

**2.5 Output voltage adjustment range**

**●LDA10F - LDA75F**

- Adjustment of output voltage is possible by using potentiometer (only available to 3V output voltage type).
- Output voltage is increased by turning potentiometer clockwise and is decreased by turning potentiometer counterclockwise.
- Option "-Y" is recommended which can adjust the output voltage.

**●LDA100W · LDA150W**

- Adjustment of output voltage is possible by using potentiometer (only available to 3 and 5V output voltage type).
- Output voltage is increased by turning potentiometer clockwise and is decreased by turning potentiometer counterclockwise.
- Option unit "-Y" is recommended which can adjust the output voltage.

**●LDA300W**

- Adjustment of output voltage is possible by using potentiometer.
- Output voltage is increased by turning potentiometer clockwise and is decreased by turning potentiometer counterclockwise.

**LDA**

**2.6 Isolation**

- For a receiving inspection, such as Hi-Pot test, gradually increase (decrease) the voltage for the start (shut down). Avoid using Hi-Pot tester with the timer because it may generate voltage a few times higher than the applied voltage, at ON/OFF of a timer.

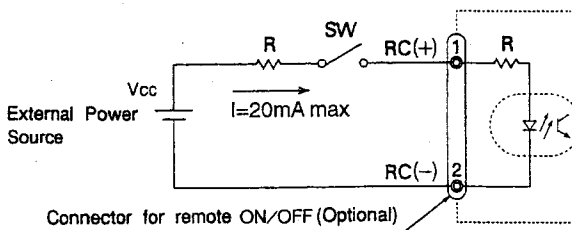
If the unit is tested on the isolation between input & output and output & FG, remote ON/OFF must be shorted to output .

**2.7 Remote ON/OFF ("R")**

**●LDA50F - LDA300W**

- Option "R" is available for remote ON/OFF.

Between RC(+) and RC(-)	Output
SW ON (4.5 - 12.5V)	ON
SW OFF (0 - 0.5V)	OFF



- When external power source is in the range of 4.5 - 12.5V, current limit resistance R is not required. However, when external power source exceeds 12.5V, current limit resistance R must be connected.

To calculate the current limit resistance use following equation:

$$R[\Omega] = \frac{V_{cc} - (1.1 + R_i \times 0.005)}{0.005}$$

where:

V<sub>cc</sub> = External power source

R<sub>i</sub> = The internal resistance (see table)

Model	R <sub>i</sub> [Ω]
LDA50F - 150W	680
LDA300W	780

- A wrong connection may damage the internal components of the unit.
- Remote ON/OFF circuit (RC(+), RC(-)) is isolated from input, output and FG.

**2.8 Remote sensing**

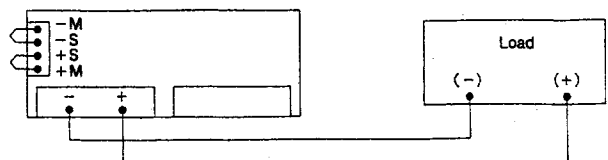
**●LDA300W**

- When not using this function, confirm that terminals are shorted between +S and +M, and between -S and -M with short pieces.
- When using this function, wiring should be done without short pieces.
- Devices inside the power supply might be damaged when poor connection on load lines occurs, e.g. because of loose connector screws.
- Thick wire should be used for wiring between power supply and load, and line voltage drop should be less than 0.3V.
- When long sensing wire is required, use C.
- Twisted-pair wire or shield wire should be used for sensing wire.

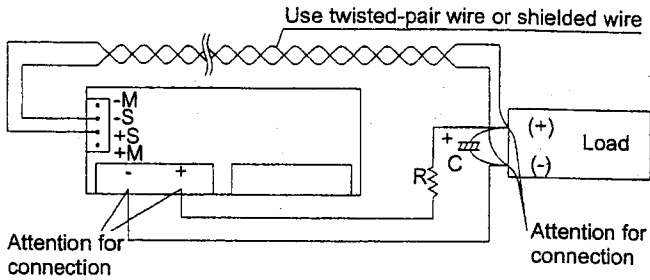
■When remote sensing function is used, output voltage might become unstable because of a impedance of wiring and load condition. And the power supply should be evaluated enough. Following are examples to improve it.

- -S sensing wire is removed and terminals between -M and -S are shorted.
- C and R are connected as above figure.

(1) When not using remote sensing function



(2) When using remote sensing function

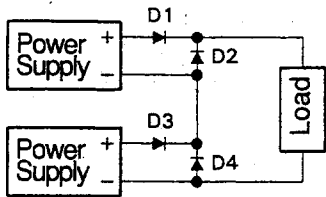


### 3 Series Operation and Parallel Operation

●LDA10F · LDA15F

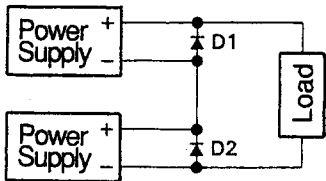
■Series operation is available by connecting the outputs of two or more power supplies, as shown below. Output current in series connection should be lower than the lowest rated current in each unit.

When the output voltage is less than 5V



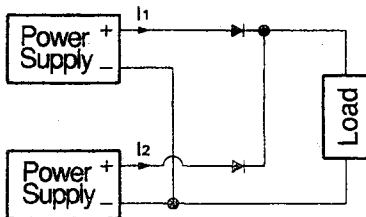
D1 - D4: Please use schottky Barrier Diode.

When the output voltage is more than 12V



D1 · D2: Please use schottky Barrier Diode.

■Parallel redundancy operation is available by connecting the units as shown below.



■Values of  $I_1$  and  $I_2$  might be slightly different because of fine differences of output voltage. Make fine adjustment of output voltage and keep balance of output current, as output current from each power supply should not exceed the rated current value.

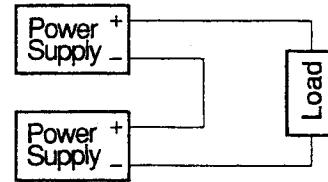
$$I_1, I_2 \leq \text{the rated current value}$$

■Option "-Y" is recommended which can adjust the output voltage.

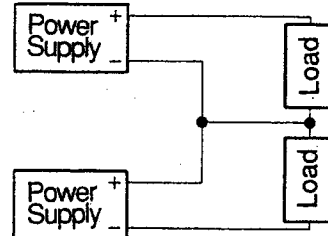
●LDA30F - LDA300W

■Series operation is available by connecting the outputs of two or more power supplies, as shown below. Output current in series connection should be lower than the lowest rated current in each unit.

(a)

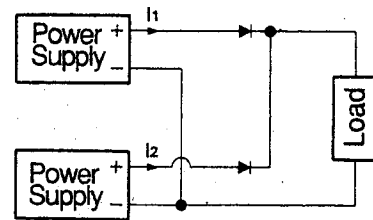


(b)



**LDA**

■Parallel redundancy operation is available by connecting the units as shown below.



■Values of  $I_1$  and  $I_2$  become unbalanced by a slight difference of the output voltage. Make sure that the output voltage of units is of equal value and the output current from each power supply does not exceed the rated current.

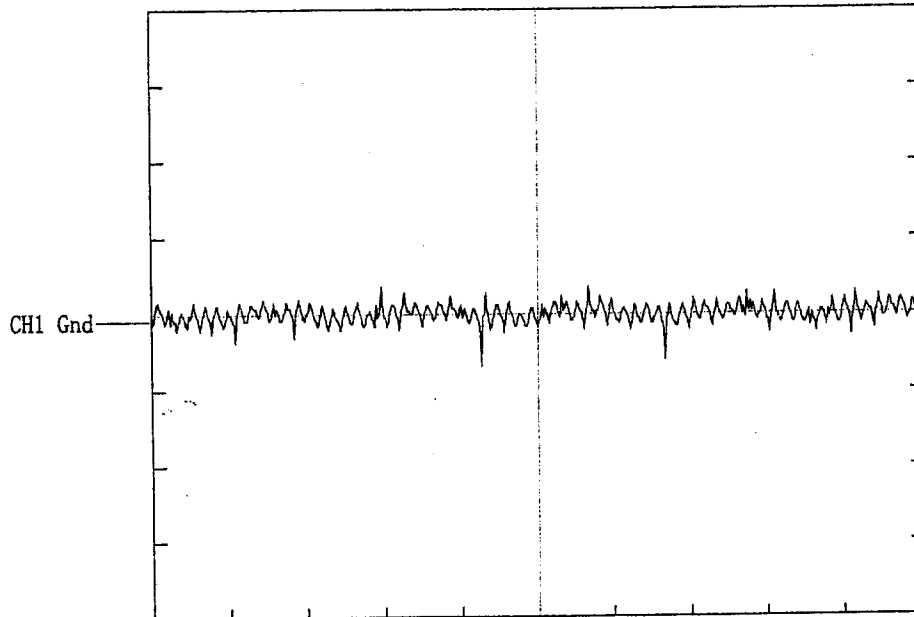
$$I_1, I_2 \leq \text{the rated current value}$$

■Option "-Y" is recommended which can adjust the output voltage.

Data

Model	LDA300W-24	Temperature	25°C
Item	Output Ripple	Testing Circuitry	Fig.A

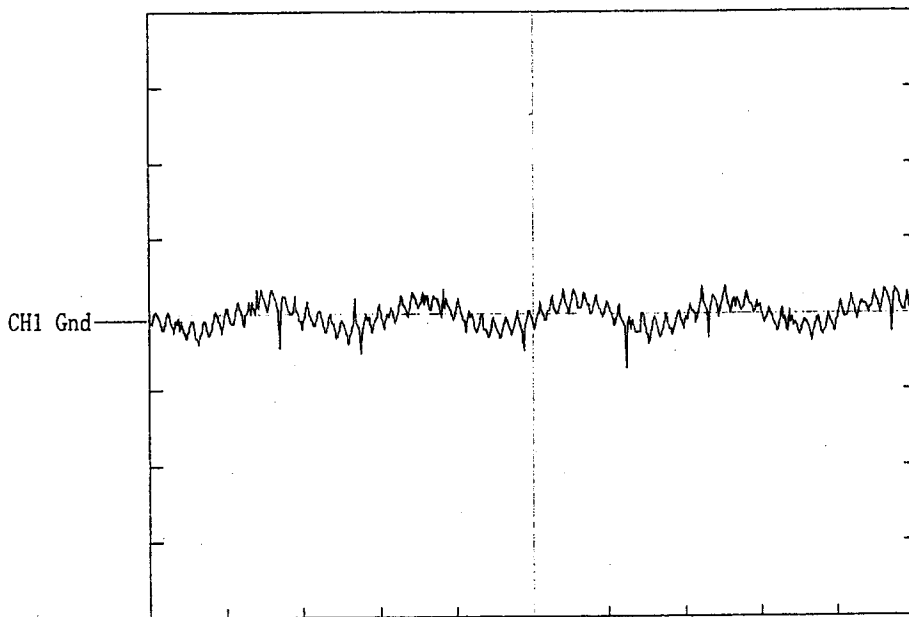
**When remote sensing is unused**



50mV /div.  
50 μS/div.

Output ripple

**When remote sensing is used**



50mV /div.  
50 μS/div.

Output ripple

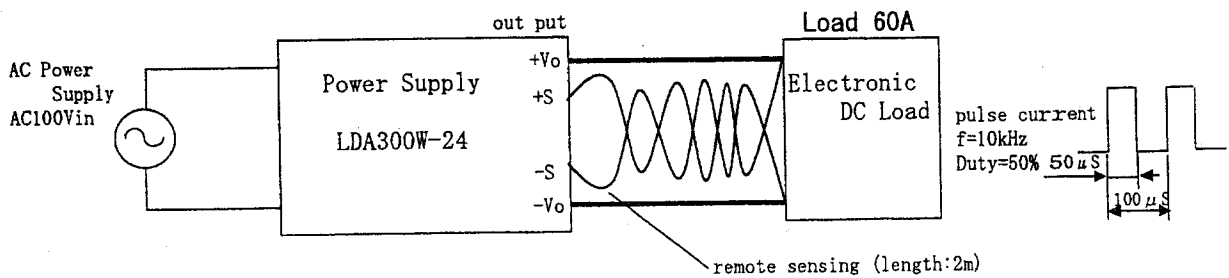
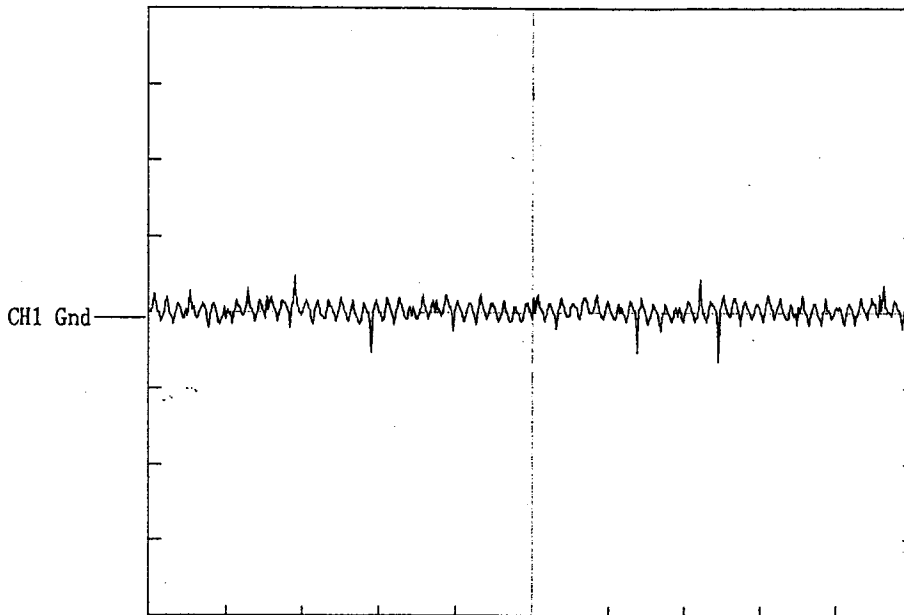


fig. A

Data

Model	LDA300W-24	Temperature	25°C
Item	Output Ripple	Testing Circuitry	Fig. A

When remote sensing is used (Capacitor C1 addition)



50mV /div.  
50 μS/div.

Output ripple

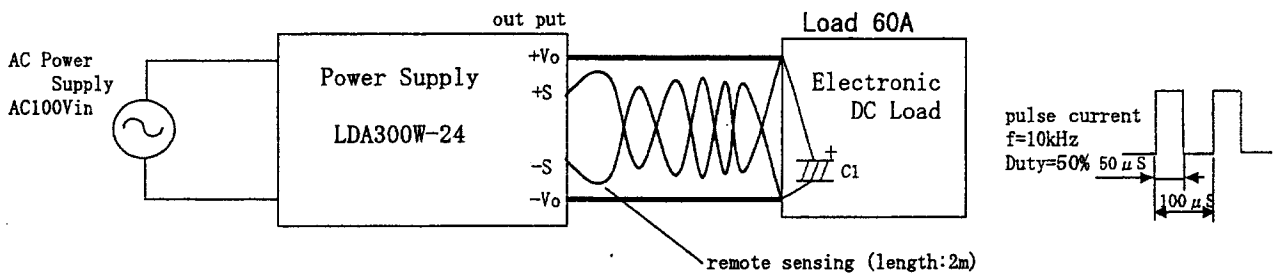


fig. A