

MPA12 SERIES



12W EXTERNAL

DIMENSIONS:



US: 1.81 x 3.16 x 2.27" (46 x 80.2 x 57.7mm)
 EU: 1.81 x 3.16 x 2.70" (46 x 80.2 x 68.7mm)
 UK: 1.95 x 3.16 x 2.47" (49.6 x 80.2 x 62.7mm)
 AU: 2.20 x 3.16 x 1.59 (56 x 80.2 x 40.5mm)



IEC60601-1

CLASS II

LEVEL VI

EN55011 LEVEL B

CONNECTOR
CUSTOMISATION

ErP STAGE 2

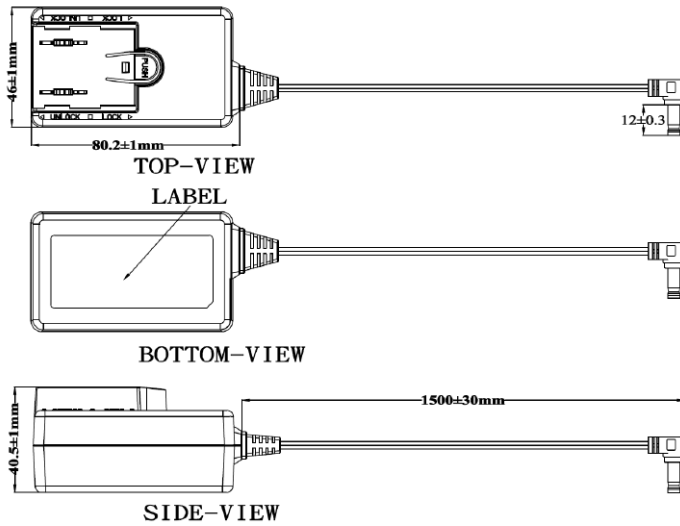
Part numbers

MPA	12	12	-	UK
Series	Power (W)	Output voltage		Options
		3.3 = 3.3VDC 05 = 05VDC 09 = 09VDC 12 = 12VDC 15 = 15VDC 18 = 18VDC 24 = 24VDC		-UK -US -EU -AU

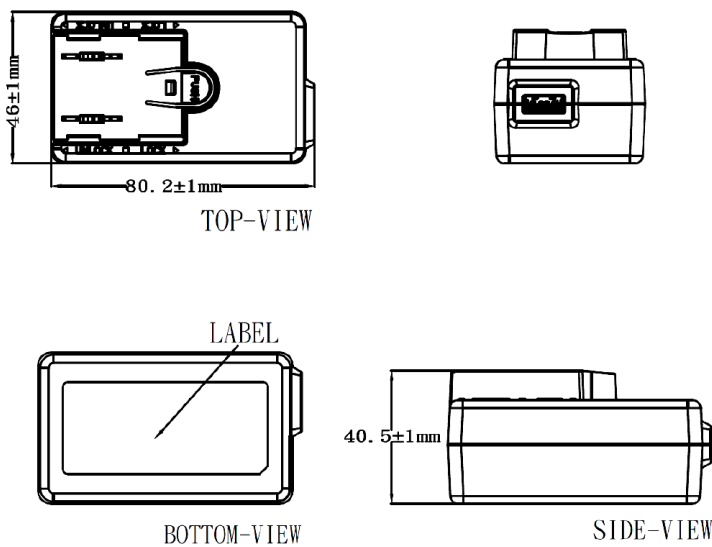
Key specifications

Input range	Safety certification	Efficiency	Environmental performance
90-264VAC	UL/IEC/EN 60601-1, 62368-1	<83%	Operational: 0 to 70°C

Mechanical



MPA1205U –USB plug variant



Notes

1. All dimensions in mm
2. Output connector : 2.5 / 5.5 tuning fork style
3. '03 models AWG18, '05 models AWG20, '51 models AWG18, '09 models AWG22, all other models AWG24

Weight

140g

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Models & Ratings

Model Number ⁽¹⁾	Output Power	Output voltage	Output current
MPA1203-UK	6.60W	3.3V	2.00A
MPA1205-UK	10.00W	5V	2.00A
MPA1205U-UK ⁽⁴⁾	10.00W	5V	2.00A
MPA12051-UK ⁽⁵⁾	15.00W	5V	3.00A
MPA1209-UK	10.80W	9V	1.20A
MPA1212-UK	12.00W	12V	1.00A
MPA1215-UK	12.00W	15V	0.80A
MPA1218-UK	12.06W	18V	0.67A
MPA1224-UK	12.00W	24V	0.50A

1. For US plug -US, for EU plug -EU, for AU plug -AU, for all plugs -ALL
 2. Alternative output connectors available for production quantities. Contact sales for details
 3. <10uA touch current versions available

4. MPA1205U-UK is USB plug variant
 5. MPA12051-UK is high power 15W variant



Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	90		264	VAC	See derating curve on page 5
Input frequency	47		63	Hz	
Power factor					EN61000-3-2 class A compliant
Input current (rms)	0.27		0.45	A	0.27A at 230VAC and 0.45 at 100VAC
Inrush current			120	A	Full load, 25°C cool start
No load input power			0.1	W	230VAC



Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	5		24	VDC	±5% accuracy. 5.9V units available on request.
Total regulation		±5%		%	
Minimum load	0			%	
Transient response		0.5		mS	50% load change
Ripple & noise		2		%Pk-Pk	All models measured with 10uF and 0.1uF capacitor. 20 MHz bandwidth
Hold up time	10			mS	At full load

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload			200	%	Automatic recovery
Short circuit					Automatic recovery
Over voltage protection			180	%	Latch off reset
Touch current			100	uA	10uA versions available

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	UL/IEC/EN 60601-1, 62368-1				For ITE variant please contact sales. PSE, RCM and SA
Isolation	Input to Output: 4000			VAC	For 1 minute. 2 x MOPP
Insulation resistance		10		MOhm	500Vdc input to output
Power density			0.92	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	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 Neutral 1kV both at 0°, 90°, 180°, 270°
Conducted	EN61000-4-6	3	A	3/6Vrms, 1KHz 80 AM modulation 150KHZ-80MHz
PFMF	EN61000-4-8	4	A	30A/m
Dips and interruptions	EN61000-4-11	100% for 0.5 & 1 cycle, 30% for 25 cycles: 240VAC A,A,A, 100VAC A,A,B, interrupt 250,300 cycles and 30% for 30 cycles: 240VAC B,B,A, 100VAC B,B,B		

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	0		70	°C	See derating curve below
Storage temperature	-20		80	°C	
Cooling					Convection cooled
Operating humidity	20		80	% RH	
Storage humidity	10		90	% RH	
MTBF	300			kHrs	As per Telcordia SR-332

Derating curve

