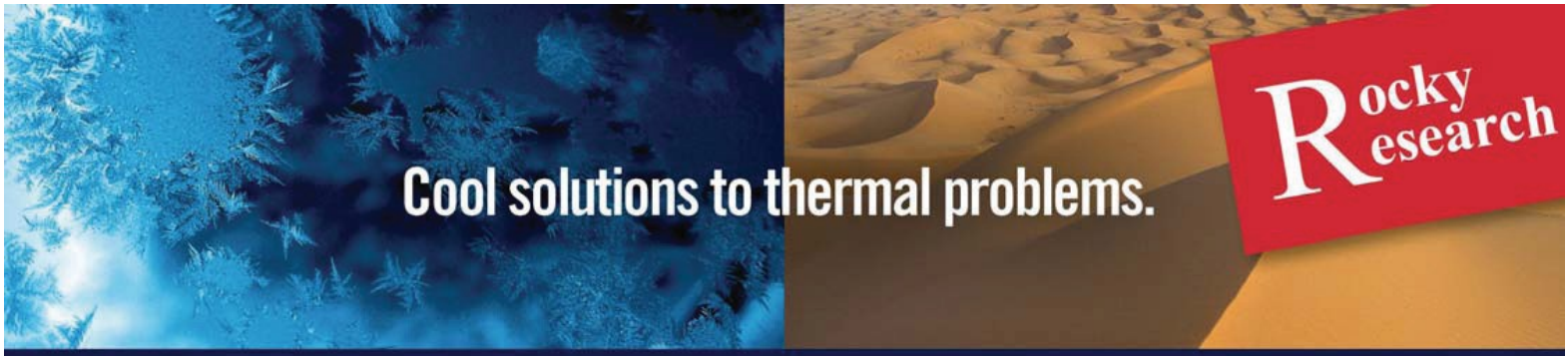

COMMERCIAL | INDUSTRIAL | DEFENSE

VSD3010

Key Features

- **Energy Efficient Motor Control**
- **15hp to 30hp**
- **Provides Servo-Like Operation from Induction Motor**
- **480 VAC, 42 Amp – Voltage and Current Rating**
- **Local or Remote Control**
- **Control Schemes – V/f, Open Loop, and Flux Vector (closed loop)**
- **Designed to Operate in Navy Shipboard Environments**
- ***ICE® Technology***

Intelligently Cooled Electronics

Rocky Research 30hp Variable Speed Drive

The Rocky Research 30hp Variable Speed Drive is designed to operate efficiently and effectively in the harsh environments found aboard Navy ships – high temperature, shock, vibration, EMI, and high humidity.

Rocky Research's **VSD3010** contains some of the most advanced, state-of-the-art electronics available on the open market today. The unit's mechanical design incorporates Rocky Research *ICE®* thermal management technology and expertise in ruggedization of high-density electronics.

The system has the speed and torque response necessary to provide servo-like performance from an induction motor in speed, torque, or position control applications. The unit utilizes IGBT technology for greater efficiency, and has the world's first 480V 3-level inverter architecture for providing total system protection. There are configurable control schemes – V/f, open loop, and flux vector (closed loop). The system features an LCD keypad display for control at the enclosure, and it is equipped with an Ethernet Card that provides remote control capability, as well as dry contacts and 4-40 mA control lines for external PLC or microcontroller based control.

System Specifications

System Electronic Technology:	G7 AC Variable Speed Drive
Power Rating:	30 HP
Input Voltage Rating:	480 VAC / 60 Hz / 3 Phase / 3 Wire
Current Rating:	42 Amps
Configurable Control Schemes:	V/f, Open Loop, and Flux Vector (closed loop)
LCD Keypad Display:	Digital Interface 5 Lines x 16 Characters, Backlit, 7 Languages, Copy Function
Programming:	Quick Start and Modified Parameter Groups Remote or Local Control and Programming of Motor Operation
Microprocessor Logic:	32-bit
Memory Type:	Flash Memory for Easy Updates, Custom Software Applications, and Non-Volatile Program Retention
Stopping Methods:	Ramp Stop, Coast Stop, Fast Stop, or High-Slip Breaking
Torque Load Operation:	Variable Torque, Constant Torque, or Constant Horsepower
DC Injection Braking:	Adjustable Level and Time
Overload Capacity:	Heavy Duty, 150% for One Minute, 200% Peak
Starting Torque:	150% at Frequency – 1.0Hz (V/f), 0.5Hz (open loop vector), 0.0Hz (closed loop vector)
Output Frequency:	0.01 to 400 Hz
Speed Control Range:	40:1 (V/f), 200:1 (open loop vector), 1000:1 (closed loop vector)
Speed Regulation:	1.0% (V/f), 0.2% (open loop vector), 0.01% (closed loop vector)
Stall Prevention:	Acceleration / Deceleration / Running

Physical Specifications

Form Factor:	Wall-Mount
Dimensions:	24” (W) X 30” (H) X 16” (D)
Weight:	330 lbs

Environmental Specifications

Shock:	MIL-STD-901D, Grade A, Class I, Type A Certified
Vibration:	MIL-STD-167-1A, Type I Certified
EMI:	MIL-STD-461E, Surface Ships Certified
Electrical Power Interface:	MIL-STD-1399-300, Type I, Certified
Temperature / Humidity:	0° to 50° C / 5% to 95% non-condensing Certified
Enclosure Protection:	MIL-E-2036, Drip-Proof up to 15 degrees