

# **DP-660**

## **Industrial Power Supply**

### **User's Manual**

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# Introductions

The DP-660 is a dual output, DIN-Rail mounted, 65 watts switching power supply. It has over voltage protection in main output and over load latch off mode protection on all output.

## 1.0 Input Specifications

### 1.1 Input voltage

The range of input voltage is from 85VAC to 270VAC

### 1.2 Input Frequency

The range of input frequency is from 47Hz to 63Hz.

### 1.3 Input current

The maximum input current is 2A at 115VAC or 1A at 230VAC.

### 1.4 Inrush current

The inrush current will not exceed 60A at 115VAC input or 30A at 230VAC input, cold start, 25deg. C.

## 2.0 Output Specifications

### 2.1 Load range

Output	Min. load	Rated load	Peak load	Voltage accuracy
+24V	0A	2.5A	6A	23.76V to 24.24V
+5V	0a	0.5A		4.75V to 5.25V

At Factory, all outputs in 60% rated load conditions, the +24V output is set to between 23.76V and 24.24V and 5V is checked to be within the specified voltage accuracy range.

Peak load can test for 10 sec. Typical when other output at rated load, AC input at 115VAC.

### 2.2 Ripple and noise

the peak-to-peak ripple and noise for each output is less then 1% of output voltage at rated load. Measuring is done by 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor.

### 2.3 Line regulation

the line regulation for each output is less then +/- 1% while measuring at

rated load and +/- 10% of input voltage changing.

#### **2.4 Load regulation**

The load regulation for +24V is less than +/-1%, for +5V is less than +/-5%, measuring is done by changing the measured output load +/-40% from 60% rated load, and keep other output at 60% rated load.

#### **2.5 Step regulation**

When +24V load changes from min. to peak load or from load to min. load, the 5V should keep within 5V +/-5% at rated load.

## **3.0 General Features**

#### **3.1 Efficiency**

The efficiency is higher than 75% while measuring at nominal line and rated load.

#### **3.2 Hold up time**

The hold up time is longer than 16ms at 115VAC input and rated load, which is measured from the end of the last charging pulse to when the main output drops down to 95% output voltage.

#### **3.3 Protection**

For some reason the power supply fails to control itself, the build-in over voltage protection circuit will shut down the outputs to prevent damaging external circuits. The trip point is around 26V to 31V. The power supply will go into latch-off mode against short circuit or over load conditions, and have to OFF and ON the AC input to restart the power supply.

## **4.0 Environment specifications**

#### **4.1 Operation temperature**

0 deg C to 50 deg C (Normal output current)

50 deg C to 75 deg C (65% output current)

#### **4.2 Storage temperature**

-40 deg C to 85 deg C

#### **4.3 Altitude**

will operate properly at any altitude between 0 to 10000ft.

# 5.0 International standards

The following data is by open frame testing (Board only).

**Internal PCB model No.: SNP-9069**

## 5.1 Safety standards

Designed to meet the following standards:

UL 1950 D3

CSA 22.2 No. 234

VDE EN 60 950

## 5.2 EMI standards

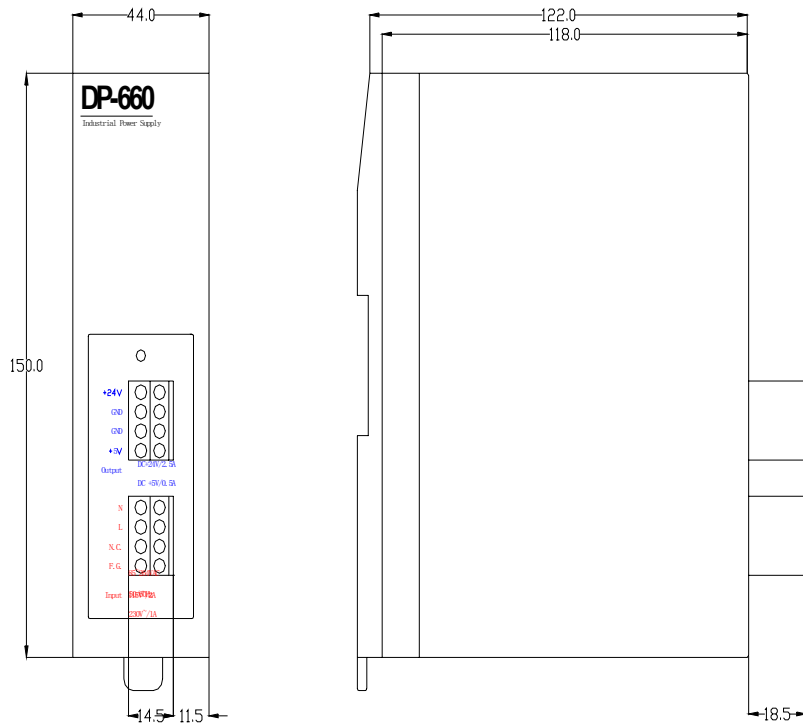
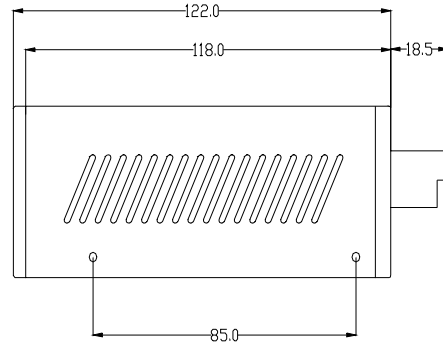
Designed to meet the following conducted limits.:

FCC docket 20780 curve “B”

VFG 243

# 6.0 Mechanical Specification

Dimensions: 44mm(W)x 150mm(H)x 122mm(D)



## 6.1 Din-Rail mounting

The DP-660 can be direct install to 35mm DIN-Rail.

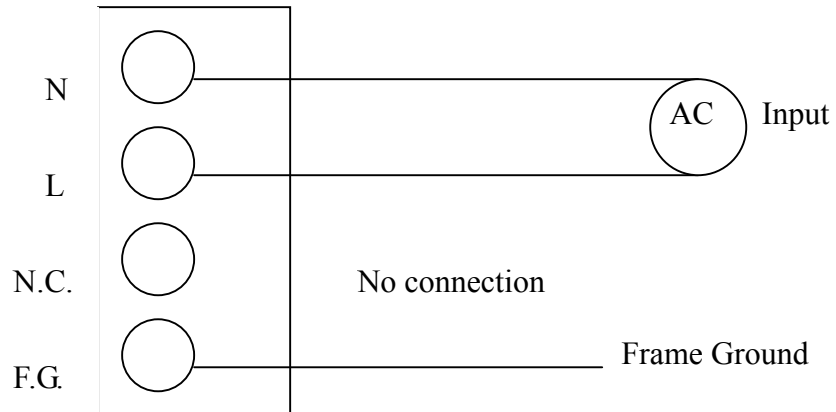
## 6.2 Connectors

### 6.2.1 AC inputs connector:

Pitch 5.08mm screw terminal block

Wire range : 12AWG~22AWG / 2.5mm<sup>2</sup>

Pin Assignments:



### 6.2.2 DC output connector:

Pitch 5.08mm screw terminal block

Wire range : 12AWG~22AWG / 2.5mm<sup>2</sup>

Pin Assignments:

