

CURTIS



**SEPARATELY EXCITED
ELECTRONIC MOTOR
SPEED CONTROLLER**

MODEL 1244 SepEx™

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DESCRIPTION

Curtis PMC Model 1244 SepEx™ 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.

WARRANTY

One year from date of delivery.

Application

Curtis PMC SepEx™ controllers are designed for material handling and other industrial vehicles using separately excited motors. These include low lifts, stackers, fork lifts, reach trucks, 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 undervoltage 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.
- Active power on self test and continuous diagnostics during operation.
- Internal and external watchdog circuits ensure proper software operation.



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.

Specifications

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

Typical Wiring Diagram



