

Features

- Universal AC Input Range: 90-264VAC
- Suitable for DALI Installation
- IEC-62386 Compliant
- Cooling by free air convection
- Over Current and Short Circuit Protected

DALI

Power Supply

RELV4-16

DALI Bus Power Supply



Description

The RELV4-16 is designed to power a DALI digital lighting control bus. This low cost AC/DC power supply is fully compliant with the IEC62386 DALI standard, so can be used with any DALI-certified product or controller. The output is current limited to 200mA, sufficient to power a complete DALI zone with up to 64 addressable DALI devices. The universal input voltage range from 90V to 264VAC enables the RELV4-16 to be used anywhere in the world. Due to its compact design with mounting tabs, it can be easily and conveniently integrated into any DALI network. An indicator LED shows Power OK and DALI bus traffic to aid installation and commissioning. The RELV4-16 comes with a 5 year warranty.

Selection Guide

| Part Number | Input Voltage Range (VAC) | Input Current (@ 115VAC) (mA) | Output Voltage (VDC) | Output Current (mA) | Output Power (W) | Efficiency typ. (%) |
|-------------|---------------------------|-------------------------------|----------------------|---------------------|------------------|---------------------|
| RELV4-16 | 90-264 | 110 | 16 | 200 | 3.2 | 68 |



Specifications (measured at TA= 25°C and 230VAC)

| BASIC CHARACTERISTICS | | | | |
|---------------------------------|--|---------------------|----------------|----------------|
| Parameter | Condition | Min. | Typ. | Max. |
| Input Voltage Range | | 90VAC | | 264VAC |
| Output Voltage Range | full load | | 16VDC | |
| DC Voltage Range | | 13.6VDC | | 18.4VDC |
| Inrush Current | 115VAC 230VAC | | | 21A 42A |
| DC Output Current Range | 13.6VDC 18.4VDC | | 240mA 180mA | |
| Start-up Time | 115VAC 230VAC | | | < 1s < 0.5s |
| Rise and Fall Times | compliant with IEC62386-101 1st Edition | 10µs | | <100µs |
| Input Frequency Range | | 50Hz | | 60Hz |
| Efficiency | | see Selection Guide | | |
| Ripple and Noise ⁽¹⁾ | | | | 150mVp-p |
| Notes: | | | | |
| Note1: | Ripple and Noise is measured @20MHz BW by using a 12" twisted pair-wire terminated with 0.1µF & 47µF parallel capacitor. | | | |



IEC-62386 Compliant
EN-55015 Certified
EN-61347-1 Certified
EN-61347-2-11 Certified

REGULATIONS

| Parameter | Condition | Value |
|--|-----------|------------------|
| Output Voltage Accuracy ⁽²⁾ | | ±15% typ. |
| Current Tolerance | | +20% / -10% typ. |

Notes:

Note2: Voltage Tolerance includes line regulation, load regulation and set-up tolerance.

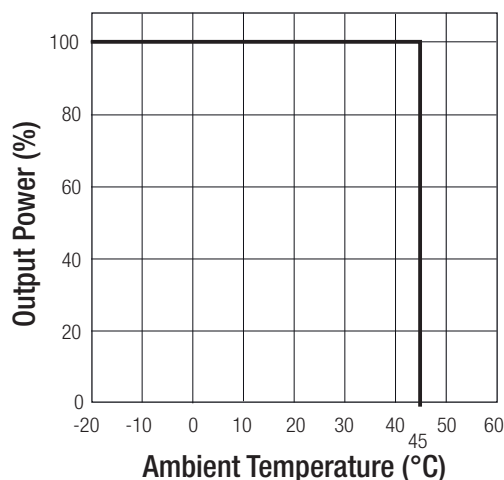
Refer to Applications Notes

Specifications (measured at $T_A = 25^\circ\text{C}$ and 230VAC)

| PROTECTION | | |
|--------------------------------------|---|---------------------------------|
| Parameter | Condition | Value |
| Short Circuit Protection (SCP) | with terminal switch (80°C typ.) | Limiting Current Mode |
| Output Over Current Protection (OCP) | 240mA max. | Limiting Current Mode |
| Isolation Voltage | | 3.75kVAC / 1 Minute |
| Isolation Resistance | 500VDC at 25°C | 100M Ω |
| Isolation Grade | compliant with IEC62386-101 | Double Isolated for SELV Output |

| ENVIRONMENTAL | | |
|-----------------------------|--------------------------------------|--|
| Parameter | Condition | Value |
| Operating Temperature Range | | -20°C to $+45^\circ\text{C}$ |
| Maximum Case Temperature | | $+65^\circ\text{C}$ |
| Storage Temperature Range | | -40° to $+80^\circ\text{C}$ |
| Storage Humidity | | 10% - 90% RH |
| Operating Humidity | non condensing | 20% to 90% RH |
| Vibration | | 10-500Hz, 2G, 60Min. along X, Y and Z |
| MTBF | MIL-HDBK-217F, at 25°C | 200 x 10^3 hours |

Derating Graph



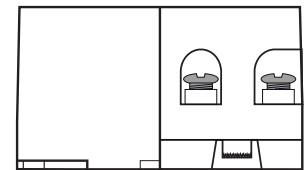
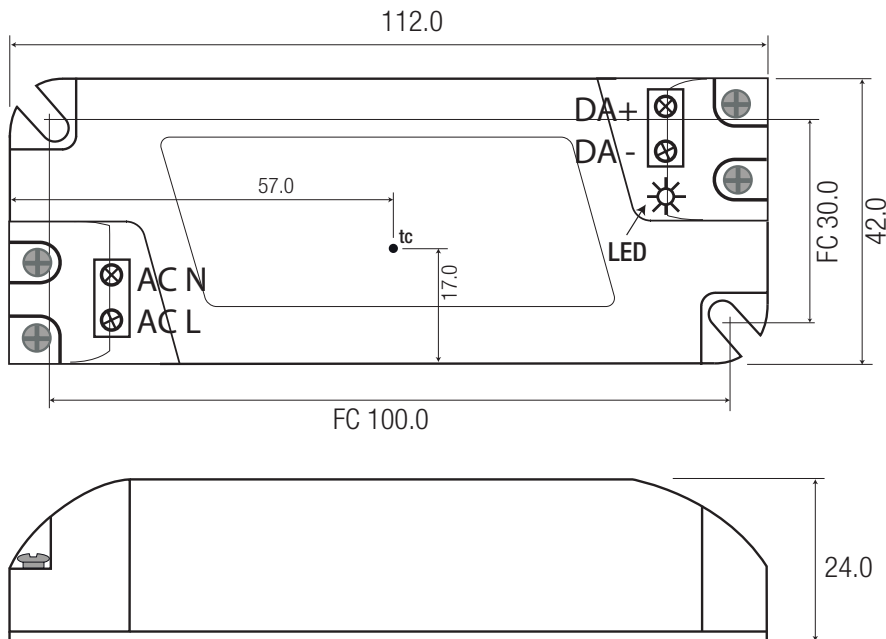
| SAFETY AND CERTIFICATIONS | | |
|--|----------------------|---------------------------------------|
| Certificate Type | Report / File Number | Standard |
| CE General Safety | | EN-61347-1 |
| CE Safety of AC supplied Controlgear | | EN-61347-2-11 |
| Certificate Type (Environmental) | Conditions | Standard / Criterion |
| Electric Lighting, EMC Emissions | | EN-55015 FCC, Part 15 |
| Electric Lighting, EMC Immunity | | EN-61000-4-2, 3, 4, 5, 6, 8, 11 |
| Limits for Harmonic Emissions EMC Compatability: Flicker and Voltage Variations | | EN-61000-3-2, Class C EN-61000-3-3 |
| IP Rating | | IP20 |

Specifications (measured at $T_A=25^{\circ}\text{C}$, nominal input voltage, full load and after warm-up)

DIMENSIONS and PHYSICAL CHARACTERISTICS

| Parameter | Type | Value |
|--------------------|------|-----------------|
| Case Material | | plastic |
| Dimensions (LxWxH) | | 112 x 42 x 24mm |
| Package Weight | | 80g |

Mechanical Dimensions (mm)



Tolerance: $\pm 0.5\text{mm}$
FC: fixing center

2 Mounting screws are included
tc= Case Temperature Measuring Point

PACKAGING INFORMATION

| Parameter | Type | Value |
|-----------------------------|---------------|------------------|
| Packaging Dimension (LxWxH) | Cardboard Box | 256 x 124 x 84mm |
| Packaging Quantity | | 10pcs |

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