

150 Watts

- US DoE Energy efficiency level VI
- EU CoC Tier 2 requirements
- EN55032 Level B conducted & radiated
- Class I
- Single outputs 12 to 48V
- No load power <150mW
- 5 Year warranty



The EDF150 range of external AC-DC power adapters are compliant with the latest energy efficiency Level VI standard and EU CoC Tier 2. The units offer 150 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.

Dimensions:

6.69 x 3.35 x 1.73" (170 x 85 x 44mm)

Models & Ratings

Model Number	Output Power	Output voltage	Output Current	Efficiency ⁽¹⁾
EDF15012	140W	12V	11.67A	89%
EDF15016	150W	16V	9.38A	91%
EDF15019	150W	19V	7.9A	92%
EDF15024	150W	24V	6.25A	92%
EDF15036	150W	36V	4.17A	92%
EDF15048	150W	48V	3.13A	91%

Notes

1. Efficiency calculated at average load, 115/230VAC
2. Alternative output connectors available for production quantities. Contact sales for details
3. 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		60	°C	Derate linearly 2.5% per °C from 40 to 60°C
Efficiency		>89		%	At average load 115/230VAC
Dimensions	6.69 x 3.35 x 1.73" (170 x 85 x 44mm)				
EMC	EN55032 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated,				
Safety	IEC 62368-1, UL/CSA/CAN C22.2 No 62368-1, EN 62368-1				

Input

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		264	VAC	No derating
Input frequency	47		63	Hz	
Power factor	0.9		0.95		0.9@230VAC 0.95@115VAC full load
Input current	2.5A at 90VAC. 1.25A at 264VAC max.			A	
Inrush current	<75A peak at 115VAC. <150A at 230VAC			A	25°C cold start
No load input power		<150		mW	

Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	12		48	VDC	
Total regulation			±6	%	
Line Regulation			1	%	
Load Regulation			5	%	
Minimum Load	0			%	
Transient Response			+/-10	%	50% Load change, 200mA/uS slope 10ms response time.
Ripple & Noise	12V models 240mV, 16V models 320mV, 19V models 380mV. 24-48V models 480mV.			mVp-p	All models measured with 10uF electrolytic capacitor and 0.1uF ceramic capacitor in parallel at output connector. 20 MHz bandwidth
Hold up time		>16		ms	At full load 115VAC
Overload protection	110		160	%	Automatic recovery
Short circuit protection					Automatic recovery
Over voltage protection	110		130	%	Shutdown and latch off, AC recycle

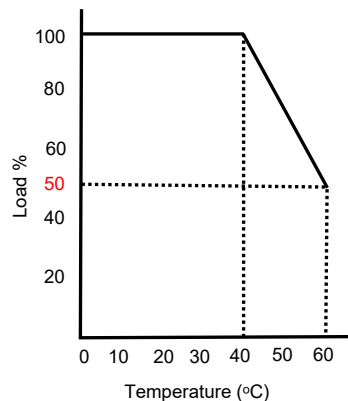
General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		>89		%	At average load 115/230VAC
Isolation	4242VDC / 2121VDC			VDC	Primary - Secondary / Primary to frame ground 4 sec
Leakage Current	0.163		0.44	mA	264VAC Line-Output and Neutral-Output. Max figure is with no PE connected
Earth Leakage Current		<440		uA	
Switching Frequency	45		55	KHz	
Power density			3.87	W/In ³	
MTBF		>140		KHrs	As per MIL-STD 217
Weight		780		g	

Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	0		60	°C	Derate linearly 2.5% per °C from 40 to 60°C
Storage temperature	-10		85	°C	
Cooling					Convection cooled
Temperature coefficient		0.05		%/°C	
Humidity	10		90	% RH	

Derating curve



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			

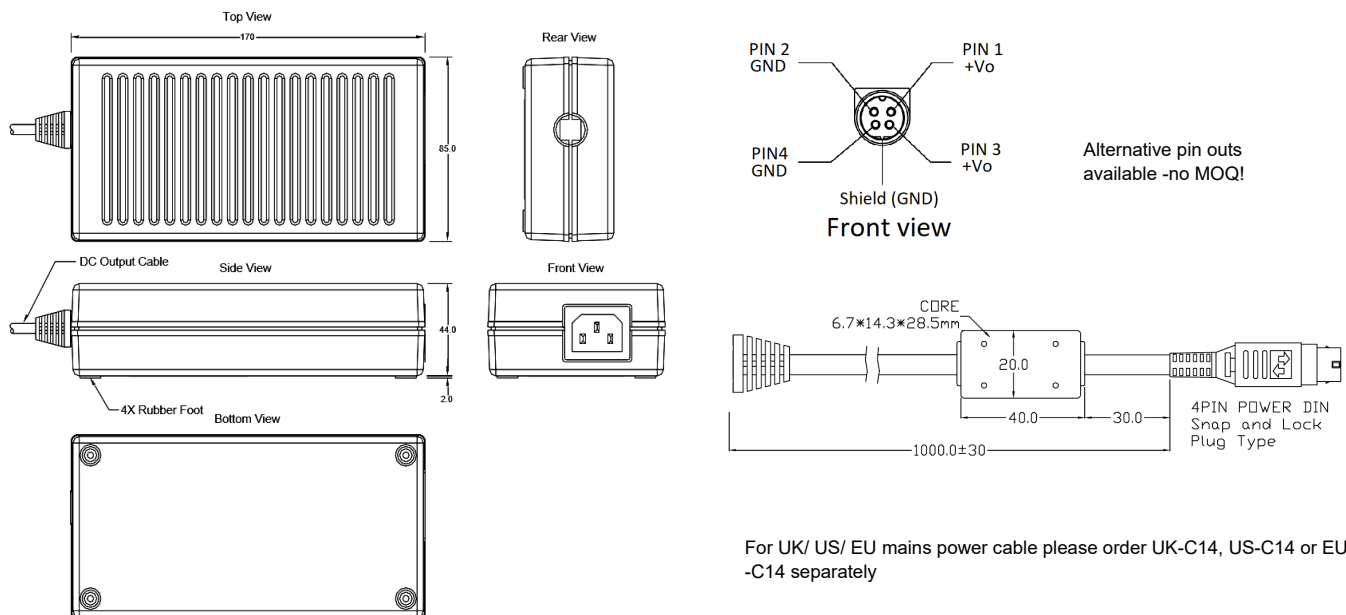
EMC: Immunity

	Standard	Test level	Criteria	Notes & Conditions
ESD	EN61000-4-2	3	A	Contact +/- 4kV Air +/- 8kV Air
Radiated	EN61000-4-3	2	A	3V/m
EFT	EN61000-4-4	2	A	+/-1KV
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: B,A,A		

Safety Approvals

	Safety standard	Notes & Conditions
UL	UL/CSA/CAN 62368-1: 2nd edition	
CB	IEC 62368-1– Ed2 +A11	
TUV	EN62368-1 Ed2 +A11	
CE		2011/65/EU RoHS Directive, 2006/95/EC Low voltage directive, 2014/35/EU EMC Directive
Equipment protection class		Class I

Mechanical Details



Notes

1. All dimensions in mm
2. Tolerance: $\pm 0.5\text{mm}$
3. AC Inlet: IEC320-C14
4. 16 AWG DC output cables used on 36 & 48V units, 14 AWG used on all other units
5. Negative DC output is tied to AC earth, for floating outputs please contact sales
6. Output connector part number KPPX-4P, mating part board mount KPJX, panel mount KPJX-PM and cable mount KPJX-CM