TORNATECH

Project: _____

Customer: _____

Engineer: _____

Pump Manufacturer: _____

Technical Data
Submittal Document

Model JP3

Across the Line Start
Jockey Pump Controller



Contents:

Data Sheets
Dimensional Data
Wiring Schematics
Field Connections

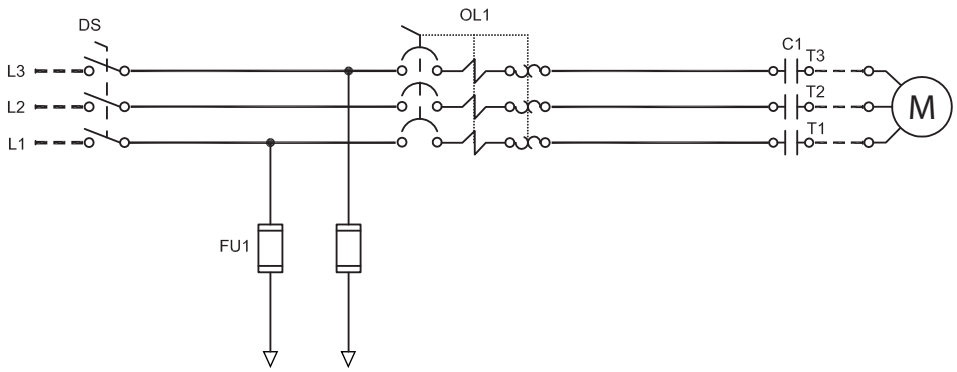
Note: The drawings included in this package are for controllers covered under our standard offering. Actual AS BUILT drawings may differ from what is shown in this package.

c UL us N.Y.C. APPROVED CE OPTIONAL SEISMIC COMPLIANT

August 2018

Technical Data

Model JP3 Jockey Pump Controller



N.Y.C. APPROVED

OPTIONAL

SEISMIC COMPLIANT

Listing	Underwriters Laboratory (UL)	UL508A - Industrial Pump Controllers
	CSA	CSA C22.2 No. 14 Industrial Control Equipment
	New York City	Accepted for use in the City of New York by the Department of Buildings
	Seismic Certification	See page 4 for details
	Optional	
	☐ CE Mark	Various EN, IEC & CEE directives and standards
Enclosure	**Protection Rating** ☐ Standard: NEMA 2 (IP31) **Optional** ☐ NEMA 12 ☐ NEMA 3 ☐ NEMA 3R ☐ NEMA 4 ☐ NEMA 4X-304 sst painted ☐ NEMA 4X-304 sst brushed finish ☐ NEMA 4X-316 sst painted ☐ NEMA 4X-316 sst brushed finish	
	Accessories • Wall mounting lugs (x4)	**Paint Specifications** • Red RAL3002 • Powder coating • Glossy textured finish

This is a Marketing document. Please consult factory for more information.
Manufacturer reserves the right to modify this information without notice

Technical Data

Model JP3 Jockey Pump Controller

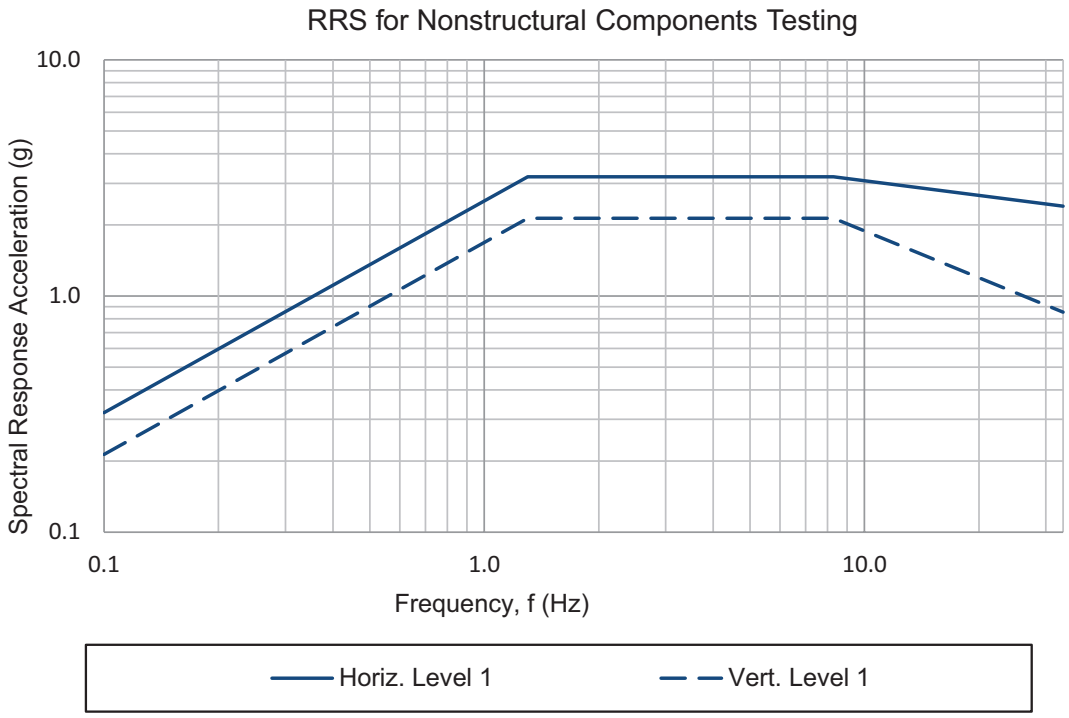
Fuseless Motor Starter	• Main disconnect – padlockable – rotary type handle – door interlocked • Thermo-magnetic motor protector • Contactor		
Control Circuit	• 24V.AC		
***iPD*+ Operator Interface**	• Solid state controls • All adjustments on door front • Navigation pushbuttons		
Pressure Sensing	• Pressure transducer for fresh water application 316 stainless steel construction • Rated for 0-600psi working pressure • Pressure sensing line connection ¼" Male NPT		

Visual Indications	• Manual motor start/run LED
	• Automatic motor start/run LED
	• Motor overload
	• Pressure reading
	  • Start pressure
	  • Stop pressure
	  • System pressure
	• System pressure diagnostic LED's
	  • Green: system pressure at or above stop pressure
	  • Yellow: system pressure between start and stop pressure
	  • Red: system pressure at or below start pressure
	• AUTO mode
	• OFF mode		

Timers	• Minimum run timer (off delay) • Delay start timer (on delay) • Visual countdown		
Counters	• Pump start counter • Elapsed timer meter (hours / non-resettable)		
Operators	• OFF-AUTO pushbutton • Start and Stop pushbutton		
Operation	Automatic Start	Start on pressure drop	
	Manual Start	Start pushbutton	
	Stopping	Stop pushbutton	
	Timers	Field adjustable & visual countdown	• Minimum run timer (off delay) • Delay start timer (on delay)

This is a Marketing document. Please consult factory for more information.
Manufacturer reserves the right to modify this information without notice

Seismic Certification	Seismic Certification Company	TRU Compliance, LLC A Tobalski Watkins Affiliate						TWEI Project No.: 15014			
	Mounting details	Rigid wall mounting									
	Seismic Information	Building Code	Test Criteria	Seismic Parameters	S_{DS}	z/h	I_P	A_{FLX-H}	A_{RIG-H}	A_{FLX-V}	A_{RIG-V}
		IBC 2015, CBC 2016	ICC-ES AC156	ASCE 7-10 Chapter 13	2.0	1.0	1.5	3.20	2.40	1.33	0.53
					3.2	0.0	1.5	3.20	1.28	2.13	0.85



Notes:
- Components are tested in accordance with ICC-ES AC156, IBC 2015 & CBC 2016.
- OSHPD Special Seismic Certification Preapproval (OSP)

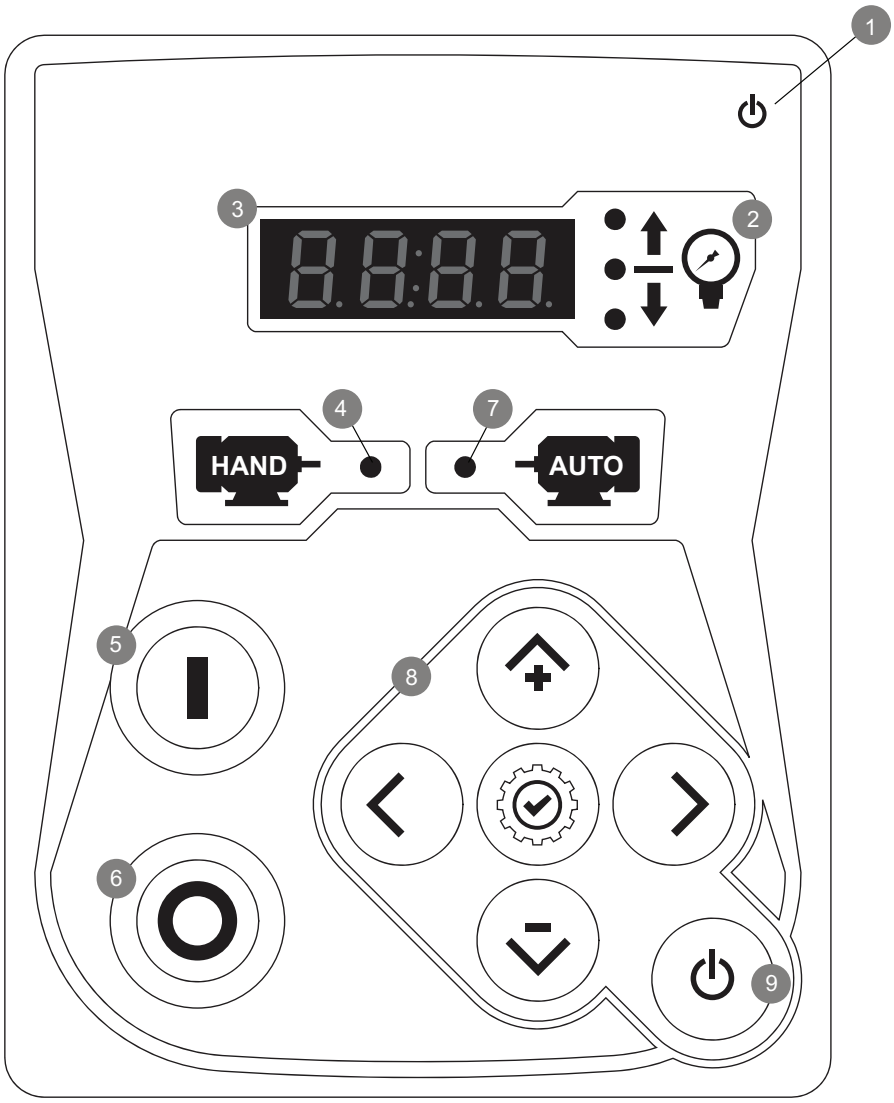
This is a Marketing document. Please consult factory for more information.
Manufacturer reserves the right to modify this information without notice

	A4	Elapsed time meter (time totalizer)
	A5	Motor run alarm contact
	A6	Loss of power alarm contact
	A7	Overload or short circuit alarm contact
	D12	CE Mark c/w externally mounted wetted parts
	D13A	Externally mounted wetted parts
	D14	Export packing for 1 controller
	D18	Audible alarm
	D19	Anti-condensation heater and thermostat
	D20	Anti-condensation heater and humidistat
	D21	Tropicalization
	D22	Phase reversal / failure pilot light and alarm contact
	D23	Controller power healthy pilot light and alarm contact
	D24	Pump failure via current sensing relay with pilot light and dry alarm contact
	D25	Low zone pump control function
	D26	Mid zone pump control function
	D27	High zone pump control function
	D28	Selector switch in auto alarm contacts
	D29	Selector switch in off alarm contacts
	D30	Motor heater circuit
	D32	Service entrance rated - 100kA short circuit withstand rating: • 120V/1ph (0.5hp max.) • 240V/1ph (1hp max.) • 200V-208V - 60hz (2hp max.) • 220V-240V - 60hz (3hp max.) • 380V-416V - 50hz - 60hz (5hp max.) • 440V-480V - 60hz (5hp max.)
	D33	Service entrance rated - 65kA short circuit withstand rating: • 120V/1ph (0.5hp max.) • 240V/1ph (1hp max.) • 200V-208V - 60hz (3hp-15hp max.) • 220V-240V - 60hz (515hp max.) • 380V-416V - 50hz - 60hz (7.5hp - 40hp max.) • 440V-480V - 60hz (7.5hp-40hp max.)
	D34	Service entrance rated - 42kA short circuit withstand rating: • 600V - 60hz (7.5hp max.)

	L01	Other language and English (bilingual)
	L02	French
	L03	Spanish
	L04	German
	L05	Italian
	L06	Polish
	L07	Romanian
	L08	Hungarian
	L09	Slovak
	L10	Croatian
	L11	Czech
	L12	Portuguese
	L13	Dutch
	L14	Russian
	L15	Turkish
	L16	Swedish
	L17	Bulgarian
	L18	Thai
	L19	Indonesian
	L20	Slovenian
	L21	Danish
	L22	Greek
	L23	Arabic
	L24	Hebrew
	L25	Chinese

Note: Options chosen from this page are not electrically represented on the wiring schematics in this submittal package.

iPD+ Operator Interface



1 - Power on LED
2 - System status LED
3 - Digital display
4 - Hand start LED
5 - START pushbutton
6 - STOP pushbutton
7 - Auto start LED
8 - Navigation keypad
9 - ON - OFF pushbutton

This is a Marketing document. Please consult factory for more information.
Manufacturer reserves the right to modify this information without notice

Jockey Pump Controller

Across the Line / 3 Phase

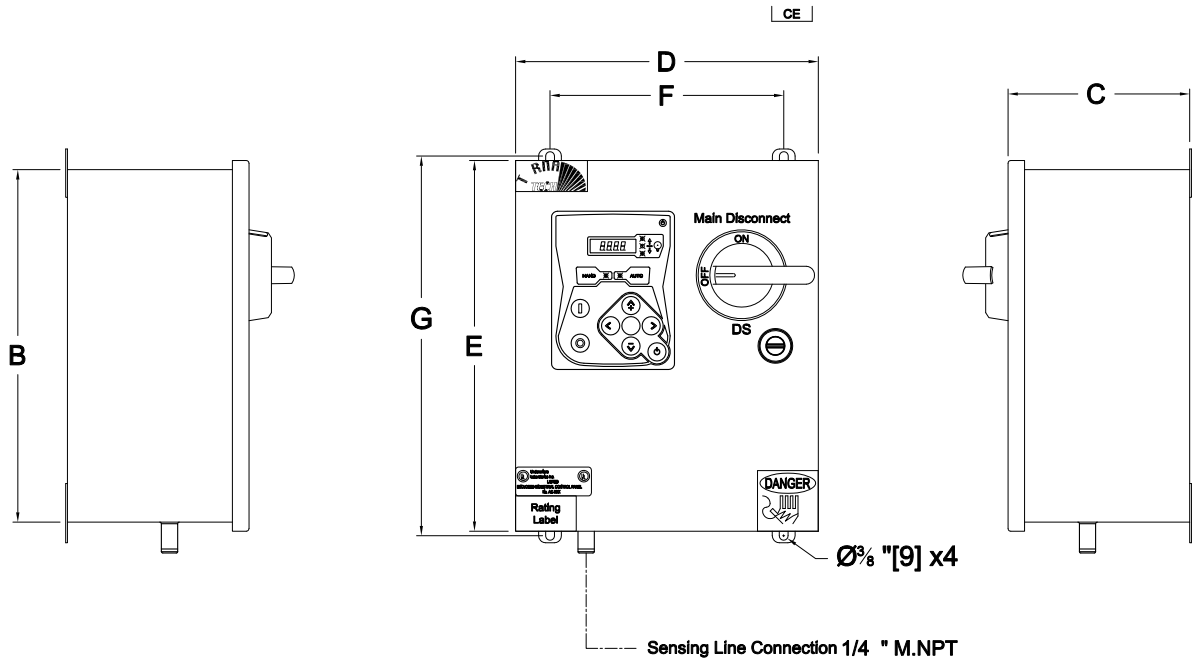
Dimensions

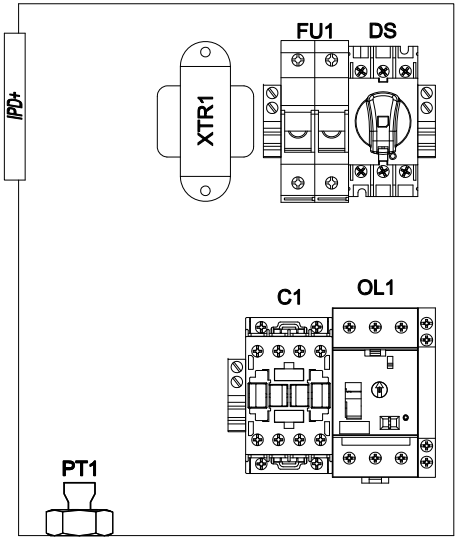
Model:JP3

Built to the latest edition of the UL 508A & CSA C22.2 No.14 standard

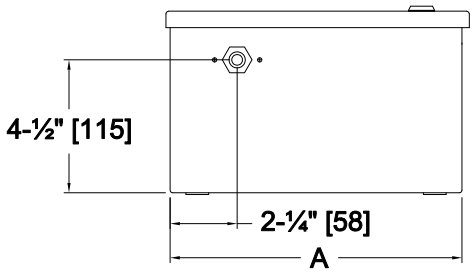
PER QUOTE DRAWING No.		
REV.	DESCRIPTION	DD/MM/YY
5	Modified Tornatech & Seismic Logo	14/04/16
6	Modified J19 Outputs ID	10/06/16
7	Revised logo	18/06/18

Drawing No.: JP3-DI500/E





Standard Internal Layout



Dimensions*							
Maximum Motor Horsepower					Enclosure Dimensions	Door Dimensions	Anchor Dimensions
200-208V	220-240V	380-416V	440-480V	575-600V	A X B X C	D X E	F X G
10HP	10HP	15HP	20HP	25HP	10"X12"X6-½"	10-⅝"X12-⅝"	8"X12-¾"
20HP	30HP	40HP	60HP	60HP	16"X16"X7-½"	16-½"X16-½"	14"X16-¾"

Notes:
- Standard NEMA: NEMA 2
- Standard Paint: Textured Red RAL 3002.
- All Dimensions are in Inches [Millimeters]
- Use Watertight Conduit and Connector Only.
- Protect Equipment Against Drilling Chips.
- Door Swing Equal to Door Width

Drawing for information only.
Manufacturer reserves the right to modify this drawing without notice.
Contact manufacturer for "As Built" drawing.
*Dimensions may change depending on option required. Consult Factory for exact dimensions.

Projection

Copyright © 2018 Tornatech Inc. All right reserved. This drawing and the information contained or depicted herein are the sole property of Tornatech Inc. Copies are communicated to the recipient in strict confidence and may not be retransmitted, published, reproduced, copied or used in any manner, including as the basis for the manufacture or sale of any products, without the express prior written consent of Tornatech Inc.

Jockey Pump Controller

Across the Line / 3 Phase

Wiring schematic

Model:JP3

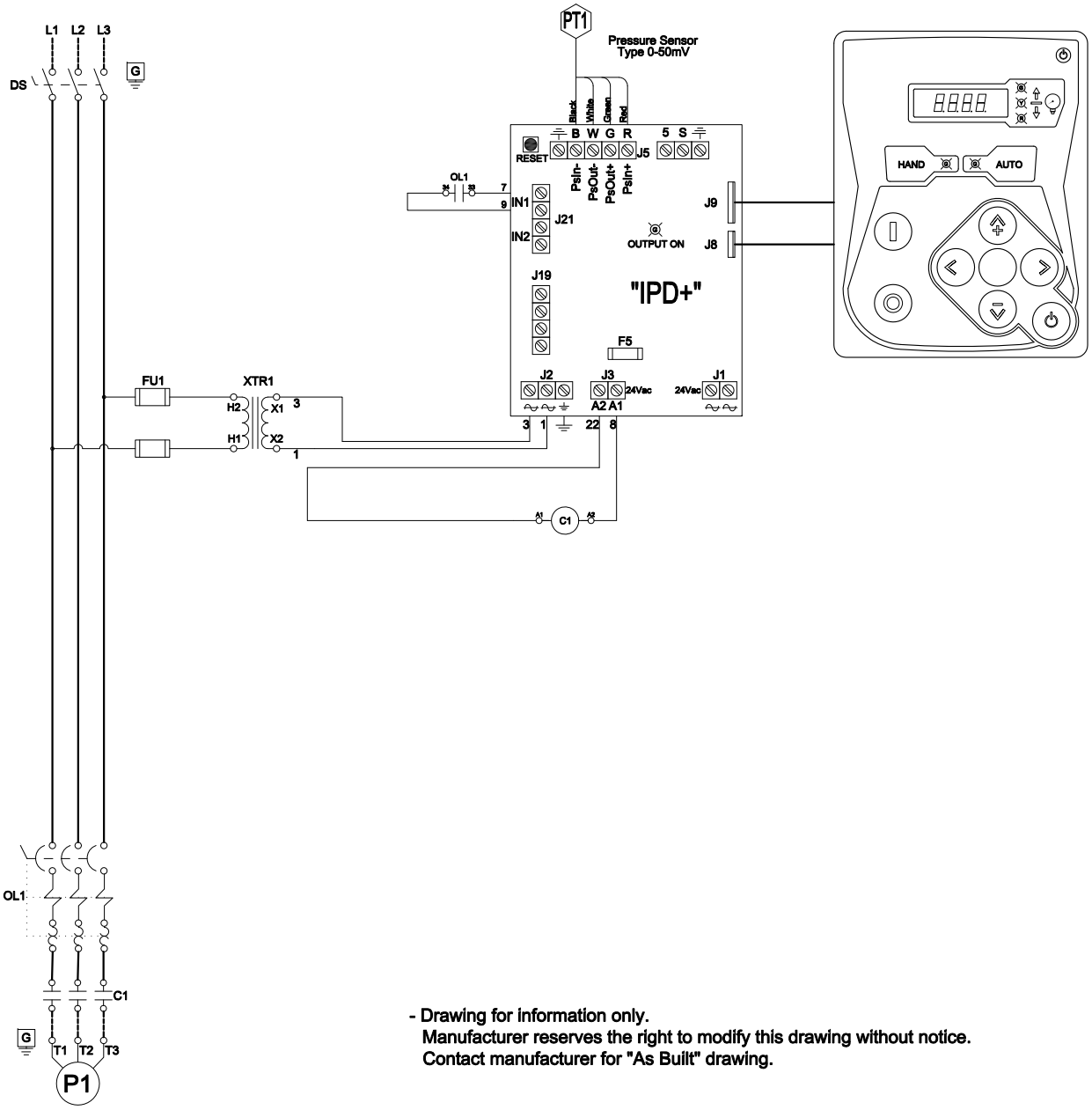
Built to the latest edition of the UL 508A & CSA C22.2 No.14 standard

PER QUOTE DRAWING No.

REV.	DESCRIPTION	DD/MM/YY
5	Modified Tornatech & Seismic Logo	14/04/16
6	Modified J19 Outputs ID	10/06/16
7	Revised logo	18/06/18

Drawing No.

JP3-WS500/E



- Drawing for information only.
  Manufacturer reserves the right to modify this drawing without notice.
  Contact manufacturer for "As Built" drawing.

Copyright © 2018 Tornatech Inc. All right reserved. This drawing and the information contained or depicted herein are the sole property of Tornatech Inc. Copies are communicated to the recipient in strict confidence and may not be retransmitted, published, reproduced, copied or used in any manner, including as the basis for the manufacture or sale of any products, without the express prior written consent of Tornatech Inc.

Jockey Pump Controller

Across the Line / 3 Phase

Line and Motor Terminal Size

Model:JP3

Built to the latest edition of the UL 508A & CSA C22.2 No.14 standard

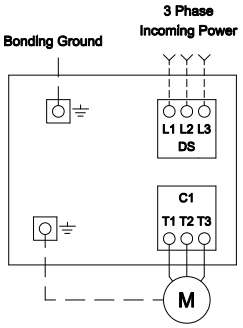
PER QUOTE DRAWING No.

SEISMIC CERTIFIED COMPLIANT | NYC Dpt of Building Approved

REV.	DESCRIPTION	DD/MM/YY
5	Modified Tornatech & Seismic Logo	14/04/16
6	Modified J19 Outputs ID	10/06/16
7	Revised logo	18/06/18

Drawing No. JP3-TD500/E

Power Connections and Motor Connections



Line Terminals (L1,L2,L3,GND)							
Maximum Motor Horsepower					Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V	380-416V	440-480V	575-600V			
10HP	10HP	20HP	20HP	25HP	#14 AWG - #6 AWG	2 Nm	#14 AWG - #2 AWG
20HP	30HP	40HP	60HP	60HP	#12 AWG - #1 AWG	6 Nm	#6 AWG - #2 AWG

Motor Terminals (T1,T2,T3,GND)							
Maximum Motor Horsepower					Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V	380-416V	440-480V	575-600V			
5HP	7.5HP	10HP	15HP	20HP	#14 AWG - #10 AWG	1.8 Nm	#14 AWG - #2 AWG
10HP	10HP	15HP	20HP	25HP	#14 AWG - #6 AWG	2.5 Nm	#12 AWG - #2 AWG
15HP	20HP	30HP	50HP	50HP	#10 AWG - #3 AWG	5 Nm	#12 AWG - #2 AWG
20HP	30HP	40HP	60HP	60HP	#10 AWG - #2 AWG	11.3 Nm	#12 AWG - #2 AWG

Copyright © 2018 Tornatech Inc. All right reserved. This drawing and the information contained or depicted herein are the sole property of Tornatech Inc. Copies are communicated to the recipient in strict confidence and may not be retransmitted, published, reproduced, copied or used in any manner, including as the basis for the manufacture or sale of any products, without the express prior written consent of Tornatech Inc.