TIPC180-FX/FXM

180W FlexATX IPC Power Supply

FEATURES

- Complies with Flex ATX Standard
- Active PFC meets EN 61000-3-2 Standard
- Remote ON/OFF Function
- 5,000 Meters Operating Altitude
- IEC/EN/UL 62368-1 Approved

INPUT SPECIFICATIONS

Input Voltage Range ..... 90-264 VAC
Input Frequency 47-63Hz
Input Current ..... 3A rms max. @ 115 VAC
1.5A rms max. @ 230 VAC
Earth Leakage Current ..... 150µA max. @ 264 VAC, 50Hz

OUTPUT SPECIFICATIONS

Output Power Ratings ..... See rating chart
Load Regulation ..... See rating chart
Ripple & Noise* ..... See rating chart
Hold-up Time ..... 20ms min. @ 115/230 VAC
Rise Time ..... 20ms max. @ 115/230 VAC
Over Voltage Protection, +3.3V .. 3.7-4.5V
+5V 5.7-6.5V
+12V ... 13.3-15.5V
Over Current Protection, +3.3V .. 10-15A
+5V 15-20A
+12V ... 15-21A
Short Circuit Protection ..... On all outputs
Temperature Coefficient ..... ±0.04%/˚C max.

* Measured with 20MHz bandwidth at rated line voltage and output load ranges, with a 10µF electroytic capacitor in parallel with a 0.1µF ceramic disk capacitor across the output connector.

OUTPUT VOLTAGE & CURRENT RATING CHART				
Ouptut Voltage	Minimum Load	*Maximum Load	Load Regulation	Ripple & Noise VP-P Max.
+3.3V	0A	8A	±5%	50mV
+5V	0.2A	12A	±5%	50mV
+12V	0.05A	12A	±5%	120mV
-12V	0A	0.3A	±10%	120mV
+5Vsb	0A	2A	±5%	50mV

* The overall output power is 180W maximum.
* The total output power for +3.3V & +5V is 61W maximum.

GENERAL SPECIFICATIONS

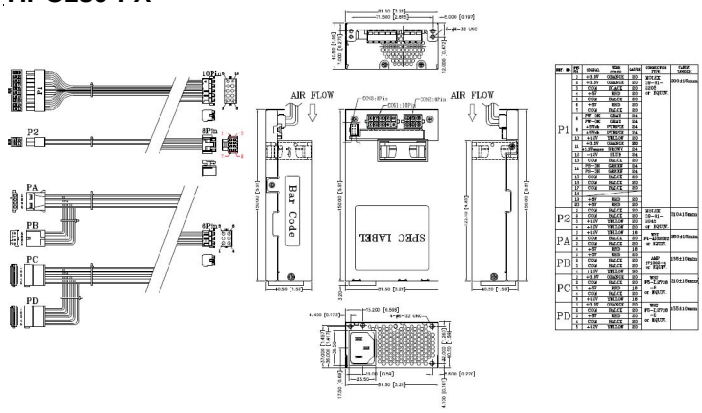
Efficiency ..... 82% min. @ 115/230 VAC, full load
Operating Altitude ..... 5,000 meters max.
Operating Temperature ..... 0˚C to +70˚C, derated to 85% @ 60˚C, 60% @ 70˚C
Storage Temperature ..... -20˚C to +80˚C
Relative Humidity ..... 5% to 95% non-condensing
Withstand Voltage ..... 1,800 VAC, input-ground
MTBF ..... 150K hours mininum at full load & 25˚C ambient, calculated per MIL-HDBK-217F

STANDARDS & COMPLIANCE

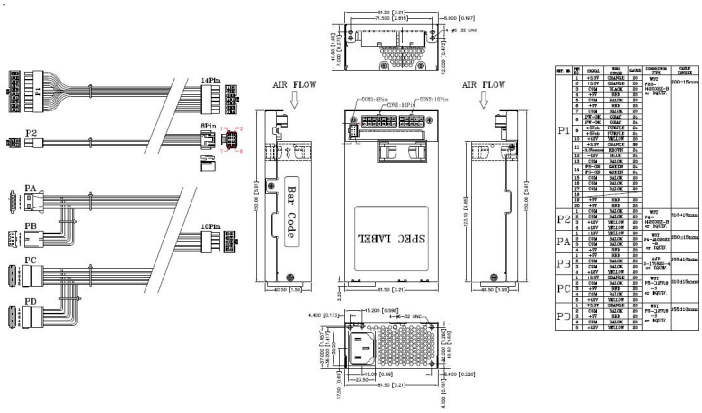
EMI/EMC ..... FCC, EN 55032 & CISPR 32, Class B conducted & radiated
Safety Standards ..... UL/IEC/EN 62368-1
Agency Approvals ..... UL, cUL, TUV, CCC, CB, CE
Other Compliance ..... RoHS, ErP, 80 PLUS

MECHANICAL SPECIFICATIONS

TIPC180-FX



TIPC180-FXM



Notes:
1. Dimensions in mm.
2. Custom cable sets available upon request.

TIPC180-FX/FXM_2018-10-17

Tumbler Technologies + TRUMPower

3350 Scott Blvd., Building 13 • Santa Clara, California 95054, USA • 408-988-6616 • sales@trumpower.com • www.TRUMPower.com