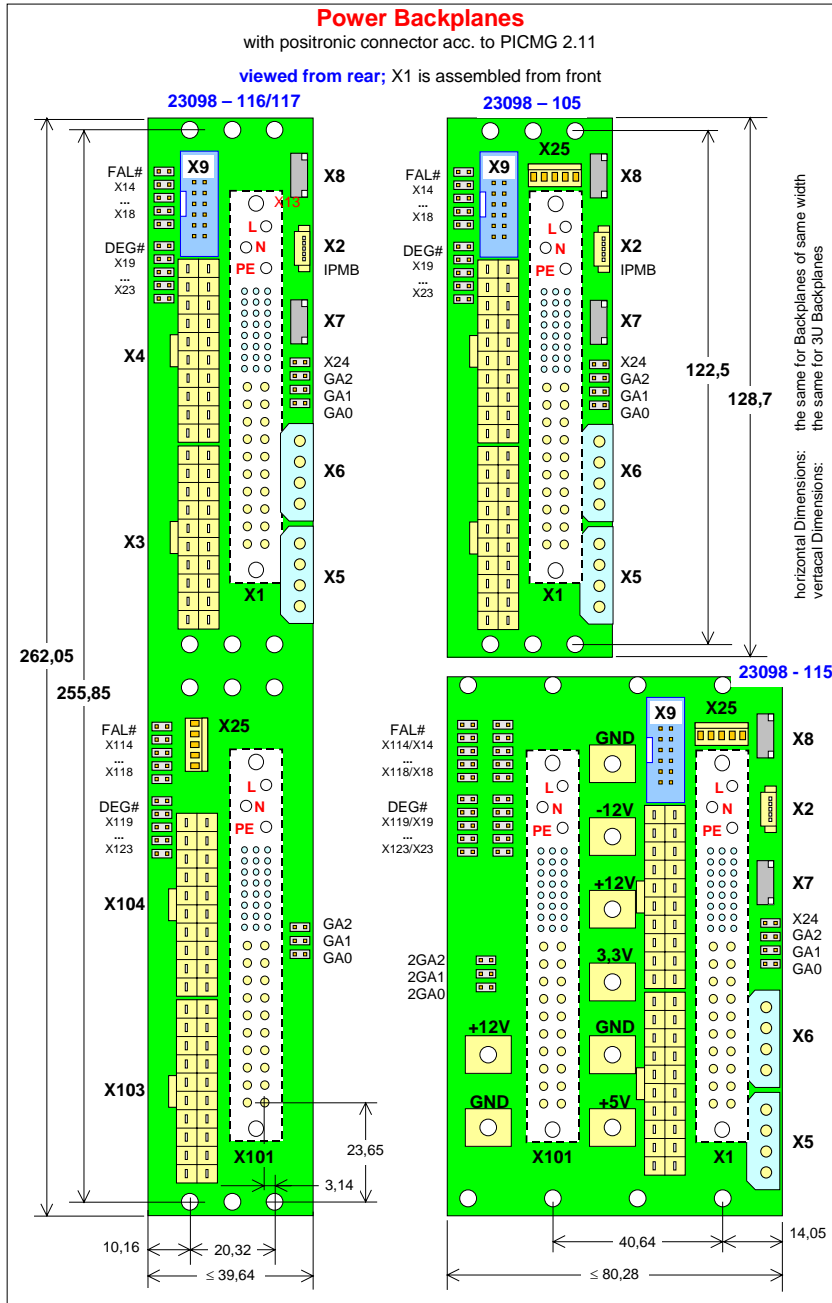


Start-up of the board:

open the cable tie of the power mains cable and push the crimp contacts into the dedicated connector chambers of X1;

respect the cable colours: brown: L (line); blue: N (neutral); green/yellow: PE (protective earth).

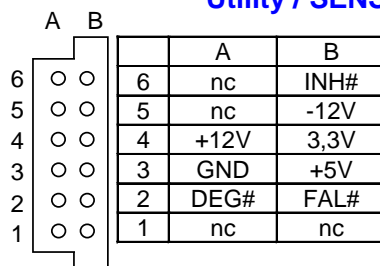
Cable length: 500mm, other end can be fitted with Faston Crimp contacts (included in delivery).



Pin assignment Positronic P47 Power connector (X1)

Pin#	Signal Name	Description
1	V1	V1 Output (+5V)
2	V1	V1 Output (+5V)
3	V1	V1 Output (+5V)
4	V1	V1 Output (+5V)
5	RTN	V1 and V2 Return (GND)
5	RTN	V1 and V2 Return (GND)
7	RTN	V1 and V2 Return (GND)
8	RTN	V1 and V2 Return (GND)
9	RTN	V1 and V2 Return (GND)
10	RTN	V1 and V2 Return (GND)
11	RTN	V1 and V2 Return (GND)
12	RTN	V1 and V2 Return (GND)
13	V2	V2 Output (3,3V)
14	V2	V2 Output (3,3V)
15	V2	V2 Output (3,3V)
16	V2	V2 Output (3,3V)
17	V2	V2 Output (3,3V)
18	V2	V2 Output (3,3V)
19	RTN	V3 Return (GND)
20	V3	V3 Output (+12V)
21	V4	V4 Output (-12V)
22	RTN	Signal Return (GND)
23	RESERVED	Reserved
24	RTN V4	V4 Return (GND)
25	GA0	Geographic Address Bit 0
26	RESERVED	Reserved
27	EN#	Enable (set to GND)
28	GA1	Geographic Address Bit 1
29	V1ADJ	V1 Adjust
30	V1 SENSE	V1 Remote Sense
31	GA2	Geographic Address Bit 2
32	V2ADJ	V2 Adjust
33	V2 SENSE	V2 Remote Sense
34	S RTN	Sense Return
35	V1 SHARE	V1 Current Share
36	V3 SENSE	V3 Remote Sense
37	IPMB_SCL	System Management Bus
38	DEG#	Degrade Signal
39	INH#	Inhibit
40	IPMB_SDA	System Management Bus
41	V2 SHARE	V2 Current Share
42	FAL#	Fail Signal
43	IPMB_PWR	System Management Bus
44	V3 SHARE	V3 Current Share
45	CGND	Chassis Ground (safety ground)
46	ACN/+DC IN	AC Input – Neutral; +DC Input
47	ACL/-DC	IN AC Input – Line; -DC Input

Utility / SENSE Connector pinout (X7, X8)



Sense

Pins referred to voltages +5V; 3,3V; +12V and GND of these connector used for sense purposes. They should be connected to the backplane. The -12V pin is connected to the -12V power rail.

Some Power Supplies need at least a connection between GND_Sense and GND, otherwise the outputs overrun

FAL#: Signal driven by intelligent PSU's, at least one output has failed (is out of range)

DEG#: Signal driven by intelligent PSU's, PSU indicates that the supply is beginning to derate its power output

INH#: Signal to turn the PSU outputs "on/off"
"open" or "HIGH": "on"
"LOW": "off"

cable assy (350mm): Schroff part#: 23204 – 115
cable assy (600mm): Schroff part#: 23204 – 116

ATX Power Connector (X3, X4)

3,3V	11	1	3,3V
- 12V	12	2	3,3V
GND	13	3	GND
INH#	14	4	+5V
GND	15	5	GND
GND	16	6	+5V
GND	17	7	GND
nc	18	8	FAL#
+5V	19	9	nc
+5V	20	10	+12V

pinout: top view on connector

free connector: Molex # 39-01-2205
 crimp terminal: Molex # 39-00-0039
 (AWG 18-24, Bag)

CPCI Signal INH# uses a pin defined within the ATX spec as PS-ON;
 both (INH#, PS-ON) used to drive the PSU ON/OFF;
 Logic Level is reversed; to drive PSU on, drive INH#:
 HIGH (PCMG 2.11 PSU's)
 PS-ON: LOW (ATX PSU's)

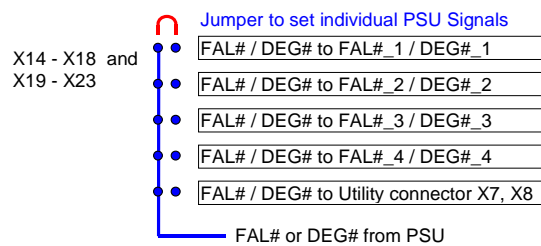
Pin Assignment X9

1	FAL#_1	FAL#_2	2
3	FAL#_3	FAL#_4	4
5	DEG#_1	DEG#_2	6
7	DEG#_3	DEG#_4	8
9	+3,3V share	+5V share	10
11	+12V share	GND	12
13	nc	nc	14

- ♦ Part type: header with or w/o housing and latches, grid: 100mil recommendation for mating connector: any IDC connector for ribbon cable of a pitch of 50 mil (acc. to DIN 41651)
- ♦ FAL#_n, DEG#_n: n is the number of an individual PSU
- ♦ To set the PSU signal FAL# or respectively DEG# to an individual line use jumper according the schematic given in Figure 3.

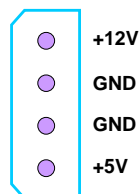
Setting individual FAL# & DEG# Signal

using Jumper array X14 - X18 for FAL#
 using Jumper array X19 - X23 for DEG#



Disk Drive Power Connector (X5, X6)

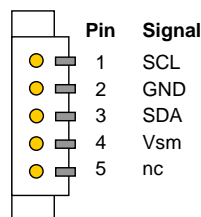
top view on connector



board connector: Molex # 15-24-4049
 free connector: Molex # 15-24-3053
 (IDC, AWG 16)

IPMB Connector (X2)

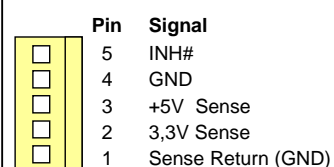
top view on connector



cable 750mm: Schroff#: 23204 - 113
 free connector: Molex # 51021-0500
 crimp contact: Molex # 50079-8100

Remote Connector (X25)

top view on connector



cable 750mm: Schroff#: 23204 - 114
 free connector: Tyco# 643814-5

Sense Option

Sensing can be accomplished by three different options:

1. using the **Utility/Sense** connector; all voltages are sensed (X7/8)
2. using the **Inhibit/Sense** connector: the main voltages (+5V, 3,3V GND) can be connected to backplanes not assembled with the Utility connector by easy wiring (X25)
3. only GND-Sense is connected to GND at the Power Board for minimum requirements of some PSU'S (Jumper X24)

GND-Sense Jumper (X24)

some PSU's may require at least that Sense return (GND Sense) is connected to GND to avoid output voltages out of range. For easy implementation X24 can be shorted to connect GND Sense to GND of the power board

Part Numbers

23098-105	1 Slot, 3U Board
23098-115	2 Slot, 3U Board
23098-116	1 Slot, 6U Board 1 PSU connector for one 6U PSU'
23098-117	1 Slot, 6U Board 2 PSU connectors for two 3U PSU's