Vlinca Beleuchtungstechnologie GmbH
Ebene 6, Flügel 3, Am Seestern 8, Düsseldorf, 40547 Germany

In-track series Ldriver

SELV RoHS IP20

Product description

Constant current / in-track LED driver

Fixed output current

For luminaires of protection class II

Selectable fixed output current via DIP switch 600,500 450 and 350mA

Temperature protection as per EN 61347-2-13 C5e

For ambient temperatures up to 35°C

Optional accessory ACU ALU NIPPLE M10*1 for mounting the luminaire head

Advantage

Compact dimension, most coincident with the miniaturization of track luminare

Have 2 independent output channels

Can save installation costs

Up to 91% efficiency

Life-time up to 50,000hours

5-year guarantee

Functions

Casing:polycarbonate,white, black

Type of protection IP20

Features

Overtemperature protection

Overload protection

Short-circuit protection

No-load protection

Burst protection voltage 1 kV

Surge protection voltage 1 kV (L to N)

Typical applications

For spot light and downlight in retail and hospitality application

S pecific Technical Data

Type	Input Voltage	Output Power	Output Voltage	Output Current	Ripple	TC	Ta	Dimension
VLD 2x23W 350-600mA 38 OptC IT HE	220-240Vac	Max. 2 X 23W	30-38V	2 x (600/500 450/350mA)	<5%	65℃	-20...+35℃	235*30.9*43mm

Ordering data

Article number	Description	Dimension of product	Net Wt/pc	Package/ctn	Dimension of carton
1060800603	VLD 2x23W 350-600mA 38 OptC IT-W HE	235*30.9*43mm	175g	25pcs	295*276*295mm
1060800602	VLD 2x23W 350-600mA 38 OptC IT-B HE	235*30.9*43mm	175g	25pcs	295*276*295mm

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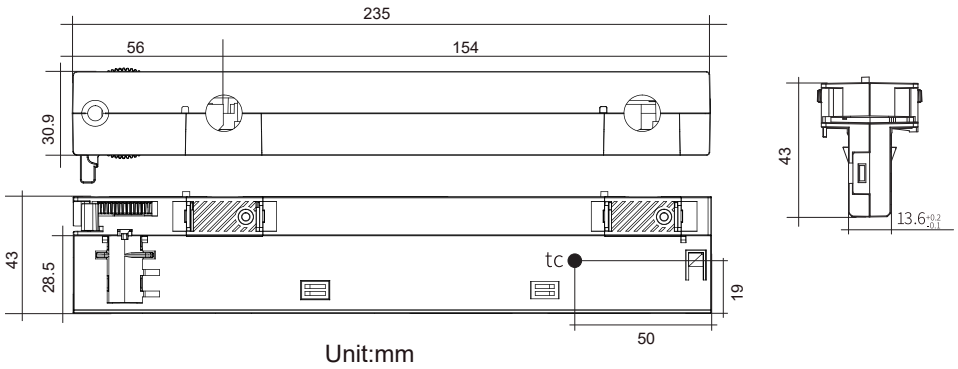
TC position



Unit:mm

Technical data

Product type	2x23W	
Rated supply voltage = U-IN on label	220-240	V
Input voltage range, AC	198-264	V
Mains frequency	50/60	Hz
Overvoltage protection(Input side)	320Vac,1h	
Max input current (@220-240V,50/60Hz)= I-IN on label	0.3 ①	A
Max input power (@220-240V,50/60Hz) = P-IN on label	25 ②	W
Typ.power consumption (@220-240V,50/60Hz)	50 ①	W
Max output power(@220-240V,50/60Hz) = P-OUT on label	2x23	W
Max. output voltage(V) (no load) = U-OUT from label	50	V
Output current tolerance(+/-%), (at 230 V, 50 Hz, full load)	±7.5	%
Output current tolerance(+/-%), (at 230 V, 50 Hz, min load)	±7.5	%
Output LF Current Ripple (<120Hz)	<5	%
Max. output peak current (at 230 V, 50 Hz, full load)	677	mA
Leakage current (230Vac/50Hz Input, Output full load)	<450	μA
THD(at 230V,50Hz, full load)	<20	%
Power factor(at 230V,50Hz, full load)	0.9C	
Efficiency(at 230V,50Hz, full load)	91	%
Starting time (at 230V,50Hz,full load)	<0.5	s
Turn off time (at 230V,50Hz,full load)	<0.5	s
Hold-up time at power failure (output)	0	ms
Ambient temperaure ta(°C)	-20...+35	°C
Ambient temperaure ta(50000 Hrs)	35	°C
Max. casing temperature tc	65	°C
Storage temperature ts	-20...+80	°C

① Two output channels simultaneously output full loads.
② single output channel output full load.

Adjust current

Output current can be adjusted by the DIP switch

Set the current by DIP switch after mains off.
Use of DIP switch only after mains off.

600mA:Switch 1 = ON
Switch 2 = ON

450mA:Switch 1 = ON
Switch 2 = Off

500mA:Switch 1 = Off
Switch 2 = ON

350mA:Switch 1 = Off
Switch 2 = Off

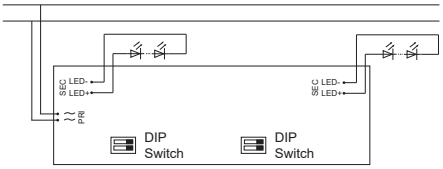
1. Standards

EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61347-1
EN 61347-2-13
EN 61547
EN 62384

2. Installation and wiring

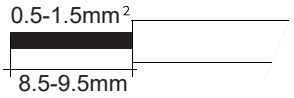
2.1 Circuit diagram

220V-240V
50/60Hz



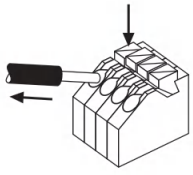
2.2 Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.5–1.5 mm². Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.



2.3 Release of the wiring

Press down the " push button" and remove the cable from front.



2.4 Wiring guidelines

- All connections must be kept as short as possible to ensure good EMI behaviour.
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance).
- The secondary wires (LED module) should be routed in parallel to ensure good EMC performance
- Incorrect wiring can damage LED modules.
- To avoid the damage of the driver, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable, clips. louver. etc..)

2.5 Replace LED module

1. Mains off
2. Remove LED module
3. Wait for 10 seconds
4. Connect LED module again

2.6 Mounting luminaire

Max. allowed weight of complete luminaire: 5 kg (50 N)

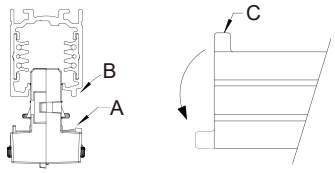
2.7 Compatible tracks

Manfacturer	Type	system	Casing colour
Powergear	PRO-R410/15/20/30	3 Phase	White, Black
Powergear	PRO-0410 15/20/30	3 Phase	White, Black

Possible changes made by different manufactures that could affect the compatiblity between tracks and adapters.

2.8 Adapter mounting into track

Insert the adapter into the track, so that the mechanical key (A) in the adaptor matches the groove (B) in the track. Rotate of about 90° the lever of the cam (C) until it reachs the locking position.
To open rotate the lever the opposite direction.



The lamp control gear does not rely upon the luminaire enclosure for protection against accidental contact with live parts.

It is the user's responsibility to ensure electrical, mechanical and thermal compatibility between the track system and luminaires attached to it.

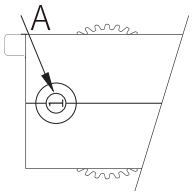
For LED module use only.

Installation shall be done by qualified technician.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

2.8 Phase selection

When the track is connected to a three-phase system it is possible to select the phase (1, 2 or 3) to distribute the single luminaires in the system,by means of the proper selector (A) of the adaptor.



3. Thermal details and life-time

Expected life-time

Type	ta	25℃	35℃
VLD 2x23W 350-600mA 38 OptC IT HE	tc	55℃	65℃
	Life-time	>100000h	>50000h

Test result at max. output voltage.

The LED Drivers are designed for a life-time stated above under reference conditions and with a failure probability of less than 10 %.

Life-time declarations are informative and represent no warranty claim.

4. Maximum loading of automatic circuit breakers in relation to inrush current

Maximum loading of automatic circuit breakers									Inrush current	
Automatic circuit	C10	C13	C16	C20	B10	B13	B16	B20	Imax	Time
Installation Ø	1.5mm²	1.5mm²	2.5mm²	4.0mm²	1.5mm²	1.5mm²	2.5mm²	4.0mm²		
VLD 2x23W 350-600mA 38 OptC IT HE	20	26	32	40	12	15	19	24	32.2A	187.2µs

These are max. values calculated out of inrush current! Please consider not to exceed the maximum rated continuous current of the circuit breaker.Calculation uses typical values from ABB series S200 as a reference.

Actual values may differ due to used circuit breaker types and installation environment.

4.1 Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load) in %

Type	THD	3	5	7	9	11
VLD 2x23W 350-600mA 38 OptC IT HE	<20	<12	<10	<7	<5	<3

Acc. to EN61000-3-2. Harmonics < 5 mA or < 0.6 % (whatever is greater) of the input current are not considered for calculation of THD.

5. Functions

5.1 Short-circuit behaviour

In case of a short circuit on the secondary side (LED) the LED Driver switches off. After elimination of the short circuit the nominal operation is restored automatically.

5.2 No-load operation

The LED Driver works in burst working mode to provide a constant output voltage regulation which allows the application to be able to work safely when LED string opens due to a failure.

5.3 Overload protection

If the output voltage range is exceeded the LED Driver will protect itself by reducing the LED output current.

After elimination of the overload, the nominal operation is restored automatically.

6. Miscellaneous

6.1 Conditions of use and storage

Humidity: 5 % up to max. 85 %, not condensed (40 days/year at 85 %)

Storage temperature: -20 °C up to max. +80 °C

The devices have to be within the specified temperature range (ta) before they can be operated.

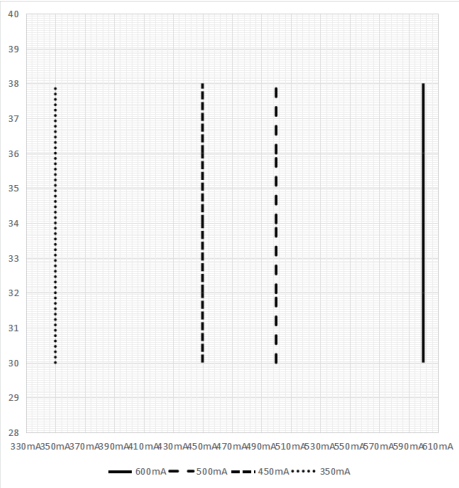
6.3 Maximum number of switching cycles

All LED Driver are tested with 50,000 switching cycles.

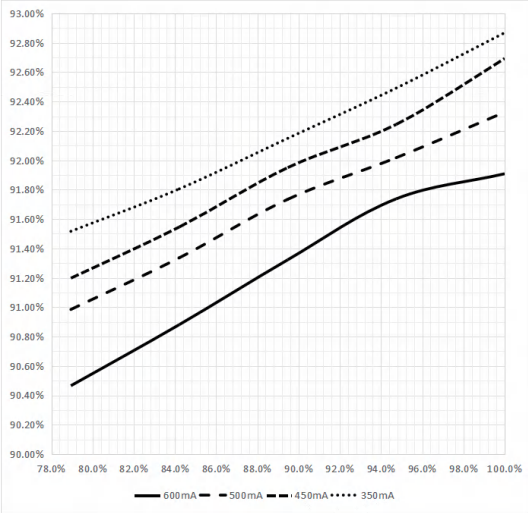
The actually achieved number of switching cycles is significantly higher.

7. Electrical values

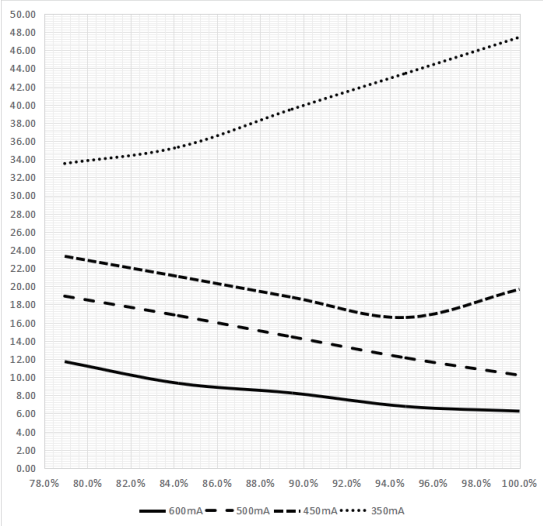
7.1 Operating window



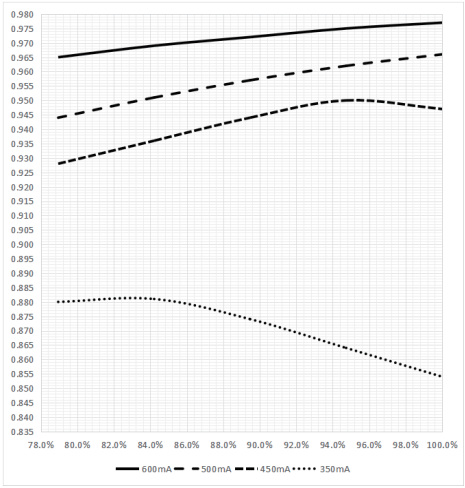
7.2 Efficiency vs load (@230VAC 50HZ)



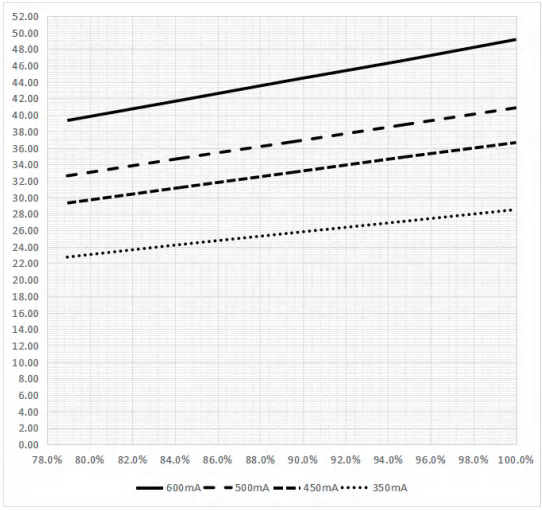
7.3 THD vs load (@230VAC 50HZ)



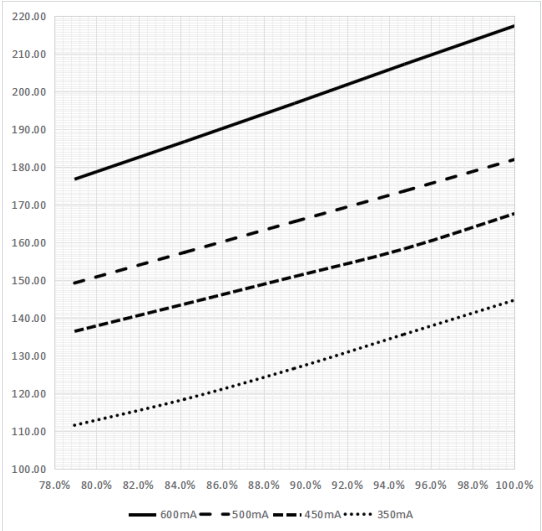
7.4 Power factor vs load (@230VAC 50HZ)



7.5 Input power vs load (@230VAC 50HZ)



7.6 Input current vs load (@230VAC 50HZ)



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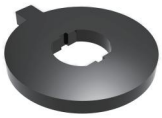
Accessory NIPPLE

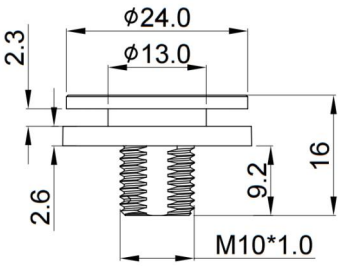
Product description

- Optional threaded sleeve for luminaire mounting
- Suitable for S-9009/D-M10 threaded nut


Ordering data

Article number	Description	Net Wt/pc	Package/c tn
301000328	NIPPLE M10*1.0,Length 9.2mm aluminium anodize	3.0g	50pcs
499000196	STOP SPACER PC BLACK	1.0g	50pcs
499000195	STOP SPACER PC WHITE	1.0g	50pcs



Version Record

Version	Remark	Issued Date
V1.0	Initial issued	2023-11-12
V2.0	Updated “maximum loading of automatic circuit breakers in relation to inrush current”	2026-03-10