

60 Watts

- US DoE Energy efficiency level VI
- EU CoC Tier 2 requirements
- EN55022 Level B conducted & radiated
- Class I
- Single outputs 12 to 48V
- Low profile
- 5 Year warranty



Dimensions:

1.85 x 4.65 x 1.19" (47.0 x 118.0 x 30.3mm)

The EDT60 range of external AC-DC power adapters are compliant with the latest energy efficiency Level VI standard. The units offer 60 watts of output power in a slim package with output voltages available between 12 and 48VDC. The range is reliable, cost competitive, and comes with an impressive FiDUS 5 year warranty.

Models & Ratings

SELECT YOUR CONNECTOR PG4

Model Number	Output Power	Output voltage	Output Current	Efficiency
EDT6012	60W	12V	5A	89%
EDT6015	60W	15V	4A	89%
EDT6018	60W	18V	3.33A	90%
EDT6024	60W	24V	2.5A	91%
EDT6028	60W	28V	2.14A	91%
EDT6036	60W	36V	1.66A	91%
EDT6048	60W	48V	1.25A	91%

Notes

1. Alternative output connectors available for production quantities. Contact sales for details
2. For UK/ US/ EU mains power cable please order UK-C14, US-C14 or EU-C14 separately

Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	90		264	VAC	No derating
Operating temperature	0		70	°C	Derate linearly from 100% load at 40°C to 50% load at 70°C
Efficiency	89		91	%	
Dimensions	1.85 x 4.65 x 1.19" ±0.04 (47.0 x 118.0 x 30.3mm ±1.0)				
EMC	EN55022 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated,				
Safety	IEC 60950-1:2005 /A2:2013, UL 60950-1: 2nd edition, EN60950-1:2006 /A2:2013, IEC62368-1 Ed2 + A11, CE				

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			1.45	A	Low line to high line
Inrush current			105	A	High line. Full load, 25°C cool start, Vin=240VAC
No load input power			0.14	W	
Earth leakage current			0.75	mA	240VAC 60Hz Class I construction

Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	12		48	VDC	
Total regulation	±3		±5	%	Includes set accuracy, line & load regulation.
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
Load regulation	3		5	%	Vin=230VAC, 10 to 90% load change at condition. Load regulation is defined by changing ±40% of measured output load from 60% rated load
Minimum load	0			%	
Time of Transient response			4	ms	Full load, Vin=110VAC
Ripple & Noise		100		mVp-p	All models measured with 47uF capacitor. 20 MHz bandwidth
Hold up time	10			ms	
Overload protection					Output protected to short circuit conditions
Short circuit protection					Automatic recovery

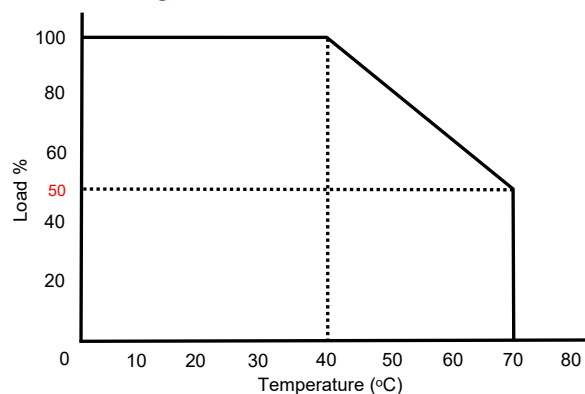
General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	89		91	%	See models & Ratings table
Isolation	Input to Output: 3000, Input to Ground: 1500			VAC	
Switching frequency		65		kHz	
Power density			5.9	W/in ³	
MTBF	100			KHrs	As per MIL-HDBK-217F, 25°C GB
Weight		340		g	

Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	0		70	°C	Derate linearly from 100% load at 40°C to 50% load at 70°C
Storage temperature	-40		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.04	%/°C	
Humidity			95	% RH	

Derating curve



EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55022	B		
Radiated	EN55022	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

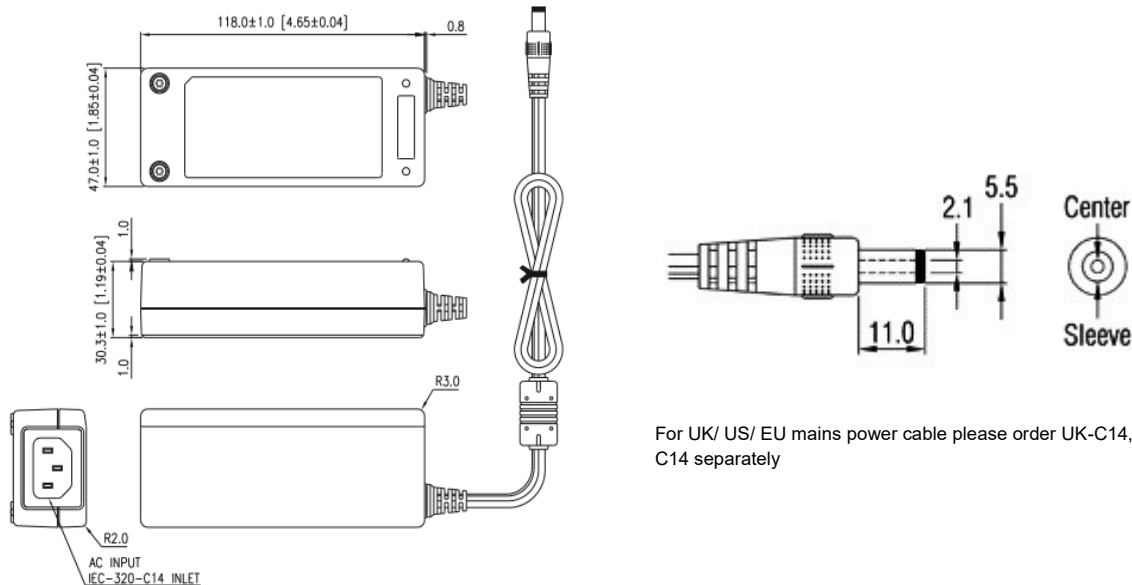
EMC: Immunity

	Standard	Test level	Criteria	Notes & Conditions
ESD	EN61000-4-2	2,3	A	Contact: 2, Air: 3
Radiated	EN61000-4-3	3	A	
EFT	EN61000-4-4	3	A	
Surges	EN61000-4-5	Installation Class 3	A	
Conducted	EN61000-4-6	2	A	
Dips and interruptions	EN61000-4-11	>95% interruption 250 periods, >95% dip 0.5 periods, 30% dip 25 periods. Perf criteria: C,A,A		

Safety Approvals

	Safety standard	Notes & Conditions
UL	UL 60950-1: 2nd edition	
CB	IEC 60950-1:2005 /A2:2013, IEC 62368-1 Ed2 +A11	
TUV	EN60950-1:2006 /A2:2013	
CE		2011/65/EU RoHS Directive and 2014/35/EU Low voltage directive
Equipment protection class		Class I

Mechanical Details

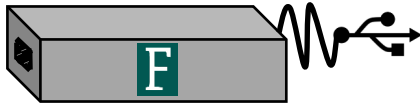


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Notes

- All dimensions in mm (inches)
- Output connector : Barrel female plug: OD: 5.5mm, ID: 2.1mm, L: 11mm. Other connectors available for production quantities, contact sales
- 12V units will use AWG16 4ft, the remainder AWG18 4ft
- Negative DC output is floating, For earth bonded negative DC output please contact sales

Connector Selector



The EDT60 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

EPT60 SERIES - [CONNECTOR SELECTOR]

	Universal Simple	5.5mm/2.5mm Straight Barrel Jack (11mm length)			All models	-P01N
	Universal Simple	5.5mm/2.1mm Straight Barrel Jack (9.5mm length)			All models	-P01J
	Universal Simple	5.5mm/2.5mm Straight Barrel Jack (9.5mm length)			All models	-P01M
	Compact Tidy	5.5mm/2.1mm Right Angle Jack (11mm length)			All models	-P02K
	Compact Tidy	5.5mm/2.5mm Right Angle Jack (9mm length)			All models	-P02M
	Friction locking	DIN-5 plug Friction locking Male			All models	-P05B
	Friction locking	DIN-4 plug friction locking Male			All models	-P09B
	Locking Unique	Molex 43025-0600 or CVILUX CP35006S0010			All models	-P35C

Still can't find your ideal connector? Contact sales for assistance
+44 (0)1183 420 730 sales@fiduspower.com