

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



Medical



Industrial



Test



COMM



Broadcast



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

- Wide Range AC Input (Class I or Class II Input Options)
- Meets DoE Level VI Efficiency
- 60601-1 Medical Certifications /2xMoPP
- 62368-1 ITE Certifications
- < 0.5W Off-load Power Draw

Benefits

- Global Operation
- Meets US Energy Saving Legislation
- Suitable for B & BF Rated Equipment
- Suitable for Industrial Applications
- 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

DTM300PW

240

D2

120	12V Output Voltage
150	15V Output Voltage
190	19V Output Voltage
240	24V Output Voltage
280	28V Output Voltage
480	48V Output Voltage
540	54V Output Voltage

D1	Class I Input (IEC320-C14)
D2	Class II Input (IEC320-C18)

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

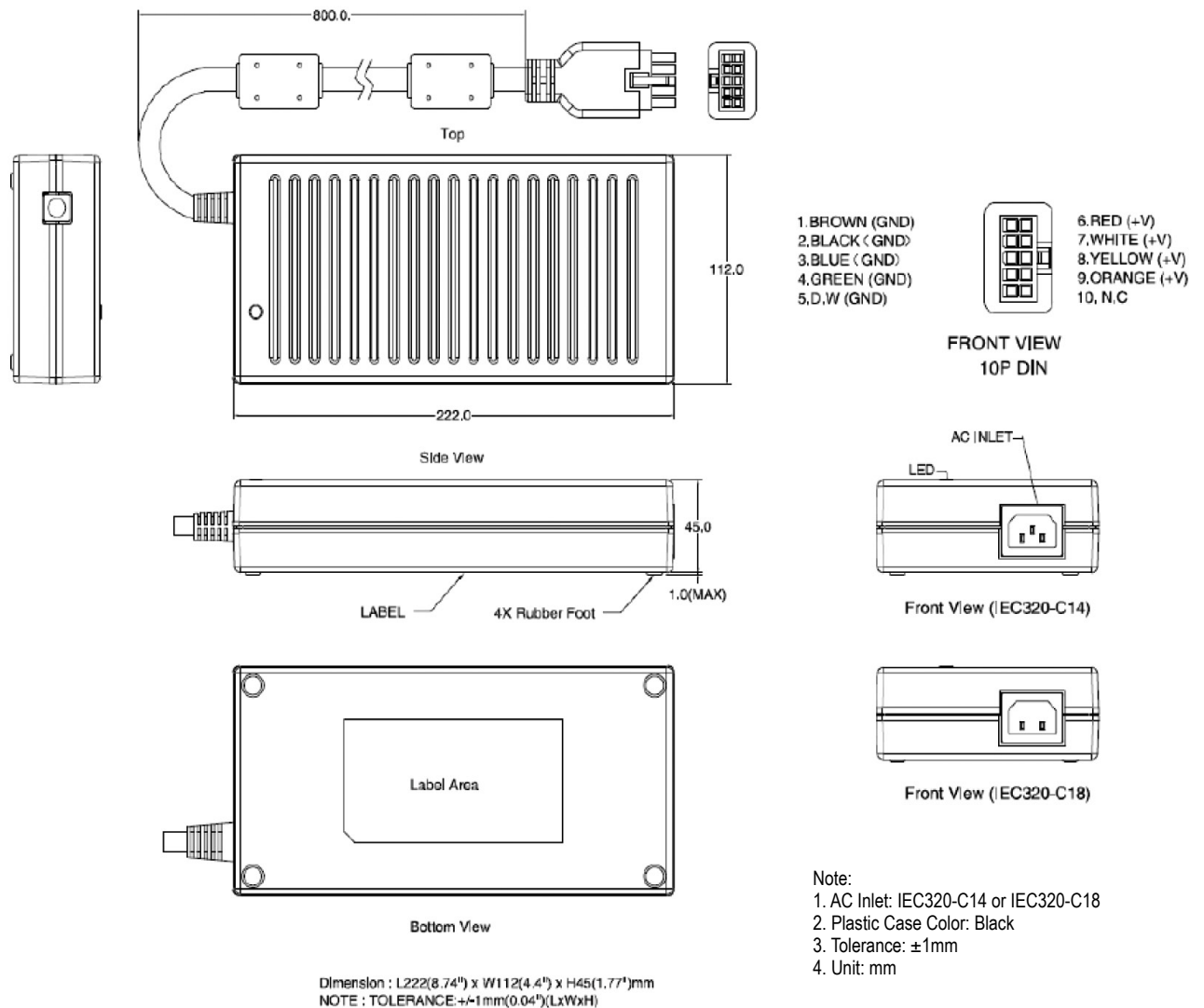
See website for detailed specifications, test methods and installation manual

(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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