

MPT15 SERIES



DIMENSIONS:



2.36 x 1.71 x 1.58"
(60 x 43.5 x 40.2mm)



**CONNECTOR
CUSTOMISATION**

CLASS II

60601-1

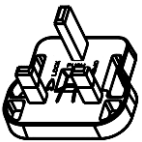
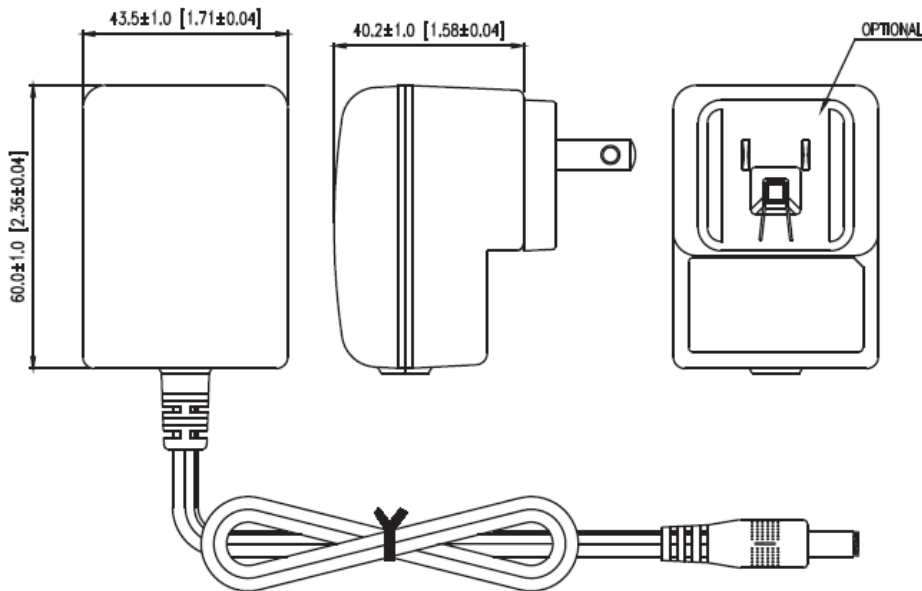
Part numbers

MPT	15	12	-	UK
Series	Power (W)	Output voltage		Options
		3.3V = 3.3VDC 05 = 05VDC 07 = 07VDC 09 = 09VDC 12 = 12VDC 15 = 15VDC 18 = 18VDC 24 = 24VDC 28 = 28VDC 36 = 36VDC 48 = 48VDC 54 = 54VDC		-UK -US -AU -EU -ALL

Key specifications

Input range	Safety certification	Efficiency	Environmental performance
80-275VAC	UL/IEC/EN 60601-1	<84%	Operational: -10 to 70°C

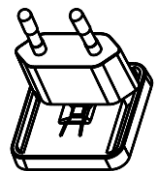
Mechanical



UK—add suffix '-UK'



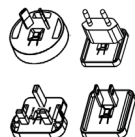
USA—add suffix '-US'



EU—add suffix '-EU'



Australia —add suffix '-AU'



ALL — add suffix 'ALL'

Notes

1. All dimensions in mm (inches)
2. Output connector - barrel female plug: OD:5.5mm, ID: 2.1mm, L: 11mm. Other connectors available for production. Contact sales for details.
3. 3.3 - 9V AWG18 4ft output cable. 12 - 28V AWG20 4ft output cable. 36 - 54V AWG22 4ft output cable.

Weight

165g



Models & Ratings

Model Number ⁽⁴⁾	Output Power	Output voltage	Output current	Total Regulation ⁽²⁾	Efficiency ⁽³⁾
MPT1503-UK	7.2W	3.3V	2.18A	±5%	70%
MPT1505-UK	12W	5V	2.4A	±5%	74%
MPT1507-UK	12W	7V	1.71A	±5%	78%
MPT1509-UK	13.5W	9V	1.5A	±5%	79%
MPT1512-UK	15W	12V	1.25A	±5%	81%
MPT1515-UK	15W	15V	1A	±5%	82%
MPT1518-UK	15W	18V	0.83A	±5%	82%
MPT1524-UK	15W	24V	0.62A	±5%	83%
MPT1528-UK	15W	28V	0.53A	±3%	83%
MPT1536-UK	15W	36V	0.41A	±3%	84%
MPT1548-UK	15W	48V	0.31A	±3%	84%
MPT1554-UK	15W	54V	0.27A	±3%	84%

1. For UK plug -UK, US plug -US, for EU plug -EU, for AU plug -AU, for all plugs -ALL
 2. Includes line and load regulation.

3. At full rated load and nominal input
 4. Alternative output connectors available. See page 5 connector selector



Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	80		275	VAC	See derating curve on page 5
Input frequency	47		63	Hz	
Power factor					EN61000-3-2 class A compliant
Input current (rms)	0.2		0.4	A	0.2A at 240VAC, high line, full load 0.4A at 100VAC, low line, full load
Inrush current	50		115	A	50A at 100VAC, low line, full load, 25°C cool start 115A at 240VAC, high line, full load, 25°C cool start
No load input power	0.2		0.3	W	0.2W on 3V version
Leakage current					Class II construction

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Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	3.3		54	VDC	
Total regulation	±3		±5	%	Includes line & load regulation. See models and rating table.
Minimum load	0			%	
Transient response			4	mS	Full load, Vin=110VAC
Ripple & noise	3.3V		66	mVp-p	All models measured with 0.47uF capacitor. 20 MHz bandwidth
	5V		68		
	7V		70		
	9V		90		
	12V		100		
	15V,18V		120		
	24V,28V		130		
	36V,48V,56V		140		
Hold up time	10			mS	At full load

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload	110		150	%	
Short circuit					Automatic recovery

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	UL/IEC/EN 60601-1				
Isolation	Input to Output: 4000			VAC	
Power density			2.4	W/In3	

EMC: Emissions

	Standard	Test level	Criteria	Notes/Conditions
Conducted	EN55011	B		
Radiated	EN55011	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

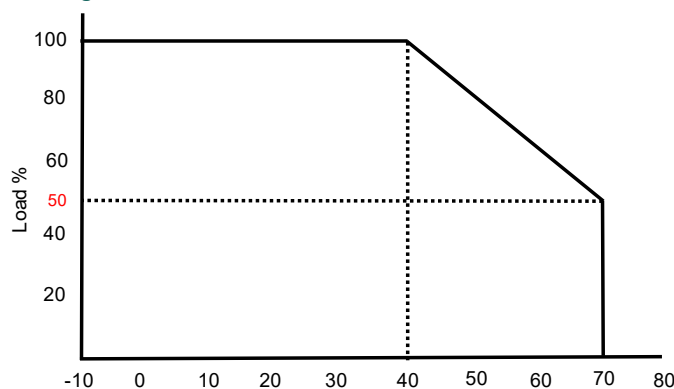
EMC: Immunity

	Standard	Test level	Criteria	Notes/Conditions
ESD	EN61000-4-2	3	A	Contact: 8kV, Air: 15kV
Radiated	EN61000-4-3		A	3-28V/m, 80MHz-2700MHz, 1KHz 80% AM modulation
EFT	EN61000-4-4	3	A	2kV, 100KHz
Surges	EN61000-4-5	Installation class 3	A	Line to Ground 2kV, Line to Neutral 1kV at 0°, 90°, 180°, 270°
Conducted	EN61000-4-6		A	3Vrms
PFMF	EN61000-4-8		A	30A/m
Dips and interruptions	EN61000-4-11	100% for 0.5 & 1 cycle, 30% for 25/30 cycles, interrupt 250/300 cycles. Perf criteria: B,C,C		

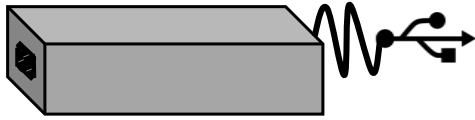
Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	-10		70	°C	See derating curve below
Storage temperature	-40		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.04	%/°C	
Humidity	0		95	% RH	Non-condensing
Vibration	10		500	Hz	5G, 10min/1 cycle, 60 mins along x, y, z axes
MTBF	100			kHrs	As per MIL-HDBK-217F, 25°C BG

Derating curve



MPT15 SERIES



The MPT15 series is available with an range of output connectors, allowing customers to use the connector that best fits their industry and product.

- Rapid prototypes for evaluation
- Available for high & low volume applications

Connector Selector

Pin Configuration	Feature	Description	Image	Drawing	Applicable to
	Universal simple	5.5mm/2.5mm straight barrel jack (11mm length)			All models
	Universal simple	5.5mm/2.1mm straight barrel jack (9.5mm length)			All models
	Universal simple	5.5mm/2.5mm straight barrel jack (9.5mm length)			All models
	Compact tidy	5.5mm/2.1mm right angle jack (11mm length)			All models
	Compact tidy	5.5mm/2.5mm right angle jack (9mm length)			All models
	Friction locking	DIN-5 plug friction locking male			All models
	Friction locking	DIN-4 plug friction locking male			All models
	Modern recognisable	Micro USB male			All models except 5V
	Locking unique	Molex 43025-0600 or CVILUX CP35006S0010			All models