

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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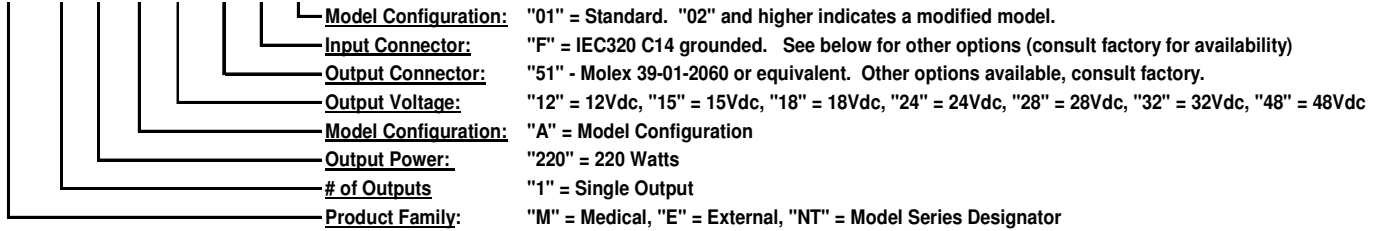


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| Model Number | Output Volts | OUTPUT PARAMETERS | | |
|------------------|--------------|----------------------|-----------|-------------------|
| | | Output Current (max) | Max Watts | Ripple (Vp-p max) |
| MENT1220A1251F01 | 12V | 15.0A | 180W | 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



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

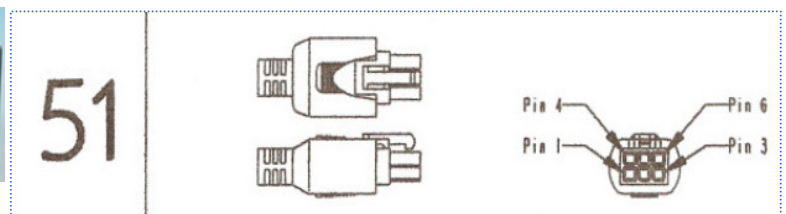


"N" = IEC320 C8
Ungrounded

"F" = IEC320 C14
Grounded

"Q" = IEC320 C18
Ungrounded

Output Connector



See outline drawings below for connector information and pinout.

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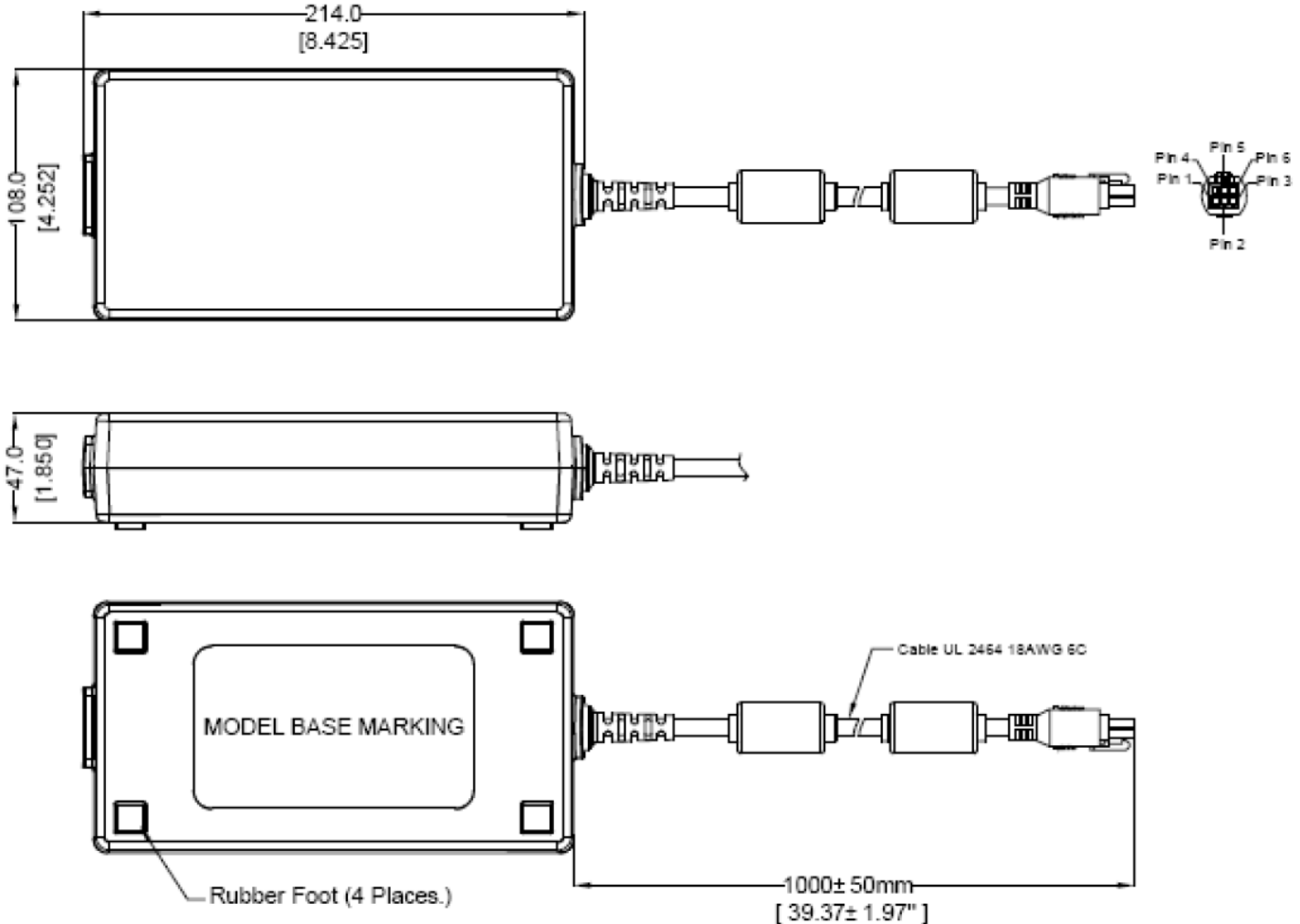
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Outline Drawing: ("F" input receptacle shown)



Output Connector Pinouts

| Pin | 12V thru 18V Models: | | 24V thru 48V Models: | |
|-----|----------------------|--------|----------------------|--------|
| | 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.