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

FEATURES

- 90~264VAC or 120-370VDC Input Voltage
- Fully Encapsulated Plastic Case
- Switching Power Module for PCB Mountable
- Optional Screw Terminal Available ("-A" Suffix)
- Isolation Class II
- Regulated Output
- Low Standby <0.1 W
- Low Ripple & Noise
- Over Power, Over Voltage, and Short Circuit Protection
- CE, CB, UL, and cUL Approvals

DESCRIPTION

The PSCZM20 series of medical AC/DC power supplies offers 20 watts of output power in a compact 2.07" x 1.08" x 0.93" fully encapsulated plastic case. This series consists of single output models with a universal input range of 90~264VAC (or 120~370VDC). Each model in this series has low ripple & noise, low standby, and over power, over voltage, and short circuit protection. This series has CE, CB, UL, and cUL approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise(2)	Maximum Capacitive Load	Efficiency	Output Power
PSCZM20-12S	90~264VAC (120~370VDC)	12V	1667mA	150mVp-p	1500µF	83%	20W
PSCZM20-24S		24V	833mA	240mVp-p	470µF	82%	

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	"N" to DC "+"; "L" to DC "-"	90		264	VAC
		120		370	VDC
Frequency		47		440	Hz
Input Current (Full Load)	@115VAC			440	mA
	@230VAC			287	
Inrush Current (<2ms, Cold Start)	@115VAC			20	A
	@230VAC			40	
Leakage Current	@264VAC (Touch Current)			0.1	mA
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)		See Table			
Hold-Up Time	@115VAC		6		ms
	@230VAC		46		
Temperature Coefficient			±0.05		%/ºC
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		-40		+80	ºC
Storage Temperature		-40		+90	ºC
Max. Case Temperature				+95	ºC
Humidity				95	%RH
Altitude	During Operation		5000		m
Atmospheric Pressure		70		106	kPa
MTBF	@25ºC (MIL-HDBK-217F)	350,000			Hours

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
GENERAL SPECIFICATIONS						
Efficiency	@230VAC			See Table		
Isolation	Input-Output			4000		VAC
PHYSICAL SPECIFICATIONS						
Weight				1.83oz (52g)		
Dimensions (L x W x H)	Standard			2.07in x 1.08in x 0.93in (52.5mm x 27.5mm 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[3]				Free Air Convection		
SAFETY CHARACTERISTICS						
Safety Approvals[4]	cUL/UL Standard:	UL 60950-1[7], 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				
	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
	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				

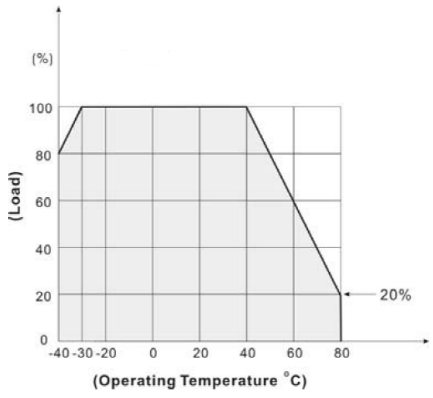
NOTES

1. 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.
2. Ripple & Noise are measured at 20MHz bandwidth with a 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. In order to indicate Screw Terminal option, add –A to model number. Ex. PSCZM20-12S-A
7. This product is Listed to applicable standards and requirements by UL.

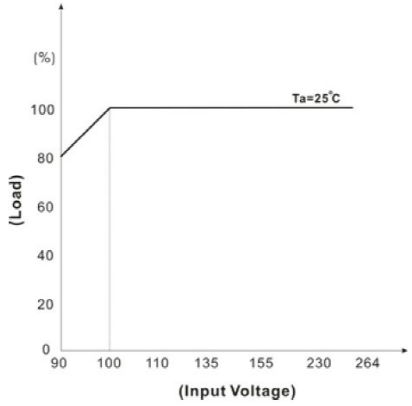
**Due to advances in technology, specifications subject to change without notice.*

DERATING CURVES

Power Derating Curve

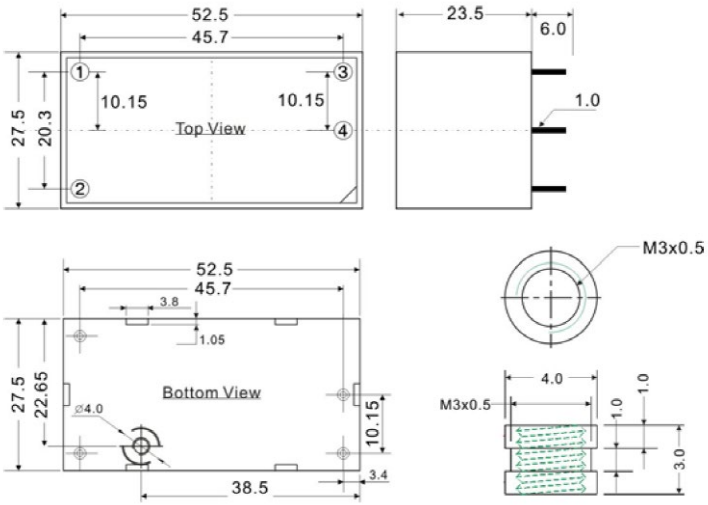


Load vs. Input Voltage



MECHANICAL DRAWINGS

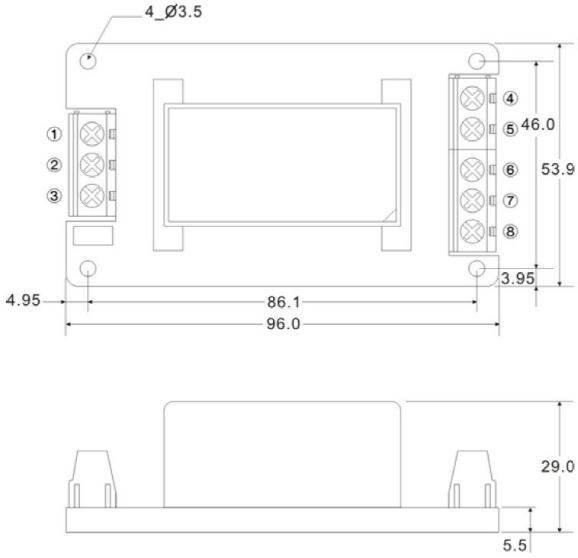
Standard



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

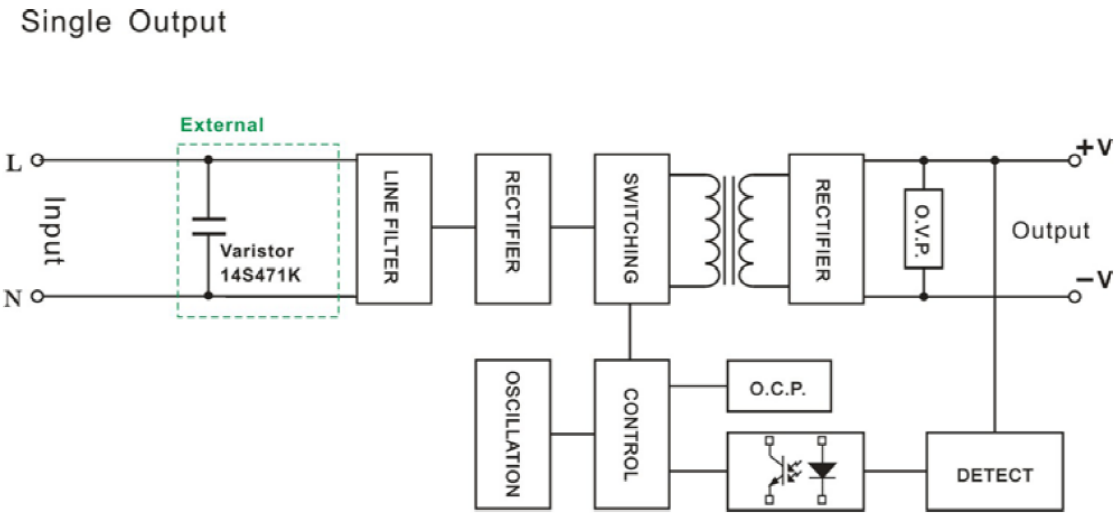
Maximum Torque: 12{1.21} (kgf.cm {N.m})

Screw Terminal ("-A" Suffix)



Pin#	Single
1	NO CONNECT
2	AC IN (L)
3	AC (N)
4	NO CONNECT
5	+DC OUTPUT
6	-DC OUTPUT
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.

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