

Austin Hughes - Leading Edge Solutions

Americas 2023 Q3



Rack Solutions

- Power
- Security
- Airflow
- Sensor
- Screen
- KVM

IT Solutions

- Web Power Reboot
- Professional LCD

AUSTIN[®]
HUGHES

Leading Edge Solutions

Design. Manufacturing. Global Services.

Founded in 1995, Austin Hughes is a design and manufacturing group that offers a broad range of solutions based around 19 inch rack mount and IT technologies. Providing world class expertise, quality products and unrivalled service to our clients globally.

We support a worldwide customer base through global locations in the Americas, EMEA, APAC and ASEAN which is complimented by an extensive authorized channel partner network in all regions. Our experienced teams are committed to providing a truly harmonised support structure. Our expertly trained sales and technical teams fully cater for customer specific requirements on all our solutions with exemplary pre and post sale services.

At Austin Hughes we are committed to sustainable manufacturing and continually assessing our processes to reduce our energy consumption and the use of hazardous materials across our global facilities. We provide rack mount solutions that help manage power capacity, reduce downtime and energy costs and improve energy efficiency for our clients, enabling them to make informed capacity planning decisions and improve operational efficiency. Our solutions are Reach, RoHS and PFOC compliant, and are manufactured in accordance with the strictest BSI ISO 14001 quality achievement.



InfraPower®

Rack Power Management

- >> Intelligent, Metered & Basic PDUs
- >> Intelligent & Metered ATS
- >> In-Line Meter
- >> Lockable IEC Outlets & Color Power Cords

InfraCool®

Rack Airflow Control

- >> Door Mount Fan Panel, Intelligent or Basic
- >> 1U Rack Mount Fan Tray, Intelligent or Basic
- >> Raised Floor Mount Fan Panel, Intelligent or Basic



InfraGuard

Rack Sensor System

- >> Temperature + Humidity
- >> Temperature
- >> Smoke
- >> Shock
- >> Water Leakage
- >> Door Open/ Close
- >> Alarm Beacon
- >> LED Light Bar

InfraSolution®

Rack Access Control

- >> S700 Standalone SmartCard & NumPad Access
- >> S800 Standalone SmartCard Access
- >> X800 Networked SmartCard Access



CyberView™

Rack KVM & Screen

- >> KVM Switch
- >> LCD Console Drawer
- >> LCD Display Panel & Drawer
- >> Multiple LCD Display Drawer

UltraView

Professional LCD

- >> 4K - 55", 43", 32", 28", 23", 17", 15" & 13"
- >> FHD - 55", 43", 32", 28", 23", 21", 19", 17", 15" & 13"
- >> WUXGA - 24" & 16.2"
- >> Regular - 20", W19", 19", 17", 15", 12" & 10"



MiniBoot

Web Power Reboot

- >> C13 - Single / Dual Power Input
- >> NEMA - Single / Dual Power Input
- >> UK BS1363 - Single Power Input
- >> German Schuko - Single Power Input
- >> French - Single Power Input

Austin Hughes produces affordable, quality InfraPower PDU while providing you with superior service. Whether it is enhancing customer care or implementing new technologies, Austin Hughes promotes innovation, quality and satisfaction in all aspects of business.

| PDU series | Basic | Metered | | Monitored | | Switched | |
|--|-------|---------|----|-----------|----|----------|-----|
| | | MD | MK | W | Wi | WS | WSi |
| 1-Phase : 230V / 208V / 110V | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3-Phase : 400V / 208V | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Outlet Level Measurement Over IP | | | | | ✓ | | ✓ |
| Outlet ON / OFF Switching Over IP | | | | | | ✓ | ✓ |
| Latching Relay | | | | | | ✓ | ✓ |
| Field Replaceable DC Module | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Amp & kWh Measurement | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hot-Swappable Meter | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Billing Grade Meter Accuracy Within +/- 1% | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1.8" Color LCD Meter | | | ✓ | | | | |
| 2.8" Color Touch LCD Meter | | | | ✓ | ✓ | ✓ | ✓ |
| 32 Daisy Chained PDUs Supported on 1 IP | | | | ✓ | ✓ | ✓ | ✓ |
| Free Management Software | | | | ✓ | ✓ | ✓ | ✓ |
| DCIM Support : SNMP V2/V3 & REST API | | | | ✓ | ✓ | ✓ | ✓ |
| Phase Balance % for 3-Phase PDUs | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3-digit RMS Current Meter | | ✓ | | | | | |
| Ammeter Accuracy ± (3% of the reading + 5 last digits) | | ✓ | | | | | |
| Resettable Fuse / Hydraulic MCB | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Options : ELCR / Surge Protector / EMI Filter | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| RCM (Residual Current Monitoring Module) | | | | ✓ | ✓ | ✓ | ✓ |
| Temp., Humidity, Smoke & Door Sensors | | | | ✓ | ✓ | ✓ | ✓ |
| Door Mount PDU Panel w/ 4.3" Color LCD | | | | ✓ | ✓ | ✓ | ✓ |
| WiFi Kit (Supports Max. 32 Daisy Chained PDUs) | | | | ✓ | ✓ | ✓ | ✓ |
| Tool-less Mounting for Vertical PDU | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 0U / 1U / 2U Form Factors | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Operating Temperature -5 to 60°C | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Outlet : US NEMA / C13 / C19 / UK / SCH / FR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Lockable IEC | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fused IEC | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Dual Feed PDU model | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Custom PDUs on Request | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |



1 Phase

230V 16A / 20A / 32A

| Outlet | | | PDU Chassis | |
|--------|-----|-----|-------------|-----------|
| UK | C13 | C19 | Vertical | Rackmount |
| 24 | | | ✓ | |
| 20 | | | ✓ | |
| 16 | | | ✓ | |
| 12 | | | ✓ | |
| 10 | | | ✓ | |
| 8 | | | ✓ | ✓ |
| 7 | | | ✓ | ✓ |
| 6 | | | ✓ | ✓ |
| 8 | 16 | 4 | ✓ | |
| 8 | 8 | 4 | | ✓ |
| 8 | 8 | 2 | | ✓ |
| 8 | 6 | 4 | | ✓ |
| 4 | 20 | 4 | ✓ | |
| 4 | 20 | 4 | ✓ | |
| 4 | 16 | 4 | ✓ | |
| 4 | 12 | 4 | ✓ | |
| 4 | 8 | 4 | ✓ | |

| Outlet | | | PDU Chassis | |
|----------|-----|-----|-------------|-----------|
| SCH / FR | C13 | C19 | Vertical | Rackmount |
| 20 | | | ✓ | |
| 16 | | | ✓ | |
| 12 | | | ✓ | |
| 8 | | | ✓ | ✓ |
| 7 | | | | ✓ |
| 6 | | | | ✓ |
| 4 | 20 | 6 | ✓ | |
| 4 | 20 | 4 | ✓ | |
| 4 | 16 | 4 | ✓ | |
| 4 | 12 | 4 | ✓ | |
| 4 | 8 | 4 | ✓ | |
| 8 | 8 | 4 | | ✓ |
| 8 | 8 | 2 | | ✓ |
| 8 | 6 | 4 | | ✓ |

230V 16A / 20A / 32A 208V 20A / 30A

| Outlet | | PDU Chassis | |
|--------|-----|-------------|-----------|
| C13 | C19 | Vertical | Rackmount |
| 36 | 6 | ✓ | |
| 30 | 6 | ✓ | |
| 28 | 6 | ✓ | |
| 28 | 4 | ✓ | |
| 24 | 6 | ✓ | |
| 24 | 4 | ✓ | |
| 21 | 3 | ✓ | |
| 20 | 6 | ✓ | |
| 20 | 4 | ✓ | ✓ |
| 20 | 2 | ✓ | |
| 16 | 4 | ✓ | ✓ |
| 16 | 2 | ✓ | |
| 12 | 12 | ✓ | |
| 12 | 4 | ✓ | ✓ |
| 12 | 2 | ✓ | |
| 8 | 4 | ✓ | |
| 8 | 2 | ✓ | ✓ |
| 6 | 2 | | ✓ |
| 4 | 4 | | ✓ |
| 36 | | ✓ | |
| 32 | | ✓ | |
| 28 | | ✓ | |
| 24 | | ✓ | ✓ |
| 20 | | ✓ | ✓ |
| 16 | | ✓ | ✓ |
| 12 | | ✓ | ✓ |
| 10 | | ✓ | ✓ |
| 8 | | ✓ | ✓ |
| 6 | | | ✓ |
| 4 | | | ✓ |
| | 12 | | ✓ |
| | 10 | | ✓ |
| | 8 | | ✓ |
| | 6 | | ✓ |
| | 4 | | ✓ |

110V 15A / 20A / 30A

| Outlet | PDU Chassis | |
|---------|-------------|-----------|
| US NEMA | Vertical | Rackmount |
| 36 | ✓ | |
| 32 | ✓ | |
| 28 | ✓ | |
| 24 | ✓ | ✓ |
| 20 | ✓ | ✓ |
| 16 | ✓ | ✓ |
| 12 | ✓ | ✓ |
| 10 | ✓ | ✓ |
| 8 | ✓ | ✓ |

Inlet & Cordset

| Inlet (1-PH 230V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | mm² | length |
| 60309 | 32A | 4 | 3 M |
| Open end | 20A | 2.5 | 3 M |
| 60309 | 16A | 1.5 | 3 M |
| C20 | | | |
| Schuko | 13A | 1.5 | 3 M |
| BS1363 UK | | | |
| C14 | | | |
| | 10A | 1.5 | 3 M |

| Inlet (1-PH 208V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | AWG | length |
| L6-30P | 30A | 10 | 10 FT |
| L6-20P | 20A | 12 | 10 FT |

| Inlet (1-PH 110V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | AWG | length |
| L5-30P | 30A | 10 | 10 FT |
| 5-30P | | | |
| L5-20P | 20A | 12 | 10 FT |
| 5-20P | | | |
| 5-15P | 15A | 14 | 10 FT |

| Inlet (3-PH 400V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | mm² | length |
| 60309 | 63A | 10 | 2 M |
| 60309 | 32A | 4 | 2 M |
| 60309 | 16A | 1.5 | 2 M |

| Inlet (3-PH 208V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | AWG | length |
| 60309 | 60A | 6 | 6.6 FT |
| CS8365C | 50A | 6 | 6.6 FT |
| L15-30P | 30A | 10 | 6.6 FT |
| L21-30P | | | |
| L15-20P | 20A | 12 | 6.6 FT |
| L21-20P | | | |



cUL & TUV available for selective configurations

3 Phase

400V 16A / 32A

| Outlet | PDU Chassis | |
|--------|-------------|-----------|
| UK | Vertical | Rackmount |
| 24 | ✓ | |
| 21 | ✓ | |
| 18 | ✓ | |

| Outlet | PDU Chassis | |
|----------|-------------|-----------|
| SCH / FR | Vertical | Rackmount |
| 24 | ✓ | |
| 21 | ✓ | |
| 18 | ✓ | |

400V 16A / 32A / 63A

208V 20A / 30A / 50A / 60A

| Outlet | | PDU Chassis | |
|--------|-----|-------------|-----------|
| C13 | C19 | Vertical | Rackmount |
| 36 | 12 | ✓ | |
| 36 | 6 | ✓ | |
| 30 | 12 | ✓ | |
| 30 | 6 | ✓ | |
| 24 | 12 | ✓ | |
| 24 | 6 | ✓ | |
| 21 | 3 | ✓ | |
| 18 | 6 | ✓ | ✓ |
| 12 | 12 | ✓ | |
| 12 | 6 | ✓ | ✓ |
| 6 | 3 | | ✓ |
| 48 | | ✓ | |
| 42 | | ✓ | |
| 36 | | ✓ | |
| 30 | | ✓ | |
| 24 | | ✓ | ✓ |
| 18 | | ✓ | ✓ |
| 12 | | ✓ | ✓ |
| | 24 | ✓ | |
| | 18 | ✓ | |
| | 12 | ✓ | ✓ |
| | 9 | | ✓ |
| | 6 | | ✓ |

* Rackmount PDU chassis available for 400V 16A/32A & 208V 20A/30A standard configurations

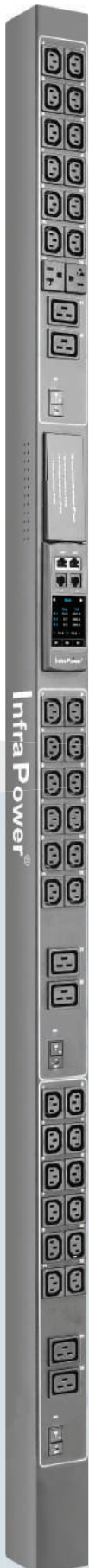


PDU drawings available for download : www.austin-hughes.com/resources/rack-pdu-selector



Custom configurations available on request

InfraPower intelligent PDUs are supplied with a sophisticated meter with 2.8" color LCD display and touchscreen functionality. The iMeter provides not only local metering, but also daisy chain connection ports to connect up to 32 PDUs and 2 optional external sensors.



iMeter

Cascade port

Up to 32 PDU Levels

Sensor port x 2

- Door Mounted PDU Panel
- Temperature & Humidity Sensor
- Temperature Sensor
- Smoke Sensor
- Door Sensor

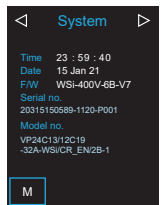
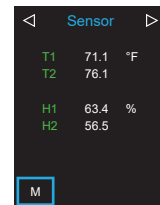
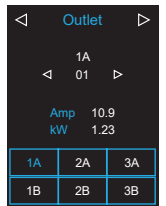
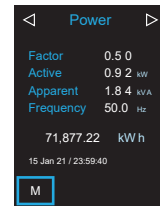
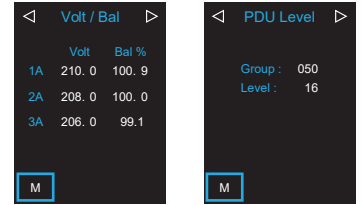
2.8" color LCD

with Touchscreen

Reset button

To re-power the meter if necessary but won't cause any change on settings and memories

Meter Reading & Setting



Billing Grade Meter Accuracy Within +/- 1%

The sharp and highly visible display of color LCD provides local data of:

- Energy Consumption (kWh)
- Power (KW)
- Power Factor
- Current (Amp)
- Voltage (V)
- Temperature & Humidity

The power data has a billing grade meter accuracy to within +/- 1%.

Outlet level measurement available for WSi & Wi models.

Phase balance % available for 3-Phase models.

± 1%

Field Replaceable Meter

A field replaceable RMS meter with 2.8" color LCD display with touchscreen functionality. The hot swappable design helps eliminate maintenance downtime by simply replacing a possible defective meter without a service interruption.

Field Replaceable DC Module

Given the mission critical nature of the environment the intelligent rack PDU is designed, built and manufactured to provide extremely high levels of resiliency. In addition to the hot swappable digital local touchscreen display, field replaceable DC power modules are used within the intelligent PDU models to avoid unnecessary downtime.



With any rack mount device or in-cabinet PDU, one of the largest challenges is to integrate the device into the data center environment without building up additional connectivity, cable run, patch panel, or network related costs.

Patented PDU IP Dongle provides IP remote access to the PDUs by a true network IP address chain. Only one PDU IP Dongle allows access to all PDUs in a single daisy chain – which is a highly efficient application for saving not only the IP remote accessories cost, but also the true IP addresses required on the PDU management.

Hot-Pluggable design facilitates the IP Dongle installation. Simply integrate the PDU IP Dongle to the first PDU, then the entire daisy chain group can be remote over IP. Two RJ-45 connection ports are provided by an IP Dongle. Up to 32 PDU can be cascaded, subject to the dongle model.

The new stylish Dual Lan PDU IP Dongle provides standard 10/100 & Gigabit Ethernet ports. The PDUs in daisy chain can be accessed via two separate networks and hence the PDU connection can be secured by dual LAN network.

For enterprise software management, Dual LAN PDU IP Dongle supports DCIM integration via **SNMP V2 / V3** or **REST API**.

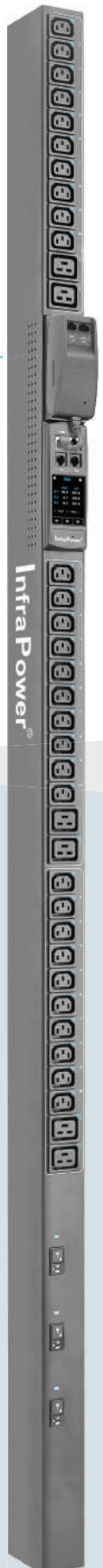


IPD-H03-S
Dual LAN IP Dongle - Horizontal
- For 1U iPDU
- Up to 32 levels in daisy chain

US & Worldwide Patents



IPD-03-S
Dual LAN IP Dongle - Vertical
- For 0U / 2U iPDU
- Up to 32 levels in daisy chain



Dual LAN Network Failure

- ▶ Auto-negotiable 2 x Gigabit Ethernet port
- ▶ Ensuring 100% iPDU uptime reporting



Connectivity

- ▶ Access your iPDU on two independent networks or VLANs
- ▶ Auto-negotiable 10/100 BaseT Ethernet & 1000 BaseT Gigabit Ethernet ports
- ▶ Redundant network access to connected iPDUs via IP



USB WIFI Port

- ▶ Optionally connect via a Wifi kit (IPD-WIFI) complying with 802.11 g/n/ac



Remote Management

- ▶ Significantly reduce the number of Ethernet ports used in deployment by cascading a single network connection across multiple iPDUs (up to 32).
- ▶ Simultaneous access via free management software IPM-04, web-based GUI, DCIM integration via SNMP V2 / V3 or REST API.
- ▶ Remote level & ID setting for cascaded iPDU's.
- ▶ Protocols : HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4.



Enterprise Level IP Authentication

- ▶ Active Directory (AD), Lightweight Directory Access Protocol (LDAPv3 / LDAPS), Remote Access Dial-In User Service (RADIUS) protocol, or local credential database.
- ▶ Strong passwords and granular user/user group permissions.



Alerts / Alarms

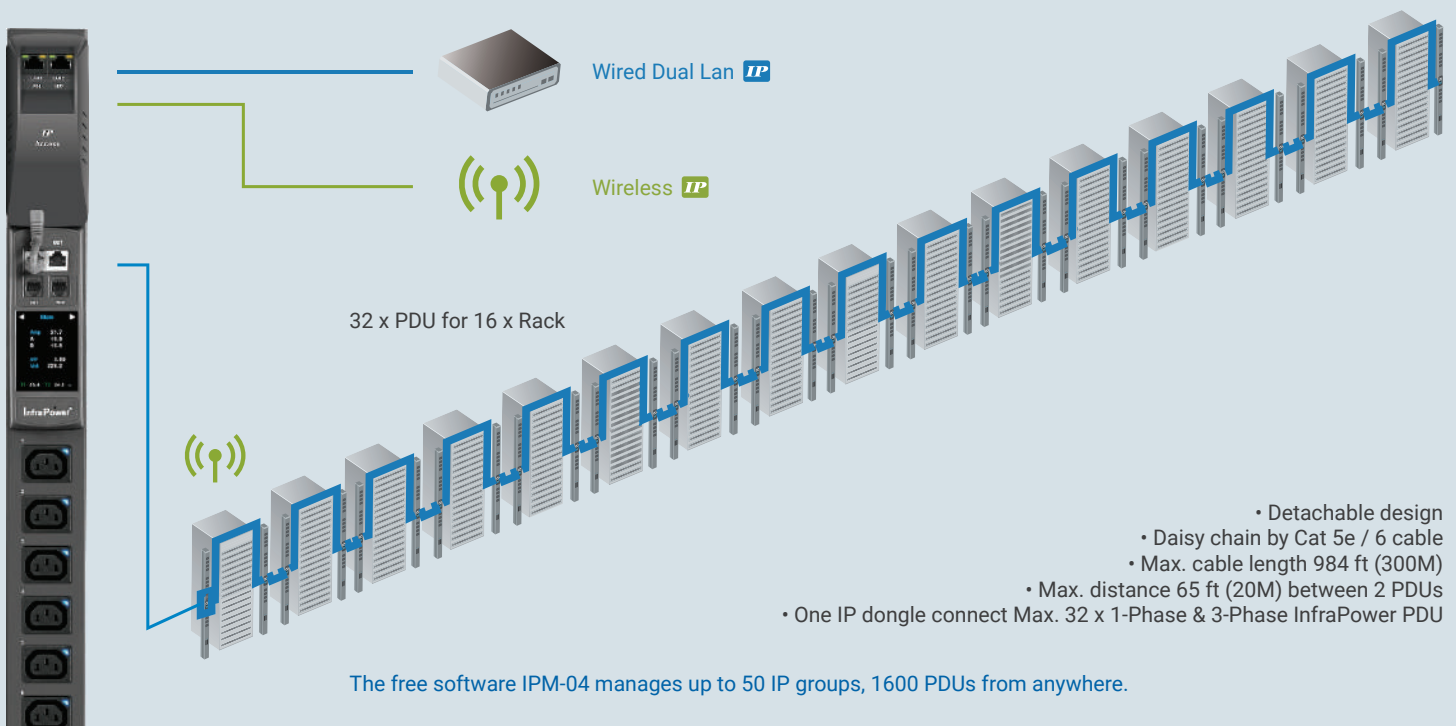
- ▶ Receive alerts via SNMP, email (SMTP), and syslog when predefined thresholds are exceeded for both iPDU and environmental sensor events.
- ▶ Common SNMP MIBs (Management Information Base) across all iPDU families.

InfraPower rack intelligent PDUs provide connection ports for PDU daisy chain. To daisy chain units, each PDU can simply be connected in series to the next by Cat5/6 cables. With the Dual Lan PDU IP Dongle (IPD-03-S / IPD-H03-S), up to 32 daisy chain levels can be achieved. Single & Three Phase PDUs can be inter-cascaded in a single daisy chain.



High Efficiency PDU Remote Management

Patented PDU IP Dongle provides IP remote software access to the PDUs by a true network IP address chain. Only one network IP is required for maximum 32 PDUs in a single daisy chain. The free but comprehensive IPM-04 supports up to 50 IP groups. Hence, max 1600 PDUs can be remotely managed from anywhere.



Remote Management Over IP

PDU remote management helps reducing manpower and hence improving uptime and productivity. It also benefits users with capacity planning and increasing the overall efficiency of the data center. InfraPower intelligent PDU offers 3 kinds of remote management solutions for users' selection.



Free Download



Built-in



via SNMP / API



Free Management Software IPM-04

InfraPower Manager IPM-04 is the free, powerful and user friendly PDU management software provided with W Series PDUs. The Administrator can remotely manage the PDUs and the temperature / humidity sensors via the web browser. The Windows based software consolidates management of max. 1600 single & three phase PDUs via 50 IP dongles. 5 concurrent user access licences are part of the IPM-04 bundle, for achieving the demand of multi-user requirements in data center operations. IPM-04 provides complete PDU monitoring / control and reporting functions for your data center.

Web-based GUI

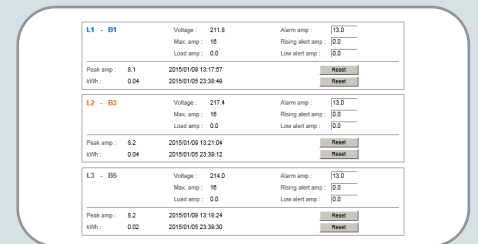
A web-based GUI is integrated with our intelligent PDU. It is ideal for users who simply require the power monitoring and input switching over IP.

3rd Party DCIM via SNMP V2/V3 or REST API

Many data centers apply the DCIM (Data Center Infrastructure Management) in order to centralize the management for monitoring power, cooling and environmental factors across facilities and IT systems. InfraPower intelligent PDU supports SNMP V2/V3 or REST API integration and hence user can remotely manage the PDU via their DCIM.

| IPM-04 Management Software | | |
|----------------------------|---|------|
| Capacity | IP Dongle Group (Just 1 for 32 PDU levels) | 50 |
| | PDU Number | 1600 |
| | Concurrent Users | 5 |
| Features | Outlet Level kWh & Amp Measurement | ✓ |
| | Circuit Level kWh & Amp Monitoring | ✓ |
| | Apparent Power (kVA) Monitoring | ✓ |
| | Power Factor Measurement | ✓ |
| | Circuit Breaker (MCB) Monitoring | ✓ |
| | Temp-Humid Monitoring | ✓ |
| | Individual Outlet Switch ON / OFF | ✓ |
| | Outlet Scheduling | ✓ |
| | Alarm Threshold Setting | ✓ |
| | Rising Alert Threshold | ✓ |
| | Remote Access via Web | ✓ |
| | Graphic User Interface | ✓ |
| | Reporting | ✓ |
| Circuit breaker monitoring | 1-Phase / 3-Phase W - Monitored PDU | ✓ |
| | 1-Phase / 3-Phase Wi - Monitored PDU (Outlet Measurement) | ✓ |
| | 1-Phase / 3-Phase WS - Switched PDU | ✓ |
| | 1-Phase / 3-Phase WSi - Switched PDU (Outlet Measurement) | ✓ |

PDU Monitoring



Temp. & Humid. Monitoring

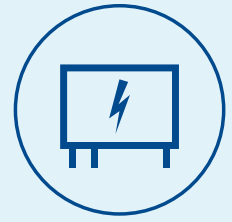
| TH Log | | PDU level: 004 | | TH 1 | |
|----------|----------|----------------|-----------|-----------|--------------------------|
| Date | Time | Model | Status | Location | Temp / Alarm / TR, Alert |
| 20150210 | 10:14:44 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 10:14:43 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 14:53:42 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 14:53:42 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 14:23:38 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 14:12:58 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 14:03:37 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 13:53:36 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 12:42:30 | VPO13AC16-18AW | Connected | Front_Tap | 23.3 / 35.0 / 0.0 |
| 20150210 | 13:22:34 | VPO13AC16-18AW | Connected | Front_Tap | 24.1 / 35.0 / 0.0 |
| 20150210 | 13:22:33 | VPO13AC16-18AW | Connected | Front_Tap | 24.1 / 35.0 / 0.0 |
| 20150210 | 13:15:32 | VPO13AC16-18AW | Connected | Front_Tap | 23.4 / 35.0 / 0.0 |
| 20150210 | 13:03:31 | VPO13AC16-18AW | Connected | Front_Tap | 23.4 / 35.0 / 0.0 |

Reporting

| Date | Time | Model | Name | Location | Status | Max. / Load / Alarm / TR, Alert |
|----------|----------|----------------|--------|----------|-----------|---------------------------------|
| 20150210 | 02:30:22 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 02:30:21 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 02:10:20 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 02:00:19 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 01:55:18 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 01:45:16 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 01:30:15 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 01:20:14 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 01:10:13 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 00:30:12 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 00:20:11 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 00:10:10 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 00:00:09 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 23:50:08 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 23:40:07 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 23:30:06 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |
| 20150210 | 23:20:05 | VPO13AC16-18AW | VW4-DA | Rank_04 | Connected | 15 / 0.0 / 13.0 / 0.0 / 0.0 |

Outlet ON/OFF Switching & Latching Relay

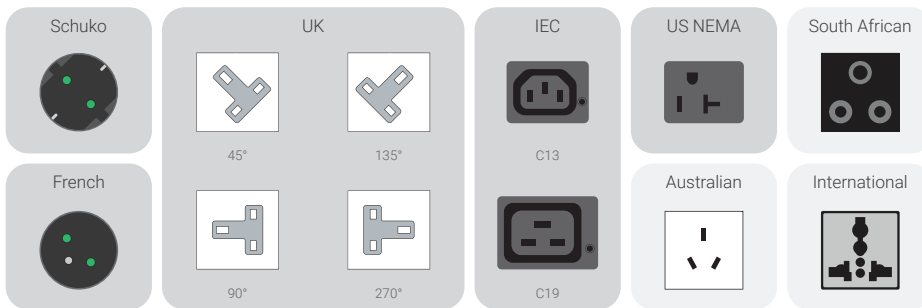
Outlet LEDs are built-in for WS & WSI PDU models with outlet switching functionality. Outlet switching is controlled via latching relays. Ensuring an 'always on' operational performance and outlet status returning to a pre-power outage after a planned or unplanned shutdown. Power consumption during normal/ standard operation is low and therefore assists to reduce energy usage of the overall PDU.



Broadest Outlet Selection for Rack PDU

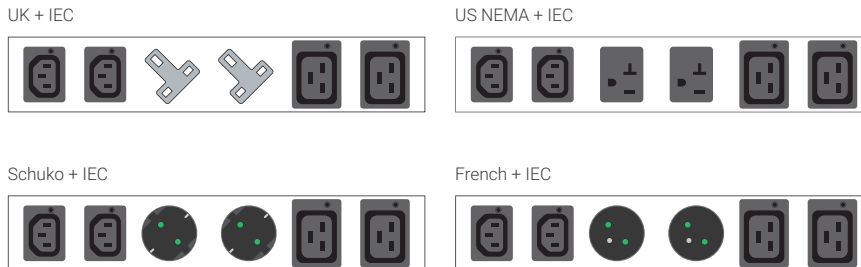
Standard InfraPower PDU configurations cover the most popular outlets in rack PDU market : IEC, US NEMA, UK BS1363, German Schuko & French outlets.

For project based custom requirements, specific outlets (e.g. Australian, South African or International) are also available.



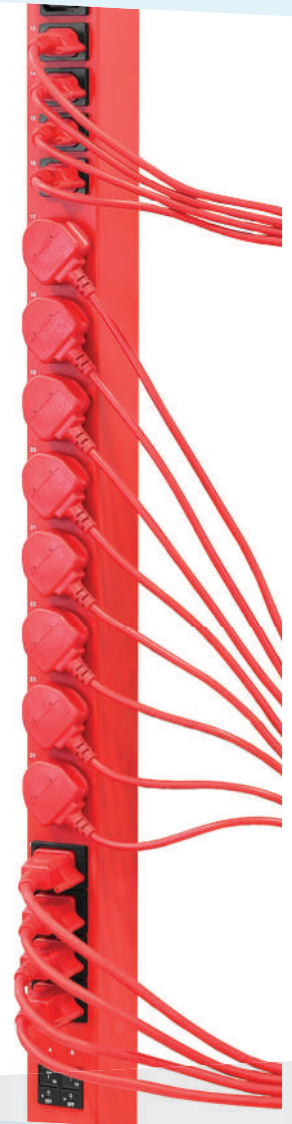
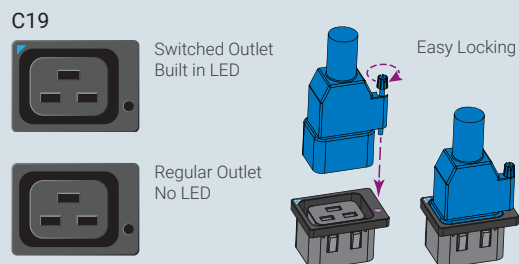
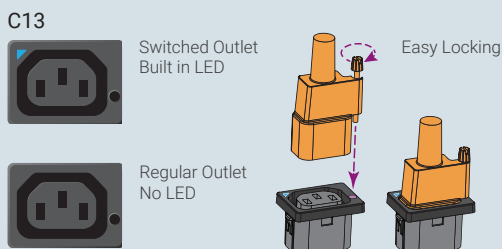
Multiple Outlet Configurations

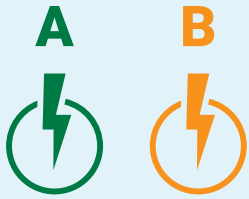
Multiple outlets provide flexibility on variety of power connection to different devices.



Lockable IEC Outlet

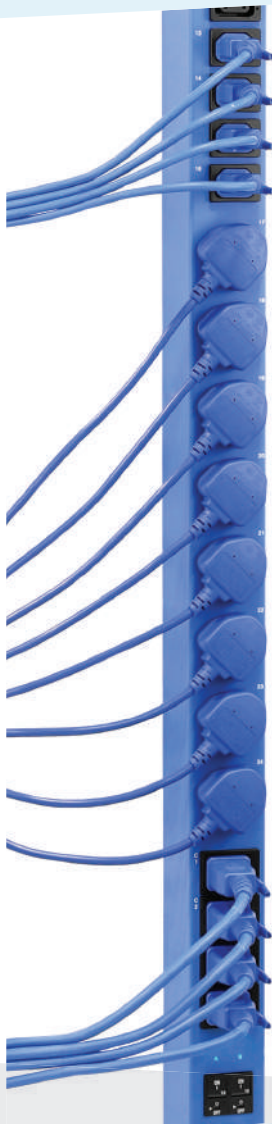
- Lockable IEC outlet PDU models are available to secure plugs and prevent accidental disconnection
- Supports standard or switched outlets
- Compatible with InfraPower lockable IEC power cords for outlet locking features





Colored PDU Power Feed Differentiation

The use of colors at rack PDU and cord levels has become a huge market trend with most organizations favouring different colors in the rack for the A & B primary and redundant feeds into equipment. Colored PDU chassis & power cords are available to achieve such power source visualization & cable management requirement.



Colored PDU Chassis

Colored PDU chassis allow easy identification of power paths and simplifies management of power sources.
 Standard color : Black
 Optional color : White, Red, Blue, Green, Orange, Yellow, Purple



Colored UK Power Cord

- Enhance cable management and visualize power sources
- Selection : Blue / Red
- UK - C13 (0.75 mm²): 3 ft / 6 ft



Colored Lockable IEC Power Cord

- Connect to InfraPower lockable IEC outlets to secure plugs and prevent accidental disconnection
- Selection : Black / Grey / Red / Blue / Orange / Green

C13 - C14 (0.75mm²)
1.5 ft / 3 ft / 6 ft



C19 - C20 (1.5mm²)
3 ft / 6 ft



W series PDU meter includes a pair of connection ports for sensors & peripherals. It provides a simple and affordable solution for customers to monitor the environmental status of racks. Dual LAN PDU dongle supports optional WiFi kit with standards 802.11 g/n/ac. It meet the wireless network requirements and reduce capital expenditure cost as well as Ethernet installation & maintenance.

IP-ED-01



4.3" Door Mount Display Panel

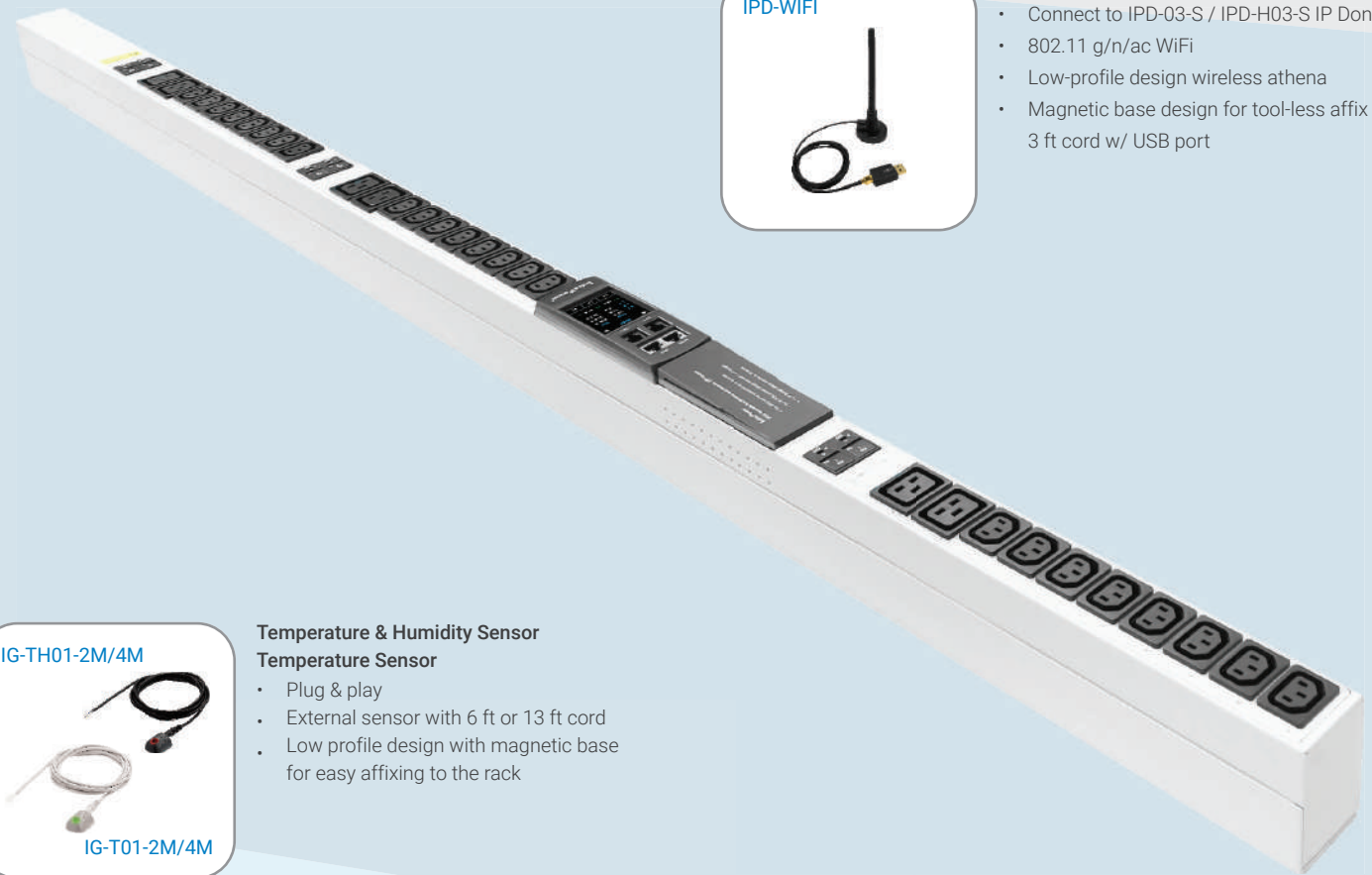
- Connect to iPDU meter TH2 port
- 1 smart display panel support 2 iPDU's (1-Phase & 3-Phase)
- Displays power, temperature, humidity, smoke or door status
- Alarm
- Viewable while doors in closed position
- Resistive touchscreen
- Resolution 480 x 272
- No cut-out / damage required to doors
- Upgrade racks to smart and stylish look
- Plug & Play

IPD-WIFI



WiFi Kit

- Connect to IPD-03-S / IPD-H03-S IP Dongle
- 802.11 g/n/ac WiFi
- Low-profile design wireless athena
- Magnetic base design for tool-less affix 3 ft cord w/ USB port



IG-TH01-2M/4M



IG-T01-2M/4M

Temperature & Humidity Sensor

- Plug & play
- External sensor with 6 ft or 13 ft cord
- Low profile design with magnetic base for easy affixing to the rack

IP-S01-1M/3M



Smoke Sensor

- Smoke Sensor with 3 ft or 10 ft cord
- When smoke alarm is triggered the sensor activates the red LED light and audible alarm sounds continuously

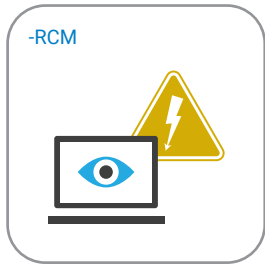
IP-DSW-2M/4M



Door Sensor

- Mechanical door sensor with 6 ft or 13 ft cord
- Cost efficient integration into rack

The operating parameters for PDUs should take into account temperature rise within the rack due to the exhaust air from server/ network equipment. InfraPower PDU supports operation temperature 23 to 140°F for reliable operation in high density rackmount equipment environment. A range of safety devices are offered not only to protect the equipment from overcurrent but also the users from harm when working on racks.



Residual Current Monitor (RCM)

- Residual current monitoring
- Alerts users to current leaking from IT devices
- Reduces the danger for both the user and IT system



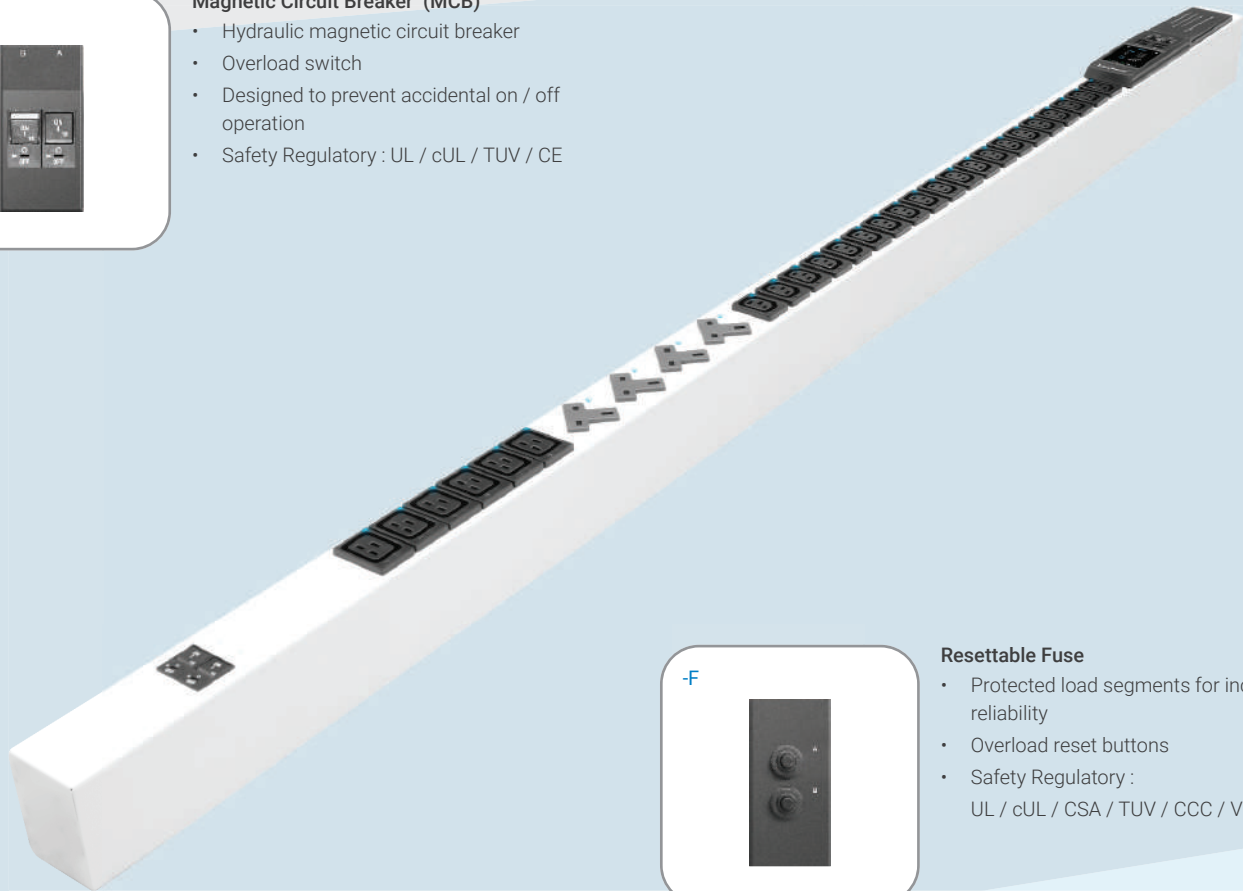
Earth-leakage Circuit Breaker

- Earth-leakage circuit breaker
- Safety component with high Earth impedance to prevent shock
- Interrupting the circuit if a dangerous voltage is detected



Magnetic Circuit Breaker (MCB)

- Hydraulic magnetic circuit breaker
- Overload switch
- Designed to prevent accidental on / off operation
- Safety Regulatory : UL / cUL / TUV / CE



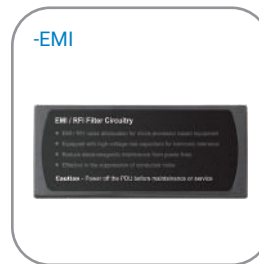
Resettable Fuse

- Protected load segments for increased reliability
- Overload reset buttons
- Safety Regulatory : UL / cUL / CSA / TUV / CCC / VDE



Surge Protector

- Enhances the device protection
- Grounds unwanted voltages above the safe threshold
- Surge suppression: 2,700 Joules
- Max surge current: 75,000 Amps
- Max voltage: 6,000 Volts
- Response Time: 1 nanosecond



EMI Filter

- Maintains power stability
- Suppresses conducted interference on a signal/power line
- Line frequency : 50 / 60 Hz
- Attenuation : Up to 50 dB



← 2.4" → | ← 2.1" →



Vertical 0U - Slim Design

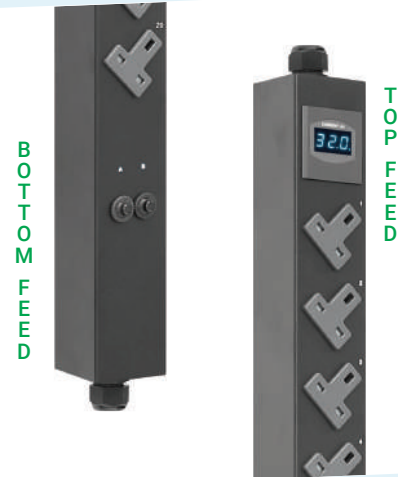
For efficient rack mounting, InfraPower vertical PDU steel chassis for single outlet row is designed with a slim profile

- > 2.1 inch for IEC / US NEMA Outlet PDUs
- > 2.4 inch for UK / Schuko Outlet PDUs

Bottom/ Top Power Feed

When selecting a rack PDU it is important to consider the power input feed route through the rack enclosure.

As standard InfraPower PDUs are supplied as bottom fed. For installations where the power feed is positioned at the top of the rack, the option of top feed PDUs is available.

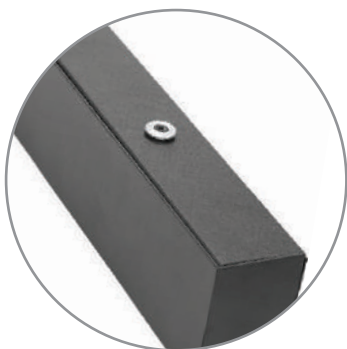


Horizontal 1U/ 2U

PDUs are available to be mounted either vertically (0U) or horizontally (1U/2U) inside the rack. Most PDU manufacturers focus on 0U PDUs, with limited options for horizontal PDUs. Austin Hughes offers a wide range of InfraPower 1U/2U rackmount PDUs including custom configurations to meet client needs.

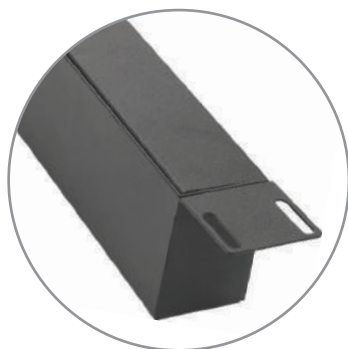
Vertical Button Mounting Kit

Quick and tool-less integration. Designed for global branded racks with key hole type mounting holes. Included with vertical PDU.



Vertical Bracket Mounting Kit

Universal mounting kit supports all IT rack models. Easy integration by mounting the PDU to the rack cable tray. Included with vertical PDU.



Horizontal Rackmount Kit

Design for 19" Rackmount. Included with 1U/2U PDU.

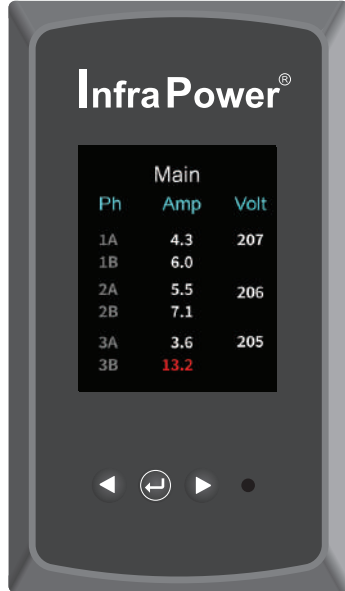


InfraPower Basic PDUs are designed for cost efficient and reliable power distribution in data center.

Metered PDUs (1-Phase MD & 3-Phase MK) allow local power monitoring. User can prevent circuit overloads during equipment installation and plan the capacity based on actual power consumption.

User can meet end to end equipment and management requirements using InfraPower PDUs whilst meeting budget and application demands.

3 Phase MK Metered PDU



MK Meter

..... Hot-Swappable Meter

..... 1.8" Color LCD Display

- 3 Phase Local Metering
- Circuit / Phase Amp, Volt & kWh
- Billing Grade Meter Accuracy Within +/- 1%

..... Display Selection Buttons

* 1-Phase MK PDU available on request

Meter Reading & Setting

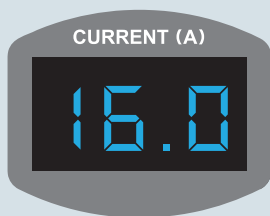
| PDU Power | | |
|-----------|--------------|-------|
| Ph | Volt | Bal% |
| 1AB | 207.0 | 100.4 |
| 2AB | 206.0 | 100.0 |
| 3AB | 205.0 | 99.6 |
| Energy | 69,137.2 kWh | |

| 3AB | |
|-----------|--------------|
| Active | 3.37 kW |
| Apparent | 3.44 kVA |
| Factor | 0.98 |
| Frequency | 60.0 Hz |
| Energy | 29,566.0 kWh |

| Setup | |
|--------|--|
| Buzzer | |
| Alarm | |
| Screen | |
| Reset | |
| Exit | |

| Alarm | |
|-------|----------|
| 1A | 11 Amp ↑ |
| 1B | 11 Amp ↓ |
| 2A | 11 Amp ↑ |
| 2B | 11 Amp ↓ |
| 3A | 11 Amp ↑ |
| 3B | 11 Amp ↓ |
| Exit | |

1 Phase MD Metered PDU



MD Meter

- 1 Phase local metering
- 3-digit true RMS ammeter
- Circuit Amp measurement
- Accuracy : ± (3% of the reading + 5 last digits)
- Blue light LED

1 Phase / 3 Phase Basic PDU

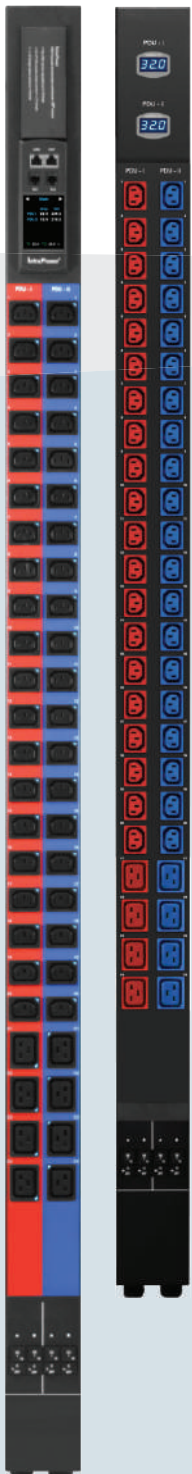


Basic

- Cost efficient and reliable rack power
- Multiple outlet configurations available
- Colored PDU casings and cord options
- Horizontal or Vertical form factors
- Basic PDUs available in Single Phase or Three Phase

Dual Feed Rack PDUs

- > Two PDUs in one single chassis
- > Simplify dual PDU setup & save the valuable rack spaces
- > Colored PDU layout distinguishes between primary & secondary power feeds
- > Achieve one side orientation for power cabling
- > Facilitate rack cabling and management efficiency



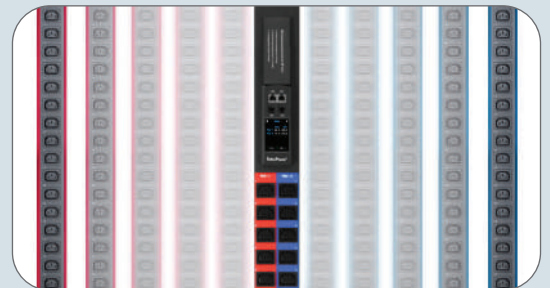
Two PDU's in One Chassis

Traditionally, data center racks are equipped with two PDUs positioned in the rear left and right side respectively. InfraPower dual feed PDU is designed to house two PDUs in a single chassis which only requires one side installation. Hence, this facilitates PDU setup and saves valuable rack space. Red + Blue colored PDU layout enables differentiation of the primary and redundant (A&B) power feeds.



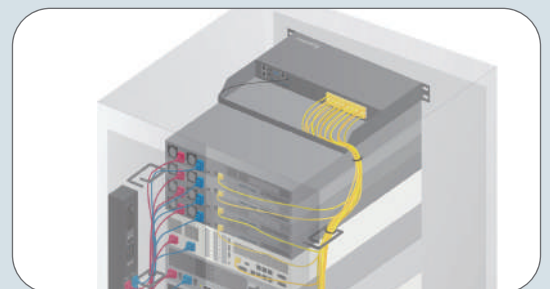
Save Network IP Cost

For intelligent PDU, Austin Hughes develops 1 Meter 2 PDUs solution. The sophisticated LCD touchscreen meter is integrated in a single chassis but for both primary and secondary PDUs. The meter not only allows local monitoring for 2 PDUs, but also supports up to 32 cascade levels. By the patent IP dongle and dual PDU design, only one IP is required to access up to 64 PDUs in a single cascade group.



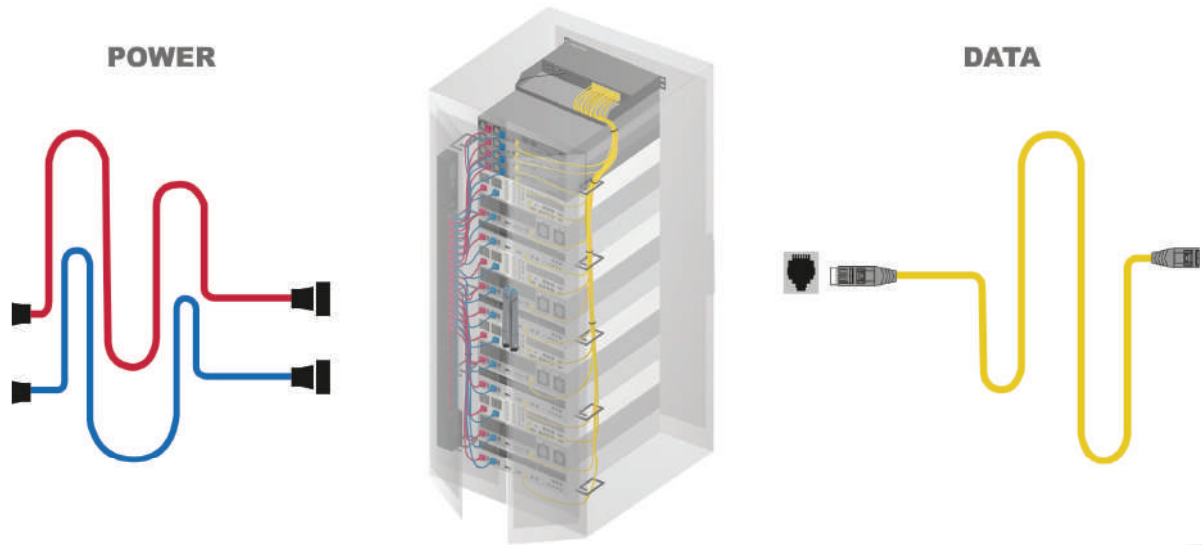
Facilitate Cable Management

Separating power and data cables inside a rack minimizes erratic data transfer as well as EMI and assists in distinguishing between power and data cabling. By InfraPower Dual Feed PDU, power & data cable separation is easily achieved. In addition, space-saving design and Red + Blue distinguishable layout contribute to a well-organized rack cabling.



One Side Orientation for Power Cabling

Power and data cables should be kept apart in order to avoid interference. It is a typical practice to isolate power cabling to one side of the rack, whether it is for primary or secondary power connection. InfraPower Dual Feed PDU series offers an efficient, convenient & space saving solution - Primary & Secondary PDUs are integrated to one unit with dual power feed.



1 Phase

110V 15A / 20A / 30A

| Outlet nos | | PDU Chassis | |
|------------|-----|-------------|-----------|
| US NEMA | | Vertical | Rackmount |
| 24 | x 2 | ✓ | |
| 20 | x 2 | ✓ | |
| 16 | x 2 | ✓ | |
| 12 | x 2 | | ✓ |
| 10 | x 2 | | ✓ |
| 8 | x 2 | | ✓ |

230V 16A / 20A / 32A

| Outlet nos | | | PDU Chassis | |
|------------|-----|-----|-------------|-----------|
| C13 | C19 | | Vertical | Rackmount |
| 20 | 4 | x 2 | ✓ | |
| 18 | 6 | x 2 | ✓ | |
| 16 | 4 | x 2 | ✓ | |
| 8 | 2 | x 2 | | ✓ |
| 24 | | x 2 | ✓ | |
| 20 | | x 2 | ✓ | |
| 16 | | x 2 | ✓ | |
| 12 | | x 2 | | ✓ |
| 10 | | x 2 | | ✓ |
| 8 | | x 2 | | ✓ |

208V 20A / 30A

3 Phase

400V 16A / 32A

| Outlet nos | | | PDU Chassis | |
|------------|-----|-----|-------------|-----------|
| C13 | C19 | | Vertical | Rackmount |
| 30 | 6 | x 2 | ✓ | |
| 24 | 12 | x 2 | ✓ | |
| 21 | 3 | x 2 | ✓ | |
| 18 | 6 | x 2 | ✓ | |
| 12 | 12 | x 2 | ✓ | |
| 36 | | x 2 | ✓ | |
| 32 | | x 2 | ✓ | |
| 24 | | x 2 | ✓ | |

208V 20A / 30A

| Inlet (1-PH 110V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | AWG | length |
| L5-30P | 30A | 10 | 10 FT |
| 5-30P | | | |
| L5-20P | 20A | 12 | 10 FT |
| 5-20P | | | |
| 5-15P | 15A | 14 | 10 FT |

| Inlet (1-PH 230V) | Amp | Cordset | |
|---------------------|-----|-----------------|--------|
| | | mm ² | length |
| 60309 | 32A | 4 | 3 M |
| Open end | 20A | 2.5 | 3 M |
| 60309 | 16A | 1.5 | 3 M |
| C20 | | | |

| Inlet (1-PH 208V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | AWG | length |
| L6-30P | 30A | 10 | 10 FT |
| L6-20P | 20A | 12 | 10 FT |

| Inlet (3-PH 400V) | Amp | Cordset | |
|---------------------|-----|-----------------|--------|
| | | mm ² | length |
| 60309 | 63A | 10 | 2 M |
| 60309 | 32A | 4 | 2 M |
| 60309 | 16A | 1.5 | 2 M |

| Inlet (3-PH 208V) | Amp | Cordset | |
|---------------------|-----|---------|--------|
| | | AWG | length |
| 60309 | 60A | 6 | 6.6 FT |
| CS8365C | 50A | 6 | 6.6 FT |
| L15-30P | 30A | 10 | 6.6 FT |
| L21-30P | | | |
| L15-20P | 20A | 12 | 6.6 FT |
| L21-20P | | | |



PDU drawings available for download : www.austin-hughes.com/resources/rack-pdu-selector



Custom configurations available on request



cUL & TUV available for selective configurations

PDU Part Code = **0** **1** **2** **3a** **3b** / **4a** **4b** / **5a** **5b** - **6** - **7** / **8** - **9** / **10** **11** - **12** - **13**

| | | | |
|-----------|--|---|--|
| 0 | Single or Dual Feed | No Code Required for Single Feed PDU / D = Dual Feed PDU | |
| 1 | Chassis | V = Vertical 0U / H = Horizontal Rackmount 1U or 2U | |
| 2 | Power Phase | No Code Required for Single Phase / P = Three Phase | |
| 3a | US NEMA / UK / Schuko / FR Outlet | Qty | Refer to Configuration Tables (P.5 for Single Feed PDU ; P.17 for Dual Feed PDU) |
| 3b | Outlet | Type | |
| 4a | IEC C13 Outlet (if any) | Qty | Refer to Configuration Tables (P.5 for Single Feed PDU ; P.17 for Dual Feed PDU) |
| 4b | Outlet | Type | |
| 5a | IEC C19 Outlet (if any) | Qty | Refer to Configuration Tables (P.5 for Single Feed PDU ; P.17 for Dual Feed PDU) |
| 5b | Outlet | Type | |
| 6 | Amp Rating | Single Phase 230V : 10A / 13A / 16A / 20A / 32A ; 208V : 20A / 30A ; 110V : 15A / 20A / 30A Three Phase 400V : 16A / 32A / 63A ; 208V : 20A / 30A / 50A / 60A | |
| 7 | Model | Basic (No Code Required) / MD / MK / W / Wi / WS / WSi | |
| 8 | Safety Device | CR = MCB / F = Resettable Fuse / ELCB = Earth-leakage Circuit Breaker / No Code Required for Nothing | |
| 9 | Inlet | Single Phase : EN = 60309 / 6mmEN = 60309 with 6mm ² cordset / OE = Open-end / C20 = C20 / UK = UK / SCH = Schuko L630 = L6-30P / L620 = L-620P / L530 = L5-30P / 530 = 5-30P / L520 = L5-20P / 520 = 5-20P / 515 = 5-15P Three Phase : EN = 60309 / CS8365C = CS8365C / L2130 = L21-30P / L2120 = L21-20P / L1530 = L15-30P / L1520 = L15-20P | |
| 10 | Cordset Length | 3 = 3M (Standard for Single Phase PDU) / 2 = 2M (Standard for Three Phase PDU) / Custom Length on Request * 1M = 3.28 FT | |
| 11 | Power Feed Position | B = Bottom Feed (Standard) / T = Top Feed | |
| 12 | Color | Single Feed PDU : 1 = Black (Standard) / 2 = White / 3 = Red / 4 = Blue / 5 = Green / 6 = Orange / 7 = Yellow / 8 = Purple Dual Feed PDU : 1 = Red Layout for PDU-I + Blue Layout for PDU-II (Standard) | |
| 13 | Extra Options | SPT = Surge Protector / EMI = EMI Filter / RCM = Residual Current Monitor / No Code Required for Nothing | |

Example 1:

Part Code : VP18C13/6C19-32A-WSi/CR_EN/2B-1
 Model : WSi iPDU with Circuit Monitoring + Outlet Monitoring + Outlet Switching
 Configuration : Single Feed, Vertical, Three Phase, C13 x 18 + C19 x 6, 32A, MCB, 60309 Inlet, 2M (6.6 FT) Cordset, Bottom Feed, Black Chassis



Example 2:

Part Code : DV40C13/8C19-32A-W/CR_OE/3T-1
 Model : W iPDU with Circuit Monitoring
 Configuration : Dual Feed, Vertical, Single Phase, (C13x20 + C19x4) x 2, 32A, MCB, Open-end, 3M (9.8 FT) Cordset, Top Feed, Standard Dual Feed PDU Chassis Colors (Red Layout for PDU-I + Blue Layout for PDU-II)



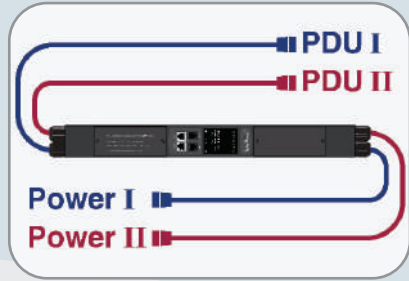
Example 3:

Part Code : H8UK90-32A-MD/F_EN/3B-2
 Model : MD Metered PDU
 Configuration : Single Feed, Horizontal Rackmount, Single Phase, UK (90°) x 8, 32A, Fuse, 60309 Inlet, 3M (9.8 FT) Cordset, White Chassis

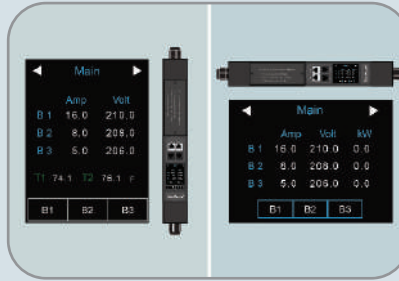


For legacy sites where basic rack PDUs have been previously installed, Inline Meters provide an ideal upgrade solution to enable real-time power monitoring. InfraPower Inline Meter is the most effective PDU enhancement approach which can be retrofitted to basic PDUs to enable local monitoring plus remote management.

Power Feed - Single or Dual



Display & Mounting - Vertical or Horizontal



Save IP Cost - Max 32 Cascade Levels



Single Phase

Dual Feed Inline Meter

| 230V Model | Amp | Inlet (Male) | Outlet (Female) |
|------------|-----------|----------------|-------------------|
| DEW-16A_EN | 16A → 16A | 16A EN x 2 | 16A EN x 2 |
| DEW-32A_EN | 32A → 32A | 32A EN x 2 | 32A EN x 2 |

| 208V Model | Amp | Inlet (Male) | Outlet (Female) |
|--------------|-----------|----------------|-------------------|
| DEW-20A_L620 | 20A → 20A | L6-20P x 2 | L6-20C x 2 |
| DEW-30A_L630 | 30A → 30A | L6-30P x 2 | L6-30C x 2 |

| 110V Model | Amp | Inlet (Male) | Outlet (Female) |
|--------------|-----------|----------------|-------------------|
| DEW-15A_515 | 15A → 15A | 15A 5-15P x 2 | 15A 5-15R x 2 |
| DEW-20A_520 | 20A → 20A | 20A 5-20P x 2 | 20A 5-20R x 2 |
| DEW-20A_L520 | 20A → 20A | 20A L5-20P x 2 | 20A L5-20R x 2 |
| DEW-30A_530 | 30A → 30A | 30A 5-30P x 2 | 30A 5-30R x 2 |
| DEW-30A_L530 | 30A → 30A | 30A L5-30P x 2 | 30A L5-30R x 2 |

* 4.9 ft cordset standard for inlet & outlet. Specific cordset length available.

** Bundled Inline Meter mounting kit supports rackmount or vertical mount.

Single Feed Inline Meter

| 230V Model | Amp | Inlet (Male) | Outlet (Female) |
|------------|-----------|----------------|-------------------|
| EW-16A_EN | 16A → 16A | 16A EN | 16A EN |
| EW-32A_EN | 32A → 32A | 32A EN | 32A EN |

| 208V Model | Amp | Inlet (Male) | Outlet (Female) |
|-------------|-----------|----------------|-------------------|
| EW-20A_L620 | 20A → 20A | L6-20P | L6-20C |
| EW-30A_L630 | 30A → 30A | L6-30P | L6-30C |

| 110V Model | Amp | Inlet (Male) | Outlet (Female) |
|-------------|-----------|----------------|-------------------|
| EW-15A_515 | 15A → 15A | 15A 5-15P | 15A 5-15R |
| EW-20A_520 | 20A → 20A | 20A 5-20P | 20A 5-20R |
| EW-20A_L520 | 20A → 20A | 20A L5-20P | 20A L5-20R |
| EW-30A_530 | 30A → 30A | 30A 5-30P | 30A 5-30R |
| EW-30A_L530 | 30A → 30A | 30A L5-30P | 30A L5-30R |

Three Phase

Dual Feed Inline Meter

| 400V Model | Amp | Inlet (Male) | Outlet (Female) |
|------------|-----------|----------------|-------------------|
| DPW-16A_EN | 16A → 16A | 16A EN x 2 | 16A EN x 2 |
| DPW-32A_EN | 32A → 32A | 32A EN x 2 | 32A EN x 2 |
| DPW-63A_EN | 63A → 63A | 63A EN x 2 | 63A EN x 2 |

| 208V Model | Amp | Inlet (Male) | Outlet (Female) |
|-----------------|-----------|-----------------|-------------------|
| DPW-20A_L1520 | 20A → 20A | 20A L15-20P x 2 | 20A L15-20C x 2 |
| DPW-20A_L2120 | 20A → 20A | 20A L21-20P x 2 | 20A L21-20C x 2 |
| DPW-30A_L1530 | 30A → 30A | 30A L15-30P x 2 | 30A L15-30C x 2 |
| DPW-30A_L2130 | 30A → 30A | 30A L21-30P x 2 | 30A L21-30C x 2 |
| DPW-50A_CS8365C | 50A → 50A | 50A CS8365 x 2 | 50A CS8364 x 2 |
| DPW-60A_EN | 60A → 60A | 60A EN x 2 | 60A EN x 2 |

* 4.9 ft cordset standard for inlet & outlet. Specific cordset length available.

** Bundled Inline Meter mounting kit supports rackmount or vertical mount.

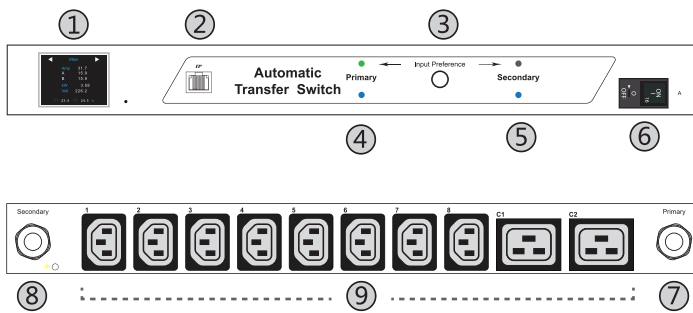
Single Feed Inline Meter

| 400V Model | Amp | Inlet (Male) | Outlet (Female) |
|------------|-----------|----------------|-------------------|
| PW-16A_EN | 16A → 16A | 16A EN | 16A EN |
| PW-32A_EN | 32A → 32A | 32A EN | 32A EN |

| 208V Model | Amp | Inlet (Male) | Outlet (Female) |
|----------------|-----------|----------------|-------------------|
| PW-20A_L1520 | 20A → 20A | L15-20P | L15-20C |
| PW-20A_L2120 | 20A → 20A | L21-20P | L21-20C |
| PW-30A_L1530 | 30A → 30A | L15-30P | L15-30C |
| PW-30A_L2130 | 30A → 30A | L21-30P | L21-30C |
| PW-50A_CS8365C | 50A → 50A | CS8365 | CS8364 |
| PW-60A_EN | 60A → 60A | 60A EN | 60A EN |

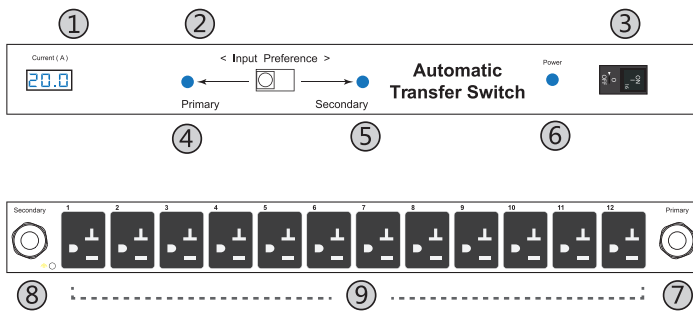
Most data centers provide power source redundancy in order to ensure critical devices have no power related downtime. Many rackmount IT devices, however, are not designed to take advantage of power redundancy. For single-corded devices, the InfraPower Automatic Transfer Switch (ATS) is a perfect fit to provide power failover. It includes dual power inlets for connection to both a primary power source and a redundant, secondary power source.

Intelligent ATS Over IP



- 1 2.0" color LCD
- 2 IP Port
- 3 Input Preference Switch
- 4 Power LED - primary input
- 5 Power LED - secondary input
- 6 Circuit Breaker
- 7 Primary Input attached with 9.8ft cord & inlet plug
- 8 Secondary Input attached with 9.8ft cord & inlet plug
- 9 Outlets

Metered ATS



- 1 Local Current Meter
- 2 Input Preference Switch
- 3 Circuit Breaker
- 4 Power LED - primary input
- 5 Power LED - secondary input
- 6 Power LED - outlets
- 7 Primary Input attached with 9.8ft cord & inlet plug
- 8 Secondary Input attached with 9.8ft cord & inlet plug
- 9 Outlets

| ATS Series | Metered | Monitored | Switched | |
|--|-----------|-----------|----------|------|
| | MD | W | WS | WSi |
| Outlet Level Measurement Over IP | | | | ✓ |
| Outlet ON / OFF Switch Over IP | | | ✓ | ✓ |
| Input & Circuit Monitoring Over IP | | ✓ | ✓ | ✓ |
| Input Switching Over IP | | ✓ | ✓ | ✓ |
| Input Switching Locally | ✓ | ✓ | ✓ | ✓ |
| Local Meter Monitoring | ✓ | ✓ | ✓ | ✓ |
| Transfer Time | 10 - 16ms | 10ms | 10ms | 10ms |
| Power Source Switching Notification | | ✓ | ✓ | ✓ |
| Alarm Alert | | ✓ | ✓ | ✓ |
| Reporting & Logs | | ✓ | ✓ | ✓ |
| Free Management Software | | ✓ | ✓ | ✓ |
| Web Based GUI | | ✓ | ✓ | ✓ |
| SNMP Capability V1 / V2 / V3 | | ✓ | ✓ | ✓ |
| Single Circuit & Dual Circuit Models | ✓ | ✓ | ✓ | ✓ |
| Hydraulic-magnetic Miniature Circuit Breaker (MCB) | ✓ | ✓ | ✓ | ✓ |
| Mounting Bracket w/ Cord Retention Tray Included | ✓ | ✓ | ✓ | ✓ |
| 1-Phase : 230V / 208V / 110V | ✓ | ✓ | ✓ | ✓ |
| Outlet Type : US NEMA / C13 / C19 / UK / SCH / FR | ✓ | ✓ | ✓ | ✓ |
| IEC309 16A / 32A | ✓ | ✓ | ✓ | ✓ |
| L620R / L630R | ✓ | ✓ | ✓ | ✓ |
| Outlet # 1 - 24 | ✓ | ✓ | ✓ | ✓ |
| Custom ATS on Request | ✓ | ✓ | ✓ | ✓ |

Remote Management Over IP

ATS remote management helps reducing manpower and hence improving uptime and productivity. It also benefits users with capacity planning and increasing the overall efficiency of the data center. InfraPower intelligent ATS offers 3 kinds of remote management solutions for users' selection.



Free Download



Built-in



via SNMP

Free Management Software IPM-04

IPM-04 is the free, powerful and user friendly management software provided with intelligent ATS. The Administrator can remotely manage the ATS via the web browser. It provides power input switching, ATS monitoring, alarm and reporting functions. The Windows based software consolidates management of max. 50 ATS. Up to 5 concurrent user access is bundled in order to achieve the demand of multi-user requirements in data center operations.

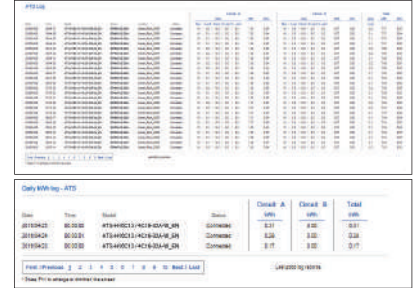
Single Circuit ATS : Monitoring & Input Switching



Dual Circuit ATS : Monitoring & Input Switching



Reporting / Log



Web-based GUI

A web-based GUI is integrated with our intelligent ATS. It is ideal for some users who simply require the power monitoring and input switching over IP.

3rd Party DCIM via SNMP V2 / V3

ATS supports SNMP V2 / V3 integration for clients requiring remote management of the ATS using their existing DCIM (Data Center Infrastructure Management) in order to centralize the management for monitoring power, cooling and environmental factors across facilities and IT systems.

| Functions & Features | IPM-04 | GUI |
|--|--------|-----|
| No. of ATS support | 50 | 1 |
| Concurrent users | 5 | 1 |
| Input switching over IP | ✓ | ✓ |
| Power source switching notification | ✓ | ✓ |
| Input sources detection | ✓ | ✓ |
| Individual outlet switch on / off (WS & WSi) | ✓ | ✓ |
| Outlet level measurement (WSi) | ✓ | ✓ |
| Energy consumption (kWh) monitoring | ✓ | ✓ |
| Apparent power (kVA) monitoring | ✓ | ✓ |
| Power factor measurement | ✓ | ✓ |
| Voltage (Volt) monitoring | ✓ | ✓ |
| Aggregate current (Amp) monitoring | ✓ | ✓ |
| Circuit breaker monitoring | ✓ | ✓ |
| Alarm alert | ✓ | ✓ |
| Reporting & logs | ✓ | |
| SNMP V1 / V2 / V3 | | ✓ |

1U ATS - Single Circuit



MD ATS



W iATS



WS / WSi iATS

2U ATS - Single Circuit



MD ATS



W iATS



WS / WSi iATS

2U ATS - Dual Circuit



MD ATS



W iATS



WS / WSi iATS

| Specifications | MD | W / WS / WSi |
|--------------------------|---|--|
| Nominal input voltage | | 110V / 208V / 230V |
| Acceptable input voltage | | ±10% nominal |
| Input frequency | | 50 / 60Hz |
| Inlet | | L5-30P / L5-20P / 5-15P / L6-30P / L6-20P / C14 / C20 / 60309 / UK / Open-end |
| Outlet | | Nema / L620R / L630R / C13 / C19 / 60309 / UK / Schuko / French |
| Local meter | 3-digit LED current meter | Field replaceable color LCD |
| Accuracy | ± (3% of the reading + 5 last digits) RMS | Billing grade meter accuracy within ± 1% |
| Overload protection | | Hydraulic-magnetic Miniature Circuit Breaker (MCB) |
| Transfer time | 10 - 16ms typical | 10ms typical |
| Electrical endurance | | 1 x 10 ⁵ operations |
| Temperature | | Operating : 23 to 140°F degree (-5 to 60°C degree) / Storage : 13 to 149°F degree (-25 to 65°C degree) |
| Humidity | | Operating : 0~95%, non-condensing / Storage : 0~95%, non-condensing |

| 1U ATS - Single Circuit | | | | | Amp | | |
|---|---|---|--|---|----------|------|----------------------------------|
| Outlets | MD ATS | W iATS | WS iATS | WSi iATS | 110V | 208V | 230V |
| NEMA x 10 NEMA x 12 | ATS-H10US ATS-H12US | ATS-H10US-W ATS-H12US-W | ATS-H10US-WS ATS-H12US-WS | ATS-H10US-WSi ATS-H12US-WSi | 15 / 20A | | |
| C13 x 8 C13 x 10 C13 x 12 C19 x 6 C19 x 8 C13 x 8 + C19 x 1 C13 x 8 + C19 x 2 | ATS-H8C13 ATS-H10C13 ATS-H12C13 ATS-H6C19 ATS-H8C19 ATS-H8C13 / 1C19 ATS-H8C13 / 2C19 | ATS-H8C13-W ATS-H10C13-W ATS-H12C13-W ATS-H6C19-W ATS-H8C19-W ATS-H8C13 / 1C19-W ATS-H8C13 / 2C19-W | ATS-H8C13-WS ATS-H10C13-WS ATS-H12C13-WS ATS-H6C19-WS ATS-H8C19-WS ATS-H8C13 / 1C19-WS ATS-H8C13 / 2C19-WS | ATS-H8C13-WSi ATS-H10C13-WSi ATS-H12C13-WSi ATS-H6C19-WSi ATS-H8C19-WSi ATS-H8C13 / 1C19-WSi ATS-H8C13 / 2C19-WSi | | 20A | 10 / 16 / 20A |
| IEC309 16A x 1 L620R x 1 UK x 8 | ATS-H1EN16A ATS-H1L620R ATS-H8UK | ATS-H1EN16A-W ATS-H1L620R-W ATS-H8UK-W | ATS-H1EN16A-WS ATS-H1L620R-WS ATS-H8UK-WS | ATS-H1EN16A-WSi ATS-H1L620R-WSi ATS-H8UK-WSi | | | 16A 20A 10 / 13 / 16 / 20A |

| 2U ATS - Single Circuit | | | | | Amp | | |
|--|--|--|---|--|----------|------|---------------|
| Outlets | MD ATS | W iATS | WS iATS | WSi iATS | 110V | 208V | 230V |
| NEMA x 16 NEMA x 20 NEMA x 24 | ATS-H16US ATS-H20US ATS-H24US | ATS-H16US-W ATS-H20US-W ATS-H24US-W | ATS-H16US-WS ATS-H20US-WS ATS-H24US-WS | ATS-H16US-WSi ATS-H20US-WSi ATS-H24US-WSi | 15 / 20A | | |
| C13 x 16 C13 x 20 C13 x 24 C19 x 10 C19 x 12 C13 x 16 + C19 x 2 C13 x 16 + C19 x 4 | ATS-H16C13 ATS-H20C13 ATS-H24C13 ATS-H10C19 ATS-H12C19 ATS-H16C13 / 2C19 ATS-H16C13 / 4C19 | ATS-H16C13-W ATS-H20C13-W ATS-H24C13-W ATS-H10C19-W ATS-H12C19-W ATS-H16C13 / 2C19-W ATS-H16C13 / 4C19-W | ATS-H16C13-WS ATS-H20C13-WS ATS-H24C13-WS ATS-H10C19-WS ATS-H12C19-WS ATS-H16C13 / 2C19-WS ATS-H16C13 / 4C19-WS | ATS-H16C13-WSi ATS-H20C13-WSi ATS-H24C13-WSi ATS-H10C19-WSi ATS-H12C19-WSi ATS-H16C13 / 2C19-WSi ATS-H16C13 / 4C19-WSi | | 20A | 10 / 16 / 20A |
| Schuko x 8 French x 8 | ATS-H8SCH ATS-H8FR | ATS-H8SCH-W ATS-H8FR-W | ATS-H8SCH-WS ATS-H8FR-WS | ATS-H8SCH-WSi ATS-H8FR-WSi | | | 10 / 16 / 20A |

| 2U ATS - Dual Circuit | | | | | Amp | | |
|---|---|---|---|---|------|------|------|
| Outlets | MD ATS | W iATS | WS iATS | WSi iATS | 110V | 208V | 230V |
| NEMA x 16 NEMA x 20 NEMA x 24 | ATS-H16US ATS-H20US ATS-H24US | ATS-H16US-W ATS-H20US-W ATS-H24US-W | ATS-H16US-WS ATS-H20US-WS ATS-H24US-WS | ATS-H16US-WSi ATS-H20US-WSi ATS-H24US-WSi | 30A | | |
| C13 x 16 C13 x 20 C13 x 24 C19 x 8 C19 x 10 C19 x 12 C13 x 16 + C19 x 2 C13 x 16 + C19 x 4 | ATS-H16C13 ATS-H20C13 ATS-H24C13 ATS-H8C19 ATS-H10C19 ATS-H12C19 ATS-H16C13 / 2C19 ATS-H16C13 / 4C19 | ATS-H16C13-W ATS-H20C13-W ATS-H24C13-W ATS-H8C19-W ATS-H10C19-W ATS-H12C19-W ATS-H16C13 / 2C19-W ATS-H16C13 / 4C19-W | ATS-H16C13-WS ATS-H20C13-WS ATS-H24C13-WS ATS-H8C19-WS ATS-H10C19-WS ATS-H12C19-WS ATS-H16C13 / 2C19-WS ATS-H16C13 / 4C19-WS | ATS-H16C13-WSi ATS-H20C13-WSi ATS-H24C13-WSi ATS-H8C19-WSi ATS-H10C19-WSi ATS-H12C19-WSi ATS-H16C13 / 2C19-WSi ATS-H16C13 / 4C19-WSi | | 30A | 32A |
| L630R x 1 IEC309-16A x 2 IEC309-32A x 1 | ATS-H1L630R ATS-H2EN16A ATS-H1EN32A | ATS-H1L630R-W ATS-H2EN16A-W ATS-H1EN32A-W | ATS-H1L630R-WS ATS-H2EN16A-WS ATS-H1EN32A-WS | ATS-H1L630R-WSi ATS-H2EN16A-WSi ATS-H1EN32A-WSi | | 30A | 32A |

230V ATS

| Inlet | Amp | Cordset | |
|-----------|-----|-----------------|--------|
| | | mm ² | length |
| 60309 | 32A | 4 | 3 M |
| Open end | 20A | 2.5 | 3 M |
| C20 | 16A | 1.5 | 3 M |
| BS1363 UK | 13A | 1.5 | 3 M |
| C14 | 10A | 1.5 | 3 M |

208V ATS

| Inlet | Amp | Cordset | |
|--------|-----|---------|--------|
| | | AWG | length |
| L6-30P | 30A | 10 | 10 FT |
| L6-20P | 20A | 12 | 10 FT |

110V ATS

| Inlet | Amp | Cordset | |
|---------------|-----|---------|--------|
| | | AWG | length |
| L5-30P 5-30P | 30A | 10 | 10 FT |
| L5-20P 5-20P | 20A | 12 | 10 FT |
| 5-15P | 15A | 14 | 10 FT |

** Customization available on request

Thermal management presents big challenges for today's data centers, chief among which is cooling equipment in enclosed racks. InfraCool intelligent cooling solutions provide appropriate airflow, while helping minimize operational costs associated with data center energy consumption. Make InfraCool an integral part of your rack cooling strategy today.

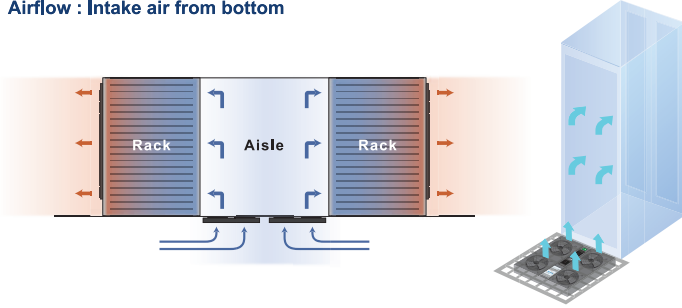


| Fan Series | Door Mount Fan Panel | 1U Fan Tray | | | Raised Floor Mount Fan |
|----------------------------------|----------------------|-------------|---------|---------|------------------------|
| Intelligent Master | MRF-33.9 | ✗ | MRF-1.6 | MRF-1.9 | WF-66.4 |
| Intelligent Expansion | RF-33.9 | ✗ | RF-1.6 | RF-1.9 | |
| Basic | F-33.9 | F-1.3 | F-1.6 | F-1.9 | F-66.4 |
| Fan Number | 9 | 3 | 6 | 9 | 4 (EC Fan) |
| Total CFM | 972 | 324 | 648 | 972 | 2172 |
| Airflow | | | | | |
| Temp. Port | 1 | | 1 | | 2 |
| Temp. Sensor | 1 | | 1 | | 2 |
| Intelligent Fan Features: | | | | | |
| 16 Daisy Chain Levels | ✓ | | ✓ | | ✗ |
| Auto Fan Speed Control | ✓ | | ✓ | | ✗ |
| 2.8" Touchscreen | ✗ | | ✗ | | ✓ |
| Control Panel | ✓ | | ✓ | | ✗ |
| Individual Fan On/Off via IP | ✓ | | ✓ | | ✓ |
| Alarm Temp. Setting | ✓ | | ✓ | | ✓ |
| Unit CFM Setting | ✓ | | ✓ | | ✗ |
| Temperature Monitoring | ✓ | | ✓ | | ✓ |
| Fan Status Monitoring | ✓ | | ✓ | | ✓ |
| CFM Status Monitoring | ✓ | | ✓ | | ✗ |

- > Maximizes Aisle Containment Cooling Performance
- > Minimizes Hot Spots in Server Rack

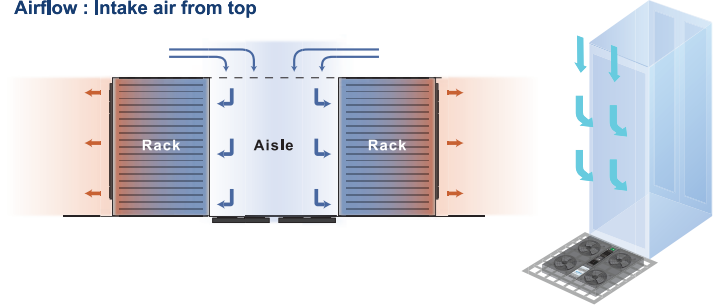
Model : WF-66.4 / F-66.4

Airflow : Intake air from bottom



Model : WF-66.4B / F-66.4B

Airflow : Intake air from top



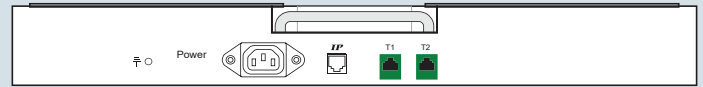
Intelligent Model WF-66.4 / WF-66.4B



Benefits

- ▶ Allows remote access over IP
- ▶ Remote fan On / Off and status monitoring
- ▶ Support SNMP V2 / V3 centralized management platforms
- ▶ Free WF-04-S software for remote fan management
- ▶ 2.8" touchscreen color LCD
- ▶ Fan status & alarm alert
- ▶ Quad EC (Electronically Communicated) fans
- ▶ Fan CFM : 526 CFM
- ▶ Unit CFM : 2104 CFM
- ▶ Bundled with 2 x temperature sensor with 13 ft wire
- ▶ Bundled with raised floor mounting kit

Connection Ports (at Side of Fan Unit)



Temperature Sensor (Pair)

- Bundled with Intelligent Fan
- Magnetic base
- Plug & Play
- 13 ft wire



Basic Model F-66.4 / F-66.4B



Benefits

- ▶ Quad EC (Electronically Communicated) fans
- ▶ Fan CFM : 526 CFM
- ▶ Unit CFM : 2104 CFM
- ▶ Adjustable CFM levels
- ▶ Unit or individual fan on / off
- ▶ 2 x front temperature LED
- ▶ Bundled with 2 x temperature sensor with 13 ft wire
- ▶ Bundled with raised floor mounting kit

Connection Ports (at Side of Fan Unit)



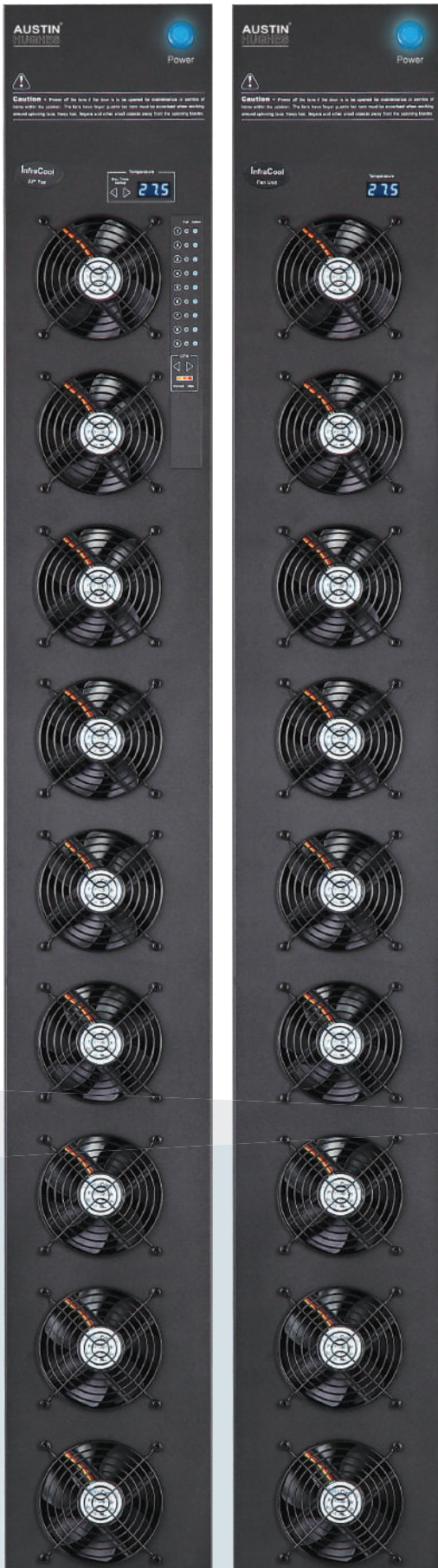
Temperature Sensor (Pair)

- Bundled with Basic Fan
- Plug & Play
- 13 ft wire



Intelligent Model:
Master IP MRF-33.9
Expansion RF-33.9

Basic Model:
F-33.9

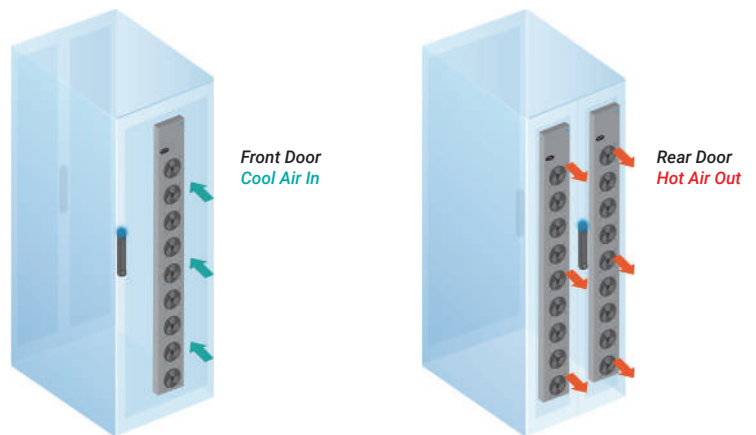


Benefits

- ▶ 33U door mount without occupying rack space
- ▶ Easy installation with common tools
- ▶ Designed for low noise & high airflow performance
- ▶ Thin & light weight design only 5 kgs / 11 lbs
- ▶ Improves extraction of heat from high density rack
- ▶ No. of Fans: 9
- ▶ Individual Fan CFM: 108 CFM
- ▶ Unit CFM (approx.): 972 CFM
- ▶ Bundle 1 x temperature sensor with 6 ft wire
- ▶ Front temperature LED
- ▶ 48V, 24V or 12VDC power option

Extra Benefits by Intelligent Fan Models

- ▶ Cascade ports for daisy chain up to 16 levels via Cat6 cable
- ▶ 1 x intelligent master fan unit allows access to 16 fan unit levels over internet
- ▶ Free ICM-02 management software remote access up to 480 fan units
- ▶ Auto & manual CFM setting reduces power consumption
- ▶ Temperature sensing technology adjusts the fan speeds accordingly
- ▶ Unit or individual fan on / off (remote or local)



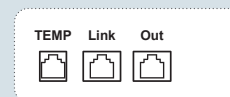
| Model | Installation | Airflow | Purpose |
|---|--|-----------------------------------|---|
| MRF-33.9A RF-33.9A F-33.9A | Rear door outside Front door inside | Extract airflow Intake airflow | Exhaust air out from rack Cool air in from aisle |
| MRF-33.9B RF-33.9B F-33.9B | Rear door inside Front door outside | Extract airflow Intake airflow | Exhaust air out from rack Cool air in from aisle |

* Package includes the material of clear polycarbonate plastic to block off the remaining open perforated area of the door to eliminate bypass air.

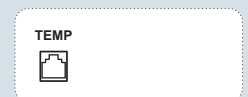
Connection Ports (at Top of Fan Panel)



MRF-33.9



RF-33.9



F-33.9

Temperature Sensor

Bundled with Intelligent Fan

- Magnetic base
- Plug & Play
- 6 ft wire



Bundled with Basic Fan

- Plug & Play
- 6 ft wire

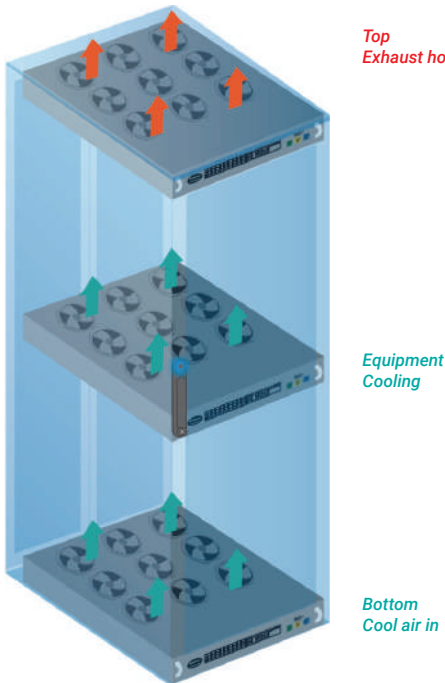


Benefits

- ▶ 1U rackmount
- ▶ Designed for low noise & high airflow performance
- ▶ Individual Fan CFM: 108 CFM
- ▶ Basic models : 3, 6 or 9 fans / 324, 648 or 972 CFM
- ▶ Intelligent models : 6 or 9 fans / 648 or 972 CFM
- ▶ Bundle 1 x temperature sensor with 6 ft wire
- ▶ Front temperature LED
- ▶ 48V, 24V or 12VDC power option

Extra Benefits by Intelligent Fan Models

- ▶ Cascade ports for daisy chain up to 16 levels via Cat6 cable
- ▶ 1 x intelligent Master IP fan unit allows access to 16 fan unit levels over internet
- ▶ Free ICM-02 management software remote access up to 480 fan units
- ▶ Auto & manual CFM setting reduces power consumption
- ▶ Temperature sensing technology adjusts the fan speeds accordingly
- ▶ Unit or individual fan on / off (remote or local)



Top
Exhaust hot air out

Equipment
Cooling

Bottom
Cool air in

Intelligent Model : Master IP MRF-1.9 / 1.6



Available with 9 or 6 Fans

Intelligent Model : Expansion RF-1.9 / 1.6



Available with 9 or 6 Fans

Basic Model : F-1.9 / 1.6 / 1.3

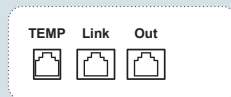


Available with 9, 6 or 3 Fans

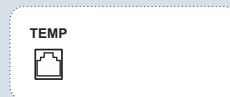
Connection Ports (at Front of Fan Unit)



MRF-1.9 / MRF-1.6



RF-1.9 / RF-1.6



F-1.9 / F-1.6 / F-1.3

Temperature Sensor

Bundled with Intelligent Fan

- Magnetic base
- Plug & Play
- 6 ft wire



Bundled with Basic Fan

- Plug & Play
- 6 ft wire



To maintain optimum operational conditions in data centers, getting instant notification of environmental fluctuations is vital. InfraGuard offers a wide range of sensors for complete environmental monitoring of IT racks.

EC-300M - Master Control Box
(1st Level)



EC-300 - Expansion Control Box
(2nd - 16th Level)



Temp. + Humid. Sensor



- One sensor for temperature & humidity
- Low profile and light weight design with a magnetic base for easy affixing to rack

Part no. :
IG-TH01-2M with 6 ft cord
IG-TH01-4M with 13 ft cord

Temp. Sensor



- Detection for temperature
- Low profile and light weight design with a magnetic base for easy affixing to rack

Part no. :
IG-T01-2M with 6 ft cord
IG-T01-4M with 13 ft cord

Water Sensor



- Fluid leakage detection
- 16 ft rope round the rack bottom to detect any fluid flowing to the rack area
- IP65 cable joint connectors provided

Part no. :
IG-W01-3M with 10 ft cord

Smoke Sensor



- Safely operated smoke detection

Part no. :
IG-S01-1M with 3 ft cord
IG-S01-3M with 10 ft cord

Shock Sensor



- Alert the physical vibration on the rack

Part no. :
IG-V01-1M with 3 ft cord
IG-V01-3M with 10 ft cord

LED Beacon



- Highly visible for alerting user to alarm status

Part no. :
IG-FB03-1M with 3 ft cord
IG-FB03-3M with 10 ft cord

Inductive Door Sensor



- Light weight, mini size & adhesive
- No custom cutting required on doors
- Easy for existing rack retrofit or integration to new rack

Part no. :
IG-DSI-2M with 6 ft cord
IG-DSI-4M with 13 ft cord

Mechanical Door Sensor



- Low cost
- Precise
- Cost efficient integration to new rack
- Custom cutting required on door

Part no. :
IG-DSW-2M with 6 ft cord
IG-DSW-4M with 13 ft cord

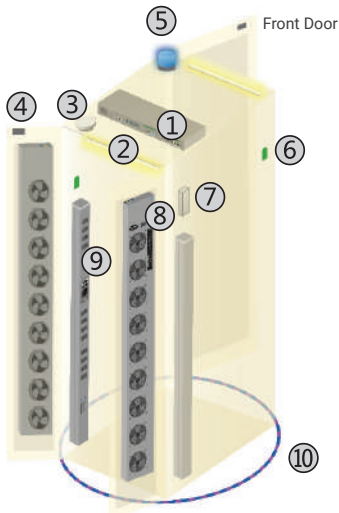
LED Light Bar



- Auto ON / OFF by door sensor detection
- Manual ON / OFF by software remote
- Magnetic base for easy affixing to rack
- Dimension (W x D x H) : 0.86 x 11.8 x 0.47 inch

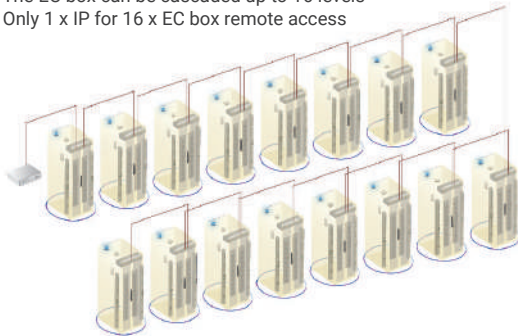
Part no. :
CLB-IX-002 with 6 ft cord
CLB-IX-003 with 10 ft cord

One Box One Rack



| Item | Rack |
|-------------------------|------|
| 1 EC Box | 1 |
| 2 LED Light Bar | 2 |
| 3 Smoke Sensor | 1 |
| 4 Door Sensor | 2 |
| 5 Flashing LED Beacon | 1 |
| 6 Temp. & Humid. Sensor | 2 |
| 7 Shock Sensor | 1 |
| 8 Fan Unit | 2 |
| 9 PDU | 2 |
| 10 Water Sensor | 1 |

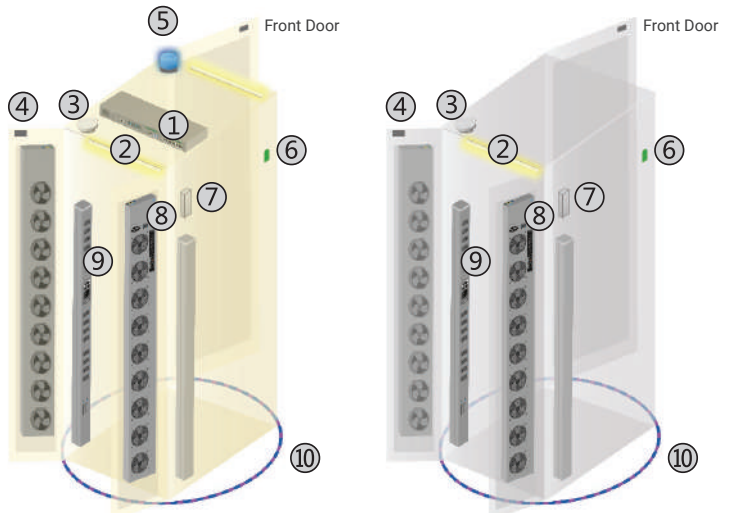
- EC 300M as the 1st level Master IP EC box
- The EC box can be cascaded up to 16 levels
- Only 1 x IP for 16 x EC box remote access



Free Software IGM-03

- Supports 30 IP addresses
- 480 EC boxes & 480 IT server racks
- Thousands of rack sensors & 1920 iPDUs & iFans

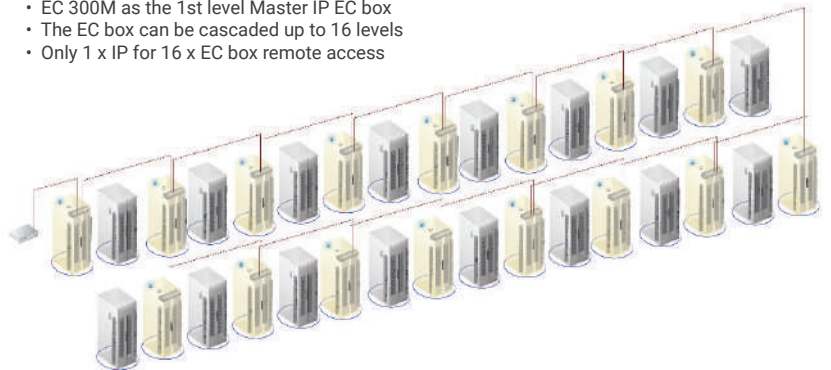
One Box Two Rack



| Item | Rack 1 | Rack 2 |
|-------------------------|--------|--------|
| 1 EC Box | 1 | - |
| 2 LED Light Bar | 1 | 1 |
| 3 Smoke Sensor | 1* | 1* |
| 4 Door Sensor | 2 | 2 |
| 5 Flashing LED Beacon | 1 | - |
| 6 Temp. & Humid. Sensor | 1 | 1 |
| 7 Shock Sensor | 1* | 1* |
| 8 Fan Unit | 2 | 2 |
| 9 PDU | 2 | 2 |
| 10 Water Sensor | 1 | 1 |

* either smoke sensor or shock sensor

- EC 300M as the 1st level Master IP EC box
- The EC box can be cascaded up to 16 levels
- Only 1 x IP for 16 x EC box remote access



Free Software IGM-03

- Supports 30 IP addresses
- 480 EC boxes & 960 IT server racks
- Thousands of rack sensors & 1920 iPDUs & iFans

Rack Environmental Management Over IP

Remote management helps reducing manpower and hence improving uptime and productivity. InfraGuard offers two remote environmental management solutions for users' selection.



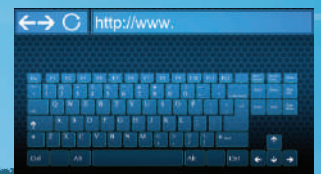
3rd Party
DCIM

via SNMP





InfraGuard
IGM-03

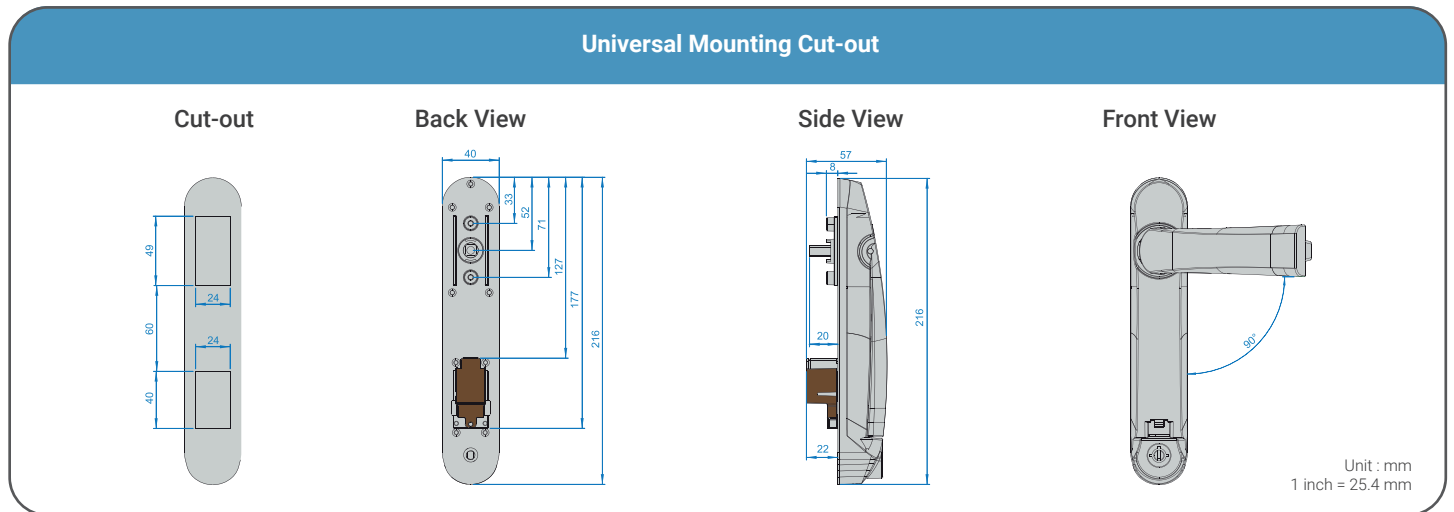
Free Download



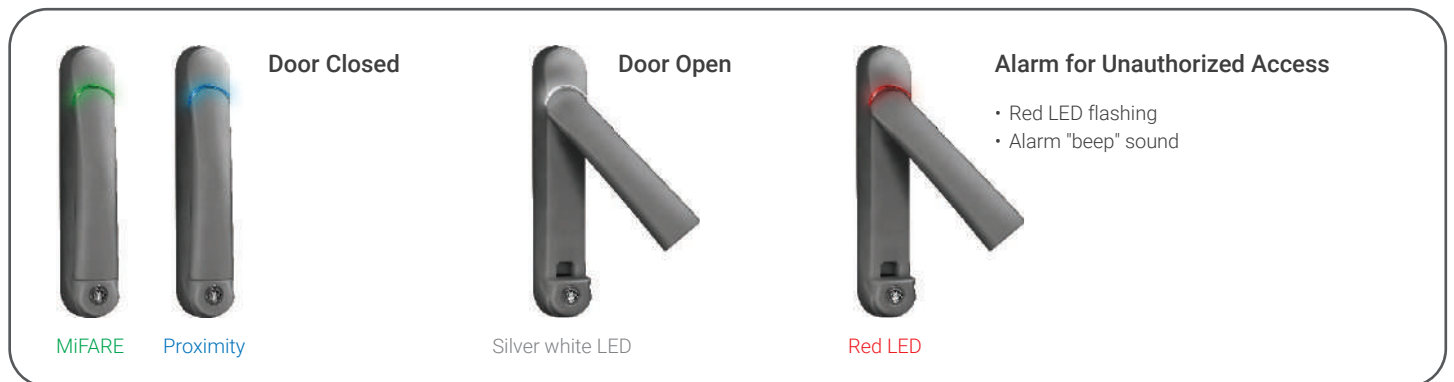
To satisfy high level data center security requirements, Austin Hughes has launched a standalone rack access solution with alloy swing handles & 2.8" touchscreen control panel. The InfraSolution S-700 series provides an innovative yet affordable solution for secure rack access in 21st century data centers.



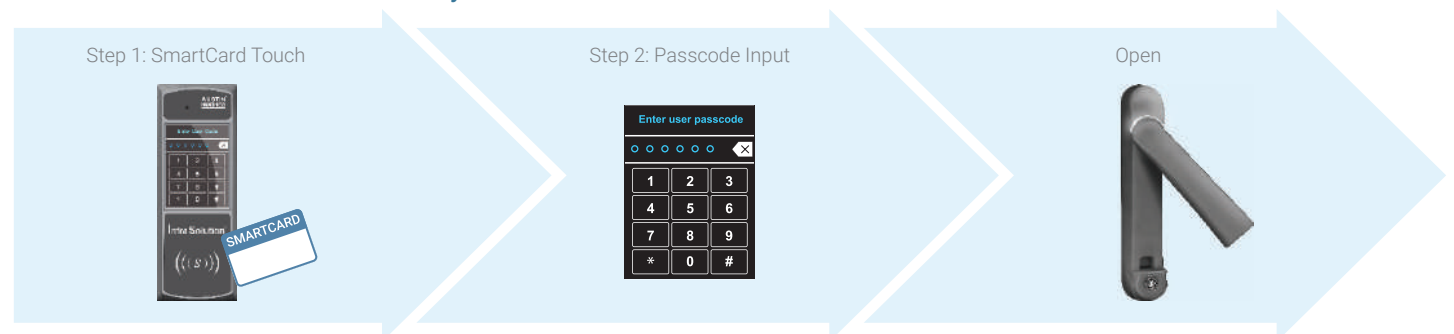
| S-700P | Features | S-700M |
|---|---|---|
|  | ✓ Standalone, patented design | ✓ |
| | ✓ Dual security: SmartCard + NumPad | ✓ |
| | ✓ Rugged alloy swing handle | ✓ |
| | ✓ Sophisticated control panel w/ touchscreen | ✓ |
| | ✓ Proximity 26-bit SmartCard compatible | ✗ |
| | ✗ MIFARE 26-bit SmartCard compatible | ✓ |
| | ✓ Dual locking system (electronic and mechanical lock) | ✓ |
| | ✓ Electronic lock released by SmartCard & NumPad | ✓ |
| | ✓ Rack access status and alarm indication by LED | ✓ |
| | ✓ Individually keyed lock options available | ✓ |
| | ✓ Left side opening standard (optional right side open) | ✓ |
| | |  |



Handle LED




Two-factor Authentication - Dual Security



Control Panel

Touchscreen Color LCD

- Resistive touch
- Sophisticated & stylish
- User friendly




NumPad

- Passcode assignment
- Passcode authentication
- Add / delete user cards

Display & Monitoring via 2.8" LCD

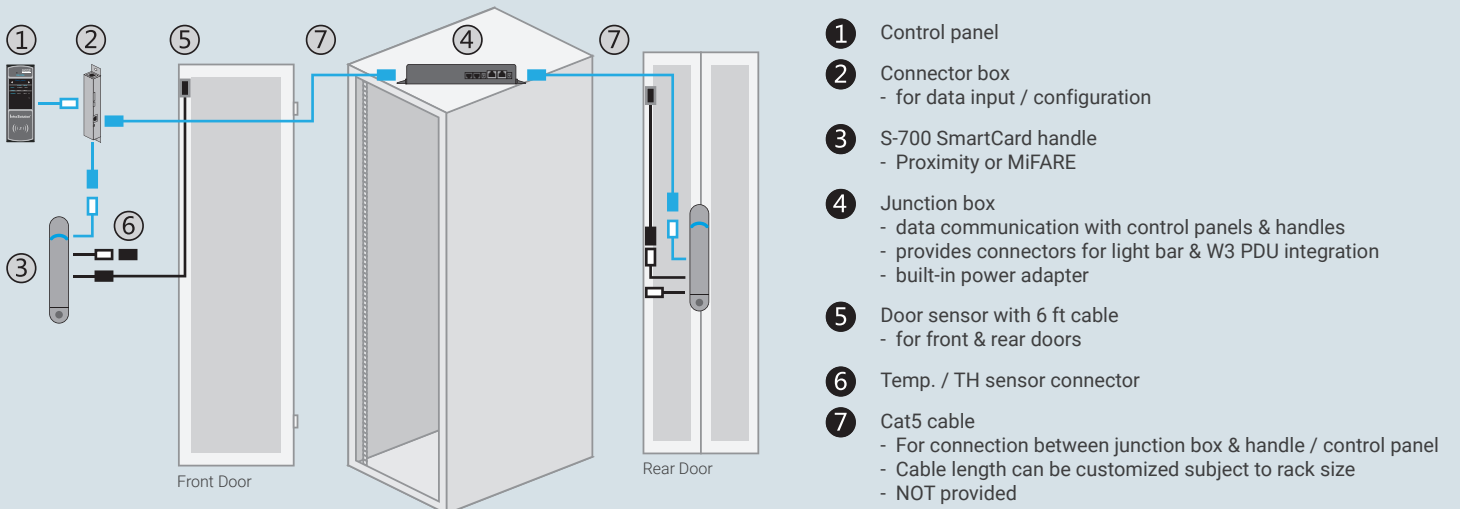
- Rack information
- Door status
- Alarm notifications
- Temp. / humid. values
- PDU Amp. values



SmartCard Sensor

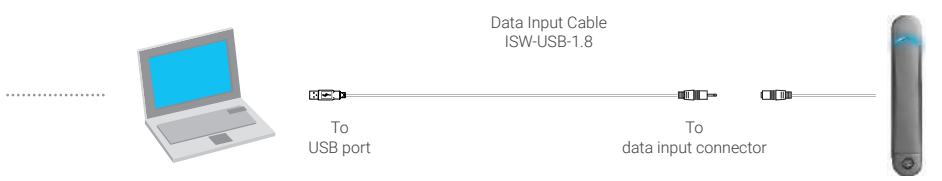
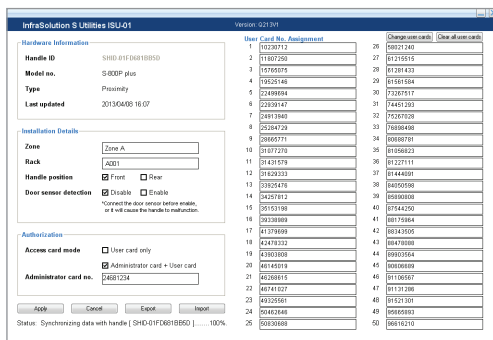
- Proximity 26-bit
- MIFARE 26-bit :
 - Classic
 - DESFire EV1 / EV2
 - Plus S / Plus X
 - Plus EV1

Installation Diagram



Software



Via the **Free** utility (ISU-01), administrators can change admin / user passcodes and assign smartcards. A maximum of 50 user card credentials can be managed per control panel. Setup is easy via the optional data input cable (ISW-USB-1.8).

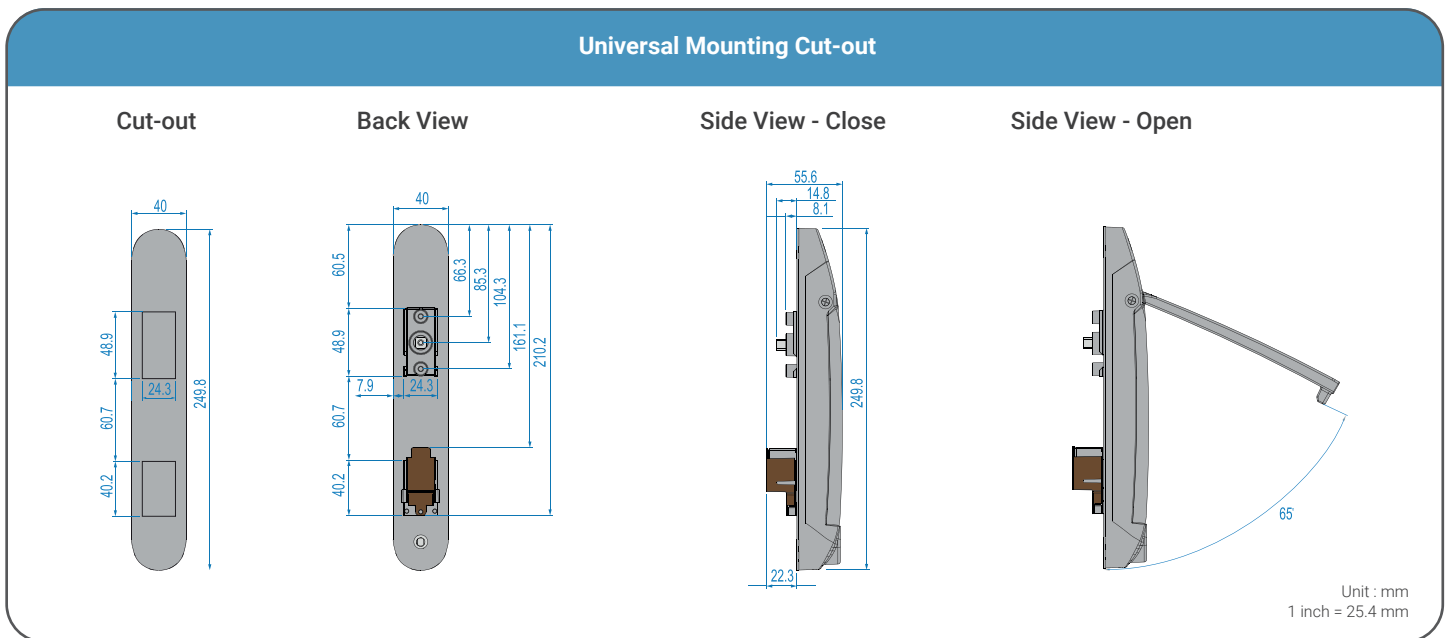


The patented S-800 SmartCard handle is designed for total rack access control and management.


For 100% accurate detection of exactly which door opened, InfraSolution S-800 is equipped with high quality, durable, precision door sensors for both doors.



| S-800P | Features | S-800M |
|--|---|---|
|  <p>PROXIMITY SMARTCARD</p> | ✓ Standalone, patented design | ✓ |
| | ✓ Proximity 26-bit SmartCard compatible | ✗ |
| | ✗ MiFARE 26-bit SmartCard compatible | ✓ |
| | ✓ Dual locking system (electronic and mechanical lock) | ✓ |
| | ✓ Electronic lock released by SmartCard | ✓ |
| | ✓ Rack access status and alarm indication by LED | ✓ |
| | ✓ Individually keyed lock options available | ✓ |
| | ✓ Left side opening standard (optional right side open) | ✓ |
| | |  <p>MiFARE SMARTCARD</p> |




Handle LED




MiFARE Proximity

Door Closed



Silver white LED

Door Open



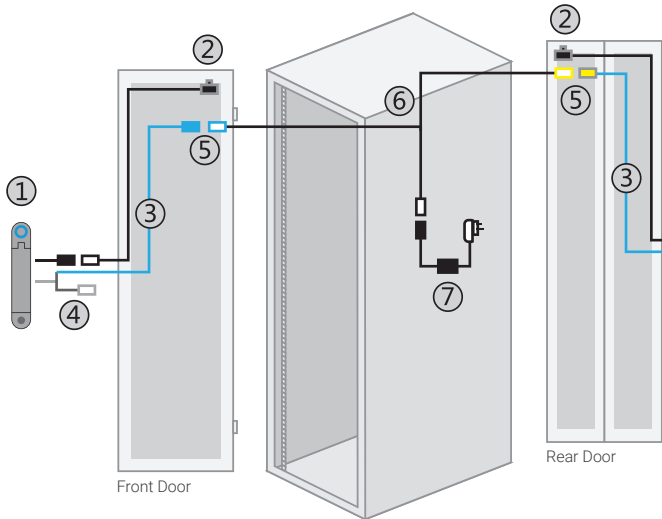
Red LED

Alarm for Unauthorized Open

- Red LED flashing
- Alarm "beep" sound

* Only available while handles equipped with door sensors

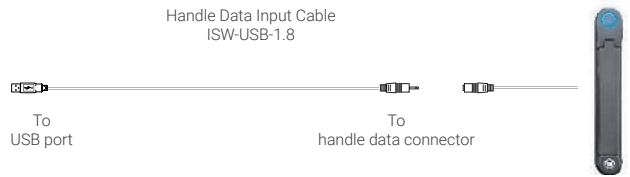
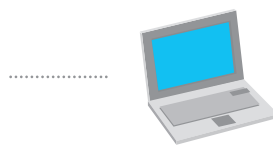
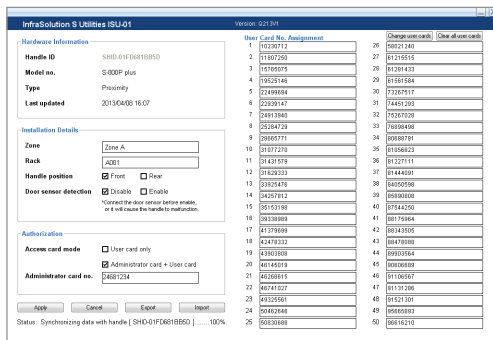
Installation Diagram



- ① S-800P Proximity or S-800M MiFARE smartcard handle :
2pcs for front & rear door, with cables to connect ②, ③, ④
- ② Optional door sensor with cable :
2pcs for front & rear door (6 ft)
- ③ Power cable (door section) :
2pcs for front & rear door (6 ft)
- ④ Data input connector
(for handle activation / data input / configuration)
- ⑤ Joint connector of ③ & ⑥
- ⑥ Y-Power cable (rack section)
- ⑦ Universal Auto switching 2.5A power adapter & 6 ft power cord

Software

Via the **Free** utility (ISU-01), administrators can change admin / user passcodes and assign smartcards. A maximum of 50 user card credentials can be managed per control panel. Setup is easy via the optional data input cable (ISW-USB-1.8).



Door Sensors for InfraSolution

IR Door Sensor (Pair)
Part no. : S-DIR



- Light weight
- Magnetic base for easy rack retrofit
- No custom cutting required on doors
- Mini size (1.3 x 0.75 x 0.28 inch)
- Reflective labels bundled
- With 6 ft cord
- Support InfraSolution S / X

Inductive Door Sensor (Pair)
Part no. : S-DSI



- Light weight
- Adhesive for easy rack retrofit
- No custom cutting required on doors
- Mini size (1.28 x 0.48 x 0.36 inch)
- Mounting brackets bundled
- With 6 ft cord
- Support InfraSolution S / X

Mechanical Door Sensor (Pair)
Part no. : S-DSW



- Precise
- Low cost
- Cost efficient integration to new rack
- Size (2 x 0.89 x 1.21 inch)
- Mounting brackets bundled
- With 6 ft cord
- Support InfraSolution S / X

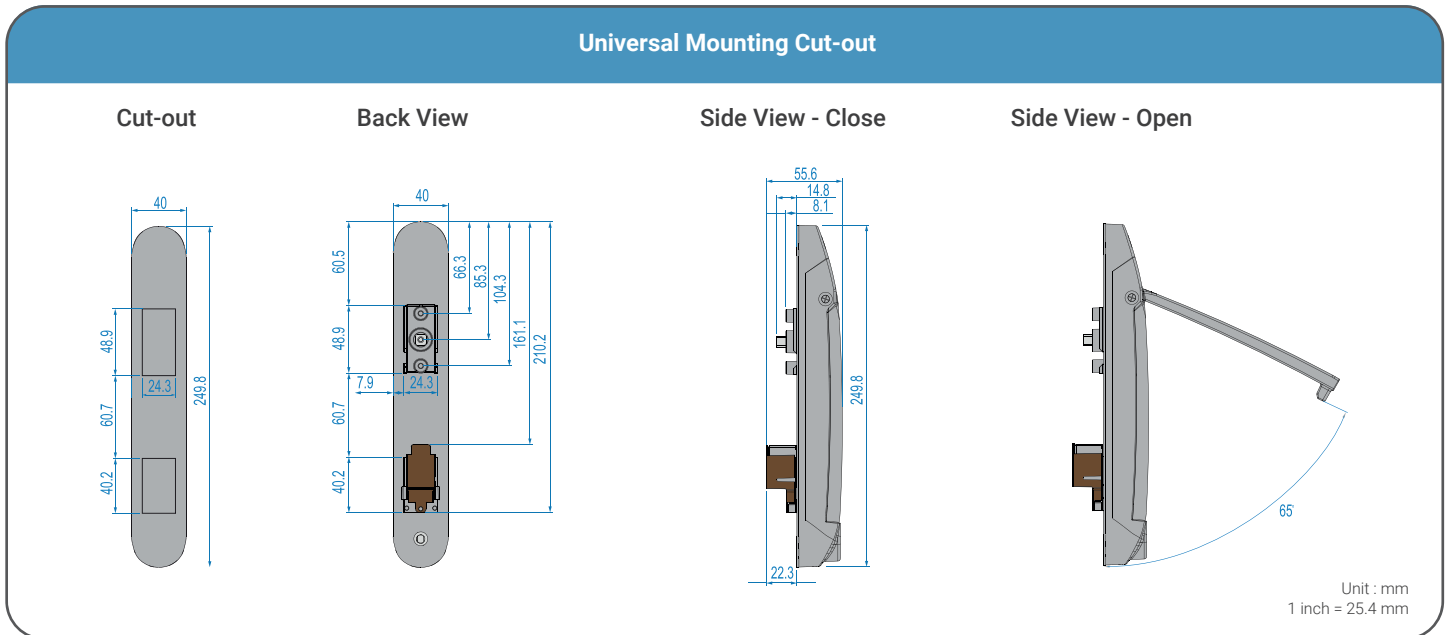
The patented X-800 SmartCard handle is designed for total rack access control and management.

The X-2000 control box, designed for rack SmartCard Access + PDU/Fan/Environmental Management, consolidates the smartcard access components and management of other integrated rack devices such as smart PDUs, cooling fans and environmental sensors in a single rack appliance. To facilitate centralized management, all control boxes can be connected via wired networks.

For 100% accurate detection of exactly which door opened, InfraSolution X-800 is equipped with high quality, durable, precision door sensors for both doors.



| X-800P | Features | X-800M |
|--------|---|--------|
| | ✓ Networked, patented design | ✓ |
| | ✓ Proximity 26-bit SmartCard compatible | ✗ |
| | ✗ MiFARE 26-bit SmartCard compatible | ✓ |
| | ✓ Dual locking system (electronic and mechanical lock) | ✓ |
| | ✓ Electronic lock released by SmartCard | ✓ |
| | ✓ Rack access status and alarm indication by LED | ✓ |
| | ✓ Individually keyed lock options available | ✓ |
| | ✓ Left side opening standard (optional right side open) | ✓ |
| | | |



Handle Unlocking

The InfraSolution X-800 handle offers three ways to release the lock - Software Remote, SmartCard or Mechanical Key.

By Software Remotely



By SmartCard

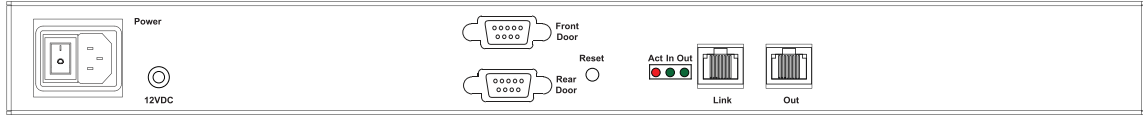


By Mechanical Key



Control Box

X-1000



① ②

③

④

⑤

⑥

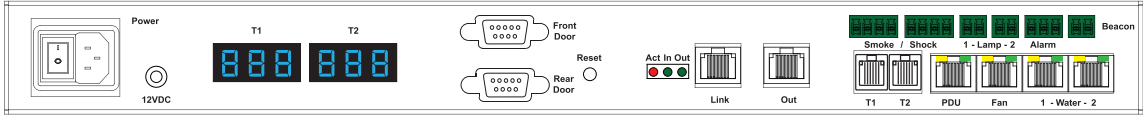
⑦

⑧

⑨

⑩

X-2000



⑪

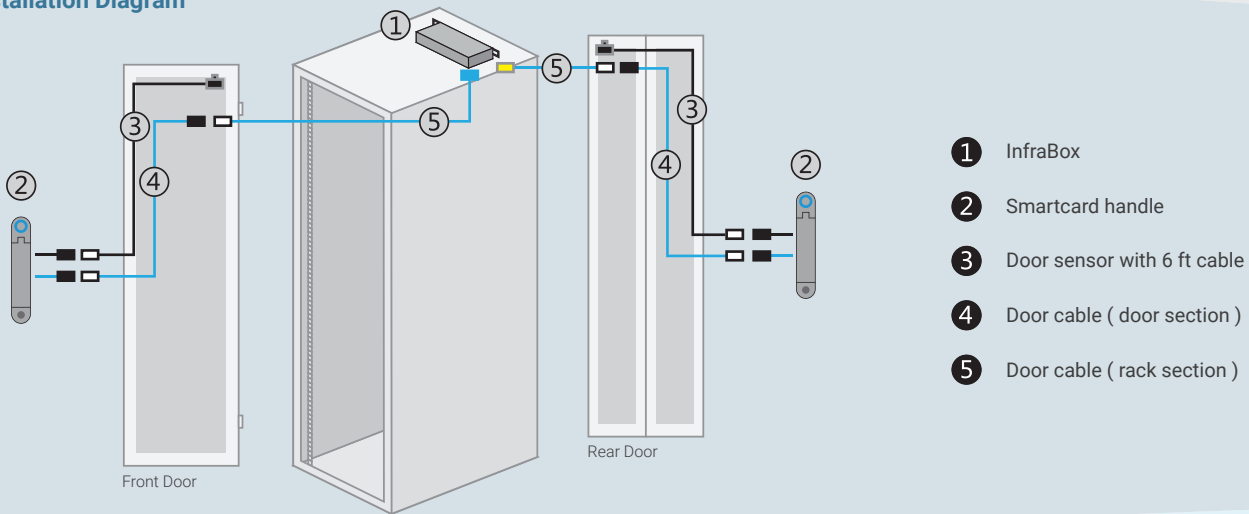
⑫

⑬

⑭

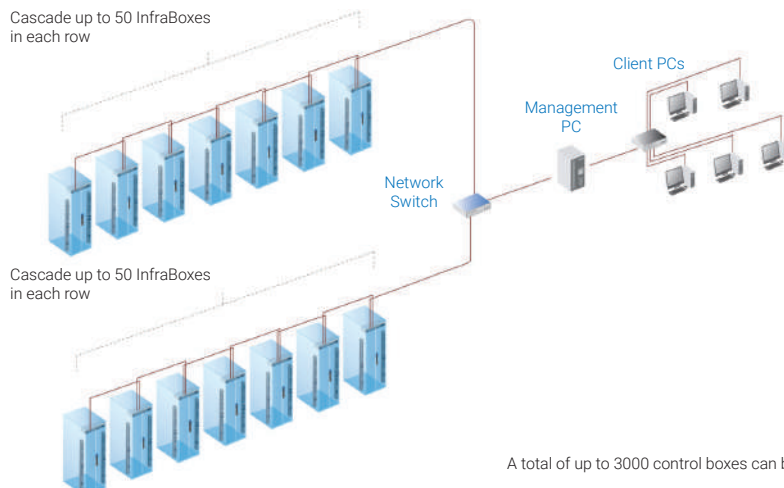
- ① Power input
- ② Dual power input (option)
- ③ Door cable DB-9 connector x 2
Connect to the front and rear handle
- ④ "Act in Out" LED
- ⑤ Daisy chain RJ45 port x 2 (Link & Out)
- ⑥ Temp. LED display x 2
- ⑦ Smoke / Shock sensor port x 2
- ⑧ LED Light Bar port x 2
- ⑨ Port for 3rd party alarm board x 1
- ⑩ LED beacon port x 1
- ⑪ Temp. & Humid. sensor port x 2
- ⑫ PDU port x 1 (RJ-45, Daisy Chain up to 4 PDUs)
- ⑬ Fan unit port x 1 (RJ-45, Daisy chain up to 2 fan units)
- ⑭ Water sensor port x 2

Installation Diagram



- ① InfraBox
- ② Smartcard handle
- ③ Door sensor with 6 ft cable
- ④ Door cable (door section)
- ⑤ Door cable (rack section)

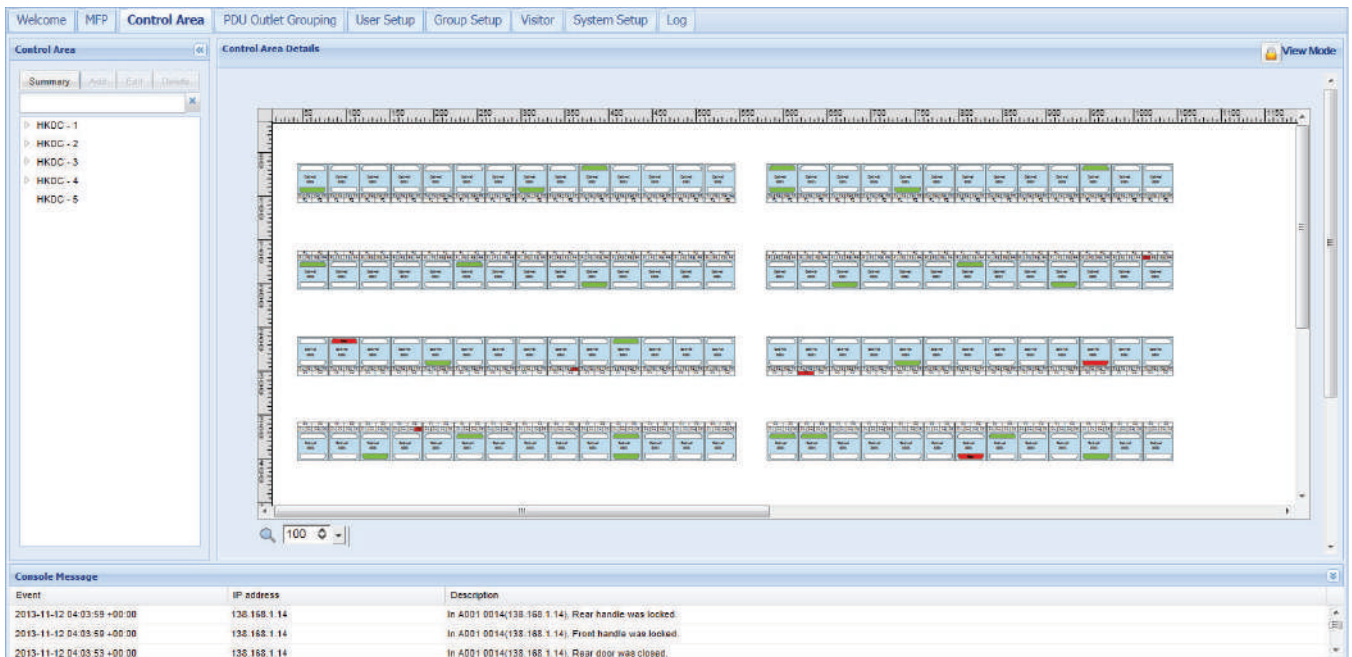
InfraBox Connection Diagram



A total of up to 3000 control boxes can be managed on the network

InfraSolution X Manager X-ISM is a LICENSED rack management software to monitor up to 3000 racks remotely.

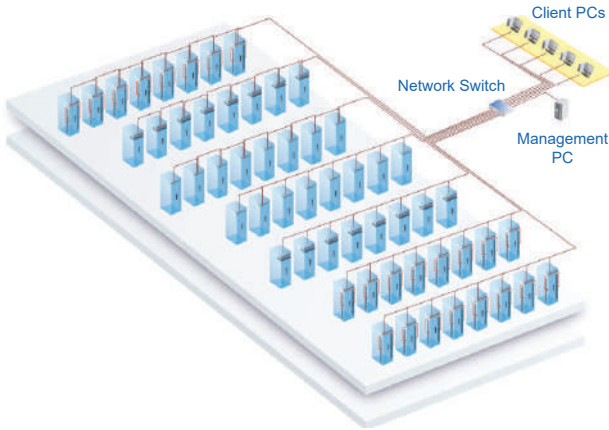
Each InfraBox connects a pair of Smartcard handles for secure rack access control and a variety of sensors to provide an integrated environmental monitoring solution. To enhance the functionality, up to 1920 PDUs and 960 Fan Units can be monitored through InfraSolution X Manager. To meet the requirements of today's multi-user, multi-tasking data center operations, up to 100 concurrent users can access the management software remotely.



| Features | | X-ISM |
|-----------------------|--|-------|
| Capacity | InfraBox | 3000 |
| | Concurrent Users | 100 |
| System Setup | Backup/Restore Options | ✓ |
| | Time Rules | ✓ |
| | Alarm Mail Server Settings | ✓ |
| | Audio and Visual Alarm Output Setting | ✓ |
| Cabinet Overview Door | Door Status, PDUs, Sensor & Fan Units | ✓ |
| | Remotely Open Door | ✓ |
| | Last Door Open & Closed Record | ✓ |
| Sensor/Peripheral | Status Monitoring | ✓ |
| | Temp-Humid Alarm Threshold Settings | ✓ |
| PDU | Energy Consumption kWh/Amp Monitoring | ✓ |
| | Outlet Level Measurement | ✓ |
| | PDU Outlet Scheduling | ✓ |
| | Outlet ON/OFF Switching | ✓ |
| | Amp Alarm Threshold Settings | ✓ |
| | Amperage High/Low Alert Threshold Settings | ✓ |
| | Temp-Humid Monitoring | ✓ |
| Fan Unit | CFM & Temp. Monitoring | ✓ |
| | Unit CFM (Fan Speed) Settings | ✓ |
| | Auto CFM Control Settings | ✓ |
| | Individual Fan Kit ON/OFF | ✓ |
| | Fan Unit ON/OFF | ✓ |
| Chart/Event/Reporting | System & Device Event Reporting | ✓ |
| | Temp-Humid Historical Trending Charts | ✓ |

Application 1 - Data Center

Via cascading (up to 50 per group) through a network switch, InfraSolution X-800 can be scalable up to 3000 racks. Numerous InfraBoxes can coexist in the same network. Users can manage and remotely access all racks under a centralized and user-friendly GUI.

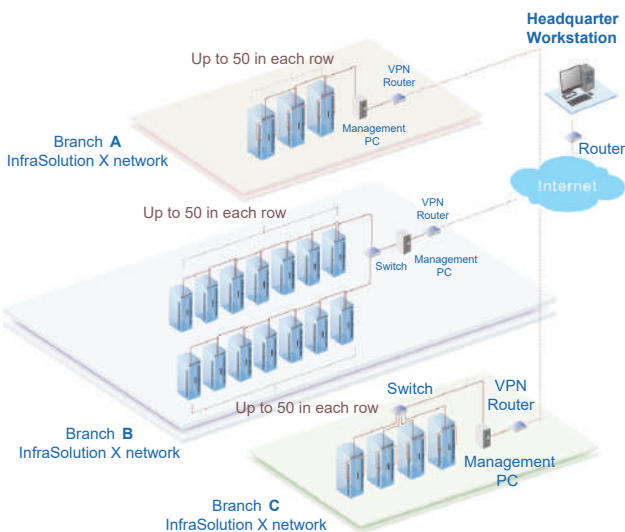


- Connect the 1st InfraBox in each daisy chain to the network switch
- Connect the management PC and client PCs via the network switch
- Up to 3000 Infraboxes/Racks

Application 3 - Branches

For a global or expanding company, it is vital to be able to remotely access and monitor the network of their nationwide or worldwide branches. InfraSolution X provides an ideal solution to keep an eye on rack access security and environmental conditions in remote or branch locations from a central headquarters.

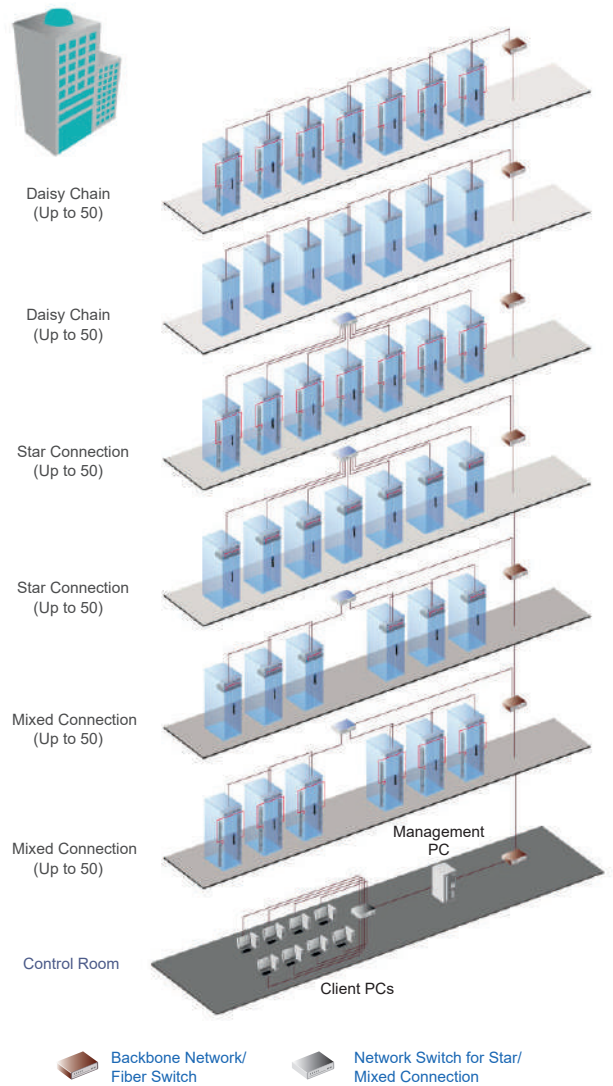
An InfraSolution X software license is required for each remote site/management PC



Application 2 - Intelligent Building

It is essential for multi-storey, intelligent smart buildings to use centralized management for control of mechanical and electrical systems such as security, power, ventilation, and lighting.

The InfraSolution X system allows equipment to be distributed throughout a building by simply deploying over an Ethernet network. To keep capital costs down, InfraSolution X can also be cascaded between boxes - up to 328 ft over a Cat5/6 cable. Signal weakness issues, over longer distances between InfraBoxes, can be solved by inserting network hubs with repeater functionality.



Setup Scenario integrated with the Intelligent Building

- Connect the InfraSolution X network on each floor via the network ethernet / fiber switch
- Up to 3000 Infraboxes/Racks



4K 60Hz KVM

- 4K KVM with 8 ports in 1U
- KVM cables support DP & HDMI video input
- USB hub ports share peripheral devices among computers
- Local console & KVM ports support 4K, 2K and 1080p resolutions
- Port switching via front button & keyboard hotkeys
- Multi platform, hot pluggable, no software or drivers required



2K KVM

- 2K KVM with 8 ports in 1U
- KVM cables support DVI-D & HDMI video input
- Local console & KVM ports support 2K and 1080p resolutions
- Port switching via front button & keyboard hotkeys
- Multi platform, hot pluggable, no software or drivers required



DVI-D KVM

- DVI-D KVM with 12 ports in 1U
- Port switching via front button & keyboard hotkeys
- Multi platform, hot pluggable, no software or drivers required



Combo Cat6 KVM

- Cat6 KVM with 8, 16 or 32 ports in 1U
- Cat6 dongles available for USB-C, DP, HDMI, DVI-D or VGA video input
- IP 1080 / Remote console options
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required
- Cascade up to 8 KVM switches to control as many as 256 servers



Matrix Cat6 KVM

- Cat6 KVM with 16 or 32 ports in 1U
- Simultaneous & independent access for up to 4 consoles
- Cat6 dongles available for USB Type-C, DP, HDMI, DVI-D or VGA video input
- IP 1080 / Remote console options
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required
- Cascade up to 8 KVM switches to control as many as 256 servers




Combo DB-15 KVM

- DB-15 KVM with 8 or 16 ports in 1U
- IP 1080 / Remote console options
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required
- Cascade up to 8 KVM switches to control as many as 128 servers



USB Hub DB-15 KVM

- DB-15 KVM with 8 ports in 1U
- IP 1080 / Remote console options
- USB hub ports share peripheral devices among computers
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required

| KVM Series | 4K 60Hz | 2K | DVI-D | Combo Cat6 | Matrix Cat6 | Combo DB-15 | USB Hub DB-15 |
|--|---|---|---|---|---|---|---|
| KVM Port | HDMI + USB | HDMI + USB | DVI-D + USB | RJ-45 | RJ-45 | DB-15 | DB-15 |
| Server-side Video | DP / HDMI | DVI-D / HDMI | DVI-D | USB-C DP / HDMI DVI-D / VGA | USB-C DP / HDMI DVI-D / VGA | VGA | VGA |
| Server-side KB / MS | USB | USB | USB | USB | USB | USB / PS2 | USB |
| Number of Ports | 8 | 8 | 12 | 32 / 16 / 8 | 32 / 16 | 16 / 8 | 8 |
| Max. Resolution - 16 : 9 16 : 10 4 : 3 | 3840 x 2160 1920 x 1200 1600 x 1200 | 2560 x 1440 1920 x 1200 1600 x 1200 | 1920 x 1080 1920 x 1200 1600 x 1200 | 1920 x 1080 1920 x 1200 1600 x 1200 | 1920 x 1080 1920 x 1200 1600 x 1200 | 1920 x 1080 1920 x 1200 1600 x 1200 | 1920 x 1080 1920 x 1200 1600 x 1200 |
| Server-side Audio | Digital (DP / HDMI) | Digital (HDMI) | Stereo | | | | |
| USB Device Port | 2 x USB 2.0 | | | | | | 2 x USB 2.0 |
| Max. Distance (to Server) | 2M (6.6 FT) | 2M (6.6 FT) | 4.5M (14.7 FT) | 40M (131 FT) | 40M (131 FT) | 4.5M (14.7 FT) | 4.5M (14.7 FT) |
| Cascade Levels | | | | 8 | 8 | 8 | |
| Simultaneous Users (max. 4) | | | | | ✓ | | |
| On-Screen Menu | | | | ✓ | ✓ | ✓ | ✓ |
|  1080 Access Option | | | | ✓ | ✓ | ✓ | ✓ |
| DC Power Option: 12V / 24V / 48V / 125V / 250V | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Multi Lingual OSD Menu | | | | ✓ | ✓ | ✓ | ✓ |
| 1U Standalone KVM | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| KVM integration to LCD Console Drawer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

KVM Cable

4K 60Hz KVM

CK-6P

CK-6H



DP KVM cable
6 ft



HDMI KVM cable
6 ft

2K KVM

CH-6D

CH-6H



DVI-D KVM cable
6 ft



HDMI KVM cable
6 ft

DVI-D KVM

CI - 6 / 15



DVI-D KVM cable
6 / 15 ft

DB-15 KVM

CB - 6 / 10 / 15



VGA KVM cable
6 / 10 / 15 ft

Cat6 KVM Dongle

DG-100C



USB-C dongle

DG-100P



DP-USB dongle

DG-100H



HDMI-USB dongle

DG-100SD



DVI-USB dongle

DG-100S



VGA-USB dongle



RKP117 / 119

1U 17" / 19" LCD Console Drawer

Benefits

- ▶ 1U 17" / 19" LCD console drawer
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Short depth design of 18.1 inch and 19.7 inch respectively
- ▶ One man installation design
- ▶ New enhanced aesthetics with molded front handle

Options

- HDMI 1.4 + DVI-D + Audio + Speakers (**AV4.4**)
- HDMI 1.4 + Speakers (**HDMI**)
- S-Video + Composite + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- Front USB hub port for device access (**USB**)
- 2-post rack mounting brackets (**ORB-2.1**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option
- 17" Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt
- 19" Touchscreen : Resistive 1-pt



N117 / 119

1U 17" / 19" LCD Console Drawer

Benefits

- ▶ 1U 17" / 19" LCD console drawer
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Short depth design of 19.7 inch
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- HDMI 1.4 + DVI-D + Audio + Speakers (**AV4.4**)
- HDMI 1.4 + Speakers (**HDMI**)
- S-Video + Composite + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option



D117 / 119

1U Dual Slide 17" / 19" LCD Console Drawer

Benefits

- ▶ 1U 17" / 19" LCD console drawer
- ▶ Dual slide - LCD and keyboard slide independently
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ 104-key USB keyboard with touchpad
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- HDMI 1.4 + DVI-D + Audio + Speakers (**AV4.4**)
- HDMI 1.4 + Speakers (**HDMI**)
- S-Video + Composite + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option

KVM Kit Options

- **2K KVM**
8 ports
(Resolution related to LCD specification)

- **DVI-D KVM**
12 ports

- **Combo Cat6 KVM**
8 / 16 / 32 ports
IP & Remote options

- **Matrix Cat6 KVM**
16 / 32 ports
IP & Remote options

- **Combo DB-15 KVM**
8 / 16 ports
IP & Remote options

- **USB-Hub DB-15 KVM**
8 ports
IP & Remote options



RP-717 / 819 7U / 8U Display Panel

Benefits

- ▶ 7U 17" / 8U 19" LCD display panel
- ▶ 1280 x 1024 native resolution / 16.7M colors
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ 2-year standard warranty (upgradable up to 5 years)

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio + Speakers (**DV4.4**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- IP65 front protection (**IP65**)
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen : Projected Capacitive 10-pt* / Capacitive 1-pt* / Resistive 1-pt

*Extra 1U chassis height will be increased after integration.



RP-W819QD 8U 19" Widescreen Quad Display Panel

Benefits

- ▶ 8U 19" widescreen LCD Quad display panel
- ▶ 1440 x 900 native resolution
- ▶ 16.7M colors
- ▶ VGA + Quad Display (Composite BNC x 4) video input

Options

- DC power : 12V / 24V / 48V / 125V / 250V



RP-117 / 119 1U 17" / 19" Display Drawer

Benefits

- ▶ 1U 17" / 19" LCD display drawer
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ Short depth design of 500mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio + Speakers (**DV4.4**)
- S-Video + Composite + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- 17" Touchscreen : Projected Capacitive 10-pt / Resistive 1-pt
- 19" Touchscreen : Resistive 1-pt



RP-120 1U 20" Display Drawer

Benefits

- ▶ 1U 20" LCD display drawer
- ▶ 1600 x 1200 native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio + Speakers (**AV3.0**)
- S-Video + Composite + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen : Resistive 1-pt



F117 1U 17" FHD LCD Console Drawer

Benefits

- ▶ 1U 17" LCD console drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Short depth design of 18.1 inch
- ▶ One man installation design
- ▶ New enhanced aesthetics with molded front handle

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DP 1.0 + Speakers (**DP**)
- DVI-D + Audio + Speakers (**DV4.4**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- Front USB hub port for device access (**USB**)
- 2-post rack mounting brackets (**ORB-2.1**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



F1417 1U 17" Ultra Short Depth FHD LCD Console Drawer

Benefits

- ▶ 1U 17" LCD console drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ Ideal for open rack / short depth rack
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Ultra Short depth design of 15.8 inch
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DP 1.0 + Speakers (**DP**)
- DVI-D + Speakers (**DVI**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI Broadcast-grade input + Speakers (**SDI**)
- Front USB hub port for device access (**USB**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



F121 1U 21" FHD Large LCD Console Drawer

Benefits

- ▶ 1U 21" LCD console drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DP 1.0 + Speakers (**DP**)
- DVI-D + Audio + Speakers (**DV4.4**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- Front USB hub port for device access (**USB**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option

| Model (left side open) | Model (right side open) |
|--------------------------|---------------------------|
| F121 | F121R |

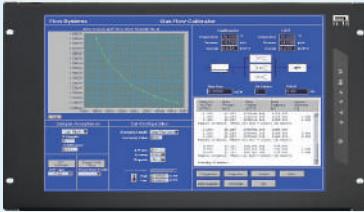
KVM Kit Options

- **2K KVM**
8 ports
(Resolution related to LCD specification)
- **DVI-D KVM**
12 ports

- **Combo Cat6 KVM**
8 / 16 / 32 ports
IP & Remote options
- **Matrix Cat6 KVM**
16 / 32 ports
IP & Remote options

- **Combo DB-15 KVM**
8 / 16 ports
IP & Remote options
- **USB-Hub DB-15 KVM**
8 ports
IP & Remote options

RP-F617 6U 17" FHD Display Panel



Benefits

- ▶ 6U 17" LCD display panel
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + VGA video input (speakers excluded)

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio + Speakers (**DV4.4**)
- DP 1.0 + HDMI-2.0 + Audio + Speakers (**DP**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt

** No DVI-D after integration of DP 1.0 video input*

RP-F821 8U 21" FHD Display Panel



Benefits

- ▶ 8U 21" LCD display panel
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio + Speakers (**DV4.4**)
- DP 1.0 + HDMI-2.0 + Audio + Speakers (**DP**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen : Resistive 1-pt

RP-F117 1U 17" FHD Display Drawer



Benefits

- ▶ 1U 17" LCD display drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ Short depth design of 480mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio + Speakers (**DV4.4**)
- DP 1.0 + Speakers (**DP**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt

RP-HF117 1U 17" FHD Sunlight Readable Display Drawer



Benefits

- ▶ 1U 17" LCD display drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ 1000 cd/m² brightness
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ Short depth design of 480mm
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio input & output + Speakers (**DV4.4**)
- DP 1.0 + Speakers (**DP**)
- Composite + Audio IN + Speakers (**BNC**)
- 3G / HD / SD-SDI Broadcast-grade input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



X117 1U 16.2" WUXGA LCD Console Drawer

Benefits

- ▶ 1U 16.2" LCD console drawer
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + DVI-D + VGA video input / USB KB / MS
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Dual stereo speakers
- ▶ Short depth design of 18.9 inch
- ▶ One Man installation design
- ▶ New enhanced aesthetics with molded front handle

Options

- Audio input & output (**AU**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- Front USB hub port for device access (**USB**)
- 2-post rack mounting brackets (**ORB-2.1**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



DX117 1U Dual Slide 16.2" WUXGA LCD Console Drawer

Benefits

- ▶ 1U 16.2" LCD console drawer
- ▶ Dual slide - LCD and keyboard slide independently
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ 104-key USB keyboard with touchpad
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D + Audio input & output + Speakers (**DV4.4**)
- 3G / HD / SD-SDI Broadcast-grade input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option



X124 1U 24" WUXGA Large LCD Console Drawer

Benefits

- ▶ 1U 24" LCD console drawer
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- DVI-D (**DVI**)
** No HDMI after integration of DVI option*
- 3G / HD / SD-SDI Broadcast-grade input + Speakers (**SDI**)
- Front USB hub port for device access (**USB**)
- DC power : 12V / 24V / 48V / 125V
- SUN Micro keyboard option
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt

| | |
|--------------------------|---------------------------|
| Model (left side open) | Model (right side open) |
| X124 | X124R |

KVM Kit Options

- **2K KVM**
8 ports
(Resolution related to LCD specification)
- **DVI-D KVM**
12 ports

- **Combo Cat6 KVM**
8 / 16 / 32 ports
IP & Remote options
- **Matrix Cat6 KVM**
16 / 32 ports
IP & Remote options

- **Combo DB-15 KVM**
8 / 16 ports
IP & Remote options
- **USB-Hub DB-15 KVM**
8 ports
IP & Remote options



RP-X617 6U 16.2" WUXGA Display Panel

Benefits

- ▶ 6U 16.2" LCD display panel
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + DVI-D + VGA video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Built-in dual stereo speakers

Options

- DP 1.0 + HDMI 2.0 + Audio input & output (**DP**)
- Composite + Audio IN (**BNC**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- MCS Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



RP-X924 9U 24" WUXGA Display Panel

Benefits

- ▶ 9U 24" LCD display panel
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors
- ▶ VGA + DVI-D + HDMI + Speaker
- ▶ Built-in dual stereo speakers
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency

Options

- DP 1.0 + HDMI 2.0 + Audio input & output (**DP**)
- Composite + Audio IN (**BNC**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- MCS Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen : Resistive 1-pt



RP-X117 1U 16.2" WUXGA Display Drawer

Benefits

- ▶ 1U 16.2" LCD display drawer
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors (8-bit)
- ▶ HDMI 1.4 + VGA video input (speakers excluded)
- ▶ Short depth design of 480mm
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

Options

- Dual stereo speakers for HDMI (**HS4.4**)
- 3G / HD / SD-SDI Broadcast-grade input + Speakers (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen : Resistive 1-pt



K117 1U 17" 4K LCD Console Drawer

Benefits

- ▶ 1U 17" 4K LCD console drawer
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolutions support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 video input / USB KB / MS
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Built-in dual stereo speakers
- ▶ Short depth design of 18.9 inch
- ▶ One man installation design
- ▶ New enhanced aesthetics with molded front handle

Options

- HDMI 2.0 video input (**HDMI**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- Front USB hub port for device access (**USB**)
- 2-post rack mounting brackets (**ORB-2.1**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



K1417 1U 17" Ultra Short Depth 4K LCD Console Drawer

Benefits

- ▶ 1U 17" 4K LCD console drawer
- ▶ 3840 x 2160@60Hz native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 video input / USB KB/MS
- ▶ Ideal for open rack / short depth rack
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Ultra Short depth design of 15.8 inch
- ▶ Built-in dual stereo speakers
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- HDMI 2.0 with 2 x USB KB/MS cable (**HDMI**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



K123 1U 23" 4K Large LCD Console Drawer

Benefits

- ▶ 1U 23" 4K LCD console drawer
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolutions support
- ▶ 1.07B colors (10-bit)
- ▶ Display port 1.2 video input / USB KB / MS
- ▶ 104-key USB keyboard with either touchpad or trackball
- ▶ Built-in dual stereo speakers
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- HDMI 2.0 video input (**HDMI**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- Front USB hub port for device access (**USB**)
- DC power : 12V / 24V / 48V / 125V / 250V
- SUN Micro keyboard option

| Model (left side open) | Model (right side open) |
|--------------------------|---------------------------|
| K123 | K123R |

KVM Kit Options

- **4K 60Hz KVM**
8 ports



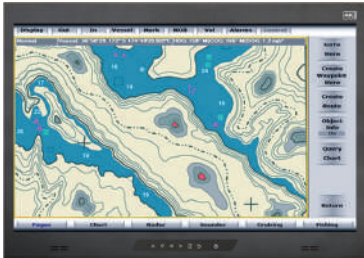
RP-K617 6U 17" 4K Display Panel

Benefits

- ▶ 6U 17" 4K LCD display panel
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Built-in dual stereo speakers

Options

- 12G / 4K60 / SD-SDI input (**12G-SDI**)
* No HDMI 2.0 after integration of 12G-SDI
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



RP-K923 9U 23" 4K Display Panel

Benefits

- ▶ 9U 23" 4K LCD display panel
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 1.07B colors (10-bit)
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Built-in dual stereo speakers

Options

- 12G / 4K60 / SD-SDI input (**12G-SDI**)
* No HDMI 2.0 after integration of 12G-SDI
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- Multi display OSD controller (**MCS**)
- MIL-type or lockable connector
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt



RP-K117 1U 17" 4K Display Drawer

Benefits

- ▶ 1U 17" 4K LCD display drawer
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 video input
- ▶ Built-in dual stereo speakers
- ▶ Short depth design of 480mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

- HDMI 2.0 video input (**HDMI**)
- 3G / HD / SD-SDI Broadcast-grade input (**SDI**)
- DC power : 12V / 24V / 48V / 125V / 250V
- Touchscreen :
Projected Capacitive 10-pt / Resistive 1-pt

MRK

2U Multi-display Console Drawer



Benefits

- ▶ 2U 22" short depth design
- ▶ Light weight
- ▶ Rugged construction for mobility & durability
- ▶ Built-in solid bearing slide rails
- ▶ Built-in dual stereo speaker (per display)
- ▶ Four LED backlit display selections (4K, WUXGA, FHD, 4:3)
- ▶ DVI-D + VGA video input for WUXGA, FHD & 4:3 (per display)
- ▶ Display port 1.2 video input for 4K (per display)
- * Attached 6ft DP cable*
- ▶ 104-key keyboard with either touchpad or trackball (PS2 / USB)
- ▶ Fits 24" ~ 36" rack via adjustable mounting brackets

Options

- DC power: 12V / 24V / 48V / 125V / 250V
- 3G / HD / SD-SDI Broadcast-grade input
- Sunlight readable LCD for 17" FHD & 19" 4:3
- Touchscreen
- SUN Micro keyboard options available
- Front USB hub port for device access
- HDMI video input
- Add-on USB Selector

Models

LH mounted



RH mounted



17" **4K**

MRK-K17-2L

MRK-K17-3

MRK-K17-2R

17" **1080p**

MRK-F17-2L

MRK-F17-3

MRK-F17-2R

16.2" **1920 1200**

MRK-X17-2L

MRK-X17-3

MRK-X17-2R

19" **1280 1024**

MRK-19-2L

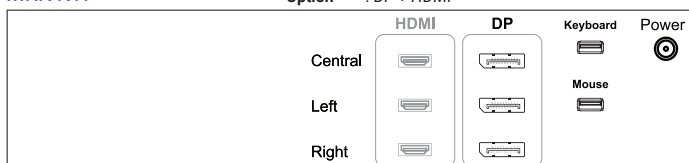
MRK-19-3

MRK-19-2R

Rear View

MRK-K17

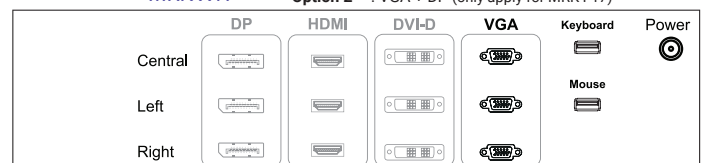
Standard : DP
Option : DP + HDMI



MRK-F17

MRK-19
MRK-X17

Standard : VGA + DVI-D
Option 1 : VGA + HDMI
Option 2 : VGA + DP (only apply for MRK-F17)



MRP

2U Multi-display Drawer



Benefits

- ▶ 2U 22" short depth design
- ▶ Light weight
- ▶ Rugged construction for mobility & durability
- ▶ Built-in solid bearing slide rails
- ▶ Built-in dual stereo speaker (per display)
- ▶ Four LED backlit display selections (4K, WUXGA, FHD, 4:3)
- ▶ DVI-D + VGA video input for WUXGA, FHD & 4:3 (per display)
- ▶ Display port 1.2 video input for 4K (per display)
- * Attached 6ft DP cable*
- ▶ Fits 24" ~ 36" rack via adjustable mounting brackets

Options

- DC power: 12V / 24V / 48V / 125V / 250V
- 3G / HD / SD-SDI Broadcast-grade input
- Sunlight readable LCD for 17" FHD & 19" 4:3
- Touchscreen
- HDMI video input

Models

LH mounted



RH mounted

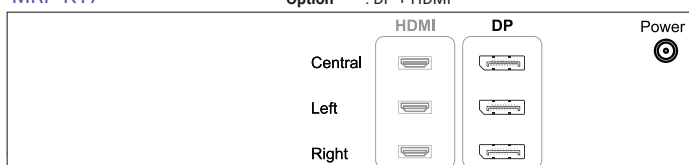


| | | | | |
|-------|------------------|------------|-----------|------------|
| 17" | 4K | MRP-K17-2L | MRP-K17-3 | MRP-K17-2R |
| 17" | 1080p | MRP-F17-2L | MRP-F17-3 | MRP-F17-2R |
| 16.2" | 1920 1200 | MRP-X17-2L | MRP-X17-3 | MRP-X17-2R |
| 19" | 1280 1024 | MRP-19-2L | MRP-19-3 | MRP-19-2R |

Rear View

MRP-K17

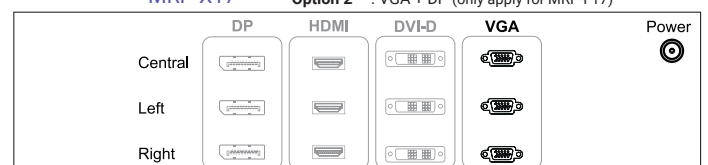
Standard : DP
Option : DP + HDMI



MRP-F17

MRP-19
MRP-X17

Standard : VGA + DVI-D
Option 1 : VGA + HDMI
Option 2 : VGA + DP (only apply for MRP-F17)





| Rack Console Drawer Series | Model | Video Input | LCD Panel | | | Chassis Design | KVM Rear Kit | | | | | | |
|----------------------------|---------------|-------------------------------|------------|--------------|-------------|--|--------------|----|-------|-----------------------|------------------------|---|---|
| | | | Categories | Size | Resolution | | 4K | 2K | DVI-D | Cat 6 Combo Martix | DB-15 Combo USB Hub | | |
| 1U LCD Console Drawer | K117 | DP 1.2 (attached 6ft cable) | 4K | 17" | 3840 x 2160 | 1U, Short Depth design of 18.1 inch | ✓ | | | | | | |
| | F117 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Short Depth design of 18.1 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | F119 | HDMI 1.4 + VGA | FHD | 19" | 1920 x 1080 | 1U, Short Depth design of 18.1 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | X117 | HDMI 1.4 + DVI-D + VGA | WUXGA | 16.2" | 1920 x 1200 | 1U, Short Depth design of 18.9 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | L120 | VGA | Regular | 20" | 1600 x 1200 | 1U | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | W119 | HDMI 1.4 + VGA | Regular | 19" Wide LCD | 1440 x 900 | 1U, Short Depth design of 18.1 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | RKP117 | VGA | Regular | 17" | 1280 x 1024 | 1U, Short Depth design of 18.1 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | RKP119 | VGA | Regular | 19" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | N117 | VGA | Regular | 17" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | N119 | VGA | Regular | 19" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | RKP7/9 | VGA | Regular | 17" / 19" | 1280 x 1024 | 1U | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Large LCD | K123 | DP 1.2 (attached 6ft cable) | 4K | 23" | 3840 x 2160 | 1U, Left open model or Right open model | ✓ | | | | | | |
| | F121 | HDMI 1.4 + VGA | FHD | 21" | 1920 x 1080 | 1U, Left open model or Right open model | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | X124 | HDMI 1.4 + VGA | WUXGA | 24" | 1920 x 1200 | 1U, Left open model or Right open model | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Dual Slide | DK117 | DP 1.2 (attached 6ft cable) | 4K | 17" | 3840 x 2160 | 1U, Dual Slide | ✓ | | | | | | |
| | DF117 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Dual Slide | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | DX117 | HDMI 1.4 + VGA | WUXGA | 16.2" | 1920 x 1200 | 1U, Dual Slide | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | D117 | VGA | Regular | 17" | 1280 x 1024 | 1U, Dual Slide | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | D119 | VGA | Regular | 19" | 1280 x 1024 | 1U, Dual Slide | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | RKP2417K | DP 1.2 (attached 6ft cable) | 4K | 17" | 3840 x 2160 | 2U, Dual Slide, Short depth 18.9 inch | ✓ | | | | | | |
| | RKP2417F | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 2U, Dual Slide, Short depth 18.9 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | RKP2417 | VGA | Regular | 17" | 1280 x 1024 | 2U, Dual Slide, Short depth 18.9 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ultra Short Depth | K1417 | DP 1.2 (attached 6ft cable) | 4K | 17" | 3840 x 2160 | 1U, Ultra Short Depth design of 15.8 inch | ✓ | | | | | | |
| | F1417 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Ultra Short Depth design of 15.8 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | DK1417 | HDMI 2.0 + DP 1.2 | 4K | 17" | 3840 x 2160 | 1U, Dual Slide, Ultra Short Depth, 18.9 inch | | | | | | | |
| | DF1417 | HDMI 1.4 + DP 1.2 + VGA | FHD | 17" | 1920 x 1080 | 1U, Dual Slide, Ultra Short Depth, 18.9 inch | | | | | | | |
| High Brightness LCD | HF117 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Short Depth design of 18.9 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | HF119 | HDMI 1.4 + VGA | FHD | 19" | 1920 x 1080 | 1U, Short Depth design of 18.1 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | H117 / H119 | VGA | Regular | 17" / 19" | 1280 x 1024 | 1U, Short Depth design of 18.9 / 20.5 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SUN LCD Solution | S117 / S119 | DVI-D + VGA | SUN | 17" / 19" | 1152 x 900 | 1U, Short Depth design of 18.1 / 19.7 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NS117 / NS119 | DVI-D + VGA | SUN | 17" / 19" | 1152 x 900 | 1U, Short Depth design of 19.7 inch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Multi-Display | MRK-K17 | DP 1.2 / HDCP 1.3 | 4K | 17" | 3840 x 2160 | 2U, Triple / Dual (LH or RH mount) LCD | | | | | | | |
| | MRK-F17 | DVI-D + VGA | FHD | 17" | 1920 x 1080 | 2U, Triple / Dual (LH or RH mount) LCD | | | | | | | |
| | MRK-X17 | DVI-D + VGA | WUXGA | 16.2" | 1920 x 1200 | 2U, Triple / Dual (LH or RH mount) LCD | | | | | | | |
| | MRK-19 | DVI-D + VGA | Regular | 19" | 1280 x 1024 | 2U, Triple / Dual (LH or RH mount) LCD | | | | | | | |

* For more detailed specification, please refer to the product sheets : www.austin-hughes.com/resource_cat/product-resources/rack-console-drawer-resources

| Rack Display Panel / Drawer Series | Model | Video Input | LCD Panel | | | Chassis Design | Options | | | |
|------------------------------------|-------------------|--|--|--------------|--------------|--|---|----------------|----------|---|
| | | | Categories | Size | Resolution | | Touch Screen | 3G / HD SD-SDI | DC Power | |
| Display Panel | Regular | RP-K617 | Display port 1.2 + HDMI 1.4 + HDMI 2.0 | 4K | 17" | 3840 x 2160 | 6U Rackmount | ✓ | ✓ | ✓ |
| | | RP-F617 / F719 | HDMI 1.4 + VGA | FHD | 17" / 19" | 1920 x 1080 | 6U / 7U Rackmount | ✓ | ✓ | ✓ |
| | | RP-X617 | HDMI 1.4 + VGA | WUXGA | 16.2" | 1920 x 1200 | 6U Rackmount | ✓ | ✓ | ✓ |
| | | RP-717 | HDMI 1.4 + VGA | Regular | 17" | 1280 x 1024 | 7U Rackmount | ✓ | ✓ | ✓ |
| | | RP-819 | HDMI 1.4 + VGA | Regular | 19" | 1280 x 1024 | 8U Rackmount | ✓ | ✓ | ✓ |
| | | RP-920 | HDMI 1.4 + VGA | Regular | 20" | 1600 x 1200 | 9U Rackmount | ✓ | ✓ | ✓ |
| | Large LCD | RP-W719 | HDMI 1.4 + VGA | Regular | 19" Wide LCD | 1440 x 900 | 7U Rackmount | ✓ | ✓ | ✓ |
| | | RP-K923 | Display port 1.2 + HDMI 1.4 + HDMI 2.0 | 4K | 23" | 3840 x 2160 | 9U Rackmount ; VESA Mount Ready | ✓ | ✓ | ✓ |
| | | RP-F821 | HDMI 1.4 + VGA | FHD | 21" | 1920 x 1080 | 8U Rackmount ; VESA Mount Ready | ✓ | ✓ | ✓ |
| | | RP-X924 | HDMI 1.3 + DVI-D + VGA | WUXGA | 24" | 1920 x 1200 | 9U Rackmount ; VESA Mount Ready | ✓ | ✓ | ✓ |
| | | RP-HF617 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 6U Rackmount | ✓ | ✓ | ✓ |
| | | RP-HF719 | HDMI 1.4 + VGA | FHD | 19" | 1920 x 1080 | 7U Rackmount | ✓ | ✓ | ✓ |
| | High Brightness | RP-HF821 | HDMI 1.4 + VGA | FHD | 21" | 1920 x 1080 | 8U Rackmount ; VESA Mount Ready | ✓ | ✓ | ✓ |
| | | RP-H717 / H819 | HDMI 1.4 + VGA | Regular | 17" / 19" | 1280 x 1024 | 7U / 8U Rackmount | ✓ | ✓ | ✓ |
| | | RP-HW719 | HDMI 1.4 + VGA | Regular | 19" Wide LCD | 1440 x 900 | 7U Rackmount | ✓ | ✓ | ✓ |
| | | SP-717 | HDMI 1.4 + VGA | SUN | 17" | 1152 x 900 | 7U Rackmount | ✓ | ✓ | ✓ |
| | | SP-819 | HDMI 1.4 + VGA | SUN | 19" | 1152 x 900 | 8U Rackmount | ✓ | ✓ | ✓ |
| | | SP-920 | HDMI 1.4 + VGA | SUN | 20" | 1152 x 900 | 9U Rackmount | ✓ | ✓ | ✓ |
| Split Quad | RP-F921QD-1080 | QD (HDMI 1.3 x 4) + DVI-D + VGA | FHD | 21" | 1920 x 1080 | 9U Rackmount ; VESA Mount Ready | ✓ | ✓ | ✓ | |
| | RP-919QD | QD (Composite BNC x 4) + VGA | Regular | 19" | 1280 x 1024 | 9U Rackmount | ✓ | ✓ | ✓ | |
| | RP-W819QD | QD (Composite BNC x 4) + VGA | Regular | 19" Wide LCD | 1440 x 900 | 8U Rackmount | ✓ | ✓ | ✓ | |
| | RP-K117 | Display port 1.2 (attached 6ft DP cable) | 4K | 17" | 3840 x 2160 | 1U, Short Depth design of 18.9 inch | ✓ | ✓ | ✓ | |
| Display Drawer | Regular | RP-F117 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Short Depth design of 18.9 inch | ✓ | ✓ | ✓ |
| | | RP-X117 | HDMI 1.4 + VGA | WUXGA | 16.2" | 1920 x 1200 | 1U, Short Depth design of 18.9 inch | ✓ | ✓ | ✓ |
| | | RP-117 | HDMI 1.4 + VGA | Regular | 17" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | ✓ | ✓ | ✓ |
| | | RP-119 | HDMI 1.4 + VGA | Regular | 19" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | ✓ | ✓ | ✓ |
| | | RP-W119 | HDMI 1.4 + VGA | Regular | 19" Wide LCD | 1440 x 900 | 1U, Short Depth design of 18.1 inch | ✓ | ✓ | ✓ |
| | | RP-120 | HDMI 1.4 + VGA | Regular | 20" | 1600 x 1200 | 1U | ✓ | ✓ | ✓ |
| | Ultra Short Depth | RP-K1417 | Display port 1.2 (attached 6ft DP cable) | 4K | 17" | 3840 x 2160 | 1U, Ultra Short Depth design of 15.8 inch | ✓ | ✓ | ✓ |
| | | RP-F1417 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Ultra Short Depth design of 15.8 inch | ✓ | ✓ | ✓ |
| | | RP-HF117 | HDMI 1.4 + VGA | FHD | 17" | 1920 x 1080 | 1U, Short Depth design of 18.9 inch | ✓ | ✓ | ✓ |
| | | RP-HW119 | HDMI 1.4 + VGA | Regular | 19" | 1440 x 900 | 1U, Short Depth design of 18.1 inch | ✓ | ✓ | ✓ |
| | | RP-H117 | HDMI 1.4 + VGA | Regular | 17" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | ✓ | ✓ | ✓ |
| | | RP-H119 | HDMI 1.4 + VGA | Regular | 19" | 1280 x 1024 | 1U, Short Depth design of 19.7 inch | ✓ | ✓ | ✓ |
| Sun LCD Solution | SP-117 | HDMI 1.4 + VGA | SUN | 17" | 1152 x 900 | 1U, Short Depth design of 19.7 inch | ✓ | ✓ | ✓ | |
| | SP-119 | HDMI 1.4 + VGA | SUN | 19" | 1152 x 900 | 1U, Short Depth design of 19.7 inch | ✓ | ✓ | ✓ | |
| | SP-120 | HDMI 1.4 + VGA | SUN | 20" | 1152 x 900 | 1U | ✓ | ✓ | ✓ | |
| | RP-119QD | QD (Composite BNC x 4) + VGA | FHD | 19" | 1280 x 1024 | 1U | ✓ | ✓ | ✓ | |
| Multi-Display | RP-W119QD | QD (Composite BNC x 4) + VGA | Regular | 19" Wide LCD | 1440 x 900 | 1U | ✓ | ✓ | ✓ | |
| | MRP-K17 | DP 1.2 / HDCP 1.3 | 4K | 17" | 3840 x 2160 | 2U, Triple / Dual (LH or RH mount) LCD | ✓ | ✓ | ✓ | |
| | MRP-F17 | DVI-D + VGA | FHD | 17" | 1920 x 1080 | 2U, Triple / Dual (LH or RH mount) LCD | ✓ | ✓ | ✓ | |
| | MRP-X17 | HDMI 1.4 + DVI-D + VGA | WUXGA | 16.2" | 1920 x 1200 | 2U, Triple / Dual (LH or RH mount) LCD | ✓ | ✓ | ✓ | |
| | MRP-19 | DVI-D + VGA | Regular | 19" | 1280 x 1024 | 2U, Triple / Dual (LH or RH mount) LCD | ✓ | ✓ | ✓ | |

* For more detailed specification, please refer to the product sheets : www.austin-hughes.com/resource_cat/product-resources/rack-display-resources/

Keyboard Drawer



RK-2e / RK-2b

1U Short Depth Keyboard Drawer

Benefits

- ▶ 1U keyboard drawer
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Short depth design of 15.8 inch
- ▶ Modern, molded front handle with two point lock

Options

- SUN Micro keyboard options



RK-1e / RK-1b

1U Keyboard Drawer with KVM Options

Benefits

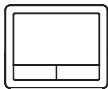
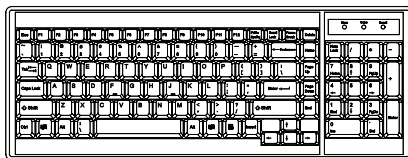
- ▶ 1U keyboard drawer
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Keyboard drawer depth 23.6 inch
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

Options

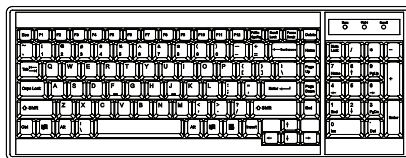
- SUN Micro keyboard options
- KVM rear kit: 2K
 - DVI-D
 - Combo Cat6
 - Matrix Cat6
 - Combo DB-15
 - USB Hub DB-15

Standard Keyboard









Ge G keyboard with touchpad



Gb G keyboard with trackball



Supported Layouts

| | | | | | |
|---------|---|---|---|---|---|
| America |  | | | | |
| | U.S. | | | | |
| EMEA |  |  |  |  |  |
| | U.K. | Germany | France | Spain | Italy |
| Asia |  |  | | | |
| | Japan | Korea | | | |

KVM Extender



IP-H101 / IP-S101

1 port IP HDMI / VGA KVM Gateway

Benefits

- ▶ HDMI connection to KVM/ computer (IP-H101)
- ▶ VGA connection to KVM/ computer (IP-S101)
- ▶ High performance FHD 1080 IP remote access
- ▶ Quad-core processor IP KVM
- ▶ HTML-based & Java-free
- ▶ Enterprise level IP authentication
- ▶ Control over IP & BIOS-level accessProtection
- ▶ Plug & play, tool-less & easy setup

CV-K101 / CV-F101

4K / 1080p HDMI KVM Extender

Benefits

- ▶ CV-K101 support resolution up to 4K@60Hz
- ▶ CV-F101 support resolution up to 1080p@60Hz
- ▶ Support point to point connection
- ▶ Uncompressed and no latency
- ▶ Transmitter support one HDMI loop-out
- ▶ Support KVM function
- ▶ Transmission distance up to 70m via CAT6 cable
- ▶ Protection from surge/ lightning/ ESD

CV-S101

Combo KVM Extender

Benefits

- ▶ Remote console up to 492 ft
- ▶ Dual user access at remote site
- ▶ Pure hardware solution makes network independent
- ▶ No software required

K55" ~ K28"

K55"



K43"



K32"



K28"



Highlights

Key Benefits

- ▶ 3840 x 2160@60Hz native UHD resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 1.07B colors (10-bit)
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 24V / 48V / 125V
- Touchscreen (for K55", K43" & K32") *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- High brightness panel (for K55" & K43")
- HDMI decoder & extender
- HDMI quad display module 1080p
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- 12G / 4K60 / SD-SDI input module
- Portrait mode module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-4K-L.pdf

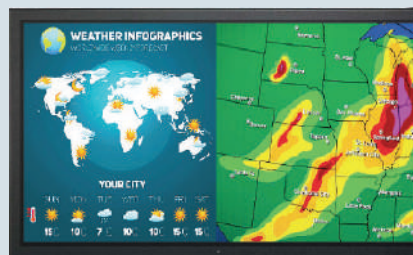
Standard Brightness / 700 cd/m² High Brightness

8mm/6mm aluminum front bezel



- AP-K55 HAP-K55
- AP-K43 HAP-K43
- AP-K32
- AP-K28

NEMA 4 / IP65 front protection
 8mm/6mm aluminum front bezel



- NAP-K55 NHAP-K55
- NAP-K43 NHAP-K43
- NAP-K32
- NAP-K28

Aluminum front cover



- DP-K55 HDP-K55
- DP-K43 HDP-K43
- DP-K32
- DP-K28

Universal open frame



- OP-K55 HOP-K55
- OP-K43 HOP-K43
- OP-K32
- OP-K28

Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

K23" ~ K13"

K23"



K17"



K15"



K13"



Highlights

Key Benefits

- ▶ 3840 x 2160@60Hz native UHD resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ K23": 1.07B colors (10-bit)
- ▶ K17", K15" & K13": 16.7M colors (8-bit)
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- HDMI decoder & extender
- HDMI quad display 1080p (for K23")
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- 12G / 4K60 / SD-SDI input module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-4K-S.pdf

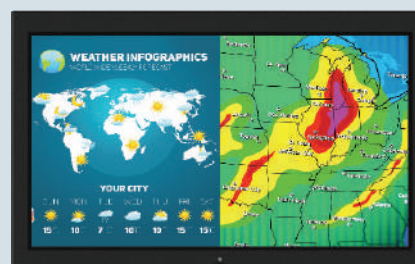
Standard Brightness

6mm aluminum front bezel



AP-K23
 AP-K17
 AP-K15
 AP-K13

NEMA 4 / IP65 front protection
 6mm aluminum front bezel



NAP-K23
 NAP-K17
 NAP-K15
 NAP-K13

Aluminum front cover



DP-K23
 DP-K17
 DP-K15
 DP-K13

Universal open frame



OP-K23
 OP-K17
 OP-K15
 OP-K13

Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

F55" ~ F23"

F55"



F43"



F32"



F28"



F23"



Highlights

Key Benefits

- ▶ 1920 x 1080 native FHD resolution
- ▶ F55", F32", F28", F23" : 1.07B colors (10-bit)
- ▶ F43" : 16.7M colors (8-bit)
- ▶ F55" ~ F28" : HDMI 1.4, DVI-D & VGA ; Optional DP & HDMI 2.0
- ▶ F23" : HDMI 1.4 & VGA ; Optional DP, HDMI 2.0 & DVI-D
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 24V / 48V / 125V
- Touchscreen (F55", F48", F32", F23") *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Sunlight readable panel (for F55", F43" & F32")
- HDMI decoder & extender
- HDMI quad display 1080p
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Portrait mode module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-FHD-L.pdf

Standard Brightness / 1500 cd/m² Sunlight Readable Brightness

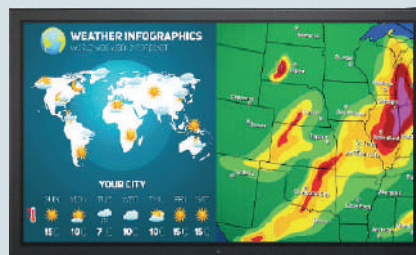


8mm/6mm aluminum front bezel

NEMA 4 / IP65 front protection
8mm/6mm aluminum front bezel



- AP-F55 **HAP-F55**
- AP-F43 **HAP-F43**
- AP-F32 **HAP-F32**
- AP-F28
- AP-F23



- NAP-F55 **NHAP-F55**
- NAP-F43 **NHAP-F43**
- NAP-F32 **NHAP-F32**
- NAP-F28
- NAP-F23

Aluminum front cover

Universal open frame



- DP-F55 **HDP-F55**
- DP-F43 **HDP-F43**
- DP-F32 **HDP-F32**
- DP-F28
- DP-F23



- OP-F55 **HOP-F55**
- OP-F43 **HOP-F43**
- OP-F32 **HOP-F32**
- OP-F28
- OP-F23

Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

F21" ~ F13"

F21"



F19"



F17"



F15"



F13"



Highlights

Key Benefits

- ▶ 1920 x 1080 native FHD resolution
- ▶ F21", F19" : 16.7 million colors
- ▶ F17", F15" & F13" : 16.7 million colors (8-bit)
- ▶ HDMI 1.4 & VGA video input
- ▶ DP / HDMI 2.0 / DVI-D video input (option)
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Sunlight readable panel (F21" ~ F15")
- HDMI decoder & extender
- HDMI quad display 1080p (for F21")
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-FHD-S.pdf

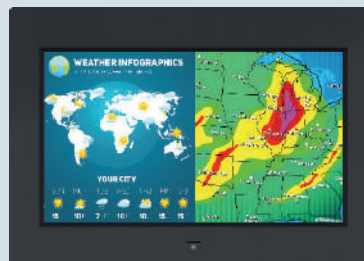
Standard Brightness / 1000 cd/m² Sunlight Readable Brightness

6mm aluminum front bezel



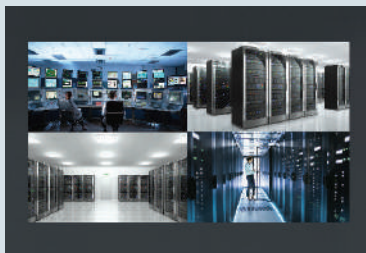
AP-F21 **HAP-F21**
 AP-F19 **HAP-F19**
 AP-F17 **HAP-F17**
 AP-F15 **HAP-F15**
 AP-F13

NEMA 4 / IP65 front protection
 6mm aluminum front bezel



NAP-F21 **NHAP-F21**
 NAP-F19 **NHAP-F19**
 NAP-F17 **NHAP-F17**
 NAP-F15 **NHAP-F15**
 NAP-F13

Aluminum front cover



DP-F21 **HDP-F21**
 DP-F19 **HDP-F19**
 DP-F17 **HDP-F17**
 DP-F15 **HDP-F15**
 DP-F13

Universal open frame



OP-F21 **HOP-F21**
 OP-F19 **HOP-F19**
 OP-F17 **HOP-F17**
 OP-F15 **HOP-F15**
 OP-F13

Chassis customization

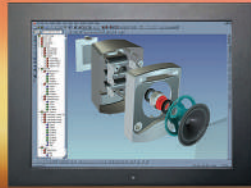
- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

20" ~ 17"

W19"



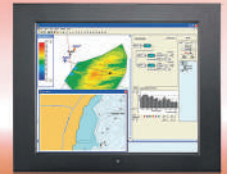
20"



19"



17"



Highlights

Key Benefits

- ▶ 1440 x 900 / 1600 x 1200 / 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.4 & VGA video input ; Optional DP & DVI-D
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Sunlight readable panel (W19", 19" & 17")
- HDMI decoder & extender (for W19")
- HDMI quad display 1080p (for W19")
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-Regular-L.pdf

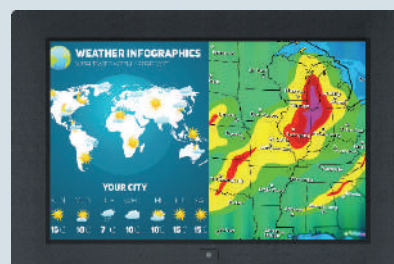
Standard Brightness / 1000 cd/m² Sunlight Readable Brightness

6mm aluminum front bezel



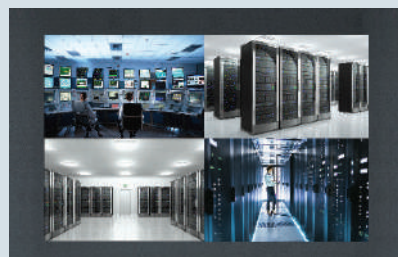
AP-W19 **HAP-W19**
 AP-20
 AP-19 **HAP-19**
 AP-17 **HAP-17**

NEMA 4 / IP65 front protection
 6mm aluminum front bezel



NAP-W19 **NHAP-W19**
 NAP-20
 NAP-19 **NHAP-19**
 NAP-17 **NHAP-17**

Aluminum front cover



DP-W19 **HDP-W19**
 DP-20
 DP-19 **HDP-19**
 DP-17 **HDP-17**

Universal open frame



OP-W19 **HOP-W19**
 OP-20
 OP-19 **HOP-19**
 OP-17 **HOP-17**

Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

15" ~ 10"

15"



12"



10"



Highlights

Key Benefits

- ▶ 1024 x 768 / 800 x 600 / 640 x 480 native resolution
- ▶ 15": 16.2M colors
- ▶ 12" & 10": 262K colors
- ▶ VGA video input
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket system
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Multi monitor OSD control module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-Regular-S.pdf

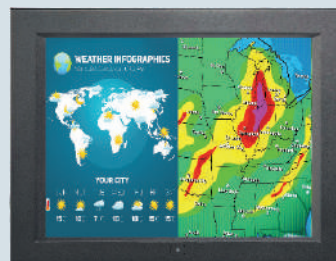
Standard Brightness

6mm aluminum front bezel



AP-15
 AP-12
 AP-10

NEMA 4 / IP65 front protection
 6mm aluminum front bezel



NAP-15
 NAP-12
 NAP-10

Aluminum front cover



DP-15
 DP-12
 DP-10

Universal open frame



OP-15
 OP-12
 OP-10

Chassis customization

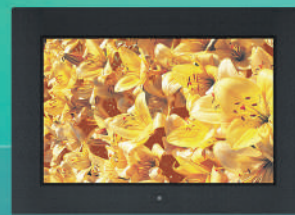
- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

X24" & X17

X24"



X17



Highlights

Key Benefits

- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors (8-bit for X17 16.2" LED)
- ▶ X24": HDMI 1.3 + DVI-D + S-Video + BNC + VGA
- ▶ X17 : HDMI 1.4 + DVI-D + VGA
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Video decoding capability up to 1080p (option)
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection (NAP series)
- ▶ Professional-use durability & around-the-clock operation

Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen *
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Auto dimming
- Manual dimming

* Refer to the following link for details of touchscreen models.
www.austin-hughes.com/CA-UV-WUXGA.pdf

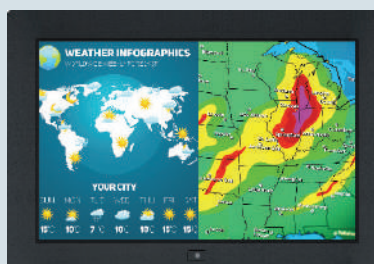
Standard Brightness

6mm aluminum front bezel



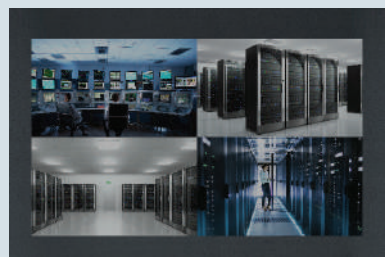
AP-X24
AP-X17

NEMA 4 / IP65 front protection
6mm aluminum front bezel



NAP-X24
NAP-X17

Aluminum front cover



DP-X24
DP-X17

Universal open frame



OP-X24
OP-X17

Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel



| | | | |
|---|--|--|--|
| <p>4K</p> <ul style="list-style-type: none"> ● K55" ● K43" ● K32" ● K28" ● K23" ● K17" ● K15" ● K13" | <p>FHD</p> <ul style="list-style-type: none"> ● F55" ● F21" ● F43" ● F19" ● F32" ● F17" ● F28" ● F15" ● F23" ● F13" | <p>WXUGA (1920 x 1200)</p> <ul style="list-style-type: none"> ● X24" ● X17" | <p>Regular</p> <ul style="list-style-type: none"> ● W19" (1440 x 900) ● 20" (1600 x 1200) ● 19" (1280 x 1024) ● 17" (1280 x 1024) ● 15" (1024 x 768) ● 12" (800 x 600) ● 10" (800 x 600) |
|---|--|--|--|

High Brightness

| | | |
|---|--|---|
| <p>4K</p> <ul style="list-style-type: none"> ● K55" ● K43" | <p>FHD</p> <ul style="list-style-type: none"> ● F55" ● F21" ● F43" ● F19" ● F32" ● F17" ● F15" | <p>Regular</p> <ul style="list-style-type: none"> ● W19" (1440 x 900) ● 19" (1280 x 1024) ● 17" (1280 x 1024) |
|---|--|---|

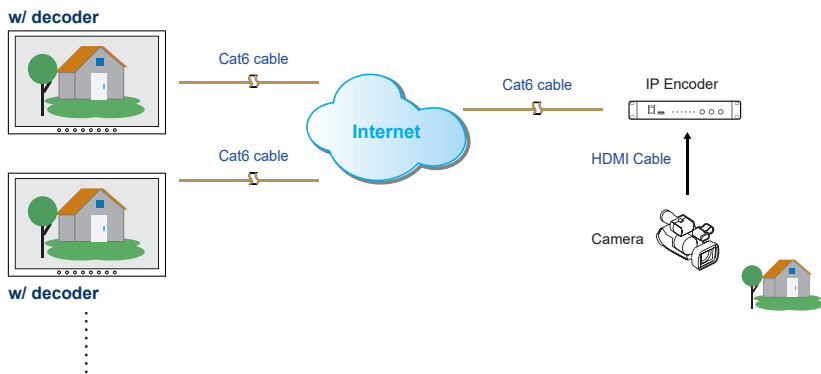
Sunlight Readable Brightness

Embedded HDMI Decoder Module 1080p over IP

- Decodes RTSP, RTMP, UDP, HTTP, HLS protocols
- Supports video resolutions up to 1080p / 60Hz
- Unicast and multicast support
- Operates on standard 1000Mb Ethernet networks
- Built-in Web UI for configuration and control
- Excellent image quality with very low delay

Part no. :

Embedded HDMI Decoder Module : [UV-DE100F](#)
 Standalone HDMI Encoder : [UV-EN100F](#)

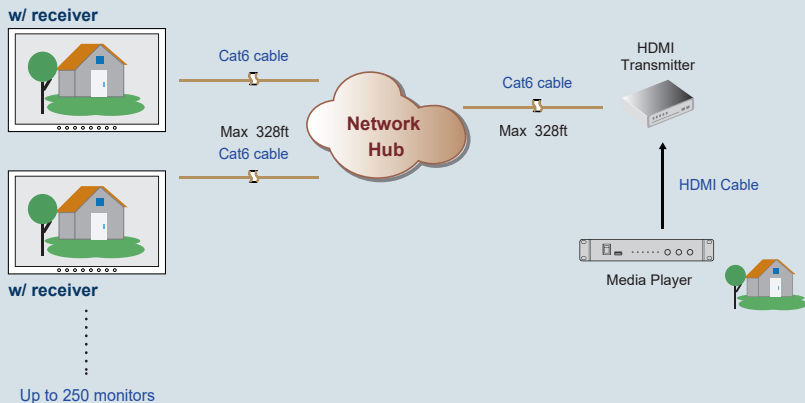


Embedded HDMI Receiver Module 1080p

- Extends the HDMI signal over a single Cat5/6 cable
- Supports video resolutions up to 1080p / 60Hz
- One to one just via Cat5/6 cable
- One to multi via network hub and Cat5/6 cable
- 100m maximum Cat5/6 cable distance
- Supports bi-directional IR communication
- High Speed HDMI 1.4 and HDCP 1.4 compliant
- No software or drivers required

Part no. :

Embedded HDMI Receiver Module : [UV-R100F](#)
 Standalone HDMI Transmitter : [UV-T100F](#)

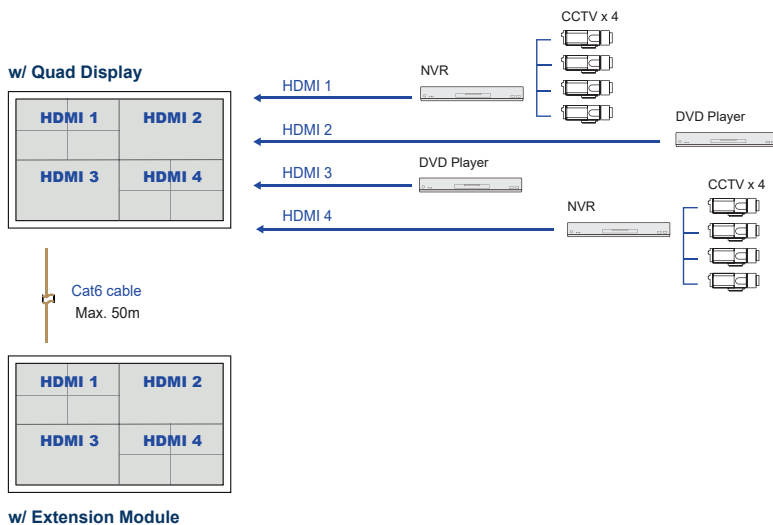


Embedded HDMI Quad Display Module 1080p

- Allows 4 x HDMI inputs to be monitored simultaneously
- Quad split, panel left and full screen monitoring modes
- High speed HDMI 1.4 and HDCP 1.4 compliant
- Supports video resolutions up to 1080p / 60Hz
- Supports Scaler Up and Down function
- Control via local front panel and IR remote

Part no. :

Embedded HDMI Quad Display Module : [QD-1080](#)
 Embedded Quad Display Extension Module : [QD-E1080](#)

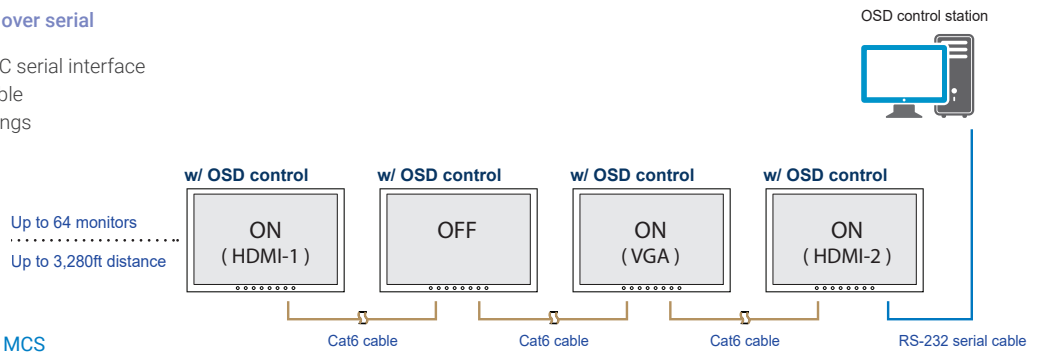


Embedded Multi Monitor OSD Control Module over serial

- Remote control the monitor OSD via RS-232C serial interface
- Daisy chain up to 64 monitors via Cat5/6 cable
- Individual ID for individual monitor OSD settings
- Power ON or OFF monitor
- Adjust brightness & audio
- Switch video sources

Part no. :

Embedded Multi Monitor OSD Control Module : **MCS**



Embedded 3G / HD / SD-SDI Input Module

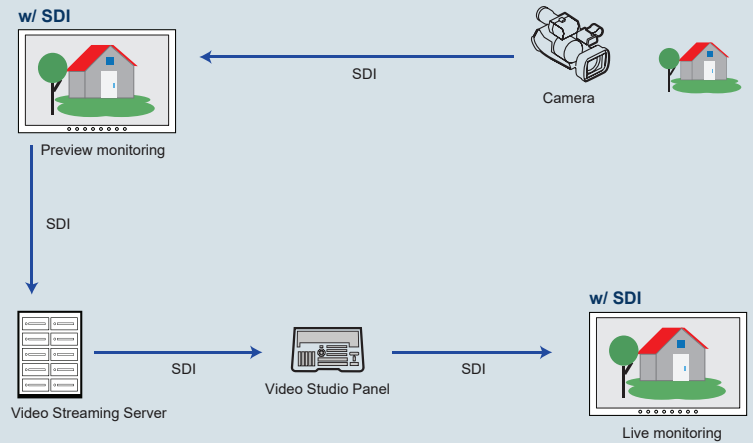
Embedded 12G / 4K60 / SD-SDI Input Module

- Intelligent SDI monitoring with broadcast quality scopes
- Supports multi-rate 3G / HD & 12G / 4K60 / SD-SDI format
- Provides input to output loop-through capability
- Auto format sensing & selection

Part no. :

Embedded 3G / HD / SD-SDI Input Module : **SDI**

Embedded 12G / 4K60 / SD-SDI Input Module : **12G-SDI**



Embedded Portrait Mode Module

- Provides users with a rotation feature (0, 90, 180 & 270 orientation) without frame delay via OSD
- Allows distortion-free display of content in various orientations
- Creates new application opportunities

Part no. :

Embedded Portrait Mode Module : **AD4.0-P**



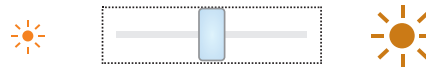
w/ Portrait mode module

Embedded Auto Brightness Dimming Module

- Brightness changes according to its ambient brightness
- Its brightness change causes 10% increase or decrease

Part no. :

Embedded Brightness Auto Dimming Module : **DA-01**



Embedded Manual Brightness Dimming Knob

- Easy-to-use IP54 dimming knob on the front panel
- One click causes 2% brightness increase or decrease
- Brightness adjustment from 0% to 100%

Part no. :

Brightness Dimming Knob : **DS-01**



Remote Reboot to Recover Your Device

- When a complete restart is required MiniBoot provides a simple and easy way to reboot a hardware device
- In addition to manual on/off, MiniBoot provides 3 kinds of auto outlet control :
 - IP-Ping automatically detects a failed system for timely reboot
 - Outlet on/off by sensor condition
 - Outlet on/off scheduling



Diversified Outlets & Inlets

- Variety of outlets & inlets available for different regional power requirements
- Outlet : US NEMA, IEC C13, UK BS1363, German Schuko CEE 7/3 or French CEE 7/5
- Inlet : C20 for different regional power cords (Custom inlet available on request.)



Enterprise Level IP Authentication

- Active Directory (AD), Lightweight Directory Access Protocol (LDAPv3 / LDAPS).
- Remote Access Dial-In User Service (RADIUS) protocol, or local credential database.
- Strong passwords and granular user/user group permissions.
- Support high-speed network IP via Gigabit IP LAN port



Save Manpower & Travel Costs

- Restart the problem device by remotely power on & off, MiniBoot allow user to recover the equipment via network IP.
- Reduce manpower and travel costs by negating the need for staff to actually be at the equipment location, improving uptime and productivity.



Power Monitoring via Network & Local Meter

- Allows remote monitoring via the free Graphic User Interface (GUI).
- Provides local current monitoring via MiniBoot blue LED ammeter.
- Allows user to establish the remaining capacity prior to adding a new device to the MiniBoot, plus displays the current being drawn and receives threshold alerts remotely.



Remote Management

- Simultaneous access via free management web GUI.
- SNMP V2 / V3 integration to DCIM.
- Remote management protocols: HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4.



Alerts / Alarms

- Receive alerts via SNMP, email (SMTP), and syslog when predefined thresholds are exceeded for both MiniBoot and environmental sensor events.
- Common SNMP MIBs (Management Information Base) for all MiniBoot models.



Sensors & WiFi

- Variety of optional sensors : Temperature & Humidity, Temperature, Smoke, Door.
- Option to connect via a WiFi kit (IPD-WIFI) complying with 802.11 g/n/ac.

Remote power reboot and monitoring functions are essential for hardware systems. MiniBoot offers a cost-efficient power solution for any environment with electronic devices or systems. Users can try to recover the crashed device by remote reboot, reducing the need to send engineers to site (less personnel and travel costs by negating the need for staff to be at the equipment location) therefore improving uptime and productivity.

Unlike a rack power strip which is mounted inside an IT server rack enclosure, MiniBoot can be applied in diversified applications. MiniBoot is designed for a variety of industries - Transportation (Air, Land and Sea), Broadcasting, Entertainment, Advertising, Manufacturing, Mining, Satellite, Defense, Education, Telecommunication, Finance & Banking, Commercial, etc.

Applications



- Commercial Offices
- Telecommunication Offices
- Satellite Stations
- Digital Signage
- Video Walls
- Service Centers

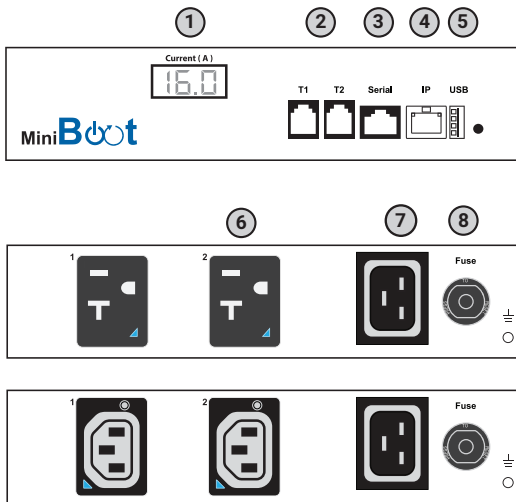
- Airport Check-in Kiosks
- Shopping Mall Kiosks
- ATM Machines
- Ticketing System
- Vending Machines
- Information Desks



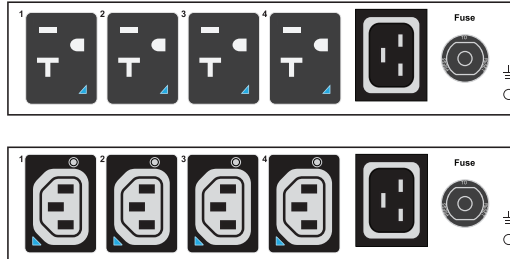
- Factory Automation Systems
- Production Plants
- Assembly Line
- Quality & Control Line

- Universities
- Education Institutes
- Lecture Theatres
- Tutorial Classes
- Training Rooms





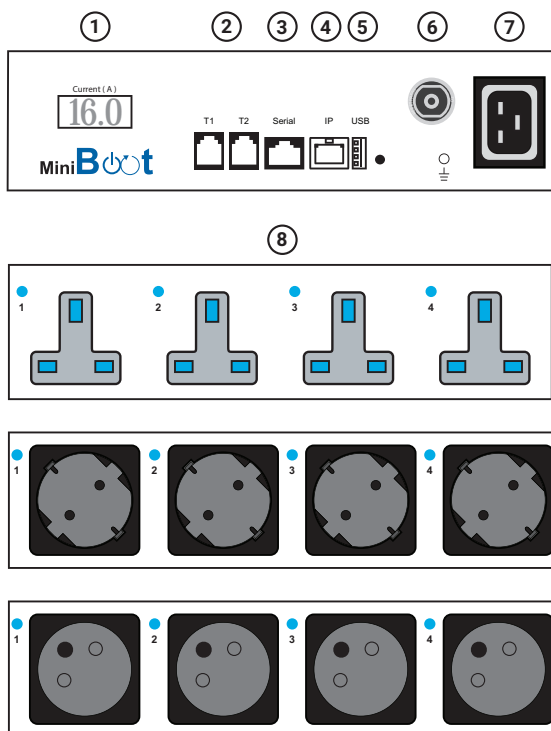
- ① RMS current meter x 1
- ② Sensor port x 2
- ③ Serial port x 1
- ④ Gigabit IP LAN port x 1
- ⑤ USB Wifi port x 1
- ⑥ Switched outlets (US NEMA, C13)
- ⑦ C20 Inlet x 1
- ⑧ Resettable fuse x 1



| MiniBoot - NEMA / IEC | | | Amp | | | Product Dimension |
|-----------------------|---------|---------------|------|-----------------|------|---|
| Outlet | Inlet | Model | 110V | 208V | 230V | W x D x H |
| NEMA x 2 | C20 x 1 | MiniBoot-2US | 15A | | | 200 x 145 x 44.5 mm 7.9 x 5.7 x 1.8 inch |
| NEMA x 4 | | MiniBoot-4US | | | | |
| NEMA x 8 | | MiniBoot-8US | | | | |
| C13 x 2 | C20 x 1 | MiniBoot-2C13 | 16A | 10A / 13A / 16A | | |
| C13 x 4 | | MiniBoot-4C13 | | | | |
| C13 x 8 | | MiniBoot-8C13 | | | | |

UL FC CE CB UK CA RoHS3 REACH

* Custom configuration available on request
 ** Input cordset excluded
 *** Dimensions are subject to change without prior notice

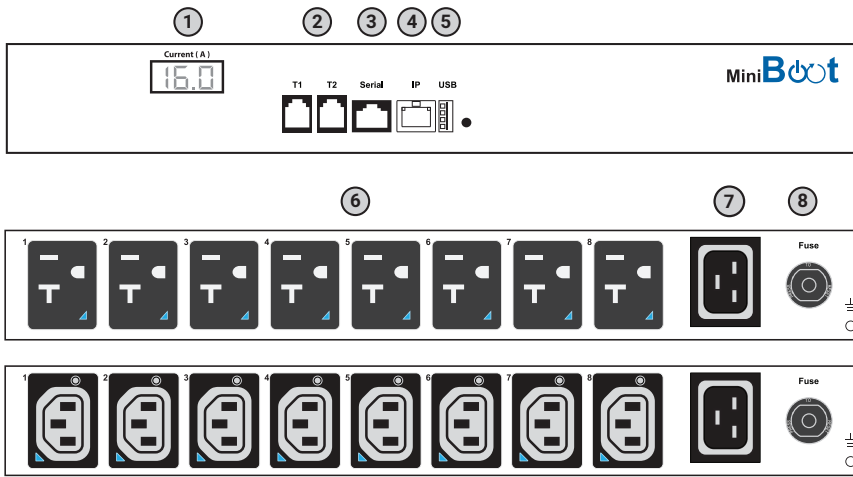


- ① RMS current meter x 1
- ② Sensor port x 2
- ③ Serial port x 1
- ④ Gigabit IP LAN port x 1
- ⑤ USB Wifi port x 1
- ⑥ Resettable fuse x 1
- ⑦ C20 Inlet x 1
- ⑧ Switched outlets (UK, Schuko or French)

| MiniBoot - UK / SCH / FR | | | Amp | | | Product Dimension |
|--------------------------|---------|---------------|------|------|-----------------|---|
| Outlet | Inlet | Model | 110V | 208V | 230V | W x D x H |
| UK x 4 | C20 x 1 | MiniBoot-4UK | | | 10A / 13A / 16A | 220 x 150 x 55 mm 8.7 x 5.9 x 2.2 inch |
| Schuko x 4 | C20 x 1 | MiniBoot-4SCH | | | 10A / 16A | |
| French x 4 | C20 x 1 | MiniBoot-4FR | | | 10A / 16A | |

CE CB UK CA RoHS3 REACH

* Custom configuration available on request
 ** Input cordset excluded
 *** Dimensions are subject to change without prior notice



- ❶ RMS current meter x 1
- ❷ Sensor port x 2
- ❸ Serial port x 1
- ❹ Gigabit IP LAN port x 1
- ❺ USB Wifi port x 1
- ❻ Switched outlets (US NEMA, C13)
- ❼ C20 Inlet x 1
- ❽ Resettable fuse x 1

| MiniBoot - NEMA / IEC | | | Amp | | | Product Dimension |
|-----------------------|-------|---------------|------|------|-----------------|--|
| Outlet | Inlet | Model | 110V | 208V | 230V | W x D x H |
| NEMA x 8 | C20 | MiniBoot-8US | 15A | | | 345 x 145 x 44.5 mm 13.6 x 5.7 x 1.8 inch |
| C13 x 8 | C20 | MiniBoot-8C13 | | 16A | 10A / 13A / 16A | |



* Custom configuration available on request
 ** Input cordset excluded
 *** Dimensions are subject to change without prior notice

Hardware Specifications

| Electrical | |
|--------------------------|---|
| Nominal input voltage | 110V / 208V / 230V |
| Acceptable input voltage | ±10% nominal |
| Input frequency | 50 / 60Hz |
| Inlet | C20 |
| Outlet | US NEMA, C13, UK BS1363, Schuko or French |
| Local meter | 3-digit RMS current meter |
| Accuracy | ± (3% of the reading + 5 last digits) RMS |
| Overload protection | Resettable fuse |
| Electrical endurance | 1 x 10 ⁵ operations |

| Chassis | |
|----------|-------|
| Color | White |
| Material | Steel |

| Environmental | |
|-----------------------|------------------------------------|
| Operating temperature | -5 to 60°C degree (23 to 140°F) |
| Storage temperature | -25 to 65°C degree (13 to 149°F) |
| Operating humidity | 0~95%, non-condensing |
| Storage humidity | 0~95%, non-condensing |

| Physical | NEMA or C13 | | |
|-----------------------|---------------------|------------|---------------------|
| | 2 x outlet | 4 x outlet | 8 x outlet |
| Product (W x D x H) | 200 x 145 x 44.5 mm | | 345 x 145 x 44.5 mm |
| Packing (W x D x H) | 300 x 196 x 81 mm | | 525 x 230 x 80 mm |
| Net weight | 0.9 kg / 2.0 lb | | 1.6 kg / 3.5 lb |
| Gross weight | 1.2 kg / 2.7 lb | | 2.54 kg / 5.6 lb |

| Physical | UK, SCH or FR |
|-----------------------|-------------------|
| | 4 x outlet |
| Product (W x D x H) | 220 x 150 x 55 mm |
| Packing (W x D x H) | 300 x 196 x 81 mm |
| Net weight | 1.23 kg / 2.7 lb |
| Gross weight | 1.53 kg / 3.4 lb |

| Compliance | 110V / 208V | 230V |
|-------------|---|---|
| EMC | FCC Part 15 Subpart B ICES-003 Issue 7 | CE/EMC |
| Safety | UL 62368-1 : 2014 CSA C22.2 No. 62368-1 : 2014 | CE / LVD , UKCA & CB EN 62368-1 : 2014 / A11 : 2017 BS EN 62368-1 : 2014 / A11 : 2017 IEC 62368-1 : 2014 |
| Environment | RoHS3, Reach & WEEE | |
| ISO | 9001 / 14001 | |

Remote Reboot & Amp Monitoring Over IP

Remote management helps reducing manpower and hence improving uptime and productivity. It also benefits users with capacity planning and increasing the overall efficiency of the power management. MiniBoot offers two remote power management solutions for users' selection.



Built-in



via SNMP V2 / V3



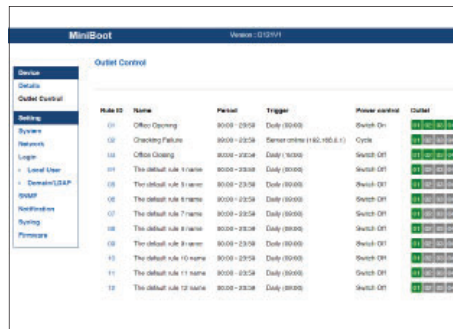
Built-in MiniBoot GUI

User-friendly GUI is included with MiniBoot. The Administrator can remotely manage the MiniBoot via the web browser. It provides individual outlet switching On/Off, current monitoring and alarm alert functions. With enterprise level IP authentication, the administrator can manage the MiniBoot remotely with high security.

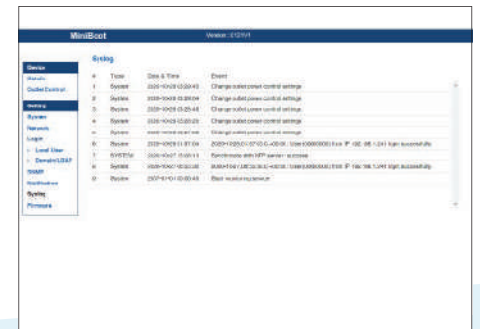
Circuit Monitoring & Outlet Switching



Outlet Control



System Audit Trail



3rd Party DCIM via SNMP V2 / V3

MiniBoot supports SNMP V2 / V3 integration for clients requiring remote management of the MiniBoot using their existing DCIM (Data Center Infrastructure Management) in order to centralize the management for monitoring power, cooling and environmental factors across facilities and IT systems.

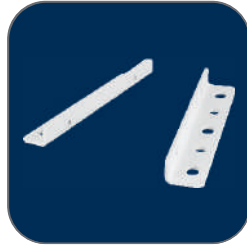
MiniBoot Software

| FREE MiniBoot Web Power Reboot GUI | |
|------------------------------------|---|
| Functions | <ul style="list-style-type: none"> • Manual outlet on / off by GUI / SNMP • Automatic outlet on / off by scheduling , IP Ping and sensor condition • Aggregate current (Amp) monitoring • Alarm alert |
| Enterprise Level IP Authentication | <ul style="list-style-type: none"> • Active Directory (AD), Lightweight Directory Access Protocol (LDAPv3 / LDAPS) • Remote Access Dial-In User Service (RADIUS) protocol, or local credential database |
| Remote Management | <ul style="list-style-type: none"> • Protocols: HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4 |
| Alarms / Alerts | <ul style="list-style-type: none"> • Receive alerts via SNMP, email (SMTP), and syslog when predefined thresholds are exceeded for both MiniBoot and environmental sensor events • Common SNMP MIBs (Management Information Base) for all MiniBoot models |
| SNMP | <ul style="list-style-type: none"> • SNMPv1/v2 & SNMPv3 for integration to DCIM |

Free Mounting Kit

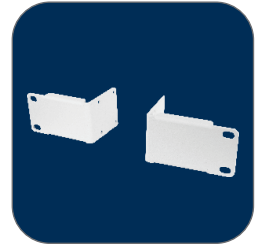
Side Mount Kit

- Included with all MiniBoot models
- Enables easy installation into existing kiosks, walls, work panels and furniture



Rack Mount Kit

- Included with IEC / US MiniBoot models
- 19" horizontal rack mount version



Sensors & Peripherals

WiFi Kit

- 802.11 g/n/ac WiFi
- Low-profile design wireless athena
- Magnetic base design for tool-less installation
- 3 ft cord with USB port



Temperature & Humidity Sensor
Temperature Sensor

- Plug & play
- External sensor with 6 ft or 13 ft cord
- Low profile design with magnetic base for easily affix to the rack



Smoke Sensor

- Smoke Sensor with 3 ft or 10 ft cord
- When smoke alarm triggers the red LED light is visible on the sensor with continuous audio alert



Door Sensor

- Mechanical door sensor with 6 ft or 13 ft cord
- Cost efficient integration into rack



Mini IP Solution Package

Please contact our professional distribution partners

 A photograph showing the Mini IP Solution Package components: a white box with the MiniBoot logo and text 'Remote Control over the network', a black Mini IPKVM card, a silver laptop, a pair of glasses, a pen, and a ruler.



Founded in 1995, **Austin Hughes** is a design and manufacturing group that offers a broad range of solutions based around 19 inch rack mount technology: the UltraRack IT server rack series, InfraRack intelligent rack solutions, InfraPower intelligent remote management power solutions, InfraCool intelligent remote cooling systems, InfraGuard environmental sensors and peripherals, InfraSolution remote locking and access control & CyberView LCD KVM switches. We also offer industrial & commercial IT products: UltraView professional displays & MiniBoot web power reboot.

Austin Hughes has ISO14001 and ISO9001 approved design, manufacturing, assembly and test facilities. We support a worldwide customer base through our global locations in the Americas, EMEA, APAC and ASEAN and through an extensive authorized channel partner network.



Rack Power Expert



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