

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-305VAC
- High Efficiency up to 90%
- Isolation Class II
- <0.3W No Load Input Power
- Very Small 1.77" x 2.52" x 0.92 " Package
- Screw Terminal and Din Rail Kit For Optional
- CE, CB, UL, cUL Approval
- 3-Year Product Warranty


ELECTRICAL SPECIFICATIONS

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Single Output)	MTC30-5S	MTC30-12S	MTC30-15S	MTC30-24S	
Max Output Wattage (W)	25W	30W	30W	30W	
Input	Voltage (Note1) 90-264 VAC				
	Frequency (Hz) 47-440 Hz				
	Current (Full load) 600 mA max. (115 VAC) /400 mA max. (230 VAC)				
	Inrush Current (<2ms) 30 A max. (115 VAC) / 60 A max. (230 VAC)				
	Leakage Current 0.25 mA max.				
	No Load Input Power (<240 VAC) <0.3W				
	External Fuse (recommend) 3.15 A slow blow type				
Output	Voltage (V.DC.)	5V	12V	15V	24V
	Voltage Accuracy	±2%			
	Current (mA) max	5000	2500	2000	1250
	Line Regulation (LL-HL) (typ.)	±0.5%			
	Load Regulation (10-100%) (typ.)	±1%			
	Maximum Capacitive Load	Pending	Pending	Pending	Pending
	Ripple & Noise (max.) (Note2)	100mVp-p	150mVp-p	150mVp-p	240mVp-p
	Efficiency (at 230 VAC)	84%	89%	87%	86%
Hold-up Time	10 ms min.				
Protection	Over Power Protection	Hiccup technique, auto-recovery			
	Over Voltage Protection	Zener diode clamp			
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)			
Isolation	Input-Output (V.AC)	4000V			
Environment	Operating Temperature	-40°C...+80°C (Case Temperature max. +95°C)			
	Storage Temperature	-40°C...+90°C			
	Max Case Operating Temperature	Under 115 VAC 78°C , others 85°C			
	Temperature Coefficient	±0.02%/°C			
	Humidity	95% RH			
	MTBF	>250,000 h @ 25°C (MIL-HDBK-217F)			
Physical	Dimension (L x W x H)	2.52 x 1.77 x 0.92 Inches (64.0 x 45.0 x 23.5 mm) Tolerance ±0.5 mm			
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)			
	Weight	130 g			
	Cooling Method	Free air convection			

ELECTRICAL SPECIFICATIONS

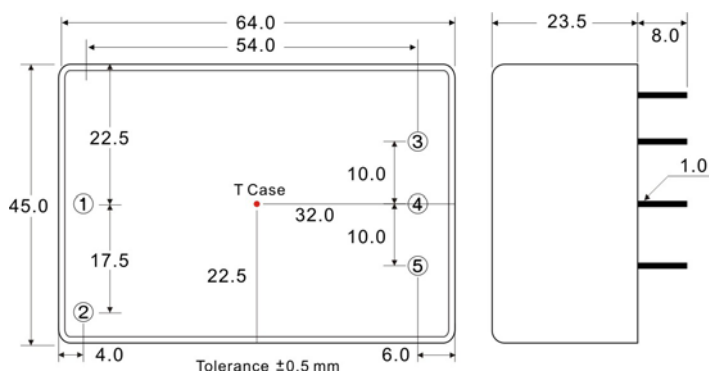
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Single Output)	MTC30-5S	MTC30-12S	MTC30-15S	MTC30-24S
Safety	Protection Class II	IEC/EN 60536		
	Approval	IEC/EN 60950-1, 60601-1 3rd, 2XMOPP cUL/UL 60950-1, 60601-1 3rd, 2XMOPP, UL 508 listed		
EMC	Conducted and radiated EMI	EN55011, EN55022, FCC part 15		
	ESD	EN61000-4-2 air ± 8kV , Contact ± 4kV		
	Radiated Immunity	EN61000-4-3 10V/m		
	Fast Transient	EN61000-4-4 ± 2kV		
	Surge	EN61000-4-5 ±1kV		
	Conducted Immunity	EN61000-4-6 10Vrms		
	PFMF	EN61000-4-8 30A/m		
	Dips	EN61000-4-11 30% 10ms		
Interruption	EN61000-4-11 >95% 5000ms			

NOTE

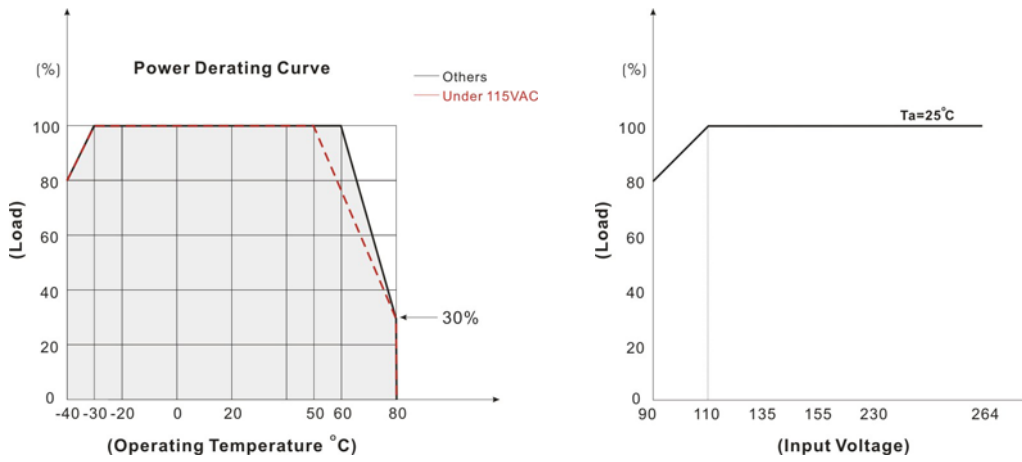
- This product is not designed for use in critical life support systems, equipment used in hazardous environment, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet.**
- Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- Safety approvals cover frequency 47-63 Hz.
- That “natural convection” is about 20LFM but is not equal to still air (0 LFM).

MECHANICAL DIMENSION (Top View)



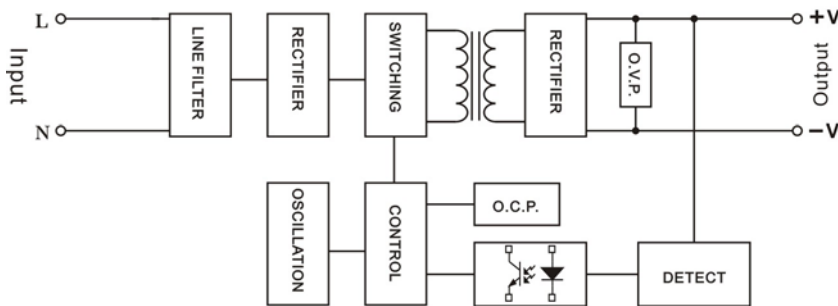
PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

DERATING



BLOCK DIAGRAM

Single Output

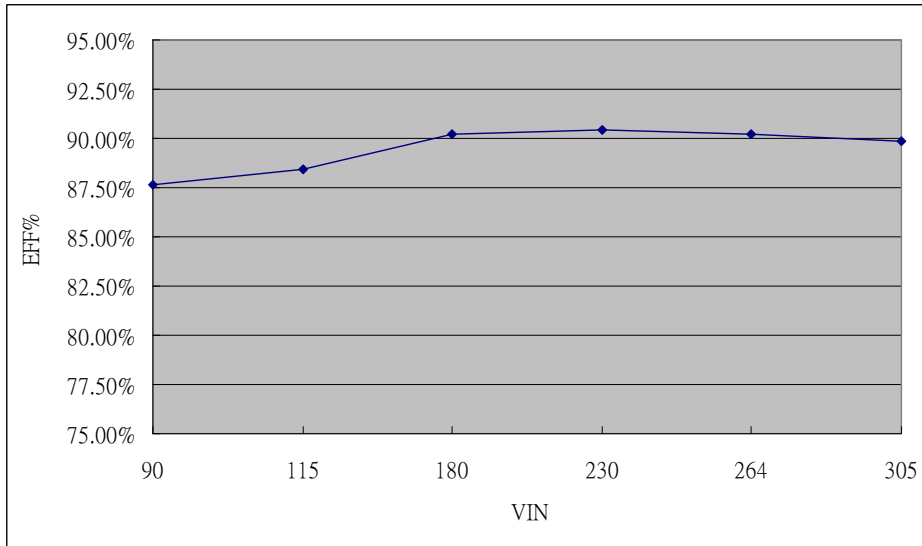


EFFICIENCY VERSUS LOAD

MTC30-12S

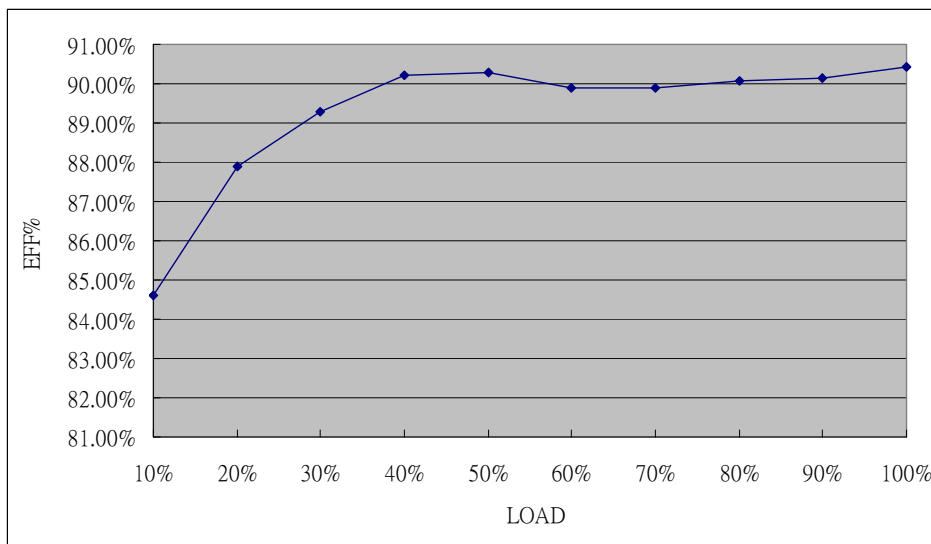
VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264	305
Efficiency (%)	87.6	88.4	90.2	90.4	90.2	89.9



LOAD VS Efficiency

Load (%)	10	20	30	40	50	60	70	80	90	100
230V (%)	84.6	87.9	89.3	90.2	90.3	89.9	89.9	90.1	90.1	90.4

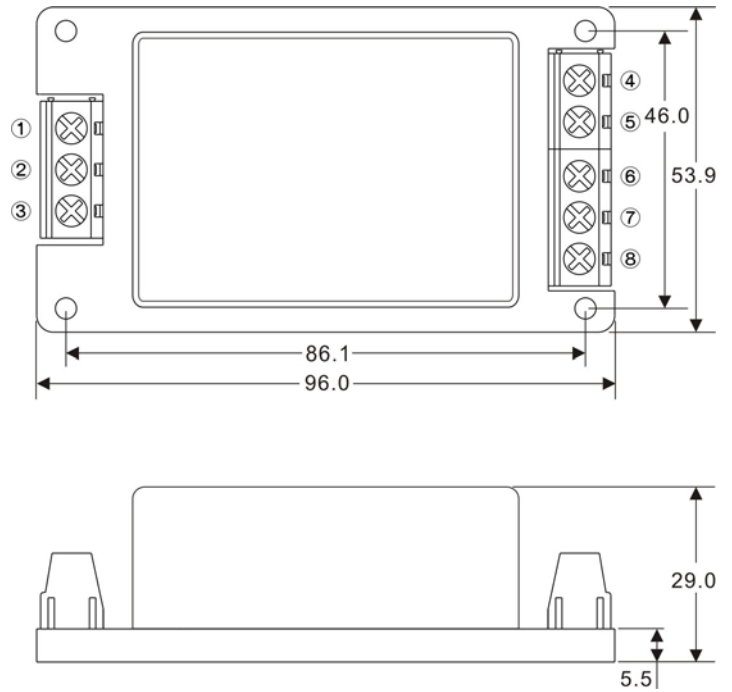


SCREW TERMINAL

MTC30-A2



PIN#	Single
1	AC IN (N)
2	NO CONNECT
3	AC IN (L)
4.	NO CONNECT
5	-DC OUT
6	NO CONNECT
7	+DC OUT
8	NO CONNECT



Din Rail Kit

MTC30-A2-DN

