

**KEY FEATURES**

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC
- Regulated Output and Low Ripple and Noise
- <0.1W No Load Input Power
- Isolation Class II
- Small Size
- CE, CB, UL, cUL Approvals
- 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.	MFC15-5S	MFC15-9S	MFC15-12S	MFC15-15S	MFC15-24S	
Max Output Wattage (W)	15W					
Input	Voltage (Note 1)	90-264 VAC or 120-370 VDC, " N " to DC " + " ; " L " to DC " - "				
	Frequency (Hz)	47-440 Hz				
	Current (Full load)	385 mA max. (115 VAC) / 250 mA max. (230 VAC)				
	Inrush current (<2ms,Cold Start)	20 A max. (115 VAC) / 40 A max. (230 VAC)				
	Leakage Current	< 0.1mA / 264 VAC (Touch Current)				
	External fuse (recommend)	3.15 A slow blow type				
Output	Voltage (V.DC.)	5V	9V	12V	15V	24V
	Voltage Accuracy	±2%				
	Current (mA) max	3000	1666	1250	1000	625
	Maximum Capacitive Load (at 230 VAC)	7000uF	5000uF	1500uF	1000uF	470uF
	Line Regulation (LL-HL) (typ.)	±0.5%				
	Load Regulation (5-100%) (typ.)	±1%.				
	Ripple (Full load) (Note 2)	75mV max (Vp-p)		1% of Vout		
	Noise (Full load) (Note 2)	120mV max (Vp-p)		1% of Vout		
	Efficiency (at 230 VAC)	79%	80%	84%	84%	85%
Hold-up Time(typ)	15 ms (115VAC) / 56ms (230VAC)					
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 83°C , others 90°C				
	Temperature Coefficient	±0.05%/°C				
	Altitude During Operation	5000m				
	Humidity	up to 95% RH				
	MTBF	>350,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Atmospheric Pressure	70 kPa to 106 kPa				
	Dimension (L x W x H)	2.07 x 1.08 x 0.93 Inches ( 52.5 x 27.5 x 23.5 mm ) Tolerance ±0.5 mm				
	Case Material	Plastic resin (flammability to UL 94V-0)				
	Weight	60 g				
Cooling Method	Free air convection					

**ELECTRICAL SPECIFICATIONS**

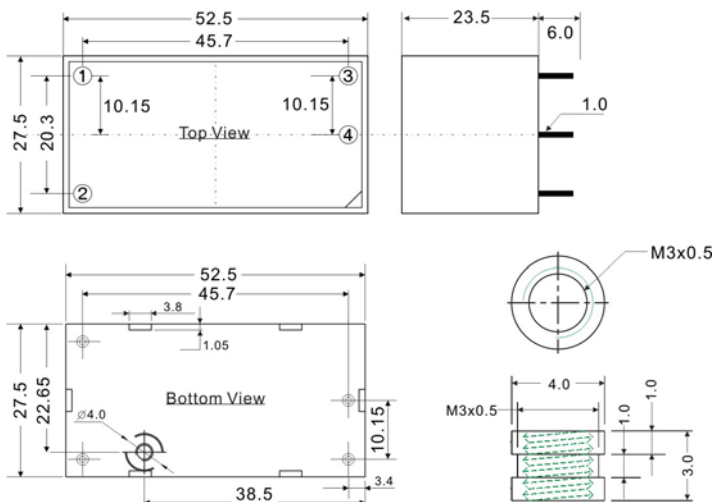
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No.	MFC15-5S	MFC15-9S	MFC15-12S	MFC15-15S	MFC15-24S
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 MFC15 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](http://www.archcorp.com.tw)

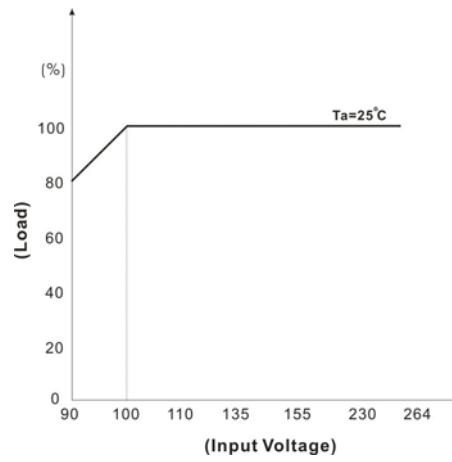
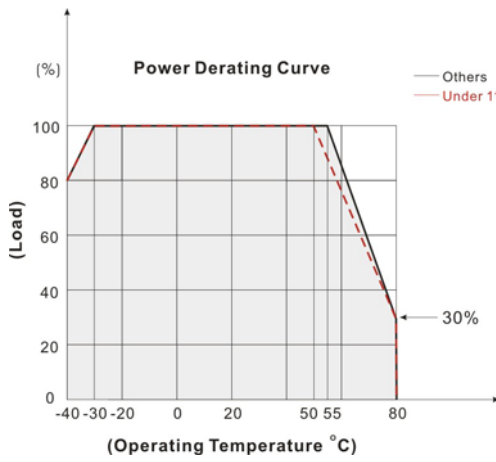
**MECHANICAL DIMENSION**



PIN#	Single
1	AC IN (L)
2	AC IN (N)
3	+DC OUT
4	-DC OUT

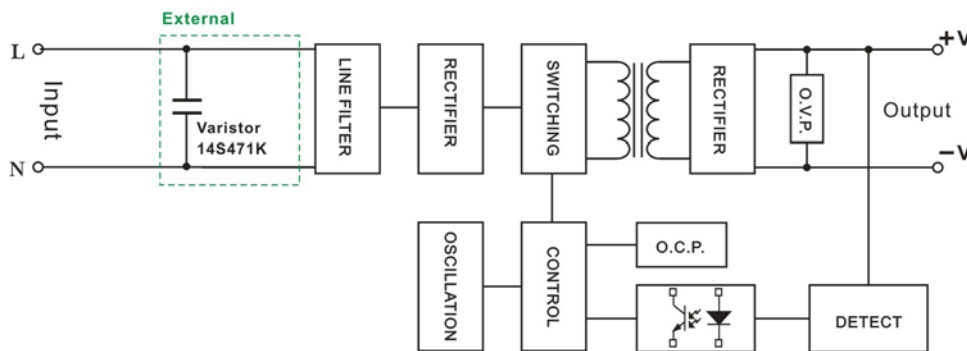
Maximum Torque 1 2 { 1.2 1 } ( k g f . c m { N . m } )

**DERATING**



**BLOCK DIAGRAM**

Single Output



SCREW TERMINAL

MFC15-A2



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

