

■ Features

- DC/DC step-down converter
- Constant current output: 350mA to 1400mA
- Wide input voltage: 10 ~ 56VDC(59VDC Max.)
- Wide output LED forward voltage: 6 ~ 52VDC
- High efficiency up to 96%
- Comply with BS EN/EN61347 and BS EN/EN55015 regulation
- Built-in PWM and remote ON/OFF control
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully encapsulated and compact site
- Suitable for driving illumination LED
- 3 years warranty

■ Applications

- DC battery source lighting
- Portable lighting
- Commercial lighting
- DC 48V Track lighting
- DC 24V landscape lighting
- For III class III application(SELV)

■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ Description

NLDD-H series is a 60W DC/DC LED drive featuring constant current output. NLDD-H operates from 10~56VDC and offers models with different rated current ranging between 350mA and 1400mA. With the high efficiency up to 96%, The 94V-0 flame retardant plastic case the fully-potted silicone to enhance the heat dissipation allows this series to fit for class III or DC bus lighting application.

■ Model Encoding

NLDD - 350 H W

{ Blank: Pin style for PCB mounting
W: Wire style

Output current (350/500/700/1050/1200/1400mA)

Series name



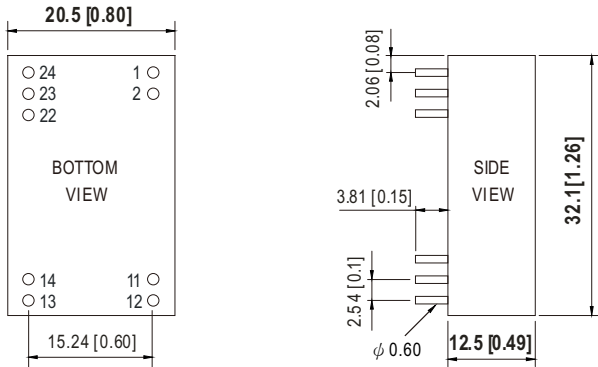
SPECIFICATION

| ORDER NO. | | NLDD-350H <input type="checkbox"/> | NLDD-500H <input type="checkbox"/> | NLDD-700H <input type="checkbox"/> | NLDD-1050H <input type="checkbox"/> | NLDD-1200H <input type="checkbox"/> | NLDD-1400H <input type="checkbox"/> | |
|--|--|--|------------------------------------|------------------------------------|-------------------------------------|--|-------------------------------------|--------|
| OUTPUT | CURRENT RANGE | 350mA | 500mA | 700mA | 1050mA | 1200mA | 1400mA | |
| | VOLTAGE RANGE <small>Note.4</small> | 6 ~ 52VDC | | | | | 6 ~ 46VDC | |
| | CURRENT ACCURACY (Typ.) | ±5% at 48VDC input | | | | | | |
| | RIPPLE & NOISE(max.) <small>Note.2</small> | 150mVp-p | 150mVp-p | 200mVp-p | 350mVp-p | 350mVp-p | 350mVp-p | |
| | SWITCHING FREQUENCY | 200KHz | | | | | | |
| INPUT | VOLTAGE RANGE | 10 ~ 56VDC (59VDC Max.) | | | | | | |
| | EFFICIENCY (max.) | 96% at full load and 36VDC/48VDC input | | | | 95% at full load and 36VDC/48VDC input | | |
| | DC CURRENT | Full load <small>Note.3</small> | 350mA | 490mA | 700mA | 1100mA | 1200mA | 1360mA |
| No load | | 5mA | | | | | | |
| PWM DIMMING & ON/OFF CONTROL | REMOTE ON/OFF | Leave open if not use | | | | | | |
| | | Power ON with dimming: DIM ~ -Vin >2.5 ~ 5VDC or open circuit | | | | | | |
| | | Power OFF : DIM ~ -Vin < 0.8VDC or short | | | | | | |
| | PWM FREQUENCY | 100 ~ 1KHz | | | | | | |
| QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.) | 2mA at PWM dimming OFF at 48VDC input | | | | | | | |
| PROTECTION | SHORT CIRCUIT | Regulated at rated current | | | | | | |
| | | Protection type: Can be continued, recovers automatically after fault condition is removed | | | | | | |
| | OVER TEMPERATURE | Tj 165°C typically(IC1) detect on main control IC | | | | | | |
| | | Protection type : Shut down, recovers automatically after temperature goes down | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -40 ~ + 50°C (Refer to derating curve) | | | | | | |
| | WORKING HUMIDITY | 20% ~ 90% RH non-condensing | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°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 | | | | | | |
| | SOLDERING TEMPERATURE | Wave soldering: 265°C, 5s (max.); Manual soldering: 390°C, 3s (max.) | | | | | | |
| EMC | SAFETY STANDARDS | LVD BS EN/EN61347-1, BS EN/EN61347-2-13;IEC61347 and EAC TP TC 004 approved | | | | | | |
| | EMC EMISSION | Compliance to BS EN/EN55015, BS EN/EN61547 | | | | | | |
| | EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,6,8, light industry level, EAC TP TC 020 | | | | | | |
| OTHERS | MTBF | 29984.3K hrs min. Telcordia SR-332 (Bellcore) 2881.6Khrs min. MIL-HDBK-217F (25°C) | | | | | | |
| | DIMENSION | 32.1*20.5*12.5mm or 1.26**0.8**0.49" inch (L*W*H) | | | | | | |
| | WEIGHT | NLDD-H:15.6g ; NLDD-HW:18g (Please refer to Page 6 for packing) | | | | | | |
| | 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 & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf capacitor.</p> <p>3.Test condition: 48VDC input.</p> <p>4.Output voltage will always step down by 4 volts from input DC voltage.</p> <p>5.The output of NLDD-H should not be connected to the input of the same unit or output from other sources.</p> <p>6.The power supply is regarded as a part of the components in the system, and the final EMI test needs to be tested with the final device. If an additional EMI filter circuit is required to meet the electromagnetic compatibility requirements, please refer to the EMC test report for details. (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)</p> <p>7.Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p> | | | | | | | |

Mechanical Specification

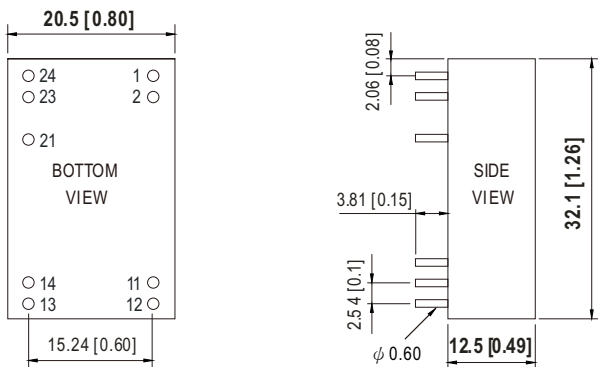
Unit: mm [inch] Tolerance: ±1

Blank type(NLDD – 350~1050H):



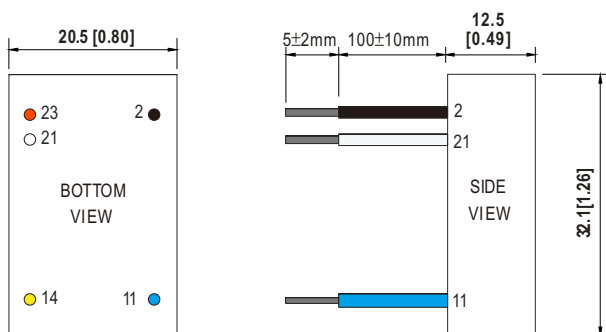
NOTE: Pin tolerance ±0.5mm

Blank type(NLDD – 1200~1400H):



NOTE: Pin tolerance ±0.5mm

W type(NLDD – 350~1400HW):



NOTE: All wires UL1569 22AWG

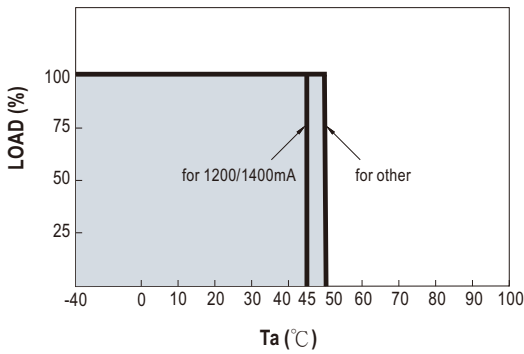
Pin Configuration

| Pin No. | | Comment |
|---------|---------|---|
| 1,2 | -Vin | Don't connect to -Vout |
| 11,12 | -Vout | LED - Connection |
| 13,14 | +Vout | LED + Connection |
| 22 | PWM DIM | ON/OFF and PWM Dimming (Leave open if not used) |
| 23,24 | +Vin | DC Supply |
| others | N.C | No connection |

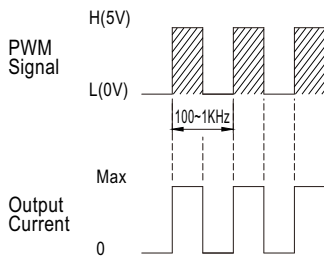
| Pin No. | | Comment |
|---------|---------|---|
| 1,2 | -Vin | Don't connect to -Vout |
| 11,12 | -Vout | LED - Connection |
| 13,14 | +Vout | LED + Connection |
| 21 | PWM DIM | ON/OFF and PWM Dimming (Leave open if not used) |
| 23,24 | +Vin | DC Supply |
| others | N.C | No connection |

| Pin No. | | Comment |
|---------|-----------------|---|
| 2 | -Vin (Black) | Don't connect to -Vout |
| 11 | -Vout (Blue) | LED - Connection |
| 14 | +Vout (Yellow) | LED + Connection |
| 21 | PWM DIM (White) | ON/OFF and PWM Dimming (Leave open if not used) |
| 23 | +Vin (Red) | DC Supply |
| others | N.C | No connection |

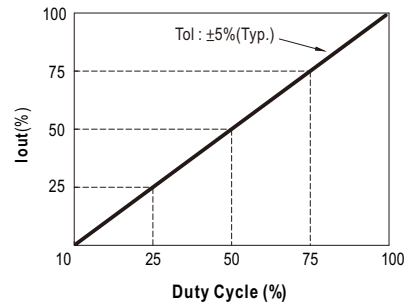
Derating Curve



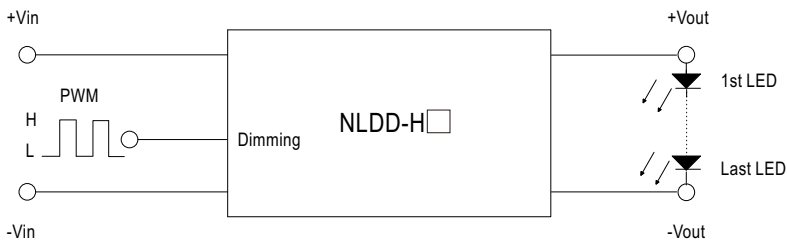
PWM Dimming Control



- ⊙ Short circuit PWM PIN can realize dimming turn off.
- ⊙ During PWM dimming operation, the output current will change to PWM style.



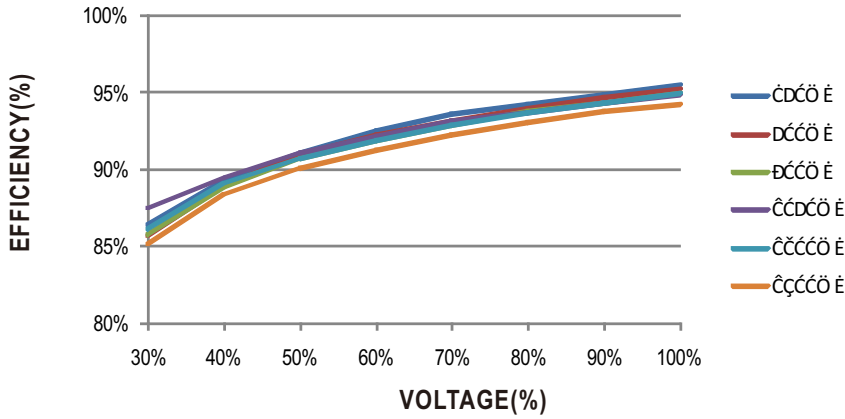
Standard Application



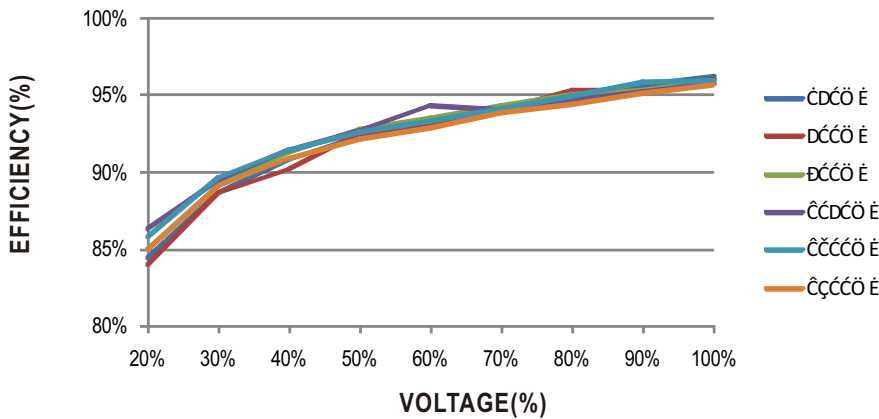
H: >2.5~5VDC or open circuit
L: <0.8VDC or short

■ Efficiency VS Output Voltage

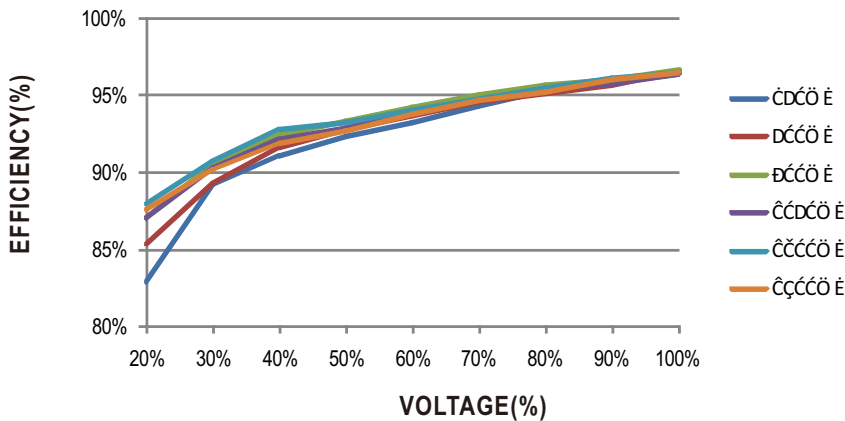
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■ PACKING

| Standard Tube Packing | MPQ Per Tube (PCS) | One Box G.W. | Max. Q'TY/ Carton(PCS) | One Carton G.W. |
|---|--------------------|--------------|------------------------|-----------------|
| <p>Unit : mm</p> <p>TUBE PATTERN</p> <p>CARTON L540 x W242 x H125</p> | 15 | 0.3Kg | 750 | 15.6Kg |
| Tray Packing | MPQ Per Tray (PCS) | One Box G.W. | Max. Q'TY/ Carton(PCS) | One Carton G.W. |
| <p>Unit : mm</p> <p>OUTER CARTON L332*W292*H215</p> | 40 | 1.0Kg | 200 | 5.03Kg |