

## 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			
	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				
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

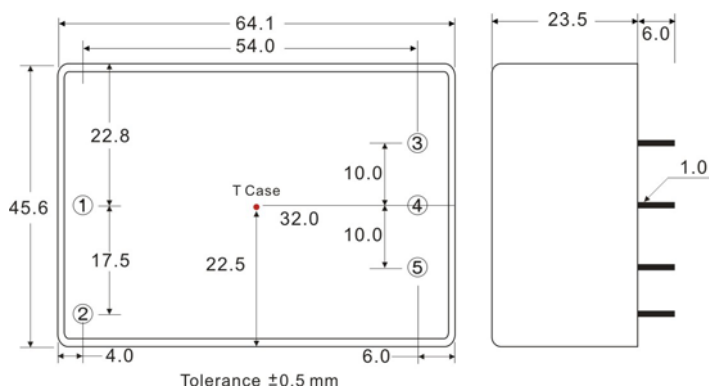
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Model No. ( Single Output )	MTC30-5S	MTC30-12S	MTC30-15S	MTC30-24S
Safety	Approval cUL / UL Standard: UL 60950-1, CAN/CSA C22.2 No. 60950-1-07 ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10), CAN/CSA-C22.2 No. 60601-1 (2008), 2 x MOPP CB Standard: IEC 60950-1:2005 (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.
5. Please refer to our PDF file "AC-DC Application" on our website: [www.archcorp.com.tw](http://www.archcorp.com.tw)

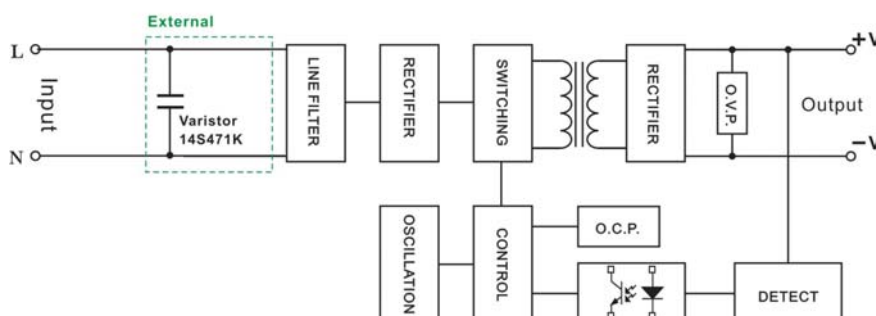
## MECHANICAL DIMENSION ( Top View )



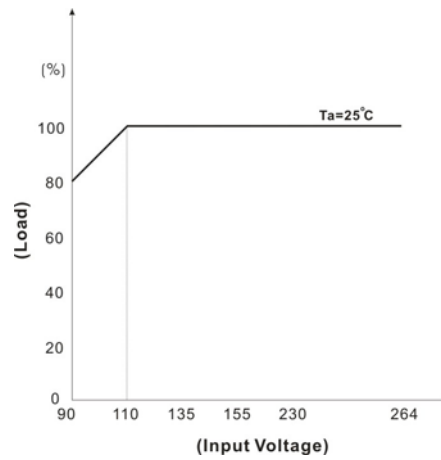
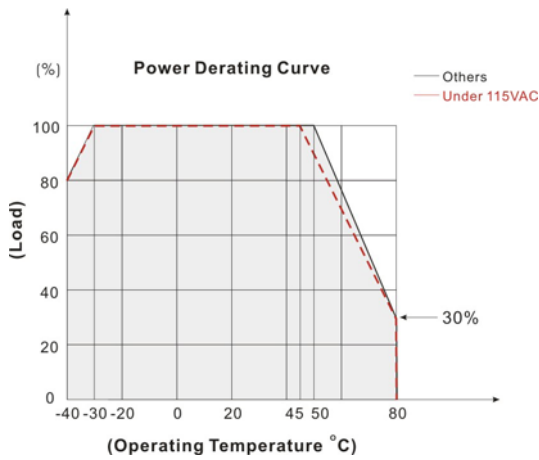
PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

## BLOCK DIAGRAM

Single Output



**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

