ATX LED

100% DC low voltage

Atx Led Consultants Inc
815-A Brazos #326
Austin Tx, 78701
512 377 6052

http://atx-led.com

AL-PSE48-sml
Distribution panel for
3 x 96 Watts
Class 2

Product Description - AL-PSE48-sml

This structured wiring panel provides Class 2 power to 6 power outputs. Ideal for up to 45 light fixtures and up to 16 Light switches.

No output can exceed the power supplied by any one input – input power is NOT consolidated, therefore regardless of the number of supplies attached, the output current remains Class 2 assuming that the input power supply is class 2 (100 watts) per NEC 2017 requirements.

It has three power inputs, with power failover management. It is housed in a case ideal for structured wiring panels. Three power inputs are relay routed to 3 groups of 2 outputs each providing load balancing and failover.

It uses quick connect 5 amp rated connectors. The inputs are either DIN 4 or KF3.81 types. Voltage range is 44 to 56 volts.. Earth connection is provided for static discharge management.

Ideally matched with 3 pcs of the AL-PSU-51v96w, the AL-PSE48 is a member of the ATX SML family for quick installation in Media Panels.

Failover Power

The Power Distribution has 3 inputs – apply a matched set of 48 volts power supplies to reach the power budget for the project. If a 200 watt project had 3 power supplies – then an outage will have no impact.
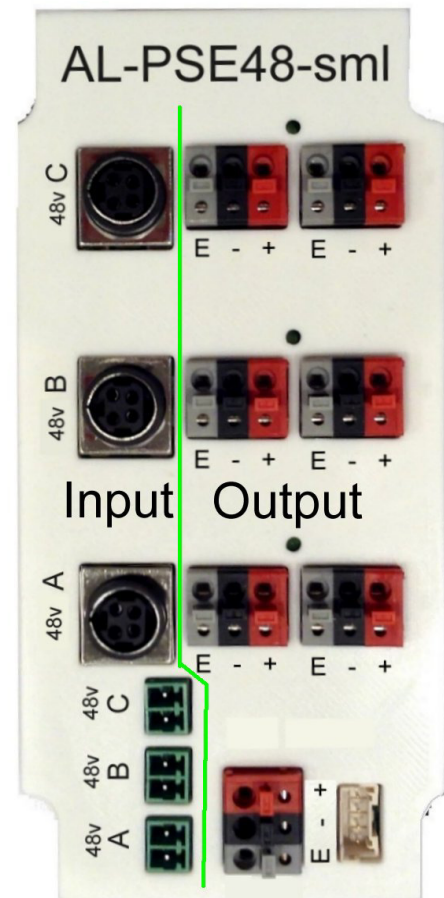
If a 300 watt project has one power suppyl fail – then 4 connectors will have to share one 100 watt supply, and the other 2 will have 100 watts available. Status LEDs display the reserve power for each of the 3 groups..

The voltages are monitored by an external device like the AL-DALI-Pi

Use the AL-WS-4D for solar installations.

A (input) powers A output block directly
B (input) powers B output block directly
C (input) powers C output block directly

If A input fails, power for A outputs will come from the C output.
If B input fails, power for B outputs will come from the A output.
If C input fails, power for C outputs will come from the B output.

sml Format

This device is a member of the ATX LED sml family for Structured Media Panels. This allows 8 devices in a 14x14 panel. Other devices include our 51v 96w power supply, DALI-8 distribution panel, Raspberry Pi hat, and DALI controlled PoE Switch.

LED status display

There are 2 LEDs per power input. The lower LED is the presence of voltage. The top LED is the power reserved from the input. With no load, it is fully bright. As the load reaches the Class 2 limit of 2 amps – the LED will go off.

Specifications

Power source	KF 3.81mm connectors (3) 2 pin DIN4 connectors for the AL-PSU-51v96w (3)
Connector type	CUI TBP02P1-381-02-BE (power in)
Failover	Relays from 3 DC power inputs assures all outputs are live
Input voltage range	44v to 56 volts (for Relay activation)
Current Limit	This device relies on the Class 2 current limit from the power source. For example, the AL-PSU-51v96w
Internal Power consumption	50 milliwatts standby
Protection	Reverse protection and static protection
Operating Temperature	0°C ~ 50°C
Size	70 mm x 147mm x 30mm plus 2x 10mm interleaving tabs on the 70mm side
Horizontal between tabs	76.2mm
Vertical between tabs	127mm
Hot Swap	Yes – can unplug and connect input power live
Earth Ground	Connection for earth grounding
Failover Detection	Cutover at less than 44 volts
Mouting Kit	Leviton 47615-NYL push pins

Min. DIN 4 Pin (female)

Pin Assignment	
PIN No.	Output
1	+Vo
2	-Vo
3	+Vo
4	-Vo