



■ Features :

- DC/DC step-up converter
- Constant current output : 350mA to 1050mA
- Wide output LED string voltage up to 126VDC
- High efficiency up to 95%
- Built-in EMI filter ,comply with EN55015 without additional input filter and capacitors
- PWM + analog dimming and remote ON/OFF control
- Protections: Short circuit / Over voltage / Under voltage
- Cooling by free air convection
- Fully encapsulated
- 3 years warranty



LDH-45□-350○ □=A or B; A: 9~18VDC input range, B: 18~32VDC input range
 ○=Blank or W; Blank:pin style, W:wire style

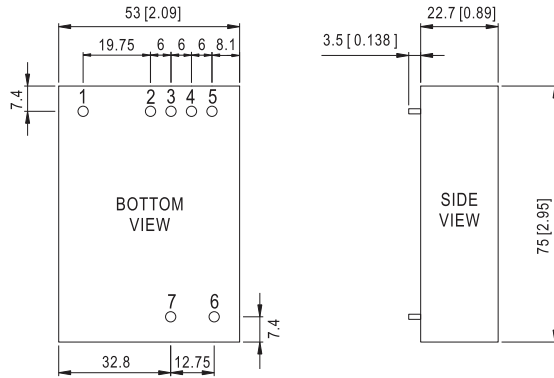
SPECIFICATION

| MODEL | | LDH-45A-350○ | LDH-45A-500○ | LDH-45A-700○ | LDH-45A-1050○ | LDH-45B-350○ | LDH-45B-500○ | LDH-45B-700○ | LDH-45B-1050○ |
|------------------------------|--|--|--------------|--------------|---------------|--------------------|--------------|--------------|---------------|
| OUTPUT | RATED CURRENT | 350mA | 500mA | 700mA | 1050mA | 350mA | 500mA | 700mA | 1050mA |
| | CURRENT ACCURACY(Typ.) | ±5% at 12VDC input | | | | ±5% at 24VDC input | | | |
| | VOLTAGE RANGE Note.3 | 12~86VDC | 12~86VDC | 12~64VDC | 12~43VDC | 21~126VDC | 21~86VDC | 21~64VDC | 21~43VDC |
| | NO LOAD OUTPUT VOLTAGE(max.) | 100V | 100V | 75V | 50V | 146V | 100V | 75V | 50V |
| | RATED POWER | 30.1W | 43W | 44.8W | 45.15W | 45.15W | 43W | 44.8W | 45.15W |
| INPUT | RIPPLE & NOISE (max.) Note.2 | 2.5Vp-p | 2.5Vp-p | 1.9Vp-p | 1.9Vp-p | 2.5Vp-p | 1.7Vp-p | 1.2Vp-p | 1.2Vp-p |
| | RATED VOLTAGE | 12VDC | | | | 24VDC | | | |
| | VOLTAGE RANGE | 9~18VDC | | | | 18~32VDC | | | |
| | EFFICIENCY (max.) | 91% | 90% | 90% | 91% | 93% | 94% | 95% | 95% |
| | DC CURRENT (Typ.) | 2.8A | 4.1A | 4.2A | 4.2A | 2.1A | 2.1A | 2A | 2A |
| PWM DIMMING & ON/OFF CONTROL | REMOTE ON/OFF | Leave open if not used Power ON with dimming: PWM DIM~DIM- >2~8VDC or open circuit Power OFF : PWM DIM~DIM- <0.5VDC or short or PWM duty is equal to 0% | | | | | | | |
| | PWM DIMMING FREQUENCY | 1K~10KHz | | | | | | | |
| | QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(Typ.) | 7mA at PWM dimming OFF | | | | | | | |
| | ANALOG DIMMING & ON/OFF CONTROL | Leave open if not used Power on with dimming: Analog DIM~DIM- >0.25~8VDC or open circuit Power off : Analog DIM~DIM- <0.2VDC or short | | | | | | | |
| PROTECTION | DIM INPUT VOLTAGE RANGE | 0.25~1.3VDC | | | | | | | |
| | MAX OPERATION VOLTAGE | 8V; The output current remains constant when voltage changes from 1.3V to 8V | | | | | | | |
| | QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(Typ.) | 7mA at Analog dimming OFF | | | | | | | |
| | SHORT CIRCUIT | Protection type : Power OFF and fuse open | | | | | | | |
| ENVIRONMENT | OVER VOLTAGE (max.) | 100V | 100V | 75V | 50V | 146V | 100V | 75V | 50V |
| | WORKING TEMP. | -40 ~ +70°C (Refer to "Derating Curve") | | | | | | | |
| SAFETY & EMC | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | |
| OTHERS | SAFETY STANDARDS | EN61347-1, EN61347-2-13 approved | | | | | | | |
| | EMC EMISSION | Compliance to EN55015 | | | | | | | |
| NOTE | EMC IMMUNITY | Compliance to EN61547, EN61000-4-2,3,4,6,8; light industry level, criteria A | | | | | | | |
| | MTBF | 1179.3Khrs min. MIL-HDBK-217F (25°C) | | | | | | | |
| | DIMENSION | 75*53*22.7mm (L*W*H) | | | | | | | |
| | PACKING | 138g;100pcs/14.8Kg/0.83CUFT(Blank Type),1.04CUFT(W Type) | | | | | | | |
| NOTE | | 1. All parameters are specified at normal input(12VDC,24VDC), rated load, 25°C 70% RH ambient. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf parallel capacitor. 3. Output voltage will always step up by 3 Volts from input DC voltage. | | | | | | | |

■ Mechanical Specification

LDH (Pin Style):

Unit: mm (inch)

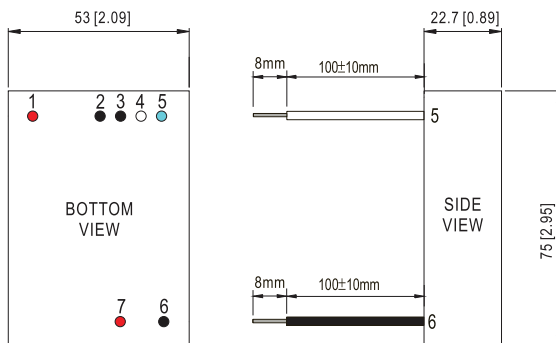


NOTE: Pin size tolerance 1.0 $\phi \pm 0.05\text{mm}$

■ Pin Configuration

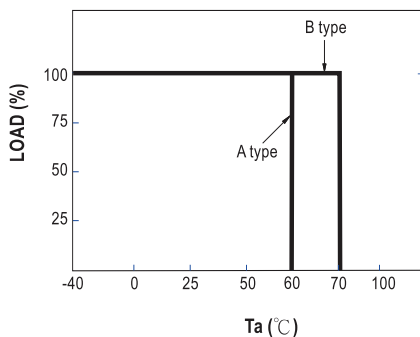
| Pin No. | Output | Description |
|---------|------------|---|
| 1 | Vin+ | DC Supply |
| 2 | Vin- | Don't connect to Vout- |
| 3 | DIM- | GND of DIM signal Don't connect to Vout- or Vin- |
| 4 | Analog DIM | ON/OFF and analog voltage dimming (leave open if not used) |
| 5 | PWM DIM | ON/OFF and PWM dimming (leave open if not used) |
| 6 | Vout- | LED - connection |
| 7 | Vout+ | LED + connection |

LDH (Wire Style):

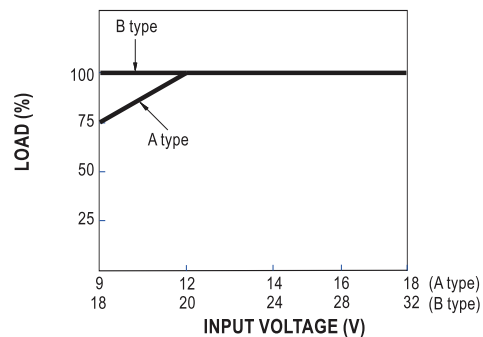


| Pin No. | Output | Description |
|---------|--------------------|---|
| 1 | Vin+(red) | DC Supply |
| 2 | Vin-(black) | Don't connect to Vout- |
| 3 | DIM-(black) | GND of DIM signal Don't connect to Vout- or Vin- |
| 4 | Analog DIM (white) | ON/OFF and analog voltage dimming (leave open if not used) |
| 5 | PWM DIM (blue) | ON/OFF and PWM dimming (leave open if not used) |
| 6 | Vout-(black) | LED - connection |
| 7 | Vout+(red) | LED + connection |

■ Derating Curve



■ Static Characteristics

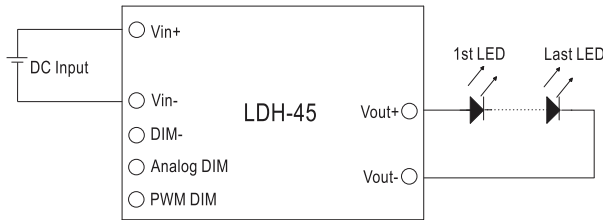


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Standard Application

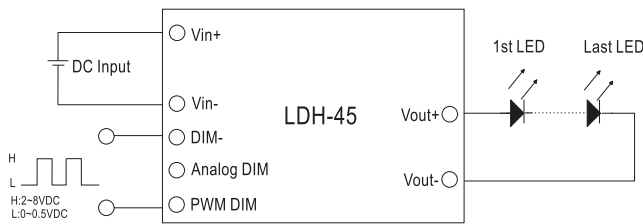
Operation without dimming:

I_O operates at rated current without dimming function when the pins of analog DIM and PWM DIM keep open

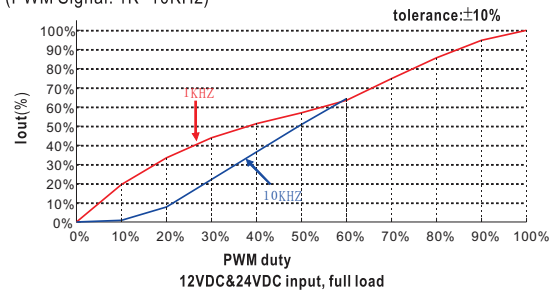


PWM Dimming Control:

I_O adjustment by PWM Signal

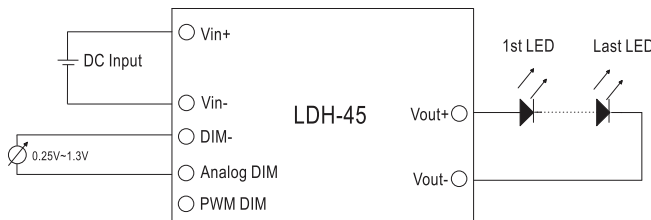


During PWM dimming operation, I_O will change with the PWM duty (PWM Signal: 1K~10KHz)

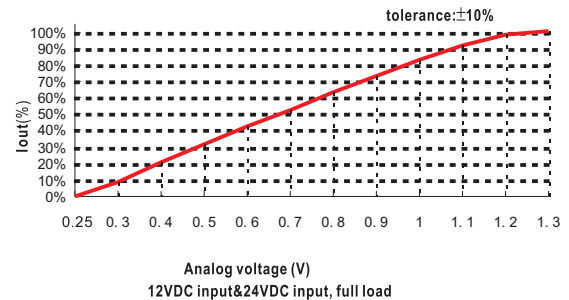


Analog Dimming Control:

I_O adjustment by DC voltage



During analog dimming operation, I_O will change with DC input voltage



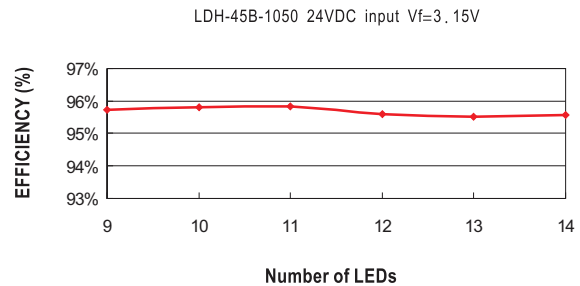
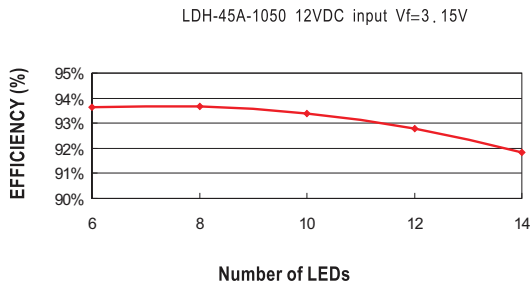
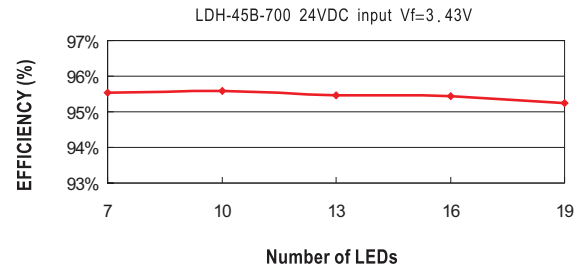
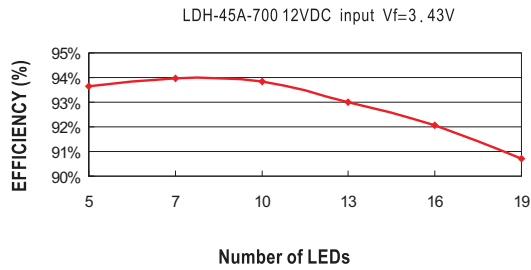
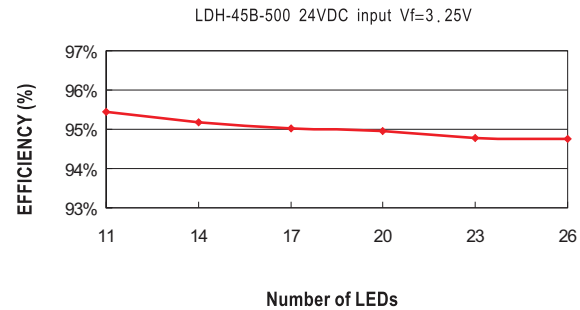
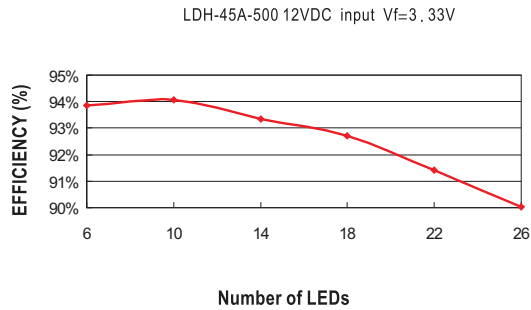
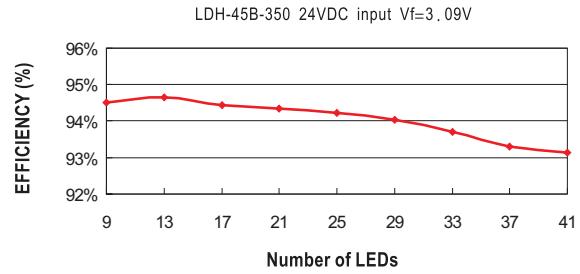
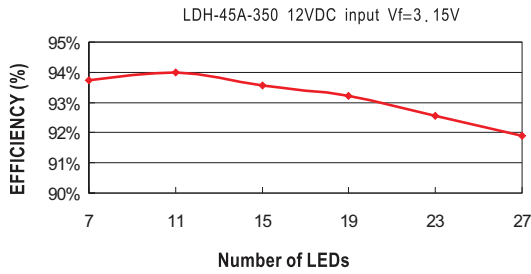
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<http://power.sager.com/mean-well-LDH-45-dc-dc-converter.html>

(866) 588-1750
 power@sager.com
<http://power.sager.com>

■ Efficiency VS Output Voltage(Number of LEDs)



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