

I+D LED introduces BUCK DRIVER DC/DC from DUNAMIC LED DRIVERS family. It is a dimmable Step-Down by PWM and constant current input of 24-48V. BUCK DRIVER is designed to feed spotlights or LED modules at constant current. Its tiny size makes from it a perfect suit for small size luminaries, tracks, spots, etc. The driver includes quick connectors to facilitate IN/OUT connection. Operating current from 200mA to 900mA. BUCK DRIVER DC/DC are the ideal complement to work side by side with MERAKI LED MODULES family in CC, COB or with any other light engine.



In compliance with:

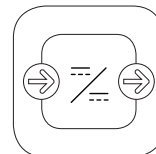
**EN62384:2007/A1:2010 - EN61547:2013 -
EN61347-1:2009/A1:2013**

APPLICATION



PRODUCT DESCRIPTION

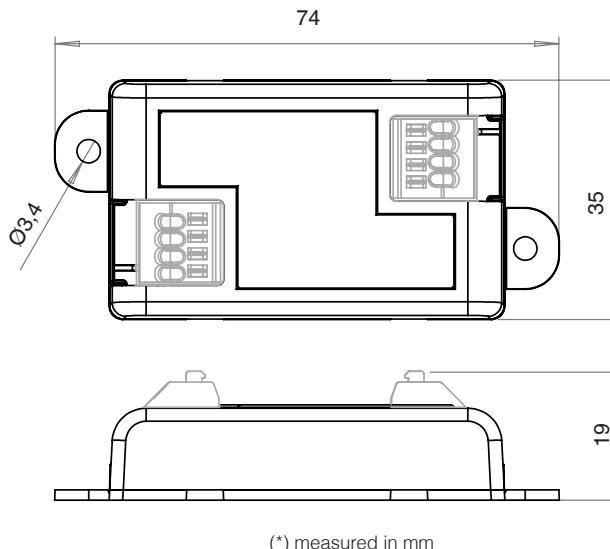
- DC/DC driver (dimmable)
- Output from 200mA to 900mA
- Simple and fast to install
- Quick connectors, Push-In type
- Power up to 40W
- SELV voltage
- Compact design
- High efficiency



TECHNICAL DATA

- SELV voltage
- Operating temperature between -5°C and +50°C
- Standard Tc 75°C (box)
- Overload output protection
- Weight 30g (box)
- MOQ 50 units
- Dimmable by DIM (digital PWM in input)
- For wires of 0,5-1mm² long
- Up to 15 LED Vf=3V
- Maximum length STEP/LED L: 5 m
- For fixtures integration, CE directives compliance (luminaries type I and II)

DIMENSIONS



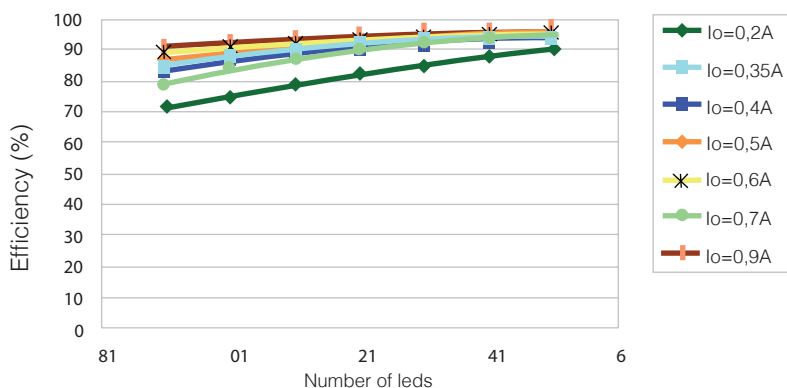
SPECIFIC TECHNICAL DATA

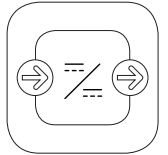
CODE	INPUT VOLTAGE (V)	OUTPUT VOLTAGE (V)	MAX. OUTPUT POWER (W)	ROOM TEMP. (°C)	OUTPUT CURRENT (mA)	DIMENSIONS (mm)	BOX	EFFICIENCY (%)
31.60.DC.BUCK.200	24-48	20-44	8,8	-5 to +50°C	200	74x35x19mm	NO-(OF)	>75
31.60.DC.BUCK.350	24-48	20-44	15,4	-5 to +50°C	350	74x35x19mm	NO-(OF)	>85
31.60.DC.BUCK.400	24-48	20-44	17,6	-5 to +50°C	400	74x35x19mm	NO-(OF)	>85
31.60.DC.BUCK.500	24-48	20-44	22	-5 to +50°C	500	74x35x19mm	NO-(OF)	>85
31.60.DC.BUCK.600	24-48	20-44	26,4	-5 to +50°C	600	74x35x19mm	NO-(OF)	>90
31.60.DC.BUCK.700	24-48	20-44	30,8	-5 to +50°C	700	74x35x19mm	NO-(OF)	>95
31.60.DC.BUCK.900	24-48	20-44	39,6	-5 to +50°C	900	74x35x19mm	NO-(OF)	>95

Note: All efficiency values here exposed have been measured at full charge (90-100%).
 For driver delivery including protection box, please add the letter "B" behind the product code. Example: 31.60.DC.BUCK.900B.
 All versions including protection box are only available in black (ABS V0) and have dimensions of 74x35x19 mm.

EFFICIENCY

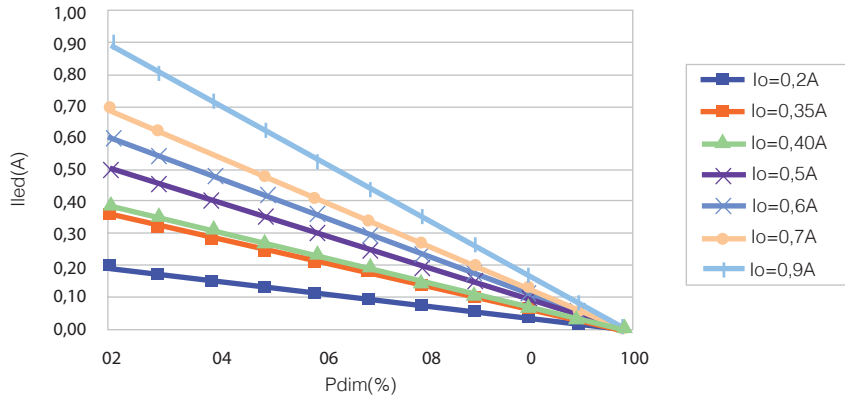
EFFICIENCY (%) vs N° OF LEDS for Vin=+48Vdc





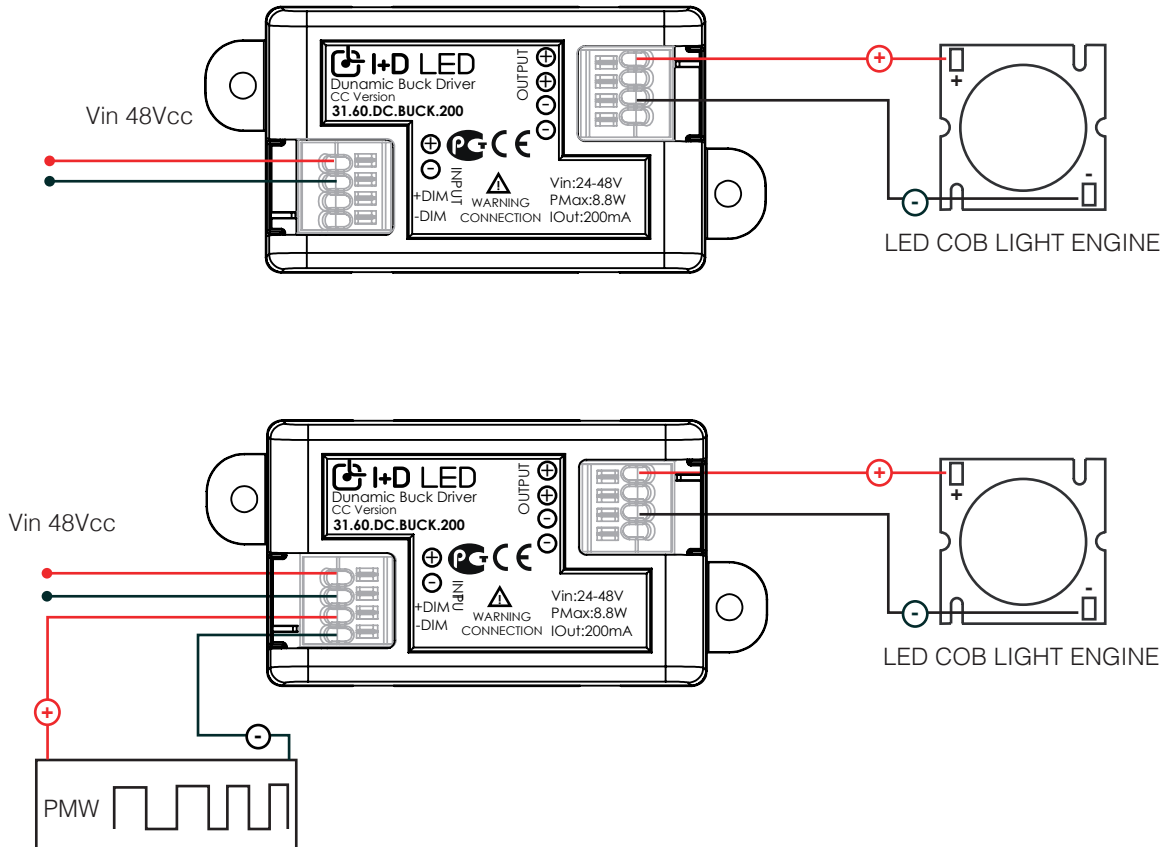
DIMMING CURVES

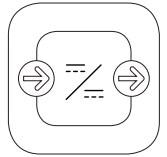
Output current (A) vs PWM Dimming (%) signal at 10KHz, $V_{pwm}=+5V$



Note: Maximum voltage for dimming signals 10V
 Dimming between 1 and 20 KHz
 BUCK drivers show better linearity when input and output voltage pick are higher

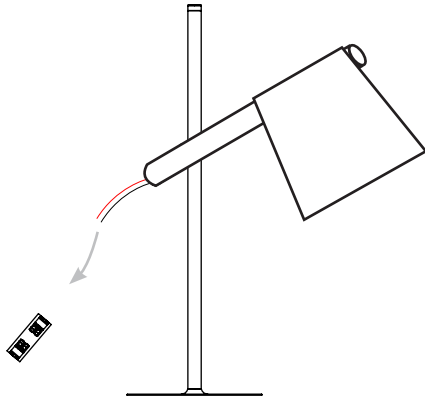
CONNECTION EXAMPLE





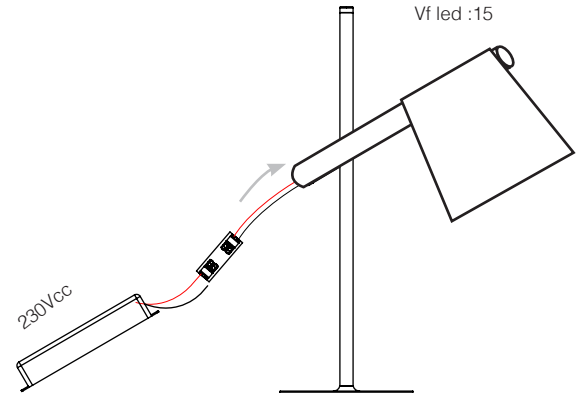
CONNECTION EXAMPLE

1



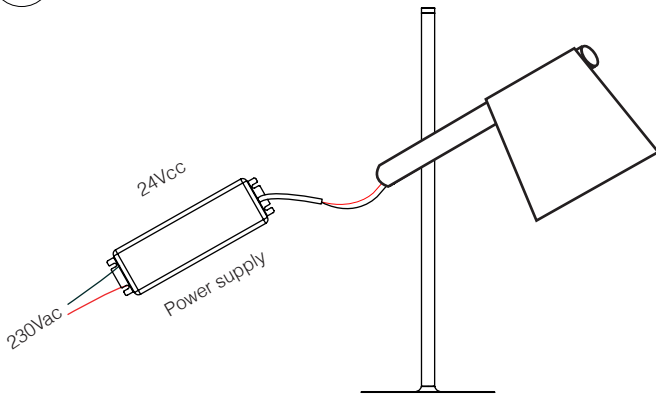
Connect BUCK DRIVER DC/DC to the LED module.

2



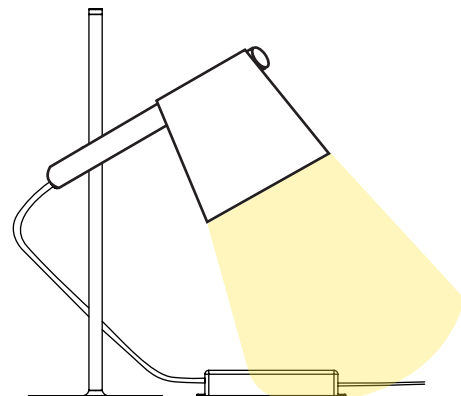
Connect voltage output from power source.

3

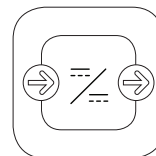


Place inside the fixture.

4



Close, connect and ready to use!



SECURITY AND INSTALLATION INFORMATION



ELECTRICAL POWER

BUCK DRIVER DC/DC must be feed at constant current; the energy source power must be in accordance with the quantity of connected modules for proper functioning of the module (or group of modules). BUCK DRIVER DC/DC has polarity, for this reason rated current, nominal power and polarity must be taken into account. If that is not the case, the module might be irreversibly damaged. Family DUNAMIC LED DRIVERS require specific driver protection against short-circuit currents, temperature raise and overloads.



ISOLATION

BUCK DRIVER DC/DC functions with SELV voltage, it does not require active isolation of the component as long as maximum reference (50v) SELV voltage is not exceeded. In other case, it will be mandatory earth connection on all conductive components of the fixture or light engine when the number of modules in the series exceeds SELV voltage. The driver must be in compliance with CE, UL or valid analogous regulation.



ESD – STATIC ELECTRICITY INFORMATION

BUCK DRIVER DC/DC contains electronic components which are very sensible to static electricity. In this respect is it highly recommendable to always manipulate the items with appropriate ESD protection, and take adequate measures for safety matters. If you need further information please refer to our webpage www.idled.eu.



MOUNTING AND INSTALLATION

I+D LED S.L. is not responsible for the installation of the product. BUCK DRIVER DC/DC must be perfectly placed (and/or stick) on the lighting device, profile or base for a proper connection between modules and power source, respecting its nominal values and connection types according to the different LED modules as described in this data sheet.

If any type of chemical substance is used during the assembly of the luminaire or light engine, it must not have any type of curing by means of gas condensation; as these chemical substances may damage the LEDs and electronic components.

The driver must be introduced carefully inside the system or luminary. Always avoid mechanical stress, compression stress or superficial voltage stress over the electronic components and/or driver holder. Ideal wire for this connection type is strand or solid, multipolar or unipolar wire of 0,5-0,75 mm².



TEMPERATURE

BUCK DRIVER DC/DC life-time depends to a great extent on operating temperature. Under no circumstance temperature should exceed the maximum permissible (T_c=75°C) limit here indicated. Exposure to higher temperatures might affect its long term proper functioning. Room temperature must be measured under worst-case conditions to ensure life-time and keep product's guarantee. Store modules between -20 °C and +70 °C, and at a maximum humidity level of 65%.