

MENT1220

Universal 220 Watt Series

Medical Switch-Mode Power Supply



3Year Warranty

- Universal Input 100Vac – 240Vac
- 12V to 48V Single Output Models up to 220W
- Desktop Style/Non-vented case - No internal fan!
- Ribbed Case Surface to improve cooling
- Energy Star 2.0, Level V
- Certified to Medical (UL/IEC/EN60601-1) and ITE (UL/IEC/EN60950-1) Standards
- IPX1 Rated Enclosure
- Class I and Class II input versions available.
- Modified and Custom Designs



International Safety Standard Approvals



Specifications

All Specifications are typical at nominal input, full load at 25°C unless otherwise stated.

AC Input	100-240VAC, +/-10%, 47-63 Hz single phase	MTBF	>100,000 hours (calculated)
Input Current	115VAC: 4A max, 230VAC: 1.5A max	Hold-up Time	21 ms min. @ 100VAC
Inrush Current	75A max. @ 264VAC, Cold Start	Overvoltage Protection	130% of nominal output voltage
Input Fuses	Internal 6.3A Primary Current Fuses are provided	Overload Protection	110-150% of full rated load, auto-recovery
PFC, Harmonics	IEC61000-3-2	Short Circuit Protection	Hiccup Mode, auto-recovery
Earth Leakage Current	<350µA typical @264VAC, 50Hz	Switching Frequency	50-120kHz, variable
Efficiency	88% typical	Medical Safety Standards	EN/IEC/UL60601-1
No Load Power	<0.5W	ITE Safety Standards	EN/IEC/UL60950-1
Transient Response	5ms max. for 50% load step Max deviation is 5%	Isolation:	Input-Output: 4KVac, Input-GND: 1.5KVac Output-GND: 700Vdc
Output Voltage	See chart	Operating Temp.	0° - 70°C, derate above 40°C to 60% of full rated load at 70°C
Line Regulation:	+/-0.5% max	Storage Temperature	-20 to +85°C
Load Regulation	+/-3% max	Relative Humidity	5% to 95%, non-condensing
Minimum Load	Not required	Altitude	0 to 10,000 ft
Ripple and Noise	1% pk-pk max., 20MHz BW, differential mode	Case Material	Black 94V-0 rated Polycarbonate
Turn-on Time	3 sec. maximum @ 115VAC	Case Dimensions	Desktop Style: 8.4" x 4.25" x 1.85"
Output Connections	See chart and outline drawing	Weight	1200g

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Model Number	Output Volts	OUTPUT PARAMETERS		
		Output Current (max)	Max Watts	Ripple (Vp-p max)
MENT1220A1251F01	12V	15.0A	180W	120mV
MENT1220A1551F01	15V	13.0A	195W	150mV
MENT1220A1851F01	18V	11.7A	210W	240mV
MENT1220A2451F01	24V	9.2A	220W	240mV
MENT1220A2851F01	28V	7.9A	220W	280mV
MENT1220A3251F01	32V	6.9A	220W	320mV
MENT1220A4851F01	48V	4.6A	220W	480mV

Model Number Key

MENT 1 220 A VV 51 F 01

<u>Model Configuration:</u>	"01" = Standard. "02" and higher indicates a modified model.
<u>Input Connector:</u>	"F" = IEC320 C14 grounded. See below for other options (consult factory for availability)
<u>Output Connector:</u>	"51" - Molex 39-01-2060 or equivalent. Other options available, consult factory.
<u>Output Voltage:</u>	"12" = 12Vdc, "15" = 15Vdc, "18" = 18Vdc, "24" = 24Vdc, "28" = 28Vdc, "32" = 32Vdc, "48" = 48Vdc
<u>Model Configuration:</u>	"A" = Model Configuration
<u>Output Power:</u>	"220" = 220 Watts
<u># of Outputs</u>	"1" = Single Output
<u>Product Family:</u>	"M" = Medical, "E" = External, "NT" = Model Series Designator

EMI/EMC Compliance

Conducted Emissions	FCC Part 15, Subpart B, EN55011 Class B
Radiated Emissions	FCC Part 15, Subpart B, EN55011 Class B
Voltage Fluctuations	EN61000-3-3, Line Flicker
Static Discharge Immunity	EN61000-4-2, 6kV Contact Discharge, 8kV air discharge
Radiated RF Immunity	EN61000-4-3, 3V/m.
EFT/Burst Immunity	EN61000-4-4, 2kV/5kHz..
Line Surge Immunity	EN61000-4-5, 1kV differential, 2kV common-mode
Conducted RF Immunity	EN61000-4-6, 3Vrms
Power Frequency Magnetic Field Immunity	EN61000-4-8, 3A/m
Voltage Dip Immunity	EN61000-4-11 crit. A, 100Vac 60Hz, 40%/5 cycles with 70% full load.
Line Frequency Harmonics	EN61000-3-2, Class A

Input Receptacle Options



"N" = IEC320 C8
Ungrounded



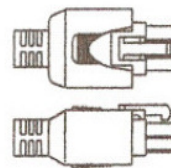
"F" = IEC320 C14
Grounded



"Q" = IEC320 C18
Ungrounded

Output Connector

51



See outline drawings below for connector information and pinout.

MENT1220

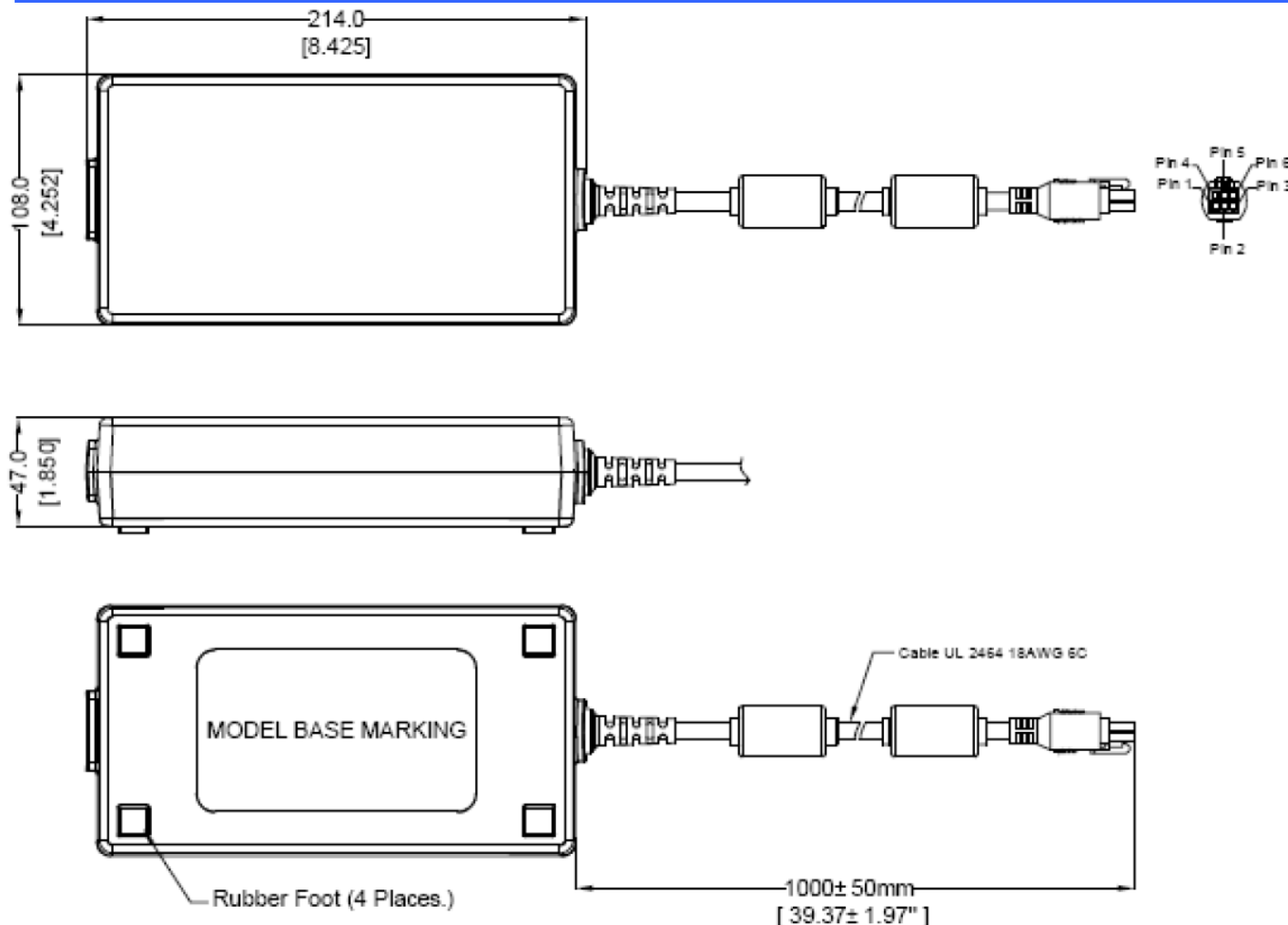
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Outline Drawing: ("F" input receptacle shown)



Output Connector Pinouts

12V thru 18V Models:			24V thru 48V Models:	
Pin	Wire Color	Desig.	Wire Color	Desig.
1	Red	+Vout	Red	+Vout
2	Blue	GND	N/A	N/C
3	Green	GND	Green	GND
4	White	+Vout	White	+Vout
5	Yellow	+Vout	N/A	N/C
6	Black	GND	Black	GND

OUTPUT CONNECTOR: Molex 39-01-2060 or equiv.

MATING CONNECTOR: Molex 39-01-2061 or equiv.