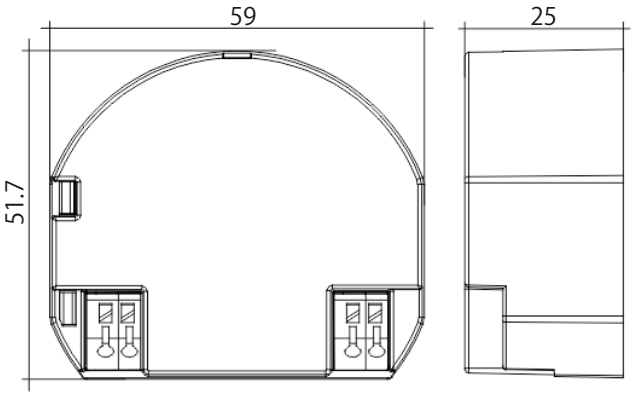
Vlinca Beleuchtungstechnologie GmbH
Ebenseestr. 15 90482 Nuremberg, Germany

IRISES High Efficiency Driver (Jumper)

RoHS IP20



Product description

Fixed output built-in LED Driver
Constant current LED Driver
For luminaires of protection class II
Adjustable output current **650 or 700 mA**
Temperature protection as per EN 61347-2-13 C5e
For ambient temperatures up to 60 °C

Advantage

Stylish design
Up to 93% efficiency
Life-time up to 50,000 hours
5-year guarantee

Functions

Casing: polycarbonat, white
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, track light and wall light in retail and hospitality application

Specific Technical Data

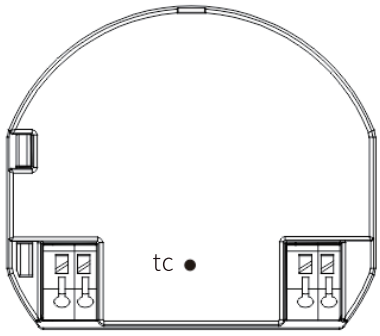
Type	Input Voltage	Output Power	Output Voltage	Output Curren	Ripple	TC	Ta	Dimension
IRISES-P27DCA38R-BI R G3	220-240Vac	Max.27W	30-38V	650/700mA	±3%	80℃	- 20 · · · + 60°C	59*51.7*25mm

Ordering data

Article number	Description	Dimension of product	Net Wt/pc	Package/ctn	Dimension of carton
	IRISES-P27DCA38R-BI R G3	59*51.7*25mm	67g	200pcs	302.5*251.5*323.5mm

Vlinca Beleuchtungstechnologie GmbH
Ebenseestr. 15 90482 Nuremberg, Germany

TC position

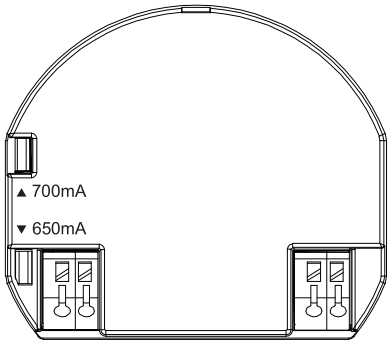


Technical data

Product type	27W	
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	0.15	A
Max input power (@220-240V,50/60Hz) = P-IN on label	30	W
Typ.power consumption(at 230V .full load)	29	W
Max output power(@220-240V,50/60Hz) = P-OUT on label	27	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)	±3	%
Max. output peak current (at 230 V, 50 Hz, full load)	775	mA
Leakage current (230Vac/50Hz Input, Output full load)	<450	μA
THD(at 230V,50Hz, full load)	<15	%
Power factor(at 230V,50Hz, full load)	0.95	
Efficiency(at 230V,50Hz, full load)	93	%
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 · · · + 60	°C
Ambient temperaure ta(50000 Hrs)	60	°C
Max. casing temperature tc	80	°C
Storage temperature ts	-20 · · · + 80	°C

Adjust current

output current can be adjusted by the pin type



1. Standards

EN 55015

EN 61000-3-2

EN 61000-3-3

EN 61347-1

EN 61347-2-13

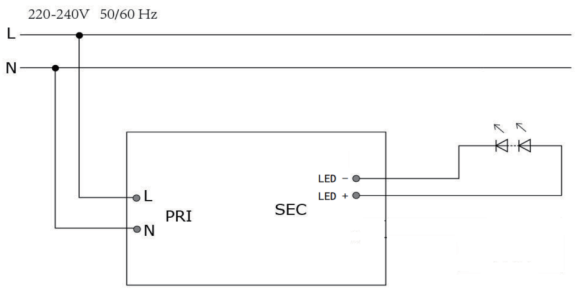
EN 61547

EN IEC 62384

EN 61643-11

2. Installation and wiring

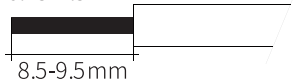
2.1 Circuit diagram



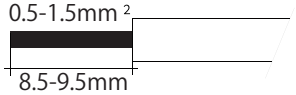
2.2 Wiring type and cross section

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.

wire preparation:
mains wires
0.75-1.5mm²

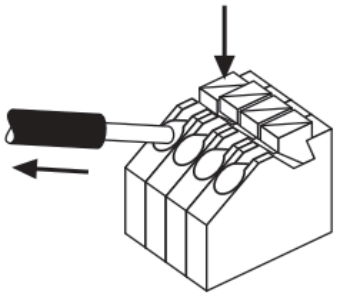


wire preparation:
secondary wires
0.5-1.5mm ²



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

3. Thermal details and life-time

Expected life-time

Type	ta	60°C	65°C	70°C
IRISES-P27DCA38R-BI R G3	tc	80°C	85°C	90°C
	Life-time	50000h	40000h	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	Imax	Time
Installation Ø	1.5mm	21.5mm2	1.5mm2	1.5mm2	2.5mm2	1.5mm2	1.5mm2	2.5mm2		
IRISES-P27DCA38R-BI R G3	70	91	112	140	42	55	68	85	11.3A	149.6µs

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 %

Type	THD	3	5	7	9	11
IRISES-P27DCA38R-BI R G3	<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.