

MFC15 SERIES

15 Watts

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC
- Regulated Output
- Low Ripple and Noise
- <0.1W 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	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 1)	75mV max (Vp-p)		1% of Vout		
	Noise (Full load) (Note 1)	120mV max (Vp-p)		1% of Vout		
	Efficiency (at 230 VAC)	79%	80%	84%	84%	85%
Protection	Hold-up Time(typ)	15 ms (115VAC) / 56ms (230VAC)				
	Over Power Protection	Hiccup technique, auto-recovery				
	Over Voltage Protection	Zener diode clamp				
Isolation	Short Circuit Protection	Hiccup mode (automatic recovery)				
	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	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)				
	Atmospheric Pressure	540 hPa to 1060 hPa				
Physical	Dimensions (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				

MFC15 SERIES

15 Watts

ELECTRICAL SPECIFICATIONS

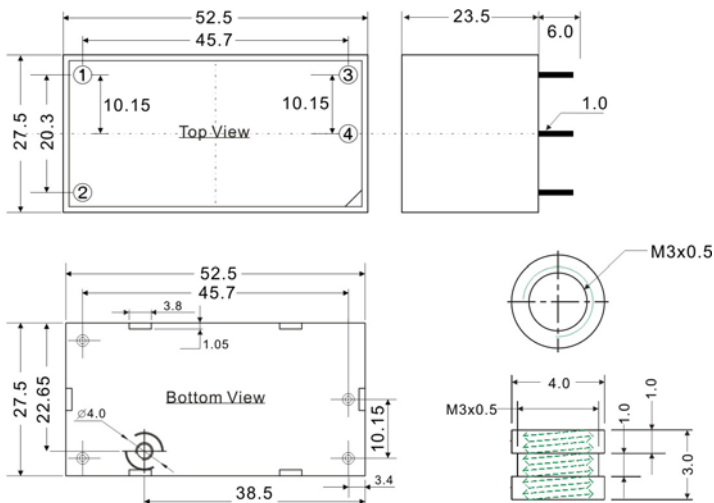
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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)				
	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

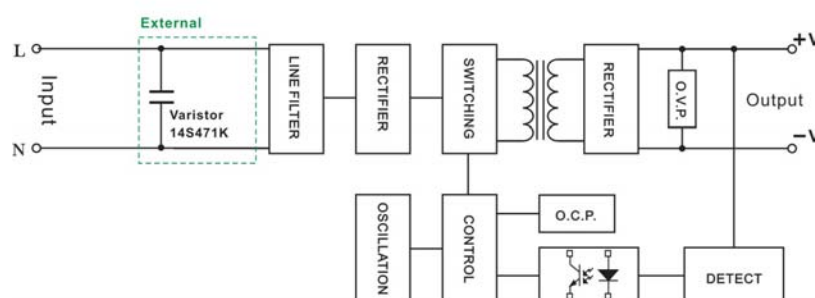


PIN#	Single
1	AC IN (L)
2	AC IN (N)
3	+DC OUT
4	-DC OUT

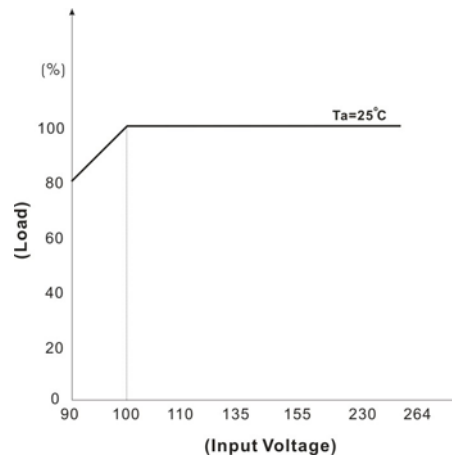
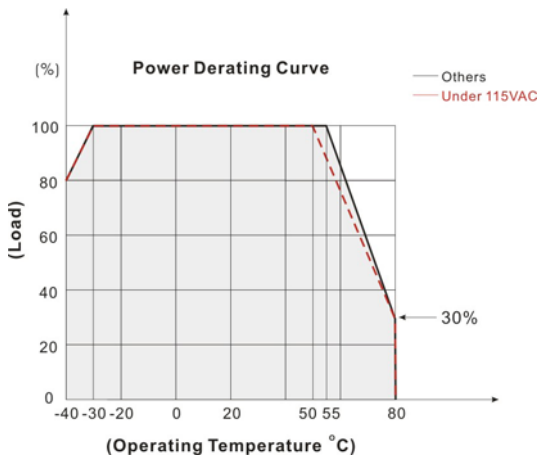
Maximum Torque 1 2 { 1.2 1 } (k g f . c m { N.m })

BLOCK DIAGRAM

Single Output



DERATING



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

