

DESCRIPTION OF OPERATION

Water Features inverter control panels convert single phase power to three phase power and offer the following features.

STANDARD FEATURES

- Speed pot to control the speed of the pump
- HOA - Hand-Off-Auto Switch
- Heavy duty padlockable metal enclosure from 1to 5HP
- Heavy duty padlockable fiberglass enclosure from 7.5HP to 20HP
- Heavy duty variable frequency drive - factory programmed
- Vented control panel to release heat on panels up to 5HP
- Fan with thermostat on panels from 7.5HP to 20HP
- Labeled field wiring terminal blocks
- Laminated electrical schematic
- Available with pump circuit breaker
- Custom options available - Timer, GFI protection, Low water shut of float, alarms
- UL 508 listed for the USA and Canada



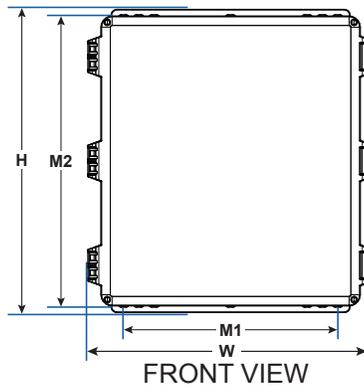
1625 Fullerton Court
Glendale Heights, IL 60139
Phone: 630-793-0127
tsurumipump.com

SPECIFICATIONS

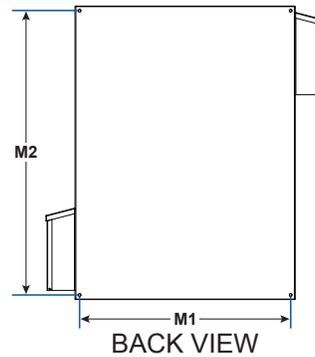
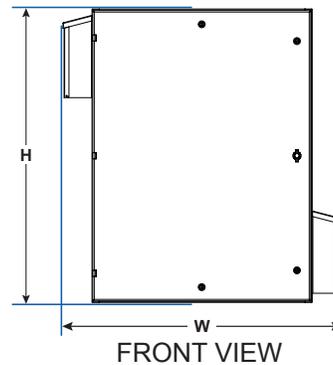
MODEL		(Exterior Enclosure Dimension in Inches)							
INVERTER - NO CIRCUIT BREAKER	INVERTER - WITH CIRCUIT BREAKER	INPUT - 1 PHASE AMPS@ 208/230VAC	OUTPUT - 3 PHASE AMPS	PANEL HORSEPOWER	W	H	D	M1	M2
9500	9600	8.9/7.5	4.8	1HP	18.16	19.85	11.27	14.00	18.75
9501	9601	15.8/13.3	8	2HP	18.16	19.85	11.27	14.00	18.75
9502	9602	21.9/18.4	11	3HP	18.16	19.85	11.27	14.00	18.75
9503	9603	35/33	17.5	5HP	18.16	19.85	11.27	14.00	18.75
9504*	9604*	48/42	22	7.5HP	33.46	24.00	14.09	22.50	22.50
9505*	9605*	58/54	28	10HP	33.46	24.00	14.09	22.50	22.50
9506*	9606*	84/80	42	15HP	33.46	24.00	14.09	22.50	22.50
9507*	9607*	108/104	54	20HP	45.46	48.00	18.12	34.50	46.50

*Includes a fan for the VFD and a fiberglass enclosure.

9500 - 9503 & 9600 - 9603



9507 - 9607



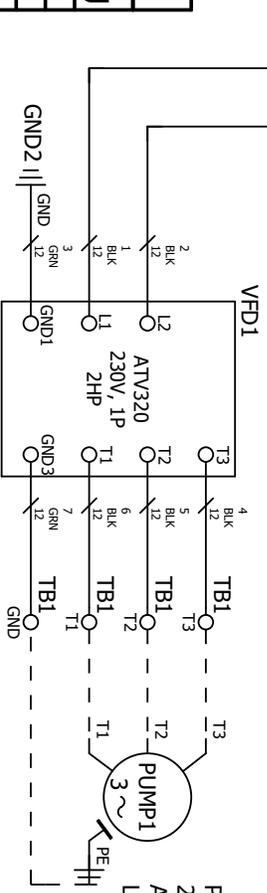
Incoming Power
230 VAC, 60 Hz
L1 L2 PE
GND1
TB1 L1 L2 GND1

Branch Circuit Protection Device/Disconnect Means Field Provided -
Size per manufacturing specifications for Pump/Motor

Device Tag	Description	Primary Voltage	Secondary Voltage
FS1	Float Switch	45 In-lb	
GND1;GND2	Ground Lug		
RES1	Potentiometer		
SW1	Toggle Switch, On-Off-On		
TB1	Terminal Block 30A	6 In-lb	
TB1	Terminal Block 50A	15 In-lb	
VFD1	VFD, 2HP, 230V		

Legend

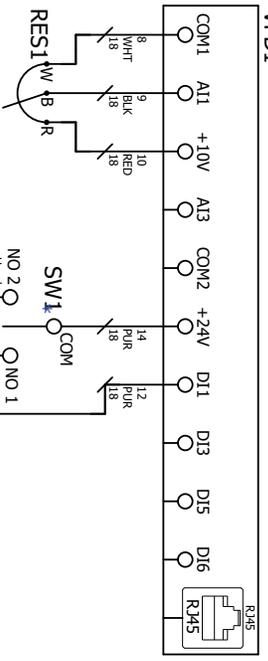
Field Wiring
Field Supplied



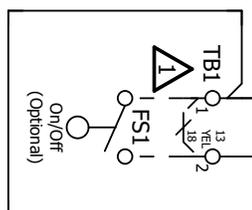
Menu	Code	Setting
CONF	Full	
Full	DRC	
DRC	Bf-	60
DRC	CTT	Std
DRC	Asy	
Asy	MPC	CoS
Asy	UNS	230*
Asy	Ncr	8.0*
Asy	FRs	60
Asy	nsp	1.780*
Set	Acc	1.0
Set	Dec	9
Set	LSP	30
Set	HSP	60
Set	ITH	8.0*
Set	CLI	12.0*
Set	UFR	120%
I-O	tCC	2C
I-O	tCt	LEL
I-O	r2	Run
FUN	STT	STT-nST
FLT	ATR	Yes
ATR	TAR	5 min.

*User must change these setting to match electrical and motor site conditions.
Uns = Site Voltage
Ncr = Motor FLA
nsp = Motor RPM
ITH = Motor FLA
CLI = Motor FLA x 1.5

CAUTION: Nonmetallic enclosure does not provide grounding between conduit connections. Use grounding bushings and jumper wires.
ATTENTION: Les boîtiers non-métalliques ne permettent pas de mise à la terre entre les connexions de conduits.
Utilisez des manchons de mise à la terre et des fils de liaison.



REMOVE YELLOW JUMPER IF USING A LOW CUTOFF FLOAT.



←=INTRODUCTION/1

Tsurumi Pump
1635 Fullerton Court
Gardendale Heights, IL 60139
PH: 630/793-0127 TSURUMIPUMP.COM

This drawing contains proprietary information which must not be duplicated, used, or disclosed in whole or in part without prior written consent.

Notes:
1. WARNING Electrical Shock Hazard. Disconnect power before servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.
2. Install in accordance with National Electric Code, NFPA 70, Seal all boxes, fittings, and conduit with appropriate seal devices to prevent moisture and gasses from entering enclosure.
3. Connect all grounds to a good ground. 4. Dashed lines represent field wiring - Use minimum 60 deg C Copper Wire 5. Branch Circuit Protection Device/Disconnect Means Field Provided.

Model Number **9501**
DWG Number **9501**

Schematic

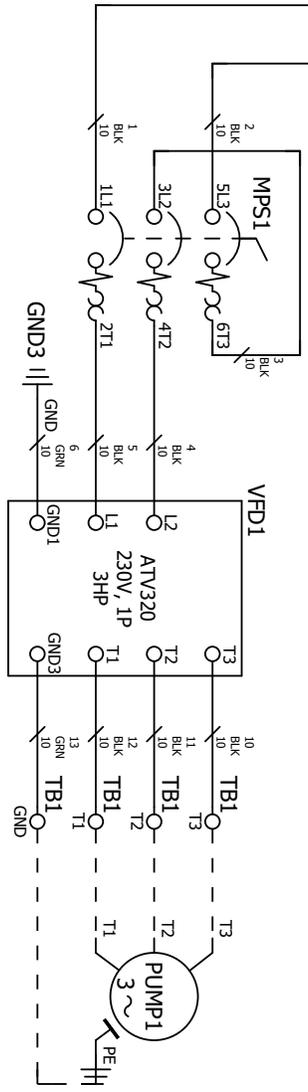
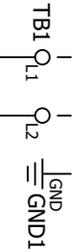
Quote Number

Drawn By: B. Nelson
Checked By: L. Leim
Date: 11/6/2024
Revision: 003

=STANDARD REPORT/1→
Page Number **1 of 1**

Incoming Power
230 VAC, 60 Hz

Branch Circuit Protection Device/Disconnect Means Field Provided -
Size per manufacturing specifications for Pump/Motor



Pump 1 Load
230 VAC, 3 HP
Adjust VFD to Actual Full
Load Amps of the Pump.

Device Tag	Description	Primary Torque	Secondary Torque
GND1	Ground Lug	45 In-lb	
GND3	Ground Screw		
MPS1	Motor Protection Switch 23-32 A	70 In-lb	57 In-lb
POT1	Potentiometer		
SW1	Toggle Switch, On-Off-On		
TB1	Terminal Block 30A	6 In-lb	
TB1	Terminal Block 50A	15 In-lb	
VFD1	VFD, 3HP, 230V		

Legend

Field Wiring
Field Supplied

Menu	Code	Setting
CONF	Full	
Full	DRC	
DRC	B-F-	60
DRC	CTT	Std
DRC	Asy	
Asy	MPC	COS
Asy	UNS	230*
Asy	Ncr	11*
Asy	FRS	60
Asy	nsp	1780*
Set	Acc	1
Set	Dec	9
Set	LSP	30
Set	HSP	60
Set	ITH	11*
Set	CLI	13.75*
Set	UFR	120
I-O	tCC	2C
I-O	tCt	LEL
FUN	STT	STT-nST
FLT	ATR	Yes
ATR	TAR	5 min.

*User must change these setting to match electrical and motor site conditions.

- Uns = Site Voltage
- Ncr = Motor FLA
- nsp = Motor RPM
- ITH = Motor FLA
- CLI = Motor FLA x 1.25

←INTRODUCTION/1

Schematic

=STANDARD REPORT/1→

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3. Connect all grounds to a good ground. 4. Dashed lines represent field wiring - Use minimum 60 deg C Copper Wire 5. Branch Circuit Protection Device/Disconnect Means Field Provided.

Model Number	9602	Quote Number	
DWG		Drawn By	B. Nelson
		Checked By	L. Leim
		Date	5/9/2025
		Revision	004

Page Number

1 of 1

CAUTION: Nonmetallic enclosure does not provide grounding between conduit connections. Use grounding bushings and jumper wires.
ATTENTION: Les boîtiers non-métalliques ne permettent pas de mise à la terre entre les connexions de conduits.
Utilisez des manchons de mise à la terre et des fils de liaison.

Remove Yellow Jumper if Using Low Cutout Float

