

## 25 to 36W Medical External Power Supplies



Medical Home Medical

The DTM36-C8 Class II 25 to 36W external power supplies are certified to IEC/ES/EN60601-1 and EN60601-1-11, are compliant to EN60601-1-2 (Ed4) and designed to meet IEC60335-1 (Household Appliances). Requiring no earth ground, the DTM series is ideally suited for Medical, Clinical and Home Healthcare applications. Alternative connectors and cable assemblies are available on request.

Features	Benefits
• Medical Safety Certifications and Immunity	• Suitable for Medical, Clinical and Home Healthcare Use
• Class II Input	• No Earth Ground Connection Needed
• Meets DoE Level VI and EU Tier 2 Efficiency, <75mW Off-load Power Consumption	• Meets US and EU Energy Saving Legislation
• 4kV (2xMOPP) Input to Output Isolation	• Fully Isolated For Use With B and BF Rated Equipment
• Alternative Connectors and Cable Assemblies	• Flexible System Integration

Model Selector							
Model	Output Voltage (V)	Maximum Current (A)	Maximum Power (W)	Oversvoltage Protection (V) (Typical)	Maximum Load Capacitance (uF)	Efficiency (%) (230Vac input, 75% Load)	Average Efficiency (%) (1)
DTM36CN050-C8	5	5	25	7.44	5,000	85	85.0
DTM36CN090-C8	9	3.3	29.7	12.6	3,300	88	87.7
DTM36CN120-C8	12	2.5	30	15.9	2,500	89	87.7
DTM36CN135-C8	13.5	2.4	32.4	18.5	2,400	89	87.9
DTM36CN150-C8	15	2.4	36	21.5	2,400	89	88.3
DTM36CN180-C8	18	2	36	24.8	2,000	89	88.3
DTM36CN240-C8	24	1.5	36	31.5	1,500	89	88.3
DTM36CN360-C8	36	1	36	45.2	1,000	89	88.3
DTM36CN480-C8	48	0.75	36	59.6	750	89	88.3

<b>DTM36CN</b>	<b>120</b>	<b>C8</b>	<b>-</b>	<b>xxx</b>
	Output voltage 5, 9, 12, 13.5, 15, 18, 24, 36, 48	IEC C8 input connector		Connector/Cable Options* (When applicable)

**\* Options**

When no option code is stated:

5V output model has a straight 5.5 x 2.1 x 12mm (OD x ID x L) connector, positive center pin and a 16 AWG 1220mm long cable

9V, 12V and 13.5V output models have a straight 5.5 x 2.1 x 12mm (OD x ID x L) connector, positive center pin and an 18 AWG 1800mm long cable

≥15 models have a straight 5.5 x 2.1 x 12mm (OD x ID x L) connector, positive center pin and an 20 AWG 1800mm long cable

## Specifications

Model		DTM36-C8
<b>Input</b>		
Input Voltage range (2)	Vac	80 - 264
Input Frequency	Hz	47 - 63
Input Current (110/230Vac)	A	< 0.9
Inrush Current at 240Vac (Cold Start)	A	≤ 100
Leakage Current	uA	≤ 80
Harmonic Compliance	-	Meets IEC61000-3-2
No Load Power Consumption	mW	< 75
Hold Up Time (typ) at 115Vac Input	ms	10
Efficiency	-	See model selector table
Average Efficiency	-	See model selector table
Conducted & Radiated EMI	-	EN55011-B Conducted, EN55011-B Radiated, EN60601-1-2
Immunity	-	See immunity table
Insulation Class	-	Class II
Safety Agency Certifications	-	IEC/ES/EN60601-1, EN60601-1-11, CE Mark (LVD, EMC and RoHS). Designed to meet IEC60335-1

## Immunity

Test	Standard	Test Level	Criteria	Notes
ESD	EN61000-4-2	4	A	
Radiated Susceptibility	EN61000-4-3	3	A	80-2700MHz
	EN60601-1-2 table 9	-	A	Pass
Electrical Fast Transient Burst	EN61000-4-4	3	A	(AC Port, 100kHz)
Surge	EN61000-4-5	3	A	-
Conducted Susceptibility	EN61000-4-6	3	A	10V (61000-6-2)
	EN60601-1-2 table 6	-	A	6V (60601-1-2)
Magnetic fields	EN61000-4-8	N/A	N/A	-
Voltage Dips and Input Interruptions	EN61000-4-11 Class 2 Industrial, including EN60601-1-2 (100Vac)	0% for 1/2 cycle	A	
		0% for 1 cycle	A	
		70% for 25/30 cycles	A	
		0% for 250/300 cycles	B	

Specifications		
Model		DTM36-C8
<b>Output</b>		
Output Voltage Tolerance	%	±2% at 60% load
Output Voltage Adjustment	-	None
Switching Frequency (Typical)	kHz	65
Line Regulation	%	±1% of rated output voltage from 100 to 240Vac
Load Regulation (3)	%	5V: ±6%, 9V: ±4%, 12-48V: ±2% of rated output voltage
External Load Capacitance	uF	See model selector table
Ripple & Noise (4)	mV	5V: 100, 9V & 12V: 120, 13.5V: 130, 15V: 150, 18V: 180, 24V: 240, 36V: 360, 48V: 480
Temperature Coefficient	%/°C	±0.05
Minimum Load	-	No minimum load required
Overcurrent Protection	-	Hiccup mode with auto recovery
Overvoltage Protection	V	Diode clamp, auto recovery. See model selector table
Indicators	-	LED indicates DC output is on
Parallel Operation	-	Not possible
<b>Environmental</b>		
Operating Temperature	°C	-30 to 60, derate linearly from 100% to 60% load from 40 to 60
Storage Temperature	°C	-30 to +85
Humidity (non condensing)	%RH	5 - 93%RH
Cooling	-	Convection
Altitude	m	5,000
Withstand Voltage (For 1 minute)	Vac	Input to Output 4,000 (2xMOPP)
Isolation Resistance	MΩ	>100 at 25°C
IP Rating	-	IP21
Vibration (Operating)	-	Meets MIL-STD-810F Table 516.5, Table 516.5-1, 10ms, each axis 3 times (± X, Y, Z axis)
Shock	-	Meets MIL-STD-810F Table 514.5C-VIII, 15~200Hz, X, Y, Z axis, 1hr each axis, total 3hrs
<b>Other</b>		
Weight (Typ)	g	150
Size (LxWxH)	mm	100 x 45 x 22.5
Size (LxWxH)	Inches	3.937 x 1.771 x 0.886
AC Input Connector	-	IEC 320-C8 (2 prong)
DC Output Connector	-	See model selector (options)
MTBF - MIL-HDBK-217F, GB, 25°C, 115Vac input	hrs	1,000,000 max
Warranty	yrs	3

## Notes

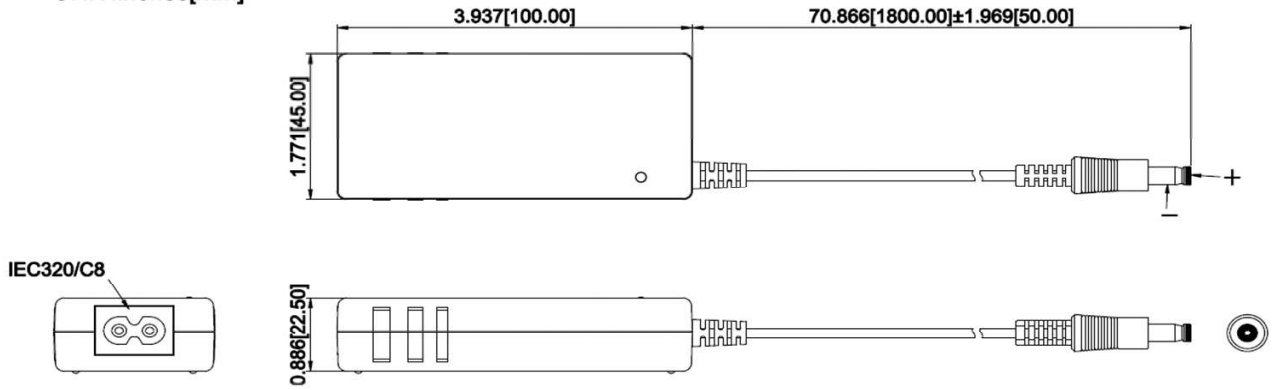
See website for detailed specifications, test methods and installation manual

- (1) Measured at 25%, 50%, 75% and 100% load conditions
- (2) Derate linearly from 100% to 75% load from 90Vac input to 80Vac input
- (3) Measured from 60 - 100% and 60 - 20% load
- (4) Ripple and noise is measured at 20MHz BW. Add 0.1uF ceramic capacitor and 10uF Electrolytic capacitor in parallel across the output

## Outline Drawing (Straight connector with 20AWG 1,800mm cable shown)

All Dimensions are in inches[mm]  
 Tolerance: Inches: X.XXX±0.02  
 Millimeters: X.XX±0.5

UNIT: inches[mm]





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