

MPT25 SERIES



25W EXTERNAL

DIMENSIONS:



2.95 x 1.71 x 1.58"
(75 x 43.5 x 40.2mm)



**CONNECTOR
CUSTOMISATION**

CLASS II

60601-1

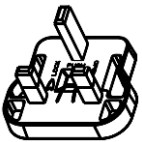
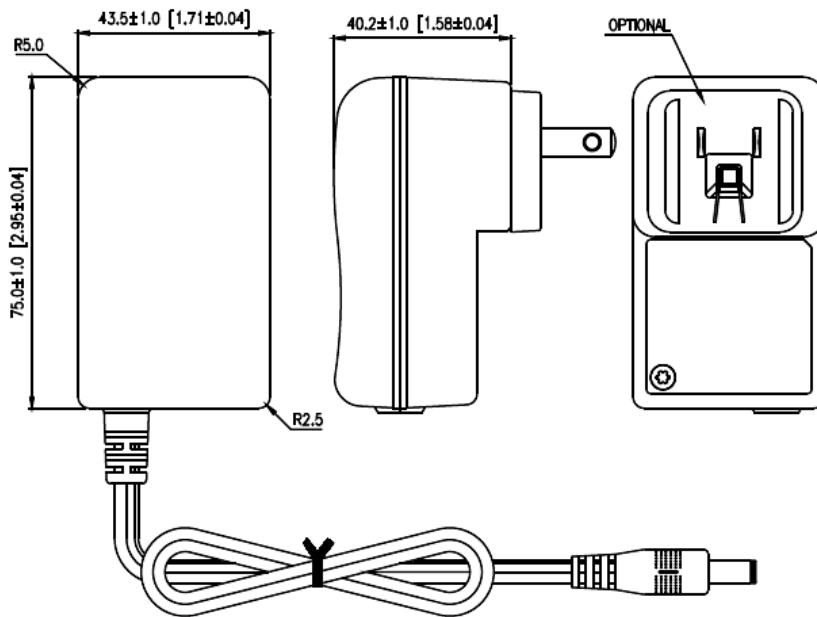
Part numbers

MPT	25	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	<86%	Operational: -10 to 70°C

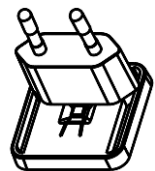
Mechanical



UK—add suffix '-UK'



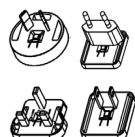
USA—add suffix '-US'



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

200g

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Models & Ratings

Model Number ⁽⁴⁾	Output Power	Output voltage	Output current	Total Regulation ⁽²⁾	Efficiency ⁽³⁾
MPT2503-UK	10.5W	3.3V	3.18A	±8%	65%
MPT2505-UK	16.5W	5V	3.3A	±5%	78%
MPT2507-UK	20W	7V	2.85A	±5%	81%
MPT2509-UK	22W	9V	2.44A	±5%	82%
MPT2512-UK	25W	12V	2.08A	±5%	83%
MPT2515-UK	25W	15V	1.66A	±5%	83%
MPT2518-UK	25W	18V	1.38A	±5%	84%
MPT2524-UK	25W	24V	1.04A	±3%	86%
MPT2528-UK	25W	28V	0.89A	±3%	86%
MPT2536-UK	25W	36V	0.69A	±3%	86%
MPT2548-UK	25W	48V	0.52A	±3%	86%
MPT2554-UK	25W	54V	0.46A	±3%	86%

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 6 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)	0.4		0.7	A	0.4A at 240VAC, high line, full load 0.7A at 100VAC, low line, full load
Inrush current	65		165	A	65A at 100VAC, low line, full load, 25°C cool start 165A at 240VAC, high line, full load, 25°C cool start
No load input power		0.3		W	
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		±8	%	Includes line & load regulation. See models and rating table.
Line regulation	0.5		1	%	Full load, Vin=100 to 120VAC. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load
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		50		
	7V		70		
	9V		90		
	12V		100		
	15V, 18V, 24V, 28V		120		
	36V, 48V, 56V		220		
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			3.1	W/in ³	

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			

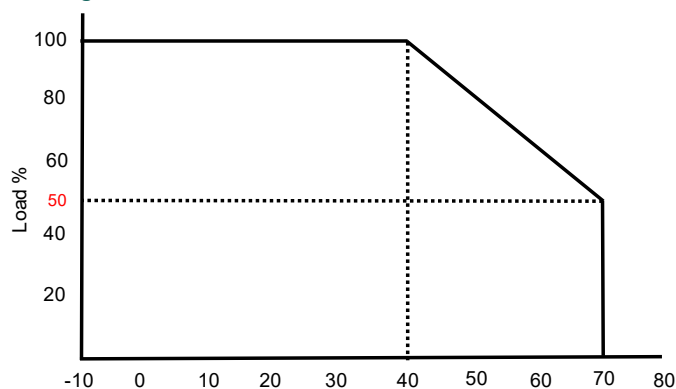
EMC: Immunity

	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	3/6Vrms, 1KHz 80 AM Modulation 150KHz-80MHz
PFFM	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		

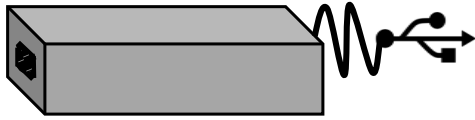
Environmental

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 GB

Derating curve



MPT25 SERIES



The MPT25 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

28th March 2024