Vlinca Beleuchtungstechnologie GmbH
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IRISES G3 60W driver

RoHS IP20 SELV

Advantage

• Nominal Life-time up to 50,000 hours

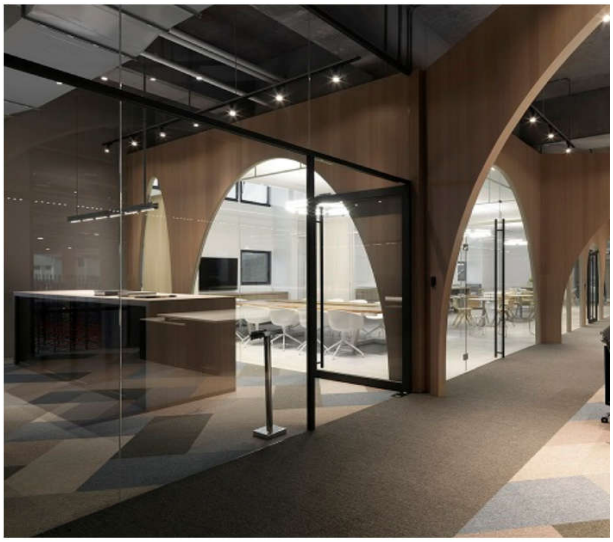
• 5-year guarantee

Product Description

• Fixed output current

• Temperature protection as per EN61347

• Max output power 20W X3



Features

• Casing: plastic

• Type of protection IP20

Functions

• Overtemperature protection

• Overload protection

• Short-circuit protection

• No-load protection

• Burst protection voltage 1 kV

• Surge protection voltage 1.5 kV (L to N)

Typical applications

• For downlight, spotlight, pannel light.

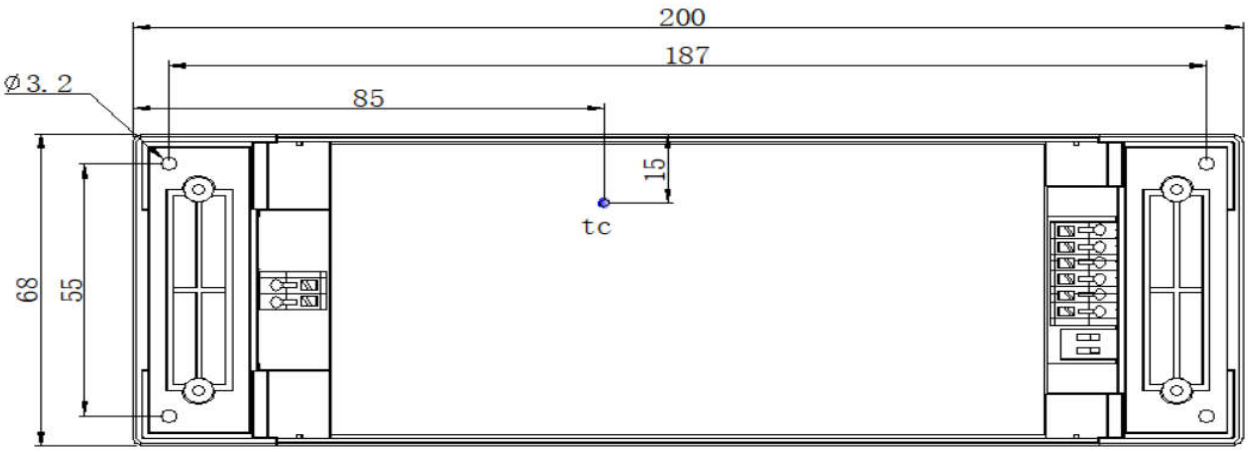
Technical data

	Product type	
	60W	Unit
Module	N/A	
Case size(LxWxH)	200*68*27	mm
Rated supply voltage = U-IN on label	220-240	V
Input voltage range, AC	198-264	V
Mains frequency	50/60	Hz
Efficiency (220V/50Hz/full load)	89	%
Power Fator(220V/50Hz/full load)	＞0.9	
Standby power consumption(220Vac,25℃)	<0.5	W
No-load power consumption(220Vac,25℃)	<0.5	W
THD (220V/50Hz/full load)	<15	%
Starting time(220Vac, full load, 25℃)	< 3000(缓起)	ms
Earth connection / luminaire electrical class (I / II / III)	class Ⅱ	
Burst immunity	1	(kV)
Surge immunity (L-N)	1.5	(kV)
Surge immunity (L/N-PE)	N/A	(kV)
Output current	550/500/ 450/400	mA
Dimming range	N/A	%
Dimming tolerance	N/A	%
Current accuracy	±5	%
Ripple (220V,full load)	±5	%
Output voltage	30-40	V
Max output power	20W X3	W
Max output voltage (no load)	50	V
Short circuit protection	Yes	
Overload protection	Yes	
No-load protection	Yes	
Ambient temperaure ta(°C)	- 20 ⋯+ 45	°C
Ambient temperaure ta(50000 Hrs)	45	°C
Max. casing temperature tc	75	°C
Storage Temperature	-20⋯+ 80	°C

Specific Technical Data

Type	Input Voltage	Output Power	Output Voltage	Output Current	Ripple	TC	Ta	Dimension
VLD 60W 550/500/450/400mA 3C-SR	220-240Vac	Max. 20W X3	30-36Vdc 30-40Vdc	550 500/450/400	±5%	75°C	- 20 ···+ 45°C	200x68x27mm

TC position unit：mm



Ordering data

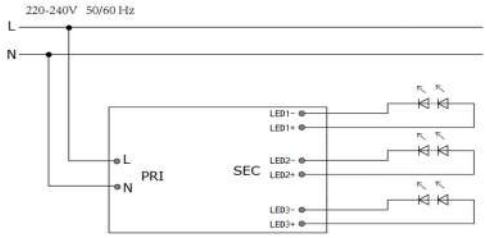
Article number	Description	Dimension of product	Net Wt/pc	Package/ctn	Dimension of carton
1060800260	VLD 60W 550/500/450/400mA 3C-SR	200*68*27mm	240g	50pcs	355x215x315mm

1. Standards

EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61347-1
EN 61347-2-13
EN 61547
EN 62384
EN 61643-11

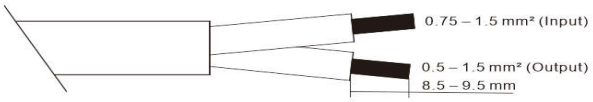
2. Installation and wiring

2.1 Circuit diagram



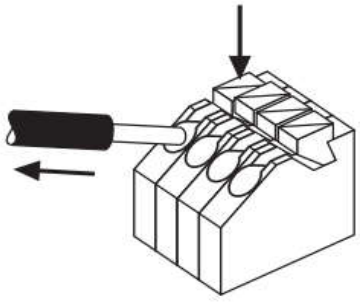
2.2 Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.75–1.5 mm² (mains wires) and 0.5–1.5 mm² (secondary wires, LED moduel). 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.
- Max length of output wires is 80cm.
- Secondary switching is not permitted.
- 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

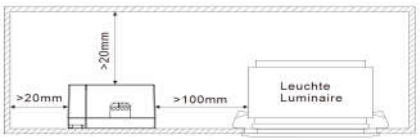
1. Mains off
2. Remove LED module
3. Wait for 10 seconds
4.Connect LED module again

2.6 Installation instructions

The LED module and all contact points within the wiring must be sufficiently insulated against 3 kV surge voltage.
Air and creepage distance must be maintained.

2.7 Fixing conditions when using as independent Driver with Clip-On

Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature (ta) stated on the device. Minimum distances stated below are recommendations and depend on the actual luminaire.
Is not suitable for fixing in corner.



2.8 Mounting of device

Max. torque for fixing: 0.5 Nm/M4

3. Thermal details and life-time

Expected life-time

Typ	ta	40℃	45℃	50℃
VLD 60W 550/500/450/400mA 3C-SR	tc	70℃	75℃	80℃
	Life-time	50000h	50000h	30000h

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	I_{max}	Time
Installation Ø	1.5mm^2	1.5mm^2	1.5mm^2	1.5mm^2	2.5mm^2	1.5mm^2	1.5mm^2	2.5mm^2		
VLD 60W 550/500/450/400mA 3C-SR	19	25	31	38	13	17	22	27	35.3A	148µs

This 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 %

	THD	3	5	7	9	11
VLD 60W 550/500/450/400mA 3C-SR	<15%	<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 Insulation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.
According to IEC 60598-1 Annex Q (informative only!) ,each luminaire should be submitted to an insulation test with 500V DC for1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.
The insulation resistance must be at least 2MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500V AC (or 1.414 x 1500V DC).
To avoid damage to the electronic devices this test must not be conducted.

6.2 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.