

**IATX-120U-12DC**
**120 Watts**

**Key Features:**

- 85W convection cooling or 120W with forced air-cooling
- Compact 1U height , thermal efficient U-channel design
- Isolated, chassis mount, nominal 12V and 24V DC input
- 3.3V/5V/12V/-12V DC outputs, 5V Stand by
- MTBF>130,000 hr. Mil-217F
- Rohs compliant

**Description**

The IATX-120U-12DC is a 10 ~ 30 VDC DC/DC open frame ATX power supply that can handle both 12V and 24V DC input, configured as either 85 watts convection cooling or 120 watts forced air-cooling DC/DC converter.

**1.0 INPUT SPECIFICATION**

| Input Specification |             |
|---------------------|-------------|
| Input Type          | DC          |
| Input Voltage       | 10~30 VDC   |
| Input Current       | 18A @ 10VDC |
| Inrush Current      | 30A @ 10VDC |

**2.0 OUTPUT SPECIFICATION**

| Output Specification            |                        |        |        |        |        |
|---------------------------------|------------------------|--------|--------|--------|--------|
| Outputs                         | +5V                    | +3.3V  | +12V   | -12V   | +5Vsb  |
| Minimum Output Current          | 1A                     | 0A     | 0A     | 0A     | 0.1A   |
| Rated Output Current            | 8A                     | 5A     | 1.5A   | 0.5A   | 0.75A  |
| Maximum Output Current          | 10A                    | 8A     | 4A     | 1A     | -      |
| Line Regulation                 | 2.5%                   | 2.5%   | 2.5%   | 2.5%   | 2.5%   |
| Load Regulation                 | 2%                     | 5%     | 5%     | 5%     | -      |
| Ripple and Noise (peak to peak) | 100 mV                 | 100 mV | 120 mV | 200 mV | 120 mV |
| Efficiency                      | > 70%                  |        |        |        |        |
| MTBF                            | 139,421 hours at 50 °C |        |        |        |        |

At the factory, the +5V output is set between 5.08V to 5.13V and all output at 60% rated load; the other outputs are checked to be within the accuracy range. The maximum total combined output power on the +3.3V and +5V rails is 70W. The maximum load cannot exceed 120W.

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| Ripple and Noise (peak to peak) | 100 mV                 | 100 mV | 120 mV | 200 mV | 120 mV |
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**Interface Signals and Internal Protection**

|                   |   |
|-------------------|---|
| Power On/Off      | The power supply will start-up when the power On/Off pin is connected to secondary GND.   |
| Power Good Signal | When the power is turned on, the power good signal will go between 100ms to 500ms after all output DC voltage are within regulation limits. |
| Power Fail Signal | The power fail signal will go low at least 1ms before any of the output voltages fall   |

| IATX-120U-12DC                                     |  | 120 Watts   |
|--|--|---|
|  |  | below the regulation limits.  |
| Overload Protection                                |  | Fully protected against output overload and short circuit. Automatic recovery upon of overload condition. |
| <b>Safety Approvals, EMI and EMS specification</b> |  |   |
| Safety   |  | UL 60950<br>CSA 22.2 No.234<br>EN 60950   |
| Radiation/Conduction                               |  | FCC docket 20780 curve " B"<br>EN 55022 "B"   |
| <b>Environment Specification</b>                   |  |   |
| Operating Temperature                              |  | 0~50 °C   |
| Storage Temperature                                |  | -40~70 °C   |
| Altitude (max)                                     |  | up to 10,000 ft   |
| <b>Dimension</b>                                   |  |   |
| Width x Length x Height                            |  | 3.3 x 6.0 x 1.5" (inch)   |

### 3.0 MECHANICAL SPECIFICATION

#### ◆ Mechanical Drawing

