



Medical

### FEATURES AND BENEFITS

Meets UL/EN/IEC60601-1-2, 4th Edition for EMC\*

Approved to EN/IEC/UL60601-1, 3rd Edition Applications with Isolation Levels which Satisfy the 2 MOPP Requirements

Meets DoE Efficiency Level VI Requirements

- No Load Input Power
- Average Efficiency

Up to 12W of AC-DC Power

Universal Input 90 - 264VAC Input Range

- Desktop and Wall-plug Versions

Meets EN55011/CISPR11, FCC Part 15.109 Class B Conducted & Radiated Emissions, with 6db Margin

E-Cap Life of >7 Years

>10,00,000 Hours MTBF

IP22 Rated Enclosure

3 Years Warranty

Note: \* Consult Factory for Table 9 compliance information.  
\* IP22 does not include interchangeable blade versions.



### MODEL SELECTION

| Model Number | Volts | Output Current | Output Power | Ripple & Noise <sup>1</sup> | Line Regulation | Load Regulation | Output Connector  | Input Configuration                                |
|--------------|-------|----------------|--------------|-----------------------------|-----------------|-----------------|---|--|
| ME10A0503F01 | 5.0V  | 2.0A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             | 2.5 x 5.5 x 9.5mm<br>Straight barrel type,<br>Center positive | Class I Desktop,<br>IEC60320 C14<br>receptacle     |
| ME10A0603F01 | 5.9V  | 1.6A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0703F01 | 7.5V  | 1.3A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0903F01 | 9.0V  | 1.1A           | 10W          | 90mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A1203F01 | 12.0V | 1.0A           | 12W          | 120mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A1503F01 | 15.0V | 0.8A           | 12W          | 150mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A2403F01 | 24.0V | 0.5A           | 12W          | 240mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A0503N01 | 5.0V  | 2.0A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             | 2.5 x 5.5 x 9.5mm<br>Straight barrel type,<br>Center positive | Class II<br>Desktop,<br>IEC60320 C8<br>receptacle  |
| ME10A0603N01 | 5.9V  | 1.6A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0703N01 | 7.5V  | 1.3A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0903N01 | 9.0V  | 1.1A           | 10W          | 90mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A1203N01 | 12.0V | 1.0A           | 12W          | 120mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A1503N01 | 15.0V | 0.8A           | 12W          | 150mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A2403N01 | 24.0V | 0.5A           | 12W          | 240mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A0503Q01 | 5.0V  | 2.0A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             | 2.5 x 5.5 x 9.5mm<br>Straight barrel type,<br>Center positive | Class II<br>Desktop,<br>IEC60320 C18<br>receptacle |
| ME10A0603Q01 | 5.9V  | 1.6A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0703Q01 | 7.5V  | 1.3A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0903Q01 | 9.0V  | 1.1A           | 10W          | 90mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A1203Q01 | 12.0V | 1.0A           | 12W          | 120mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A1503Q01 | 15.0V | 0.8A           | 12W          | 150mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A2403Q01 | 24.0V | 0.5A           | 12W          | 240mV pk-pk                 | ±1%             | ±5%             |   |  |



### MODEL SELECTION

| Model Number | Volts | Output Current | Output Power | Ripple & Noise <sup>1</sup> | Line Regulation | Load Regulation | Output Connector  | Input Configuration  |
|--------------|-------|----------------|--------------|-----------------------------|-----------------|-----------------|---|--|
| ME10A0503B01 | 5.0V  | 2.0A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             | 2.5 x 5.5 x 9.5mm<br>Straight barrel type,<br>Center positive | Class II<br>Wall-plug,<br>Interchangeable<br>blades (North<br>American blade<br>included) <sup>2</sup> |
| ME10A0603B01 | 5.9V  | 1.6A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0703B01 | 7.5V  | 1.3A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0903B01 | 9.0V  | 1.1A           | 10W          | 90mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A1203B01 | 12.0V | 1.0A           | 12W          | 120mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A1503B01 | 15.0V | 0.8A           | 12W          | 150mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A2403B01 | 24.0V | 0.5A           | 12W          | 240mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A0503C01 | 5.0V  | 2.0A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             | 2.5 x 5.5 x 9.5mm<br>Straight barrel type,<br>Center positive | Class II<br>Wall-plug, Fixed<br>North American<br>blades <sup>3</sup>                                  |
| ME10A0603C01 | 5.9V  | 1.6A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0703C01 | 7.5V  | 1.3A           | 10W          | 75mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A0903C01 | 9.0V  | 1.1A           | 10W          | 90mV pk-pk                  | ±1%             | ±5%             |   |  |
| ME10A1203C01 | 12.0V | 1.0A           | 12W          | 120mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A1503C01 | 15.0V | 0.8A           | 12W          | 150mV pk-pk                 | ±1%             | ±5%             |   |  |
| ME10A2403C01 | 24.0V | 0.5A           | 12W          | 240mV pk-pk                 | ±1%             | ±5%             |   |  |

**Note:** 1. Measured at the output connector, with noise probe directly across output and load terminated with 0.1µF ceramic and 10µF low ESR capacitors. For 5V and 6V models, values listed are typical, 100mV pk-pk maximum with 0.1µF ceramic and 47µF low ESR capacitors used at measurement point.

2. Order blade kit KT-1027K for other blades (EU, UK, Australia).

3. For EU fixed blades, replace "C" in the model number with "M", for UK blades, replace "C" with "G", for Australia blades, replace "C" with "H".

4. For Input Class I models: For AC GND connected to output common (-), insert a "B" in the part number where the "A" is located (ME10B0503F01).

5. All specifications are typical at nominal input, full load, at 25°C ambient unless noted.

### INPUT

|   |   |
|---|---|
| AC Input                                | 100-240VAC, ±10%, 47-63Hz, 1Ø   |
| Input Current                           | 115VAC: 0.45A, 230VAC: 0.22A  |
| Inrush Current                          | 264VAC, cold start: will not exceed 40A                                   |
| Input Fuses                             | F1, F2: 3.15A, 250Vac fuses (line & neutral lines) provided on all models |
| Earth Leakage Current (Input to Ground) | <500µA @ 264VAC, 60Hz, NC<br><1mA @ 264VAC, 60Hz, SFC                     |
| Efficiency                              | >87%, Typical   |
| No Load Input Power                     | <0.1W per DoE Efficiency Level VI requirements                            |

### OUTPUT

|   |   |
|---|---|
| Hold-Up Time                              | 20ms min at full load, 100VAC input   |
| Turn On Time                              | Less than 700ms @ 115VAC, Full load   |
| Patient Leakage Current (Output to Earth) | <100µA @ 264VAC, 60Hz, NC<br><500µA @ 264VAC, 60Hz, SFC   |
| Output Power                              | 10 to 12W continuous - See models chart for specific voltage model ratings  |
| Output Voltage                            | See models chart  |
| Ripple and Noise                          | See models chart  |
| Transient Response                        | 500µs response time for return to within 0.5% of final value for any 50% load step over the range of 5% to 100% of rated load, $\Delta i/\Delta t < 0.2A/\mu s$<br>Max voltage deviation is +/-3.5% |
| Regulation                                | See models chart  |



### PROTECTION

|                            |   |
|----------------------------|---|
| Overtemperature Protection | Will shutdown upon an overtemperature condition Auto-recovery |
| Overload Protection        | 130 to 180% of rating, Hiccup mode                            |
| Short Circuit Protection   | Hiccup mode, Auto recovery                                    |
| Overvoltage Protection     | 130 to 150% of output voltage, Hiccup mode                    |
| Drop Test                  | 1.4m from table top to wooden platform, 6 faces               |

### RELIABILITY

|            |   |
|------------|---|
| MTBF       | >1,000,000 hours, Full load, 110 & 220VAC input, 25°C amb per Telcordia 332 Issue 6, Stress method  |
| E-cap Life | >10 years life based on calculations at 115VAC/60Hz & 230VAC/50Hz, ambient 25°C at 24 hrs per day, 365 days/year, 6 power up cycles per day |

### ISOLATION SPECIFICATIONS

|           |  |
|-----------|--|
| Isolation | Input-Output: 2 MOPP<br>Input-Ground: 1 MOPP<br>Output-Ground: 1500VAC |
|-----------|--|

### ENVIRONMENT

|                       |  |
|-----------------------|--|
| Operating Temperature | -20°C to +70°C. See curve for derating   |
| Storage Temperature   | -40°C to +85°C   |
| Altitude              | Operating: to 5,000m<br>Non-operating: -500 to 40,000 ft   |
| Relative Humidity     | 5% to 95%, Non-condensing  |
| Vibration             | Operating: 0.003g/Hz, 1.5grms overall, 3 axes, 10 min/axis, 1-500Hz<br>Non-operating: Random waveform, 3 min per axis, 3 axes and Sine waveform<br>Vib. frequency/acceleration: 10-500Hz/1g, sweep rate of 1 oct/min., Vib. time of 10 sweeps / axes, 3 axes |

### SAFETY

|                  |  |
|------------------|--|
| Safety Standards | EN/IEC/UL60601-1, 3rd edition  |
| Shock            | Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total<br>Non-operating: Half-sine waveform<br>Impact acceleration of 100G, Pulse duration of 6ms<br>Number of shocks: 3 for each of the three axis |

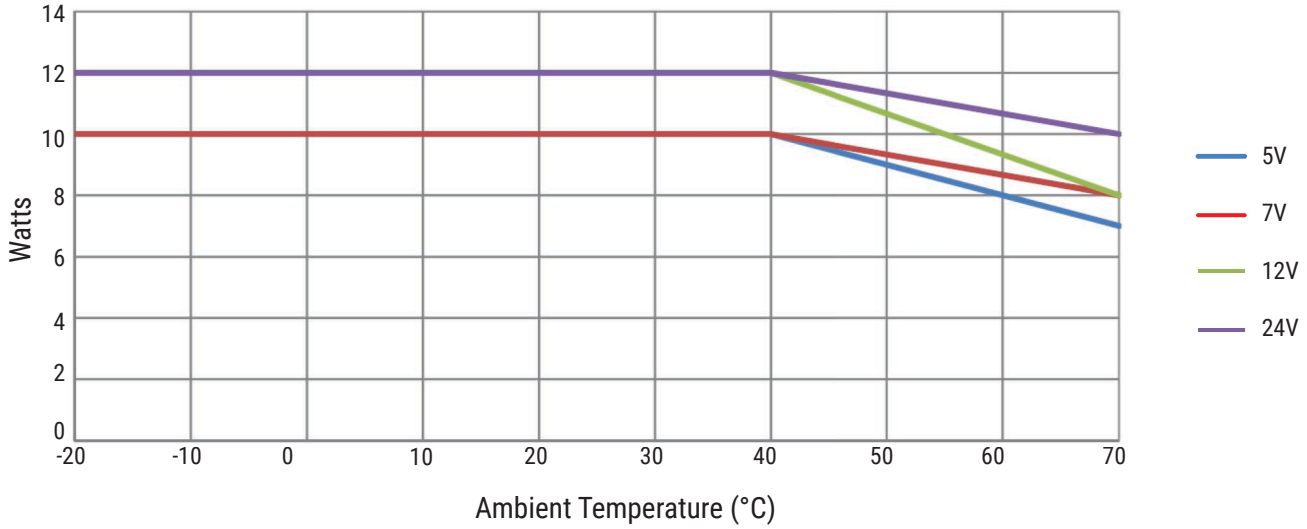
### EMI/EMC COMPLIANCE

|   |  |
|---|--|
| Conducted Emissions   | IEC60601-1-2/EN55011/CISPR11 Class B, FCC Part 15, Class B, 6db margin typ., at 115 and 230Vac   |
| Radiated Emissions  | IEC60601-1-2/EN55011/CISPR11 Class B, FCC Part 15, Class B, 3db margin typ., at 115 and 230Vac   |
| Common Mode Noise   | High frequency (100kHz-20MHz): <40mA pk-pk   |
| Electro-Static Discharge (ESD) Immunity on Power Ports      | EN55024/IEC61000-4-2, Level 4: +/- 8kV contact, +/- 15kV air, Criteria A<br>IEC60601-1-2, 4th edition, Table 4   |
| Radiated RF EM Fields Susceptibility                        | EN55022/EN61000-4-3, 10V/m, 80MHz-2.7GHz, 80% AM at 1kHz<br>IEC60601-1-2, 4th edition, Table 4   |
| Electrical Fast Transients (EFT)/Bursts                     | EN55024/IEC61000-4-4, Level 4, +/- 4.4kV, 100kHz rep rate, 40A, Criteria A<br>IEC60601-1-2, 4th edition, Table 5   |
| Surges, Line to Line (Diff Mode) and Line to GND (CMN Mode) | EN55024/IEC61000-4-5, Level 4, +/-2kV DM, +/-4kV CM, Criteria A<br>Surpasses IEC60601-1-2, 4th edition requirements  |
| Conducted Disturbances Induced by RF Fields                 | EN55022/IEC61000-4-6, 3.6V/m – Level 4, 0.15 to 80MHz; and 12V/m) in ISM and amateur radio bands between 0.15MHz and 80MHz, 80% AM at 1kHz IEC60601-1-2, 4th edition, Table 5  |
| Rated Power Frequency Magnetic Fields                       | EN55024/IEC1000-4-8, Level 4: 30 A/m, 50/60Hz<br>IEC60601-1-2, 4th Edition, Table 4  |
| Voltage Interruptions, Dips, Sags & Surges                  | EN55024/IECEN61000-4-11:<br>--100% dip for 10 ms, at 0, 45, 90, 135, 180, 225, 270 and 315 degrees,<br>--100% dip for 20ms, 0 deg, Criteria A<br>--100% dip for 500ms (250/300 cycles), Criteria B<br>--60% dip for 100ms, Criteria B<br>--30% dip for 500ms, Criteria A<br>IEC60601-1-2, 4th Edition, Table 5 |
| Harmonic Current Emissions                                  | EN55011/EN61000-3-2, Class A   |
| Flicker Test  | EN61000-3-3  |

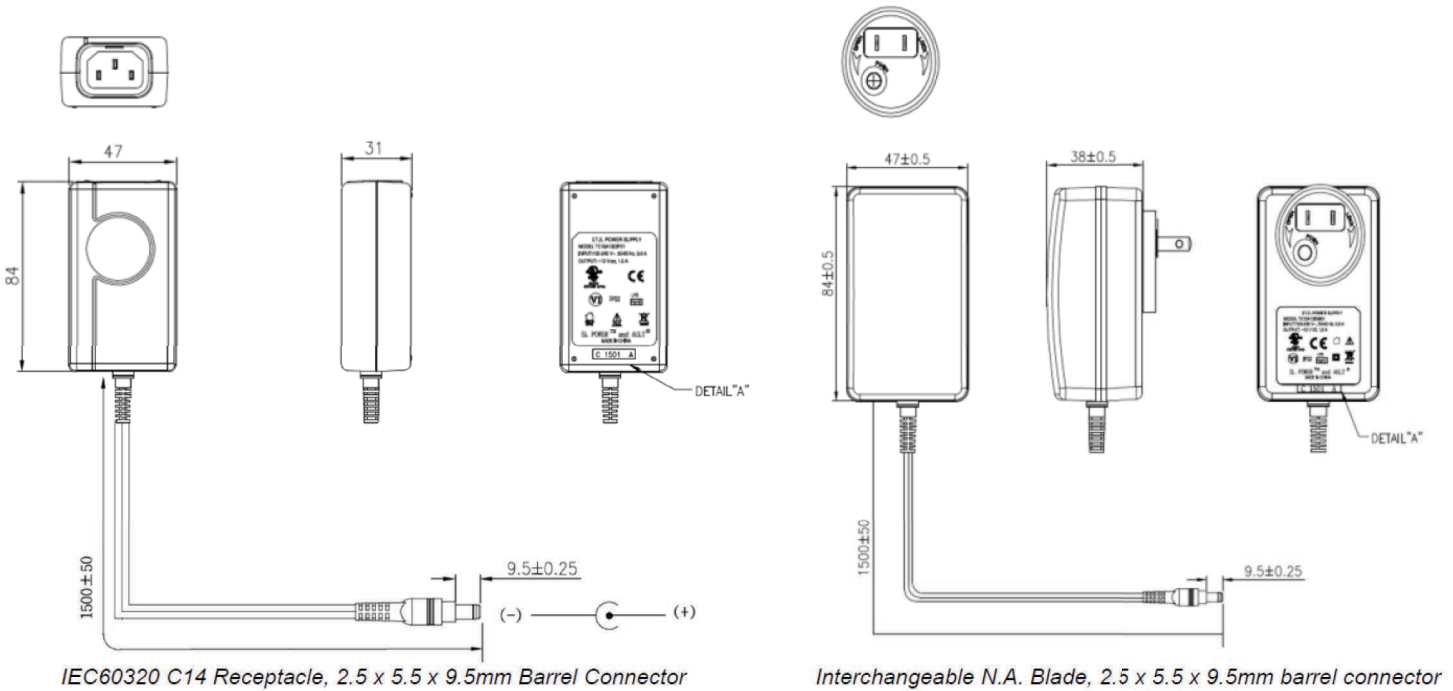
Note: All specifications are typical at nominal input, full load, at 25°C ambient unless noted. Consult factory for information regarding testing for or usage under special environments. Performance criteria are based are defined as following:  
A – Normal performance during and after the test  
B – Temporary degradation, self-recoverable  
C – Temporary degradation, operator intervention required to recover the operation  
D – Permanent damage



### DERATING CHART

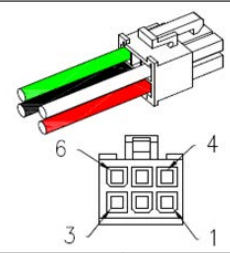


### MECHANICAL DRAWING



- Note: 1. All dimensions in mm.  
 2. Weight = 110g.  
 3. Interchangeable blade models come with North American blade fitted. For other blades (EU, UK, Aust.) order blade kit KT1027K.  
 4. The unit should not be covered or enclosed to protect against excessive case temperature rise.

| LEADWIRE HOOK-UP |          |       |
|------------------|----------|-------|
| PIN #            | FUNCTION | COLOR |
| 1                | +V       | RED   |
| 2                | NC       | -     |
| 3                | COMMON   | BLACK |
| 4                | +V       | WHITE |
| 5                | NC       | -     |
| 6                | COMMON   | GREEN |
|                  | BRAID    | FG4   |



Note: Pins 4,5,6 are located closest to the locking tab



### CONNECTOR INFORMATION

Standard models include a 2.5 x 5.5 x 9.5mm straight barrel type connector (Ault #3), center positive. Other standard options are listed below. The "03" in the standard model number is replaced by the applicable digits below:

| Connector No. | Description  |   | Connector No. | Description   |   |
|---------------|--|---|---------------|---|---|
| 02            | 2.1 x 5.5 x 9.5 mm straight barrel plug<br>Center positive                       |    | 45            | 2.5 x 5.5 x 9.5 mm straight barrel plug, locking<br>Center positive                   |    |
| 03            | 2.5 x 5.5 x 9.5 mm straight barrel plug<br>Center positive (Standard models)     |    | 48            | 3 pin Snap n Lock, Kycon Kpp-3P or equivalent<br>(Pin 1 = (+), pin 2 =(-))            |    |
| 12            | 5 pin DIN-180 male connector<br>(Pins 3, 5 = (+), pins 1, 2, 4 = (-))            |    | 49            | 4 pin Snap n Lock, Kycon Kpp-4P or equivalent<br>(Pins 1, 3 = (+), pins 2, 4 = (-))   |    |
| 22            | 6 pin DIN male connector<br>(Pins 1, 2 = (+), pins 4, 5 = (-))                   |    | 51            | 6 pin Minifit - Molex 39-01-2060 or equivalent<br>(Pins 1, 4 = (+), pins 3, 6 = (-))  |    |
| 23            | 8 pin DIN male connector<br>(Pins 3, 7 = (+), pins 1, 4, 6, 8 = (-), shell = FG) |   | 65            | Stripped and Tinned Leads   |   |
| 32            | 9 pin "D" type, female<br>(Pins 8 = (+), pins 5=(-), all others = NC)            |  | 70            | 2.1 x 5.5 x 11 mm right angle barrel plug<br>(High retention) Center positive         |  |
| 33            | 2.5 x 5.5 x 12.5 mm straight barrel plug<br>Center positive                      |  | 71            | 2.5 x 5.5 x 11 mm right angle barrel plug<br>(High retention) Center positive         |  |
| 40            | 2.1 x 5.5 x 9.5 mm right angle barrel plug<br>(High retention) Center positive   |  | 72            | 2.1 x 5.5 x 9.5 mm straight barrel plug<br>(High retention, No spark) Center positive |  |
| 41            | 2.5 x 5.5 x 9.5 mm right angle barrel plug<br>(High retention) Center positive   |  | 73            | 2.5 x 5.5 x 9.5 mm straight barrel plug<br>(High retention, No spark) Center positive |  |
| 42            | 2.1 x 5.5 x 11 mm straight barrel plug<br>(High retention) Center positive       |  | 74            | EIAJ#5 style connector - Central positive   |  |
| 43            | 2.5 x 5.5 x 11 mm straight barrel plug<br>(High retention) Center positive       |  | 99            | Micro USB   |  |
| 44            | 2.1 x 5.5 x 9.5 mm straight barrel plug, locking<br>Center positive              |  |               |   |   |