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# DONE

## NO:September version **2022** **LED DRIVER POWER** PRODUCT MANUAL

Road lighting	Tunnel lighting	Commercial lighting	Bridge lighting
Plant lighting	Venue lighting	Industrial lighting	Square lighting



**GUANGDONG DONE POWER TECHNOLOGY CO.,LTD**

FAX:0760-89831157 WEBSITE:www.donepower.com Address: no. 3, kanglong 3rd road, henglan town, zhongshan city, guangdong province

Mr Mart(Overseas Marketing Director) MP Wechat Whatsapp: +86 18938770300

# DONE LIGHTEN UP PLAN

LIGHT UP THE CITY / LIGHT UP LIFE / LIGHT UP DREAMS

## ENTERPRISE CULTURE

### ▶ VISION

To be a century-old company , Striving for the world' s top three in the LED driver industry.

### ▶ BRAND VALUES

Honesty / Practicability / High efficiency / Responsibility

### ▶ MISSION

Dedicate to the development of power supply around the world, to create values for clients, employees, shareholders and society by utilizing our professional skill and high quality service.

### ▶ BUSINESS PHILOSOPHY

To be a customer and contributor oriented company, never stop hard working, adhere to self-enhancing.

### ▶ MANAGEMENT PHILOSOPHY

Taking responsibility, Improving continuously, Executing systematically, Pursuing excellence.

## Enterprise brief introduction

Guangdong DONE Power Technology Co.,Ltd was founded in May 2009,. After more than 10 years of development, it has won many honors such as Guangdong Science and Technology Innovation Enterprise, Guangdong High tech Technology Enterprise, Guangdong Engineering Technology Research Center, Zhongshan Engineering Technology Research Center, etc. The company now has more than 38,000 square meters of modern standardized workshops and more than 600 employees.

It is a comprehensive brand enterprise integrating outdoor road lighting power supply, smart lighting power supply, plant lighting, agricultural lighting power supply, super high-power stadium lighting power supply, industrial lighting power supply research and development, manufacturing, sales and service.

We always adhere to the business philosophy of "diligence, perseverance, innovation, integrity, teamwork, and cooperation" as the core idea of the company. "Customer-centered, providing high-quality services; brand-based strategy, insisting on innovative development" is our quality policy; "providing every customer with more valuable high-power solutions" is our eternal goal. We strive to be the top three power supply manufacturers in the industry.

We know that talents are the first asset and core competitiveness for the development and growth of an enterprise. Since the establishment of the company, it has recruited talents and knowledgeable people to make good use of, and has gathered dozens of intermediate and senior electronic technical engineers with many years of research and development experience in the industry. This has enabled Done power to have strong product development and rapid verification capabilities in power supply research and development. With rich development experience, strong technical strength, rigorous quality management, and scientific product manufacturing in the field of high-power LED drive power supplies, Done power have won unanimous praise from customers as soon as they were launched.

Since 2011, Done Power has confirmed its branded business route with "DONE Power" as the main carrier. For more than ten years, the company has invested heavily in introducing advanced domestic and foreign R&D technologies, various sophisticated R&D and testing equipment, and established Innovative research center, reliability verification and intermediate technical institutions, so that Done Power has the ability to carry out the simulation test of the entire process of LED drive power R&D.

To create high-quality, high-reliability high-quality power supplies, and to provide the industry with more selective high-power LED drive power products is the spirit that Done power, it has always upheld in product research and development. Done has developed technology options and solutions for each product. , Design Verification (DVT), Quality Testing (DQT), Product Verification, Raw Material Selection, Trial Production Control, and Mass Production Listing follow high standards of refinement and zero defects; the company is developing key components for all products In the process, a full range of application analysis, high and low temperature and its limit test, safety test, EMC test, accelerated aging test, etc. have been carried out to ensure the high reliability and stability of Done products.

In terms of products, with fast and strong R&D strength and stable quality, the company's products have successively passed CCC, FCC, CB, PSE, TUV, CE, SAA, UL, C-tick and other domestic and foreign product certifications, which are enable Power goes abroad and exported to more than 100 countries in Europe, America, the Middle East, Southeast Asia, Australia, Russia, etc. It has established a favorable guarantee. In terms of terminal applications, Done Power is widely used in various lighting projects, municipal engineering, and industrial Lighting products for factories, mines, stadiums, etc.

In terms of marketing network construction, Done has gradually strengthened the construction of its own channels and distribution channels since 2015, established East China and South China operation centers, set up offices in Ningbo, Changzhou, Shenzhen and other places, and successfully developed Fujian, Yangzhou, Distributors in Wenzhou, Danyang, Hebei, Shenzhen, Chengdu and other regions have successfully developed distributors in Brazil ,Russia, Egypt, Turkey, Vietnam and other countries in abroad, laying a solid foundation for Done Power's global market layout.

Done attaches great importance to the construction of corporate culture, implements a good employee welfare system internally, creates a fair and equitable development platform, carries out various corporate cultural activities, continuously improves the company management system, and strives to learn advanced management experience from industry benchmark companies And philosophy. We sincerely invite people of insight who have ideals, pursuits, ambitions, unwillingness to be commonplace, and are willing to act on their dreams to join Done Power , and strive for the "100-year Done Power" corporate goal while achieving their own achievements.

We believe that with the joint efforts of all Done people, the future of Done Power will surely rise like the rising sun and glorious earth!

# COMPANY HISTORY

**2009**

2009 zhongshan lingling electronics factory was established.

**2010-2011**

In 2011, building R&D, QC and PMC, and domestic sales team.

**2012-2013**

Successfully registered trade mark "DONE", identify brand operation strategy! new factory was built with construction area of 25000m<sup>2</sup>

**2014-2015**

In 2014, the company was renamed "zhongshan Done lighting technology co., LTD." building the overseas sales team.

In 2015, the first phase of Done lighting has completed, and factory moved to the new plant from guzhen. Company passed ISO 9001-2008.

**2016-2018**

In 2016, DONE passed the high-tech enterprise certification, and DONE phase II plant started construction.

In 2017, the second phase of the plant will be completed and newly settled in the SMT, cable processing and high-power production workshop, which will provide a strong boost for the second take-off of DONE.

In 2018, DONE established Shenzhen operation center and Ningbo operation center, and formally entered the shenzhen and ningbo market.

**2019-2021**

DONE phase III industrial park starts building, R&D center and Verification Center are completed.

DONE listing strategic released, and introduce third-party help brand upgrade.

**In The Future**

DONE continuously expands innovation investment, Concentrate on high power LED driver R&D, Deeply plough market segmentation application!

# ENTERPRISE SCENE

FOCUS ON QUALITY  
HARD SERVICE

**DONE**



## HONOR



# GLOBAL PROFESSIONAL LED DRIVER BRAND FOR OUTDOOR LIGHTING

Project Lighting / Road Lighting / Plant Lighting  
Commercial Lighting / Industrial Lighting / Night Scene Lighting



## CONTENT

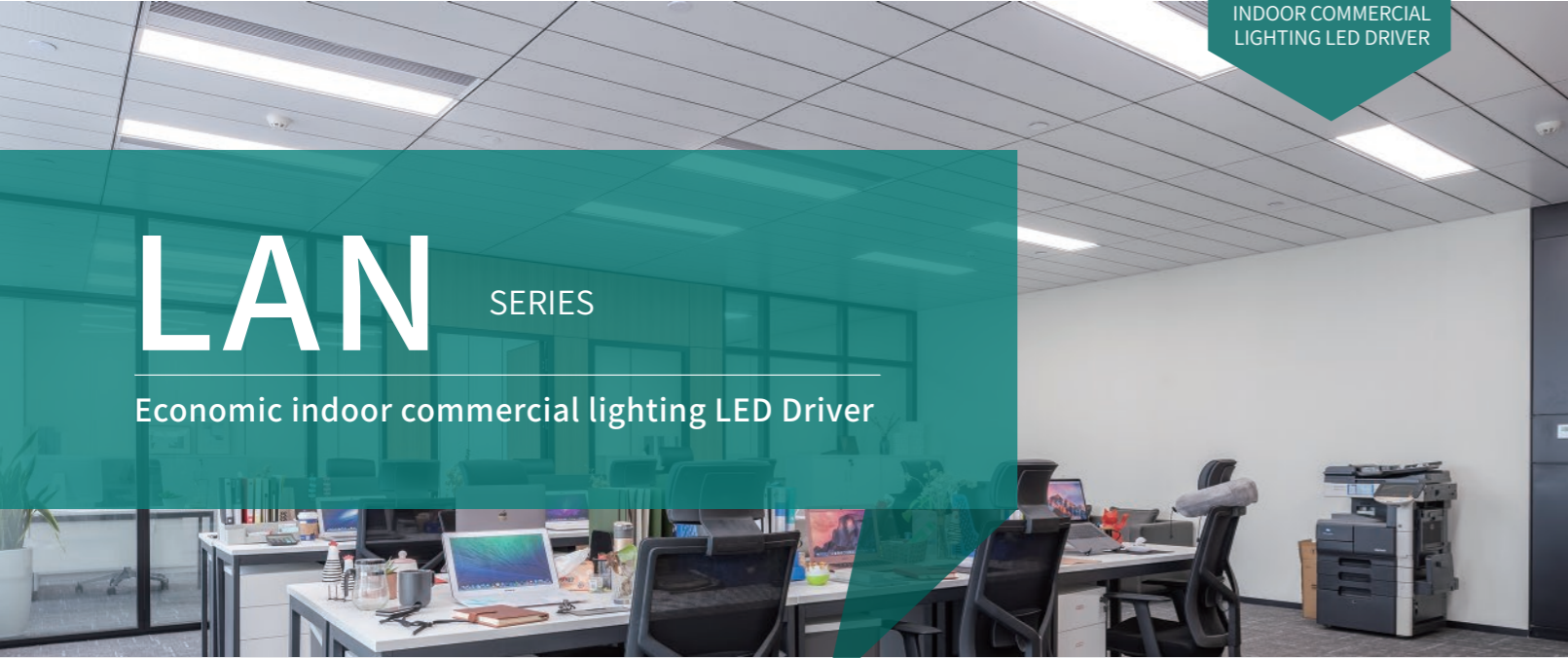
### Road lighting LED driver series

LAN series ..... Economic indoor commercial lighting LED Driver	01-02
LAC series ..... Standardized indoor commercial lighting LED Driver	03-04
LAB series ..... Commercial lighting track product series	05-06





INDOOR COMMERCIAL LIGHTING LED DRIVER

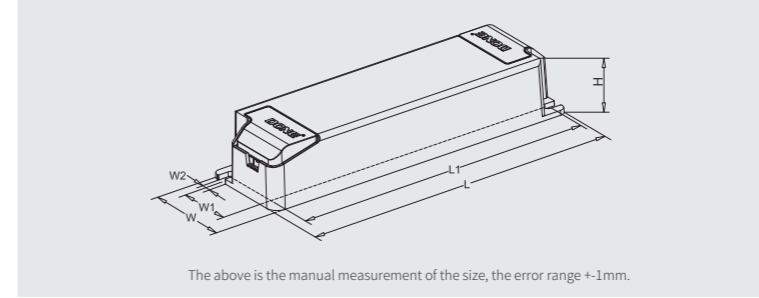


# LAN SERIES

Economic indoor commercial lighting LED Driver

## PRODUCT FEATURES

1. Input range:220-240Vac,suitable for high input voltage area.
2. Output voltage:25-42Vdc,multiple current as optional.
3. Efficiency up to 89%/High PF>0.95/THD<10%
4. Surge protection:different mode L-N Class II +/- 1 KV (2 ohm)
5. Comply with CE, CB, CCC ,ENEC,SAA and other multi-national safety regulations.
6. Life time>50,000 hrs.And 5 years warranty.



The above is the manual measurement of the size, the error range +/-1mm.

Product Size						
	L1	L2	W	W1	W2	H
7W	89mm	80mm	38mm	26mm	3.5mm	25mm
12W	89mm	80mm	38mm	26mm	3.5mm	25mm
20W	106mm	97mm	38mm	26mm	4.3mm	25mm
30W	135mm	126mm	40mm	28mm	4.3mm	25mm
40W	135mm	126mm	40mm	28mm	4.3mm	25mm
50W	139mm	130mm	45mm	28mm	4.3mm	30mm
60W	139mm	130mm	45mm	28mm	4.3mm	30mm

HOT ARTICLE	Model	Rated power	Input Voltage	Output Voltage	Output Current	Efficiency (230Vac)	PF (230Vac)	Lightning protection rating	Product Size
7W	DL-7H-C150-LAN	3.6W	220~240V	11~24V	150mA	72%	0.9	1KV	89*38*25mm
	DL-7H-C180-LAN	4.32W	220~240V	11~24V	180mA	75%	0.9	1KV	89*38*25mm
	DL-7H-C210-LAN	5.04W	220~240V	11~24V	210mA	77%	0.9	1KV	89*38*25mm
	DL-7H-C240-LAN	5.76W	220~240V	11~24V	240mA	78%	0.9	1KV	89*38*25mm
	DL-7H-C270-LAN	6.48W	220~240V	11~24V	270mA	79%	0.9	1KV	89*38*25mm
	DL-7H-C300-LAN	7.2W	220~240V	11~24V	300mA	79%	0.9	1KV	89*38*25mm
	DL-7H-C350-LAN	8.4W	220~240V	11~24V	350mA	80%	0.9	1KV	89*38*25mm
12W	DL-12H-C150-LAN	6.3W	220~240V	25~42V	150mA	79%	0.9	1KV	89*38*25mm
	DL-12H-C180-LAN	7.56W	220~240V	25~42V	180mA	81%	0.9	1KV	89*38*25mm
	DL-12H-C210-LAN	8.82W	220~240V	25~42V	210mA	82%	0.9	1KV	89*38*25mm
	DL-12H-C240-LAN	10.08W	220~240V	25~42V	240mA	83%	0.9	1KV	89*38*25mm
	DL-12H-C270-LAN	11.34W	220~240V	25~42V	270mA	83%	0.9	1KV	89*38*25mm
	DL-12H-C300-LAN	12.6W	220~240V	25~42V	300mA	84%	0.9	1KV	89*38*25mm
	DL-12H-C350-LAN	14.7W	220~240V	25~42V	350mA	84%	0.9	1KV	89*38*25mm
20W	DL-20H-C400-LAN	16.8W	220~240V	25~42V	400mA	87%	0.95	1KV	106*38*25mm
	DL-20H-C450-LAN	18.9W	220~240V	25~42V	450mA	87%	0.95	1KV	106*38*25mm
	DL-20H-C500-LAN	21W	220~240V	25~42V	500mA	87%	0.95	1KV	106*38*25mm
	DL-20H-C550-LAN	23.1W	220~240V	25~42V	550mA	87%	0.95	1KV	106*38*25mm
30W	DL-30H-C600-LAN	25.2W	220~240V	25~42V	600mA	88%	0.9	1KV	135*40*25mm
	DL-30H-C650-LAN	27.3W	220~240V	25~42V	650mA	88%	0.9	1KV	135*40*25mm
	DL-30H-C700-LAN	29.4W	220~240V	25~42V	700mA	88%	0.9	1KV	135*40*25mm
	DL-30H-C750-LAN	31.5W	220~240V	25~42V	750mA	88%	0.9	1KV	135*40*25mm
	DL-30H-C800-LAN	33.6W	220~240V	25~42V	800mA	88%	0.95	1KV	135*40*25mm
40W	DL-40H-C850-LAN	35.7W	220~240V	25~42V	850mA	89%	0.95	1KV	135*40*25mm
	DL-40H-C900-LAN	37.8W	220~240V	25~42V	900mA	89%	0.95	1KV	135*40*25mm
	DL-40H-C950-LAN	39.9W	220~240V	25~42V	950mA	89%	0.95	1KV	135*40*25mm
	DL-40H-C1000-LAN	42W	220~240V	25~42V	1000mA	89%	0.95	1KV	135*40*25mm
	DL-40H-C1050-LAN	44.1W	220~240V	25~42V	1050mA	89%	0.95	1KV	135*40*25mm
50W	DL-50H-C1100-LAN	46.2W	220~240V	25~42V	1100mA	89%	0.95	1KV	139*45*30mm
	DL-50H-C1150-LAN	48.3W	220~240V	25~42V	1150mA	89%	0.95	1KV	139*45*30mm
	DL-50H-C1200-LAN	50.4W	220~240V	25~42V	1200mA	89%	0.95	1KV	139*45*30mm
	DL-50H-C1250-LAN	52.5W	220~240V	25~42V	1250mA	89%	0.95	1KV	139*45*30mm
60W	DL-60H-C1300-LAN	54.6W	220~240V	25~42V	1300mA	89%	0.95	1KV	139*45*30mm
	DL-60H-C1350-LAN	56.7W	220~240V	25~42V	1350mA	89%	0.95	1KV	139*45*30mm
	DL-60H-C1400-LAN	58.8W	220~240V	25~42V	1400mA	89%	0.95	1KV	139*45*30mm
	DL-60H-C1450-LAN	60.9W	220~240V	25~42V	1450mA	89%	0.95	1KV	139*45*30mm
	DL-60H-C1500-LAN	63W	220~240V	25~42V	1500mA	89%	0.95	1KV	139*45*30mm



INDOOR COMMERCIAL LIGHTING LED DRIVER

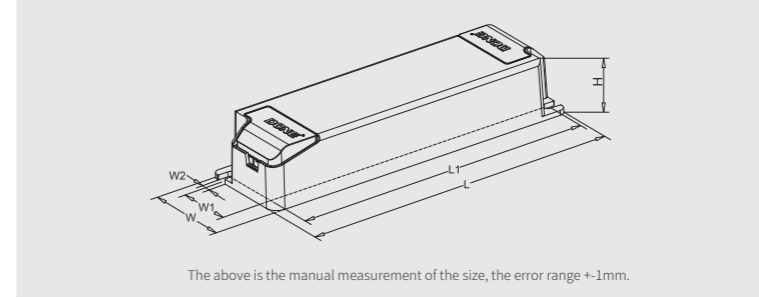


# LAC SERIES

Standardized indoor commercial lighting LED Driver

## PRODUCT FEATURES

1. Input range:220-240Vac,suitable for high input voltage area.
2. Output voltage:25-42Vdc,multiple current as optional.
3. Efficiency up to 89%/High PF>0.95/THD<12%
4. Surge protection:different mode L-N Class II +/- 1KV (2 ohm)
5. Comply with CE, CB, CCC ,ENEC,SAA and other multi-national safety regulations.
6. Life time>50,000 hrs.And 5 years warranty.



The above is the manual measurement of the size, the error range +/-1mm.

Product Size						
	L1	L2	W	W1	W2	H
7W	89mm	80mm	38mm	26mm	3.5mm	25mm
12W	89mm	80mm	38mm	26mm	3.5mm	25mm
20W	106mm	97mm	38mm	26mm	3.5mm	25mm
30W	135mm	126mm	40mm	28mm	4.3mm	25mm
40W	135mm	126mm	40mm	28mm	4.3mm	25mm

HOT ARTICLE	Model	Rated power	Input Voltage	Output Voltage	Output Current	Efficiency (230Vac)	PF (230Vac)	Lightning protection rating	Product Size
7W	DL-7H-C150-LAC	3.6W	220~240V	11~24V	150mA	75%	0.9	1KV	89*38*25mm
	DL-7H-C180-LAC	4.32W	220~240V	11~24V	180mA	75%	0.9	1KV	89*38*25mm
	DL-7H-C210-LAC	5.04W	220~240V	11~24V	210mA	76%	0.9	1KV	89*38*25mm
	DL-7H-C240-LAC	5.76W	220~240V	11~24V	240mA	77%	0.9	1KV	89*38*25mm
	DL-7H-C270-LAC	6.48W	220~240V	11~24V	270mA	78%	0.9	1KV	89*38*25mm
	DL-7H-C300-LAC	7.2W	220~240V	11~24V	300mA	78%	0.9	1KV	89*38*25mm
	DL-7H-C350-LAC	8.4W	220~240V	11~24V	350mA	78%	0.9	1KV	89*38*25mm
12W	DL-12H-C150-LAC	6.3W	220~240V	25~42V	150mA	82%	0.9	1KV	89*38*25mm
	DL-12H-C180-LAC	7.56W	220~240V	25~42V	180mA	82%	0.9	1KV	89*38*25mm
	DL-12H-C210-LAC	8.82W	220~240V	25~42V	210mA	83%	0.9	1KV	89*38*25mm
	DL-12H-C240-LAC	10.08W	220~240V	25~42V	240mA	83%	0.9	1KV	89*38*25mm
	DL-12H-C270-LAC	11.34W	220~240V	25~42V	270mA	84%	0.9	1KV	89*38*25mm
	DL-12H-C300-LAC	12.6W	220~240V	25~42V	300mA	84%	0.9	1KV	89*38*25mm
	DL-12H-C350-LAC	14.7W	220~240V	25~42V	350mA	84%	0.9	1KV	89*38*25mm
20W	DL-20H-C400-LAC	16.8W	220~240V	25-42V	400mA	86%	0.9	1KV	106*38*25mm
	DL-20H-C450-LAC	18.9W	220~240V	25-42V	450mA	86%	0.95	1KV	106*38*25mm
	DL-20H-C500-LAC	21W	220~240V	25-42V	500mA	86%	0.95	1KV	106*38*25mm
	DL-20H-C550-LAC	23.1W	220~240V	25-40V	550mA	86%	0.95	1KV	106*38*25mm
30W	DL-30H-C600-LAC	25.2W	220~240V	25-42V	600mA	88%	0.95	1KV	135*40*25mm
	DL-30H-C650-LAC	27.3W	220~240V	25-42V	650mA	88%	0.95	1KV	135*40*25mm
	DL-30H-C700-LAC	29.4W	220~240V	25-42V	700mA	88%	0.95	1KV	135*40*25mm
	DL-30H-C750-LAC	31.5W	220~240V	25-42V	750mA	88%	0.95	1KV	135*40*25mm
	DL-30H-C800-LAC	32W	220~240V	25-40V	800mA	88%	0.95	1KV	135*40*25mm
40W	DL-40H-C850-LAC	35.7W	220~240V	25-42V	850mA	89%	0.95	1KV	135*40*25mm
	DL-40H-C900-LAC	37.8W	220~240V	25-42V	900mA	90%	0.95	1KV	135*40*25mm
	DL-40H-C950-LAC	39.9W	220~240V	25-42V	950mA	90%	0.95	1KV	135*40*25mm
	DL-40H-C1000-LAC	42W	220~240V	25-42V	1000mA	90%	0.95	1KV	135*40*25mm
	DL-40H-C1050-LAC	44.1W	220~240V	25-40V	1050mA	90%	0.95	1KV	135*40*25mm



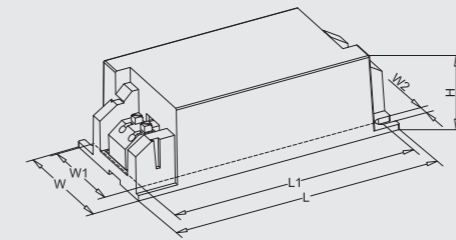
INDOOR COMMERCIAL LIGHTING LED DRIVER

# LAB SERIES

Commercial lighting track product series

## PRODUCT FEATURES

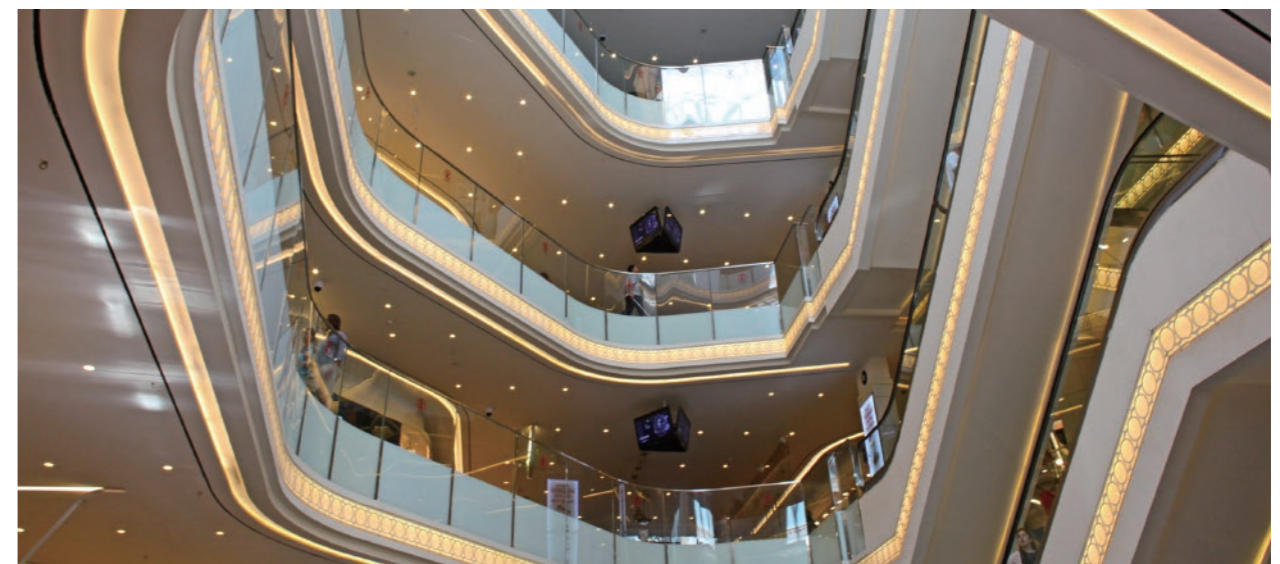
1. Input range:220-240Vac,suitable for high input voltage area.
2. Output voltage:25-42Vdc,multiple current as optional.
3. Efficiency up to 89%/High PF>0.95/THD<12%
4. Surge protection:different mode L-N Class II +/- 1 KV ( 2 ohm )
5. Comply with CE, CB, CCC ,ENEC ,SAA and other multi-national safety regulations.
6. Life time>50,000 hrs.And 5 years warranty.



The above is the manual measurement of the size, the error range +/-1mm.

Product Size						
	L	L1	W	W1	W2	H
20W	97mm	88mm	43mm	34.5mm	4.5mm	30mm
30W	97mm	88mm	43mm	34.5mm	4.5mm	30mm
40W	97mm	88mm	43mm	34.5mm	4.5mm	30mm

HOT ARTICLE	Model	Rated power	Input Voltage	Output Voltage	Output Current	Efficiency (230Vac)	PF (230Vac)	Lightning protection rating	Product Size
20W	DL-20H-C250-LAB	10.5W	220~240V	25-42V	250mA	86%	0.9	1KV	97*43*30mm
	DL-20H-C270-LAB	11.34W	220~240V	25-42V	270mA	86%	0.9	1KV	97*43*30mm
	DL-20H-C300-LAB	12.6W	220~240V	25-42V	300mA	86%	0.9	1KV	97*43*30mm
	DL-20H-C350-LAB	14.7W	220~240V	25-42V	350mA	86%	0.9	1KV	97*43*30mm
	DL-20H-C400-LAB	16.8W	220~240V	25-42V	400mA	86%	0.95	1KV	97*43*30mm
	DL-20H-C450-LAB	18.9W	220~240V	25-42V	450mA	86%	0.95	1KV	97*43*30mm
	DL-20H-C500-LAB	21W	220~240V	25-42V	500mA	86%	0.95	1KV	97*43*30mm
	DL-20H-C550-LAB	22W	220~240V	25-40V	550mA	86%	0.95	1KV	97*43*30mm
30W	DL-30H-C600-LAB	25.2W	220~240V	25-42V	600mA	88%	0.9	1KV	97*43*30mm
	DL-30H-C650-LAB	27.3W	220~240V	25-42V	650mA	88%	0.9	1KV	97*43*30mm
	DL-30H-C700-LAB	29.4W	220~240V	25-42V	700mA	88%	0.9	1KV	97*43*30mm
	DL-30H-C750-LAB	31.5W	220~240V	25-42V	750mA	88%	0.9	1KV	97*43*30mm
	DL-30H-C800-LAB	33.6W	220~240V	25-42V	800mA	88%	0.9	1KV	97*43*30mm
40W	DL-40H-C850-LAB	35.7W	220~240V	25-42V	850mA	89%	0.95	1KV	97*43*30mm
	DL-40H-C900-LAB	37.8W	220~240V	25-42V	900mA	89%	0.95	1KV	97*43*30mm
	DL-40H-C950-LAB	39.9W	220~240V	25-42V	950mA	89%	0.95	1KV	97*43*30mm
	DL-40H-C1000-LAB	42W	220~240V	25-42V	1000mA	89%	0.95	1KV	97*43*30mm





# Q & A

## INPUT VOLTAGE RANGE

When the user sees that the labeled input voltage range on the power supply is 85-265VAC, the actual input voltage is 100-240VAC. When the safety certification is conducted, the so-called strict  $\pm 10\%$  test (IEC60950 strict + 6%-10%) will be carried out, so there will be no problem in the use of the power supply drive within the voltage range defined in the specification. The voltage range indicated on the power supply is to meet safety specifications and to ensure proper use of the power supply.

## POWER FACTOR

Power Factor Correction for improve the led driver ratio of effective Power and apparent Power at the input end. For products which without PFC, the power factor is only 0.4~0.6 at the input end, models which with active PFC , PF can be more than 0.95. The correlation is as follows:

Apparent power = input voltage x input current (VA)

Effective power = input voltage x input current x power factor (PF)

From the viewpoint of environmental, electric power company must produce more than the apparent power, so that their generating sets can supply to market demands stable, and the actual use of power is the effective power. If the power factor is 0.5, it means that the generator set should produce more than 2VA power, can supply 1W power safely and its energy efficiency is poor. But if the power factor was improved to 0.95, the generating set of the electric power company need produces power more than 1.06VA, the demand for supply 1W power will be enough, and the energy efficiency is better.

## SURGE CURRENT

The switching power supply at the instant of the input power transmission will be a brief (1 / 2-1 power cycle, ex: 60Hz power supply 1 / 120-1 / 60 seconds) of high current (about 20-60A according to the product design, please refer to the product acknowledgment) at the moment of power transmission of the input power supply. After the product is started, the normal current input will be restored, and it will appear at the moment of power transmission at the input power supply every time. This is a normal phenomenon and will not cause the damage of power supply . However, it is not recommended to turn on / off the power supply continuously. In addition, it should be noted that if more than one power supply device is used to start up at the same time, it may cause the protection switch of system distribution to jump off. It is recommended to delay starting up among more than one power supply device, or to use the remote control function of the power product to delay starting up the product sequence.

## OUTPUT VOLTAGE ACCURACY

Output voltage accuracy refers to the difference between the actual output voltage and the rated output voltage. This error is the superposition value of line stability and load stability. Normally this parameter at  $\pm 1\%$  line stability is the percentage of the output voltage that deviates from the rated voltage when the input voltage varies between the maximum and minimum allowable range. Load stability is the percentage of the output voltage that deviates from the rated voltage when the output load current varies between the maximum and minimum allowable range.

Efficiency: The ratio of total output power to active input power, expressed as a percentage. That is, efficiency = output power / input power \* 100%.

Rated power: refers to the maximum output power of the power supply (voltage V times current A).

Electromagnetic compatibility (EMC) : the ability of a device or system to operate as required in its electromagnetic environment without producing intolerable EMI to any device in its environment.

EMC includes EMI(electromagnetic interference) and EMS(electromagnetic tolerance). The so-called EMI electromagnetic interference refers to the harmful energy transmitted or radiated by the switching power supply. And EMS refers to the ability of the switching power supply to be unaffected by the surrounding electromagnetic environment in the process of performing its due functions.

Ripple: as the dc stable power supply is generally formed by the ac power supply through rectifying and voltage stabilizing links, it is inevitable that there are more or less ac components in the dc stable power. The ac component superimposed on the dc stable power is called ripple.

Output ripple and noise: the amplitude of the output ac voltage from the switching power supply within a specified bandwidth, usually expressed as a millivolt level peak-to-peak or RMS value.

Total Harmonic Distortion is refers to the signal source input, the output signal (harmonic and its frequency doubling component) than the input signal of the additional harmonic component, usually expressed as a percentage. Generally speaking, the total harmonic distortion of this frequency of 1000Hz is the smallest, so many products take the distortion of this frequency as its index. So the test for total harmonic distortion is 1000Hz sound, and the smaller the better.

Overshoot and undershoot: Overshoot is when the first peak or valley value exceeds the set voltage -- the highest voltage for the rising edge and the lowest voltage for the falling edge. Undershoot is the next valley or peak. Excessive overshoot can cause the protective diode to work, leading to premature failure. Excessive undershoot can cause false clock or data errors.

Working environment temperature switch power supply can be reasonable electrical indicators and stability of the working temperature range. Unless specified otherwise, do not assume that the switching power supply can output full power throughout the temperature range, nor that the switching power supply can maintain the same electrical specifications throughout the operating temperature range.

Pulse Width Modulation (PWM) : a method of voltage regulation used in switching power supplies by simply changing the period and duty cycle of the pulse train.