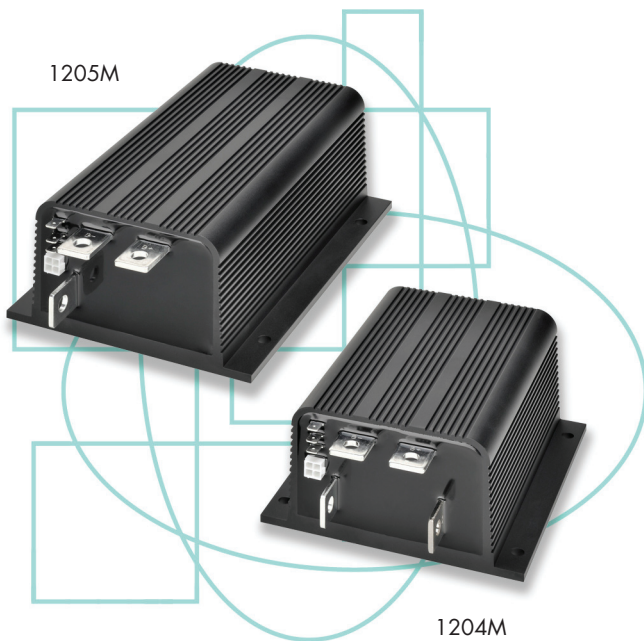


# PROGRAMMABLE SERIES MOTOR CONTROLLERS



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

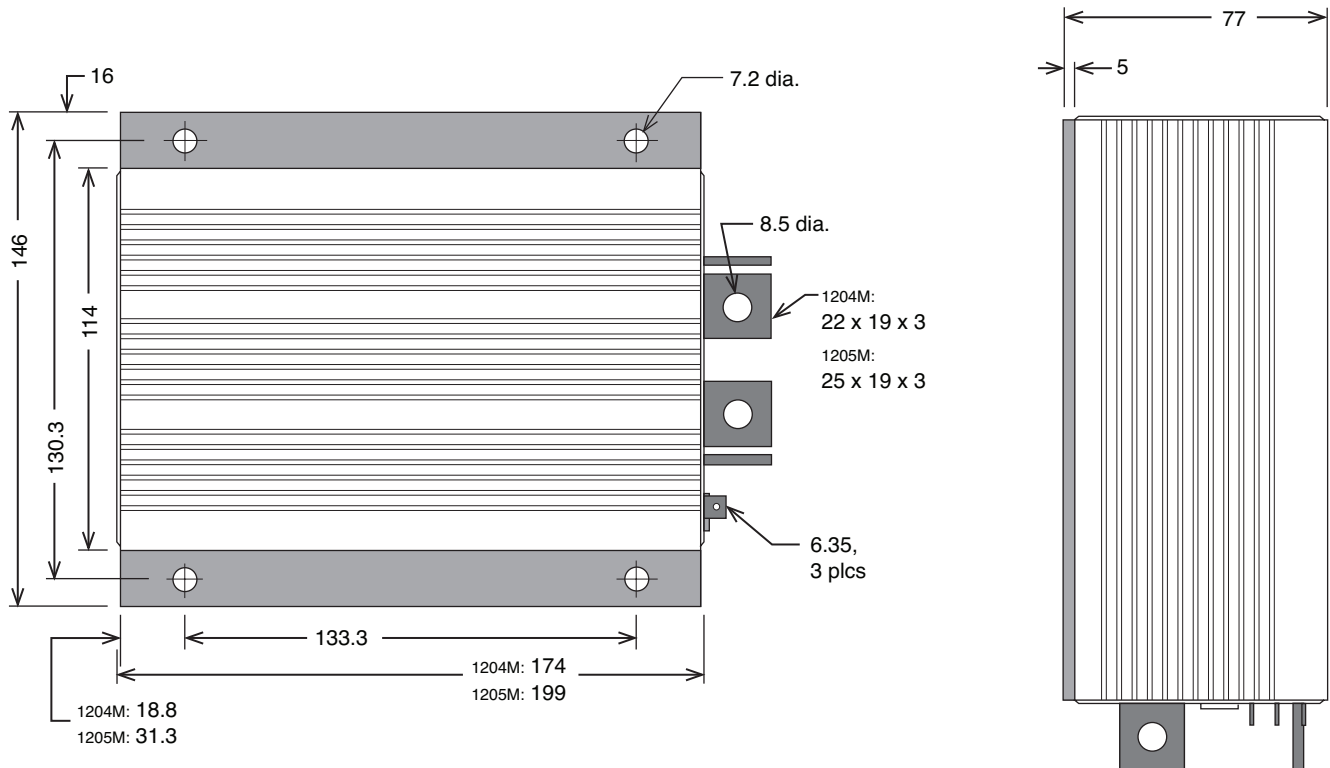
IP65

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

## MODEL CHART

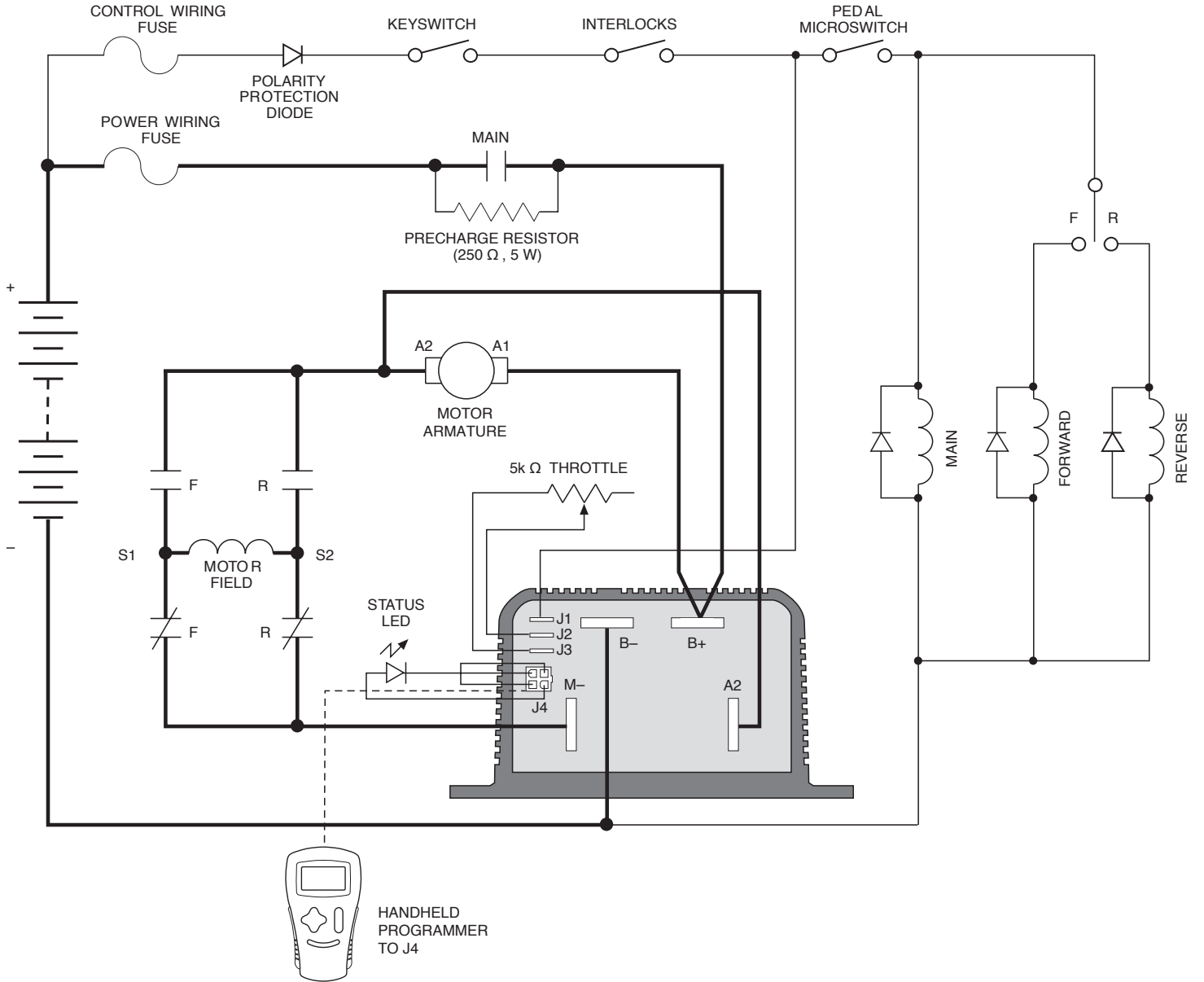
Model	Nominal Battery Voltage (VDC)	Current Limit (A)	5 Seconds Boost Current (A)	1 Hour Rating (A)	Plug Braking
1204M-5201	36/48	275/2min (125-275)	350	125	Y
1204M-5202	36/48	275/2min (125-275)	350	125	N
1204M-5301	36/48	325/2min (175-325)	375	140	Y
1205M-5601	36/48	500/1min (250-500)	600	175	Y
1205M-5602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



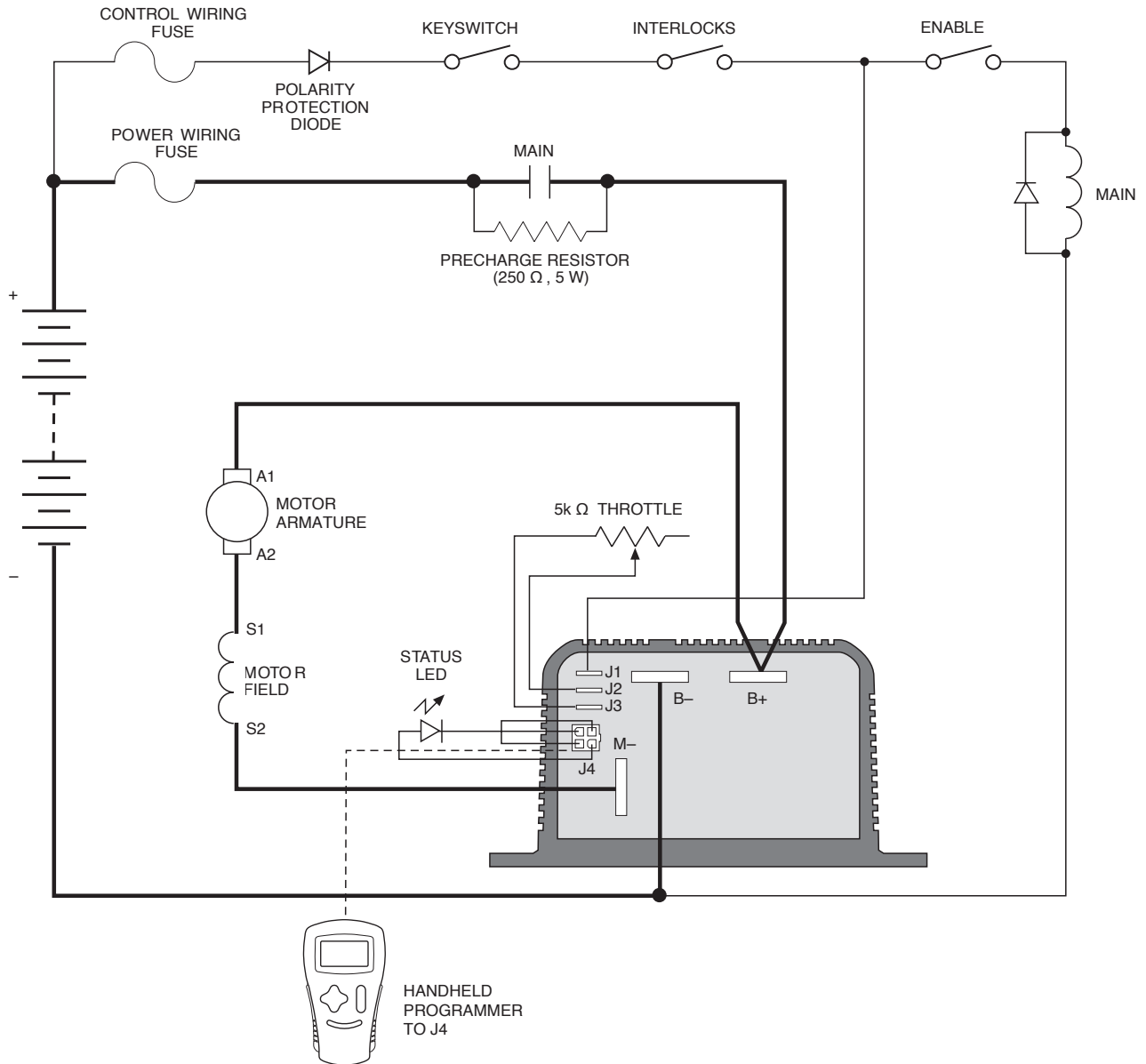
# MODEL 1204M/1205M

## TYPICAL WIRING - TRACTION



# MODEL 1204M/1205M

## TYPICAL WIRING - PUMP



**WARRANTY** Two year limited warranty from time of delivery.



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