

ISOLATED 5W REGULATED OUTPUT DC/DC CONVERTERS
FEATURE

- n RoHS compliant
- n optional Metal case, Plastic case, Open frame
- n High efficiency to 80%
- n 85-265Vac, 100-360Vdc range voltage input
- n Uses no electrolytic and tantalum capacitors
- n Continuous short circuit protection
- n 2500VAC input to output isolation
- n Operating temperature range $-10\text{ }^{\circ}\text{C}$ to $70\text{ }^{\circ}\text{C}$



Order Code	Input Voltage	Output Voltage Vdc			Output Current mA			Ripple&Noise mV			%Eff. (Typ)
		Vout1	Vout2	Vout3	Vout1	Vout2	Vout3	Vout1	Vout2	Vout3	
MAA-5-5	85-265Vac	5			1000			50			75
MAA-5-12	85-265Vac	12			450			120			80
MAA-5-15	85-265Vac	15			350			120			80
MAA-5-24	85-265Vac	24			210			150			80
MAA-5-48	85-265Vac	48			110			150			80
MAA-5D-5	85-265Vac	5	-5		500	500		50	50		75
MAA-5D-12	85-265Vac	12	-12		220	220		120	120		80
MAA-5D-15	85-265Vac	15	-15		180	180		120	120		80
MAA-5D-24	85-265Vac	24	-24		55	55		150	150		80
MAA-5D-L1	85-265Vac	5	5		700	300		50	50		75
MAA-5D-M1	85-265Vac	5	12		600	250		50	120		78
MAA-5D-N1	85-265Vac	5	15		600	150		50	120		78
MAA-5D-A1	85-265Vac	5	24		600	100		50	120		78
MAA-5D-O1	85-265Vac	12	12		320	100		120	120		78
MAA-5D-P1	85-265Vac	12	15		300	100		120	120		78
MAA-5D-B1	85-265Vac	12	24		210	100		120	150		80
MAA-5D-Q1	85-265Vac	15	15		230	100		120	120		80
MAA-5T-R1	85-265Vac	5	5	-5	800	100	100	50	50	50	75
MAA-5T-F1	85-265Vac	5	12	-12	600	100	100	50	120	120	80
MAA-5T-G1	85-265Vac	5	15	-15	600	100	100	50	120	120	80

ISOLATED 5W REGULATED OUTPUT DC/DC CONVERTERS
INPUT CHARACTERISTICS

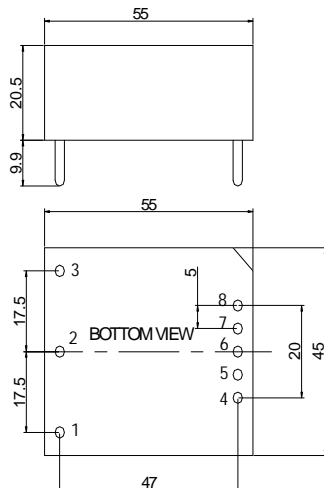
Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage range	Over all operating resistive load	85	220	265	Vac
	Over all operating resistive load	100	300	360	Vdc

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage Accuracy				±1	%
Line Regulation	Low line to high line			±0.5	%
Load Regulation	10% total load to 100% total load			±0.5	%
Temperature Coefficient				±0.03	%
Output Current Limit		110%~150% Nominal Output			
Short Circuit Protection		Continuous			
Ripple and Noise	20MHz BW			1%Vo	mVp-p
Transient Response	25% Step Load Change	Error band		±5%	Vo,nom
		Recovery Time		400	uS

GENERAL CHARACTERISTICS

Efficiency	See Table
Isolation Voltage(P-S,1min,5mA)	2500Vac min.
Operation Ambient Temperature Range	-10°C ~70°C
Derating	Above55°C,Linearly to Zero Power at +70°C
Cooling	Natural Convection
Storage Temperature Range	-40°C to +85°C
Humidity	90%RH max. Non condensing
MTBF	MIL-STD-217F,GB,25°C,Full Load 200K.hrs Typ
Weight	30g

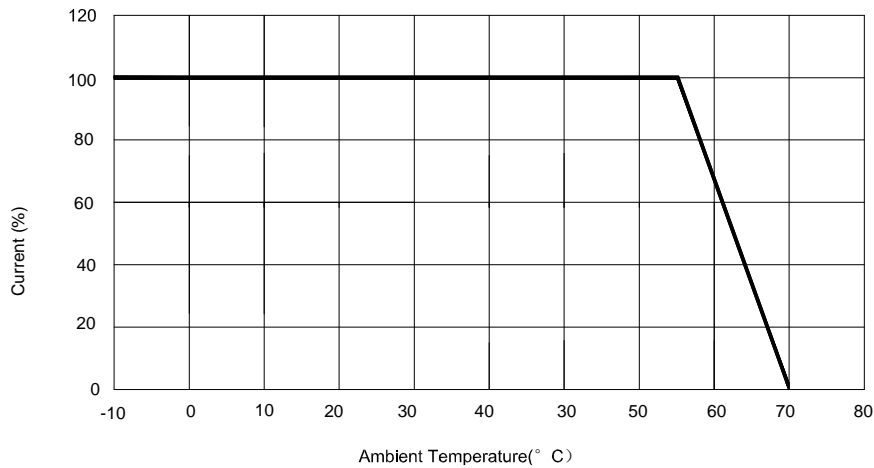
MECHANICAL DIMENSIONS & PIN CONNECTION


DIMENSIONS IN MM(inches)
Tolerance .XX=±0.02
.XXX=±0.005

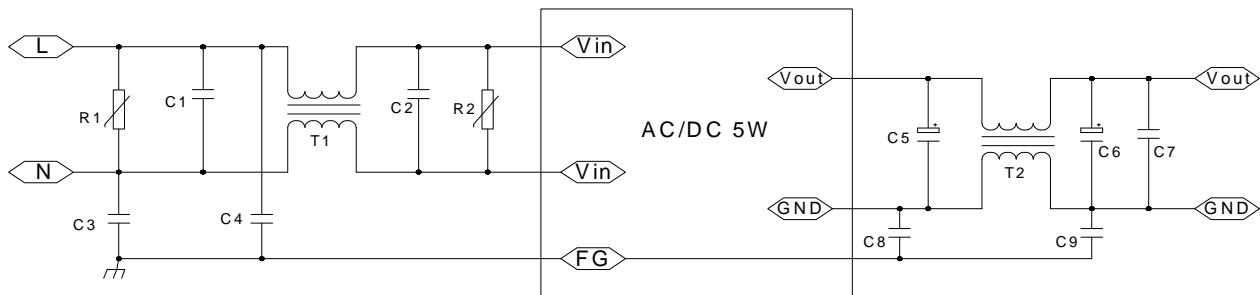
Pin	Single	Dual	Dual iso.	Trip
1	FG	FG	FG	FG
2	Vin	Vin	Vin	Vin
3	Vin	Vin	Vin	Vin
4	GND	Vout2	- Vout1	GND
5	No Pin	No Pin	+ Vout1	Vout1
6	No Pin	GND	No Pin	Vout3
7	No Pin	No Pin	- Vout2	COM
8	Vout1	Vout1	+ Vout2	Vout2

ISOLATED 5W REGULATED OUTPUT DC/DC CONVERTERS

MAA-5X Series Derating Curve



Application circuit



NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to min. Load
3. Maximum case temperature under any operating condition should Not be exceeded 100°C
4. The output ripple and noise is measured with 10uF tantalum and 1 uF Ceramic capacitor across output.
5. All Specifications Typical at Nominal Line, Full Load, and 25°C Unless Otherwise Noted.