MDA120 SERIES

120W EXTERNAL

DIMENSIONS:

2.59 x 6.61 x 1.53"
(66 x 168 x 39mm)

COMPACT SIZE | **CLASS I OR II** | **LEVEL VI**

EN55011 LEVEL B | **CONNECTOR CUSTOMISATION** | **ErP STAGE 2**

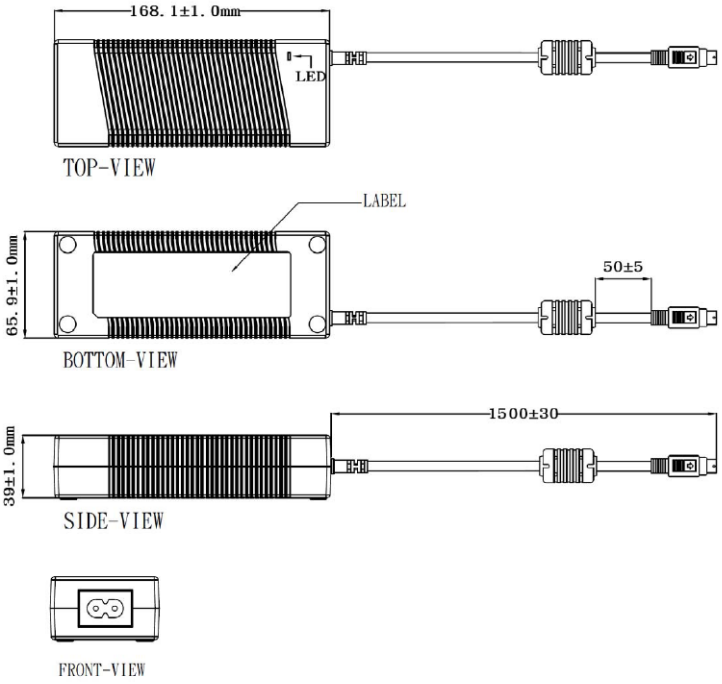
Part numbers

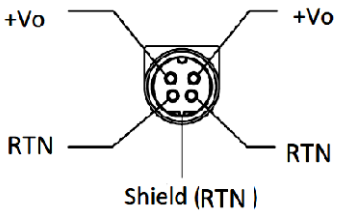
MDA	120	12	-	C8
Series	Power (W)	Output voltage		Options
		12 = 12VDC 15 = 15VDC 18 = 18VDC 19 = 19VDC 20 = 20VDC 24 = 24VDC 48 = 48VDC		-C6 inlet -C8 inlet -C14 inlet -C18 inlet (class II)

Key specifications

Input range	Safety certification	Efficiency	Environmental performance
90-264VAC	UL/IEC/EN 60601-1	<88%	Operational: 0 to 70°C

Mechanical





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

Notes
1. All dimensions in mm 2. Output connector : Kycon 4 pole power adapter, mates with board mount KPJX, panel mount KP-JX-PM and cable mount KPJX-CM 3. Negative DC output is floating 4. For output cable for 12-15V AWG16 1200mm long, 18-24V AWG16 1500mm long and 48V AWG18 1500mm long

Weight	560g

Models & Ratings

Model Number(1)	Output Power	Output voltage	Output current
MDA12012-C8	108W	12V	9.00A
MDA12015-C8	120W	15V	8.00A
MDA12018-C8	120W	18V	6.67A
MDA12019-C8	120W	19V	6.32A
MDA12020-C8	120W	20V	6.00A
MDA12024-C8	120W	24V	5.00A
MDA12048-C8	120W	48V	2.50A

1. C18 Class II, C6 or -C14 (class I) IEC inlet also available on request.
2. Alternative output connectors available for production quantities. Contact sales for details.
3. For UK/ US/ EU mains power cable please order UK-C8, US-C8 or EU-C8 separately.

Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	90		264	VAC	100-240VAC nominal. See derating curve on page 5
Input frequency	47		63	Hz	
Power factor					EN61000-3-2 class A compliant
Input current (rms)	0.7		1.5	A	
Inrush current			100	A	High line. Full load, 25°C cool start, Vin=230VAC
No load input power			0.21	W	230VAC

Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	12		48	VDC	±5% accuracy
Total regulation		±5%		%	
Minimum load	0			%	
Transient response		0.5		mS	50% load change
Ripple & noise		1		%Pk-Pk	All models measured with 10uF and 0.1uf capacitor. 20 MHz bandwidth
Hold up time	10			mS	At full load

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload			170	%	Automatic recovery
Short circuit					Automatic recovery
Over voltage protection			150	%	Latch off reset

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	UL/IEC/EN 60601-1				
Isolation	Input to Output: 4000			VAC	For 1 minute
Insulation resistance		10		MOhm	500Vdc input to output and output to ground
Power density			4.58	W/In3	

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			

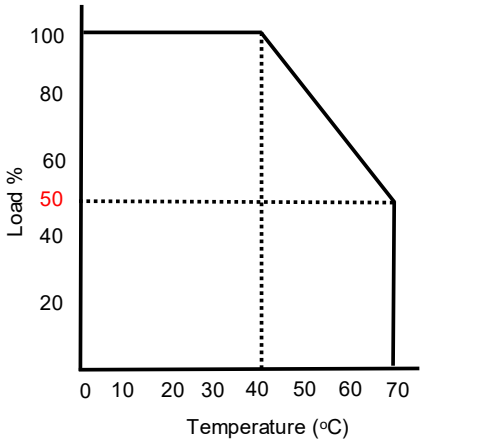
EMC: Immunity

	Standard	Test level	Criteria	Notes/Conditions
ESD	EN61000-4-2	4	A,B	Contact: 8KV, Air: 15kV
Radiated	EN61000-4-3	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 both at 0°, 90°, 180°, 270°
Conducted	EN61000-4-6	3	A	3/6Vrms, 1KHz 80 AM modulation 150KHZ-80MHz
PFMF	EN61000-4-8	4	A	30A/m
Dips and interruptions	EN61000-4-11	100% for 0.5 & 1 cycle, 30% for 25 cycles: B,B,B interrupt 250, 300 cycles and 30% for 30 cycles: B,B,B		

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	0		70	°C	See derating curve below
Storage temperature	-20		80	°C	
Cooling					Convection cooled
Operating humidity	20		80	% RH	
Storage humidity	10		90	% RH	
MTBF	300			kHrs	As per Telcordia SR-332

Derating curve



30th January 2024