

## SOLID STATE CONTACTOR MODULE

### MODEL 1355



CURTIS



### DESCRIPTION

The Curtis Model 1355 is a compact and affordable solid-state alternative to electro-mechanical contactor panels. It offers fully programmable soft-start and current-limiting control of up to 5 brushed DC permanent magnet or series wound motors, via CANbus commands or direct digital inputs.

### APPLICATION

Typical applications include Sweeper-Scrubber floor care machines, or any other 24–36VDC application requiring control of multiple loads up to 100A each.

### FEATURES

- Microprocessor based design substantially reduces installation labor and physical space requirements.
- Five drivers, M1– M5, for motor loads, rated for 100A peak current.
- M1– M5 motor drivers offer soft start and current limiting capability.
- Optional three, 10A full bridge actuator drivers, controlled via CANopen control commands.
- One 3A driver output, for a main (line) contactor.
- Optional six digital inputs allow stand-alone control of five motor loads.
- H-bridge mode allows bidirectional operation of a single motor load.
- Ability to connect outputs in parallel to drive a single larger motor load.
- Ability to connect multiple 1355s throughout a vehicle control system.
- Accurate motor, actuator current measurements and full diagnostics reported via CANbus.
- CANopen interface allows interconnection to a wide range of products, including the Curtis line of AC motor speed controllers and Curtis vehicle system controllers.
- Heavy duty threaded M6 bus bars for battery and M5 for motor connectors eliminate reliability issues often found with push-on power connectors.
- All logic connections via reliable, IP65 sealed 14-pin AmpSeal connector.
- Robust IP65 sealed enclosure provides excellent chemical resistance and protection from harsh environments.
- Designed to withstand high levels of bump, shock and vibration.
- Programmable 24 or 36VDC nominal supply.
- Externally viewable power/status LEDs.
- Serial communication port for Curtis 1314/1313 programming tools.

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## SPECIFICATIONS

### Meets or complies with relevant US and International Regulations:

EMC: Designed to the requirements of EN12895.

Safety: Designed to the requirements of:

EN1175-1:1998+A1:2010

EN (ISO) 13849-1

IP65 Rated per IEC 60529.

UL583 recognition pending.

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

## MODEL CHART

Model Number	Voltage (V)	Motor Outputs M1 – M5		Actuator Outputs	Digital Inputs
		Peak Current, 10 Sec. (A)	S2-60 Min (A)		
1355-4001	24–36	5 x 100	5 x 40	3X 10A Peak 5A Cont.	N/A
1355-4101	24–36	5 x 100	5 x 40	N/A	6

## FUNCTIONAL SAFETY DATA

Model	Safety Function	PL	Designated Architecture	MTTFd (Years)	DC%
Model 1355-X00Y (With Actuator Output)	Uncommanded Powered Movement	b	2	>20	>75
	Motor Braking Torque	b	2	17	>73
Model 1355-X10Y (Without Actuator Output)	Uncommanded Powered Movement	c	2	>27	>69
	Motor Braking Torque	b	2	>21	>68

## SYSTEM ACCESSORIES



The Curtis Model 1232E provides advanced control of AC induction motors performing on-vehicle traction drive or hydraulic pump duties and offers the highest levels of functional safety.



The Curtis Model 1229 is a sealed, heavy-duty permanent magnet motor speed controller intended for demanding traction applications in hostile environments.

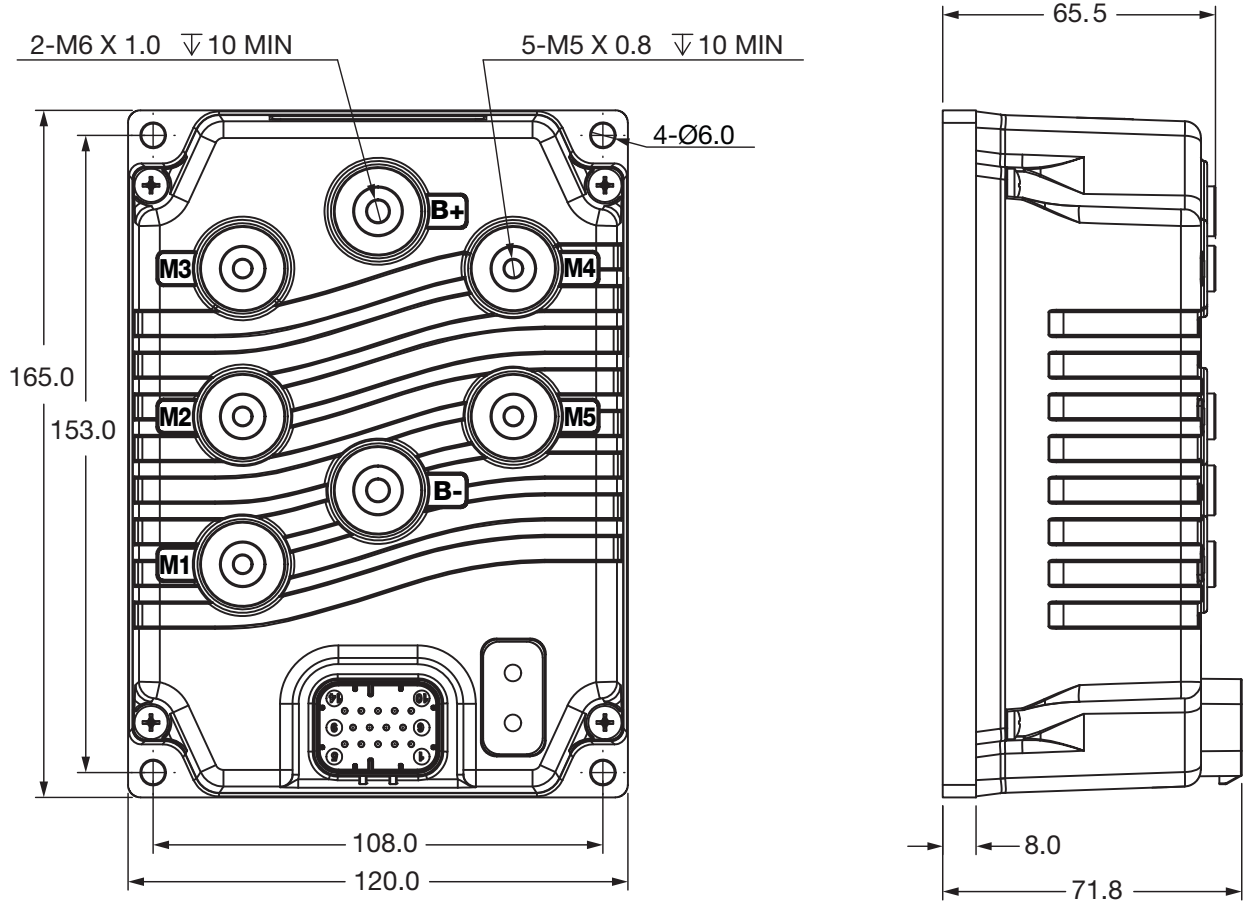


The Curtis Model 1313 Handheld Programmer is ideal for setting parameters and performing diagnostic functions.

**Contact Curtis to obtain the VCL Vehicle Control Language compiler and development tools.**

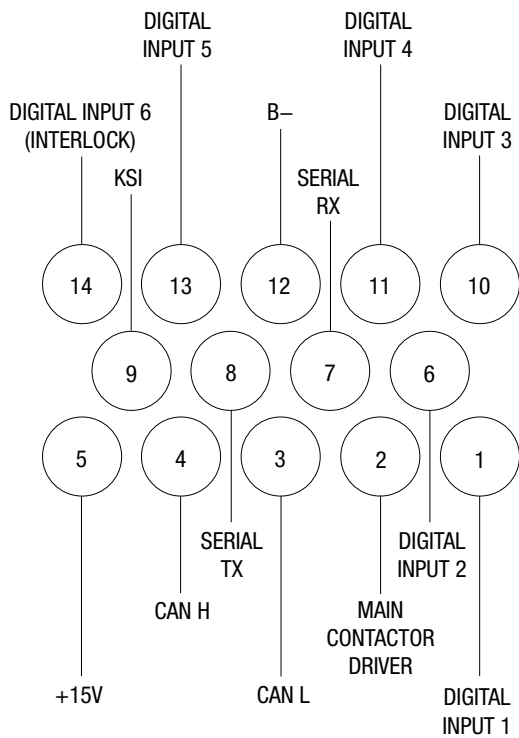
# MODEL 1355

## DIMENSIONS mm

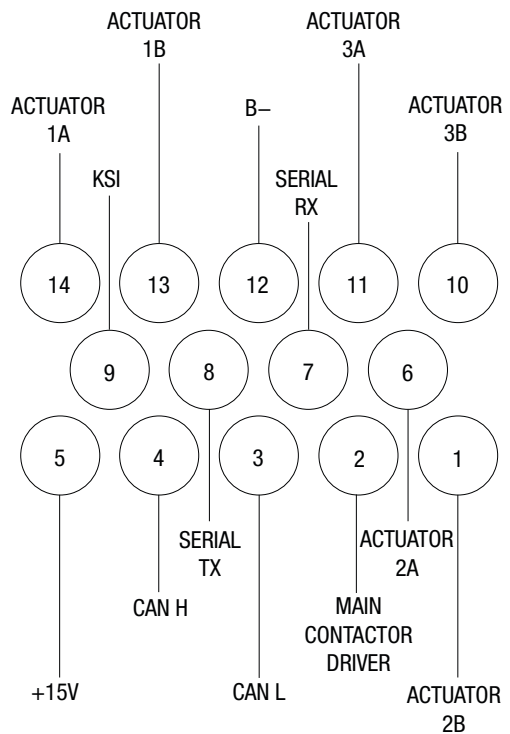


## CONNECTOR WIRING DIAGRAMS

### 1355-4101



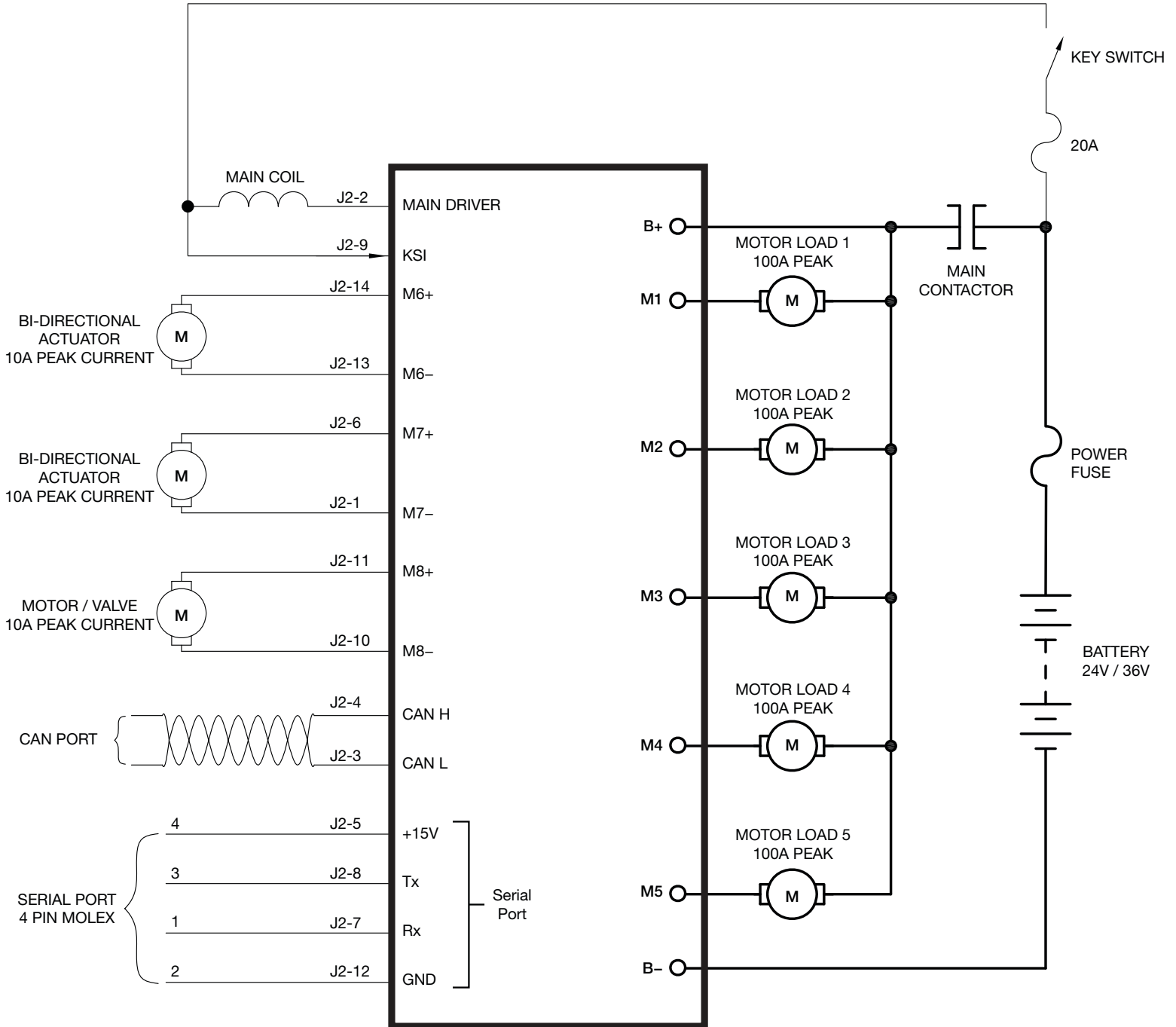
### 1355-4001



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## TYPICAL WIRING DIAGRAM

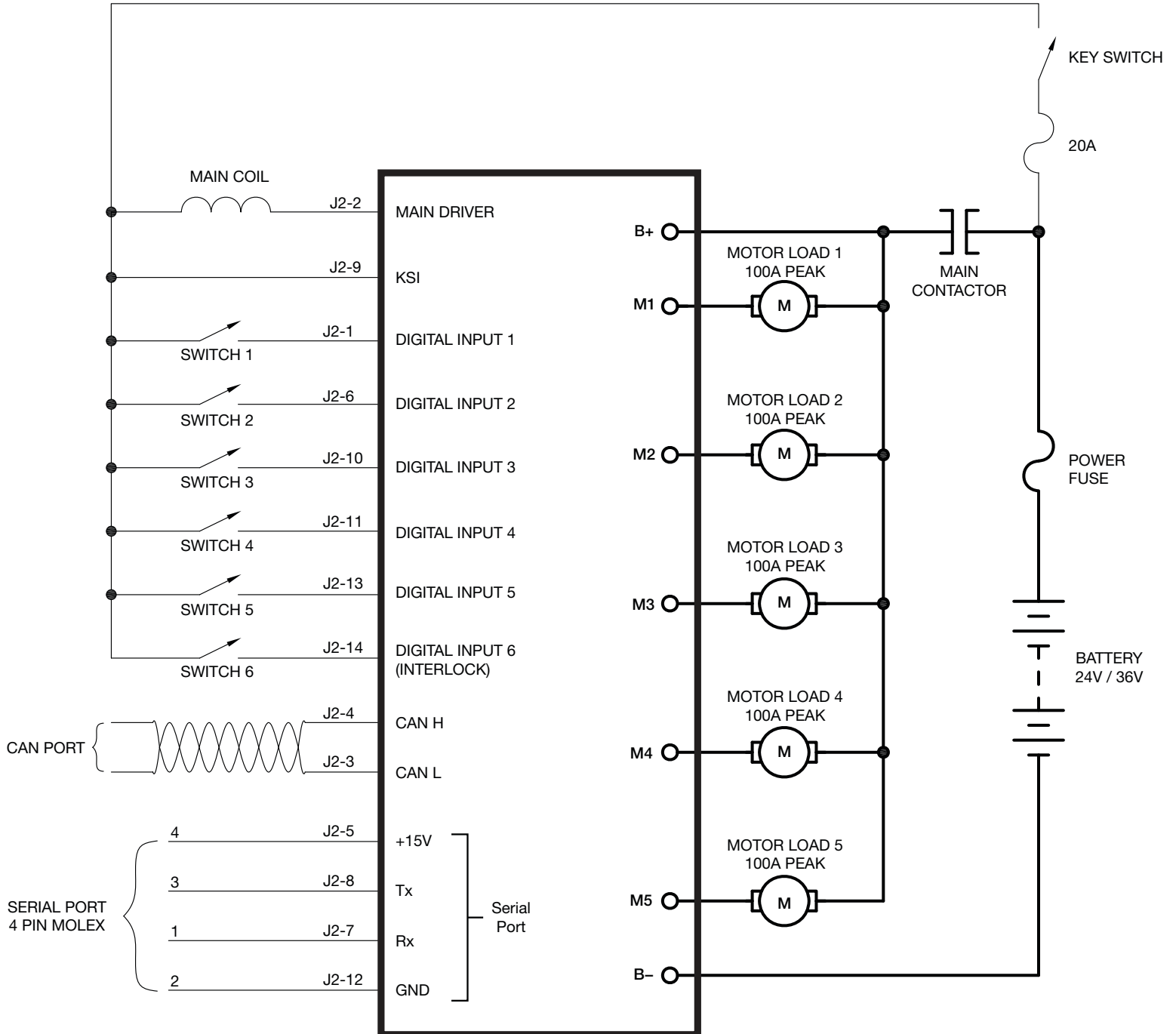
1355-4001



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## TYPICAL WIRING DIAGRAM

1355-4101



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

