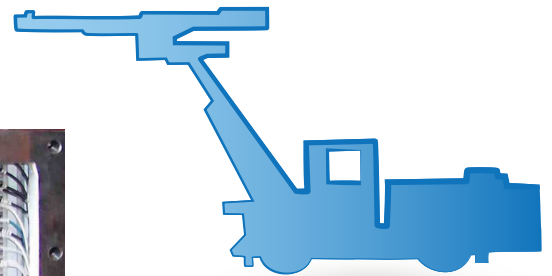
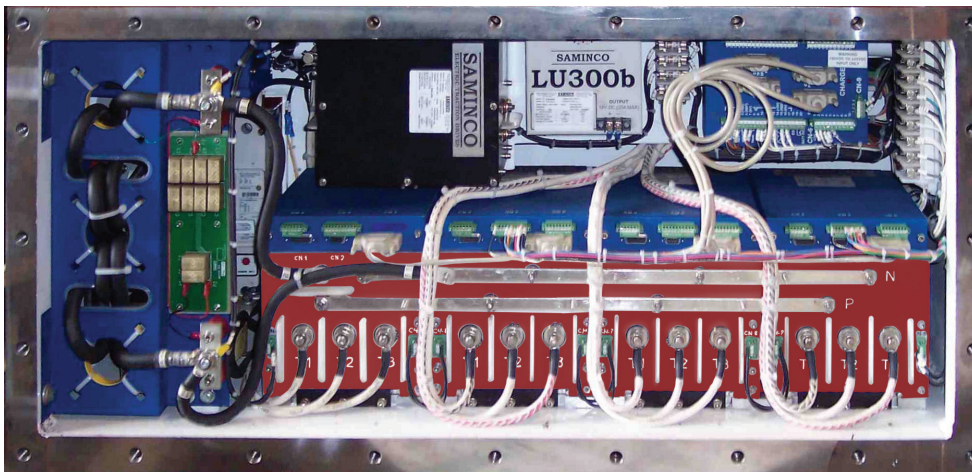




VF1-75 DC/AC VFD* SYSTEM FOR RUBBER-TIRE-MAN-CARRIERS, LHD, AND JUMBO-DRILLS

*VARIABLE FREQUENCY DRIVE



VF1-75 Tram Drive

Part # A800374-2



Dimensions (IP00)	
Height	210mm (8.25")
Width	203mm (8")
Length	356mm (14")
Weight	14.5 kg (32 lbs)

- Regenerative Drive can hold vehicle in stand still position on an incline.
- PWM Flux Vector Inverter using the latest NPT (non-punch through) IGBT technology
- Variable speed/ reversible control
- Flux Vector torque control provides differential traction control for superb cornering
- Turbo Torque provides controlled force minimizing tire spinning
- Rugged, short circuit proof power circuit provides excellent long term reliability
- Multiple control options: standard analog foot switch, radio remote control, master control module
- Proximity ready

Pre-charge/ Pump Start Inverter

Part # A800376-2



Dimensions (IP00)	
Height	210mm (8.25")
Width	203mm (8")
Length	356mm (14")
Weight	14.5 kg (32 lbs)

- Soft Charge of 650V DC power Bus DC Bus-by-pass contactor
- Pump motor soft start inverter 25kW @ 460V AC programmable pump motor current limit setting
- Whisper Pump reduces decibel level during idle periods, extending exposure time

Environmental Specifications - System


Description	Specifications
Ambient Operating Temperature	-10°C (no frost) to +50°C (14°F to 122°F)
Storage Temperature	-40°C to +60°C (-40°F to 140°F)
Relative Humidity	<90% No Condensation
Altitude	3300 Feet (1000 meters) - de-rate above 3000 meters.

Zero Emissions

Fully Electric - eliminates DPM (Diesel Particulate Matter)
Reduces ventilation requirements and costs
No need to haul and store diesel fuel underground
Allowable exposure time

Proximity Ready

Variable Frequency Drive accurately controls torque, speed and direction allowing for controlled slow down (Warning Zone) or immediate shut down (Stop Zone)
Works with most Proximity Detection Systems currently on the market



Universal Source Active Battery Charger

- Converts 3ph AC voltage to a controlled DC charging power source.
- Accepts a wide range of AC sources with multi-tap autotransformer
- Up to 15 chargers on one CAN control bus
- Battery Select parameter for selection between multiple manufacturer communication protocols
- Built-in DC bus voltage pre-charge circuitry
- 50+ programmable parameters via CAN for advanced users
- Two sizes available: 80A @ 34kW or 50A @ 32.5kW outputs



USABC 110



USABC 75

Battery Management System

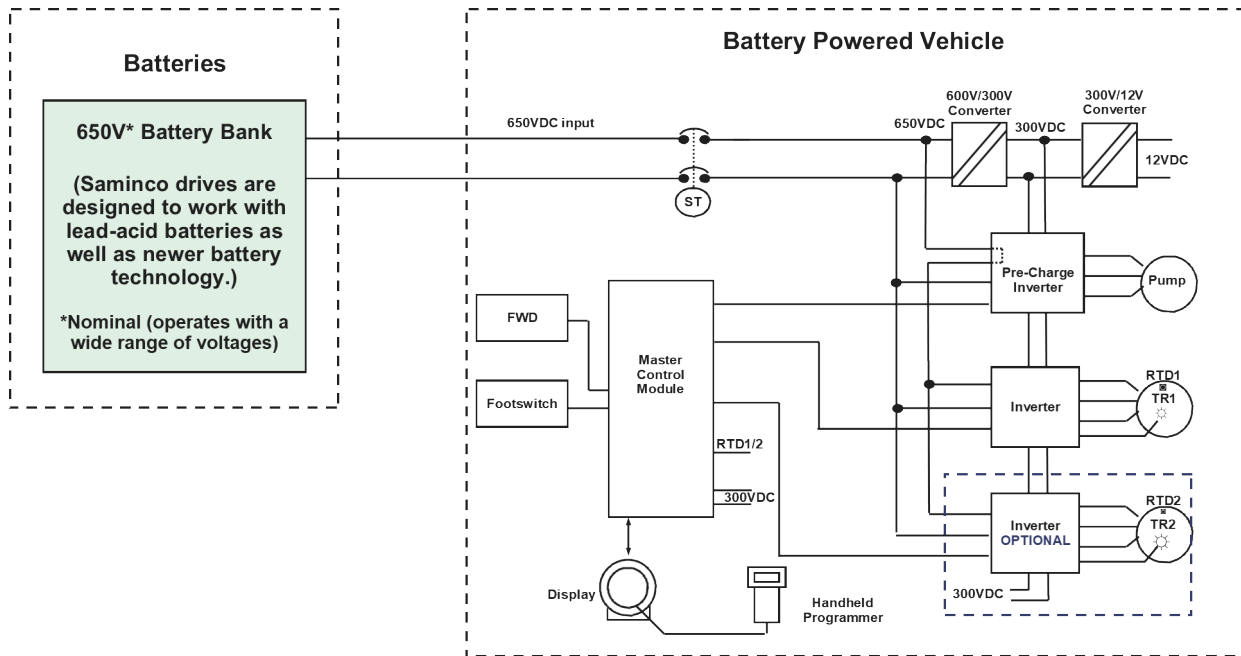
Able to monitor battery levels from display
"Low Battery" warning
-Automatic slow down of some functions
-Torque retained, speed reduced to conserve energy
-Enables vehicle limited time to return to power center for recharging

Available batteries:
FZSoNick molten salt battery
Spear® Power Bore™ Lithium Battery
Other batteries: contact Saminco for additional options

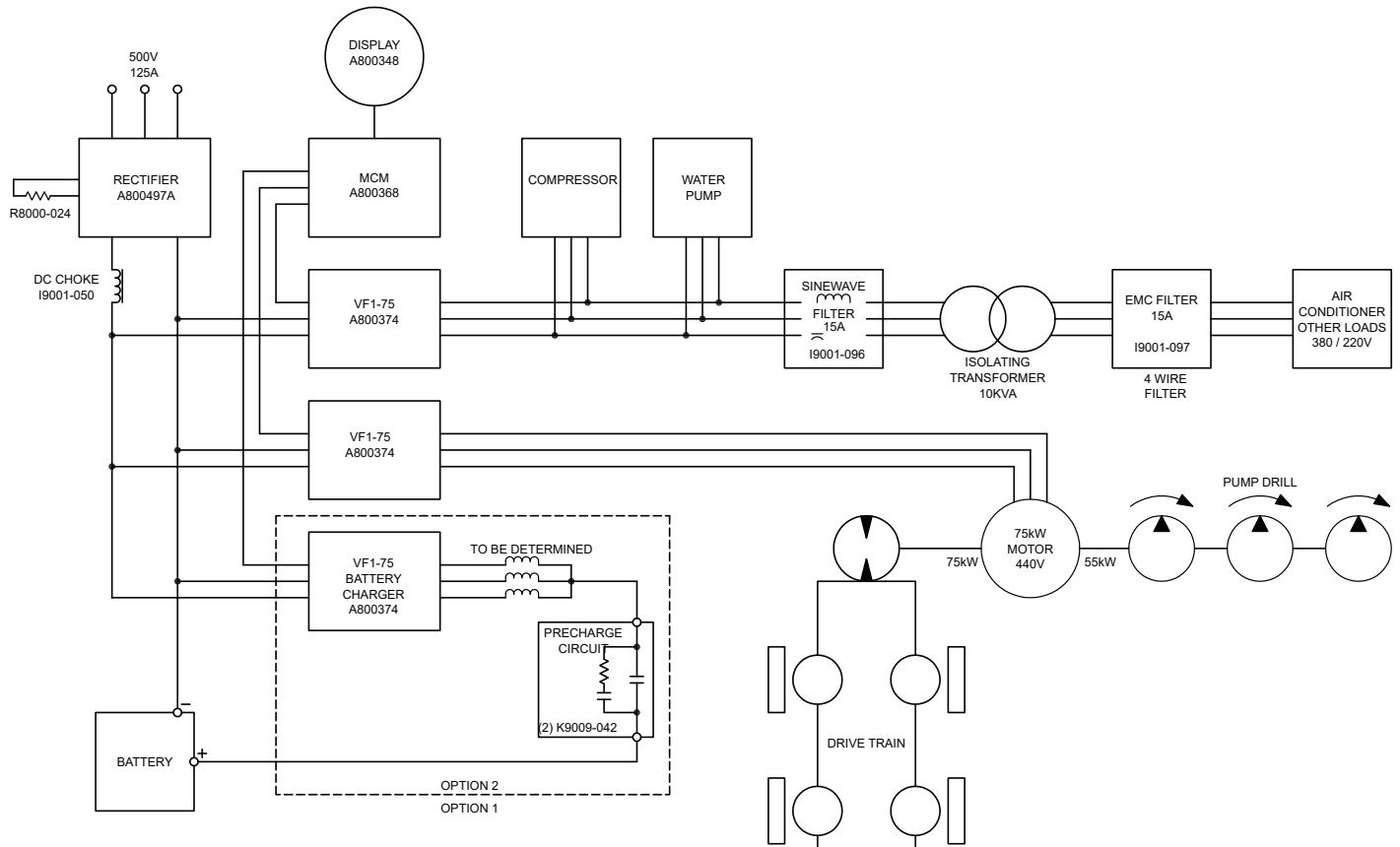
Electrical Specifications

Specifications	Tram Drive Inverter		Pre-charge/ Pump Starter Inverter	
	Rectified Input (DC)	Output (AC)	Rectified Input (DC)	Output (AC)
Rated Power @ Rated Volts	72kW @ 650V	75kVA @ 440V	98kW @ 650V	39kVA @ 460V
Frequency Range	DC	0 - 125 Hz	DC	0 - 125 Hz
Voltage Range	500 - 750V	0 - 525V	500 - 750V	0 - 525V
Amps @ Rated Power	110A	100A (250A peak)	150A	50A (125A peak)

Sample Block Diagram of LHD or Mining Truck



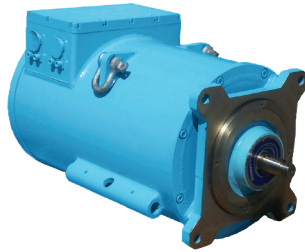
Sample Block Diagram of Jumbo Drill





TM1000-nonXP 55kW 1000Nm AC Torque Tram Motor

- AC motor has flexibility to adapt to individual load requirements and is brush-less
- AC motor has substantial increase in torque as compared to competitive motor
- RTD's in windings to monitor temperature
- Motors available in non-XP
- Custom manufactured for Saminco
- Saminco encoder has 120°C thermal rating



See your Saminco representative for additional tram motor sizes and for pump motors.

Peak Torque	1000Nm	Duty	1 hour
Voltage	440V	Enclosure	TENV
Frequency	50 Hz	Insulation	H
Phase	3	Motor Standard	NEMA
Poles	4	Mounting	Flange
Current	93A	Max Temp	120°C
RPM	1485	Weight	590kg (1300 lbs)
Dimensions (H x W x L)	387mm x 403mm x 950mm (15.25" x 16" x 37.4")		

Options for the VF1-75 DC/AC VFD Battery System

Part Name	Description	Part Number
VF1-75 Motor Controller	Traction Drive	A800374
Pre-Charge / Pump Start Inverter	VFD Precharge / Pump	A800376
Down Chopper	600V DC to 300V DC Down Chopper	A800381
VFD Master Control Module	Master Control Module	A800368
LU300b	12V DC 300W Light Supply, 90V to 360V DC input	A800966
Diagnostic Display	With programming port- aluminum enclosure	A800348
Diagnostic Display	With programming port- stainless steel enclosure	A800406
Handheld Programmer	Allows setting and viewing of system parameters and logs	A800220-1
Foot Switch	FS-400 foot switch assembly	A800498
Conveyor Switch	CS305 Controls forward/ reverse operation, precise speed control of conveyor chain, 13 position detent	A800305
Conveyor Switch	CS300 Controls forward/ reverse operation	A800300
Panic Switch	PS300 Panic Switch	A800190
DC Choke	.5mh, 150AMP, NOMEX insulation, U Barrier Guards	I9001-050
EMC Filter	170A @ 550V DC, 100kW @ 550V DC	A800393
Ground Fault Diode/ Relay	200V- 750V DC, sensing current: 15A max	A800203
Ground Fault Detector	Monitors ground fault relay and trailing cable	A800390
Power Center Components		
EMC Filter	170A @ 550V DC, 100kW @ 550V DC	A800393
Ground Fault Receiver	Input supply: 120V AC	A800392
DC Choke	.5mh, 150AMP, NOMEX insulation, U barrier guards	I9001-050
Brake Resistor	VFD brake resistor assembly, 2.8 Ohms 7000W	R8000-024
Brake Module Panel Assembly	Adjustable brake voltage (includes A800993)	A800994
BM601 Brake Module Only	256V to 800V DC selectable	A800993
Motor and Encoder Parts		
Tram Motor	XV55 - 1000Nm XP torque tram motor	M6005-010
Conveyor Motor	XV25 - 26kW 440V AC XP conveyor motor	M6005-020
Motor Encoder Assembly	Contains encoder and wheel	M6006-020
Encoder	Encoder sensor	M6006-023
256 Magnetic Wheel	For use with the ST50 sensor head (more bore sizes available- see Saminco rep)	M6006-021
Encoder Backplate	Universal backplate	M6006-022

****Partial list shown. Please see your salesperson for all available options and configurations**

Ph: +1 239-561-1561 • Email: sales@samincoinc.com • Web: www.samincoinc.com



VF1-75batt_SAMb_2021.1

FLORIDA
Headquarters
10030 Amberwood Rd.
Ft. Myers, FL 33913
Ph: +1 239-561-1561
FAX: +1 239-561-1502

WEST VIRGINIA
Service Branch
517 Virginia Ave.
Huntington, WV 25701
Ph: +1 304-523-4700
FAX: +1 304-523-4039

COLORADO
Service Branch
Cedaredge, CO
Ph: +1 970-623-0000

SOUTH CAROLINA
Service Branch
Anderson, SC
Ph: +1 864-314-9046

International Locations:
Boksburg, South Africa
Australia
Poland