



# 185W Multiple Channel Output Switching Power Supply

# LDV-185 series



### Features :

- 180~305VAC input range
- Multiple channel with constant current output
- Meet 4KV surge immunity level(EN61000-4-5)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in active PFC function
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Optional timer dimming function
- High efficiency up to 88.5%
- -40°C can power on
- Suitable for LED lighting and moving sign applications
- 3 years warranty



LDV-185-350A

Blank : IP67 rated. No timer dimming function.

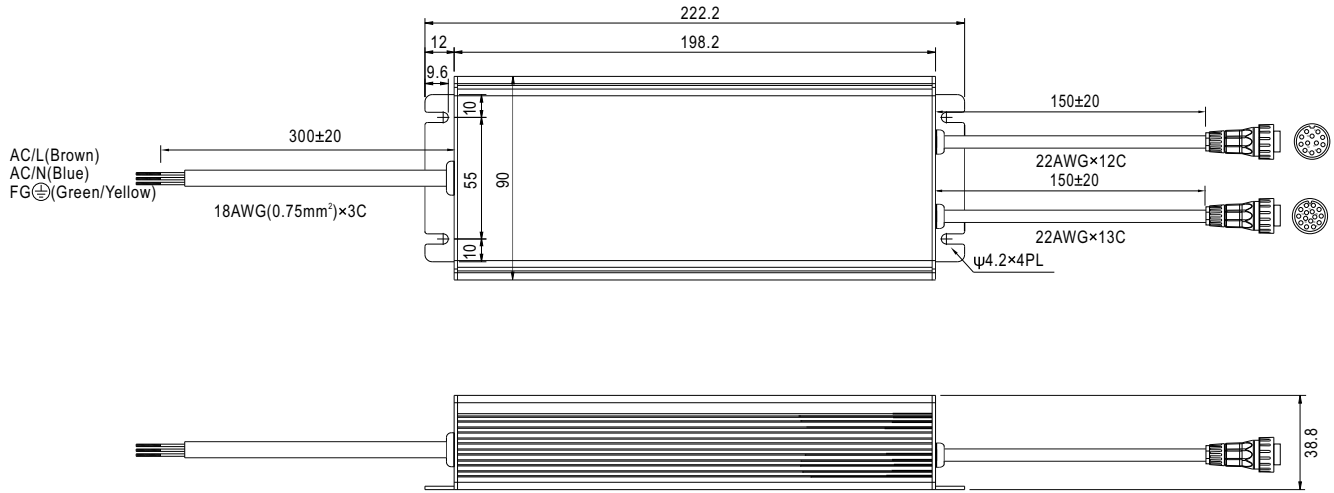
D: IP67 rated. Built in timer dimming function,contact MEAN WELL for details.

### SPECIFICATION

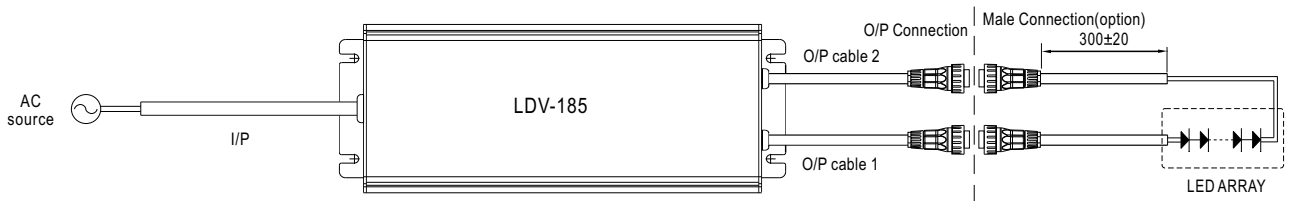
| MODEL        |  | LDV-185-350A <input type="checkbox"/>  | LDV-185-350B <input type="checkbox"/> | LDV-185-350C <input type="checkbox"/> | LDV-185-700A <input type="checkbox"/> | LDV-185-700B <input type="checkbox"/> | LDV-185-700C <input type="checkbox"/> |  |
|--------------|--|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|
| OUTPUT       | SINGLE CHANNEL RATED CURRENT   | 350mA  | 350mA                                 | 350mA                                 | 700mA                                 | 700mA                                 | 700mA                                 |  |
|              | DC VOLTAGE RANGE   | 32 ~ 38V   | 37 ~ 43V                              | 42 ~ 51V                              | 32~38V                                | 37~43V                                | 42~51V                                |  |
|              | RATED POWER(max.) <small>Note 3.</small>   | 159.6W   | 180.6W                                | 182W                                  | 159.6W                                | 180.6W                                | 182W                                  |  |
|              | MAX CHANNEL <small>Note 3.</small>   | 12CH   | 12CH                                  | 12CH                                  | 6CH                                   | 6CH                                   | 6CH                                   |  |
|              | SETUP, RISE TIME <small>Note 2.</small>  | 2500ms, 50ms   |                                       |                                       |                                       |                                       |                                       |  |
|              | HOLD UP TIME   | 10ms / 230VAC  |                                       |                                       |                                       |                                       |                                       |  |
|              | CONSTANT CURRENT ACCURACY  | ±5%  |                                       |                                       |                                       |                                       |                                       |  |
| INPUT        | VOLTAGE RANGE  | 180~ 305VAC  |                                       |                                       |                                       |                                       |                                       |  |
|              | FREQUENCY RANGE  | 47 ~ 63Hz  |                                       |                                       |                                       |                                       |                                       |  |
|              | POWER FACTOR   | PF>0.95/230VAC PF≥0.9 at 75 ~ 100% load  |                                       |                                       |                                       |                                       |                                       |  |
|              | EFFICIENCY (Typ.) <small>Note 4.</small>   | ≥88.5%   |                                       |                                       |                                       |                                       |                                       |  |
|              | AC CURRENT   | 1.5A/230VAC  |                                       |                                       |                                       |                                       |                                       |  |
|              | INRUSH CURRENT(max.)   | COLD START 60A/230VAC  |                                       |                                       |                                       |                                       |                                       |  |
|              | LEAKAGE CURRENT  | <0.75mA / 240VAC   |                                       |                                       |                                       |                                       |                                       |  |
| PROTECTION   | SHORT CIRCUIT  | Channel shut down when each channel fault, re-power on to recovery   |                                       |                                       |                                       |                                       |                                       |  |
|              | OVER VOLTAGE   | 41 ~ 50V   | 47 ~ 50V                              | 54 ~ 63V                              | 41~50V                                | 47~50V                                | 54~63V                                |  |
|              |  | Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery                                  |                                       |                                       |                                       |                                       |                                       |  |
|              | OVER TEMPERATURE   | 100°C±10°C(RTH2)   |                                       |                                       |                                       |                                       |                                       |  |
|              |  | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down                            |                                       |                                       |                                       |                                       |                                       |  |
|              | OTP DIMMING  | When the NTC (RTH3) temperature is higher than 95°C, PSU will enter dimming mode with decreasing output I <sub>o</sub> |                                       |                                       |                                       |                                       |                                       |  |
| ENVIRONMENT  | WORKING TEMP.  | -30 ~ +70°C (Refer to output load derating curve),-40°C can power on   |                                       |                                       |                                       |                                       |                                       |  |
|              | WORKING HUMIDITY   | 20 ~ 95% RH non-condensing   |                                       |                                       |                                       |                                       |                                       |  |
|              | STORAGE TEMP., HUMIDITY  | -40 ~ +80°C, 10 ~ 95% RH   |                                       |                                       |                                       |                                       |                                       |  |
|              | TEMP. COEFFICIENT  | ±0.03%/°C (0 ~ 50°C)   |                                       |                                       |                                       |                                       |                                       |  |
|              | VIBRATION  | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes  |                                       |                                       |                                       |                                       |                                       |  |
| SAFETY & EMC | SAFETY STANDARDS   | IP67 approved; Design refer to EN61347-1,EN61347-2-13,UL8750   |                                       |                                       |                                       |                                       |                                       |  |
|              | WITHSTAND VOLTAGE  | I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC 1minute  |                                       |                                       |                                       |                                       |                                       |  |
|              | ISOLATION RESISTANCE   | I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH  |                                       |                                       |                                       |                                       |                                       |  |
|              | EMI CONDUCTION & RADIATION   | Compliance to EN55015 Class B  |                                       |                                       |                                       |                                       |                                       |  |
|              | HARMONIC CURRENT   | Compliance to EN61000-3-2 Class C (≥75% load) ; EN61000-3-3  |                                       |                                       |                                       |                                       |                                       |  |
|              | EMS IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, EN55024, light industry level (surge 4KV), criteria A       |                                       |                                       |                                       |                                       |                                       |  |
| OTHERS       | MTBF   | Khrs min. MIL-HDBK-217F (25°C)   |                                       |                                       |                                       |                                       |                                       |  |
|              | DIMENSION  | 222.2*90*38.8mm (L*W*H)  |                                       |                                       |                                       |                                       |                                       |  |
|              | PACKING  | 1.27 Kg; 12pcs/16.2Kg/1.02CUFT   |                                       |                                       |                                       |                                       |                                       |  |
| NOTE         | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.</li> <li>3. Please do not beyond rated power when choosing channel quantity.</li> <li>4. Efficiency is measured under 230VAC input with P<sub>out</sub>&gt;120W and each output channel connecting with the same quantity of LEDs(similar Vf sum).</li> <li>5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</li> </ol> |  |                                       |                                       |                                       |                                       |                                       |  |

**Mechanical Specification**

Case No. Unit:mm



**WATERPROOF CONNECTION**



**NOTE:** Cable 1 and 2 for 350mA models, Cable 1 for 700mA models

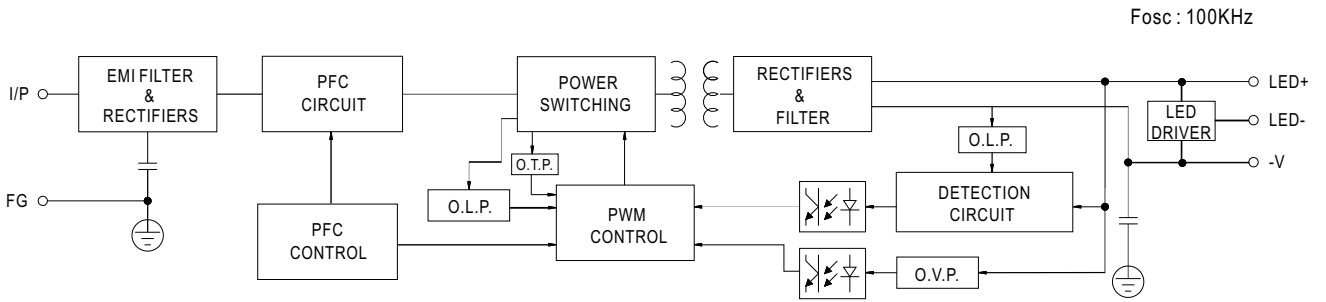
**O/P Connection**

| Cable   | Pin Configuration(female) | Pin   | Pin definition |                       |
|---------|---------------------------|-------|----------------|-----------------------|
| Cable 2 |                           | 12Pin | 1~6            | LED+                  |
|         |                           |       | 7~12           | LED- for each channel |
| Cable 1 |                           | 15Pin | 1~6            | LED+                  |
|         |                           |       | 7~12           | LED- for each channel |
|         |                           |       | 13~14          | NC                    |
|         |                           |       | 15             | -V                    |

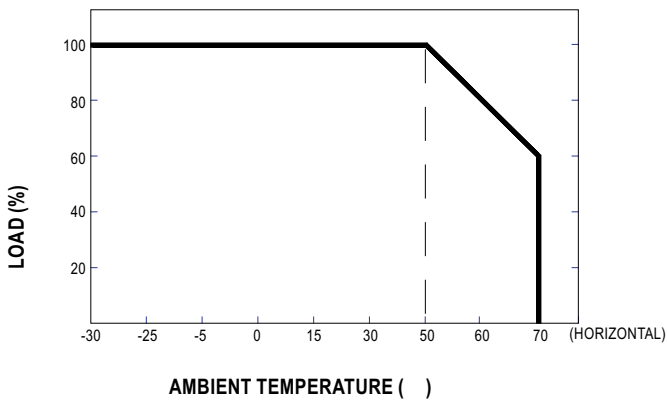
**Option for male connection(Contact MEAN WELL for details)**

| Pin Configuration(male) | Pin Definition | Wire Color          | Wire Stock |
|-------------------------|----------------|---------------------|------------|
|                         | 1              | GRAY                | 22AWG*12C  |
|                         | 2              | BLUE                |            |
|                         | 3              | LED+                |            |
|                         | 4              | YELLOW/GREEN        |            |
|                         | 5              | ORANGE              |            |
|                         | 6              | YELLOW              |            |
|                         | 7              | PURPLE              |            |
|                         | 8              | LED-                |            |
|                         | 9              | CLEAR LUCITE        |            |
|                         | 10             | WHITE/BLACK         |            |
|                         | 11             | BLACK               |            |
|                         | 12             | GREEN               |            |
|                         | 1              | WHITE               | 24AWG*15C  |
|                         | 2              | BLUE                |            |
|                         | 3              | LED+                |            |
|                         | 4              | PURPLE              |            |
|                         | 5              | ORANGE              |            |
|                         | 6              | YELLOW              |            |
|                         | 7              | RED                 |            |
|                         | 8              | LED-                |            |
|                         | 9              | WHITE/RED           |            |
|                         | 10             | BROWN               |            |
|                         | 11             | WHITE/ORANGE        |            |
|                         | 12             | GRAY                |            |
|                         | 13             | CLEAR LUCITE/BLUE   |            |
|                         | 14             | CLEAR LUCITE/PURPLE |            |
|                         | 15             | NC                  |            |
|                         | -V             | WHITE/YELLOW        |            |

■ Block Diagram



■ Derating Curve



■ Static Characteristics

