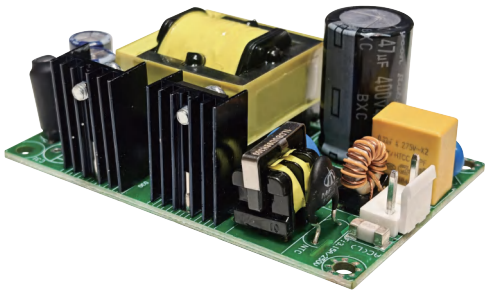
Open-Frame Single-Output AC Power Supply

25W



- Wide voltage input (85-264VAC, 100-370VDC)
- Dimensions: 76.2*50.8*30mm, 3"*2"
- CanbeinstalledinCLASS Ⅰ systems
- Protection types: Short circuit/Overload/Overvoltage
- Naturalaircooling,operatingtemperaturerange:-40℃to+70℃
- Isolation voltage: 3kV
- 100% high-temperature aging and testing
- 3-year warranty

Models

Model	Input Voltage	Rated Power	Output	Rated Current	Ripple Current	Efficiency
PSF25-05	85-264VAC	25W	5V	5A	80 mV P-P	85%
PSF25-12	85-264VAC	25W	12V	2.08A	100 mV P-P	89%
PSF25-15	85-264VAC	25W	15V	1.66A	100 mV P-P	89%
PSF25-24	85-264VAC	25W	24V	1.04A	100 mV P-P	89%
PSF25-48	85-264VAC	25W	48V	0.52A	100 mV P-P	89%

Product Datasheet

Input Specifications

Parameter	Min.	Typ.	Max.	Note
Input Voltage Range(AC)	85Vac	-	264Vac	
Input Voltage Range(DC)	100Vdc	-	370Vdc	
Nominal Input Voltage	100Vac	-	240Vac	
Input Current	-	700mA	-	115Vac Full load
	-	320mA	-	230Vac Full load
Inrush Current	-	40A	-	115Vac Full load
	-	70A	-	230Vac Full load
Leakage Current	-	0.75mA	-	230VAC/60Hz

Output Specifications

Parameter	Min.	Typ.	Max.	Note
Output Voltage Accuracy		±1.0%		Full load
Line Regulation	-	-	±1.0%	Full load
Load Regulation	-	-	±1.0%	10-100% Load
Output Voltage Range	4.8Vdc	-	5.4Vdc	PSF25-05
	11.5Vdc	-	12.8Vdc	PSF25-12
	13.6Vdc	-	16.6Vdc	PSF25-15
	23Vdc	-	26.8Vdc	PSF25-24
	45.6Vdc	-	53Vdc	PSF25-48
Start-Up Time	-	-	1500mS	230Vac Full load
	-	-	1800mS	115Vac Full load
Rise Time	-	-	30mS	230Vac Full load
	-	-	30mS	115Vac Full load
Hold-Up Time	-	-	16mS	230Vac Full load
	-	-	10mS	115Vac Full load

General Specifications

Parameter	Min.	Typ.	Max.	Note
Operating Temperature	-40℃		+70℃	
Operating Humidity	10% RH		85% RH	
Storage Temperature	-40℃		+105℃	
Storage Humidity	10% RH		85% RH	
Temperature Drift Coefficient		0.03%/(0℃-50℃)		
Vibration Coefficient	10-500Hz, 2G, 10 minutes per cycle, 60 minutes each for X, Y, Z axes			
MTBF	165K hrs min. MIL-HDBK-217F(25℃)			
Product Dimensions	76.2*50.8*30mm (L*W*H)			
Product Weight	94g			

Safety&EMC Compliance

Parameter	Standard	Note
Safety Standard	IEC62368， EN62368， UL62368	
Insulation Voltage	I/P-O/P:3KV	
	I/P-FG:1.5KV	
	O/P-FG:0.5KV	
Insulation Resistance	>100M Ohms/500VDC 25℃ 70% RH	
Conduction and Radiation	EN55011， EN55032 (CISPR32) CLASS B	
Electrostatic Discharge	IEC/EN 61000-4-2 level 4 Contact ±8kV/Air ±15kV	
Radio Frequency Radiation Immunity	IEC/EN 61000-4-3 level 4 lev3	
Electrical Fast Transient/Burst	IEC/EN 61000-4-4 level 4 4kV	
Surge	IEC/EN 61000-4-5 level 4 Line-to-Line 2kV / Line-to-Ground 4kV	

Unless otherwise specified, the above data are measured under the conditions of TA=25°C, humidity <75%, nominal input voltage of 230VAC and rated output load.

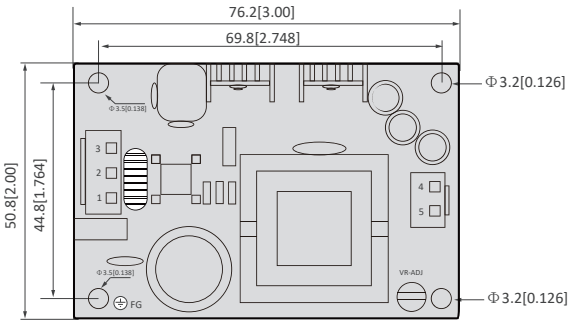
Ripple and Noise Measurement Method
Use the parallel line test method. Meanwhile, a 0.1μF high-frequency ceramic capacitor and a 47μF electrolytic capacitor should be connected in parallel at the terminal, and the measurement should be carried out under a 20MHz bandwidth.

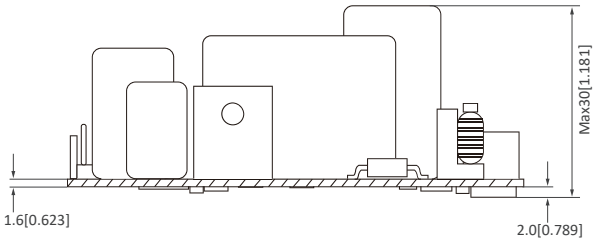
The power supply is regarded as a component within the system, and its electromagnetic compatibility (EMC) verification must be conducted in conjunction with the end equipment.

Protection Specifications

Parameter	Standard	Note
Short-Circuit Protection	Hiccup Mode, self-recoverable after fault elimination	
Overload Protection	≥110% load, self-recoverable after fault elimination	
Over-Temperature Protectio	Reduced power output or no output	
Overvoltage Protection	Protection Coverage ≤7.5V	PSF25-05
	Protection Coverage ≤16V	PSF25-12
	Protection Coverage ≤20V	PSF25-15
	Protection Coverage ≤30V	PSF25-24
	Protection Coverage ≤60V	PSF25-48
	Output Shutdown	

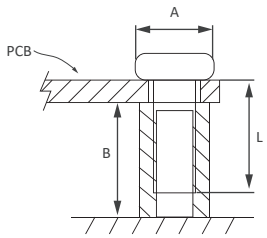
Dimensions & Lnterface Definition





UNIT:mm[inch]

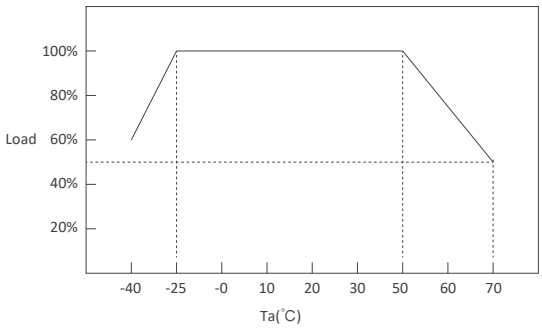
Connector	Pin	Function	Customer Connection Terminal
CN1	1	AC L	Connector: JST VHR ConnectorTerminal: JST SVH-21T-P1.1 or equivalent
CN1	2	No PIN	
CN1	3	AC N	
CN2	4	-Vo	Connector: JST VHR ConnectorTerminal: JST SVH-21T-P1.1 or equivalent
CN2	5	+Vo	



Installation Recommendation: Use M3 screws. As shown in the diagram, the dimensions shall meet: A < 5.5mm, B ≥ 8mm, L = 6mm.
The tightening torque shall not exceed 0.4N·m.

Electrical Curve

Temperature Derating Curve



Input Voltage Derating Curve