



#### ■ 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 [(Blank) type or W type]
- DALI dimming [(Blank)DA type or WDA type]
- 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 or (Blank)DA or WDA;
(Blank): PIN style, PWM+analog dimming
W: Wire style, PWM+analog dimming
(Blank)DA: PIN style, DALI dimming
WDA: Wire style, DALI dimming

## **SPECIFICATION**

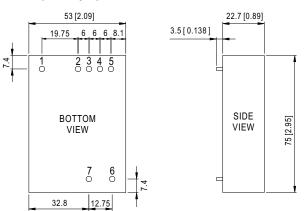
MODEL			LDH-45A-350	LDH-45A-500	LDH-45A-700	LDH-45A-1050C	LDH-45B-350〇	LDH-45B-500	LDH-45B-700	LDH-45B-1050C	
	RATED CURRENT		350mA	500mA	700mA	1050mA	350mA	500mA	700mA	1050mA	
	CURRENT ACCURACY(Typ.)		±5% at 12VDC	nput			±5% at 24VDC input				
ОИТРИТ	VOLTAGE RANGE Note.2	Non-DALI	12~86VDC	12~86VDC	12~64VDC	12~43VDC	21~126VDC	21~86VDC	21~64VDC	21~43VDC	
		DALI	24~86VDC	24~86VDC	24~64VDC	24~43VDC	36~126VDC	36~86VDC	36~64VDC	36~43VDC	
	NO LOAD OUTPUT VOL	TAGE(max.)	100V	100V	75V	50V	146V	100V	75V	50V	
	RATED POWER		30.1W	43W	44.8W	45.15W	44.1W	43W	44.8W	45.15W	
	RIPPLE & NOISE (max.) Note.3			2.5Vp-p	1.9Vp-p	1.9Vp-p	2.5Vp-p	1.7Vp-p	1.2Vp-p	1.2Vp-p	
INPUT	RATED VOLTAGE		12VDC				24VDC				
	VOLTAGE RANGE Note.2		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	REMOTE ON/OFF		Leave open if not used								
			Power ON with dimming: PWM signal >2~8VDC or open circuit, between PWM DIM and DIM-								
			Power OFF: PWM_signal < 0.5VDC or short or PWM duty is equal to 0%, between PWM DIM and DIM-								
& ON/OFF	PWM DIMMING FREQUENCY		1K~10KHz								
CONTROL	QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(Typ.)										
			Leave open if not used								
	REMOTE ON/OFF		Power on with dimming: DC input >0.25~8VDC or open circuit, between Analog DIM and DIM-								
ANALOG			Power off : DC input <0.2VDC or short, between Analog DIM and DIM-								
DIMMING & ON/OFF CONTROL	DIM INPUT VOLTAG	E RANGE	0.25~1.3VDC								
	MAX OPERATION	VOLTAGE	8V: The output current remains constant when voltage changes from 1.3V to 8V								
	QUIESCENT INPUT		7mA when Ana	log dimming OFF	:						
PROTECTION	SHORT CIRCUIT	( ). ,	Protection type: Power OFF and fuse open								
	OVER VOLTAGE (max.)		100V	100V	75V	50V	146V	100V	75V	50V	
			Protection type: Constant output voltage and shut off o/p current, recovers automatically after fault condition is removed								
ENVIRONMENT	WORKING TEMP.		-40 ~ +70°C (Refer to "Derating Curve")								
	WORKING HUMIDIT	TY		20 ~ 90% RH non-condensing							
	STORAGE TEMP., H	HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIEN	NT	±0.03%/°C (0~50°C)								
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC	SAFETY STANDARI	DS	EAC TP TC 004 approved								
	EMC EMISSION		·	EN55015;EAC T							
	EMC IMMUNITY		•			ight industry leve	el, criteria A;EAC	TP TC 020			
OTHERS	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 or (Blank) DA type],1.04CUF					e or WDA type)			
NOTE	2. (Blank) type and (Blank)DA type a 3. Ripple & noise a	eters are specified at normal input(12VDC,24VDC), rated load, 25°C 70% RH ambient.  be and W type output voltage must step up by 3 Volts from input DC voltage;  type and WDA type output voltage must step up by 12 Volts from input DC voltage.  noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf parallel capacitor.  iability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx									
									File Name:LDH-45	-SPEC 2020-10-	

Unit: mm [inch]



## ■ Mechanical Specification

## LDH (PIN Style):

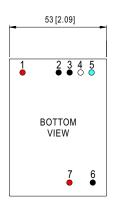


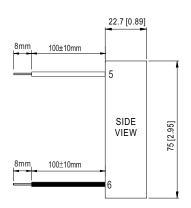
NOTE:PIN size tolerance 1.0  $\phi$  ±0.05mm

## **■** Pin Configuration

PIN No.	Output	Description
1	Vin+	DC Supply
2	Vin-	Don't connect to Vout-
3	DIM-	○=(Blank) type:GND of DIM signal Don't connect to Vout- or Vin-
	DA-	○=(Blank)DA type:DALI- signal
4	Analog DIM	O=(Blank) type: ON/OFF and analog dimming (leave open if not used)
	DA+	○=(Blank)DA type:DALI+ signal
5	PWM DIM	ON/OFF and PWM dimming (leave open if not used) [(Blank)DA type: no such PIN]
6	Vout-	LED - connection
7	Vout+	LED + connection

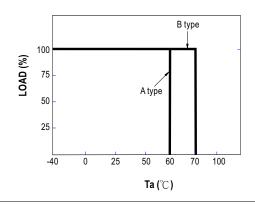
## LDH (Wire Style):



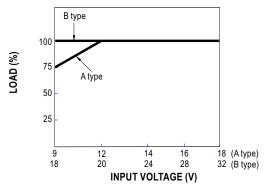


PIN No.	Output	Description
1	Vin+(red)	DC Supply
2	Vin-(black)	Don't connect to Vout-
3	DIM- (black)	○=W type:GND of DIM signal Don't connect to Vout- or Vin-
	DA-(white)	○=WDA type:DALI- signal
4	Analog DIM (white)	○=W type: ON/OFF and analog dimming (leave open if not used)
	DA+(blue)	○=WDA type:DALI+ signal
5	PWM DIM (blue)	ON/OFF and PWM dimming (leave open if not used) [WDA type:no_such PIN]
6	Vout-(black)	LED - connection
7	Vout+(red)	LED + connection

## ■ Derating Curve



## ■ Static Characteristics

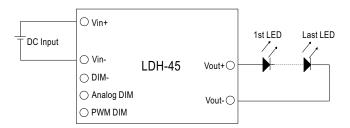




## ■ Standard Application

#### \* Operation without dimming:

 ${
m IO}$  operates at rated current without dimming function when the pins of analog DIM and PWM DIM keep open



#### ※ PWM Dimming Control (non DA type):

Io adjustment by PWM Signal



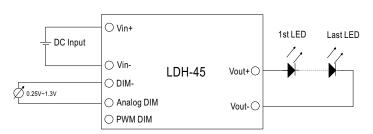
During PWM dimming operation, Io will change with the PWM duty (PWM Signal:  $1K\sim10KHz$ )



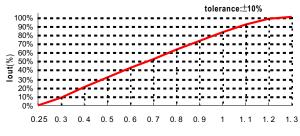
Note: DALI dimming curve refer to 10KHz curve

## ※ Analog Dimming Control (non DA type):

Io adjustment by DC voltage



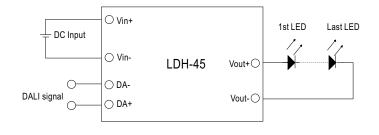
During analog dimming operation, Io will change with DC input voltage



Analog voltage (V)
12VDC input&24VDC input, full load

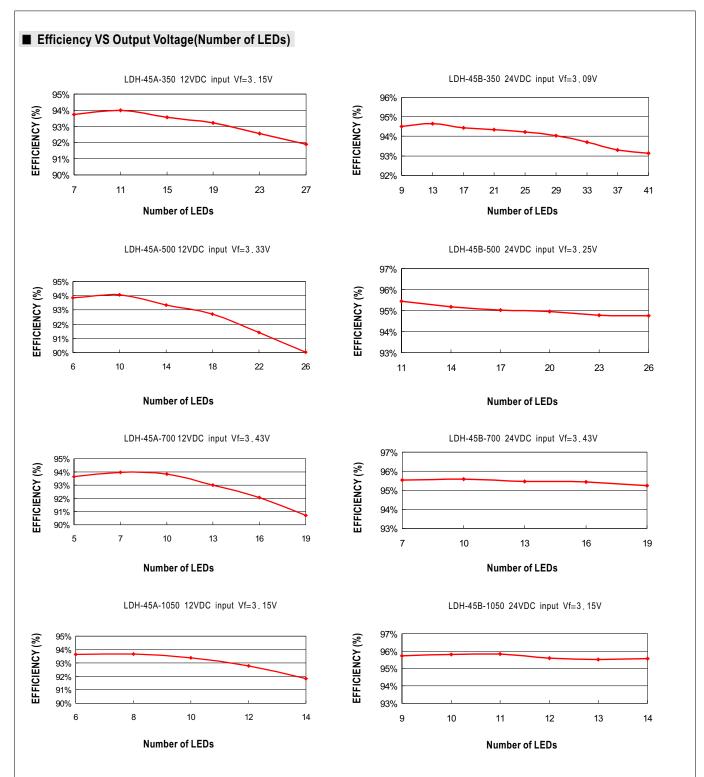
#### ★ DALI Dimming Control (DA type only):

Io adjustment by DALI signal



- DALI protocol including 16 groups and 64 addresses.
- Min. dimming level is about 8% of output.





#### **Application Notes:**

- 1. The positive and negative input terminals must be connected correctly and negative voltage can not be input to avoid damage to the power supply.
- 2. Due to the large input current, please pay attention to the voltage drop of the wiring, to ensure the power supply to work properly.
- 3.At dim off,LDH output voltage will drop to the same level as input voltage. To get luminaires complete dark, please make luminaires are light off when they are driving by the input voltage.

# **Mouser Electronics**

**Authorized Distributor** 

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## **MEAN WELL:**

<u>LDH-45B-700</u> <u>LDH-45B-350</u> <u>LDH-45B-350W</u> <u>LDH-45B-500W</u> <u>LDH-45B-500W</u> <u>LDH-45B-700W</u> <u>LDH-45B-1050</u> <u>LDH-45B</u>