

500 Watts 12V Output AC/DC Converter Module Package



FEATURES

- Full Load Efficiency up to 93% @220VAC
- Metal Case Box Type Package
- Package Dimension:
110.0x50.0x12.7mm (4.33"x1.97"x0.50")
- Operating Temperature Range - 40°C to +85°C
- Input Brown-Out, Output OCL, OTP, OVP, SHORT protection
- 3000VAC Isolation
- RoHs Compliant
- CE Mark
- EMC compatible: CISPR11 ClassB (with EMC Board)
- ISO 9001, ISO 14001 certified manufacturing facility
- UL60950

The 500W 12V, a wide input voltage range of 85–265VAC, and single isolated output converter, is the latest product offering from a world leader in power systems technology and. Such module type ACDC converter can provide 500W, 12V regulated DC output voltage with full load efficiency up to 93% @220Vac; The 500W 12V offers Brown-out, output OCL, OTP, OVP and Short protections, and allows a wide operating temperature range of –40°C to +75°C. With creative design technology and optimization of component placement, this converter possess outstanding electrical and thermal performance, as well as high reliability under extremely harsh operating conditions.

Input Characteristics

Item	Condition	Min.	Typ.	Max.	Unit
Continuous Input Voltage range		85	110/220	265	VAC
Input voltage frequency range		45	50/60	65	Hz
Maximum Input Current	Vin=85VAC, 100% Load			6.5	A
Input PF value	Vin=220VAC, 100% Load	0.95			

Output Characteristics

Item	Conditions	Min.	Typ.	Max.	Unit
Output voltage setpoint	Vin=220VAC, Io=0A	12	12.5	13	Vdc
	Vin=220VAC, Io=42A	11.5	12	12.5	Vdc
Output current range		0		42	A
Output Current Limit		44	45	46	A
Turn-on rise time			20	30	ms
Start up time	Vin=110/220VAC		800	1000	mS
Hold up time	Vin=110/220VAC, Io= 60% Load	20			mS
Output OVP point		13	14	15	V
Output Current Transient	Positive voltage step, 75% to 25% load dynamic, 0.1A/us slew rate		300	600	mV
	Negative voltage step, 25% to 75% load dynamic, 0.1A/us slew rate		300	600	mV
Output Voltage Ripple and Noise	Vin=110/220Vac, Io=42A, peak to peak, 20MHz bandwidth		200	400	mV
	RMS		50	100	mV
Maximum Output Capacitance		1000		5000	µF
Output overshoot				3	%
Efficiency @ 60% Load	Vin=110VAC	90	91		%
Efficiency @ 60% Load	Vin=220VAC	91	92		%
Efficiency @ 100% Load	Vin=110VAC	90.5	91.5		%
Efficiency @ 100% Load	Vin=220VAC	92	93		%

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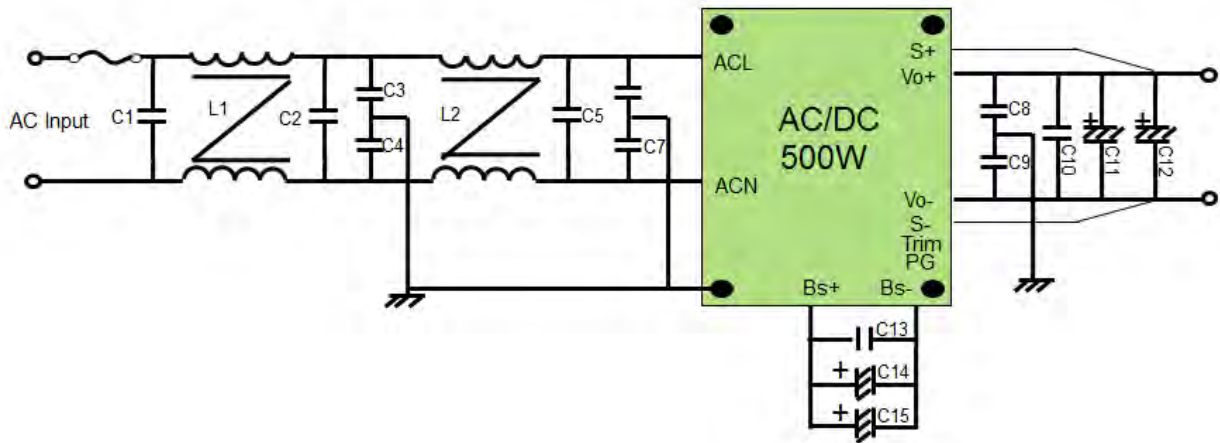
General Characteristics

Item	Conditions	Min.	Typ.	Max.	Unit
I/O Isolation Voltage	Input to output		3000		VAC
	Input to case		1500		VAC
	Output to case		500		VAC
I/O Isolation Resistance	500Vdc	10			MΩ
MTBF	Ta=25°C, 80%load		TBD		Mhours
Weight			TBD		g

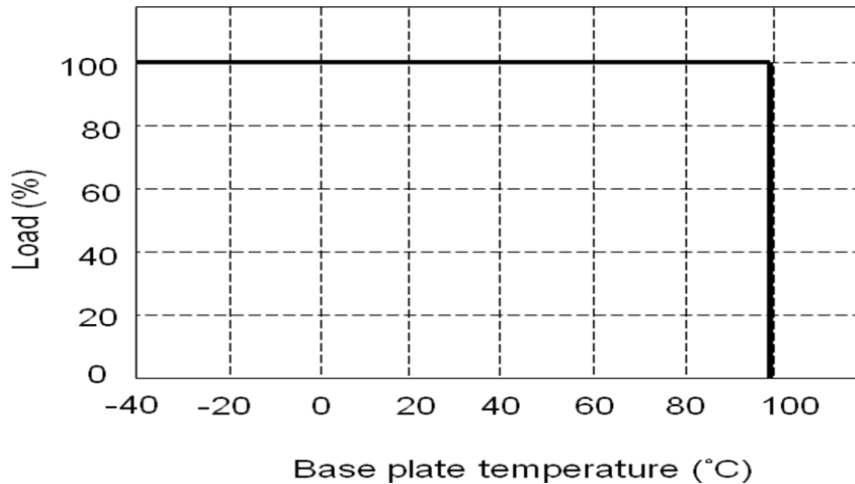
Environmental Specifications

Parameter	Conditions	Min.	Max.	Unit
Storage Temperature Range		-55	+125	°C
Operating Temperature Range	Case Temperature		+100	°C

SIMPLIFIED APPLICATION CIRCUIT

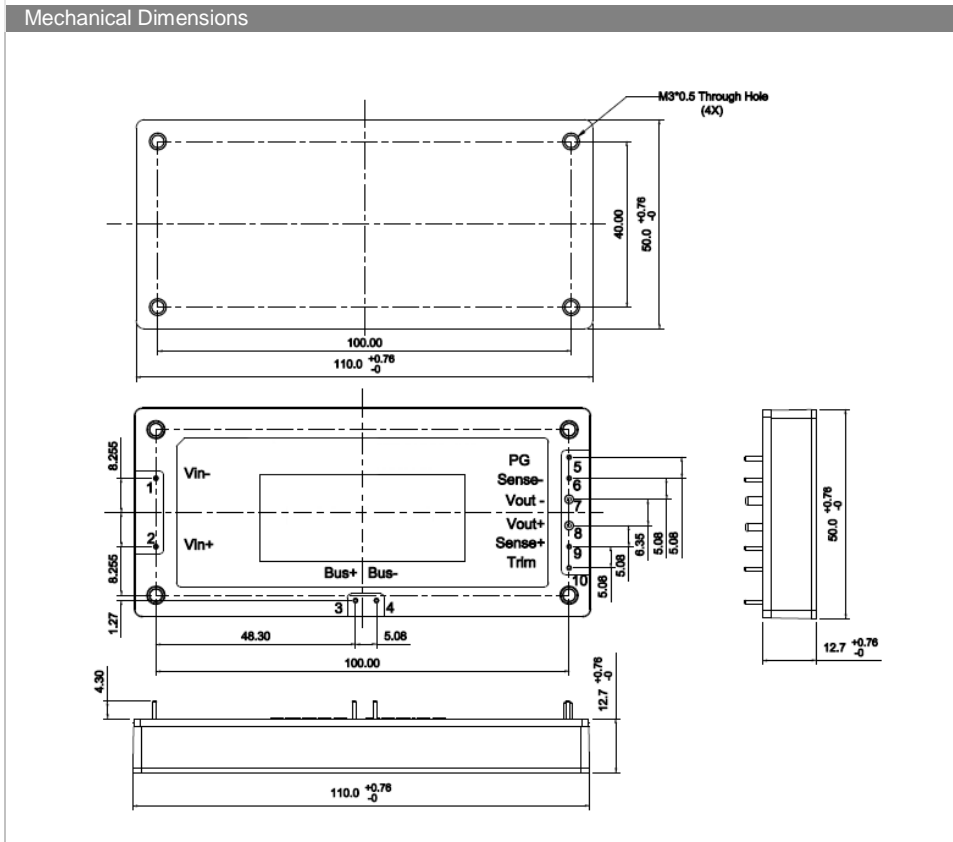


THERMALDERATING CURVE



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Mechanical Drawing



Pin Connection	
Pin	Function
1	INPUT -
2	INPUT +
3	BUS+
4	BUS-
5	PG
6	SENSE-
7	OUTPUT-
8	OUTPUT+
9	SENSE+
10	TRIM

All dimensions in mm (inches)
 Tolerance: X.X \pm 0.5 (X.XX \pm 0.02)
 X.XX \pm 0.25 (X.XXX \pm 0.010)