

# PSDIN-48 Instruction



## Safety Notes

### 1. Read Instructions!

Before working with this unit, read these instructions carefully and completely. Make sure that you understand all the information!

### 2. Turn off AC Power – **Dangerous Voltages: You can be killed!**

Before any installation, maintenance or modification work: Disconnect the AC power at the panel. Ensure that it cannot be re-connected by accident! AC wires at the power supply must not be live when working on the installation or maintenance.

### 3. Before start of operation, ensure appropriate installation

**Warning!** Improper installation / operation can create a safety issue and may result in injury to personnel or damage to the unit. The power supply unit must be installed and put into service only by qualified personnel. Compliance with the relevant local regulations must be ensured. Before operation is begun the following conditions must be confirmed, in particular:

- ◆ With stranded wires: all strands must be secured in the terminal blocks (potential danger of short circuit)
- ◆ Unit input cables must be properly fused; if necessary, a manually controlled disconnect switch should be used to disconnect the unit from AC supply mains.
- ◆ All output wires must be rated for the appropriate power supply output current (18AWG or larger) and must be connected with the correct polarity.
- ◆ Sufficient air-flow at bottom and top of unit must be ensured.

### 4. During Operation: No Modifications!

As long as the unit is in operation: do not modify the installation! This applies to both input and output sides. Risk of electric arcs and electric shock. **You can be killed!**  
Only change connections when the AC power is turned off at the mains!  
DO NOT switch front panel switch from single to parallel or parallel to single unless AC Power is OFF.

### 5. Warning!

The unit contains unprotected conductors carrying a lethal high voltage, and components storing substantial amounts of energy. **You Can Be Killed!**

- ◆ Improper handling may result in an electric shock or serious burn!
- ◆ The unit must not be opened except by trained and qualified personnel!
- ◆ Do not introduce any object into the unit!
- ◆ Keep away from water!

## Installation

### 1. Mounting

Make sure to leave clearance on bottom and top of units to allow free air flow for convection cooling! Do not block ventilation holes. We recommend at least 25mm (1") free space on all sides.

- ◆ Tilt unit and hook over top of DIN rail
- ◆ Pull down slightly on the DIN rail bracket and clip over bottom of DIN rail.

**Removal from DIN Rail:** Insert a flat screwdriver into the slot in the DIN rail bracket. Pull down on the clamp to release the unit from the DIN rail.

### 3. Front Panel

#### **Operation indicator**

Indicates whether the unit is working properly. Green LED (“DC-OK”) is lit if the voltage at the output terminal is more than 45V. Red LED (“Overload”) will light when output is in fault condition.

#### **DC Adjust Potentiometer**

Output Voltage can be adjusted to suit individual application needs. The adjustment range is 47VDC to 56VDC.

#### **Single/Parallel Use Switch**

The power supply units can be operated standalone (“Single Use”) or ganged (“Parallel Use”) in order to provide additional power. When in parallel mode the outputs are connected together in parallel (+ to + and – to –)to feed the load. Two 120W power supplies in parallel mode provide up to 240W of power to the load. DO NOT change the Single/Parallel switch position while the unit is powered up. Please disconnect power before changing the mode to avoid damage to the unit.

#### **“DC” and “OK” Connection**

The DC and OK connections at the top of the unit are a dry contact relay which is CLOSED when the DC output is normal and OPEN when the DC output is in a fault condition. Contact rating is 1A @ 30VDC or 0.5A at 125VAC. This is useful to trigger an alarm if the DC output fails.

### 4. Connections / Internal fuse

- ◆ There is an internal 5A fuse on the AC input. This is not designed to be user serviceable.
- ◆ Use only commercial quality cables designed for the indicated voltage and current values!
- ◆ When using stranded cables, be sure all strands are secure inside the wire terminal connector.
- ◆ Ensure proper polarity at the output terminals! There are two – and two + terminals for convenience.
- ◆ Do not operate without proper ground connection! A proper ground is required to comply with EMC and safety standards. To ground the chassis, use one of the case screws on the back of the unit or the separate ground screw on the bottom of the unit (if applicable).

### Specifications

	<b>PSDIN-48-120W</b>	<b>PSDIN-48-240W</b>
Input Operating Range	90-264VAC ; 47-63Hz	
AC In-rush Current	35A Max	
Input Current	2.2A @115VAC ; 1.10A @230VAC	4.4A @115VAC ; 2.20A @230VAC
Output Voltage	47~ 56VDC (adjustable)	
Cont. Load Current	2.5A	5A
Max Output Power	120W	240W
Peak Power (10sec)	180W	360W
Ripple / Noise	100mV Peak	
Efficiency	90% Minimum	
Protection	Short Circuit, Over-Voltage, Over-Current, Over Power	
Alarm Output (DC & OK)	1A @ 30VDC, 0.5A @ 125VAC. DC OK = Closed, DC Fault = Open	
Operating Temp	-40°C to 70°C (-40°F to 158°F) <i>Note: de-rate to 50% power at 70C</i>	
Operating Humidity	5% to 95% non- condensing	
Storage Temp	-40°C to 85°C (-40°F to 185°F)	
MTBF	200,000 hrs	
Altitude	2000m (6562ft)	