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Taurus 400 OTiS
BLDC Motor Controller

The Perfect High Voltage Solution!

The Taurus 400 OTiS is a high power, extremely efficient BLDC motor controller that speaks in more than just pulses! This controller implements full four quadrant FOC/SVPWM for highly efficient bi-directional operation up to 32kW peak power and provides isolated CAN 2.0 and RS-422 communications, giving you more feedback and control of your propulsion system. The Taurus supports Hall or Quadrature sensor inputs for more accurate positioning.

Available with DroneCAN Support!

Efficient High Power

The Taurus 400 OTiS implements full four quadrant Field Oriented Control (FOC) through Space Vector Pulse Width Modulation (SVPWM) to achieve exceptional motor controller efficiency in the nominal operating range. The controller also supports overmodulation to maximize peak power output of the motor drive. The Taurus has the following performance capabilities:

- 400VDC+ operation
- +/-80A Peak Operation with adequate heat sinking
- 28VDC input power for comms and logic
- Designed to IP67

Highly Flexible Design

The Taurus 400 OTiS supports various interfaces for communication. From simple commands and telemetry to expanded functionality for configurations requiring features such as variable pitch control, rotor positioning/ parking and more. The entire software stack for the Taurus is built on the available source licensed allocor SDK, allowing fully tailored applications for customer control, comms, and other needs.

- Isolated CAN 2.0 Comms
- Isolated RS-422 Comms
- Hall/QEP Sensor interfaces
- General Purpose Input/Output for index, homing, and other sensors

Customization Available

All Taurus hardware can be tailored to customer form, fit and functional needs to allow seamless integration into unique structures such as booms, ducts, wings, hulls, etc. Implementations for specific voltage ranges and other electrical requirements are also possible. Contact sales@allocor.tech for more information.

Advanced Control

Command motors via speed, torque, power or other parameters, enabled by allocortech's 40kHz+, four quadrant FOC design. Drive your vehicle the way **you** want!

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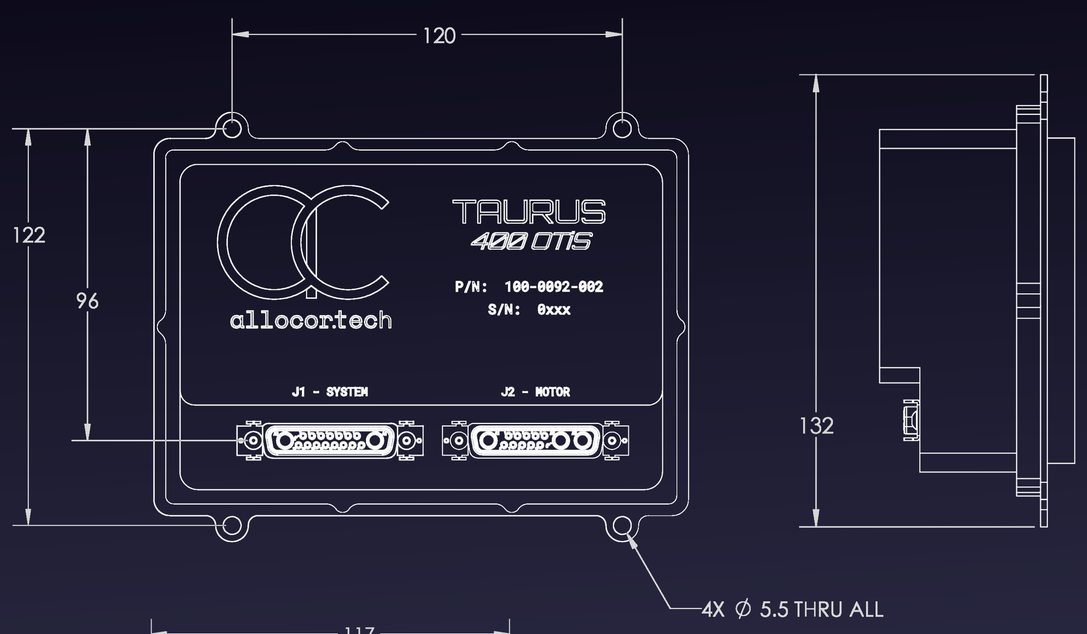
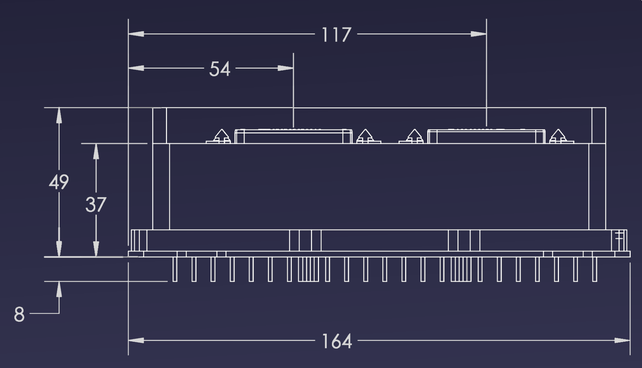
allocortech accelerates advanced vehicle development

OTiS Specifications

Input Voltage	80 - 405V
Current Rating (DC Input) *With adequate cooling	80A Peak 50A Continuous
Weight	815g
Connectors	
Power+Comms	Positronic CBD17W2F37S60T20
Sensors+Phase Output	Positronic CBD13W3F37S600X
Switching Frequency	
Baseline	40kHz
Maximum	50kHz
CAN 2.0 Interface	
Max Bitrate	1Mbps
Isolation Voltage	± 500V
RS-485 Interface	
Max Bitrate	3Mbps
Isolation Voltage	± 500V
RS-232 Interface	
Max Bitrate	1Mbps
Isolation Voltage	± 500V
Update Rate	Up to 1KHz





Make Your Motors Smarter

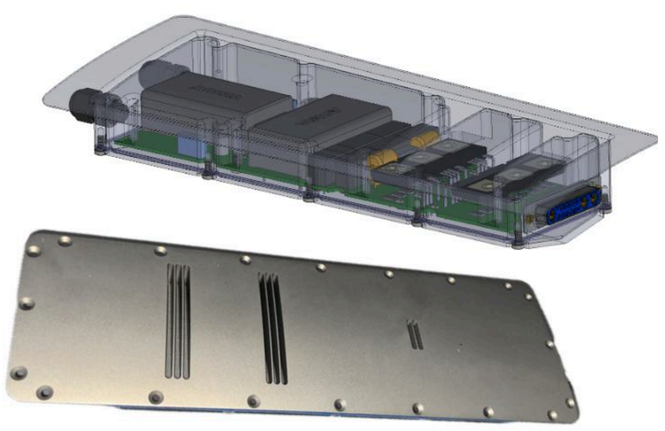
Fixed mapping sensorless open-loop PWM throttle based ESCs are a thing of the past. Taurus motor controllers enable customized control loops and tuning, along with bi-directional communications to give your system more advanced control and monitoring. Taurus adds sensored motor capabilities for slow-speed and alignment/parking support.

Taurus Based Hybrid Generators

Four quadrant control means Taurus controllers support full regen capabilities including active regenerative braking. When mated with a generator the Taurus provides the backbone for a full hybrid electric powertrain, recently demonstrated on a 400V air vehicle system.

Customized Packaging Solutions

Allocortech offers customized packaging solutions for its various Taurus BLDC Motor Controllers to fit your integration and heat sinking needs.



Customer defined solutions, built, tested and delivered for a unique space constrained application.

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