



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

* IP22 does not include interchangeable blade versions.

MODEL SELECTION

Model Number	Volts	Output Current	Output Power	Ripple & Noise ¹	Line Regulation	Load Regulation	Output Connector	Input Configuration
ME20A0503F01	5.0V	3.00A	15W	75mVpk-pk	± 1%	± 5%	2.5x5.5x9.5mm Straight Barrel Type, centerpositive	Class I Desktop, IEC60320 C14 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	24.0V	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%		
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 ¹	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 StraightBarrelType, centerpositive	Class II Desktop, IEC60320 C18 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%	2.5 x 5.5 x 9.5mm StraightBarrelType, centerpositive	Class II Wall-Plug, Interchangeable Blades (NorthAmerican Bladeincluded) ²
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 StraightBarrelType, centerpositive	Class II Wall-Plug, FixedNorthAmerican Blades ³
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 0.1 μ F ceramic and 10 μ F low ESR capacitors. For 5V and 6V models, values listed are typical, 100mV pk-pk maximum with 0.1 μ F ceramic and 47 μ F 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, 1Ø
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 μ A@264Vac, 60Hz, NC <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

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 μ 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%

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
Electro-Static Discharge (ESD) Immunity on Power Ports	EN55024/IEC61000-4-2, Level 4: $\pm 8kV$ contact, $\pm 15kV$ air, Criteria A
Radiated RF EM Fields Susceptibility	EN55022/EN61000-4-3, 10V/m, 80MHz-2.7GHz, 80% AM at 1kHz
EFT/Burst Immunity	EN55024/IEC61000-4-4, Level 4, $\pm 4.4kV$, 100kHz rep rate, 40A, Criteria A
Surges, Line to Line (DM) and Line to Ground (CM)	EN55024/IEC61000-4-5, Level 4, $\pm 2kV$ DM, $\pm 4kV$ CM, Criteria A
Conducted RF Immunity	EN55022/IEC61000-4-6, 3.6V/m - Level 4, 0.15MHz to 80MHz; and 12V/m in ISM and amateur radio bands between 0.15MHz and 80MHz, 80% AM at 1kHz
Power Frequency Magnetic Field Immunity	EN55024/IEC1000-4-8, Level 4: 30 A/m, 50Hz/60Hz
Voltage Dip Immunity	EN55024/IECEN61000-4-11: -100% dip for 20mS, Criteria A -100% dip for 5000mS (250/300 cycles), Criteria B -60% dip for 100mS, Criteria B -30% dip for 500mS, Criteria A
Harmonic Current Emissions	EN55011/EN61000-3-2, Class A
Flicker Test	EN61000-3-3
Common Mode Noise	High Frequency (100kHz-20MHz): <40mA pk-pk

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. 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



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 rating, hiccup mode

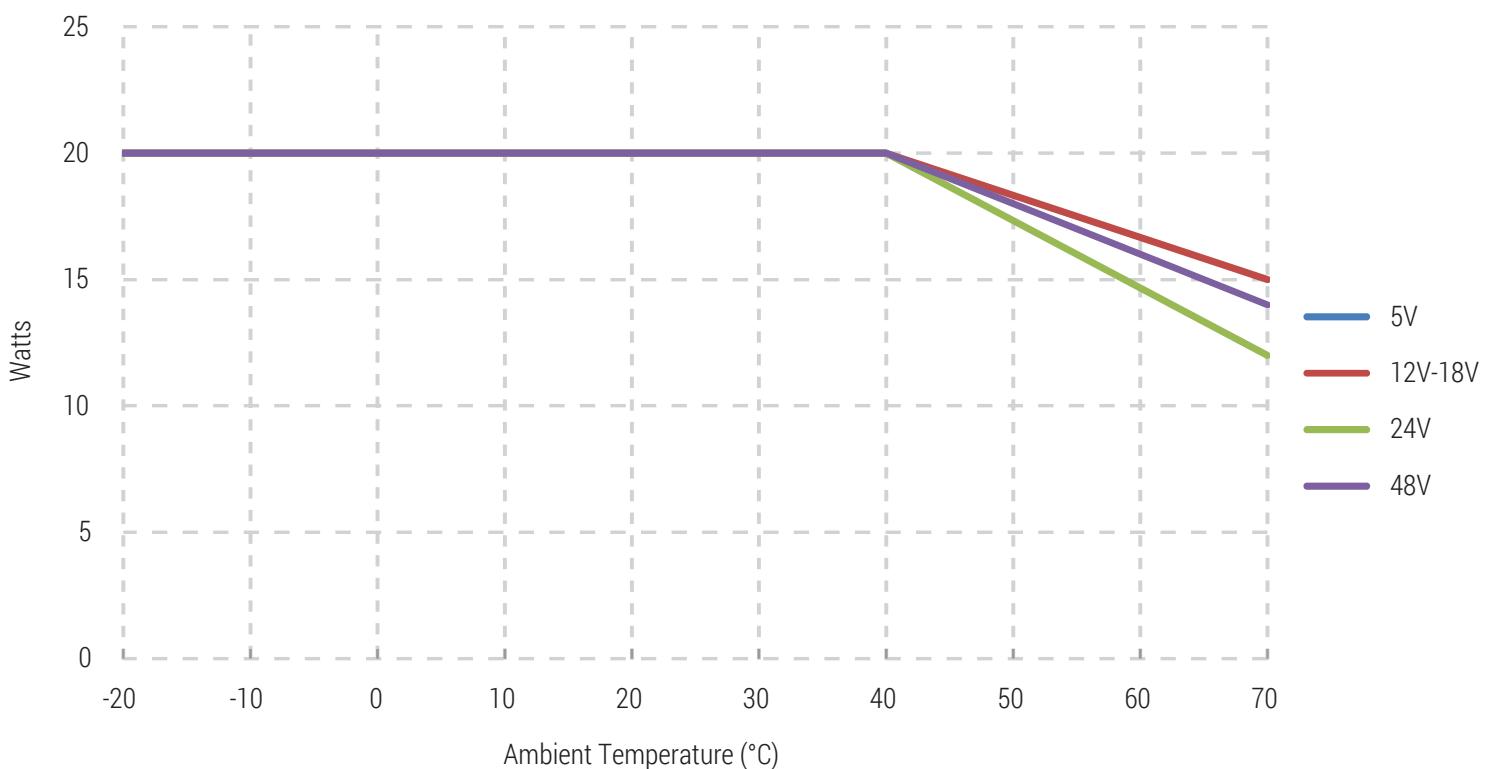
RELIABILITY

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

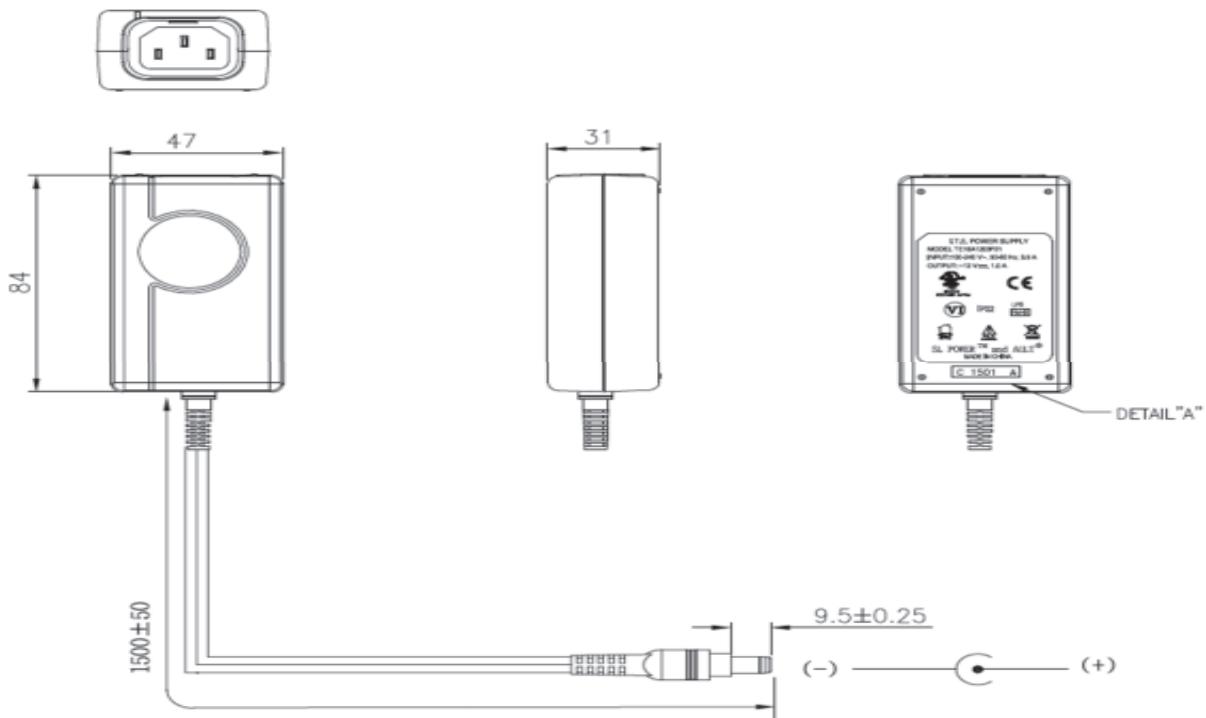
Isolation	Input-Output: 2 MOPP Input-Ground: 1 MOPP Output-Ground: 1500Vac
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OUTPUT POWER DERATING CURVE

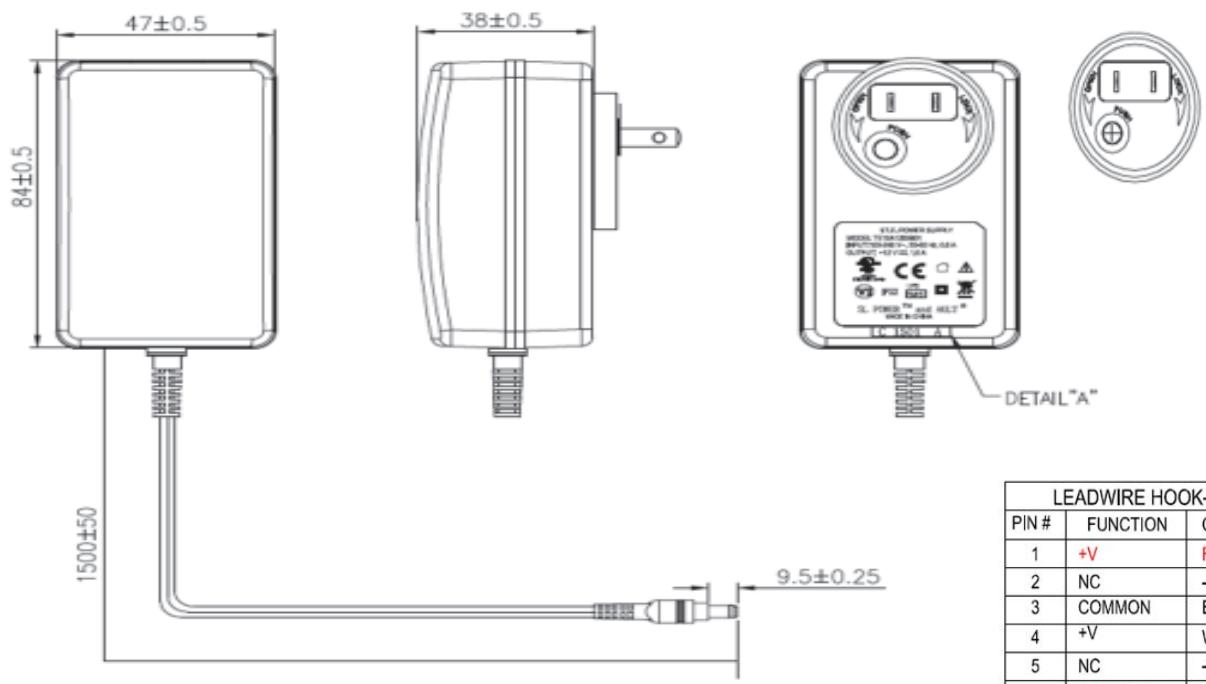




MECHANICAL DRAWINGS



IEC60320 C14 Receptacle, 2.5x5.5x9.5mm Barrel Connector

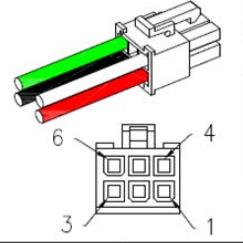


Interchangeable N.A. Blade, 2.5x5.5x9.5mm barrel connector

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

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. 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	2.5 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 = (-))
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. Data

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