

250 Watts

- Latest Medical & IT approvals
- 4th Edition Medical EMC
- Switch option
- Single outputs 12 to 54V
- DoE Level VI and Erp tier 2
- EN55032 Level B conducted & radiated emissions
- 5 Year warranty



Dimensions:

7.87 x 3.54 x 1.77" (200.0 x 90.0 x 45.0mm)

The EDM250 range of AC-DC power supplies are designed and approved for use in medical & IT applications. The units offer 250 watts of output power in a slim package with output voltages available between 12 and 54VDC. The EDM250 conforms to the latest 4th edition EMC medical standard, has high efficiency up to 95%, is reliable, cost competitive, and comes with an impressive FiDUS 5 year warranty.

Models & Ratings

Model Number	Output Power	Output voltage	Output Current	Efficiency
EDM25012S	250W	12V	20.83A	92%
EDM25019S	250W	19V	13.157A	93%
EDM25024S	250W	24V	10.416A	94%
EDM25028S	250W	28V	8.928A	93%
EDM25036S	250W	36V	6.94A	94%
EDM25048S	250W	48V	5.208A	94%
EDM25054S	250W	54V	4.629A	95%

Notes

1. For version without switch, omit S when ordering
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	-20		60	°C	Derate linearly from 100% load at 40°C to 60% load at 60°C. 100% load at 0°C 80% load max at -20°C.
Efficiency	92		95	%	See table above
Dimensions	7.87 x 3.54 x 1.77" (200.0 x 90.0 x 45.0mm)				
EMC	EN55032 Level B Conducted and Radiated. EN60601-1-2 4th Edition				
Safety	IEC 60601-1 3.1, EN60601-1 A12 2014, ANSI/AAMI/60601-1, CSAC22.2 No60601-1:14 No 234 as per cUL, CE, CB. IEC 60950-1 A2 2013, EN60950-1 2nd Ed and UL/CSA 60950-1 2nd Ed				

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 115VAC. 1.3A at 230VAC max.			A	
Inrush current	<80A peak at 115VAC. <80A at 230VAC			A	25°C cold start
No load input power		<0.15		W	

Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	12		54	VDC	All specifications are tested at 25°C unless otherwise stated.
Total regulation		5		%	
Line Regulation		1		%	
Load Regulation		5		%	
Minimum Load	0			%	No load power <0.15W. No minimum load.
Ripple & Noise	12V models 240mV. 19V-54V models 300mV.			mVp-p	Ripple & Noise is measured at 20MHz bandwidth, with 47uF capacitor and parallel 0.1uF capacitor.
Hold up time		>10		ms	At full load, 115VAC
Overload protection	105		160	%	Automatic recovery
Short circuit protection					Automatic recovery
Over voltage protection	103		134	%	Automatic recovery

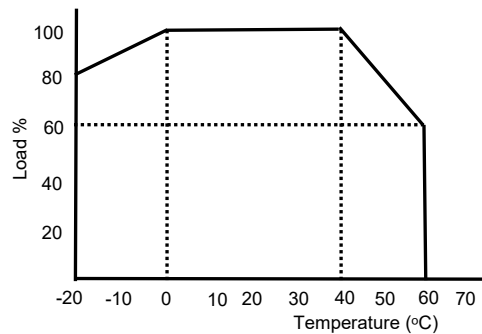
General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	92		95	%	See table on page 1
Isolation	5656			VDC	4 seconds
Earth Leakage Current		300		uA	
Power density			5.1	W/in ³	
MTBF		>200		KHrs	Calculated as per Bellcore TR-332
Weight		1300		g	

Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	-20		60	°C	Derate linearly from 100% load at 40°C to 60% load at 60°C. 100% load at 0°C, 80% load max at -20°C.
Storage temperature	-20		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.05	%/°C	
Humidity			95	% RH	

Temperature Derating Curve



EDM250 Series

EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55032/24/11	B		
Radiated	EN55032/24/11	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

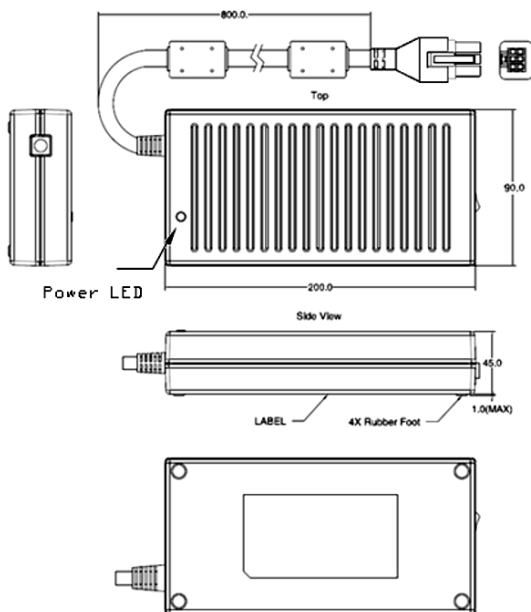
EMC: Immunity

	Standard	Test level	Criteria	Notes & Conditions
ESD	EN61000-4-2	3	A	8KV contact, 15KV air
Radiated	EN61000-4-3		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	1.2/50us open circuit voltage, 8/20us short circuit current 2KV L/N to GND, 1KV L to N both at 0°,90°,180°,270°
Conducted	EN61000-4-6		A	3/6Vrms, 1KHz 80 AM Modulation 150KHZ-80MHZ
Voltage Dips / Interruptions	EN61000-4-11	100% for 0.5 & 1 cycle, 30% for 25/30 cycles, interrupt 250/300 cycles -performance criteria B,C,C		

Safety Approvals

	Safety standard	Notes & Conditions
UL	UL/cUL 60950-1, ANSI/AAMI ES60601-1 (2005)	IT & Medical
CB	IEC 60601-1, 3.1 edition. IEC 60950-1 2nd ed	IT & Medical (CCC and PSE for class I)
TUV	EN60601-1 3.1 ed, EN60950-1 2nd ed	IT & Medical
CE		2011/65/EU RoHS Directive, 2014/30/EU EMC and 2014/35/EU Low voltage directive
Equipment protection class		Class I

Mechanical Details



Pin Connections	
1	-Vout
2	-Vout
3	AC GND
4	+Vout
5	+Vout
6	+Vout

Notes

- All dimensions in mm
- Tolerance: ± 1 mm
- 16 AWG 800mm DC output cable
- Output connector Molex 6 pin minifit, Pitch 4.2mm
- Inlet IEC-320-C14.
- For UK/ US/ EU mains power cable please order UK-C14, US-C14 or EU-C14 separately