

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC
- Regulated Output and Low Ripple and Noise
- <0.15W No Load Input Power
- Isolation Class II
- 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 (Note 1) 90-264 VAC or 120-370 VDC				
	Frequency (Hz) 47-440 Hz				
	Current (Full load) 650 mA max. (115 VAC) / 400 mA max. (230 VAC)				
	Inrush current (<2ms, Cold Start) 30 A max. (115 VAC) / 60 A max. (230 VAC)				
	Leakage Current < 0.1mA / 264 VAC (Touch Current)				
	No Load Input Power (<240 VAC) <0.15W				
	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 (at 230 VAC)	6800uF	1600uF	1200uF	470uF
	Ripple & Noise (max.) (Note 2)	100mVp-p	150mVp-p	150mVp-p	240mVp-p
	Efficiency (at 230 VAC)	84%	89%	86%	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 (with derating)			
	Storage Temperature	-40°C...+90°C			
	Max Case Operating Temperature	Under 115 VAC 78°C , others 85°C			
	Temperature Coefficient	±0.05%/°C			
	Altitude During Operation	5000m			
	Humidity	up to 95% RH			
	MTBF	>250,000 h @ 25°C (MIL-HDBK-217F)			
	Atmospheric Pressure	70 kPa to 106 kPa			
Physical	Dimension (L x W x H)	2.52 x 1.8 x 0.93 Inches (64.1 x 45.6 x 23.5 mm) Tolerance ±0.5 mm			
	Case Material	Plastic resin (flammability to UL 94V-0)			
	Weight	135 g			
	Cooling Method	Free air convection			

ELECTRICAL SPECIFICATIONS

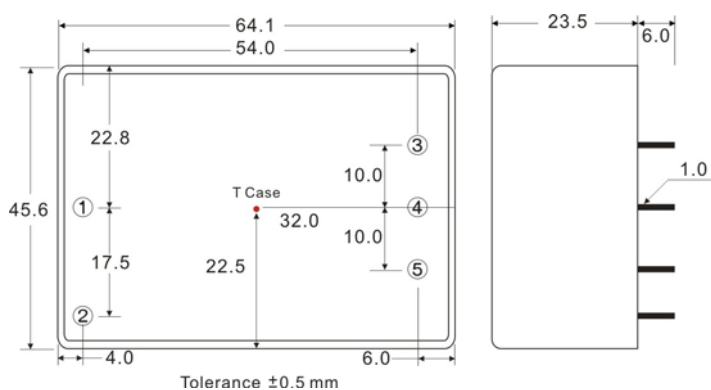
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Single Output)	MTC30-5S	MTC30-12S	MTC30-15S	MTC30-24S
Safety	Approval cUL / UL Standard: UL 60950-1, CAN/CSA C22.2 No. 60950-1-07 ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10), CAN/CSA-C22.2 No. 60601-1 (2008), 2 x MOPP CB Standard: IEC 60950-1:2005 (2nd Edition) + Am 1:2009 + Am 2:2013 IEC 60601-1:2005 (3rd Edition) + CORR. 1 (2006) + CORR. 2 (2007) + AM1 (2012) or IEC 60601-1 (2012 reprint), 2 x MOPP			
EMC	Conducted and radiated EMI	EN55011 class B (Radiation Class A for MTC30 A2 Series)		
	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

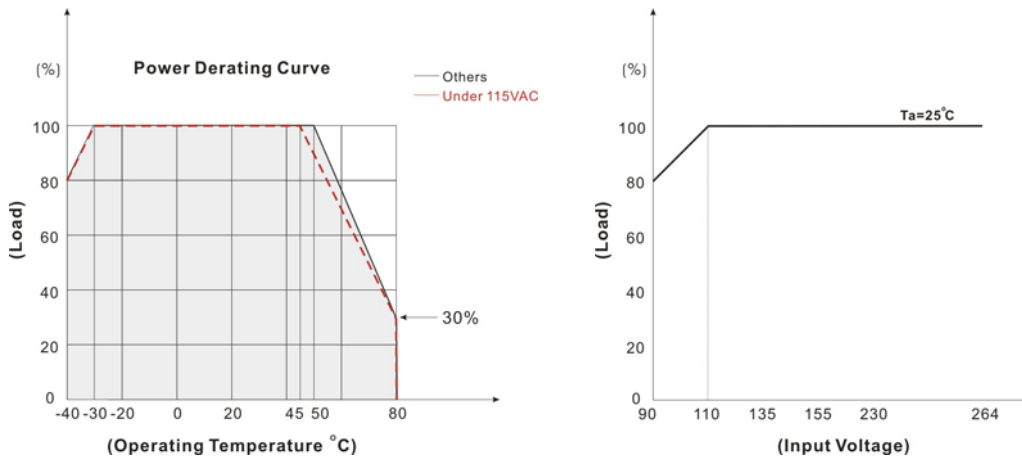
- This product is not designed for use in critical life support systems, equipment used in hazardous environment, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet.**
- Ripple & Noise are measured at 20MHz 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).
- It's recommended to add Varistor 14S471K at L / N input side in parallel.
- Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

MECHANICAL DIMENSION (Top View)



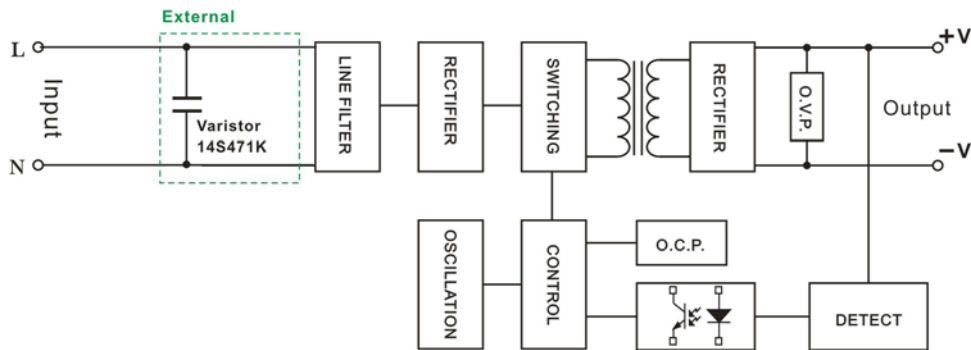
PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

DERATING



BLOCK DIAGRAM

Single Output



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

