

(Track adapter application)



## ■ Features

- DC/DC step-down converter
- Constant current output: 250mA to 1000mA
- Wide input voltage: 12 ~ 56VDC(48V typ.)
- Wide output LED forward string voltage: 2 ~ 45VDC
- High efficiency up to 96%
- Built-in EMI filter, comply with EN55015.
- 3 in 1 dimming and remote ON/OFF control.
- Protections: Short circuit / Over temperature / Over current
- Cooling by free air convection
- Compact size and Fully encapsulated
- Suitable for driving illumination LED
- 5 years warranty

## ■ Applications

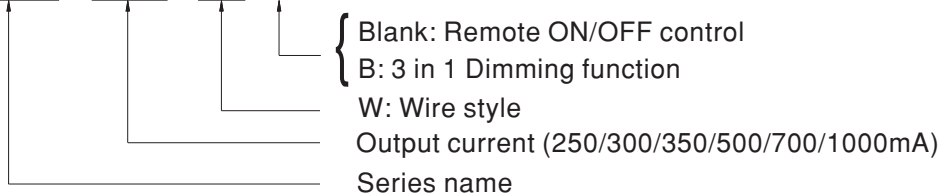
- DC battery source lighting
- Portable lighting
- Commercial lighting
- DC 48V Track lighting
- DC 24V landscape lighting
- For STUCCHI track adapters
- For  $\text{III}$  class III application(SELV)

## ■ Description

LDDS-H series is a 45W DC/DC LED drive featuring constant current output. LDDS-H operates from 12~56VDC and offers models with different rated current ranging between 250mA and 1000mA. With the high efficiency up to 96%, The 94V-0 flame retardant plastic case with fully-potted to enhance the heat dissipation allows this series to fit for class III commercial track light or DC bus lighting application.

## ■ Model Encoding

LDDS - 250 H W B

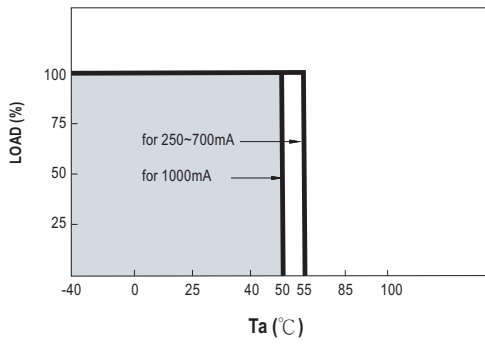




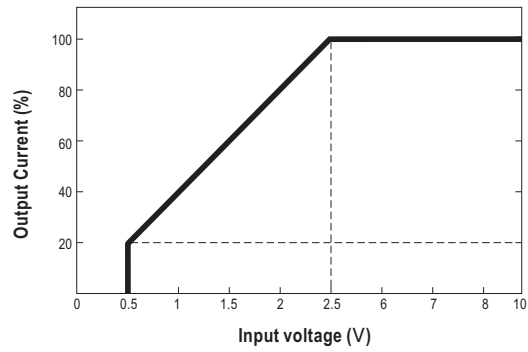
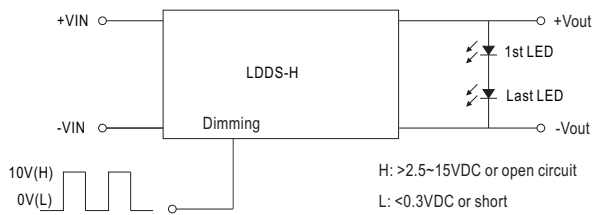
**SPECIFICATION**

| ORDER NO.                      |  | LDDS-250HW <input type="checkbox"/>   | LDDS-300HW <input type="checkbox"/> | LDDS-350HW <input type="checkbox"/> | LDDS-500HW <input type="checkbox"/> | LDDS-700HW <input type="checkbox"/> | LDDS-1000HW <input type="checkbox"/> |       |
|--------------------------------|--|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|-------|
| OUTPUT                         | CURRENT RANGE  | 250mA   | 300mA                               | 350mA                               | 500mA                               | 700mA                               | 1000mA                               |       |
|                                | VOLTAGE RANGE <small>Note.4</small>  | 2 ~ 45VDC   |                                     |                                     |                                     |                                     |                                      |       |
|                                | CURRENT ACCURACY (Typ.)  | ±5% at 48VDC input (or 24VDC)   |                                     |                                     |                                     |                                     |                                      |       |
|                                | RIPPLE & NOISE(max.) <small>Note.2</small>   | 150mVp-p  | 150mVp-p                            | 200mVp-p                            | 350mVp-p                            | 350mVp-p                            | 350mVp-p                             |       |
|                                | SWITCHING FREQUENCY  | 40KHz ~ 1000KHz   |                                     |                                     |                                     |                                     |                                      |       |
|                                | EXTERNAL CAPACITANCE LOAD (max.)   | 2.2uF   |                                     |                                     |                                     |                                     |                                      |       |
| INPUT                          | VOLTAGE RANGE  | 12 ~ 56VDC  |                                     |                                     |                                     |                                     |                                      |       |
|                                | EFFICIENCY (Typ.) <small>Note.3</small>  | 94%   | 95%                                 |                                     |                                     |                                     | 96%                                  |       |
|                                | DC CURRENT   | Full load <small>Note.3</small>   | 200mA                               | 250mA                               | 300mA                               | 400mA                               | 570mA                                | 820mA |
|                                |  | No load   | 6mA                                 |                                     |                                     |                                     |                                      |       |
| FILTER                         | Capacitor  |   |                                     |                                     |                                     |                                     |                                      |       |
| REMOTE ON/OFF & 3 IN 1 DIMMING | REMOTE ON/OFF  | Leave open if not use   |                                     |                                     |                                     |                                     |                                      |       |
|                                |  | Power ON with dimming: DIM ~ -Vin >2.5 ~ 15VDC or open circuit                              |                                     |                                     |                                     |                                     |                                      |       |
|                                |  | Power OFF : DIM ~ -Vin < 0.3VDC or short  |                                     |                                     |                                     |                                     |                                      |       |
|                                | PWM FREQUENCY  | 100 ~ 1KHz (4mA at PWM dimming off)   |                                     |                                     |                                     |                                     |                                      |       |
| 3 IN 1 DIMMING                 | 0 ~ 10V / PWM / Resistor Dimming   |   |                                     |                                     |                                     |                                     |                                      |       |
| PROTECTION                     | SHORT CIRCUIT  | Regulated at rated output current   |                                     |                                     |                                     |                                     |                                      |       |
|                                |  | Protection type : Can be continued, recovers automatically after fault condition is removed |                                     |                                     |                                     |                                     |                                      |       |
|                                | OVER TEMPERATURE   | Tj 150°C typically(IC1) detect on main control IC   |                                     |                                     |                                     |                                     |                                      |       |
|                                |  | Protection type : Shut down, recovers automatically after temperature goes down             |                                     |                                     |                                     |                                     |                                      |       |
| ENVIRONMENT                    | WORKING TEMP.  | -40 ~ + 55°C (Refer to derating curve) @ full load  |                                     |                                     |                                     |                                     |                                      |       |
|                                | WORKING HUMIDITY   | 20% ~ 90% RH non-condensing   |                                     |                                     |                                     |                                     |                                      |       |
|                                | STORAGE TEMP., HUMIDITY  | -55 ~ +125°C, 10 ~ 95% RH   |                                     |                                     |                                     |                                     |                                      |       |
|                                | TEMP. COEFFICIENT  | ±0.03% / °C   |                                     |                                     |                                     |                                     |                                      |       |
|                                | VIBRATION  | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes                    |                                     |                                     |                                     |                                     |                                      |       |
|                                | OPERATING CASE TEMP. (max.)  | 90°C  |                                     |                                     |                                     |                                     |                                      |       |
| SAFETY & EMC                   | SAFETY STANDARDS   | EAC TP TC 004 approved  |                                     |                                     |                                     |                                     |                                      |       |
|                                | EMC EMISSION   | Compliance to EN55015, EAC TP TC 020  |                                     |                                     |                                     |                                     |                                      |       |
|                                | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A, EAC TP TC 020          |                                     |                                     |                                     |                                     |                                      |       |
| OTHERS                         | MTBF   | 650Khrs min. MIL-HDBK-217F (25°C)   |                                     |                                     |                                     |                                     |                                      |       |
|                                | DIMENSION  | 47*12*7mm or 1.85**0.47**0.28" inch (L*W*H)   |                                     |                                     |                                     |                                     |                                      |       |
|                                | WEIGHT   | 9.5g, 36pcs/box, 0.43kg/box. 12 box per carton/6kg  |                                     |                                     |                                     |                                     |                                      |       |
|                                | POTTING MATERIAL   | Epoxy(UL94-V0)  |                                     |                                     |                                     |                                     |                                      |       |
| NOTE                           | <p>1.All parameters are specified at normal input(48VDC), rated load, 25°C 70% RH ambient.</p> <p>2.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf capacitor.</p> <p>3.Test condition: 48VDC input, 36VDC output without Dimming.</p> <p>4.Output voltage will always step down 4 volts from input DC voltage.</p> <p>5.The output of LDDS-H should not be connected to the input of the same unit or output from other sources.</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |   |                                     |                                     |                                     |                                     |                                      |       |

**Derating Curve**

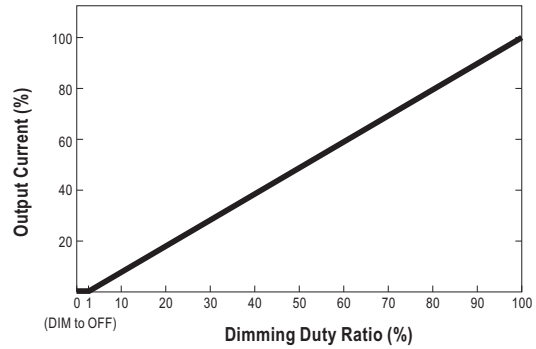
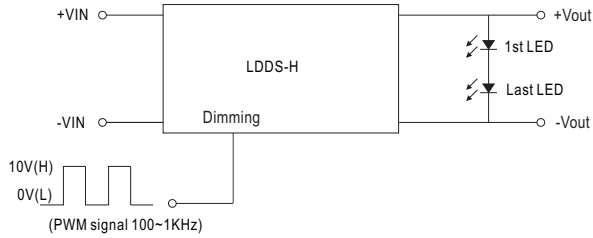


**Standard Application(LDDS-HW series)(Remote ON/OFF control)**

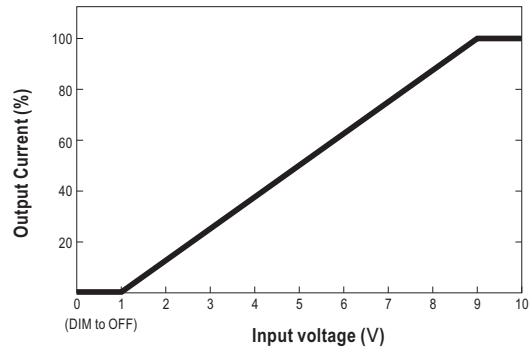
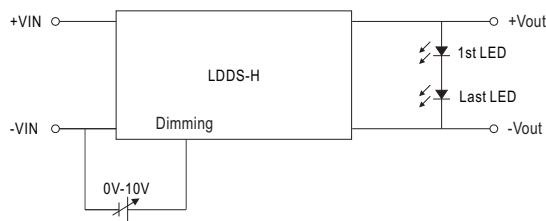


**3 in 1 Dimming Control(LDDS-HWB series)**

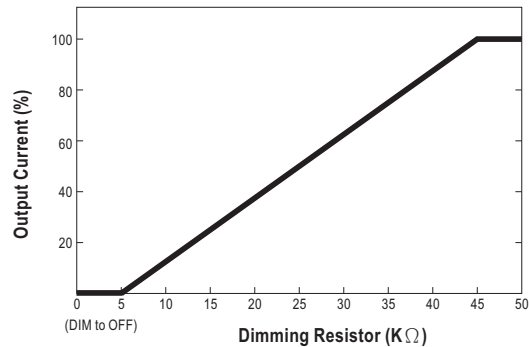
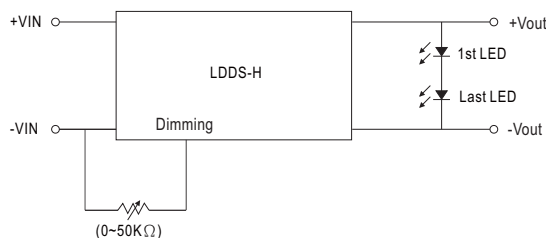
⊙ Applying additive 10VDC PWM signal



⊙ Applying additive 0~10VDC



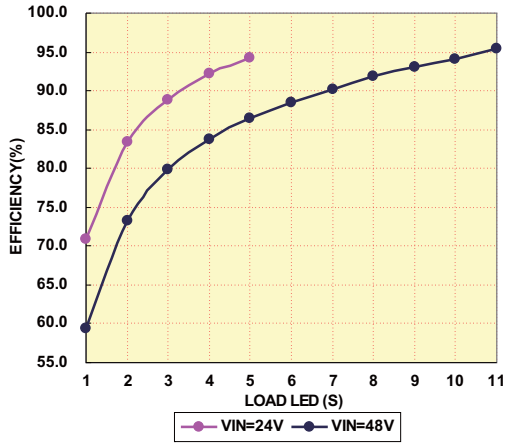
⊙ Applying additive resistance



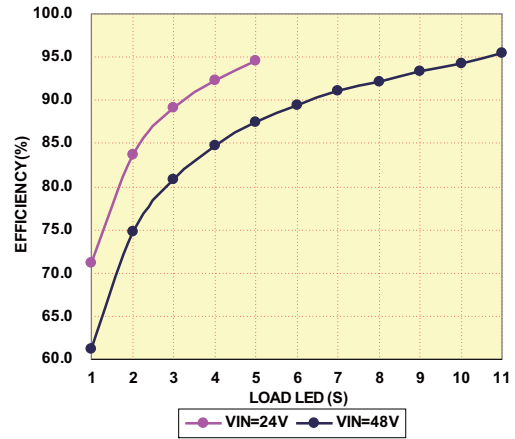
(Dimming source current from power supply:200μA)

■ Efficiency VS Output Voltage(Number of LEDs)

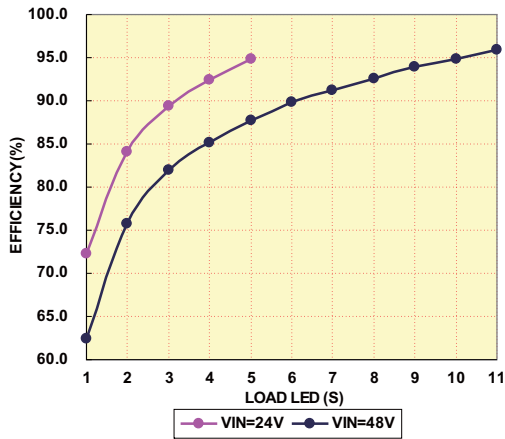
OUTPUT CURRENT 250mA



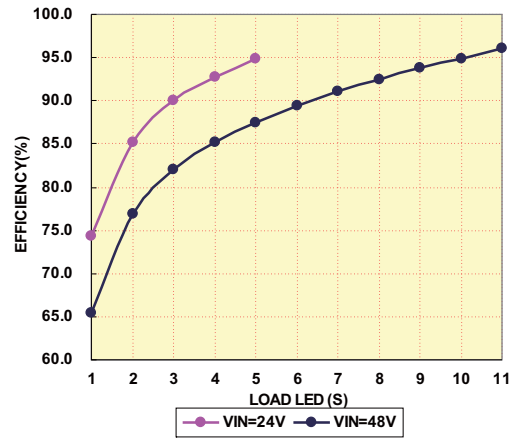
OUTPUT CURRENT 300mA



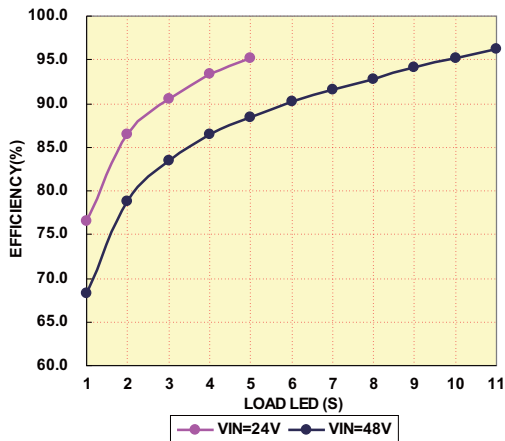
OUTPUT CURRENT 350mA



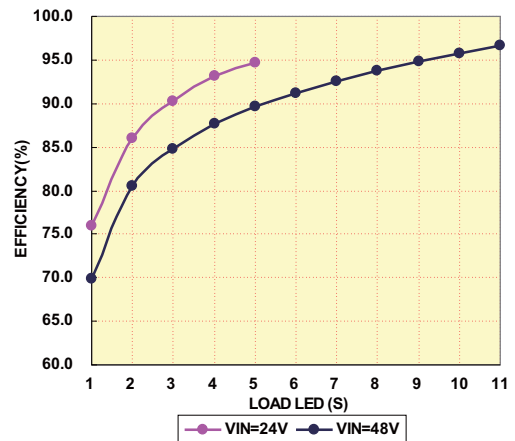
OUTPUT CURRENT 500mA



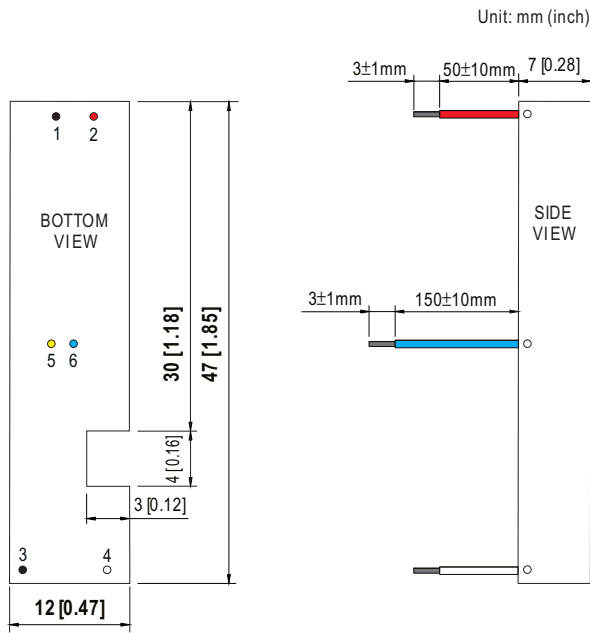
OUTPUT CURRENT 700mA



OUTPUT CURRENT 1000mA



### Mechanical Specification



NOTE: All wires UL3385 22AWG/300V/105°C rated

### Pin Configuration

| Pin No. |                | Comment                          |
|---------|----------------|----------------------------------|
| 1       | -Vin (Black)   | Don't connect to -Vout           |
| 2       | +Vin (Red)     | DC Supply                        |
| 3       | DIM(-) (Black) | Connect to -Vin                  |
| 4       | DIM(+) (White) | ON/OFF control or 3 in 1 Dimming |
| 5       | +Vout (Yellow) | LED + Connection                 |
| 6       | -Vout (Blue)   | LED - Connection                 |