

**MTC30 SERIES**
**30 Watts**
**KEY FEATURES**

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC
- Regulated Output
- 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				
	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 1)	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	84°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	540 hPa to 1060 hPa			
Physical	Dimensions (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			

**MTC30 SERIES**

**30 Watts**

**ELECTRICAL SPECIFICATIONS**

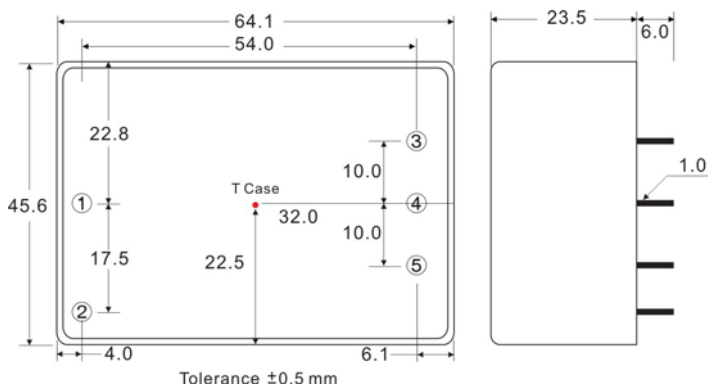
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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)		
	EMS	EN60601-1-2 4th edition		

**NOTE**

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Safety approvals cover frequency 47-63 Hz.
3. That “natural convection” is about 20LFM but is not equal to still air (0 LFM).
4. It's recommended to add Varistor 14S471K at L / N input side in parallel.

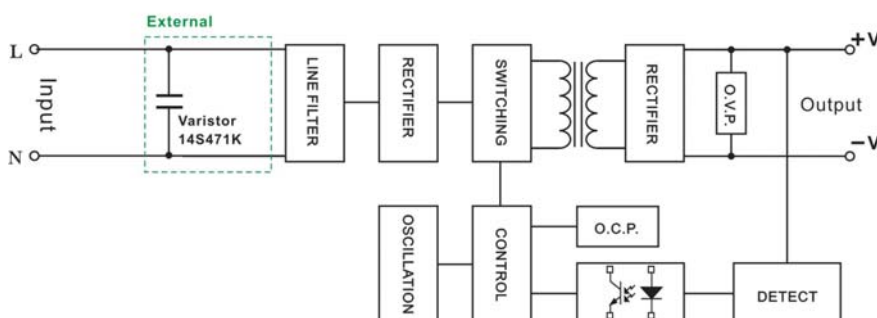
**MECHANICAL DIMENSIONS ( Top View )**



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

**BLOCK DIAGRAM**

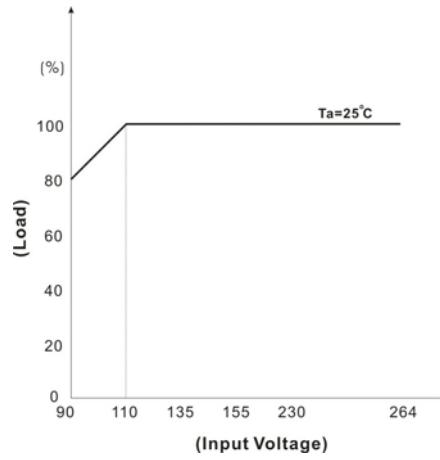
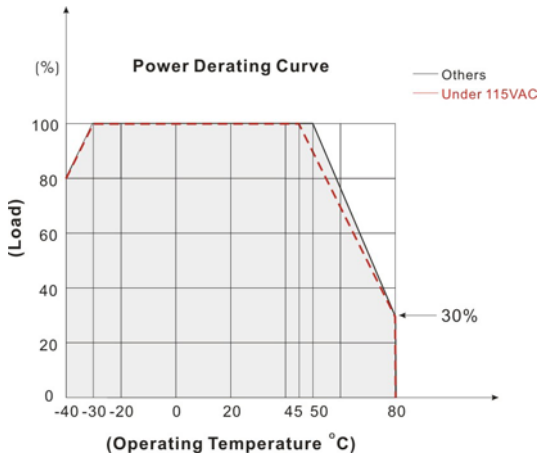
Single Output



**MTC30 SERIES**

**30 Watts**

**DERATING**



**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

