

Size: 1.58in x 0.79in x 74in

**FEATURES**

- Wide Input Voltage Range: 85~264VAC/100~400VDC
- Ultra-Slim SIP Package with 90° Bent Pins
- Industrial Grade
- See PLS05 Series for Straight Pin Options
- 4KVAC High Isolation Voltage
- Compact Size
- Over Voltage, Over Current and Short Circuit Protection
- RoHS Compliant
- IEC62368, UL62368, and EN62368 Safety Approvals

**DESCRIPTION**

The PLSF05 series of AC/DC converters offers up to 5 watts of output power in an ultra slim SIP package with 90 degree bent pins. This series consists of single output models with a wide input voltage range of 85~264VAC/100~400VDC. Each model in this series is industrial grade, has isolation of 3000VAC, and is RoHS compliant. This series also has IEC62368, UL62368, and EN62368 safety approvals.

**MODEL SELECTION TABLE**

Model Number	Input Voltage Range	Output Voltage	Output Current	Maximum Capacitive Load	Efficiency	Output Power
PSLSF05-15B03	85-264VAC (100-400VDC)	3.3V	1A	2200µF	67%	3.3W
PSLSF05-15B05		5V	1A	1500µF	74%	5W
PSLSF05-15B09		9V	0.56A	680µF	75%	
PSLSF05-15B12		12V	0.42A	470µF	76%	
PSLSF05-15B15		15V	0.34A	330µF	77%	
PSLSF05-15B24		24V	0.21A	100µF	79%	

**SPECIFICATIONS**

All specifications are based on 25°C, Humidity <75%, Nominal Input Voltage, and Rated Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage Range	Conventional	100		240	VAC
	AC Input	85		264	
	DC Input	100		400	VDC
Input Frequency		47		63	Hz
Input Current	115VAC			0.2	A
	230VAC			0.1	
Inrush Current	115VAC		5		A
	230VAC		10		
Leakage Current	CY0 is 1nF/400VAC			0.25	mA
Hot Plug		Unavailable			
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Voltage Accuracy	3.3V Model		±2	±3	%
	All Other Models		±1	±2	
Line Regulation	Full Load		±0.5		%
Load Regulation	10%-100% Load		±1	±1.5	%
Output Power		See Table			
Output Current		See Table			
Maximum Capacitive Load		See Table			
Ripple & Noise	20MHz bandwidth (peak-peak value)		50	150	mV
Temperature Drift Coefficient			±0.02		%/°C
Stand-By Power Consumption				0.5	W
Min Load		0			%
Hold Up Time	115VAC Input	10	15		mS
	230VAC Input	65	75		
<b>PROTECTION</b>					
Short Circuit Protection		Continuous, Self-Recovery			
Over Current Protection		≥150%Io, Self-Recovery			
Over Voltage Protection	Output Voltage Clamp	3.3V/5V Models		≤7.5	V
		9V Models		≤15	
		12V/15V Models		≤20	
		24V Models		≤30	

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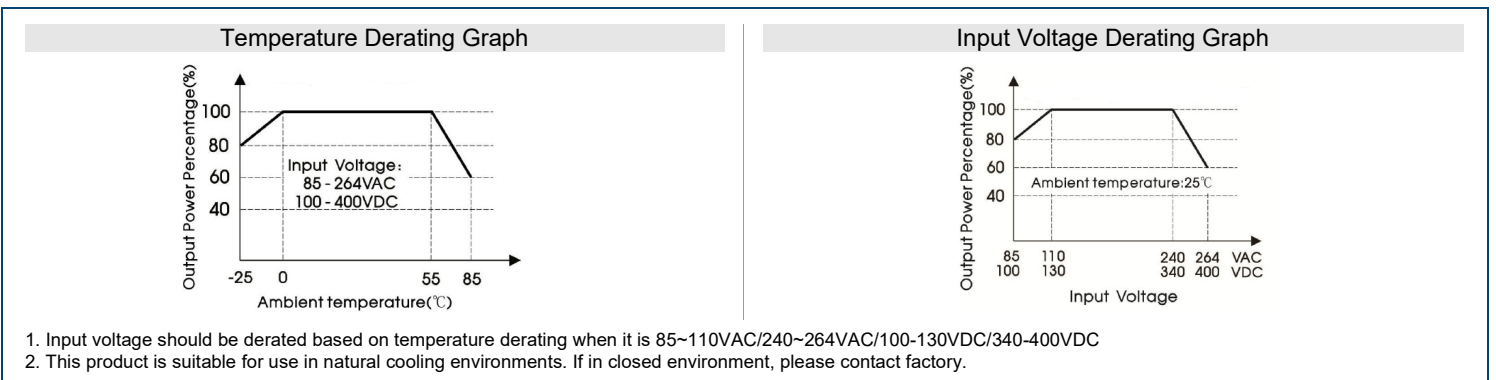
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature		-25		+85	°C
Storage Temperature		-40		+105	°C
Storage Humidity				85	%RH
Welding Temperature	Wave-Soldering	260±5°C; time: 5~10s			
	Manual-Welding	360±10°C; time:3~5s			
Power Derating	-25°C~0°C	0.8			%°C
	+55°C~+85°C	1.33			
	85VAC-110VAC	0.8			%VAC
	240VAC-264VAC	1.67			
MTBF	MIL-HDBK-217F @25°C	300,000			Hours
<b>GENERAL SPECIFICATIONS</b>					
Efficiency	230VAC, % typ.		See Table		
Switching Frequency			100		kHz
Isolation Voltage	Input to Output, Test Time: 1min (leakage current setting value: 5mA)	4000			VAC
<b>PHYSICAL SPECIFICATIONS</b>					
Weight		0.25oz (7g)			
Dimensions (L x W x H)		1.58 x 0.79 x 0.74in (40 x 20 x 18.8mm)			
Cooling		Free Air Convection			
<b>SAFETY CHARACTERISTICS</b>					
Safety Standard		IEC62368, EN62368, UL62368 <sup>(1)</sup>			
Safety Regulated Certifications		IEC62368, EN62368, UL62368 <sup>(1)</sup>			
Safety Class		Class II			
EMI	CE	CISPR22/EN55032 <sup>(2)</sup> CISPR22/EN55032 <sup>(3)</sup>			Class A Class B
	RE	CISPR22/EN55032 <sup>(2)</sup>			Class B
ESD	IEC/EN61000-4-2	Contact ±6kV			Perf. Criteria B
RS	IEC/EN61000-4-3	10V/m			Perf. Criteria A
EFT	IEC/EN61000-4-4	±2kV <sup>(2)</sup>			Perf. Criteria B
	IEC/EN61000-4-4	±4kV <sup>(3)</sup>			Perf. Criteria B
Surge	IEC/EN61000-4-5	Line to Line ±1kV <sup>(2)</sup>			Perf. Criteria B
	IEC/EN61000-4-5	Line to Line ±1kV/line to ground ±2KV			Perf. Criteria B
CS	IEC/EN61000-4-6	10Vr.m.s. <sup>(3)</sup>			Perf. Criteria A
Voltage Dips, Short Interruptions, Voltage Variations Immunity	IEC/EN61000-4-11	0%-70%			Perf. Criteria B

**NOTES**

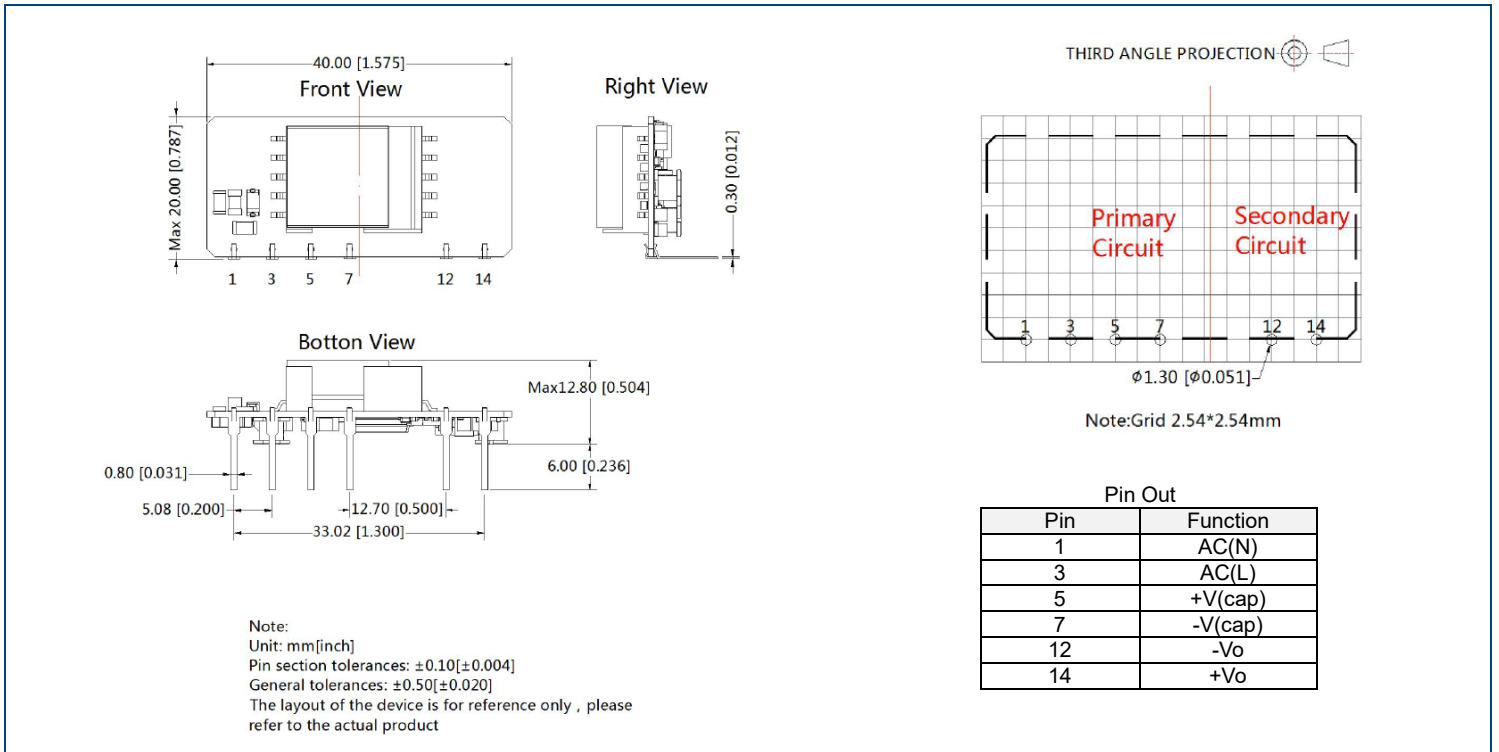
1. This product is Listed to applicable standards and requirements by UL.
2. See Fig. 1 for typical application circuit/recommended circuit
3. See Fig. 2 for recommended circuit.
4. Module required dispensing fixed after assembled.
5. This part is open frame, at least 6.4mm safety distance between the primary and secondary external components of the module is needed to meet the safety requirements.
6. Customization is available.
7. Products should be classified according to ISO14001 and related environmental laws and regulations and should be handled by qualified units.

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

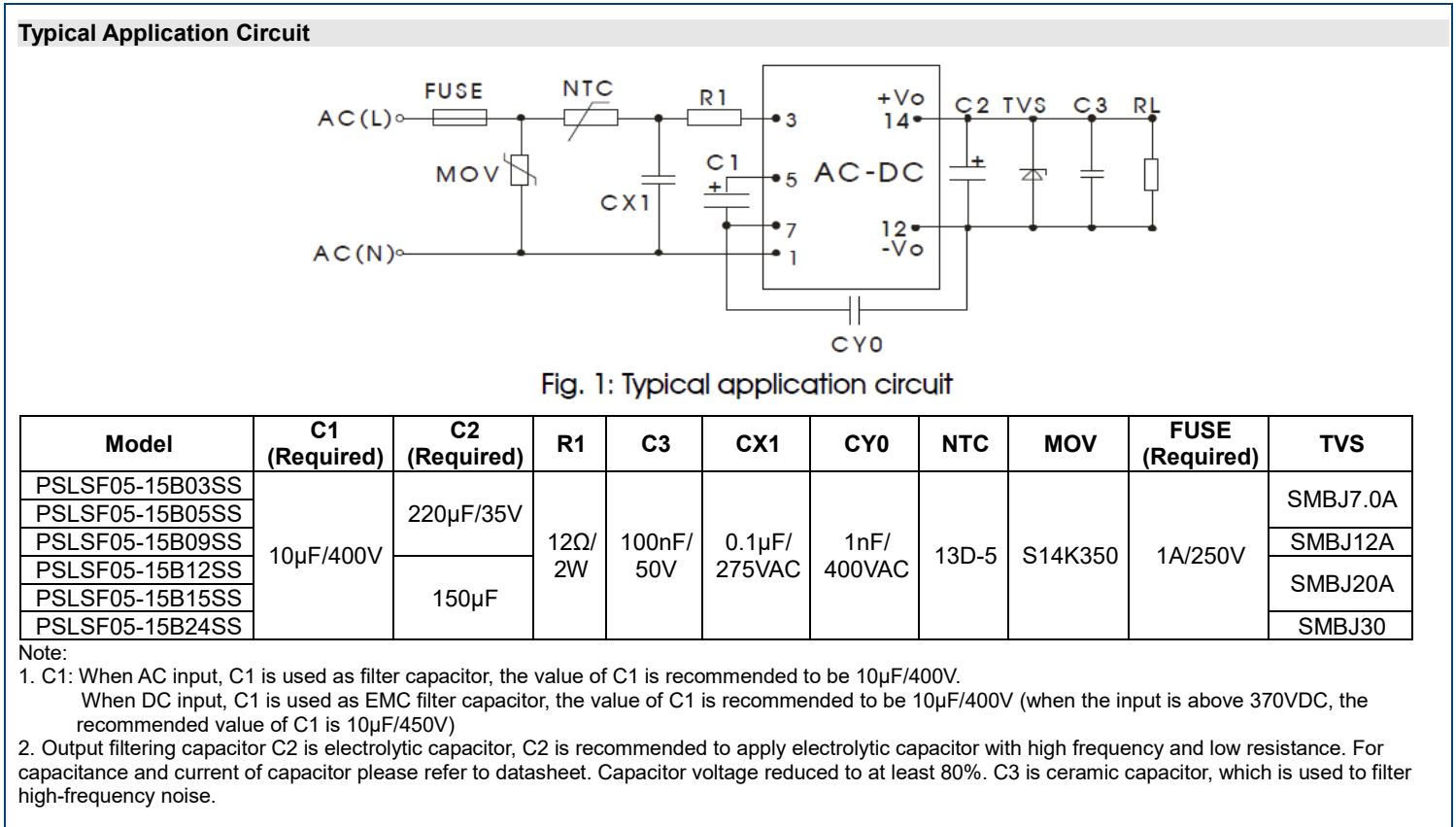
**CHARACTERISTIC CURVES**



MECHANICAL DRAWINGS



DESIGN REFERENCE



EMC Solution-Recommended Circuit

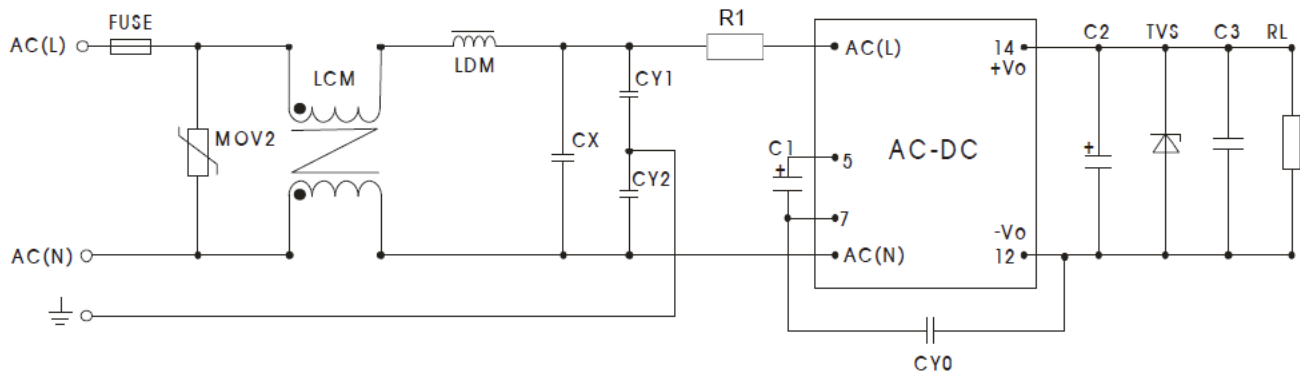


Fig 2: EMC application circuit with higher requirements

Components	Recommend Parameters
MOV2	S14K320
CY1, CY2	1nF/400VAC
CX	0.1µF/275VAC
LCM	3.5mH
LDM	330µH
R1	12Ω/2W
FUSE	1A/250V, slow fusing, required

Note: Recommended value of other components refers to typical application circuit

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](mailto:sales@wallindustries.com)  
 Web: [www.wallindustries.com](http://www.wallindustries.com)  
 Address: 37 Industrial Drive  
 Exeter, NH 03833

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