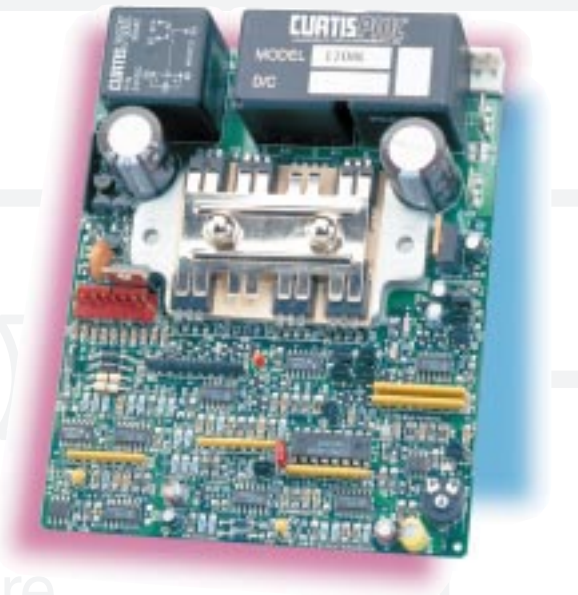
ELECTRONIC DC MOTOR SPEED CONTROLLER FOR PERMANENT MAGNET MOTORS

MODEL 1208C

CURTIS



DESCRIPTION

Model 1208C is functionally identical to model 1208A while offering performance improvements. Model 1208C is pin compatible with the original 1208A controller.

WARRANTY

Two Year Limited Warranty
(see terms of sale for specifics)

Application

Model 1208C electronic DC motor speed controllers are designed for permanent magnet motors used by mobility aids. They offer smooth, silent, cost-effective control of motor speed and torque. True regenerative and dynamic braking provide complete downhill and deceleration speed control. Direction is determined by position of the center-off speed control potentiometer.

Features

- Infinitely variable drive and brake control.
- Power MOSFET design provides high frequency (silent), high efficiency (reduces controller heating, motor and battery losses).
- Current limited to protect circuitry.
- Reduced reverse speed.
- Externally programmable (pot or switch with resistor) top speed.
- Improved anti rollback/roll forward circuitry sets brake delay according to speed and direction for improved braking response and minimized rollback on hills, etc.
- High pedal disable function monitors status of throttle during turn on and prevents operation until throttle has been returned to neutral.
- ISO pot fault circuit option shuts off controller if pot signal goes out of range for any reason, such as wire breakage or leakage paths to ground or B+.
- Current limited brake driver protects the controller from shorts in the brake or its wiring.
- Improved undervoltage cutback function protects against low battery voltage (including those caused by external loads).
- Reverse polarity protected (battery input).
- Neutral throttle (default braking) - brakes motor during hands off or power off.
- Simple installation with no adjustments required.
- Quick-connect power terminals.
- Plug-in connectors for control wiring - compatible with 1208.

Features continued

Generic Model 1208C-2422

- •• Directive 89/336 EEC Technical Constructional File approved by TÜV.
- •• Main relay weld check diagnostics shuts off the controller if the main relay is welded closed upon power up.
- •• LED driver to light a panel mounted LED for diagnostics. LED lights steadily if controller is OK and flashes if it detects a fault (welded main relay, HPD, brake circuit fault, etc.).
- •• Independent circuit forces neutral (shorts motor and engages brake) if motor voltage is not zero after the decel time.
- •• Includes ISO pot fault option.
- •• 90 amp current limit.

Meets U.S. and International Regulations

- The Curtis Model 1208C is in compliance with the following standards:

EN55011:1991 for EMI emissions

EN50082-1:1992 for EMC immunity.

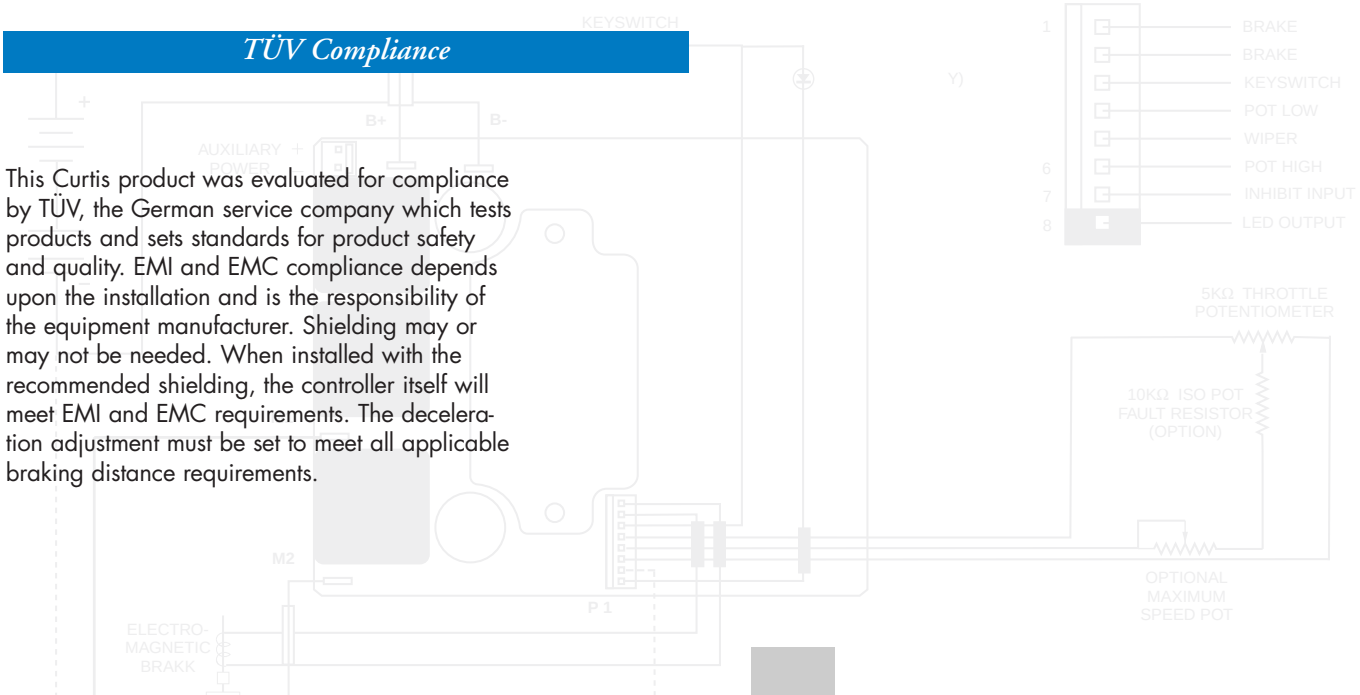
EN50082-2:1992 for EMC immunity.

Specifications

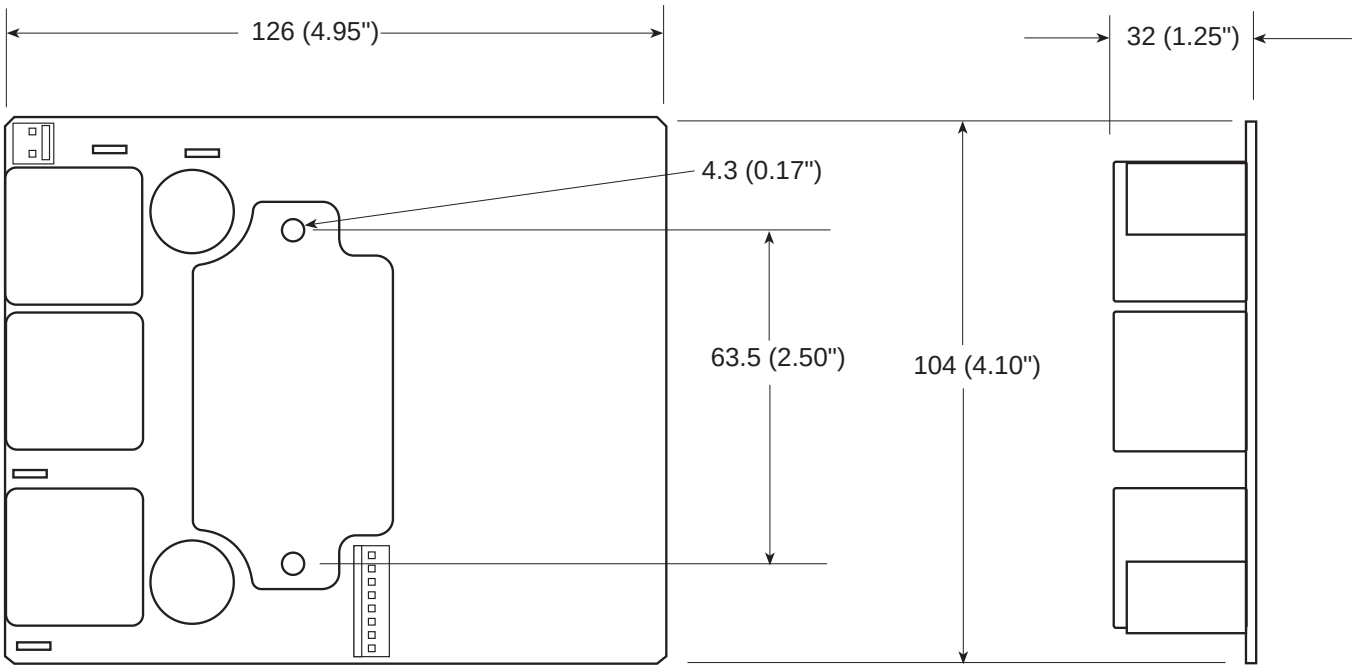
Model Number	Nominal Battery Voltage (volts)	Current Limit (30 Sec Rating) (amps)	Maximum Allowable Braking Current (amps)	Minimum Allowable Motor Res. (mΩ)	Typical Voltage Drop @ 20A (volts)	Under-Voltage CUTBACK (volts)
1208C-23XX	24	60	50	250	0.30	16.5
1208C-24XX	24	70	50	200	0.25	16.5

TÜV Compliance

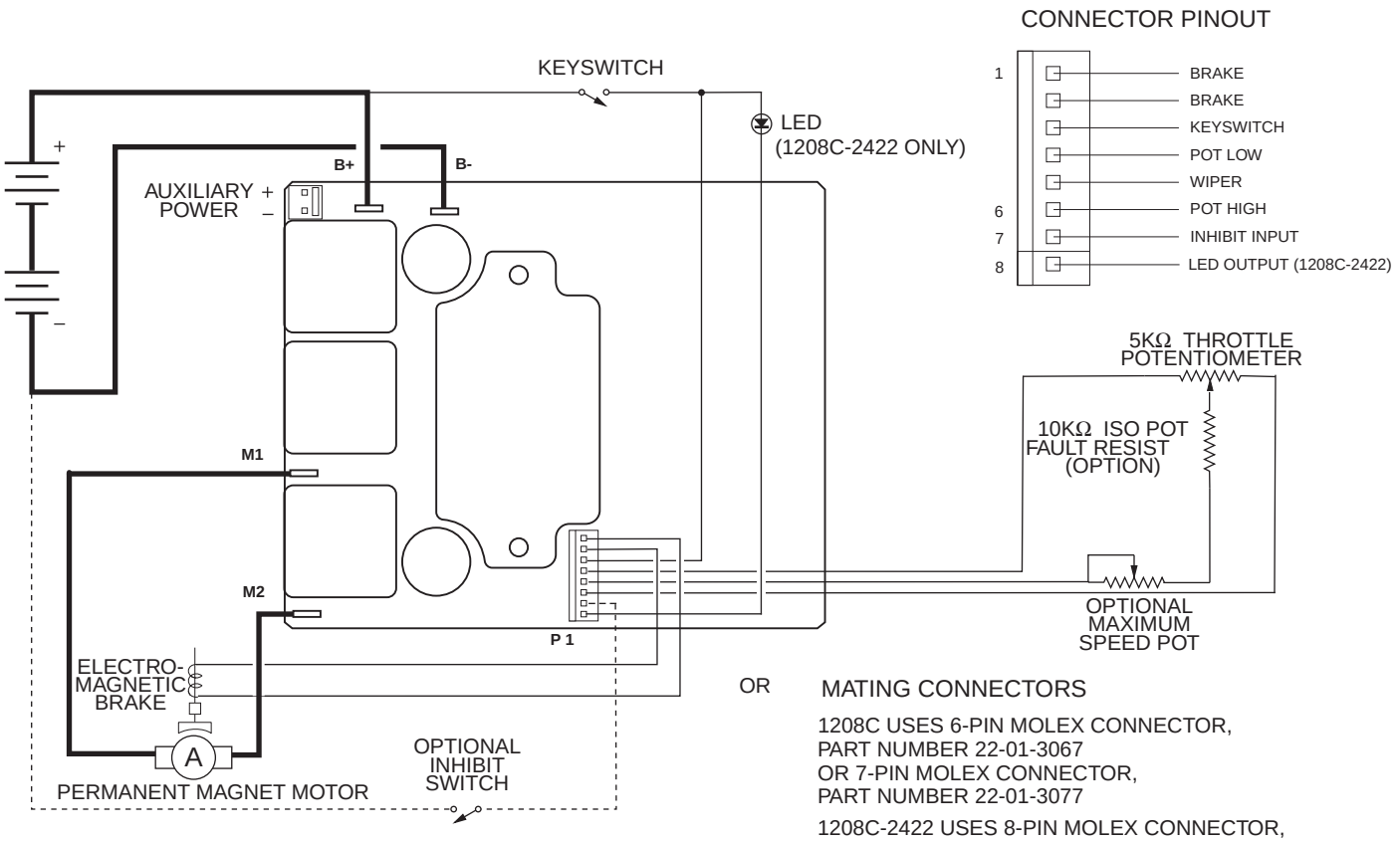
This Curtis product was evaluated for compliance by TÜV, the German service company which tests products and sets standards for product safety and quality. EMI and EMC compliance depends upon the installation and is the responsibility of the equipment manufacturer. Shielding may or may not be needed. When installed with the recommended shielding, the controller itself will meet EMI and EMC requirements. The deceleration adjustment must be set to meet all applicable braking distance requirements.



Dimensions: mm (inches)



Basic Wiring Diagram



OR

MATING CONNECTORS

1208C USES 6-PIN MOLEX CONNECTOR,
PART NUMBER 22-01-3067
OR 7-PIN MOLEX CONNECTOR,
PART NUMBER 22-01-3077

1208C-2422 USES 8-PIN MOLEX CONNECTOR,
PART NUMBER 22-01-3087

FEMALE MOLEX PIN PART NUMBER 08-50-0114