

300 Watts

- Latest Medical & IT approvals
- 4th Edition Medical EMC
- Class I and II versions available
- Single outputs 12 to 54V
- DoE Level VI
- EN55011 Level B conducted & radiated emissions
- 5 Year warranty



Medical

Dimensions:

8.74 x 4.4 x 1.77" (222.0 x 112.0 x 45.0mm)

The EDM300 range of AC-DC power supplies are designed and approved for use in medical & IT applications. The units offer 300 watts of output power in a slim package with output voltages available between 12 and 54VDC. Class I and Class II versions are available. The EDM300 conforms to the latest 4th edition EMC medical standard, has high efficiency up to 92%, is reliable, cost competitive, and comes with an impressive FiDUS 5 year warranty.

Models & Ratings

Model Number	Output Power	Output voltage	Output Current	Efficiency
EDM30012S	300W	12V	25A	90%
EDM30015S	300W	15V	20A	90%
EDM30019S	300W	19V	15.79A	92%
EDM30024S	300W	24V	12.5A	92%
EDM30028S	300W	28V	10.71A	92%
EDM30048S	300W	48V	6.25A	92%
EDM30054S	300W	54V	5.56A	92%

Notes

1. -C2 for Class II version
2. For version without switch, omit S when ordering
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		260	VAC	No derating
Operating temperature	-30		60	°C	Derate linearly from 100% load at 40°C to 50% load at 60°C. 70% load max at -30°C.
Efficiency		92		%	
Dimensions	8.74 x 4.4 x 1.77" (222.0 x 112.0 x 45.0mm)				
EMC	EN55011/55022 Level B Conducted and Radiated. EN60601-1-2 4th Edition				
Safety	IEC 60601-1 3.1, EN60601-1 A12 2014, AMMI/ANSI 60601-1, CSAC22.2 No60601-1:14 No 234 as per cUL, CE, CB. IEC 60950-1 A2 2013, EN60950-1 A2 2013 and UL 60950-1 2nd Ed				

Input

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		260	VAC	No derating
Input frequency	47		63	Hz	
Power factor	0.9		0.95		0.9@230VAC 0.95@115VAC full load
Input current	3A at 115VAC. 1.5A at 230VAC max.			A	
Inrush current	<35A peak at 115VAC. <70A at 230VAC			A	25°C cold start
No load input power		<0.5		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		±6		%	±10% at -30 to -20°C
Line Regulation		±1		%	
Load Regulation		±5		%	
Minimum Load	0			%	No load power <0.5W. 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		150	%	Automatic recovery
Short circuit protection					Automatic recovery
Over voltage protection	104		134	%	Automatic recovery

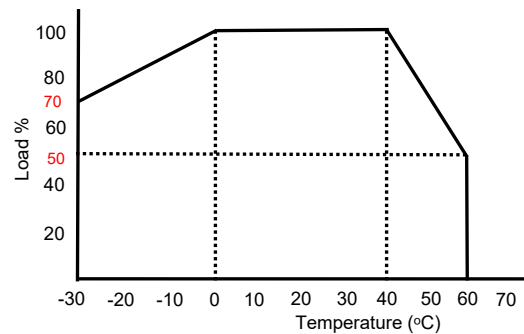
General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		92		%	
Isolation	5656 / 2121			VDC	Input to Output - 5656VDC, Input to Ground - 2121VDC
Earth Leakage Current		263		uA	
Power density			4.41	W/In ³	
MTBF		>200		KHrs	Calculated as per MIL-HDBK-217F. At 25°C
Weight		1570		g	

Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	-30		60	°C	Derate linearly from 100% load at 40°C to 50% load at 60°C. 70% load max at -30°C.
Storage temperature	-30		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.05	%/°C	
Humidity			95	% RH	

Temperature Derating Curve



EDM300 Series

EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55011/22	B		
Radiated	EN55011/22	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

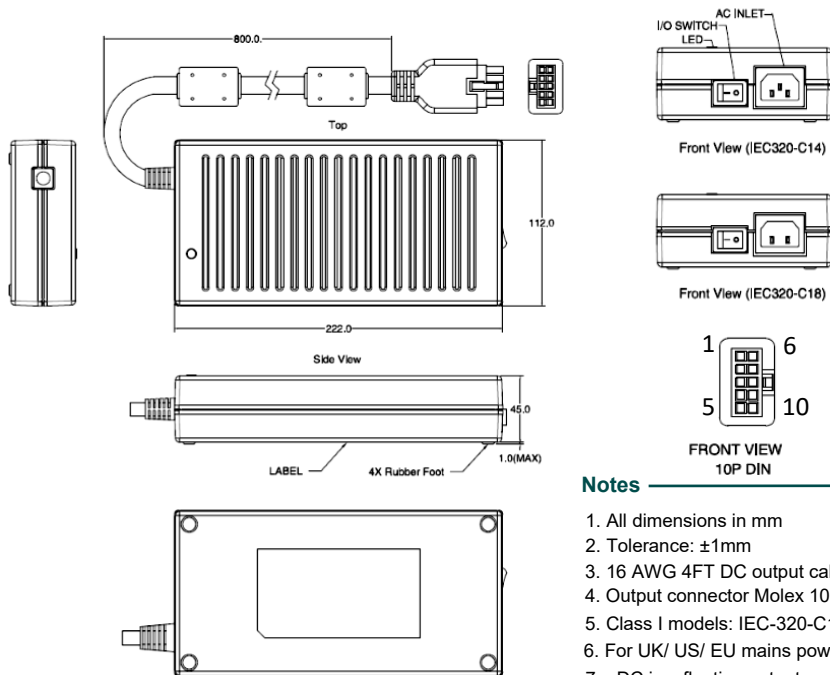
EMC: Immunity

	Standard	Test level	Criteria	Notes & Conditions
ESD	EN61000-4-2	3	A	8kV contact, 15kV air (MED)/4kV contact, 8kV Air (ITE)
Radiated	EN61000-4-3		A	3-28V/m, 80MHz-2700MHz, 1kHz 80% AM Modulation (MED). 3 V/ m, 80 MHz ~1000 MHz, 1kHz Sine Wave, 80%, AM Modulation (ITE)
EFT	EN61000-4-4	3	A	2kV 100kHz (MED), 1kv 5kHz (ITE)
Surges	EN61000-4-5	Installation Class 3	A	2KV L/N to GND, 1KV L to N both at 0°, 90°, 180°, 270°. 0.5KV, 1KV, 2KV, 3KV, 4KV L/N to GND ; 0.5KV, 1KV, 2KV L to N (Med)
Conducted	EN61000-4-6		A	3/6Vrms, 1kHz 80 AM Modulation 150KHZ-80MHz (MED) 3Vrms, 1kHz 80 AM Modulation 150KHZ-80MHz (ITE)
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/AMMI 60601-1, CAN CSA 60601-1	IT & Medical
CB	IEC 60601-1 3.1 edition. IEC 60950-1 A2 2013	IT & Medical (CCC and PSE for class I)
TUV	EN60601-1 A12 2014, EN60950-1 A2 2013	IT & Medical
CE		2011/65/EU RoHS Directive, 2014/30/EU EMC and 2014/35/EU Low voltage directive
Equipment protection class		Class I & Class II models

Mechanical Details



Pin Connections			
1	-DC	6	+DC
2	-DC	7	+DC
3	-DC	8	+DC
4	-DC	9	+DC
5	-DC	10	N.C

Notes

- All dimensions in mm
- Tolerance: ± 1 mm
- 16 AWG 4FT DC output cable
- Output connector Molex 10 pin minifit, Pitch 4.2mm
- Class I models: IEC-320-C14. Class II models: IEC-320-C18
- For UK/ US/ EU mains power cable please order UK-C14, US-C14 or EU-C14 separately
- DC is a floating output and not bonded to AC earth