

# LD100H-70

100 Watts | AC DC Constant Voltage LED Driver

## PRODUCT FEATURE

- Universal AC input range 90 - 305VAC
- Constant Voltage Operation
- Built-in Active PFC Function
- Protections: OVP / OCP/ SCP/ OTP
- High Efficiency 93%
- Fully insulated Case with IP67 level
- Cooling by Free Air Convection (Metal Housing)
- No Load Consumption <0.5 at 230VAC
- Suitable for LED Strips and Moving Sign Applications
- Function options: 3 in 1 dimming (dim-to-off); DALI
- The output and dimming lines a re-compliant with the new regulations with isolation.



LD100H-VUYYYNN-70



LD100H-VUYYYNN-70D /  
LD100H-VUYYYNN-70DA



## WARRANTY

- See [Limited Warranty Policy](#) for more additional information.

**NOTE:** LD100H-VUYYYNN-70(X)

YYY = Rated Current, NN = DC Voltage, (X) = Black → Non DIM., (X) = D → 3-in-1 Dim., (X) = DA → DALI DIM

## SPECIFICATION

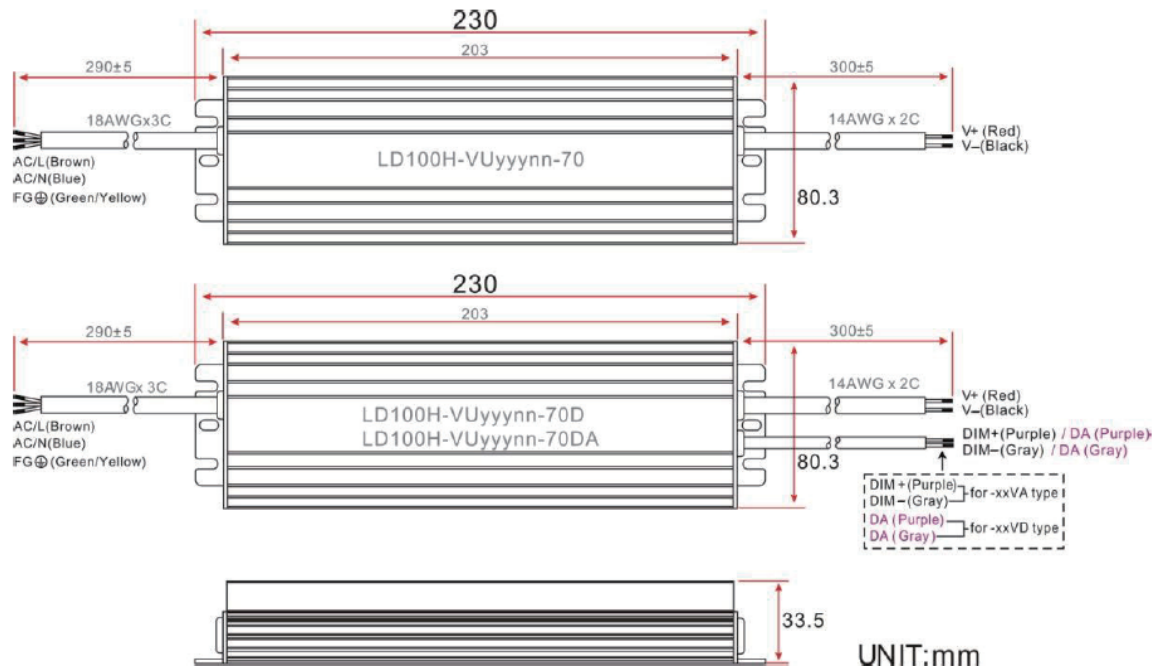
MODEL NO.		LD100H-VU83012(X)	LD100H-VU42024-70(X)	LD100H-VU28036-70(X)	LD100H-VU21048-70(X)
OUTPUT	DC Voltage	12V	24V	36V	48V
	Rated Current	8.3A	4.2A	2.8A	2.1A
	Current Range	0~8.3A	0~4.2A	0~2.8A	0~2.1A
	Rated Power	99.6W	100.8W	100.8W	100.8W
	Ripple & Noise(Max)	300mVp-P	350mVp-P	400mVp-P	500mVp-P
	Efficiency at 230VAC (Typ.)	93%	93%	93%	93%
	Voltage Tolerance	±5%	±5%	±5%	±5%
	PWM Dimming (Optional)	> 1600 Hz (for dimmable version)			
Setup Time (Max.)	0.5s / 230VAC, 1s/ 115VAC, at full load				
INPUT	Rated Voltage	100 ~ 277VAC			
	Voltage Range	90 ~ 305VAC			
	Frequency Range	47 ~ 63Hz			
	AC Current (Max)	1.5A at 115VAC/ 0.6A at 230VAC			
	Power Factor	>0.98 at 115VAC / <0.94 at 230VAC at full load. PF ≥ 0.9 at 70% load			
	Total harmonic Distortion	THD < 15% at 230VAC, full load			
	Inrush Current (Max)	Cold Start 60A at 230VAC			
	Leakage Current	<1mA / 240VAC			
DIM. CONTROL (3 IN 1)	DC Dimming	DC 0-10V			
	PWM Dimming	Puls: Hi=10V Low=0V, Duty: 0%~100, Fsw 0.5 ~ 3KHz			
	Resistance Dimming	0KΩ~100KΩ or Electronic Potentiometer 0-10V			
DIM. CONTROL (DALI)	DALI Standards	Compatibility with IEC 62386-101, 102 and 207			
	DALI bus current consumption	< 2mA			
PROTECTIONS	Over Current	105% - 180% rated output power Type: Auto recover after fault condition disappeared			
	Short Circuit	Type: Hiccup mode & recovers after fault condition disappeared			
	Over Voltage	13 ~ 19V	26 ~ 38V	38V ~ 50V	50 ~ 65V
		Type: Hiccup mode (re-power on to recover)			
	Over Temperature	Type: 95°C ± 10% Type: Shutdown mode (re-power on to recover)			

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<b>ENVIRONMENT</b>	Working Temp.	-30°C ~ 50°C (Refer to Derating Curve)			
	Working Humidity	20% ~ 90% RH non-condensing			
	Storage Temp., Humidity	-40 ~ + 80°C, 10% ~ 90% RH			
	Vibration	10 ~ 500Hz, 2G 10min./ 1 cycle, period for 60min. Each long X, Y, Z axes			
<b>SAFETY &amp; EMC</b>	Safety Standard	EN61347-1, EN61347-2-13, independent, IP67 approved			
	Withstand Voltage	I/P-O/P: 3.75KVAC I/P-FG: 1.88KVAC O/P-FG: 0.5KVAC			
	Isolation Resistance	I/P - O/P, I/P-FG: 100M ohms/ 500VDC at 25°C			
	EMC Emission	Compliance to EN55015, FCC part 15			
	Harmonic Current	Compliance to EN61000-3-2 Class C (≥ 75% load), EN61000-3-3			
	EMS Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, criteria B			
<b>OTHERS</b>	MTBF	120K hours min. MIL-HDBK-217F(25°C)			
	Dimension (L*W*H)	230 x 80.3 x 33.5 mm; 840g/pcs			
<b>NOTE</b>	<p>1. All parameters NOT specially mentioned are measured at 230V AC input, rated, load and 25°C ambient temperature.</p> <p>2. Ripple &amp; Noise are measured at 20 MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating maybe needed under low input voltage. Please check the static characteristic for more details.</p> <p>5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacture must re-qualify EMC Directive on the complete installation again.</p> <p>6. Length of setup time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the setup time.</p> <p>7. The unit might not be suitable for lighting application in EU countries. Please check with your local authorities for the possible use of the unit.</p> <p>8. Suitable for indoor use or outdoor use without direct sunlight exposure.</p> <p>9. THD &lt; 25% at 264VAC, full load.</p>				

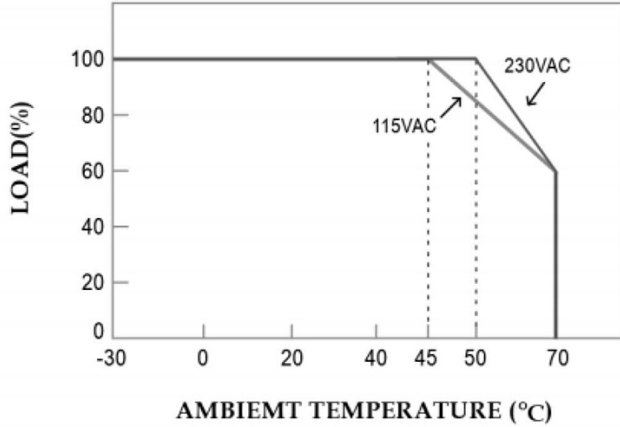
## MECHANICAL DRAWING 230 X 80.3 X 33.5mm



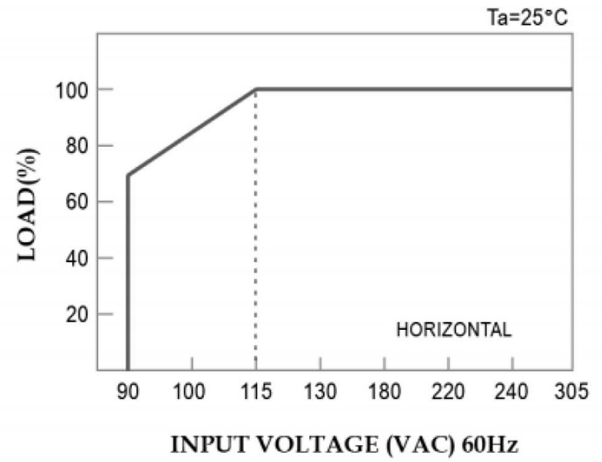
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## DERATING CURVE



## STATISTIC CHARACTERISTIC



3-in-1 Dimming Control (DC/ PWM/ Resistance)  
3-in01 Dimmable Function Description

### (1) 0-100KΩ RESISTANCE DIMMABLE (TYPICAL):

RESISTOR	SINGLE-DRIVER	SHORT	9K	20K	30K	40K	50K	60K	70K	80K	95K	100K
	MULTI-DRIVER	SHORT/N	9K/N	20K/N	30K/N	40K/N	50K/N	60K/N	70K/N	80K/N	95K/N	100K/N
<b>VOUT DUTY CYCLE(%)</b>		0%	2%	14.5%	25.9%	37.3%	48.7%	60.1%	71.5%	82.9%	100%	100%

- The length of extended wire for DIM+/- shall not exceed 20meters. (Wire ≤ 20m)
- N= The number of dimmer drivers should not exceed 15. (N ≤ 15)
- DIM+/- < 7K or 7K Vout Duty cycle 0%

### (2) DC: 0-10V DIMMABLE (TYPICAL):

DIM(VOLTAGE)	0V	0.9V	2V	3V	4V	5V	6V	7V	8V	9.5V	10V
<b>VOUT DUTY CYCLE(%)</b>	0%	2%	14.5%	25.9%	37.3%	48.7%	60.1%	71.5%	82.9%	100%	100%

- DIM+/- < 7K or 7K Vout Duty cycle 0%

### (3) 10V/PWM DIMMABLE (TYPICAL):

DIM(10V/PWM DUTY)	0%	9%	20%	30%	40%	50%	60%	70%	80%	95%	100%
<b>VOUT DUTY CYCLE(%)</b>	0%	2%	14.5%	25.9%	37.3%	48.7%	60.1%	71.5%	82.9%	100%	100%

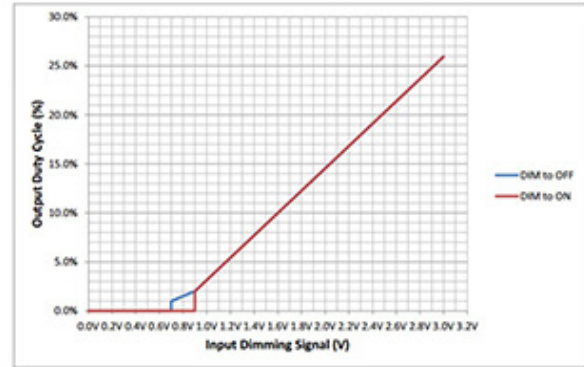
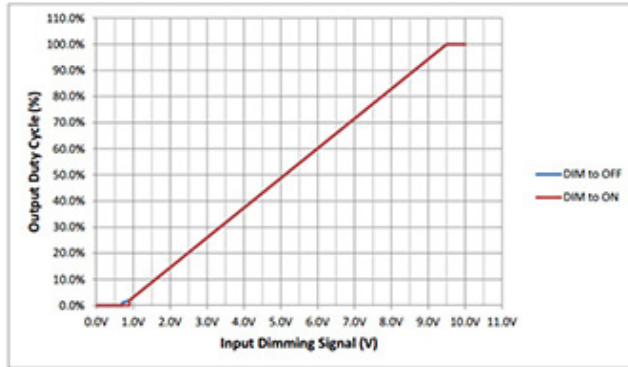
- DIM+/- < 7K or 7K Vout Duty cycle 0%

Project Name:	
Type:	

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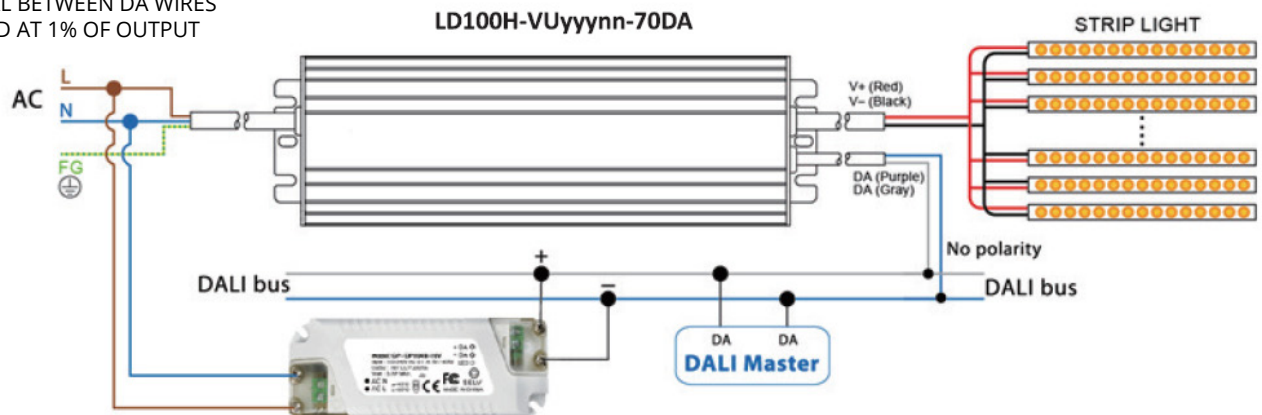
## DIMMING CURVE



## DALI INTERFACE

### DALI FUNCTION DESCRIPTION

- (1) APPLY DALI SIGNAL BETWEEN DA WIRES
- (2) FIRST STEP IS FIXED AT 1% OF OUTPUT
- (3) WIRING DIAGRAM



## APPLICATION DIAGRAM

