

250W Medical/ITE AC-DC External Power Supplies

<https://product.tdk.com/en/power/dtm>
www.emea.lambda.tdk.com/dtm



The DTM250-D 250W external power supplies are certified to IEC/ES/CSA/EN60601-1, IEC/UL/CSA/EN62368-1 and are compliant to IEC60601-1-2 (Ed4). With an average efficiency of greater than 89% and an off-load power consumption of less than 0.15W, this series also complies with DoE Level VI and EU Tier 2 v5 standards for efficiency and off-load power. The DTM250-D series is suitable for higher power medical, dental, test, measurement and industrial portable equipment.

Features	Benefits
• Wide Range AC Input	• Global Operation
• Meets DoE Level VI & EU Tier 2 Efficiency	• Meets US and EU Energy Saving Legislation
• 60601-1 Medical Certifications /2xMoPP	• Suitable for B & BF Rated Equipment
• 62368-1 ITE Certifications	• Suitable for Industrial Applications
• < 0.15W Off-load Power Draw	• Consumes Less Energy

Model Selector						
Model	Output Voltage (V)	Max Current (A)	Max Power (W)	Overvoltage Protection (V)	Ripple & Noise (mVpk-pk)	
DTM250PW120D	12	20.83	250	12.9 - 16.0	240	
DTM250PW190D	19	13.157	250	20.20 - 25.46	300	
DTM250PW240D	24	10.416	250	25.50 - 32.16	300	
DTM250PW280D	28	8.928	250	29.6 - 33.2	300	
DTM250PW360D	36	6.94	250	37.8 - 43.2	300	
DTM250PW480D	48	5.208	250	50.0 - 57.2	300	
DTM250PW540D	54	4.629	250	56.0 - 60.2	300	

DTM250PW	190D
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- 120D 12V Output Voltage
- 190D 19V Output Voltage
- 240D 24V Output Voltage
- 280D 28V Output Voltage
- 360D 36V Output Voltage
- 480D 48V Output Voltage
- 540D 54V Output Voltage

Specification		
Model		DTM250-D
Input		
Input Voltage range	Vac	90 - 264
Input Frequency	Hz	47 - 63
Input Current (115/230Vac)	A	2.5 / 1.3
Inrush Current at 230Vac (Cold Start)	A	<80 (25°C ambient)
Touch Current	uA	<100
No Load Power Consumption	mW	<150
Hold Up Time (typ) at 115Vac Input	ms	10
Average Efficiency (1)	%	>89
Conducted & Radiated EMI	-	EN55032-B, EN55011-B, FCC Part 15 Class B, FCC Part 18 Class B
Immunity	-	IEC60601-1-2 Ed4:2014
Safety Agency Certifications	-	IEC/ES/UL/CSA/EN60601-1, IEC/UL/CSA/EN62368-1, 60950-1, CE Mark (LVD, EMC and RoHS)
Output		
Voltage Accuracy	%	Included in Total Regulation Specification
Output Voltage Adjustment	-	None
Switching Frequency (Full Load)	kHz	75 - 90
Total Regulation	%	±5
Ripple & Noise (2)	-	See Model Selector Table
Temperature Coefficient	%/°C	±0.05
Minimum Load	-	No minimum load required
Overcurrent Protection	%	105 - 160 (Auto-Recovery)
Overvoltage Protection	-	See Model Selector Table (Auto-Recovery)
Short Circuit Protection	-	Continuous - Hiccup Mode (Auto-Recovery)
Indicators	-	LED indicates DC output is on
Parallel Operation	-	Not possible
Environmental		
Operating Temperature (3)	°C	-20 to 60 derate linearly to 50% load from 40 to 60
Storage Temperature	°C	-20 to 85
Humidity (non condensing)	%RH	0 - 95
Cooling	-	Convection
Altitude	m	5,000
Withstand Voltage (For 1 minute)	Vac	Input to Output 4,000 (2xMoPP), Input and Output to Ground 1,500 (1xMoPP)
Isolation Resistance	MΩ	20
IP Rating	-	IP30
Other		
Weight (Typ)	g	1,300
Size (LxWxH)	mm	200 x 90 x 45
Size (LxWxH)	Inches	7.874 x 3.543 x 1.770
AC Input Connector	-	IEC 320-C14 (3 prong)
DC Output Connector	-	6 Pin Mini Fit P4.20 Pins 1 - 3: -Vout, Pins 4 - 6: +Vout
Output Mating Connector	-	Molex Mini Fit 39-28-1063 or equivalent
Cable Length & Thickness	-	800mm; UL 2464 #16 AWG
MTBF (Bellcore TR-332), 100% load, 25°C	hrs	200,000
Warranty	yrs	3

Notes

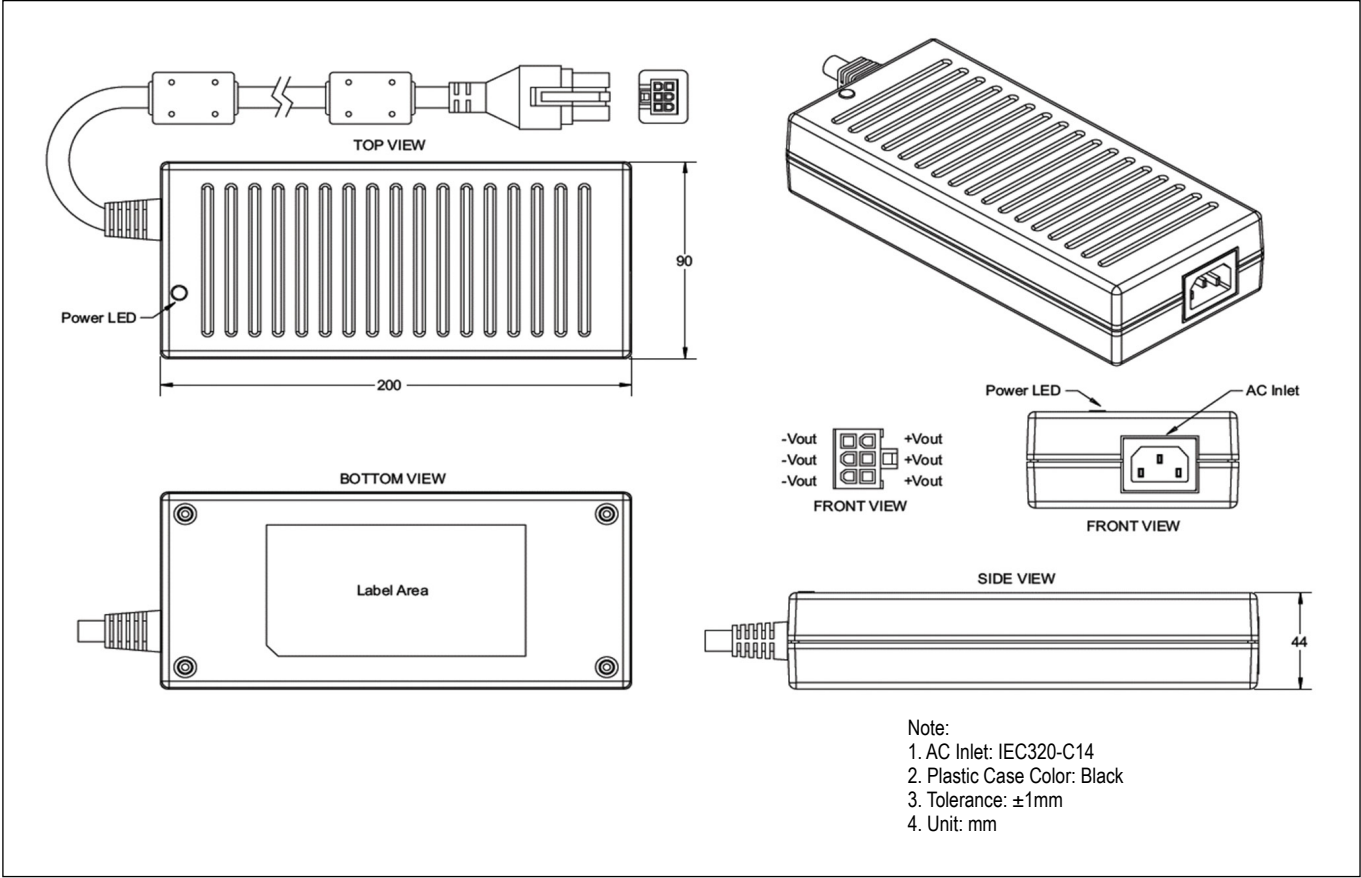
See website for detailed specifications, test methods and installation manual

(1) Measured at 25%, 50%, 75% and 100% load conditions

(2) Ripple and noise is measured at 20MHz BW. Add 0.1uF ceramic capacitor and 47uF Electrolytic capacitor in parallel across the output

(3) Derate linearly to 80% load from 0 to -20°C

Outline Drawing





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