



# VX2 - 1000V VARIABLE FREQUENCY DRIVE

1140V LIQUID-COOLED VFD MODULES FOR MINING APPLICATIONS



2015



## PROCESS AUTOMATION AND PRODUCTIVITY IMPROVEMENTS

A Saminco variable speed drive offers total control of motor speed without sacrificing torque. The speed can be controlled locally (manually), remotely or automatically using internal or external controls. The optimum speed for a process can be adjusted quickly and easily by an operator or process controller.

# REDUCED MECHANICAL STRESS MOTOR AND LOAD

A Saminco variable speed drive controls the rate of acceleration and deceleration allowing a perfect soft start and soft stop to be achieved. A controlled soft start will reduce the mechanical stress on the motor shaft and load.

## LESS DEMAND ON ELECTRICAL SUPPLY INFRASTRUCTURE

The reduction in starting current and the improved power factor reduces the demand on the electrical infrastructure and can reduce the size of stand by generators.

## ENERGY SAVINGS AND IMPROVED RESOURCE MANAGEMENT

A Saminco variable speed drive enables a reduction in speed when operating at full power or capacity is not required. On variable torque loads such as fans and pumps, a reduction in speed can result in substantial energy savings. Energy savings typically result in less than one year ROI.

# **FLEXIBLE DESIGN CONFIGURATION**

The Saminco 1140V VFD system design allows for maximum flexibility and user safety.

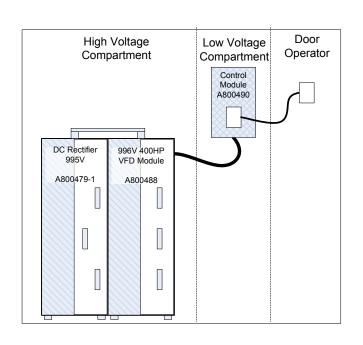
- Four axis mounting orientation
- Ease of remote monitoring / control
- Overvoltage / under voltage protection
- PID control, Signal Follower control
- Separation of high and low voltage
- Quick disconnect I/O terminals
- O/L, GF and overcurrent protection
- Torque control, load sharing control

## TYPICAL FIVE VFD MODULE CONFIGURATION (DESIGN)





# VFD SYSTEM (SINGLE SYSTEM SHOWN)



- Modular Design
- · Multiple VFD capable via common DC bus
- Solid State pre-charge circuit
- Safe design:
  - Rectifier and VFD modules located in separate high voltage compartment
  - Control module remote mounted up to 15 ft in low voltage compartment
  - Digital operator / programmer door mountable
- V/Hz, open loop vector or closed loop vector control
- · All major serial communications supported

#### **APPLICATIONS**

- Above ground conveyors
- ♦ Below ground conveyors
- ◊ Fans
- ♦ Pumps
- ◊ Compressors
  - Crushers

## 995V CONTROL MODULE / OP STATION



# The most I/O of any drive for demanding applications!

- 12 optically isolated digital inputs
   10 multi-function, 2 for start / stop
  - Sinking / sourcing selectable
  - Internal or external powered
     (24VDC)
- 6 Digital outputs
   1 dedicated NO / NC Form C Fault Relay

#### SAMINCO PART #: A800490

- ♦3 multi-function Form A Relays
- ♦2 multi-function open collector
- 32kHz pulse train input and output
- 3 (2 multi-function) +/- 10VDC / 4-20mA analog inputs
- 2 multi-function +/-10VDC / 4-20mA analog outputs
- RS-485/422 Modbus RTU at 19.2kbps Internal selectable terminating resistor switch

### **DIGITAL OPERATOR / PROGRAMMER**



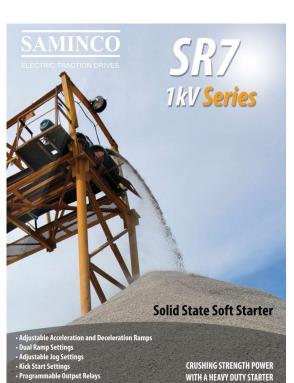
- LCD Digital Operator
- 5 line x 16 characters
- Copy keypad standard
- Backlit display
- Quick start menu
- 32 user parameters

- Modified parameters display
- Monitor display 93 viewable)
- Application specific software (CASE)
- Fault trace
- Fault history (last 10 and time stamp)
- RJ-45 connector



# ASK ABOUT OUR OTHER PRODUCTS...





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