



Size: 2.52in x 1.8in x 0.93in (64.1mm x 45.6mm x 23.5mm)

FEATURES

- Input Voltage of 90-264VAC (120-370VDC)
- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Optional Screw Terminal Available
- <0.15W No Load Input Power
- Isolation Class II
- Regulated Outputs
- Over Power, Over Voltage, and Short Circuit Protection
- CE, CB, UL, and cUL Approvals

DESCRIPTION

The PSTCM30 series of medical AC/DC power modules offers up to 30 watts of output power in a fully encapsulated 2.52" x 1.8" x 0.93" plastic case. This series consists of regulated single output models with universal input range of 90~264VAC and low ripple & noise. Each model in this series has over power, over voltage, and short circuit protection, isolation class II, and a screw terminal optional available. This series has CE, CB, UL, and cUL approvals.

MODEL SELECTION TABLE

Model Number ⁽²⁾	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise ⁽³⁾	Output Power	Maximum Capacitive Load	Efficiency	No Load Input Power
PSTCM30-5S	90-264VAC (120-370VDC)	5V	5000mA	100mVp-p	25W	6800µF	84%	<0.15W
PSTCM30-12S		12V	2500mA	150mVp-p	30W	1600µF	89%	
PSTCM30-15S		15V	2000mA	150mVp-p	30W	1200µF	86%	
PSTCM30-24S		24V	1250mA	240mVp-p	30W	470µF	86%	

SPECIFICATIONS

All specifications are based on 25°C after warm-up time, 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		90		264	VAC
		120		370	VDC
Input Frequency		47		440	Hz
Input Current	Full Load, @115VAC			650	mA
	Full Load, @230VAC			400	
No Load Input Power	No Load, <240VAC			0.15	W
Inrush Current(<2ms, Cold Start)	@115VAC			30	A
	@230VAC			60	
Leakage Current	@264VAC (Touch Current)			0.1	mA
External Fuse (Recommended)	Slow Blow Type		3.15		A
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy			±2		%
Line Regulation	LL-HL		±0.5		%
Load Regulation	10-100%		±1		%
Output Power		See Table			
Output Current		See Table			
Maximum Capacitive Load	@230VAC	See Table			
Ripple & Noise		See Table			
Hold Up Time		10			mS
Temperature Coefficient			±0.05		%/°C
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		+80	°C
Storage Temperature		-40		+90	°C
Max Case Operating Temperature	Under 115VAC			+78	°C
	Others			+85	
Humidity				95	%RH
Altitude	During Operation		5000		M
Atmospheric Pressure		70		106	kPa
MTBF	@25°C (MIL-HDBK-217F)	250,000			Hours

SPECIFICATIONS

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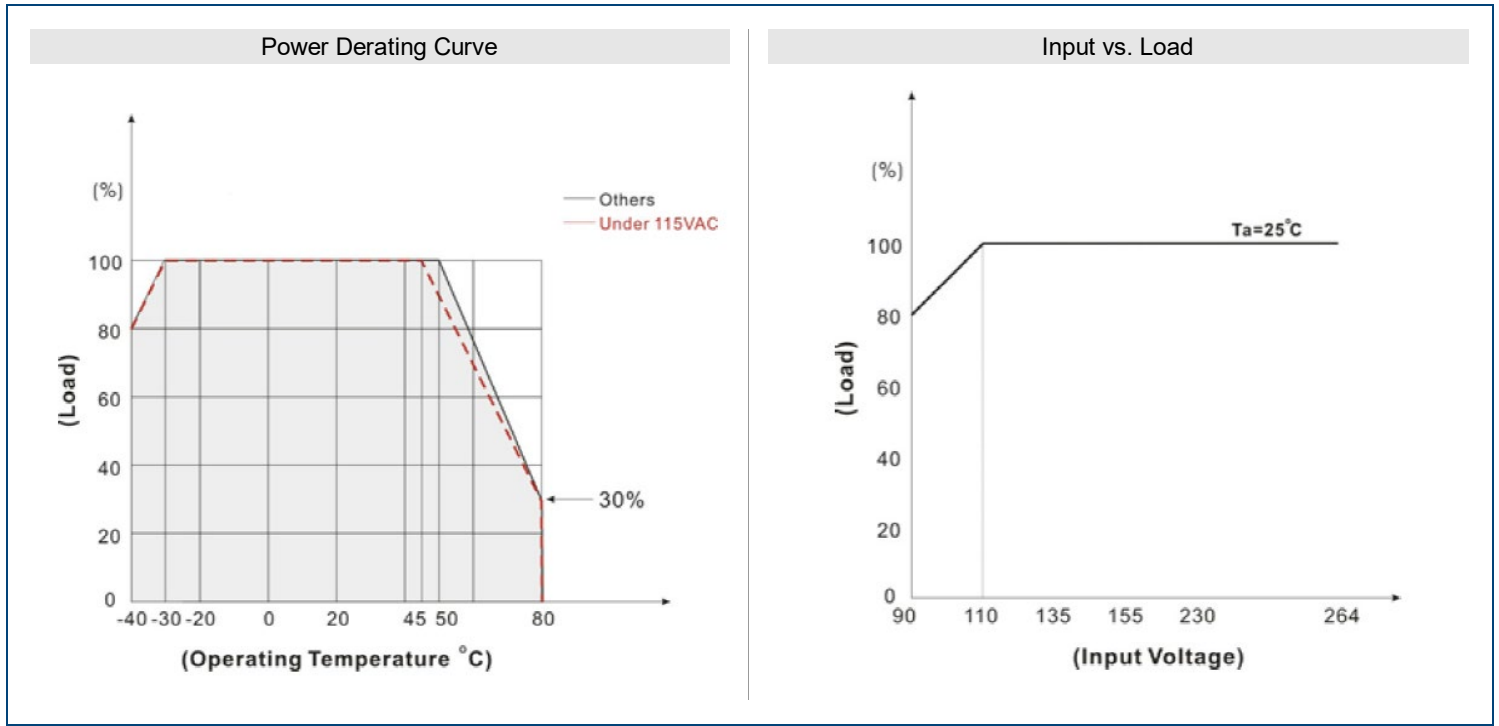
SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
GENERAL SPECIFICATIONS						
Efficiency	@230VAC			See Table		
Isolation	Input-Output			4000		VAC
PHYSICAL SPECIFICATIONS						
Weight				4.76oz (135g)		
Dimensions (L x W x H)	Standard			2.52in x 1.8in x 0.93in (64.1mm x 45.6mm x 23.5mm)		
	Screw Terminal			3.78in x 2.12in x 1.14in (96mm x 53.9mm x 29mm)		
Case Material				Plastic Resin (Flammability to UL 94V-0)		
Cooling Method ⁽⁴⁾				Free Air Convection		
SAFETY CHARACTERISTICS						
Safety Approvals ⁽⁵⁾	cUL/UL Standard ⁽⁶⁾ :	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 (2 nd Edition) + Am 1:2009 + Am 2:2013 IEC 60601-1:2005 (3 rd Edition) + CORR. 1 (2006) + CORR. 2 (2007) + AM1 (2012) or IEC 60601-1 (2012 reprint) 2 x MOPP				
EMC	Conducted and Radiated EMI ⁽⁶⁾	EN55011				Class B
	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	

NOTES

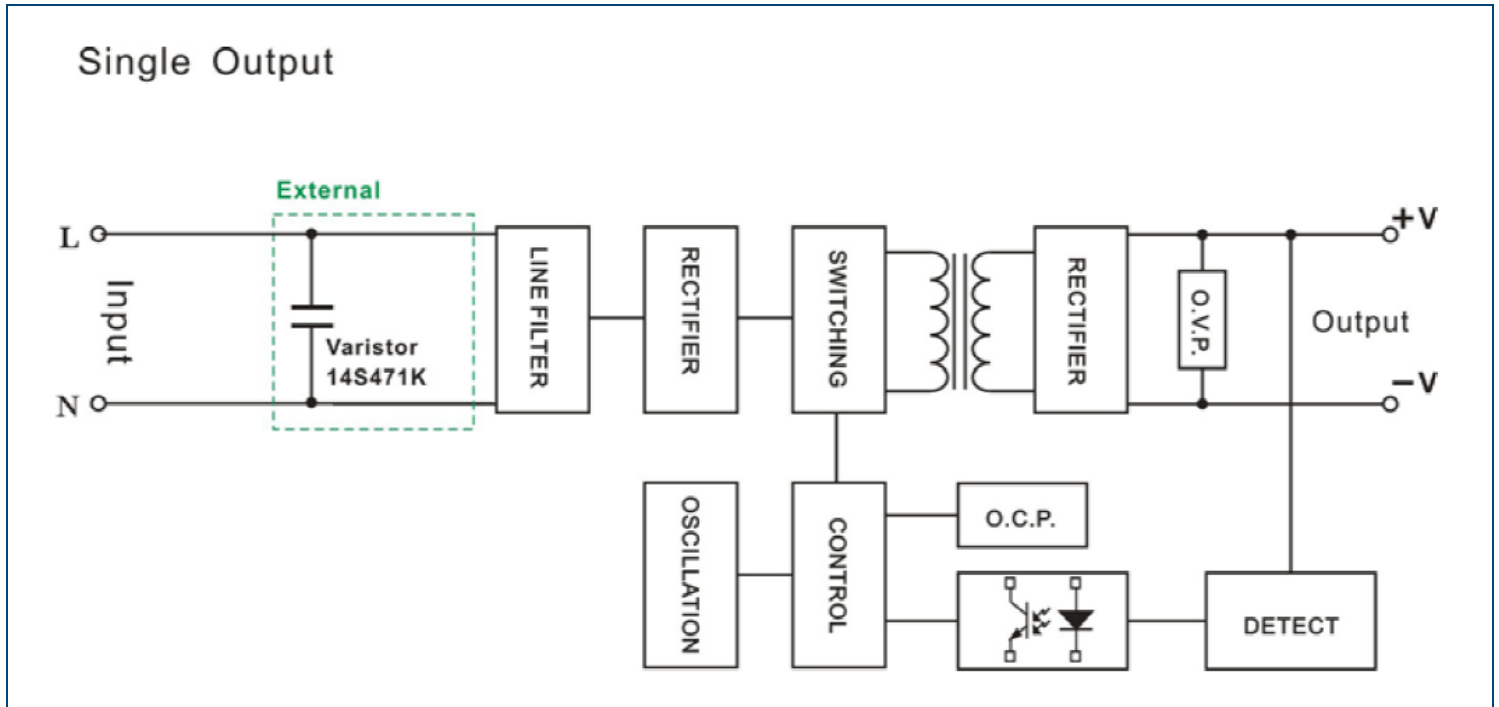
- This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other than the ones listed in this datasheet.
- To indicate screw terminal, add "-A" to end of model number. Ex. PSTCM30-5S-A
- Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- Natural Convection is about 20LFM but is not equal to still air (0 LFM)
- Safety approvals cover frequency 47-63Hz.
- Radiation Class A for screw terminal models.
- It's recommended to add Varistor 14S471K at L/N input side in parallel.
- This product is Listed to applicable standards and requirements by UL.

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

DERATING CURVES

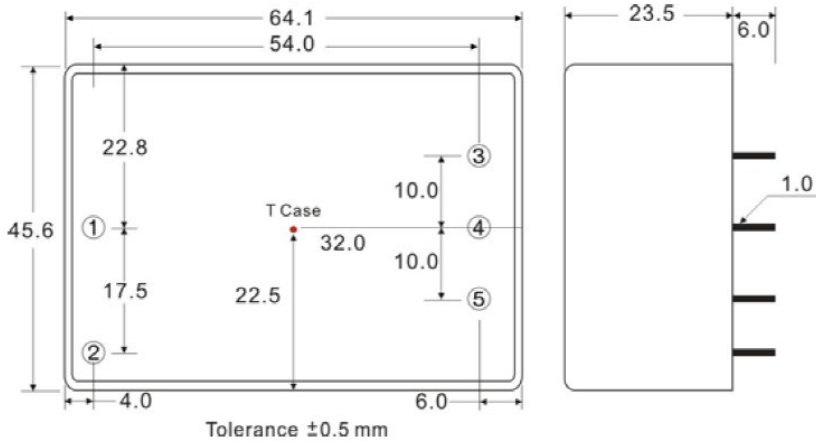


BLOCK DIAGRAM



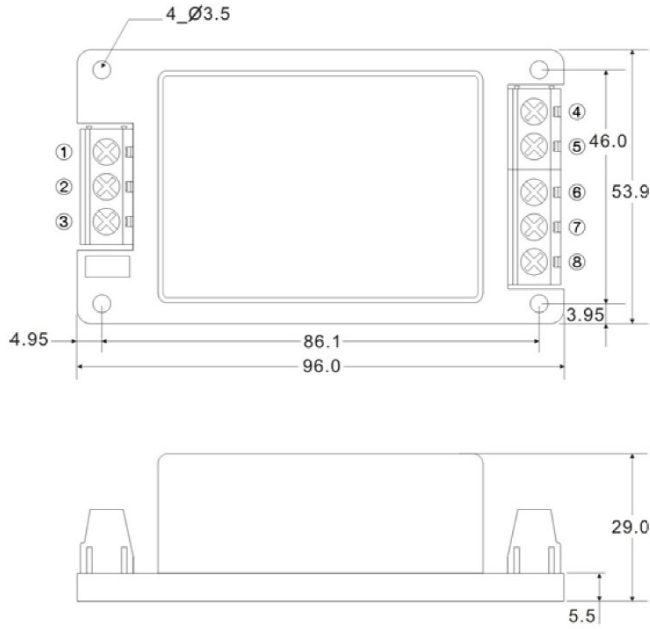
MECHANICAL DRAWINGS

Standard Model



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

Screw Terminal Option ("-A" Suffix)



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



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.

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