

MDT180 SERIES



180W EXTERNAL

DIMENSIONS:



7.4 x 3.52 x 1.94"
(188 x 89.5 x 49.3mm)



CONNECTOR
CUSTOMISATION

CLASS I or II

UP TO 92% EFFICIENT

EN55011 LEVEL B

IEC / EN60601-1

C8 / C14 INLET

Part numbers

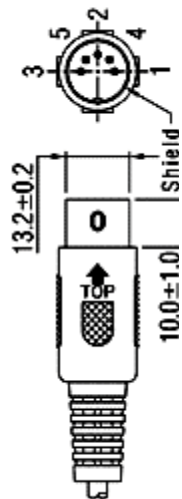
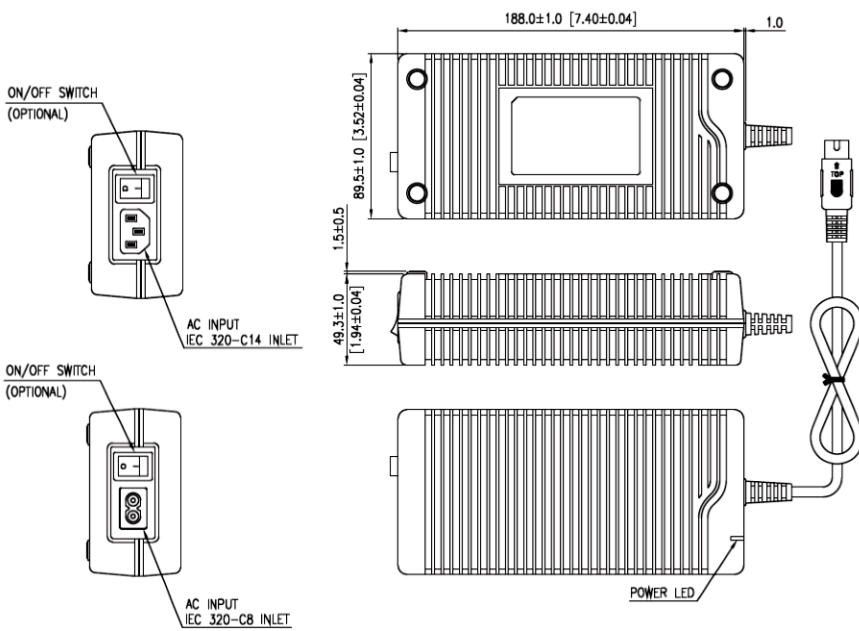
MDT	180	12	-	C2
Series	Power (W)	Output voltage		Options
		12 = 12VDC 19 = 19VDC 24 = 24VDC 30 = 30VDC 33 = 33VDC 48 = 48VDC		-C2 = C8 Inlet -C14

Key specifications

Input range	Safety certification	Efficiency	Environmental performance
90-260VAC	UL/IEC/EN 60601-1	<93%	Operational: -10 to 70°C

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Mechanical



Pin	Condition
1	-DC
2	-DC
3	+DC
4	-DC
5	+DC
Shield	AC GND (Class I)

Notes

1. All dimensions in mm (inches)
2. Tolerance: ±1mm
3. 16AWG 4 ft output cable
4. Output connector PIN DIN-5 plug
5. Class I model: IEC-320-C14. Class II model: IEC-320-C8

Weight

Min	Max
894g	952g



Models & Ratings

Model Number ⁽¹⁾	Output Power	Output voltage	Output current	Efficiency
MDT18012	168W	12V	14A	89%
MDT18019	180W	19V	9.47A	91%
MDT18024	180W	24V	7.5A	91%
MDT18030	180W	30V	6A	92%
MDT18033	180W	33V	5.46A	93%
MDT18048	180W	48V	3.75A	93%
MDT18012-C2	168W	12V	14A	89%
MDT18019-C2	180W	19V	9.47A	91%
MDT18024-C2	180W	24V	7.5A	91%
MDT18030-C2	180W	30V	6A	92%
MDT18033-C2	180W	33V	5.46A	93%
MDT18048-C2	180W	48V	3.75A	93%

1. C2 for Class II version
2. Alternative output connectors available for production quantities. Contact sales for details

3. For UK/ US/ EU mains power cable please order UK-C14/C8, US-C14/C8 or EU-C14/C8 separately



Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	90		260	VAC	See derating curve on page 5
Input frequency	47		63	Hz	
Power factor		0.95			EN61000-3-2 class A compliant
Input current (rms)	0.9		2.2	A	0.9A at 240VAC, high line, full load 2.2A at 100VAC, low line, full load
Inrush current	60		120	A	120A at 240VAC, high line, full load, 25°C cool start 60A at 100VAC, low line, full load, 25°C cool start
No load input power		0.5		W	

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Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	12		48	VDC	
Total regulation	±3		±5	%	±5 for 12V & 19V outputs. ±4 for 24V output. ±3 for 30V, 33V & 48V output
Line regulation			1	%	
Load regulation	2		5	%	Measured at 230VAC. 10-90% load change
Minimum load	0			%	
Ripple & noise	12V		120	mV _{p-p}	All models measured with 0.47uF capacitor. 20 MHz bandwidth
	19V		190		
	24V		240		
	30V		300		
	33V		330		
	48V		480		
Minimum load	0			%	

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload	110			150	Automatic recovery
Short circuit					Automatic recovery
Over voltage	112			132	Shutdown, latch off, AC recycle

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	UL/IEC/EN 60601-1				
Isolation	Input to output: 4000			VAC	Input to ground: 1500
Power density			3.6	W/In ³	

EMC: Emissions

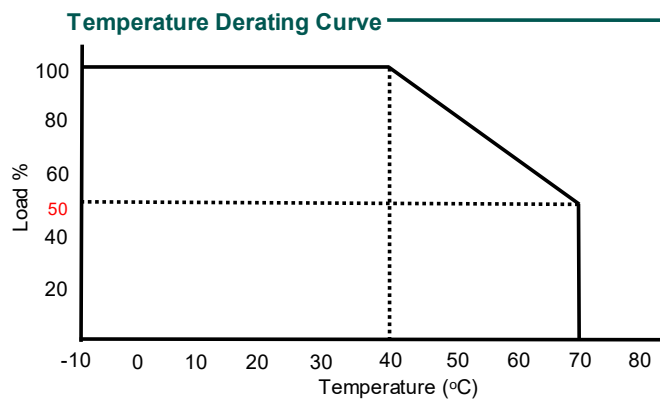
	Standard	Test level	Criteria	Notes/Conditions
Conducted	EN55011	B		
Radiated	EN55011	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

EMC: Immunity

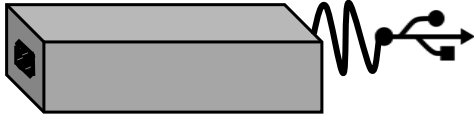
	Standard	Test level	Criteria	Notes/Conditions
ESD	EN61000-4-2	3	A	Contact: 8kV, Air: 15kV
Radiated	EN61000-4-3		A	3-28V/m, 80MHz-2700MHz, 1KHz 80% AM modulation
EFT	EN61000-4-4	3	A	2kV, 100KHz
Surges	EN61000-4-5	Installation class 3	A	Line to Ground 2kV, Line to Neutral 1kV at 0°, 90°, 180°, 270°
Conducted	EN61000-4-6		A	3/6Vrms, 1KHz 80 AM Modulation 150KHz-80MHz
Dips and interruptions	EN61000-4-11	100% for 0.5 & 1 cycle, 30% for 25/30 cycles, interrupt 250/300 cycles. Perf criteria: B,C,C.		

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	-10		70	°C	See derating curve below
Storage temperature	-40		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.04	%/°C	
Humidity			95	% RH	Non-condensing
MTBF	100			kHrs	As per MIL-HDBK-217F, 25°C GB



MDT180 SERIES



The MDT180 series is available with an range of output connectors, allowing customers to use the connector that best fits their industry and product.

- Rapid prototypes for evaluation
- Available for high & low volume applications

Connector Selector

Pin Configuration	Feature	Description	Image	Drawing	Applicable to
	Locking perfect for AV	Kycon plug locking male			All models
	Locking unique	Molex 43025-0600 or CVILUX CP35006S0010			All models