NAVITAS

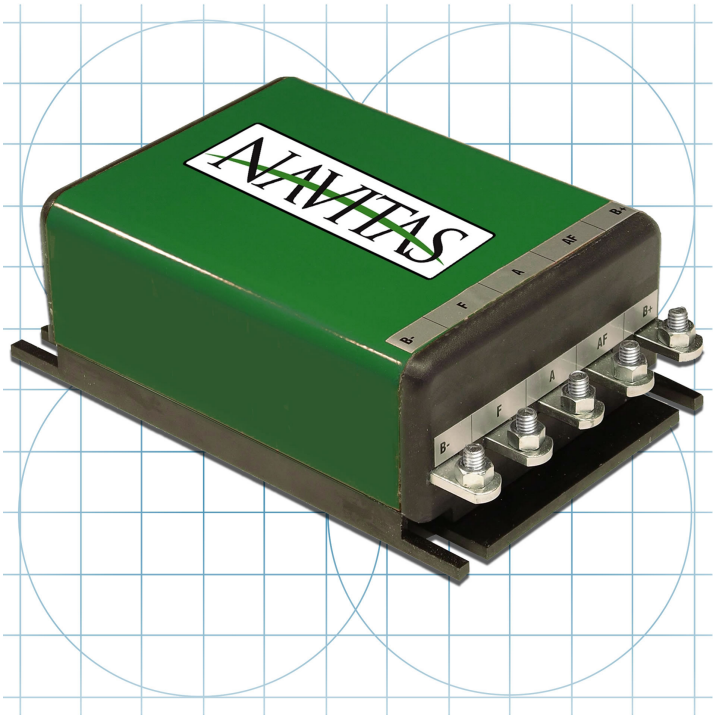
TSE

DESCRIPTION

Navitas Vehicle Systems Ltd. DC series wound motor controller combines the power of high efficiency MOSFETs with microprocessor technology to provide smooth, flexible & reliable control.

Ease of installation, simplicity in programming, and its compact size make the TSE series an ideal choice for both new OEM vehicles and retrofit projects. For applications using high demand hydraulic systems, the PSE family of hydraulic pump controllers can be interconnected with the TSE to create a simple yet highly effective traction/hydraulic combination. On board directional, steering and pump contactor drivers simplify wiring while providing greater flexibility.

Designed for the rigorous demands of the material handling industry, the TSE family of controllers is also suitable for other applications like burden carriers, airport ground service equipment, utility vehicles, and more.



KEY FEATURES

- Up to 1000A peak current
- Fully programmable with the Navitas Probit hand-held programming pendant
- Safe sequencing and power-up diagnostics
- Rugged anodized aluminum housing
- Emergency reverse function
- Resistive or voltage throttle input
- Static return to off (SRO) function

BATTERY VOLTAGE

- 24 to 48V & 60 to 96V DC input

OUTPUT CAPABILITY

- Up to 1000A peak armature current
- Up to 325A continuous armature current

APPLICATIONS

- Material handling equipment
- Burden carriers
- Automated guided vehicles
- Aerial lift platforms
- Airport ground service equipment
- Mining locomotives

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FEATURES AND BENFITS

Flexibility

- Fully programmable with the easy to use Navitas Probit hand-held programming and diagnostics pendant
- Adjustable plugging allows smooth direction changes and braking
- Independently adjustable top speed for both forward and reverse
- Contactor coil voltages can be programmed from battery voltage down to 12V DC

Control

- High efficiency MOSFETs provide improvements to low end torque, range and battery life
- Current limiting provides throttle position control over braking to improve drivability
- BDI (battery discharge interlock) intelligence protects battery from excessive discharge
- Available 90° proportional steering for dual drive motor applications with the use of two TSE controllers and a Navitas PSM (sold separately)
- Cold contactor switching greatly extends contactor tip life and reduces maintenance costs and downtime

Safety

- Safe sequencing prevents unsafe vehicle operation if the key switch is turned on while the throttle is applied or direction is selected
- Thermal protection provides gradual thermal cutback to prevent damage under almost any thermal condition
- Environmental protection is ensured with a factory sealed, factory serviceable anodized aluminum housing
- Static return to off (deadman switch) prevents vehicle operation if the operator is not in the correct driving position
- Emergency reverse (belly button switch) functionality for applications like electric pallet jacks

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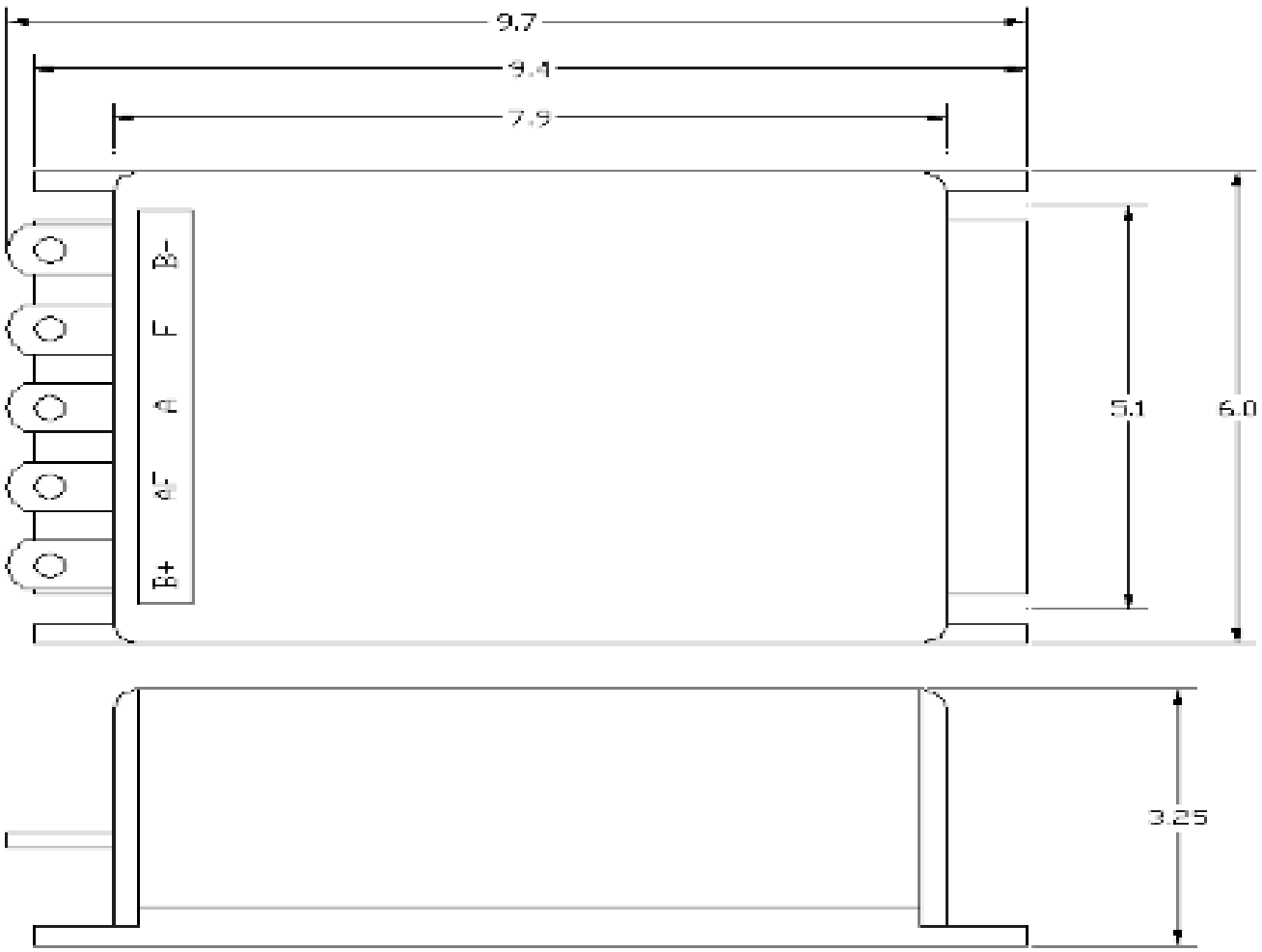
DIMENSIONS



- Base footprint allows mounting in place of many 1204/1205 motor controllers without the need to drill additional holes

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MODEL CHART

Model	System Voltage	Peak Armature Rating	Continuous Rating	Throttle Types
TSE1000-48	24-48V	1000A	325A	Resistive/Voltage
TSE550-48	24-48V	550A	175A	Resistive/Voltage
TSE600-96	60-96V	600A	260A	Resistive/Voltage

Note: Specifications are subject to change without notice.

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