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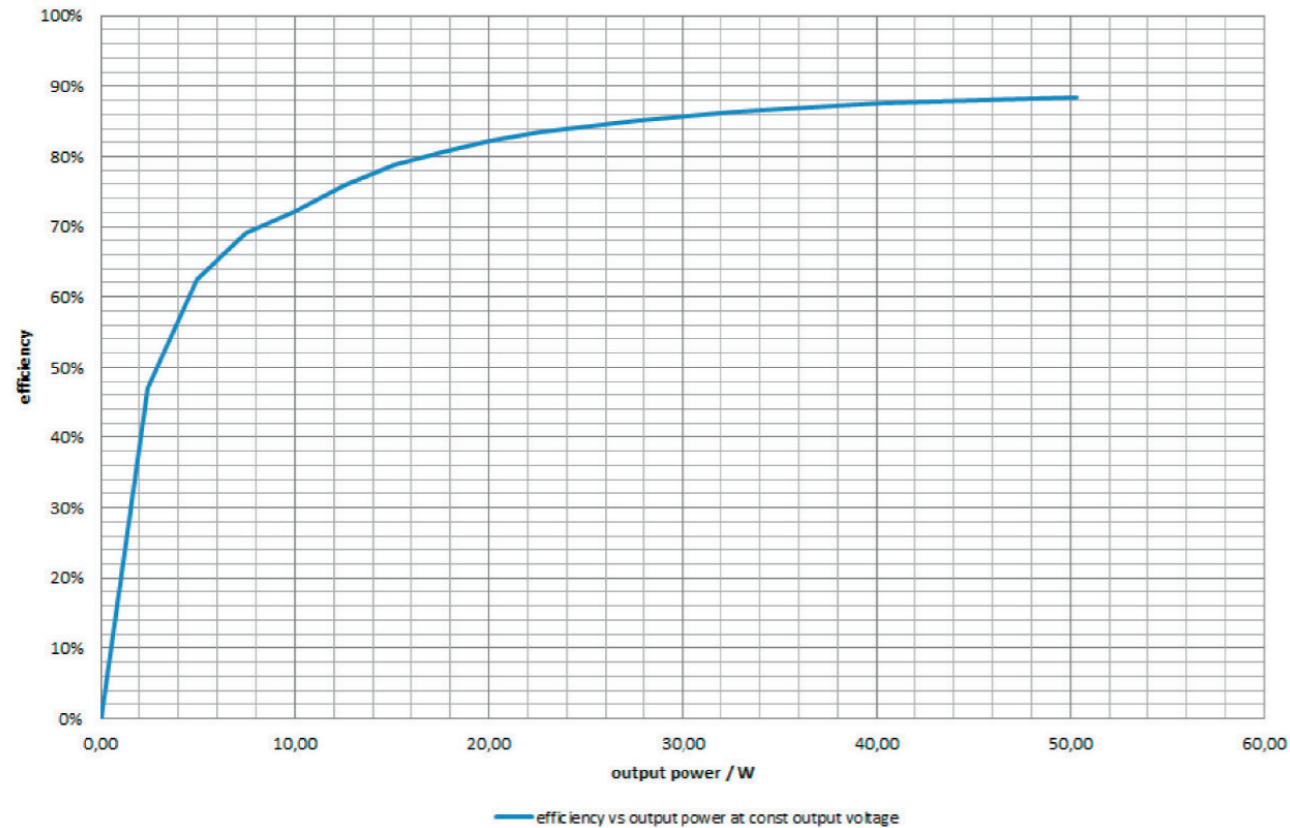
Platform portfolio

# LED DRIVERS

All products are EN 61347-1 and EN 61347-2-13 approved.

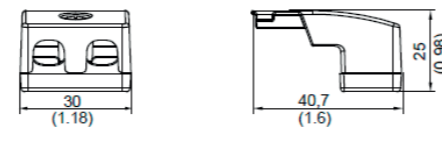
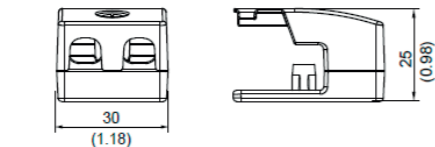
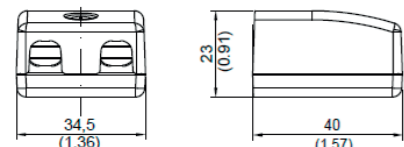


## Efficiency



## Accessories: Protective Covers

Model	Article no.	Model	Article no.	Model	Article no.
LT Cap	1839772	LT Cap Slim	1844170	LT Cap Slim Short	1896330



Alle Abmessungen in Millimeter (Inch), Abweichung ± 0,5 (0.02)  
 All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

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## LT50 DALI

50 W LED POWER SUPPLY



### Characteristics

- DALI2 (Digital Addressable Lighting Interface) and PUSH-DIM (control with push button) functionality
- Automatic detection of the kind of the control signal
- Dimming control range covers 1% to 100% intensity and 0% in the OFF position
- High efficiency: up to 88%
- Minimal housing cross section: 21 x 30 mm
- Wide operating temperature range -20...45°C
- Driver equipped with thermal protection
- This device is suitable for installing on or in furniture
- Driver is suitable for emergency lighting purposes regarding IEC61347-2-13 annex J.
- This device is suitable for high-risk area lighting
- Protective covers as additional accessories

## LED DRIVERS FOR CREATIVE LIGHTING

The FRIWO LED driver series: Custom power supply solutions for your lighting concept. Featuring minimal housing cross sections and a variety of shapes, they offer maximum freedom of design. From flush-mounted drivers that are safe from vandalism to installation in the narrowest casings, FRIWO's standard drivers offer the ideal basis for the creative design of lighting solutions.

FRIWO's LED drivers offer maximum efficiency. LED power supply systems are subject to particular requirements with regard to safety (EN 61347-1/-2-13), EMC (EN 55015) and harmonic current emissions. In compliance with those guidelines, the drivers in the LT range control the power and voltage for a single device.

FRIWO offers a comprehensive LED portfolio, including LED drivers, the DIMMbox and LS12 light control, which offer excellent dimming solutions using DALI, Push-Dim or 1-10V. The LS12 even allows up to 100 LED drivers to be controlled in parallel, and features an additional power supply for external sensors. From safe power supply units to creative light control, FRIWO's modular system allows various components to be combined in a solution that precisely meets your individual needs.

### Model Selection: Output Specifications

Article no.	Model	Constant Current Mode (CC)*		Constant Voltage Mode (CV)*		Efficiency (typ)	No-Load Power
		Voltage	Current	Voltage	Current		
1899313	LT50-24/2100 DALI	-	-	24 V	0 - 2100 mA	88.0%	<500mW

\* Standard units will be delivered with highest output voltage / output current.

### Input Specifications

Input voltage	220-240 V ±10%
Frequency	50-60 Hz
Input current	250 mA
Inrush current (@240V)	< 24 A

### General Specifications

Operating temperature	-20...+45°C
Operating humidity	10...95 %
Operating altitude	2000 m
Storage temperature	-40°C...+70°C
Storage humidity	5...90 %
Atmospheric pressure	783 - 1070 hPa
DALI / PUSH-DIM	264 VAC / 50 VDC
Output voltage tolerance	±2 %
Output current tolerance	±5 %
Line regulation	±2 %
Load regulation	±2 %
Turn-on delay	≤0.5 s
Hold-up time	>10 ms (115 V) >50 ms (230 V)
MTBF calculation*	200.000 h acc. Mil217F (based on calculations at 120Vac/60Hz & 230Vac/50Hz, ambient 25°C)
Housing material	PC / Bayer Makrolon 6485
PCB material	FR4
Dimensions	240x30x21 mm
Weight	130 g
Connectors / Push-in contact	0.20...1.5 mm <sup>2</sup> (solid wire, litz wire), 0.25...1.0 mm <sup>2</sup> (with wire end sleeves)

### Dimming Function

Switching frequency LED current	f=484 Hz
Duty cycle	1 - 100% and OFF 0%
DALI input	0xFE=100% to 0x56=1% (0x00=0%)
PUSH-DIM input	t (1% -> 100% or 100% -> 1%) = 4s t (on/off) = 20-600 ms

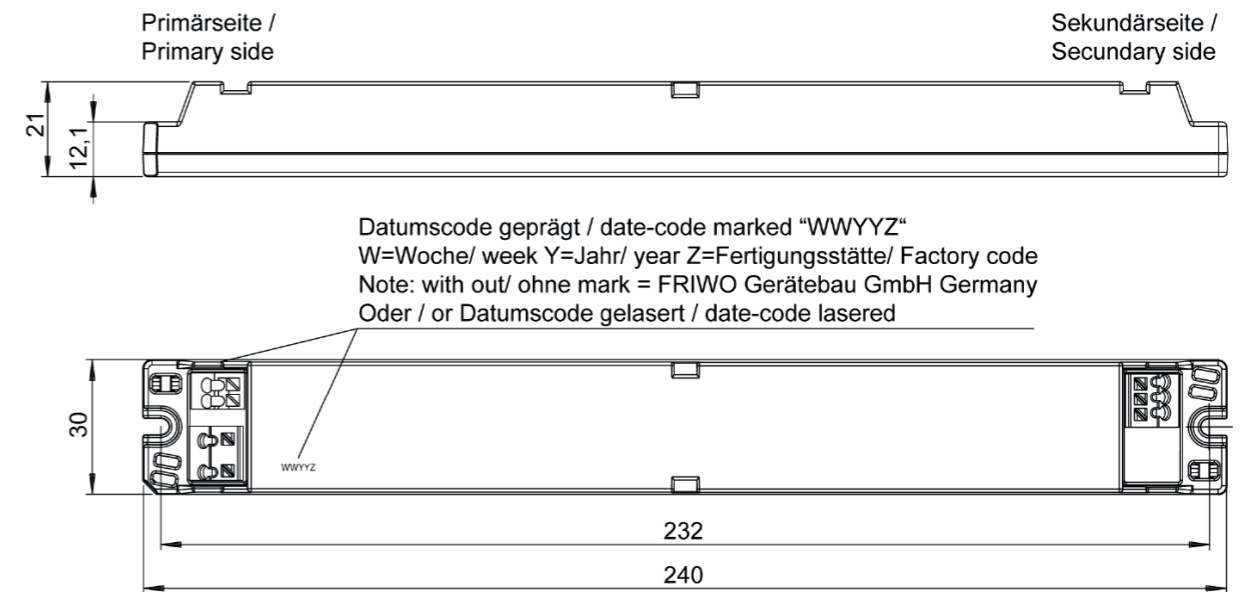
### Safety

Safety standards	EN 61347-1:2015, EN 61347-2-13:2014
Approbations	ENEC, DALI 2
Protection class	II
Leakage Current	≤ 250 µA
IP code	IP20
Overload protection	Yes
Overvoltage protection	Yes
Short circuit protection	Yes
No-load proof	Yes (U <sub>max</sub> = 24V)
Overtemperature protection	Yes (EN 61347-1 C.5.e) Self-resetting power derating via NTC
Input over current protection	Yes (Fuse F11.F13: T2.0A/250V) non-exchangeable

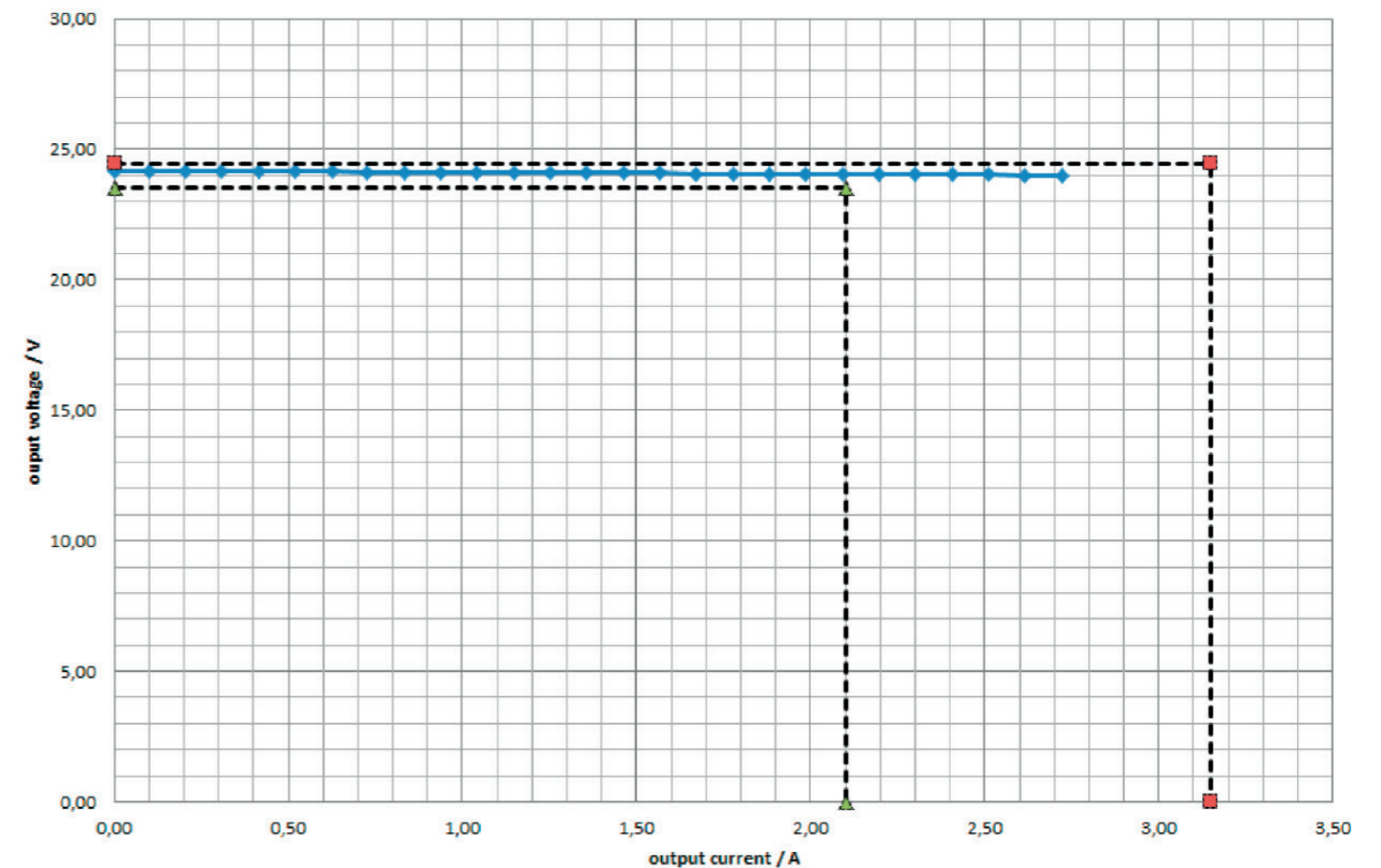
### EMC Compliance

Conducted and radiated emissions	EN55015:2013/A1:2015
Immunity	EN61547:2009
Harmonics	EN61000-3-2:2014
Performance requirements	EN62384:2006/A1:2009

### Mechanical Drawings



### Output Characteristics



\* MTBF are theoretically determined values, which does not guarantee the lifetime of the product