

# SEPARATELY EXCITED ELECTRONIC MOTOR SPEED CONTROLLER



CURTIS

## MODEL 1244 SepEx<sup>®</sup>



### DESCRIPTION

Curtis PMC Model 1244 SepEx<sup>™</sup> programmable controllers provide smooth and seamless control of separately excited motors. An advanced MOSFET power section provides very high efficiency, silent operation and reduced motor and battery losses.

### APPLICATION

Curtis PMC SepEx<sup>®</sup> controllers are designed for small material handling and other light industrial vehicles using separately excited motors. These include, low lifts, stackers, personnel carriers and other industrial vehicles.

### QUALITY COMPLIANCE

Manufactured under ISO 9001 certified Quality Management System. UL Recognized Component Status.

### FEATURES

- Full bridge control of the motor field allows reversing without the use of direction contactors.
- Fully compatible with the Model 1307 Programmer for programming, diagnostic and test information.
- Armature current controlled at all times, reducing arcing and brush wear.
- Regenerative braking increases usable battery energy and reduces motor heating.
- Neutral braking provides automatic braking in neutral - simulates the feel of compression braking. Braking level adjustable.
- MultiMode<sup>™</sup> allows four user selectable vehicle operating profiles.
- Programmable to match individual separately excited motor characteristics.
- Meets or exceeds EEC fault detect requirements with circuitry and software to detect faults in the throttle circuit, MOSFET drive circuits, and driver outputs.
- Vehicle speed is controlled and limited at top end via motor field control.
- Passive regen provides vehicle speed control at any throttle position when going down ramps.
- Linear temperature cutback on armature and field drive current limits. No sudden loss of power under any thermal conditions.
- Undervoltage cutback reduces motor current to maintain the battery voltage above the under-voltage point.
- PWM drivers for contactors are programmable for pull-in and holding currents to reduce power dissipation and allow the use of common contactors.
- HPD and SRO interlock options ensure proper startup sequence.
- Emergency reverse (belly button) input causes immediate reversal upon activation.
- Integral fault detect LED flashes error code information.
- Two fault outputs provide diagnostic information to dash mounted displays.
- Fully protected inputs and outputs.
- Hour meter enable output active only when vehicle is moving.

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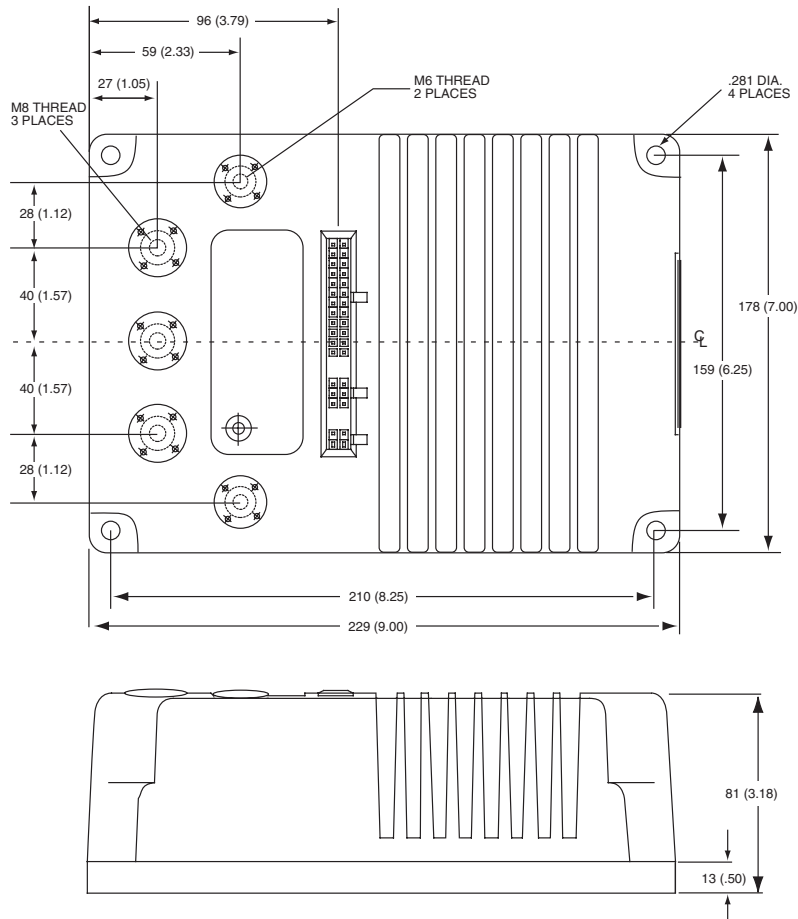
## FEATURES continued

- Active power on self test and continuous diagnostics during operation.
- Internal and external circuits ensure proper software operation.

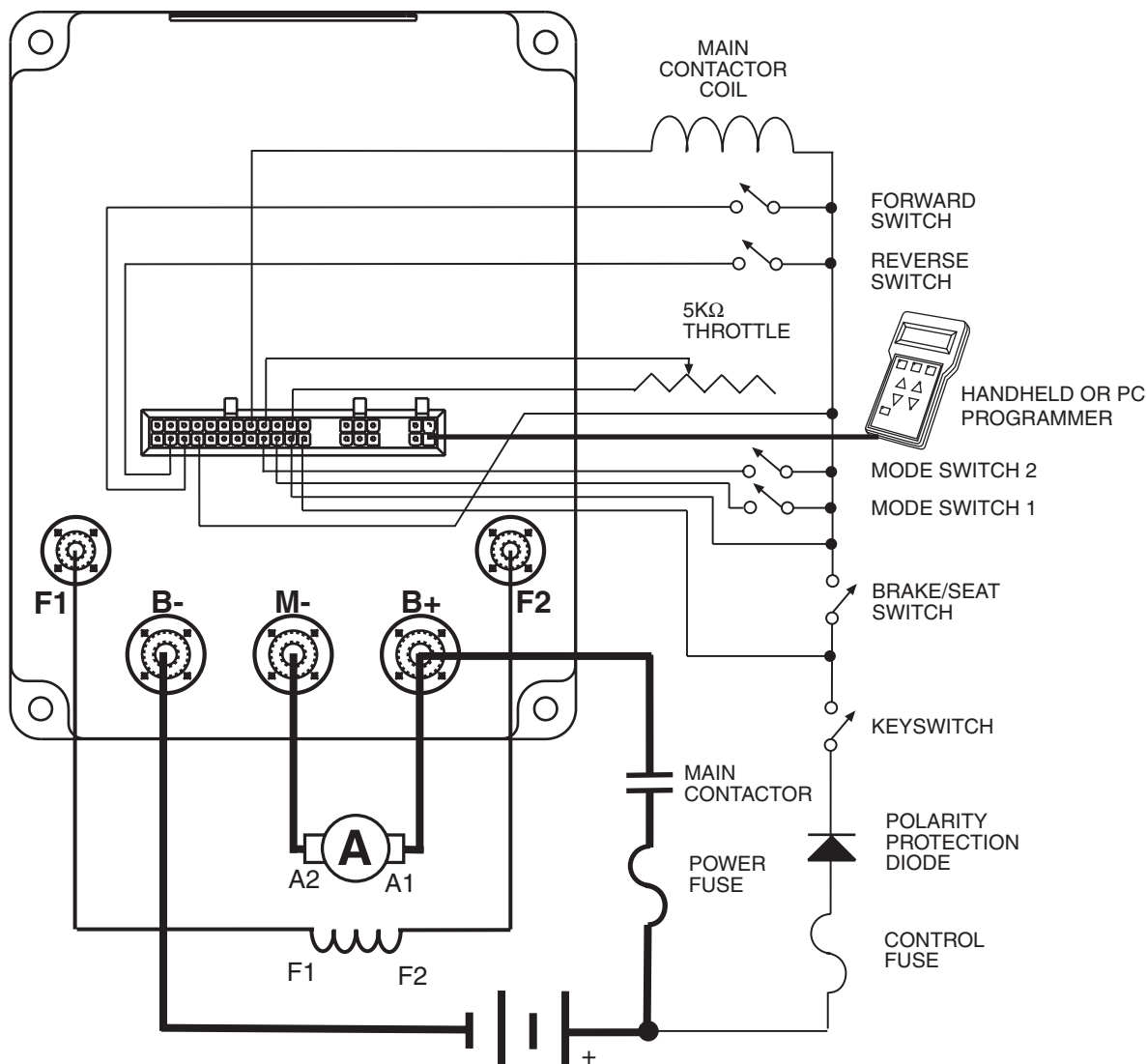
## MODEL CHART

CURTIS PMC MODEL	VOLTAGE (volts)	ARMATURE RATING (amps) 2 minutes	FIELD RATING (amps) 2 minutes
1244 -44XX	24-36	400	60
1244 -45XX	24-36	500	60
1244 -46XX	24-36	600	60
1244 -47XX	24-36	700	60
1244 -54XX	36-48	400	50
1244 -55XX	36-48	500	50
1244 -56XX	36-48	600	50
1244 -64XX	36-80	400	50
1244 -65XX	36-80	500	50
1244 -66XX	36-80	600	1 minute

## DIMENSIONS mm



## TYPICAL WIRING DIAGRAM



## OPTIONS

- Electro-magnetic brake control.
- Internal precharge circuit eliminates external resistor and excessive arcing on main. (Standard on 36-48 and 36-80 volt models)
- Auxiliary contactor driver for power steering pump.
- Reverse signal output for backup alarm, lights, etc...
- Closed-loop speed control utilizing a pulse speed sensor.
- CAN interface to allow control, programming and status access through standard communication port.

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



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Specifications subject to change without notice

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