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



E308218

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		
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.)	5.1V	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 (automatic recovery)			
Isolation	Input-Output (V.AC)	4000V			
Environment	Operating Temperature (Note 5)	-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, Height Tolerance ±1 mm			
	Case Material	Plastic resin (flammability to UL 94V-0)			
	Weight	135 g			
	Cooling Method	Free air convection			

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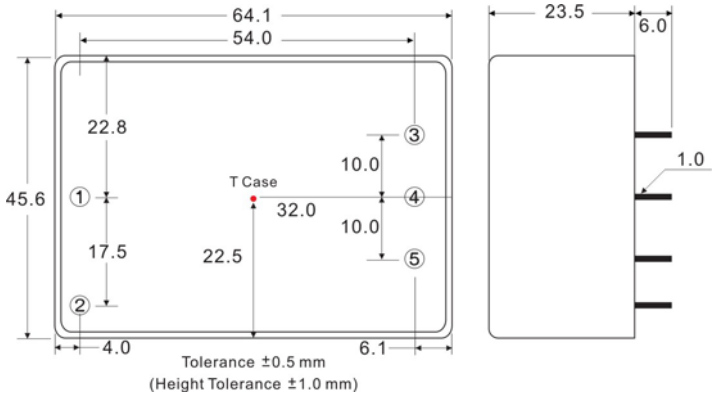
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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.
5. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.
6. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

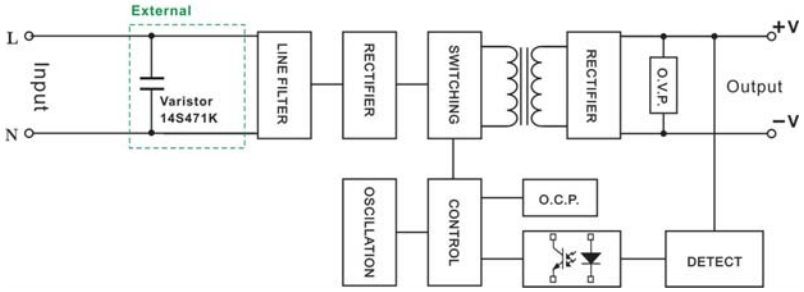
MECHANICAL DIMENSIONS (Top View)



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

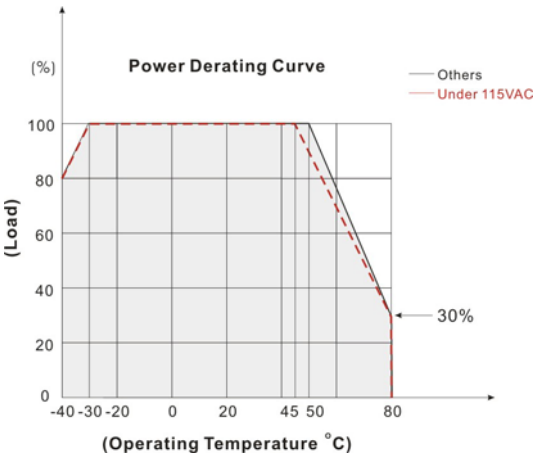
BLOCK DIAGRAM

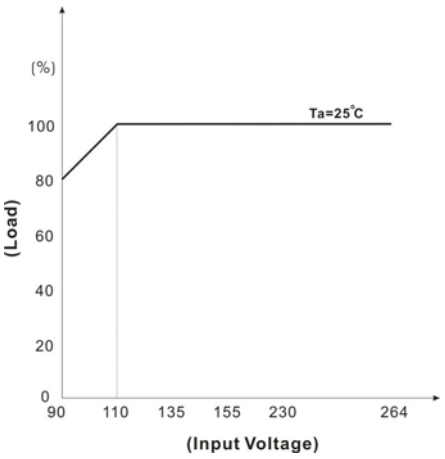
Single Output



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DERATING



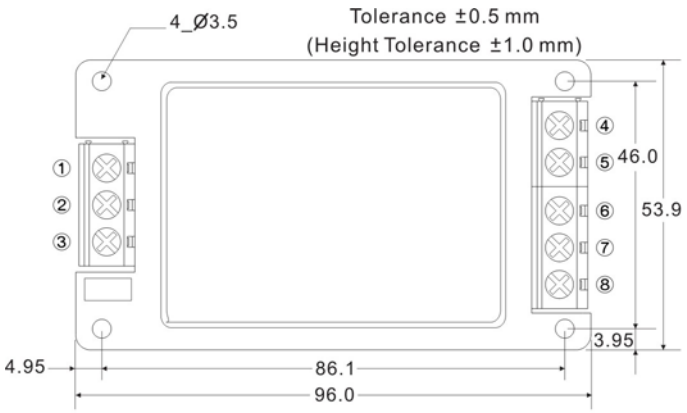


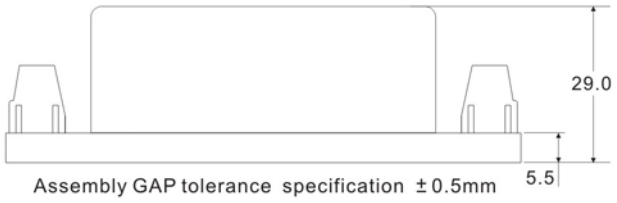
SCREW TERMINAL

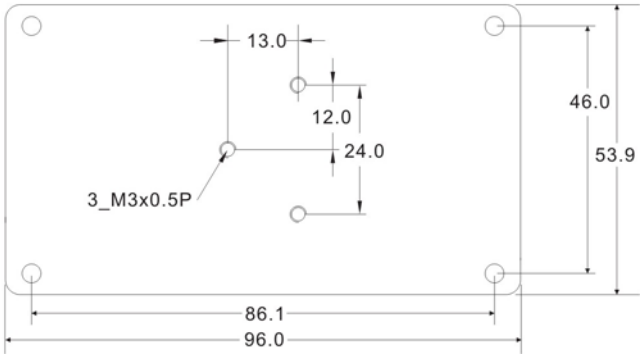
MTC30-A2



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







We reserve the right to make alterations in the product materials and specifications without prior notification and consent to improve reliability, function or design or otherwise.