

# General Specifications

Model SDND  
Power Supply Unit

**YEW**SERIES 80

**GS 01B04T04-E**

The SDND Power Supply Unit provides stabilized 25 V DC power for YEW SERIES 80 Instruments.

- Compact and lightweight, can be mounted in a rack with other rack mount equipments.
- Can be used in parallel operation.

## STANDARD SPECIFICATIONS

### Input/Output Signals

Power supply: 80 to 138 V AC or 160 to 264 V AC,  
50/60 Hz  $\pm$  3Hz

Normal output voltage: 25 V DC / 27.3 V DC  
(Switched from the front panel)

Rated output variable range:

When the switch position is 25 V DC;  
23 to 26 V DC (for instrument drive)

When the switch position is 27.3 V DC;  
Fixed to 27.3 V DC (for instrument drive  
or battery charge)

Ripple voltage: 150 mV p-p.

Spike voltage: 250 mV p-p.

Rated continuous output current: 15 A.

Over-current protection: Fold-back circuit operates at  
17 A  $\pm$  1A.

Output current/voltage indicator: Normally current  
indication, scale 0 to 20 A  
Voltage indication only when push-button  
switch is operated, scale 0 to 35 V  
Grade: 2.5

Parallel operation: Up to 4 units can be operated in  
parallel

Alarm: Alarms are issued in the event of power  
failure or SDND malfunction.

SDND status	Alarm terminal	
	J - K	K - M
AC input power failure	Closed	Open
AC input switch OFF (Note 1)	Closed	Open
SDND abnormal (Note 2)	Closed	Open
Normal operation	Open	Closed

Note 1: Automatically trips when input current increases due to SDND abnormality.

Note 2: Abnormality means output voltage drop ( $22 \pm 1$  V), output overvoltage ( $30 \pm 2$  V), or circuit error. The output is shut down except for output voltage drop.

Alarm output: Output in 2 to 5 seconds after abnormality occurs  
Single-pole double-throw relay contact

Alarm output contact Rating:  
115 V AC / 1 A (resistive load)  
30 V DC / 1 A (resistive load)



### Mounting and Appearance

Mounting method: Mounted on an indoor rack

Wiring method:

Power and ground wiring, also output wiring:  
ISO M4 size (4 mm) screws on terminal  
blocks.

External dimensions: 180 (H)  $\times$  298 (W)  $\times$  300 (D) mm  
(D: depth behind panel)

Case material: Steel plate

Weight: 7 kg or less

### Standard Performance

Output constant voltage accuracy:  $\pm$  1% of output  
constant voltage

Maximum power consumption: 600 VA

Inrush current: 50 A max. (80 to 138 V AC)  
90 A max. (160 to 264 V AC)

Insulation resistance: Between input power terminal  
and case: 20 M $\Omega$  / 500 V DC  
Between output terminal and case: 10 M $\Omega$   
/ 500 V DC

Withstanding voltage: Between input power terminal  
and case: 1500 V AC for 1 minute  
Between output terminal and case: 1000 V  
AC for 1 minute

Amount of variation in output voltage:

Effect of power supply voltage fluctuation:  $\pm$  2% (full  
input voltage range)

Effect of frequency variation:  
 $\pm$  0.2% (50 / 60 Hz  $\pm$  3 Hz)

Effect of load fluctuation:  $\pm$  2% (0.5 to 15 A)

Effect of ambient temperature:  $\pm$  2% (0 to 50°C)

Transient characteristics:  $\pm$  5%, response time 5 ms  
(sudden load change of 50 to 100%)

## Normal Operating Conditions

Ambient temperature: 0 to 50°C.

Ambient humidity: 5 to 85% RH (non-condensing).

Ambient condition: Avoid installation in such environments as corrosive gas like sulfide hydrogen, dust, sea breeze and direct sunlight.

Continuous vibration: No abnormality in frequency of 10 to 55 Hz (1 minute) and acceleration of 14.7 m/s<sup>2</sup> (1.5 G) for 2 hours each in the X, Y, and Z directions.







Impact: No abnormality at 49 m/s<sup>2</sup> (5 G)

Installation altitude: 1000 m or less above sea level

## MODEL AND SUFFIX CODES

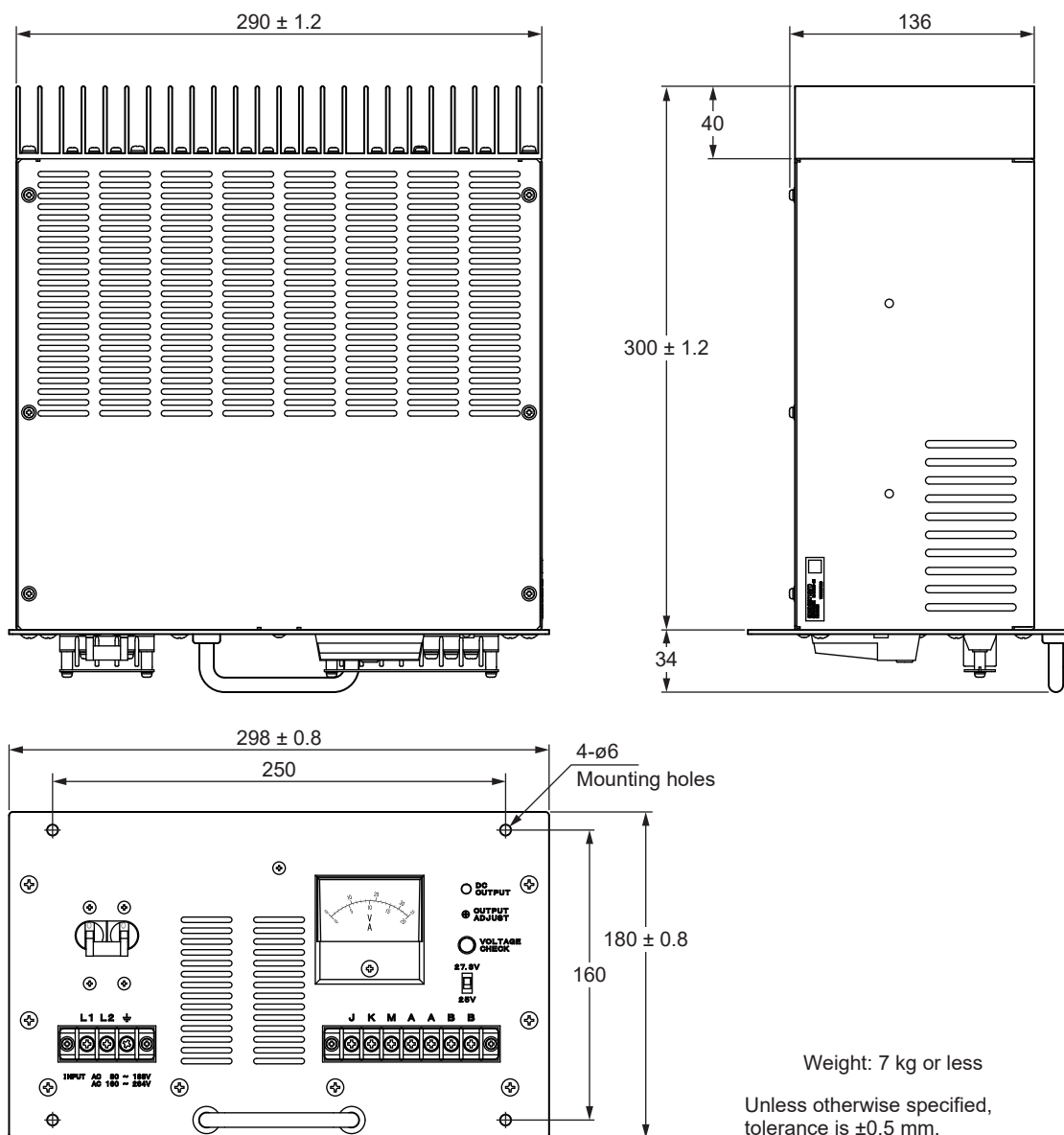
Model	Suffix Codes	Description
SDND	.....	Power Supply Unit
	-0 .....	Always -0
Power Supply	5 .....	80 to 138 V AC / 160 to 250 V AC, 50/60 Hz ± 3Hz
	0 .....	Always 0
Style Code	*F.....	Style F

## TERMINAL CONNECTIONS

Terminal Designation	Description
A	+  DC output
B	
J	NO  Abnormal, power failure Closed COM  Normal operation Closed NC  Alarm output
K	
M	
L1	 AC power supply
L2	
	Ground

## EXTERNAL DIMENSIONS

Unit: mm



## ORDERING INSTRUCTIONS

When ordering, specify the model and suffix codes.