

# 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 <sup>(1)</sup>				150mVp-p
<b>Notes:</b>				
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 <sup>(2)</sup>		±15% typ.
Current Tolerance		+20% / -10% typ.
<b>Notes:</b>		
Note2:	Voltage Tolerance includes line regulation, load regulation and set-up tolerance.	

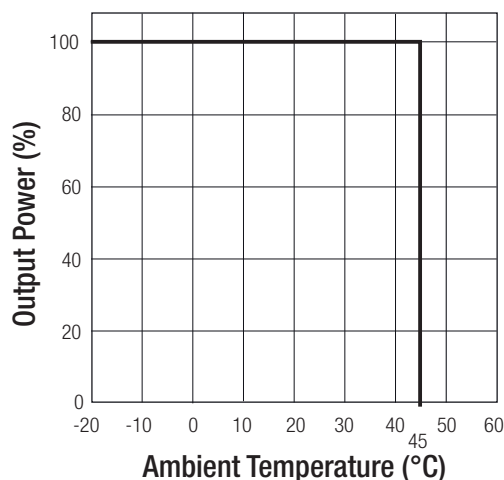
Refer to Applications Notes

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

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

ENVIRONMENTAL		
Parameter	Condition	Value
Operating Temperature Range		$-20^\circ\text{C}$ to $+45^\circ\text{C}$
Maximum Case Temperature		$+65^\circ\text{C}$
Storage Temperature Range		$-40^\circ$ 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 $25^\circ\text{C}$	$200 \times 10^3$ hours

#### Derating Graph



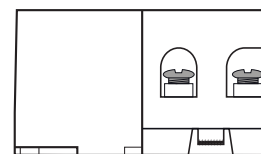
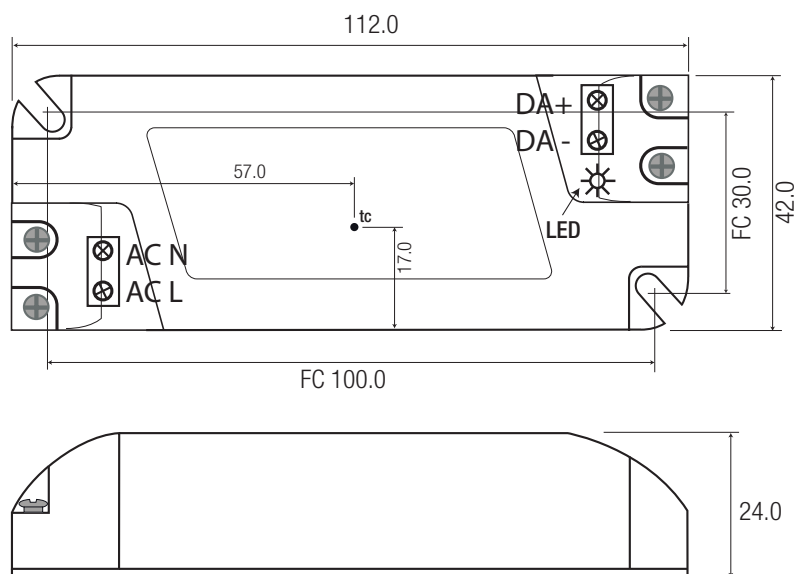
SAFETY AND CERTIFICATIONS		
Certificate Type	Report / File Number	Standard
CE General Safety		EN-61347-1
CE Safety of AC supplied Controlgear		EN-61347-2-11
Certificate Type (Environmental)	Conditions	Standard / Criterion
Electric Lighting, EMC Emissions		EN-55015 FCC, Part 15
Electric Lighting, EMC 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
Packaging Dimension (LxWxH)	Cardboard Box	256 x 124 x 84mm
Packaging Quantity		10pcs

#### Mechanical Dimensions (mm)



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

2 Mounting screws are included  
tc= Case Temperature Measuring Point