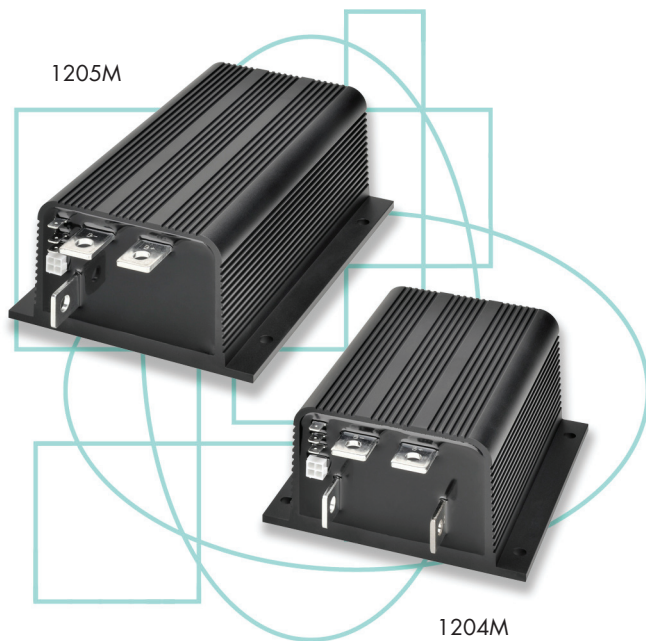


PROGRAMMABLE SERIES MOTOR CONTROLLERS



CURTIS

MODEL 1204M/1205M



FEATURES

Smooth, Silent Control

- Pulse Width Modulation control with programmable speed, acceleration rate and current limit.
- 15kHz PWM frequency for near-silent operation.

Programmable and Flexible

- Easily programmed via Curtis hand-held tools or Curtis PC programming software.
- External Status LED output for easy system troubleshooting via flash codes.
- Fully programmable analog throttle input for precise speed control with a variety of signal sources.
- Programmable undervoltage cutback caters for different battery types.
- Boost function to help clear obstacles, climb ramps, etc.
- Programmable, variable or fixed plug braking modes.
- Plug braking diode internal to controller.
- Models available without A2 busbar for applications such as pump control that do not require plug braking.

Robust Safety and Reliability

- Redundant hardware watchdog timers.
- Motor and MOSFET short-circuit protection functions.
- Failsafe throttle fault detection requires keyswitch to be cycled before drive can resume, protecting against intermittent faults.
- Programmable High Pedal Disable function prevents controller operation if throttle is applied before key is turned on.
- Contactor fault detection: controller shuts down safely if the main contactor opens.
- Contactor protection functions minimize high current arcing to prevent contact pitting and thus prevent contactor weld failures.
- Rugged anodized aluminum extrusion housing meets IP65 environmental sealing standard for use in harsh environments.
- Thermal cutback above 80°C and automatic shutdown at 120°C provide protection to motor and controller.
- PWM frequency shifts from 15kHz to 1kHz if the controller temperature exceeds 105°C, providing audible warning of thermal shutdown.
- Undervoltage cutback and shutdown functions protect against low battery voltage, including low voltage caused by external loads.

DESCRIPTION

Curtis Models 1204M and 1205M provide fully programmable control of DC series motors performing on-vehicle traction or pump duties. These microprocessor based MOSFET controllers add flexibility and versatility to the time-proven Curtis PMC series motor controller family.

APPLICATION

Primarily designed for battery-powered vehicle applications using either electric or hydrostatic traction. These include industrial trucks, personnel carriers, mobile elevating work platforms and golf and utility vehicles.

MODEL 1204M/1205M

Meets or complies with relevant US and International Regulations

EMC: Designed to the requirements of EN12895

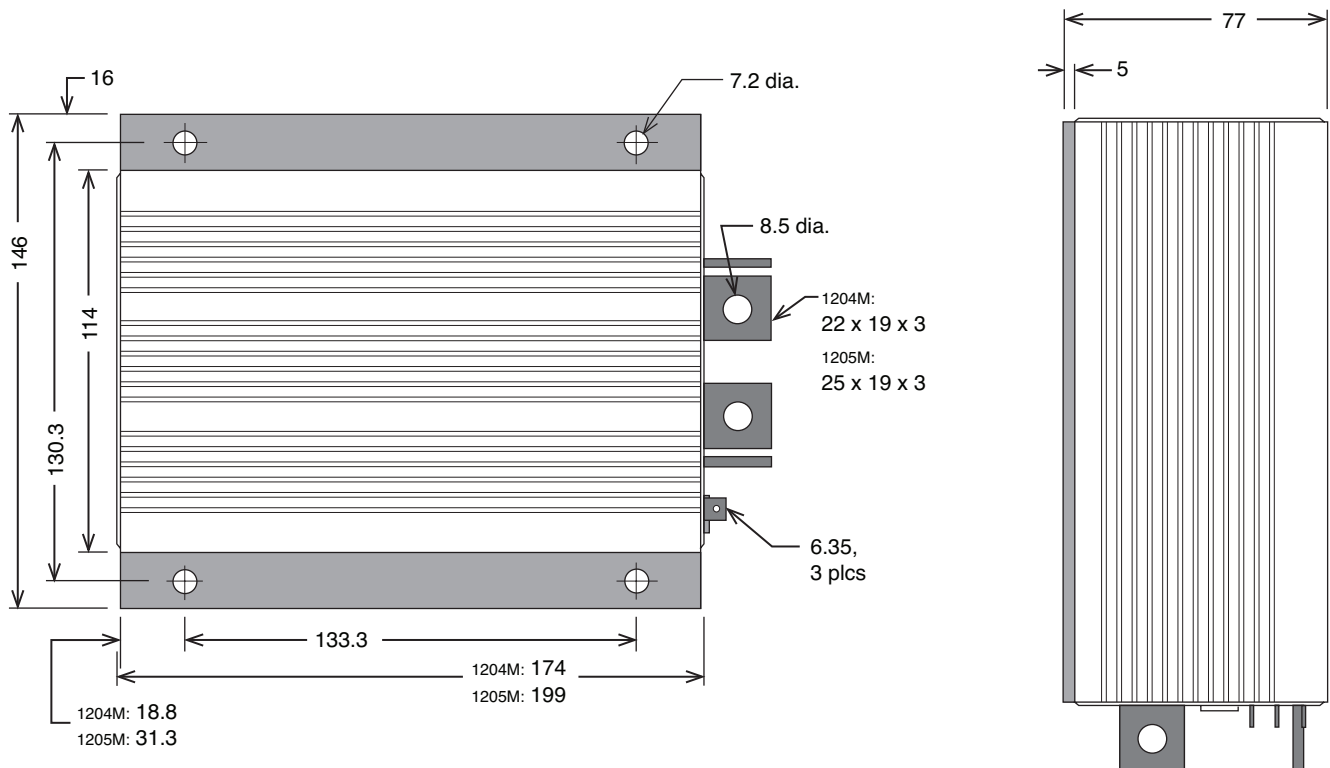
IP65

Regulatory compliance of the complete vehicle system with the controller installed is the responsibility of the vehicle OEM.

MODEL CHART

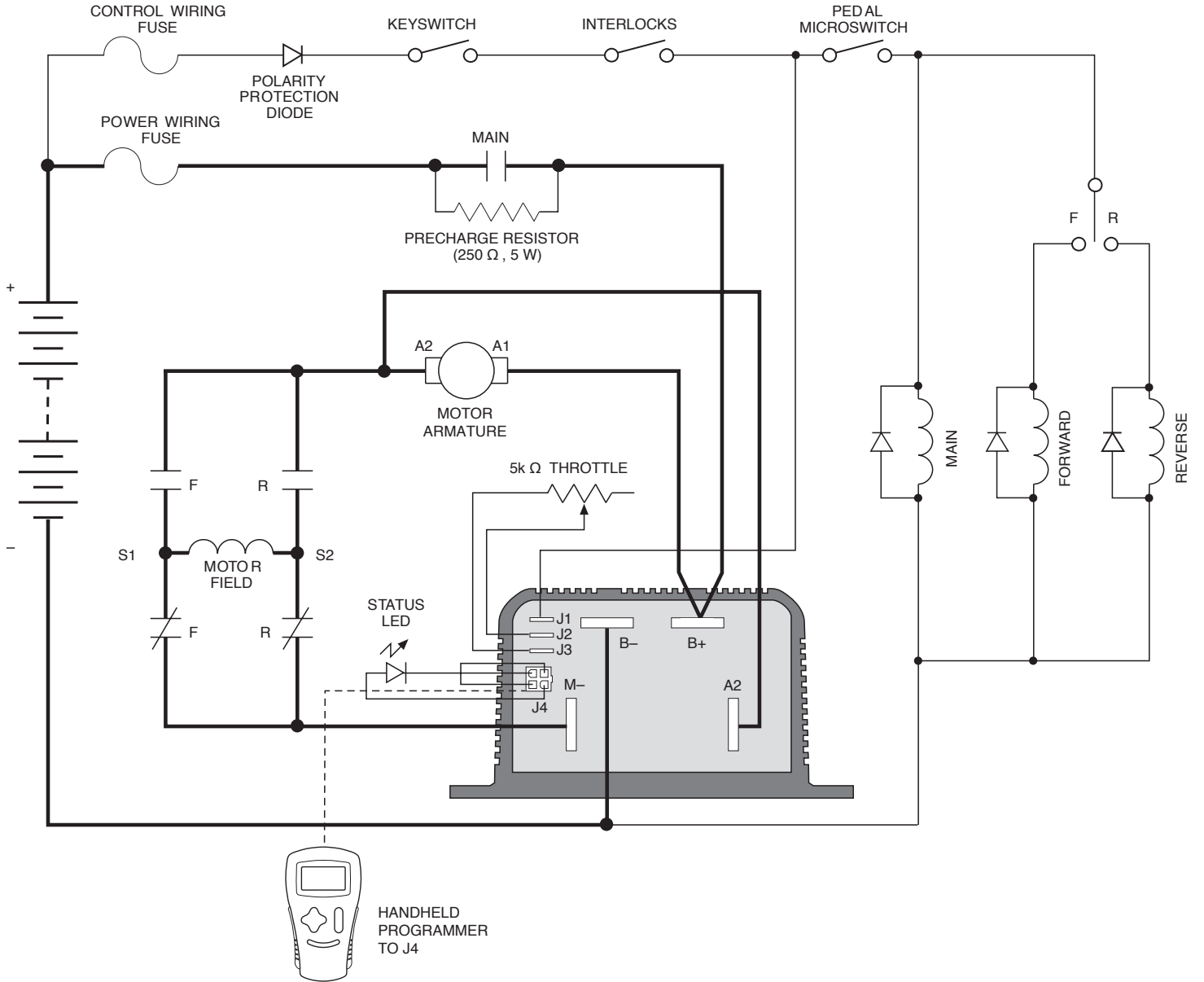
Model	Nominal Battery Voltage (VDC)	Current Limit (A)	5 Seconds Boost Current (A)	1 Hour Rating (A)	Plug Braking
1204M-5201	36/48	275/2min (125-275)	350	125	Y
1204M-5202	36/48	275/2min (125-275)	350	125	N
1204M-5301	36/48	325/2min (175-325)	375	140	Y
1205M-5601	36/48	500/1min (250-500)	600	175	Y
1205M-5602	36/48	500/1min (250-500)	600	175	N
1205M-6B401	60/72	400/1min (150-400)	500	150	Y
1205M-6B402	60/72	400/1min (150-400)	500	150	N

DIMENSIONS mm



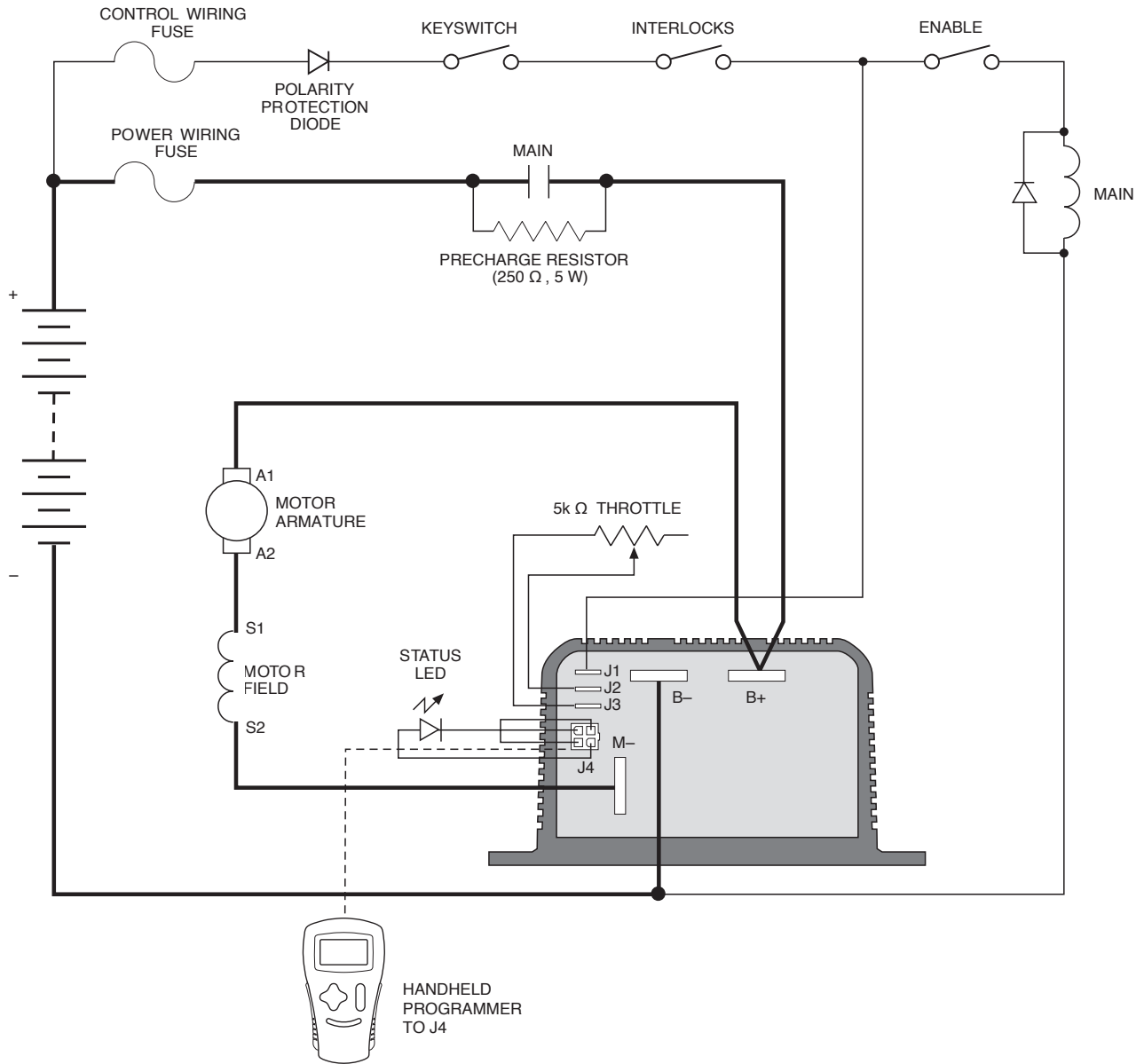
MODEL 1204M/1205M

TYPICAL WIRING - TRACTION



MODEL 1204M/1205M

TYPICAL WIRING - PUMP



WARRANTY Two year limited warranty from time of delivery.



1960 • 2010



is a trademark of Curtis Instruments, Inc.

Specifications subject to change without notice

©2010 Curtis Instruments, Inc.

50180 REV B 3/10