

EDF120 SERIES



120W EXTERNAL

DIMENSIONS:



6.69 x 2.55 x 1.52"
(170 x 64.8 x 38.5mm)

LEVEL VI EFFICIENCY

EN55022 LEVEL B

CONNECTOR
CUSTOMISATION

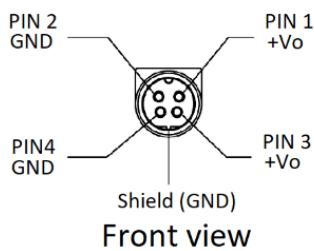
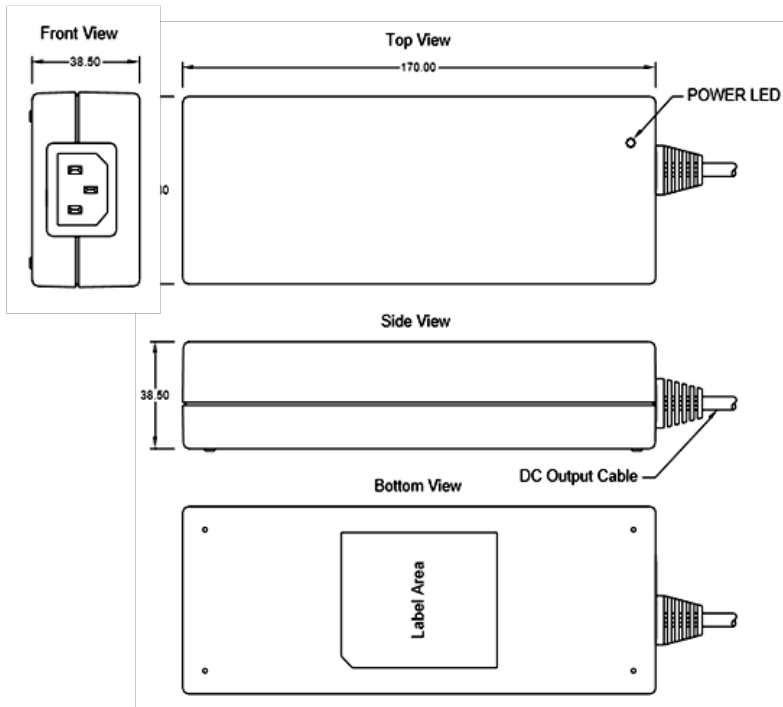
Part numbers

EDF	120	12	-	C14
Series	Power (W)	Output voltage		Options
		12 = 12VDC 15 = 15VDC 19 = 19VDC 24 = 24VDC 28 = 28VDC 48 = 48VDC		-C14 inlet

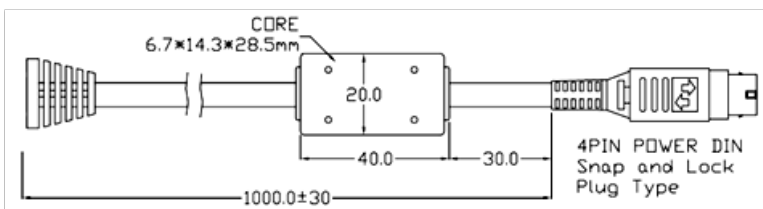
Key specifications

Input range	Safety certification	Efficiency	Environmental performance
90-264VAC	UL/IEC/EN 62368-1	>92%	Operational: -20 to 70°C

Mechanical



Alternative pin outs available -no MOQ!



Notes

1. All dimensions in mm
2. Tolerance: ± 0.5 mm
3. AC Inlet: IEC320-C14
4. 16 AWG DC output cables used on 48V units, 14 AWG on 12V - 28V unit.
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

Weight

610g

For UK/ US/ EU mains power cable please order UK-C14, US-C14 or EU-C14 separately



Models & Ratings

Model Number ⁽¹⁾	Output Power	Output voltage	Output current
EDF12012	120W	12V	10A
EDF12015	120W	15V	8A
EDF12019	120W	19V	6.32A
EDF12024	120W	24V	5A
EDF12028	120W	28V	4.29A
EDF12048	120W	48V	2.5A

1. Efficiency calculated at average load, 115/230 VAC
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.



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	0.9		0.95		0.9 at 230VAC, 0.95 at 115VAC full load
Input current (rms)	1.5		3	A	3A at 90VAC, 1.5A at 264VAC
Inrush current	<75		<150	A	25°C cool start
No load input power		<150		mW	



Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	12		48	VDC	±5% accuracy
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		240		mVp-p	All models measured with 10uF and 0.1uF capacitor in parallel at output connector. 20 MHz bandwidth
Hold up time		>20		mS	At full load 115VAC
Leakage current	0.121		0.36	mA	264VAC line-output and neutral-output. Max figure is with no PE connected
Earth leakage current		<360		uA	
Switching frequency	45		55	KHz	

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload	105		140	%	Automatic recovery
Short circuit					Automatic recovery
Over voltage protection	110		130	%	Shutdown & latch off. AC recycle

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	UL/IEC/EN 62368-1				
Isolation	4242 VDC / 2121 VDC			VAC	Primary-secondary / primary to frame ground 4 sec
Power density			4.62	W/In3	

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	3	A	Contact: ±4kV, Air: ±8kV
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		

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	-20		70	°C	See derating curve below
Storage temperature	-20		85	°C	
Cooling					Convection cooled
Temperature coefficient		0.05		%/°C	
Storage humidity	10		90	% RH	
MTBF		>500		kHrs	As per Bellcore TR-332

