

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
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

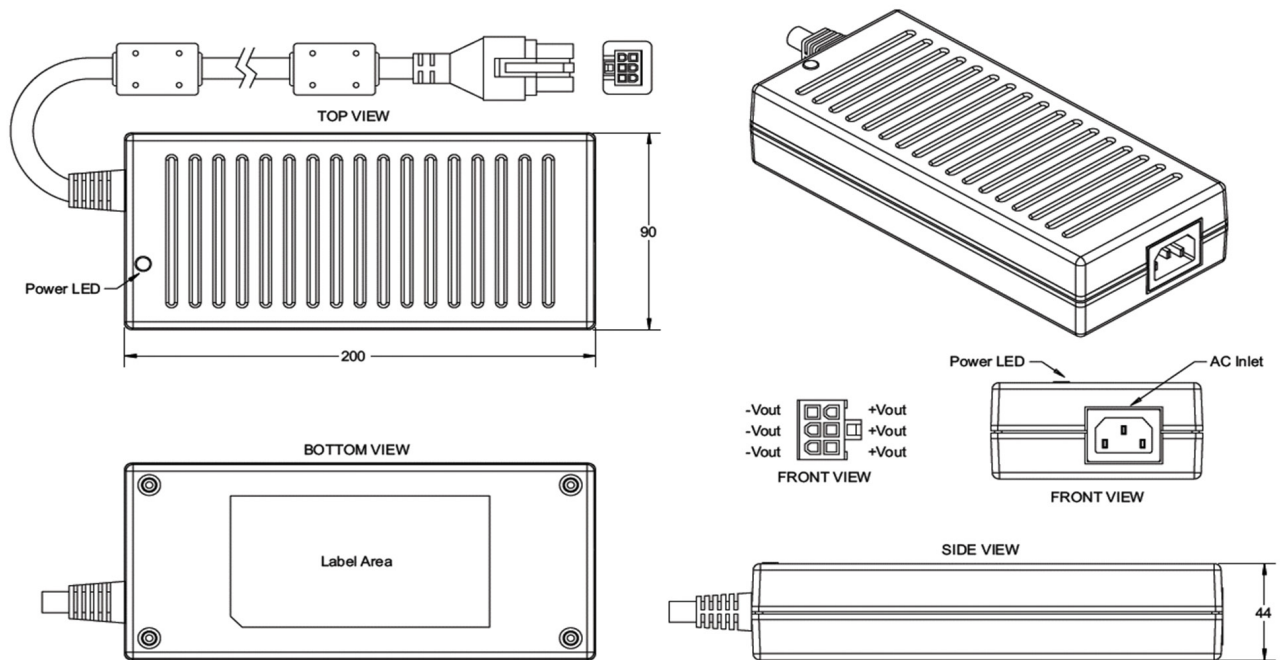
See website for detailed specifications, test methods and installation manual

(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



Note:

1. AC Inlet: IEC320-C14
2. Plastic Case Color: Black
3. Tolerance: $\pm 1\text{mm}$
4. Unit: mm



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