

The A400 is a microprocessor based, solid state DC/DC drive designed for the new generation of larger shuttle cars. Built to withstand the extreme conditions and duty cycle of 24/7 mining operations, the compact, modular design of the A400 easily fits into existing XP enclosures making retrofit and rebuilds cost effective.

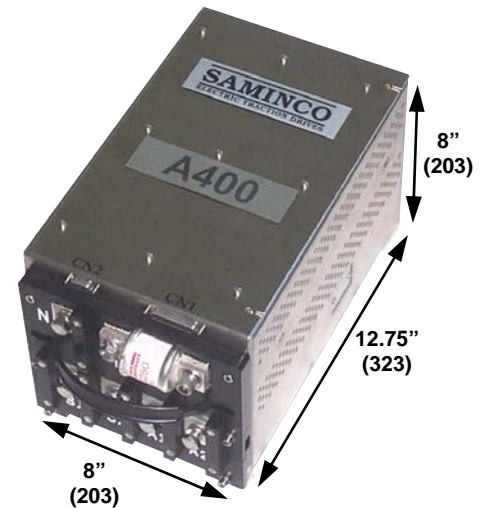
Advanced display and data logging capabilities presents the operator and maintenance personnel with useable system information.

Smooth acceleration, deceleration and creep speed reduces mechanical wear and shock on gear trains and brakes.

With quick response and power to spare, operators will notice improved machine performance.



Saminc
Handheld Programmer



Features of the Saminco A400 DC/DC Drive

- Provides infinitely variable, reversible speed control for DC series motors up to 50HP
- Solid State reversing eliminates problems associated with contactors
- Compact, self contained unit includes cap bank, pre-charge circuit and DC-rated input contactor
- Programmable set-up and control parameters
- Reduced trailing cable heating due to DC inductor input to the controller
- Built-in motor thermal overload circuit with inverse time characteristic
- Neutral position starting: the A400 can not operate unless all controls are in "off" or neutral position.
- Individual motor current control maintains positive torque on one set of wheels if the other side "spins out"
- "Differential" action during cornering—Both tram motors have independent torque control ensuring excellent handling
- Fully controllable conveyor speed

Powerful Microprocessor Control Technology Straightforward Programming

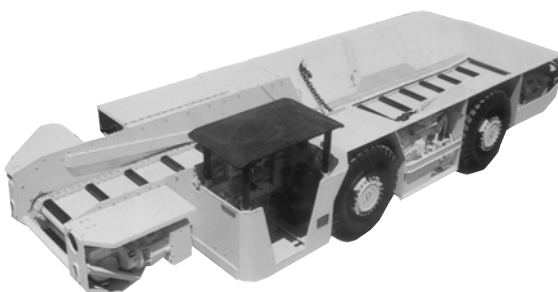
All System and Drive set-up parameters are available via the Saminco Handheld programming tool. The programmer is plugged into the front of the Saminco operators display without the need to open the main controller XP Enclosure.

Drive Level Settings

- Controller Voltage
- Current Limit (%)
- Undervoltage Trip
- Accel Time
- Decel Time

System Level Settings

- Motor Rated Current
- Motor Rated Voltage
- Motor Thermal Limit



With the advanced diagnostic power and communication of the Saminco Microprocessor based system, information available to the operator is not limited to the Saminco controllers.

Constant monitoring of motor current, motor power, motor temperature and motor speed is also available at the display, alerting the operator to potential motor problems before they occur.

The modular design of the A400 DC/DC Drive System allows for a very clean and compact system layout.

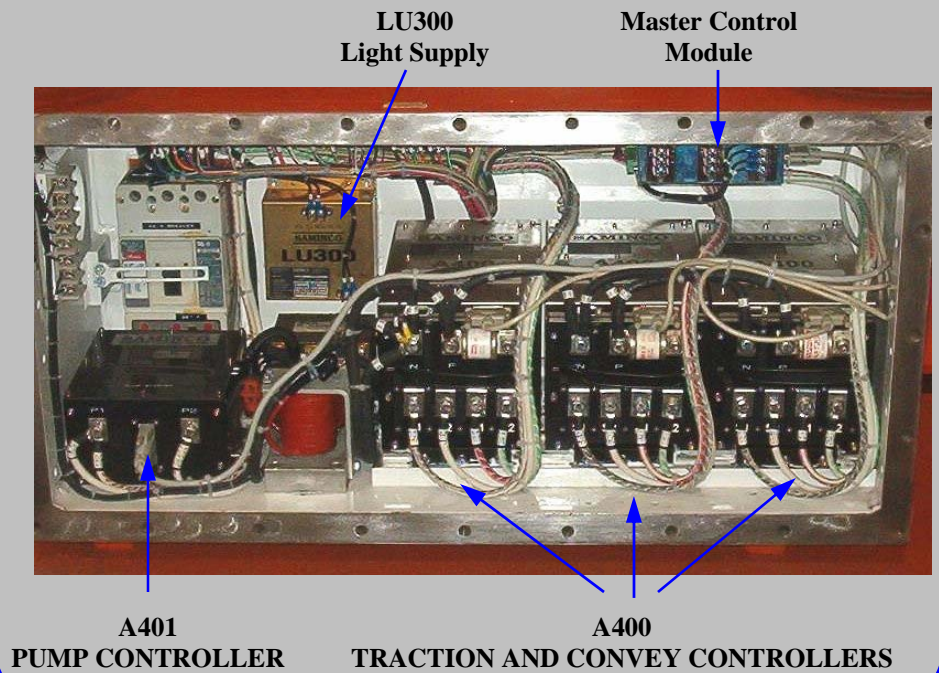
Our new clamping technology eliminates hard to reach hold-down bolts and fasteners, assuring good thermal conductivity for the high power drives.

By using high quality computer style cables for the interconnect of the drive modules, and quick disconnect wiring harnesses for the control interface, system layout and assembly is painless and repeatable.

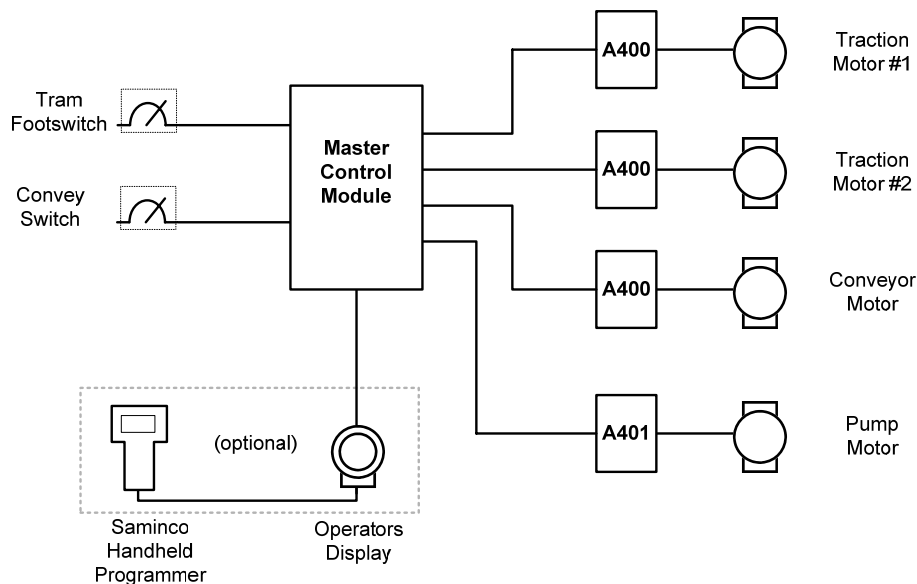
With the system programming port conveniently located on the diagnostic display, a simple twist of the display housing cover gains access to all system setup parameters, and time/date stamped operational information.

The A401 Solid State Pump controller eliminates the need for pump start contactors and resistors. The microprocessor monitoring and soft starting of the pump motor will increase the life and reliability of the hydraulic system.

Typical A400 Installation in XP Enclosure



A400 Block Diagram 160V to 360VDC Input



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