

# SEPARATELY EXCITED ELECTRONIC MOTOR SPEED CONTROLLER

MODEL 1244 SepEx<sup>®</sup>



CURTIS



## DESCRIPTION

Curtis PMC Model 1244 SepEx<sup>®</sup> programmable controllers provide smooth and seamless regenerative 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.

## 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™ 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 pullin 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.

# MODEL 1244 SepEx<sup>®</sup>

## FEATURES *continued*

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

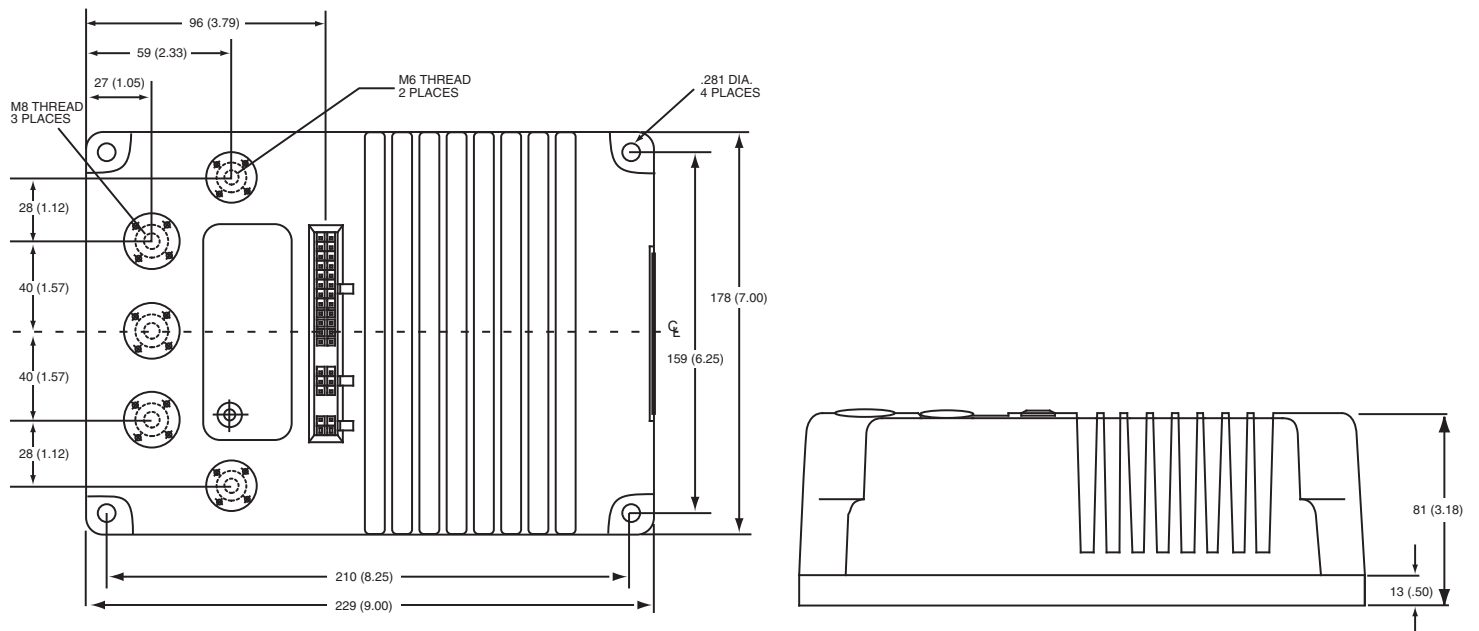
## Meets or complies with relevant US and International Regulations

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

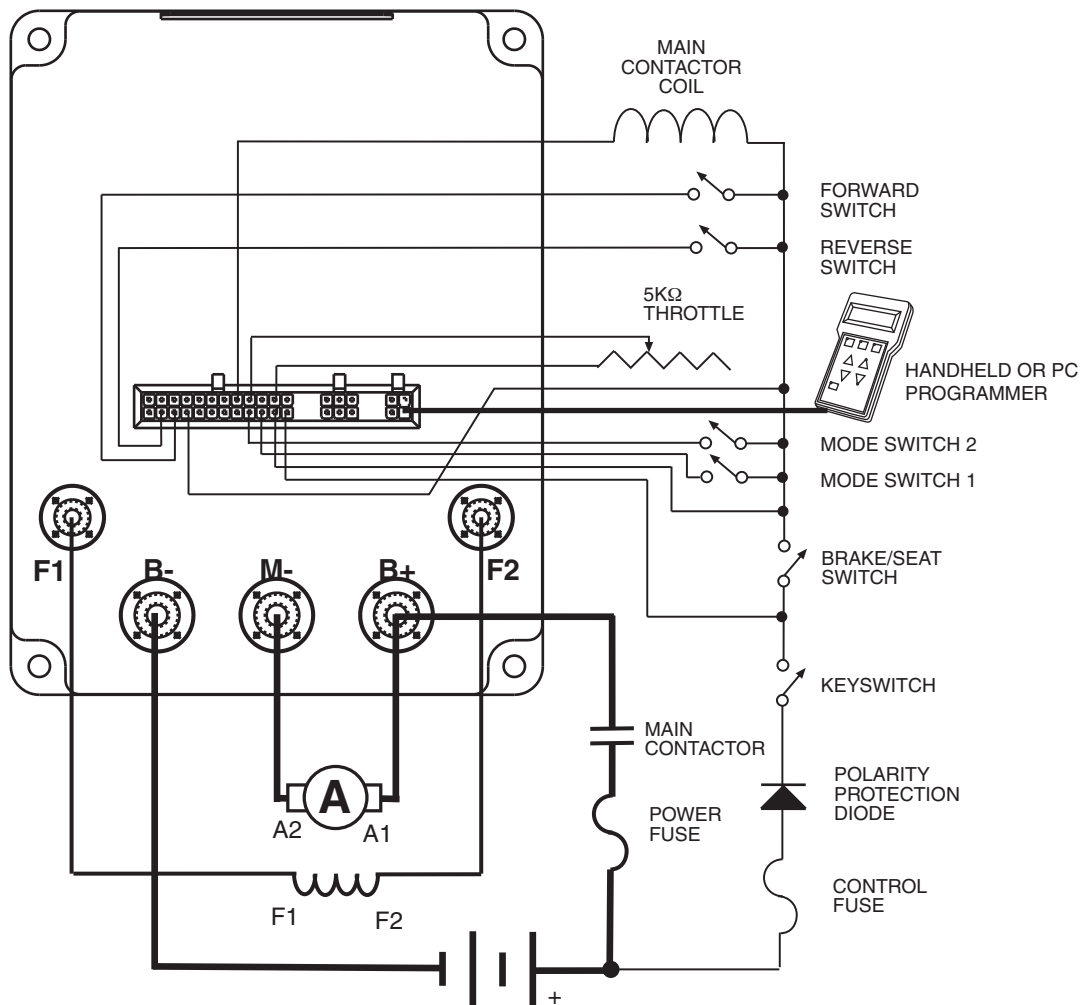
## MODEL CHART

CURTIS PMC MODEL	VOLTAGE (volts)	ARMATURE RATING (amps)		FIELD RATING (amps)
		2 minutes	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	50

## 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.