



elektrosistem



4Q COMBI

HIGH FREQUENCY CONTROL UNIT FOR 2 PERMANENT MAGNET MOTORS

4Q Combi bi-directional control units have been designed to control two permanent magnet dc motors.

Featuring the control of two independent motors, including complete counter-rotation, they are suitable for those vehicles equipped with two motors, such as aerial platforms, equipment for mobility aids, and vehicles operating in small areas.

No running and braking contactors are necessary, a full bridge power output stage provides reversing. The main contactor is necessary to guarantee insulation between control unit and battery in case of anomaly and to comply with safety standards.

The control unit features high frequency and regenerative braking at running control release and during reversal.

All parameters can be modified using a programmer or a package including a PC interface and a special program. The control unit is provided with two outputs to control power steering, brake and main contactor. All drivers are protected against coil overheating. 24V contactors can be used for all supply voltages, while for the brake contactor voltage depends on the battery.

MAIN TECHNICAL FEATURES

- Control unit for two permanent magnet dc motors.
- MOSFET technology and high frequency.
- Microprocessor control with circuitry self-diagnostics.
- Parameter setting through handheld programmer.
- Parameter setting through PC and interface card.
- Regenerative braking.
- Control through 5K three-wire potentiometer.
- Control through central 0 potentiometer.
- Control through joystick.
- Protection against potentiometer failure.
- Protection against MOSFET short circuit.
- Protection against overheating with proportional action.
- Protection against accidental start due to potentiometer not at 0 when the key is switched on.
- Supply voltage monitoring to stop operation in case of discharged battery.
- 2 output drivers to control main contactor, timed power steering, braking or other functions.
- 24V contactors for all battery voltage.
- Drivers with protection against coil overheating.
- 5 input lines for auxiliary functions.
- Trouble shooting through a flashing LED on the control unit.
- Possibility to add a remote LED for trouble shooting.
- Communication protocol to connect other control units or displays.
- Reverse polarity protection through main contactor.
- Control through PLC.
- Complies with CE standards.

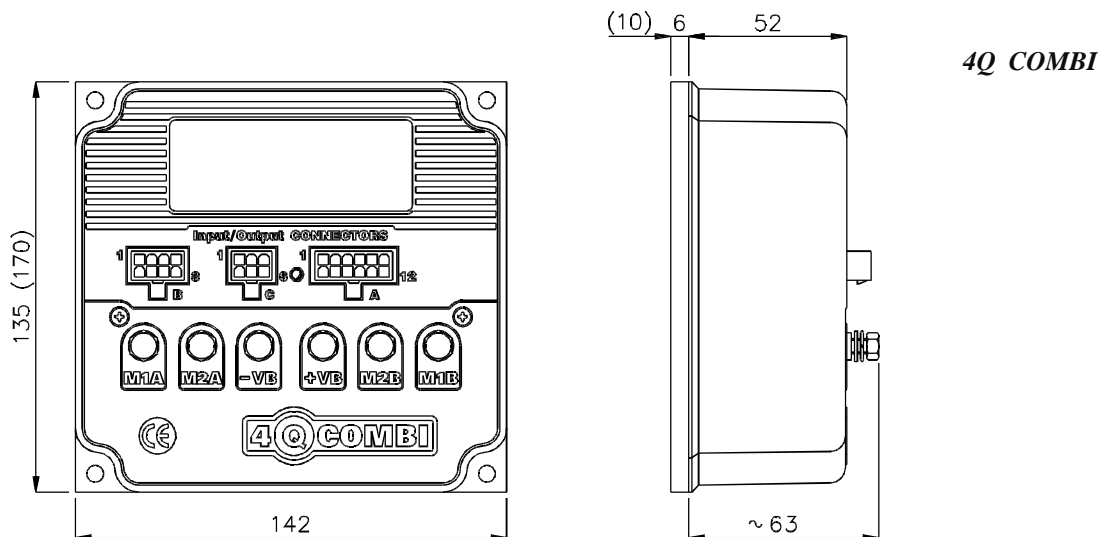
SPECIFICATIONS

- Voltage rating from 12 to 48V
- Operation frequency 17 KHz
- Operation temperature -20°C/+40°C
- Thermal limiter action from 70 to 80°C

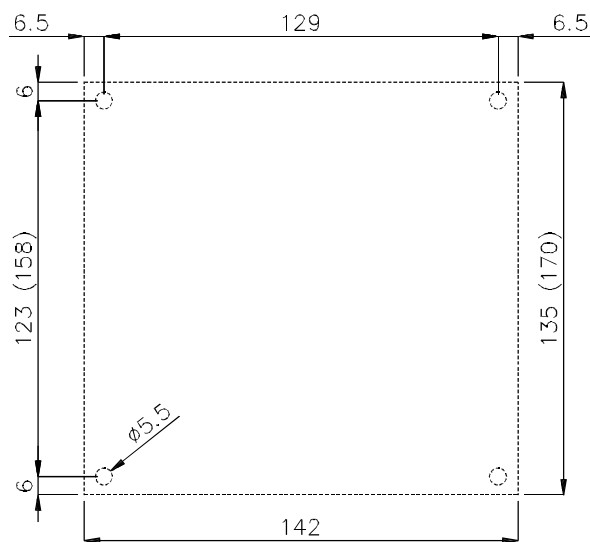
~~NEWS~~

MODELS AND DIMENSIONS

MODEL	4Q COMBI 90		4Q COMBI 150	
MOTORS	Motor 1	Motor 2	Motor 1	Motor 2
VOLTAGE	12 - 24V / 36 - 48V	12 - 24V / 36 - 48V	24 - 48V	24 - 48V
PEAK CURRENT	90A	90A	150A	150A
CURRENT for 1 MIN.	83A	83A	150A	150A
CURRENT for 1 HOUR	35A	35A	50A	50A



Weight 900g



Fixing holes

Technical features subject to changes without notice.

NEWS

WIRING DIAGRAM

