

300W Medical/ITE Class I and II AC-DC External Power Supplies

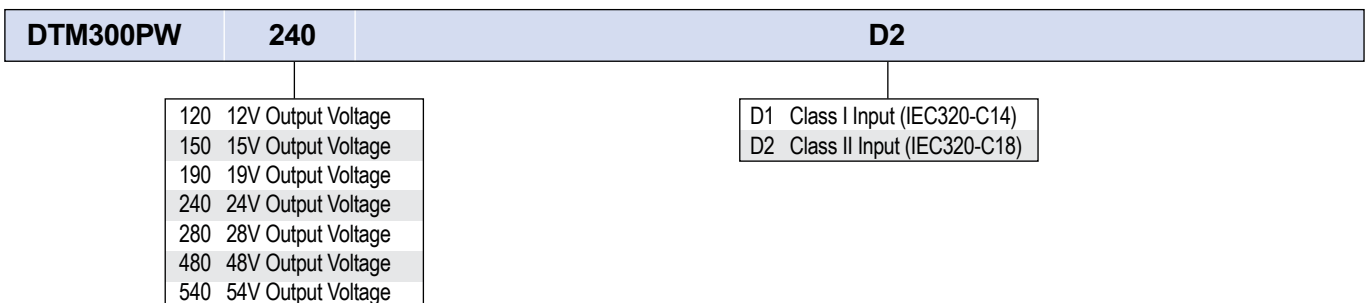
<https://product.tdk.com/en/power/dtm>
www.emea.lambda.tdk.com/dtm



The DTM300-D Class I and Class II (no ground connection) 300W external power supplies are certified to IEC/ES/CSA/EN60601-1, IEC60601-1-11 (Class II), IEC/UL/CSA/EN62368-1 and are compliant to IEC60601-1-2 (Ed4). With an average efficiency of greater than 88% and an off-load power consumption of less than 0.5W, this series also complies with DoE Level VI standards for efficiency and off-load power. With options for Class I or Class II inputs, the DTM300-D series is suitable for a variety of power hungry medical, industrial, and test and measurement applications.

Features	Benefits
• Wide Range AC Input (Class I or Class II Input Options)	• Global Operation
• Meets DoE Level VI Efficiency	• Meets US Energy Saving Legislation
• 60601-1 Medical Certifications /2xMoPP	• Suitable for B & BF Rated Equipment
• 62368-1 ITE Certifications	• Suitable for Industrial Applications
• < 0.5W 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)	
DTM300PW120D1	12	25	300	12.9 - 16.0	240	
DTM300PW150D1	15	20	300	16.0 - 20.0	300	
DTM300PW190D1	19	15.79	300	20.20 - 25.46	300	
DTM300PW240D1	24	12.50	300	25.50 - 32.16	300	
DTM300PW280D1	28	10.71	300	29.6 - 33.2	300	
DTM300PW480D1	48	6.25	300	50.0 - 57.2	300	
DTM300PW540D1	54	5.56	300	56.0 - 60.2	300	
DTM300PW120D2	12	25	300	12.9 - 16.0	240	
DTM300PW150D2	15	20	300	16.0 - 20.0	300	
DTM300PW190D2	19	15.79	300	20.20 - 25.46	300	
DTM300PW240D2	24	12.5	300	25.50 - 32.16	300	
DTM300PW280D2	28	10.71	300	29.6 - 33.2	300	
DTM300PW480D2	48	6.25	300	50.0 - 57.2	300	
DTM300PW540D2	54	5.56	300	56.0 - 60.2	300	



Specification		
Model		DTM300-D
Input		
Input Voltage range	Vac	90 - 264
Input Frequency	Hz	47 - 63
Input Current (115/230Vac)	A	3.0 / 1.5
Inrush Current at 230Vac (Cold Start)	A	<70 (25°C ambient)
Touch Current	uA	<100
No Load Power Consumption	mW	<500
Hold Up Time (typ) at 115Vac Input	ms	10
Average Efficiency (1)	%	>88
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, IEC60601-1-11 (Class II Models), CE Mark (LVD, EMC and RoHS)
Output		
Voltage Accuracy	%	Included in Total Regulation Specification
Output Voltage Adjustment	-	None
Switching Frequency (Full Load)	kHz	83 - 96
Total Regulation	%	±5
Ripple & Noise (2)	-	See Model Selector Table
Temperature Coefficient	%/°C	±0.05
Minimum Load	-	No minimum load required
Overcurrent Protection	%	105 - 150 (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	-30 to 60 derate linearly to 50% load from 40 to 60
Storage Temperature	°C	-30 to 85
Humidity (non condensing)	%RH	0 - 95
Cooling	-	Convection
Altitude	m	5,000
Withstand Voltage (For 1 minute)	Vac	Class I: Input to Output 4,000 (2xMoPP), Input and Output to Ground 1,500 (1xMoPP) Class II: Input to Output 4,000 (2xMoPP)
Isolation Resistance	MΩ	20
IP Rating	-	IP42
Other		
Weight (Typ)	g	1,570
Size (LxWxH)	mm	222 x 112 x 45
Size (LxWxH)	Inches	8.75 x 4.40 x 1.77
AC Input Connector	-	Class I: IEC 320-C14 (3 prong); Class II: IEC320-C18 (2 prong)
DC Output Connector	-	10 Pin Mini Fit P4.20 (See Outline Drawing)
Output Mating Connector	-	Molex Mini Fit 39-28-1103 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

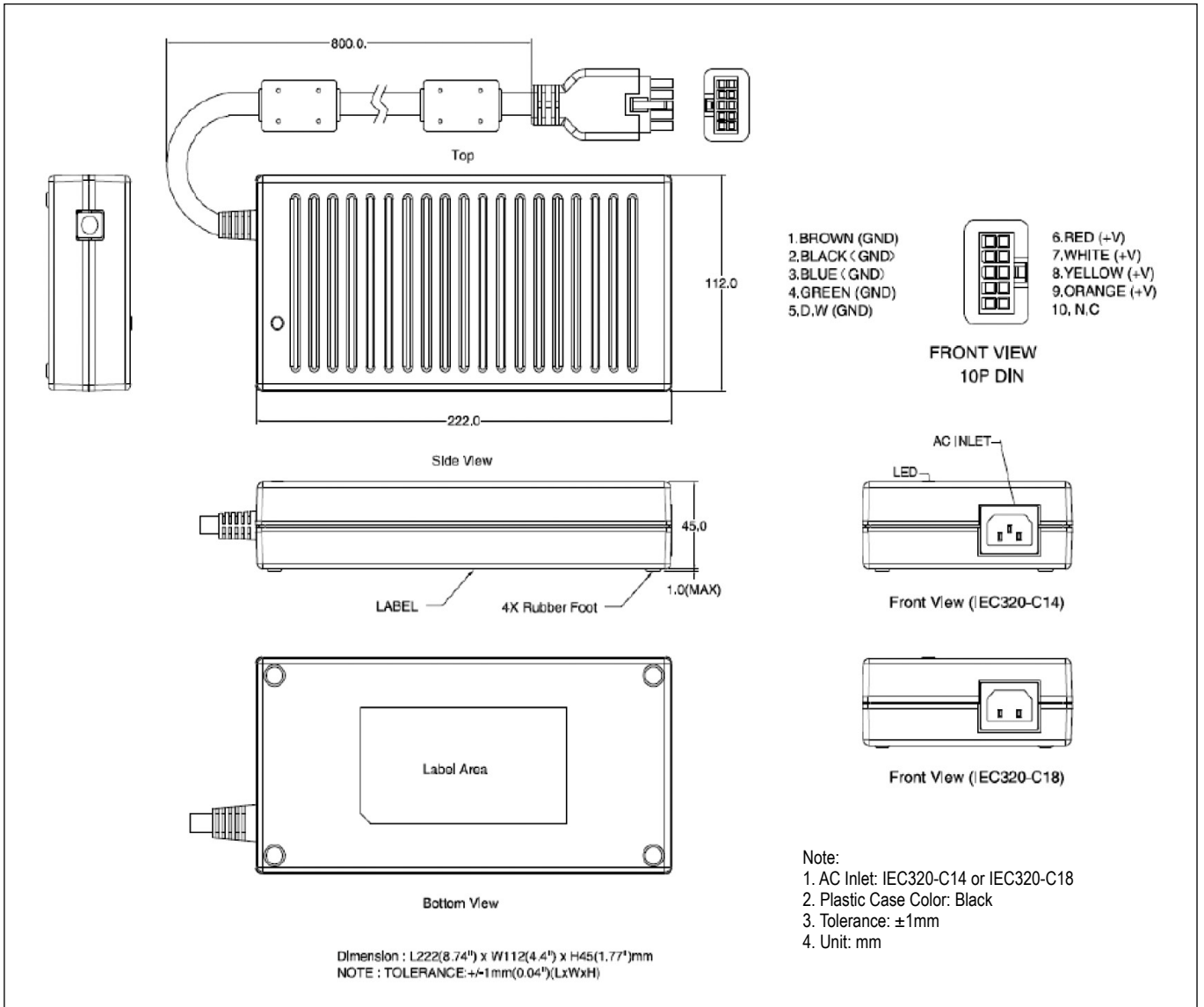
See website for detailed specifications, test methods and installation manual

(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 70% load from 0 to -30°C

Outline Drawing





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