

CC COMPACT



PRIMELINE NFC C DALI2 TW

187734

Typical Applications

Compact luminaires

- Retail lighting
- Downlights



PrimeLine NFC C DALI2 TW

- **ADJUSTABLE OUTPUT CURRENT VIA NFC**
- **DIMMABLE: DALI2 DT8/DT6 (INCL. PART 251/252/253)**
- **VERY LOW RIPPLE CURRENT: < 5%**
- **SUITABLE FOR EMERGENCY ESCAPE LIGHTING SYSTEMS ACC. TO EN 50172**
- **LONG SERVICE LIFE:
UP TO 100.000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**



PrimeLine NFC C DALI2 TW

Product features

- Compact casing shape

Functions

- Programmable via NFC interface (contactless)
 - Selectable current output
 - Programmable CLO function
 - Adjustable DC level
 - Tuneable White function

Electrical features

- Mains voltage: 220–240 V $\pm 10\%$
- Mains frequency: 50–60 Hz
- DC operation: 198–264 V, 0 Hz
- Push-in terminals:
 - Input: 0.75–1.5 mm²
 - Output: 0.5–1.5 mm²
- Power factor at full load: > 0.95
- Max. working voltage (U_{OUT}): 60 V (SELV)
- Secondary side switching of LED modules is not allowed.

Dimming

- Dimming range: 1 to 100%

Safety features

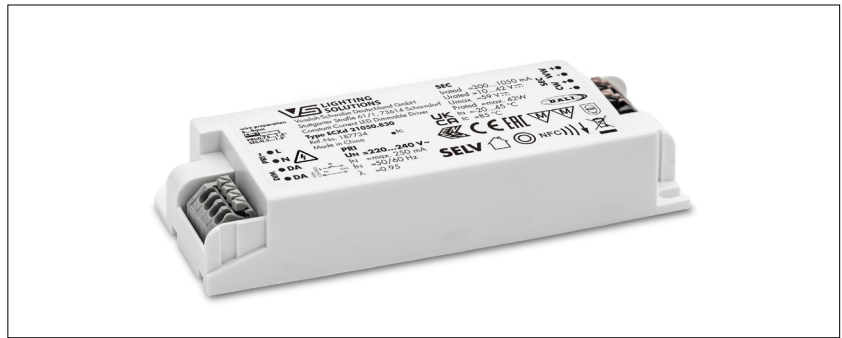
- Protection against transient main peaks up to 1 kV (between L and N)
- Electronic short-circuit protection
- Overload protection
- Overtemperature protection
- Protection against "no load" operation
- Degree of protection: IP20
- Protection class II
- SVM: < 0.4
- PstLM: < 1

Packaging units

Ref. No.	Packaging unit		
	Pieces per box	Boxes per pallet	Weight g
187734	60	64	170
187767	500	36	10
187768	130	36	48

Product guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

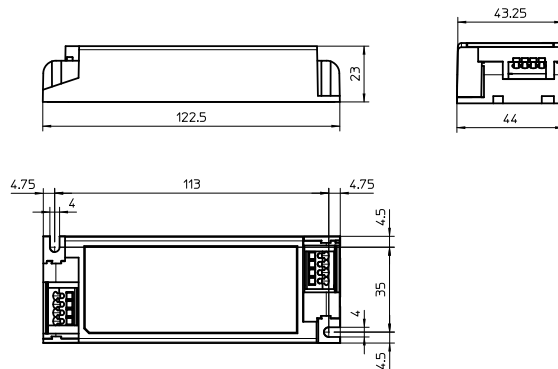


Applied standards

- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 62479
- EN 50663
- ETSI EN 300 328 V2.2.2
- ETSI EN 300 330 V2.1.1
- ETSI EN 301 489-1 V2.2.3
- ETSI EN 301 489-3 V2.3.2
- ETSI EN 301 489-17 V3.2.4

Dimensions

- Casing: K125
- Length: 122.5 mm
- Width: 44 mm
- Height: 23 mm



Dimming

Analogue



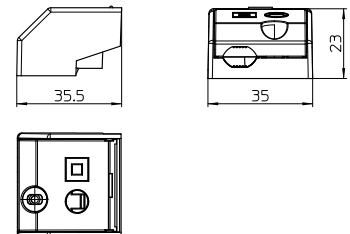
Current adjustment



Cord grip "ws" for K125

Available for independent operation
Per LED driver 2 cord grips "ws" required
Permitted diameter of the cable mantle: 3-9mm

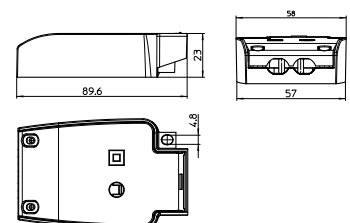
Ref. No.: 187767 (1 pcs Cord Grip ws for K125)



Cord grip "LILLO" for K125

Available for independent operation
Per LED driver 1 LILLO cord grip and 1 pcs cord grip "ws" required
Permitted diameter of the cable mantle: 5-12mm

Ref. No.: 187768 (1 pcs LILLO(5pin) for K125)



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Electrical characteristics

Max. output W	Type	Ref. No.	Voltage 50–60 Hz V	Mains current mA	Inrush current A / μ s	Current output DC mA ($\pm$ 5%)	Factory settings mA	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
42	ECXd 21050.830	187734	220–240	215–200	12 / 30	300–1050	300	10–42	< 7	90	< 5

Maximum ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the drivers.

Ref. No.	Ambient temperature range		Operation humidity range		Storage temperature range		Storage humidity range		Max. operation temperature at t_c point °C	Degree of protection
	°C min.	°C max.	% min.	% max.	°C min.	°C max.	% min.	% max.		
187734	-20	+45	10	90	-35	+85	10	90	+85	IP20

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.		
	187734		
All	70 °C	80 °C	85 °C
hrs.	100.000	50.000	40.000

Product labels

Vossloh-Schwabe Deutschland GmbH
Stuttgarter Straße 61/1, 73614 Schorndorf
Constant Current LED Dimmable Driver
Type ECXd 21050.830
Ref.-No. 187734
Made in China

SEC
I_{rated} = 300...1050 mA
U_{rated} = 10...42V $\approx$
U_{out} = 59 V $\approx$
P_{rated} = Max. 42W
t_a = -20...45 °C
t_c = 85 °C

PRI
U_N = 220...240V $\approx$
I_N = Max. 250 mA
f_N = 0/50/60Hz
 λ = 0.55C...0.95

SELV

WIRE PREPARATION
8...9mm
PRI: 0.75...1.5 $\square$
SEC: 0.5...1.5 $\square$

WIRE CONNECTION
L N PE
DA DA
PUSH-CONTROL DALI

EL UK CA
25

CE ENEC

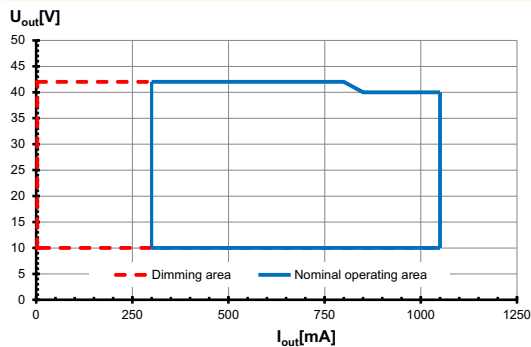
DALI

IP20

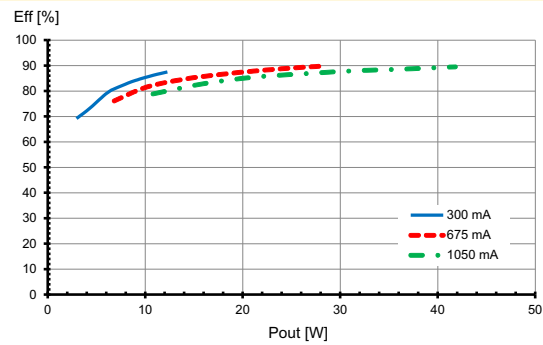
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Typ. performance graphs for 187734 / Typ ECXd 21050.830

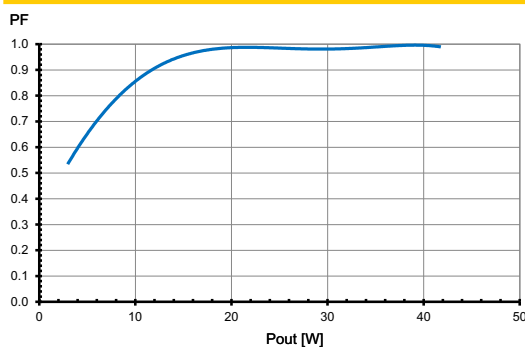
Working area



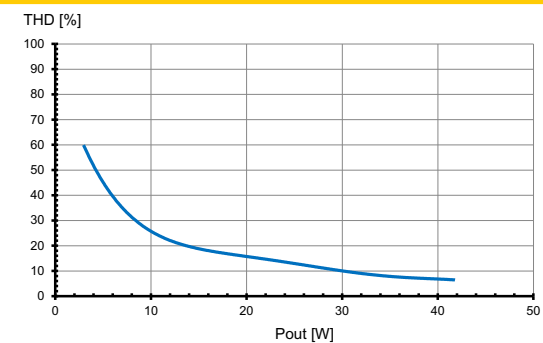
Efficiency



Power factor



Total harmonic factor (THD)



Safety functions

- Transient mains peaks protection:
Values are in compliance with EN 61547 (interference immunity).
Surges between L–N: up to 1 kV
- Short-circuit protection: The control gear is protected against permanent short-circuit.
- Overload protection: The control gear only works in range of rated output power and voltage problemfree.
Please check before switch-on mains power supply that the selected LED load is suitable (see Electrical Characteristics on data sheet).
- Overheating: The control gear has overheating protection.
In case of overheating the output current of the control gear will be reduced. After that temperature will drop below the critical temperature level, the output current rises again to the previously set value.
- No load operation: The control gear is protected against no load operation (open load).
- If any of the above mentioned safety functions will be triggered, disconnect the control gear from the power supply then find and eliminate the cause of the problem.

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System architecture – NFC configuration

- You can program the NFC LED drivers contactless with the Feig Programmer.
- The LED driver is programmed via NFC in a de-energised state.
- The use of the NFC programmer is flexible in the production or already in the pre-assembly process. A complex commissioning is not required. The operation and parameterization is done in the simplest way. All operating parameters can be individually programmed and updated.
- The exact description of the programming can be found in the operation manual.

Constant lumen output (CLO)

The decrease in the luminous flux of an LED module can be compensated over its entire lifetime via a preprogrammed current curve. This not only ensures stable lighting but also saves energy and increases the lifetime of the LEDs.

DC and emergency lighting mode

The LED driver is suitable for operation with direct current (DC). Reliable operation with direct current is guaranteed if the specified DC input voltage range of the LED driver is observed.

- DC range: 176-276 V
- Light level in DC operation adjustable via NFC between 1-100%
- Factory setting for light level in DC operation: 15%
- The light level settings refer to the set output current



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Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advices must be observed; non-observance can result in the destruction of the LED drivers, fire and/or other hazards.

Mandatory regulations

- DIN VDE 0100
- EN 60598-1

Mechanical mounting

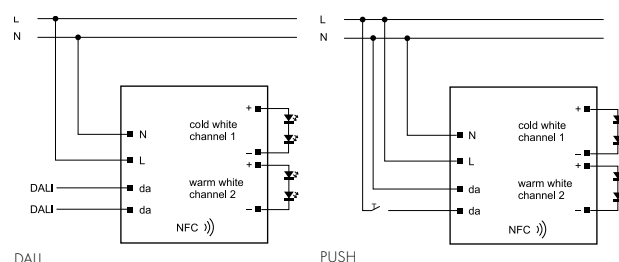
- Mounting position: Built-in: Any position inside a luminaire is allowed.
Independent: Drivers are allowed to use for independent applications with separate cord grip.
- Mounting location: LED drivers are designed for integration into luminaires or comparable devices.
Independent LED drivers do not need to be integrated into a casing.
Installation in outdoor luminaires: degree of protection for luminaire with water protection rate ≥ 4 (e.g. IP54 required).
- Degree of protection: IP20
- Clearance: Min. 0.10 m from walls, ceilings and insulation
- Surface: Solid and plane surface for optimum heat dissipation required.
- Heat transfer: If the driver is destined for installation in a luminaire, sufficient heat transfer must be ensured between the driver and the luminaire casing.
LED drivers should be mounted with the greatest possible clearance to heat sources.
During operation, the temperature measure at the driver's t_c point must not exceed the specified maximum value.
- Fastening: Using M4 screws in the designated holes
- Tightening torque: 0.2 Nm

Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of 0.5–1.5 mm²
AWG20-16
- Stripped length: 8.5–9.5 mm
- Wiring: DALI or PUSH The mains conductor within the luminaire must be kept short (to reduce the inductance on of interference). Mains and lamp conductors must be kept separate and if possible should not be laid in parallel to one another.
- PUSH wiring: Several LED drivers can be connected to a single PUSH button. Furthermore, several buttons can also be operated with a single PUSH system as long as the phase assignments (e.g. L1) are identical.
In installations with PUSH function, an asynchronous dimming behaviour can occur.
To minimize the risk, VS recommends the max. limit number of 20 LED drivers with one or more PUSH buttons.

The lead length from the push button (n) to the LED driver (n) should not exceed 25 m.

- Polarity: Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Through-wiring: Is not allowed.
- Secondary load: The sum of forward voltages of LED loads has to be within the tolerances which are mentioned in the table "Electrical Characteristics" in this data sheet.
- Wiring diagram:



Selection of automatic cut-outs for VS LED drivers

- Dimensioning automatic cut-outs
High transient currents occur when an LED driver is switched on because the capacitors have to load. Ignition of LED modules occurs almost simultaneously. This also causes a simultaneous high demand for power. These high currents when the system is switched on put a strain on the automatic conductor cut-outs, which must be selected and dimensioned to suit.
- Release reaction
The release reaction of the automatic conductor cut-outs comply with VDE 0641, part 11, for B, C characteristics. The values shown in the following tables are for guidance purposes only and are subject to system-dependent change.
- No. of LED drivers
The maximum number of VS LED drivers applies to cases where the devices are switched on simultaneously. Specifications apply to single-pole fuses. The number of permissible drivers must be reduced by 20% for multi-pole fuses. The considered circuit impedance equals 400 mΩ (approx. 20 m [2.5 mm²] of conductor from the power supply to the distributor and a further 15 m to the luminaire).

Type	Ref. No.	Automatic cut-out type and possible no. of VS drivers pcs.		
Automatic cut-out type B		B 10 A	B 13 A	B 16 A
ECXd 21050.830	187734	41	54	66
Automatic cut-out type C		C 10 A	C 13 A	C 16 A
ECXd 21050.830	187734	41	54	66

EU compliance information

Hereby, Vossloh-Schwabe Deutschland GmbH declares that the radio equipment type PrimeLine NFC C DALI2 TW is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.vossloh-schwabe.com.

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