



90519062

Bits2Power® 4 CHANNEL PWM DRIVER EXTERNAL POWERED

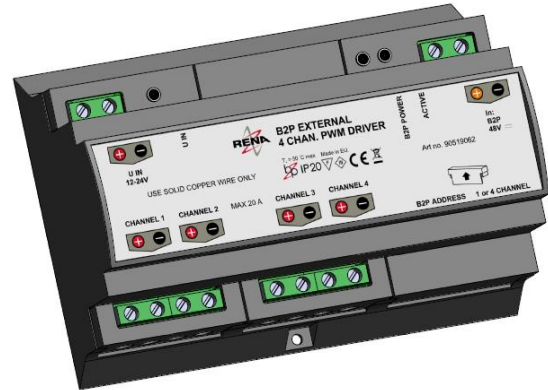
Product description

- 4 Channel PWM driver
- External powered
- 0 – 100% dimming
- Thermal protection
- 3 Year Warranty
- CE certified
- IP20

Applied Standards

EN55022

EN55024, EN61000-4-2, 3, 4, 5, 6, 11



Technical notes

| | |
|------------|---------------|
| Dimensions | 161x110x62mm |
| Weight | 220 gr. |
| Housing | Polycarbonate |
| Color | White |

Ordering data

| Type | Article number |
|---------------------|----------------|
| 4-channel Separator | 90519062 |

① Tolerance of 5%

② Nominal output voltage is # of LEDs x LED forward voltage

③ Tolerances of 5% and for each circuit

④ Percentage of PWM duty-cycle

⑤ Common Positive system



Electrical Characteristics

| | |
|--------------------------------|--------------|
| Input voltage range External ① | 12 ... 24Vdc |
| Input voltage range B2P | 24 ... 48Vdc |
| Output voltage range | 12 ... 24Vdc |
| Output current max | 20A |
| Switching losses max | 5% |
| Output dimming range② | 0 – 100% |

Protections

| | |
|----------------------------------|----------------------|
| Undervoltage lockout (B2P input) | @ Vin < 18Vdc |
| Output Short circuit protection | Output current limit |
| Reversed polarity | Positive ↔ Negative |
| Overheating protection | 70°C Output derating |

Connections

| | | |
|------------------------|-----------|--------------|
| Input voltage | Connector | AWG26- AWG10 |
| Input voltage external | Connector | AWG26- AWG10 |
| Outputs (x4) | Connector | AWG26- AWG10 |

All connectors have a Tightening torque of 5.3 lb-in max.



Technical details

| Model | | 90519062 |
|--------|-------------------------------|-------------------|
| Output | Number of channels | 4 |
| | DC voltage Range | 12 ... 24 V |
| | Maximum total current | 20 ^② A |
| | Maximum rated channel current | 10 ^③ A |
| | Voltage tolerance | ±5 % |
| | PWM frequency | 920 Hz |
| Input | DC voltage Range | 12 ... 24 V |
| | External | |
| | DC voltage Range | 24 ... 48 V |
| | B2P | |
| | Standby Power | 1,5 mW |

All Models

| | | |
|--------------|----------------------|---|
| Protection | Short Circuit | Recovers automatically after removing short |
| | Over Current | B2P input protected by unrecoverable fuse External input protected by derating the output current ^② |
| | Over Voltage | N/A |
| | Over Temperature | 70°C (Output derating) |
| Safety & EMC | Withstand Voltage | I/P-O/P: 0,5kV |
| | Isolation Resistance | I/P-FG: >100MΩ / 500VDC / 25°C / 70% RH |
| | EMI | EN55022 (CISPR22) |
| | EMS IMMUNITY | EN55024, EN61000-4-2, 3, 4, 5, 6, 11 |

^② Maximum total output current is limited to 20A. Loads above 20A will be derated to maintain the 20A maximum output current limit.
Product is specified in conjunction with the Mean Well DRP-480-24 AC-DC PSU . When a non-current limited PSU such as lead-acid batteries are used as the 24V supply, an external in-line fuse is mandatory. See 'installation and safety information' for further information.

^③ Maximum output current per channel is limited to 10A, given that load is pure resistive and not capacitive or inductive. Maximum total output current is limited to 20A.

Mechanical Dimensions

Overall dimensions L = 161 x W = 110 mm
Height = 62 mm



Thermal Characteristics

The LED driver must operate under proper environmental conditions and the operating ambient air temperature must NOT exceed the maximum given temperature.

For an optimal lifetime performance the LED driver must be placed in an environment where a sufficient heat transport is guaranteed. The heat transport is done by natural convection. It's not recommended to expose the module to direct sunlight or any other heat source.

Environmental characteristics

| | |
|-----------------------|-------------|
| Storage temperature | -20 / +70°C |
| Operating temperature | -20 / +50°C |
| Operating humidity | 10-80% RH |
| IP classification | IP20 |

Tc point

For an optimal lifetime performance the Tc point of the device must never exceed [5] degrees Celsius.

The maximum value must be determined under operating conditions in a thermally stable state and under worst-case conditions for the current application

Installation and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The following advice must be followed:

Please ensure correct voltage and polarity of the leads

- See PDC600 controller manual for system installation details.
- The device contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken.
- Use wire size of minimum AWG 20 for connecting the B2P device.
- For outdoor or damp locations, be aware of the IP classification.

All above specifications must be met in order to qualify for the 3 year warranty.

When a non-current limited PSU such as lead-acid batteries are used as the 24V supply, an external in-line fuse such as the Littlefuse FHAC0002LXN with an ATO 25A cartridge is mandatory.

Packaging

| | |
|----------------------|----------------|
| Box size (mm) | 370x170x125 mm |
| Quantity each Box | 4 |
| Quantity each layer | 4 |
| Layer each box | 1 |
| Weight each box (kg) | 2,1 kg |

