



### FEATURES AND BENEFITS



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

Approved To EN/IEC/UL60601-1, 3rd edition  
With Isolation Levels Which Satisfy The 2 MOPP  
Requirements

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

Up To 20W Of AC-DC Power

Universal Input 90-264Vac Input Range  
Desktop And Wall-Plug Versions

Meets EN55011/CISPR11, FCC part15.109 Class B  
Conducted & Radiated Emissions, With 6db Margin

E-Cap Life Of >10 Years

>1,000,000 Hours MTBF

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   | Input Configuration                            |
|--------------|-------|----------------|--------------|-----------------------------|-----------------|-----------------|--|--|
| ME20A0503F01 | 5.0V  | 3.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            | 2.5x5.5x9.5mm<br>Straigh tBarrel Type,<br>centerpositive | Class I Desktop,<br>IEC60320 C14<br>Receptacle |
| ME20A0603F01 | 5.9V  | 2.50A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0703F01 | 7.5V  | 2.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0903F01 | 9.0V  | 2.00A          | 18W          | 90mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A1203F01 | 12.0V | 1.50A          | 18W          | 120mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1503F01 | 15.0V | 1.20A          | 18W          | 150mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1803F01 | 18.0V | 1.00A          | 18W          | 180mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A2403F01 | 18.0V | 0.83A          | 20W          | 240mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A4803F0  | 48.0V | 0.42A          | 20W          | 480mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A0503N01 | 5.0V  | 3.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            | 2.5x5.5x9.5mm<br>Straigh tBarrel Type,<br>centerpositive | Class II Desktop,<br>IEC60320C8<br>Receptacle  |
| ME20A0603N01 | 5.9V  | 2.50A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0703N01 | 7.5V  | 2.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0903N01 | 9.0V  | 2.00A          | 18W          | 90mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A1203N01 | 12.0V | 1.50A          | 18W          | 120mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1503N01 | 15.0V | 1.20A          | 18W          | 150mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1803N01 | 18.0V | 1.00A          | 18W          | 180mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A2403N01 | 24.0V | 0.83A          | 20W          | 240mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A4803N01 | 48.0V | 0.42A          | 20W          | 480mVpk-pk                  | ± 1%            | ± 5%            |  |  |



### MODEL SELECTION (CONTINUED)

| Model Number | Volts | Output Current | Output Power | Ripple & Noise <sup>1</sup> | Line Regulation | Load Regulation | Output Connector   | Input Configuration  |
|--------------|-------|----------------|--------------|-----------------------------|-----------------|-----------------|--|--|
| ME20A0503Q01 | 5.0V  | 3.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            | 2.5 x 5.5 x 9.5mm<br>Straight Barrel Type,<br>centerpositive | Class II Desktop,<br>IEC60320 C18<br>Receptacle                    |
| ME20A0603Q01 | 5.9V  | 2.50A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0703Q01 | 7.5V  | 2.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0903Q01 | 9.0V  | 2.00A          | 18W          | 90mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A1203Q01 | 12.0V | 1.50A          | 18W          | 120mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1503Q01 | 15.0V | 1.20A          | 18W          | 150mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1803Q01 | 18.0V | 1.00A          | 18W          | 180mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A2403Q01 | 24.0V | 0.83A          | 20W          | 240mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A4803Q01 | 48.0V | 0.42A          | 20W          | 480mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A0503B01 | 5.0V  | 3.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0603B01 | 5.9V  | 2.50A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0703B01 | 7.5V  | 2.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0903B01 | 9.0V  | 2.00A          | 18W          | 90mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A1203B01 | 12.0V | 1.50A          | 18W          | 120mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1503B01 | 15.0V | 1.20A          | 18W          | 150mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1803B01 | 18.0V | 1.00A          | 18W          | 180mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A2403B01 | 24.0V | 0.83A          | 20W          | 240mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A4803B01 | 48.0V | 0.42A          | 20W          | 480mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A0503C01 | 5.0V  | 3.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            | 2.5 x 5.5 x 9.5mm<br>Straight Barrel Type,<br>centerpositive | Class II Wall-Plug,<br>Fixed North American<br>Blades <sup>3</sup> |
| ME20A0603C01 | 5.9V  | 2.50A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0703C01 | 7.5V  | 2.00A          | 15W          | 75mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A0903C01 | 9.0V  | 2.00A          | 18W          | 90mVpk-pk                   | ± 1%            | ± 5%            |  |  |
| ME20A1203C01 | 12.0V | 1.50A          | 18W          | 120mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1503C01 | 15.0V | 1.20A          | 18W          | 150mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A1803C01 | 18.0V | 1.00A          | 18W          | 180mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A2403C01 | 24.0V | 0.83A          | 20W          | 240mVpk-pk                  | ± 1%            | ± 5%            |  |  |
| ME20A4803C01 | 48.0V | 0.42A          | 20W          | 480mVpk-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 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 (ME20B0503F01)
5. All specifications are typical at nominal input, full load, at 25°C ambient unless noted



### INPUT

|   |   |
|---|---|
| AC Input                                | 100-240Vac, $\pm 10\%$ , 47-63Hz, 1 $\emptyset$                           |
| Input Current                           | 100Vac: 0.5A, 240Vac: 0.2A  |
| 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) | <500 $\mu$ A@264Vac, 60Hz, NC<br><1mA@264Vac, 60Hz, SFC                   |
| Efficiency                              | >87%, typical   |
| Common Mode Noise                       | High Frequency (100kHz-20MHz): <40mA pk-pk                                |
| No Load Input Power                     | <0.1W per DoE Efficiency Level VI Requirements                            |

### PROTECTION

|                            |  |
|----------------------------|--|
| Overvoltage Protection     | 130 to 150% of output voltage, hiccup mode                     |
| Short Circuit Protection   | Hiccup Mode, auto recovery                                     |
| Overtemperature Protection | Will shutdown upon an overtemperature condition, auto-recovery |
| Overload Protection        | 130 to 150% of output voltage, hiccup mode                     |

### RELIABILITY

|      |   |
|------|---|
| MTBF | >1,000,000 hours, full load, 110 & 220Vac input, 25°C amb., per Telcordia 332 Issue 6 (stress method) |
|------|---|

### ISOLATION

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

### EMI/EMC COMPLIANCE

|  |   |
|--|---|
| Conducted Emissions                                    | EN55011/CISPR22 Class B, FCC Part 15.107, Class B: 6db margin typ, at 115 and 230Vac                        |
| Radiated Emissions                                     | EN55022/CISPR22 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   |

### OUTPUT

|                    |  |
|--------------------|--|
| Output Voltage     | See models chart on pg 1   |
| Output Power       | 15 to 20W continuous – See models chart for specific voltage model ratings   |
| Turn On Time       | Less than 700mS @115Vac, full load   |
| Hold-up Time       | 20mS min., at full Load, 100Vac input  |
| Ripple and Noise   | See models chart on pg 1   |
| Transient Response | 500 $\mu$ s 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. Max. voltage deviation is +/-3.5% |

### SAFETY

|                  |   |
|------------------|---|
| Safety Standards | ANSI/AAMI ES60601-1:2005/(R)2012, CSA CAN/CSA-C22.2 NO, 60601-1:14; IEC60601-1:2005+CORR.2:2007+AM:2012; EN 60601-1:2006/A11:2011, EN60601-1: 2006/A12:2014, EN60601-1:2006/A1:2013 |
| Drop Test        | 1.4m from table top to wooden platform, 4 faces   |

### ENVIRONMENT

|                       |   |
|-----------------------|---|
| Operating Temperature | -20°C to +70°C. See curve for derating  |
| Relative Humidity     | 5% to 95%, non-condensing   |
| Weight                | 150g  |
| Dimensions            | See outline drawings  |
| Altitude              | Operating: to 5000m.<br>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  |

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

#### Note:

Performance criteria are based are defined as following:

A – Normal performance during and after the test

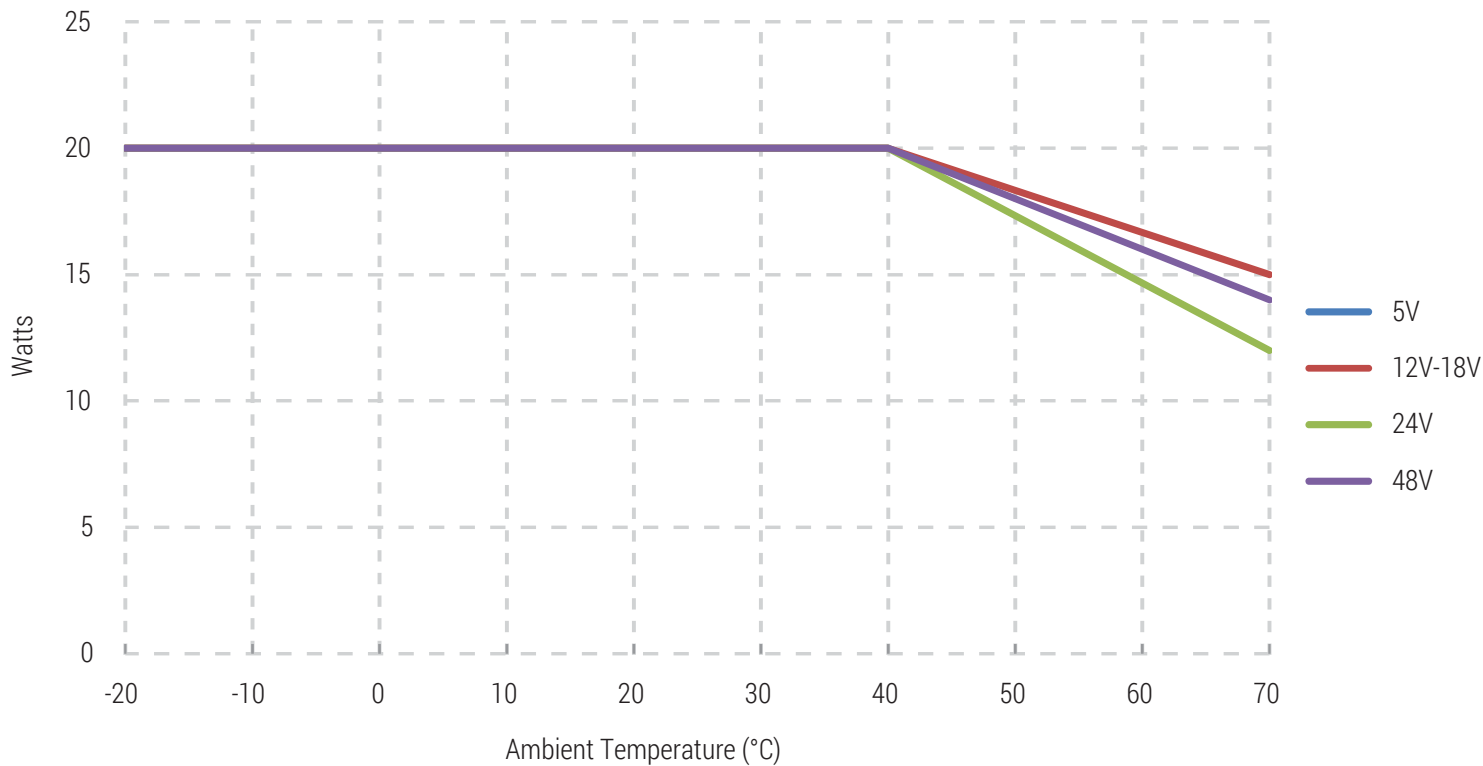
B – Temporary degradation, self-recoverable

C – Temporary degradation, operator intervention required to recover the operation

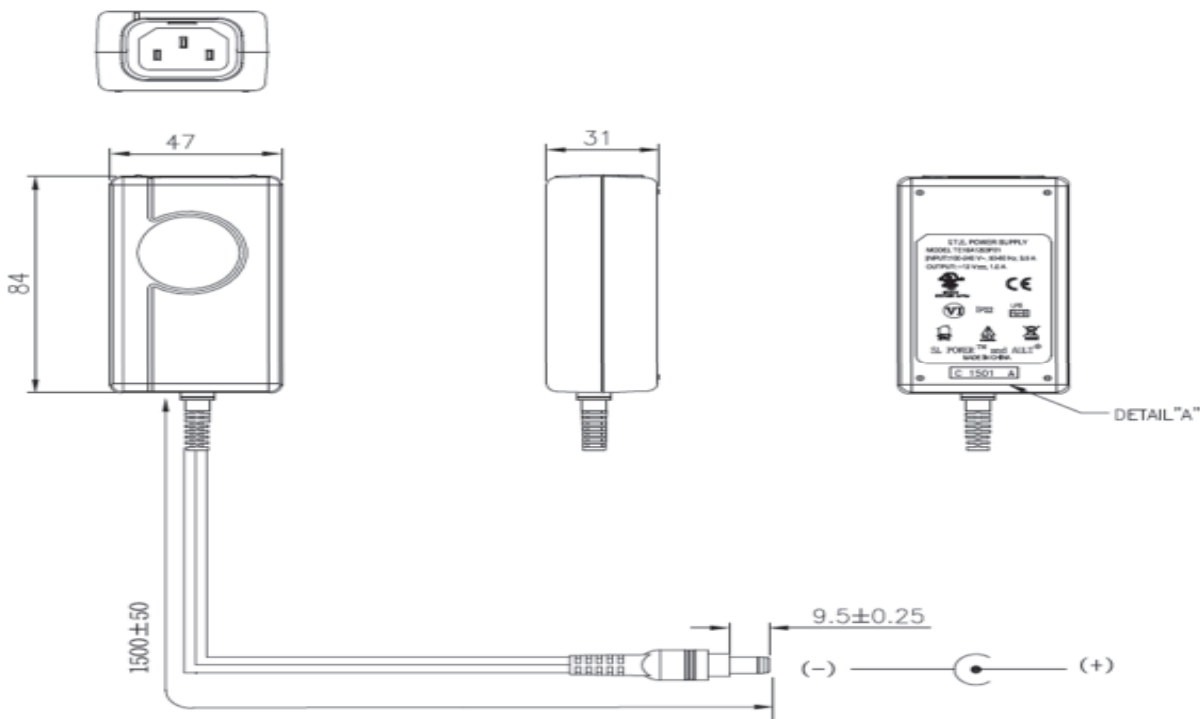
D – Permanent damage



## OUTPUT POWER DERATING CURVE

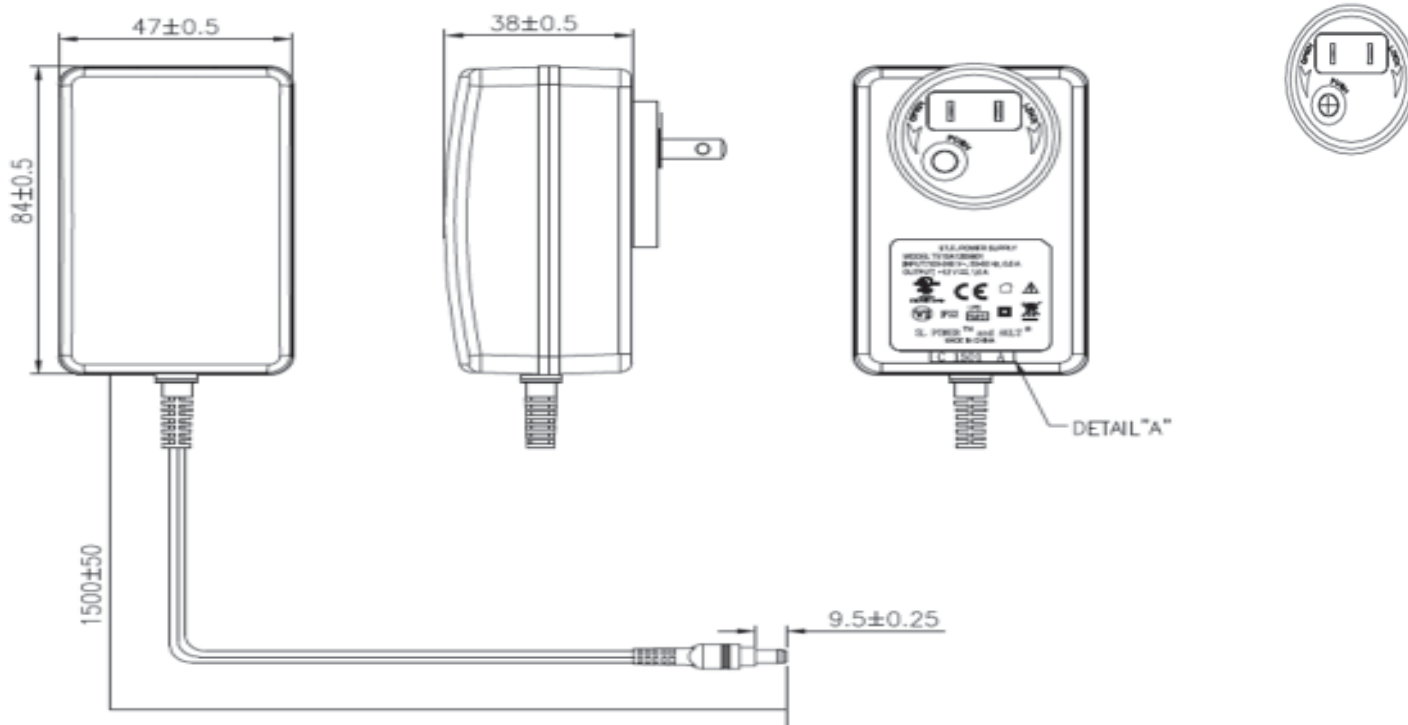


## MECHANICAL DRAWINGS





## IEC60320 C14 Receptacle, 2.5 x 5.5 x 9.5mm Barrel Connector



Interchangeable N.A. Blade, 2.5 x 5.5 x 9.5mm barrel connector

### Notes:

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



### 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. For other options, consult the factory.

| 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). Data