

Power PWM Module ARN55125X2

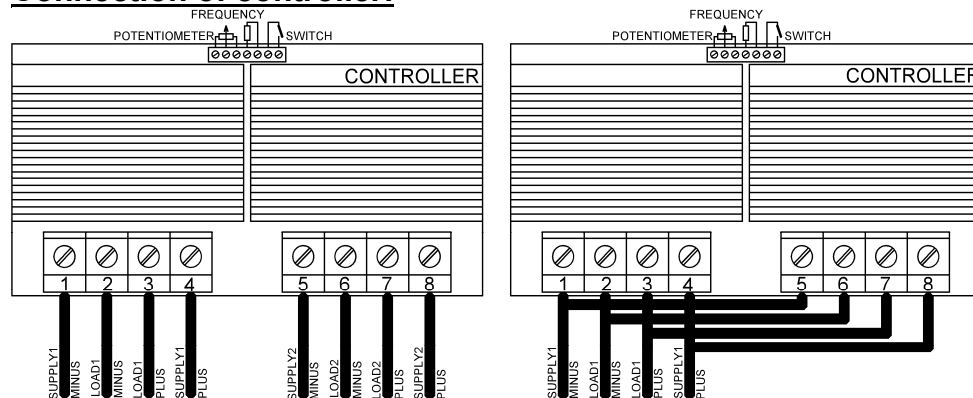
Basic description:

This power PWM controller ARN55125X2 can control brightness of DC light bulbs, DC motor speed, temperature of soldering irons and other DC loads. It has two output sections for (each) output current 125 Amps with united controlling. Both sections can be connected parallel to reach output current 250 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 can control loads up to 2 x 9 HP or 1 x 18 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.

Basic technical specification:

Supply voltage:	DC 8 to 55 Volts.
Load current:	two output sections, each for 125 A (150 A/10 s) or both (parallel) for 250 A (300 A/10 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 104 x 41 mm.

Connection of controller:



Comes with a 4 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 **SUPPLY MINUS 1** (terminal #1) or **SUPPLY MINUS 2** (terminal #5) - minus of DC supply voltage.

Terminals **LOAD MINUS 1** (terminal #2) or **LOAD MINUS 2** (terminal #6) - minus of load

Terminals **LOAD PLUS 1** (terminal #3) or **LOAD PLUS 2** (terminal #7) - plus of load

Terminals **SUPPLY PLUS 1** (terminal #4) or **SUPPLY PLUS 2** (terminal #8) - plus of DC supply voltage

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

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

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

Notes:

If leads between battery and controller are longer than 20 cm or supply source is not battery, but net source, power supply must be filtered by capacitor (100 μ F per every Amp of load current) connected as close as possible to the supply terminal. This capacitor enables exchange of charge between controllers and source. Length of cables between load and controller is not limited. At maximum load current, the heatsink shouldn't be covered. Both section can be connected parallel (**SUPPLY PLUS 1** with **SUPPLY PLUS 2**, **LOAD PLUS 1** with **LOAD PLUS 2** etc.).

Attention! There is no protection against incorrect polarity of supply voltage or short circuit on load. That is why using 125 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! 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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