

High quality LED power supplies with constant voltage output (CV)

FEATURES:

- compact design
- reliable and powerful
- high efficiency
- compliant with international lighting standards
- fully protected
- durable and robust unit
- easy to mount case

APPLICATIONS:

- indoor lighting LED systems
- retail and industrial lighting
- stage LED lighting
- digital signage systems
- architectural LED lighting
- emergency lighting



LN-60 is a series of high-performance 60-watt power supplies for LED lighting systems. It has a slim case made of durable plastic. It is a high-quality power unit, meets the requirements of international standards and provides high output power. It is based on high quality electronic components that allow continuous, long-lasting work in all environmental conditions. It is reliable, fully protected and stable. 5 years warranty included.

TECHNICAL CHARACTERISTICS

Group	Parameter	LN-6012	LN-6024	Conditions
Input	Rated input voltage	230 VAC		
	Input voltage range	220-240 VAC		
	Mains frequency range	50 Hz		
	AC current (max.)	0.4 A		At 240 VAC and full load
	Inrush current (max.)	50 A	40 A	At 240 VAC and full load
	No-load power consumption (max.)	0.5 W	0.3 W	
	Input leakage current (max.)	0.5 mA		At 240 VAC
	Power factor correction	Yes		Active type
	Power factor (min.)	0.9		
Output	Regulation type	CV – constant voltage		
	Rated output voltage	12 V	24 V	
	No-load output voltage (max.)	11.4-12.6 V	25.2 V	
	Rated output power	60 W		
	Rated output current	5 A	2.5 A	
	Efficiency	80%	86%	At 240 VAC and full load
	Line regulation	±5%		220-240 VAC
	Load regulation	±3%		
	Turn on delay time (max.)	500 ms		At 240 VAC and full load
	Hold time after power loss (max.)	1 s		At no load
LED brightness	Brightness control	No		
Environmental	Working temperature range	-10°C to +40°C	-20°C to +50°C	
	Maximum enclosure temperature	85°C		
	Working humidity range	20 ~ 90% RH		Without condensation
	Storage temperature range	-20°C to +60°C		
	Cooling method	Free air circulation		
Protection	Input: overvoltage (OVP), undervoltage (UVP)	OVP		
	Output: overcurrent (OCP), short circuit (SCP), overvoltage (OVP)	OCP (105-150%), SCP, OVP (16 V)	OCP (115-150%), SCP, OVP (36 V)	Rectangular characteristic
	Spike voltage protection	Yes		MOV
	Automatic recovery on fault remove	Yes		Output sampling
	Thermal switch off	Yes		110°C
Safety and EMC	Withstand isolation voltage (min.)	3 kVAC (input to output)		5 mA, 1 min
	Isolation resistance (min.)	10 MΩ		500 VDC
	Isolation class	2		Grounding is not required
	Safety compliance	EN61347-1, EN61347-2-13 EN60598-1, EN60598-2-6		
	EMC compliance (emission)	EN55015		At full load
	EMC compliance (harmonic current emission)	EN61000-3-2, -3-3, Class C		
	EMC compliance (immunity)	EN61547 EN61000-4-2, -4-5, Class C		
	Marking	CE, UKCA, RoHS		

Notes: Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, respectively. The power supply is considered as an independent unit, but the final equipment still need to reconfirm that the whole system complies with the EMC directives. If the PSU is installed in the final device as a subassembly, the tests should be repeated to verify that the system has been met compliance. Detailed technical data are available on request.

Mechanical	Enclosure type	White ABS plastic (removable connector covers)		
	Dimensions	186 × 64 × 22 mm		L × W × H
	Weight	158 g	195 g	
	Input connector	190 × 70 × 25 mm		
	Output connector	375 × 205 × 320 mm		
	Single package size	Terminal block		0.35-1.5 mm ²
	Packing	Terminal block		0.35-1.5 mm ²
	Manufacturing	China		
	Warranty	5 years		
	MTBF	30 000 h		50°C

BLOCK DIAGRAM

MARKING SYSTEM

LN-6012

- Rated output voltage **12 V**
- Output power class **60 W**
- Series name **LN**

MECHANICAL SPECIFICATION

PRODUCT LABEL

Legend to the label icons:

- L** - line connection (brown or black wire)
- N** - neutral connection (blue)
- tc: 85°C** - maximum case temperature
- ta: 40°C** - maximum ambient temperature
- II** - II safety class: no grounding is required, no dangerous voltage even in an emergency situation will appear on output
- IP20** - power supply intended for indoor use only
- SELV** - it can be installed separately outside a lighting fixture without an additional housing
- IP20** - means safety isolating control gear with short circuit protection
- IP20** - can be placed on wood surfaces or built into furniture
- IP20** - thermally protected at 110°C
- IP20** - designed for continuous operation
- IP20** - the product must not be disposed of in normal waste containers
- IP20** - Safety Extra Low Voltage output insulated from both the mains and ground circuits
- IP20** - defined in EN 60529 levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies (tools, dirt) and moisture

LN LED POWER SUPPLY SERIES								
No.	Series	Model	Power Supply Name	EAN	Voltage [V]	Current [A]	Power [W]	Dimensions
1.	LN	LN-0612	LED ESPE LN 12V 0.5A 6W IP20	5904139602218	12	0.5	6	67 × 31 × 21 mm
2.	LN	LN-0624	LED ESPE LN 24V 0.25A 6W IP20	5904139602508	24	0.25	6	67 × 31 × 21 mm
3.	LN	LN-1212	LED ESPE LN 12V 1A 12W IP20	5904139602225	12	1	12	90 × 40 × 24 mm
4.	LN	LN-1224	LED ESPE LN 24V 0.5A 12W IP20	5904139602515	24	0.5	12	90 × 40 × 24 mm
5.	LN	LN-3612	LED ESPE LN 12V 3A 36W IP20	5904139602232	12	3	36	132 × 42 × 28 mm
6.	LN	LN-3624	LED ESPE LN 24V 1.5A 36W IP20	5904139602539	24	1.5	36	132 × 42 × 28 mm
7.	LN	LN-6012	LED ESPE LN 12V 5A 60W IP20	5904139602256	12	5	60	186 × 64 × 22 mm
8.	LN	LN-6024	LED ESPE LN 24V 2.5A 60W IP20	5904139602546	24	2.5	60	186 × 64 × 22 mm
9.	LN	LN-10012	LED ESPE LN 12V 8.3A 100W IP20	5904139602263	12	8.3	100	180 × 66 × 32 mm
10.	LN	LN-10024	LED ESPE LN 24V 4.16A 100W IP20	5904139602553	24	4.16	100	180 × 66 × 32 mm
11.	LN	LN-32012	LED ESPE LN 12V 21.6A 260W IP20	5904139609767	12	21.6	260	210 × 80 × 36 mm
12.	LN	LN-32024	LED ESPE LN 24V 13.3A 320W IP20	5904139609774	24	13.3	320	310 × 80 × 36 mm