



■ Features :

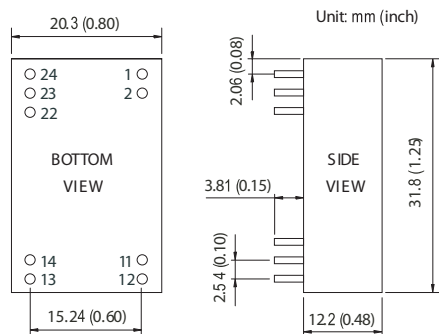
- Constant current output: 300mA to 1000mA
- Wide input voltage: 9 ~ 56VDC
- Wide output LED string voltage: 2 ~ 52VDC
- High efficiency up to 97%
- DC/DC step-down converter
- Built-in EMI filter, comply with EN55015 and FCC part15 without additional input filter and capacitors
- Built-in PWM and remote ON/OFF control
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully encapsulated with IP67 level
- Compact size
- Low cost, high reliability
- Suitable for driving illumination LED



SPECIFICATION

ORDER NO.	LDD-300H		LDD-350H		LDD-500H		LDD-600H		LDD-700H		LDD-1000H			
OUTPUT	CURRENT RANGE	300mA		350mA		500mA		600mA		700mA		1000mA		
	VOLTAGE RANGE	2 ~ 52VDC												
	CURRENT ACCURACY (Typ.)	±3% at 24VDC input ; ±4% at 48VDC input												
	RIPPLE & NOISE (max.) Note.2	150mVp-p		150mVp-p		150mVp-p		200mVp-p		200mVp-p		350mVp-p		
	SWITCHING FREQUENCY	40KHz ~ 1000KHz												
EXTERNAL CAPACITANCE LOAD (max.)	2.2uF													
INPUT	VOLTAGE RANGE	9 ~ 56VDC												
	EFFICIENCY (max.)	97% at full load and 36VDC/48VDC input												
	DC CURRENT	Full load Note.3	270mA		320mA		450mA		550mA		650mA		900mA	
		No load	10mA											
FILTER	Capacitor													
PWM DIMMING & ON/OFF CONTROL	REMOTE ON/OFF	Leave open if not use												
		Power ON with dimming: DIM ~ -Vin >2.5 ~ 6VDC or open circuit												
	Power OFF : DIM ~ -Vin < 0.8VDC or short													
PWM FREQUENCY	100 ~ 1KHz													
QUIESCENT INPUT CURRENT IN SHUTDOWN MODE (max.)	1mA at PWM dimming OFF and 24VDC input													
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 ~ + 85°C (Refer to derating curve)												
	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.)	100°C													
EMC	EMI CONDUCTION & RADIATION	Compliance to EN55015, FCC part 15 class B												
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A												
OTHERS	MTBF	2000Khrs min. MIL-HDBK-217F (25°C)												
	DIMENSION	31.8*20.3*12.2mm or 1.25**0.8**0.48" inch (L*W*H)												
	WEIGHT	18g												
	POTTING MATERIAL	Expoxy(UL94-V0)												

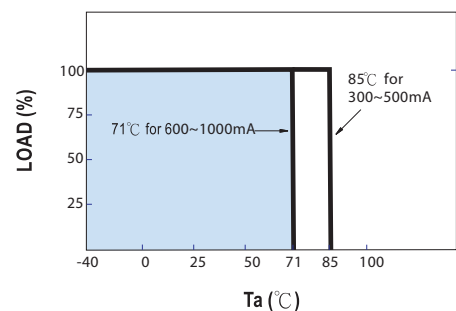
■ Mechanical Specification



■ Pin Configuration

Pin No.	Output	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

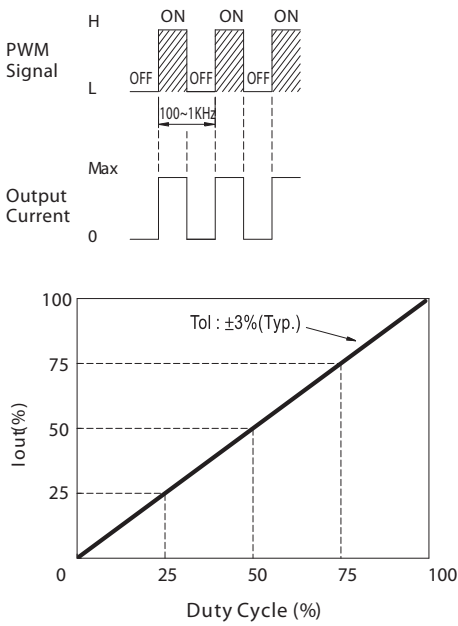
■ Derating Curve



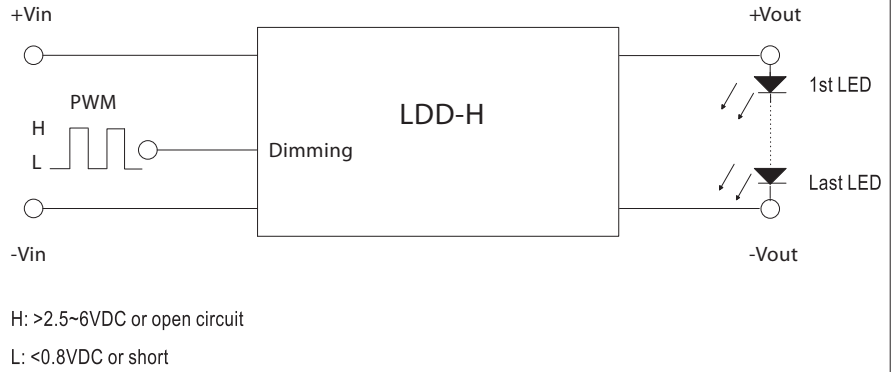
NOTE

1. All parameters are specified at normal input(48VDC), rated load, 25°C 70% RH ambient.
2. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf capacitor.
3. Test condition: 48VDC input.

PWM Dimming Control



Standard Application



Efficiency VS Output Voltage(Number of LEDs)

Fig-1 12VDC input, 1~3 LEDs(Vf=3V)

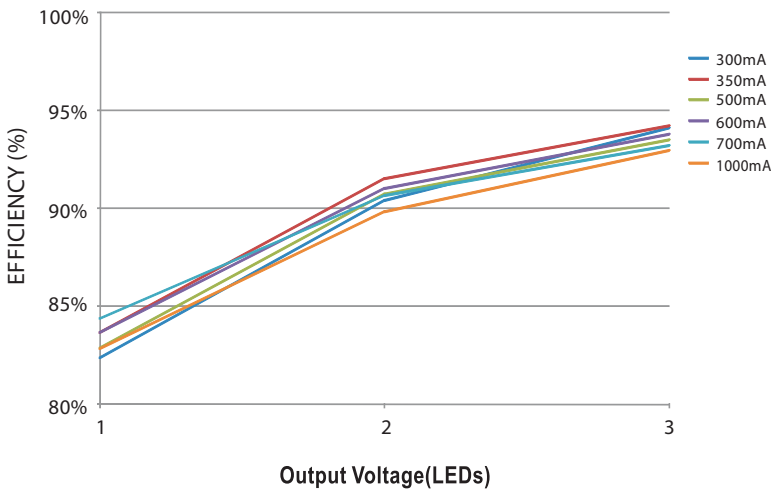


Fig-2 24VDC input, 1~7 LEDs(Vf=3V)

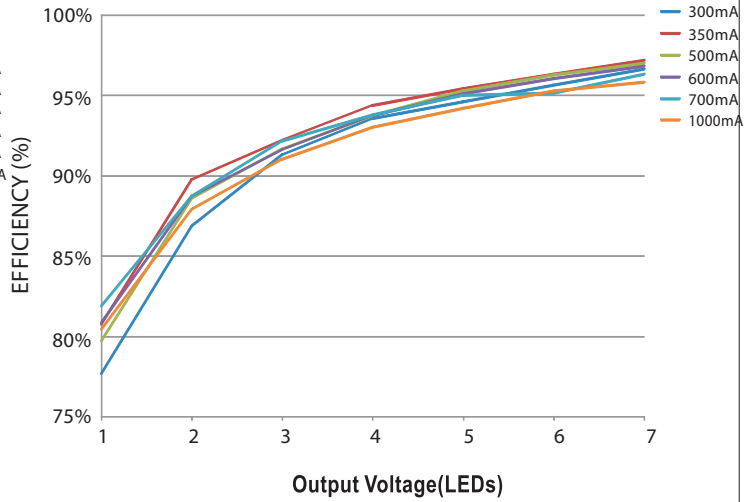


Fig-3 36VDC input, 1~10 LEDs(Vf=3V)

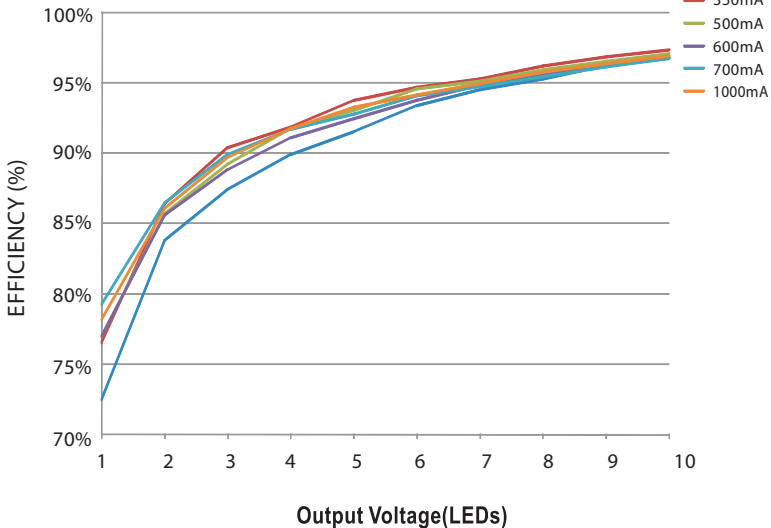


Fig-4 48VDC input, 1~14 LEDs(Vf=3V)

