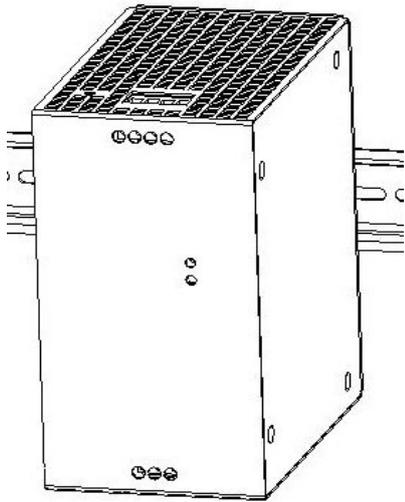


# POWER SUPPLY—SP-24AL150



## ■ Features

- High efficiency
- High reliability
- High power factor
- Adapt to wide input voltage range automatically
- Natural cooling
- Can be installed on DIN-rail

## Read first!

Before operating this unit please read this manual thoroughly. Retain this manual for future reference! The power supply may only be installed and put into operation by qualified personnel.

### Intended Use:

This device is designed for installation in an enclosure and is intended for the general use such as in industrial control, office, communication, and instrumentation equipment. Do not use this device in aircrafts, trains and nuclear equipment where

### WARNING!

- Risk of electrical shock, fire, personal injury or death
- 1) Don't use the unit without proper ground (Protective earth)
  - 2) Turn power off before working on the power supply. Protect against inadvertent repowering.
  - 3) Make sure of the wiring is correct by following all local and national codes.
  - 4) Don't modify or repair the unit.
  - 5) Don't open the unit as high voltages are present inside.
  - 6) Use caution to prevent any foreign objects from entering into the housing.

### CAUTION!

- Reduction of output power may be necessary when:
- 1) Minimum installation clearance can not be met
  - 2) Altitudes higher than 2000m
  - 3) It suggested the usage of output power is halved over 45°C.
  - 4) Mounting orientation is other than input terminal located at the bottom and output at the top.
  - 5) Airflow for convection cooling is obstructed
- Don't touch during power-on, and immediately after power-off. Hot surface may cause heat injury. The unit does not contain a service parts. The tripping of an internal fuse is caused by an

The information presented in this document is believed to be accurate and reliable and may change without notice.

be expected.

inspection to the factory!

## Technical Data

Output Voltage	DC21.6v-28v
Factory Set	Typ.24v
Output Current	6.25±5%A
Output Power	Max.150w
Output Ripple	Typ.80mVpp
Over-voltage Protection	Max.37vdc
AC Input Voltage	AC90-265v
DC Input	DC130-375v
Power Factor	Typ.0.99
Efficiency	Typ.91.5%
Limited Warranty	1 year

## Dielectric Strength

Factory tests:  
Conducted by the manufacturer  
Don't repeat test in field!

Field test rules:

- 1) Use appropriate test equipment which apply the voltage with a slow ramp!
- 2) Connect L and N together as well as all output poles.
- 3) Use only AC test-voltages with 50/60Hz

The output voltage is floating and has no ohmic reference to ground.

	A	B	C
Factory Test	60s	1500V	1500V
			500V

# POWER SUPPLY—SP-24AL150

## Environment

Operational temperature	-15°C to +70°C	It suggested the usage of output power is halved over 45°C.
Storage temperature	-40°C to +85°C	Storage, transport
Humidity	5 to 95%	
Vibration sinusoidal	2g	IEC60068-2-6
Shock	30g 6ms, 20g 11ms	IEC60068-2-27

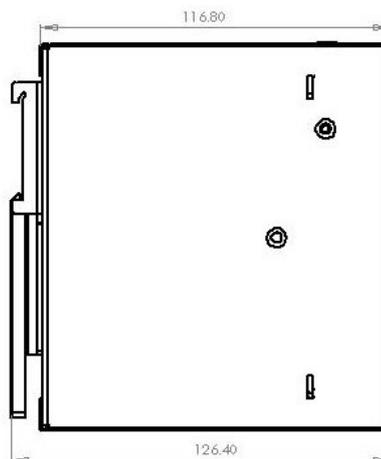
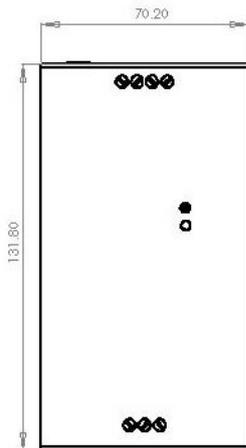
## Protection

Output	short-circuit proof
Over-temperature protection	Yes Output shut-down with automatic restart
Output over-voltage protection	Yes
Internal input fuse	T6A3, Device protection, not externally accessible

## Physical Dimensions

Width	71mm
Height	132mm
Depth	117mm
Weight	1000g
DIN-Rail	Use DIN-rails according to EN60715 or EN50022 with a height of 7.5 or 15mm
Mounting Orientation	Output terminal on top and input terminals on the bottom

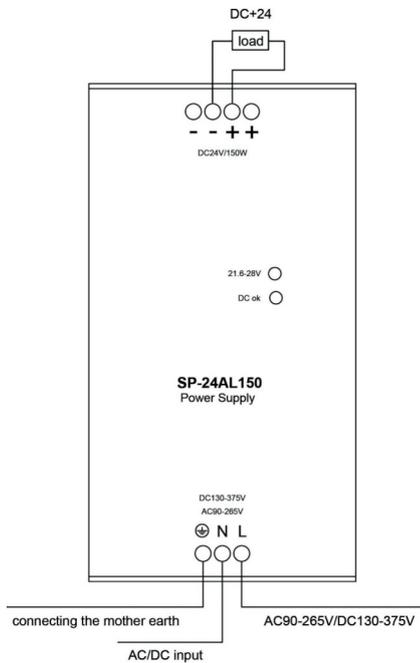
## ■ Mounting Dimensions



# POWER SUPPLY—SP-24AL150

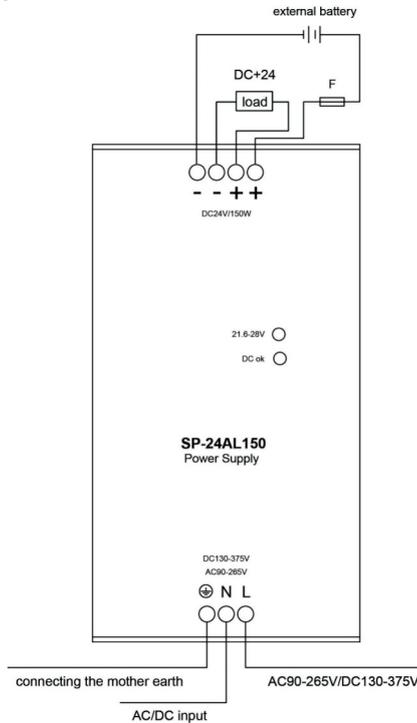
## ■ Using Methods

### a. General operation



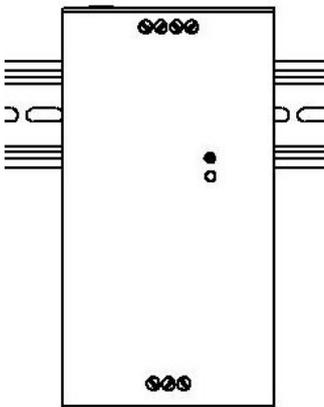
- Tip:
1. Please use 3~4mm<sup>2</sup> soft wire or hard wire
  2. Connect the power AC90~265v or DC130~375V
  3. Adjusting potentiometer and making the output voltage as 24V (The factory setting is 24V)

### b. Using UPS function



1. Please use 3~4mm<sup>2</sup> soft wire or hard wire
2. Connect the power AC90~265v or DC130~375V
3. Adjusting potentiometer and making the output voltage as 24V (The factory setting is 24V)
4. Connect to the battery:
  - 1) The battery can be connected only when the output voltage is normal.
  - 2) Ensure the correct polarity of battery.
  - 3) The battery capacity should meet the following requirements:  
 $C/10 + I_L \leq 5.8A$   
 C: Battery capacity AH    I<sub>L</sub>: Load current A

### c. Cooling requirement



Do not obstruct air flow! **The unit is convection cooled. Ventilation grid must be kept free of any obstructions.**

Keep installation clearances at higher ambient temperature and full load:  
**40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance are recommended.**

