

- High quality and cost effectiveness
- Small and compact PCB construction
- Autoranging voltage  
(AC85~132V/AC170~264V)
- UL, recognized, TÜV approved, CSA certified
- Built-in inrush current, overcurrent and overvoltage protection circuits
- Two-year warranty

### ORDERING INFORMATION

**LDA150**   **-5-**  

- Optional: EX. With chassis and cover: SN  
With voltage adjuster: Y
- Output voltage  
(W: Autoranging input  
B: Only for 200V input)
- Output wattage
- Series name

### SPECIFICATIONS

| MODEL                                 |   | LDA150W-3   | LDA150W-5                      | LDA150W-9 | LDA150W-12 | LDA150W-15 | LDA150W-18 | LDA150W-24 | LDA150W-24-H | LDA150W-30 | LDA150W-48 |         |
|---------------------------------------|---|---|--------------------------------|-----------|------------|------------|------------|------------|--------------|------------|------------|---------|
|                                       |   | LDA150B-3   | LDA150B-5                      | LDA150B-9 | LDA150B-12 | LDA150B-15 | LDA150B-18 | LDA150B-24 |              | LDA150B-30 | LDA150B-48 |         |
| INPUT                                 | VOLTAGE/CURRENT   | AC85~132V/170~264V 1φ / 3.6A typ (ACIN 100V, lo=100%)<br>2.0A typ (ACIN 200V, lo=100%)                    |                                |           |            |            |            |            |              |            |            |         |
|                                       | FREQUENCY   | 47~440Hz  |                                |           |            |            |            |            |              |            |            |         |
|                                       | EFFICIENCY  | 75%typ  | 79%typ                         | 79%typ    | 82%typ     | 83%typ     | 84%typ     | 85%typ     | 85%typ       | 85%typ     | 85%typ     | 82%typ  |
|                                       | INRUSH CURRENT  | 30A typ (ACIN 100/200V, lo=100%) (At cold start)  |                                |           |            |            |            |            |              |            |            |         |
|                                       | LEAKAGE CURRENT   | 0.75mA max (60Hz, according to UL, CSA, VDE and DENTORI)  |                                |           |            |            |            |            |              |            |            |         |
| OUTPUT                                | VOLTAGE [V]   | 3   | 5                              | 9         | 12         | 15         | 18         | 24         | 24           | 30         | 48         |         |
|                                       | CURRENT [A]※1   | 30  | 30                             | 17        | 12.5       | 10         | 8.5        | 6.3        | 6.3 (10)     | 5          | 3          |         |
|                                       | LINE REGULATION [mV]                                    | 20 max  | 20 max                         | 36 max    | 48 max     | 60 max     | 72 max     | 96 max     | 96 max       | 120 max    | 192 max    |         |
|                                       | LOAD REGULATION [mV]                                    | 40 max  | 40 max                         | 100 max   | 100 max    | 120 max    | 120 max    | 150 max    | 150 max      | 180 max    | 240 max    |         |
|                                       | RIPPLE [mVp-p]  | 0~+50 °C  | 80 max                         | 80 max    | 120 max    | 120 max    | 120 max    | 120 max    | 120 max      | 220 max    | 120 max    | 150 max |
|                                       |   | -10~0 °C  | 140 max                        | 140 max   | 160 max    | 160 max    | 160 max    | 160 max    | 160 max      | 260 max    | 160 max    | 200 max |
|                                       | RIPPLE NOISE [mVp-p]                                    | 0~+50 °C  | 120 max                        | 120 max   | 150 max    | 150 max    | 150 max    | 150 max    | 150 max      | 250 max    | 150 max    | 400 max |
|                                       |   | -10~0 °C  | 160 max                        | 160 max   | 180 max    | 180 max    | 180 max    | 180 max    | 180 max      | 280 max    | 180 max    | 600 max |
|                                       | TEMPERATURE COEFFICIENT [mV]                            | 60 max  | 60 max                         | 120 max   | 150 max    | 180 max    | 200 max    | 290 max    | 290 max      | 360 max    | 560 max    |         |
|                                       | DRIFT [mV]※2  | 20 max  | 20 max                         | 36 max    | 48 max     | 60 max     | 72 max     | 96 max     | 96 max       | 120 max    | 192 max    |         |
| START-UP TIME [mS]                    | 200max (ACIN 100V, lo=100%)                             |   |                                |           |            |            |            |            |              |            |            |         |
| HOLD-UP TIME [mS]                     | 10typ (ACIN 85V, lo=100%) , 20 typ (ACIN 100V, lo=100%) |   |                                |           |            |            |            |            |              |            |            |         |
| OUTPUT VOLTAGE ADJUSTMENT RANGE [V]※3 | 2.85~3.6  | 4.5~5.5   | Fixed                          |           |            |            |            |            |              |            |            |         |
| PROTECTION CIRCUITS                   | OVERCURRENT PROTECTION                                  | Works over 105% of rating (-H:peak) and recovers automatically  |                                |           |            |            |            |            |              |            |            |         |
|                                       | OVERVOLTAGE PROTECTION                                  | 4.00~5.25V  | Works at 115% ~ 140% of rating |           |            |            |            |            |              |            |            |         |
| ISOLATION                             | INPUT-OUTPUT  | AC3,000V, 1minute, Cutoff current= 10mA, DC500V, 50MΩ min. (At Room Temperature)                          |                                |           |            |            |            |            |              |            |            |         |
|                                       | INPUT-FG  | AC2,000V, 1minute, Cutoff current= 10mA, DC500V, 50MΩ min. (At Room Temperature)                          |                                |           |            |            |            |            |              |            |            |         |
|                                       | OUTPUT-FG   | AC 500V, 1minute, Cutoff current=100mA, DC500V, 50MΩ min. (At Room Temperature)                           |                                |           |            |            |            |            |              |            |            |         |
| ENVIRONMENT                           | OPERATING TEMP. AND HUMID.                              | -10~+60°C, 20~90%RH (Non condensing) (Refer to DERATING CURVE)  |                                |           |            |            |            |            |              |            |            |         |
|                                       | STORAGE TEMP. AND HUMID.                                | -20~+75°C, 20~90%RH (Non condensing)  |                                |           |            |            |            |            |              |            |            |         |
|                                       | VIBRATION   | 10~55Hz, 2G, 3 minutes period, 60 minutes each along X, Y and Z axis                                      |                                |           |            |            |            |            |              |            |            |         |
|                                       | IMPACT  | 20G, 11mS, once each X, Y and Z axis  |                                |           |            |            |            |            |              |            |            |         |
| SAFETY AND NOISE REGULATIONS          | SAFETY  | Recognized UL1950, approved EN60950, VDE0160, certified CSA C22.2 No.234,complies with DENTORI and IEC950 |                                |           |            |            |            |            |              |            |            |         |
|                                       | CONDUCTED NOISE   | Complies with FCC-B, Vfg243/91 and VCCI 2   |                                |           |            |            |            |            |              |            |            |         |

※1 Peak load can be operated when the total wattage is within rated wattage(24V:151.2W)and less than 10 seconds(within the rated current for the average current).  
 ※2 The drift is a change at 25°C of ambient temperature and 30 minutes-8 hours after the input voltage applied at rated input/output.  
 ※3 "Y" which can be adjusted the output is available as optional.  
 ※ Avoid prolonged use under over-load.  
 ※ Parallel operation with other model is not possible.  
 ※ When units are operated with chassis/case cover, derating is required.

| MODEL              | LDA150W-3<br>LDA150B-3 | LDA150W-5<br>LDA150B-5 | LDA150W-9<br>LDA150B-9 | LDA150W-12<br>LDA150B-12 | LDA150W-15<br>LDA150B-15 | LDA150W-18<br>LDA150B-18 | LDA150W-24<br>LDA150B-24 | LDA150W-24-H | LDA150W-30<br>LDA150B-30 | LDA150W-48<br>LDA150B-48 |
|--------------------|------------------------|------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|--------------------------|--------------------------|
| MAX OUTPUT WATTAGE | 90W                    | 150W                   | 153W                   | 150W                     | 150W                     | 153W                     | 151.2W                   | 151.2W       | 150W                     | <b>144W</b>              |
| DC OUTPUT          | 3V30A                  | 5V30A                  | 9V17A                  | 12V12.5A                 | 15V10A                   | 18V8.5A                  | 24V6.3A                  | 24V6.3/10A   | 30V5A                    | <b>48V3A</b>             |

( ) Peak

## EXTERNAL VIEW

Connector for Remote ON/OFF (optional)

4- $\phi$ 3.5 Mounting Hole

2- $\phi$ 4.5

235 $\pm$ 0.5

4-M4 x 8 $\phi$  Mounting Hole

75

65 $\pm$ 0.5

5

5.5

Output (-)

Output (+)

RC (-)

RC (+)

CN1

FG

AC (N)

AC (L)

CN3

CN2

Output (-)

Output (+)

212 $\pm$ 0.5

222

33

Name Plate

Voltage Adjust (+3V, +5V or optional)

34

3<sup>max</sup> (Lead)

PCB t=1.6

55 $\pm$ 0.5

25

35 $\pm$ 0.5

8

42

85

252

235 $\pm$ 0.5

8

$\phi$ 4.5

2-M4 x 8 $\phi$  Mounting Hole

4.5

15

20

47

| I/O Connector | Mating Connector (Terminal)                     |
|---------------|---|
| CN1           | B3P5-VH VHR-5N (SVH-21T-1.1 or SVH-21T-P1.1)    |
| CN2           | B6P-VH VHR-6N (SVH-21T-1.1 or SVH-21T-P1.1)     |
| CN3           | B7P-VH VHR-7N (SVH-21T-1.1 or SVH-21T-P1.1)     |
| CN4           | B2B-XH-A XHP-2 (BXH-001T-P0.6 or SXH-001T-P0.6) |

(Mfr: J.S.T.)

<PIN CONNECTION>

| Pin No. | Input | Pin No. | Output | Pin No. | Remote ON/OFF |
|---------|-------|---------|--------|---------|---------------|
| 1       | AC(L) | CN2 1~6 | +V     | 1       | RC(+)         |
| 2       |       |         |        | 2       | RC(-)         |
| 3       | AC(N) | CN3 1~7 | -V     |         |               |
| 4       |       |         |        |         |               |
| 5       | FG    |         |        |         |               |

※ Weight : 510g or less (Without chassis and cover)

※ Tolerance :  $\pm$ 1

※ Dimensions in mm.

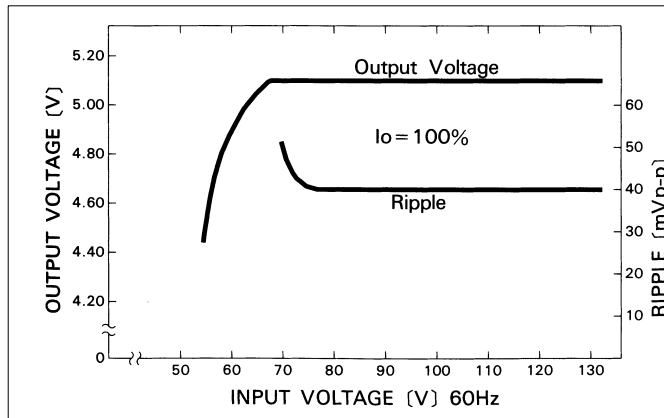
※ PCB Material : Glass composite (CEM3)

※ Chassis and cover is optional.

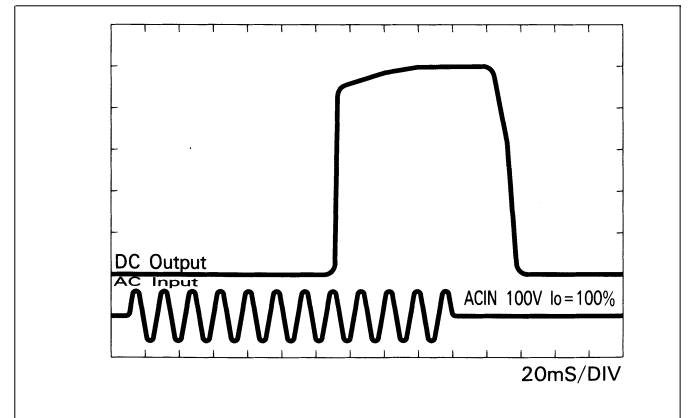
※ Chassis and cover is not available to remote ON/OFF unit.

※ Keep drawing current per pin below 5A for CN2, CN3.

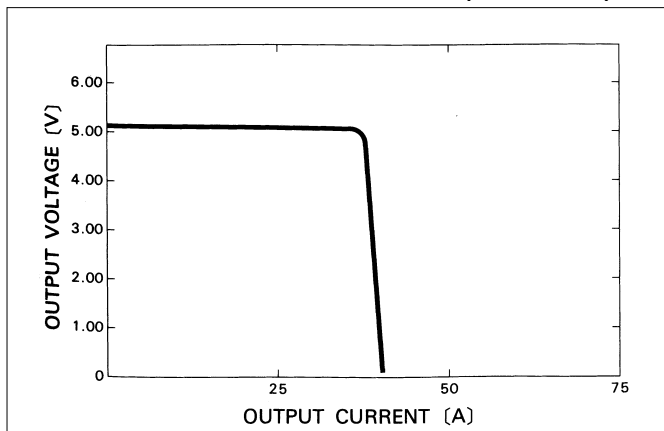
## STATIC CHARACTERISTICS (LDA150W-5)



## RISE TIME & FALL TIME (LDA150W-5)



## OVERCURRENT CHARACTERISTICS (LDA150W-5)



## DERATING CURVE

