

# External Relay PM Controller

Robust PM Motor Controller for LVDC Applications

## Model KCCA0334

The Nidec Drive System **KCCA0334** Controller for permanent magnet motors is fully programmable and provides variable speed control, external relay, four programmable outputs used to drive motor relays, external brakes, solution valves, or similar devices. The controller is an excellent choice for motors in traction applications including ride-on floor scrubbers, and other equipment requiring similar control processing.

## Specifications

- Operation Voltage:** 24-36 Vdc
- Traction:** 170A, Cont. Current ~ 90A
- Brush:** 120A, Cont. Current ~ 60A
- Vacuum:** 50A, Cont. Current ~ 30A
- Squeegee Actuator:** 7A, Cont. Current 4A, bi-directional
- Brush Deck Actuator:** 7A, Cont. Current 4A, bi-directional
- Brake, Beeper, Valve:** 10A, Cont. Current 4A
  - Relay:** 2A, Cont. Current 1A
- Aux 1, Aux 2 Output:** 5A, Cont. Current 2A

## Features

- Variable speed control
- 14 digital inputs
- 4 programmable auxiliary outputs
- Over current and short-circuit protection for all motors
- Over and under voltage protection
- Support Hall and Resistance type accelerator
- Regenerative braking
- Continuous diagnostics, including error code history
- Programmable via NDS Host Monitor

## Signal Connector Definitions

P1 Connector (Output)	
Pin 1	Brake Out P
Pin 2	Brake Out N

P2 Connector (Input/Output)	
Pin 1	Auxiliary Power (B+)
Pin 2	Water Valve N
Pin 3	Brush Deck Motor N
Pin 4	Squeegee Motor N
Pin 5	Switch Ref Lo
Pin 6	Squeegee Switch In
Pin 7	Aux 2 In
Pin 8	Auxiliary Power (B+)
Pin 9	Aux 2 Out
Pin 10	Brush Deck Motor P
Pin 11	Squeegee Motor P
Pin 12	Switch Ref Hi
Pin 13	Brush Deck Switch In
Pin 14	Water Valve Switch In

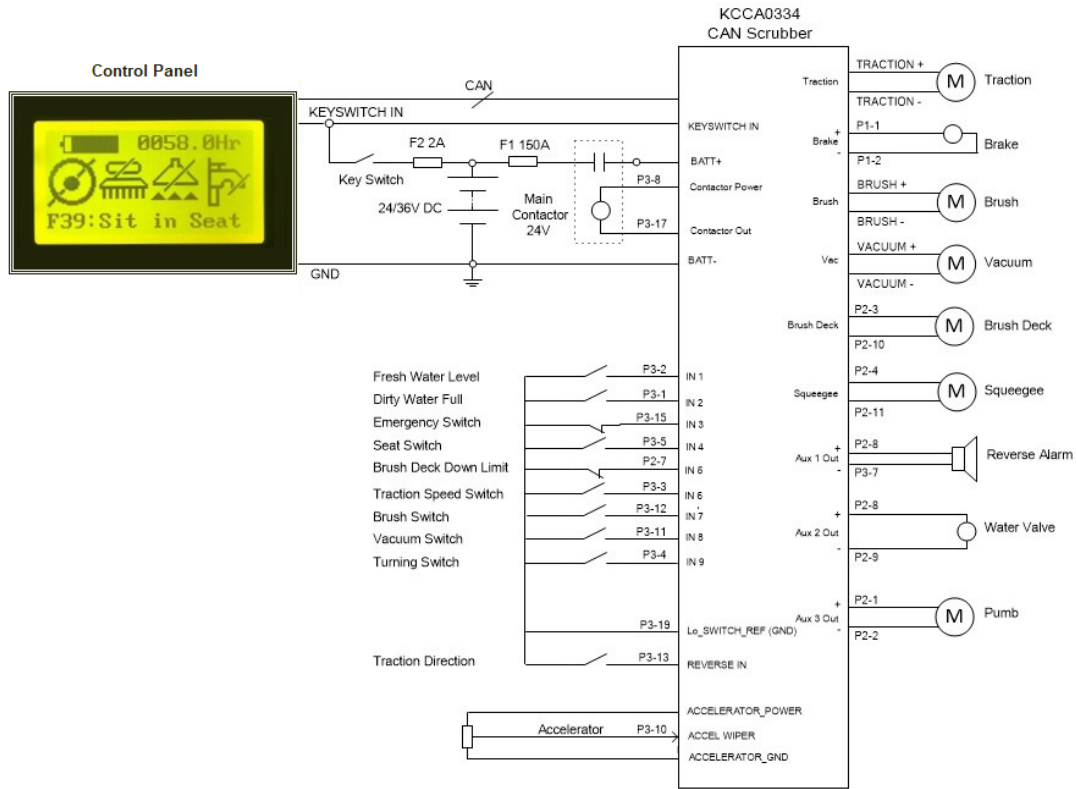
P3 Connector (Input/Output)	
Pin 1	Motor Temp
Pin 2	Brush Speed In
Pin 3	Traction Speed In
Pin 4	Start Switch In
Pin 5	Aux 1 In
Pin 6	Status Indicator LED
Pin 7	Aux 1 Out
Pin 8	Key Switch Ref (B+)
Pin 9	Accelerator Ref Lo
Pin 10	Accelerator In
Pin 11	Vacuum Motor Switch In
Pin 12	Brush Motor Switch In
Pin 13	Direction Switch In
Pin 14	5V Power/Aux 4 In
Pin 15	Aux 5 In
Pin 16	Switch Ref Hi
Pin 17	Alarm Out
Pin 18	Key Switch In
Pin 19	Switch Ref Lo
Pin 20	Accelerator Ref Hi

P4 Connector (Programming)	
Pin 1	DGND
Pin 2	CAN H
Pin 3	CAN L
Pin 4	KEY SWITCH IN

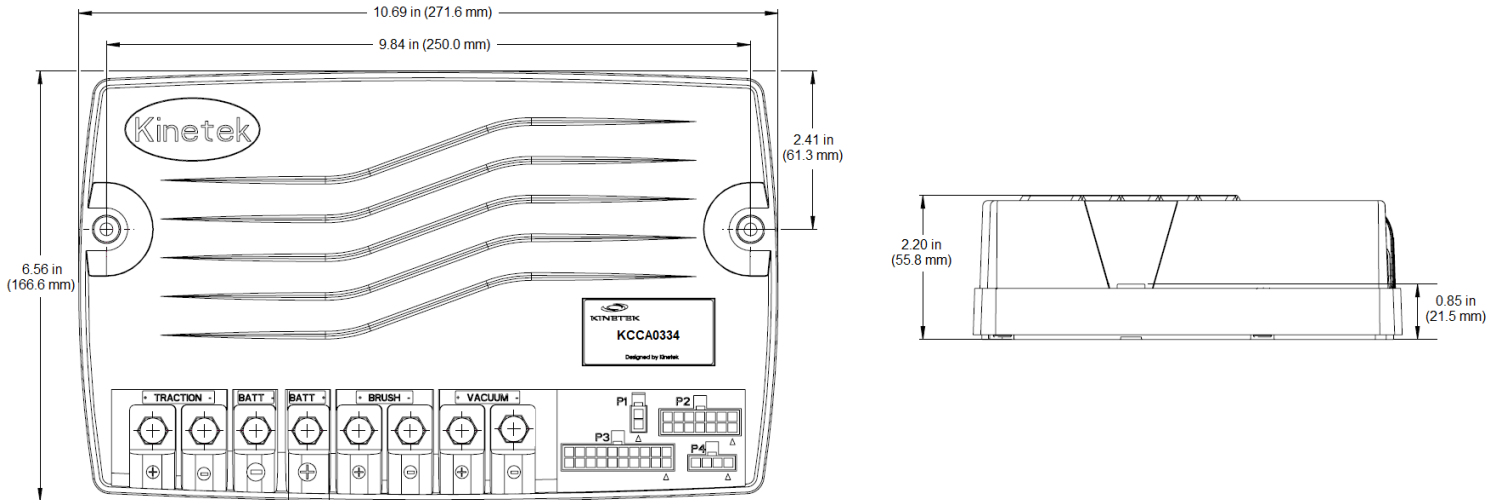


**Nidec**  
All for dreams

# Signal Connections



# Dimensions



# System Accessories

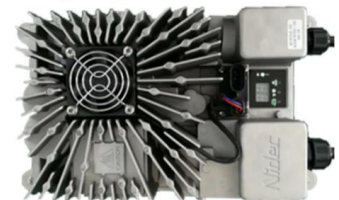
## Battery Monitor



## Touch Screen Instrument Panel



## Battery Charger



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