



elektrosistem



4Q BIG

HIGH FREQUENCY CONTROLLER FOR PERMANENT MAGNET MOTORS

4Q BIG is a bidirectional high frequency controller designed to control DC permanent magnet motors.

A MOSFET full bridge power section provides reversing with no need to use running contactors. The equipment must be equipped with a main contactor to guarantee insulation of the controller from the battery in emergency situations to meet the safety requirements in force.

The controller features regenerative braking acting when the running control is released and during reversing.

Operation parameters can be modified by programmer or PC and serial interface.

Outputs to control main contactor, power steering and electromagnetic brake are available. All outputs feature coil protection. 24V contactors are to be used for all battery voltages, only the electromagnetic brake is directly powered by the battery.

FEATURES

- Controller for DC permanent magnet motors
- MOSFET technology and high frequency operation
- Microprocessor control with self test of control circuitry
- Handheld programmer to modify operation parameters
- PC interface to set parameters
- Automatic regenerative braking
- Control by 5K 3-wire potentiometer
- Control by central 0 potentiometer
- Protection against potentiometer failure
- Protection against MOSFETS short circuit
- Over-temperature protection
- Protection for potentiometer not in neutral position at start-up
- Battery voltage control to inhibit operation in case of under-voltage
- 2 outputs to control main contactor, timed power steering, electromagnetic brake or other functions
- 24V contactors for all battery voltages
- Coil overheating protection for outputs
- 5 inputs for auxiliary functions
- On-board fault code status LED
- Possibility to connect an external LED for remote fault code display
- Advanced communication protocol for integration into other control systems and displays
- Reverse polarity protection through main contactor
- Possibility to control the system by a PLC
- Compliance with EC standards

TECHNICAL SPECIFICATIONS

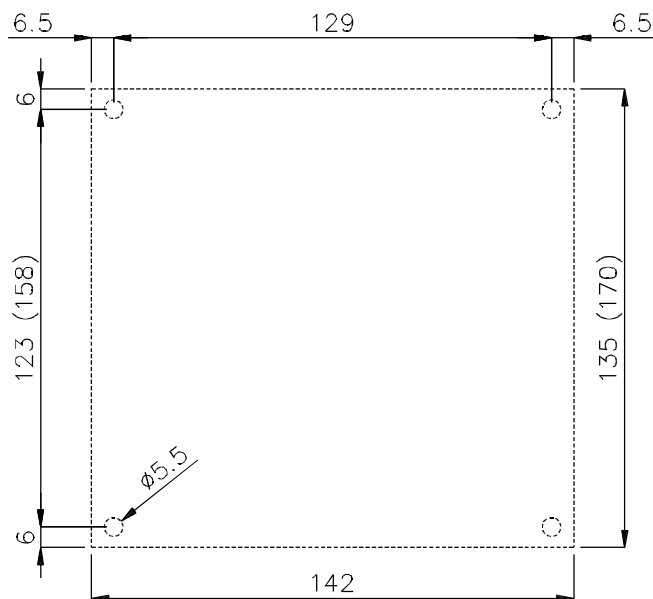
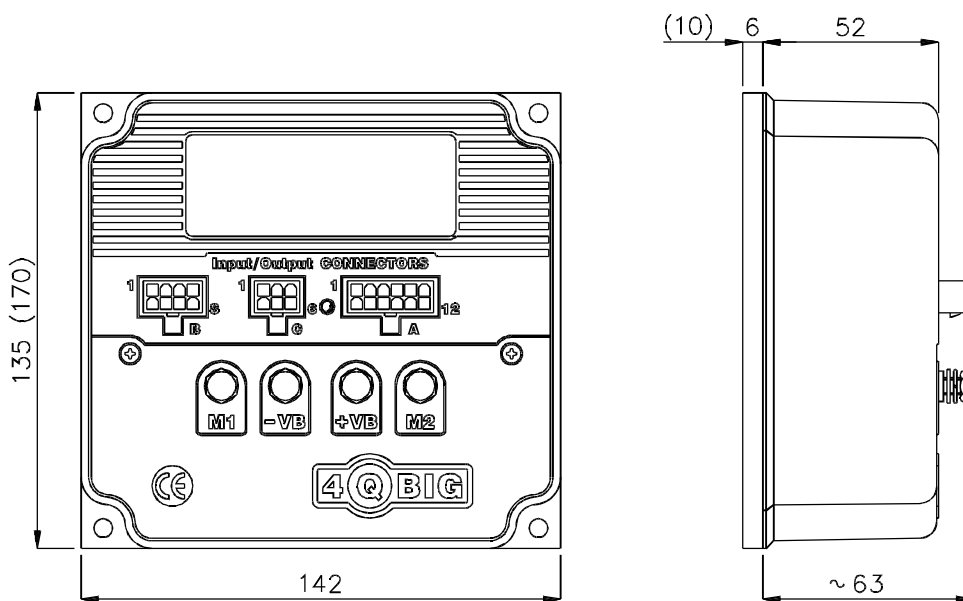
- Rated voltage from 24 to 48V
- Operation frequency 17 KHz
- Operation temperature -20°C/+40°C
- Thermal protection from 70 to 80°C

~~NEWS~~

MODELS AND DIMENSIONS

MODEL	4Q BIG 180	4Q BIG 300
VOLTAGE	24 - 48V	24 - 48V
PEAK CURRENT	180A	300 A
CURRENT for 1 min.	150A	250 A
CURRENT for 1 hour	50A	100 A

4Q BIG



WEIGHT	
4Q BIG 180	900 g
4Q BIG 300	1500 g

Fixing holes

*N.B. Da Specifications subject to change without notice
Dimensions in brackets are referred to the 4Q BIG 300 model*

~~NEWS~~

WIRING DIAGRAM

