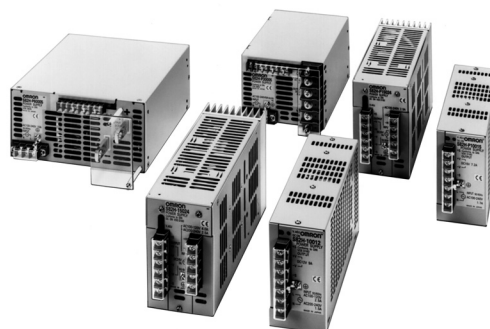


# Switching Power Supply

## S82H

### Industrial Power Supply with Power Factor Correction Available

- Models range from 15 to 150 W.
- 120/240 selectable on 15 to 150 W Models.
- All meet UL and CSA standards.
- 100 to 150 W models also have VDE and CE approvals.
- 3-year warranty.



## Ordering Information

### ■ NON-PFC TYPE SWITCHING POWER SUPPLIES

**Stock Note:** Shaded models are normally stocked.

| Rated input voltage    | Power ratings | Output voltage | Output current | Part number |
|------------------------|---------------|----------------|----------------|-------------|
| 120/240 VAC selectable | 15 W          | 5 V            | 3 A            | S82H-3105   |
|                        |               | 12 V           | 1.2 A          | S82H-3112   |
|                        |               | 15 V           | 1 A            | S82H-3115   |
|                        |               | 24 V           | 0.6 A          | S82H-3124   |
|                        | 30 W          | 5 V            | 6 A            | S82H-3305   |
|                        |               | 12 V           | 2.5 A          | S82H-3312   |
|                        |               | 15 V           | 2 A            | S82H-3315   |
|                        |               | 24 V           | 1.3 A          | S82H-3324   |
|                        | 50 W          | 5 V            | 10 A           | S82H-3505   |
|                        |               | 12 V           | 4.5 A          | S82H-3512   |
|                        |               | 15 V           | 3.4 A          | S82H-3515   |
|                        |               | 24 V           | 2.3 A          | S82H-3524   |
|                        | 100 W         | 5 V            | 20 A           | S82H-10005  |
|                        |               | 12 V           | 9 A            | S82H-10012  |
|                        |               | 15 V           | 7.2 A          | S82H-10015  |
|                        |               | 24 V           | 4.6 A          | S82H-10024  |
|                        | 150 W         | 5 V            | 30 A           | S82H-15005  |
|                        |               | 12 V           | 13.5 A         | S82H-15012  |
|                        |               | 15 V           | 10 A           | S82H-15015  |
|                        |               | 24 V           | 7 A            | S82H-15024  |

## ■ ACCESSORIES (ORDER SEPARATELY)

**Stock Note:** Shaded models are normally stocked.

| Item                       | Applicable power supplies | Mounting type                | Part number                      |
|----------------------------|---------------------------|------------------------------|----------------------------------|
| Mounting bracket           | S82H-31□□ (15 W)          | Bottom mounting              | S82Y-H01B                        |
|                            |                           | Side mounting                | S82Y-H01S                        |
|                            |                           | Front/flush mounting         | S82Y-H01F                        |
| DIN-rail mounting bracket  |                           |                              | S82Y-01N                         |
| DIN rail                   |                           |                              | PFP-100N2<br>PFP-50N<br>PFP-100N |
| Mounting bracket           | S82H-33□□ (30 W)          | Bottom mounting              | S82Y-H03B                        |
|                            |                           | Side mounting                | S82Y-H03S                        |
|                            |                           | Front/flush mounting         | S82Y-H03F                        |
| DIN-rail mounting bracket  |                           |                              | S82Y-03N                         |
| DIN rail                   |                           |                              | PFP-100N2<br>PFP-50N<br>PFP-100N |
| Mounting bracket           | S82H-35□□ (50 W)          | Bottom mounting              | S82Y-H05B                        |
|                            |                           | Side mounting                | S82Y-H05S                        |
|                            |                           | Front/flush mounting         | S82Y-H05F                        |
| DIN-rail mounting bracket  |                           |                              | S82Y-05N                         |
| DIN rail                   |                           |                              | PFP-100N2<br>PFP-50N<br>PFP-100N |
| Mounting bracket           | S82H-□100□□ (100 W)       | Bottom mounting              | S82Y-H10B                        |
|                            |                           | Side mounting                | S82Y-H10S                        |
|                            |                           | Front/flush mounting         | S82Y-H10F                        |
|                            | S82H-□150□□ (150 W)       | Bottom mounting              | S82Y-F15B                        |
|                            |                           | Side mounting                | S82Y-F15S                        |
|                            |                           | Front mounting/back mounting | -----                            |
| Mounting bracket           | S82H-P300□□ (300 W)       | Bottom mounting              | S82Y-D30B                        |
|                            |                           | Side mounting                | S82Y-D30S                        |
|                            |                           | Front mounting/back mounting | -----                            |
|                            | S82H-P600□□ (600 W)       | Bottom mounting              | S82Y-D60B                        |
|                            |                           | Side mounting                | S82Y-D60S                        |
|                            |                           | Front mounting/back mounting | -----                            |
| Fan                        | S82H-P300□□               | —                            | S82Y-DFAN                        |
|                            | S82H-P600□□               | —                            |                                  |
| Terminal expansion bracket | S82H-P600□□               | —                            | S82Y-D60T                        |

## MODEL NUMBER LEGEND

### 15 to 50 W Models

S82H - 3     
1 2

#### 1. Power ratings

1: 15 W  
3: 30 W  
5: 50W

#### 2. Output voltage

05: 5 V  
12: 12 V  
15: 15 V  
24: 24 V

### 100 to 600 W Models

S82H -       
1 2

#### 1. Output Capacity

100: 100 W  
150: 150 W  
300: 300 W  
600: 600 W

#### 2. Output Voltage

05: 5 V  
12: 12 V  
15: 15 V  
24: 24 V

## Specifications

### NON-PFC TYPE SWITCHING POWER SUPPLIES (15 W, 30 W, 50 W)

|                                                                                      |                |                                                                                               |            |            |
|--------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------|------------|------------|
| Power ratings                                                                        |                | 15 W                                                                                          | 30 W       | 50 W       |
| Efficiency (typ.)                                                                    |                | 70% to 80% (24 V)                                                                             |            |            |
| Input                                                                                |                |                                                                                               |            |            |
| Operating voltage                                                                    | AC             | 85 to 132 VAC/170 to 264 VAC (selectable)                                                     |            |            |
|                                                                                      | DC             | No                                                                                            |            |            |
| Frequency                                                                            |                | 47 to 450 Hz                                                                                  |            |            |
| Current at rated input voltage and rated output voltage/current                      | At 100-V input | 0.5 A max.                                                                                    | 0.9 A max. | 1.3 A max. |
|                                                                                      | At 200-V input | 0.3 A max.                                                                                    | 0.6 A max. | 0.8 A max. |
| Leakage current at rated input voltage and output voltage current (See Note 2.)      | At 100-V input | 0.5 mA max.                                                                                   |            |            |
|                                                                                      | At 200-V input | 1 mA max.                                                                                     |            |            |
| Inrush current at rated input voltage and rated output voltage/current (See Note 2.) | At 100-V input | 25 A max.                                                                                     |            |            |
|                                                                                      | At 200-V input | 50 A max.                                                                                     |            |            |
| Noise filter                                                                         |                | Provided                                                                                      |            |            |
| Output                                                                               |                |                                                                                               |            |            |
| Voltage adjustment                                                                   |                | ±10% (adjustable with variable resistor V–ADJ)                                                |            |            |
| Ripple and noise                                                                     |                | 2% (p-p) max.                                                                                 |            |            |
| Regulation, line                                                                     |                | 0.5% max. (at 85 to 132/170 to 264 V input, 100% load)                                        |            |            |
| Regulation, load                                                                     |                | 2% max. (at rated input, 10 to 100% load)                                                     |            |            |
| Temperature coefficient                                                              |                | 0.05%/°C max. ( at rated input/output in range of 0° to 40°C)                                 |            |            |
| Rise time                                                                            |                | 200 ms max. (90% output voltage rise at rated input voltage and rated output voltage/current) |            |            |
| Hold up time                                                                         |                | 20 ms min. (90% output voltage rise at rated input voltage and rated output voltage/current)  |            |            |
| Additional functions                                                                 |                |                                                                                               |            |            |
| Overload protection                                                                  |                | 120% of rated output current typ., inverted L trailing, automatic reset                       |            |            |
| Overvoltage protection                                                               |                | No                                                                                            |            |            |
| Remote sensing                                                                       |                | No                                                                                            |            |            |
| Remote control                                                                       |                | No                                                                                            |            |            |

(This table continues on the next page.)

Specifications Table – continued from previous page

|                               |           |                                                                                                                                                                                                          |             |             |
|-------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| Power ratings                 |           | 15 W                                                                                                                                                                                                     | 30 W        | 50 W        |
| Characteristics               |           |                                                                                                                                                                                                          |             |             |
| Temperature                   | Operating | See Derating Curve in <i>Engineering Data</i> .                                                                                                                                                          |             |             |
|                               | Storage   | -20° to 85°C (–40° to 185°F)                                                                                                                                                                             |             |             |
| Humidity                      |           | Operating: 30 to 90% RH; Storage: 20 to 95% RH                                                                                                                                                           |             |             |
| Dielectric strength           |           | 2,000 VAC, 50/60 Hz, for 1 minute (between input terminals and output terminals/housing) 500 VDC for 1 minute (between output terminals and input terminals/housing) Refer to Note 3 (on the next page). |             |             |
| Insulation resistance         |           | 100 MΩ min. (between output terminals and input terminals/housing)                                                                                                                                       |             |             |
| Vibration                     |           | 10 to 55 Hz, 0.75 mm double amplitude (approx. 4.5 G) in 3 directions, respectively for 2 hours                                                                                                          |             |             |
| Shock                         |           | 294 m/s <sup>2</sup> (30 G) in 6 directions, respectively 3 times                                                                                                                                        |             |             |
| Output indicator              |           | Red LED                                                                                                                                                                                                  |             |             |
| Heat radiation                |           | 1.9 cal/sec                                                                                                                                                                                              | 3.2 cal/sec | 4.7 cal/sec |
| Electro Magnetic Interference |           | FCC Class B                                                                                                                                                                                              |             |             |
| Mean Time Between Failures    |           | 100,000 hours min.                                                                                                                                                                                       |             |             |
| Approved standards            |           | UL (E105544), CSA (LR63986)                                                                                                                                                                              |             |             |
| Weight                        |           | 400 g max.                                                                                                                                                                                               | 520 g max.  | 660 g max.  |

## ■ NON-PFC TYPE SWITCHING POWER SUPPLIES (100 W, 150 W)

|                                 |                |                                                                                                     |            |
|---------------------------------|----------------|-----------------------------------------------------------------------------------------------------|------------|
| Power ratings                   |                | 100 W                                                                                               | 150 W      |
| Efficiency                      |                | 70% to 86% (depending on the model)                                                                 |            |
| Life expectancy (See Note 1.)   |                | 10 years min. in standard installation conditions at 40°C (104°F) at the rated input with 50% load. |            |
| Input                           |                |                                                                                                     |            |
| Voltage                         |                | 100 to 120 VAC/200 to 240 VAC automatically selected (85 to 132 VAC/170 to 264 VAC)                 |            |
| Frequency                       |                | 47 to 450 Hz                                                                                        |            |
| Current                         | at 100-V input | 2.5 A max.                                                                                          | 4 A max.   |
|                                 | at 200-V input | 1.5 A max.                                                                                          | 2.5 A max. |
| Leakage current (See Note 2.)   | at 100-V input | 0.5 mA max.                                                                                         |            |
|                                 | at 200-V input | 1 mA max.                                                                                           |            |
| Inrush current (See Note 2)     | at 100-V input | 25 A max.                                                                                           |            |
|                                 | at 200-V input | 50 A max.                                                                                           |            |
| Power factor                    |                | 0.5 to 0.7 (depending on the model)                                                                 |            |
| Output                          |                |                                                                                                     |            |
| Voltage adjustment range        |                | ±10% (adjustable with variable resistor (V.ADJ))                                                    |            |
| Ripple                          |                | 2% (p-p) max.                                                                                       |            |
| Input variation influence       |                | 0.4 % max. (at 85- to 132-VAC/170- to 264-VAC input, 100% load)                                     |            |
| Load variation influence        |                | 0.8% max. (with rated input voltage, 0 to 100% load)                                                |            |
| Temperature variation influence |                | 0.05%/°C max. with rated I/O at an ambient temperature range between -10°C to 50°C                  |            |
| Rise Time                       |                | 0.8 s max. (Rises up to 90% of the rated voltage under rated input.)                                |            |
| Hold time                       |                | 20 ms min.                                                                                          |            |

(This table continues on the next page.)

Specifications Table – continued from previous page

|                                      |             |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |
|--------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Power ratings                        |             | 100 W                                                                                                                                                                                                                                                                                                                                                                                                                                         | 150 W                 |
| Additional functions                 |             |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |
| Overload protection                  |             | 105% max. of rated load current, inverted L drop type, automatic reset                                                                                                                                                                                                                                                                                                                                                                        |                       |
| Overvoltage protection               |             | 120% of rated output voltage (typical), shutoff type, input reset                                                                                                                                                                                                                                                                                                                                                                             |                       |
| Parallel operation                   |             | No                                                                                                                                                                                                                                                                                                                                                                                                                                            | Yes, up to five units |
| Series operation                     |             | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| Remote sensing                       |             | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| Remote control                       |             | No                                                                                                                                                                                                                                                                                                                                                                                                                                            | Yes                   |
| Remote voltage adjustment            |             | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| Cooling method                       |             | Natural air-cooling used                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |
| Fan alarm function                   |             | No                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |
| Characteristics                      |             |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |
| Ambient temperature                  | Operating   | See the derating curve in the <i>Engineering Data</i> section. (No condensation or icing.)                                                                                                                                                                                                                                                                                                                                                    |                       |
|                                      | Storage     | –25°C to 65°C (–13°F to 149°F) with no condensation or icing                                                                                                                                                                                                                                                                                                                                                                                  |                       |
| Ambient operating humidity           |             | 25% to 85%                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |
| Dielectric strength                  |             | 3 kVAC, 50/60 Hz for 1 min between all inputs and all outputs with a current leakage of 25 mA max.<br>2.5 kVAC, 50/60 Hz for 1 min between all inputs and GR terminals with a current leakage of 25 mA max.<br>1.0 kVAC, 50/50 Hz for 1 min between all outputs and GR terminals with a current leakage of 15 mA max. for each 100-W model, 20 mA max. for each 150-W model.                                                                  |                       |
| Insulation resistance                |             | 100 MΩ min. between all outputs and all inputs/GR terminals at 500 VDC                                                                                                                                                                                                                                                                                                                                                                        |                       |
| Vibration resistance                 | Malfunction | 10 to 55 Hz, 0.375-mm single amplitude for 2 hrs each in X, Y, and Z directions                                                                                                                                                                                                                                                                                                                                                               |                       |
| Shock resistance                     | Malfunction | 300 m/s <sup>2</sup> (approx. 30G), 3 times each in ±X, ±Y, and ±Z directions                                                                                                                                                                                                                                                                                                                                                                 |                       |
| Output indicator                     |             | Yes (green)                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |
| EMC                                  |             | Emission Enclosure (See Note 4.): EN55022 Group 1 class B<br>Emission AC Mains: EN55022 Group 1 class B<br>Immunity ESD: EN61000-4-2:4 kV contact discharge (level 2) 8 kV air discharge (level 3)<br>Immunity RF-interference: ENV50140:10 V/m (10 k to 1 GHz) (level 3)<br>Immunity Conducted Disturbance: ENV50141:10 V (0.15 to 80 MHz) (level 3)<br>Immunity Burst: EN61000-4-4:2 kV power-line (level 3) 2 kV I/O signal-line (level 4) |                       |
| Limits for harmonic current emission |             | ---                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| EMC standards                        |             | Conforms to EN50081-1, EN50082-2                                                                                                                                                                                                                                                                                                                                                                                                              |                       |
| Electromagnetic interference         |             | Conforms to FCC class B, EN50081–1                                                                                                                                                                                                                                                                                                                                                                                                            |                       |
| Approved standards                   |             | UL1012, CSA E.B. 1402C, VDE 0160, IEC 950, EN 60950, CE                                                                                                                                                                                                                                                                                                                                                                                       |                       |
| Weight                               |             | 950 g max.                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1,800 g max.          |

- Note: 1. The fan is one of the replacement parts (300- and 600-W models).  
2. As defined with the rated input voltage and rated output voltage/current.  
3. A surge absorber is provided for the input circuits. To test the dielectric strength and insulation resistance of these models, remove the short bar attached across the GR and ACG terminals.  
4. To ensure emission enclosure rating, ferrite cores should be used on all cabling.

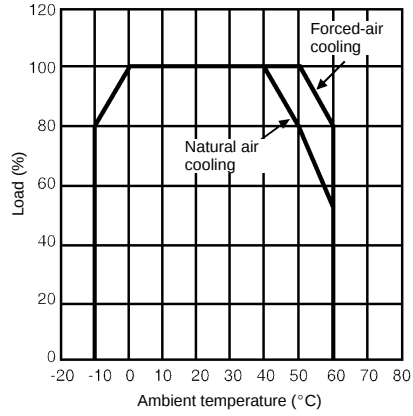
# Engineering Data

## DERATING CURVE

Note: The derating curve differs depending on the mounting position of the power supply.

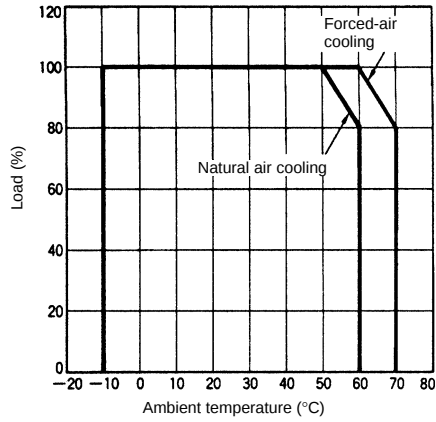
### 15, 30, 50 W Models

#### Standard Mounting



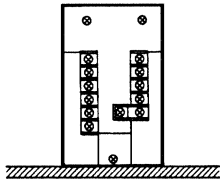
### 100 and 150 W Models

#### Standard Mounting

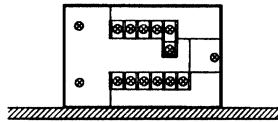


## MOUNTING POSITION

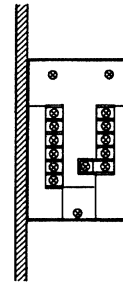
### Standard Mounting



### Horizontal Mounting (100- and 150-W Models Only)



### Side Mounting (150-W Models Only)

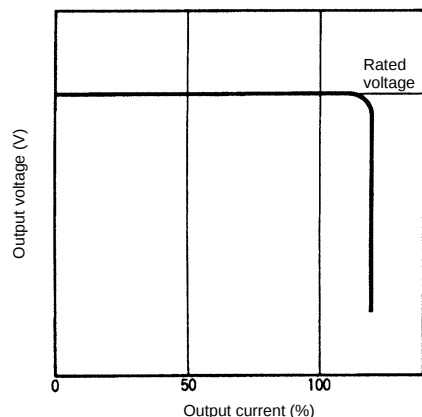


- Note: 1. Forced-air cooling must be applied at an minimum air capacity rate of 1 m<sup>3</sup>/min.  
2. Units cannot be mounted vertically.

## OVERLOAD PROTECTION

The Power Supply is provided with an overload protection function that protects the load and the power supply from possible damage by overcurrent. When the output current rises above a set value (105% of the rated output current for S82H), the protection function is triggered, decreasing the output voltage. When the output current falls within the rated range, the overload protection function is automatically cleared.

### 15-/30-/50-/100- and 150-W Models

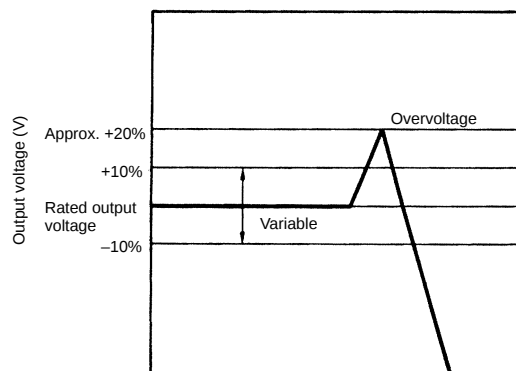


Note: If the product is continuously used under short-circuit or overcurrent conditions, deterioration or damage to internal elements may occur.

## OVERVOLTAGE PROTECTION

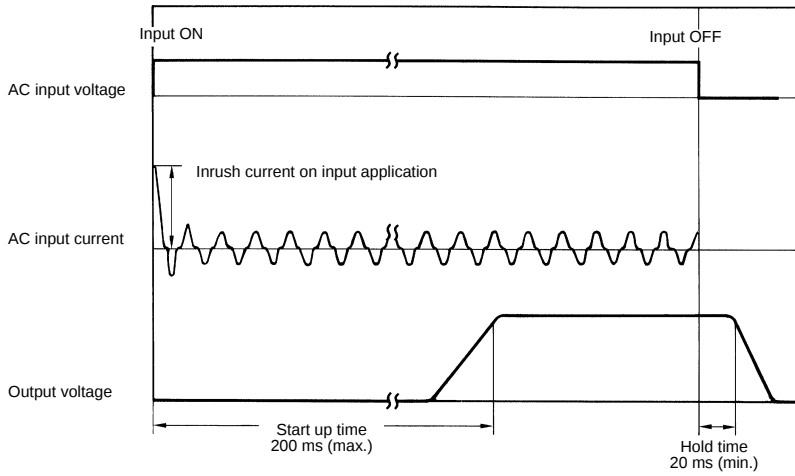
### All – Except 15, 30, and 50 W Models

The Power Supply is provided with an overvoltage protection function that protects the load and the Power Supply from possible damage by overvoltage. When the output voltage rises above a set value (120% of the rated output voltage), the protection function is triggered, shutting off the output voltage. If this occurs, reset the S82H by turning it off for more than 1 minute and then turning it on again.



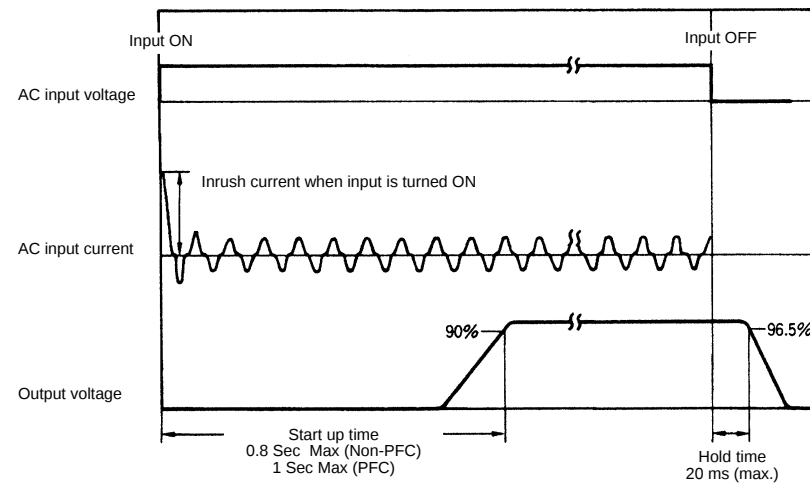
## ■ INRUSH CURRENT, START UP TIME, HOLD TIME

### 15 – 50 W Models



## ■ INRUSH CURRENT, START UP TIME, HOLD TIME

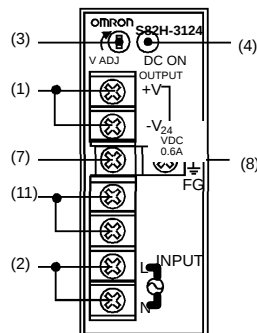
### 100 – 600 W Models



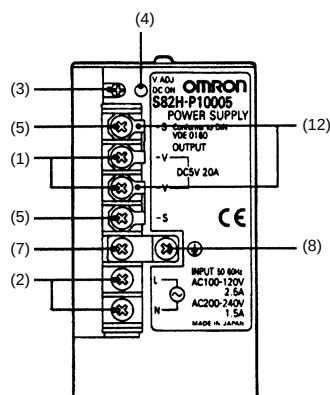
# Nomenclature

## ■ TERMINAL ARRANGEMENT

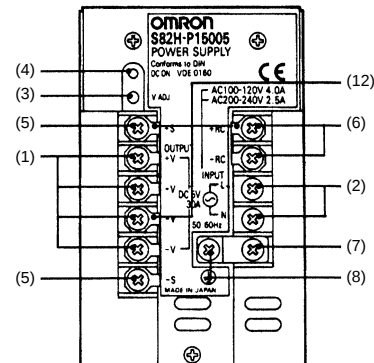
S82H-31□□  
S82H-33□□  
S82H-35□□



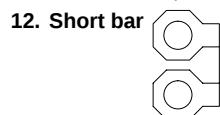
S82H100□□ (100 W)



S82H150□□ (150 W)



1. **DC output terminals:** Connect the load lines to these terminals.
2. **Input terminals L and N (with fuse inserted into the L side):** Connect the input lines to these terminals.
3. **Output voltage adjustment trimmer V.ADJ (with adjustment range of  $\pm 10\%$  of rated output):** Adjusts the output voltage.
4. **Output indicator DC ON:** Lit while a DC output is ON.
5. **Remote sensing terminals:** Corrects the voltage drop in the load lines.
6. **Remote control terminals:** Enables external signals to turn the output ON and OFF while the input voltage is imposed. The terminals are short-circuited with a short bar before shipping.
7. **ACG terminal:** The intermediate point of the input filter. The terminal is short-circuited to the GR terminal before shipping.
8. **GR/FG terminal:** Shorted to the housing. Ground the Power Supply through this terminal.
9. **Fan alarm terminals FAN ALM:** Turns ON when the revolution of the built-in fan drops.
10. **Output voltage monitor terminals:** Connected to the DC output terminals internally. No output current can be obtained from these terminals. Short-circuit the terminals to the remote sensing terminals +S and -S if the remote sensing function is not used.
11. **Input voltage selector and terminals:** Switch the input voltage by connecting or removing the short bar (short circuit: 100–120V; Open circuit: 200–240V)

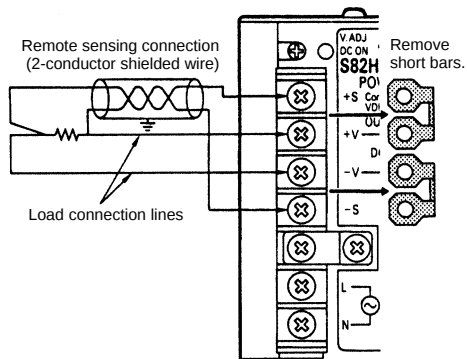


# Operation

## REMOTE SENSING FUNCTION

The remote sensing function makes it possible to compensate for voltage drops caused by load lines. To use this function, remove the short bar from the remote sensing terminals and wire the Power Supply and load as shown in the following illustration. The remote sensing terminals are short-circuited with the short bar before shipping.

### 100-W and 150-W Models



| Level          | Output voltage |
|----------------|----------------|
| L (0.8 V max.) | ON             |
| H (2 V min.)   | OFF            |

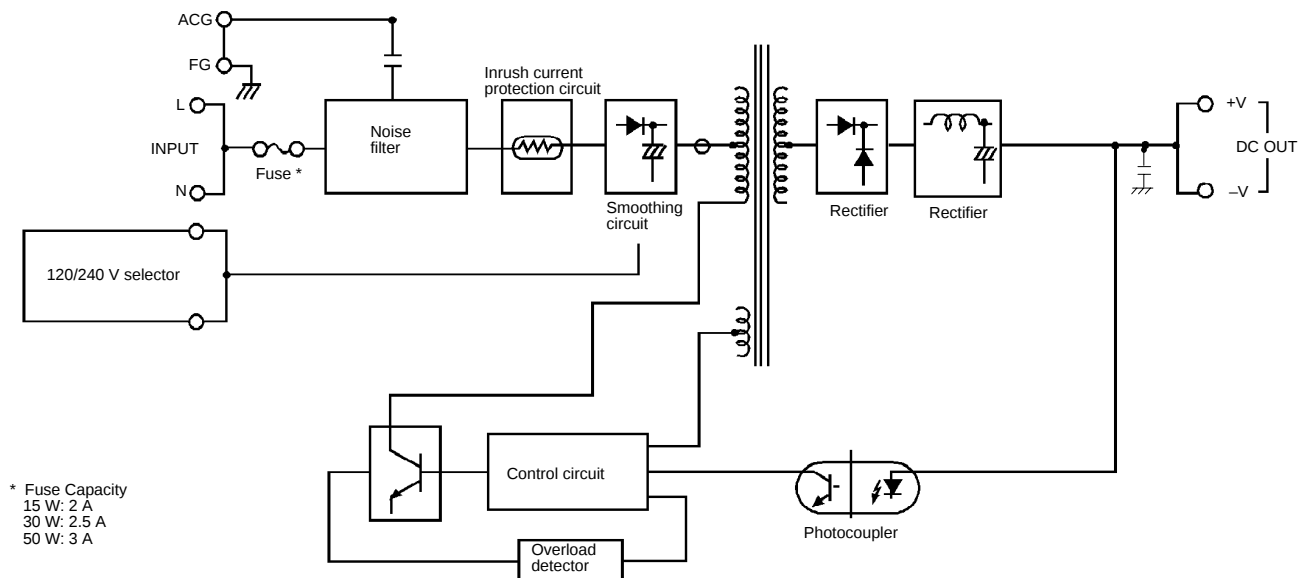
Note: No output will be produced if the terminals are left unconnected. Be sure to firmly tighten the terminal screws.

## BLOCK DIAGRAMS

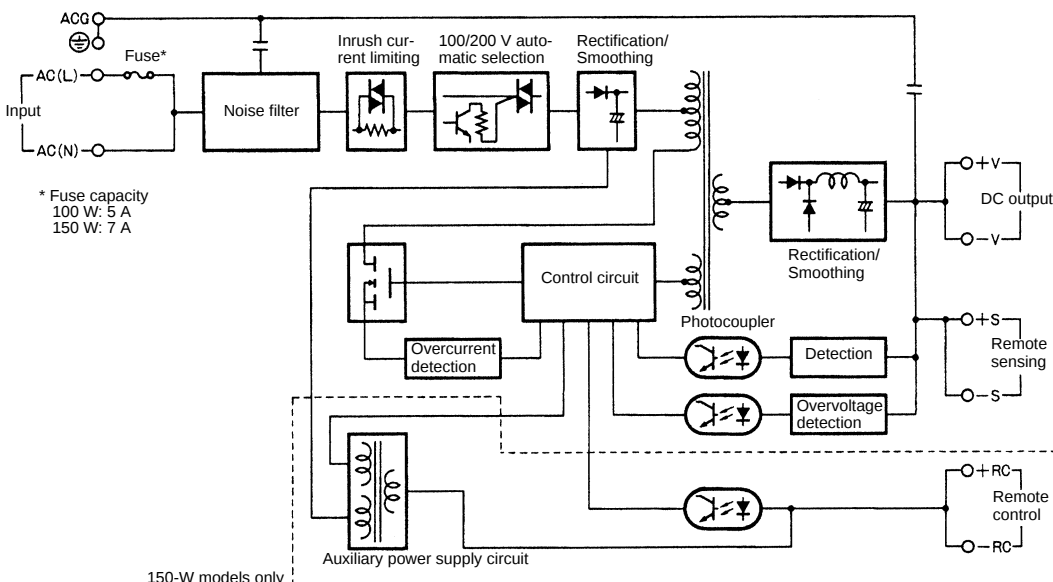
S82H-31□□

S82H-33□□

S82H-35□□



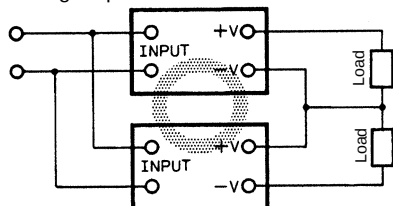
**S82H-100** (100 W)  
**S82H-150** (150 W)



## GENERATING OUTPUT VOLTAGE ( $\pm$ )

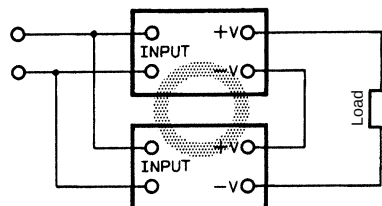
The output of two Power Supplies can be combined in series.

An output of  $\pm$  can be generated by using two power supplies (as shown below) because the power supply produces a floating output.



## SERIES OPERATION

The output of two power supplies can be combined in series.

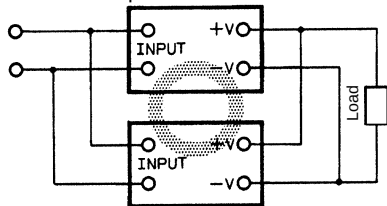


## PARALLEL OPERATION

Parallel operation is possible by simply connecting the output terminals in parallel. (Other than 100 W models)

Using the output voltage adjustment trimmer, adjust the output of each power supply to the same value.

Operate the Power Supplies connected in parallel at 80% of the rated output current.

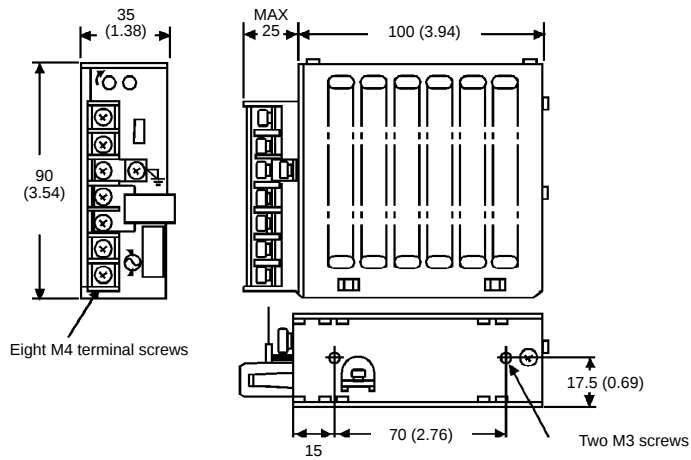


# Dimensions

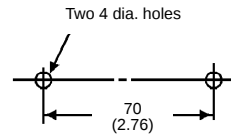
Unit: mm (inch)

## SWITCHING POWER SUPPLIES

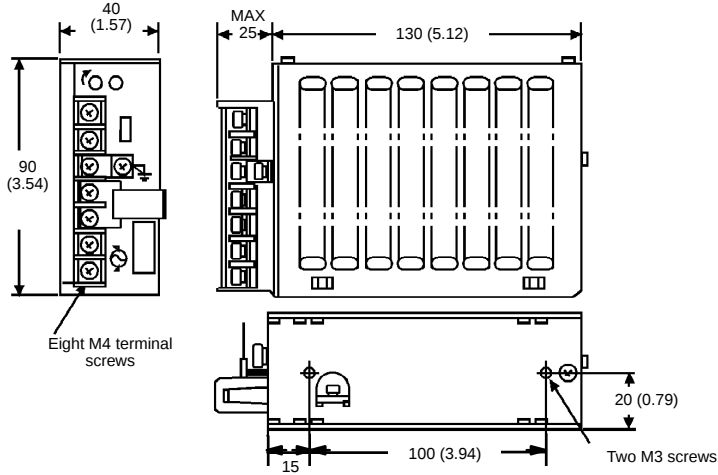
### S82H-31□□



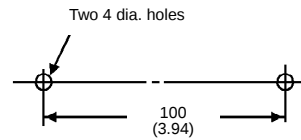
Mounting Holes –  
Bottom mounting



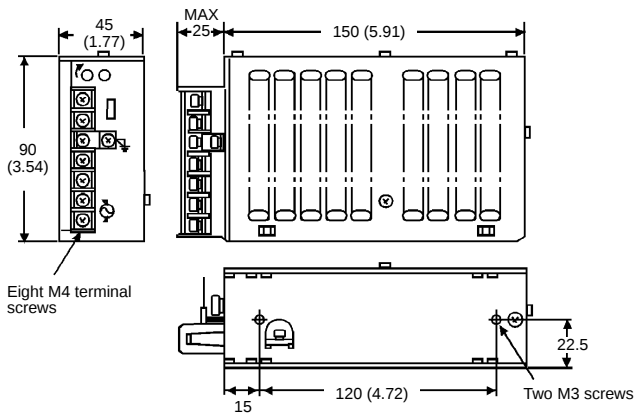
### S82H-33□□



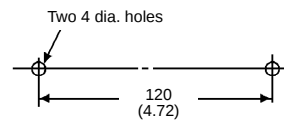
Mounting Holes



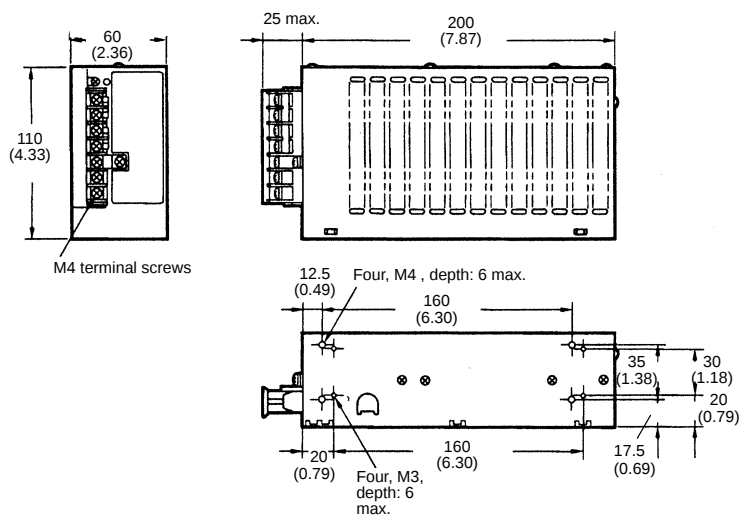
### S82H-35□□



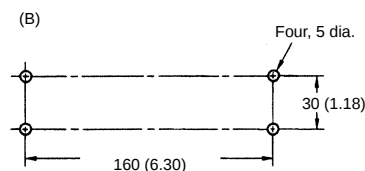
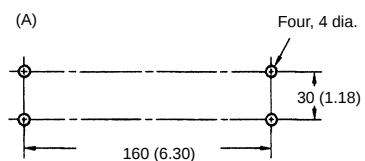
Mounting Holes



**S82H100□□ (100 W)**

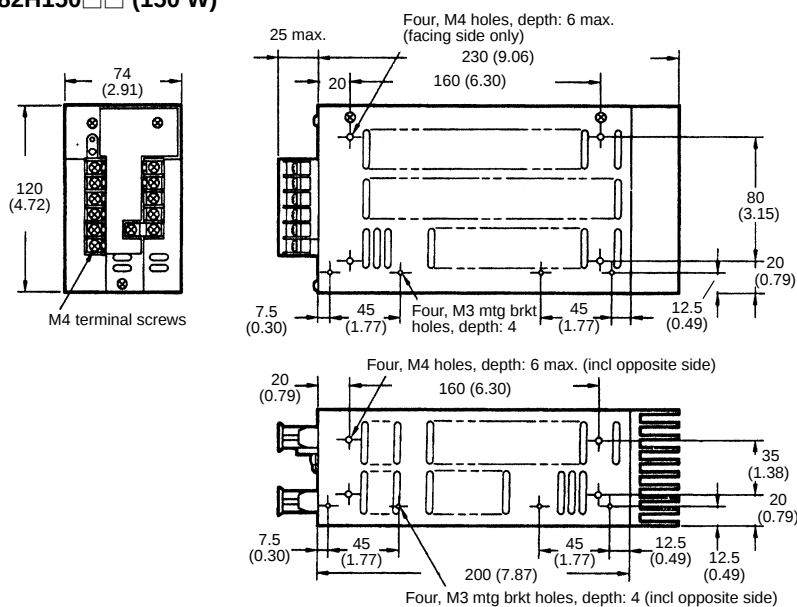


**Mounting Holes**



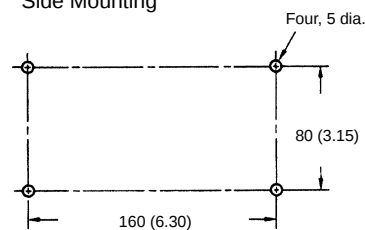
(A): Compatible with conventional S82H (100 W) models  
(B): Compatible with S82P (100 W) discontinued models

**S82H150□□ (150 W)**

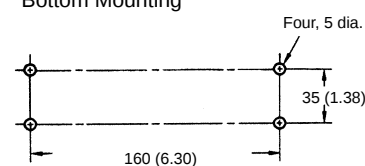


**Mounting Holes**

**Side Mounting**



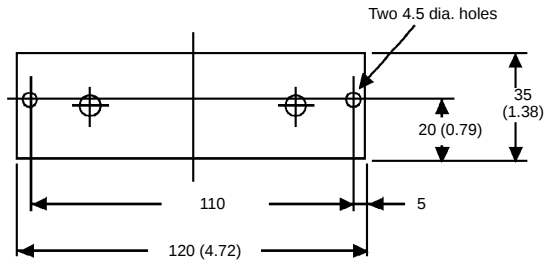
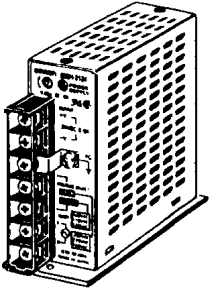
**Bottom Mounting**



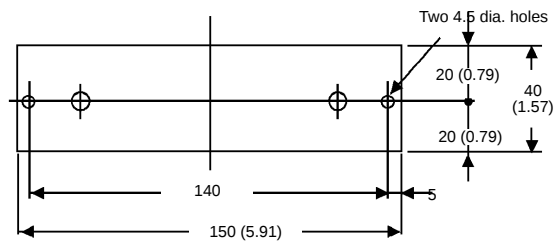
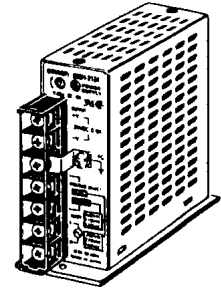
## ■ MOUNTING BRACKET

### Bottom-Mounting Bracket

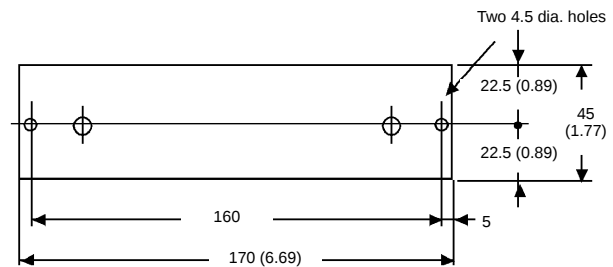
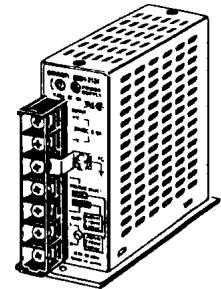
S82Y-H01B (15 W)



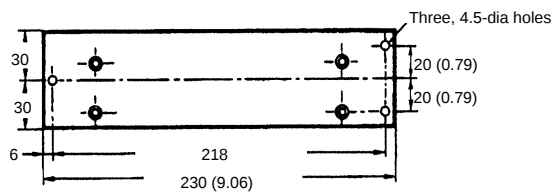
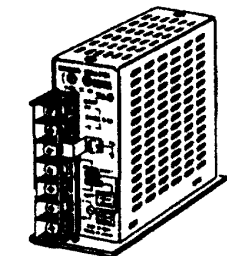
S82Y-H03B (30 W)



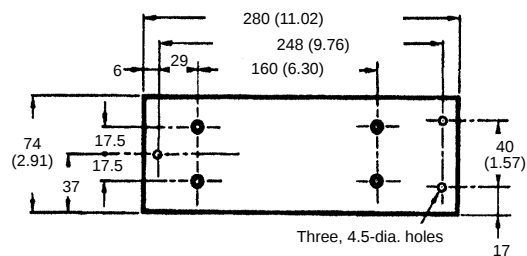
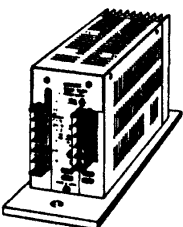
S82Y-H05B (50 W)



S82Y-H10B (100 W)



S82Y-F15B (150 W)

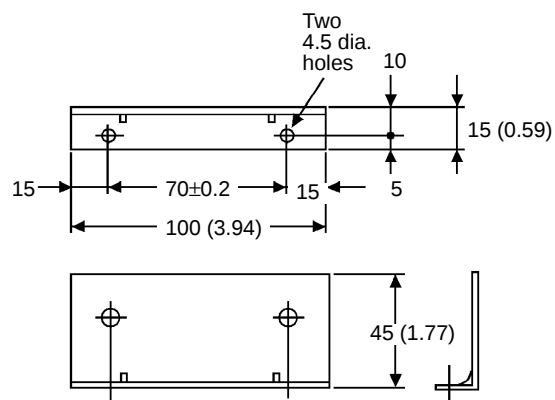
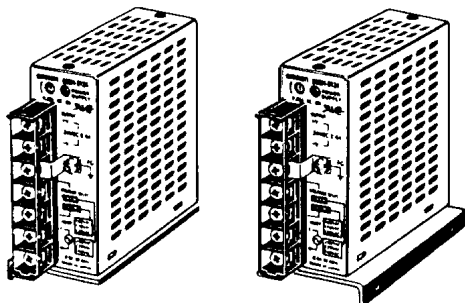


Note: Use countersink screws of M4 x 8 max. when attaching to the unit.

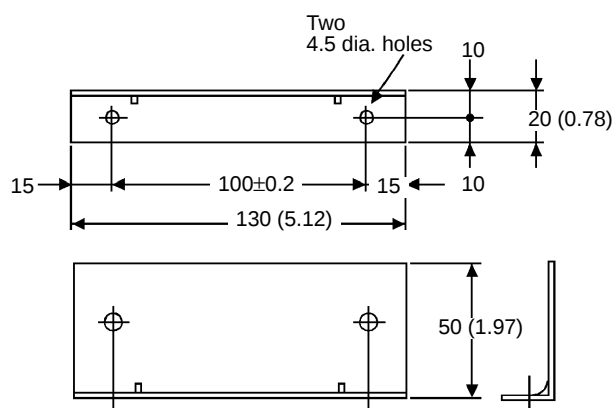
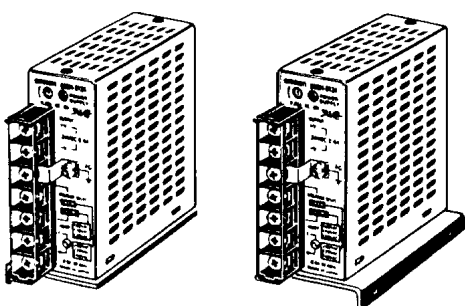
Unit: mm (inch)

# Side-Mounting Bracket

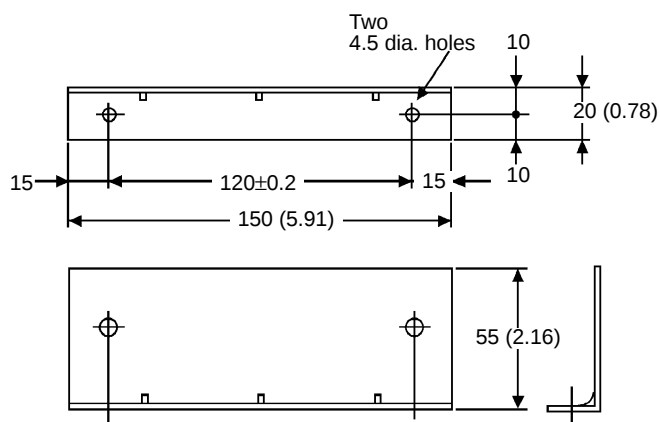
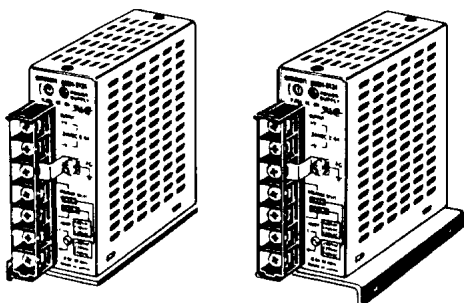
## S82Y-H01S (15 W)



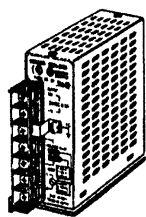
## S82Y-H03S (30 W)



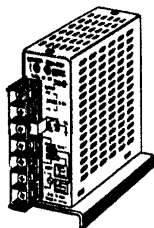
## S82Y-H05S (50 W)



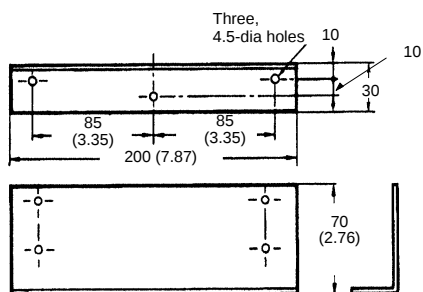
**S82Y-H10S (100 W)**



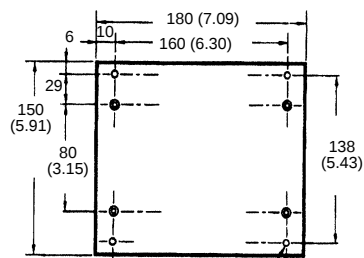
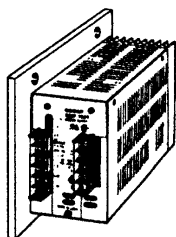
Left-side mounting



Right-side mounting



**S82Y-F15S (150 W)**

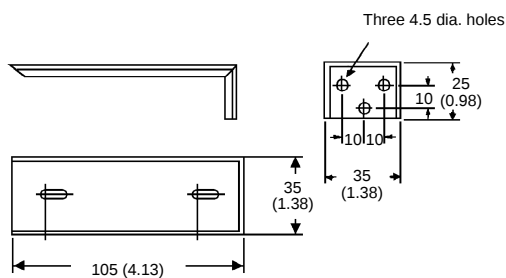
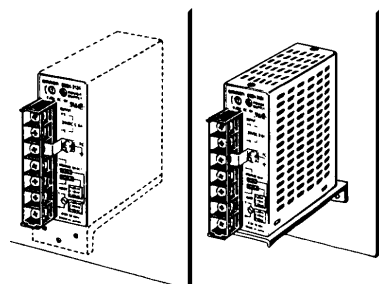


Four, 4.5-dia. holes

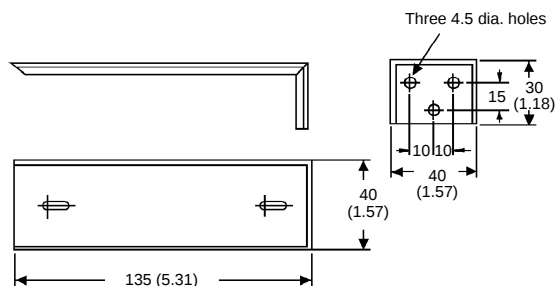
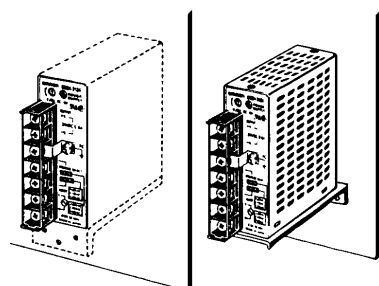
Note: Use countersink screws of M4 x 8 max. when attaching to the unit.

# Front/Flush Mounting Bracket

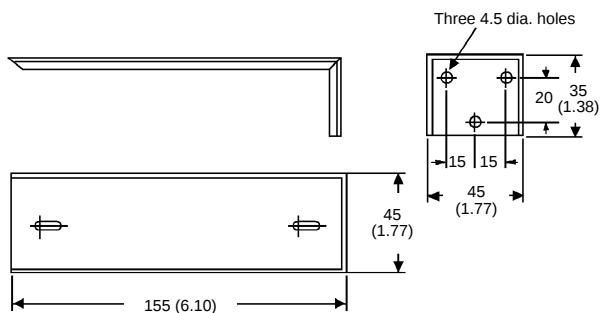
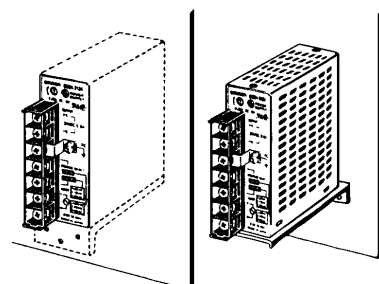
S82Y-H01F (15 W)



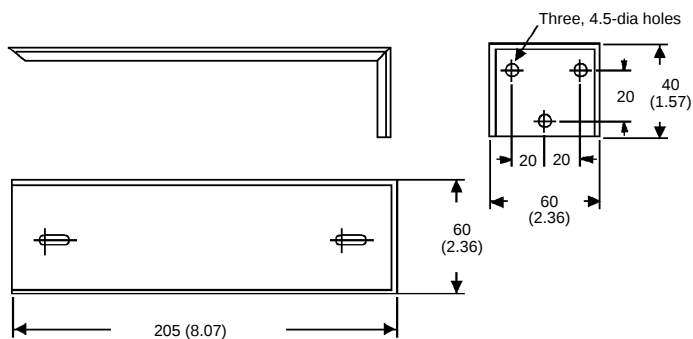
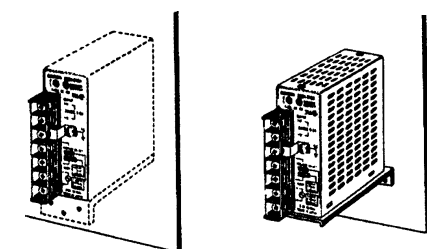
S82H-H03F (30 W)



S82H-H05F (50 W)



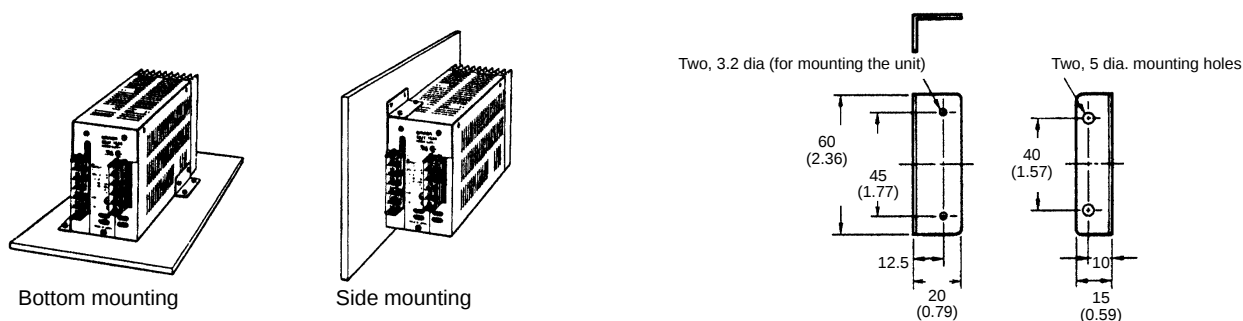
S82Y-H10F (100 W)



## ■ OTHER ACCESSORIES AND ATTACHMENTS FOR S82H150□□ (150 W)

Using the mounting brackets supplied with the unit, the unit can be attached in two directions.

### Bottom or Side Mounting Bracket (Included as an Attachment)



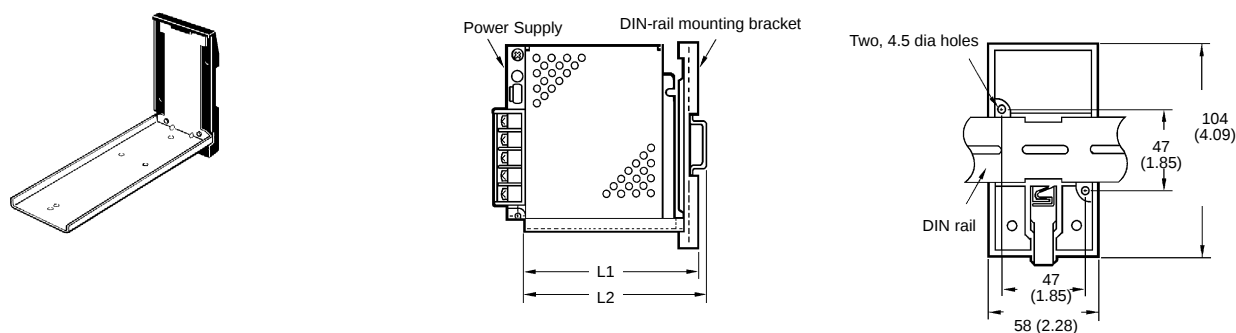
Note: Using two screws, attach the mounting bracket to the unit and then attach it to the panel.

## ■ DIN-RAIL MOUNTING BRACKET

S82Y-01N (15 W)

S82Y-03N (30 W)

S82Y-05N (50 W)

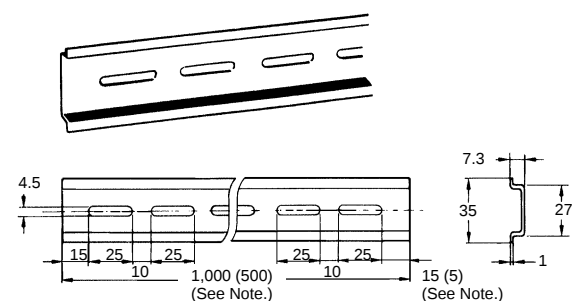


| Item                    | S82Y-01N        | S82Y-03N        | S82Y-05N        |
|-------------------------|-----------------|-----------------|-----------------|
| Applicable power supply | S82H-31         | S82H-33         | S82H-35         |
| Dimensions L1           | 113 mm (4.45)   | 143 mm (5.63)   | 163 mm (6.42)   |
| Dimensions L2           | 114.8 mm (4.52) | 144.8 mm (5.70) | 164.8 mm (6.49) |

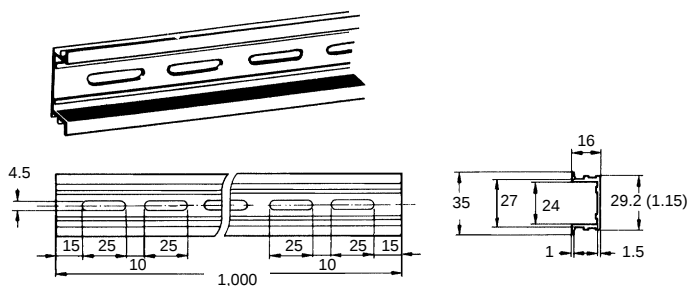
Note: The figures in row L1 apply if a mounting bracket is attached to the power supply. The figures in row L2 apply if PFP-50N or PFP-100N DIN rail is used. Add 10.5 mm to each figure in the L1 row if PFP-100N2 DIN rail is used.

## ■ DIN RAIL

### PFP-100N/PFP-50N



### PFP-100N2



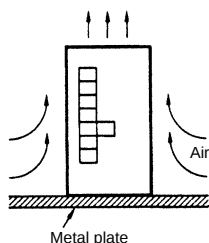
Note: The values shown in parentheses are for the PFP-50N.

# Precautions

## ■ MOUNTING

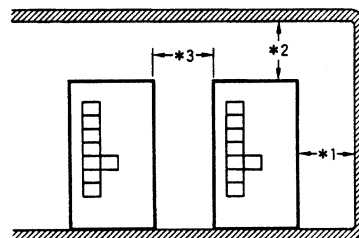
Note: Be careful not to impose any excessive vibration or impact when installing.

- To improve and maintain the reliability of the Power Supply over a long period of time, adequate consideration must be given to heat dissipation.
- Mount the Power Supply so that air flow takes place around the Power Supply. The Power Supply is designed to dissipate heat through natural air-flow.
- It is recommended that the Power Supply be mounted on a metal plate.



Provide at least the spaces listed in the following table.

| Model         | *1              | *2              | *3              | *4              | *5              |
|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 100W,<br>150W | 30 mm<br>(1.18) | 50 mm<br>(1.97) | 20 mm<br>(0.78) | 20 mm<br>(0.78) | 20 mm<br>(0.78) |
| 300W          | 30 mm<br>(1.18) | 50 mm<br>(1.97) | 20 mm<br>(0.78) | 50 mm<br>(1.97) | 40 mm<br>(1.57) |
| 600W          | 30 mm<br>(1.18) | 50 mm<br>(1.97) | 20 mm<br>(0.78) | 70 mm<br>(2.76) | 50 mm<br>(1.97) |



- Forced-air cooling is recommended.
- Don't expose the product to the direct sunlight.
- Be careful not to allow any machining chips or dust into the product while fabricating mounting plates.
- Don't use the product where fluids, foreign matter, or corrosive gases may enter the product.
- Provide at least the spaces listed in the following table.

## ■ WIRING PRECAUTIONS

The Power Supply is provided with reinforced insulation between the primary and secondary terminals. When using the secondary circuit as an SELV circuit, the circuit connected to the output terminals and auxiliary function terminals must be a SELV circuit.

## Certain Terms and Conditions

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3. **Discounts.** Cash discounts, if any, will apply only on the net amount of invoices sent to Buyer after deducting transportation charges, taxes and duties, and will be allowed only if (i) the invoice is paid according to Seller's payment terms and (ii) Buyer has no past due amounts owing to Seller.
4. **Orders.** Seller will accept no order less than \$200 net billing.
5. **Governmental Approvals.** Buyer shall be responsible for, and shall bear all costs involved in, obtaining any government approvals required for the importation or sale of the Goods.
6. **Taxes.** All taxes, duties and other governmental charges (other than general real property and income taxes), including any interest or penalties thereon, imposed directly or indirectly on Seller or required to be collected directly or indirectly by Seller for the manufacture, production, sale, delivery, importation, consumption or use of the Goods sold hereunder (including customs duties and sales, excise, use, turnover and license taxes) shall be charged to and remitted by Buyer to Seller.
7. **Financial.** If the financial position of Buyer at any time becomes unsatisfactory to Seller, Seller reserves the right to stop shipments or require satisfactory security or payment in advance. If Buyer fails to make payment or otherwise comply with these Terms or any related agreement, Seller may (without liability and in addition to other remedies) cancel any unshipped portion of Goods sold hereunder and stop any Goods in transit until Buyer pays all amounts, including amounts payable hereunder, whether or not then due, which are owing to it by Buyer. Buyer shall in any event remain liable for all unpaid accounts.
8. **Cancellation; Etc.** Orders are not subject to rescheduling or cancellation unless Buyer indemnifies Seller fully against all costs or expenses arising in connection therewith.
9. **Force Majeure.** Seller shall not be liable for any delay or failure in delivery resulting from causes beyond its control, including earthquakes, fires, floods, strikes or other labor disputes, shortage of labor or materials, accidents to machinery, acts of sabotage, riots, delay in or lack of transportation or the requirements of any government authority.
10. **Shipping; Delivery.** Unless otherwise expressly agreed in writing by Seller:
  - a. Shipments shall be by a carrier selected by Seller;
  - b. Such carrier shall act as the agent of Buyer and delivery to such carrier shall constitute delivery to Buyer;
  - c. All sales and shipments of Goods shall be FOB shipping point (unless otherwise stated in writing by Seller), at which point title to and all risk of loss of the Goods shall pass from Seller to Buyer, provided that Seller shall retain a security interest in the Goods until the full purchase price is paid by Buyer;
  - d. Delivery and shipping dates are estimates only.
  - e. Seller will package Goods as it deems proper for protection against normal handling and extra charges apply to special conditions.
11. **Claims.** Any claim by Buyer against Seller for shortage or damage to the Goods occurring before delivery to the carrier must be presented in writing to Seller within 30 days of receipt of shipment and include the original transportation bill signed by the carrier noting that the carrier received the Goods from Seller in the condition claimed.
12. **Warranties.** (a) **Exclusive Warranty.** Seller's exclusive warranty is that the Goods will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Seller (or such other period ex-

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13. **Damage Limits; Etc.** SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE GOODS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY. Further, in no event shall liability of Seller exceed the individual price of the Good on which liability is asserted.
14. **Indemnities.** Buyer shall indemnify and hold harmless Seller, its affiliates and its employees from and against all liabilities, losses, claims, costs and expenses (including attorney's fees and expenses) related to any claim, investigation, litigation or proceeding (whether or not Seller is a party) which arises or is alleged to arise from Buyer's acts or omissions under these Terms or in any way with respect to the Goods. Without limiting the foregoing, Buyer (at its own expense) shall indemnify and hold harmless Seller and defend or settle any action brought against Seller to the extent that it is based on a claim that any Good made to Buyer specifications infringed intellectual property rights of another party.
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16. **Miscellaneous.** (a) **Waiver.** No failure or delay by Seller in exercising any right and no course of dealing between Buyer and Seller shall operate as a waiver of rights by Seller. (b) **Assignment.** Buyer may not assign its rights hereunder without Seller's written consent. (c) **Amendment.** These Terms constitute the entire agreement between Buyer and Seller relating to the Goods, and no provision may be changed or waived unless in writing signed by the parties. (d) **Severability.** If any provision hereof is rendered ineffective or invalid, such provision shall not invalidate any other provision. (e) **Setoff.** Buyer shall have no right to set off any amounts against the amount owing in respect of this invoice. (f) As used herein, "including" means "including without limitation".

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1. **Suitability of Use.** Seller shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Good in the Buyer's application or use of the Good. At Buyer's request, Seller will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Good. This information by itself is not sufficient for a complete determination of the suitability of the Good in combination with the end product, machine, system, or other application or use. The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of this Good, nor is it intended to imply that the uses listed may be suitable for this Good:
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    - (ii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
    - (iii) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this Good.
- NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SEVERE RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE

SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE SELLER'S PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

2. **Programmable Products.** Seller shall not be responsible for the user's programming of a programmable Good, or any consequence thereof.
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