

140A Controller For Permanent Magnet Motors



Kinetek Controls®

A Kinetek Company®

Kinetek Controls 140A Controller for permanent magnet motors provides excellent control for motors in traction applications including walk-behind floor scrubbers, mobility carts, wheelchairs, and other equipment requiring similar control processing.

Available for both 24V and 36V DC systems, the fully programmable 140A controller provides variable speed control, regenerative braking, a seven-segment display driver, and two programmable outputs that may be used to drive motor relays, external brakes, solution valves, linear actuators or similar devices. The controller also provides self testing and continuous diagnostics, solid state motor reversing, and is potted for superior water resistance.

The 140A controller uses an extremely dependable, four-FET design that is ideal for applications that do not require the higher expense associated with wound field motor applications. The controller provides seven digital inputs and one potentiometer input for speed control.



Specifications

140A Controller	Current Limit	Operating Voltage	Continuous Current Rating	Input	Output
KCCA0026	140A	24 - 36V DC	60 - 70A (approx)	7, digital 1, potentiometer	2 programmable
User Programmable Configuration Options Via KC Host					
Seat Switch Y/N	Start Switch Y/N	Brake Enable Y/N	Accel Y/N	AUX 1 Function Y/N	Min Brake Current
Accel Pot SRO	Accel 5k or 10k	Direction SRO	Start Switch SRO	Battery Cable Comp	IR Comp Y/N
Battery Volt Level	Tract Accel Fwd	Tract Accel Rev	Tract Decel Ramp	Key Off Ramp	IR Comp Const
Tract Topspeed Fwd	Tract Topspeed Rev	Tract Curr Offset	Chat Timeout Period	24- 36 Volts	

Features

- 24 and 36V DC models
- Solid state motor reversing
- Regenerative braking
- Top speed control
- User programmable via KC Host
- Self test and continuous diagnostics
- 2 programmable auxiliary outputs
- Potted for superior water resistance
- Error code history via KC Host

Key Applications

- Electric utility vehicles
- Commercial floorcare machines
- Power sweepers
- Mobility carts
- Wheelchairs
- Recreational vehicle systems

Related Kinetek Products

- DC wound field motors
- Permanent magnet DC motors
- Transaxle drive systems
- High frequency battery chargers
- Hydraulic pump motor systems
- Single wheel drives
- Multi-function display
- Linear actuator

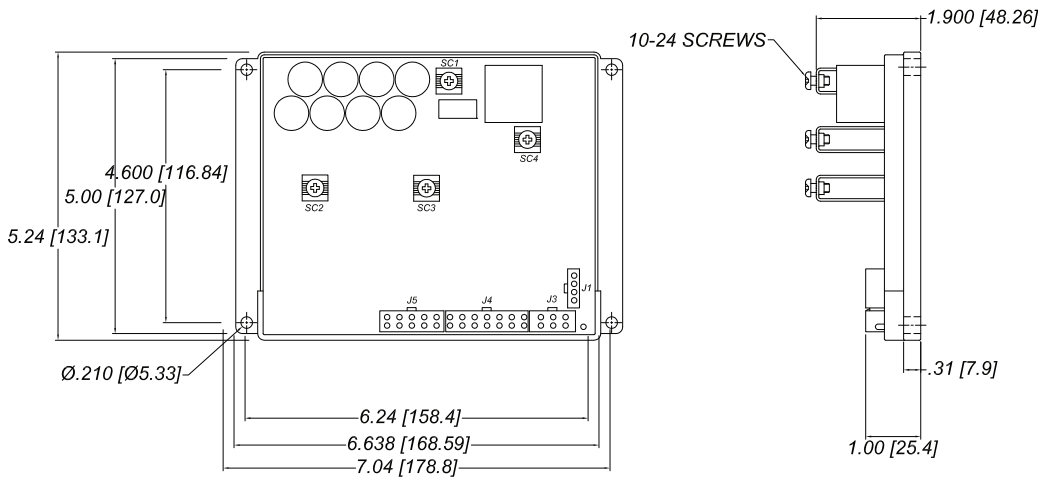
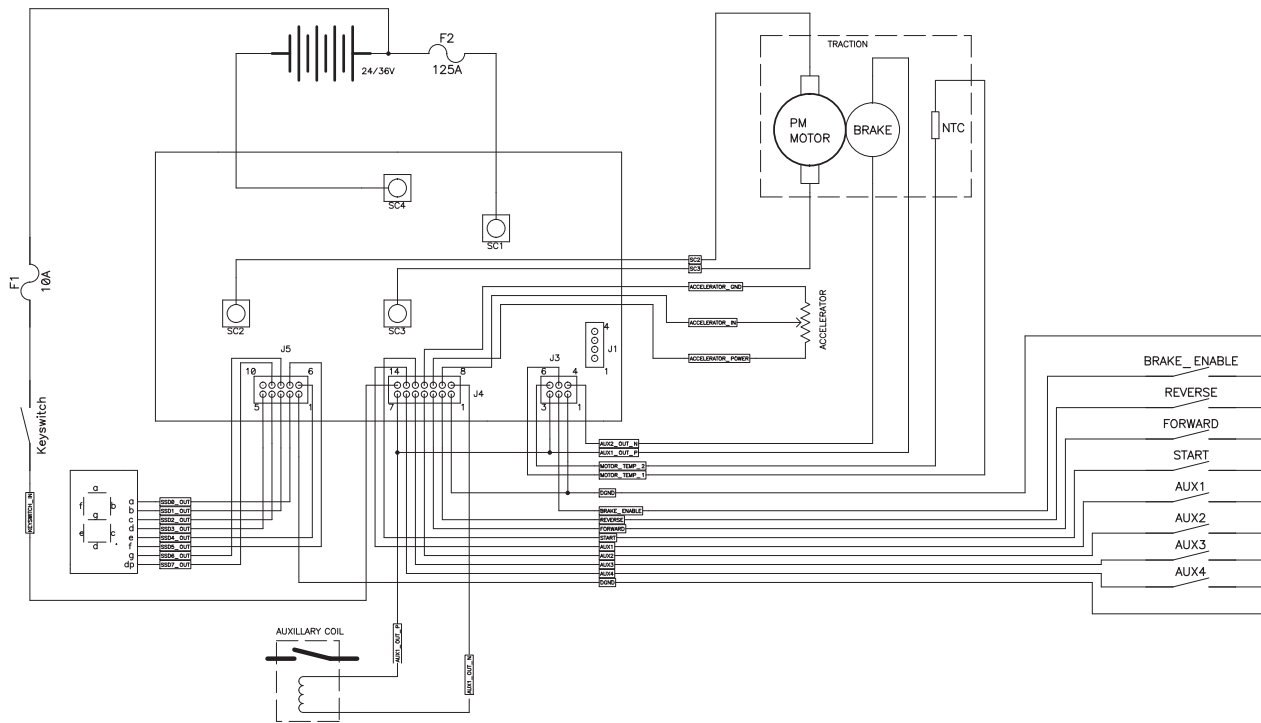
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140A Controller for Permanent Magnet Motors

PM140A Schematic



Connector Pin Out

- **J1 (Programming)**
 - Pin 1: Battery +
 - Pin 2: RXD
 - Pin 3: TXD
 - Pin 4: Ground
- **J3 (Input/Output)**
 - Pin 1: Ground
 - Pin 2: Brake Enable
 - Pin 3: AUX 1 Out Pos
 - Pin 4: AUX 2 Out Neg
 - Pin 5: Motor Temp 1
 - Pin 6: Motor Temp 2
- **J4 (Input/Output)**
 - Pin 1: Ground
 - Pin 2: Reverse
 - Pin 3: Forward
 - Pin 4: AUX 2 In
 - Pin 5: AUX 3 In
 - Pin 6: AUX 4 In
 - Pin 7: AUX 1 Out Pos
 - Pin 8: AUX 1 Out Neg
 - Pin 9: Accelerator In
 - Pin 10: Accelerator Power
 - Pin 11: Accelerator Ground
 - Pin 12: Start Switch In
 - Pin 13: AUX 1 In
 - Pin 14: Keyswitch In
- **J5 (Display)**
 - Pin 1: Ground
 - Pin 2: SSD 0 Out
 - Pin 3: SSD 1 Out
 - Pin 4: SSD 2 Out
 - Pin 5: SSD 3 Out
 - Pin 6: SSD 4 Out
 - Pin 7: SSD 5 Out
 - Pin 8: SSD 6 Out
 - Pin 9: SSD 7 Out
 - Pin 10: N/C



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