ME10 Family

10W-12W Single Output External Power
Medical Grade

Medical

LPS VI AULT CE RoHS

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.

MODEL SELECTION

Model Number	Volts	Output Current	Output Power	Ripple & Noise[1]	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 Straight barrel type, Center positive	Class I Desktop, IEC60320 C14 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 Straight barrel type, Center positive	Class II Desktop, IEC60320 C8 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 Straight barrel type, Center positive	Class II Desktop, IEC60320 C18 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[1]	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 Straight barrel type, Center positive	Class II Wall-plug, Interchangeable blades (North American blade included)[2]
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 Straight barrel type, Center positive	Class II Wall-plug, Fixed North American blades[3]
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 <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 <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, Δi/Δt< 0.2A/µs 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 Input-Ground: 1 MOPP Output-Ground: 1500VAC

ENVIRONMENT

Operating Temperature	-20°C to +70°C. See curve for derating
StorageTemperature	-40°C to +85°C
Altitude	Operating: to 5,000m 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 Non-operating: Random waveform, 3 min per axis, 3 axes and Sine waveform Vib. frequency/acceleration: 10-500Hz/1g, sweep rate of 1 oct/min., Vib. time of 10 sweeps / axes, 3 axes

SAFETY

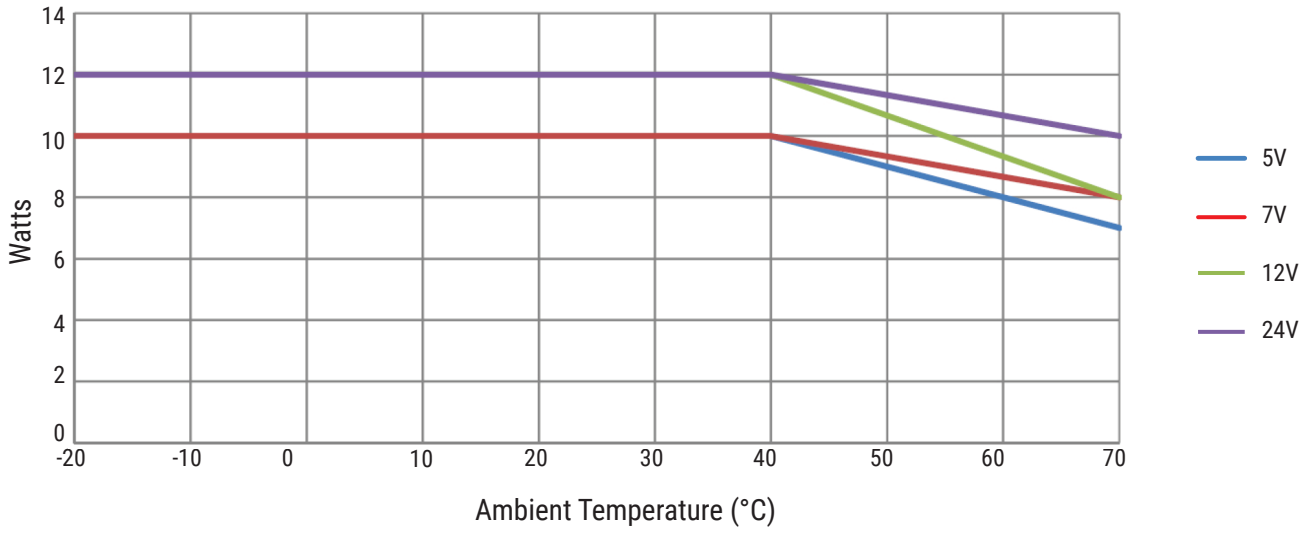
Safety Standards	EN/IEC/UL60601-1, 3rd edition
Shock	Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total Non-operating: Half-sine waveform Impact acceleration of 100G, Pulse duration of 6ms Number of shocks: 3 for each of the three axis

EMI/EMC COMPLIANCE

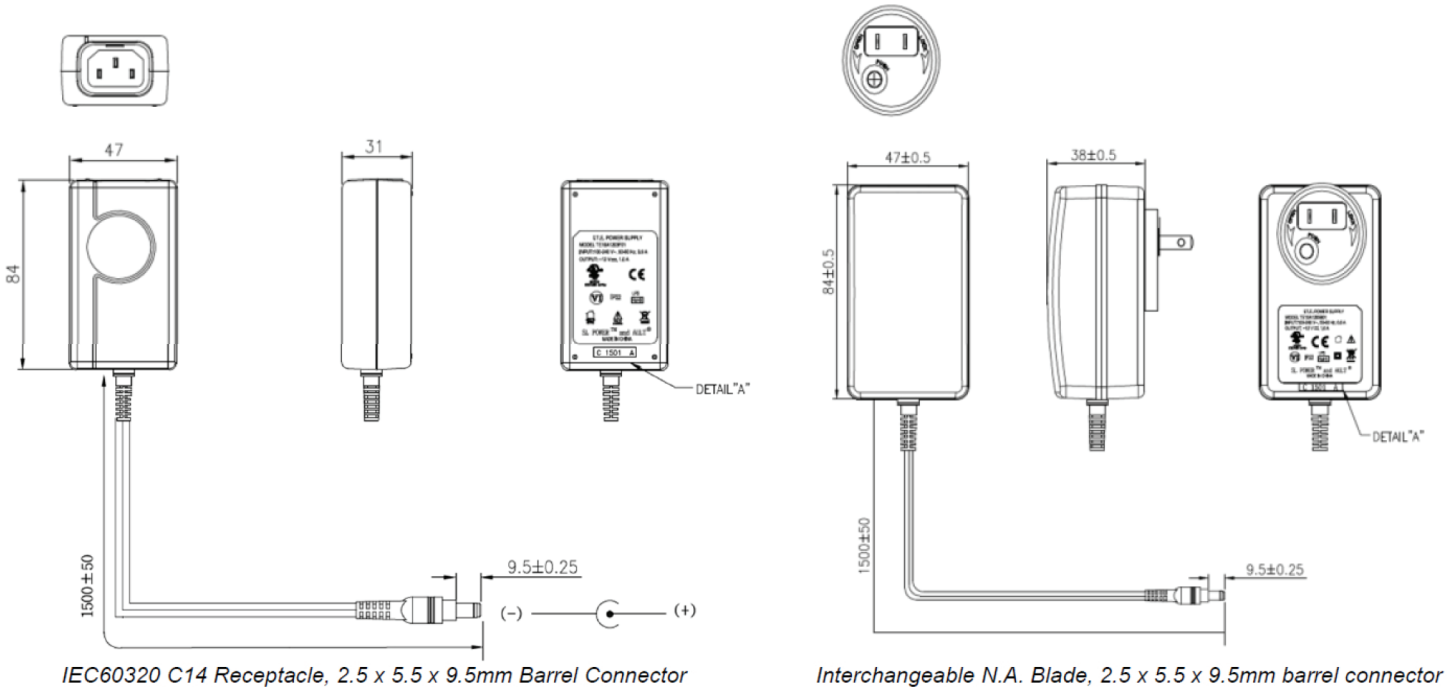
Conducted Emissions	EN55011/CISPR11 Class B, FCC Part 15.107 Class B: 6db margin typ at 115 and 230VAC
Radiated Emissions	EN55011/CISPR11 Class B, FCC Part 15.109, Class B: 3db margin typ at 115 and 230VAC
Common Mode Noise	High frequency (100kHz-20MHz): <40mA pk-pk
Electro-Static Discharge (ESD) Immunity on Power Ports	EN55024/IEC61000-4-2, Level 4: +/- 8kV contact, +/- 15kV air, Criteria A 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 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 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 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 IEC60601-1-2, 4th Edition, Table 4
Voltage Interruptions, Dips, Sags & Surges	EN55024/IECEN61000-4-11: --100% dip for 10 ms, at 0, 45, 90, 135, 180, 225, 270 and 315 degrees, --100% dip for 20ms, 0 deg, Criteria A --100% dip for 5000ms (250/300 cycles), Criteria B --60% dip for 100ms, Criteria B --30% dip for 500ms, Criteria A 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



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

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.

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 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 11 mm 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 11 mm 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				

LifeElectronics
Живое партнерство

ООО «ЛайфЭлектроникс» **“LifeElectronics” LLC**

ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- *Конкурентоспособные цены и скидки постоянным клиентам.*
- *Специальные условия для постоянных клиентов.*
- *Подбор аналогов.*
- *Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.*

- *Приемлемые сроки поставки, возможна ускоренная поставка.*
- *Доставку товара в любую точку России и стран СНГ.*
- *Комплексную поставку.*
- *Работу по проектам и поставку образцов.*
- *Формирование склада под заказчика.*

- *Сертификаты соответствия на поставляемую продукцию (по желанию клиента).*
- *Тестирование поставляемой продукции.*
- *Поставку компонентов, требующих военную и космическую приемку.*
- *Входной контроль качества.*
- *Наличие сертификата ISO.*

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- *Регистрацию проекта у производителя компонентов.*
- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

Тел: +7 (812) 336 43 04 (многоканальный)
Email: org@lifeelectronics.ru

www.lifeelectronics.ru