



## 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

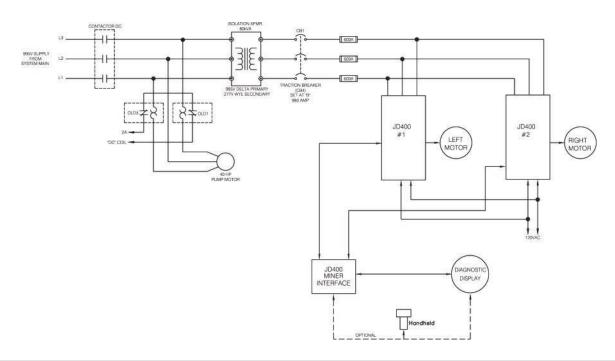


# JD400 TRACTION DRIVE FOR CONTINUOUS MINERS ELECTRICAL SPECIFICATIONS



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

### SUGGESTED CONNECTION DRAWING (SYSTEM # A800822)



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)	

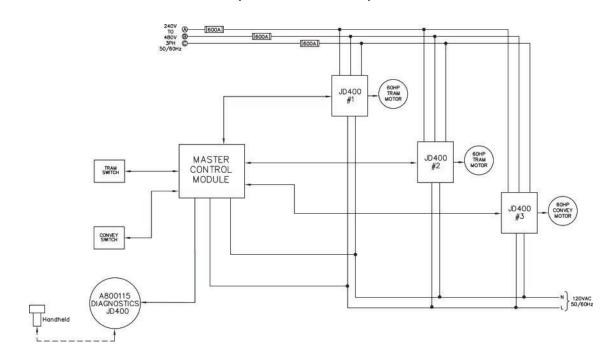


# JD400 TRACTION DRIVE FOR SHUTTLE CARS ELECTRICAL SPECIFICATIONS



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

#### SUGGESTED CONNECTION DRAWING (SYSTEM # A800821)



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 480VAC 3 phase 50/60Hz	
<b>Grounding Configuration</b>	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)	



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Part Name	Description	SAMINCO Part Number
JD400 Continuous Miner		A800822
Drive	Digital 240-550VAC	A800843
Interface	Master Control Module	A800817
Diagnostic Display	Diagnostic Display with programming port	A800348
Cable	Cable JD400 to MCM	W6004-067
Cable	Cable 25CON Sub-D 36"	W6004-001
Cable	Cable 25CON Sub-D 72"	W6004-067

JD400 Shuttle Car		A800821
Traction Drive	Digital 240-550VAC	A800815
MCM	Master Control Module	A800816
MCM	Master Control Module with Proximity Detection Feature	A800825
MCM with joystick	Optional Master Control Module with joystick	A800826
Cable	Cable 25CON Sub-D 36"	W6004-001
Cable	Cable Foot Switch to MCM 4CON 22AWG 30'	W6004-181
Cable	If replacing JS400 system: CM to JD400 drive 18CON 22AWG 16pin 72"	W6004-160
Cable	If replacing JS400 system: MCM to JD400 18CON 22AWG 16pin 72" with flying leads	W6004-161
Fuse	Fuse 600A 300VDC	F9002-086
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	A800115
Parts Available for bo	th systems	_
Handheld Programmer	Provides read and write access to firmware parameter sets	A800220-1

<sup>\*</sup>See your salesperson for all available options and configurations.

#### 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

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

> Other voltages available. Please contact factory for details.

### Visit our website at www.samincoinc.com or email us at sales@samincoinc.com



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