

DESCRIPTION

The TAC line of fully-programmable controllers for AC induction motors are designed for on-road and off-road vehicles.

With current and thermal limiting of the internal power bridge and external motor temperatures, current limited contactor I/O, automotive quality connectors, and rugged highly ingress resistant ABS case the TAC is fully protected.

All TAC controllers support CAN, RS232 and Bluetooth allowing control of virtually all settings including current limits, maximum speeds in both forward and reverse, and battery over-discharge protection.



(Navitas "OTF" On The Fly Programmer)

KEY FEATURES

- 600A state of the art Mosfet technology
- Compact size and low weight
- Regenerative braking
- Molex waterproof connector
- Thermal protection
- Sensor less motor thermal protection
- Under voltage protection
- Fully sealed IP5X
- A/B speed sensor inputs
- OEM multi-platform mounting options
- Plug & Play installation for major OEM golf cars
- Rollback protection
- Speed-limiting (w/ optional speed sensor)
- Compatible with Navitas On-The-Fly (OTF) programmer (optional)(see OTF Data Sheet)
 - Variable maximum speed control
 - Variable regen control
 - Variable Acceleration rate
 - Simplified wiring diagnostics

BATTERY VOLTAGE

- 36 to 48 Volt
- 64 to 72 Volt

OUTPUT CAPABILITY

- Up to 600A motor current

APPLICATIONS

- Golf carts, LSV's
- UTV, Hunting buggies



FEATURES AND BENEFITS

Flexibility

- Fully programmable using access limited engineering apps and publicly available end user apps for smart phones, tablets and PC's
- Programmable to match the unique characteristics of each motor model
- Programmable low-voltage battery discharge interrupt (BDI) cutbacks will limit motor current to extend the battery charge

Control

- Motor speed and torque control using advanced algorithms with Space Vector Modulation to deliver high efficiency with smooth motion.
- Regenerative braking harnesses excess energy to extend the battery charge
- Battery over-charge protection using active regen clamp output.

Communications

- Integrated LEDs flash information and error codes for basic controller diagnostics
- Protected I/O connections
- CAN network support for Multi-Controller vehicles will operate in parallel with RS232 or Bluetooth for additional diagnostics and configuration.

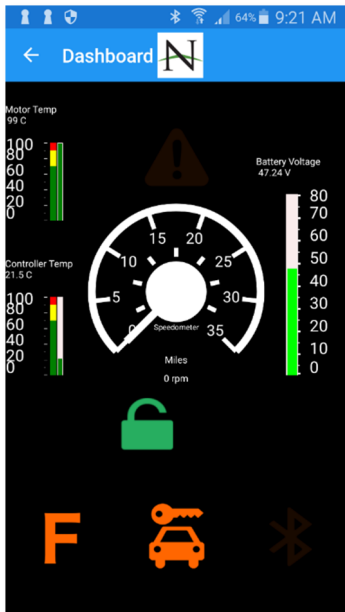
Safety

- Regenerative braking provides vehicle speed control at any throttle position when going down ramps and channels the extra energy back into the batteries for longer battery life
- Adjustable regen settings allow for braking strength to be tailored to the specific vehicle for safety during stopping and forward/reverse transitions
- Safe-Sequencing including high pedal disable (HPD) and static-return-to-off (SRO) interlock ensure safe startup and vehicle operation
- Controlled motor and power stage temperature cutbacks ensures there is no sudden loss of power under any thermal condition

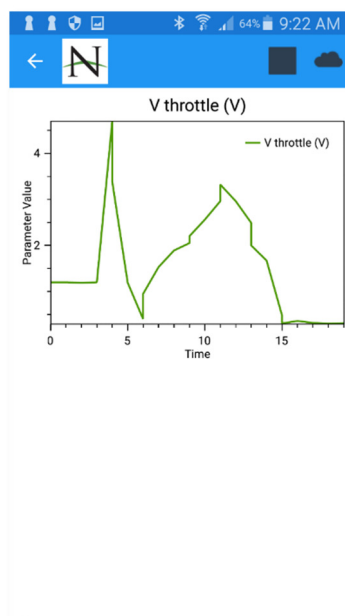
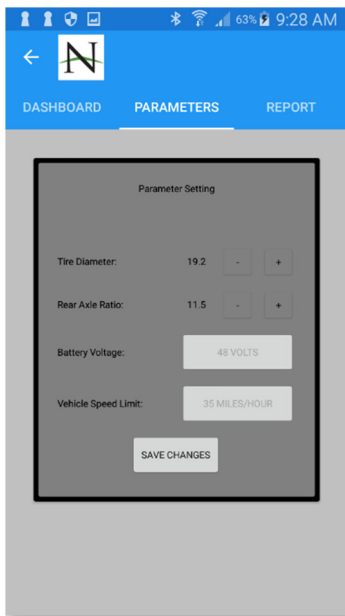
FEATURES AND BENEFITS

Apps and Configuration Tools

- Various iOS and Android apps for smart phones and tablets are available at the App Store and Google Play.

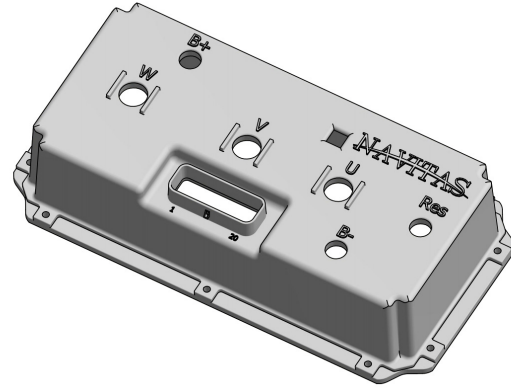
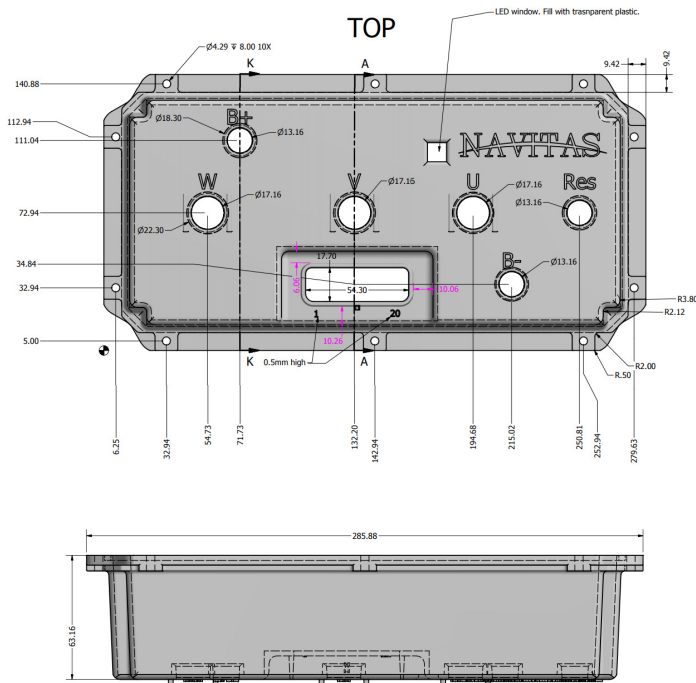


- Publicly available Dashboard Apps allow the vehicle owners to remotely lock their vehicle, monitor usage and performance or notify their dealers with diagnostic information



- Private Dealer Apps allow modifications for basic vehicle types and settings.

DIMENSIONS



- Base plate footprint 148x288mm
- Enclosure height 74mm
- Phase connections are 3xM8 bolt
- Battery and brake connections are 3xM6 bolt
- Ingress: Robust ABS/aluminum enclosure
- Operating Ambient Temperature: -40°C to +55°C
- Storage Temperature: -40°C to +70°C
- Switching frequency: 16 kHz



TAC Options

PN#	Description	Notes
10-000688	AC Controller 48V 600A with Ebrake	
10-000644	OTF On The Fly Programmer	
10-000686	OTF On The Fly Programmer w/ 147" (3.75m) cable	



PN#	Description	Notes
40-000544	TAC Harness for E-Z-Go® RXV	Replacement for stock Curtis Controller
40-000549	TAC Harness For E-Z-Go® RXV23	Replacement for stock Danaher Controller
40-000548	TAC Harness For E-Z-Go® EZ-GO TXT	Navitas AC Motor Required
40-000547	TAC Harness For Club Car® (IQ)	Navitas AC Motor Required

Note: Specifications are subject to change without notice.

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