



# MPD-830R

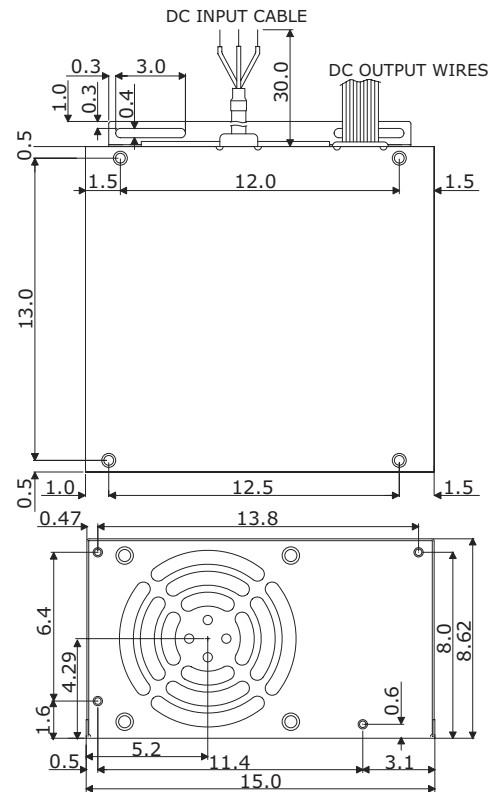
300W DC-DC ATX Power Supply

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 automatically 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