

Product Feature

- ◆ Universal Input: 90-528VAC/110-746VDC
- ◆ Package Type: 2" x 1"
- ◆ Operating temperature range: -40°C - +70°C
- ◆ Isolation voltage: 4000VAC
- ◆ High efficiency up to: 81% (Type)
- ◆ The mechanism has input undervoltage protection
- ◆ Output short circuit protection and over current protection



Selection Guide

Part No.	Input Voltage (VAC)	Output Power (W)	Output Voltage (VDC)	Output Current (mA)MAX	Full Load Efficiency % (Typ.)	Capacitive Load(μF) Max.
SLD05-26S05	90-528	5	5	1000	76	4000
SLD05-26S09	90-528	5	9	550	78	1000
SLD05-26S12	90-528	5	12	420	80	820
SLD05-26S15	90-528	5	15	330	81	680
SLD05-26S24	90-528	5	24	210	79	330

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage	AC Input	90	--	528	VAC
	DC Input	110	--	746	VDC
Input Current	110VAC 100% load	--	0.11	--	A
	230VAC 100% load	--	0.07	--	
Input Frequency		47	--	63	Hz
Fuse		1A, slow fusing, required			
Leakage Current	230VAC/50HZ	0.2mA RMS typ.			
Hot Plug		Unavailable			

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Output Voltage Accuracy	10% - 100% Load	--	±2	±5	
Linear Regulation	Rated load	--	±0.5	--	%
Load Regulation	0% - 100% load	--	±1.0	--	
Ripple & Noise	20MHz bandwidth, 10% - 100%load	--	100	300	mV
Temperature Coefficient		--	±0.02	--	%/°C
Stand-by Power Consumption	230VAC	--	0.10	0.25	W
Min. Load		0	--	--	%
Over Current Protection		110	--	--	%Io
Short-Circuit Protection		Continuous, Self-Recovery			
Hold-up Time	320VAC	--	40	--	ms

Note: The test method of ripple and noise adopts the measurement method, and the output is in parallel with 10uF electrolytic capacitor and 1uF

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input-output, test time 1 minute, leakage current less than 5mA	4000	--	--	VAC
Insulation Resistance	Input-output, insulated voltage 500VDC	100	--	--	MΩ
Power Derating	-40°C - 0°C	0.75	--	--	% / °C
	+55°C - +70°C	3	--	--	
	90VAC - 150VAC	1.2	--	--	% / VAC
	480VAC-528VAC	0.416	--	--	
Operating Temperature		-40	--	+70	°C
Storage Temperature		-40	--	+85	°C
Storage Humidity		--	--	85	%RH
Soldering Profile	Wave-soldering	260 ± 5°C; time: 5 - 10s			
	Manual-welding	360 ± 5°C; time: 3 - 5s			
Safety Standard		IEC/UL62368-1			
Safety Class		CLASS II			
MTBF	MIL-HDBK-217F@25°C	>2,600,000h			

Mechanical Specification

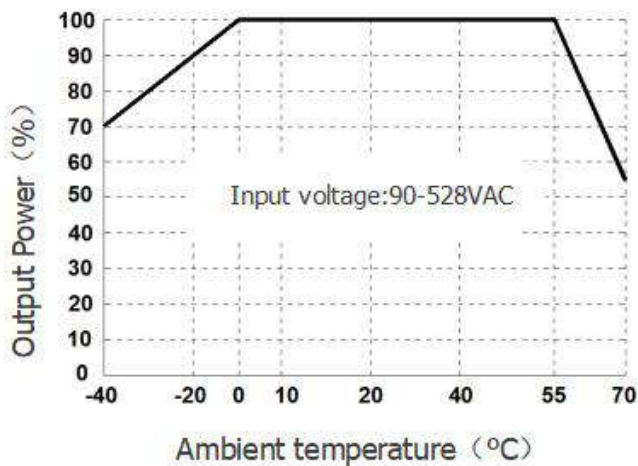
Case Material	Black plastic, flame-retardant and heat-resistant (UL94V-0)
Package Dimensions	50.80 x 25.40 x 18.30mm
Weight	41g (Typ.)
Cooling Method	Free air convection

EMC Specifications

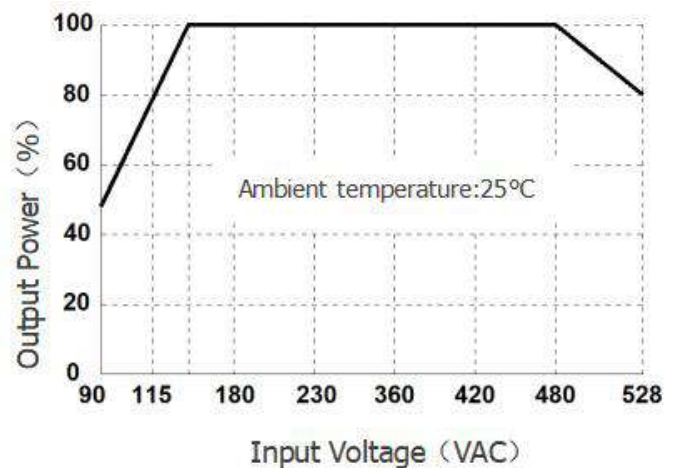
EMI	CE	CISPR32/EN55032 CLASS B	
	RE	CISPR32/EN55032 CLASS B	
EMS	RS	IEC/EN61000-4-3 10V/m	perf. Criteria A
	EFT	IEC/EN61000-4-4 ±2KV	perf. Criteria B
	Surge	IEC/EN61000-4-5 line to line ±1KV	perf. Criteria B
		IEC/EN61000-4-5 line to line ±2KV (Figure 2)	perf. Criteria B
	CS	IEC/EN61000-4-6 10Vr.m.s	perf. Criteria A
ESD	IEC/EN61000-4-2 Contact ±6KV/ Air ±8KV	perf. Criteria B	

Typical Characteristic Curves

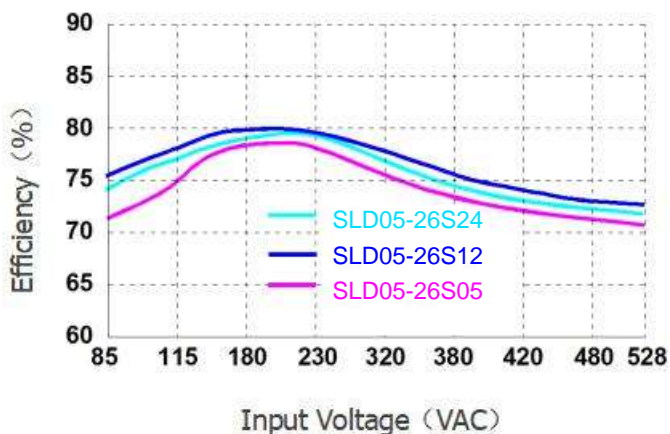
Temperature Derating Curve



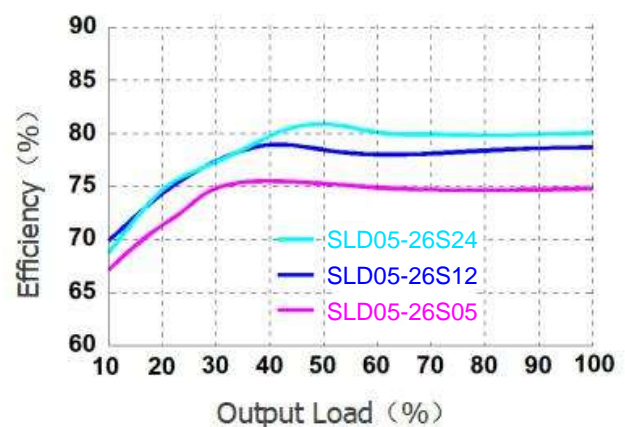
Input voltage Derating Curve



Efficiency VS Input Voltage (Full load)

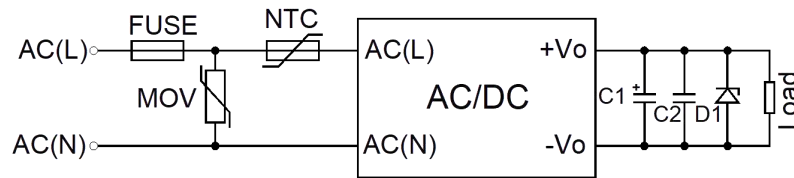


Efficiency VS Output load (Vin=230VAC)



Typical Circuit Design And Application

Application circuit (Figure 1)



Reference Table for Selection of Peripheral Devices

Out Voltage	FUSE	MOV	R1	C1	C2	D1
5VDC	1A/500VAC			150uF/25V	0.1uF/25V	See Note2
9/12VDC	slow-blow, required	14D561K	12D-5	150uF/25V	0.1uF/25V	
15/24VDC				100uF/35V	0.1uF/50V	

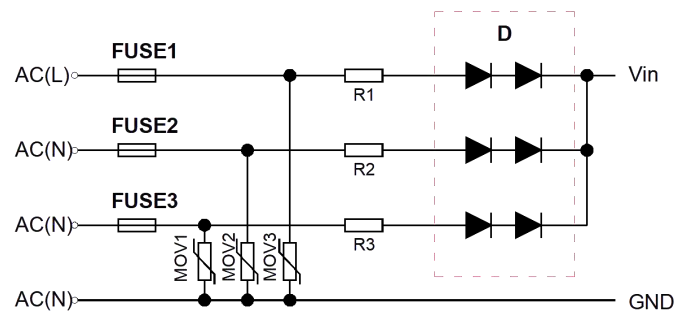
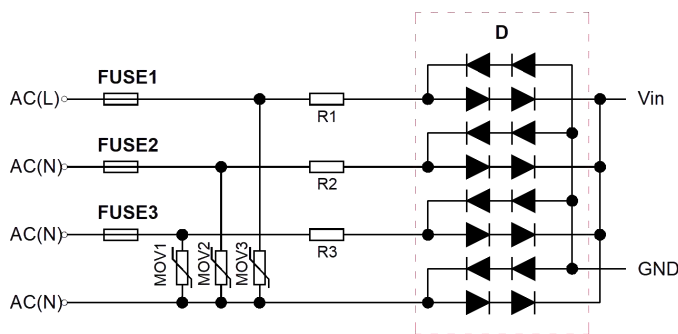
Note:

1. FUSE、Mov and NTC Can be selected based on actual needs.
2. D1 is a TVS transistor that can protect the downstream circuit in case of module abnormalities. It is recommended to choose a model that is 1.2 times the output voltage.

EMS Solutions - Recommended Circuits

Recommended circuit diagram for 4KV differential mode surge - full bridge rectification (Figure 2)

Recommended circuit diagram for 4KV differential mode surge - half bridge rectification (Figure 3)

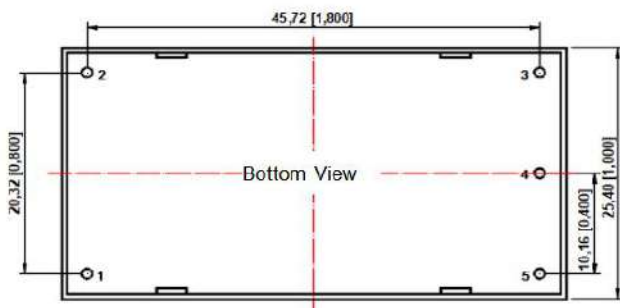
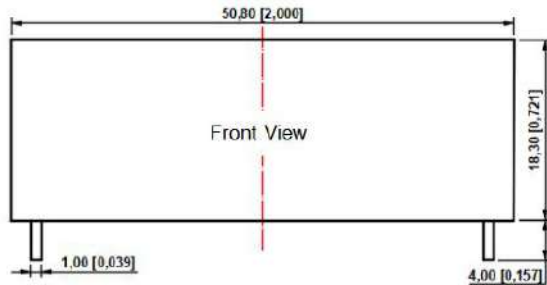


Recommended parameter values for EMC solution circuits

Model	Recommended value
FUSE1, FUSE2, FUSE3	2A/500VAC, slow-blow, required
MOV1, MOV2, MOV3	14D561K
R1, R2, R3	6.8Ω/3W
D	2A/1000V

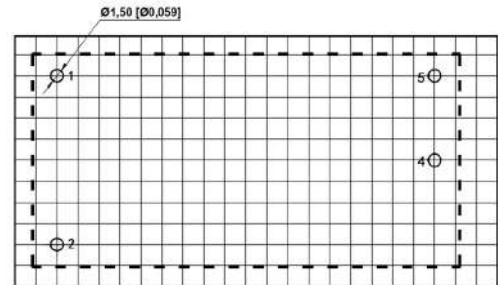
Dimensions and Recommended Layout

Dimensions



Note:
 Unit: mm[inch]
 Pin section tolerances: ± 0.10 [± 0.004]
 General tolerances: ± 0.50 [± 0.020]

PCB Printing Layout



Grid size: 2.54*2.54mm

Pin FunctionTable

Pin	Function
1	AC(L)
2	AC(N)
3	No Pin
4	-Vo
5	+Vo

Note:

- ✦ The input voltage should not exceed the specified range value, otherwise it may cause permanent and irreparable damage;
- ✦ It is recommended to use at a load of over 5%. If the load is below 5%, the ripple index of the product may exceed the specifications, but it does not affect the reliability of the product;
- ✦ The maximum capacitive load is tested within the input voltage range and under full load conditions;
- ✦ Unless otherwise specified, all indicators in this manual are measured at $T_a=25\text{ }^\circ\text{C}$, humidity < 75% RH, nominal input voltage, and output rated load;
- ✦ All indicator testing methods in this manual are based on our company's corporate standards;
- ✦ Our company can provide product customization, and specific requirements can be directly contacted by our technical personnel;
- ✦ Product specifications are subject to change without prior notice.