# Smart**Drive**® | **VP**

#### Water Circulation Pumps & Circulators

## **Vertical Panel Drive**

No one knows more about controlling pumps than the leader in building pumps: Taco. Our vertical panels live up to our reputation for quality and dependability, and provide you with a generous array of features. The Vertical Panel bypass configuration further ensures that you can have your drive panel your way. This design includes market-preferred bypass controls from your preferred panel supplier, along with maximum geometric flexibility to meet your strict installation constraints.



#### What does TSL do?

Taco System Logic controls the variable speed drive to optimize pump performance. Setpoints and controls are programmed at our factory to allow our pumps to run at much lower pressures than most industry professionals would consider. In addition, Taco Fault Tolerant Control maintains control even when the feedback signal wire is compromised. Pumping at much lower speeds will consume substantially less energy and require less maintenance, so along with peace of mind, you get superior efficiency, responsive comfort and reduced life cycle costs all in one neat package. Add the SmartDrive +TSL option when you choose your next Taco pump.



©Taco Catalog # 300-41 Supersedes: **08/08/17**  Effective Date: 06/21/18 Printed in USA

### **Vertical Panel Drive**

#### **Standard Product Features**

- NEMA 1 enclosure
- 7.5hp through 60hp @ 208v, 15hp through125hp @ 460/600v
- Built in dual DC-link choke. Equivalent: 5% AC input line reactor
- Standard 3-Contactor bypass
- Fused disconnect or circuit breaker
- 24V control power
- Class 20 Overload
- UL/CUL certification
- Electromechanical bypass designs
- IBC and OSHPD Seismic certifications
- Imbedded controls protocols
- Field-installable in any commercial environment

- Inherent phase loss/imbalance and brown-out protection to prevent product damage and downtime in adverse power quality installations
- Electrical standards compliance on every product
- Maximum geometric flexibility to meet the installation constraints
- BACnet inherent in every drive

#### Common Non-Standard Product Options

- 100kA SCCR protection
- AC line reactors
- Custom designs and larger
  horsepower sizes available



#### This panel is:

- Structured around the SmartDrive® HVAC
- Same performance as traditional panel with smaller footprint.
- Sleek vertical layout that requires less horizontal wall space.
- Same high quality components and design as our traditional panel.

#### Inherent in the vertical bypass panels

The engine driving the panel dependability is a 24VDC switch mode power supply that greatly improves performance and dependability beyond traditional CPT power designs.

The panel power supply inclued on P2, P3, and P4 frame sizes provides steady, dependable control power, even when the input voltage drops more than 30%, virtually eliminating contactor malfunction due to brownout conditions or phase loss. On P5 frame sizes, a voltage sensing relay provides similar protection.

These drives perform better because of their robust DC link reactor, standard in every SmartDrive® VP. This device offers comparable harmonic performance to AC input reactors without detrimental input voltage reductions, and without the extra heat that would typically be removed via additional fans or other devices.

	Panel Power Sizes					Panel Dimensions in Inches					
	Bypass and Non-Bypass			Bypass	Non- Bypass	Bypass			Non-Bypass		
Frame Size	208V & 230V	230V	460V & 600V	208V		Length	Width	Depth	Length	Width	Depth
P2	7.5 - 15 HP		15 - 25 HP			41.8	9.1	16	29.9	8.9	11.5
Р3	20 HP	25HP	30 - 50 HP		25 HP	43.2	9.6	17.7	34.3	9.6	11.2
P4	30 - 40 HP		60 - 75 HP	25 HP		54.4	12.7	18	39.6	12.7	14.8
P5	50 - 60 HP		100 - 125 HP			59.6	15.1	18.0	45.8	15.1	14.8



Taco System Logic modulates and stages pumps as system demand changes. No need for external controllers . +TSL runs right on the drive.

#### **+TSL Benefits**

- Optimize your energy efficiency
- No Programming required
- No additional hardware required
- Fault Tolerant Control



SmartDrive® | HVAC



**+TSL** This symbol tell you that a +TSL upgrade is available for this unit.

Smart**Drive**® | **SP** 



SmartDrive® | VP

#### Four SmartDrive +TSL Control options to choose from:

- Delta-P HVAC Pump Set, 1-3 pump, Lead/Lag, 1-3 Zones
- Delta-T HVAC Pump Set, 1-3 pump, Lead/Lag
- Domestic Water Booster Set, 1-3 pump, Lead/Lag

Taco can accept no responsibility for possible errors in catalogs, brochures and other printed material. Taco reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All rights reserved.



Taco Inc., 1160 Cranston Street, Cranston, RI 02920 / (401) 942-8000 / Fax (401) 942-2360 Taco (Canada) Ltd., 8450 Lawson Road, Unit #3, Milton, Ontario L9T 0J8 / (905) 564-9422 / Fax (905) 564-9436

www.TacoComfort.com