

# LPC2412CV

24-watt power supply for LED lighting in the IP67 housing

#### **FEATURES:**

- compact design
- IP67 enclosure
- reliable and powerful
- high efficiency
- fully protected
- compliant with international lighting standards
- easy to mount housing

## **APPLICATIONS:**

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



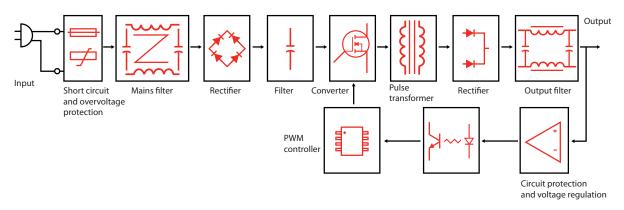
**LPC2412CV** is a high-performance and high-efficiency 24-watt power supply for LED lighting systems. It is a high-quality power unit, meets the requirements of international standards and provides high output power. It is based on high quality electronic components that allow continuous, long-lasting work in all environmental conditions. The power supply enclosure provides full protection against dust and water (IP67).

## **TECHNICAL CHARACTERISTICS**

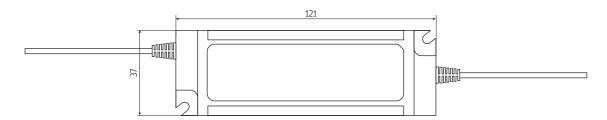
| Group           | Parameter                                      | Value   | Conditions                      |
|-----------------|--|---|---------------------------------|
| Input           | Rated input voltage                            | 230 VAC   |                                 |
|                 | Input voltage range                            | 220-240 VAC                                       |                                 |
|                 | Mains frequency range                          | 50 Hz   |                                 |
|                 | AC current (max.)                              | 0.3 A   | At 240 VAC and full load        |
|                 | Inrush current (max.)                          | 40 A  | At 240 VAC and full load        |
|                 | No-load power consumption (max.)               | 0.5 W   |                                 |
|                 | Input leakage current (max.)                   | 2.5 mA  | At 240 VAC                      |
|                 | Power factor correction                        | No  |                                 |
|                 | Power factor                                   | 0.5   | At 240 VAC and full load        |
|                 | Regulation type                                | CV – constant voltage                             |                                 |
|                 | Rated output voltage                           | 12 V  |                                 |
|                 | No-load output voltage (max.)                  | 12.6 V  |                                 |
|                 | Full load output voltage (min.)                | 11.4 V  |                                 |
| Output          | Rated output power                             | 24 W  |                                 |
| Output          | Rated output current                           | 2 A   |                                 |
|                 | Efficiency                                     | 82%   | At 240 VAC and full load        |
|                 | Line regulation                                | ±5%   | 220-240 VAC                     |
|                 | Load regulation                                | ±3%   |                                 |
|                 | Turn on delay time (max.)                      | 500 ms  |                                 |
| LED brightness  | Brightness control                             | No  |                                 |
| Environmental   | Working temperature                            | -10℃ to +40℃                                      |                                 |
|                 | Maximum enclosure temperature                  | 85℃   |                                 |
|                 | Working humidity                               | 20% to 90% RH                                     | Without condensation            |
|                 | Storage temperature                            | -20°C to +60°C                                    |                                 |
|                 | Cooling method                                 | Free air circulation                              |                                 |
| Protection      | Input: overvoltage (OVP), undervoltage (UVP)   | OVP   |                                 |
|                 | Output: overcurrent (OCP), short circuit (SCP) | OCP (105-150%)<br>SCP, OVP (16 V)                 | Rectangular characteristic      |
|                 | Spike voltage protection                       | Yes   | MOV                             |
|                 | Automatic recovery on fault remove             | Yes   | Output sampling                 |
|                 | Thermal switch off                             | Yes   | 110°C                           |
|                 | Withstand isolation voltage                    | 3 kVAC (input to output)                          | 5 mA, 1 min                     |
| Section and EMS | Insulation resistance                          | 10 ΜΩ   | 500 VDC                         |
|                 | Isolation class                                | 2   | Grounding is not required       |
|                 | Safety compliance                              | EN61347-1, EN61347-2-13<br>EN60598-1, EN60598-2-6 |                                 |
| Safety and EMC  | EMC compliance (emission)                      | EN55015   |                                 |
|                 | EMC compliance (harmonic current emission)     | EN61000-3-2, -3-3, class C                        |                                 |
|                 | EMC compliance (immunity)                      | EN61547<br>EN61000-4-2, -4-5, class C             |                                 |
|                 | Marking  | RoHS, CE  |                                 |
|                 | Life time                                      | 30,000 h  | 40°C                            |
|                 | Enclosure                                      | White ABS plastic                                 | IP67                            |
| Mechanical      | Size   | 121 × 37 × 26 mm                                  | L × W × H                       |
|                 | Weight   | 188 g   |                                 |
|                 | Input connector                                | PVC insulated wire 0.2 m                          | 2 × 0.75 mm <sup>2</sup>        |
|                 | Output connector                               | PVC insulated wire 0.2 m                          | 2 × 0.51 mm <sup>2</sup> UL2464 |
|                 | Single package                                 | 170 × 55 × 50 mm                                  |                                 |
|                 | Bulk package                                   | 355 × 320 × 275 mm                                | 50 pieces                       |
|                 | Country of manufacturing                       | China   |                                 |

## Notes:

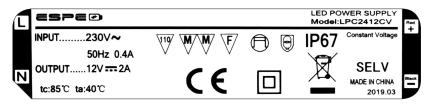
Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, respectively. 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 SPECIFICATION**



## **PRODUCT LABEL**



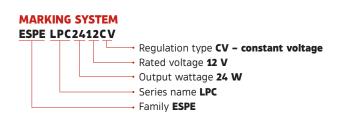
## Legend to the label icons:

- □ line connection (brown wire)
- N neutral connection (blue wire)
- Red + output plus (positive) wire (red)
- Black output minus (negative) wire (black)
- Tc: 85℃ maximum case temperature
- Ta: 40°C maximum ambient temperature
- Il safety class: no grounding is required, no dangerous voltage even in an emergency situation will appear on output
- 🗘 power supply intended for indoor use only
- it can be installed separately outside a lighting fixture without an additional housing

- ⊕ means safety isolating control gear with short circuit protection
- √/// can be placed on wood surfaces or built into furniture
- $\overline{\mathbb{F}}$  for direct mounting on or at normal or slightly flammable building materials such as wood
- $oovermitt{ iny}$  thermally protected at 110℃
- X the product must not be disposed of in normal waste containers
- SELV –Safety Extra Low Voltage output insulated from both the mains and ground circuits
- IP67 defined in EN 60529 levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies (tools, dirt) and moisture

## **ESPE LP LED IP67 12V POWER SUPPLY FAMILY**

| Symbol     | Output power | Output current | Dimensions        |
|------------|--------------|----------------|-------------------|
| LPAO612CV  | 6 W          | 0.5 A          | 55 × 29.5 × 22 mm |
| LPB1212CV  | 12 W         | 1 A            | 50.5 × 49 × 20 mm |
| LPC2412CV  | 24 W         | 2 A            | 121 × 37 × 26 mm  |
| LPD3612CV  | 36 W         | 3 A            | 148 × 40 × 30 mm  |
| LPE6012CV  | 60 W         | 5 A            | 166 × 40 × 33 mm  |
| LPF10012CV | 100 W        | 8.3 A          | 190 × 52 × 37 mm  |



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