

## KEY FEATURES

- Switching Power Modules for PCB Mounting
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output
- Low Ripple and Noise
- Isolation Class II
- UL60601-1 / IEC60601-1 / EN60601-1 Medical Safety Approvals
- 3-Year Product Warranty



## ELECTRICAL SPECIFICATIONS

Model No. ( Single Output )	MTC-3.3S -E1	MTC-5S -E1	MTC-7.35S -E1	MTC-9S -E1	MTC-12S -E1	MTC-15S -E1	MTC-24S -E1
Max output wattage ( W )	9.9W	15W	15W	15W	15W	15W	15W
Output	Voltage (V.DC.)	3.3V	5V	7.35V	9V	12V	24V
	Current (mA) max	3000	3000	2040	1666	1250	625
	Voltage set accuracy	±2%	±2%	±2%	±2%	±2%	±2%
	Line regulation (max.)	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Load regulation (0-100%) (max.)	1%	1%	1%	1%	1%	1%
	Minimum load	0%	0%	0%	0%	0%	0%
	Efficiency (Typ)	75%	79%	79%	80%	81%	82%
	Maximum Capacitive Load (at 230 VAC)	40000 uF	10000 uF	4700 uF	3000 uF	1100 uF	820 uF

Model No. ( Dual Output )	MTC-5D-E1		MTC-12D-E1		MTC-15D-E1		
Max output wattage ( W )	15W		15W		15W		
Output		Output 1	Output 2	Output 1	Output 2	Output 1	Output 2
	Voltage (V.DC.)	+5V	-5V	+12V	-12V	+15V	-15V
	Current (mA) max	1500	1500	625	625	500	500
	Voltage set accuracy	±2%		±2%		±2%	
	Line regulation (max.)	0.5%		0.5%		0.5%	
	Load regulation (10-100%) (max.)	1% (symmetric load)		1% (symmetric load)		1% (symmetric load)	
	Cross regulation	5%		3%		3%	
	Minimum load	10%		10%		10%	
	Efficiency (Typ)	79%		82%		82%	
	Maximum Capacitive Load (at 230 VAC)	±4700 uF		±560 uF		±500 uF	

Model No. ( Triple Output )	MTC-5S12D-E1			MTC-5S15D-E1			
Max output wattage ( W )	15W			15W			
Output		Output 2	Output 3	Output 1	Output 2	Output 3	
	Voltage (V.DC.)	+12	-12	5	+15	-15	
	Current (mA) max	200	200	2000	150	150	
	Voltage set accuracy	±5%		±3%	±5%		
	Line regulation (max.)	2%		0.5%	2%		
	Load regulation (10-100%) (max.) (symmetric load)	5%		1%	5%		
	Cross regulation	5%		1%	5%		
	Minimum load	25%			25%		
	Efficiency (Typ)	78%			78%		
	Maximum Capacitive Load (at 230 VAC)	±470 uF		10000 uF	±600 uF		

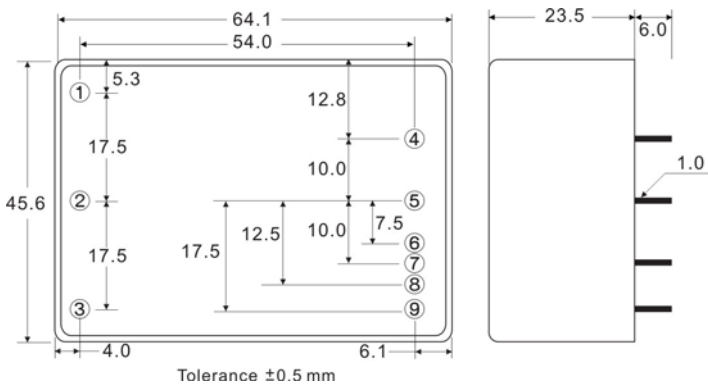
## ELECTRICAL SPECIFICATIONS

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

Input	Voltage	90-264 VAC or 120-375 VDC
	Frequency (Hz)	47-440 Hz
	Current (Full load)	292 mA max. (115 VAC) / 188 mA max. (230 VAC)
	Inrush current (<2ms)	10 A max. (115 VAC) / 20 A max. (230 VAC)
	Leakage Current	< 0.1mA / 264 VAC (Touch Current)
	External fuse (recommend)	2.0 A slow blow type
Output	Ripple & Noise	1% of Vout
	Hold-up time	20 ms min.
Protection	Over current protection	Above 105% rated output power
	Over voltage protection	Zener diode clamp
	Short circuit protection	Hiccup mode, indefinite (automatic recovery)
	OTP	100°C
Isolation	Input-Output (V.AC)	4000V
Environment	Operating temperature	-40°C...+70°C (Case Temperature max. +95°C)
	Storage temperature	-40°C...+85°C
	Temperature coefficient	0.01%/°C
	Altitude During Operation	5000m
	Humidity	95% RH
	MTBF	200,000 h~400,000 h @ 25°C
	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	120 g
	Cooling method	Free air convection
Safety	Approval	cUL / UL Standard: ANSI/AAMI ES 60601-1: 2005 , CAN/CSA-C22.2 No. 60601-1:08 CB Standard: IEC 60601-1:2005 (Third Edition) + CORR. 1 (2006) + CORR. 2 (2007) + AM1 (2012) or IEC 60601-1 (2012 reprint)
EMC	Conducted and radiated EMI	EN55011 Conducted & Radiated Class B
	EMS	EN60601-1-2 4th edition

## NOTE

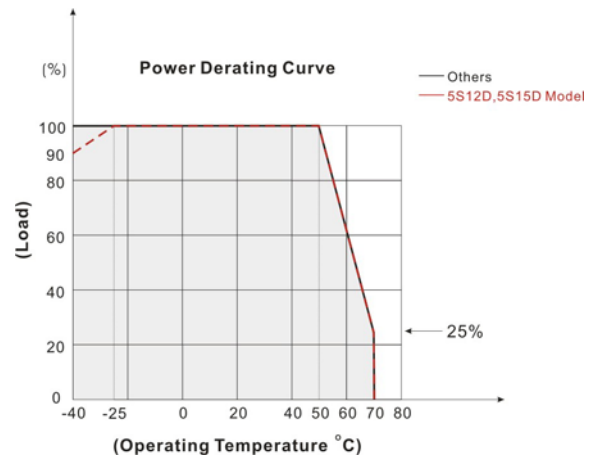
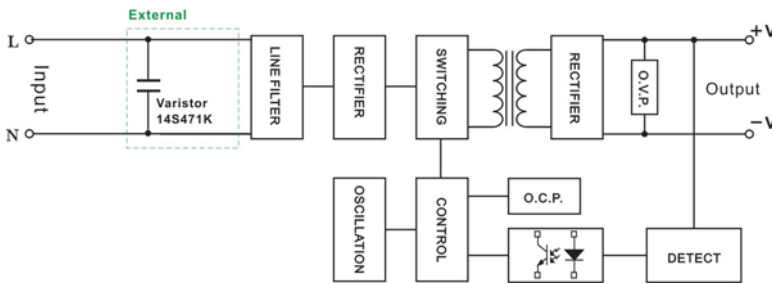
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's recommended to add Varistor 14S471K at L / N input side in parallel.
3. Please refer to our PDF file "AC-DC Application" on our website: [www.archcorp.com.tw](http://www.archcorp.com.tw)

**MECHANICAL DIMENSIONS (Top View)**


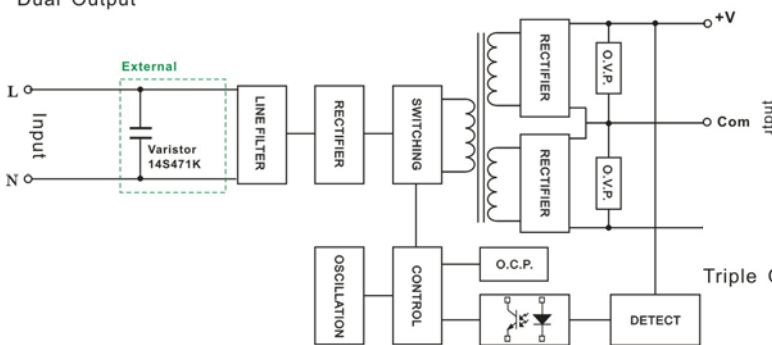
PIN#	Single	Dual	Triple
1	NO PIN	NO PIN	NO PIN
2	AC IN (L)	AC IN (L)	AC IN (L)
3	AC IN (N)	AC IN (N)	AC IN (N)
4	-DC OUT	-DC OUT	+5V RTN
5	NO PIN	COMMON	+5V OUT
6	NO PIN	NO PIN	-DC OUT
7	+DC OUT	+DC OUT	NO PIN
8	NO PIN	NO PIN	COMMON
9	NO PIN	NO PIN	+DC OUT

**BLOCK DIAGRAM**
**DERATING**

Single Output



Dual Output



Triple Output

