

Power PWM Module ARN55160

Basic description:

This power PWM controller ARN55160 can control brightness of DC light bulbs, DC motor speed, temperature of soldering irons, and other DC loads. It has one output for current 160 Amps. Controller provides smooth regulation of power from 0 to 100 %. Power output level is set with a potentiometer. Regulation is by using no-loss pulses; frequency can be set from 3.5 to 12 kHz by external resistor. Supply DC voltage can be from 8 to 55 V. Controller may control loads up to 12 HP. There is overheating protection which will reduce output current when temperature of heatsink is too high. There is terminal for external low power switch what can be used for controller temporary switching-off.

Connection of controller:

Comes with an 8 parallel 2 pole terminal strips for connecting supply voltage and load, 3 pole terminal strips for potentiometer, 2 pole terminal strips for frequency setting and 2 pole terminal strips for switch.

Terminals **ZDROJ MINUS** (terminals number 1 and 2) - minus of DC supply voltage

Terminals **MOTOR MINUS** (terminals number 3 and 4 - minus of load.

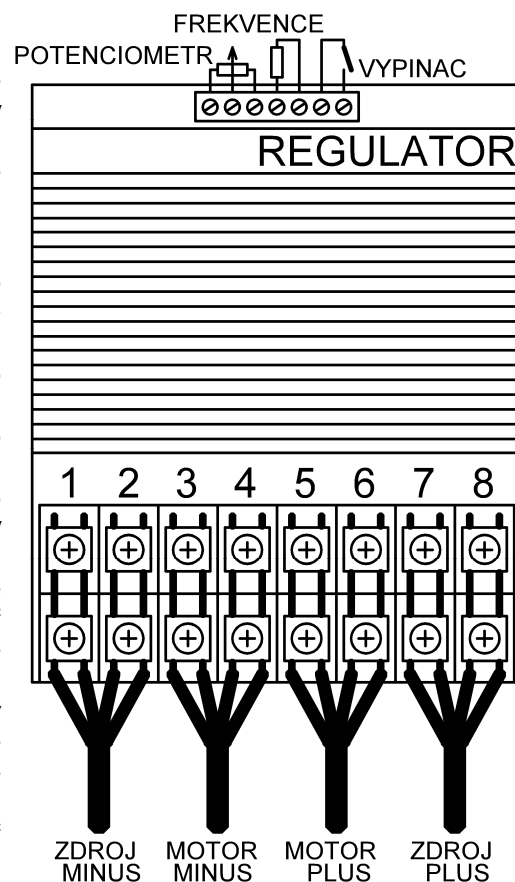
Terminals **MOTOR PLUS** (terminals number 5 and 6 - plus of load.

Terminals **ZDROJ PLUS** (terminals number 7 and 8 - plus of DC supply voltage.

Terminals **POTENTIOMETR** three pins of potentiometer (central pin of potentiometer to central pin of terminal strip).

Terminals **FREKVENCE** – two pin for external resistor for frequency setting (no resistor 3.5 kHz, short circuit 12 kHz).

Terminals **VYPINAC** – two pin of switch (just for current 30 mA only).



Basic technical specification:

Supply voltage:	DC 8 to 55 Volts.
Load current:	160 A (200 A/5 s)
Type of load:	resistance loads (bulbs, soldering tools etc.) or inductive loads (motors, output LC filter etc.).
Range of regulation:	0 to 100 % of power.
Frequency of regulation:	3.5 to 12 kHz set by external resistor.
Overheating protection:	reduces output current if temperature of heatsink is higher than 120 °C.
Controlling potentiometer:	10 kOhm - linear
Dimensions:	170 x 90 x 32 mm.

Notes:

Used power supply must be filtered by capacitor connected close the supply terminal, if leads are longer than 30 cm or supply source is not battery, but net source. If load current is more than 80 Amps, you need to use two or four-wire cable (as shown on the picture) for connection supply and load! At maximum load current, the heatsink shouldn't be covered. **Attention!** There is no protection against incorrect polarity of supply voltage or short circuit on load. That is why using 160 Amps fuse is recommended between source and regulator. Wires to potentiometer have to be led in other cable then power wires (to load and to source) are lead because interferences! In case fast change of load current controlling circuit could be damaged by inducted high voltage between potentiometer wires and load or supply ones.

Warranty:

Warranty is 24 months from date of sale.

Produced by:

BEL s.r.o., Eliasova 38/745, 160 00, Prague 6, Czech Republic
e-mail: info@bel-shop.eu, WWW: <http://www.bel-shop.eu>

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date of sale

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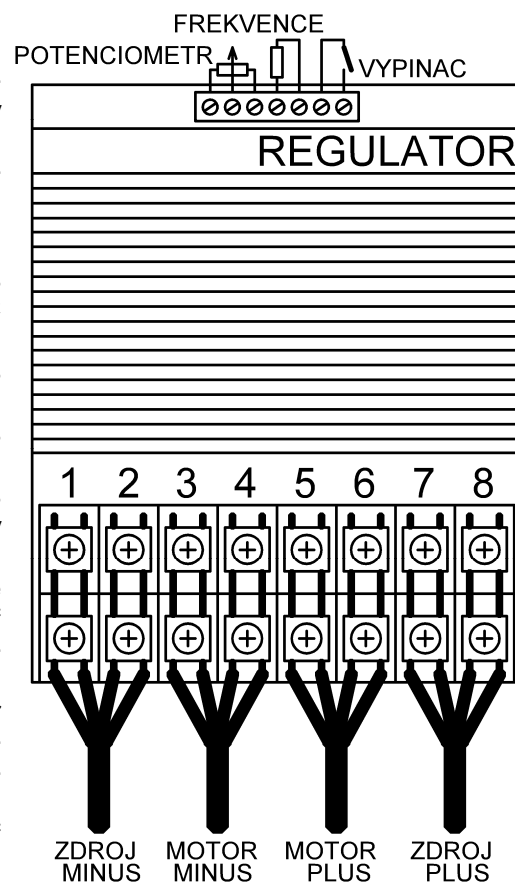
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