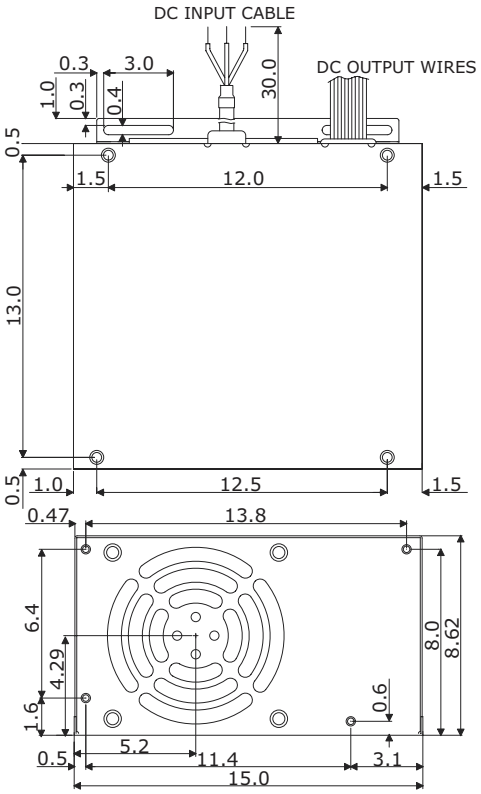
MPD-830R

300W DC-DC ATX Power Supply

Industrial Power Supply | DC-DC



Output Voltage	Min. Load	Rated Load	Max. Load	Voltage Accuracy
+5V	2A	25A	30A	4.8~5.2V
+12V	0.1A	10A	15A	11.4~12.6V
-12V	0A	1A	2A	-11.4~-12.6V
-5V	0A	1A	2A	-4.75~-5.25V
+3.3V	0A	8A	15A	3.13~3.4V
+5Vsb	0A	0.72A	1.2A	4.75~5.25V

Specifications

Input Voltage
The range of input voltage is from 72~136VDC

Input Current
The maximum input current is 5A at 110VDC input

Inrush Current
Will not exceed 10A at 110VDC input cold start, 25°C

Load Range
At factory, all outputs in 60% rated load condition; the +5V output is set to between 4.80V and 5.20V. The other outputs are checked to be within the specified voltage accuracy range

Ripple And Noise
The peak to peak ripple and noise for +5V, +3.3V outputs are less than 50mV, and for the other output are less than 100mV at rated load. Measuring is done by 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor electrolysis capacitor at rated load, nominal line

Line Regulation
The output line regulation for each output is less than +/-1% while measuring at rated load and -40~-72VDC input voltage changing

Load Regulation
The output voltage load regulation is less than the values in the following table by changing each output load +/-40% from 60% from rated load, and keep other outputs at 60% rated load

Output Power
The total DC continuous power shall be kept within 300W ambient temperature of 40°C below, and input voltage at 110VDC. The maximum, total combined output power on the 3.3V and 5V rails is 150W

Power On Signal
This TTL compatible signal (active low) is use to switch ON the main output. When power on is disconnected from secondary common, all outputs except +5Vsb shall turn off

Power Good Signal
When power start-up, the power good signal will increase between 100ms to 500ms after all output DC voltages are within regulation limits

Power Fail Signal
The power fail signal will fall at least 1ms before any of the output voltages lower than the regulation limits

Efficiency
The efficiency is higher than 65% while measuring at nominal line and rated output

Altitude
Will operate properly at any altitude between 0 to 10,000ft

Protection
Over Voltage: For some reasons the power supply might fail to control itself, the build-in crowbar circuit will automaticallly shut down the outputs to avoid damaging the external circuits. The trip point of O.V.P. circuit is around 5.7V to 7.0V
Short Circuit: The power supply will go into hiccup mode function against short circuit or over load conditions. If the faults condition removed, the power supply will restart automatically

Temperature
0~+70°C, -20°C can start up, derating from 50°C (operating); -40~+75°C (storage)

Humidity
The power supply can operate from 5% humidity to 95% humidity non-condensing at 40°C

Connectors
DC Connectors: 3 positions terminal blocks
ATX: Molex 39-01-2200 or equivalent
Disk Drive: AMP 1-480424-0 or equivalent
3.5" Floppy Driver: AMP 171822-4 or equivalent
P4: Molex 39-01-2045 or equivalent

Safety
EN 60950

EMI
EN55022 (1998) / EN55011 (1999)

EMS
IEC 61000-4-2 / IEC 61000-4-3 / IEC 61000-4-4

Dimensions
14.0 x 15.0 x 8.62 cm; Tolerance specified is +/-0.4mm between mounting holes and +/-0.8mm for other dimensions