



CS1108J-8 Series

24 Volt PWM Motor Controller

Features/Benefits

- Four quadrant, full H-bridge design
- Fully Programmable
- Over Temperature Protection
- LED diagnostic codes
- Power on Demand
- Throttle Fault detection
- Low/High Voltage Shutdown
- On-board integrated charging control
- Anti-Rollback
- Designed and fully manufactured in the USA
- Compliance with US and European regulations



Description

Over twelve years of product evolution and extensive design time have made the CS1108J-8 series one of the most versatile and advanced motor controllers of its kind. With almost 100 programmable profile parameters (via a handheld programmer), the CS1108J-8 series can be programmed to operate smoothly, reliably, and efficiently in a wide range of applications. Its flexible architecture is designed to allow a custom fit for special applications. The CS1108J-8 series offers the highest in current carrying capability of any motor controller its size in the industry today, up to 150 Amps. The CS1108J-8 series also uses industry standard connectors, allowing simple changeover of existing product lines and field replacements.

These controllers are designed for medium to heavy-duty permanent magnet motor applications. These controllers are ideal for use on three or four wheeled mobility

scooters as well as light industrial and commercial applications including sweepers, scrubbers, and utility carts.

About Us

We solve the world's toughest motion control challenges, providing custom solutions focusing on personal mobility and patient transportation products as well as many commercial applications. For over 20 years, Control Solutions LLC has developed a wide array of microprocessor-based control and battery charging solutions designed for flexible integration, feature-rich functionality, and robust performance.



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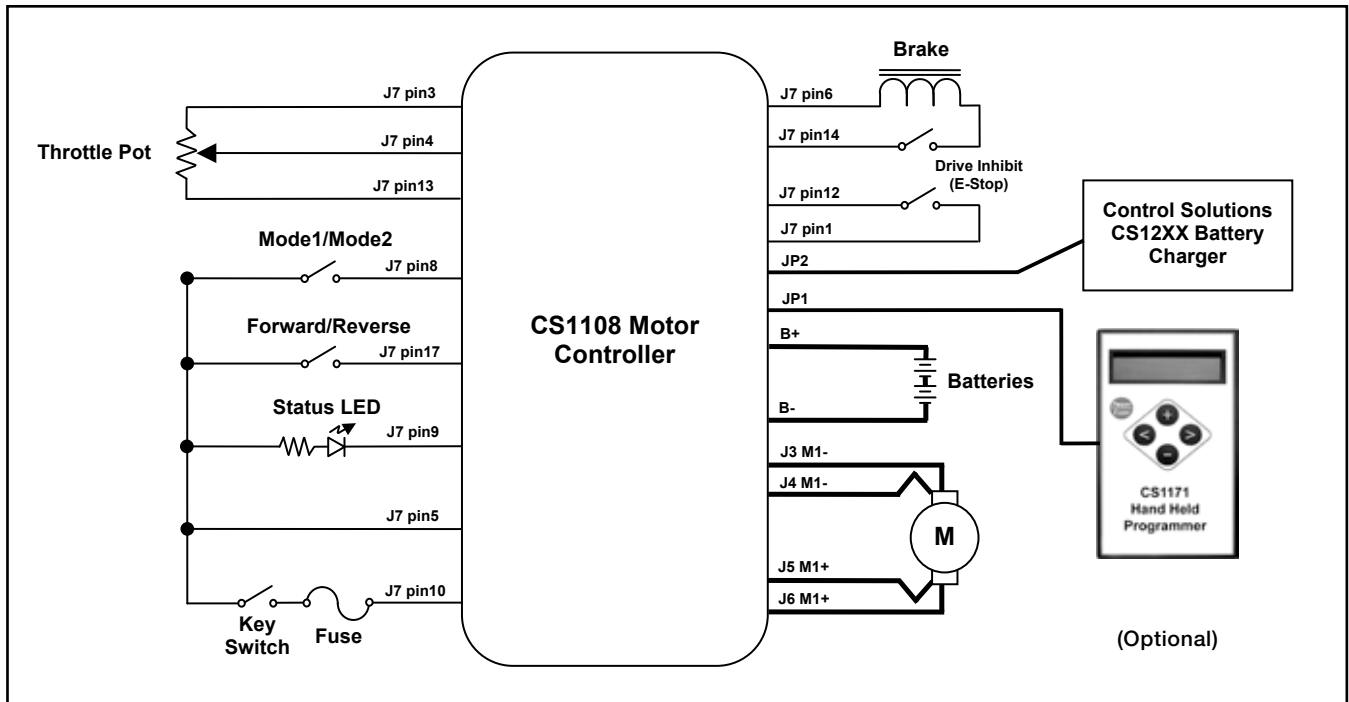
Motor Controller

Specifications

CS1108J-8 Series Specifications	Minimum	Nominal	Maximum
Input Voltage – 24Vdc	17	24	36
Peak Current Limit Amps*		45	
Continuous Current Limit Amps*		25	
Stand By Current @ 24V mAmps		30	
Operating Ambient Temperature °F (°C)	-40 (-40)	77 (25)	113 (45)
Extended Ambient Temperature °F (°C) (available on request)	-40 (-40)	77 (25)	140 (60)
Enclosure Flammability Rating: ULV94V-0		-	
Physical Size, Inches (mm)		3.3 x 5.8 x 1.8 (84 x 147 x 46)	
Weight, lbs. (kg)		.82 (.37)	

* Current limit parameters are programmable.

CS1108J-8 Series Typical Wiring Diagram



Specifications subject to change without notice.

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Manufacturing Testing

Over 40 parameters and tests performed on every CS1108J-8 produced at the factory before shipment

- Microprocessor functions
- Power circuit
- All input and output functions
- Motor drive functions and limits
- Current limits
- Safety circuits
- Throttle functions
- Programming interface
- Calibration



Design Validation Testing

The CS1108 product has been thoroughly design validated tested. Each hardware or firmware change performed also are regression tested. The following are the highlights of the testing performed:

- Over 170 tests parameters tested through the hardware validation
- Over 200 software tests performed for software validation
- All testing performed over temperature range of -40C ,25C , 45C
- Perform each of the following tests with all accessories (drive motor, charger) connected, unless otherwise specified.
- Battery/Power circuitry
- ASIC circuitry
- Motor power control circuitry
- Electromechanical brake drive circuitry:
- Head I/O interface
- Throttle control
- Motor power control
- Automatic battery charger
- Micro controller circuitry
- Drive circuitry and timing analysis



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