



Size: 2.07in x 1.08in x 0.93in (52.5mm x 27.5mm x 23.5mm)

FEATURES

- Universal Input Range of 90-264VAC or 120-370VDC
- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Isolation Class II
- Regulated Output
- Over Power, Over Voltage, and Short Circuit Protection
- CE, CB, UL, and cUL Approvals

DESCRIPTION

The PSMFC15 series of AC/DC medical power modules offers up to 15 watts of output power in a compact 2.07" x 1.08" x 0.93" package. This series consists of regulated single output models with a universal input range of 90-264VAC or 120-370VDC. Each model in this series has a fully encapsulated plastic case, over power, over voltage, and short circuit protection, and is also PCB mountable. This series has CE, CB, UL, and cUL approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple	Noise	Maximum Capacitive Load	Efficiency	Output Power
PSMFC15-5	90-264VAC (120-370VDC)	5V	3000mA	75mVp-p	120mVp-p	7000μF	79%	15W
PSMFC15-9		9V	1666mA	75mVp-p	120mVp-p	5000μF	80%	
PSMFC15-12		12V	1250mA	1%	1%	1500μF	84%	
PSMFC15-15		15V	1000mA	1%	1%	1000μF	84%	
PSMFC15-24		24V	625mA	1%	1%	470μF	85%	

SPECIFICATIONS

All specifications are based on 25°C after warm up, Normal Input Voltage, and Full Load unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION		TEST CONDITIONS		Min	Typ	Max	Unit
INPUT SPECIFICATIONS							
Input Voltage Range ⁽¹⁾	“N” to DC “+”; “L” to DC “-“	90		264	VAC		
		120		370	VDC		
Input Frequency		47		440	Hz		
Input Current	Full Load, 115VAC			385	mA		
	Full Load, 230VAC			250			
Inrush Current	<2ms, Cold Start, 115VAC			20	A		
	<2ms, Cold Start, 230VAC			40			
Leakage Current	264VAC (Touch Current)			0.1	mA		
External Fuse (Recommended)		3.15A Slow Blow Type					
OUTPUT SPECIFICATIONS							
Output Voltage		See Table					
Voltage Accuracy			±2		%		
Line Regulation	LL-HL		±0.5		%		
Load Regulation	5-100%		±1		%		
Output Power		See Table					
Output Current		See Table					
Maximum Capacitive Load		See Table					
Ripple & Noise ⁽²⁾	Full Load	See Table					
Hold Up Time	115VAC		15		ms		
	230VAC		56				
Temperature Coefficient			±0.0		%/°V		
PROTECTION							
Short Circuit Protection	Hiccup Mode, Indefinite	Automatic Recovery					
Over Power Protection	Hiccup Technique	Automatic Recovery					
Over Voltage Protection		Zener Diode Clamp					
ENVIRONMENTAL SPECIFICATIONS							
Operating Temperature	With derating	-40		85	°C		
Storage Temperature		-40		90	°C		
Max Case Operating Temperature	Under 115VAC			83	°C		
	Others			90			
Humidity				95	%RH		
Altitude	During Operation		5000		m		
Atmospheric Pressure		70		106	kPa		
MTBF	@25°C (MIL-HDBK-217F)	350,000			Hours		

SPECIFICATIONS

All specifications are based on 25°C after warm up, Normal Input Voltage, and Full Load unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
GENERAL SPECIFICATIONS					
Efficiency	@230VAC	See Table			
Isolation	Input-Output		4000		VAC
PHYSICAL SPECIFICATIONS					
Weight		2.12oz (60g)			
Dimensions (L x W x H)		2.07in x 1.08in x 0.93in (52.5mm x 27.5mm x 23.5mm)			
Case Material		Plastic Resin (Flammability to UL 94V-0)			
Cooling Method ⁽³⁾		Free Air Convection			
SAFETY CHARACTERISTICS					
Safety Approvals ⁽⁴⁾	CE, CB, UL ⁽⁵⁾ , cUL ⁽⁵⁾				

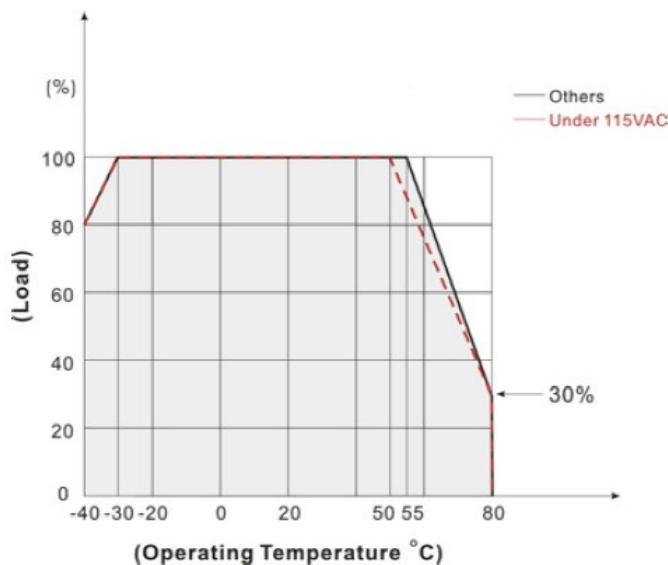
NOTES

1. 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 than the ones listed in this datasheet.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
3. Natural convection is about 20LFM but is not equal to still air (0 LFM).
4. Safety approvals cover frequency 47-63Hz.
5. It is recommended to add Varistor 14S471K at L/N input side in parallel.
6. This product is Listed to applicable standards and requirements by UL.

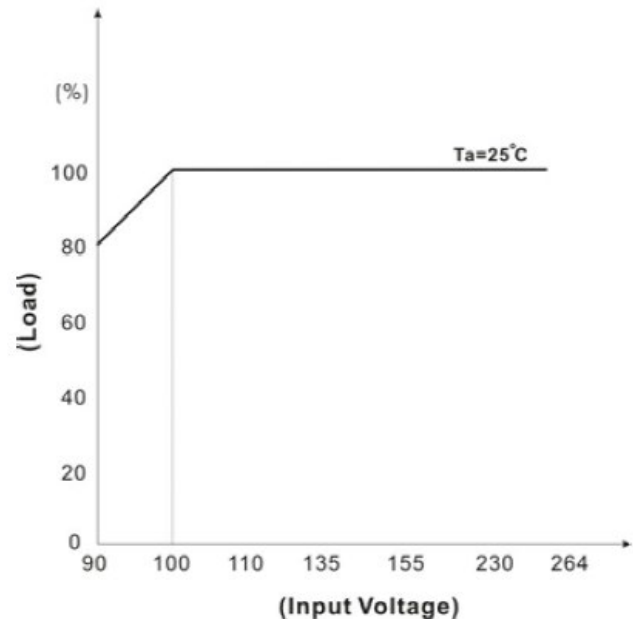
*Due to advances in technology, specifications subject to change without notice.

DERATING CURVES

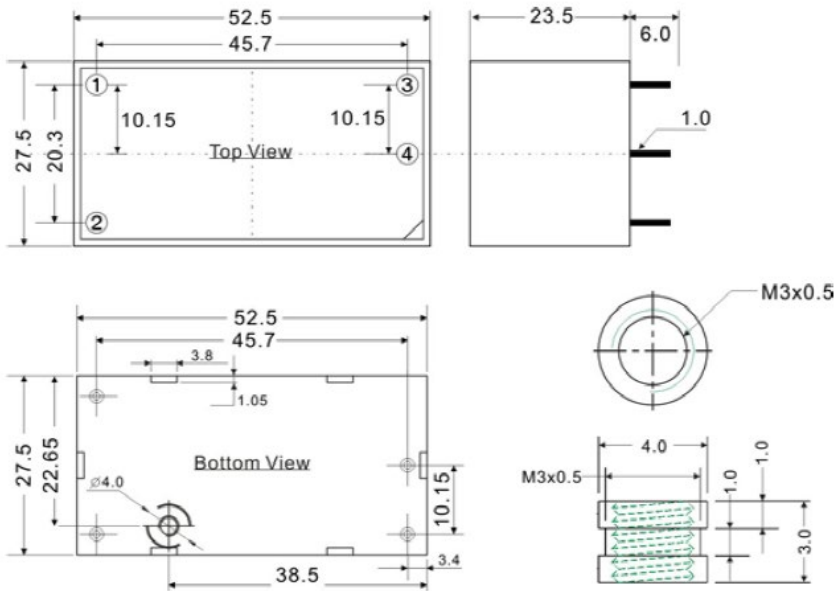
Power Derating Curve



Input Voltage vs. Load



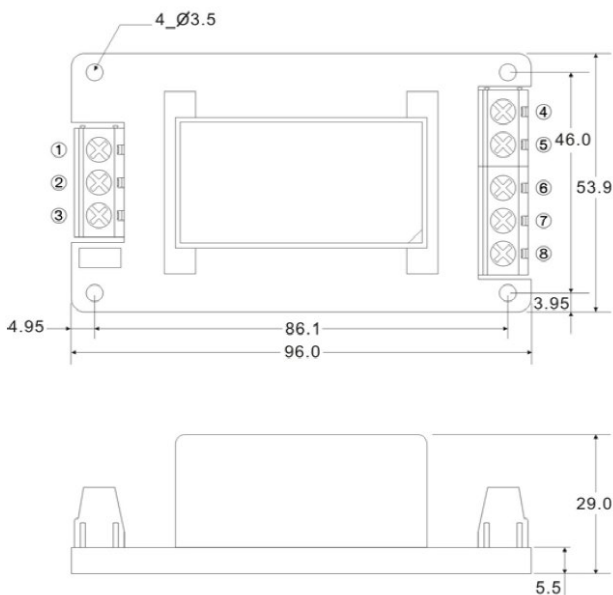
MECHANICAL DRAWINGS



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

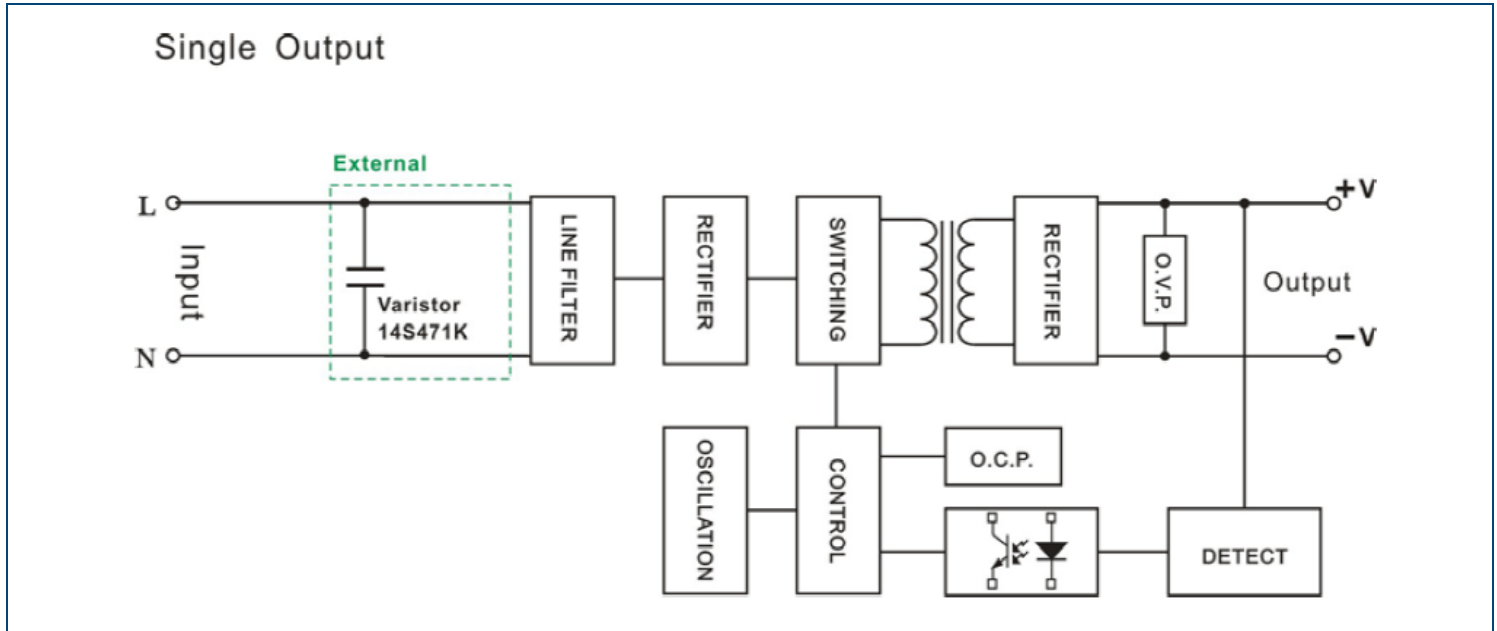
Maximum Torque 12 {1.21} (kgf.cm {N.m})

SCREW TERMINAL ("-S" Suffix)



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



BLOCK DIAGRAM**COMPANY INFORMATION**

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

Contact **Wall Industries** for further information:

Phone: ☎(603)778-2300
Toll Free: ☎(888)597-9255
Fax: ☎(603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833

©2019 Wall Industries, Inc. Specifications subject to change without notice. Wall Industries is not responsible for typographical errors. The information contained herein is for informational purposes only. This information is provided by Wall Industries and we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this document for any purpose. All product and manufacturer names are trademarks or registered trademarks of their respective companies.