



### FEATURES AND BENEFITS

Meets UL/EN/IEC60601-1-2, 4Th Edition For EMC\*

Approved To En/IEC/UL60601-1, 3<sup>rd</sup> Edition With Isolation Levels Which Satisfy The 2 MOPP Requirements

Meets DoE Efficiency Level VI Requirements  
No Load Input Power  
Average Efficiency

Up To 60W Of AC-DC Power

Universal Input 90-264Vac Input Range

Desktop Style Package

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

E-Cap Life Of >7 Years

3 Year Warranty

IP22 Rated Enclosure



### MODEL SELECTION

| Model Number | Volts | Output Current | Output Power | Ripple & Noise <sup>1</sup> | Line Regulation | Load Regulation | Output Connector                                                                 | Output Cable                                                        | Input Configuration                       |
|--------------|-------|----------------|--------------|-----------------------------|-----------------|-----------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------|
| ME60A0551F01 | 5.0V  | 7.00A          | 35W          | 75mV pk-pk                  | ±1%             | ±5%             | 6 pin Molex Type2<br><br>2.5 x 5.5 x 9.5mm Straight Barrel Type, center positive | 1150mm, #18AWG<br><br>9V:1150mm 18AWG<br>All others: 1500mm, #18AWG | Class I Desktop, IEC60320 C14 Receptacle  |
| ME60A0903F01 | 9.0V  | 6.00A          | 56W          | 90mV pk-pk                  | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1203F01 | 12.0V | 5.00A          | 60W          | 120mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1503F01 | 15.0V | 4.00A          | 60W          | 150mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1803F01 | 18.0V | 3.30A          | 60W          | 180mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A2403F01 | 24.0V | 2.70A          | 60W          | 240mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A4803F01 | 48.0V | 1.35A          | 60W          | 480mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A0551N01 | 5.0V  | 7.00A          | 35W          | 75mV pk-pk                  | ±1%             | ±5%             | 6 pin Molex Type2<br><br>2.5 x 5.5 x 9.5mm Straight Barrel Type, center positive | 1150mm, #18AWG<br><br>9V:1150mm 18AWG<br>All others: 1500mm, #18AWG | Class II Desktop, IEC60320 C8 Receptacle  |
| ME60A0903N01 | 9.0V  | 6.00A          | 56W          | 90mV pk-pk                  | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1203N01 | 12.0V | 5.00A          | 60W          | 120mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1503N01 | 15.0V | 4.00A          | 60W          | 150mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1803N01 | 18.0V | 3.30A          | 60W          | 180mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A2403N01 | 24.0V | 2.70A          | 60W          | 240mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A4803N01 | 48.0V | 1.35A          | 60W          | 480mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A0551Q01 | 5.0V  | 7.00A          | 35W          | 75mV pk-pk                  | ±1%             | ±5%             | 6 pin Molex Type2<br><br>2.5 x 5.5 x 9.5mm Straight Barrel Type, center positive | 1150mm, #18AWG<br><br>9V:1150mm 18AWG<br>All others: 1500mm, #18AWG | Class II Desktop, IEC60320 C18 Receptacle |
| ME60A0903Q01 | 9.0V  | 6.00A          | 56W          | 90mV pk-pk                  | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1203Q01 | 12.0V | 5.00A          | 60W          | 120mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1503Q01 | 15.0V | 4.00A          | 60W          | 150mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A1803Q01 | 18.0V | 3.30A          | 60W          | 180mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A2403Q01 | 24.0V | 2.70A          | 60W          | 240mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |
| ME60A4803Q01 | 48.0V | 1.35A          | 60W          | 480mV pk-pk                 | ±1%             | ±5%             |                                                                                  |                                                                     |                                           |



### Notes:

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 models, values listed are typical, 100mV pk-pk maximum
2. Molex p/n 39-01-2060 or equivalent. See outline drawing for pinout information
3. For Input Class I models: For AC GND connected to output common (-), insert a "B" in the part number where the "A" is located (TE60B1203F01)
4. 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         | 100Vac: 1.5A, 240Vac: 0.7A                                             |
| Inrush Current        | 264Vac, cold start: will not exceed 40A                                |
| Input Fuses           | F1, F2: 2A, 250Vac fuses (line & neutral lines) provided on all models |
| Earth Leakage Current | <500µA@264Vac, 60Hz, NC<br><1mA@264Vac, 60Hz, SFC                      |
| Efficiency            | >88%, typical                                                          |
| Common Mode Noise     | High Frequency (100kHz-20MHz): <40mA pk-pk                             |
| No Load Input Power   | <0.210W (meets DoE Efficiency Level VI Requirements)                   |

## ENVIRONMENT

|                       |                                                                                                                                                                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temperature | -20°C to +70°C. See curve for derating                                                                                                                                                                                                                                |
| Relative Humidity     | 5% to 95%, non-condensing                                                                                                                                                                                                                                             |
| Weight                | 400g                                                                                                                                                                                                                                                                  |
| Dimensions            | W: 2.67" x L: 4.25" x H: 1.29"<br>W: 67.9mm x L: 108mm x H: 32.7mm                                                                                                                                                                                                    |
| Altitude              | Operating: to 5000m. Non-operating: -500 to 40,000 ft.                                                                                                                                                                                                                |
| Storage Temperature   | -40°C to +85°C                                                                                                                                                                                                                                                        |
| Vibration             | Operating: 0.003g/Hz, 1.5grms overall, 3 axes, 10 min/axis, 1-500Hz. Non-Oper.: random waveform, 3 minutes per axis, 3 axes and Sine waveform, Vib. frequency/acceleration: 10-500Hz/1g, sweep rate of 1 octave / minutes, Vibration time of 10 sweeps / axes, 3 axes |
| Shock                 | Operating: Half-sine, 20gpk, 10mS, 3 axes, 6 shocks total Non-Operating: Half-sine waveform, impact acceleration of 100G, Pulse duration of 6 mS, Number of shocks: 3 for each of the three axis                                                                      |

## OUTPUT

|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| Output Voltage   | See models chart on pg 1                                             |
| Output Power     | 60W continuous – See models chart for specific voltage model ratings |
| Turn On Time     | Less than 1 sec @115Vac, full load                                   |
| Hold-up Time     | 20mS min., at full Load, 100Vac input                                |
| Ripple and Noise | See models chart on pg 1                                             |

## EMI/EMC COMPLIANCE

|                                                        |                                                                                                             |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Conducted Emissions                                    | EN55011/CISPR11 Class B, FCC Part 15.107, Class B: 6db margin typ, at 115 and 230Vac                        |
| Radiated Emissions                                     | EN55011/CISPR11 Class B, FCC Part 15.109, Class B: 3db margin typ, at 115 and 230Vac                        |
| Electro-Static Discharge (ESD) Immunity on Power ports | EN55024/IEC61000-4-2, Level 4: +/- 8kV contact, +/- 15kV air, Criteria A IEC60601-1-2, 4th Edition, Table 4 |
| Flicker Test                                           | EN61000-3-3                                                                                                 |

## SAFETY

|                  |                                                 |
|------------------|-------------------------------------------------|
| Safety Standards | EN/IEC/UL60601-1, 3rd edition                   |
| Drop Test        | 1.4m from table top to wooden platform, 4 faces |

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.

## RELIABILITY

|      |                                                                                     |
|------|-------------------------------------------------------------------------------------|
| MTBF | >250,000 hours, full load, 110 & 220Vac input, 25°C amb., per Telcordia 332 Issue 6 |
|------|-------------------------------------------------------------------------------------|



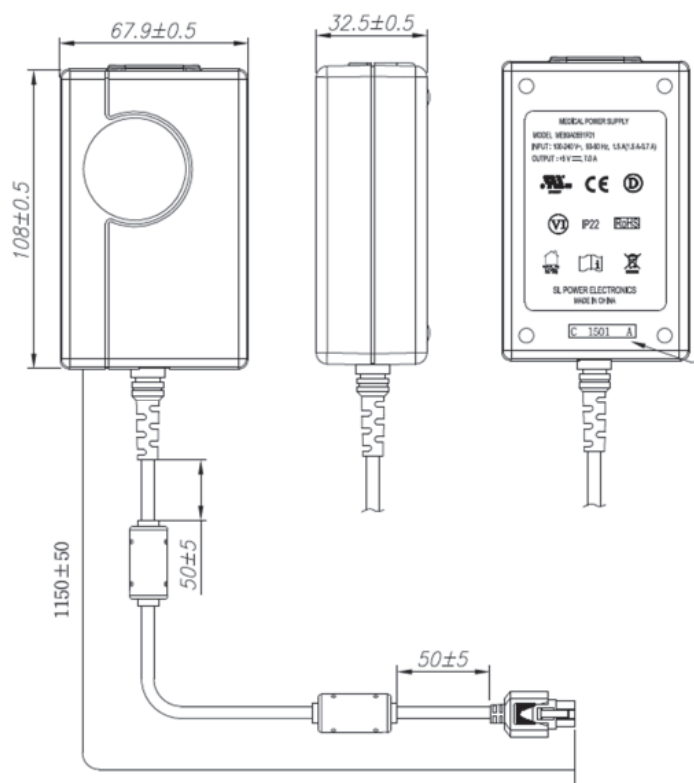
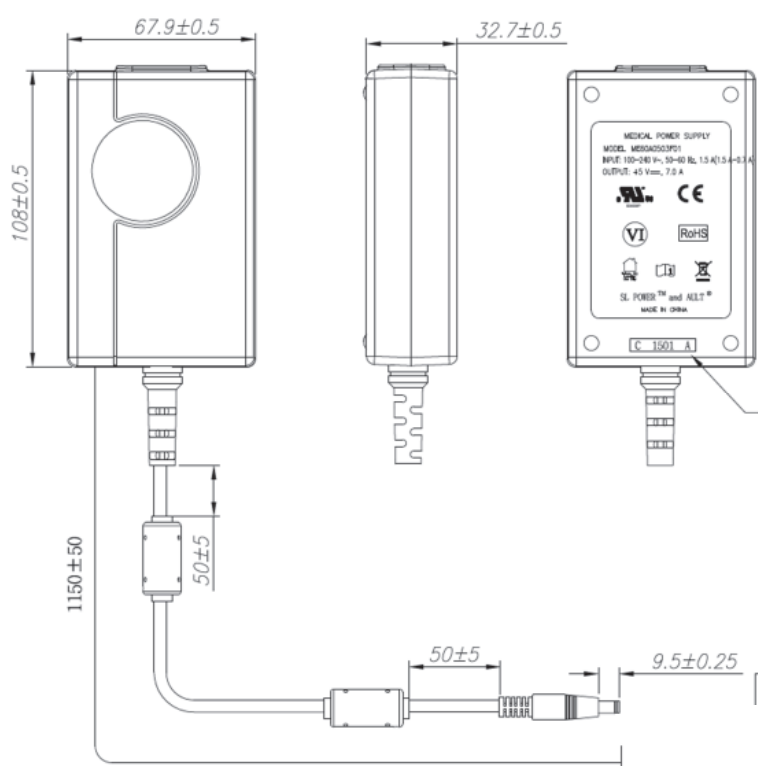
### PROTECTION

|                            |                                                                    |
|----------------------------|--------------------------------------------------------------------|
| Overvoltage Protection     | 130 to 150% of output voltage (max. 60V on 48V model), hiccup mode |
| Short Circuit Protection   | Hiccup Mode, auto recovery                                         |
| Overtemperature Protection | Will shutdown upon an overtemperature condition, auto-recovery     |
| Overload Protection        | 130 to 180% of rating, Hiccup Mode                                 |

### ISOLATION

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

### MECHANICAL DRAWINGS



See Note 3: 9V through 48V Models: 2.5 x 5.5 x 9.5mm or equiv. Barrel Connector, center positive<sup>2</sup>

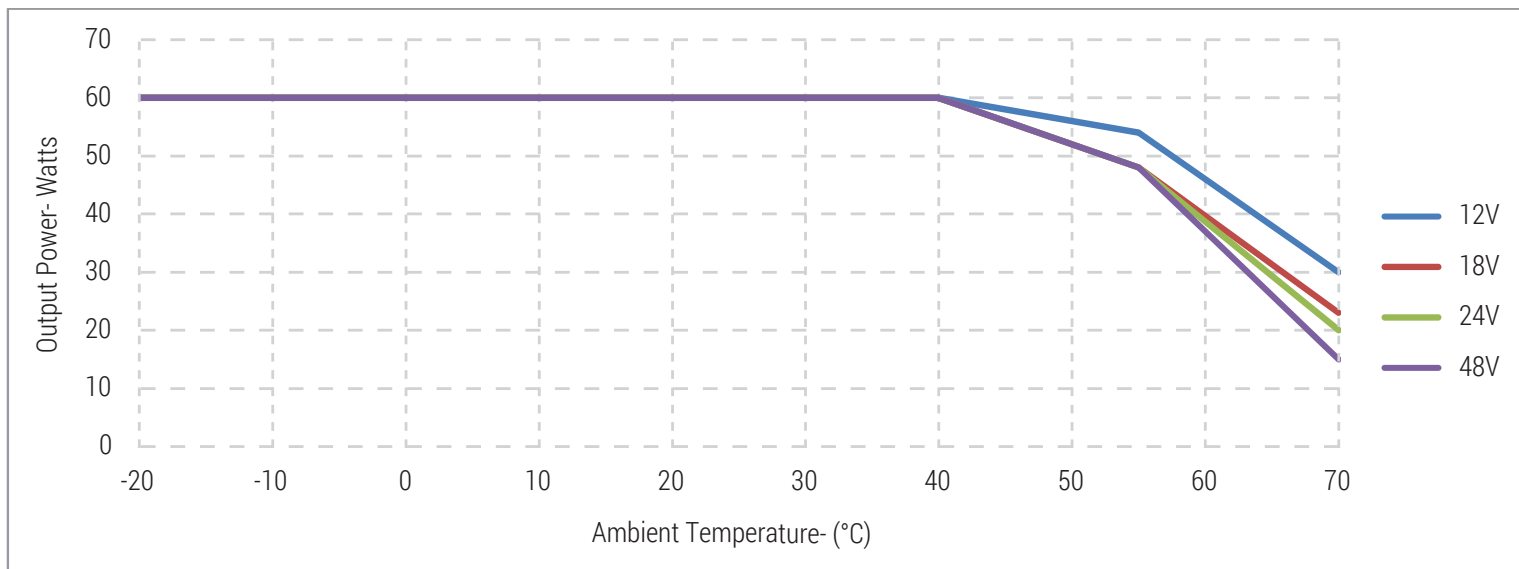
5V Models: Output Connector: 6 pin Molex 39-01-2060 or equiv. Pins 1, 4 = (+), pins 3, 6 = (-), pins 2, 5 = NC<sup>2</sup>

#### Notes:

1. All dimensions in mm.
2. Other options are available.
3. Cable length on 12V through 48V models is 1500mm, nominal.
4. The unit should not be covered or enclosed to protect against excessive case temperature rise.



## DERATING CHART





### CONNECTOR INFORMATION

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

These are the most common standard connectors. SL Power has the capability to incorporate any non-standard output connector. All output connectors are limited by wattage range and application type. The SL Power applications team is available to provide professional support and can be contacted here: [info@slpower.com](mailto:info@slpower.com).