



CURTIS

Motor Controllers



Separately Excited Electronic Motor Speed Controller

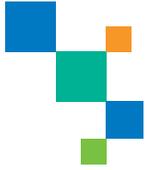
Model 1243 SepEx[®]



CE 



Model 1243 SepEx[®]



Separately Excited Electronic Motor Speed Controller

Curtis PMC Model 1243 SepEx[®] programmable controllers provide smooth and seamless regenerative control of separately excited motors. An advanced MOSFET power section, combined with a sophisticated microprocessor provides very high efficiency, silent operation and reduced motor and battery losses.

Curtis PMC Model 1243 SepEx[®] 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

Unparalleled Driving and Braking Feel

- ▶ Regenerative braking allows shorter stopping distances, increases usable battery energy, and reduces motor heating. The half bridge armature drive topology allows regenerative braking down to zero vehicle speed.
- ▶ "Ramp Restraint" feature provides automatic electronic braking that restricts vehicle movement while in neutral.
- ▶ Vehicle speed is controlled by the throttle, at all times including down hills.
- ▶ "Load Compensation" provides improved loaded versus unloaded speed regulation by compensating for losses in the armature.

Fully Programmable

- ▶ Fully compatible with the Curtis Models 1311 and 1314 programmers for programming, test, and diagnostic information.
- ▶ MultiMode™ feature allows four user selectable vehicle operating profiles. Each profile has separate drive current limits, brake current limits, acceleration rates, brake rates and maximum speeds.

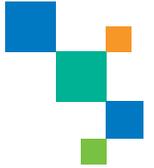
Easy to Install and Maintain

- ▶ No direction contactors are required. The full bridge field driver topology allows motor reversing without the use of direction contactors.
- ▶ Simple wiring and installation by the elimination of the direction contactors and the use of positive battery connections for all inputs and driver outputs.

See a 360° view of Model 1243 SepEx[®] at:
curtisinstruments.com/360view



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FEATURES continued

- ▶ Can be configured to match most separately excited motors and vehicle applications.
- ▶ An auxiliary driver output supports an electro-magnetic brake, pump contactor, or hour meter. A programmable delay allows for customization of this driver output.
- ▶ An integral fault LED flashes helpful error code information. Two fault outputs provide diagnostic information for dash mounted displays. Diagnostic faults are logged and the history is viewable through a Curtis Model 1311 and 1314 programmer.
- ▶ Programmable HPD and SRO interlock options ensure proper startup sequence.
- ▶ Complies with the CE standards for electromagnetic compatibility in emissions and susceptibility.
- ▶ Active power on self test and continuous diagnostics during operation. Internal and external watchdog circuits ensure proper software operation.
- ▶ All inputs and outputs are fully protected.

Powerful Safety Features

- ▶ Meets or exceeds EEC fault detection requirements. Circuitry and software to detect faults in the throttle circuit and MOSFET drive circuits help prevent unsafe operation.
- ▶ Emergency reverse feature causes quick vehicle reversal upon activation. The emergency reverse input wire can also be checked for continuity.

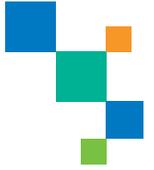
Meets or complies with relevant US and International Regulations

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



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MODEL CHART

Curtis PMC Model	Voltage (volts)	Armature Rating* (amps)		Field Rating (amps)	
		2 min	1 hr	2 min	1 hr
1243-24XX	24	350	100	35	15
1243-42XX	24-36	200	80	25	15
1243-43XX	24-36	300	100	35	15

* Armature rating is for both drive and regen current

Please consult Curtis PMC for availability of other models with different ratings.

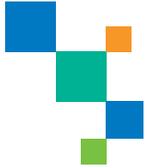
OPTIONS

Curtis Model 840 "Spyglass" LCD Multifunction Display contains 8 large, readable characters to provide display of battery discharge (BDI), hour meter and error messages. Backlit display is also available.

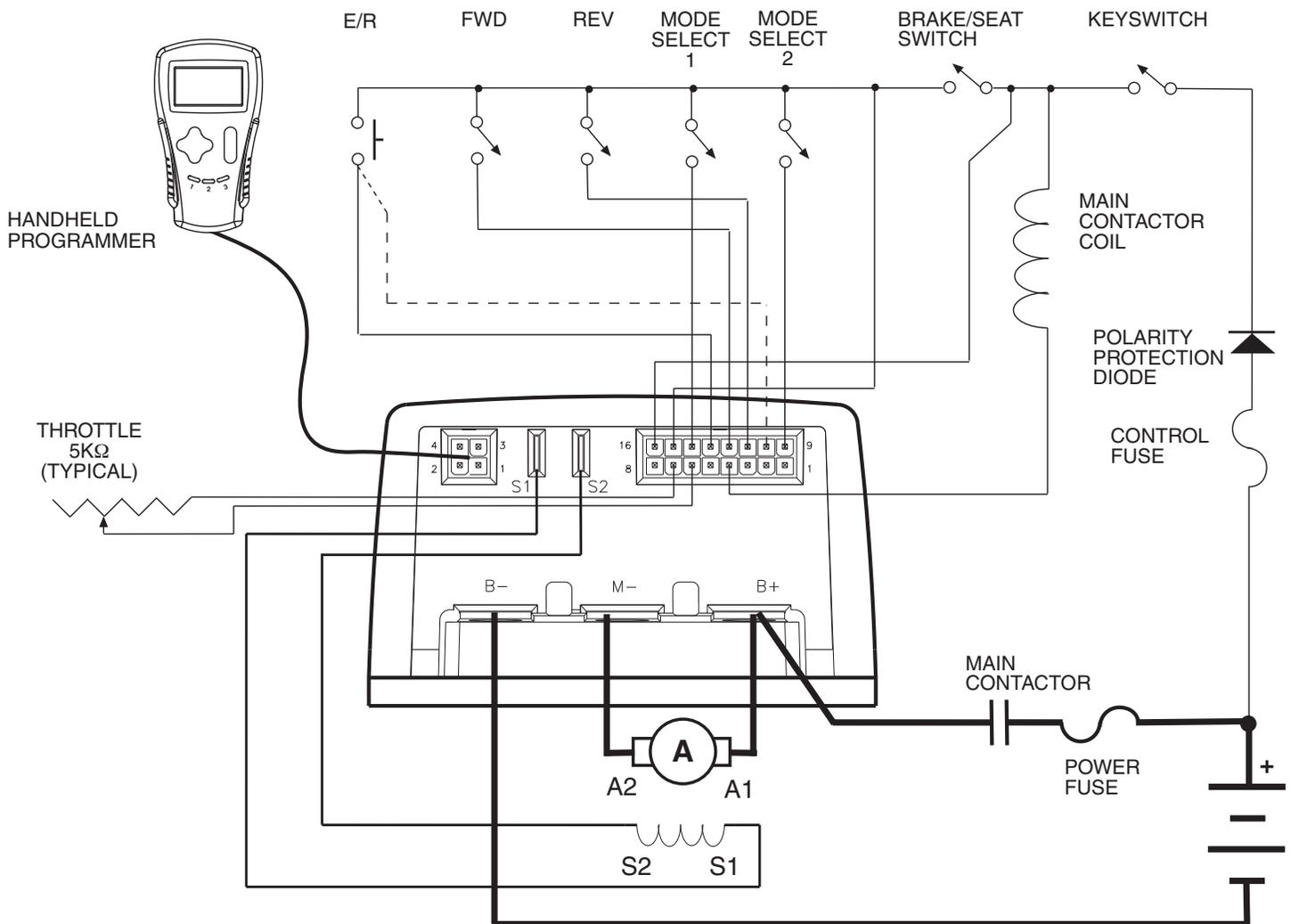


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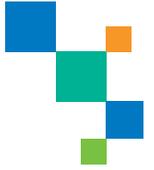


TYPICAL WIRING DIAGRAM

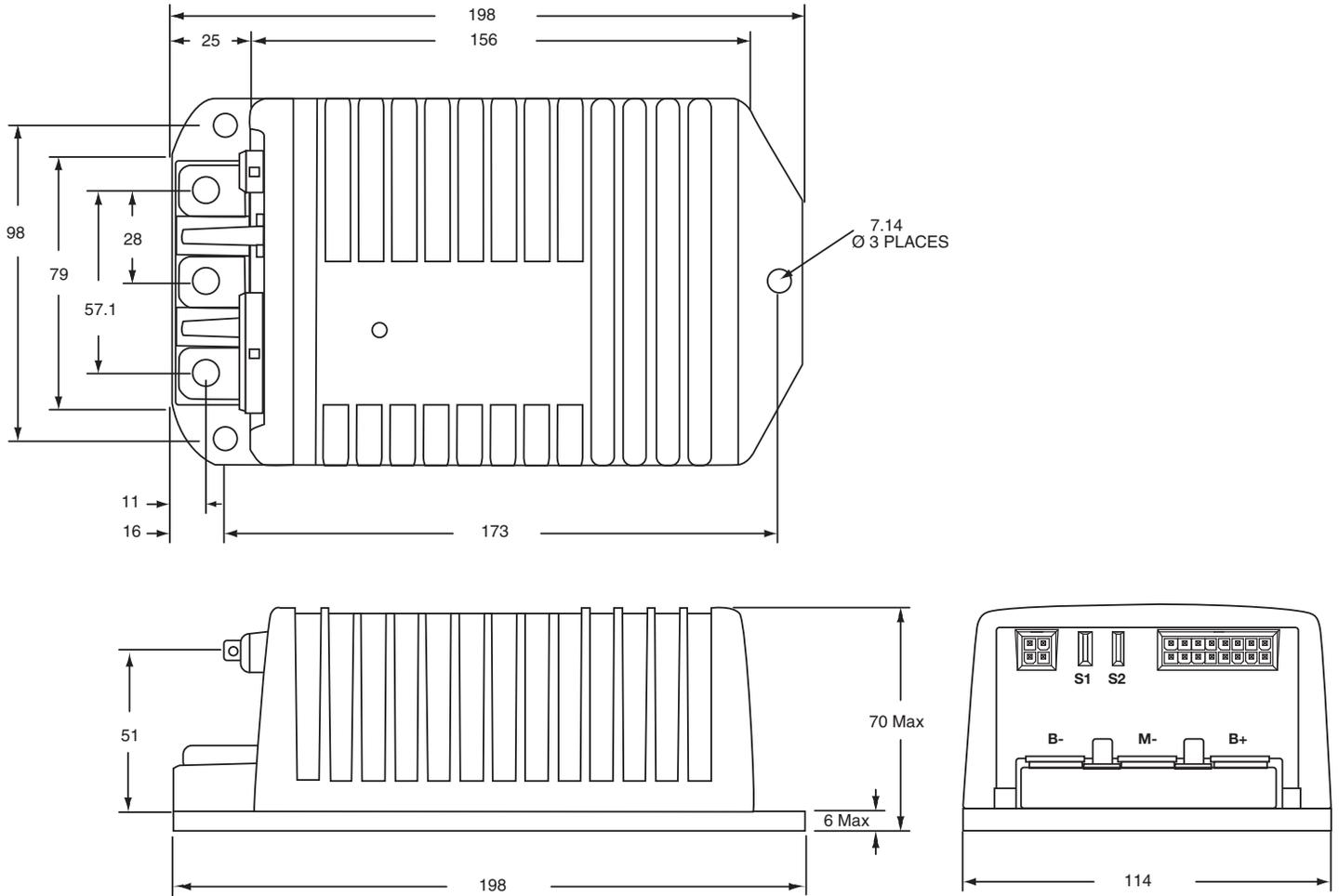


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DIMENSIONS mm



WARRANTY Two year limited warranty from time of delivery.

The Curtis Difference 
You feel it when you drive it