

## 6-12 Watts

- US DoE Energy efficiency level VI
- EU CoC Tier 2 requirements, ErP stage 2
- IEC/EN/UL 62368-1
- US / EU / UK / CH / AU plug types
- Single outputs 3.3 to 24V
- 5 Year warranty



### Dimensions:

US: 2.83 x 1.34 x 2.32" (72 x 34 x 59mm)  
 EU: 2.83 x 1.34 x 3.15" (72 x 34 x 80mm)  
 UK: 2.83 x 1.97 x 2.80" (72 x 50 x 71mm)  
 CH: 2.83 x 1.34 x 2.28" (72 x 34 x 58mm)  
 AU: 2.83 x 1.57 x 2.72" (72 x 40 x 68mm)

The EPA12 range of external AC-DC power adapters are compliant with the latest energy efficiency Level VI standard, CoC tier 2 and ErP stage 2. The units offer up to 12 watts of output power with output voltages available between 3.3 and 24VDC. The range is reliable, cost competitive, and comes with a Fidus 5 year warranty.

### Models & Ratings

Model Number <sup>(1)</sup>	Output Power	Output voltage	Output Current
EPA1203-UK	6.6W	3.3V	2A
EPA1205-UK	10W	5V	2A
EPA1209-UK	10.8W	9V	1.2A
EPA1212-UK	12W	12V	1A
EPA1215-UK	12W	15V	0.8A
EPA1218-UK	12W	18V	0.67A
EPA1224-UK	12W	24V	0.5A

### Notes

1. For US plug –US, EU plug –EU, CH plug –CH and AU plug –AU
2. Alternative output connectors available for production quantities. Contact sales for details
3. 2.5A 5V, 5.9V, 8.4V, 13.5V models also available. Contact sales for details

### Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	90		264	VAC	No derating
Operating temperature	0		70	°C	See derating curve page 3
Efficiency	76		83	%	
Dimensions	US: 2.83 x 1.34 x 2.32" (72 x 34 x 59mm) EU: 2.83 x 1.34 x 3.15" (72 x 34 x 80mm) UK: 2.83 x 1.97 x 2.80" (72 x 50 x 71mm) CH: 2.83 x 1.34 x 2.28" (72 x 34 x 58mm) AU: 2.83 x 1.57 x 2.72" (72 x 40 x 68mm)				
EMC	EN55032 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated				

### Safety Approvals

	Safety standard	Notes & Conditions
UL	UL 62368-1: 2014 2nd Edition CSA C22.2 No. 62368-1-14	
CB	IEC 62368-1: 2014 2nd Edition	PSE, BSMI, CCC & RCM
TUV	EN 62368-1: 2014 2nd Edition	
CE		2015/863/EU RoHS Directive and 2014/35/EU Low Voltage Directive
Equipment protection class		Class II

## Input

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		264	VAC	No derating
Input frequency	47		63	Hz	
Power factor					EN61000-3-2 class A compliant
Input current			0.31	A	
Inrush current			60		High line. Full load, 25°C cool start, Vin=240VAC
No load input power			0.075	W	230VAC

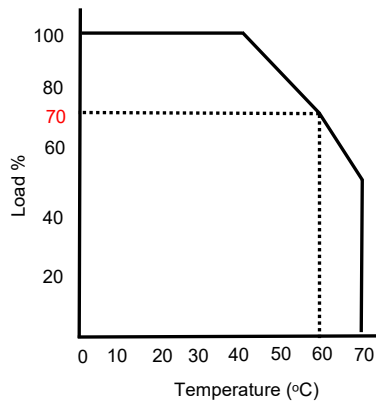
## Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	3.3		24	VDC	Other output options available
Total regulation		±10		%	
Minimum load	0			%	
Transient response		0.5		mS	50% load change
Ripple & Noise		3		%Vp-p	All models measured with 47uF and 0.1uF capacitor. 20 MHz bandwidth
Hold up time	10			ms	At full load
Overload protection		250		%	Automatic recovery
Short circuit protection					Automatic recovery
Over voltage protection		180		%	Latch off reset

## Environmental

Parameter	Minimum	Typical	Maximum	Units	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	

Derating curve



## General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	76		83	%	
Isolation	Input to Output: 3000			VAC	For 1 minute
Insulation resistance		10		MOhm	500Vdc input to output and output to ground
Power density	0.38		1.36	W/in <sup>3</sup>	
MTBF	300			kHrs	As per Telcordia SR-332
Weight	UK:130g, US:126g, EU:128g, CH:126g, AU:126g			g	

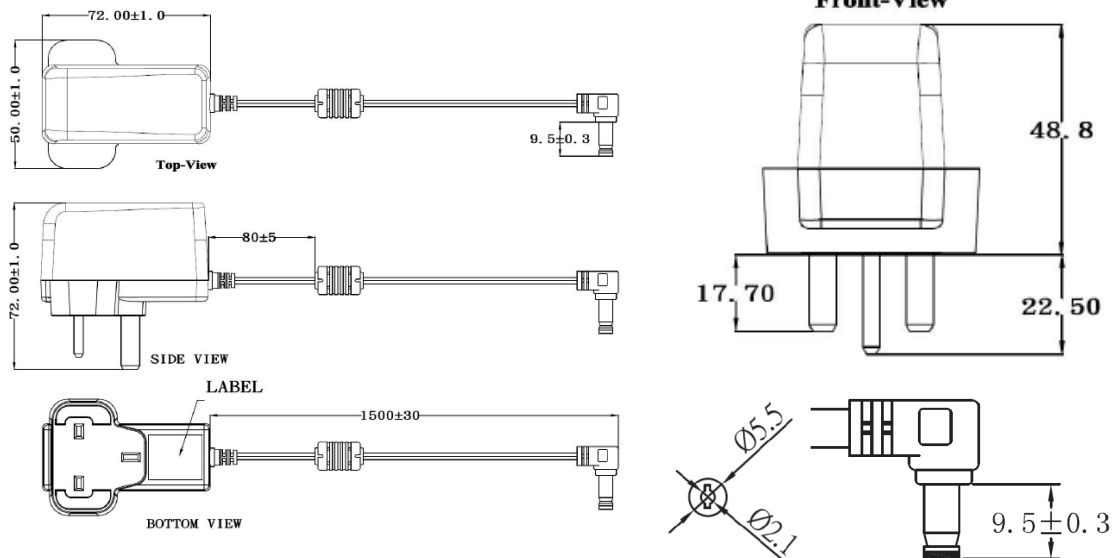
## EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55032	B		
Radiated	EN55032	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	2/3	A	4kV contact, 8kV air
Radiated	EN61000-4-3	2	A	3V/m, 80MHz-1000MHz, 1kHz 80% AM Modulation
EFT	EN61000-4-4	2	A	1kV Line - Neutral
Surges	EN61000-4-5	Installation Class 3	A	1kV L to N both at 0°,90°,180°,270°
Conducted	EN61000-4-6	2	A	3Vrms, 1kHz 80% AM Modulation 150kHz-80MHz
PFMF	EN61000-4-8	1	A	1A/m
Voltage Dips / Interruptions	EN61000-4-11	Interrupt 250,300 cycles, 95% for 0.5/0.6 cycles, 30% for 25/30 cycles B,B,A		

## Mechanical Details



### Notes

1. All dimensions in mm
2. Output connector : Tuning fork style 5.5 / 2.1 / 9.5 mm

3. UL2468 DC cord; 3.3V AWG16, 5V-9V AWG20, 12V and above AWG22