

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

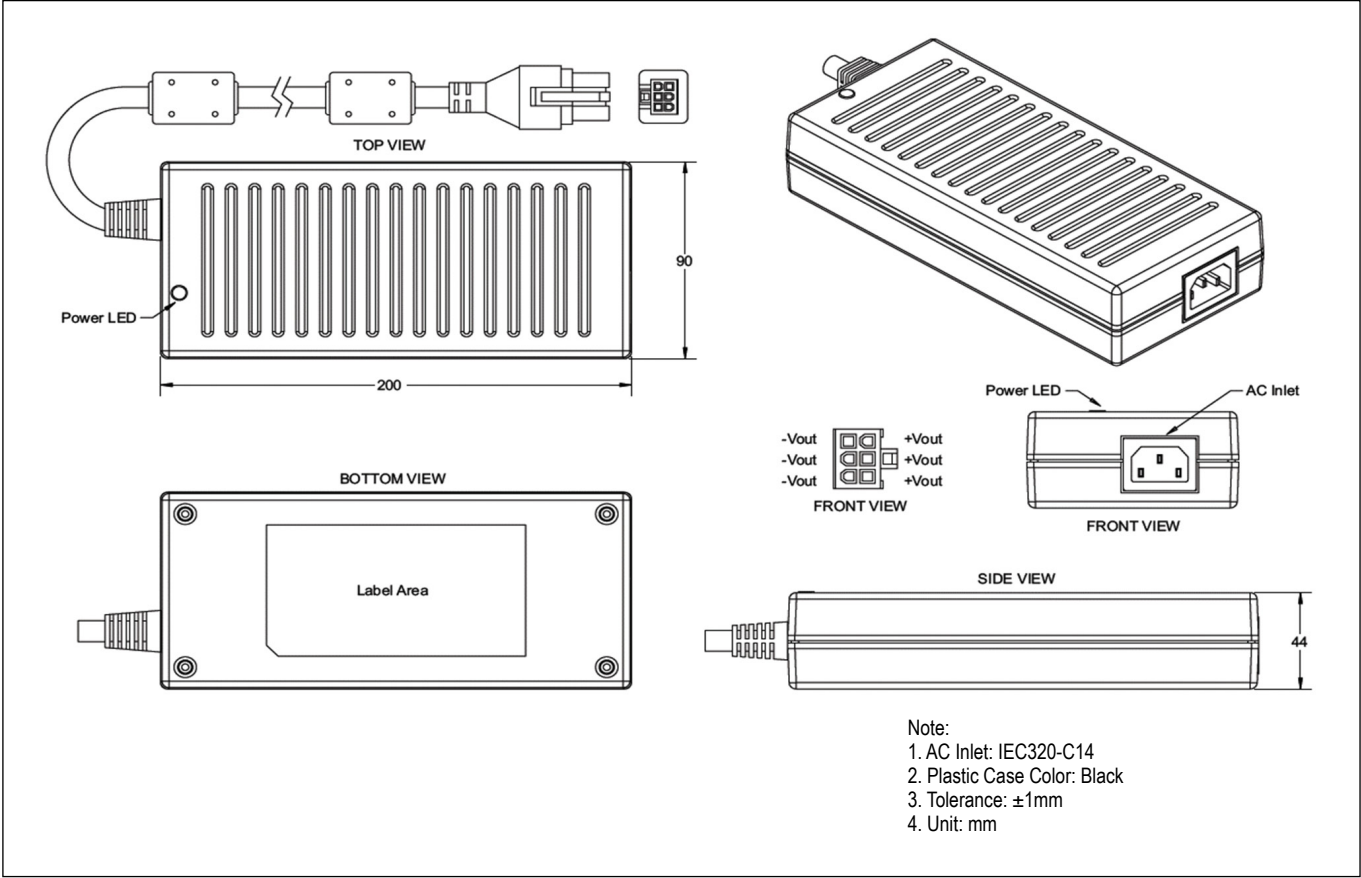
See website for detailed specifications, test methods and installation manual

(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





TDK-Lambda France SAS

Tel: +33 1 60 12 71 65
france@fr.tdk-lambda.com
www.emea.lambda.tdk.com/fr



Italy Sales Office

Tel: +39 02 61 29 38 63
info.italia@it.tdk-lambda.com
www.emea.lambda.tdk.com/it



Netherlands

info@nl.tdk-lambda.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH

Tel: +49 7841 666 0
info.germany@de.tdk-lambda.com
www.emea.lambda.tdk.com/de



Austria Sales Office

Tel: +43 2256 655 84
info@at.tdk-lambda.com
www.emea.lambda.tdk.com/at



Switzerland Sales Office

Tel: +41 44 850 53 53
info@ch.tdk-lambda.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office

Tel: +45 8853 8086
info@dk.tdk-lambda.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.

Tel: +44 (0) 12 71 85 66 66
info@uk.tdk-lambda.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.

Tel: +9 723 902 4333
info@tdk-lambda.co.il
www.emea.lambda.tdk.com/il



C.I.S.

Commercial Support:

Tel: +7 (495) 665 2627

Technical Support:

Tel: +7 (812) 658 0463
info@tdk-lambda.ru
www.emea.lambda.tdk.com/ru



TDK-Lambda Americas

Tel: +1 800-LAMBDA-4 or 1-800-526-2324
powersolutions@us.tdk-lambda.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda

Tel: +55 11 3289-9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation

Tel: +81-3-6778-1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.

Tel: +86 21 6485-0777
powersolutions@cn.tdk-lambda.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.

Tel: +65 6251 7211
tis.mkt@sg.tdk-lambda.com
www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division

Tel: +91 80 4039-0660
mathew.philip@in.tdk-lambda.com
www.sg.lambda.tdk.com

