

Open-Frame Single-Output AC Power Supply 65W



- Wide voltage input (85-264VAC, 100-370VDC)
- Dimensions: 76.2*50.8*30mm, 3"*2"
- Can be installed in CLASS I CLASS II systems
- Protection types: Short circuit/Overload/Overvoltage
- Natural air cooling, operating temperature range: -40°C to +70°C
- Isolation voltage: 3kV
- 100% high-temperature aging and testing
- 3-year warranty

Models

| Model | Input Voltage | Rated Power | Output | Rated Current | Ripple Current | Efficiency |
|-----------|---------------|-------------|--------|---------------|----------------|------------|
| PSF65-12S | 85-264VAC | 65W | 12V | 5.42A | 120 mV P-P | 90% |
| PSF65-15S | 85-264VAC | 65W | 15V | 4.34A | 120 mV P-P | 90% |
| PSF65-24S | 85-264VAC | 65W | 24V | 2.71A | 120 mV P-P | 88% |
| PSF65-48S | 85-264VAC | 65W | 48V | 1.35A | 120 mV P-P | 91% |

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 |
| | - | 400mA | - | 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 | 11.6Vdc | - | 13.2Vdc | PSF65-12S |
| | 13.8Vdc | - | 16.2Vdc | PSF65-15S |
| | 22.7Vdc | - | 25.56Vdc | PSF65-24S |
| | 45.9Vdc | - | 52.7Vdc | PSF65-48S |
| Start-Up Time | - | - | 2000mS | 230Vac Full load |
| | - | - | 3000mS | 115Vac Full load |
| Rise Time | - | - | 40mS | 230Vac Full load |
| | - | - | 50mS | 115Vac Full load |
| Hold-Up Time | - | - | 20mS | 230Vac Full load |
| | - | - | 10mS | 115Vac Full load |

General Specifications

| Parameter | Min. | Typ. | Max. | Note |
|-------------------------------|--|------------------|--------|------|
| Operating Temperature | -40°C | | +70°C | |
| Operating Humidity | 10% RH | | 85% RH | |
| Storage Temperature | -40°C | | +105°C | |
| Storage Humidity | 10% RH | | 85% RH | |
| Temperature Drift Coefficient | | 0.03%/(0°C-50°C) | | |
| 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°C) | | | |
| Product Dimensions | 76.2*50.8*30mm (L*W*H) | | | |
| Product Weight | 99g | | | |

Product Datasheet

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°C 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.

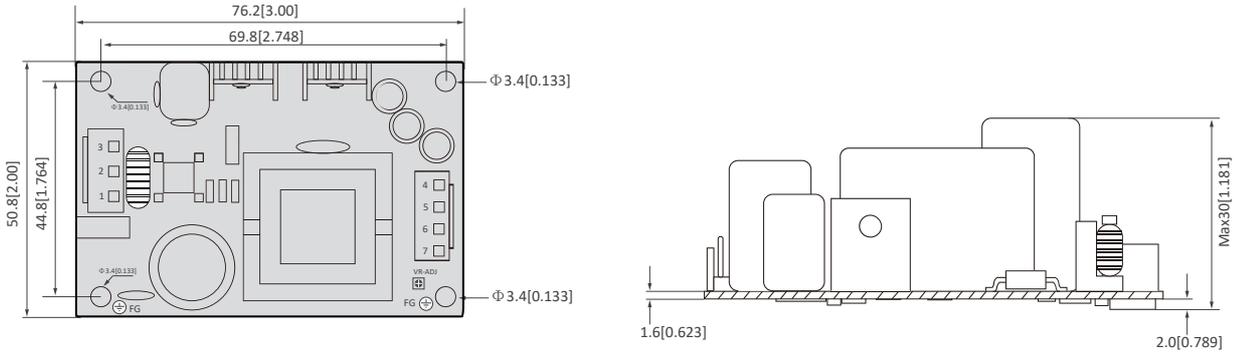
The power supply is regarded as a component within the system, and its electromagnetic compatibility (EMC) verification must be conducted in conjunction with the end equipment.

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 | |
| | Protection Coverage ≤16V | PSF65-12S |
| | Protection Coverage ≤20V | PSF65-15S |
| | Protection Coverage ≤30V | PSF65-24S |
| | Protection Coverage ≤60V | PSF65-48S |
| | Output Shutdown | |

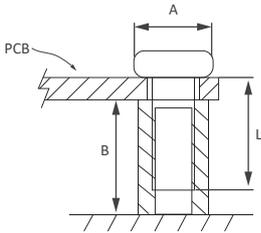
Product Datasheet

Dimensions & Interface Definition



UNIT:mm[inch]

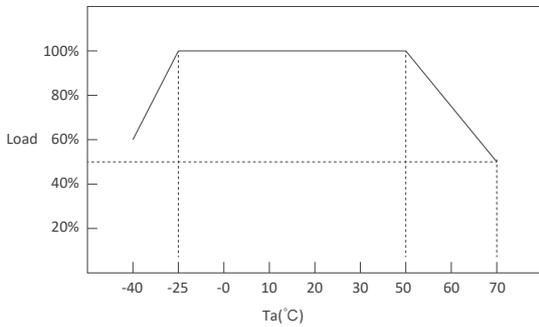
| Connector | Pin | Function | Customer Connection Terminal |
|-----------|-----|----------|--|
| CN1 | 1 | AC L | Connector: JST VHR Connector Terminal: JST SVH-21T-P1.1 or equivalent |
| CN1 | 2 | No PIN | |
| CN1 | 3 | AC N | |
| CN2 | 4 5 | -Vo | Connector: JST VHR Connector Terminal: JST SVH-21T-P1.1 or equivalent |
| CN2 | 6 7 | +Vo | |



Installation Recommendation: Use M3 screws. As shown in the diagram, the dimensions shall meet: $A < 5.5\text{mm}$, $B \geq 8\text{mm}$, $L = 6\text{mm}$. The tightening torque shall not exceed $0.4\text{N}\cdot\text{m}$.

Electrical Curve

Temperature Derating Curve



Input Voltage Derating Curve

