



FEATURES

- Enhanced +3.3V, +5V & +12V Outputs
- 90-264 VAC Universal Input with active PFC
- Meets ATX12V & EPS12V Standards
- Thermally Controlled Low Noise Ball-Bearing Fan
- Meets IEC/EN 60601-1-2 4th Edition Medical EMC
- IEC/EN/UL 60601-1 3.1 & IEC 60950-1 2nd Edition Approved



INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Input Frequency	47-63Hz
Input Current	6A @ 115 VAC 3A @ 230 VAC
Inrush Current	40A @ 115 VAC, 60A @ 230 VAC, cold start
Power Factor	0.95 Min. with active PFC
Earth Leakage Current	150 µA Max. @ 264 VAC

OUTPUT SPECIFICATIONS

Output Power Ratings	See Rating Chart
Load Regulation	See Rating Chart
Ripple & Noise	See Rating Chart
Rise Time	20 msec Max., smooth & monotonic
Hold-up Time	21.3 ms Min. @ 115/230VAC, 60/50 Hz
Over Voltage Protection, +3.3V	+3.7V to +4.3V
+5V	+5.7V to +6.5V
+5Vsb	+5.7V to +6.5V
+12V	+13.3V to +15.6V
Over Current Protection, +3.3V	40A to 60A
+5V	40A to 60A
+12V ₁	22A to 40A
+12V ₂	22A to 40A
Short Circuit Protection	All outputs

OUTPUT VOLTAGE & CURRENT RATING CHART				
DC Ouput Voltage	Minimum Load	*Maximum Load	Load Regulation	Ripple & Noise VP-P Max.
+3.3V	0.1A	32A	±5%	50mV
+5V	0.2A	30A	±5%	50mV
+12V ₁	0.1A	18A	±5%	120mV
+12V ₂	0.3A	18A	±5%	120mV
-12V	0A	0.8A	±5%	120mV
+5Vsb	0A	3A	±5%	50mV
-5V	0A	0.2A	±5%	100mV

NOTES:

1. The overall output power is 400W maximum.
2. The combined output power for +3.3V & +5V is 180W maximum .
3. 32A maximum combined load for +12V₁ & +12V₂
4. Ripple & Noise measured under the specified load conditions through a single-pole low-pass filter with 20MHz bandwidth and with the outputs being bypassed at the connector by a 0.1µF ceramic and 10µF electrolytic capacitors.

GENERAL SPECIFICATIONS

Efficiency	80% Min. @ full load
Operating Temperature	0°C to +50°C
Storage Temperature	-40°C to +85°C
Relative Humidity	5% to 95% non-condensing
MTBF	154,400 hours minimum at full load & 25°C ambient, calculated per MIL-HDBK-217F

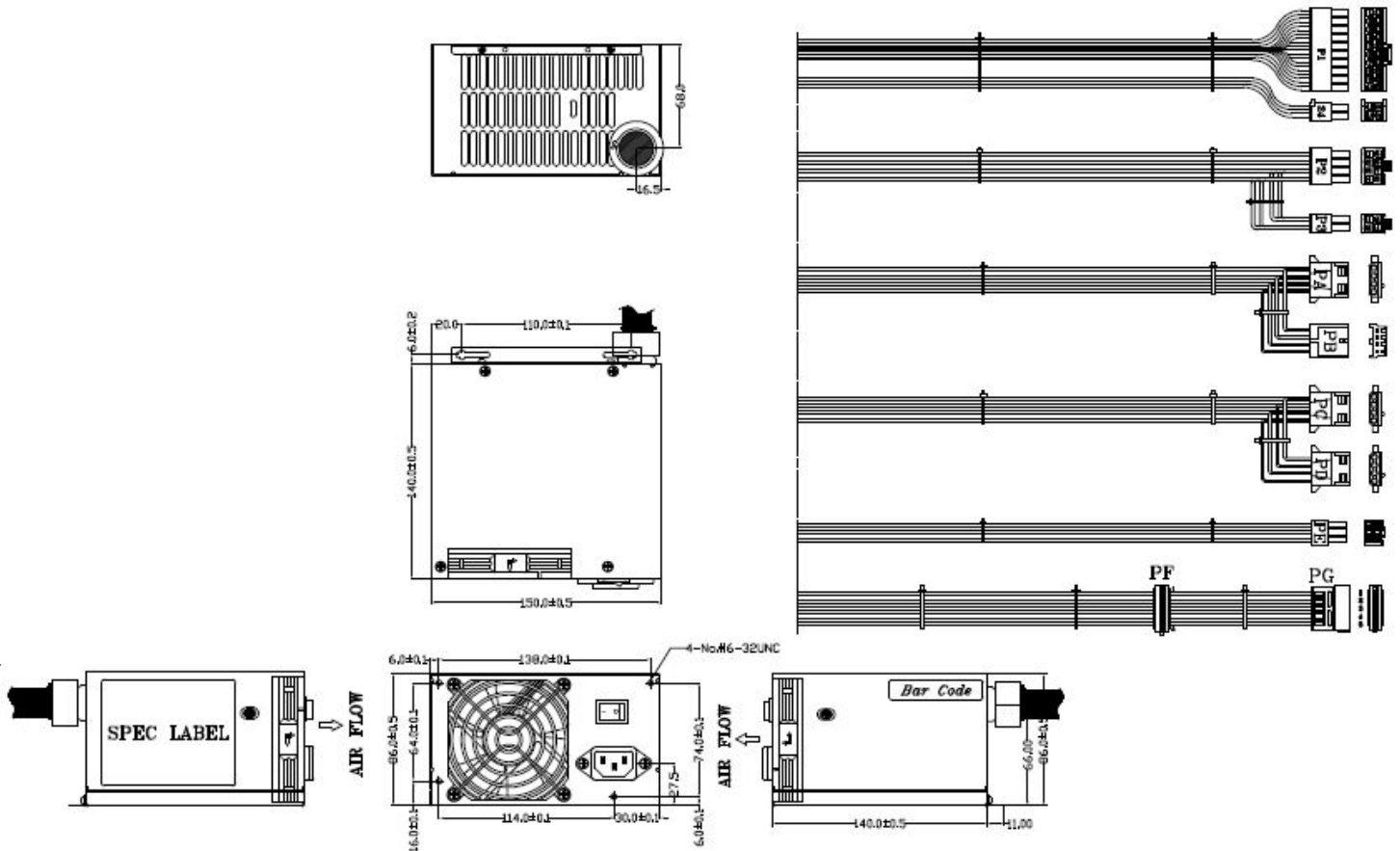
STANDARDS & COMPLIANCE

IEC/EN 60601-1-2: 2014 ...	EMC & Immunity Performance
EN 55011 / EN 55022	Class B, conducted & radiated
FCC / VCCI	Class B, conducted & radiated
EN 61000-3-2	Harmonic distortion, Class A
EN 61000-3-3	Line fluctuations & flicker
EN 61000-4-2	ESD, ±15 KV air and ±8 KV contact
EN 61000-4-3	Radiated immunity, 3 V/m
EN 61000-4-4	Fast transient/burst, ±2 KV
EN 61000-4-5	Surge, ±1 KV diff., ±2 KV com.
EN 61000-4-6	Conducted immunity, 6 Vrms
EN 61000-4-8	Magnetic field immunity, 30 A/m
EN 61000-4-11	Voltage dip immunity, 30% reduction for 500ms, 60% reduction for 100ms and >95% reduction for 10ms
Safety Standards	IEC/EN 60601-1 (Edition 3.1), ANSI/AAMI ES 60601-1 (2012), CAN/CSA C22.2 No. 60601-1 (2014); IEC 60950-1 (2nd Edition)
Agency Approvals	UL, cUL, TUV, CE, CB, CCC
Other Compliance	RoHS, 80PLUS

TMPC-400E

Medical Grade 400W ATX PC Power Supply

MECHANICAL SPECIFICATIONS



NOTES:

1. Unit: mm
2. The cable set is for reference only.