



elektrosistem



4QHF 3D

HIGH FREQUENCY CONTROL UNIT WITH REGENERATIVE BRAKING

4QHF3D controllers are permanent magnet DC motor speed controllers designed to gradually reach the max speed in battery powered bidirectional applications. The motor max current can be limited according to the needs during acceleration and deceleration. Regenerative braking is active during deceleration.

The current boost increases performance in case of occasional loads like obstacles and ramps.

A microprocessor controls all setting and diagnostics options and inhibits operation in case of anomaly or danger.

The built-in main relay guarantees reverse polarity protection and emergency shutdown.

Fully programmable parameters allow the controller to adapt to many different applications.

Thanks to the CAN Bus interface the controller can be integrated in advanced vehicle control systems.

TECHNICAL FEATURES

- CAN Bus receives controls and transmits operating data (optional)
- Current boost adjustable up to 15% of the max. current for max. 3 seconds
- Reverse polarity protected
- Protected from MOSFET transistors failure
- Protected from potentiometer failure and potentiometer not in the neutral position when the controller is turned on
- Linear limiting of speed and current in case of low battery and overtemperature
- Speed control through 5K potentiometer or other accelerators, with "0-max" voltage electrical travel or central tapped configuration
- Programmable for operation with active high or active low signals
- Output programmable for electromagnetic brake, reverse buzzer, fault lamp
- Fully programmable by means of the PC and the interface cable. The controller can be supplied pre-programmed according to the customer's needs

TECHNICAL SPECIFICATIONS

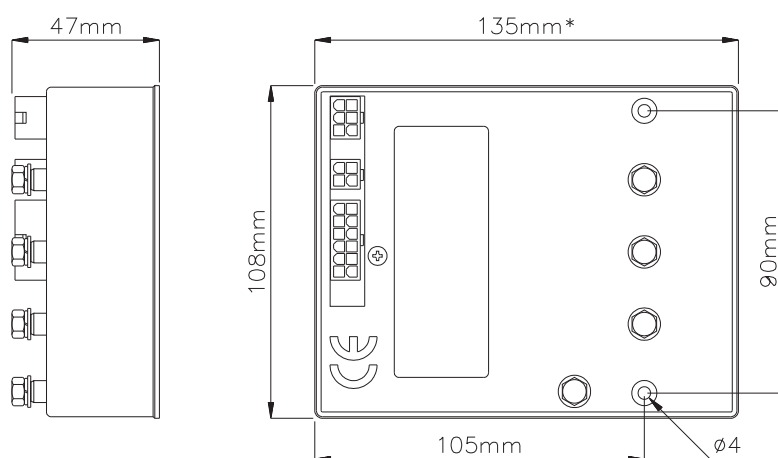
- Operating voltage 12V 24V 36V 48V
- Permissible supply voltage variation from 80% to 125%
- Operation frequency 17Khz
- Operation temperature range -20°C / +40°C
- Programmable NPN output (electromagnetic brake, reverse buzzer, fault lamp) MAX 1A
- Weight 60A 350gr. / 140A 500gr.

NEWS

MODELS

Model	Current boost for 3 sec.	Current supplied for 1 min.	Voltage
60 A	Model current + 15 %	55 A	12V - 24V - 36V
60 A	Model current + 15 %	55 A	48V
90 A	Model current + 15 %	81 A	12V - 24V - 36 V
90 A	Model current + 15 %	81 A	48 V
140 A	Model current + 15 %	121 A	12V - 24V - 36V
140 A	Model current + 15 %	121 A	48V

DIMENSIONS



* 112mm for the 60A model

TYPICAL WIRING DIAGRAM

