

# VERTICAL SOLID SHAFT WPI HIGH THRUST with "P" BASE - LOW VOLTAGE

NEMA Premium CE

ee CCO02A UL SP

AMRCED (MAX-VSP™) NEMA PREMIUM [VSP]\*

Effective 07-08-18

Supersedes 03-24-17



## APPLICATIONS:

- Deep Well Turbine Pumps
- Fluid Handling Systems
- Irrigation
- Water/Wastewater
- Fire Pumps\*

## FEATURES:

- Output Range: 15 - 800 HP
- Speed: 1800 & 1200 RPM
- Enclosure: Weather Protected Type I (WPI)
- Voltage: 230/460V(Usable on 208V); 150HP and Larger is 460V Only
- Three Phase, 60 Hz, 1.15 Service Factor (Continuous on Sine Wave Power)
- Inverter Duty (PWM) per NEMA® MG-1 Part 31 at 1.0 Service Factor
- New Dual Column (60/50 Hz) Design Nameplate as Standard; 50 Hz Data 190/380V at 1.0 S.F.
- Standard Features: Ball Type NRR, Drip/Splash Cover, Space Heaters (120V)
- 5000 Frames and Above also include Mounting Provisions for bearing RTDs and Insulated Bearing Housing
- Class F Insulation with Phenolic Alkyd Resin Varnish
- Class B Temperature Rise
- NEMA Design B Torques
- Oversized Main Conduit Box Rotatable in 90 Degree Increments - Fully Gasketed with NPT Threaded Entrance
- Cast Iron Conduit Box for F#449VP and Below; Steel Plate Conduit Box for F#5000
- Designed for 40°C Ambient Temperature<sup>(1)</sup>
- Designed for 3300 ft. Elevation<sup>(2)</sup>
- Counterclockwise (CCW) Rotation; Viewed from Top
- Cast Iron Frame & End Brackets
- 1045 Solid Carbon Steel Shaft
- Aluminum Die Cast Squirrel Cage Rotor Construction for F#449VP and Below
- Squirrel Cage Copper or Copper Alloy Bar Rotor Construction for F#5000
- Paint System: Phenolic Rust Proof Base Plus Polyurethane Top Coat
- Paint Color for AMRCED (MAX-VSP™): Blue - Munsell 5PB 3/8
- Guide Bearings: 213VP - 286VP frames are Double Shielded
- Guide Bearings: 324VP - 5810 frames are Re-Greasable with Mobil Polyrex™ EM
- Thrust Bearings: 213VP - 286VP frames are Re-Greasable Angular Contact with Mobil Polyrex™ EM
- Thrust Bearings: 324VP - 405VP frames are Oil Lubricated Angular Contact with Site Glass
- Oil Requirements for 324VP-405VP - 145 to 175 S.S.U. @100°F
- Oil Requirements for 444VP-5810VP - 300 S.S.U. @100°F
- Grounding Terminal Inside Main Box
- Stainless Steel Nameplate and Rodent Screens
- 12 Leads (PWS on 230V) Wye/Delta on 230/460V for 210TP-400TP<sup>(3)</sup>  
6 Leads (PWS on 230V, Wye/Delta on 460V for 444TP-5810P)
- Suitable for Inverter Use per NEMA MG-1 Part 31.4.4.2  
- 10:1 Variable Torque with NRR. 10:1 C.T., 20:1 VT without NRR Using Braking in VFD
- Precautions should be taken to eliminate or reduce shaft currents that may be imposed on the motor by VFD as stated per NEMA MG-1 Part 31.

## EXTRAS/ OPTIONS:

Please refer to pages 147 - 154 which show common modifications that can be performed.

## Notes:

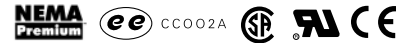
\* Fire Pump available. See product page for more details.

(1) Consult a Stock Product Application Specialist for suitability in higher ambient environments.

(2) Consult a Stock Product Application Specialist for suitability at higher elevations.

(3) Suitable for Wye/Delta start at 230V or 460V.

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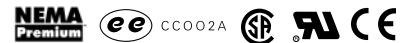


FIRE PUMP CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @ 460V	DOWN THRUST (lbs.)	BD DIM (in.)	APPROX. SHIPPING WT. (lbs.)
VSP0154FP	15	1800	254VP	93.0	83.0	18.2	3,350	10.00	309
VSP0204FP	20	1800	256VP	93.0	83.0	24.3	3,350	10.00	330
VSP0254FP	25	1800	284VP	93.6	85.0	29.4	3,350	10.00	425
VSP0304FP	30	1800	286VP	94.1	86.0	34.7	3,350	10.00	465
VSP0404FP	40	1800	324VP	94.1	86.0	46.3	5,700	16.50	634
VSP0504FP	50	1800	326VP	94.5	85.0	58.5	5,700	16.50	689
VSP0604FP	60	1800	364VP	95.0	85.0	69.5	6,000	16.50	791
VSP0606FP	60	1200	404VP	94.5	85.5	69.5	9,000	16.50	1,094
VSP0754FP	75	1800	365VP	95.0	86.0	86.0	6,000	16.50	877
VSP0756FP	75	1200	405VP	94.5	86.5	86.0	9,000	16.50	1,239
VSP1004FP	100	1800	404VP	95.4	85.5	115	7,900	16.50	1,133
VSP1006FP	100	1200	444VP	95.0	82.0	120	12,000	16.50	1,450
VSP1254FP	125	1800	405VP	95.4	84.5	145	7,900	16.50	1,158
VSP1256FP	125	1200	445VP	95.0	82.0	150	11,900	16.50	1,650
VSP1504FP	150	1800	444VP	95.0	86.0	172	10,700	16.50	1,530
VSP1506FP	150	1200	445VP	95.4	82.5	178	11,800	16.50	1,890
VSP2004FP	200	1800	445VP	95.0	86.5	228	10,700	16.50	1,820
VSP2006FP	200	1200	447VP	95.4	83.0	236	14,900	20.00	2,130
VSP2504FP	250	1800	447VP20	95.8	86.5	283	13,400	20.00	1,940
VSP2506FP	250	1200	449VP	95.8	83.0	295	14,700	20.00	2,660
VSP3004FP	300	1800	447VP	95.8	87.5	335	13,400	20.00	2,470
VSP3006FP	300	1200	449VP	94.7	79.0	375	11,360	20.00	3,320
VSP3504FP	350	1800	447VP	95.8	88.0	388	13,300	20.00	2,900
VSP4004FP	400	1800	449VP	95.8	88.5	442	13,200	20.00	3,320

**Notes:**

- \* Fire Pump available as made to order. Fire Pump Certificate complies with ANSI/UL 1004-5. Certificate# 20120717 - EX6569.
- (1) Delivery for Fire Pump Duty motor (Catalog Number + FP) is standard 5 - 10 working days after receipt of order if standard motor is in stock.
- (2) Fire Pump Duty Motor pricing includes: adding UL nameplate, restamping original nameplate to new "VSP\_FP" catalog number.
- (3) All data subject to change without notice.

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CAT. NO.	HP	RPM	FRAME	FL EFF (%)	FL PF (%)	FL AMPS @ 460V	DOWN THRUST (lbs.)	BD DIM (in.)	APPROX. SHIPPING WT. (lbs.)
VSP0154	15	1800	254VP	93.0	83.0	18.2	3,350	10.00	309
VSP0204	20	1800	256VP	93.0	83.0	24.3	3,350	10.00	330
VSP0254	25	1800	284VP	93.6	85.0	29.4	3,350	10.00	425
VSP0304	30	1800	286VP	94.1	86.0	34.7	3,350	10.00	465
VSP0404	40	1800	324VP	94.1	86.0	46.3	5,700	16.50	634
VSP0504	50	1800	326VP	94.5	85.0	58.5	5,700	16.50	689
VSP0604	60	1800	364VP	95.0	85.0	69.5	6,000	16.50	791
VSP0606	60	1200	404VP	94.5	85.5	69.5	9,000	16.50	1,094
VSP0754	75	1800	365VP	95.0	86.0	86.0	6,000	16.50	877
VSP0756	75	1200	405VP	94.5	86.5	86.0	9,000	16.50	1,239
VSP1004	100	1800	404VP	95.4	85.5	115	7,900	16.50	1,133
VSP1006	100	1200	444VP	95.0	82.0	120	12,000	16.50	1,450
VSP1254	125	1800	405VP	95.4	84.5	145	7,900	16.50	1,158
VSP1256	125	1200	445VP	95.0	82.0	150	11,900	16.50	1,650
VSP1504	150	1800	444VP	95.0	86.0	172	10,700	16.50	1,530
VSP1506	150	1200	445VP	95.4	82.5	178	11,800	16.50	1,890
VSP2004	200	1800	445VP	95.0	86.5	228	10,700	16.50	1,820
VSP2006 <sup>(4)</sup>	200	1200	447VP	95.4	83.0	236	14,900	20.00	2,130
VSP2504 <sup>(4)</sup>	250	1800	447VP	95.8	86.5	283	13,400	20.00	1,940
VSP2506 <sup>(4)</sup>	250	1200	449VP	95.8	83.0	295	14,700	20.00	2,660
VSP3004 <sup>(4)</sup>	300	1800	447VP	95.8	87.5	335	13,400	20.00	2,470
VSP3006 <sup>(4)</sup>	300	1200	449VP	94.7	79.0	375	11,360	20.00	3,320
VSP3504 <sup>(4)</sup>	350	1800	447VP	95.8	88.0	388	13,300	20.00	2,900
VSP3506 <sup>(4)</sup>	350	1200	5009VP	95.8	84.5	405	33,900	24.50	4,050
VSP4004 <sup>(4)</sup>	400	1800	449VP	95.8	88.5	442	13,200	20.00	3,320
VSP4006 <sup>(4)</sup>	400	1200	5009VP	95.8	85.0	460	33,800	24.50	4,270
VSP4504 <sup>(4)</sup>	450	1800	5009VP	96.2	89.1	492	31,000	24.50	4,050
VSP4506	450	1200	5806VP	95.8	84.7	519	33,600	30.00	5,310
VSP5004 <sup>(4)</sup>	500	1800	5009VP	96.2	89.2	546	30,900	24.50	4,170
VSP5006	500	1200	5806VP	95.8	85.4	572	33,500	30.00	5,430
VSP6004	600	1800	5808VP	96.2	90.6	645	30,400	30.00	5,470
VSP6006	600	1200	5808VP	95.8	85.0	690	33,300	30.00	5,600
VSP7004	700	1800	5810VP	96.2	91.1	748	30,200	30.00	5,880
VSP7006	700	1200	5808VP	95.8	85.7	798	33,100	30.00	5,830
VSP8004	800	1800	5810VP	96.2	91.0	856	30,100	30.00	6,180
VSP8006	800	1200	5810VP	95.8	86.1	908	32,900	30.00	6,210

**Notes:**

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- (2) Fire Pump Duty Motor pricing includes: adding UL nameplate, restamping original nameplate to new "VSP\_FP" catalog number.
- (3) All data subject to change without notice.
- (4) These specified ratings have larger shafts. Please make sure to check drawing and/or consult AE specialist for solutions on replacment motors.  
TWMC larger shaft dimensions for reference:  
445VP - U Dim=2.875" AH Dim=6.00"  
449VP - U Dim=2.875" AH Dim=6.00"  
5009VP - U Dim=3.375" AH Dim=6.00"