

# General Specifications

GS 33K50K30-50E

Models PW601, PW602  
24 V DC Output Power Supply  
Model AEP9D  
Secondary Power Supply Bus Unit



[Release 5]

## ■ GENERAL

This GS covers the hardware specifications of the 24 V DC Output Power Supply (PW601, PW602) which supplies power to a Fieldbus power supply or a digital module of FIO, and covers also the hardware specifications of the Secondary Power Supply Bus Unit which branch received electricity from 24 V DC power supply (PW60□, etc.) to equipment installed in the cabinet. Up to 4 of dedicated power supply units can be installed to PW601 and PW602. The necessary number of unit depends on the power supply capacity to be used. Two power supply units are connected in parallel for dual-redundant configuration.

## ■ HARDWARE SPECIFICATIONS

For common installation environmental conditions and conforming standards, see Integrated Production Control System CENTUM VP System Overview (GS 33K01A10-50E, GS 33K01A20-50E). The specifications for one power supply unit to be installed in PW601 or PW602 is provided in the below.

### ● Electrical Specifications of 24 V DC Output Power Supply

| Item   | Description  |   |
|--|--|---|
| Model  | PW601  | PW602   |
| Input power supply voltage                                   | 100 to 120 V AC<br>50/60 Hz  | 220 to 240 V AC<br>50/60 Hz   |
| Input power supply voltage tolerance                         | 90 to 132 V AC   | 198 to 264 V AC   |
| Max. input current power consumption                         | 2.6 A<br>220 VA  | 1.25 A<br>220 VA  |
| Rated output voltage   | 24 V DC $\pm 5\%$  | 24 V DC $\pm 5\%$   |
| Environment temperature                                      | 0 to 60 °C   |   |
| Rated output current<br>(temperature environment 0 to 50°C)  | 6 A (total of 1st output and 2nd output)   | 6 A (total of 1st output and 2nd output)  |
| Rated output current<br>(temperature environment 50 to 60°C) | 4 A (total of 1st output and 2nd output)   | 4 A (total of 1st output and 2nd output)  |
| Withstanding voltage   | between input and FG terminal: 1500 V AC   | between input and FG terminal: 1500 V AC  |
| READY contact output   | Contact rating: within 30 V DC, 0.1 A,<br>Two terminals (NC, C), When power supply unit is abnormal, contact opens |   |
| Output holdup time   | 20 ms  | 20 ms   |
| Indication   | READY LED (green): It lights up when normal  |   |
| Conforming standard  | Safety standard [CSA] PW601<br>[CE Marking] PW602  | EMC standard [CE Marking] PW602<br>[C-Tick Marking] PW602<br>[KC Marking] PW602               |
| Life span (overhaul cycle)                                   | 8 years (temperature environment 40 °C)  | 8 years (temperature environment 40 °C)   |
| Weight   | 6 kg (for PW601-S10)<br>8 kg (for PW601-S20)<br>9 kg (for PW601-S30)<br>11 kg (for PW601-S40)                      | 6 kg (for PW602-S10)<br>8 kg (for PW602-S20)<br>9 kg (for PW602-S30)<br>11 kg (for PW602-S40) |

### ● Electrical Specifications of Secondary Power Supply Bus Unit

Input power supply voltage: 24 V DC

Withstanding voltage: 500 V AC, for one minute

Max. input current / AEP9D: 20 A

Max. input current / port: 10 A

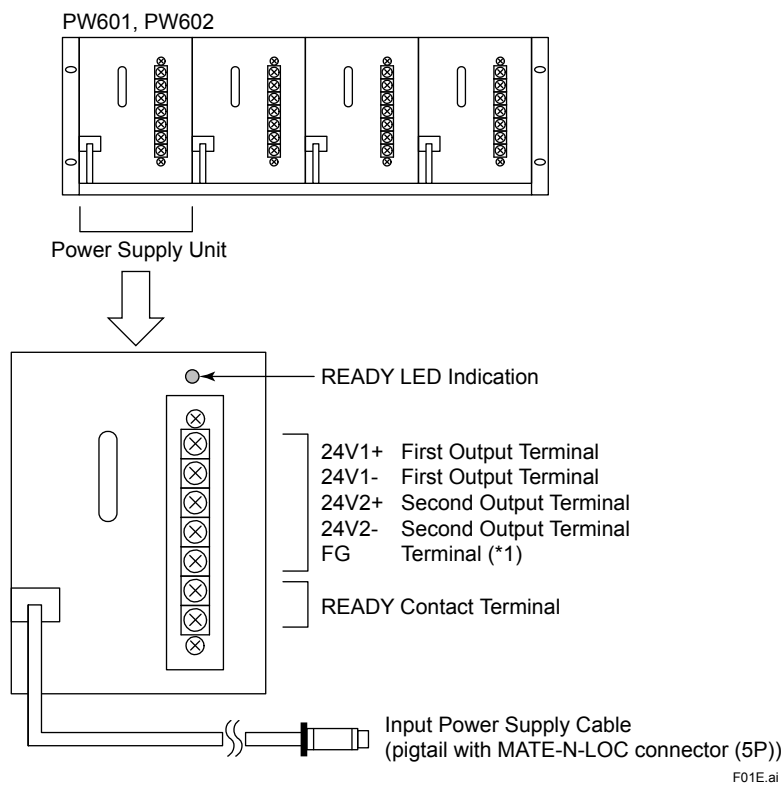
Standards conformed with:

Safety standard: [CSA], [CE Marking]

EMC standard: [CE Marking], [C-Tick Marking], [KC Marking]

Standard for Hazardous Location Equipment: [CSA Non-Incendive], [FM Non-Incendive], [Type n]

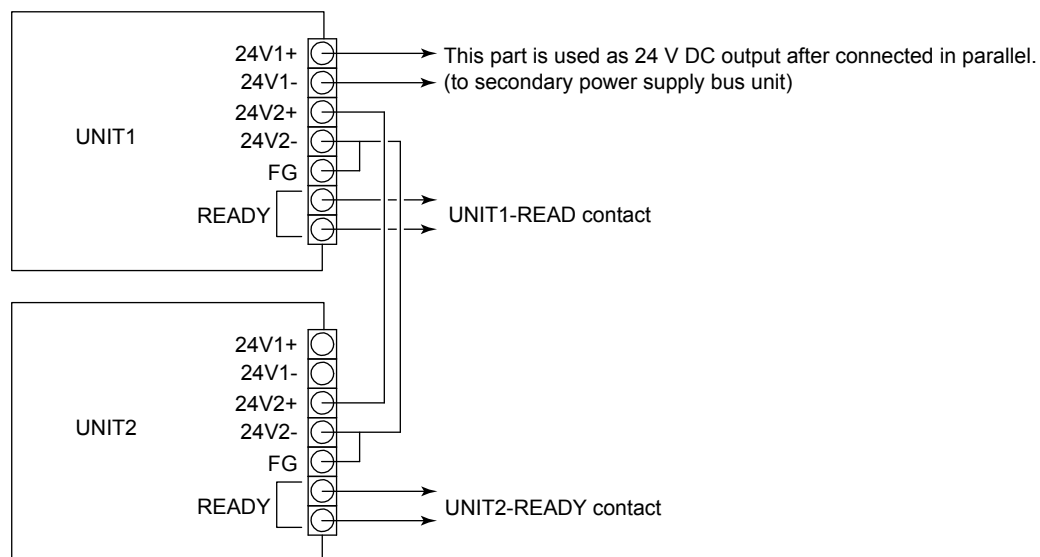
## ■ NAME OF EACH PART



\*1: When you use PW60□ installed on ACB41, or use PW60□ with AEP7D, the FG terminals need not be connected.

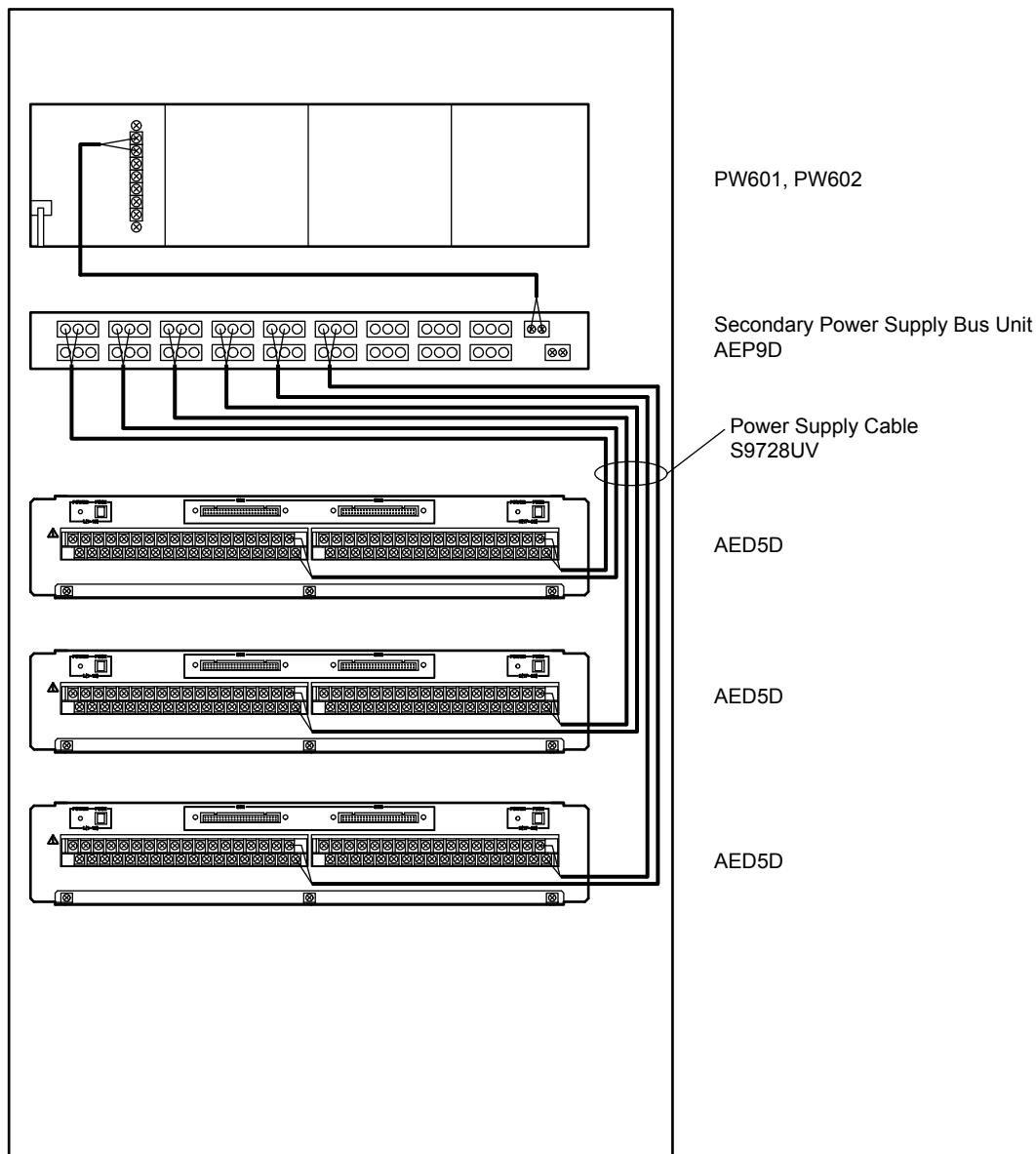
## ■ DUAL-REDUNDANT CONFIGURATION

Using two power supply units supports dual-redundant configuration. To make dual-redundant configuration, two units are wired in outside of unit.



## ■ EXAMPLE OF INSTALLATION

The following example is for installing PW601 or PW602; Terminal Board for Dual-Redundant Digital (AED5D); Secondary Power Supply Bus Unit (AEP9D) to a dedicated cabinet. The Secondary Power Supply Bus Unit (AEP9D) can distribute the output of PW601 or PW602 in dual lines. Use the Power Supply Cable (S9728UV, one side untreated) to connect the Secondary Power Supply Bus Unit (AEP9D) and power supply input terminals of each terminal board. Use a solderless terminal depends on the device to be connected when using this cable.



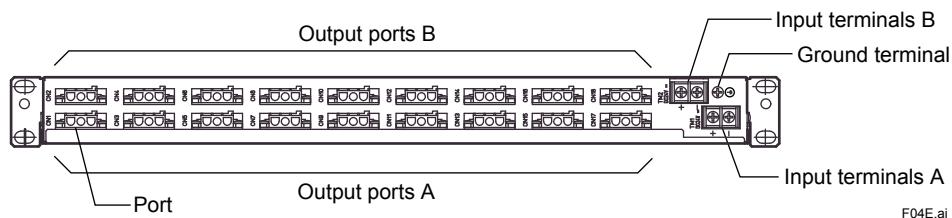
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## ● Secondary Power Supply Bus Unit (AEP9D)

The dual-line input terminals of Secondary Power Supply Bus Unit (AEP9D) receive transmitted electricity separately, then the received electricity is branched into 9 outputs for respective lines.

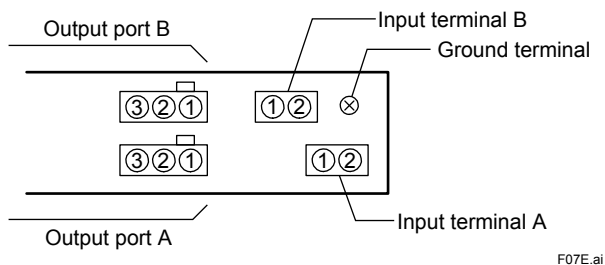
In the following figure, nine “A” output ports correspond to input terminal A and nine “B” output ports correspond to input terminal B.

If input terminals A and B are connected in parallel (pin nos. 1 to 1 and 2 to 2), a single power line can then be branched into 18 outputs.



## ● Pin Assignment of Secondary Power Supply Bus Unit

### Pin Numbers of Each Terminal



### Correspondence Between Pin Numbers and Signals

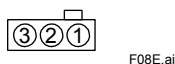
|   | Pin Number | Model             |
|---|------------|-------------------|
|   |            | AEP9D-4□          |
| Input Terminals A and B                                       | 1          | + (24P)           |
|   | 2          | – (24N)           |
| Ground Terminal   |            | Functional ground |
| Output Ports A and B (18-ports) MATE-N-LOK Connector (3 pins) | 1          | Functional ground |
|   | 2          | – (24N)           |
|   | 3          | + (24P)           |

## ● Cable

### Power Supply Cable for Secondary Power Supply Bus Unit

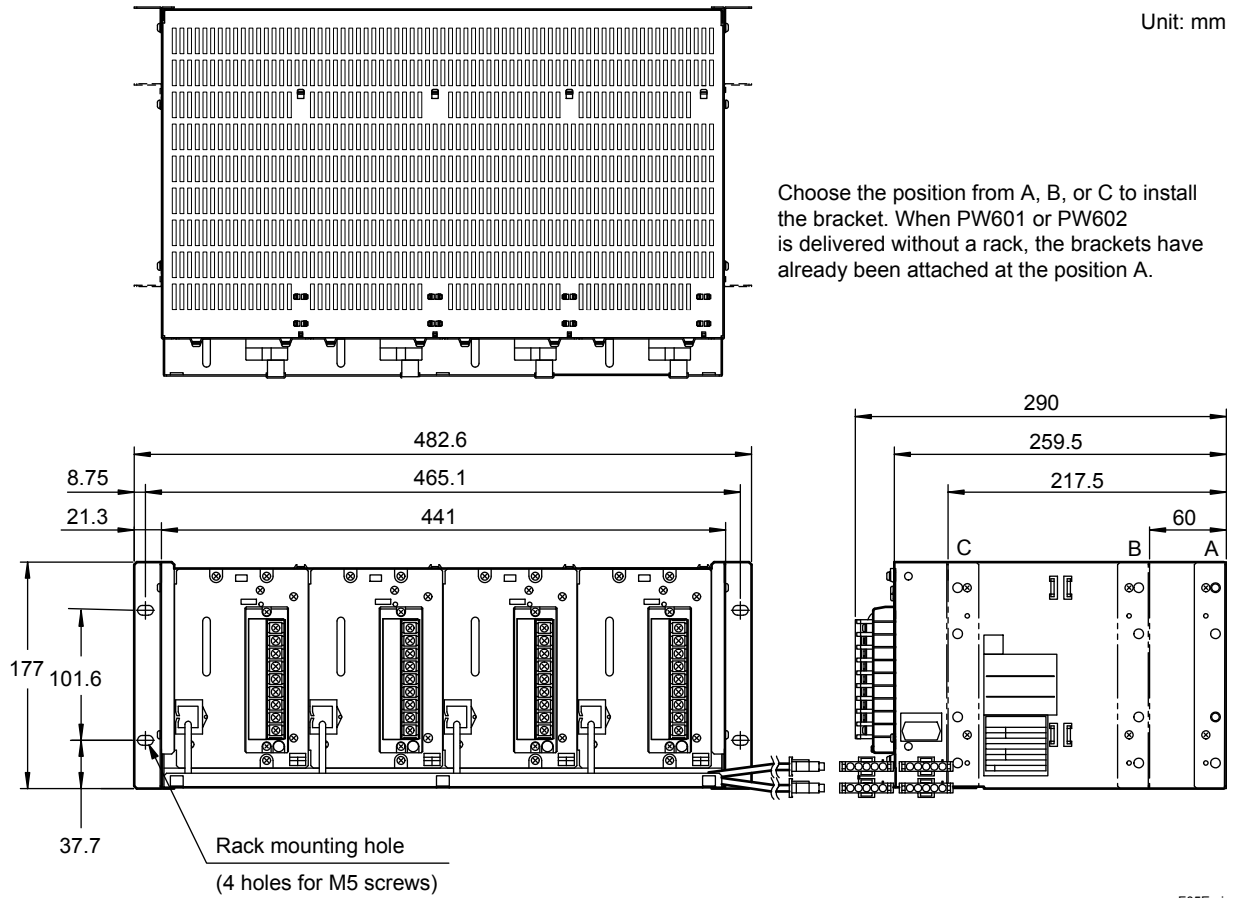
| Part Number | Description                           | Correspondence between terminal pin numbers and cables |       |
|-------------|---------------------------------------|--|-------|
|             |                                       | Black  | White |
| S9728UV     | For AEP9D-4□, 2 m, one side untreated | 3  | 2     |

### Connector

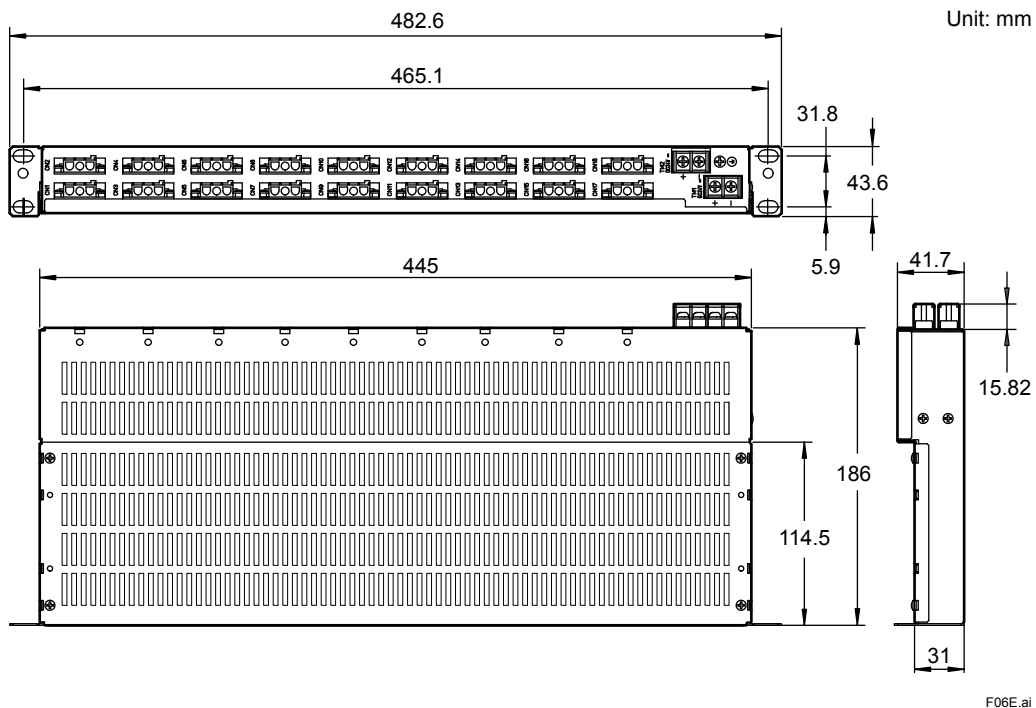


## EXTERNAL DIMENSIONS

### ● PW601, PW602 24 V DC Output Power Supply



### ● AEP9D Secondary Power Supply Bus Unit



## ■ MODELS AND SUFFIX CODES

### 24 V DC Output Power Supply (100 V - 120 V AC Input)

|                     |       | Description  |
|---------------------|-------|--|
| <b>Model</b>        | PW601 | 24 V DC Output Power Supply (100 V - 120 V AC Input) |
| <b>Suffix Codes</b> | -S    | Standard type  |
|                     | 1     | Power supply unit x 1                                |
|                     | 2     | Power supply unit x 2                                |
|                     | 3     | Power supply unit x 3                                |
|                     | 4     | Power supply unit x 4                                |
|                     | 0     | Always 0   |

### 24 V DC Output Power Supply (220 V - 240 V AC Input)

|                     |       | Description  |
|---------------------|-------|--|
| <b>Model</b>        | PW602 | 24 V DC Output Power Supply (220 V - 240 V AC Input) |
| <b>Suffix Codes</b> | -S    | Standard type  |
|                     | 1     | Power supply unit x 1                                |
|                     | 2     | Power supply unit x 2                                |
|                     | 3     | Power supply unit x 3                                |
|                     | 4     | Power supply unit x 4                                |
|                     | 0     | Always 0   |

### Secondary Power Supply Bus Unit

|                     |       | Description   |
|---------------------|-------|---|
| <b>Model</b>        | AEP9D | Secondary Power Supply Bus Unit                         |
| <b>Suffix Codes</b> | -4    | 24 V DC input   |
|                     | 5     | Basic type with no explosion protection                 |
|                     | 6     | With ISA Standard G3 option and no explosion protection |
|                     | E     | Basic type with explosion protection                    |
|                     | F     | With ISA Standard G3 option and explosion protection    |

## ■ ORDERING INFORMATION

Specify the model and suffix codes.

For selecting the right products for explosion protection, please refer to TI 33Q01J30-01E without fail.

## ■ TRADEMARK

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