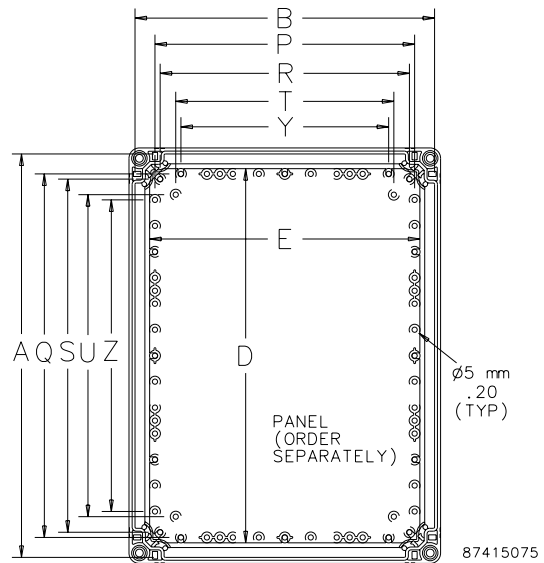
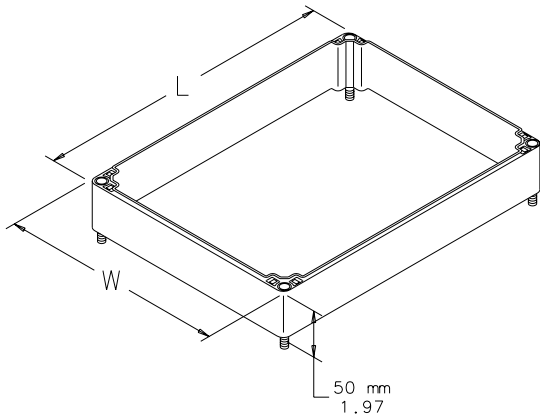


BOTTOM VIEW



SECTION C-C

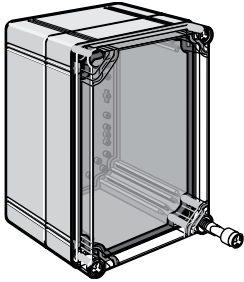
NOTE: Panel screws are M5 pan head.



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Polycarbonate

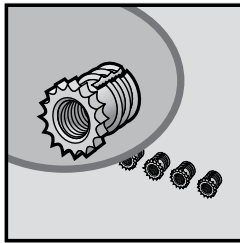
#### Cover Screw Kit



Screws are polyamide. Wing-head-style screws provide rapid access to enclosure interior without requiring special tools to open. Kit includes four polyamide cover screws and four self-tapping, plated panel screws. Tamper-resistant screws have molded 3-mm double-bit drive; kit includes four cover screws, one key and four self-tapping, plated panel screws. Use on all QLINE™ I enclosures.

Part no	Description
QIWHSK	wing-head screw
QITSK	3-mm tamper-resistant double-bit

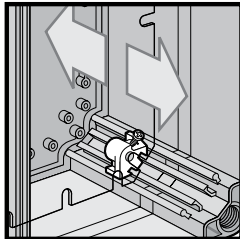
#### Brass Insert Kit



Four M5 self-tapping brass inserts screw into molded pads in bottom of enclosure. Inserts have M3 internal thread.

Part no
QBIK

#### Panel Depth Fitting



Panel Depth Fitting attaches to corner molded rails of enclosure to facilitate full-range front-to-back panel adjustment. Package includes four polyamide fittings and plated screws. Use on all QLINE I enclosures.

Part no
QIPDF

#### Swing Panel



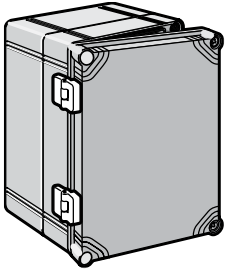
Adjustable-depth aluminum swing panels, for use in QLINE I polycarbonate enclosures, provide a convenient way to install controls and instruments near enclosure body opening while providing access and security. Suitable applications include water, pulp and paper, petroleum and chemical processing, food, packaging and pharmaceutical applications.

Part no	Panel Size D x E mm/in.	Fits Enclosure Size A x B mm/in.	Hinged Side of Enclosure
QIHFP22A	186 x 180 7.32 x 7.09	200 x 200 7.87 x 7.87	200
QIHFP23A	186 x 280 7.32 x 11.02	300 x 200 11.81 x 7.87	200
QIHFP32A	286 x 180 11.26 x 7.09	300 x 200 11.81 x 7.87	300
QIHFP42A	386 x 180 15.20 x 7.09	400 x 200 15.75 x 7.87	400
QIHFP33A	286 x 280 11.26 x 11.02	300 x 300 11.81 x 11.81	300
QIHFP43A	386 x 280 15.20 x 11.02	400 x 300 15.75 x 11.81	400
QIHFP63A	586 x 280 23.07 x 11.02	600 x 300 23.62 x 11.81	600
QIHFP64A	586 x 380 23.07 x 14.96	600 x 400 23.62 x 15.75	600

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

**Polycarbonate**

**Hinge Kit**

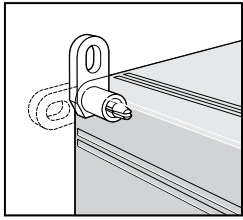


Hinge Kit includes two polyamide hinges, eight M4 self-tapping plated screws, eight flat washers and drilling template. Use on all QLINE™ I enclosures.

*Hinge Kit meets Type 4 requirements. Three hinges required for 600-mm sides.*

Part no
<b>QIHK</b>

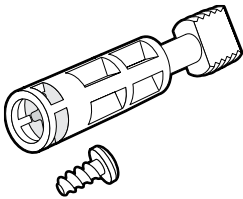
**Mounting Bracket Kit**



Mounting Bracket Kit has four polycarbonate brackets and four M3 self-tapping, plated screws. Kit is field-installable. Use on all QLINE I Enclosures. Maintains listed ratings for enclosure.

Part no
<b>QIMFK</b>

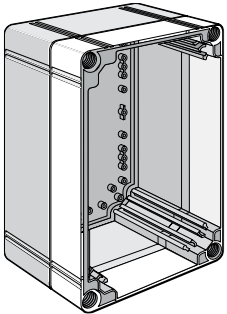
**Hardware Kit**



Hardware Kit includes four polyamide cover screws and four self-tapping, plated panel screws. This kit is offered as a replacement kit for lost or damaged hardware originally furnished with the enclosure.

Part no	Description
<b>QIHK424</b>	42-mm screws

**Extension Rings**



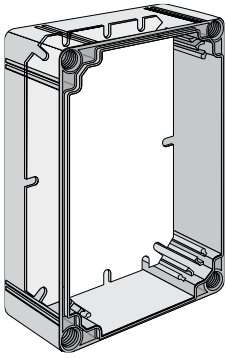
Extension rings can be added to QLINE I enclosures to provide additional 50-mm to enclosure depth. Extension rings are polycarbonate and cannot be used with quick-release latches.

Part no
<b>Q2020EXTI</b>
<b>Q3020EXTI</b>
<b>Q3030EXTI</b>
<b>Q4020EXTI</b>
<b>Q4030EXTI</b>
<b>Q6030EXTI</b>
<b>Q6040EXTI</b>

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Polycarbonate

### Panels



Part no	Panel Size	Panel Size
	D x E mm	D x E in.
<b>Q2020PI</b>	160 x 160	6.30 x 6.30
<b>Q3020PI</b>	260 x 160	10.24 x 6.30
<b>Q3030PI</b>	260 x 260	10.24 x 10.24
<b>Q4020PI</b>	360 x 160	14.17 x 6.30
<b>Q4030PI</b>	360 x 260	14.17 x 10.24
<b>Q6030PI</b>	560 x 260	22.05 x 10.24
<b>Q6040PI</b>	560 X 360	22.05 x 14.17

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

**Aluminum**

**COMPACT™, Type 4X**



**Industry Standards**

UL 508A Listed; Type 4, 4X, 12, 13; File No. E61997

NEMA/EEMAC Type 4, 4X, 12, 13  
 CSA File No. 42186: Type 4, 4X, 12, 13  
 IEC 60529, IP66

**Application**

For use in indoor or outdoor applications, these stylized enclosures protect components and controls in corrosive environments.

**Specifications**

- Cast aluminum; no welded seams or sharp corners
- Stainless steel captivated cover screws placed outside sealed area
- Two to four grounding screws located on enclosure back wall
- Oil-resistant O-ring gasket
- Tongue-and-groove sealing construction
- Threaded internal bosses provided for mounting optional panels, rails and other components
- Mounting holes provided in corners outside of gasketed area

**Finish**

RAL 7042 gray finish inside and out.

Standard Product

Part no	Ax B x C mm/in.	External Dimensions		Conductive Panel	Panel Size D x E mm/in.	Mounting						
		L x W mm/in.				G x H mm/in.	F mm/in.	J mm/in.	K mm/in.	M mm/in.	N mm/in.	T mm/in.
<b>CCA886</b>	67 x 72 x 47	75 x 80		CCAP88	64 x 69	52 x 63	41	41	13	30	48	4
	2.64 x 2.83 x 1.85	2.95 x 3.15			2.52 x 2.72	2.05 x 2.48	1.61	1.61	0.51	1.18	1.89	0.16
<b>CCA1286</b>	116 x 71 x 51	125 x 80		CCAP128	114 x 69	52 x 113	45	42	15	30	48	4
	4.57 x 2.80 x 2.01	4.92 x 3.15			4.49 x 2.72	2.05 x 4.45	1.77	1.65	0.59	1.18	1.89	0.16
<b>CCA1886</b>	167 x 72 x 47	175 x 80		CCAP188	164 x 69	52 x 163	41	41	13	30	48	4
	6.57 x 2.83 x 1.85	6.89 x 3.15			6.46 x 2.72	2.05 x 6.42	1.61	1.61	0.51	1.18	1.89	0.16
<b>CCA12128</b>	122 x 122 x 80	122 x 122		CCAP1212	109 x 108	82 x 106	63	60	20	52	—	4
	4.80 x 4.80 x 3.10	4.80 x 4.80			4.29 x 4.26	3.23 x 4.17	2.48	2.36	0.79	2.05	—	0.16
<b>CCA22128</b>	220 x 120 x 80	220 x 122		CCAP2212	204 x 108	82 x 204	63	60	20	52	—	4
	8.70 x 4.70 x 3.10	8.66 x 4.80			8.04 x 4.26	3.23 x 8.03	2.48	2.36	0.79	2.05	—	0.16
CCA16169	160 x 160 x 90	160 x 160		CCAP1616	146 x 146	110 x 140	73	70	20	76	—	4
	6.30 x 6.30 x 3.50	6.30 x 6.30			5.75 x 5.75	4.33 x 5.51	2.87	2.76	0.79	2.99	—	0.16
<b>CCA26169</b>	260 x 160 x 90	260 x 160		CCAP2616	246 x 146	110 x 240	73	70	20	76	—	4
	10.20 x 6.30 x 3.50	10.23 x 6.30			9.69 x 5.75	4.33 x 9.45	2.87	2.76	0.79	2.99	—	0.16
<b>CCA36169</b>	360 x 160 x 90	360 x 160		CCAP3616	346 x 146	110 x 340	73	70	20	76	—	4
	14.20 x 6.30 x 3.50	14.17 x 6.30			13.63 x 5.75	4.33 x 13.39	2.87	2.76	0.79	2.99	—	0.16
CCA202311	200 x 230 x 110	200 x 230		CCAP2023	185 x 215	180 x 180	93	90	20	80	144	4
	7.90 x 9.10 x 4.30	7.87 x 9.06			7.29 x 8.47	7.09 x 7.09	3.66	3.54	0.79	3.15	5.67	0.16
<b>CCA332311</b>	330 x 230 x 110	330 x 230		CCAP3323	315 x 215	180 x 310	93	90	20	80	144	4
	13.00 x 9.10 x 4.30	12.99 x 9.06			12.41 x 8.47	7.09 x 12.21	3.66	3.54	0.79	3.15	5.67	0.16
CCA332318	330 x 230 x 180	330 x 230		CCAP3323	315 x 215	180 x 310	162	160	20	100	144	4
	13.00 x 9.10 x 7.10	12.99 x 9.06			12.41 x 8.47	7.09 x 12.21	6.38	6.30	0.79	3.94	5.67	0.16

A x B x C are internal dimensions.

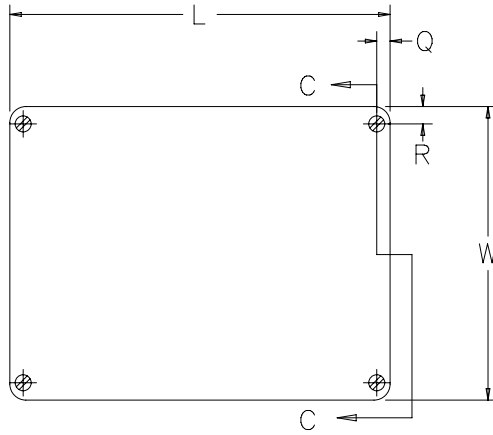
Purchase panels separately.

CCA886, CCA1286 and CCA1886 enclosures have only two mounting holes.

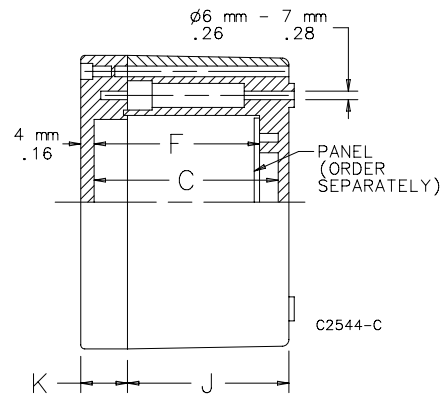
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



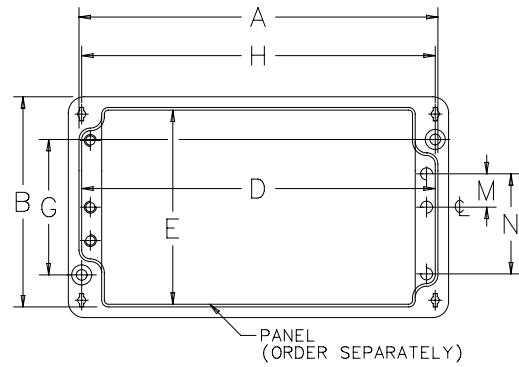
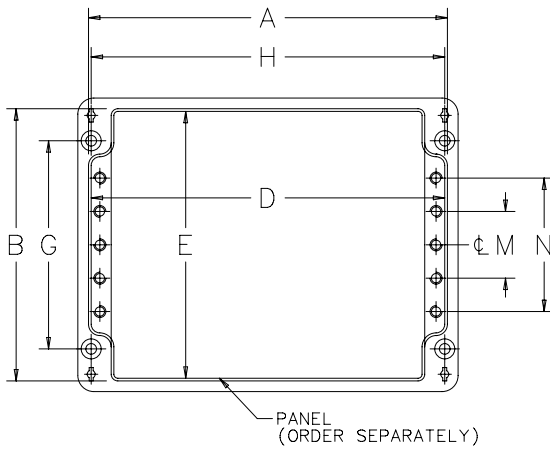
**Aluminum**



TOP VIEW



SECTION C-C



(CCA86, CCA1286, CCA1886 ONLY)

TOP VIEW WITH COVER REMOVED

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



### Hinge Kit



### Aluminum

Made of die-cast aluminum. Angle rotation approximately 170 degrees. Mounting template and stainless steel hardware included. Two hinges per kit.

*Hinge kit not available for CCA886, CCA1286 or CCA1886.*

Part no	Product Weight kg/lb.
CCAHK	.05/0.1

### Mounting Bracket Kit



Mounting brackets are made of non-corrosive 2-mm thick steel alloy. Two or four brackets per kit. Stainless steel mounting screws and installation instructions are included.

Part no	Description	Fits
CCAMF12	Two brackets	Enclosures CCA12128 and CCA22128
CCAMF16	Two brackets	Enclosures CCA16169 and CCA36169
CCAMF31	Four brackets	Enclosures CCA202311, CCA332311 and CCA332318

### Panels



Made of plated steel. Permits electro-mechanical components to be mounted inside the enclosure.

Part no	Panel Size	
	D x E mm	D x E in.
CCAP88	64 x 69	2.52 x 2.72
CCAP128	114 x 69	4.49 x 2.72
CCAP188	164 x 69	6.46 x 2.72
CCAP1212	109 x 108	4.29 x 4.26
CCAP2212	204 x 108	8.04 x 4.26
CCAP1616	146 x 146	5.75 x 5.75
CCAP2616	246 x 146	9.69 x 5.75
CCAP3616	346 x 146	13.63 x 5.75
CCAP2023	185 x 215	7.29 x 8.47
CCAP3323	315 x 215	12.41 x 8.47
CCAP4031	387 x 294	15.25 x 11.58
CCAP6031	585 x 294	23.05 x 11.58

### DIN Type Rails



DIN Type Rails receive terminal blocks, relays, switches, filters, timers and various other electrical and electronic components. Lengths fit size of enclosure. All DIN rails made of plated steel.

Part no	Description	Fits
CCADR851	Plated DIN rail Type TS-15	A = 67mm
CCADR1251	Plated DIN rail Type TS-15	A = 116mm
CCADR1851	Plated DIN rail Type TS-15	A = 167mm
CCADR1252	Plated DIN rail Type TS-35	A = 116mm
CCADR2252	Plated DIN rail Type TS-35	A = 210mm
CCADR1652	Plated DIN rail Type TS-35	A = 149mm
CCADR2652	Plated DIN rail Type TS-35	A = 249mm
CCADR3652	Plated DIN rail Type TS-35	A = 349mm
CCADR2052	Plated DIN rail Type TS-35	A = 189mm
CCADR3352	Plated DIN rail Type TS-35	A = 313mm

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

Aluminum

Aluminum Type 4X Accessory Selection Matrix (IP66)

Part no	CCA886	CCA1286	CCA1886	CCA12128	CCA22128	CCA16169	CCA26169	CCA36169	CCA202311	CCA332311	CCA332318
<b>Hinge Kit</b>											
CCAHK				.	.	.	.	.	.	.	.
<b>Mounting Bracket Kit</b>											
CCAMF12				.	.						
CCAMF16						.		.			
CCAMF31									.	.	.
<b>Panels</b>											
CCAP88	.										
CCAP128		.									
CCAP188			.								
CCAP1212				.							
CCAP2212					.						
CCA01616						.					
CCAP2616							.				
CCAP3616								.			
CCAP2023									.		
CCAP3323										.	.
<b>DIN Type Rails</b>											
CCADR851	.										
CCADR1251		.									
CCADR1851			.								
CCADR1252				.							
CCADR2252					.						
CCADR1652						.					
CCADR2652							.				
CCADR3652								.			
CCADR2052									.		
CCADR3352										.	.

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



**Outside Plant Enclosures**
**COMLINE™, Type 4X**

**Application**

Lightweight, corrosion-resistant COMLINE™ aluminum wall-mount enclosures provide long-lasting protection for housing electrical components in extreme outdoor environments. These customizable enclosures employ a foam-in-place gasket for a tight seal and are ideal for rooftop or tower-mounted telecommunications applications.

**Features**

- Foam-in-place gasket
- 1- or 3-point latching (screwdriver slot), depending on door size
- Optional door stop/wind latch holds door in place during service
- Two door/hinge styles available:
  - Easily removable door with hidden hinge and retained hinge pin; maximum door load 22.7 kg
  - Heavy-duty continuous hinge door. Maximum door load 68.0 kg
- Optional solar shield top

**Specifications**

- Type 5052-H32 aluminum: covers are 2-mm or 2.5-mm thick depending on size; bodies are 2-mm thick
- Seams continuously welded and ground smooth for a finished appearance
- Bonding provision on door; ground stud on body

**Finish**

RAL 7035 textured, light-gray polyester powder finish inside and out.

**Modification and Customization**

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

**Industry Standards**

UL 508A Listed; Type 3, 3R, 4, 4X, 12; File No. E61997

CSA File No. 42186: Type 3, 3R, 4, 4X, 12

NEMA/EEMAC Type 3, 3R, 4, 4X, 12

IEC 60529, IP66

Designed to meet NEBS™-Telcordia GR487, GR63, IEC 48D

Meets Type 3RX requirements

NEBS is a trademark of Telcordia

**Standard Product Hidden Hinge**

Part no	AxBxC mm	AxBxC in.	Latch Points	Door Thickness mm	Door Thickness in.	Std. Pkg. (kg)
ECL303015	300 x 300 x 150	11.80 x 11.80 x 5.90	1	2	.08	4.1
ECL403015	400 x 300 x 150	15.70 x 11.80 x 5.90	1	2	.08	4.5
ECL404015	400 x 400 x 150	15.70 x 15.70 x 5.90	1	2	.08	5.4
<b>ECL404020</b>	400 x 400 x 200	15.70 x 15.70 x 7.90	1	2	.08	5.9
ECL504020	500 x 400 x 200	19.70 x 15.70 x 7.90	1	2	.08	6.8
ECL505020	500 x 500 x 200	19.70 x 19.70 x 7.90	1	2	.08	7.7
ECL605020	600 x 500 x 200	23.60 x 19.70 x 7.90	3	2.5	.10	8.6
<b>ECL606020</b>	600 x 600 x 200	23.60 x 23.60 x 7.90	3	2.5	.10	10.4
ECL806020	800 x 600 x 200	31.50 x 23.60 x 7.90	3	2.5	.10	12.2
ECL1006030	1000 x 600 x 300	39.40 x 23.60 x 11.80	3	2.5	.10	15.9
ECL1209030	1200 x 900 x 300	47.20 x 35.40 x 11.80	3	2.5	.10	25.0
ECL1509030	1500 x 900 x 300	59.10 x 35.40 x 11.80	3	2.5	.10	35.4

ECL1209030, ECL1209030CH, ECL1509030 and ECL1509030CH include vertical door stiffener. Additional door stop required to meet NEBS-Telcordia 487 door restrainer requirements.

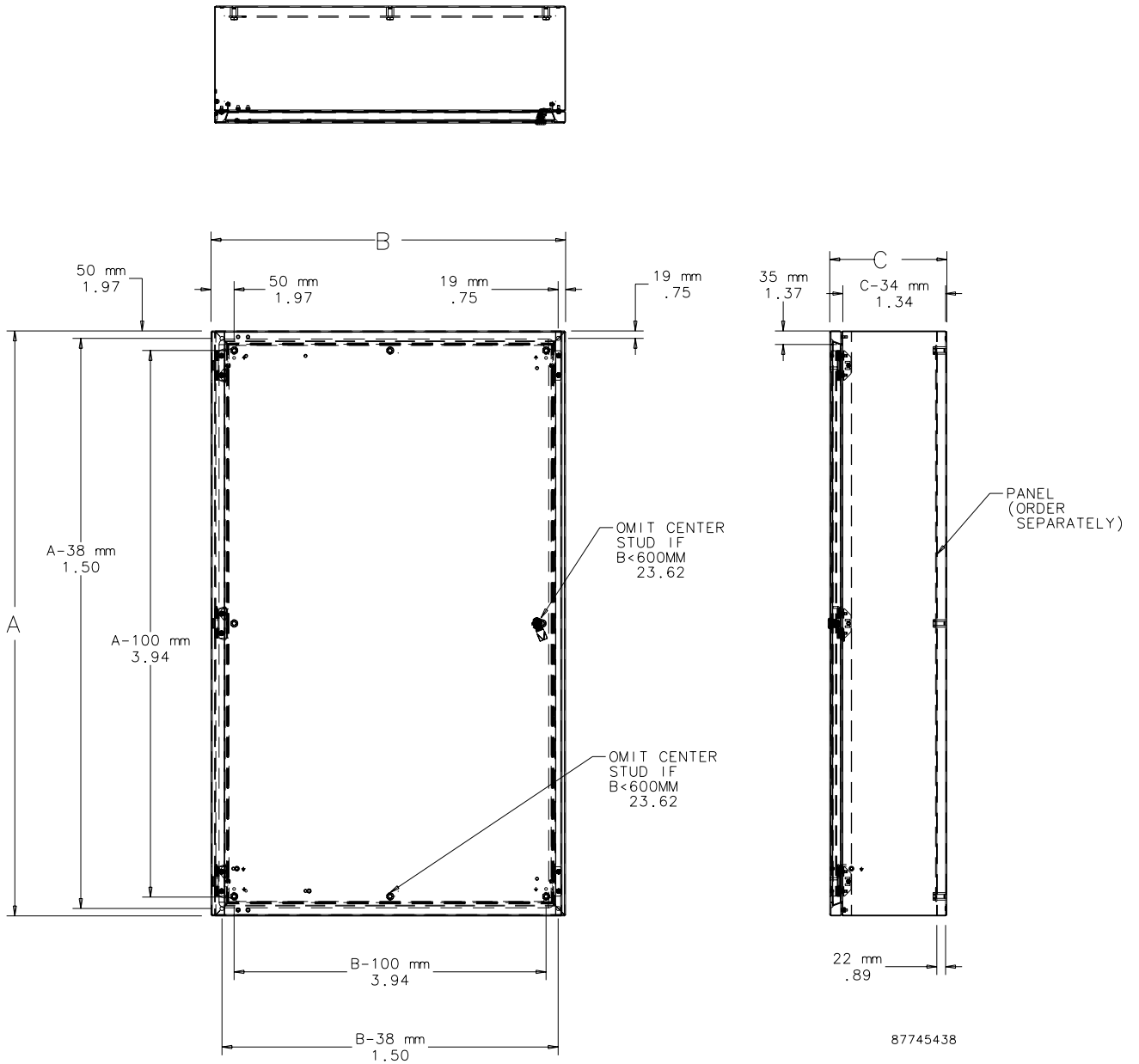
All the above enclosures must have mounting feet installed to meet UL Type 3, UL Type 4 and UL Type 4X ratings.

**Standard Product Continuous Hinge**

Part no	AxBxC mm	AxBxC in.	Latch Points	Door Thickness mm	Door Thickness in.	Std. Pkg. kg
ECL303015CH	300 x 300 x 150	11.80 x 11.80 x 5.90	1	2	.08	4.1
ECL403015CH	400 x 300 x 150	15.70 x 11.80 x 5.90	1	2	.08	4.5
ECL404015CH	400 x 400 x 150	15.70 x 15.70 x 5.90	1	2	.08	5.4
ECL404020CH	400 x 400 x 200	15.70 x 15.70 x 7.90	1	2	.08	5.9
ECL504020CH	500 x 400 x 200	19.70 x 15.70 x 7.90	1	2	.08	6.8
ECL505020CH	500 x 500 x 200	19.70 x 19.70 x 7.90	1	2	.08	7.7
ECL605020CH	600 x 500 x 200	23.60 x 19.70 x 7.90	3	2.5	.10	8.6
ECL606020CH	600 x 600 x 200	23.60 x 23.60 x 7.90	3	2.5	.10	10.4
ECL806020CH	800 x 600 x 200	31.50 x 23.60 x 7.90	3	2.5	.10	12.2
ECL1006030CH	1000 x 600 x 300	39.40 x 23.60 x 11.80	3	2.5	.10	15.9
ECL1209030CH	1200 x 900 x 300	47.20 x 35.40 x 11.80	3	2.5	.10	25.0
ECL1509030CH	1500 x 900 x 300	59.10 x 35.40 x 11.80	3	2.5	.10	35.4

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

Outside Plant Enclosures



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Outside Plant Enclosures

### Solar Shield Top



Solar Shield Top provides a vented area on top of the enclosure to absorb solar heating effects and help keep enclosure cool. Also provides a drip shield to keep liquids away from the door sealing surface. Aluminum with RAL 7035 textured, light-gray finish inside and out. Maintains enclosure rating. Includes mounting hardware.

#### Shielding Effectiveness

Hoffman's research of the effects of solar radiation on enclosures has shown the positive benefits of utilizing shielding to decrease temperature rise. Shielding has been found to be an effective, low-cost method of reducing solar heat gain in outdoor electrical/electronic applications.

Test results indicate that a top-mounted solar shield provides a 25 percent reduction in temperature rise due to solar heat load.

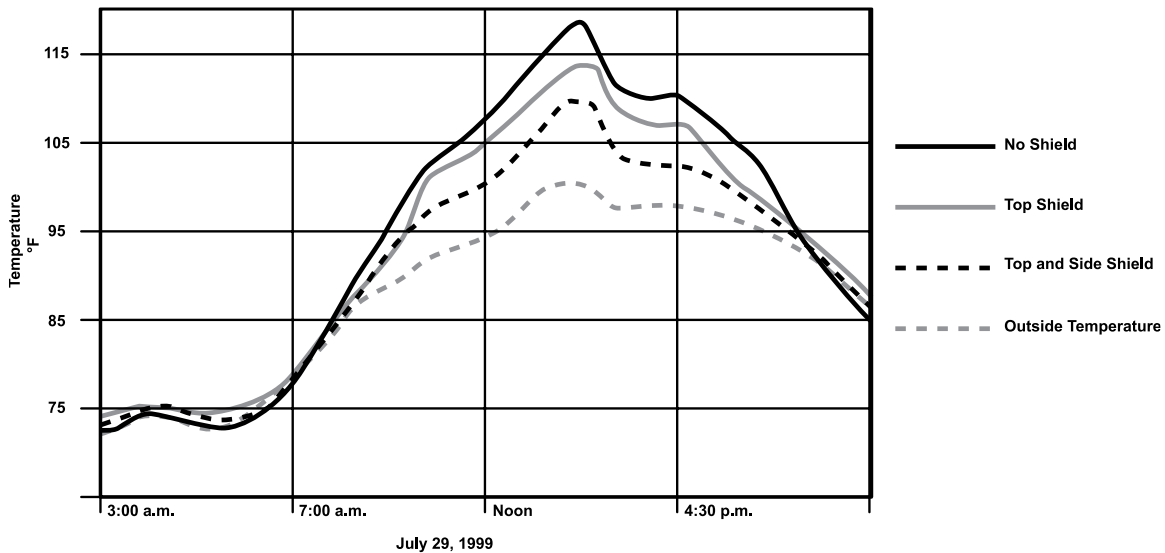
Part no	Fits B x C mm
ESSH3015	300 x 150
ESSH4015	400 x 150
<b>ESSH4020</b>	400 x 200
ESSH5020	500 x 200
<b>ESSH6020</b>	600 x 200
ESSH6030	600 x 300
ESSH9030	900 x 300

#### Unshielded vs. Shielded

Enclosure Type	Temperature (°F)	Temp. Reduction (%)
Unshielded	118.6	—
Top shield only	114.0	25
Top and side shields	110.1	46

Air Temperature = 100.2 F

Enclosure color is light-gray (RAL 7035)



The results of the test show the enclosure with top and side shields to have approximately a 46% reduction in temperature compared to the unshielded enclosure. Hoffman offers top shields as an accessory for Hoffman COMLINE® Wall-Mount Enclosures. The reduction in temperature is approximately 25% with the solar shield top only.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Outside Plant Enclosures

### Mounting Panel



Provides a mounting surface in the back of the COMLINE™ Enclosure for surface-mount components. Mill finish aluminum.

Part no	Fits A x B mm	Height mm	Height in.	Width mm	Width in.
EP3030AL	300 x 300	226	8.90	226	8.90
EP4030AL	400 x 300	326	12.84	226	8.90
<b>EP4040AL</b>	400 x 400	326	12.84	326	12.94
EP5040AL	500 x 400	426	16.78	326	12.94
EP5050AL	500 x 500	426	16.78	426	16.78
EP6050AL	600 x 500	526	20.71	426	16.78
<b>EP6060AL</b>	600 x 600	526	20.71	526	20.71
EP8060AL	800 x 600	726	28.59	526	20.71
EP10060AL	1000 x 600	926	36.46	526	20.71
EP12090AL	1200 x 900	1126	44.33	826	32.52
EP15090AL	1500 x 900	1426	56.15	826	32.52

### Rack Angles



Rack Angles allow for mounting 19-in. rack equipment in 600-mm wide enclosures. Plated 1.5-mm thick steel with 7-mm diameter holes (through-hole type). Twenty M5 screws and 20 clip nuts included for mounting rack angles to enclosure and for mounting equipment to rack angles.

Part no	Description	Fits A mm	Fits A in.
ERA196TH	Rack Angles	600	23.62
ERA198TH	Rack Angles	800	31.50
ERA1910TH	Rack Angles	1000	39.37

### Door Stop Kit



Self-actuating door stop kit secures doors in the open position. Mounts to top or bottom of door. Stainless steel and aluminum material. Mounting hardware included.

Part no	Description
<b>EDSK</b>	Door Stop Kit

### Cage Nut Package



Twenty plated clip nuts fit all rack-mounting angles with 7-mm diameter holes (through-hole type).

Part no	Color	Description	Pkg. Qty.
PM5CN	Silver	M5 cage nut	20
PM6CN	Silver	M6 cage nut	20
PM6CN250	Silver	M6 cage nut	250
P1032CN	Silver	10-32 cage nut	20
P1032CN250	Silver	10-32 cage nut	250
P1224CN	Silver	12-24 cage nut	20
P1224CN250	Silver	12-24 cage nut	250

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Outside Plant Enclosures

### Screw Package



Screws attach rack panels and rack-mounted equipment to rack-mounting angles.

Part no	Color	Description	Pkg. Qty.
ES1224	Silver	12-24 x 5/8 in. combo head	20
ES1224250	Silver	12-24 x 5/8 in. combo head	250
ES1224B	Black	12-24 x 5/8 in. combo head	20
ES1224B250	Black	12-24 x 5/8 in. combo head	250
ASM5	Silver	M5 x 20 mm Combo Head	20
ASM6	Silver	M6 x 16 mm combo head	20
ASM5T	Silver	M5 x 12 mm thread-forming Phillips hex head screws	20
ASM6250	Silver	M6 x 16 mm combo head	250
AS1032	Silver	10-32 x 5/8 in. combo head	20
AS1032250	Silver	10-32 x 5/8 in. combo head	250
AS1032B	Black	10-32 x 5/8 in. combo head	20

Use ASM5T on PROLINE™ frame or Net Series extruded holes.

### Pole-Mount Kit



Use to mount CONCEPT™, Networking and wall-mount enclosures to poles of various sizes and shapes. Simply attach the plated steel channel bar to the mounting holes at the back of the enclosure and wrap the stainless steel strap around the pole and through the bar. Kit includes two mounting channels, two straps suitable for 76-mm to 305-mm diameter pole and mounting hardware.

Part no	Fits Enclosure mm	Fits Enclosure in.
CPMK12	when B = 305	when B = 12.00
CPMK16	when B = 406	when B = 16.00
CPMK20	when B = 508	when B = 20.00
CPMK24	when B = 610	when B = 24.00
CPMK30	when B = 762	when B = 30.00

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## Outside Plant Enclosures

### Ground Buss

This copper Ground Buss provides wiring tie points within the enclosure. Mounts on studs provided on enclosure side. Tie-point spacing is 19 mm pair-to-pair and 16 mm across each pair. Ground studs are 1/4-20 x .75-in. on 19-mm centers.

Part no	Description
EGBB1	6-position, double-lug buss
EGBB2	12-position, double-lug buss

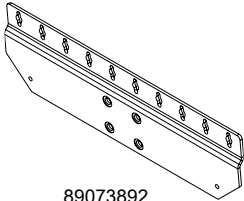
### Mounting Bracket Kit



Mounting Bracket Kits are available in stainless steel or composite material. Kit includes 4 brackets and mounting hardware.

Part no	Description
CMFK	Steel
CMFKSS	Stainless Steel
CMTGFT	Composite

### Wall Mounting Bracket



89073892

Wall Mounting Bracket bolts to enclosure back thread holes and facilitates easy mounting to walls. Made of 2.5-mm-thick aluminum with enclosure matching RAL 7035 finish.

Part no	AxBxC in./mm	Description
EMB1	1.73 x 30.20 x 21.26 44 x 767 x 540	Aluminum

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

# CHAPTER 4

## HMI- Human-Machine Interface



# Chapter Contents

## HMI - Human-Machine Interface

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## SYSPEND™ Mounting Options

### SYSPEND™ Monitor and Keyboard Arm



#### Application

Vertical motion pendant arm for mounting a flat screen monitor, keyboard and mouse in industrial environments. Opens up plant floor space by locating the display where it is convenient for the operator. Display and keyboard can be raised and lowered with one hand. Keyboard folds up when not in use.

#### Features

- Supports 2.7-6.8 kg loads with an internal gas spring counterbalance
- Provides 304-mm of vertical height adjustment
- Toggle lever locks arm in place when repositioned vertically
- 76x76-mm and 102x102-mm VESA mounting pattern fits most flat screen monitors
- Arm swivels 340 degrees at monitor end and 180 degrees at mounting end

- Display tilts forward 15 degrees and back 45 degrees to reduce glare
  - Folds up within 127 mm of the wall
  - Display and keyboard stay level as they travel vertically
  - Side cable manager protects cables and cords from pulling or chafing
  - Easily installs on a wall or vertical surface
  - VELCRO® included to affix keyboard to mounting surface
  - Monitor, keyboard and mouse are not included
- VELCRO is a trademark of Velcro Industries B.V.*

#### Specifications

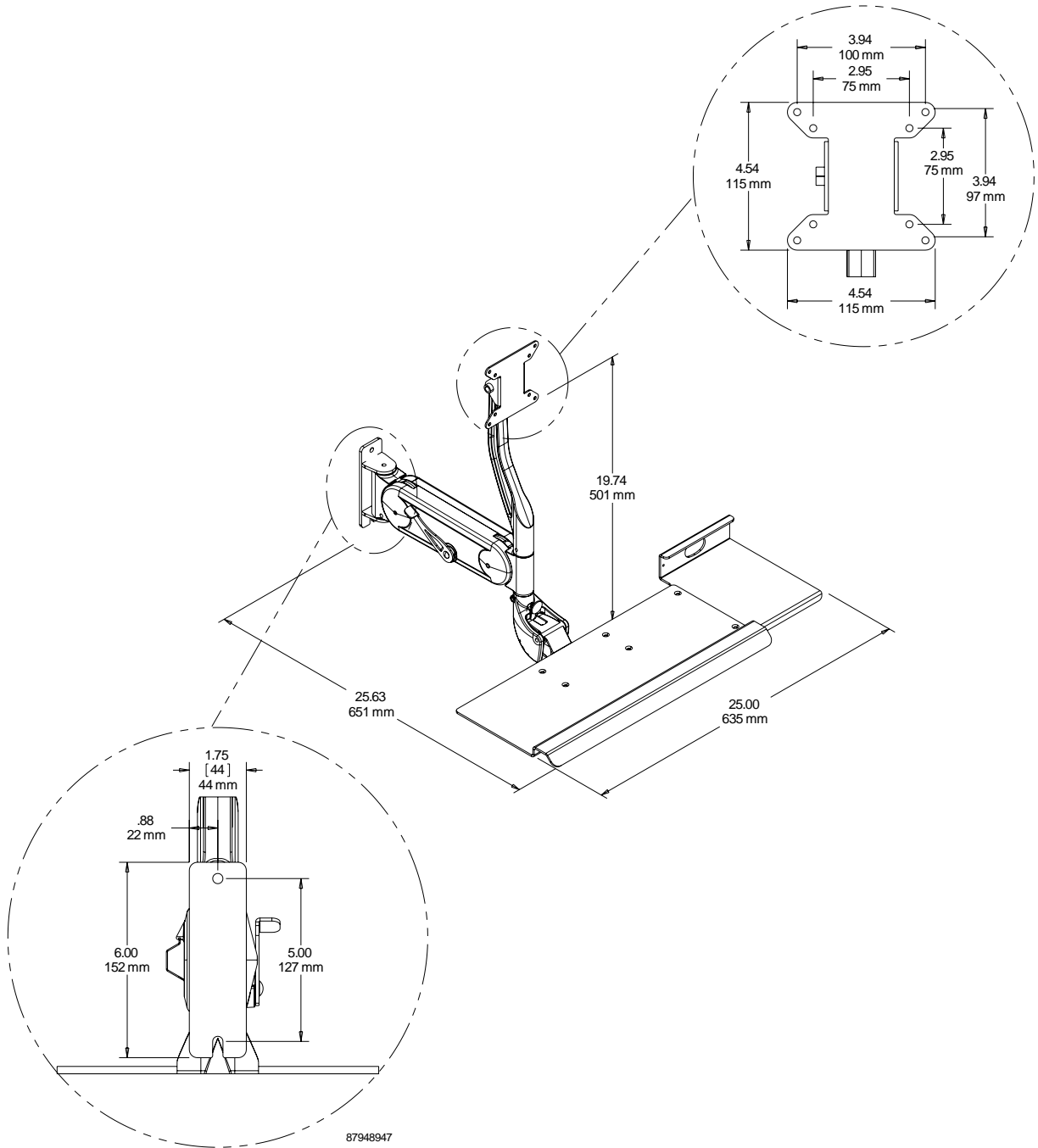
- Aluminum construction
- RAL 7035 light-gray finish
- Gas spring counterbalance

#### Standard Product

Part no	AxBxC in./mm	Description	Arm Weight kg
<b>VAMONITOR</b>	21.22 x 25.00 x 25.63 539 x 635 x 651	SYSPEND Monitor and Keyboard Arm	9.07

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### SYSPEND™ Mounting Options



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CONCEPT™ HMI System and Accessories

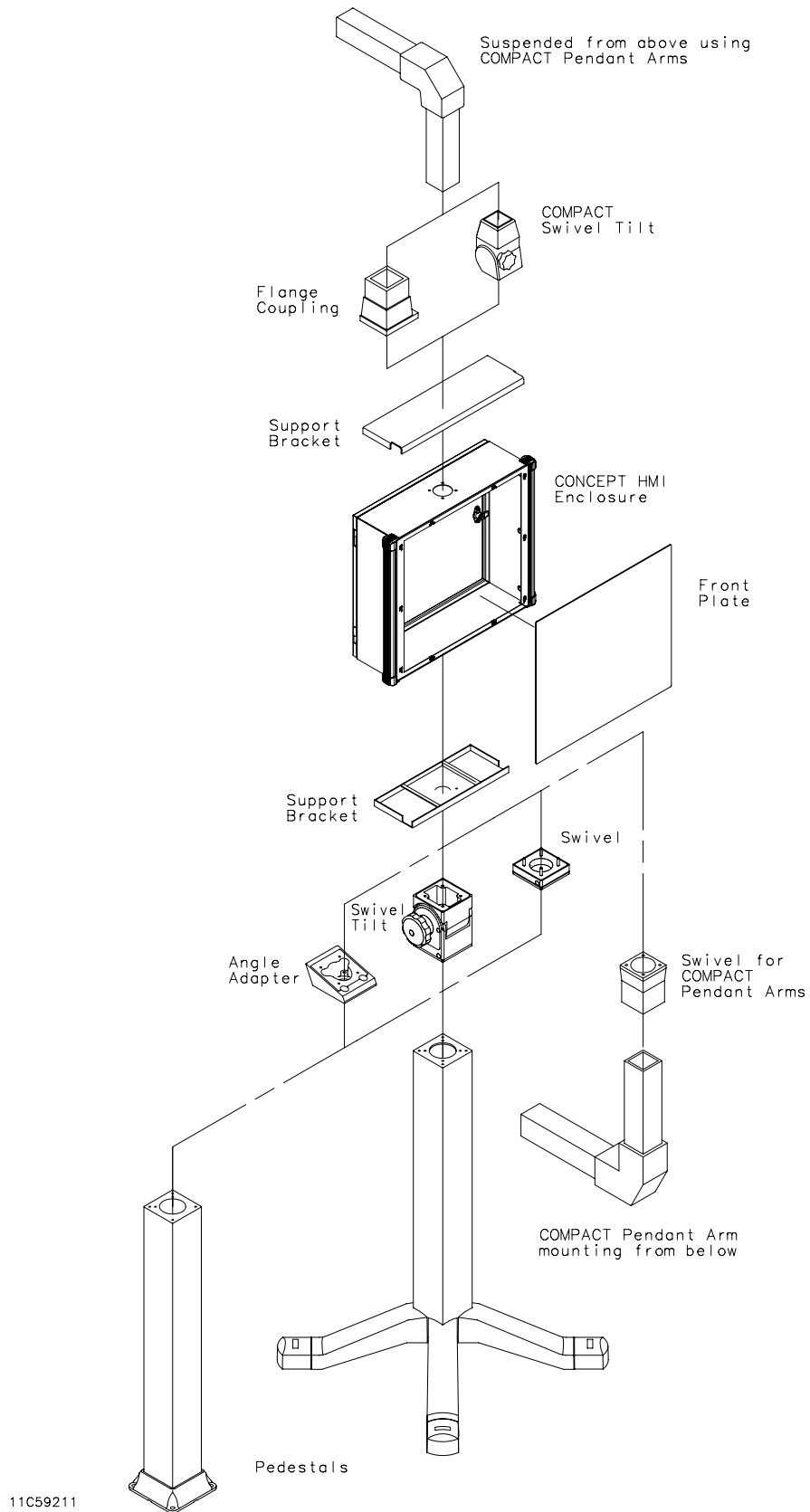
### CONCEPT™ HMI Overview



These human-machine interface (HMI) enclosures are appropriate for applications incorporating flat-screen devices, pushbuttons and other similar devices. Available in three depths, the system's capability for pendent or pedestal mounting offers exceptional design flexibility.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### CONCEPT™ HMI System and Accessories



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CONCEPT™ HMI System and Accessories

### CONCEPT™ HMI, Type 4 (IP66)



#### Specifications

- Body manufactured from 1.63-mm thick steel
- Front plate is 3-mm thick aluminum
- Grounding stud on body; bonding provision on door
- Simple easy-to-remove and install hinge pins with built-in captive clip
- High-torque threadless studs and fasteners on door

#### Finish

Enclosure body and front plate have RAL 7035 light-gray polyester powder paint finish. Standard handle extrusions and end caps have RAL 9005 black polyester powder paint finish.

#### Modification and Customization

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

#### Industry Standards

UL 508A Listed; Type 4, 12; File Number E61997  
 cUL Listed per CSA C22.2 No. 94; Type 4, 12; File No. E61997

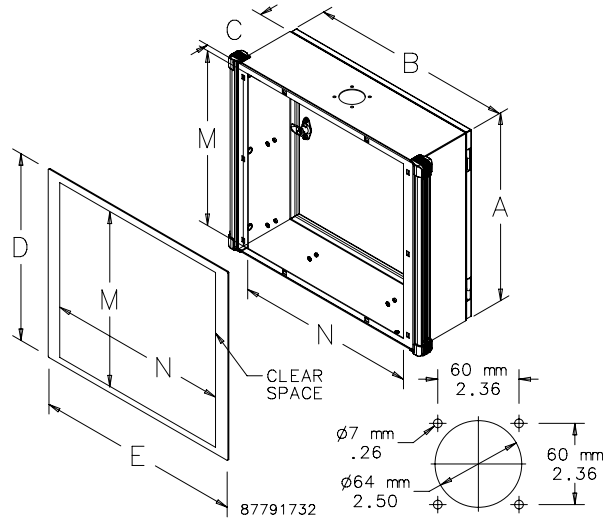
NEMA Type 4, 12  
 IEC 60529, IP66

#### Application

A traditional landscape-oriented HMI enclosure made of light-gray steel, the CONCEPT™ HMI is unique among HMI enclosure systems when you need a range of customization options. This pendant- or pedestal-mounted system has many possible configurations and modifications, including a removable front plate that makes it easy to install HMI components and the ability to accommodate cutouts anywhere on the enclosure.

#### Features

- Pre-drilled hole in top for pendant arm mounting
- Pedestal mounting when enclosure is inverted
- Integral handle extrusions have a comfort grip that extends the length of the profile; standard color black
- Hinged rear corner-formed door has a single-point latch, seamless foam-in-place gasket and panel studs
- Aluminum front plate



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**CONCEPT™ HMI System and Accessories**

 Standard Product **CONCEPT HMI Enclosures with Black Extrusions**

Part no	AxBxC mm	AxBxC in.	Front Opening M mm	Front Opening M in.	Front Opening N mm	Front Opening N in.	Front Plate D mm	Front Plate D in.	Front Plate E mm	Front Plate E in.	Product Weight kg
CP253512	250 x 350 x 120	9.84 x 13.78 x 4.72	210	8.27	280	11.02	250	9.86	361	14.22	4.8
CP304012	300 x 400 x 120	11.81 x 15.75 x 4.72	260	10.24	330	12.99	330	12.99	411	16.19	6.8
CP323512	325 x 350 x 120	12.80 x 13.78 x 4.72	285	11.22	280	11.02	325	12.81	361	14.22	7.5
<b>CP354512</b>	350 x 450 x 120	13.78 x 17.72 x 4.72	310	12.20	380	14.96	350	13.79	461	18.16	9.1
CP354518	350 x 450 x 180	13.78 x 17.72 x 7.09	310	12.20	380	14.96	350	13.79	461	18.16	10.1
CP354530	350 x 450 x 300	13.78 x 17.72 x 11.80	310	12.20	380	14.96	350	13.79	461	18.16	12.2
CP374012	375 x 400 x 120	14.76 x 15.75 x 4.72	335	13.19	330	12.99	375	14.78	411	16.19	9.1
<b>CP405012</b>	400 x 500 x 120	15.75 x 19.69 x 4.72	360	14.17	430	16.93	400	15.76	511	20.13	11.0
<b>CP405018</b>	400 x 500 x 180	15.75 x 19.69 x 7.09	360	14.17	430	16.93	400	15.76	511	20.13	12.0
CP405030	400 x 500 x 300	15.75 x 19.69 x 11.80	360	14.17	430	16.93	400	15.76	511	20.13	14.0
CP424512	425 x 450 x 120	16.73 x 17.72 x 4.72	385	15.16	380	14.96	425	16.75	461	18.16	10.8
CP424518	425 x 450 x 180	16.73 x 17.72 x 7.09	385	15.16	380	14.96	425	16.75	461	18.16	11.7
CP424530	425 x 450 x 300	16.73 x 17.72 x 11.80	385	15.16	380	14.96	425	16.75	461	18.16	13.7
CP455512	450 x 550 x 120	17.72 x 21.65 x 4.72	410	16.14	480	18.90	450	17.73	561	22.10	13.0
CP455518	450 x 550 x 180	17.72 x 21.65 x 7.09	410	16.14	480	18.90	450	17.73	561	22.10	14.0
CP455530	450 x 550 x 300	17.72 x 21.65 x 11.80	410	16.14	480	18.90	450	17.73	561	22.10	16.2
CP475012	475 x 500 x 120	18.70 x 19.69 x 4.72	435	17.13	430	16.93	475	18.72	511	20.13	12.7
CP475018	475 x 500 x 180	18.70 x 19.69 x 7.09	435	17.13	430	16.93	475	18.72	511	20.13	13.7
CP475030	475 x 500 x 300	18.70 x 19.69 x 11.80	435	17.13	430	16.93	475	18.72	511	20.13	15.7
CP486012	480 x 600 x 120	18.90 x 23.62 x 4.72	440	17.32	530	20.87	480	18.90	611	24.06	14.6
CP486018	480 x 600 x 180	18.90 x 23.62 x 7.09	440	17.32	530	20.87	480	18.90	611	24.06	15.7
CP486030	480 x 600 x 300	18.90 x 23.62 x 11.80	440	17.32	530	20.87	480	18.90	611	24.06	17.9
CP525512	525 x 550 x 120	20.67 x 21.65 x 4.72	485	19.09	480	18.90	525	20.68	561	22.10	14.7
CP525518	525 x 550 x 180	20.67 x 21.65 x 7.09	485	19.09	480	18.90	525	20.68	561	22.10	15.8
CP525530	525 x 550 x 300	20.67 x 21.65 x 11.80	485	19.09	480	18.90	525	20.68	561	22.10	18.0
CP556012	555 x 600 x 120	21.85 x 23.62 x 4.72	515	20.28	530	20.87	555	21.86	611	24.06	16.7
<b>CP556018</b>	555 x 600 x 180	21.85 x 23.62 x 7.09	515	20.28	530	20.87	555	21.86	611	24.06	17.6
CP556030	555 x 600 x 300	21.85 x 23.62 x 11.80	515	20.28	530	20.87	555	21.86	611	24.06	19.8

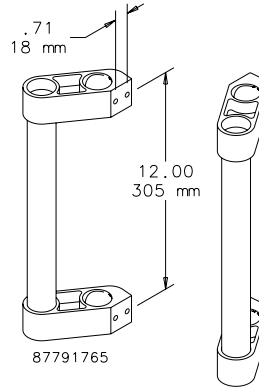
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### CONCEPT™ HMI System and Accessories

#### Accessory Handle Kit



Install handles on the integral handle extrusions or the bottom of the enclosure. Handle is 340.4-mm long and can be cut down to fit smaller enclosure sizes. Aluminum tube has RAL 9005 black polyester powder paint finish. Plastic ends are RAL 9005 black. Kit includes one pair of handles and all mounting hardware.

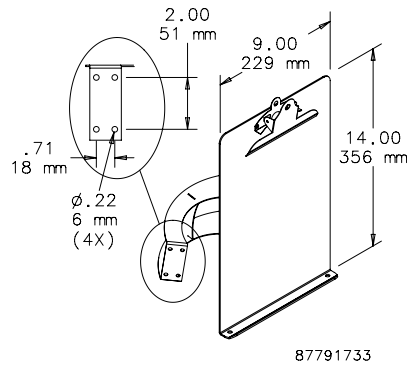


Part no	Description	Product Weight kg
<b>CHDLK</b>	One pair of handles and mounting hardware	.77

#### Clipboard/White Board



The Clipboard/White Board can be installed on either handle extrusion. All mounting hardware and installation instructions are included. Finished with white paint. Dry-erase markers can be used on the front writing surface.

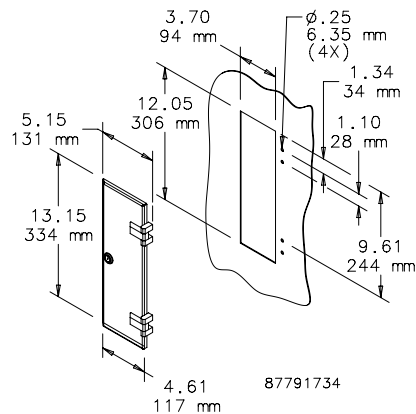


Part no	Description	Product Weight kg
<b>CCLPBRD</b>	Clipboard and mounting hardware	.9

#### Drive Access Door



Drive door can be installed only on enclosures to access internal disk drives. Key-locking latch is included. An installation template is included in the installation instructions. All installation hardware is included. RAL 7035 light-gray polyester powder paint finish. Hinges have RAL 9005 black polyester powder paint finish. Maintains NEMA Type 12 rating. Cannot be used on 120-mm deep enclosures.



Part no	Description	Product Weight kg
<b>CDACCDR</b>	Door and installation hardware	.77

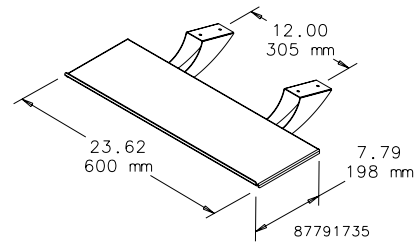
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### CONCEPT™ HMI System and Accessories

#### Keyboard Tray



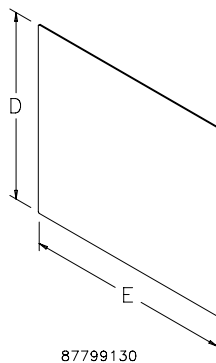
The Keyboard Tray mounts under the enclosure for a keyboard and mouse. All mounting hardware is included. The tray has RAL 7035 light-gray polyester powder paint finish.



Part no	Description	Product Weight kg
<b>CKBT</b>	Keyboard tray and mounting hardware	1.45

#### Replacement Front Plate

Aluminum plate is 3.175-mm thick. Finish is RAL 7035 light-gray polyester powder paint. Mounting hardware is included.



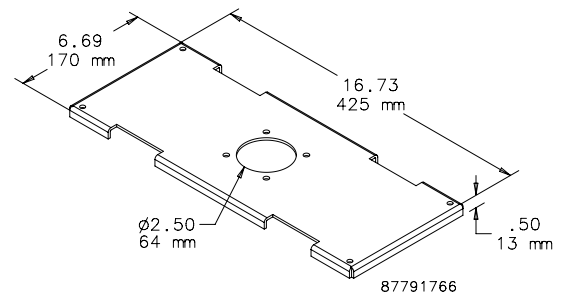
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Part no	D mm/in.	E mm/in.	Fits Enclosure	
			A x B mm/in.	Product Weight kg
CPFP2535	250 9.84	361 14.22	250 x 350 9.84 x 13.78	.77
CPFP3040	300 11.81	411 16.19	300 x 400 11.81 x 15.75	1.09
CPFP3235	325 12.80	361 14.22	325 x 350 12.80 x 13.78	1.04
CPFP3545	350 13.78	461 18.16	350 x 450 13.78 x 17.72	1.41
CPFP3740	375 14.76	411 16.19	375 x 400 14.76 x 15.75	1.36
CPFP4050	400 15.75	511 20.13	400 x 500 15.75 x 19.68	1.77
CPFP4245	425 16.73	461 18.16	425 x 450 16.73 x 17.72	1.72
CPFP4555	450 17.72	561 22.10	450 x 550 17.72 x 21.65	2.18
CPFP4750	475 18.70	511 20.13	475 x 500 18.70 x 19.68	2.13
CPFP4860	480 18.90	611 24.06	480 x 600 18.90 x 23.62	2.54
CPFP5255	525 20.67	561 22.10	525 x 550 20.67 x 21.65	2.54
CPFP5560	555 21.85	611 24.06	555 x 600 21.85 x 23.62	2.95

#### Support Bracket

Support Bracket provides extra rigidity in 180-mm-deep enclosures that are either pendant- or pedestal-mounted. The bracket mounts in the top or bottom of the enclosure; drilling is required (drill points included on enclosure). The support bracket is not required for 120-mm-deep enclosures.

Part no	Description	Product Weight kg
<b>CSB180</b>	One bracket per package	.82

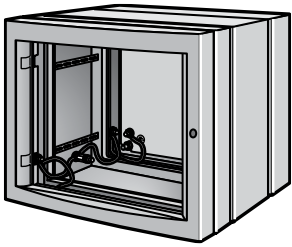


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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### CONCEPT™ HMI System and Accessories

#### Grounding Kit



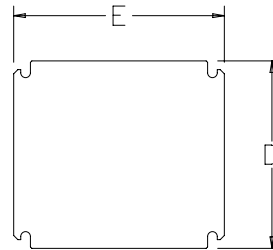
Kit provides a means of attaching a grounding conductor to an enclosure. Kit consists of two insulated copper wires with all installation hardware and instructions included.

<b>Part no</b>
CCGK

#### Door Panels



Use CONCEPT™ HMI Door Panels for mounting in the rear door of a CONCEPT HMI enclosure. Constructed of 1.63-mm thick steel and painted white; conductive panels have a galvanized finish.



8792.3202

Part no	Type	Thickness mm	D mm	D in.	E mm	E in.
CP2535	Steel	1.63	131	5.18	232	9.14
CP2535G	Conductive	2.05	131	5.18	232	9.14
CP3040	Steel	1.63	181	7.15	282	11.11
CP3040G	Conductive	2.05	181	7.15	282	11.11
CP3235	Steel	1.63	206	8.13	232	9.14
CP3235G	Conductive	2.05	206	8.13	232	9.14
CP3545	Steel	1.63	232	9.12	332	13.08
CP3545G	Conductive	2.05	232	9.12	332	13.08
CP3740	Steel	1.63	256	10.10	282	11.11
CP3740G	Conductive	2.05	256	10.10	282	11.11
CP4050	Steel	2.05	281	11.09	382	15.04
CP4050G	Conductive	2.05	281	11.09	382	15.04
CP4245	Steel	2.05	306	12.07	332	13.08
CP4245G	Conductive	2.05	306	12.07	332	13.08
CP4555	Steel	2.05	331	13.05	432	17.01
CP4555G	Conductive	2.05	331	13.05	432	17.01
CP4750	Steel	2.05	356	14.04	382	15.04
CP4750G	Conductive	2.05	356	14.04	382	15.04
CP4860	Steel	2.05	361	14.23	482	18.98
CP4860G	Conductive	2.05	361	14.23	482	18.98
CP5255	Steel	2.05	407	16.01	432	17.01
CP5255G	Conductive	2.05	407	16.01	432	17.01
CP5560	Steel	2.05	436	17.19	482	18.98
CP5560G	Conductive	2.05	436	17.19	482	18.98

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



## CONCEPT™ HMI System and Accessories

### Notes

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## CC4000 HMI Systems and Accessories

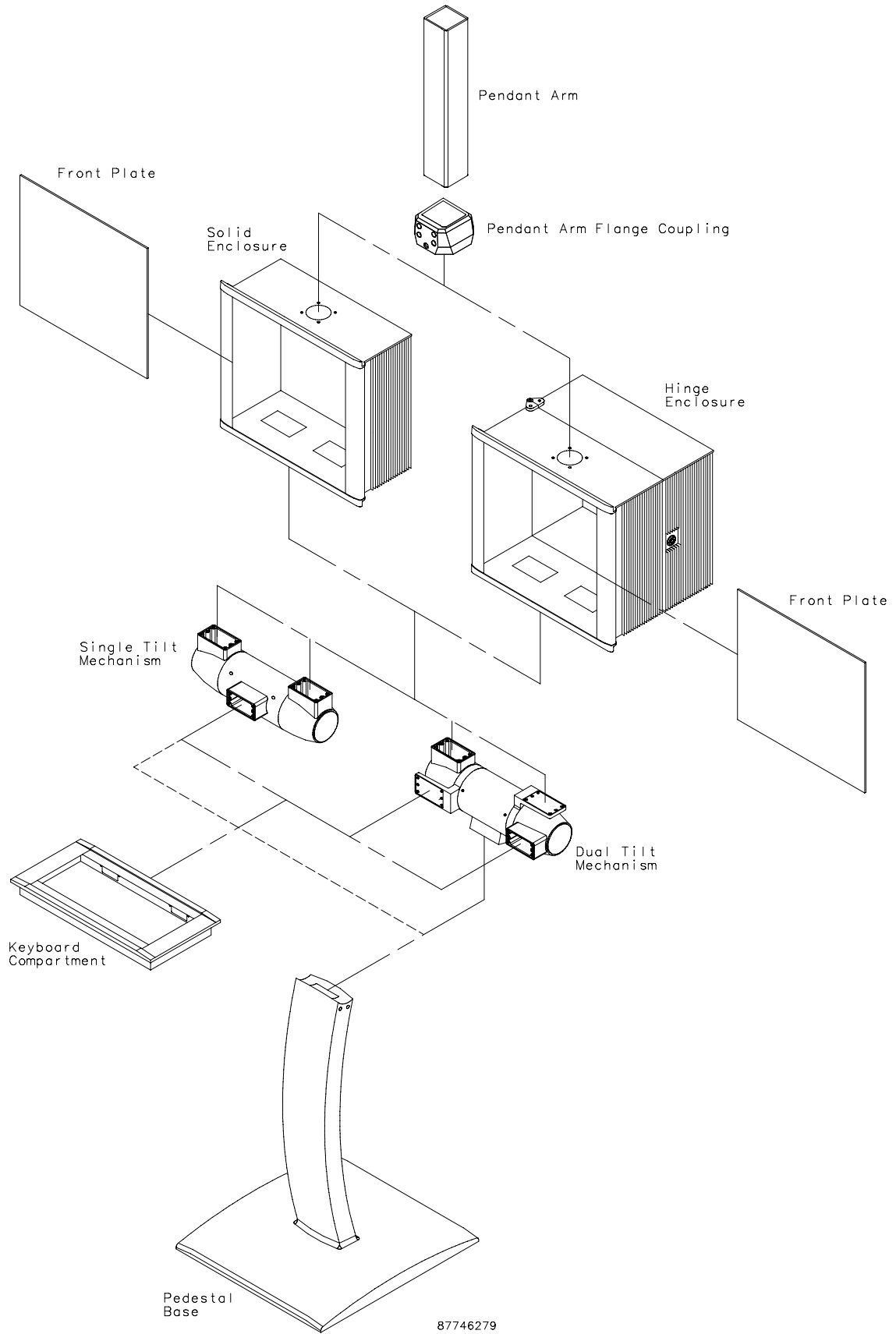
## CC4000 HMI Overview



**T**his attractive family of human-machine interface (HMI) enclosures sets a new standard for visual appeal coupled with design flexibility and ease of use. It's available in two body styles, three configurations and eight sizes. The system's capability for pendant or pedestal mounting, with or without a keyboard provision, offers exceptional design flexibility. Extruded aluminum top and sides provide a quality look while offering superior heat dissipation. Hinged body models provide extra depth and allow rear access. The single- and dual-tilt mechanisms give the operator control over adjustment and ergonomic positioning of the enclosure and/or keyboard, depending on configuration. The tilt mechanisms are the only additional components required for mounting the enclosure on a pedestal and for adding a keyboard compartment with either pedestal or pendant mounting.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### CC4000 HMI Systems and Accessories



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CC4000 HMI Systems and Accessories

### CC4000, Type 12 (IP55)



#### Industry Standards

UL 508A Listed; Type 12; File No. E61997  
cUL Listed per CSA C22.2 No. 94; Type 12; File No. E61997

NEMA/EEMAC Type 12  
IEC 60529, IP55  
DIN 40050

#### Application

Choose from various body styles, configurations and mounting options. The keyboard and/or enclosure tilts to be ergonomic and comfortable.

#### CC4000 Enclosures

All body sizes and styles are available for pendant or pedestal mounting with or without a keyboard. Hinged and solid bodies are available in the sizes shown in the table. Hinged bodies offer extra depth and rear access. Rear aluminum screw cover is standard.

#### Pendant-Mount Enclosures

Use in pendant-mounting applications where keyboard compartment is not required. Cutout in top for mounting with pendant arm.

#### Pendant-Mount Enclosures with Keyboard Compartment Capability

Use in pendant-mounting applications where a keyboard compartment is required.

- Cutout in top for mounting with pendant arm
- Cutout on bottom for keyboard tilt mechanism
- Order tilt mechanism and keyboard compartment separately

#### Pedestal-Mount Enclosure

Use in pedestal mounting applications with the CPCC4 Pedestal, either with or without a keyboard.

- Tilt mechanism required for connecting enclosure and pedestal
- Cutout on bottom for tilt mechanism mounting
- Order tilt mechanism and keyboard compartment (if needed) separately

#### Specifications

- Extruded Type 6063 aluminum top and sides provide a quality appearance and internal flexibility
- Body is available hinged or solid
- Optional rear covers can be hinged on either the right or left side
- Integral mounting system has extruded screw channels to facilitate easy component installation
- Each size is designed to accommodate a range of flat-screen HMI devices
- Oil-resistant gasket attached with oil-resistant adhesive
- High thermal conductivity for superior heat dissipation

#### Finish

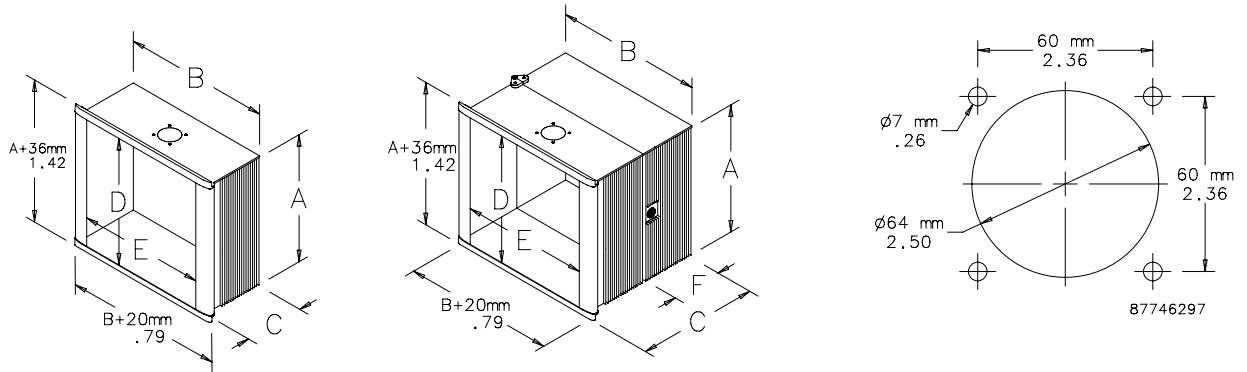
Enclosure vertical components are clear anodized aluminum; horizontal components are painted RAL 7021 black aluminum. Steel front plates have RAL 7035 gray polyester powder paint finish. Stainless steel front plates have a brushed finish. Aluminum rear covers have a clear anodized brushed finish.

#### Standard Product **Pendant Mount Enclosures**

Part no	AxBxC mm	AxBxC in.	Body Style	Usable Area D x E mm	Usable Area D x E in.	F mm	F in.	Product Weight kg
CCC284014PN	280 x 400 x 140	11.02 x 15.75 x 5.51	Solid	185 x 275	7.28 x 10.83	—	—	7.44
CCC334014PN	330 x 400 x 140	12.99 x 15.75 x 5.51	Solid	235 x 275	9.25 x 10.83	—	—	7.94
CCC456029PN	450 x 600 x 290	17.72 x 23.62 x 11.42	Solid	355 x 475	13.98 x 18.70	—	—	19.96
CCC334026HPN	330 x 400 x 268	12.99 x 15.75 x 10.55	Hinged	235 x 275	9.25 x 10.83	128	5.04	13.60
CCC425326HPN	425 x 530 x 268	16.73 x 20.87 x 10.55	Hinged	330 x 405	12.99 x 15.94	128	5.04	18.60

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

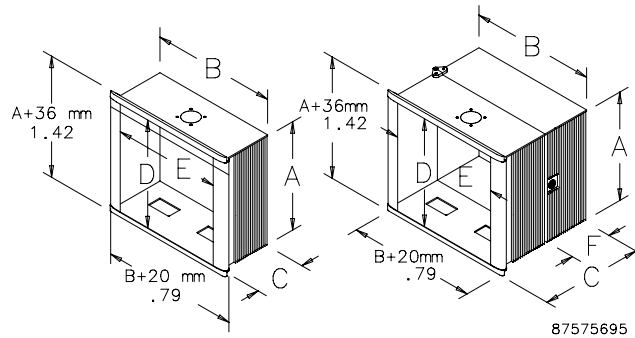


**CC4000 HMI Systems and Accessories**

**Standard Product Pendant Mount Enclosures with Keyboard Compartment Capability**

Part no	AxBxC mm	AxBxC in.	Body Style	Usable Area D x E mm	Usable Area D x E in.	F mm	F in.	Tilt Mechanism	Product Weight kg
CCC284014PNK	280 x 400 x 140	11.02 x 15.75 x 5.51	Solid	185 x 275	7.28 x 10.83	—	—	CTKBC	7.44
CCC456029PNK	450 x 600 x 290	17.72 x 23.62 x 11.42	Solid	355 x 475	13.98 x 18.70	—	—	CTKBC	19.96
CCC334026HPNK	330 x 400 x 268	12.99 x 15.75 x 10.55	Hinged	235 x 275	9.25 x 10.83	128	5.04	CTKBC	13.61
CCC425326HPNK	425 x 530 x 268	16.73 x 20.87 x 10.55	Hinged	330 x 405	12.99 x 15.94	128	5.04	CTKBC	18.60

Solid Enclosure

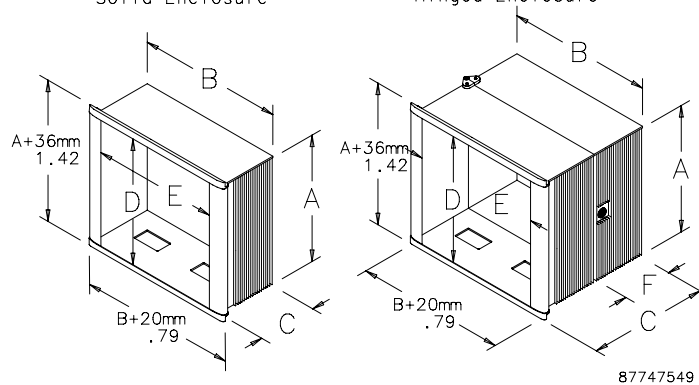
Hinged Enclosure


**Standard Product Pedestal Mount Enclosures**

Part no	AxBxC mm	AxBxC in.	Body Style	D x E mm	D x E in.	F mm	F in.	Tilt Mechanism Without Keyboard	Tilt Mechanism With Keyboard	Weight kg
CCC284014PD	280 x 400 x 140	11.02 x 15.75 x 5.51	Solid	185 x 275	7.28 x 10.83	—	—	CTKBC	CTKBBCP	7.44
CCC334014PD	330 x 400 x 140	12.99 x 15.75 x 5.51	Solid	235 x 275	9.25 x 10.83	—	—	CTKBC	CTKBBCP	7.94
CCC456029PD	450 x 600 x 290	17.72 x 23.62 x 11.41	Solid	355 x 475	13.98 x 18.70	—	—	CTKBC	CTKBBCP	19.96
CCC334026HPD	330 x 400 x 268	12.99 x 15.75 x 10.55	Hinged	235 x 275	9.25 x 10.83	128	5.04	CTKBC	CTKBBCP	13.61
CCC425326HPD	425 x 530 x 268	16.73 x 20.87 x 10.55	Hinged	330 x 405	12.99 x 15.94	128	5.04	CTKBC	CTKBBCP	18.60

Solid Enclosure

Hinged Enclosure



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

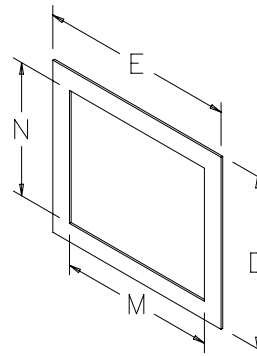
## CC4000 HMI Systems and Accessories

### Front Plate



Front Plates are 1.63-mm thick steel with RAL 7035 light-gray polyester powder paint finish. Stainless steel front plates have a brushed finish.

Hoffman can provide pre-configured front plates to meet your specific requirements. Contact your local Hoffman Sales Representative for more information.



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#### Standard Product **CC4000 Front Plate**

Part no	Steel Type	Panel Size D x E mm	Panel Size D x E in.	Usable Area N x M mm	Usable Area N x M in.	Fits Enclosure mm	Fits Enclosure in.	Product Weight kg
C4FP2840	Steel	219 x 309	8.62 x 12.17	185 x 275	7.28 x 10.83	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	1.59
C4FP2840SS	Stainless Steel	219 x 309	8.62 x 12.17	185 x 275	7.28 x 10.83	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	1.81
C4FP3340	Steel	269 x 309	10.59 x 12.17	235 x 275	9.25 x 10.83	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	1.81
C4FP4253	Steel	364 x 439	14.33 x 17.28	330 x 405	12.99 x 15.94	425 x 530 x 200	16.73 x 20.87 x 7.87	3.95
C4FP4253SS	Stainless Steel	364 x 439	14.33 x 17.28	330 x 405	12.99 x 15.94	425 x 530 x 200	16.73 x 20.87 x 7.87	3.40
C4FP4560	Steel	389 x 509	15.31 x 20.04	355 x 475	13.98 x 18.70	450 x 600 x 290	17.72 x 23.62 x 11.42	3.63
C4FP4560SS	Stainless Steel	389 x 509	15.31 x 20.04	355 x 475	13.98 x 18.70	450 x 600 x 290	17.72 x 23.62 x 11.42	4.08

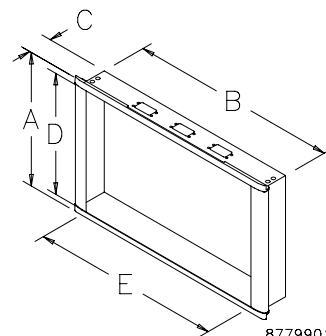
#### Standard Product **CC4000 Precut Front Plate**

Part no	Steel Type	Manufacturer	Model	Panel Size D x E mm	Panel Size D x E in.	Fits Enclosure mm	Fits Enclosure in.	Product Weight kg
C4CSK2840F2SS	Stainless Steel	Allen-Bradley	PanelView 550	219 x 309	8.62 x 12.17	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	1.81
C4CSK2840F3SS	Stainless Steel	Allen-Bradley	PanelView 550/600TS	219 x 309	8.62 x 12.17	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	1.81
C4CSK3340F1SS	Stainless Steel	Eaton Cutler-Hammer	PanelMate 1500	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	2.00
C4CSK3340F2SS	Stainless Steel	TCP	Quickpanel Mono EL	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	2.00
C4CSK3340F4SS	Stainless Steel	Allen-Bradley	PanelView 550KP	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	2.00
C4CSK3340F5SS	Stainless Steel	Allen-Bradley	PanelView 550/600TS	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	1.81
C4CSK4253F1SS	Stainless Steel	Eaton Cutler-Hammer	PanelMate 3000 TP	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	3.40
C4CSK4253F2SS	Stainless Steel	Eaton Cutler-Hammer	PanelMate 3000 TS	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	3.40
C4CSK4253F4SS	Stainless Steel	Ann Arbor	INX	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	3.40
C4CSK4253F6SS	Stainless Steel	Allen-Bradley	PanelView 900KP	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	3.40
C4CSK4253F7	Steel	Allen-Bradley	PanelView 1000TS	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	2.95

### Keyboard Compartment



Keyboard Compartment has same construction and finish as enclosure bodies. Fits pendant-mount bodies when used with the CTKBC Single Tilt; fits pedestal-mount bodies when used with the CTKBCP Dual Tilt Mechanism.



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Part no	AxBxC in./mm	Opening Size D x E mm/in.	Product Weight kg
<b>CKBC26535</b>	11.81 x 19.68 x 2.08	190 x 427	6.53
	300 x 500 x 52	7.48 x 16.81	
<b>CKBC26605</b>	11.81 x 22.44 x 2.05	190 x 495	5.44
	300 x 570 x 52	7.48 x 19.49	

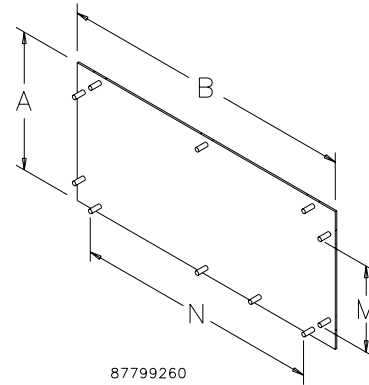
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CC4000 HMI Systems and Accessories

### Keyboard Front Plate



Plate is 1.63-mm thick steel finished with RAL 7035 textured, light-gray polyester powder paint or Type 304 stainless steel with a brushed finish. Available blank or with TIP NEMA 4 Keyboard. Includes mounting hardware.



Part no	Description	Size A x B mm	Size A x B in.	Usable Area M x N mm	Usable Area M x N in.	Fits Keyboard Compartment	Product Weight kg
C4KBFP2653	Blank Steel	203 x 439	7.99 x 17.28	169 x 405	6.65 x 15.94	264 x 530	1.68
C4KBKP2653	With Keyboard Steel	203 x 439	7.99 x 17.28	169 x 405	6.65 x 15.94	264 x 530	2.59
C4KBFP2660	Blank Steel	203 x 509	7.99 x 20.04	169 x 475	6.65 x 18.70	264 x 600	1.86
C4KBKP2660	With Keyboard Steel	203 x 509	7.99 x 20.04	169 x 475	6.65 x 18.70	264 x 600	2.77

### Tilt Mechanism



Allows operator to adjust enclosure and keyboard for maximum convenience and comfort. Cast aluminum construction. RAL 7035 light-gray polyester powder paint finish.

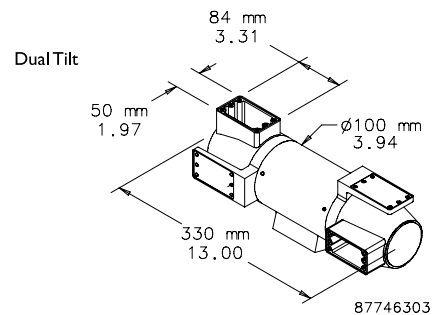
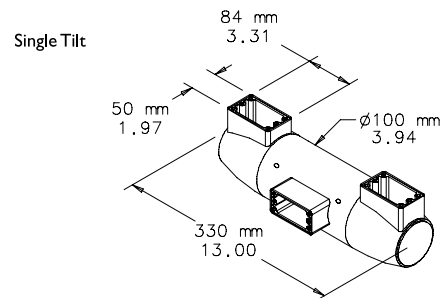
Single tilt connects enclosure with keyboard in pendant-mount applications or enclosure with pedestal in floor-mount applications.

- Allows 20 degrees maximum enclosure tilt back when pedestal mounted
- Allows keyboard to adjust from horizontal to 45 degrees down when pendant mounted

Dual tilt connects pedestal, enclosure and keyboard.

- Allows 20 degrees maximum enclosure tilt back
- Allows keyboard to adjust infinitely between enclosure and pedestal

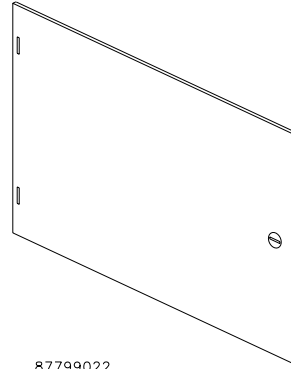
Part no	Type	Use With	Product Weight kg
CTKBC	Single	Pendant mount with keyboard, Pedestal mount without keyboard	2.63
CTKBPC	Dual	Pedestal mount with keyboard	2.99



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**CC4000 HMI Systems and Accessories**

**Hinged Rear Cover**



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Mount rear covers with hinge on left or right side of enclosure. One or two quarter-turn latches, depending on size. Made of 3-mm-thick aluminum with a clear anodized brushed finish. Mounting hardware and grounding kit included.

Part no	Number of Latches	Fits Enclosure mm/in.	Product Weight kg
CCH2840	One	280 x 400	1.0
CCH3340	One	330 x 400	1.18
CCH4253	Two	425 x 530	1.95
CCH4560	Two	450 x 600	2.27

**Lift-Off Hinge Kit**



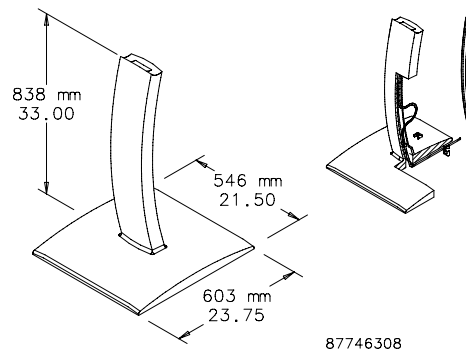
Use when quick removal of the rear section of a hinged enclosure is desired. Contains one set of hinges to convert the hinges on the enclosure to a lift-off configuration.

Part no	Description	Product Weight kg
CHLOCC4	Lift-off Hinge Kit	.09

**Pedestal**



Pedestal can be bolted to the floor or mounted on accessory swivel casters. Center channel is 50.8x76.2 mm, with rear access strip for routing wires. Requires single or dual tilt for enclosure mounting. Finished with RAL 7035 light-gray polyester powder paint.



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Part no	Description
CPCC4	Two-piece cast aluminum

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## CC4000 HMI Systems and Accessories

### Bolt-Down Kit



Use Bolt-Down Kit to securely mount pedestal to the floor. Kit includes four brackets and mounting hardware.

Part no	Description
CPBDK	Bolt Down Kit

### Swivel Casters for Pedestal Base



Castors mount to the bottom of a pedestal base. Kit includes four casters and mounting hardware.

Part no	Description	Installed Height mm	Installed Height in.	Wheel Dia. mm	Wheel Dia. in.	Load Rating Per Set kg	Load Rating Per Set lb.
CPCC4SC	Four swivel casters	100	3.9	75	3.0	180	400

### Levelers for Pedestal Base



Mount levelers to the bottom of a pedestal base where leveling is required. Kit contains four levelers and mounting hardware. Cannot be used with casters or in bolt-down installations.

Part no	Description
CPCC4L	Four levelers for pedestal base

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## COMPACT™ Mounting Options

### COMPACT™ Pendant Arm Series 2, Type 12 (IP55)



#### Application

COMPACT™ Series 2 Pendant Arms allow operators to easily move controls into and out of position as needed, and they are easily mounted to a machine, wall or floor. Offering both superior load-bearing capacity and functional reliability, the COMPACT Series 2 Pendant Arm has a maximum load of 45.8 kg at 1 m and is recommended for use with INLINE™, CC2000, CC4000 and CONCEPT™ HMI enclosures as well as Consolets.

#### Specifications

- Cast aluminum couplings and extruded aluminum tubing. Series components provide excellent structural strength.
- Multiple coupling types and three standard tube lengths (500, 1000 and 1500 mm) combine to form numerous configurations as conduits for equipment wiring (see configuration guide)
- Removable access plates simplify cable installation inside fittings
- Heavy duty bearings in all movable joints for convenient, smooth operation and enhanced durability
- Deep tube fittings in all couplings
- Adjustable set screws allow accurate alignment of supporting tubes
- Oil-resistant neoprene gasket

#### Finish

Couplings and access plates have RAL 7035 light-gray polyester powder paint finish. Tubing is anodized aluminum.

#### Industry Standards

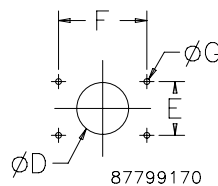
NEMA/EEMAC Type 12  
IEC 60529, IP55  
DIN 40050

#### Standard Cutout for Mounting

Dimensions for Cutout	Set-Up Joint in./mm	Vertical or Horizontal Wall Joint in./mm	Flange or Flange Elbow Coupling/Swivel Tilt Straight or 90° Elbow in./mm	Wall Flange or Base Bracket in./mm	Rotational Base in./mm
ØD	1.58 40	2.76 70	1.58 40	—	1.58 40
E	3.54 90	3.54 90	2.36 60	3.54 90	3.54 90
F	3.54 90	4.33 110	2.36 60	3.54 90	3.54 90
ØG	0.35 9	0.35 9	0.26 7	0.35 9	0.35 9

See product drawings for alternate shallow enclosure mounting.

#### Standard Cutout for Mounting



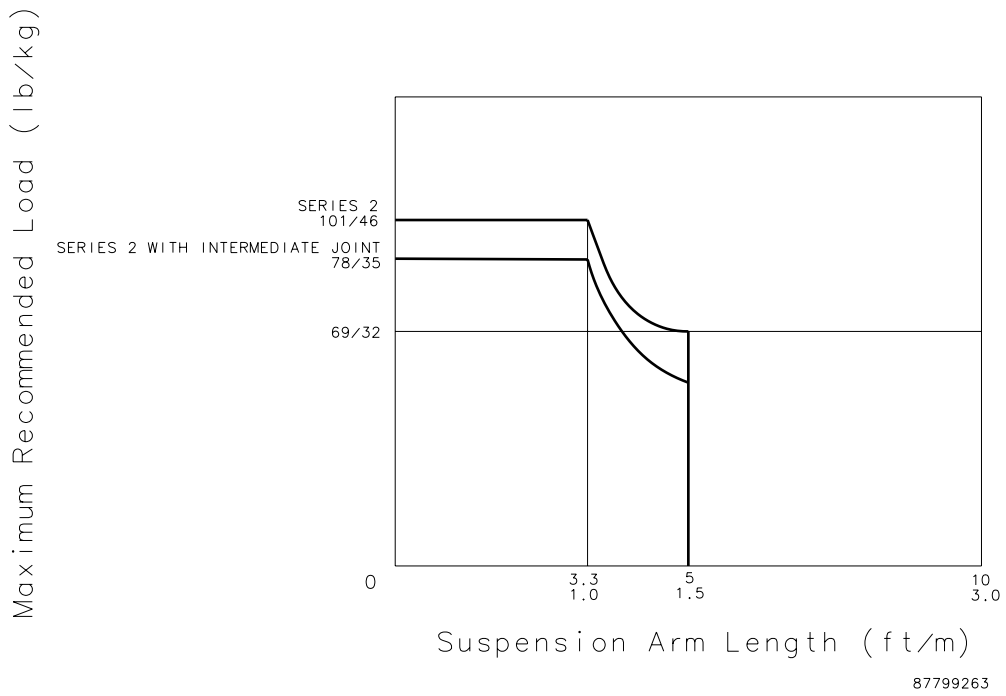
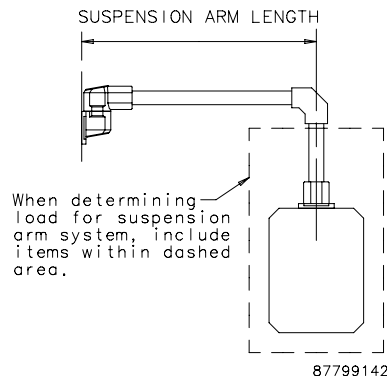
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### COMPACT™ Mounting Options

#### System Load Capacity

The Series 2 pendant arm load graph is the result of load capacity tests. Please contact Hoffman for specific application information.

Load Diagram



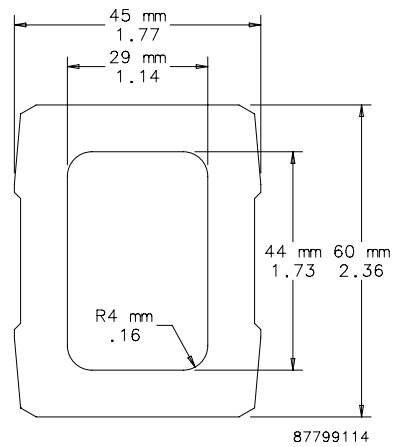
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## COMPACT™ Mounting Options

### Tubes



Hollow aluminum extrusion available in 500-, 1000- and 1500-mm lengths. Connection components fastened to support arm with set screws. DIN 59411 and 2395.



Part no	AxBxC in./mm	Length in./mm	External Dimensions in./mm	Wall Thickness Dimensions in./mm	Inside Cross Section cm <sup>2</sup>	Inside Cross Section in. <sup>2</sup>	Weight kg
CCS2T5	19.68 x 1.77 x 2.36 500 x 45 x 60	19.68 500	1.77 x 2.36 45 x 60	0.31 8	12.65	1.96	2.04
CCS2T10	39.37 x 1.77 x 2.36 1000 x 45 x 60	39.37 1000	1.77 x 2.36 45 x 60	0.31 8	12.65	1.96	4.08
CCS2T20	59.06 x 1.77 x 2.36 1500 x 45 x 60	59.06 1500	1.77 x 2.36 45 x 60	0.31 8	12.65	1.96	6.35

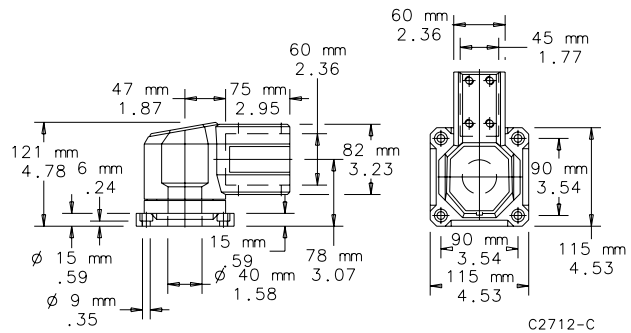
### Set-Up Joint



Joint includes access plate for easy wire installation. Turning range of 300 degrees. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Setscrews, gasket and removable access plate included. Mounting fasteners are not provided.



Part no	Weight kg
CCS2SJLG	1.81



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



### COMPACT™ Mounting Options

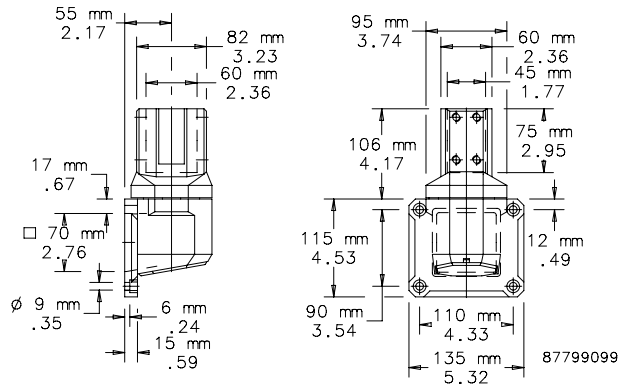
#### Wall Joint (Vertical)



Vertical joint includes access plate for easy wire installation. Turning range of 300 degrees. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Setscrews, gasket and removable access plate included. Mounting fasteners are not provided.



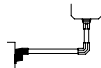
Part no	Weight kg
<b>CCS2WJVLG</b>	2.27



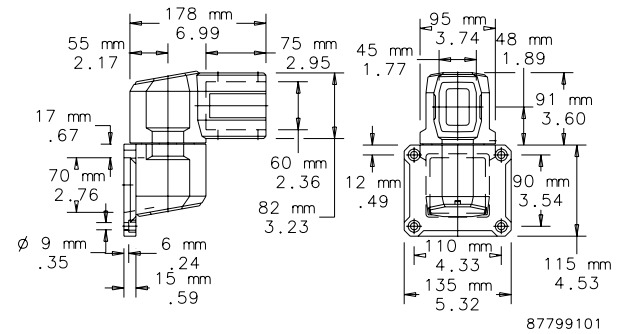
#### Wall Joint (Horizontal)



Includes access plates for easy wire installation. Turning range of 300 degrees. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Setscrews, gasket and removable access plates included. Mounting fasteners not provided.



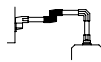
Part no	Weight kg
<b>CCS2WJHLG</b>	2.27



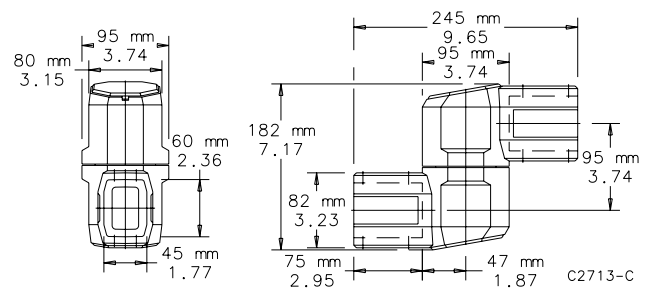
#### Intermediate Joint



Joint is cast aluminum with RAL 7035 light-gray polyester powder paint finish. Turning range is 360 degrees with stop. Includes access plates for easy wire installation, installation hardware and gasket. Use of the intermediate joint reduces pendant arm load capacity by 43 percent.



Part no	Weight kg
<b>CCS2IJLG</b>	2.27



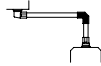
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### COMPACT™ Mounting Options

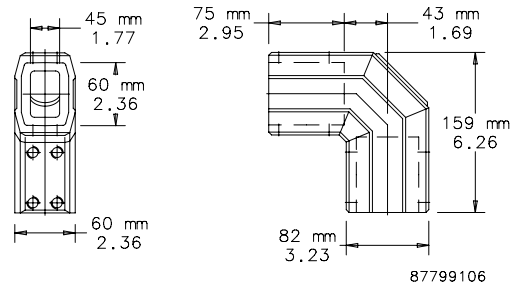
#### Heavy Duty Elbow



Elbow is made of aluminum with increased wall thickness for additional strength and support. Setscrews for tube adjustment. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. All installation hardware and gasket included.



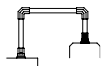
Part no	Weight kg
CCS2EHDLG	1.36



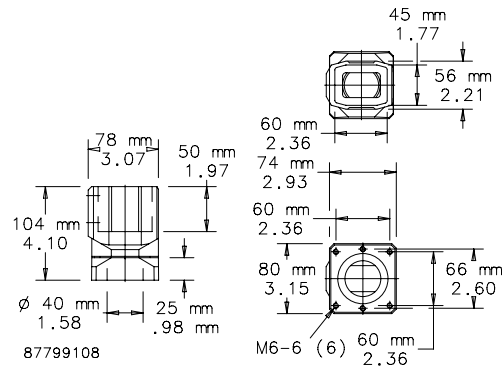
#### Flange Coupling



Coupling can rotate 300 degrees. Maintenance-free bearing is steel and polyamide. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Installation hardware, mounting fasteners and gasket included.



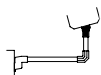
Part no	Weight kg
CCS2FCLG	1.13



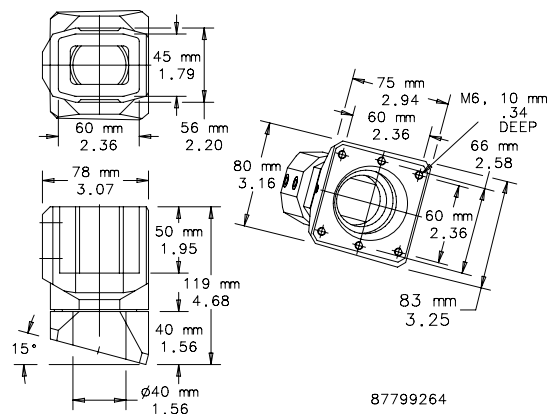
#### Flange Coupling, 15-Degree



Coupling can rotate 300 degrees. Maintenance-free bearing is steel and polyamide. Enclosure is mounted at a 15-degree incline angle. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Installation hardware, mounting fasteners and gaskets included.



Part no	Product Weight kg
CCS2FC15LG	1.13



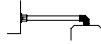
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## COMPACT™ Mounting Options

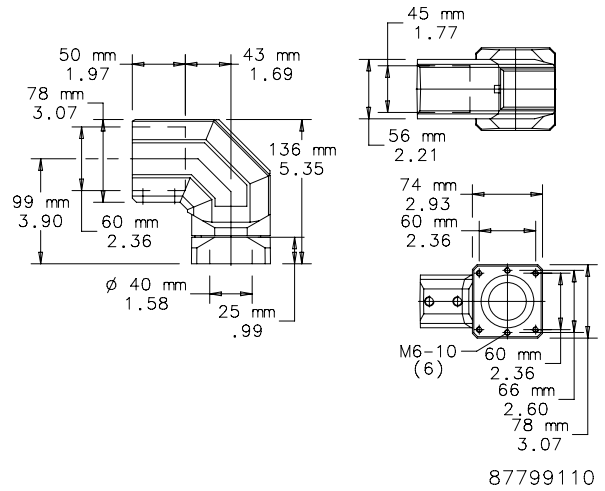
### Flange Elbow Coupling



Turning range of 300 degrees. Maintenance-free bearing is steel and polyamide. Includes access plate for easy wire installation. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gasket included.



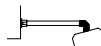
Part no	Product Weight kg
CCS2FECLG	1.36



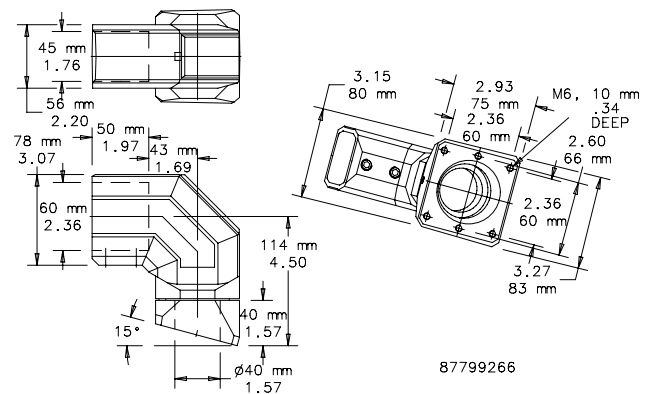
### Flange Elbow Coupling, 15-Degree



Turning range of 300 degrees. Maintenance-free bearing is steel and polyamide. Access plate included for easy wire installation. Enclosure is mounted at a 15-degree incline angle. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gaskets included.



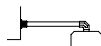
Part no	Product Weight kg
CCS2FEC15LG	1.41



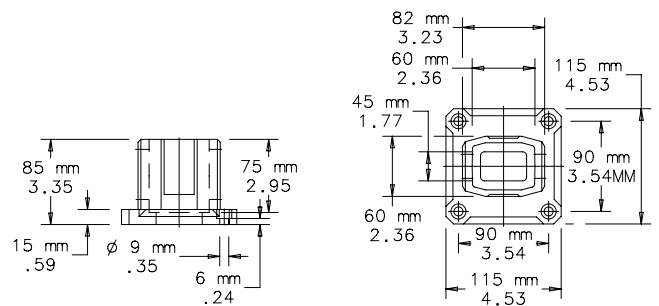
### Base Bracket/Wall Flange



Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Set screws and gasket are included. Mounting fasteners are not provided.



Part no	Weight kg
CCS2WFBLG	1.13



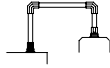
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### COMPACT™ Mounting Options

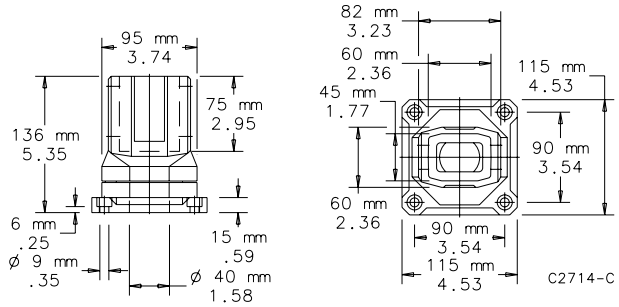
#### Rotational Base



Turning range of 300 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Setscrews and gasket are included. Mounting fasteners are not provided.



Part no	Product Weight kg
CCS2RBLG	1.59



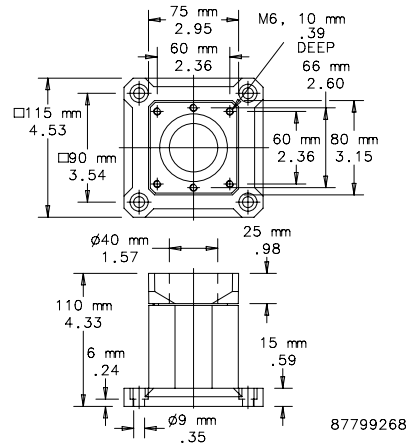
#### Rotational Base Bracket



Turning range of 300 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Setscrews and gaskets are included. Mounting fasteners are not provided.



Part no	Product Weight kg
CCS2RBBLG	1.22



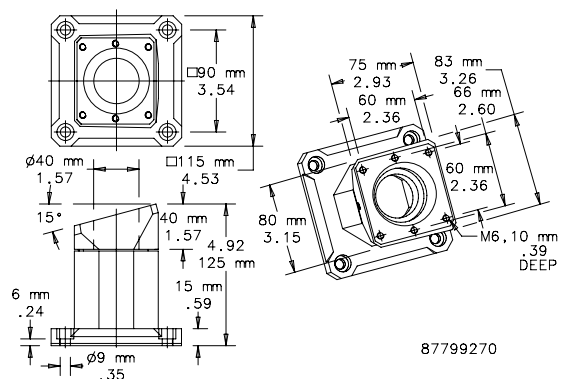
#### Rotational Base Bracket, 15-Degree



Turning range of 300 degrees. Enclosure is mounted at a 15-degree incline angle. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Setscrews and gaskets are included. Mounting fasteners are not provided.



Part no	Product Weight kg
CCS2RBB15LG	1.22



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### COMPACT™ Mounting Options

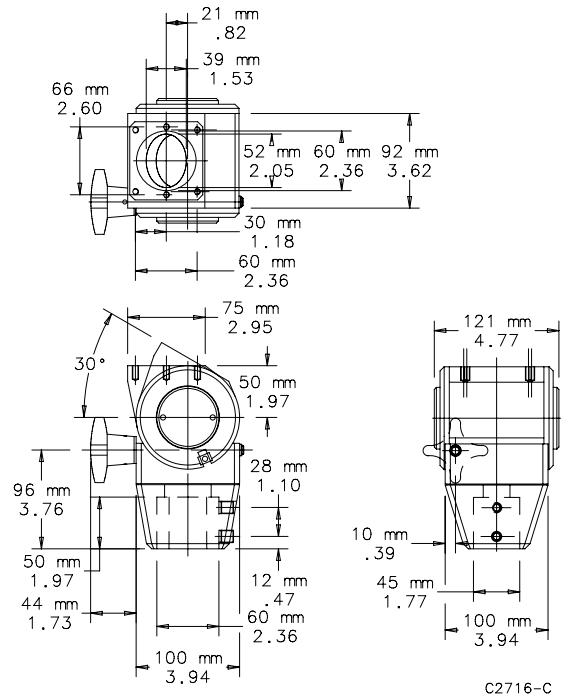
#### Swivel Tilt Straight



Mounts between pendant arm and HMI enclosure to provide both swivel and tilt options for the machine operator. Swivel allows 300-degree maximum rotation. Tilt allows infinite adjustment from horizontal to 30 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gasket included.  
*Maximum load is 30 kg.*



Part no	Weight kg
CCS2STLG	3.18



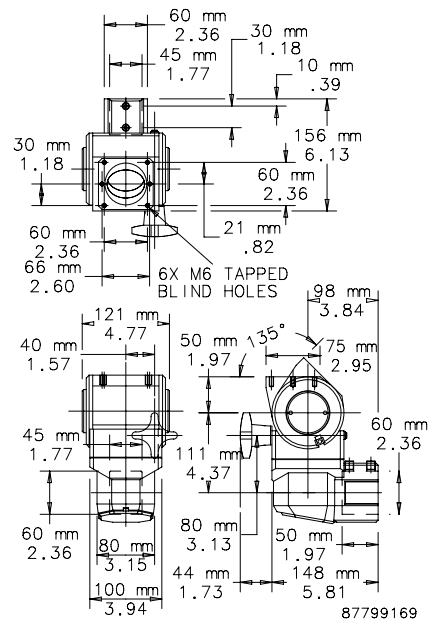
#### Swivel Tilt 90-Degree Elbow



Mounts between pendant arm and HMI enclosure to provide both swivel and tilt options for the machine operator. A 90-degree elbow is incorporated into this design. Swivel allows 300-degree maximum rotation. Tilt allows infinite adjustment from horizontal to 30 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gasket are included.  
*Maximum load is 30 kg.*



Part no	Weight kg
CCS2ESTLG	3.40



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## COMPACT™ Mounting Options

### Pedestal Base



Base is cast aluminum one-piece construction finished with RAL 7035 light-gray textured polyester powder paint. Includes all hardware for attaching tubes.

Part no
CCS2PB

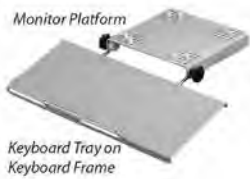
### Monitor Platform



Platform attaches to pendant arm to provide a surface for a monitor. Adjustable stops hold monitor securely in place. Aluminum construction finished with RAL 7042 gray polyester powder paint. Order Monitor Platform, Keyboard Tray and Keyboard Frame separately.

Part no	Description
CCS1MP	Monitor Platform (Does not include Keyboard Frame or Keyboard Tray)

### Keyboard Frame



Mounts to monitor platform. Frame locks at desired position by tightening knobs. Chrome plated finish. Order Monitor Platform, Keyboard Tray and Keyboard Frame separately.

Part no	Description
CCS1KBF	Keyboard Frame only

### Keyboard Tray



Tray attaches to keyboard frame. Provides a surface for a PC mouse as well as a platform for a keyboard. Aluminum construction finished with RAL 7042 gray polyester powder paint. Order Monitor Platform, Keyboard Tray and Keyboard Frame separately.

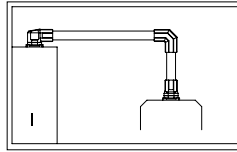
Part no	Description
CCS1KBT	Keyboard Tray only

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## COMPACT™ Mounting Options

### Notes

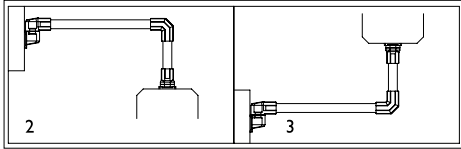
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**COMPACT™ Mounting Options**
**COMPACT™ Pendant Arm Series 2 Configurations**


87799173

**1**

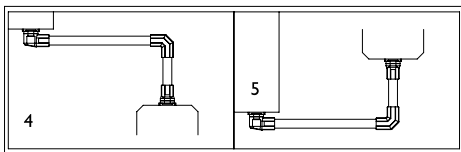
Description	Qty.	Catalog Number
Set up joint	1	CCS2SLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG



87799174

**2 and 3**

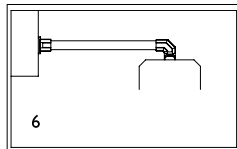
Description	Qty.	Catalog Number
Wall joint (horizontal)	1	CCS2WJHLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt or Flange coupling 15°	1	CCS2FCLG
	1	CCS2STLG
	1	CCS2FC15LG



87799175

**4 and 5**

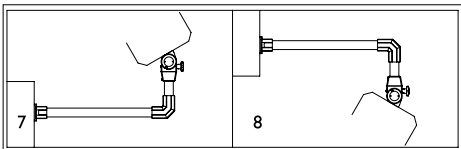
Description	Qty.	Catalog Number
Set up joint	1	CCS2SJLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG



87799176

**6**

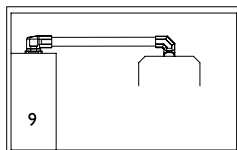
Description	Qty.	Catalog Number
Wall flange/base bracket	1	CCS2WFBLG
Flange elbow coupling or 90° Swivel tilt or Flange elbow coupling 15°	1	CCS2FECLG
	1	CCS2ESTLG
	1	CCS2FE15LG



87799177

**7 and 8**

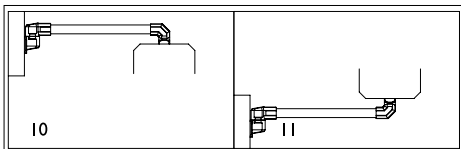
Description	Qty.	Catalog Number
Wall flange/base bracket	1	CCS2WFBLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG



87799178

**9**

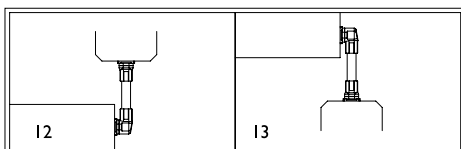
Description	Qty.	Catalog Number
Set-up joint	1	CCS2SJLG
Flange elbow coupling or 90° Swivel tilt	1	CCS2FECLG
	1	CCS2ESTLG



87799179

**10 and 11**

Description	Qty.	Catalog Number
Wall joint (horizontal)	1	CCS2WJHLG
Flange elbow coupling or 90° Swivel tilt	1	CCS2FECLG
	1	CCS2ESTLG



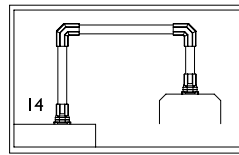
87799180

**12 and 13**

Description	Qty.	Catalog Number
Wall joint (vertical)	1	CCS2WJVLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

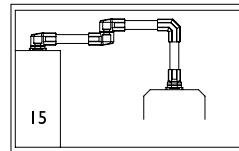


**COMPACT™ Mounting Options**


87799181

**14**

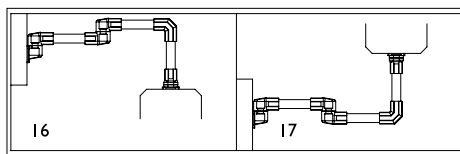
Description	Qty.	Catalog Number
Rotational base	1	CCS2RBLG
Heavy duty elbow	2	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG



87799182

**15**

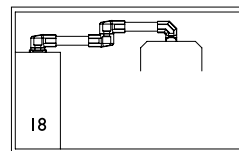
Description	Qty.	Catalog Number
Set up joint	1	CCS2SJLG
Intermediate joint	1	CCS2IJLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG



87799183

**16 and 17**

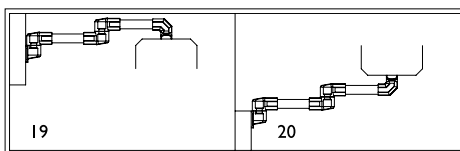
Description	Qty.	Catalog Number
Wall Joint (horizontal)	1	CCS2WJHLG
Intermediate joint	1	CCS2IJLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG



87799184

**18**

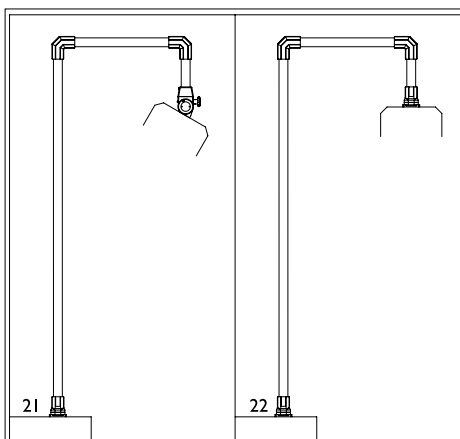
Description	Qty.	Catalog Number
Set up joint	1	CCS2SJLG
Intermediate joint	1	CCS2IJLG
Flange elbow coupling or 90° Swivel tilt	1	CCS2FECLG
	1	CCS2ESTLG



87799185

**19 and 20**

Description	Qty.	Catalog Number
Wall joint (horizontal)	1	CCS2WJHLG
Intermediate joint	1	CCS2IJLG
Flange elbow coupling or 90° Swivel tilt	1	CCS2FECLG
	1	CCS2ESTLG



C2802-C

**21 and 22**

Description	Qty.	Catalog Number
Wall flange/base bracket	1	CCS2WFBLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1	CCS2FCLG
	1	CCS2STLG

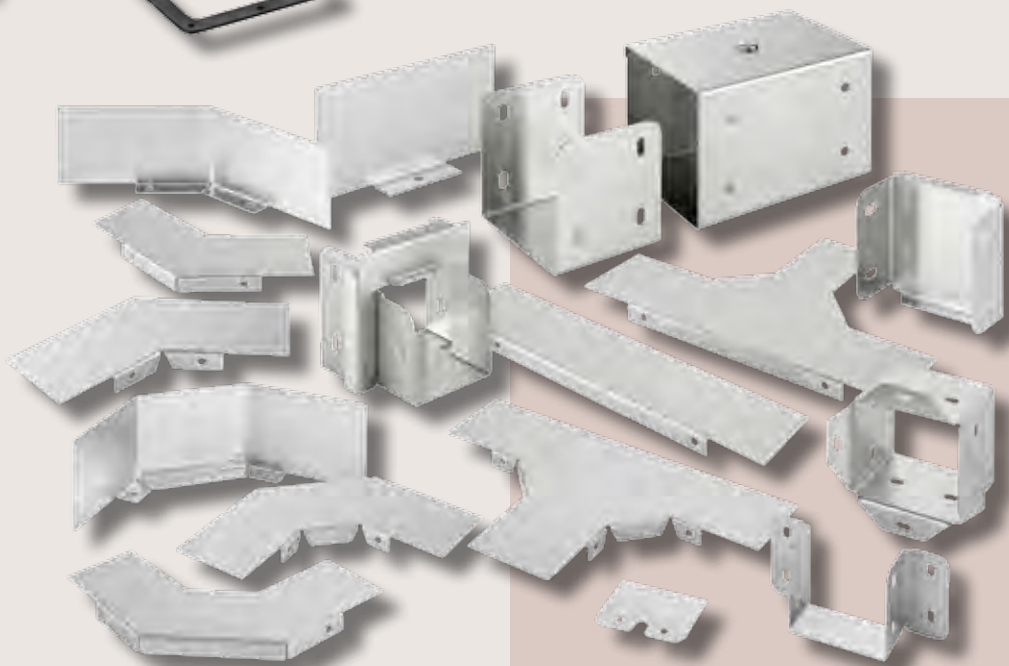
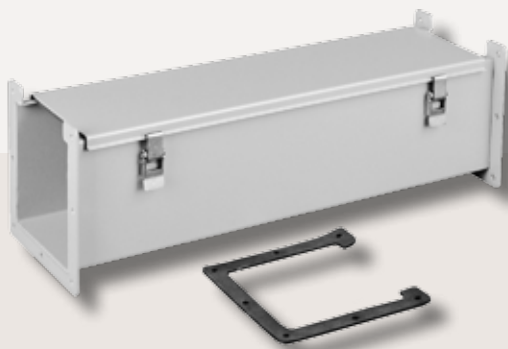
*Note to the Specifier:*

1. Select pendant system sizing using the COMPACT Series 2 load capacity chart.
2. Tube catalog numbers are not included in configuration tables.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

# CHAPTER 5

## Cable and Wire Management



## Chapter Contents

### Cable and Wire Management

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## Lay-In Wireway

### Lay-In Wireway, NEMA Type 12



*Clockwise from top: Tee, Flange Gasket, Quick-Release Sealing Plate, Barriers, Barrier Bracket, 90° Elbow*

#### Industry Standards

UL 870 Listed; File No. E27524

NEMA/EEMAC Type 12  
 JIC standards EGP-1-1967 and EMP-1-1967  
 CSA, File No. 42184, Type 1  
 IEC 60529, IP54

#### Application

Used primarily in industrial applications to protect wiring against exposure to oil and other contaminants, this gasketed wireway features quick-release latches for easy access and an opening on one side so wires and cables can be laid in along the entire run without pulling. Available in multiple sizes, this wireway's finish color and texture can be customized to meet application requirements.

#### Features

- Seams continuously welded and ground smooth
- No holes or knockouts
- Smooth, rounded edges on all sections and fittings
- Butt hinges and strong latches
- Quick-release cover latches
- Oil-resistant gasket and adhesive
- Gasketed quick-release sealing plate

#### Specifications

- 1.63-mm thick steel covers and bodies
- 2.59-mm thick steel end flanges

#### Finish

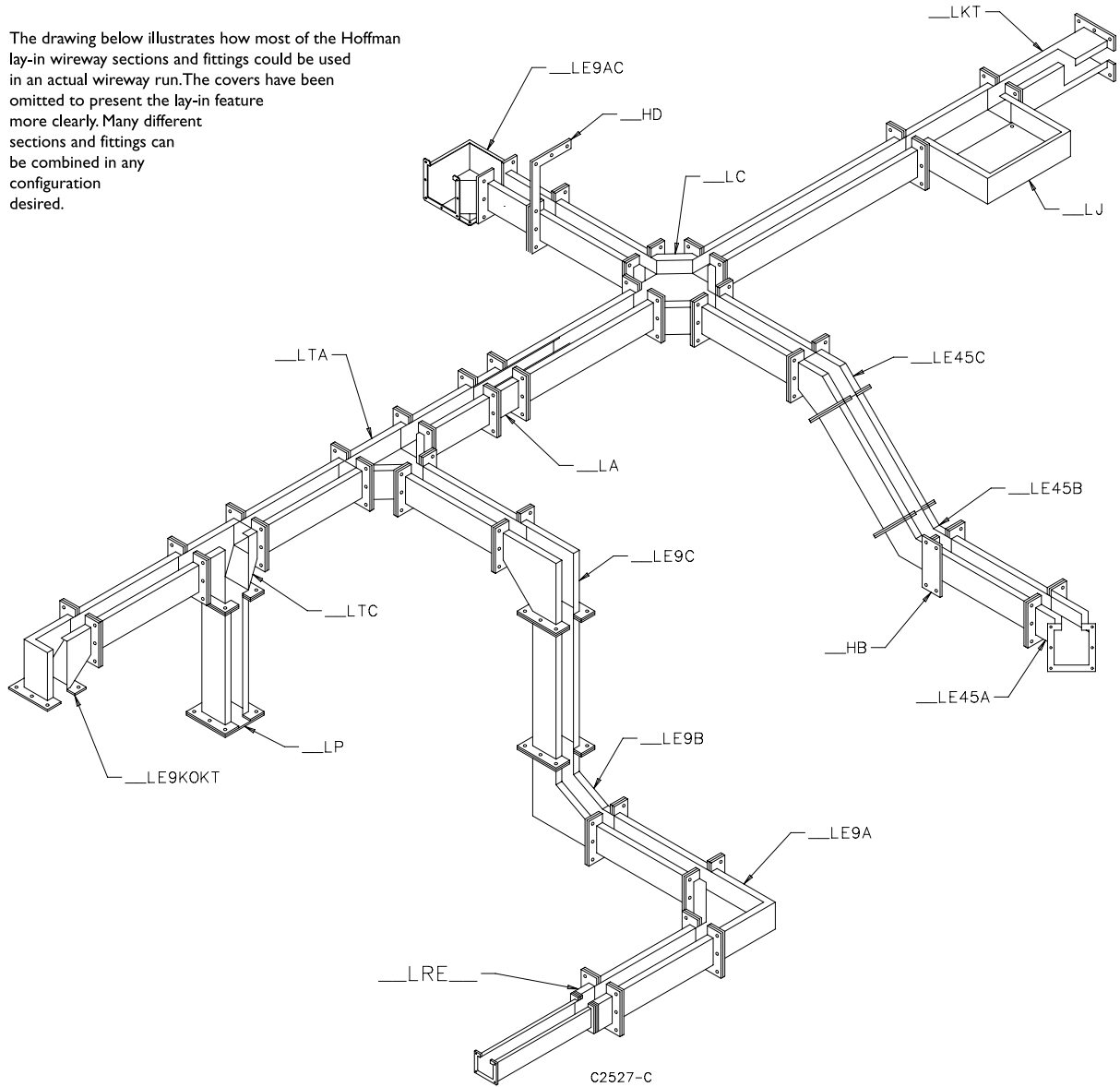
- ANSI 61 gray polyester powder finish inside and out over pretreated surfaces
- Box connector is gray ANSI 61
- LSGQR sealing plate and quick-release latches are plated



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Lay-In Wireway

The drawing below illustrates how most of the Hoffman lay-in wireway sections and fittings could be used in an actual wireway run. The covers have been omitted to present the lay-in feature more clearly. Many different sections and fittings can be combined in any configuration desired.



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## Lay-In Wireway

### Standard Product Selection Matrix

Description	Sealing Plates <sup>a</sup> Type	Sealing Plates <sup>a</sup> Qty.	64 x 64 mm	102 x 102 mm	152 x 152 mm	203 x 203 mm	305 x 152 mm
152-mm Straight Section	Flat	1	F22L06 <sup>d</sup>	F44L06 <sup>c,d</sup>	F66L06 <sup>c,d</sup>	F88L06 <sup>c,d</sup>	F126L06 <sup>d</sup>
305-mm Straight Section	Flat	1	F22L12 <sup>c,d</sup>	F44L12 <sup>c,d</sup>	F66L12 <sup>c,d</sup>	F88L12 <sup>c,d</sup>	F126L12 <sup>c,d</sup>
610-mm Straight Section	Flat	1	F22L24 <sup>d</sup>	F44L24 <sup>c,d</sup>	F66L24 <sup>c,d</sup>	F88L24 <sup>c,d</sup>	F126L24 <sup>d</sup>
914-mm Straight Section	Flat	1	F22L36 <sup>d</sup>	F44L36 <sup>c,d</sup>	F66L36 <sup>c,d</sup>	F88L36 <sup>c,d</sup>	F126L36 <sup>d</sup>
1219-mm Straight Section	Flat	1	F22L48 <sup>c,d</sup>	F44L48 <sup>c,d</sup>	F66L48 <sup>c,d</sup>	F88L48 <sup>c,d</sup>	F126L48 <sup>d</sup>
1524-mm Straight Section	Flat	1	F22L60 <sup>d</sup>	F44L60 <sup>c,d</sup>	F66L60 <sup>c,d</sup>	F88L60 <sup>c,d</sup>	F126L60 <sup>d</sup>
3048-mm Straight Section	Flat	1	F22L120 <sup>c,d</sup>	F44L120 <sup>d</sup>	F66L120 <sup>d</sup>	F88L120 <sup>d</sup>	F126L120 <sup>c,d</sup>
Cutoff Fitting, Lay-In	Flat	1	F22LXL	F44LXL	F66LXL	F88LXL	F126LXL
Cutoff Fitting, Not Lay-In	90° Angle	1	F22LX	F44LX	F66LX	F88LX	F126LX
Telescope Fitting, Lay-In	Special	1	F22LA	F44LA	F66LA	F88LA	F126LA
Cross Fitting	Flat	3	F22LC <sup>d</sup>	F44LC <sup>d</sup>	F66LC <sup>d</sup>	F88LC <sup>d</sup>	F126LC <sup>d</sup>
90° Elbow, top opening	Flat	1	F22LE9A <sup>c,d</sup>	F44LE9A <sup>d</sup>	F66LE9A <sup>d</sup>	F88LE9A <sup>d</sup>	F126LE9A <sup>c,d</sup>
90° Elbow, inside opening	Flat	1	F22LE9B <sup>c,d</sup>	F44LE9B <sup>d</sup>	F66LE9B <sup>d</sup>	F88LE9B <sup>d</sup>	F126LE9B <sup>c,d</sup>
90° Elbow, outside opening	Flat	1	F22LE9C <sup>d</sup>	F44LE9C <sup>d</sup>	F66LE9C <sup>d</sup>	F88LE9C <sup>d</sup>	F126LE9C <sup>d</sup>
90° Elbow, outside top opening	Flat	2	—	F44LE9AC <sup>d</sup>	F66LE9AC <sup>d</sup>	F88LE9AC <sup>d</sup>	—
45° Elbow, top opening	Flat	1	F22LE45A <sup>d</sup>	F44LE45A <sup>d</sup>	F66LE45A <sup>d</sup>	F88LE45A <sup>d</sup>	F126LE45A <sup>c,d</sup>
45° Elbow, inside opening	Flat	1	F22LE45B <sup>d</sup>	F44LE45B <sup>d</sup>	F66LE45B <sup>d</sup>	F88LE45B <sup>d</sup>	—
45° Elbow, outside opening	Flat	1	F22LE45C <sup>d</sup>	F44LE45C <sup>d</sup>	F66LE45C <sup>d</sup>	F88LE45C <sup>d</sup>	—
Tee Fitting, top opening	Flat	2	F22LTA <sup>d</sup>	F44LTA <sup>d</sup>	F66LTA <sup>d</sup>	F88LTA <sup>d</sup>	F126LTA <sup>c,d</sup>
Tee Fitting, outside top opening	Flat	2	F22LTC <sup>d</sup>	F44LTC <sup>d</sup>	F66LTC <sup>d</sup>	F88LTC <sup>d</sup>	—
Junction Box	Flat	1	F22LJ <sup>d</sup>	F44LJ <sup>d</sup>	F66LJ <sup>d</sup>	F88LJ <sup>d</sup>	—
Closure Plate	90°	1	F22LP	F44LP	F66LP	F88LP	F126LP
Box Connector	90°	1	F22LB	F44LB	F66LB	F88LB	F126LB
Reducer 102 x 102 mm to 64 x 64 mm	None	0	—	F44LRE22	—	—	—
Reducer 152 x 152 mm to 102 x 102 mm	None	0	—	—	F66LRE44 <sup>c,d</sup>	—	—
Reducer 203 x 203 mm to 152 x 152 mm	None	0	—	—	—	F88LRE66 <sup>d</sup>	—
Reducer 305 x 152 mm to 152 x 152 mm	None	0	—	—	—	—	F126LRE66 <sup>c,d</sup>
Reducer 305 x 152 mm to 102 x 102 mm	None	0	—	—	—	—	F126LRE44 <sup>d</sup>
25-mm Nipple	Special	1	F22LN1 <sup>c,d</sup>	F44LN1 <sup>c,d</sup>	F66LN1 <sup>c,d</sup>	—	—
51-mm Nipple	Special	1	F22LN2 <sup>c,d</sup>	F44LN2 <sup>c,d</sup>	F66LN2 <sup>c,d</sup>	—	—
76-mm Nipple	Special	1	F22LN3 <sup>c,d</sup>	F44LN3 <sup>c,d</sup>	F66LN3 <sup>c,d</sup>	—	—
Drop Hanger	None	0	F22HD	F44HD	F66HD	F88HD	—
Bracket Hanger	None	0	F22HB	F44HB	F66HB	F88HB	—
Clockwise Transposition Section	Flat	1	F22LKT <sup>d</sup>	F44LKT <sup>d</sup>	F66LKT <sup>d</sup>	—	—
Counterclockwise Transposition Section	Flat	1	F22LKOKT <sup>d</sup>	F44LKOKT <sup>d</sup>	F66LKOKT <sup>d</sup>	—	—
90° Elbow, Clockwise Transposition	Flat	1	F22LE9KT <sup>d</sup>	F44LE9KT <sup>d</sup>	F66LE9KT <sup>d</sup>	F88LE9KT <sup>d</sup>	—
90° Elbow, Counterclockwise Transposition	Flat	1	F22LE9KOKT <sup>d</sup>	F44LE9KOKT <sup>d</sup>	F66LE9KOKT <sup>d</sup>	F88LE9KOKT <sup>d</sup>	—
Barrier Kit, bolt-on; Each barrier 1524 mm	None	0	—	F44BK60	F66BK60	F88BK60	—
Barrier, bracket-mounted; <sup>b</sup> Each barrier 1524 mm <sup>b</sup>	—	1 pkg. (5 pcs.)	—	F44B360	F66B360	F88B360	—
Barrier Brackets, 2 compartment <sup>b</sup>	—	1 pkg. (5 pcs.)	—	F44BB2C	F66BB2C	—	—
Barrier Brackets, 3 compartment <sup>b</sup>	—	1 pkg. (5 pcs.)	—	F44BB3C	F66BB3C	—	—
Flat Sealing Plate <sup>a</sup>	—	—	F22LSGQR	F44LSGQR	F66LSGQR	F88LSGQR	F126LSGQR
90° Angle Sealing Plate <sup>a</sup>	—	—	F22LSAG	F44LSAG	F66LSAG	F88LSAG	F126LSAG

<sup>a</sup> Each sealing plate also includes one gasket and one set of screws to join sections.

<sup>b</sup> Package consists of five barriers or five brackets. Each barrier is 1524-mm long.

<sup>c</sup> Certified by Canadian Standards Association.

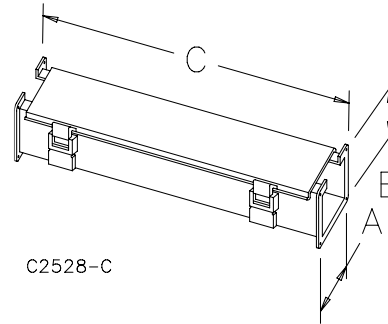
<sup>d</sup> UL 870

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### Lay-In Wireway

### Straight Section

Available in lengths from 152 mm to 3048 mm.

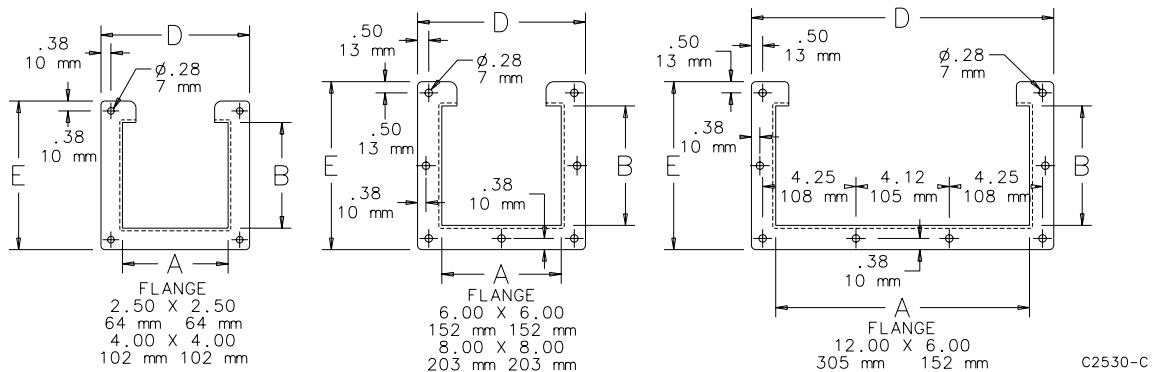


### Straight Sections

Part no	AxBxC mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	D mm	E mm
F22L06	64 x 64 x 152	Flat	1	99	99
F22L12	64 x 64 x 305	Flat	1	99	99
F22L24	64 x 64 x 610	Flat	1	99	99
F22L36	64 x 64 x 914	Flat	1	99	99
F22L48	64 x 64 x 1219	Flat	1	99	99
F22L60	64 x 64 x 1524	Flat	1	99	99
F22L120	64 x 64 x 3048	Flat	1	99	99
<b>F44L06</b>	102 x 102 x 152	Flat	1	137	137
<b>F44L12</b>	102 x 102 x 305	Flat	1	137	137
<b>F44L24</b>	102 x 102 x 610	Flat	1	137	137
<b>F44L36</b>	102 x 102 x 914	Flat	1	137	137
<b>F44L48</b>	102 x 102 x 1219	Flat	1	137	137
<b>F44L60</b>	102 x 102 x 1524	Flat	1	137	137
<b>F44L120</b>	102 x 102 x 3048	Flat	1	137	137
<b>F66L06</b>	152 x 152 x 152	Flat	1	194	194
<b>F66L12</b>	152 x 152 x 305	Flat	1	194	194
<b>F66L24</b>	152 x 152 x 610	Flat	1	194	194
<b>F66L36</b>	152 x 152 x 914	Flat	1	194	194
<b>F66L48</b>	152 x 152 x 1219	Flat	1	194	194
<b>F66L60</b>	152 x 152 x 1524	Flat	1	194	194
<b>F66L120</b>	152 x 152 x 3048	Flat	1	194	194
F88L06	203 x 203 x 152	Flat	1	244	244
F88L12	203 x 203 x 305	Flat	1	244	244
F88L24	203 x 203 x 610	Flat	1	244	244
F88L36	203 x 203 x 914	Flat	1	244	244
F88L48	203 x 203 x 1219	Flat	1	244	244
F88L60	203 x 203 x 1524	Flat	1	244	244
F88L120	203 x 203 x 3048	Flat	1	244	244
F126L06	305 x 152 x 152	Flat	1	346	194
F126L12	305 x 152 x 305	Flat	1	346	194
F126L24	305 x 152 x 610	Flat	1	346	194
F126L36	305 x 152 x 914	Flat	1	346	194
F126L48	305 x 152 x 1219	Flat	1	346	194
F126L60	305 x 152 x 1524	Flat	1	346	194
F126L120	305 x 152 x 3048	Flat	1	346	194

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

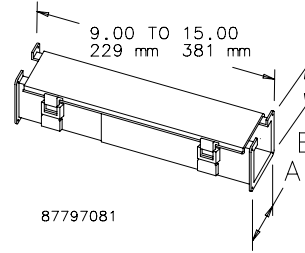
## Lay-In Wireway

### Cut-Off Fitting, Lay-In

For lengths of 229 mm to 381 mm only. Body comes in two pieces. Shorten body and cover to the desired length and weld together.

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>
F22LXL	64 x 64	Flat	1
F44LXL	102 x 102	Flat	1
F66LXL	152 x 152	Flat	1
F88LXL	203 x 203	Flat	1
F126LXL	305 x 152	Flat	1

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

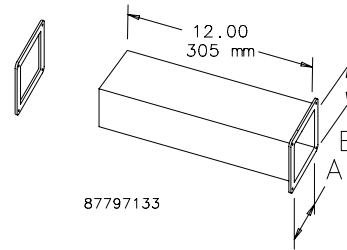


### Cut-Off Fitting, Non-Lay-In

For lengths up to 305 mm. Shorten body to desired length and weld on flange. This is not a "lay-in" fitting but often is used when entering an enclosure.

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>
F22LX	64 x 64	90° Angle	1
<b>F44LX</b>	102 x 102	90° Angle	1
<b>F66LX</b>	152 x 152	90° Angle	1
F88LX	203 x 203	90° Angle	1
F126LX	305 x 152	90° Angle	1

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

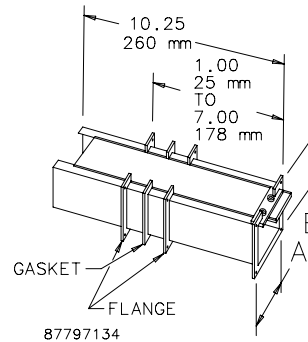


### Telescope Fitting, Lay-In

Length is easily adjustable from 25 mm to 178 mm. No cutting or welding required.

Part no	AxB mm	Sealing Plates Type <sup>a</sup>	Sealing Plates Qty. <sup>a</sup>
F22LA	64 x 64	Special	1
<b>F44LA</b>	102 x 102	Special	1
<b>F66LA</b>	152 x 152	Special	1
F88LA	203 x 203	Special	1
F126LA	305 x 152	Special	1

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections



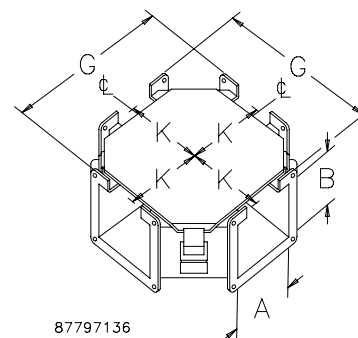
### Cross Fitting

Used when there are four branches, all open along the same side.

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	G mm	K mm
F22LC	64 x 64	Flat	3	216	108
F44LC	102 x 102	Flat	3	254	127
F66LC	152 x 152	Flat	3	305	152
F88LC	203 x 203	Flat	3	356	178
F126LC	305 x 152	Flat	3	457	229

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## Lay-In Wireway

### 90-Degree Elbows

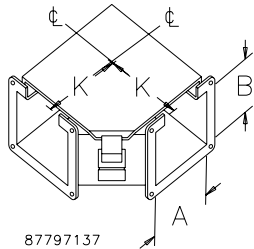
Because sections of lay-in wireway can be mounted with covers oriented in any direction, three different 90-degree elbows are available. Proper selection allows the user to maintain the same access and thereby preserve the lay-in feature for right-angle installations.

#### Top Opening

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	K mm
F22LE9A	64 x 64	Flat	1	108
<b>F44LE9A</b>	102 x 102	Flat	1	127
<b>F66LE9A</b>	152 x 152	Flat	1	152
F88LE9A	203 x 203	Flat	1	178
F126LE9A	305 x 152	1	229	

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

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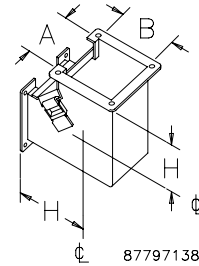


#### Inside Opening

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	H mm
F22LE9B	64 x 64	Flat	1	108
<b>F44LE9B</b>	102 x 102	Flat	1	127
<b>F66LE9B</b>	152 x 152	Flat	1	152
F88LE9B	203 x 203	Flat	1	178
F126LE9B	305 x 152	Flat	1	152

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

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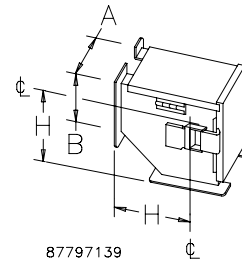


#### Outside Opening

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	H mm
F22LE9C	64 x 64	Flat	1	108
<b>F44LE9C</b>	102 x 102	Flat	1	127
<b>F66LE9C</b>	152 x 152	Flat	1	152
F88LE9C	203 x 203	Flat	1	178
F126LE9C	305 x 152	Flat	1	152

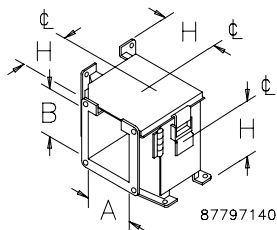
<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.



### 90-Degree Elbow—Outside Top Opening

This elbow fitting allows a vertical drop to equipment below at a 90-degree corner while maintaining the top opening lay-in feature.



Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	H mm
F44LE9AC	102 x 102	Flat	2	127
F66LE9AC	152 x 152	Flat	2	152
F88LE9AC	203 x 203	Flat	2	178

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Lay-In Wireway

### 45-Degree Elbows

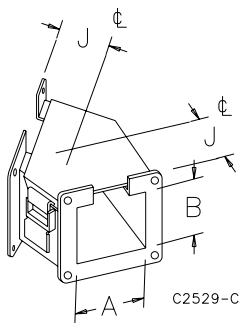
Because sections of lay-in wireway can be mounted with covers oriented in any direction, three different 45-degree elbows are available. Proper selection allows the user to maintain the same access and thereby preserve the lay-in feature for right-angle installations.

#### Top Opening

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	J mm
F22LE45A	64 x 64	Flat	1	51
<b>F44LE45A</b>	102 x 102	Flat	1	62
<b>F66LE45A</b>	152 x 152	Flat	1	76
F88LE45A	203 x 203	Flat	1	95
F126LE45A	305 x 152	Flat	1	121

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

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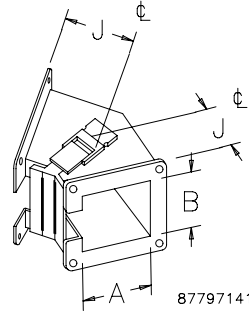


#### Inside Opening

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	J mm
F22LE45B	64 x 64	Flat	1	51
<b>F44LE45B</b>	102 x 102	Flat	1	62
<b>F66LE45B</b>	152 x 152	Flat	1	76
F88LE45B	203 x 203	Flat	1	95

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

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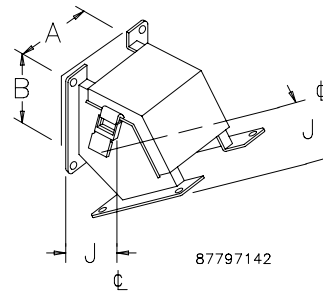


#### Outside Opening

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	J mm
F22LE45C	64 x 64	Flat	1	51
<b>F44LE45C</b>	102 x 102	Flat	1	62
<b>F66LE45C</b>	152 x 152	Flat	1	76
F88LE45C	203 x 203	Flat	1	95

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Lay-In Wireway

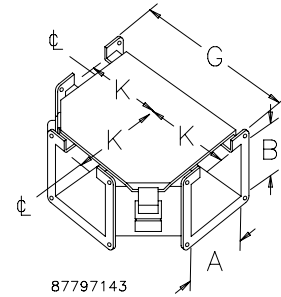
### Tee Fitting—Top Opening

This fitting is used when the covers of all three branches of the wireway run are open along the same side.

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	G mm	K mm
F22LTA	64 x 64	Flat	2	216	108
<b>F44LTA</b>	102 x 102	Flat	2	254	127
<b>F66LTA</b>	152 x 152	Flat	2	305	152
F88LTA	203 x 203	Flat	2	356	178
F126LTA	305 x 152	Flat	2	457	229

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.



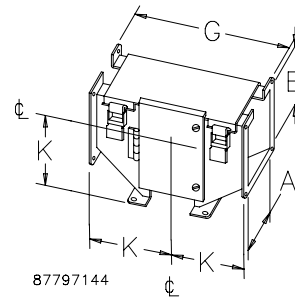
### Tee Fitting—Outside Top Opening

This fitting is used when the covers of two branches are on the same side and the third is on a different side.

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	G mm	K mm
F22LTC	64 x 64	Flat	2	216	108
<b>F44LTC</b>	102 x 102	Flat	2	254	127
<b>F66LTC</b>	152 x 152	Flat	2	305	152
F88LTC	203 x 203	Flat	2	356	178

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

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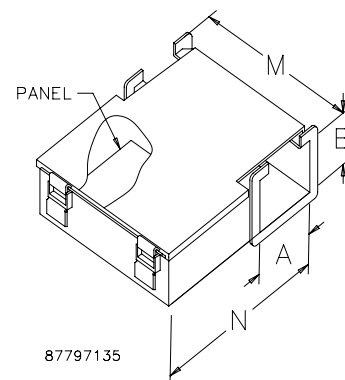
### Junction Box

The junction box has a removable panel on which terminal blocks and other components may be mounted.

Part no	AxB mm	Sealing Plates, Type	Sealing Plates, Qty. <sup>a</sup>	M mm	N mm	Removable Panel Size mm
F22LJ	64 x 64	Flat	1	305	260	222 x 175
F44LJ	102 x 102	Flat	1	356	353	273 x 225
F66LJ	152 x 152	Flat	1	406	454	324 x 276
F88LJ	203 x 203	Flat	1	457	556	375 x 327

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



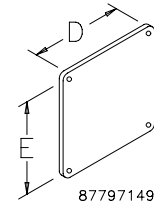
## Lay-In Wireway

### Closure Plate

Used to seal the end of a wireway section or run.

Part no	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	D mm	E mm
F22LP	90°	1	99	99
F44LP	90°	1	137	137
F66LP	90°	1	194	194
F88LP	90°	1	244	244
F126LP	90°	1	346	194

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

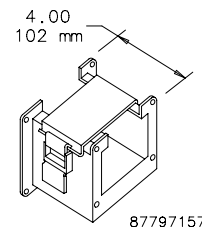


### Reducer

This fitting permits the lay-in feature to be retained when reducing to a smaller wireway size.

Part no	Sealing Plates, Type	Sealing Plates, Qty.	From A x B mm	To A x B mm
F44LRE22	None	0	102 x 102	64 x 64
<b>F66LRE44</b>	None	0	152 x 152	102 x 102
F88LRE66	None	0	203 x 203	152 x 152
F126LRE66	None	0	305 x 152	152 x 152
F126LRE44	None	0	305 x 152	102 x 102

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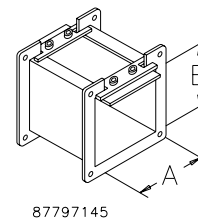
### Nipple

Available in lengths of 25 mm, 51 mm and 76 mm.

Part no	AxBxC mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>
F22LN1	64 x 64 x 25	Special	1
F22LN2	64 x 64 x 51	Special	1
F22LN3	64 x 64 x 76	Special	1
F44LN1	102 x 102 x 25	Special	1
<b>F44LN2</b>	102 x 102 x 51	Special	1
<b>F44LN3</b>	102 x 102 x 76	Special	1
F66LN1	152 x 152 x 25	Special	1
<b>F66LN2</b>	152 x 152 x 51	Special	1
<b>F66LN3</b>	152 x 152 x 76	Special	1

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

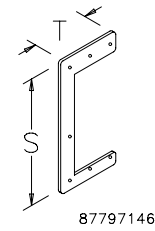
## Lay-In Wireway

### Drop Hanger

Hangers are used to support a wireway run. The drop hanger is normally attached to an overhead beam or ceiling.

Part no	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	S mm	T mm
F22HD	None	0	235	114
F44HD	None	0	298	152
F66HD	None	0	387	206
F88HD	None	0	522	308

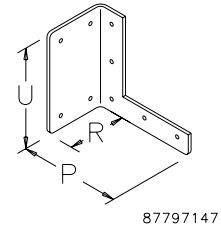
<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.



### Bracket Hanger

Hangers are used to support a wireway run. The bracket hanger can be used for wall, floor or ceiling installations.

Part no	P mm	R mm	U mm
F22HB	117	92	111
F44HB	155	92	149
F66HB	210	92	200
F88HB	260	92	286

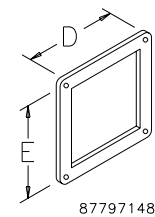


### Box Connector

When wireway enters an enclosure, a box connector should be used on the inside of the enclosure to ensure a tight seal.

Part no	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	D mm	E mm
F22LB	90°	1	99	99
F44LB	90°	1	137	137
<b>F66LB</b>	90°	1	194	194
F88LB	90°	1	244	244
F126LB	90°	1	346	194

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## Lay-In Wireway

### Transposition Sections

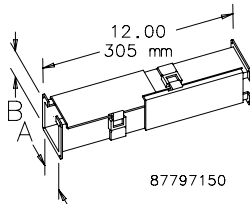
These fittings are used when it is necessary to rotate the open side of the wireway run by 90 degrees and still retain the lay-in feature.

#### Clockwise

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>
F22LKT	64 x 64	Flat	1
F44LKT	102 x 102	Flat	1
F66LKT	152 x 152	Flat	1

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.

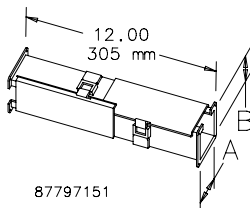


#### Counterclockwise

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>
F22LKOKT	64 x 64	Flat	1
F44LKOKT	102 x 102	Flat	1
F66LKOKT	152 x 152	Flat	1

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.

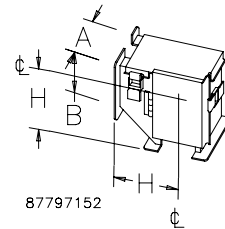


#### 90-Degree Elbow—Clockwise

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	H mm
F22LE9KT	64 x 64	Flat	1	108
F44LE9KT	102 x 102	Flat	1	127
F66LE9KT	152 x 152	Flat	1	452
F88LE9KT	203 x 203	Flat	1	178

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

Certified by Canadian Standards Association.

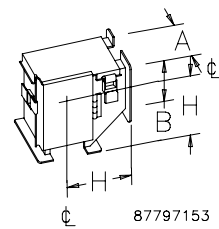


#### 90-Degree Elbow—Counterclockwise

Part no	AxB mm	Sealing Plates, Type <sup>a</sup>	Sealing Plates, Qty. <sup>a</sup>	H mm
F22LE9KOKT	64 x 64	Flat	1	108
F44LE9KOKT	102 x 102	Flat	1	127
F66LE9KOKT	152 x 152	Flat	1	152
F88LE9KOKT	203 x 203	Flat	1	178

<sup>a</sup>Each sealing plate also includes one gasket and one set of screws to join sections.

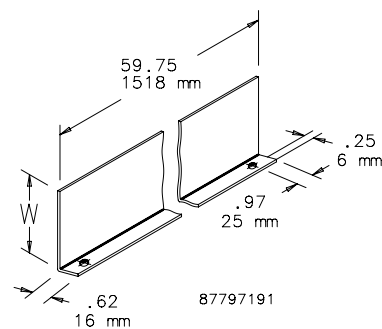
Certified by Canadian Standards Association.



### Barrier Kit, Bolt-On

Divides wireway into two or more compartments. Barriers are fastened to wireway sections with screws. Sealing washers are included.

Part no	AxB mm	W mm
F33BK60	76 x 76	51
F44BK60	102 x 102	76
F66BK60	152 x 152	114
F88BK60	203 x 203	152



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Lay-In Wireway

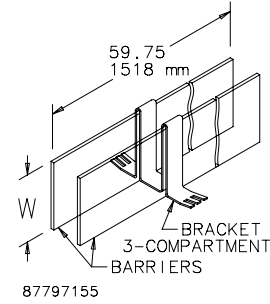
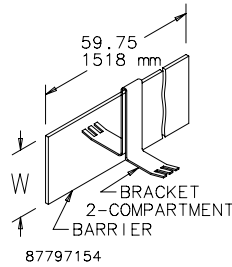
### Barrier Kits, Bracket-Mounted

Spring steel brackets hold barriers in place by friction fit inside wireway. Order barrier and bracket separately. Recommended spacing in increments of .9 m.

#### Two or Three Compartment

Part no	Sealing Plates (qty.) <sup>a</sup>	W mm
<b>F44B360</b>	1 pkg. <sup>a</sup> (5 pcs.)	76
<b>F66B560</b>	1 pkg. <sup>a</sup> (5 pcs.)	114

<sup>a</sup>Package consists of five barriers or five brackets. Each barrier is 60 inches long.



#### Two Compartment

Part no	Sealing Plates (qty.) <sup>a</sup>	W mm
<b>F44BB2C</b>	1 pkg.	76
<b>F66BB2C</b>	1 pkg.	114

<sup>a</sup>Package consists of five barriers or five brackets. Each barrier is 1524 mm long.

#### Three Compartment

Part no	Sealing Plates (qty.) <sup>a</sup>	W mm
<b>F44BB3C</b>	1 pkg.	76
<b>F66BB3C</b>	1 pkg.	114

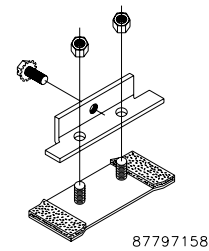
<sup>a</sup>Package consists of five barriers or five brackets. Each barrier is 1524 mm long.

### 90-Degree Angle Sealing Plate

When joining a lay-in section or fitting to a closure plate, a box connector, a non-lay-in cut-off fitting or any similar non-lay-in section or fitting, a 90-degree angle sealing plate is required at each junction. Hoffman furnishes this plate with fittings. Additional 90-degree angle sealing plates may be required in some cases. Plate includes a flange gasket and flange screws, not shown in drawing.

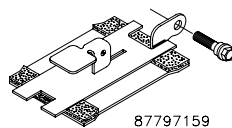
Part no	AxB mm
<b>F22LSAG</b>	64 x 64
<b>F44LSAG</b>	102 x 102
<b>F66LSAG</b>	152 x 152
<b>F88LSAG</b>	203 x 203
<b>F126LSAG</b>	305 x 152

Each sealing plate also includes one gasket and one set of screws to join sections.



### Quick-Release Flat Sealing Plate

This exclusive Hoffman-designed hinged sealing plate permits quick and easy access to the wireway interior without using a tool.



Part no	AxB mm
<b>F22LSGQR</b>	64 x 64
<b>F44LSGQR</b>	102 x 102
<b>F66LSGQR</b>	152 x 152
<b>F88LSGQR</b>	203 x 203
<b>F126LSGQR</b>	305 x 152

Each sealing plate also includes one gasket and one set of screws to join sections.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Stainless Steel Wireway

### CLEAN TRAY™ Stainless Steel Cable Tray, Type 1



#### Industry Standards

UL Classified; File No. E263414  
 This product is classified as to its suitability as an equipment grounding conductor only.

NEMA/EEMAC Type 1

#### Application

The CLEAN TRAY™ Stainless Steel Cable Tray is designed to protect rated cabling in applications that require frequent washdown. A variety of sloped-top fittings with front, inside or outside cover options allows for highly-customized runs using standard catalog product and supports directional control of washdown effluent.

#### Features

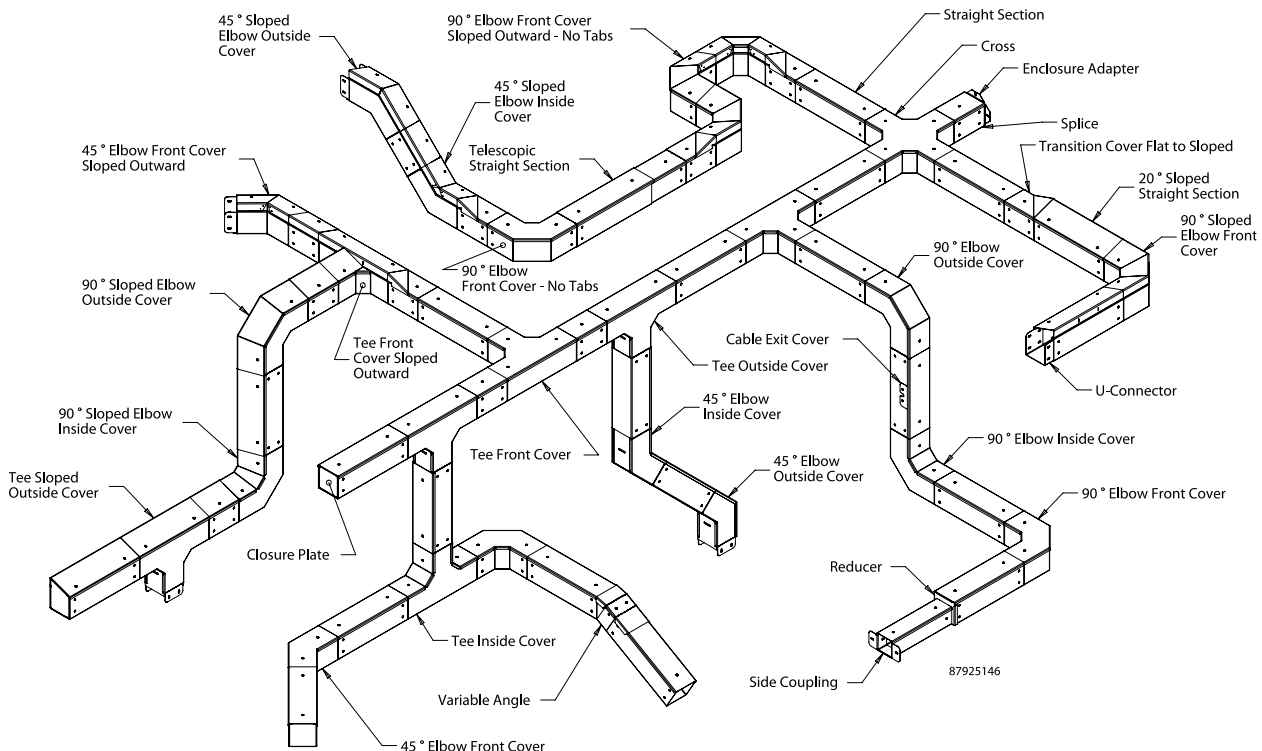
- Adjustable dividers
- Tops and sides can completely open
- Flat cover and 20-degree sloped cover models available
- Perforated fittings and straight sections
- Elbows contain three cover options: front, inside and outside
- Connecting hardware is included with each model
- Quarter-turn latches

#### Specifications

- 1.02-mm thick stainless steel

#### Finish

Smooth brushed finish



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



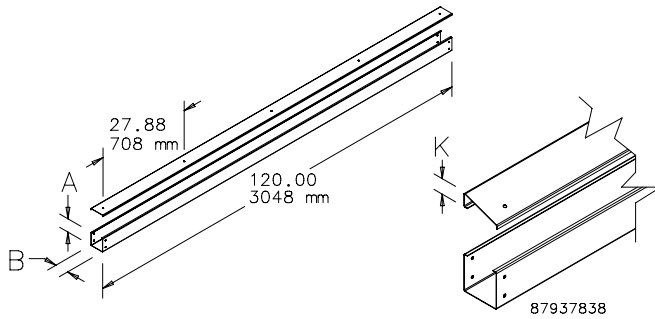
## Stainless Steel Wireway

### Straight Section



Part no	AxB mm	Description	K mm
CT22120SS	51 x 51	Standard	—
CT33120SS	76 x 76	Standard	—
<b>CT44120SS</b>	102 x 102	Standard	—
CT46120SS	102 x 152	Standard	—
CT66120SS	152 x 152	Standard	—

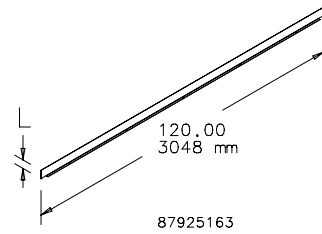
Straight sections are available in 3 m lengths with or without perforations. Available with a 20-degree sloped cover in some sizes. One U-connector and hardware is supplied with each straight section.



### Divider Straight Section

Used to divide one straight section into two sections.

Part no	AxB in./mm	Fits Cable Tray Size in./mm	L in./mm
CT33DSS	3.00 x 3.00	4.00 x 4.00	2.13
	76 x 76	102 x 102	54
<b>CT44DSS</b>	4.00 x 4.00	4.00 x 6.00	3.13
	102 x 102	102 x 152	79
CT66DSS	6.00 x 6.00	6.00 x 6.00	5.13
	152 x 152	152 x 152	130

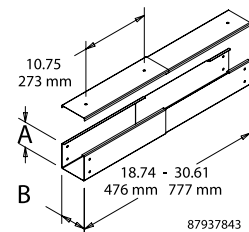


### Telescopic Straight Section



Adjusts from 476 mm to 777 mm.

Part no	AxB in.	AxB mm
CT22TSS	2.00 x 2.00	51 x 51
CT33TSS	3.00 x 3.00	76 x 76
<b>CT44TSS</b>	4.00 x 4.00	102 x 102
CT46TSS	4.00 x 6.00	102 x 152
CT66TSS	6.00 x 6.00	152 x 152



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Stainless Steel Wireway

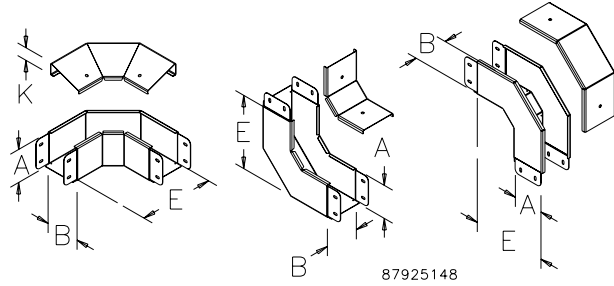
### Divider, Telescopic Straight Section

Must be trimmed to length.

Part no	AxB mm
CT33TDSPPSS	76 x 76
CT44TDSPPSS	102 x 102
CT66TDSPPSS	152 x 152

### 90-Degree Elbows

Used wherever a 90-degree transition is required. Models without tabs connect directly to another elbow without using a splice.



Part no	AxB mm	Description	E (mm)	K (mm)
CT22EFC90SS	51 x 51	Front Cover	152	—
CT33EFC90SS	76 x 76	Front Cover	178	—
<b>CT44EFC90SS</b>	102 x 102	Front Cover	229	—
CT46EFC90SS	102 x 152	Front Cover	279	—
CT66EFC90SS	152 x 152	Front Cover	279	—
CT22EFCNT90SS	51 x 51	Front Cover without Tabs	152	—
CT33EFCNT90SS	76 x 76	Front Cover without Tabs	178	—
CT44EFCNT90SS	102 x 102	Front Cover without Tabs	229	36
CT46EFCNT90SS	102 x 152	Front Cover without Tabs	279	55
CT66EFCNT90SS	152 x 152	Front Cover without Tabs	279	55
CT22EIC90SS	51 x 51	Inside Cover	152	—
CT33EIC90SS	76 x 76	Inside Cover	178	—
<b>CT44EIC90SS</b>	102 x 102	Inside Cover	229	—
CT46EIC90SS	102 x 152	Inside Cover	279	—
CT66EIC90SS	152 x 152	Inside Cover	279	—
CT22E0C90SS	51 x 51	Outside Cover	152	—
CT33E0C90SS	76 x 76	Outside Cover	178	—
<b>CT44E0C90SS</b>	102 x 102	Outside Cover	229	—
CT46E0C90SS	102 x 152	Outside Cover	279	—
CT66E0C90SS	152 x 152	Outside Cover	279	—

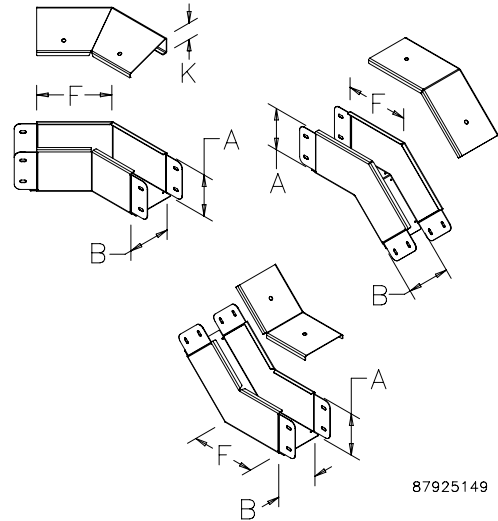
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Stainless Steel Wireway

### 45-Degree Elbows



Used wherever a 45-degree transition is required.



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Part no	AxB mm	Description	F (mm)	K (mm)
CT22EFC45SS	51 x 51	Front Cover	116	—
CT33EFC45SS	76 x 76	Front Cover	127	—
<b>CT44EFC45SS</b>	102 x 102	Front Cover	151	—
CT46EFC45SS	102 x 152	Front Cover	173	—
CT66EFC45SS	152 x 152	Front Cover	173	—
CT22EIC45SS	51 x 51	Inside Cover	116	—
CT33EIC45SS	76 x 76	Inside Cover	127	—
<b>CT44EIC45SS</b>	102 x 102	Inside Cover	151	—
CT46EIC45SS	102 x 152	Inside Cover	173	—
CT66EIC45SS	152 x 152	Inside Cover	173	—
CT22E0C45SS	51 x 51	Outside Cover	116	—
CT33E0C45SS	76 x 76	Outside Cover	127	—
<b>CT44E0C45SS</b>	102 x 102	Outside Cover	151	—
CT46E0C45SS	102 x 152	Outside Cover	173	—
CT66E0C45SS	152 x 152	Outside Cover	173	—

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

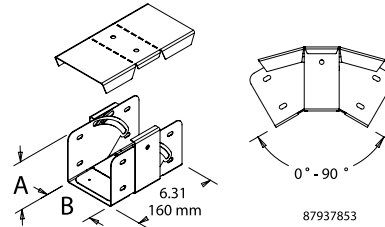
## Stainless Steel Wireway

### Variable-Angle Elbow Fitting



Adjustable from 0 to 90 degrees. Simplifies and saves field integration and installation time.

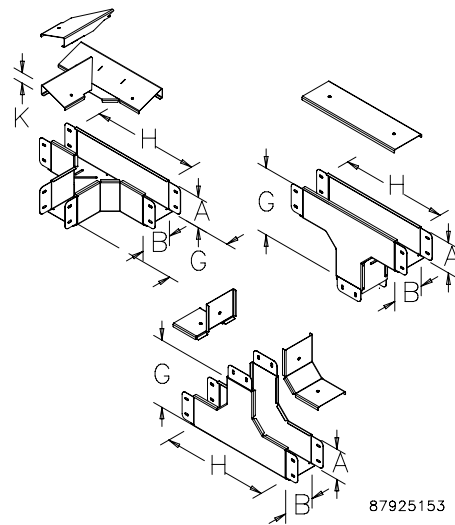
Part no	AxB mm
CT22VSS	51 x 51
CT33VSS	76 x 76
<b>CT44VSS</b>	102 x 102
CT46VSS	102 x 152
CT66VSS	152 x 152



### 90-Degree Tee



Available with or without perforations in three cover options: front, inside and outside. Used wherever two 90-degree transitions are required. Available with a 20-degree sloped cover in some sizes (Front Cover only).



Part no	AxB mm	Description	G (mm)	H (mm)	K (mm)
CT22TFCSS	51 x 51	Front Cover	152	254	—
CT33TFCSS	76 x 76	Front Cover	229	356	—
<b>CT44TFCSS</b>	102 x 102	Front Cover	178	279	—
CT46TFCSS	102 x 152	Front Cover	279	406	—
CT66TFCSS	152 x 152	Front Cover	279	406	—
CT33TICSS	76 x 76	Inside Cover	178	279	—
<b>CT44TICSS</b>	102 x 102	Inside Cover	229	356	—
CT46TICSS	102 x 152	Inside Cover	279	406	—
CT66TICSS	152 x 152	Inside Cover	279	406	—
CT22TOCSS	51 x 51	Outside Cover	152	254	—
CT33TOCSS	76 x 76	Outside Cover	178	279	—
<b>CT44TOCSS</b>	102 x 102	Outside Cover	229	356	—
CT46TOCSS	102 x 152	Outside Cover	279	406	—
CT66TOCSS	152 x 152	Outside Cover	279	406	—

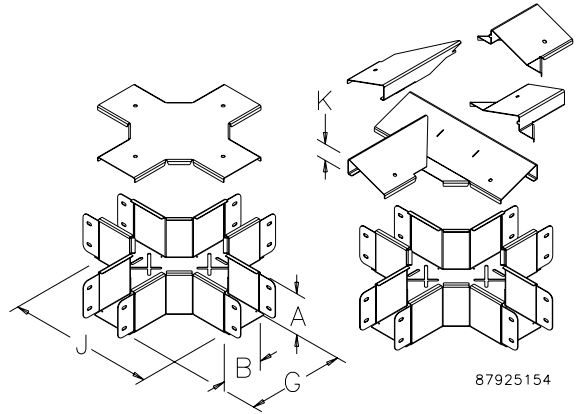
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

### Stainless Steel Wireway

#### Cross



Available with or without perforations. Used where there are four branches. Available with 20-degree sloped cover in some sizes. Kit includes both left and right sloped covers to create any configuration.



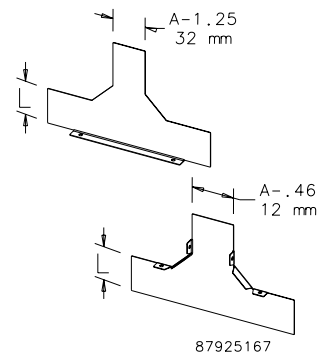
Part no	AxB mm	Description	G (mm)	J (mm)	K (mm)
CT22CSS	51 x 51	Standard	152	254	—
CT33CSS	76 x 76	Standard	178	279	—
<b>CT44CSS</b>	102 x 102	Standard	229	356	—
CT46CSS	102 x 152	Standard	279	406	—
CT66CSS	152 x 152	Standard	279	406	—

#### Divider 90-Degree Tee



Used to divide a 90-degree tee into two sections.

Part no	AxB mm	Fits Cable Tray Size	Description	L mm
CT33DTFCSS	76 x 76	3 x 3	Front Cover	54
<b>CT44DTFCSS</b>	102 x 102	4 x 4	Front Cover	79
CT46DTFCSS	102 x 152	4 x 6	Front Cover	79
CT66DTFCSS	152 x 152	6 x 6	Front Cover	130
CT33DTICSS	76 x 76	3 x 3	Inside Cover	54
<b>CT44DTICSS</b>	102 x 102	4 x 4	Inside Cover	79
CT66DTICSS	152 x 152	6 x 6	Inside Cover	130
CT33DTOCSS	76 x 76	3 x 3	Outside Cover	54
<b>CT44DTOCSS</b>	102 x 102	4 x 4	Outside Cover	79
CT66DTOCSS	152 x 152	6 x 6	Outside Cover	130



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



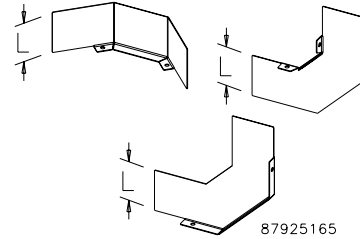
### Stainless Steel Wireway

#### Divider 90-Degree Elbow



Used to divide a 90-degree elbow into two sections.

Part no	AxB mm	Description	Fits Cable Tray Size	L mm
CT33DEFC90SS	76 x 76	Front Cover	3 x 3	54
<b>CT44DEFC90SS</b>	102 x 102	Front Cover	4 x 4	79
CT46DEFC90SS	102 x 152	Front Cover	4 x 6	79
CT66DEFC90SS	152 x 152	Front Cover	6 x 6	130
CT33DEIC90SS	76 x 76	Inside Cover	3 x 3	54
<b>CT44DEIC90SS</b>	102 x 102	Inside Cover	4 x 4, 4 x 6	79
CT66DEIC90SS	152 x 152	Inside Cover	6 x 6	130
CT33DEOC90SS	76 x 76	Outside Cover	3 x 3	54
<b>CT44DEOC90SS</b>	102 x 102	Outside Cover	4 x 4, 4 x 6	79
CT66DEOC90SS	152 x 152	Outside Cover	6 x 6	130



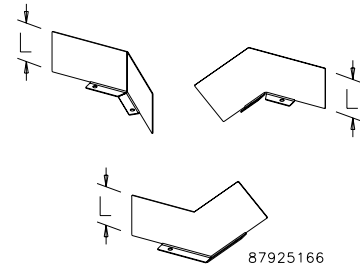
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#### Divider 45-Degree Elbow



Used to divide a 45-degree elbow into two sections.

Part no	AxB mm	Description	Fits Cable Tray Size	L mm
CT33DEFC45SS	76 x 76	Front Cover	3 x 3	54
<b>CT44DEFC45SS</b>	102 x 102	Front Cover	4 x 4	79
CT46DEFC45SS	102 x 152	Front Cover	4 x 6	79
CT66DEFC45SS	152 x 152	Front Cover	6 x 6	130
CT33DEIC45SS	76 x 76	Inside Cover	3 x 3	54
<b>CT44DEIC45SS</b>	102 x 102	Inside Cover	4 x 4, 4 x 6	79
CT66DEIC45SS	152 x 152	Inside Cover	6 x 6	130
CT33DEOC45SS	76 x 76	Outside Cover	3 x 3	54
<b>CT44DEOC45SS</b>	102 x 102	Outside Cover	4 x 4, 4 x 6	79
CT66DEOC45SS	152 x 152	Outside Cover	6 x 6	130



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Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

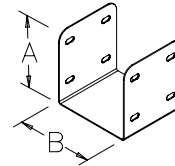
### Stainless Steel Wireway

#### U-Connector



Used to connect two straight sections.

Part no	AxB mm
CT22UCSS	51 x 51
CT33UCSS	76 x 76
<b>CT44UCSS</b>	102 x 102
CT46UCSS	102 x 152
CT66UCSS	152 x 152



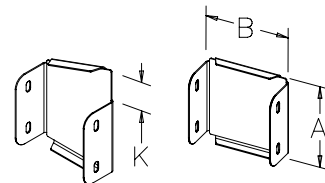
87925155

#### Closure Plate



Closes the end of a cable tray section or run. Available with 20-degree slope in some sizes (left slope shown).

Part no	AxB mm	Description	K mm
CT22CPSS	51 x 51	Standard	—
CT33CPSS	76 x 76	Standard	—
<b>CT44CPSS</b>	102 x 102	Standard	—
CT46CPSS	102 x 152	Standard	—
CT66CPSS	152 x 152	Standard	—



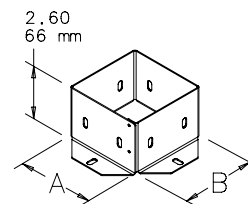
87925156

#### Enclosure Adapter



Allows the cable tray to be securely connected to an enclosure.

Part no	AxB mm
CT22AESS	51 x 51
CT33AESS	76 x 76
<b>CT44AESS</b>	102 x 102
CT46AESS	102 x 152
CT66AESS	152 x 152



87925157

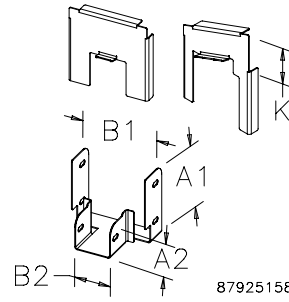
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



### Stainless Steel Wireway

#### Reducer

Used to reduce to a smaller size cable tray. Available with 20-degree slope in some sizes (right slope shown).



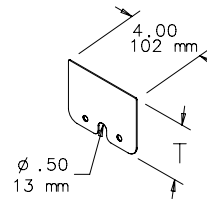
87925158

Part no	AxB mm	Description	A2 (mm)	B2 (mm)	K (mm)
CT3322RSS	76 x 76	3 x 3 2 x 2 Standard	51	51	—
CT4433RSS	102 x 102	4 x 4 3 x 3 Standard	76	76	—
CT4422RSS	102 x 102	4 x 4 2 x 2 Standard	51	51	—
CT4644RSS	102 x 152	4 x 6 4 x 4 Standard	102	102	—
CT4633RSS	102 x 152	4 x 6 3 x 3 Standard	76	76	—
CT6622RSS	152 x 152	6 x 6 2 x 2 Standard	51	51	—
CT6646RSS	152 x 152	6 x 6 4 x 6 Standard	102	152	—
CT6644RSS	152 x 152	6 x 6 4 x 4 Standard	102	102	—
CT6633RSS	152 x 152	6 x 6 3 x 3 Standard	76	76	—

#### Cable Exit Cover



Part no	T mm
CT2233CEC	38
CT4466CEC	76



87925159

Covers cables that exit the side of the cable tray. Will cover a keyhole or slot used to pass the cable through.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

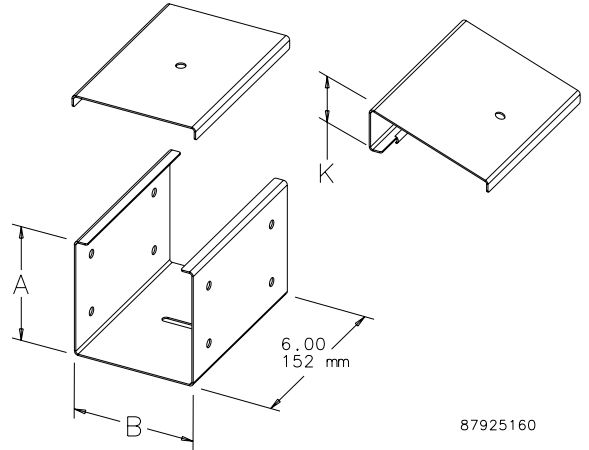


### Stainless Steel Wireway

#### Straight Section Splice



Used to connect two fittings with tabs. Available with 20-degree slope in some sizes.



87925160

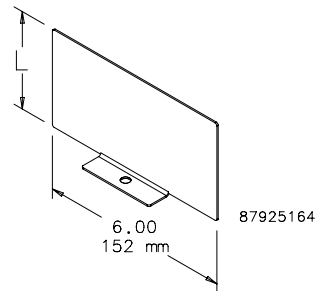
Part no	AxB mm	Description	K (mm)
CT22SPSS	51 x 51	Standard	—
CT33SPSS	76 x 76	Standard	—
<b>CT44SPSS</b>	102 x 102	Standard	—
CT46SPSS	102 x 152	Standard	—
CT66SPSS	152 x 152	Standard	—

#### Divider Straight Section Splice



Used to divide a straight section splice into two sections.

Part no	AxB mm	Fits Cable Tray Size mm	L mm
CT33DSPSS	76 x 76	76 x 76	54
<b>CT44DSPSS</b>	102 x 102	102 x 102, 102 x 152	79
CT66DSPSS	152 x 152	152 x 152	130



87925164

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



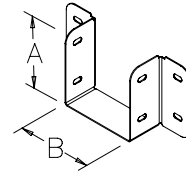
### Stainless Steel Wireway

#### Side Coupling



Used to connect straight sections or fittings to the side of a cable tray run. A cutout will be required in the side of the cable tray.

Part no	AxB mm
CT22SCSS	51 x 51
CT33SCSS	76 x 76
CT44SCSS	102 x 102
CT46SCSS	102 x 152
CT66SCSS	152 x 152



87925162

#### Fastener Package

1/4-20 stainless steel fasteners used to connect cable tray components.

Part no	Screws	Nuts
CT1420SS	100	100

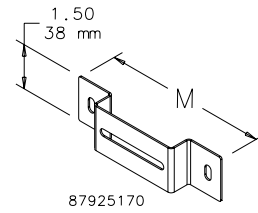
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Stainless Steel Wireway

### Hanger Bracket

Used to support a cable tray run.

Part no	AxB mm	M mm	Pkg. Qty.
CT22HB	51 x 51	91	20
CT33HB	76 x 76	116	20
CT44HB	102 x 102	142	20
CT66HB	152 x 152	193	20

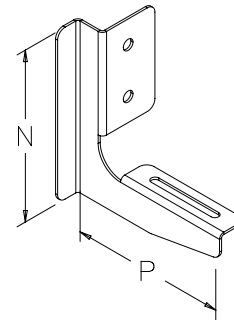


### L-Bracket

Used to support a cable tray run. Can be mounted to a vertical UNISTRUT® channel.

UNISTRUT is a registered trademark of Unistrut Corporation.

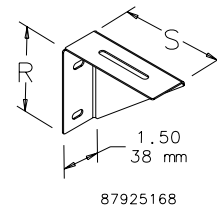
Part no	AxB mm	N mm	P mm	Pkg. Qty.
CT22LB	51 x 51	76	92	20
CT33LB	76 x 76	102	118	20
CT44LB	102 x 102	127	143	20
CT66LB	152 x 152	194	194	20



### Wall Bracket

Used to support a cable tray run.

Part no	AxB mm	R mm	S mm	Pkg. Qty.
CT22WB	51 x 51	39	57	20
CT33WB	76 x 76	65	83	20
CT44WB	102 x 102	90	108	20
CT66WB	152 x 152	141	159	20



### Latch Hardware Kits

Part no	Use on (in.)	Use on (mm)
CTLCHSS	2.00 x 2.00, 4.00 x 6.00, 6.00 x 6.00	51 x 51, 102 x 152, 152 x 152
CTLCH3SS	3.00 x 3.00	76 x 76
CTLCH4SS	4.00 x 4.00	102 x 102
CTSLCHSS	Sloped	—

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

# CHAPTER 6

## Industrial Cooling



# Chapter Contents

## Industrial Cooling

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## V-Series Air Conditioners

### V-Series Compact Air Conditioners



**VA06 Indoor Model**  
300 and 600 Watts

#### Industry Standards

IP 56 Internal Air Loop  
IP 34 External Air Loop  
CE  
GOST

#### Application

- Industrial drive enclosures
- Automotive assembly systems
- Packaging equipment
- Material handling
- Other process control systems

#### Features

- Coated coils for filterless operation in most manufacturing environments
- Convenient quick-fastening terminal block for easy power connections
- Built-in installation hooks on the back of the unit
- Unique passive condensate management system
- Indoor operating temperature range from 20°C to 55°C
- IP 56 protection against dust and water infiltration
- Reliable mechanical thermostat to reduce the chance of failure
- All-metal shroud for rugged factory conditions
- Exterior surface mounting standard
- Full-size cutout print included with every unit
- Easy access to the optional aluminum filter and other components
- Rigorously tested to withstand shipping vibration, high temperatures and other operating challenges
- Every unit functionally tested prior to leaving the factory
- R134A earth-friendly refrigerant and RoHS compliant

#### Specifications

- 300 and 600 nominal watts
- 230 VAC 50 Hz power input with +/-10 percent operating range
- CE and GOST certifications

#### Finish

- RAL 7035 light-gray, semi-textured powder-coat paint standard
- Other colors and textures available upon request

#### Model Number Structure

VA	06	06	25	G	052	S
1	2	3	4	5	6	7

1. Identifies the of air conditioner type, VA=V Series Air Conditioner.
2. Identifies the approximate height, 06=501mm to 600mm.
3. This is the air conditioner's nominal capacity in Watts, 06=600 W.
4. Identifies the input power of air conditioner, 2=220V/230V, 5=50Hz.
5. Identifies the construction material and refrigerant of air conditioner, G=Galvanized sheet metal and R134a.
6. Unique set of numbers for each air conditioner which identifies the accessories on a model, 052=Terminal block and finger guard.
7. S=Standard product.

#### Notes

Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the design of your electronics system.

**V-Series Air Conditioners**

 Performance Data **300 W, 600 W**

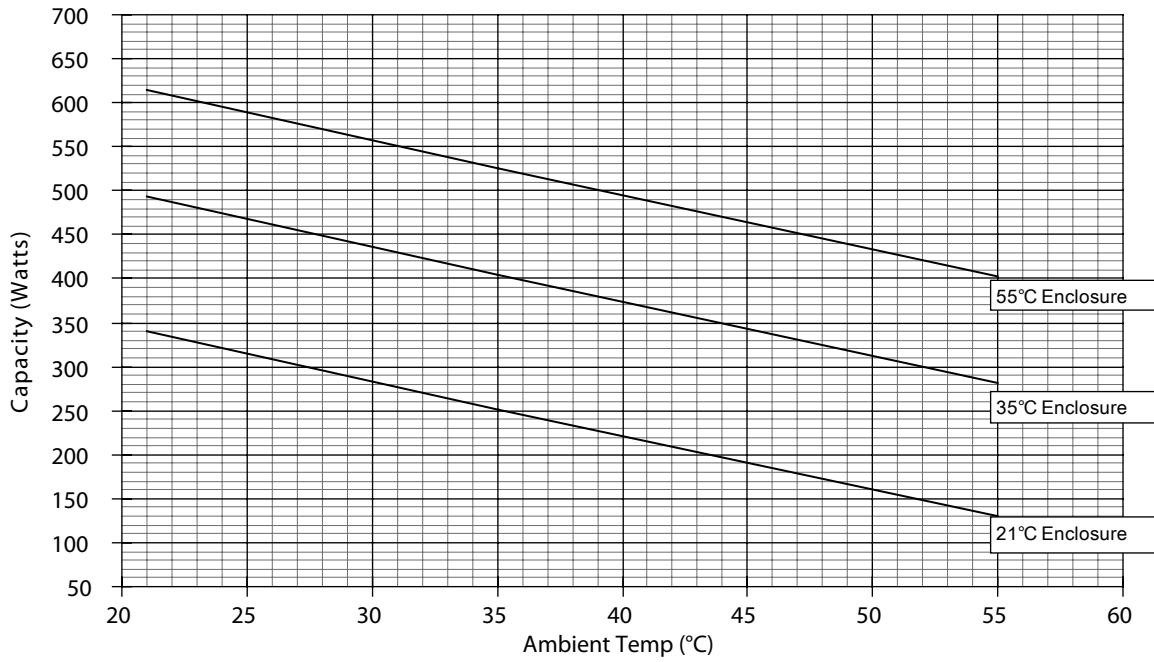
Part no	VA060325G052S	VA060625G052S
<b>COOLING PERFORMANCE:</b>		
Nominal:		
L35 L35		
<b>Watt</b>	400	590
L35 L50		
<b>Watt</b>	310	510
Refrigerant	R134a	R134a
Refrigerant Charge (g)	100	150
Operating Temperature Range:		
Maximum (°C)	55	55
Minimum (°C)	20	20
Airflow at 0 Static Pressure:		
Internal loop (m <sup>3</sup> /h)	115	180
External loop (m <sup>3</sup> /h)	325	270
Duty Cycle	100%	100%
<b>ELECTRICAL DATA</b>		
<b>Rated Voltage</b>	<b>230</b>	<b>230</b>
Frequency (Hz)	50	50
Operating Range	+/-10%	+/-10%
Power Consumption	225	420
L35 L35 (Watt)		
Max. Nominal Current (Amp)	1.5	2.8
Starting Current (Amp)	7	16
Pre-fuse T (Amp)	10	10
Agency Approvals	CE GOST	CE GOST
Power Input Description	Terminal Block	Terminal Block
<b>PERFORMANCE FACTOR L35 L35</b>		
Cooling Performance (Watt)/ Power Consumption (Watt)	1.8	1.4
<b>ENCLOSURE PROTECTION</b>		
IP Code	IP 56 Internal loop IP34 External loop	IP 56 Internal loop IP34 External loop
<b>CONTROLLER</b>		
Description	Basic Mechanical Thermostat	Basic Mechanical Thermostat
Thermostat Location	Enclosure Side	Enclosure Side
Factory Thermostat Setting (°C)	35	35
<b>SOUND LEVEL</b>		
At 1 M	64 dBA	72 dBA
<b>UNIT CONSTRUCTION</b>		
Material	Galvanized Sheet Metal Standard	Galvanized Sheet Metal Standard
Finish	RAL 7035 light-gray, semi-textured powder-coat paint standard	RAL 7035 light-gray, semi-textured powder-coat paint standard
<b>UNIT DIMENSIONS</b>		
Height (mm)	508	508
Width (mm)	270	270
Depth (mm)	252	252
Weight (kg)	23	25

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

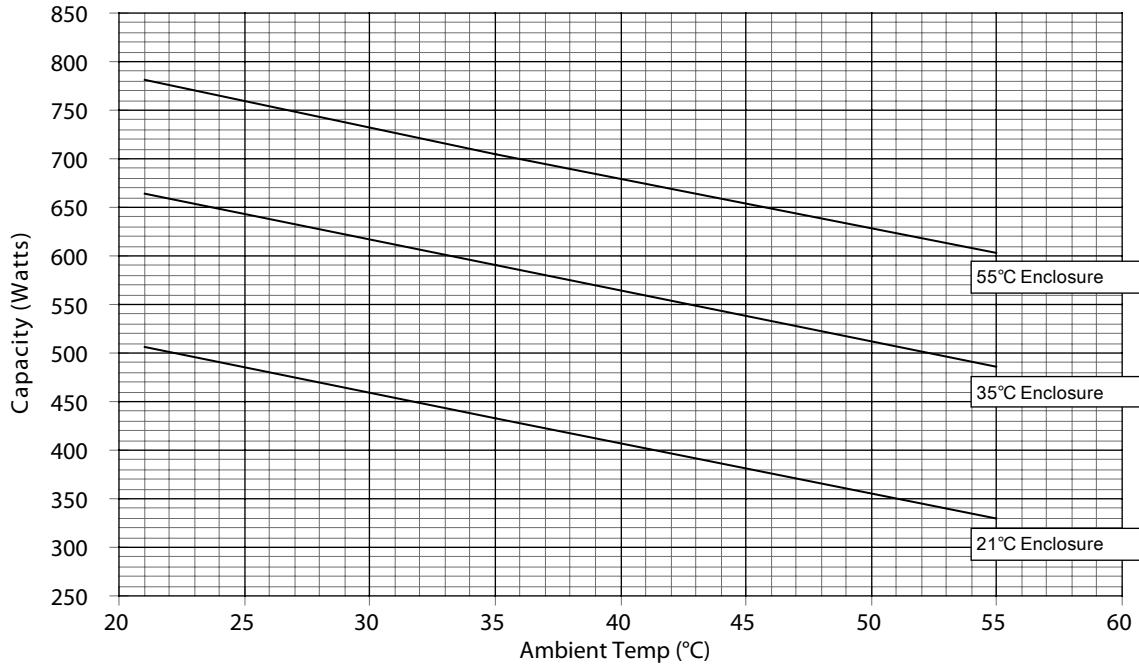
### V-Series Air Conditioners

Performance Curves for 300 and 600 Watt Models

**VA060325GXXXS 300 Watt Capacity Curves 230V/50Hz**



**VA060625GXXXS 600 Watt Capacity Curves 230V/50Hz**

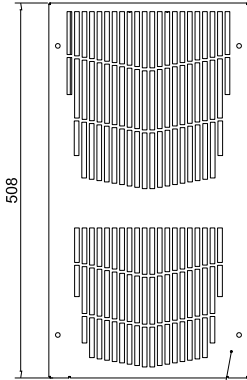
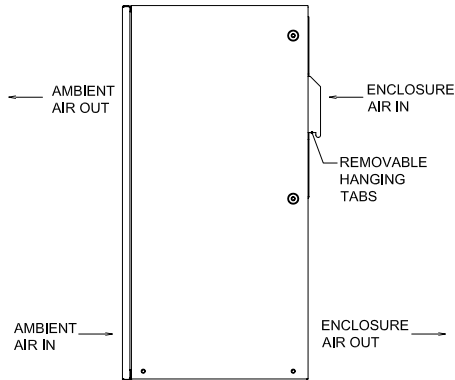
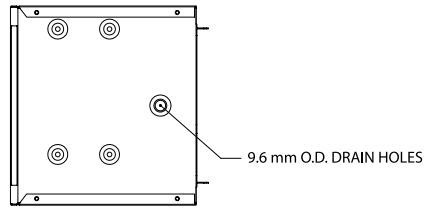
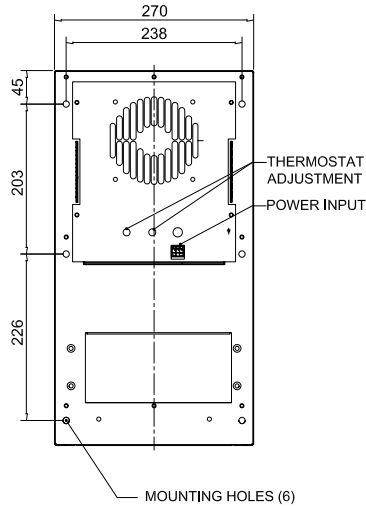


**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

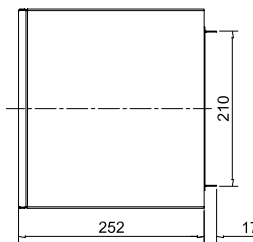


### V-Series Air Conditioners

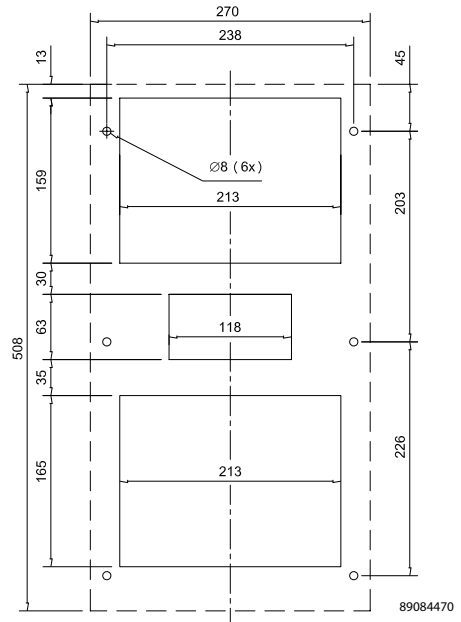
#### V-SERIES Compact 1st Angle Projection



CLEANABLE, REUSABLE ALUMINUM INLET FILTER SLIDES OUT SLOT IN BOTTOM OF FRONT COVER.



Note:  
1. Mounting gasket supplied (not shown)  
2. Units: mm



CUTOUT DIMENSIONS  
EXTERNAL SURFACE MOUNTING

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



## V-Series Air Conditioners

### V-Series Mid-Size Air Conditioners



**VA08 Indoor Model**  
1200, 1500 and 2000 Watts

#### Industry Standards

IP 56 Internal Air Loop  
IP 34 External Air Loop  
CE  
GOST

#### Application

- Industrial drive enclosures
- Automotive assembly systems
- Packaging equipment
- Material handling
- Other process control systems

#### Features

- Coated coils for filterless operation in most manufacturing environments
- Convenient quick-fastening terminal block for easy power connections
- Built-in installation hooks on the back of the unit
- Unique passive condensate management system
- Indoor operating temperature range from 20 °C to 55 °C
- IP 56 protection against dust and water infiltration
- Reliable mechanical thermostat to reduce the chance of failure
- All-metal shroud for rugged factory conditions
- Exterior surface mounting standard
- Full-size cutout print included with every unit
- Easy access to the optional aluminum filter and other components
- Rigorously tested to withstand shipping vibration, high temperatures and other operating challenges
- Every unit functionally tested prior to leaving the factory
- Rotary compressor for energy efficiency
- R134A earth-friendly refrigerant and RoHS compliant

#### Specifications

- 1200, 1500 and 2000 nominal watts
- 230 VAC 50 Hz power input with +/-10 percent operating range
- CE and GOST certifications

#### Finish

- RAL 7035 light-gray, semi-textured powder-coat paint standard
- Other colors and textures available upon request

#### Model Number Structure

VA	08	06	25	G	052	S
1	2	3	4	5	6	7

1. Identifies the of air conditioner type, VA=V Series Air Conditioner.
2. Identifies the approximate height, 08=701mm to 800mm.
3. This is the air conditioner's nominal capacity in Watts, 08=800 W.
4. Identifies the input power of air conditioner, 2=220V/230V, 5=50Hz.
5. Identifies the construction material and refrigerant of air conditioner, G=Galvanized sheet metal and R134a.
6. Unique set of numbers for each air conditioner which identifies the accessories on a model, 052=Terminal block and finger guard.
7. S=Standard product.

#### Notes

Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the design of your electronics system.

**V-Series Air Conditioners**

 Performance Data **1200 W, 1500 W, 2000 W**

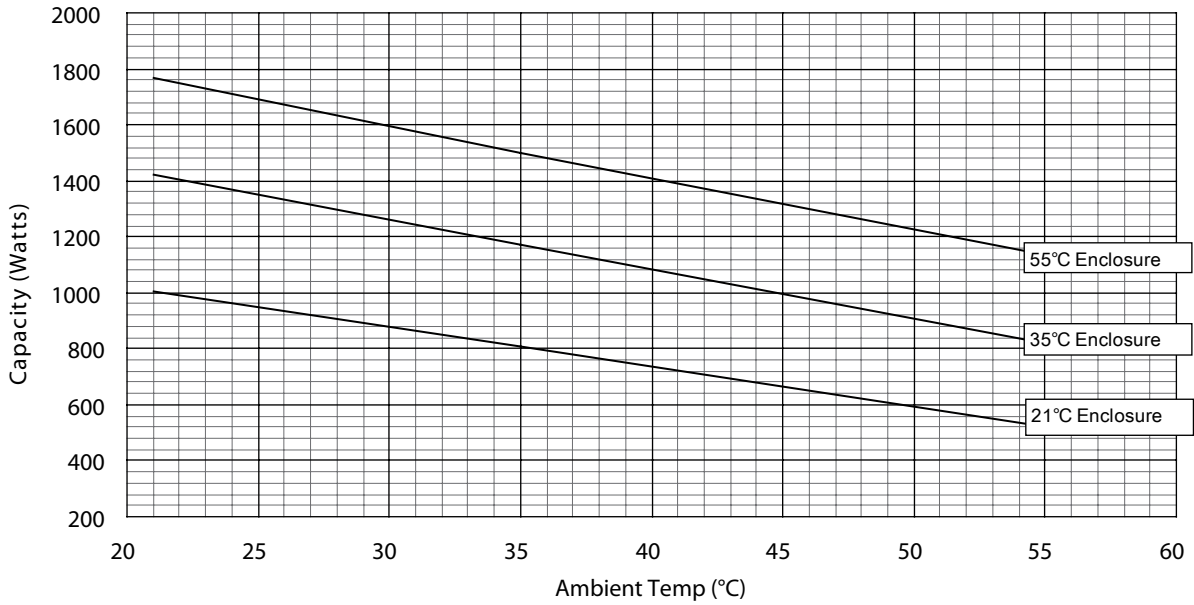
<b>Part no</b>	<b>VA081225G052S</b>	<b>VA081525G052S</b>	<b>VA082025G052S</b>
Indoor Model			
<b>COOLING PERFORMANCE</b>			
Nominal:			
L35 L35			
<b>Watt</b>	<b>1200</b>	<b>1550</b>	<b>1950</b>
L35 L50			
<b>Watt</b>	<b>930</b>	<b>1280</b>	<b>1700</b>
Refrigerant	R134a	R134a	R134a
Refrigerant Charge (g)	462	652	765
Operating Temperature Range:			
Maximum (°C)	55	55	55
Minimum (°C)	20	20	20
Airflow at 0 Static Pressure:			
Internal loop (m <sup>3</sup> /h)	345	530	530
External loop (m <sup>3</sup> /h)	275	545	565
Duty Cycle	100%	100%	100%
<b>ELECTRICAL DATA</b>			
Rated Voltage	230	230	230
Frequency (Hz)	50	50	50
Operating Range	+/-10%	+/-10%	+/-10%
Power Consumption L35 L35 (Watts)	565	610	855
Max. Nominal Current (Amps)	3.4	3.7	5.6
Starting Current (Amps)	16.2	16.3	22.7
Pre-fuse T (Amps)	10	10	10
Agency Approvals	CE GOST	CE GOST	CE GOST
Power Input Description	Terminal Block	Terminal Block	Terminal Block
<b>PERFORMANCE FACTOR L35 L35</b>			
Cooling Performance (Watt)/ Power Consumption (Watt)	2.1	2.5	2.3
<b>ENCLOSURE PROTECTION</b>			
IP Code	IP 56 Internal loop IP34 External loop	IP 56 Internal loop IP34 External loop	IP 56 Internal loop IP34 External loop
<b>CONTROLLER</b>			
Description	Basic Mechanical Thermostat	Basic Mechanical Thermostat	Basic Mechanical Thermostat
Thermostat Location	Enclosure Side	Enclosure Side	Enclosure Side
Factory Thermostat Setting (°C)	35	35	35
<b>SOUND LEVEL</b>			
At 1 M	68 dBA	71 dBA	73 dBA
<b>UNIT CONSTRUCTION</b>			
Material	Galvanized Sheet Metal Standard	Galvanized Sheet Metal Standard	Galvanized Sheet Metal Standard
Finish	RAL 7035 light-gray, semi-textured powder-coat paint standard	RAL 7035 light-gray, semi-textured powder-coat paint standard	RAL 7035 light-gray, semi-textured powder-coat paint standard
<b>UNIT DIMENSIONS</b>			
Height (mm)	725	725	725
Width (mm)	431	431	431
Depth (mm)	237	237	237
Weight (kg)	37	38	42

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

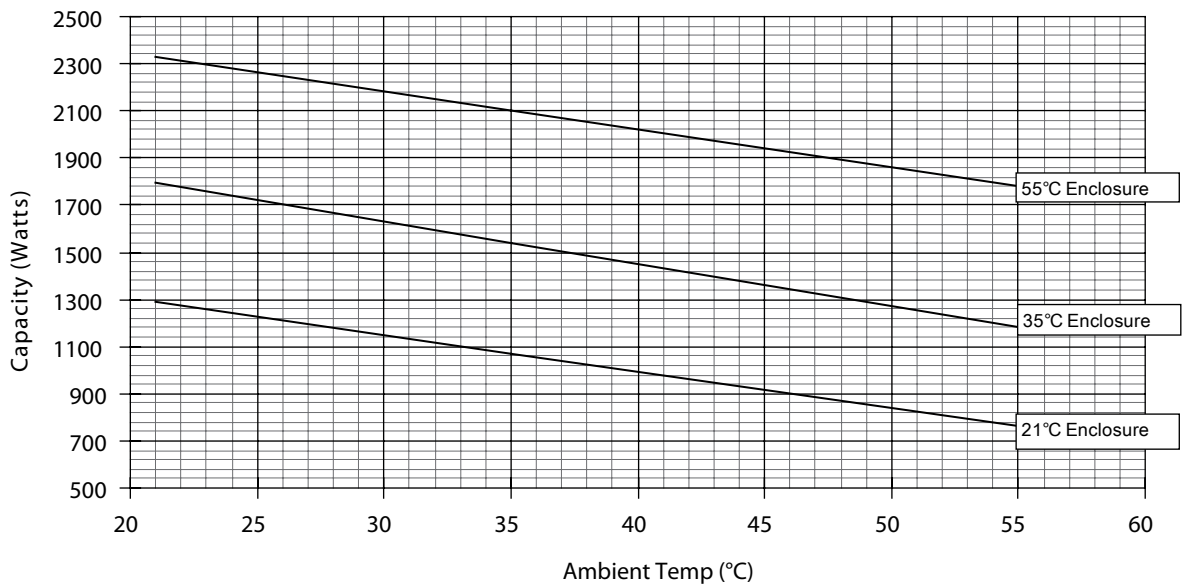
### V-Series Air Conditioners

Performance Curves for 1200 and 1500 Watt Models

**VA081225GXXXS 1200 Watt Capacity Curves 230V/50Hz**



**VA081525GXXXS 1500 Watt Capacity Curves 230V/50Hz**

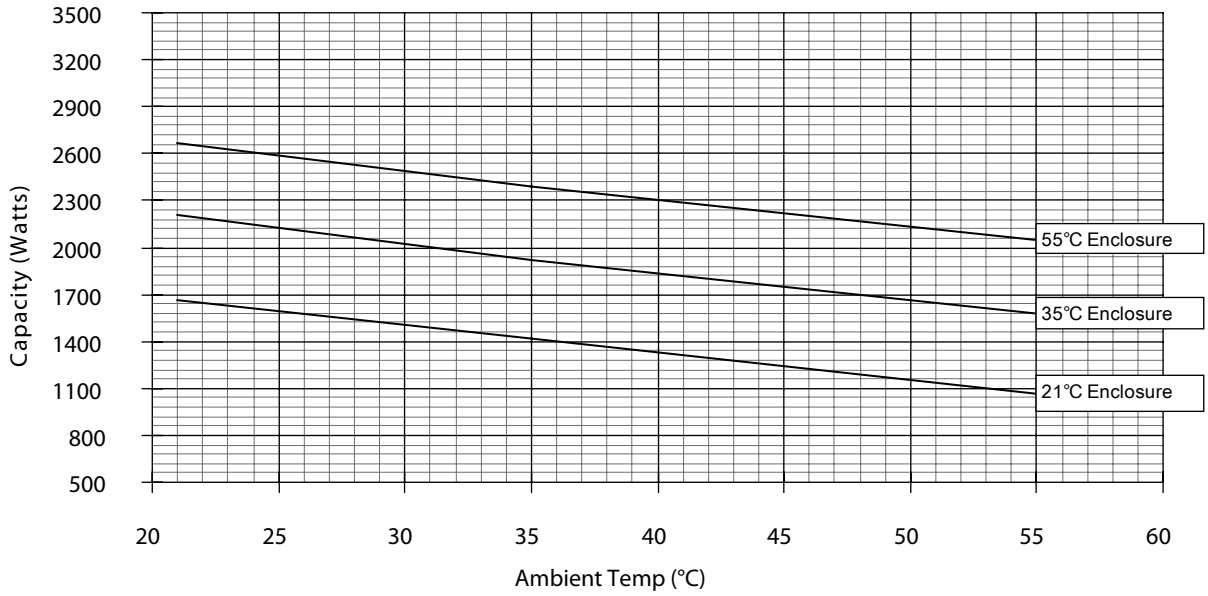


**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### V-Series Air Conditioners

Performance Curves for 2000 Watt Model

**VA082025GXXXS 2000 Watt Capacity Curves 230V/50Hz**

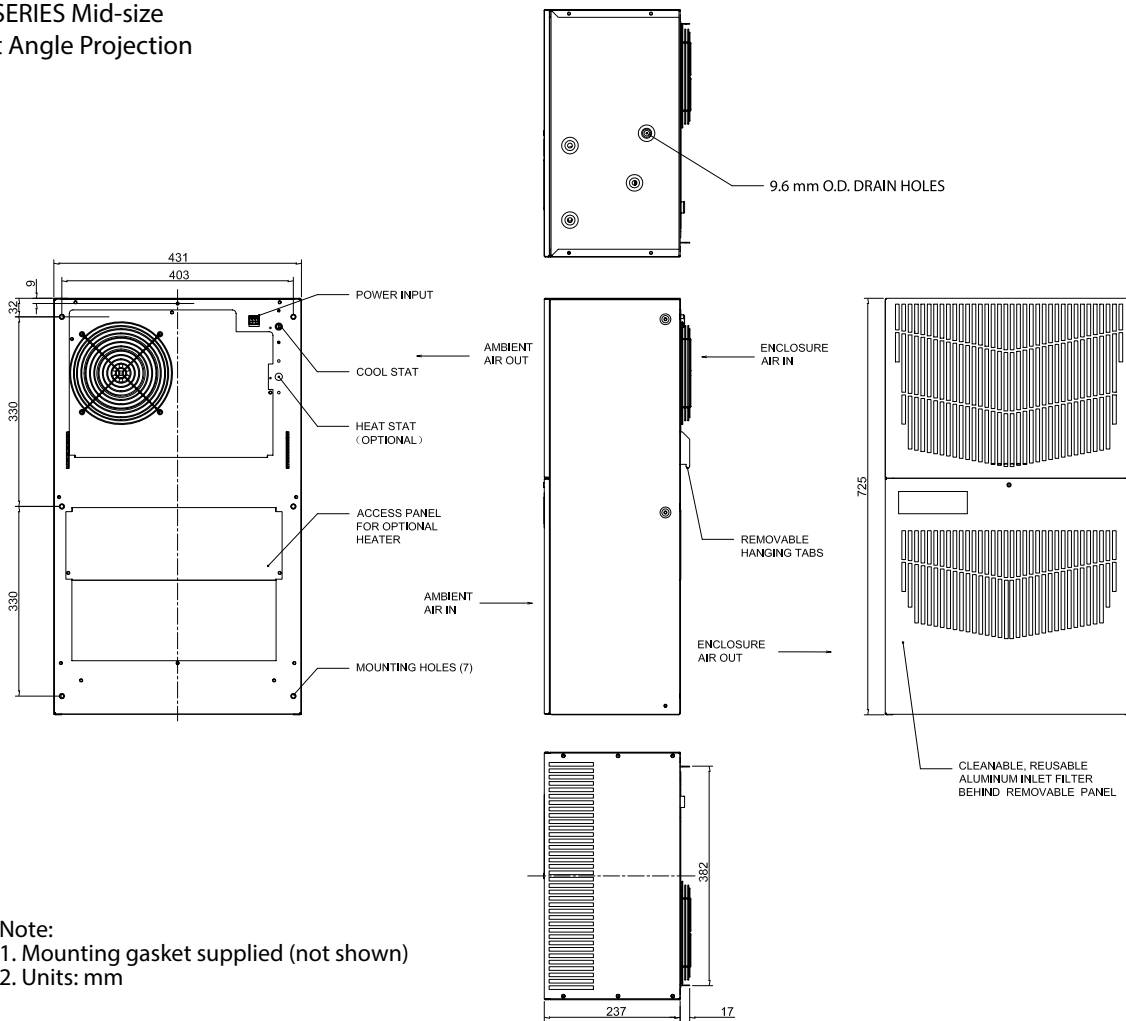


**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

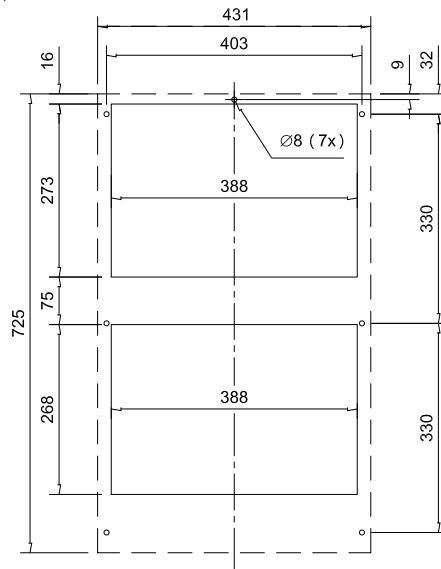


### V-Series Air Conditioners

V-SERIES Mid-size  
1st Angle Projection



Note:  
1. Mounting gasket supplied (not shown)  
2. Units: mm



Cutout Dimensions  
External Surface Mount

89084471

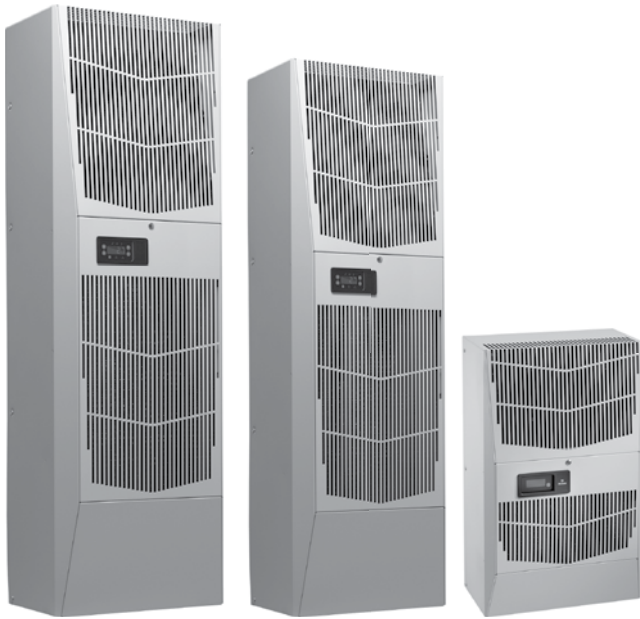
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## V-Series Air Conditioners

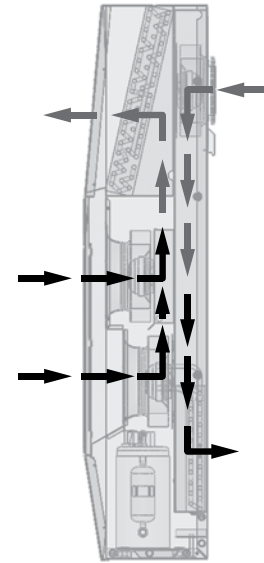
### Notes

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**SPECTRACOOL™**
**SPECTRACOOL™ Indoor/Outdoor**


G57	G52	G28
20000 BTU/Hr.	8000/12000 BTU/Hr.	4000/6000 BTU/Hr.
5861 Watt	2300/3500 Watt	1172/1758 Watt


**Industry Standards**

UL/cUL Listed Type 12, 3R, 4; 4X optional; File No. 6453
--

CE  
GOST  
IP 56 Internal Loop  
IP 34 on External Loop  
Telcordia GR-487 capable (Outdoor)

**Application**

- Industrial automation
- Telecommunications equipment
- Waste water treatment systems
- Package handling equipment
- Security and defense systems
- And more

**Features**

- Energy-efficient rotary compressor on most models
- R407c and R134a earth-friendly refrigerants
- 115, 230 and 400/460 VAC 3-phase power input on most models
- UL Listed to save customers time and money with agency approvals
- Outdoor model operating temperature range from -40 F/-40 C to 131 F/55 C
- Exterior and partially recessed mounting options
- Attractive industrial design with minimal use of visible fasteners
- Reliable mechanical thermostat on enclosure side of the unit; indoor air conditioner models include digital display on ambient side
- Dual condenser-side air movers for performance redundancy on G52 and G57 models
- Galvanized sheet-metal cover for rugged factory and outdoor environments
- Easy-mount flanges for simple installation
- Cut-out adapter options for enclosures with McLean GENESIS™ and T-Series air conditioners, enable users to easily transition to the new unit

- Dust-resistant condenser coil allows the unit to be run filterless in most applications
- Cleanable, reusable aluminum mesh filter protects coils for maximum cooling performance
- Mounting hardware, gaskets and user manual furnished with the unit
- Every unit functionally tested before shipping
- Standard Indoor Air Conditioner models also include:
  - Active condensate management with heater strip
  - Power-off relay for door switch and other system requirements
  - Malfunction switch
- Standard Outdoor Air Conditioner models also include:
  - Telcordia GR-487 capable
  - Corrosion-resistant components
  - Malfunction switch
  - Compressor heater
  - Head pressure control
  - Up to 2000 Watt (G28, G52) and 3000 Watt (G57) enclosure heater

**Specifications**

- Nominal cooling capacity:
  - G28 4000 & 6000 BTU/Hr. (1172 and 1758 W)
  - G52 8000 & 12000 BTU/Hr. (2344 and 3516 W)
  - G57 20000 BTU/Hr. (5861 W)
- Outdoor model operating temperature range from -40 F/-40 C to 131 F/55 C

**Finish**

- RAL 7035 light-gray, semi-textured powder-coat paint
- Other colors and textures available

**Notes**

Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.



**SPECTRACOOL™**

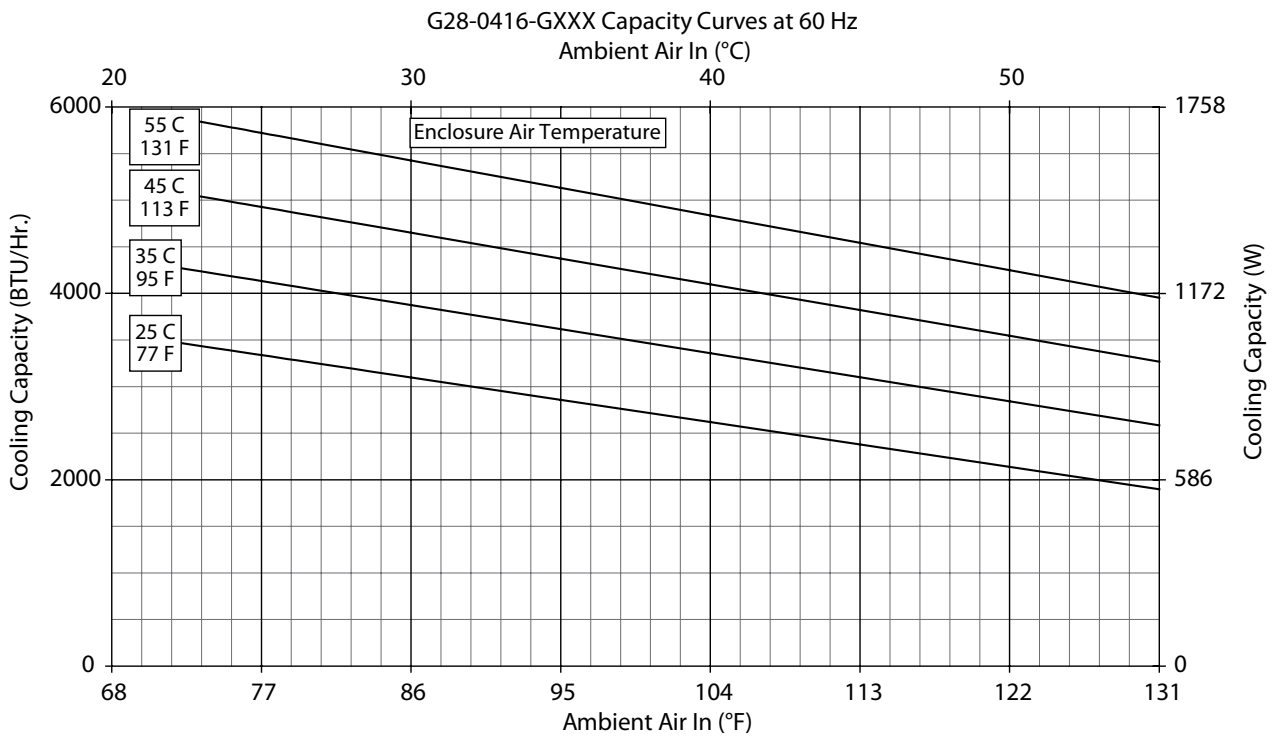
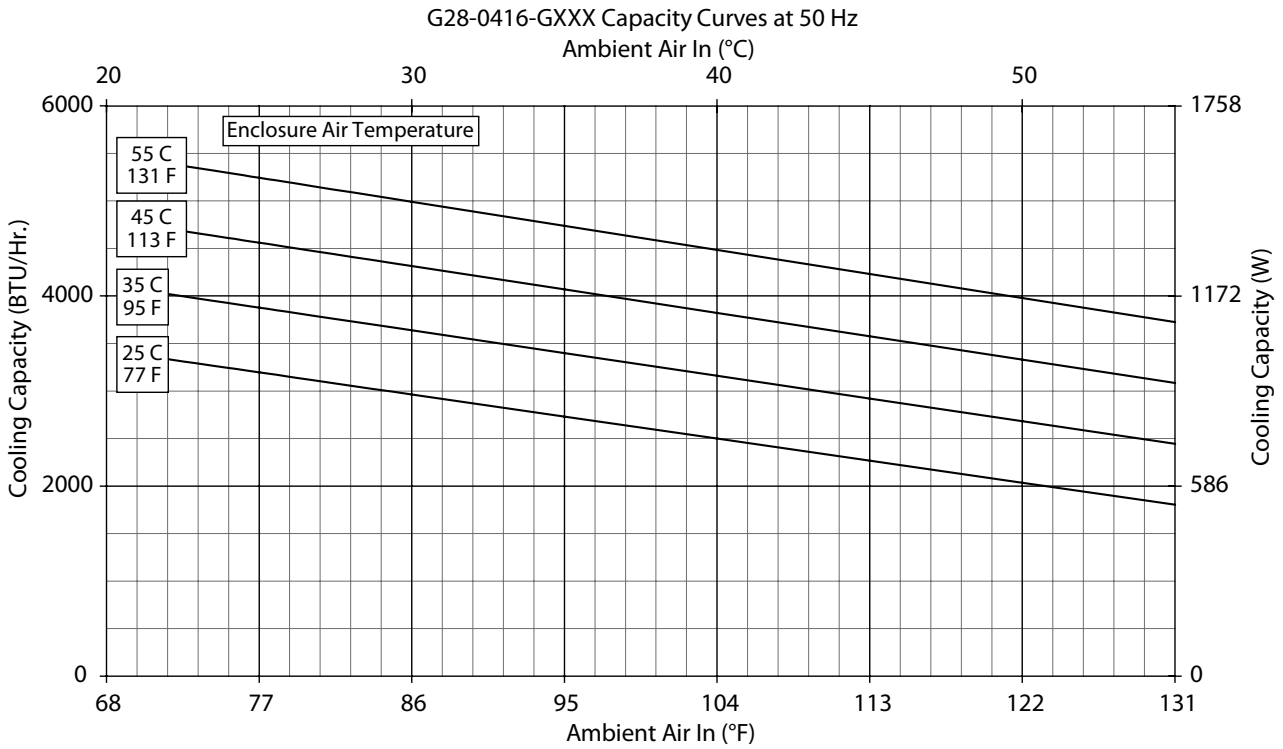
 Performance Data **G28 Models 4000/6000 BTU/Hr. (1172/1758 Watt)**

Part no						
Indoor Model	G280416G050	<b>G280426G050</b>	G280446G050	G280616G050	<b>G280626G050</b>	G280646G050
Indoor Model Stainless Steel Type 4X	G280416G051	G280426G051	G280446G051	G280616G051	G280626G051	G280646G051
Outdoor Model without Heat Pkg.	G280416G100	G280426G100	G280446G100	G280616G100	G280626G100	G280646G100
Outdoor Model Partial Recessed Mount	G280416G101	G280426G101	G280446G101	G280616G101	G280626G101	G280646G101
Outdoor Model without Heat Pkg. Stainless Steel Type 4X	G280416G102	G280426G102	G280446G102	G280616G102	G280626G102	G280646G102
Outdoor Model with Heat Pkg.	G280416G150	G280426G150	—	G280616G150	G280626G150	—
Outdoor Model with Heat Pkg. Stainless Steel Type 4X	G280416G151	G280426G151	—	G280616G151	G280626G151	—
<b>COOLING PERFORMANCE</b>						
<b>Nominal:</b>						
<b>BTU/Hr.</b>	<b>4600/4900</b>	<b>4600/4900</b>	<b>4600/4900</b>	<b>6000/6400</b>	<b>6000/6400</b>	<b>5400/6000</b>
<b>Watts</b>	<b>1347/1435</b>	<b>1347/1435</b>	<b>1347/1435</b>	<b>1757/1874</b>	<b>1757/1874</b>	<b>1581/1757</b>
At 131 F/131 F (55 C/55 C):						
BTU/Hr. (50/60 Hz)	4600/4900	4600/4900	4600/4900	6000/6400	6000/6400	5400/6000
W (50/60 Hz)	1347/1435	1347/1435	1347/1435	1757/1874	1757/1874	1581/1757
At 95 F/95 F (35 C/35 C):						
BTU/Hr. (50/60 Hz)	4300/4600	4300/4600	4324/4655	5600/6000	5600/6000	5054/5685
W (50/60 Hz)	1260/1364	1260/1364	1267/1364	1641/1758	1641/1758	1481/1666
Refrigerant	R407C	R407C	R134A	R407C	R407C	R134A
Refrigerant Charge (ounces/grams)	20/567	20/567	16/454	20/567	20/567	16/454
Operating Temperature Range:						
Maximum (°F/°C)	131 F/55 C	131 F/55 C	131 F/55 C	131 F/55 C	131 F/55 C	131 F/55 C
Minimum (°F/°C)	-40 F/-40 C	-40 F/-40 C	-40 F/-40 C	-40 F/-40 C	-40 F/-40 C	-40 F/-40 C
Air Flow at 0 Static Pressure:						
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	189/321	189/321	189/321	189/321	189/321	189/321
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	291/494	291/494	291/494	291/494	291/494	291/494
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	221/375	221/375	221/375	221/375	221/375	221/375
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	300/509	300/509	300/509	300/509	300/509	300/509
Max. Heater W (Outdoor Models)	2000	2000		2000	2000	
<b>ELECTRICAL DATA</b>						
<b>Rated Voltage</b>	<b>115</b>	<b>230</b>	<b>400/460 3~</b>	<b>115</b>	<b>230</b>	<b>400/460 3~</b>
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	1138.5/1311	1058/1334	598/644	1138.5/1311	1058/1334	598/644
Max. Nominal Current (A at 50/60 Hz)	9.9/11.4	4.6/5.8	1.3/1.4	9.9/11.4	4.6/5.8	1.3/1.4
Starting Current (A)	36.2	17.7	7.7	36.2	17.7	7.7
Agency Approvals	cUL Listed CE GOST	cUL Listed CE GOST	cUL Listed CE GOST	cUL Listed CE GOST	cUL Listed CE GOST	cUL Listed CE GOST
Power Input Description	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
<b>ENCLOSURE PROTECTION</b>						
UL Type	Type 12/3R/4 Standard Type 4X Stainless Steel Optional					
<b>CONTROLLER</b>						
Description	Basic Mechanical Thermostat					
Thermostat Location	Enclosure Side on All Base Models					
Factory Thermostat Setting (°F/°C)	80/27	80/27	80/27	80/27	80/27	80/27
<b>SOUND LEVEL</b>						
At 1.5 Meters	68 dB(A)					
<b>UNIT CONSTRUCTION</b>						
Material	Galvanized Sheet Metal Standard (Optional: Stainless Steel)					
Finish	Powder Coat RAL 7035 Light Gray Standard					
<b>UNIT DIMENSIONS</b>						
Height (in./mm)	28.55/725.1	28.55/725.1	28.55/725.1	28.55/725.1	28.55/725.1	28.55/725.1
Width (in./mm)	16.97/431.1	16.97/431.1	16.97/431.1	16.97/431.1	16.97/431.1	16.97/431.1
Depth (in./mm)	10.10/256.6	10.10/256.6	10.10/256.6	10.10/256.6	10.10/256.6	10.10/256.6
Weight (lb./kg)	84/38	84/38	84/38	84/38	84/38	84/38
<b>ACCESSORIES</b>						
Indoor Cutout Adapter	Enables SPECTRACOOL to be mounted to GENESIS M28 Air Conditioner Cutout Part #28621601					
Outdoor Cutout Adapter	Enables SPECTRACOOL to be mounted to T-Series T29 Air Conditioner Cutout Part #28621603					

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

Performance Curves for G28 Models 4000 BTU/Hr. (1347/1435 Watt)

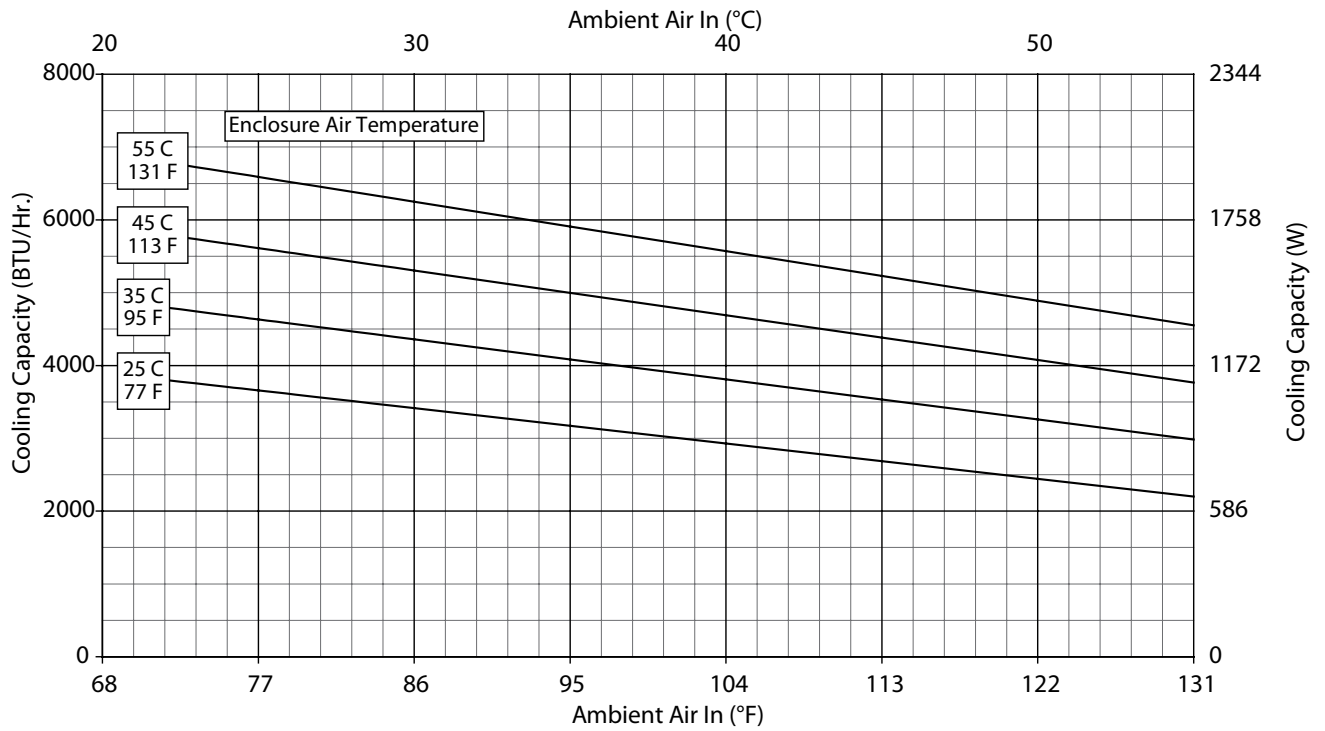


**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

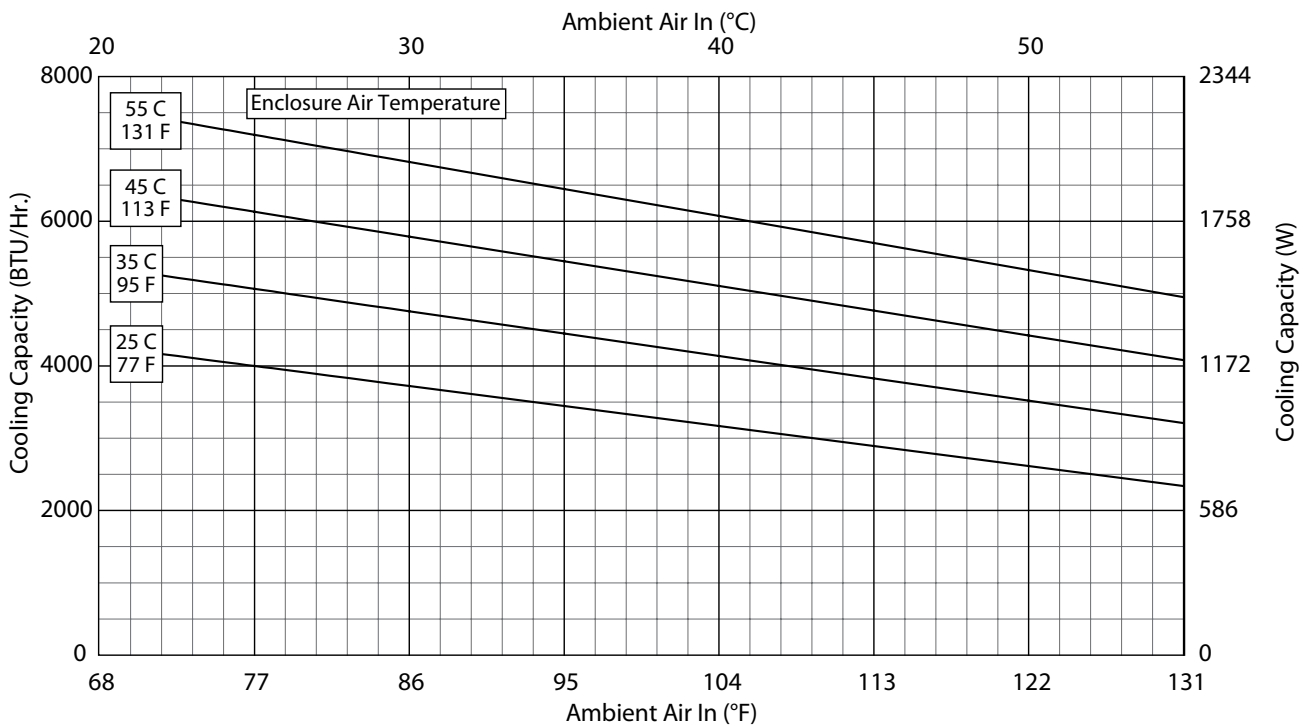
**SPECTRACOOL™**

Performance Curves for G28 Models 4000 BTU/Hr. (1347/1435 Watt)

**G28-0446-GXXX- Capacity Curves at 50 Hz; Without Filter**



**G28-0446-GXXX- Capacity Curves at 60 Hz; Without Filter**



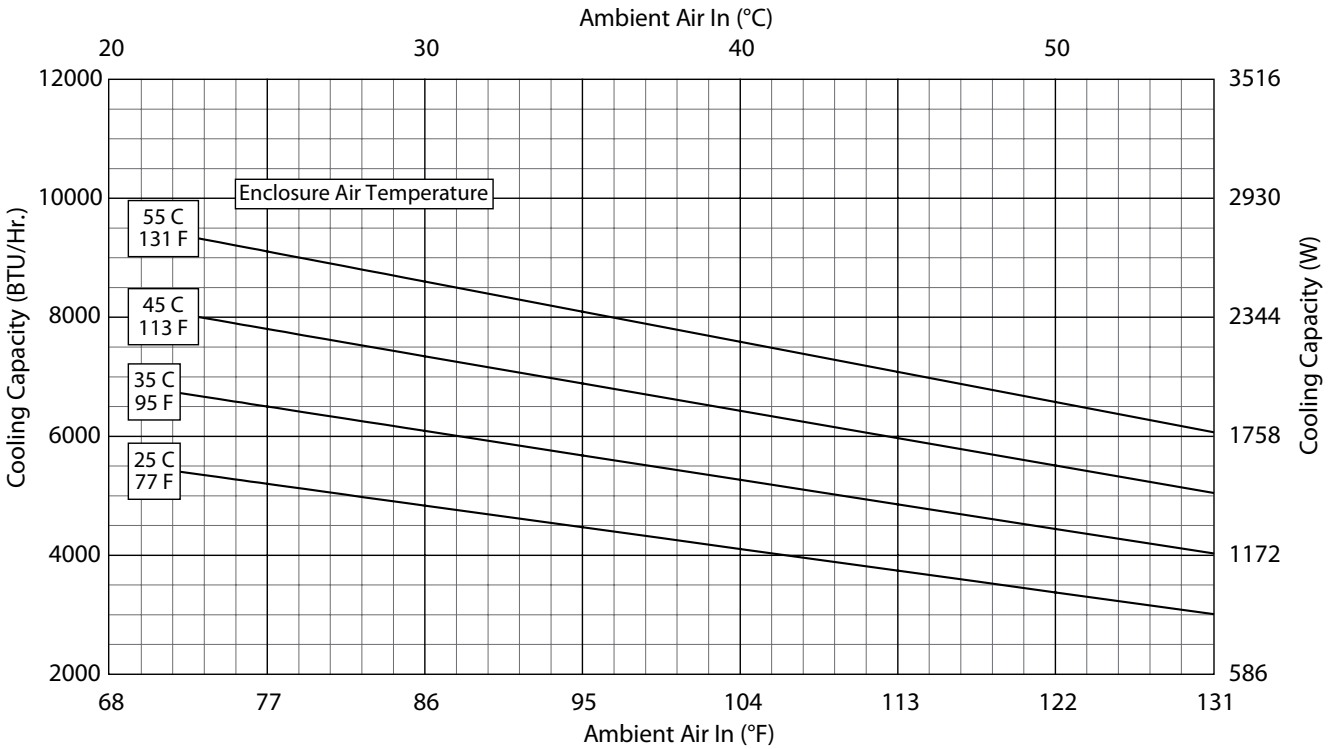
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



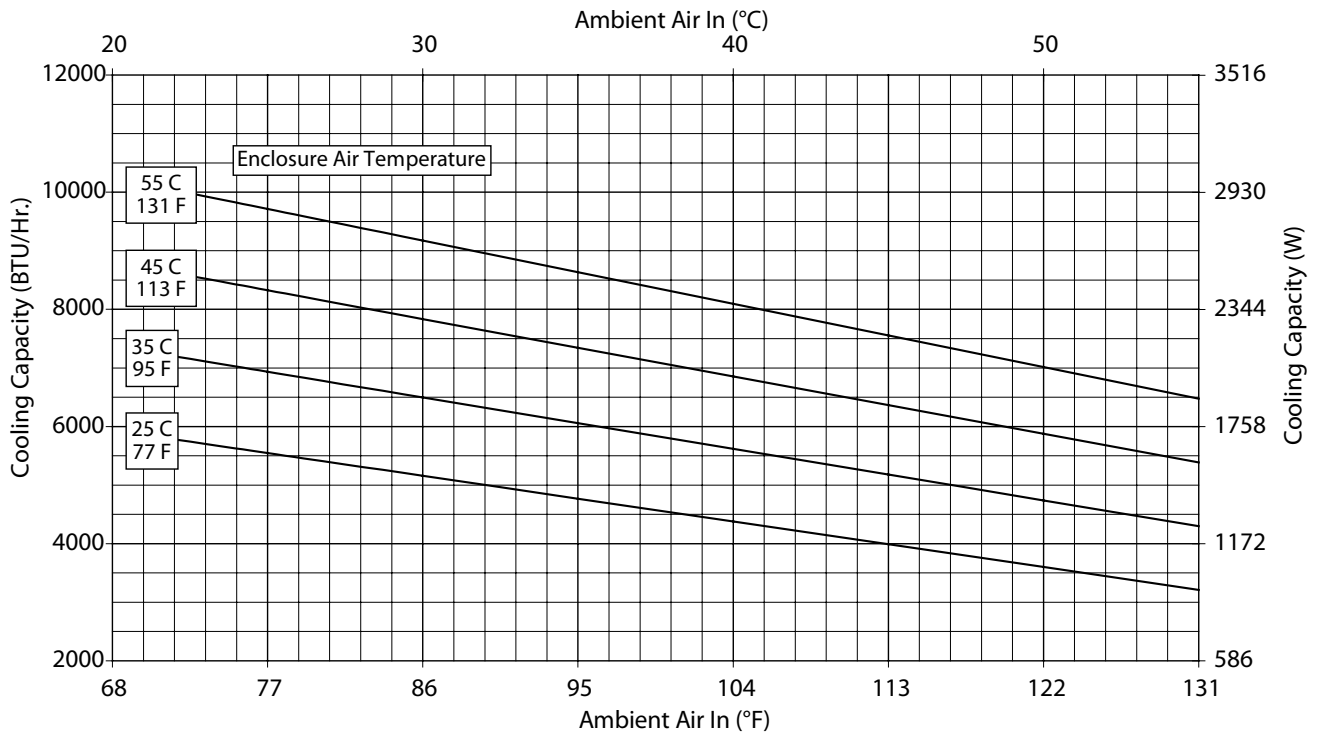
SPECTRACOOL™

Performance Curves for G28 Models 4000/6000 BTU/Hr. (1172/1758 Watt)

**G28-06(1/2)6-GXXX Capacity Curves at 50 Hz Without Filter**



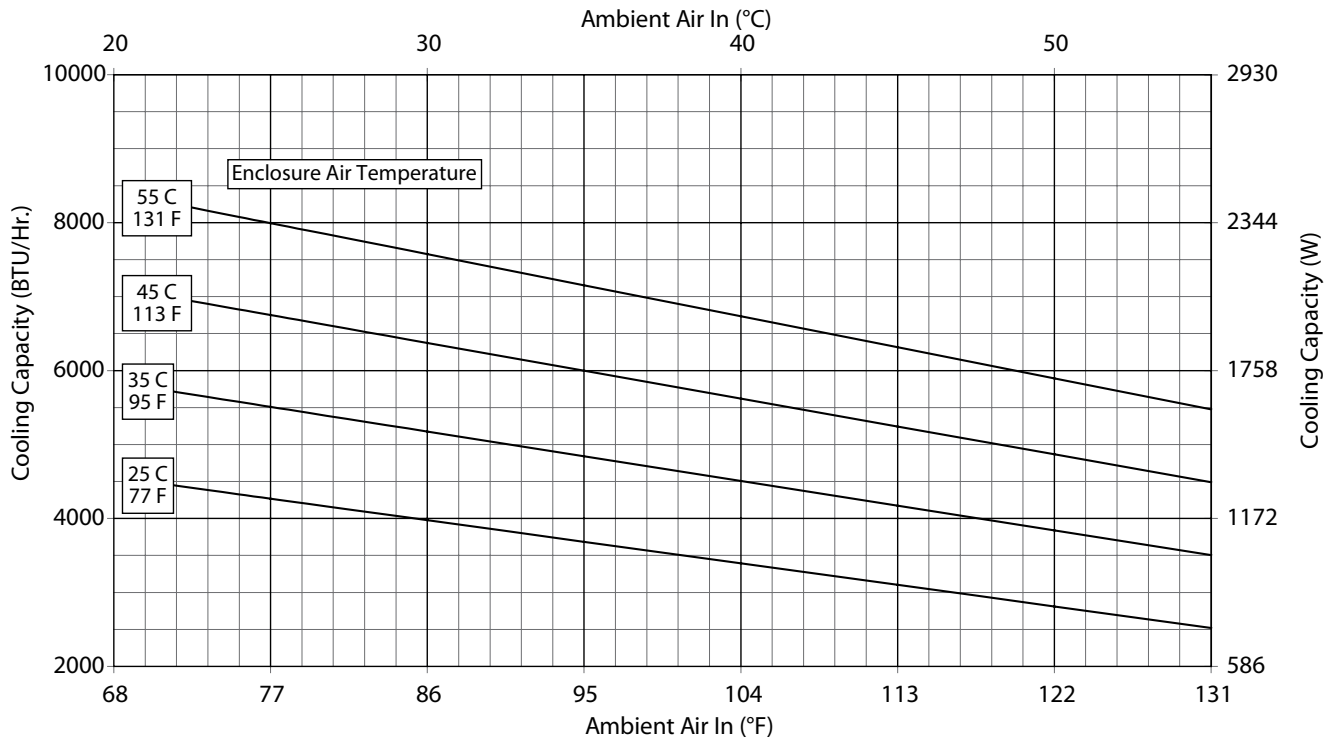
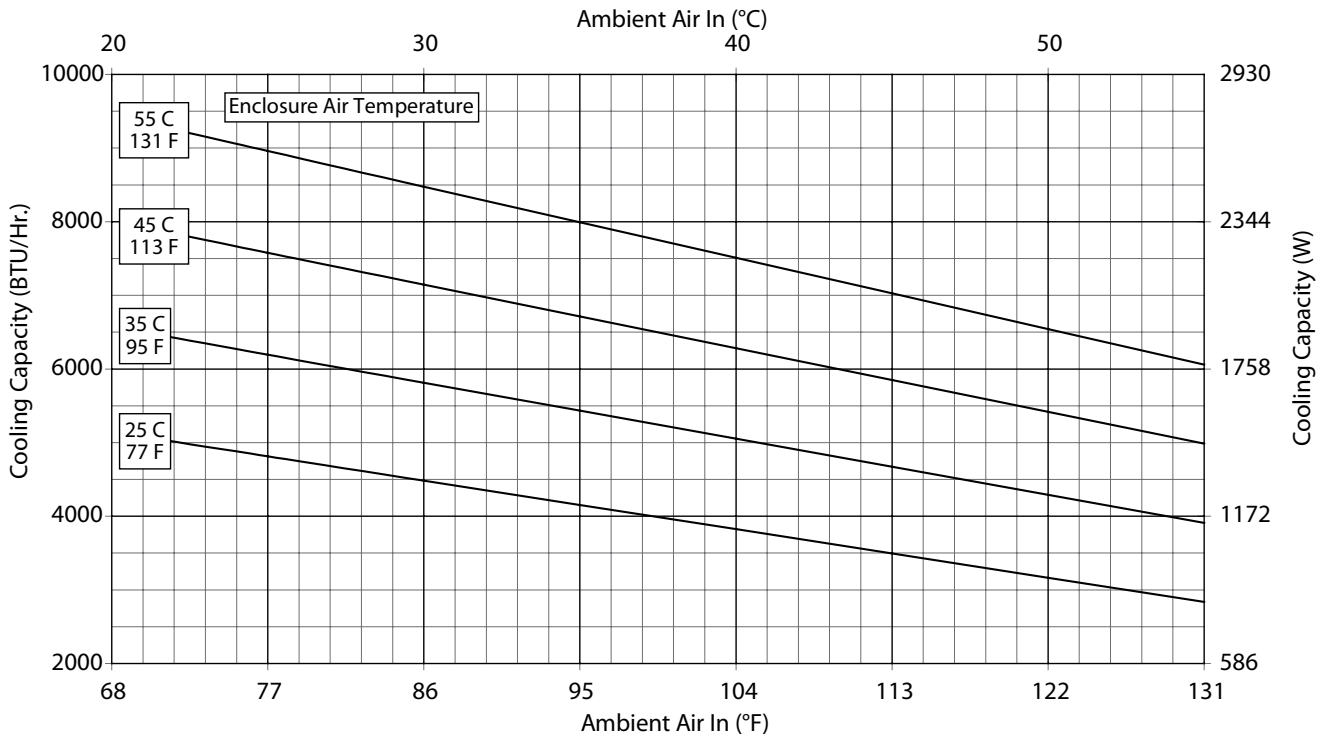
**G28-06(1/2)6-G002-P#2 Capacity Curves at 60 Hz Without Filter**



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

**SPECTRACOOL™**

Performance Curves for G28 Models 6000 BTU/Hr. (1758 Watt)

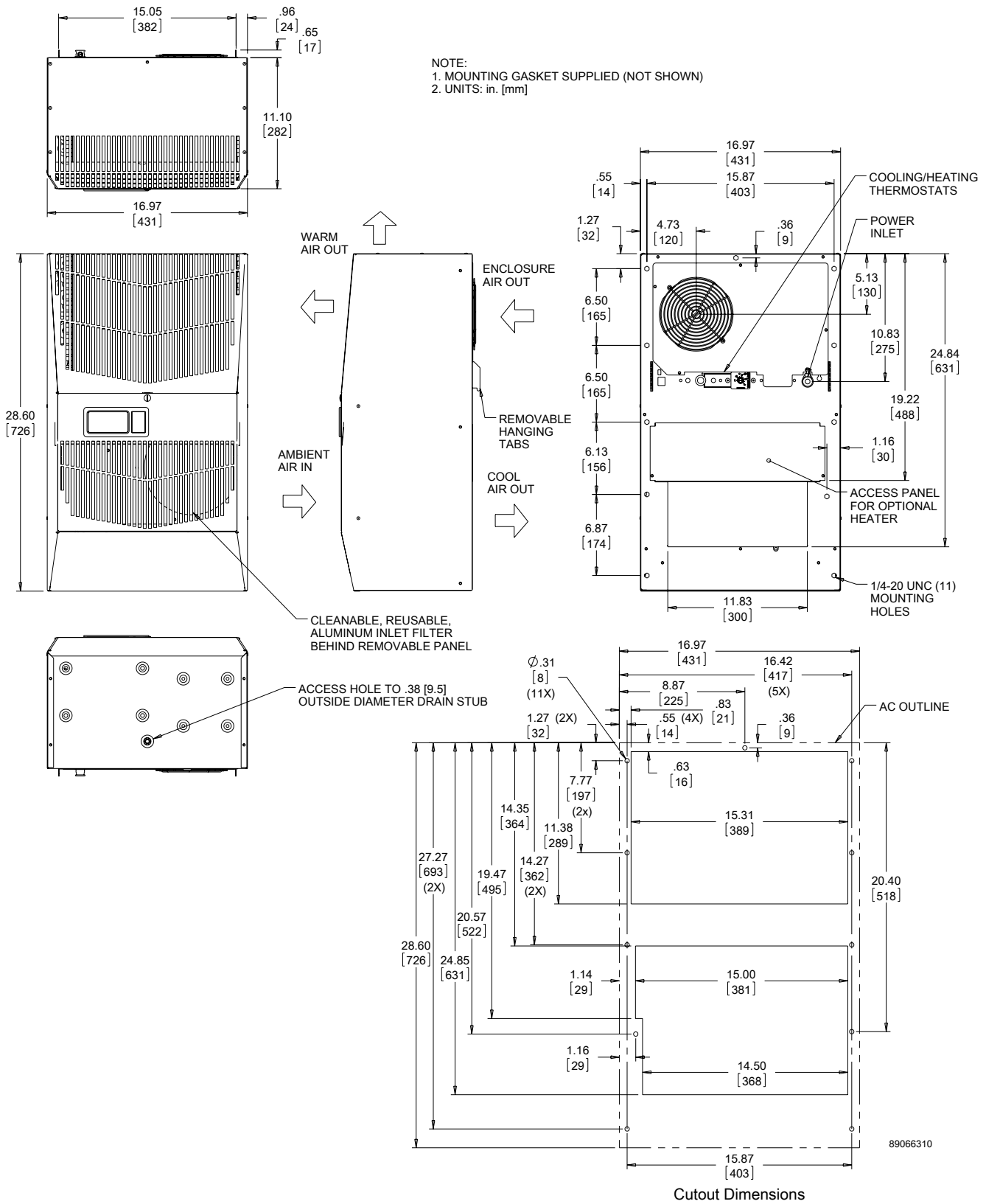
**G28-0646-GXXX Performance Curve 400VAC/50Hz Without Air Filter**

**G28-0646-GXXX Performance Curve 460VAC/60Hz Without Air Filter**


Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



**SPECTRACOOL™**

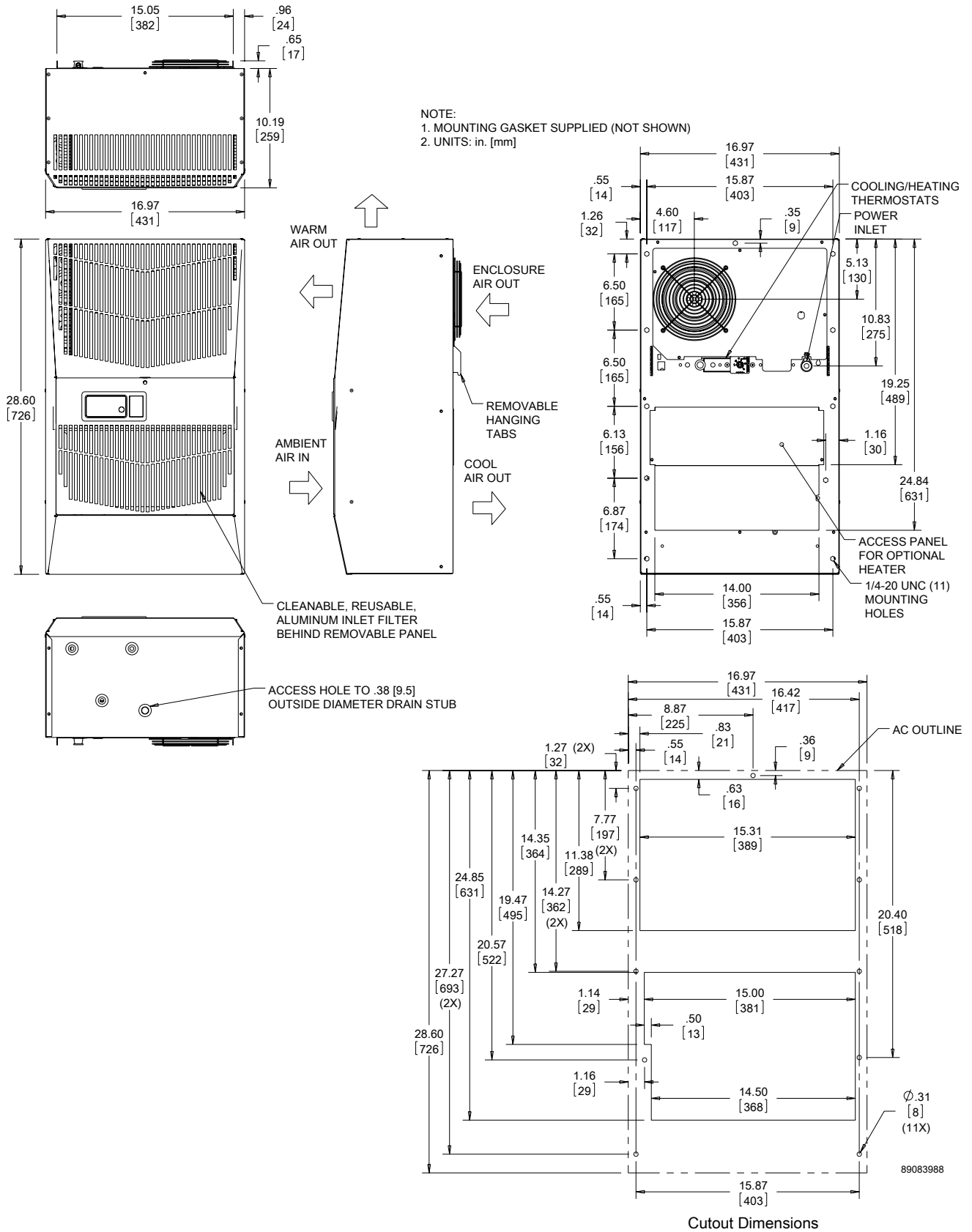
G28 Models 4000 BTU/Hr. 115 V (1172 Watt)


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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

G28 Models 4000 BTU/Hr. 230/460 V, 6000 BTU/Hr. 115/230/460 V (1172/1757 Watt)

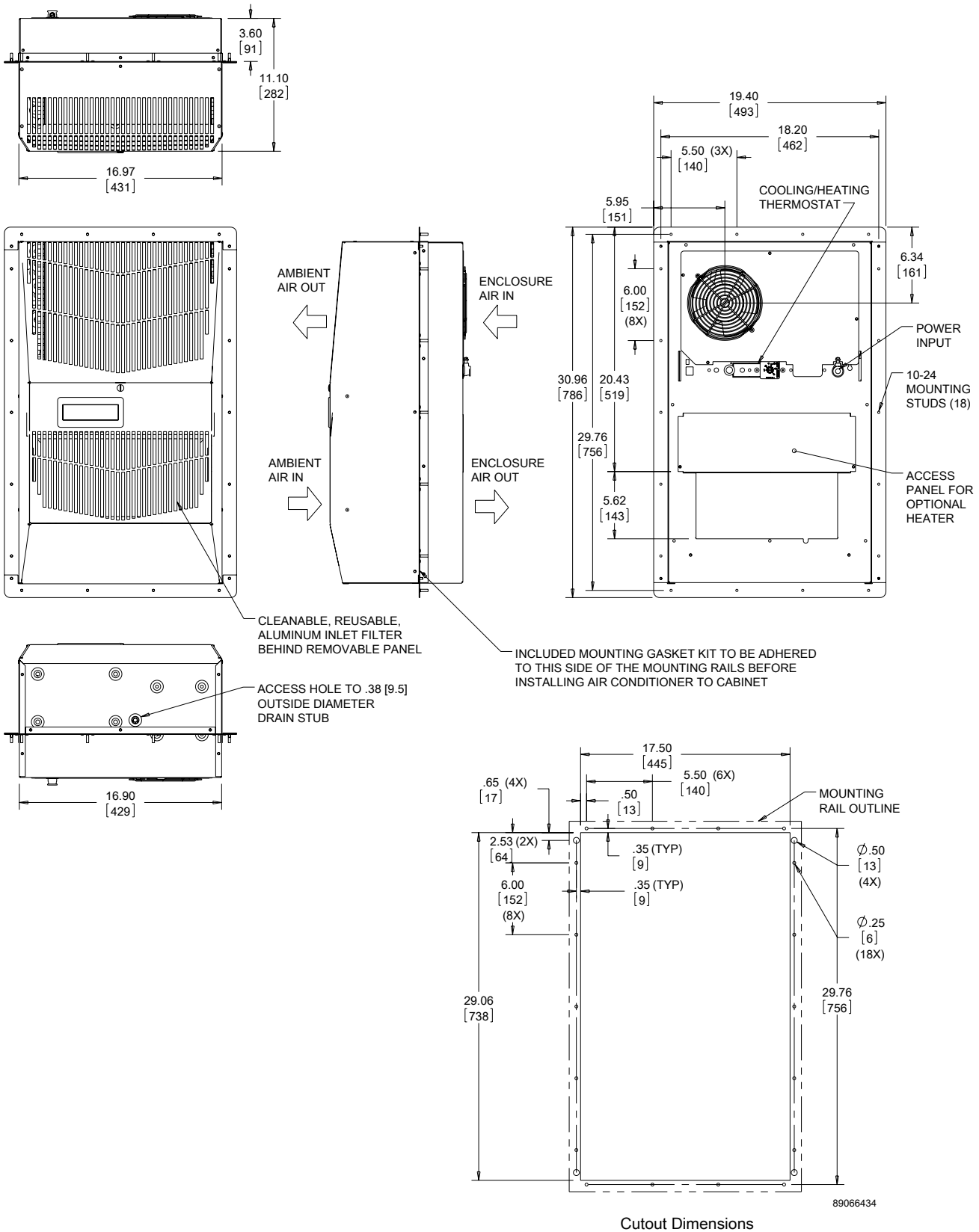


Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

G28 Models 4000 BTU/Hr. 115 V (1172 Watt) Partial Recess



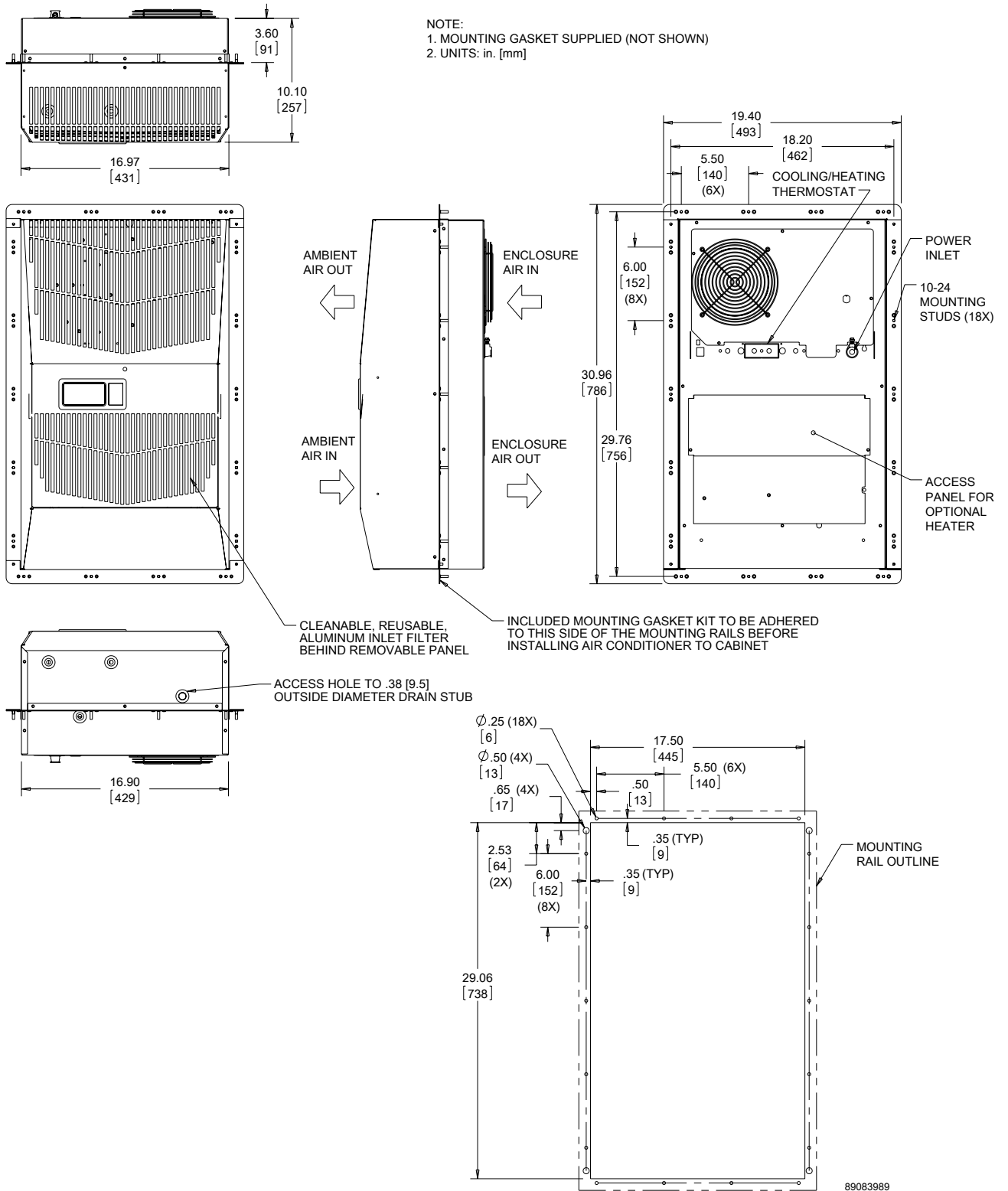
Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**SPECTRACOOL™**

G28 Model 4000 BTU/Hr. 230/460 V, 6000 BTU/Hr. 115/230/460 V (1172/1758 Watt) Partial Recess



Cutout Dimensions

Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**SPECTRACOOL™**
**Performance Data G52 Models 8000/12000 BTU/Hr. (2300/3500 Watt)**

<b>Part no</b>	<b>G520816G050</b>	<b>G520826G050</b>	<b>G520846G050</b>	<b>G521216G050</b>	<b>G521226G050</b>	<b>G521246G050</b>
Indoor Model	G520816G050	<b>G520826G050</b>	G520846G050	G521216G050	<b>G521226G050</b>	<b>G521246G050</b>
Indoor Model Stainless Steel Type 4X	G520816G051	G520826G051	G520846G051	G521216G051	G521226G051	G521246G051
Outdoor Model without Heat Pkg.	G520816G100	G520826G100	G520846G100	G521216G100	G521226G100	G521246G100
Outdoor Model Partial Recessed Mount	G520816G101	G520826G101	G520846G101	G521216G101	G521226G101	G521246G101
Outdoor Model without Heat Pkg. Stainless Steel Type 4X	G520816G102	G520826G102	G520846G102	G521216G102	G521226G102	G521246G102
Outdoor Model with Heat Pkg.	G520816G150	G520826G150	G520846G150	G521216G150	G521226G150	G521246G150
Outdoor Model with Heat Pkg. Stainless Steel Type 4X	G520816G151	G520826G151	G520846G151	G521216G151	G521226G151	G521246G151
<b>COOLING PERFORMANCE</b>						
<b>Nominal:</b>						
<b>BTU/Hr.</b>	<b>8000</b>	<b>8000</b>	<b>8000</b>	<b>12000</b>	<b>12000</b>	<b>12000</b>
<b>Watts</b>	<b>2300</b>	<b>2300</b>	<b>2300</b>	<b>3500</b>	<b>3500</b>	<b>3500</b>
At 131 F/131 F (55 C/55 C):						
BTU/Hr.	7300/8200	7300/8200	8800/9800	12000/12500	12000/12500	11100/12000
Watts	2139/2403	2139/2403	2578/2871	3516/3662	3516/3662	3252/3516
At 95 F/95 F (35 C/35 C):						
BTU/Hr.	6000/6800	6000/6800	7400/8200	9900/10700	9900/10700	9900/10700
Watts	1758/1992	1758/1992	2168/2402	2900/3135	2900/3135	2900/3135
Refrigerant	R134a	R134a	R134a	R134a	R134a	R134a
Refrigerant Charge (ounces/grams)	24/680	24/680	24/680	38/1077	38/1077	38/1077
Operating Temperature Range:						
Maximum (°F/°C)	131/55	131/55	131/55	131/55	131/55	131/55
Indoor Minimum (°F/°C)	50/10	50/10	50/10	50/10	50/10	50/10
Outdoor Minimum (°F/°C)	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40
Airflow at 0 Static Pressure:						
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	285/484	285/484	285/484	287/487	287/487	287/487
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	650/1104	650/1104	650/1104	635/1078	635/1078	635/1078
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	310/527	310/527	310/527	305/518	305/518	305/518
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	700/1189	700/1189	700/1189	650/1104	650/1104	650/1104
Max. Heater W (Outdoor Models):	2000	2000	NA	2000	2000	NA
<b>ELECTRICAL DATA</b>						
<b>Rated Voltage</b>	<b>115</b>	<b>230/208-230</b>	<b>400/460 3~</b>	<b>115</b>	<b>230/208-230</b>	<b>400/460 3~</b>
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W)	1250/1415	1250/1415	806/957*	2100/2427	1830/2130	910/1106*
Max. Nominal Current (A)	11.2/12.3	5.6/7.0-6.2	3.1/3.2	16.1/21.0	9.1/10.6-9.5	3.6/3.5
Starting Current (A)	48	27	16	57	38	16
Agency Approvals	cUL Listed CE Others available upon request					
Power Input Description	Terminal Block	Terminal Block	Terminal block	Terminal Block	Terminal Block	Terminal block
<b>ENCLOSURE PROTECTION</b>						
UL Type	Type 12/3R/4 standard Type 4X Stainless steel optional GOST					
International Rating	IP56 internal loop IP34 external loop					
<b>CONTROLLER</b>						
Description	Basic mechanical thermostat with digital display					
Thermostat Location	Enclosure side on all base models					
Digital Display Location:	Enclosure side on all base models					
Indoor Models	Ambient side					
Outdoor Models	Enclosure side					
Factory Thermostat Setting (F/C)	80/27					
<b>SOUND LEVEL</b>						
At 1.5 Meters	68 dB(A)					
<b>UNIT CONSTRUCTION</b>						
Material	Galvanized sheet metal standard Stainless steel optional					
Finish	RAL 7035 light-gray, semi-textured powder-coat paint standard Other colors available					
<b>ACCESSORIES</b>						
Cleanable Re-usable Filter	Aluminum mesh Part #10-1000-103					
Indoor Cutout Adapter	Enables SPECTRACOOL to be mounted to a GENESIS M52 air conditioner cutout Part #52-6216-01					
Outdoor Cutout Adapter	Enables SPECTRACOOL to be mounted to a T-Series T50 air conditioner cutout Part #52-6216-03					
<b>UNIT DIMENSIONS</b>						
Height (in./mm)	52.69/1338					
Width (in./mm)	17.12/435					
Depth (in./mm)	11.66/296					
Weight (lb./kg)	128/58.1	128/58.1	138/62.6	131/59.4	131/59.4	141/64.0

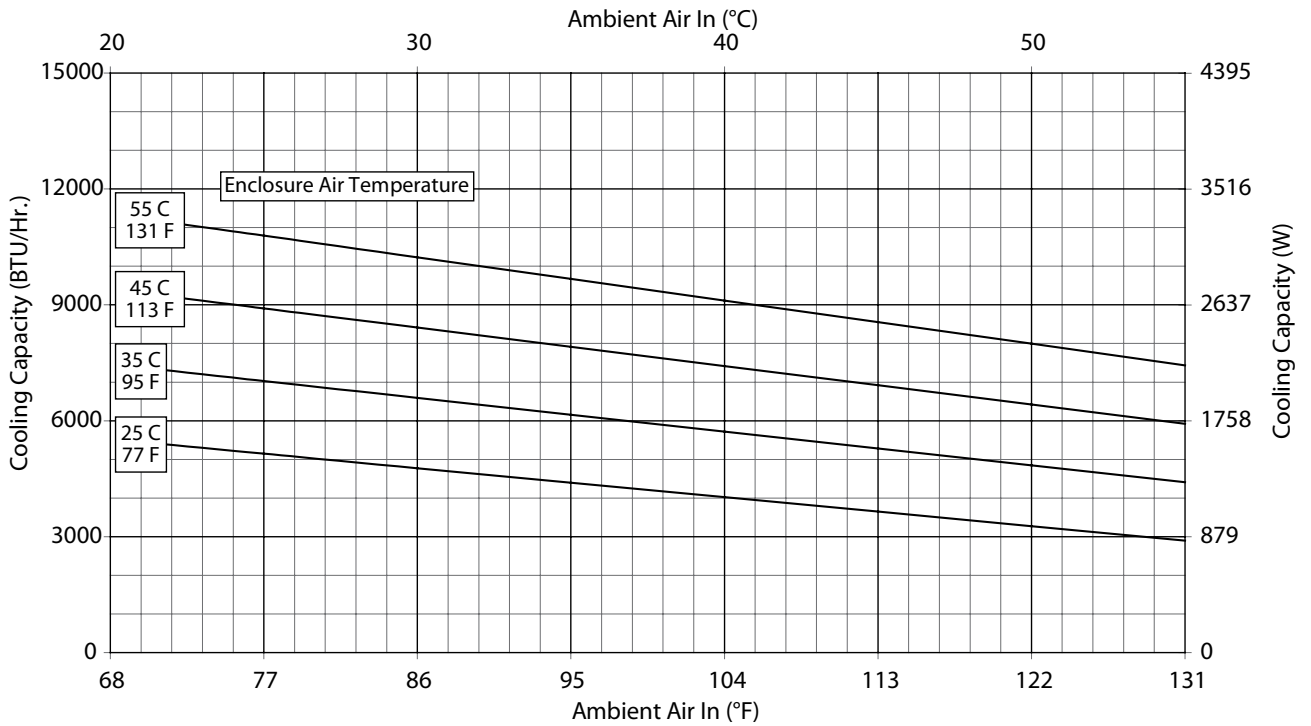
\*Watts based on .65 power factor.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

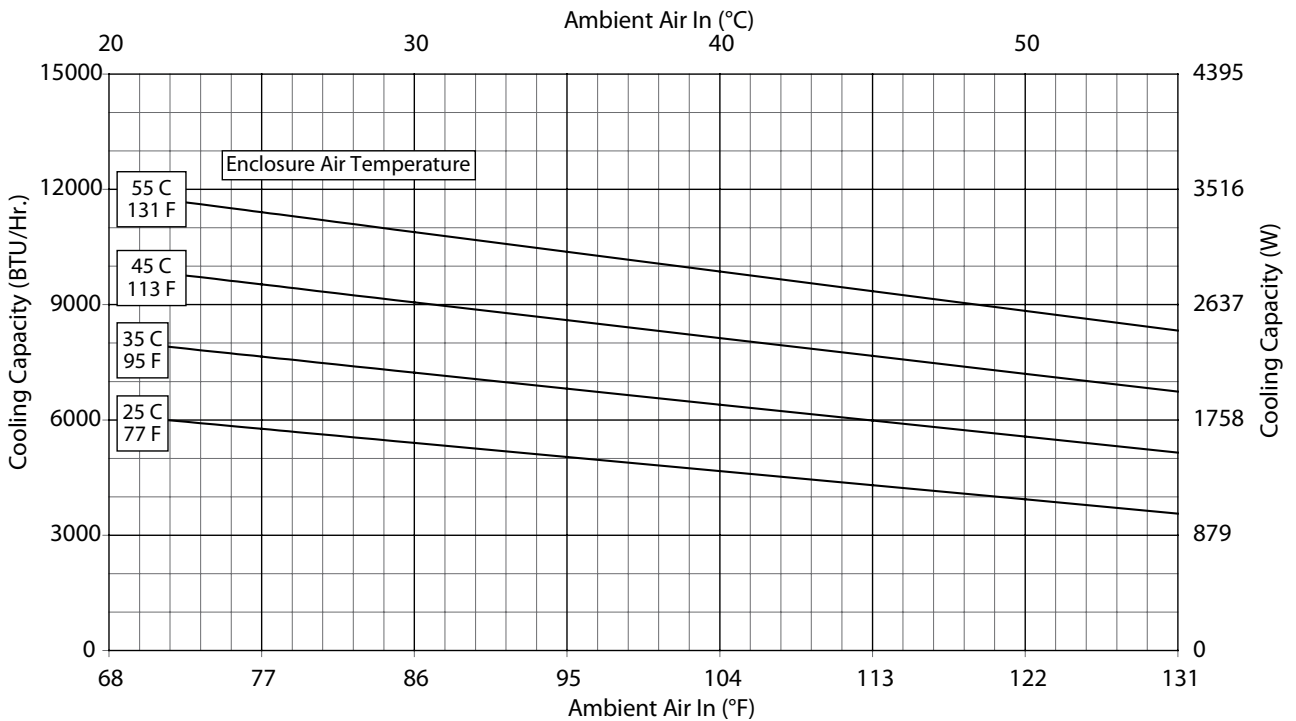
**SPECTRACOOL™**

Performance Curves for G52 Models 8000 BTU/Hr. (23 Watt)

**G52-08(1/2)6-GXXX Capacity Curve 50 Hz**



**G52-08(1/2)6-GXXX Capacity Curve 60 Hz**



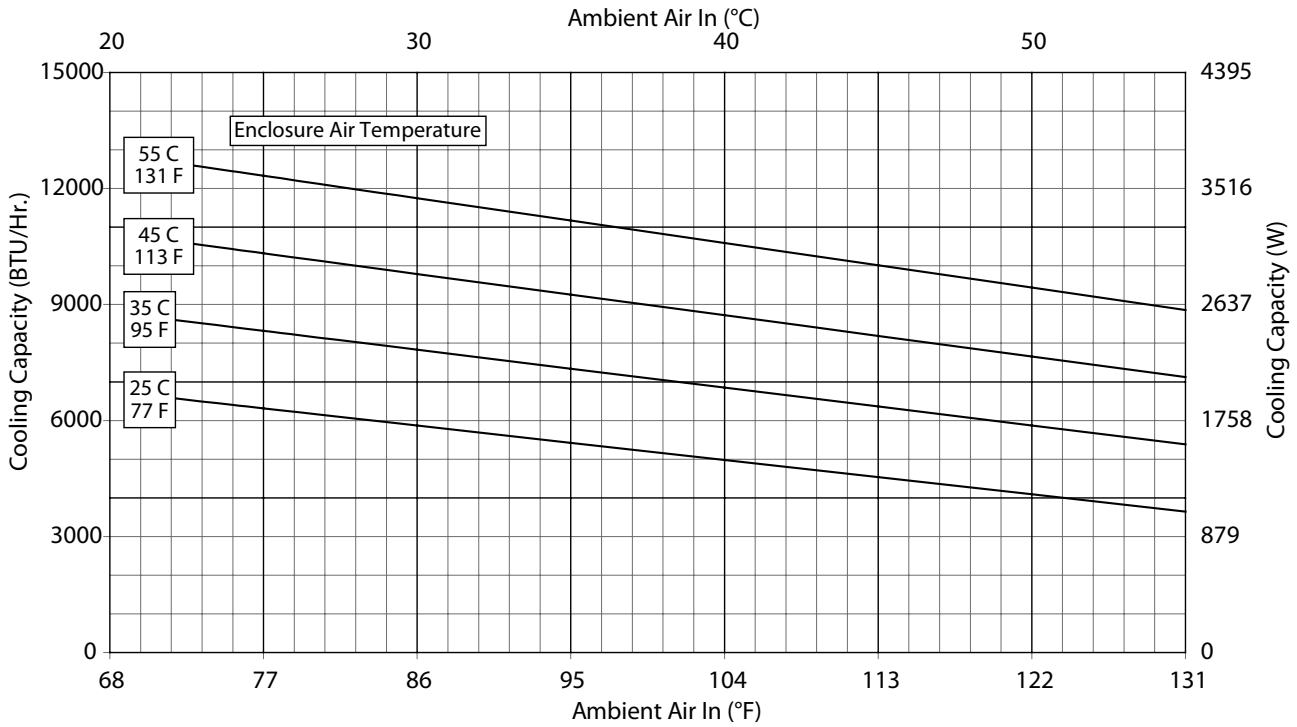
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



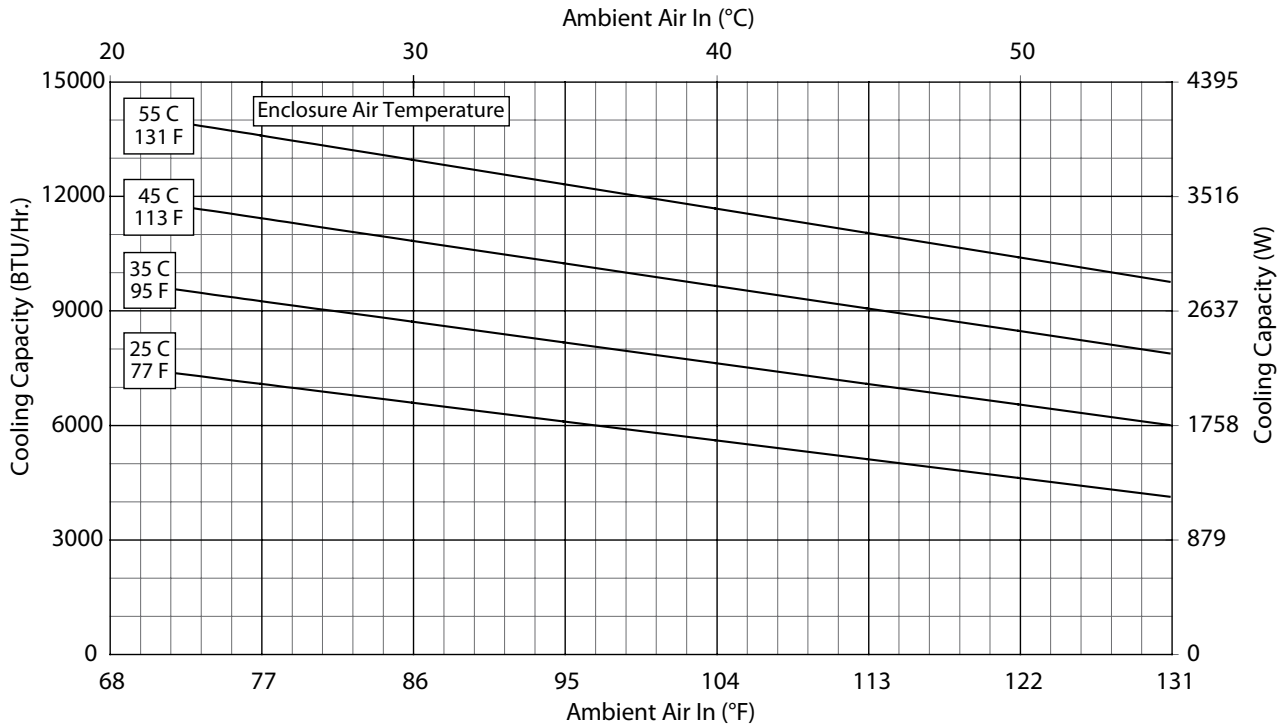
**SPECTRACOOL™**

Performance Curves for G52 Models 8000 BTU/Hr. (2300 Watt)

**G52-0846-GXXX Capacity Curve 50 Hz**



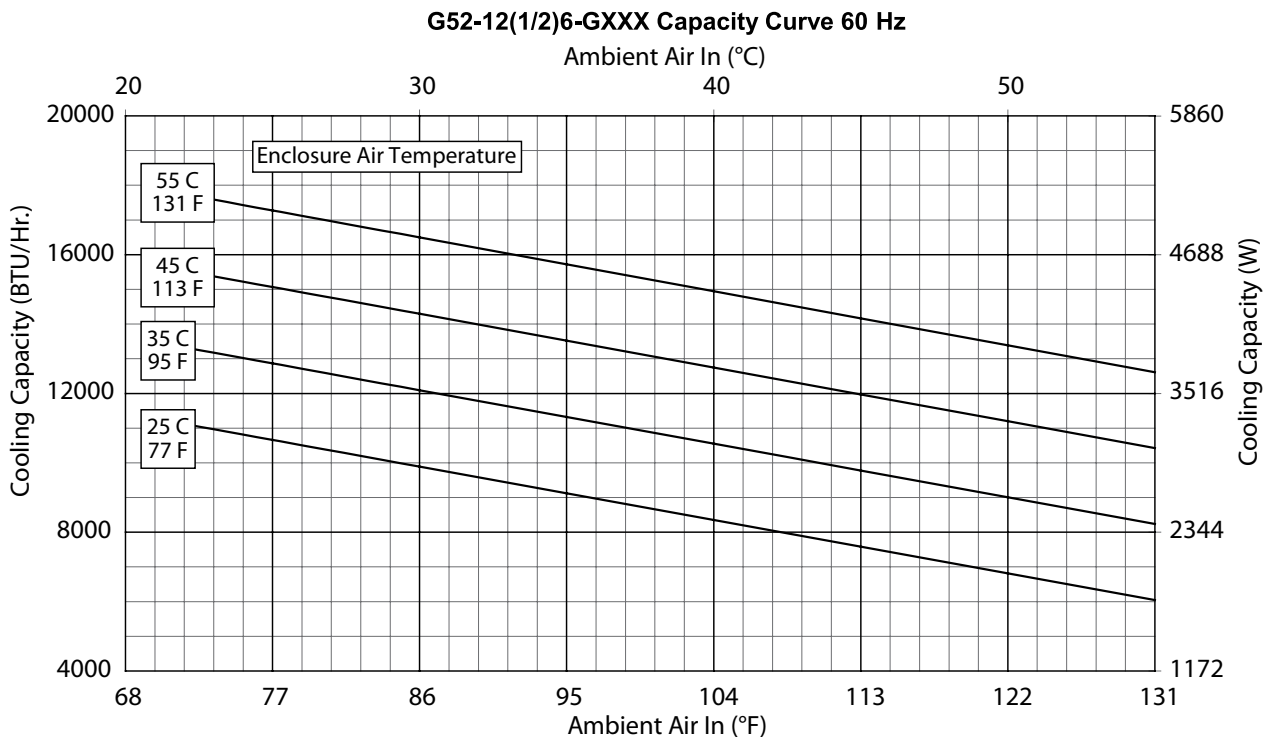
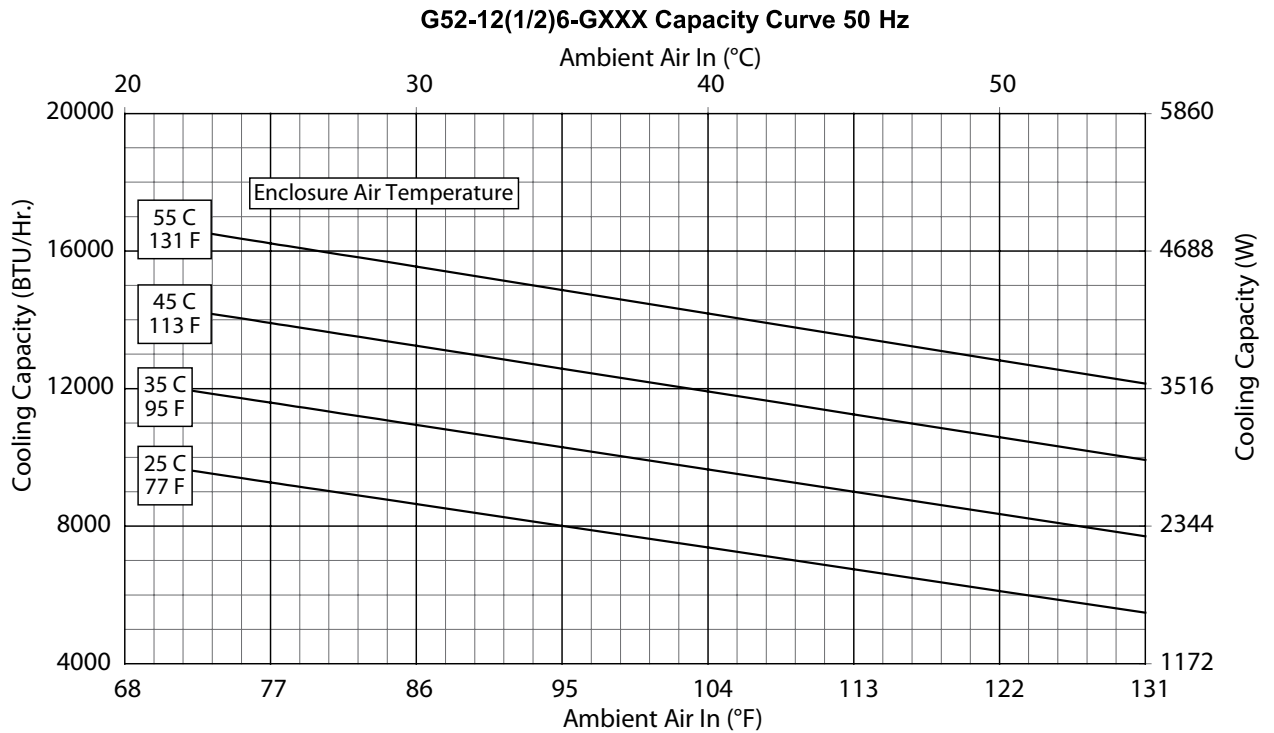
**G52-0846-GXXX Capacity Curve 60 Hz**



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

Performance Curves for G52 Models 12000 BTU/Hr. (3500 Watt)



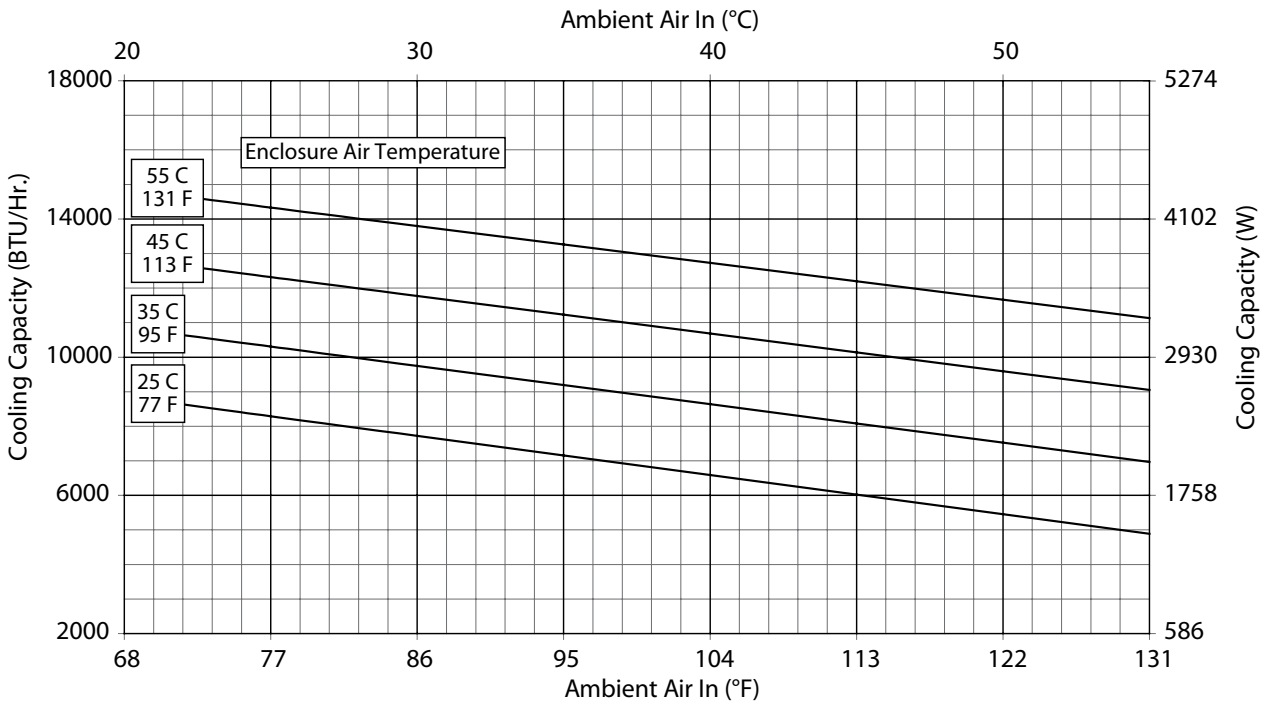
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



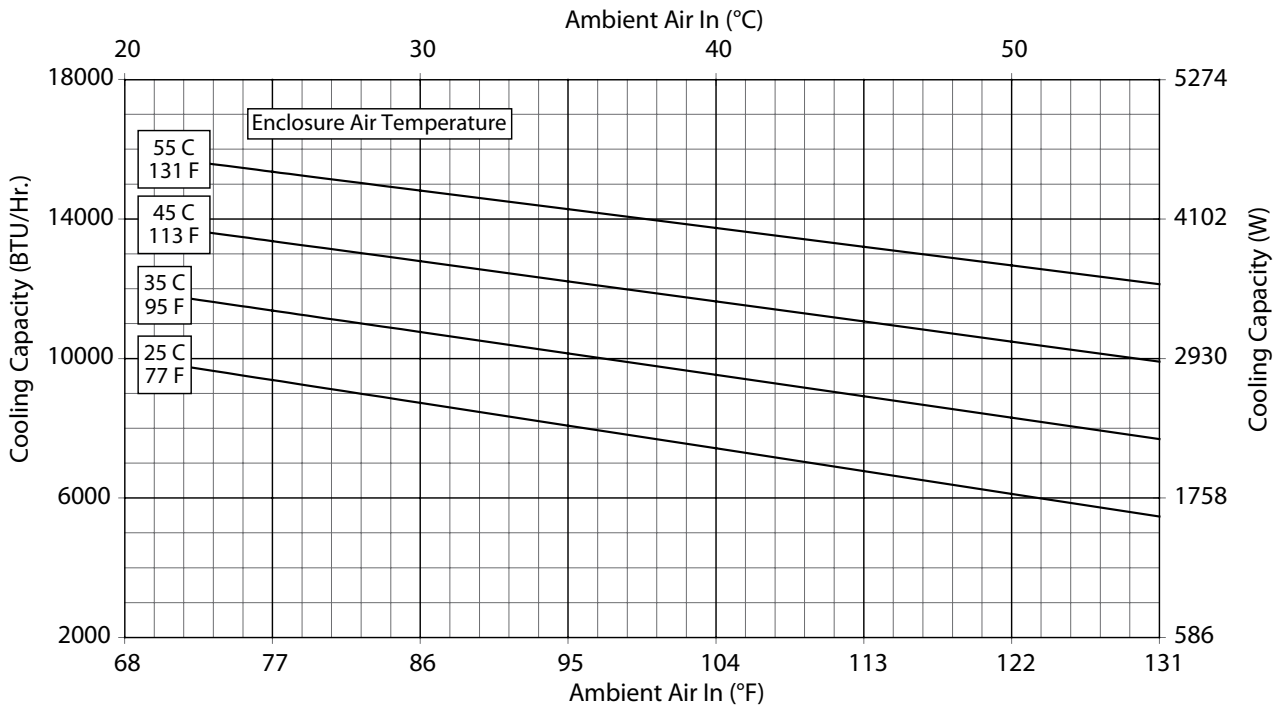
**SPECTRACOOL™**

Performance Curves for G52 Models 12000 BTU/Hr. (3516 Watt)

**G52-1246-GXXX Capacity Curve 50 Hz**



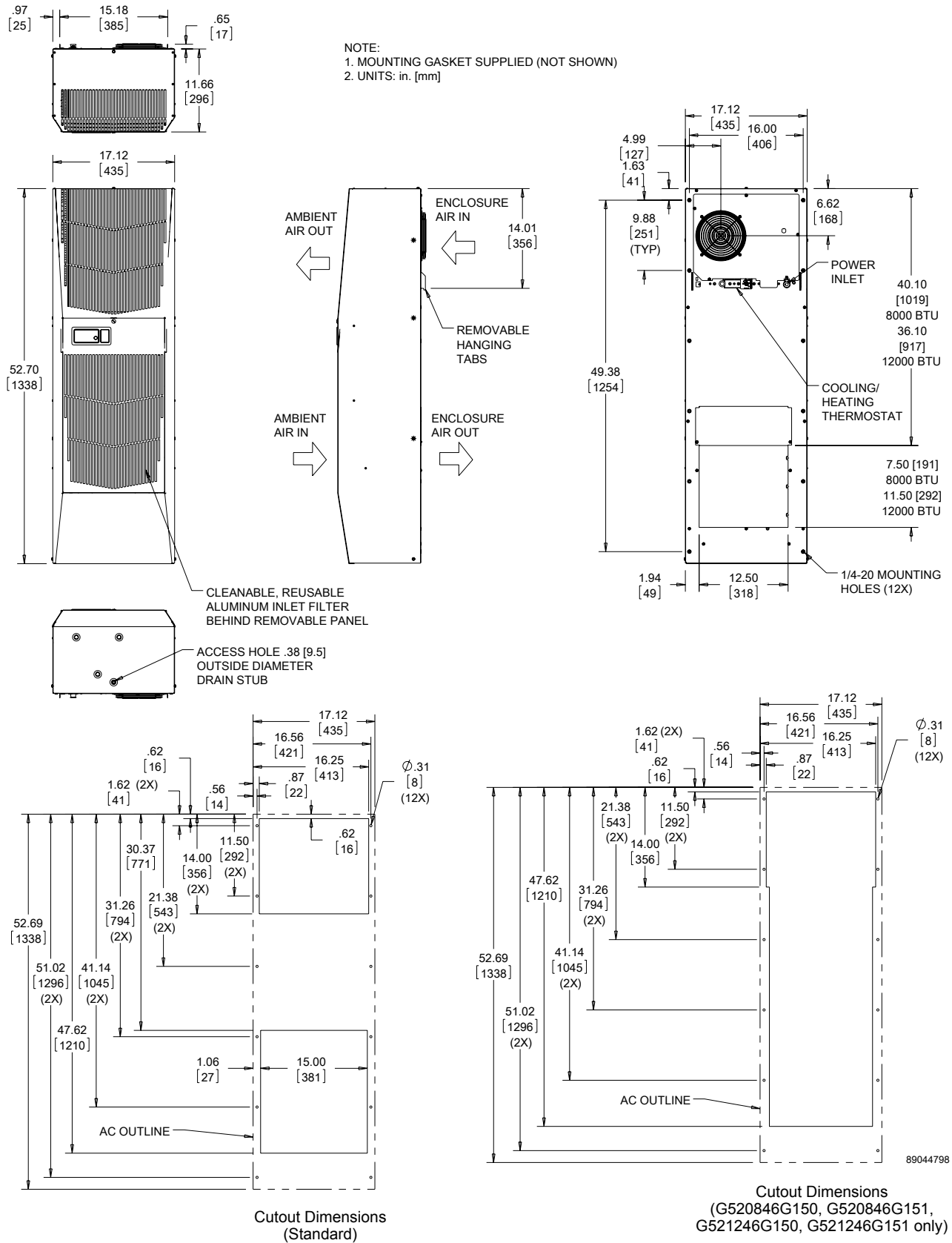
**G52-1246-GXXX Capacity Curve 60 Hz**



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

**G52 Models 8000/12000 BTU/Hr. (2300/3500 Watt)**



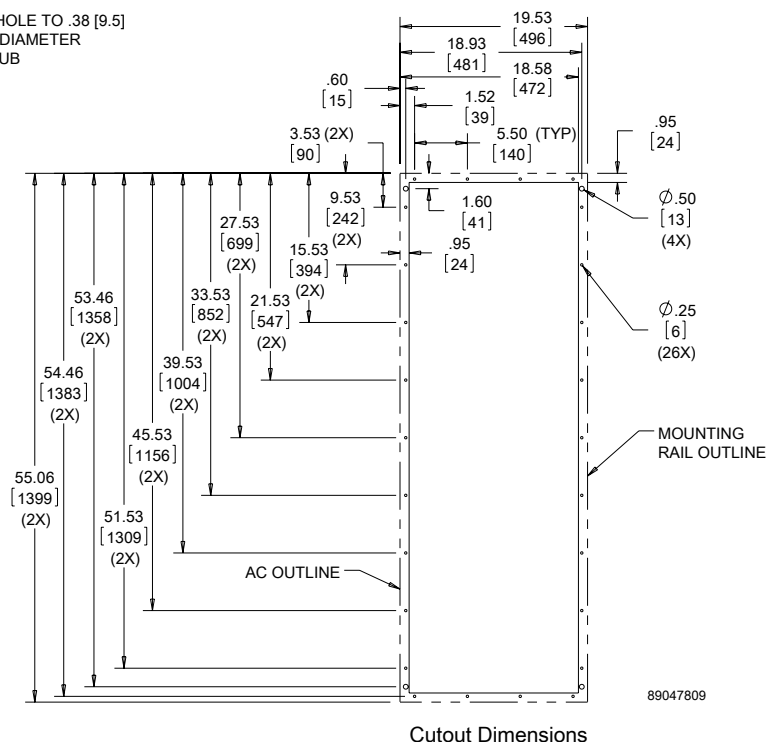
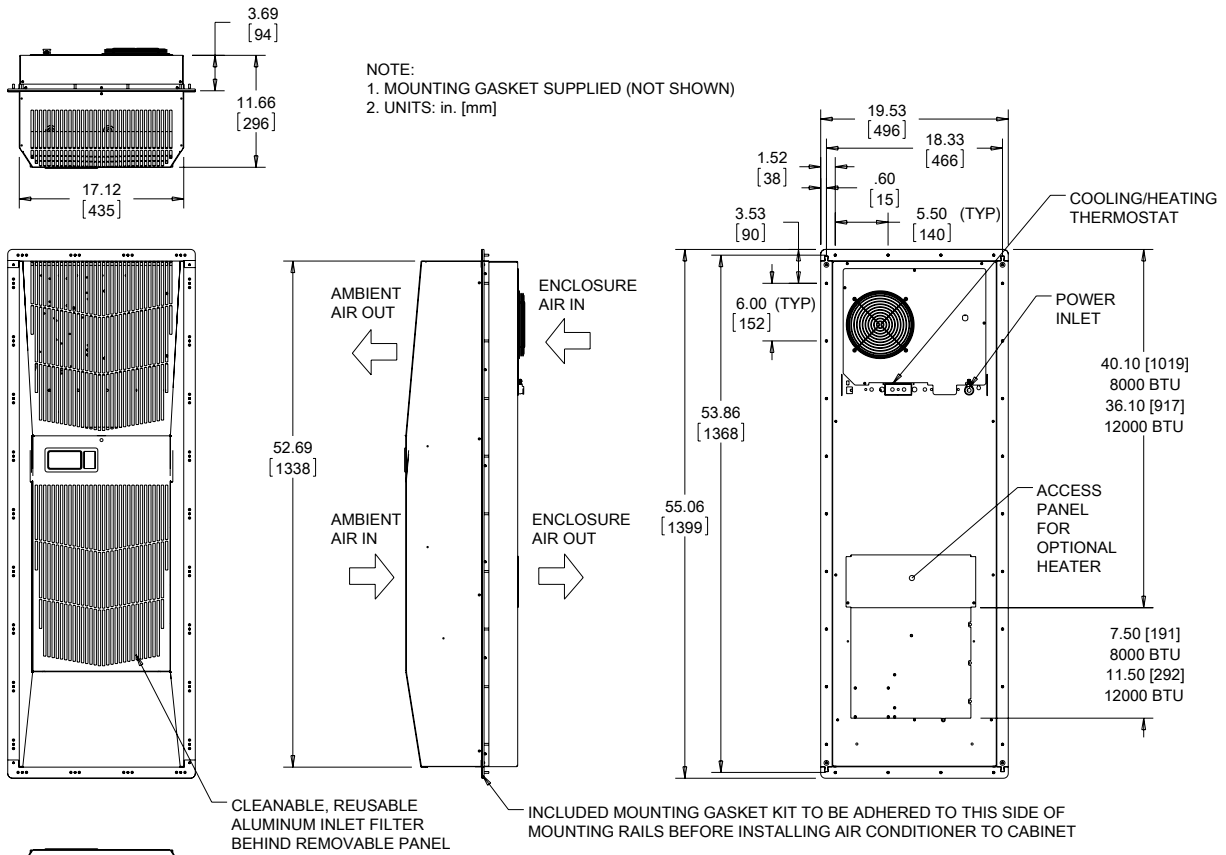
Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**SPECTRACOOL™**

G52 Models 8000/12000 BTU/Hr. (2344/3516 Watt) with Partial Recess



Cutout Dimensions

Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**SPECTRACOOL™**

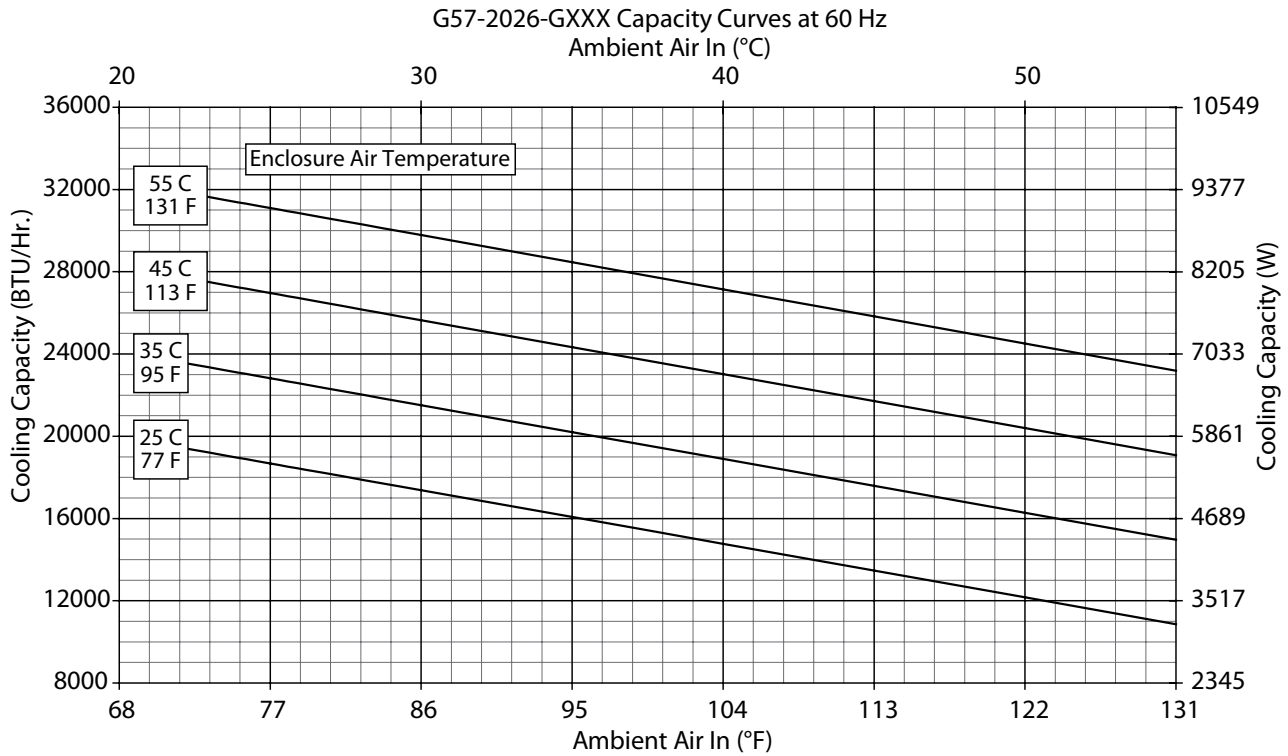
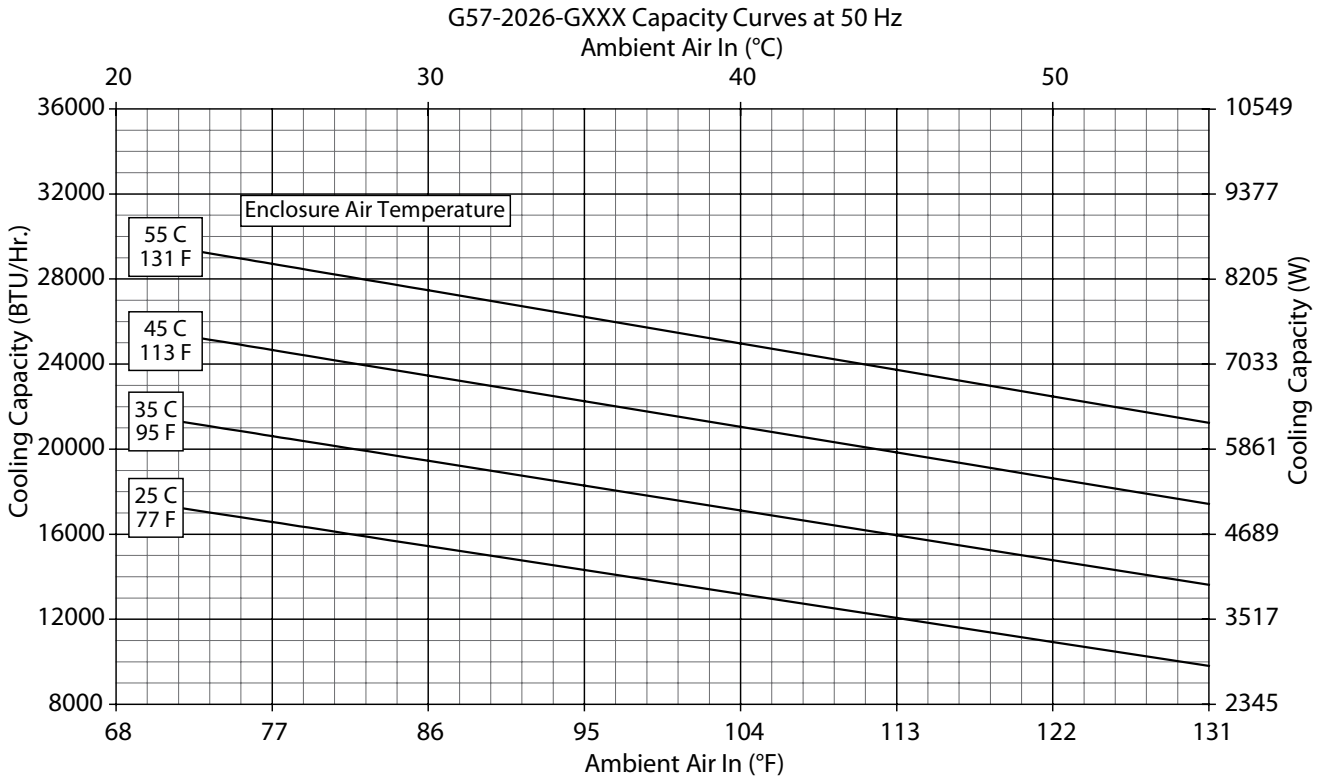
 Performance Data **G57 Models 20000 BTU/Hr. (5861 Watt)**

<b>Part no</b>		
Indoor Model	G572026G050	G572046G050
Indoor Model Stainless Steel Type 4X	G572026G051	G572046G051
Outdoor Model without Heat Pkg.	G572026G100	G572046G100
Outdoor Model Partial Recessed Mount	G572026G101	G572046G101
Outdoor Model without Heat Pkg. Stainless Steel Type 4X	G572026G102	G572046G102
Outdoor Model with Heat Pkg.	G572026G150	G572046G150
Outdoor Model with Heat Pkg. Stainless Steel Type 4X	G572026G151	G572046G151
<b>COOLING PERFORMANCE</b>		
Nominal:		
<b>BTU/Hr.</b>	<b>20000</b>	<b>20000</b>
<b>Watts</b>	<b>5861</b>	<b>5861</b>
At 131 F/131 F (55 C/55 C):		
BTU/Hr. (50/60 Hz)	17500/19600	21400/23400
W (50/60 Hz)	5129/5744	6272/6857
At 95 F/95 F (35 C/35 C):		
BTU/Hr. (50/60 Hz)	16000/18000	19300/21400
W (50/60 Hz)	4689/5275	5656/6272
Refrigerant	R407c	R407c
Refrigerant Charge (ounces/grams)	50/1417	48/1361
Operating Temperature Range:		
Maximum (°F/°C)	131/55	131/55
Indoor Minimum (°F/°C)	50/10	50/10
Outdoor Minimum (°F/°C)	-40/-40	-40/-40
Airflow at 0 Static Pressure:		
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	513/872	513/872
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	919/1562	919/1562
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	587/998	587/998
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	1055/1794	1055/1794
Max. Heater W (Outdoor Models)	3000	3000
<b>ELECTRICAL DATA</b>		
<b>Rated Voltage</b>	<b>230/230</b>	<b>400/460 3~</b>
Frequency (Hz)	50/60	50/60
Operating Range	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	4508/5106	2400/3128
Max. Nominal Current (A at 50/60 Hz)	19.6/22.2	6.0/6.8
Starting Current (A)	63	27
Agency Approvals	cUL Listed CE Others available upon request	
Power Input Description	Terminal Block	Terminal block
<b>ENCLOSURE PROTECTION</b>		
UL Type	Type 12, 3R, 4 standard Type 4X stainless steel optional GOST	
International Rating	IP56 internal loop IP34 external loop	
<b>CONTROLLER</b>		
Description	Basic mechanical thermostat with digital display	
Thermostat Location	Enclosure side on all base models	
Digital Display Location:		
Indoor Models	Ambient side	
Outdoor Models	Enclosure side	
Factory Thermostat Setting (°F/°C)	80/27	
<b>SOUND LEVEL</b>		
At 1.5 m	74.1 dB(A)	
<b>UNIT CONSTRUCTION</b>		
Material	Galvanized sheet metal standard Stainless steel optional	
Finish	RAL 7035 light-gray, semi-textured powder-coat paint standard	
<b>ACCESSORIES</b>		
Cleanable Re-usable Filter	Aluminum mesh part #10-1000-103 BA	
Outdoor Model Cutout Adapter	Enables SPECTRACOOL to be mounted to a T-Series T53 air conditioner cut-out part #57-7216-01	
<b>UNIT DIMENSIONS</b>		
Height (in./mm)	57.69/1465.4	
Width (in./mm)	20.87/530.1	
Depth (in./mm)	15.28/388.1	
Weight (lb./kg)	197/89	

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

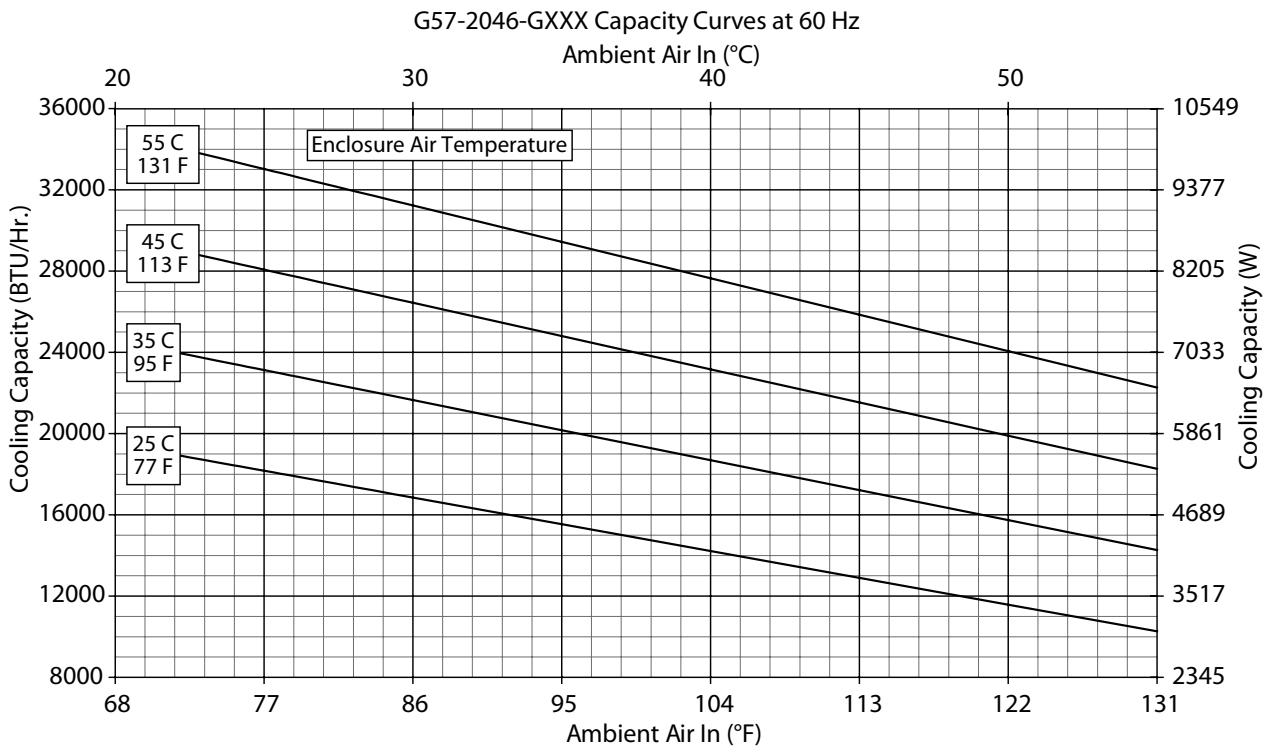
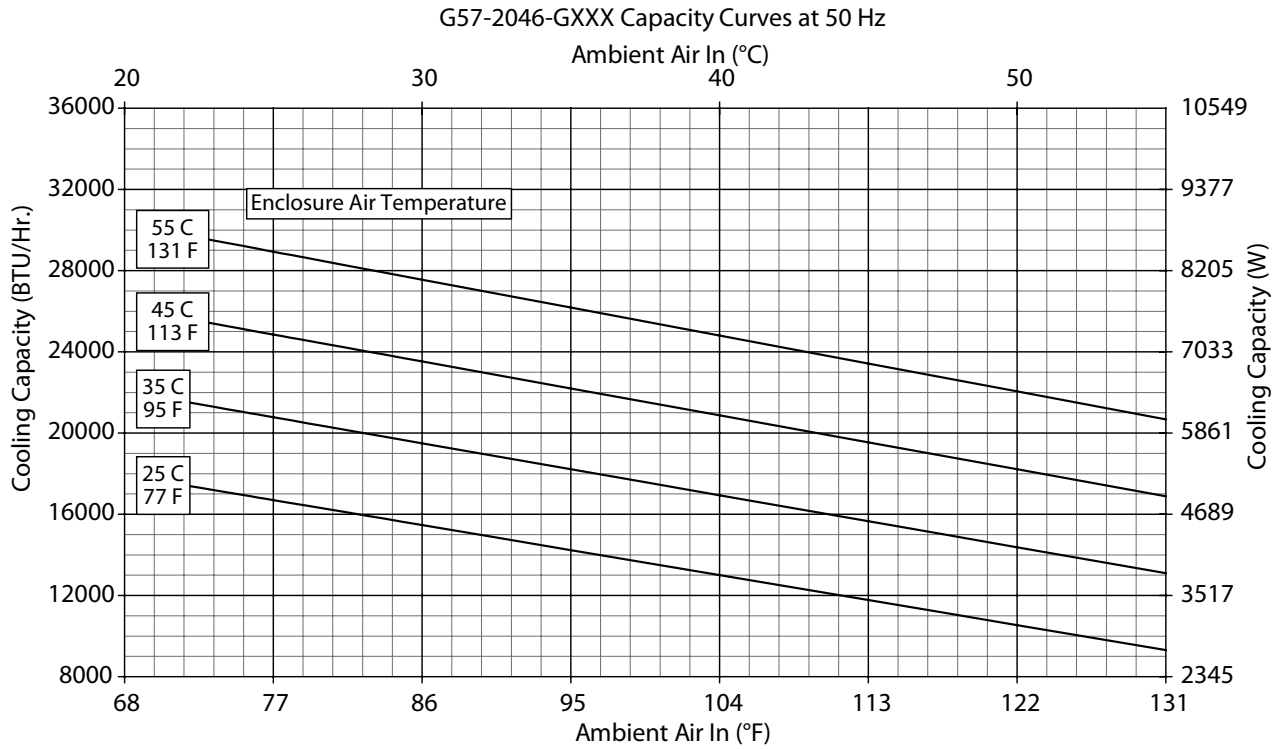
Performance Curves for G57 Models 20000 BTU/Hr.



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**SPECTRACOOL™**

Performance Curves for G57 Models 20000 BTU/Hr.



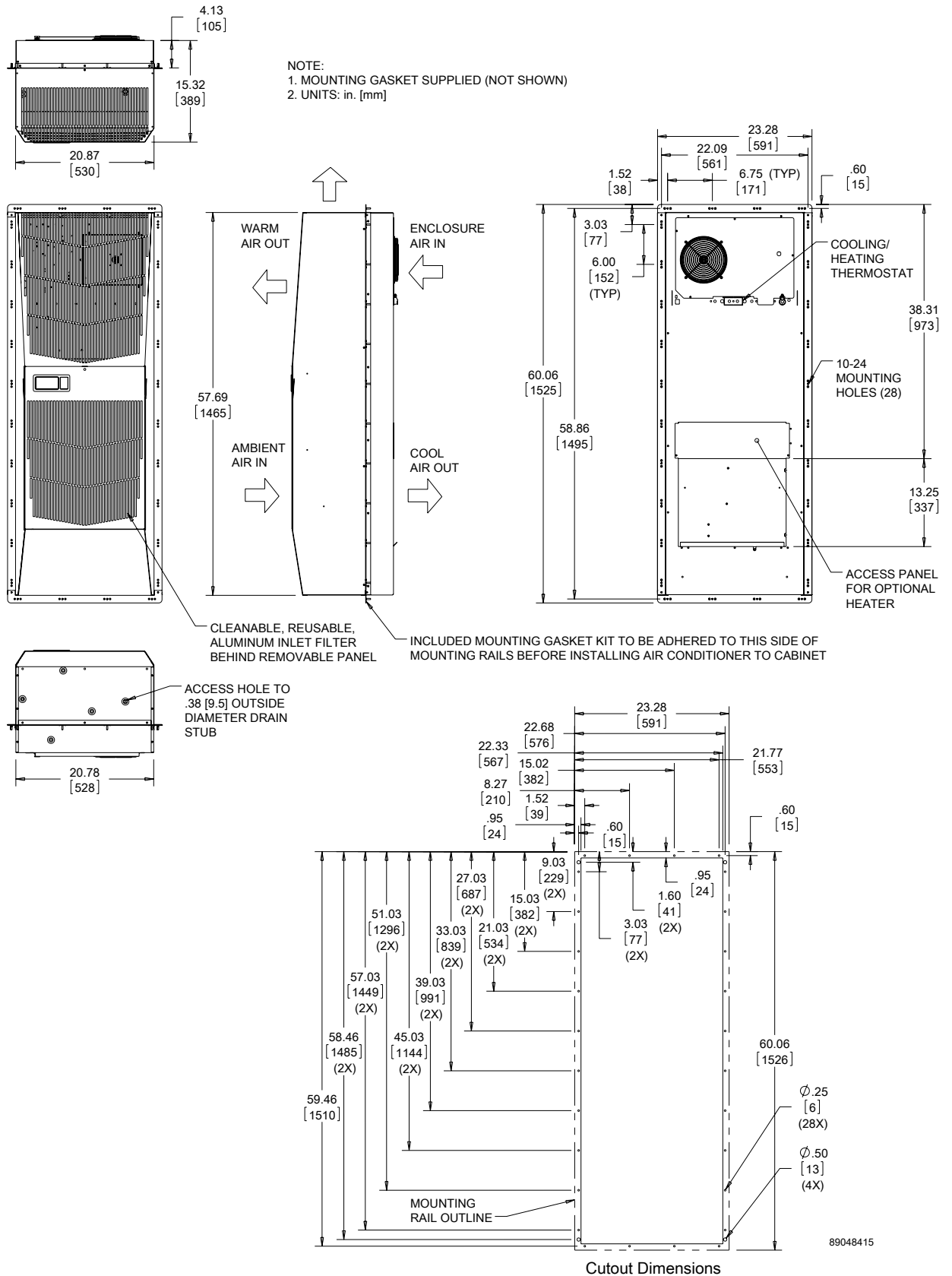
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**





**SPECTRACOOL™**

G57 Models 20000 BTU/Hr. (5861 Watt) With Partial Recess



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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**GENESIS**

**GENESIS™ Top-Mount Indoor**



**HB16**  
8000 BTU/Hr.  
2051 Watt



**MHB11**  
2200-4000 BTU/Hr.  
645-1172 Watt

**Industry Standards**

Maintains U/cUL Type 12 rating when properly installed on a UL/cUL Type 12 enclosure.

UL/cUL Listed; File No. SA6453

CE

**Application**

- Industrial automation
- Package handling equipment
- Security and defense systems
- Ideal for use where there is little or no clearance around the enclosure

**Features**

- Robust reciprocating compressor
- R134a and R407c earth-friendly refrigerant
- Models for 115, 230 and 460 single-phase VAC power input
- UL Listed or Recognized to save customers time and money with agency approvals
- Operating temperature range from 50 F/10 C to 125 F/52 C
- Attractive industrial design with minimal use of visible fasteners
- Reliable mechanical thermostat located behind the filter of the unit; indoor air conditioner models include digital display on ambient side
- Low-carbon mild-steel sheet-metal cover for rugged factory environments

- Cleanable, reusable aluminum mesh filter protects coils for maximum cooling performance
- Mounting hardware, gaskets and user manual furnished with the unit
- Every unit functionally tested before shipping
- Standard Indoor Air Conditioner models also include:
  - Electro-Mechanical Thermostat
  - Surge Suppressor
  - Condensate Management System On MHB11 models

**Finish**

- RAL 7042 gray, semi-gloss powder-coat paint standard
- Other colors and textures available

**Options**

- Thermostat Malfunction Package
- Special Voltage Package
  - \* Consult the factory for availability and catalog number

**Notes**

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**GENESIS**

 Performance Data **MHB11 Models 2200 BTU/Hr. (645 Watt)**

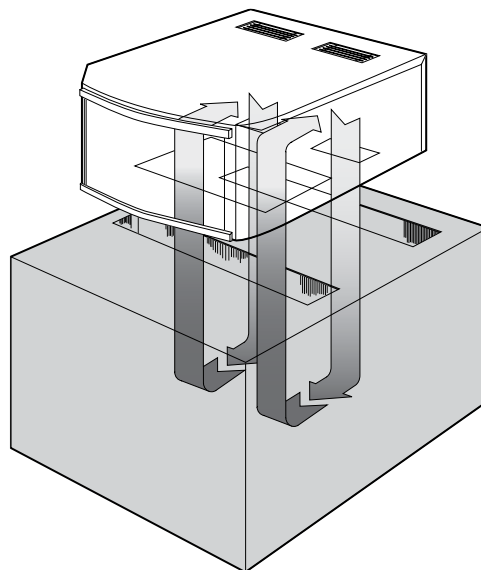
Part no	MHB110216G306	MHB110226G306	MHB110246G400
<b>COOLING PERFORMANCE</b>			
<b>Nominal:</b>			
<b>BTU/Hr.</b>	<b>2200/2200</b>	<b>2200/2200</b>	<b>2200/2200</b>
<b>Watts</b>	<b>645/645</b>	<b>645/645</b>	<b>645/645</b>
Refrigerant	R-134A	R-134A	R-134A
Refrigerant Charge (ounces/grams)	11/312	11/312	11/312
Operating Temperature Range:			
Maximum (°F/°C)	125/52	125/52	125/52
Minimum (°F/°C)	50/10	50/10	50/10
Airflow at 0 Static Pressure:			
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	158/268	170/289	170/289
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	222/377	218/370	218/370
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	177/301	192/326	192/326
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	252/428	245/416	245/416
<b>ELECTRICAL DATA</b>			
<b>Rated Voltage</b>	<b>115</b>	<b>220/230</b>	<b>440/460V 1PH</b>
Frequency (Hz)	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	1127/1035	1210/1058	1320/1150
Max. Nominal Current (A at 50/60 Hz)	9.8/9.0	5.5/4.6	3.0/2.5
Starting Current (A)	28	14.4	7.4
Agency Approvals		cUL Listed CE	cUR Recognized CE
	Others available upon request		
Power Input Description	6-ft. cord with NEMA 5-15 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads
<b>ENCLOSURE PROTECTION</b>			
UL Type	Type 12 standard		
<b>CONTROLLER</b>			
Description	Basic mechanical thermostat		
Thermostat Location	Behind filter		
Factory Thermostat Setting (°F/°C)	80/27		
<b>SOUND LEVEL</b>			
At 1.5 Meters	62 dB(A)		
<b>UNIT CONSTRUCTION</b>			
Material	Mild steel sheet metal standard Stainless steel optional		
Finish	RAL 7042 gray, semi-gloss powder-coat paint standard		
<b>UNIT DIMENSIONS</b>			
Height (in./mm)	10.25/260	10.25/260	10.25/260
Width (in./mm)	17/432	17/432	17/432
Depth (in./mm)	21.08/535	21.08/535	21.08/535
Weight (lb./kg)	90/41	90/41	110/50

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**GENESIS**

 Performance Data **MHB11 Models 4000 BTU/Hr. (1172 Watt)**

Part no	MHB110416G307	<b>MHB110426G306</b>	MHB110446G400
<b>COOLING PERFORMANCE</b>			
<b>Nominal:</b>			
<b>BTU/Hr.</b>	<b>3300/4000</b>	<b>3300/4000</b>	<b>3300/4000</b>
<b>Watts</b>	<b>967/1172</b>	<b>967/1172</b>	<b>967/1172</b>
Refrigerant	R-134A	R-134A	R-134A
Refrigerant Charge (ounces/grams)	13/369	13/369	13/369
Operating Temperature Range:			
Maximum (°F/°C)	125/52	125/52	125/52
Minimum (°F/°C)	50/10	50/10	50/10
Airflow at 0 Static Pressure:			
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	158/268	170/289	170/289
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	222/377	218/370	218/370
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	177/301	192/326	192/326
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	252/428	245/416	245/416
<b>ELECTRICAL DATA</b>			
<b>Rated Voltage</b>	<b>110/115</b>	<b>220/230</b>	<b>440/460V 1PH</b>
Frequency (Hz)	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	1617/1564	1760/1725	1936/1886
Max. Nominal Current (A at 50/60 Hz)	14.7/13.6	8.0/7.5	4.4/4.1
Starting Current (A)	48	23	12
Agency Approvals		cUL Listed CE	cUR Recognized CE
	Others available upon request		
Power Input Description	6-ft. cord with NEMA 5-20 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads
<b>ENCLOSURE PROTECTION</b>			
UL Type	Type 12 standard		
<b>CONTROLLER</b>			
Description	Basic mechanical thermostat		
Thermostat Location	Behind filter		
Factory Thermostat Setting (°F/°C)	80/27		
<b>SOUND LEVEL</b>			
At 1.5 Meters	62 dB(A)		
<b>UNIT CONSTRUCTION</b>			
Material	Mild steel sheet metal standard Stainless steel optional		
Finish	RAL 7042 gray, semi-gloss powder-coat paint standard		
<b>UNIT DIMENSIONS</b>			
Height (in./mm)	10.25/260	10.25/260	10.25/260
Width (in./mm)	17/432	17/432	17/432
Depth (in./mm)	21.08/535	21.08/535	21.08/535
Weight (lb./kg)	108/49	108/49	128/58

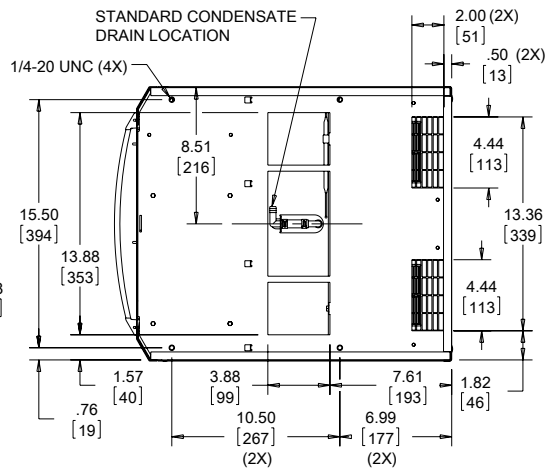
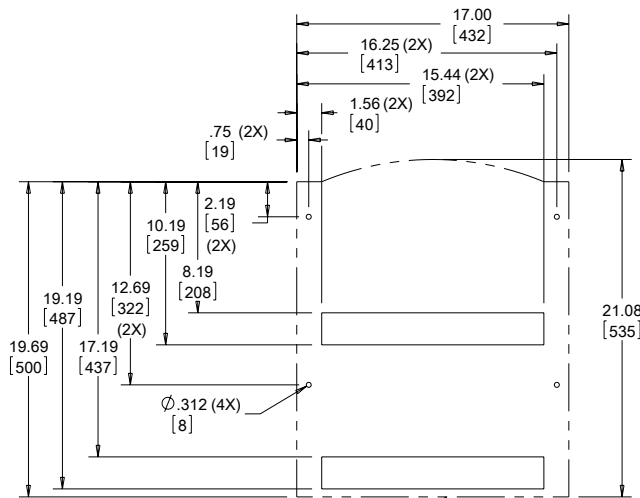
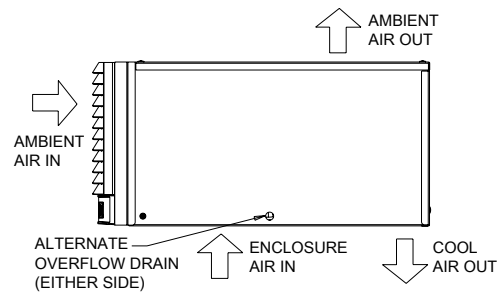
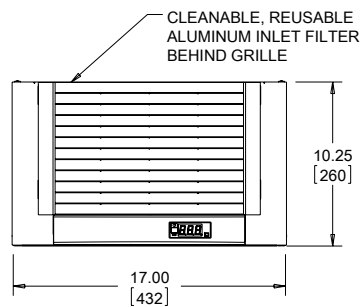
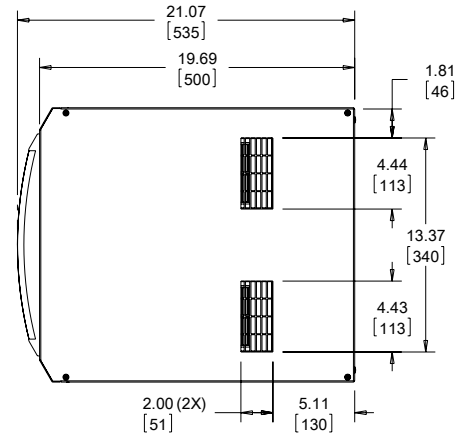

**Top-Mount to Enclosure**
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**GENESIS**

MHB11 Models 2200-4000 BTU/Hr. (645-1172 Watt)

- NOTE:  
 1. MOUNTING GASKET SUPPLIED (NOT SHOWN)  
 2. UNITS: in. [mm]  
 3. CUTOUT DIMENSIONS FOR STANDARD UNITS ONLY



AC OUTLINE  
 Cutout Dimensions

89045044

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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**GENESIS**

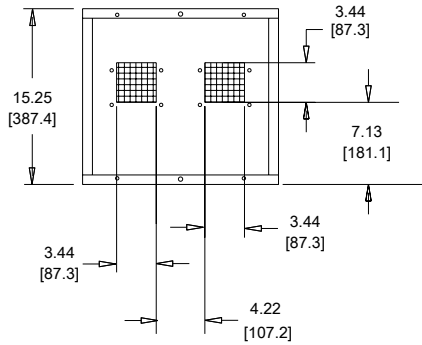
 Performance Data **HB16 Models 8000 BTU/Hr. (2051 Watt)**

<b>Part no</b>			
Indoor Model	HB160816G040	<b>HB160826G040</b>	HB160846G040
<b>COOLING PERFORMANCE</b>			
Nominal:			
<b>BTU/Hr.</b>	<b>7000/8000</b>	<b>7000/8000</b>	<b>7000/8000</b>
<b>Watts</b>	<b>2051/2344</b>	<b>2051/2344</b>	<b>2051/2344</b>
At 125 F/125 F (52 C/52 C):			
BTU/Hr. (50/60 Hz)	6975/8137	7075/8133	7075/8133
Watts (50/60 Hz)	2044/2385	2073/2384	2073/2384
At 95 F/95 F (35 C/35 C):			
BTU/Hr. (50/60 Hz)	6959/8236	6958/7774	6958/7774
W (50/60 Hz)	2039/2414	2039/2278	2039/2278
Refrigerant	R-407C	R-407C	R-407C
Refrigerant Charge (ounces/grams)	24/680	24/680	24/680
Operating Temperature Range:			
Maximum (°F/°C)	125/52	125/52	125/52
Minimum (°F/°C)	50/10	50/10	50/10
<b>ELECTRICAL DATA</b>			
<b>Rated Voltage</b>	<b>115</b>	<b>230</b>	<b>460</b>
Frequency (Hz)	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	1822/2223	1785/2105	2162
Max. Nominal Current (A at 50/60 Hz)	18.7/20.4	8.5/9.3	4.3/4.7
Starting Current (A)	67	29	15
Agency Approvals		cUL Listed CE	
Power Input Description	6-ft. cord with NEMA 5-20 plug	6-ft. cord with NEMA 5-20 plug	6-ft. cord with NEMA L8-20 plug
<b>ENCLOSURE PROTECTION</b>			
UL Type		Type 12	
<b>CONTROLLER</b>			
Description		Basic Mechanical Thermostat	
Thermostat Location		Enclosure Side on All Base Models	
Factory Thermostat Setting (°F/°C)	80/27	80/27	80/27
<b>UNIT CONSTRUCTION</b>			
Material	Galvanized Sheet Metal Standard (Optional: Stainless Steel)		
Finish	RAL 7042 gray, semi-gloss powder-coat paint standard Other colors and textures available		
<b>UNIT DIMENSIONS</b>			
Height (in./mm)	15.25/387.35		
Width (in./mm)	17/431.8		
Depth (in./mm)	25.1875/639.76		
Weight (lb./kg)	145/69.78		

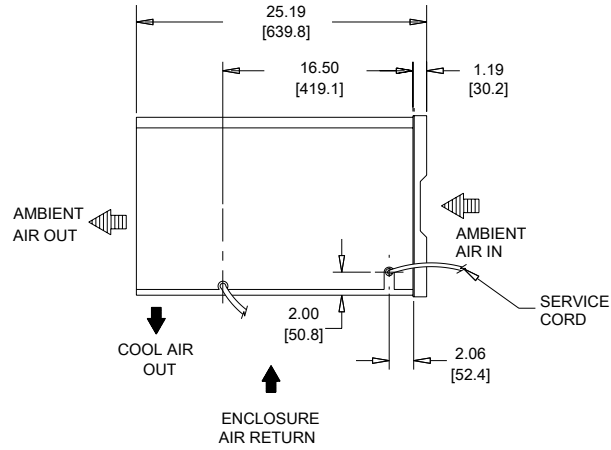
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

### GENESIS

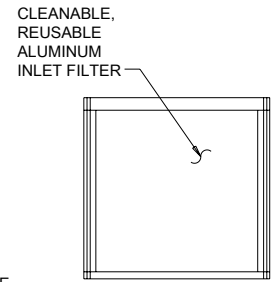
HB16 Models 8000 BTU/Hr. (2051 Watt)



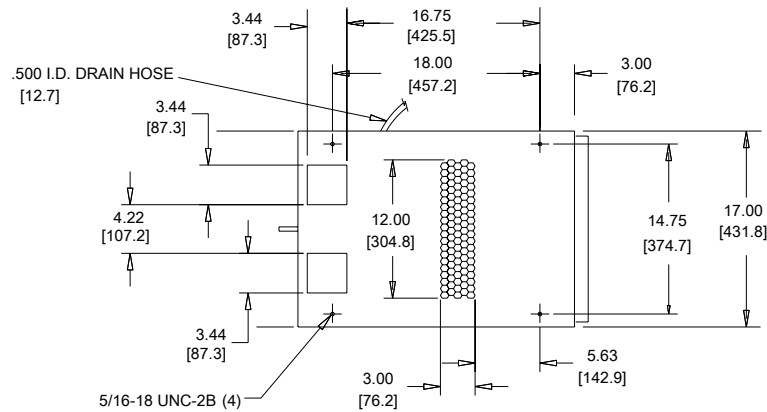
Rear View



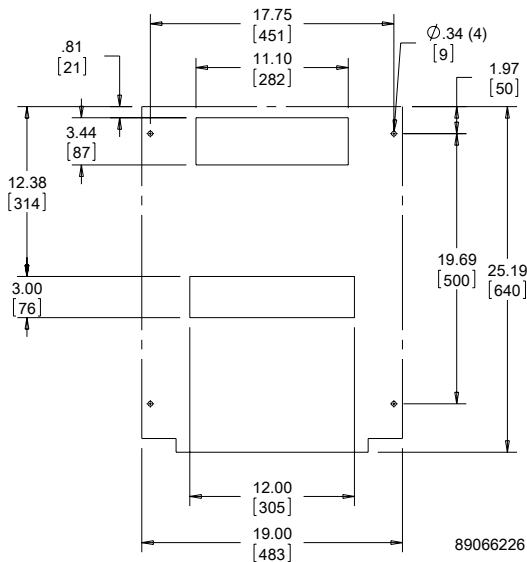
Side View



Front View



Bottom View



Cutout Dimensions

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**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROAIR**

**PROAIR Harsh Environment**



**CR23**  
1600 BTU/Hr.  
469 Watts



**CR29**  
2200 and 4000 BTU/Hr.  
645 and 1172 Watts



**CR43**  
6000 & 8000 BTU/Hr.  
1758 and 2344 Watts

**Industry Standards**

UL/cUL Listed or UR/cUR Recognized

- CE
- Type 12/3R/4
- Type 4X stainless steel option

**Application**

- Industrial automation
- Package handling equipment
- Food and beverage
- Wastewater treatment
- Security and defense systems
- And more

**Features**

- Robust reciprocating compressor
- Easy maintenance: hinged front cover allows quick access to all components; condenser coil can be cleaned while unit is still mounted to the cabinet
- R134a or R407c earth-friendly refrigerant
- Models for 115, 230 and 460 single phase VAC power input
- UL Listed or Recognized to save customers time and money with agency approvals
- Operating temperature range from -40 F/-40 C to 131 F/55 C (with optional low-ambient package)
- Attractive industrial design with minimal use of visible fasteners
- Reliable mechanical thermostat located behind the filter of the unit
- Low-carbon mild-steel sheet-metal cover for rugged factory and outdoor environments
- Easy-mount flanges for simple installation
- Cleanable reusable aluminum mesh filter protects coils for maximum cooling performance

- Mounting hardware, gaskets and user manual furnished with the unit
- Every unit functionally tested before shipping
- High-performance fans and blowers designed for densely packed enclosures
- Standard Indoor Air Conditioner models also include:
  - Electro-Mechanical Thermostat
  - Surge Suppressor

**Finish**

- ANSI 70 gray, semi-gloss powder-coat paint standard
- Stainless steel Type 304 or 316 finishes available on Type 4X models
- Other colors and textures available

**Options**

- Thermostat Malfunction Package
- Special Voltage Package
- Outdoor Package
- Harsh Environment Package
- Stainless Steel Package
- Heater Package

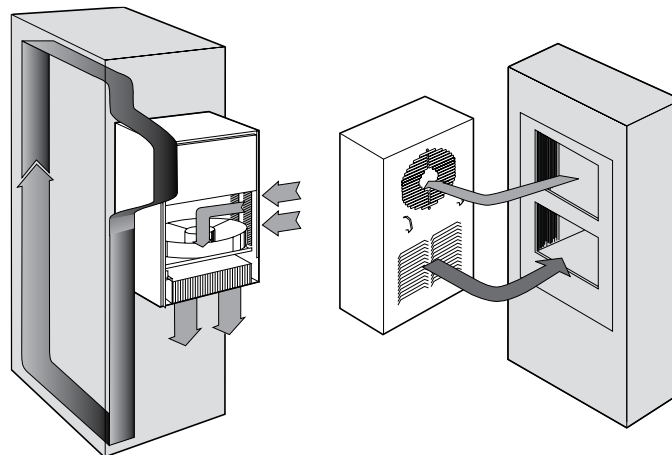
**Notes**

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**PROAIR**

 Performance Data **CR23 Models 1600 BTU/Hr. (469 Watt)**

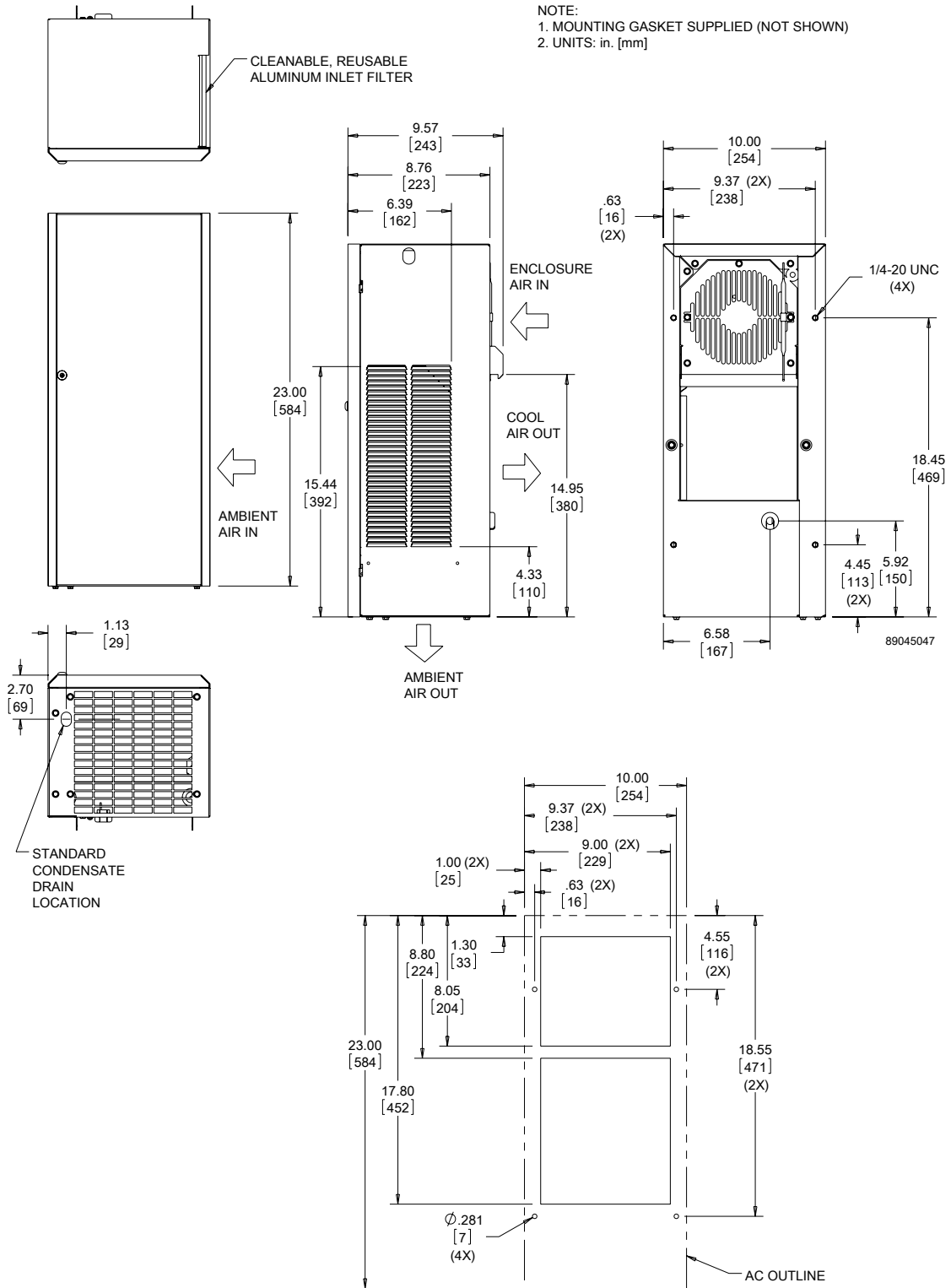
Part no	CR230216G002	CR230226G002	CR230246G400
<b>COOLING PERFORMANCE</b>			
<b>Nominal:</b>			
BTU/Hr.	<b>1400/1600</b>	<b>1400/1600</b>	<b>1400/1600</b>
Watts	<b>410/469</b>	<b>410/469</b>	<b>410/469</b>
Refrigerant	R-134A	R-134A	R-134A
Refrigerant Charge (ounces/grams)	10/284	10/284	10/284
Operating Temperature Range:			
Maximum (°F/°C)	131/55	131/55	131/55
Minimum (°F/°C) (Low Ambient Pkg)	-40/-40	-40/-40	-40/-40
Airflow at 0 Static Pressure:			
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	117/199	117/199	117/199
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	86/146	86/146	86/146
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	130/221	130/221	130/221
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	95/161	95/161	95/161
<b>ELECTRICAL DATA</b>			
Rated Voltage	<b>115</b>	<b>230</b>	<b>460V 1PH</b>
Frequency (Hz)	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	471.5/517.5	506	552
Max. Nominal Current (A at 50/60 Hz)	4.1/4.5	2.2	1.2
Starting Current (A)	18	8.5	5
Agency Approvals		cUL Listed CE	cUR Recognized CE
Power Input Description	6-ft. cord with NEMA 5-15 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads
<b>ENCLOSURE PROTECTION</b>			
UL Type		Type 12/3R standard Type 4/4X Stainless steel optional	
<b>CONTROLLER</b>			
Description		Basic mechanical thermostat	
Thermostat Location		Behind cover	
Factory Thermostat Setting (°F/°C)		80/27	
<b>SOUND LEVEL</b>			
At 1.5 Meters		62 dB(A)	
<b>UNIT CONSTRUCTION</b>			
Material		Mild steel sheet metal standard Stainless steel optional	
Finish		ANSI 70 gray, semi-gloss powder-coat paint standard	
<b>UNIT DIMENSIONS</b>			
Height (in./mm)		23/584	
Width (in./mm)		10/254	
Depth (in./mm)		8.75/222	
Weight (lb./kg)		57/26	67/30



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROAIR**

CR23 Models 1600 BTU/Hr. (469 Watt)



Cutout Dimensions

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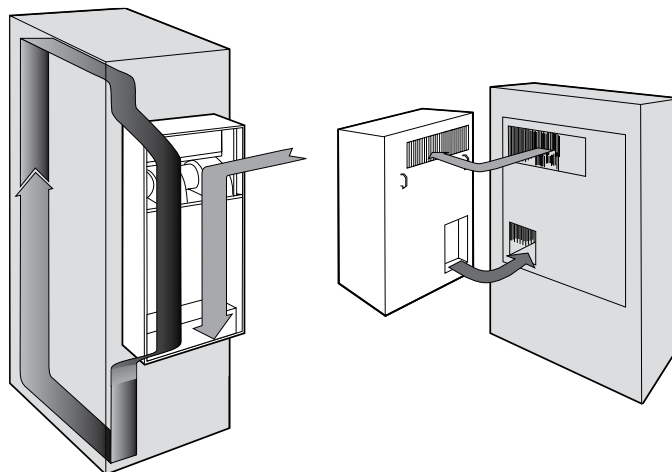
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROAIR**

 Performance Data **CR29 Models 2200/4000 BTU/Hr. (645/1172 Watt)**

Part no	CR290216G002	<b>CR290226G002</b>	CR290246G400	CR290416G002	<b>CR290426G002</b>	CR290446G400
<b>COOLING PERFORMANCE</b>						
<b>Nominal:</b>						
BTU/Hr.	<b>2000/2200</b>	<b>2500/2700</b>	<b>2500/2700</b>	<b>3500/4000</b>	<b>3500/4000</b>	<b>3500/4000</b>
Watts	<b>586/645</b>	<b>732/791</b>	<b>732/791</b>	<b>1025/1172</b>	<b>1025/1172</b>	<b>1026/1172</b>
Refrigerant	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A
Refrigerant Charge (ounces/grams)	11/312	11/312	11/312	12/341	12/341	12/341
Operating Temperature Range:						
Maximum (°F/°C)	131/55	131/55	131/55	131/55	131/55	131/55
Minimum (°F/°C) (Low Ambient Pkg)	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40
Airflow at 0 Static Pressure:						
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	141/239	141/239	141/239	141/239	141/239	141/239
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	235/399	235/399	235/399	235/399	235/399	235/399
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	157/266	157/266	157/266	157/266	157/266	157/266
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	261/443	261/443	261/443	261/443	261/443	261/443
<b>ELECTRICAL DATA</b>						
Rated Voltage	<b>115</b>	<b>230</b>	<b>460V 1PH</b>	<b>115</b>	<b>230</b>	<b>460V 1PH</b>
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	851/517.5	1058/877	1150/996	1552.5	1541/1518	1702/1656
Max. Nominal Current (A at 50/60 Hz)	7.4	4.6/3.9	2.5/2.1	13.5/13.5	6.7/6.6	3.7/3.6
Starting Current (A)	28	14.4	7.4	48	23	12
Agency Approvals	cUL Listed CE		cUR Recognized CE	cUL Listed CE		cUR Recognized CE
Power Input Description	6-ft. cord with NEMA 5-15 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads	6-ft. cord with NEMA 5-20 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads
<b>ENCLOSURE PROTECTION</b>						
UL Type	Type 12/3R standard Type 4/4X Stainless steel optional			Type 12/3R standard 4/4X Stainless steel optional		
<b>CONTROLLER</b>						
Description	Basic mechanical thermostat			Basic mechanical thermostat		
Thermostat Location	Behind cover			Behind cover		
Factory Thermostat Setting (°F/°C)	80/27			80/27		
<b>SOUND LEVEL</b>						
At 1.5 Meters	68 dB(A)			68 dB(A)		
<b>UNIT CONSTRUCTION</b>						
Material	Mild steel sheet metal standard Stainless steel optional			Mild steel sheet metal standard Stainless steel optional		
Finish	ANSI 70 gray, semi-gloss powder-coat paint standard			ANSI 70 gray, semi-gloss powder-coat paint standard		
<b>UNIT DIMENSIONS</b>						
Height (in./mm)	29.5/749			29.5/749		
Width (in./mm)	15.75/400			15.75/400		
Depth (in./mm)	8.63/219			8.63/219		
Weight (lb./kg)	98/44	98/44	108/49	118/54	118/54	128/58



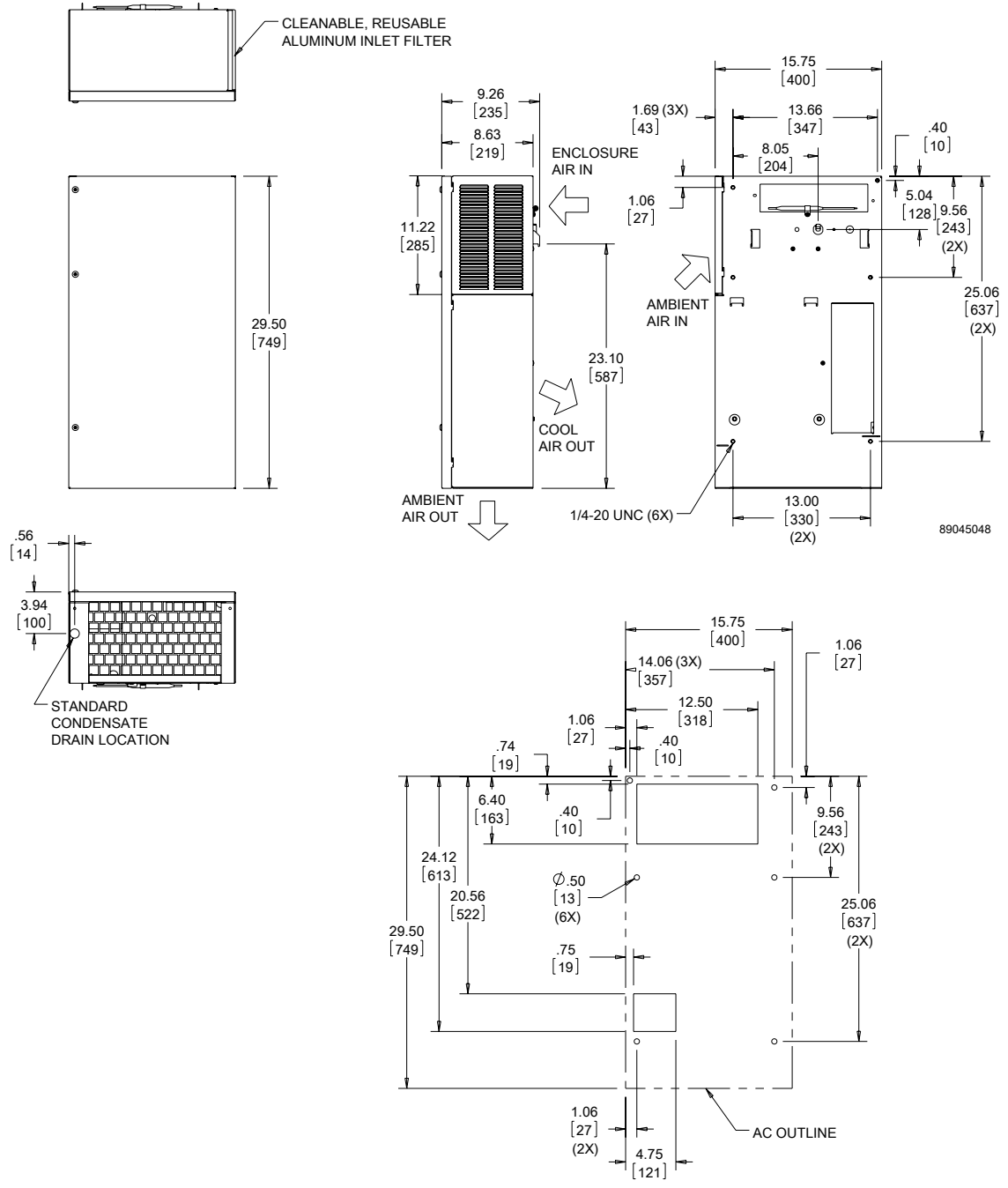
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



**PROAIR**

CR29 Models 2200/4000 BTU/Hr. (645/1172 Watt)

NOTE:  
 1. MOUNTING GASKET SUPPLIED (NOT SHOWN)  
 2. UNITS: in. [mm]



Cutout Dimensions

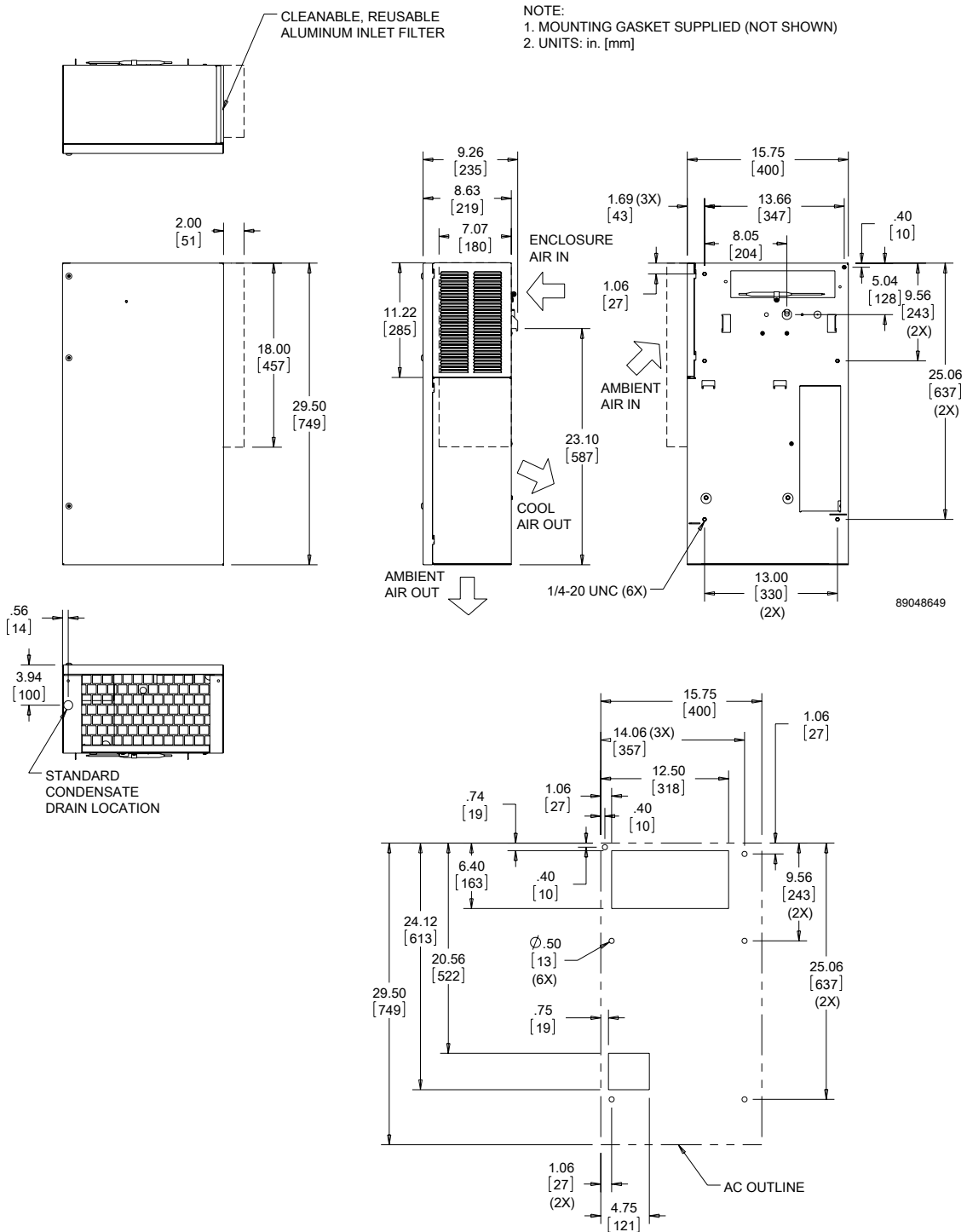
Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



**PROAIR**

CR29 Models 2200/4000 BTU/Hr. (645/1172 Watt) With Type 4X Hood



Cutout Dimensions

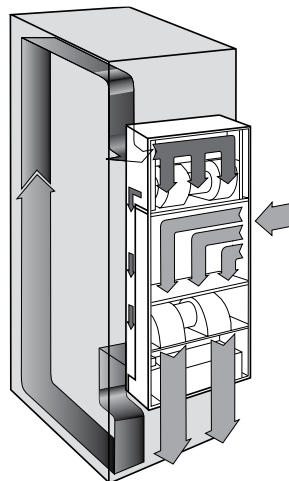
Visit [www.McLeanCoolingTech.com](http://www.McLeanCoolingTech.com) to download 2D and 3D CAD drawings into the overall design of your electronic system.

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROAIR**

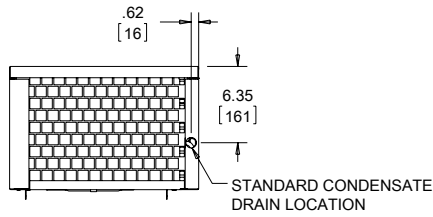
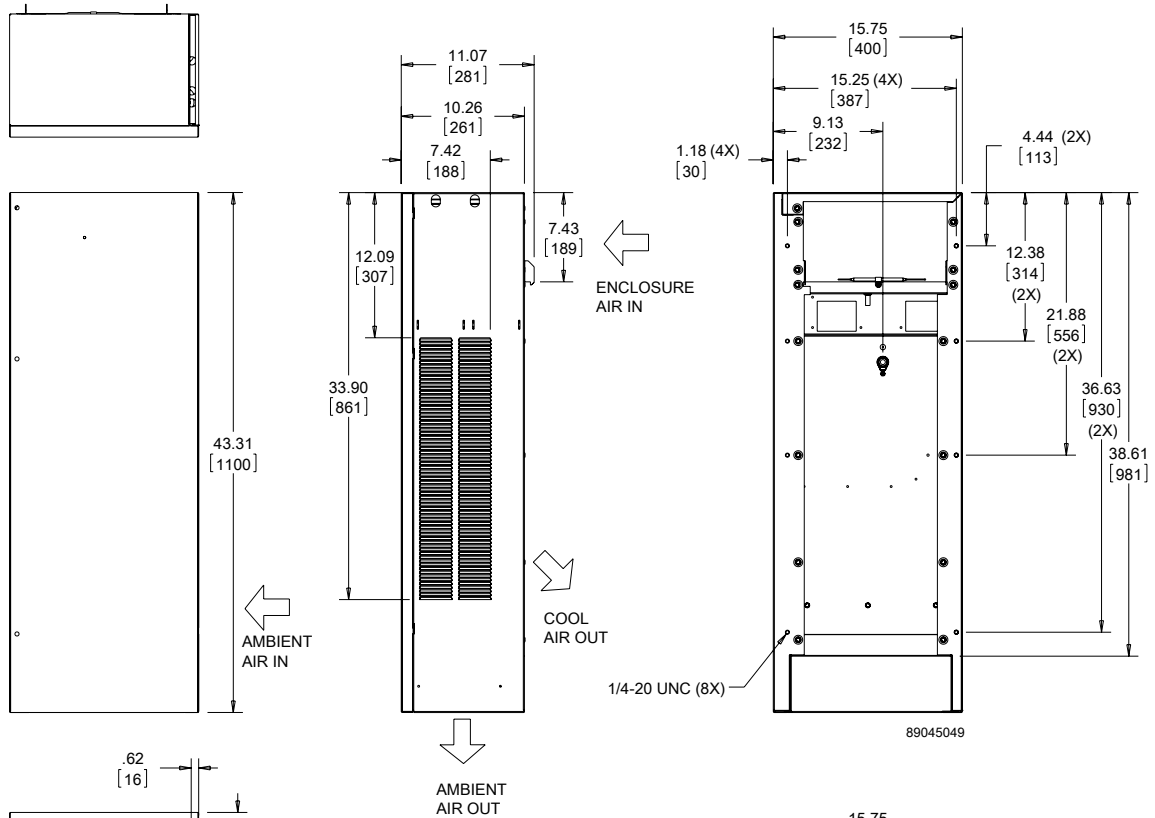
 Performance Data **CR43 Models 6000/8000 BTU/Hr. (1758/2344 Watt)**

Part no	CR430616G002	<b>CR430626G002</b>	CR430646G400	CR430816G002	<b>CR430826G002</b>	CR430846G400
<b>COOLING PERFORMANCE</b>						
<b>Nominal:</b>						
BTU/Hr.	<b>5500/6000</b>	<b>5500/6000</b>	<b>5500/6000</b>	<b>7100/8000</b>	<b>7100/8000</b>	<b>7100/8000</b>
Watts	1611/1758	<b>1611/1758</b>	<b>1611/1758</b>	<b>2080/2344</b>	<b>2080/2344</b>	<b>2080/2344</b>
Refrigerant	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A
Refrigerant Charge (ounces/grams)	19/538	19/538	19/538	19/538	19/538	19/538
Operating Temperature Range:						
Maximum (°F/°C)	131/55	131/55	131/55	131/55	131/55	131/55
Minimum (°F/°C) (Low Ambient Pkg.)	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40
Airflow at 0 Static Pressure:						
Internal loop 50 Hz (CFM / m <sup>3</sup> /hr.)	320/543	226/384	226/384	320/543	226/384	226/384
External loop 50 Hz (CFM / m <sup>3</sup> /hr.)	480/815	470/798	470/798	480/815	470/798	470/798
Internal loop 60 Hz (CFM / m <sup>3</sup> /hr.)	368/625	255/433	255/433	368/625	255/433	255/433
External loop 60 Hz (CFM / m <sup>3</sup> /hr.)	544/924	540/917	540/917	544/924	540/917	540/917
<b>ELECTRICAL DATA</b>						
Rated Voltage	<b>115</b>	<b>230</b>	<b>460V 1PH</b>	<b>115</b>	<b>230</b>	<b>460V 1PH</b>
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Operating Range	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Max. Power Consumption (W at 50/60 Hz)	1460	1403/1518	1564/1656	1460	1403/1518	1564/1656
Max. Nominal Current (A at 50/60 Hz)	12.7	6.1/6.6	3.4/3.6	12.7	6.1/6.6	3.4/3.6
Starting Current (A)	48.3	27	14	48.3	27	14
Agency Approvals	cUL Listed CE		cUR Recognized CE	cUL Listed CE		cUR Recognized CE
	Others available upon request			Others available upon request		
Power Input Description	6-ft. cord with NEMA 5-20 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads	6-ft. cord with NEMA 5-20 plug	6-ft. cord with NEMA 6-15 plug	6-ft. cord with wire leads
<b>ENCLOSURE PROTECTION</b>						
UL Type	Type 12/3R standard Type 4/4X Stainless steel optional			Type 12/3R standard 4/4X Stainless steel optional		
<b>CONTROLLER</b>						
Description	Basic mechanical thermostat			Basic mechanical thermostat		
Thermostat Location	Enclosure side on all base models			Enclosure side on all base models		
Factory Thermostat Setting (°F/°C)	80/27			80/27		
<b>SOUND LEVEL</b>						
At 1.5 Meters	71 dB(A)			71 dB(A)		
<b>UNIT CONSTRUCTION</b>						
Material	Galvanized sheet metal standard Stainless steel optional			Galvanized sheet metal standard Stainless steel optional		
Finish	ANSI 70 gray, semi-gloss powder-coat paint standard			ANSI 70 gray, semi-gloss powder-coat paint standard		
<b>UNIT DIMENSIONS</b>						
Height (in./mm)	43.31/1100			43.31/1100		
Width (in./mm)	15.75/400			15.75/400		
Depth (in./mm)	10.25/260			10.25/260		
Weight (lb./kg)	125/57	125/57	155/70	125/57	125/57	155/70

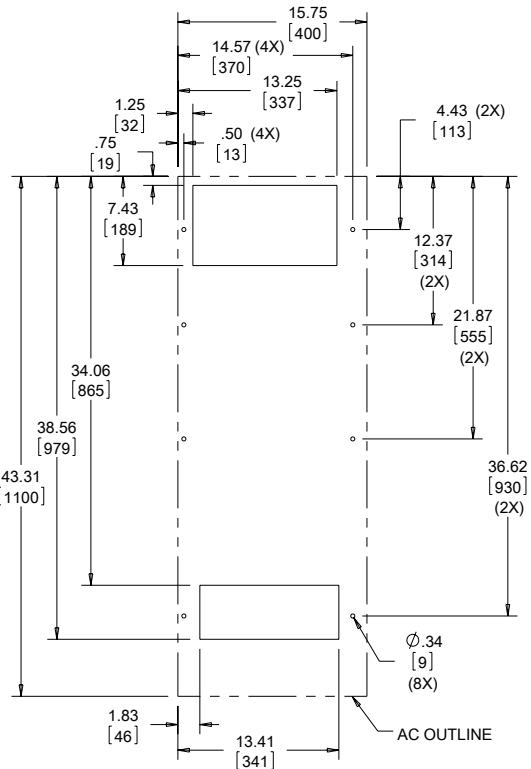

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

**PROAIR**

CR43 Models 6000/8000 BTU/Hr. (1758/2344 Watt)



NOTE:  
 1. MOUNTING GASKET SUPPLIED (NOT SHOWN)  
 2. UNITS: in. [mm]



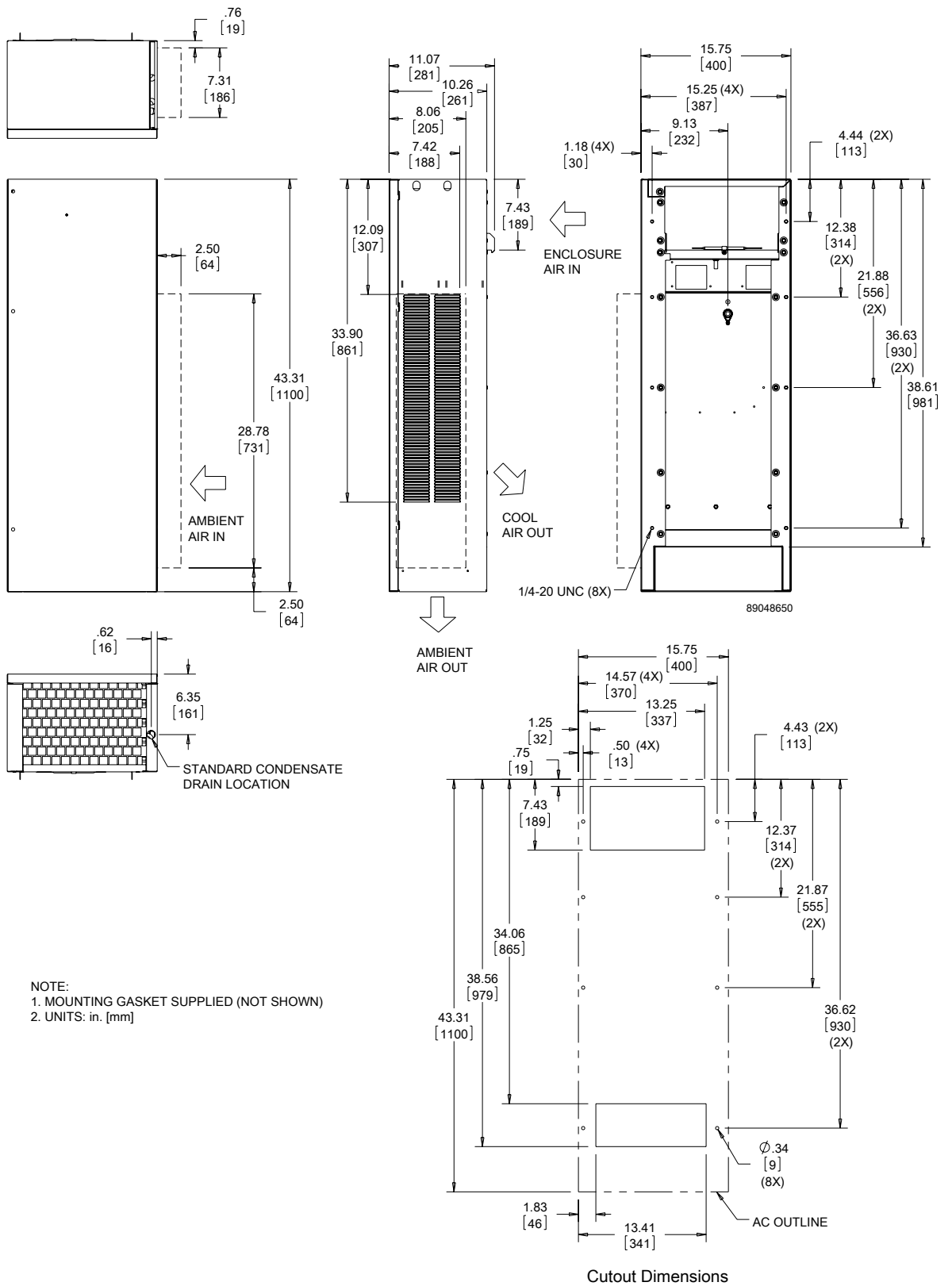
Cutout Dimensions

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CR43 Models 6000/8000 BTU/Hr. (1758/2344 Watt)



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## Thermoelectric

### Thermoelectric Coolers Indoor/Outdoor



#### Industry Standards

UL Recognized; File No. SA6453  
UL/cUL Listed Type 12, 3R, 4, 4X

CE  
GOST  
IP 65

#### Application

The McLean Thermoelectric cooler minimizes downtime and component loss by removing heat around critical components within an enclosure. These compact, low-profile coolers using the Peltier effect allow you to cool small indoor and outdoor enclosures. No condensers, compressors or filters are required making it a reliable solution for demanding low-maintenance environments.

#### Features

- DC Powered operation for 24V and 48V applications
- Low profile design allows for mounting vertically and horizontally on any enclosure to avoid interference with internal components.
- Filterless design reduces maintenance requirements
- Contains no refrigerant, making it earth friendly and RoHS compliant
- Prewired with simple terminal block for easy wiring connections
- Operates on the Peltier effect for cooling or heating
- Compressor-free air conditioning for demanding indoor and outdoor applications
- Shrouded and unshrouded models included in standard packages
- Operating temperature range -40 C (-40 F) to 55 C (131 F)
- Partial recess mount

#### Specifications

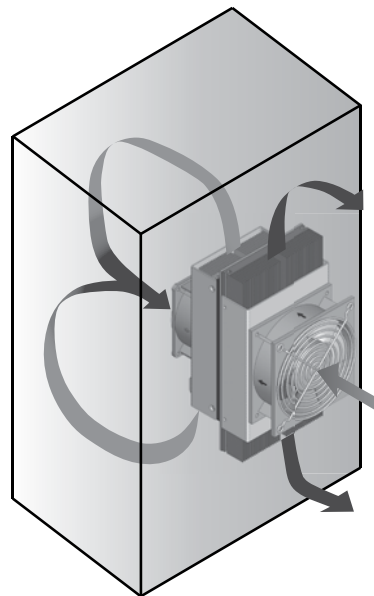
- Models
  - 60 Watt, 24 Volt
  - 100 Watt, 24/48 Volt
  - 200 Watt, 24/48 Volt

#### Finish

- Shrouded finish includes both powder coat paint RAL 7035 light gray standard and stainless steel 304
- Other colors and textures available

#### Notes

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## Thermoelectric

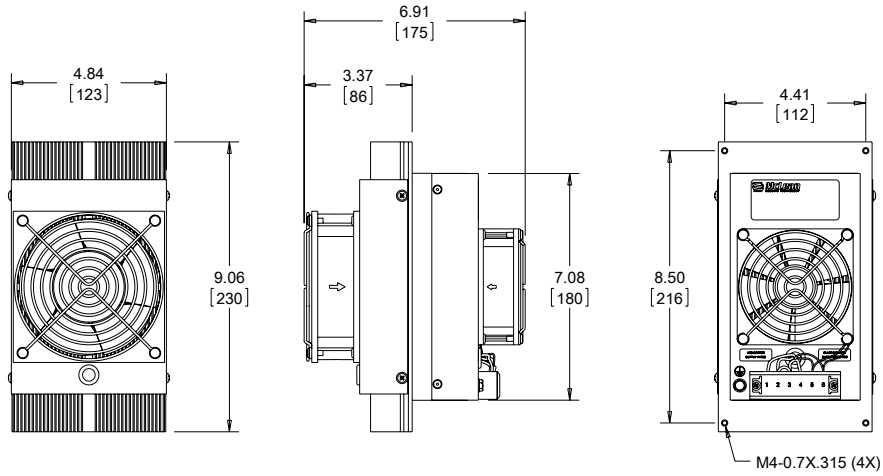
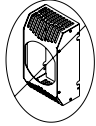
 Performance Data **TE09 60W 204 BTU/Hr. (24 V)**

<b>Part no</b>			
Description	24V w/o shroud	24V w/ painted shroud	24V w/ SS shroud
Part no	TE090624020	<b>TE090624010</b>	TE090624011
<b>COOLING PERFORMANCE</b>			
<b>BTU/Hr.</b>	<b>178</b>	<b>178</b>	<b>178</b>
<b>Watts</b>	<b>52</b>	<b>52</b>	<b>52</b>
Operating Temperature Range:			
Maximum (°C / °F)	55 / 131	55 / 131	55 / 131
Minimum (°C / °F)	-40 / -40	-40 / -40	-40 / -40
Air Flow at 0 Static Pressure:			
Internal loop (CFM / M <sup>3</sup> /Hr.)	24 / 41	24 / 41	24 / 41
External loop (CFM / M <sup>3</sup> /Hr.)	80 / 136	80 / 136	80 / 136
Nominal Heating Watts	64	64	64
<b>ELECTRICAL DATA</b>			
<b>Input DC Voltage</b>			
Nominal (VDC)	<b>24</b>	<b>24</b>	<b>24</b>
Minimum (VDC)	18	18	18
Maximum (VDC)	27.6	27.6	27.6
Power Consumption 95 F / 95 F (35 C / 35 C)	89	89	89
Max Current (Amps)	4.4	4.4	4.4
Agency Approvals	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST
Power Input Description	Terminal Block	Terminal Block	Terminal Block
<b>ENCLOSURE PROTECTION</b>			
UL Type / IP Rating	Type 12,3R,4,4X / IP 65	Type 12,3R,4 / IP 65	Type 12,3R,4,4X / IP 65
<b>SOUND LEVEL</b>			
dBA at 1.5 Meters	65	65	65
<b>UNIT CONSTRUCTION</b>			
Heat Sink Material	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Shroud Material	N/A	Galvanized Steel	Stainless Steel
Shroud Finish	N/A	Powder Coat RAL 7035 Light Gray Standard	No. 4 Brushed Finish
<b>UNIT DIMENSIONS</b>			
Height (in. / mm)	9.06 / 230	9.29 / 236	9.29 / 236
Width (in. / mm)	4.84 / 123	5.02 / 128	5.02 / 128
Depth (in. / mm)	6.91 / 176	6.95 / 177	6.95 / 177
Weight (lb. / kg)	6.0 / 2.7	7.8 / 3.6	7.8 / 3.6

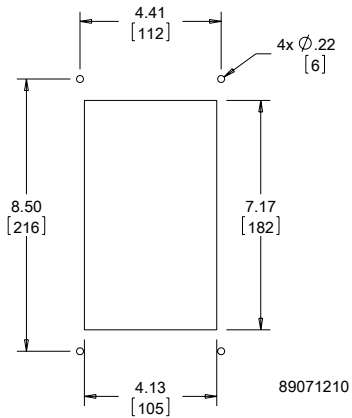
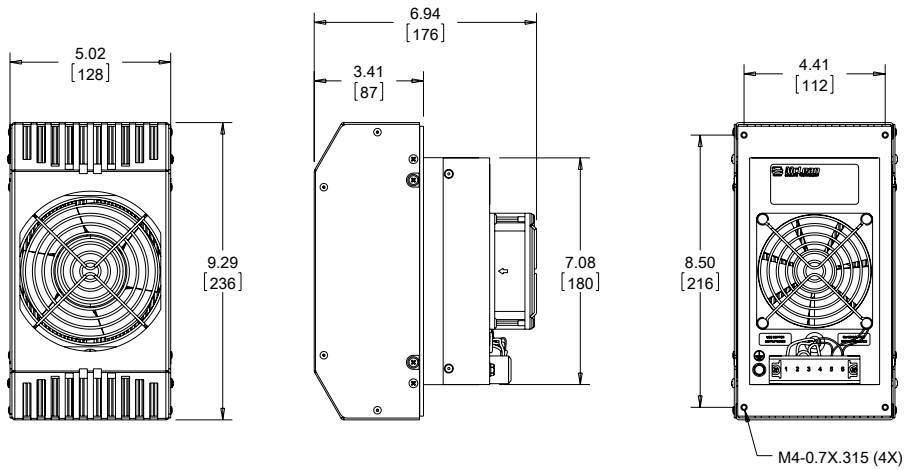
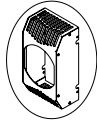
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

Thermoelectric

60 W 24 V



60 W 24 V



Cutout Dimensions

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



## Thermoelectric

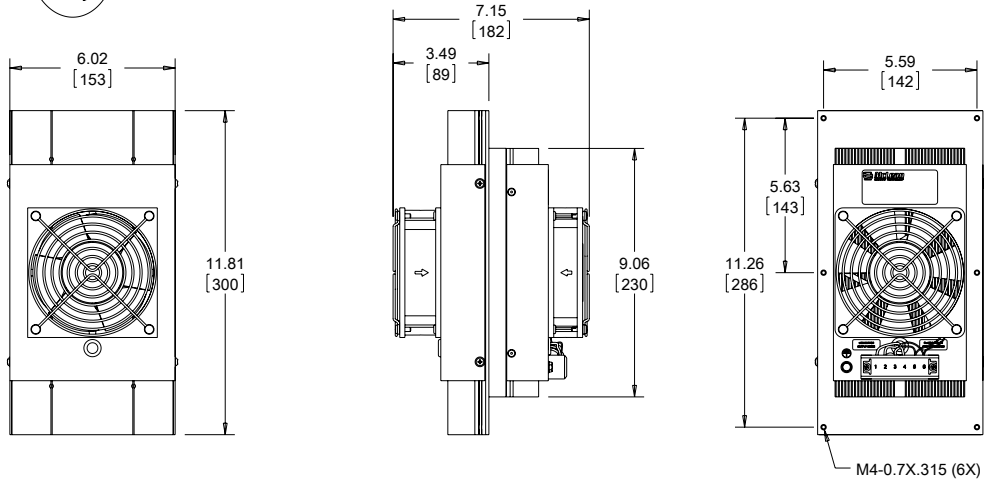
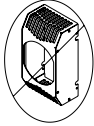
### Performance Data **TE12 100W 341 BTU/Hr. (24/48 V)**

Part no	24V w/o shroud	24V w/ painted shroud	24V w/ SS shroud	48V w/o shroud	48V w/ painted shroud
Description	TE121024020	<b>TE121024010</b>	TE121024011	TE121048020	<b>TE121048010</b>
<b>COOLING PERFORMANCE</b>					
<b>BTU/Hr.</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>
<b>Watts</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>
Operating Temperature Range:					
Maximum (°C / °F)	55 / 131	55 / 131	55 / 131	55 / 131	55 / 131
Minimum (°C / °F)	-40 / -40	-40 / -40	-40 / -40	-40 / -40	-40 / -40
Air Flow at 0 Static Pressure:					
Internal loop (CFM / M <sup>3</sup> /Hr.)	62 / 105	62 / 105	62 / 105	62 / 105	62 / 105
External loop (CFM / M <sup>3</sup> /Hr.)	86 / 146	86 / 146	86 / 146	86 / 146	86 / 146
Nominal Heating Watts	94	94	94	94	94
<b>ELECTRICAL DATA</b>					
<b>Input DC Voltage</b>					
Nominal (VDC)	<b>24</b>	<b>24</b>	<b>24</b>	<b>48</b>	<b>48</b>
Minimum (VDC)	18	18	18	40	40
Maximum (VDC)	27.6	27.6	27.6	55.2	55.2
Power Consumption 95 F / 95 F (35 C / 35 C)	162	162	162	162	162
Max Current (Amps)	8.1	8.1	8.1	4.2	4.2
Agency Approvals	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST
Power Input Description	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
<b>ENCLOSURE PROTECTION</b>					
UL Type / IP Rating	Type 12,3R,4,4X / IP 65	Type 12,3R,4 / IP 65	Type 12,3R,4,4X / IP 65	Type 12,3R,4,4X / IP 65	Type 12,3R,4 / IP 65
<b>SOUND LEVEL</b>					
dBA at 1.5 Meters	68	68	68	68	68
<b>UNIT CONSTRUCTION</b>					
Heat Sink Material	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Shroud Material	N/A	Galvanized Steel	Stainless Steel	N/A	Galvanized Steel
Shroud Finish	N/A	Powder Coat RAL 7035 Light Gray Standard	No. 4 Brushed Finish	N/A	Powder Coat RAL 7035 Light Gray Standard
<b>UNIT DIMENSIONS</b>					
Height (in. / mm)	11.81 / 300	12 / 305	12 / 305	11.81 / 300	12 / 305
Width (in. / mm)	6.02 / 153	6.18 / 157	6.18 / 157	6.02 / 153	6.18 / 157
Depth (in. / mm)	7.15 / 182	7.15 / 182	7.15 / 182	7.15 / 182	7.15 / 182
Weight (lb. / kg)	8.5 / 3.9	11.0 / 5.0	11.0 / 5.0	8.5 / 3.9	11.0 / 5.0

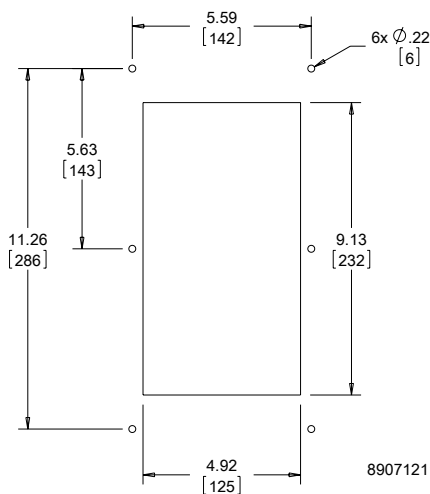
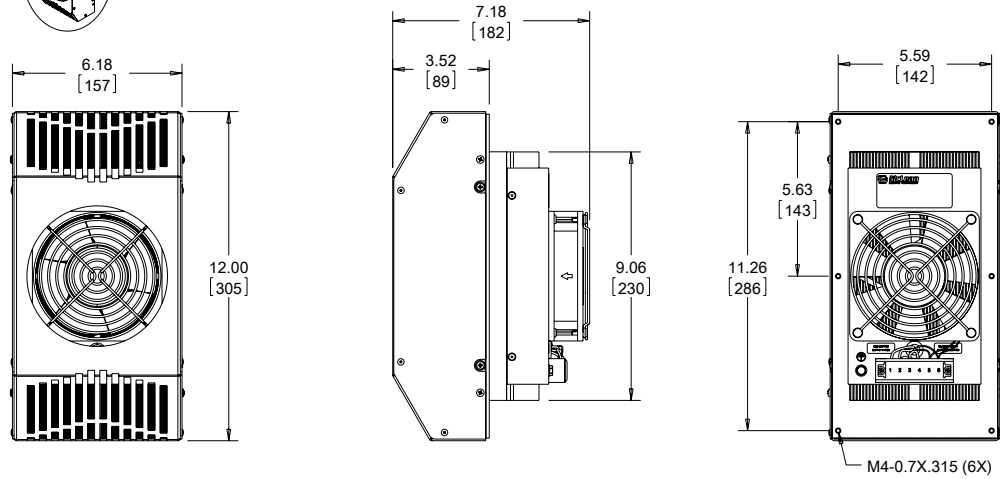
Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

Thermoelectric

100 W 24/48 V



100 W 24/48 V



Cutout Dimensions

89071211

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Thermoelectric

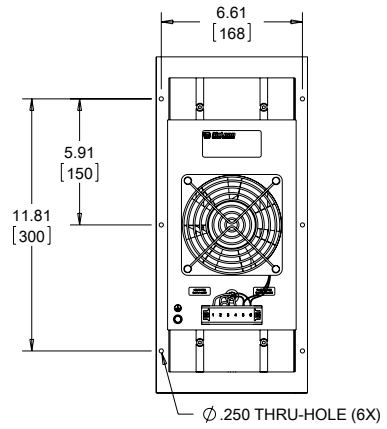
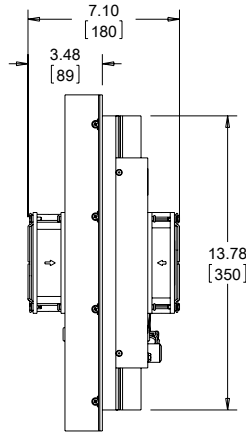
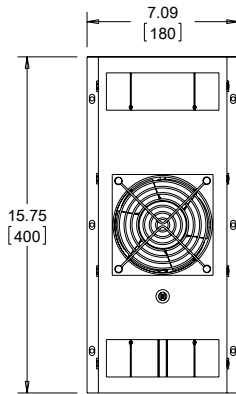
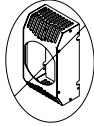
Performance Data **TE16 200W 682 BTU/Hr. (24/48 V)**

Part no	24V w/o shroud	24V w/ painted shroud	24V w/ SS shroud	48V w/o shroud	48V w/ painted shroud
Description	TE162024020	<b>TE162024010</b>	TE162024011	TE162048020	<b>TE162048010</b>
<b>COOLING PERFORMANCE</b>					
<b>BTU/Hr.</b>	<b>567</b>	<b>567</b>	<b>567</b>	<b>567</b>	<b>567</b>
<b>Watts</b>	<b>166</b>	<b>166</b>	<b>166</b>	<b>166</b>	<b>166</b>
Operating Temperature Range:					
Maximum (°C / °F)	55 / 131	55 / 131	55 / 131	55 / 131	55 / 131
Minimum (°C / °F)	-40 / -40	-40 / -40	-40 / -40	-40 / -40	-40 / -40
Air Flow at 0 Static Pressure:					
Internal loop (CFM / M <sup>3</sup> /Hr.)	62 / 105	62 / 105	62 / 105	62 / 105	62 / 105
External loop (CFM / M <sup>3</sup> /Hr.)	86 / 146	86 / 146	86 / 146	86 / 146	86 / 146
Nominal Heating Watts	146	146	146	146	146
<b>ELECTRICAL DATA</b>					
<b>Input DC Voltage</b>					
Nominal (VDC)	<b>24</b>	<b>24</b>	<b>24</b>	<b>48</b>	<b>48</b>
Minimum (VDC)	18	18	18	40	40
Maximum (VDC)	27.6	27.6	27.6	55.2	55.2
Power Consumption 95 F / 95 F (35 C / 35 C)	295	295	295	295	295
Max Current (Amps)	14.3	14.3	14.3	7.4	7.4
Agency Approvals	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST	UL/cUL Recognized CE GOST
Power Input Description	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
<b>ENCLOSURE PROTECTION</b>					
UL Type / IP Rating	Type 12,3R,4,4X / IP 65	Type 12,3R,4 / IP 65	Type 12,3R,4,4X / IP 65	Type 12,3R,4,4X / IP 65	Type 12,3R,4 / IP 65
<b>SOUND LEVEL</b>					
dBA at 1.5 Meters	68	68	68	68	68
<b>UNIT CONSTRUCTION</b>					
Heat Sink Material	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Shroud Material	N/A	Galvanized Steel	Stainless Steel	N/A	Galvanized Steel
Shroud Finish	N/A	Powder Coat RAL 7035 Light Gray Standard	No. 4 Brushed Finish	N/A	Powder Coat RAL 7035 Light Gray Standard
<b>UNIT DIMENSIONS</b>					
Height (in. / mm)	15.75 / 400	15.93 / 405	15.93 / 405	15.75 / 400	15.93 / 405
Width (in. / mm)	7.09 / 180	7.35 / 187	7.35 / 187	7.09 / 180	7.35 / 187
Depth (in. / mm)	7.01 / 178	7.01 / 178	7.01 / 178	7.01 / 178	7.01 / 178
Weight (lb. / kg)	14.8 / 6.7	18.6 / 8.4	18.6 / 8.4	14.8 / 6.7	18.6 / 8.4

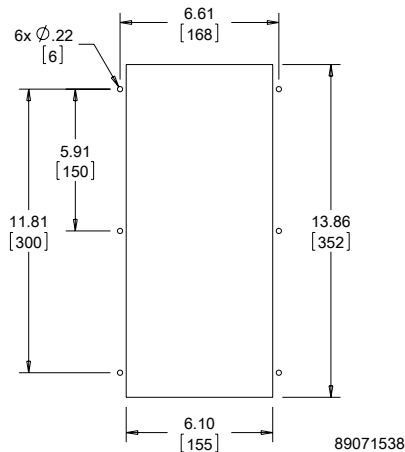
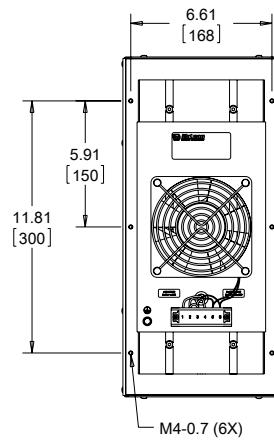
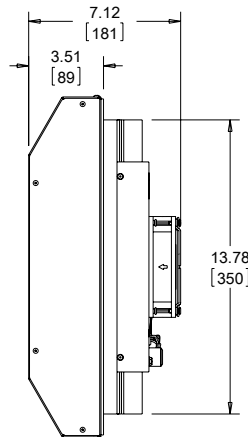
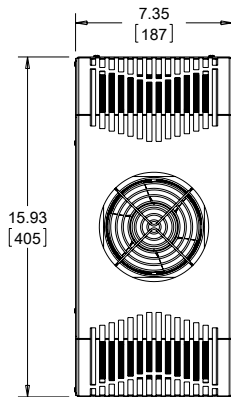
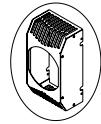
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

Thermoelectric

200 W 24/48 V



200 W 24/48 V

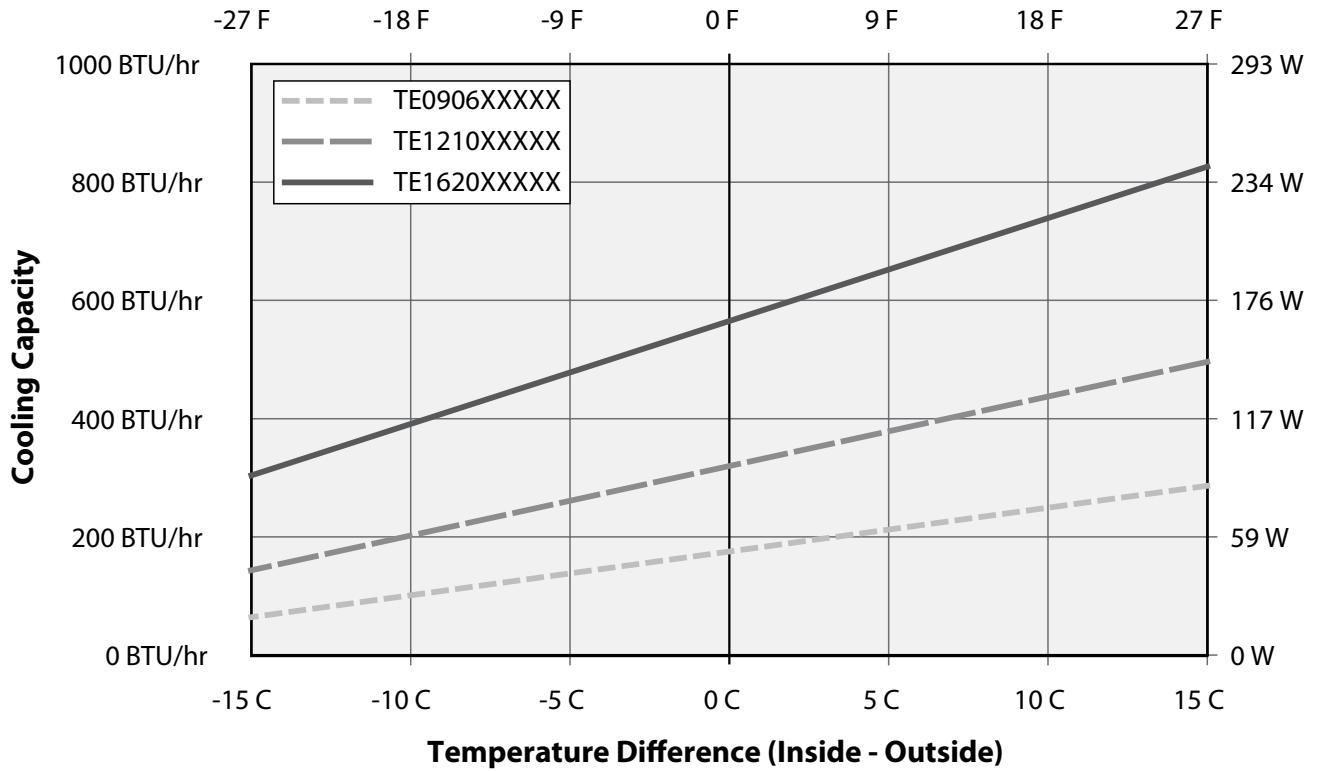


Cutout Dimensions

89071538

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Thermoelectric

**Cooling Capacity versus Temperature Difference  
at 35 C (95 F) Ambient**


Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Thermoelectric

### Thermoelectric Temperature Controller



#### Industry Standards

CSA

#### Features

- Provides PWM regulation of cooling and heating output for Thermoelectric Cooler
- Automatically switches between cooling and heating
- Six cooling temperature set points range from 22.5 C (72.5 F) to 35 C (95 F) (35 C factory setting)
- Seven heating temperature set points range from -15 C (5 F) to 15 C (59 F)(15 C factory setting)
- Heating function can be easily disabled if desired
- LEDs indicate cooling and heating mode, low and high temperature alarms, and overall system status
- Dry contact relay output provides for external alarm indication
- Can be mounted in a convenient dry location near the thermoelectric cooler; mounting hardware included

#### Finish

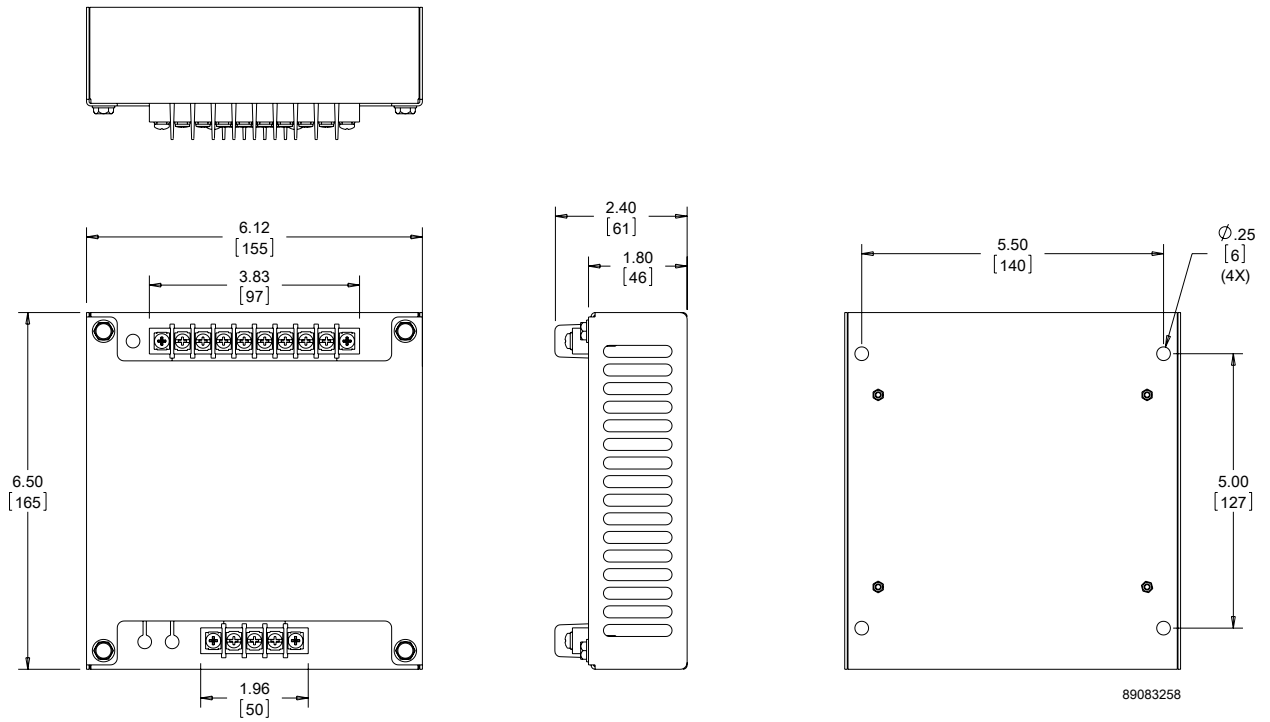
- RAL 7035 light-gray powder-coat painted galvanized steel

#### Performance Data Thermoelectric Temperature Controller

Part no	TEC24VCNTRL	TEC48VCNTRL
Part no		
<b>ELECTRICAL DATA</b>		
Rated Voltage (VDC)	24	48
Operating Range (VDC)	18 to 30	40 to 60
Current @ Rated Voltage (Amps)	17.2	8.6
Power (Watts)		410
Operating Temperature Range		
Maximum (°F/°C)		149/65
Minimum (°F/°C)		-40/-40
<b>UNIT CONSTRUCTION</b>		
Material		Steel
Finish		RAL 7035 light-gray powder-coat paint
<b>UNIT DIMENSIONS</b>		
Height (in/mm)		6.50/165.0
Width (in/mm)		6.12/155.5
Depth - overall (in/mm)		2.50/63.5
Depth - enclosure (in/mm)		1.75/44.5
Weight (lb./kg)		3.0/1.6

### Thermoelectric

#### 24V and 48V TEC Controllers



**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**



## Climate Control - Air Filter Fans

### Air Filtered Fan



#### Specifications

- Airflow capacity of 25 m<sup>3</sup>/h ... 640 m<sup>3</sup>/h (FL 100 ... FL 600)
- Three supply voltages (230 VAC, 115 VAC, 24 VDC)
- Seven performance classes with six different assembly dimensions
- Outlet/inlet filter
- Fluted filter to increase degree of ingress protection from IP 54 to IP 55
- Side-by-side assembly with only one cutout option for all types of filter fans

#### Finish

RAL 7035 light gray

#### Accessories

Air outlet/inlet filter  
Replacement filter IP 54  
Fluted filter IP 55

#### Modification and Customization

- Special colors (RAL 7032)
- Other supply voltages
- EMC solutions
- Custom solutions

#### Industry Standards

Ingress protection from IP 54 to IP 55 in accordance with IEC 60529  
UL, cUL

#### Application

Air filtered fans are ideal for use in industrial environments to protect all electronic and important components and extend the equipment lifecycle. Use a filter fan when the temperature inside the enclosure is higher than the ambient temperature.

#### Features

- Easy tool-less clip-on assembly (material thickness 1.5-3 mm)
- Screw on version also available (material thickness >3 mm)
- Easy conversion from pressure to suction operation
- Filter mat can be changed easily without tools



## Climate Control - Air Filter Fans

### Climate Control



#### How to dimension air filtered fans

To establish the size of the air filtered fan required, calculate the air throughput necessary to dissipate the amount of heat contained in the cabinet.

The necessary airflow volume (at sea level) is calculated thus:

$$V = f \times (PV - PS) / \Delta T$$

where:

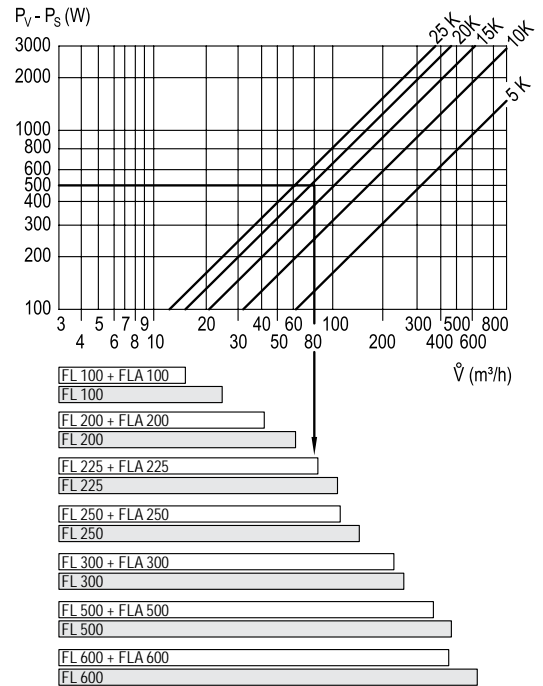
- V** = airflow volume
- f** = air constant = 3.3 m<sup>3</sup> K/Wh
- PV** = thermal power loss (sum of heat losses of the devices in the cabinet)
- PS** = radiant power (heat which is dissipated by the cabinet without additional cooling)
- ΔT** = difference between internal temperature TI and ambient temperature TU, ΔT = TI - TU

#### Reading example

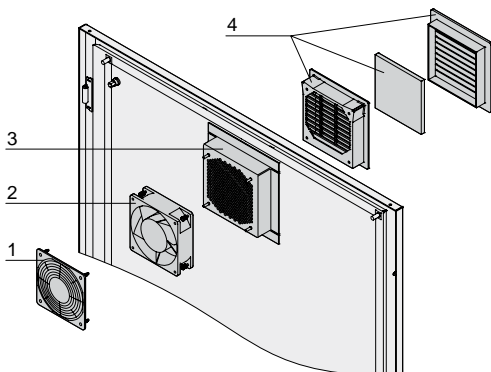
For example, the devices in the cabinet produce a power loss of 840 W. The cabinet releases 340 W to the environment via its surfaces. The air pulled in from outside the cabinet has a temperature of 20 C. The maximum allowed cabinet temperature is 40 C.

Which air filtered fan should be employed?

1. PV = 840 W, PS = 340 W, read-off point PV - PS = 500 W
2. ΔT = Ti - Ta = 40 C - 20 C = 20 C = 20 K
3. On the characteristic for 20 K we obtain, at PV - PS = 500 W, a minimum necessary airflow volume of V = 80 m<sup>3</sup>/h.
4. An FL 250 air filtered fan should be used that gives an airflow volume of 131 m<sup>3</sup>/h or, if used in combination with the FLA 250 exhaust filter, of 95 m<sup>3</sup>/h.



### EMC Solutions



#### Specifications

- EMC shielding in accordance with your requirements
- Customized developments

#### Delivery includes

Item	Qty.	Description
1	1	Protective fan grille
2		Fan
3	1	EMC hood
3	1	FLA outlet/inlet filter

**Schroff®**

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

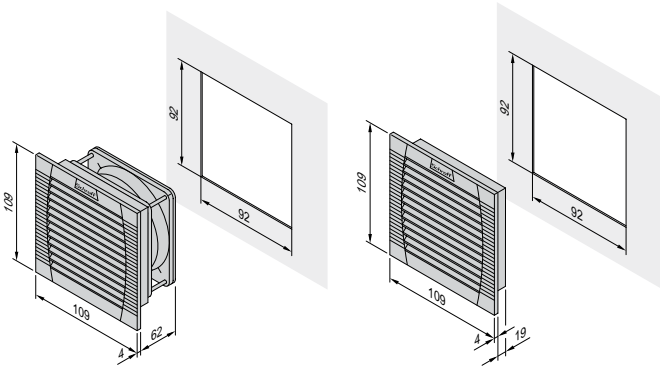
## Climate Control - Air Filter Fans

## Air Filtered Fan FL 100



## Specifications

- Airflow volume 25 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54
- Simple clip-on mounting without tools (can also be bolted on)



Air Filtered Fan FL 100  
 Air outlet/inlet filter FLA 100  
 Metal thicknesses 1 ... 2 mm - cutout 92 x 92 mm.  
 Metal thicknesses > 2 ... 3 mm - cutout 93 x 93 mm

## Delivery includes

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	2 wire connection, length 310 mm

## Standard Product

Part no	Description
60715-142	Air filtered fan 24 VDC
60715-141	Air filtered fan 115 VAC
<b>60715-140</b>	Air filtered fan 230 VAC
<b>60715-156</b>	<b>Air outlet/inlet filter FLA 100</b> (Items 1 + 2 included), 1 piece
<b>60715-182</b>	<b>Replacement filter IP 54</b> for FL 100 and FLA 100, filter class G 3 (EN 779), PU 5 pieces

## Technical Data

Voltage	230 VAC	115 VAC	24 VDC
Frequency	50/60 Hz	50/60 Hz	DC
Free airflow volume with filter	25/29 m <sup>3</sup> /h	25/29 m <sup>3</sup> /h	25 m <sup>3</sup> /h
Noise level to EN ISO 3741	33 dB(A)	33 dB(A)	33 dB(A)
Combination FL + FLA	16/18 m <sup>3</sup> /h	16/18 m <sup>3</sup> /h	16 m <sup>3</sup> /h
Max. static pressure	38 Pa	38 Pa	38 Pa
Operating temperature	-15 ... +55 C	-15 ... +55 C	-15 ... +55 C
Power consumption	12/11 W	11/11 W	2.4 W
Filter efficiency	88 %	88 %	88 %
MTBF at 40 C	40000 h	40000 h	80000 h
Approvals	CE, TÜV, NEMA, UL, GOST		

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number



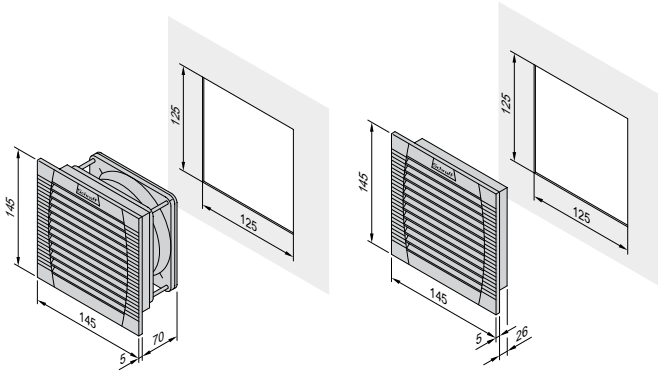
## Climate Control - Air Filter Fans

## Air Filtered Fan FL 200



## Specifications

- Airflow volume 61 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54, with fluted filter IP 55
- Simple clip-on mounting without tools (can also be bolted on)



Air Filtered Fan FL 200  
 Air outlet/inlet filter FLA 200  
 Metal thicknesses 1 ... 2 mm - cutout 125 x 125 mm.  
 Metal thicknesses > 2 ... 3 mm - cutout 126 x 126 mm

## Delivery includes

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection AC (terminal strip); connection DC (2 wires, 310 mm long)

## Standard Product

Part no	Description
60715-145	Air filtered fan 24 VDC
60715-144	Air filtered fan 115 VAC
<b>60715-143</b>	Air filtered fan 230 VAC
<b>60715-157</b>	<b>Air outlet/inlet filter FLA 200</b> (Items 1 + 2 included), 1 piece
<b>60715-183</b>	<b>Replacement filter IP 54</b> for FL 200 and FLA 200, filter class G 3 (EN 779), PU 5 pieces
<b>60715-187</b>	<b>Fluted filter IP 55</b> for FL 200 and FLA 200, filter class G4 (EN 779), PU 5 pieces

## Technical Data

Voltage	230 VAC	115 VAC	24 VDC
Frequency	50/60 Hz	50/60 Hz	DC
Free airflow volume with IP 54 filter	61/70 m <sup>3</sup> /h	61/70 m <sup>3</sup> /h	61 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	56/64 m <sup>3</sup> /h	56/64 m <sup>3</sup> /h	56 m <sup>3</sup> /h
Combination FL + FLA IP 54	44/52 m <sup>3</sup> /h	44/52 m <sup>3</sup> /h	44 m <sup>3</sup> /h
Combination FL + FLA IP 55	40/46 m <sup>3</sup> /h	40/46 m <sup>3</sup> /h	40 m <sup>3</sup> /h
Max. static pressure IP 54	60 Pa	60 Pa	60 Pa
Max. static pressure IP 55	57 Pa	57 Pa	61 Pa
Noise level to EN ISO 3741	44 dB(A)	44 dB(A)	44 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C	-15 ... +55 C
Power consumption	19/18 W	20/20 W	5 W
Filter efficiency IP 54	83 %	83 %	83 %
Filter efficiency IP 55	91 %	91 %	91 %
MTBF at 40 C	40000 h	40000 h	80000 h
Approvals	CE, TÜV, NEMA, UL, GOST		

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

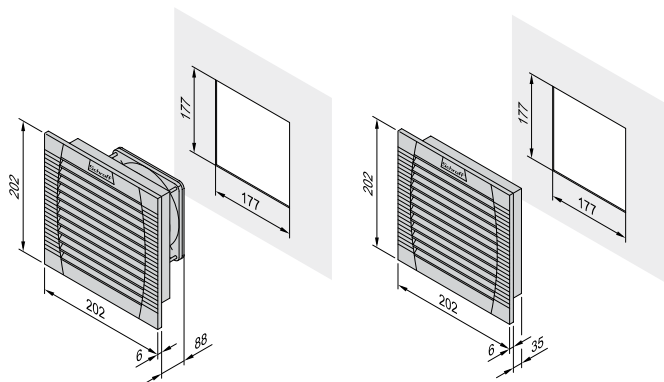
## Climate Control - Air Filter Fans

## Air Filtered Fan FL 225



## Specifications

- Airflow volume 110 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54, with fluted filter IP 55



Air Filtered Fan FL 225  
 Air outlet/inlet filter FLA 225  
 Metal thicknesses 1 ... 2 mm - cutout 177 x 177 mm.  
 Metal thicknesses > 2 ... 3 mm - cutout 178 x 178 mm

## Delivery includes

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection AC terminal block; DC spring terminal strip

## Standard Product

Part no	Description
60715-147	Air filtered fan 115 VAC
60715-146	Air filtered fan 230 VAC
60715-158	<b>Air outlet/inlet filter FLA 225</b> (Items 1 + 2 included), 1 piece
60715-184	<b>Replacement filter IP 54</b> for FL 225 and FLA 225, filter class G 3 (EN 779), PU 5 pieces
60715-188	<b>Fluted filter IP 55</b> for FL 225 and FLA 225, filter class G4 (EN 779), PU 5 pieces

## Technical Data

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	110/125 m <sup>3</sup> /h	110/125 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	100/110 m <sup>3</sup> /h	100/110 m <sup>3</sup> /h
Combination FL + FLA IP 54	82/93 m <sup>3</sup> /h	83/92 m <sup>3</sup> /h
Combination FL + FLA IP 55	55/64 m <sup>3</sup> /h	55/64 m <sup>3</sup> /h
Max. static pressure IP 54	66 Pa	66 Pa
Max. static pressure IP 55	61 Pa	61 Pa
Noise level to EN ISO 3741	40 dB(A)	40 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C
Power consumption	19/18 W	20/20 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 C	40000 h	40000 h
Approvals	CE, TUV, NEMA, UL, GOST	

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number

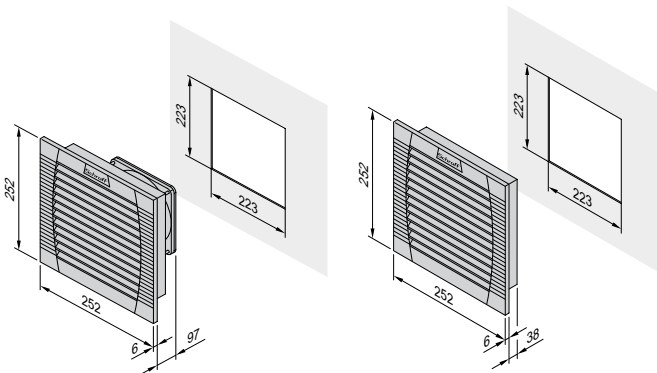


## Climate Control - Air Filter Fans

## Air Filtered Fan FL 250


**Specifications**

- Airflow volume 156 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54; with fluted filter IP 55
- Simple clip-on mounting without tools (can also be bolted on)



Air Filtered Fan FL 250  
 Air outlet/inlet filter FLA 250/300  
 Metal thicknesses 1 ... 2 mm - cutout 223 x 223 mm.  
 Metal thicknesses > 2 ... 3 mm - cutout 224 x 224 mm

**Delivery includes**

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

**Standard Product**

Part no	Description
60715-149	Air filtered fan 115 VAC
60715-148	Air filtered fan 230 VAC
60715-159	<b>Air outlet/inlet filter FLA 250/300</b> (Items 1 + 2 included), 1 piece
60715-185	<b>Replacement filter IP 54</b> for FL 250/300 and FLA 250/300, filter class G 3 (EN 779), PU 5 pieces
60715-189	<b>Fluted filter IP 55</b> for FL 250/300 and FLA 250/300, filter class G4 (EN 779), PU 5 pieces

**Technical Data**

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	156/171 m <sup>3</sup> /h	151/170 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	145/160 m <sup>3</sup> /h	140/160 m <sup>3</sup> /h
Combination FL + FLA IP 54	116/127 m <sup>3</sup> /h	116/127 m <sup>3</sup> /h
Combination FL + FLA IP 55	109/113 m <sup>3</sup> /h	109/113 m <sup>3</sup> /h
Max. static pressure IP 54	52 Pa	52 Pa
Max. static pressure IP 55	49 Pa	49 Pa
Noise level to EN ISO 3741	40 dB(A)	40 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C
Power consumption	18/17 W	18/17 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 C	40000 h	40000 h
Approvals	CE, TÜV, NEMA, UL, GOST	

**Note**

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

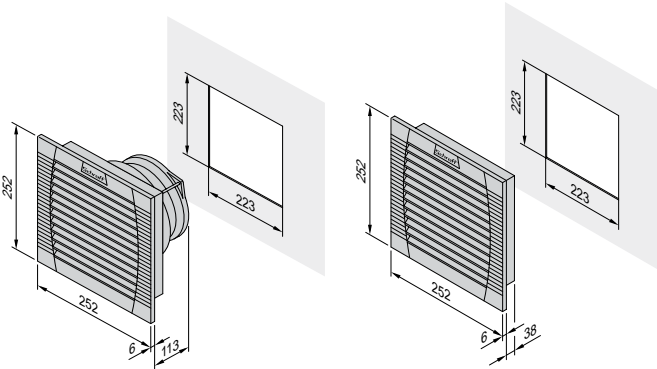
## Climate Control - Air Filter Fans

## Air Filtered Fan FL 300



## Specifications

- Airflow volume 256 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54, with fluted filter IP 55
- Simple clip-on mounting without tools (can also be bolted on)



## Air Filtered Fan FL 350

Air outlet/inlet filter FLA 250/350

Metal thicknesses 1 ... 2 mm - cutout 223 x 223 mm.

Metal thicknesses &gt; 2 ... 3 mm - cutout 224 x 224 mm

## Delivery includes

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

## Standard Product

Part no	Description
60715-151	Air filtered fan 115 VAC
60715-150	Air filtered fan 230 VAC
60715-159	<b>Air outlet/inlet filter FLA 250/300</b> (Items 1 + 2 included), 1 piece
60715-185	<b>Replacement filter IP 54</b> for FL 250/300 and FLA 250/300, filter class G 3 (EN 779), PU 5 pieces
60715-189	<b>Fluted filter IP 55</b> for FL 250/300 and FLA 250/300, filter class G4 (EN 779), PU 5 piece

## Technical Data

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	256/292 m <sup>3</sup> /h	256/292 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	233/265 m <sup>3</sup> /h	233/265 m <sup>3</sup> /h
Combination FL + FLA IP 54	231/265 m <sup>3</sup> /h	231/265 m <sup>3</sup> /h
Combination FL + FLA IP 55	180/207 m <sup>3</sup> /h	180/207 m <sup>3</sup> /h
Max. static pressure IP 54	116 Pa	116 Pa
Max. static pressure IP 55	112 Pa	112 Pa
Noise level to EN ISO 3741	42 dB(A)	42 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C
Power consumption	45/39 W	40/40 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 C	40000 h	40000 h
Approvals	CE, TÜV, NEMA, UL, GOST	

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number



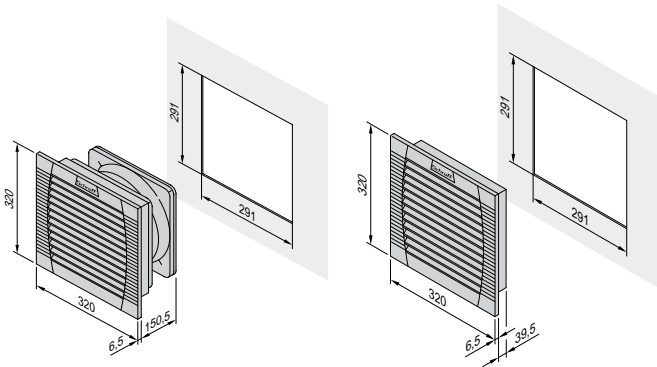
## Climate Control - Air Filter Fans

## Air Filtered Fan FL 500



## Specifications

- Airflow volume 480 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54; with fluted filter IP 55
- Simple clip-on mounting without tools (can also be bolted on)



Air Filtered Fan FL 500/600  
 Air outlet/inlet filter FLA 500/600  
 Metal thicknesses 1 ... 2 mm - cutout 223 x 223 mm.  
 Metal thicknesses > 2 ... 3 mm - cutout 224 x 224 mm

## Delivery includes

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

## Standard Product

Part no	Description
60715-153	Air filtered fan 115 VAC
<b>60715-152</b>	Air filtered fan 230 VAC
<b>60715-160</b>	<b>Air outlet/inlet filter FLA 500/600</b> (Items 1 + 2 included), 1 piece
<b>60715-185</b>	<b>Replacement filter IP 54</b> for FL 500/600 and FLA 500/600, filter class G 3 (EN 779), PU 5 pieces
<b>60715-190</b>	<b>Fluted filter IP 55</b> for FL 500/600 and FLA 500/600, filter class G4 (EN 779), PU 5 pieces

## Technical Data

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	505/505 m <sup>3</sup> /h	505/505 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	480/480 m <sup>3</sup> /h	480/480 m <sup>3</sup> /h
Combination FL + FLA IP 54	380/380 m <sup>3</sup> /h	380/380 m <sup>3</sup> /h
Combination FL + FLA IP 55	370/370 m <sup>3</sup> /h	370/370 m <sup>3</sup> /h
Max. static pressure IP 54	76 Pa	76 Pa
Max. static pressure IP 55	74 Pa	74 Pa
Noise level to EN ISO 3741	54 dB(A)	54 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C
Power consumption	65/80 W	75/90 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 C	40000 h	40000 h
Approvals	CE, TÜV, NEMA, UL, GOST	

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



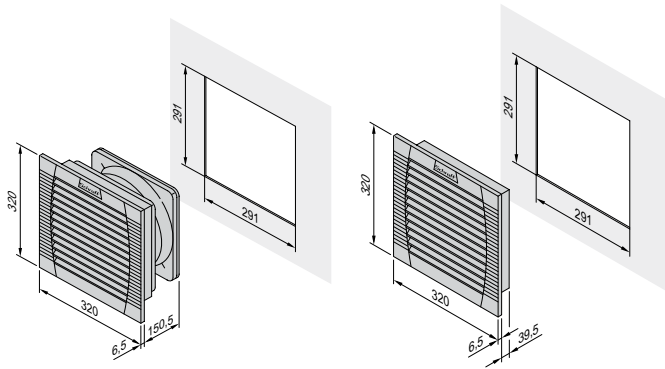
## Climate Control - Air Filter Fans

## Air Filtered Fan FL 600



## Specifications

- Airflow volume 640 m<sup>3</sup>/h
- Easy conversion from pressure to suction operation
- Protection class IP 54, with fluted filter IP 55
- Simple clip-on mounting without tools (can also be bolted on)



Air Filtered Fan FL 600  
 Air outlet/inlet filter FLA 500/600  
 Metal thicknesses 1 ... 2 mm - cutout 223 x 223 mm.  
 Metal thicknesses > 2 ... 3 mm - cutout 224 x 224 mm

## Delivery includes

Item	Qty.	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

## Standard Product

Part no	Description
60715-155	Air filtered fan 115 VAC
<b>60715-154</b>	Air filtered fan 230 VAC
<b>60715-160</b>	Air outlet/inlet filter FLA 500/600 (Items 1 + 2 included), 1 piece
<b>60715-186</b>	Replacement filter IP 54 for FL 500/600 and FLA 500/600, filter class G 3 (EN 779), PU 5 pieces
<b>60715-190</b>	Fluted filter IP 55 for FL 500/600 and FLA 500/600, filter class G4 (EN 779), PU 5 piece

## Technical Data

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	770/785 m <sup>3</sup> /h	770/785 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	640/653 m <sup>3</sup> /h	640/653 m <sup>3</sup> /h
Combination FL + FLA IP 54	490/501 m <sup>3</sup> /h	490/501 m <sup>3</sup> /h
Combination FL + FLA IP 55	445/445 m <sup>3</sup> /h	445/445 m <sup>3</sup> /h
Max. static pressure IP 54	134 Pa	134 Pa
Max. static pressure IP 55	132 Pa	132 Pa
Noise level (while printing, to EN ISO 3741)	63 dB(A)	63 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C
Power consumption	115/150 W	110/160 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 C	40000 h	40000 h
Approvals	CE, TUV, NEMA, UL, GOST	

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number





## Climate Control - Accessories

## Heaters from 30 W to 150 W



Support rail

**Specifications**

- Radiator heater (without fan)
- Simple and fast assembly with clip-on attachment and press-on terminal connection
- Wide input voltage range 110 ... 250 VAC
- Temperature limiting with PTC resistor.

**Delivery includes (completely assembled)**

Item	Qty.	Description
1	1	HHeater element, voltage range 110 ... 250 VAC; resistor (PTC resistance) self-regulating
2	1	Heating body, Al extrusion, anodised Fixing: clip for 35 mm DIN rail EN 50022
3	1	Connection Type 30, with connecting cable (3 x 0.5 mm <sup>2</sup> , 300 mm long, black); Type 45, 100, 150 with press-on terminal connection (for stranded/rigid wire 3 x 0.5 ... 2.5 mm <sup>2</sup> )

**Standard Product**

Part no	Description
<b>60715-020</b>	<b>30 W Heater</b>
<b>60715-021</b>	<b>45 W Heater</b>
<b>60715-023</b>	<b>100 W Heater</b>
<b>60715-030</b>	<b>150 W Heater</b>
<b>20715-001</b>	<b>Support rail, 1 piece DIN rail EN 50022 (35 mm), length 215 mm</b>

**Technical Data**

	30 W	45 W	100 W	150 W
Heater output in W	30	45	100	150
Surface temperature in °C	Approx. 100	Approx. 105	Approx. 130	Approx. 140
Max. switch-on current in A	3.0	3.5	4.0	9.0
Type of protection	IP 54	IP 20	IP 20	IP 20
Class of protection	I	I	I	I
Dimensions h x w x d in mm	65 x 50 x 25	65 x 70 x 25	140 x 70 x 25	220 x 70 x 25
Weight in kg	0.2	0.3	0.5	0.7
Test seal	VDE, CE, UL (File E150057)	CE, UL (File E150057)	CE, UL (File E150057)	CE, UL (File E150057)
Assembly	Clip-on attachment for 35 mm DIN rail (EN 50022)			

**Accessories**

- Thermostat for heating
- Hygrostat


**Schroff®**
**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Climate Control - Accessories

## Heater Fan 475/550 W



Support rail

## Delivery includes

Item	Qty.	Description
1	1	Plastic housing, polycarbonate (RAL 9002, grey white), clip for 35 mm DIN rail EN 50022
2	1	Heater element, 230 VAC, resistor (PTC resistance) self-regulating
3	1	Thermostat
4	1	230 VAC fan

## Standard Product

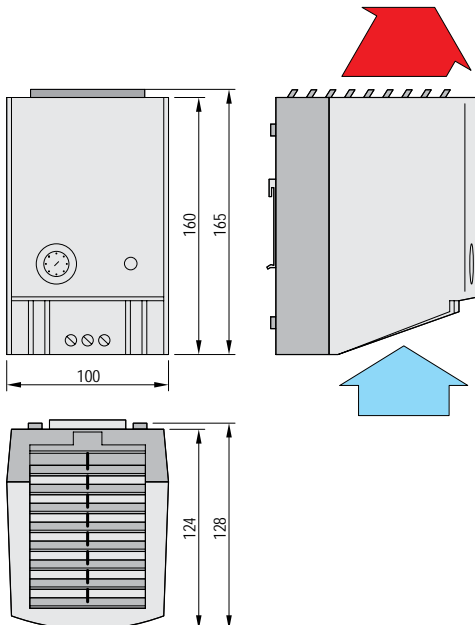
Part no	Description
<b>60715-017</b>	<b>Heater 475 W</b>
<b>60715-018</b>	<b>Heater 550 W</b>
<b>20715-001</b>	<b>Support rail, 1 piece DIN rail EN 50022 (35 mm), length 215 mm</b>

## Dimensions AC fans

Voltage	230 VAC			
	Frequency (Hz)	50	60	50
Heater output (W)	<b>475</b>	550	<b>550</b>	650
Air capacity of axial fan (m <sup>3</sup> /h)	35	39	45	50
Current at switch-on, approx. (A)	11		13	
Weight (kg)	0.9		1.1	
Heater element	Resistor (PTC), self-regulating			
Connection	3-pin connecting terminal, 2.5 mm <sup>2</sup> , separate connection heating/fan			
Thermostat	Adjustment range 0 ... 60 C			
Control lamp of control system	Glow lamp			
Temperature control	In the event of fan failure			
Type of protection	IP 20			
Class of protection	II			
Assembly	Clip-on attachment for 35 mm DIN rail (EN 50022)			
Dimensions: h x w x d (mm)	165 x 100 x 128			

## Specifications

- Heater with fan and thermostat
- Simple and fast assembly with clip-on attachment
- 3-pin terminal clamp, separate heater/fan connection
- Thermostat from 0 ... 60 C
- Temperature limiting with PTC resistor



Schroff®

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

## Climate Control - Accessories

## Heater Fan 400 W, Modular



## Specifications

- Modular system consisting of: heater element, fan, protective grille and connecting cable
- Fan not included in delivery; please order fan with desired air capacity separately
- Simple and fast assembly with clip-on attachment
- Overheating protection through thermal switch

Example of complete heater unit:

1. heater; 2. fan; 3. protective grille; 4. connection cable



Heater element



Support rail

## Delivery includes

Item	Qty.	Description
1	1	Heater element, high-performance cartridge
2	1	Connecting cable fan - heating distributor, length 0.3 m
3	1	GND/earth cable, ring tag - open end, length 0.3 m
4	1	Clip-on attachment for DIN rail with assembly kit

## Standard Product

Part no	Description
<b>60715-028</b>	<b>115 VAC Heater fan 400 W, modular</b>
<b>60715-029</b>	<b>230 VAC Heater fan 400 W, modular</b>
<b>20715-001</b>	<b>Support rail 1 piece</b> DIN rail EN 50022 (35 mm), length 215 mm, 1 piece

## Technical Data

Voltage	115 VAC	230 VAC
Frequency	50 Hz	60 Hz
Current at switch-on	3.5 A	1.8 A
Air capacity of fan	Please choose desired fan	
Surface temperature with fan	Approximately 140 C	
Type of protection	IP 20	
Class of protection	I, with GND, earthing	
Assembly	Clip for 35 mm DIN rail (EN 50022)	
Dimensions: height x width x depth in mm	22 x 120 x 160	

## Note

- *Mounting for wall thicknesses from 1 to 3 mm*
- *Multiple-fan solution on request*
- *For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number*

## Attention:

**Danger of overheating; use heater only in connection with fan**

## Accessories

- Fan
- Thermostat for heating
- Hygrostat


**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**

## Climate Control - Accessories

## AC Fan for Heating 400 W



## Delivery includes

Item	Qty.	Description
1	1	Fan (width 119 mm, depth 119, mm)

## Standard Product

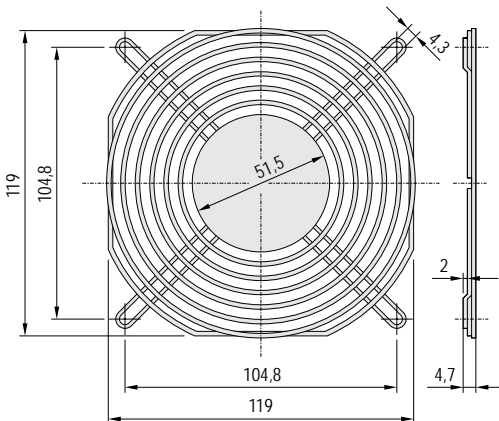
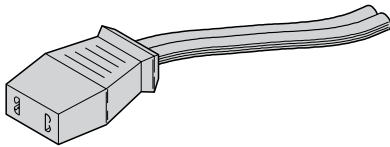
Part no	Description	Type	Height mm	Airflow Volume m <sup>3</sup> /h
<b>20713-146</b>	115 VAC	A	25	84
<b>20713-142</b>	230 VAC	A	25	84
<b>20713-147</b>	115 VAC	B	25	108
<b>20700-001</b>	230 VAC	B	25	108
<b>20713-244</b>	115 VAC	C	38	162
<b>20713-243</b>	230 VAC	C	38	162
<b>21101-246</b>	PVC (2 x 0.75 mm <sup>2</sup> ), 1 m long with 2 Faston connectors			
<b>60197-019</b>	2.8 x 0.5 mm to DIN 46343 T1, 1 piece			
	Protective grille, metal, screw-on			

## Technical Data

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	770/785 m <sup>3</sup> /h	770/785 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	640/653 m <sup>3</sup> /h	640/653 m <sup>3</sup> /h
Combination FL + FLA IP 54	490/501 m <sup>3</sup> /h	490/501 m <sup>3</sup> /h
Combination FL + FLA IP 55	445/445 m <sup>3</sup> /h	445/445 m <sup>3</sup> /h
Max. static pressure IP 54	134 Pa	134 Pa
Max. static pressure IP 55	132 Pa	132 Pa
Noise level (while printing, to EN ISO 3741, 50 Hz)	63 dB(A)	63 dB(A)
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C
Power consumption	115/150 W	110/160 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 °C	40000 h	40000 h
Approvals	CE, TUV, NEMA, UL, GOST	

## Specifications

The fan is screwed below the heater and the cable is connected to the heater (please order connecting cable and protective grille separately)



## Note

Please order connection cable and protective grille separately

## Dimensions AC fans

Type	Type A		Type B		Type C	
Frequency (Hz)	50	60	50	60	50	60
Airflow volume (m <sup>3</sup> /h)	84	90	108	120	162	192
Noise level per fan (dB(A))	29	30	34	38	37	41
Max. static pressure (Pa)	23	21	41	41	73	88
Max. ambient temperature (°C)	70	70	70	70	70	70
Power consumption (W)	8	7	14	11	15	14
Dimensions: height (mm) (width 119 mm x depth 119 mm)	25		25		38	

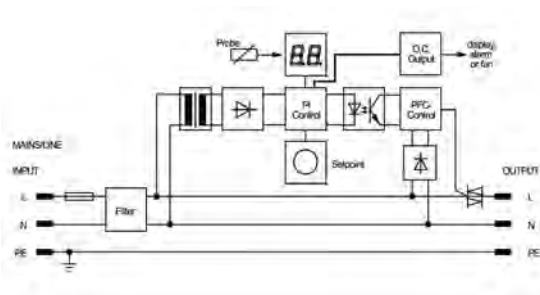
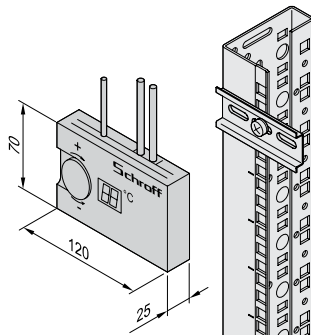
## Climate Control - Accessories

## Speed Control for Fans with C13 Plug



## Specifications

- Suitable for all AC fans and fan units (up to 300 W) with IEC 60320 C13 plug (plug & play)
- Simple to mount on the support rail provided
- Simple adjustment of switch-on temperature (with knob and digital display)
- External sensors can be fitted at a desired measurement point
- Open-collector output (parametrisable)
  - Alarm output (active/passive)
  - DC fans (PWM output)
  - Remote display (via optional digital display with front panel)



## Delivery includes

Item	Qty.	Description
1	1	Speed controller; input/output voltages 115 ... 240 V AC, see Technical Data
2	1	Temperature sensor, cable length 1.5 m
3	1	Fan cable, 2 m, with IEC 60320 socket
4	1	Mains cable, 3 m, with connecting plug
5	1	Support rail, St, zinc-plated (EN 50022)
6	1	Assembly kit

## Standard Product

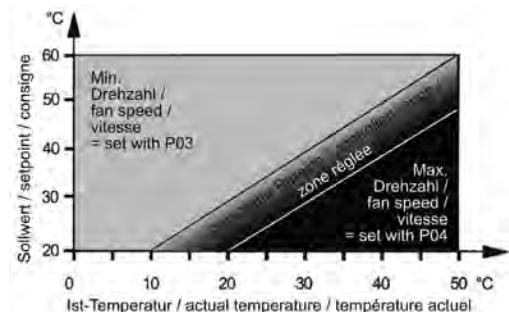
Part no	Speed control for fans with C13 plug
<b>60715-005</b>	Mains cable, SCHUKO/UTE plug
<b>60715-006</b>	Mains cable IEC 60320 C13 plug
<b>60715-007</b>	Connecting cable for DC fans or alarm output; Length 2 m, 2-wire (0.34 mm <sup>2</sup> ), 1 piece

## Technical Data

Voltage	230 VAC	115 VAC
Frequency	50/60 Hz	50/60 Hz
Free airflow volume with IP 54 filter	770/785 m <sup>3</sup> /h	770/785 m <sup>3</sup> /h
Free airflow volume with IP 55 filter	640/653 m <sup>3</sup> /h	640/653 m <sup>3</sup> /h
Combination FL + FLA IP 54	490/501 m <sup>3</sup> /h	490/501 m <sup>3</sup> /h
Combination FL + FLA IP 55	445/445 m <sup>3</sup> /h	445/445 m <sup>3</sup> /h
Max. static pressure IP 54	134 Pa	134 Pa
Max. static pressure IP 55	132 Pa	132 Pa
Noise level (while printing, to EN ISO 3741, 50 Hz)	63 dB(A)	63 dB(A)
Max. ambient temperature	-15 ... +55 C	-15 ... +55 C
Power consumption	115/150 W	110/160 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %
MTBF at 40 C	40000 h	40000 h
Approvals	CE, TÜV, NEMA, UL, GOST	

## Note

- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number



## Accessories

Thermostat with digital display

Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.

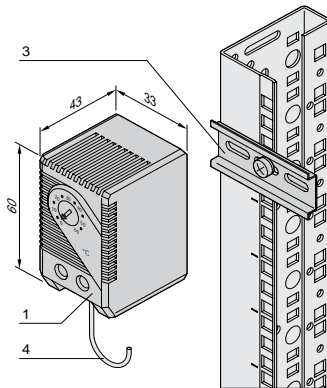
## Climate Control - Accessories

## Thermostat with Integrated Temperature Sensor



## Specifications

- For switching fans or heaters
- Adjustment range 5 ... 60 °C
- Individual adaptation with three separate components: thermostat (for cooling or heating), assembly material, connecting cable (IEC connector or ferrules)
- 2 versions
  - for heating
  - for cooling



## Delivery includes

Item	Qty.	Description
1	1	Thermostat, width 33 mm, height 60 mm, depth 43 mm; clip-on attachment for 35 mm DIN rail EN 50022, switched voltage 120 ... 250 VAC
2	1	User manual

## Standard Product

Part no	Description
<b>60715-136</b>	Cooling
<b>60715-137</b>	Heating
<b>Accessories</b>	
<b>21120-178</b>	Item 3 DIN rail (EN 50022) 35 mm; length 75 mm; with fixing materials kit, PU 1 set
<b>62150-201</b>	Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; Connection on fan IEC socket; 1 piece
<b>62150-264</b>	Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan/heater 3-pin, ferrules, 1 piece

## Dimensions

Thermostat	for cooling, blue control button	for heating, red control button
Adjustment range	0 ... 60 °C	
Switching temperature difference	7 K (± 4 K tolerance)	
Sensing element	Thermobimetal (snap-action contact)	
Contact resistance	<10 mΩ	
Lifespan	>100000 cycles	
Max. switch performance	10 A at 250 VAC, 15 A at 120 VAC; 30 W at DC voltage	
Connection	2-pin clamp, up to 2.5 mm <sup>2</sup> , torque max. 0.5 Nm	
Case	Plastic, in accordance with UL 94 V-0, light gray	
Dimensions: h x w x d (mm)	60 x 33 x 43	
Assembly	Clip for 35 mm DIN rail, EN 50022	
Weight	40 g	
Operating/storage temperature	-20 ... +80 °C / -45 ... +80 °C	
Protection class	IP 20	



## Climate Control - Accessories

## Thermostat with External Temperature Sensor



## Delivery includes

Item	Qty.	Description
1	1	Thermostat with external temperature sensor, sensor length approx. 1.7 m
2	1	Mounting plate for cabinet assembly, Al, 2.5 mm
3	1	Assembly kit

## Standard Product

Part no	Description
<b>20715-003</b>	Thermostat with external temperature sensor

## Technical Data

Dimension h x w x d (mm)	93 x 68 x 44
Adjustment range	20 ... 60 C
Switching difference	3 ... 10 K
Mains/line voltage	90 ... 260 VAC
Contact load (ohmic load/inductiveload)	24 A/10 A
Contacts	Change-over, single pin
Assembly	Screw-fixed



## Specifications

- To connect heaters or fans
- External sensor can be positioned near the critical subassembly
- Adjustment range 20 ... 60 C, switch difference 3 ... 10 K

## Thermostat with Digital Display



## Standard Product

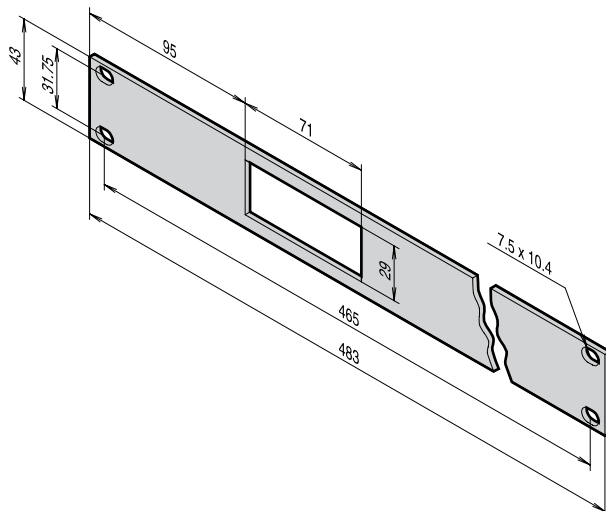
Part no	Description
<b>60715-132</b>	Thermostat with digital display, 230 VAC
<b>60715-133</b>	Thermostat with digital display, 115 VAC
<b>30118-315</b>	Front panel 1 U, RAL 7035 with cut-out for thermostat
<b>30118-267</b>	<b>Front panel 1 U, anodised</b> with cut-out for the thermostat
<b>30118-360</b>	<b>Front panel 1 U, RAL 7021</b> with cut-out for thermostat

## Technical Data

Operating voltage	115 VAC or 230 VAC
Power consumption	Approx. 3.5 kg
Dimensions: h x w x d (mm)	35 x 76 x 59
Assembly cutout (mm)	28.8 x 70.5
Adjustment range	-50 ... +100 C
Switch difference	0 ... 10 K selectable
Data safeguarding at power failure	Non-volatile memory
Contact load (ohmic load/inductive load)	8 A/3 A
Input/sensor	PTC resistance, -55 ... +120 C, cable length 3 m
Contacts	Relay, changeover contact, single pin
Protection class to front	IP 54
Connection	Screw-on terminals, 2.5 mm <sup>2</sup>
Fixing	With clamping bracket
Type of assembly	Can be screwed on

## Specifications

- Adjustment range from -50 to +100 C (switch difference 0 ... 10 C)
- Display switchable from °C to °F
- Programmable (secured against unauthorised operation)
- 3-character red segment display



Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.



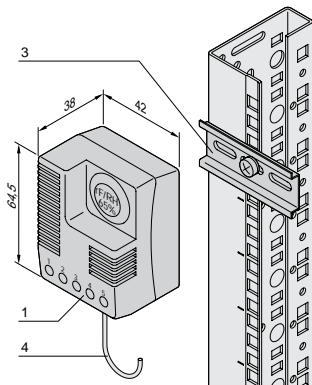
## Climate Control - Accessories

## Hygrostat



## Specifications

- Switches fans or heaters when relative air humidity is exceeded or falls short of 65%
- Visual display when relative air humidity exceeds 65%
- Individual adaptation with three separate components: hygrostat, assembly material, connecting cable (input with SCHUKO connector; output with IEC connector or ferrules)
- 2 supply voltages
  - 115VAC
  - 230VAC



## Delivery includes

Item	Qty.	Description
1	1	Hygrostat, width 42 mm, height 64.5 mm, depth 38 mm; clip-on attachment for 35 mm DIN rail EN 50022
2	1	User manual

## Standard Product

Part no	Description
<b>60715-138</b>	Hygrostat 230 VAC
<b>60715-139</b>	Hygrostat 115 VAC
<b>21120-178</b>	<b>Item 3</b> DIN rail (EN 50022) 35 mm; length 75 mm; with fixing materials kit, PU 1 set
<b>62150-201</b>	<b>Item 4</b> Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; Connection on fan IEC socket; 1 piece
<b>62150-264</b>	<b>Item 4</b> Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan/heater 3-pin, ferrules, 1 piece

## Technical Data

Supply Voltage	115 VAC, 230 VAC
Default setting	60% relative air humidity
Switch difference	5% air humidity ( $\pm 1\%$ air humidity tolerance at 25 °C)
Switch contact	Changeover contact (relay)
Lifespan	> 100000 cycles
Max. switch performance	8 A
Mains connection	2-pin clamp, up to 2.5 mm <sup>2</sup> , torque max. 0.5 Nm
Output change-over relays	2-pin clamp, up to 2.5 mm <sup>2</sup> , torque max. 0.5 Nm
Case	Plastic, in accordance with UL 94 V-0, light grey
Dimensions	Height 64.5 mm, width 42 mm, depth 38 mm
Assembly	Clip for 35 mm DIN rail, EN 50022
Weight	65 g
Operating/storage temperature	0 ... +60 °C/-20 ... +70 °C
Max. storage humidity	90 % air humidity
Type of protection	IP 20

## Note

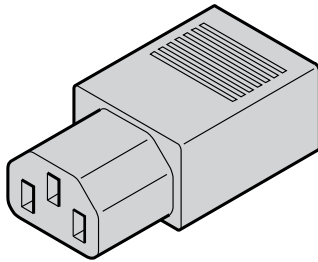
- Mounting for wall thicknesses from 1 to 3 mm
- Multiple-fan solution on request
- For dimensions, cut-outs and tolerances, see user manual; please go to [www.schroff.biz/oneclick](http://www.schroff.biz/oneclick) and enter part number





**Climate Control - Accessories**

**IEC Input Plug**



**Delivery includes**

Standard Product

Part no	Description
60715-046	IEC input plug

**Specifications**

- For connection of fans
- Bolted housing made of heat-resistant plastic (UL 94 V-0)
- 10 A/250 VAC
- Protection Class I

**Schroff®**

**Part number in bold-face type: Stocked item, ready for dispatch within 2 working days.**





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