

SAMINCO

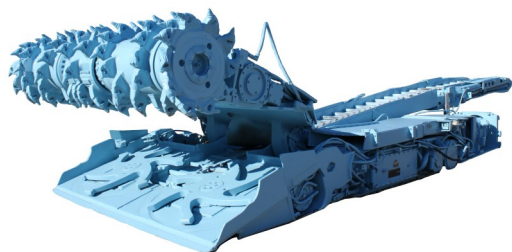
ELECTRIC TRACTION DRIVES



JD400

DIGITAL AC / DC DRIVE

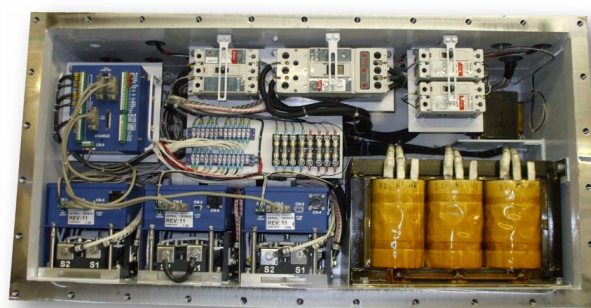
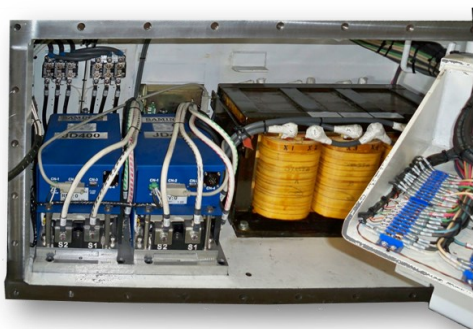
(FOR CONTINUOUS MINERS AND SHUTTLE CARS)



Continuous Miner
Two Drive System



Shuttle Car
Three Drive System



See videos of our products in operation at www.samincoinc.com

HIGHLIGHTS OF THE JD400

- Microprocessor controlled DC motor drive with advanced diagnostics and programmable features
- Regenerative braking capability and solid state reversing included in compact module
- Dual mode operation:
 - Current control for torque sharing (shuttle cars)
 - Voltage control for dual traction (continuous miners)

GENERAL SPECIFICATIONS OF THE JD400

Input Supply: 240-550VAC, 3 phase, 50/60 HZ *

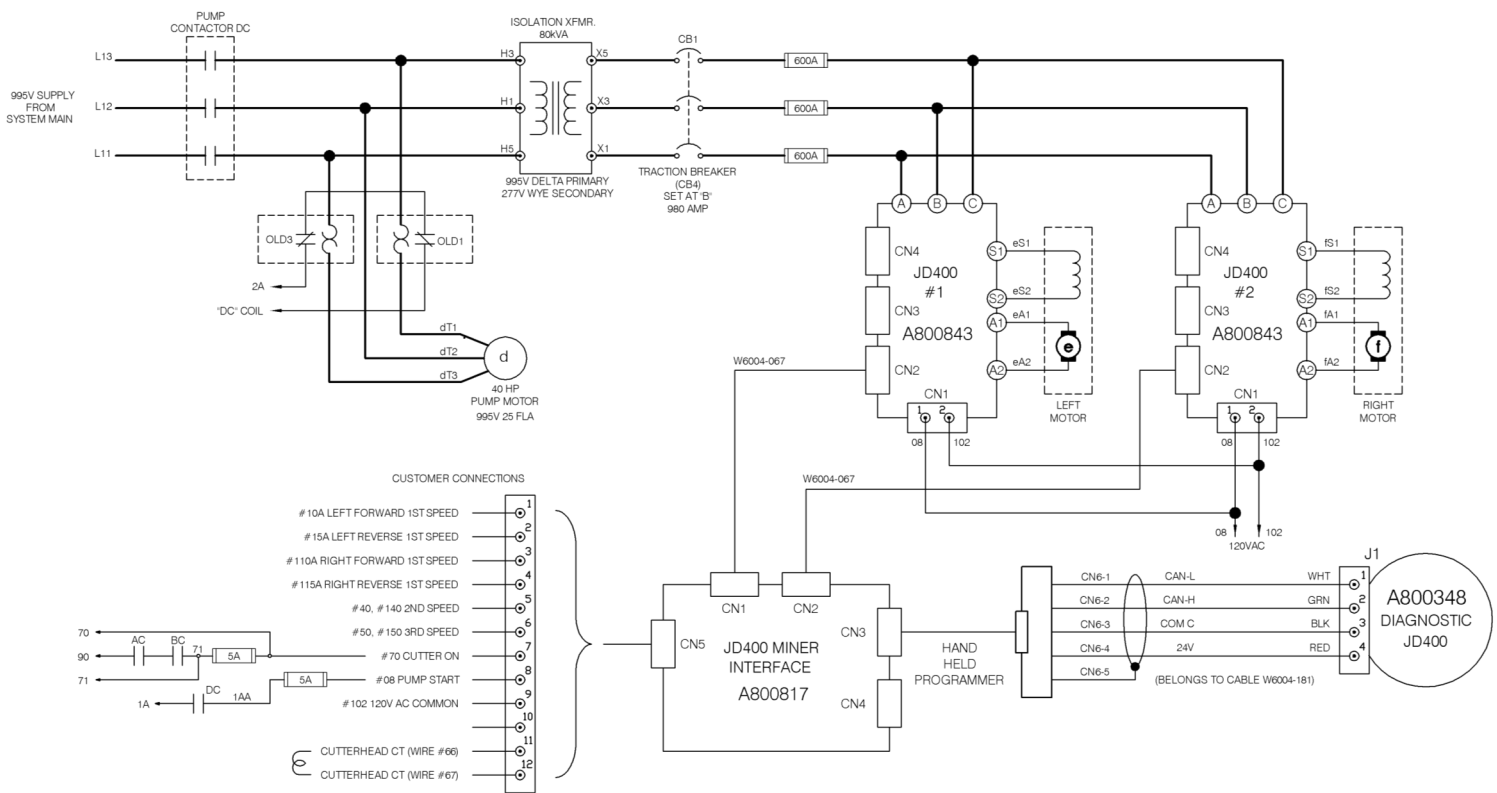
Max Output Voltage: 0-99% of rectified input voltage (adjustable)

Regen Current: up to 80% of motor rating or 100A

Control Supply: 120VAC, single phase (supplied separately)

* Other voltages available.
Please contact factory for details.

JD400 CONTINUOUS MINER (SUGGESTED CONNECTION DRAWING)

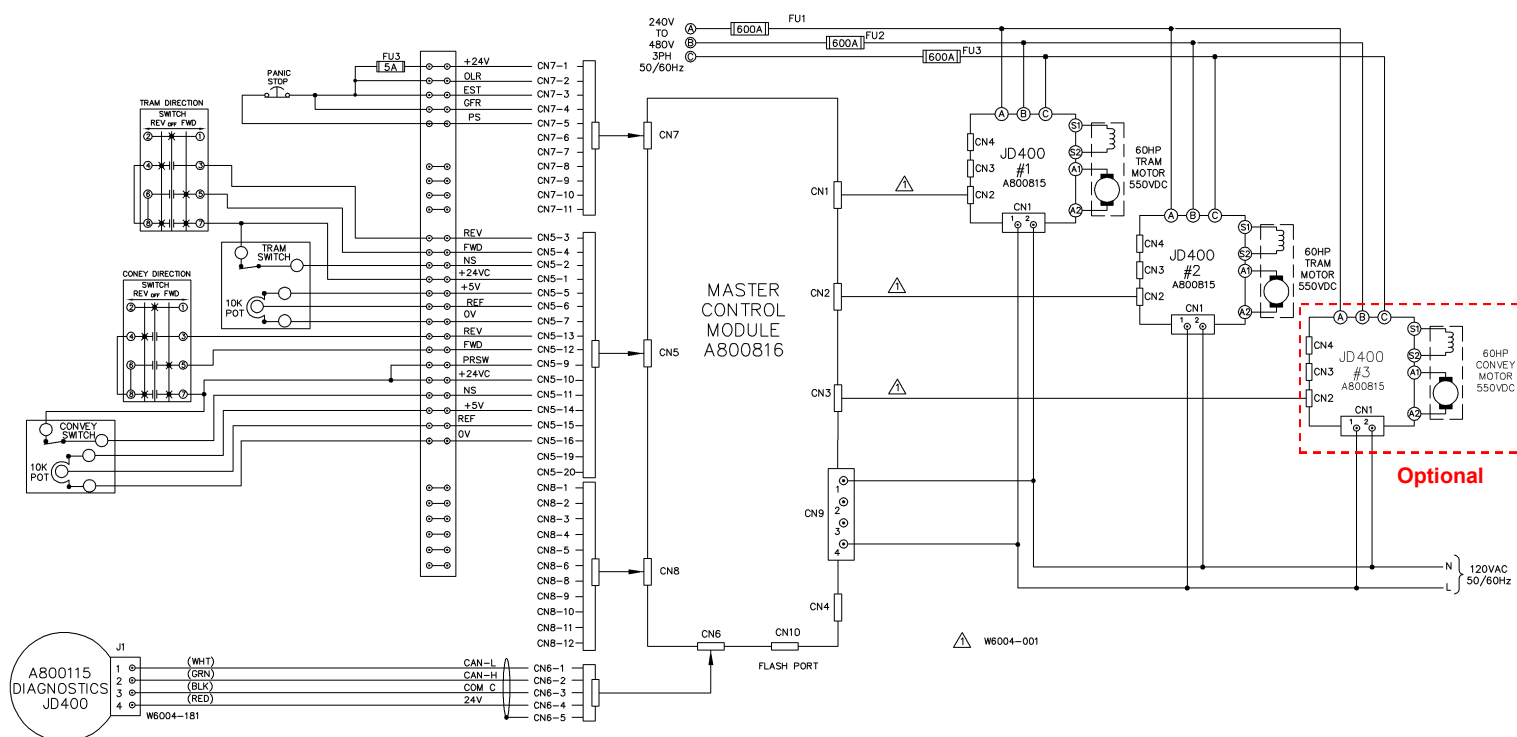


Description	Specifications for Continuous Miner System (800843)
Power	
Output Current	140 A Continuous (40HP Motor)
20 Seconds Overload Capability	300% (400A) Continuous Rating Heatsink Temperature <90°C
Main Voltage	240V to 550VAC 3 phase 50/60Hz
Control Supply	120VAC
Control I/O	
Eight Control Discrete Inputs	120VAC Rating (Control Inputs)
One Analog Input	200:5 / 100:5 Cutterhead Feedback
Communication	
CAN-BUS	System communication, Handheld programmer
RS-232	Firmware update programming port (CN3 on the JD400)
Protective Functions	
Thermal Protection	Heat Sink Over-temperature Alarm at 90C and Shutdown at 95°C
Motor Overload	Electronic Time trip
Overcurrent Protection	Instantaneous electronic over current protection (600A)

ELECTRICAL SPECIFICATIONS OF THE JD400

	JD400 Continuous Miner		JD400 Shuttle Car	
Rated Power	Input (AC)	Output (DC)	Input (AC)	Output (DC)
Power @ Rated Volts	68kVA @ 480V	50kW @ 500V	68kVA @480V	50kW@500V
Frequency Range	50/60 Hz	DC	50/60 Hz	DC
Voltage Range	3PH 480VAC	0 - 500VDC	3PH 480VAC	0 - 500VDC
AMPS @ Rated Power	82A @ 68kVA	100A @ 50kW (400 peak)	82A @ 68kVA	100A @ 50kW (400 peak)

JD400 SHUTTLE CAR (SUGGESTED CONNECTION DRAWING)



Description	Specifications for Shuttle Car System (A800815)
Power	
Output Current	140 A Continuous (40HP Motor)
20 Seconds Overload Capability	300% (400A) Continuous Rating Heatsink Temperature <90°C
Main Voltage	240V to 550VAC 3 phase 50/60Hz
Grounding Configuration	Full Floating, Grounded Positive, or Grounded Negative
Control Mode	Phase angle control
Control I/O	
Three Discrete Inputs	24V DC Rating (FWD, REV, Neutral)
Two Analog Inputs	0 to 4V DC (Reference Tram RHT and LHT, Reference Conveyor)
Communication	
CAN-BUS	System communication, Handheld programmer
RS-232	Firmware update programming port (CN3 on the JD400)
Protective Functions	
Thermal Protection	Heat Sink Over-temperature Alarm at 90C and Shutdown at 95C
Motor Overload	Electronic Time trip
Over current Protection	Instantaneous electronic over current protection (600A)

JD400

DIGITAL AC / DC DRIVE

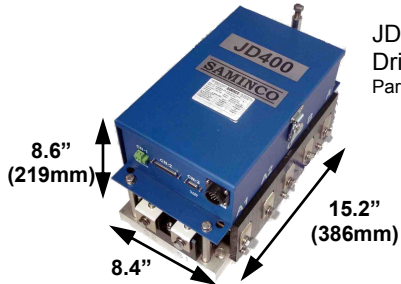
SAMINCO
ELECTRIC TRACTION DRIVES

SYSTEM COMPONENTS**

FOR CONTINUOUS MINERS:



Master Control Module
Continuous Miner
Part #: A800817



JD400 Continuous Miner
Drive
Part #: A800843



Diagnostic Display
Part #: A800348

For both systems:



Handheld Programmer
Part #: A800220

FOR SHUTTLE CARS:



Master Control Module
Shuttle Car
Part #: A800816



JD400 Traction Drive for
Shuttle Cars
Part #: A800815



FS400 Footswitch
Part #: A800498



CS300 / CS305 Conveyor
Speed Control Switch
Part #: A800300 / A800305



Diagnostic Display
Part #: A800115

** NOT TO SCALE

SYSTEM PARTS LIST* FOR THE JD400

Part Name	Description	SAMINCO Part Number
JD400 Continuous Miner	System Number	A800822
Drive	Digital 240-550VAC	A800843
Interface	Master Control Module	A800817
Diagnostic Display	Diagnostic Display with programming port	A800348
JD400 Shuttle Car	System Number	A800821
Traction Drive	Digital 240-550VAC	A800815
MCM	Master Control Module	A800816
MCM with joystick	Optional Master Control Module with joystick	A800826
Cable kit	131 Cable kit for Shuttle Car	W6005-131
Cable	WH 2Con 6pin Female	W6005-137
FS400	Foot Switch	A800498
CS300	Conveyor speed control hand switch (speed reference + FWD/REV + Neutral)	A800300
CS305	Conveyor speed control hand switch detented travel 13 position	A800305
Diagnostic Display	Diagnostic Display with programming port	A800348
For Both Systems		
Handheld Programmer	Provides read and write access to firmware parameter sets	A800220

*See your salesperson for all available options and configurations.

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