



MYERS®
MODELS 4VC & 4VCX
4" SOLIDS HANDLING
WASTEWATER PUMPS



STANDARD (4VC) AND HAZARDOUS LOCATION (4VCX) CONSTRUCTION

MYERS® MODELS 4VC & 4VCX
Solids Handling Wastewater Pumps

Cut Your Pumping Costs

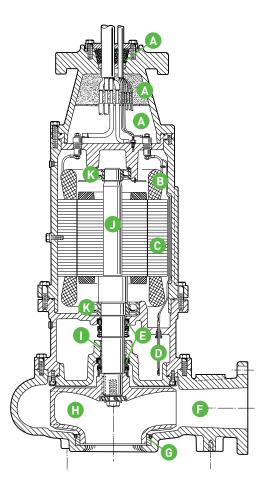
The 4VC and 4VCX (hazardous location) submersible wastewater pumps are a heavy-duty 4" solids handling series capable of passing a full 3-3/16" spherical solid. Myers rounded port, 2-vane, enclosed impellers prevent solids from binding or clogging and offer high operating efficiencies to cut your pumping costs. The 4VC series modified constant velocity volute case provides smooth operation over an extended portion of the performance curve for longer seal and bearing life. For use in municipal lift stations, treatment plants and industrial waste applications. Myers offers a complete line of wastewater pumps, lift-out rail assemblies, controls and accessories to meet your needs. Call your Myers distributor or the Myers sales office at 419-289-1144 for more details.



| Product Capabilities | | | | | | | | | | |
|------------------------------------|--------------------------------------|--------------------------|--|--|--|--|--|--|--|--|
| Capacities To | 1800 gpm | 113.4 lps | | | | | | | | |
| Heads To | 165 ft. | 50.3 m | | | | | | | | |
| Solids Handling | 3-3/16 in. | 80 mm | | | | | | | | |
| Liquids Handling | raw unscreened sewag | e, effluent, drain water | | | | | | | | |
| Intermittent Liquid Temp. | up to 140°F | up to 60°C | | | | | | | | |
| Winding Insulation Temp. (Class H) | 356°F | 180°C | | | | | | | | |
| Available Motors | 1750 RPM: 15 | HP, 200, 230, | | | | | | | | |
| | 460, 575V, | 3Ø, 60 Hz. | | | | | | | | |
| | 20-60 HP, 230, 460, 575V, 3Ø, 60 Hz. | | | | | | | | | |
| | 1150 RPM: 5 - 10 HP, 200, | | | | | | | | | |
| | 230, 460, 575V, 3Ø, 60 Hz. | | | | | | | | | |
| | | 7-1/2 HP, 200, | | | | | | | | |
| | 230, 460, 575V, 3Ø, 60 Hz. | | | | | | | | | |
| Std. Third Party Approvals | | SA | | | | | | | | |
| Optional Approvals | FM, Class 1, Group | s C & D (4VCX only) | | | | | | | | |
| Acceptable pH Range | 6 - | - 9 | | | | | | | | |
| Specific Gravity | .9 - | - 1.1 | | | | | | | | |
| Viscosity | 28 – 3 | 5 SSU | | | | | | | | |
| Discharge, Horizontal | 4 in. | 101.6 mm | | | | | | | | |
| Flanged Centerline | 125 lb. ANSI | | | | | | | | | |

| Construction Materials | | | | | | | | | | |
|------------------------------|-----------------------------------|--|--|--|--|--|--|--|--|--|
| Motor Housing, Seal Housing, | cast iron, Class 30, | | | | | | | | | |
| Cord Cap and Volute Case | ASTM A48 | | | | | | | | | |
| Enclosed 2-Vane Impeller | ductile iron, Class 65, ASTM A536 | | | | | | | | | |
| Power and Control Cord | S00W, W | | | | | | | | | |
| Mechanical Seals: | | | | | | | | | | |
| Standard | double tandem, type 21 | | | | | | | | | |
| | carbon and ceramic | | | | | | | | | |
| Optional | lower tungsten, carbide | | | | | | | | | |
| Pump, Motor Shaft | 416 SST | | | | | | | | | |
| Fasteners | 300 Series SST | | | | | | | | | |
| Volute Wear Ring | brass | | | | | | | | | |

Pump Features and Applications



A. Cable Entry System

Provides triple seal protection. Cable jacket sealed by compression grommet. Individual wires sealed by epoxy potting. Terminal board separates motor chamber from cord cap.

B. Heat Sensor

Protects motor from burnout due to excessive heat from any overload condition. Automatically resets when motor has cooled.

c. Motor Stator

Heat shrunk into housing for perfect alignment and best heat transfer. Oil-filled motor conducts heat and lubricates bearings.

D. Seal Leak Probes

Detect water in seal housing. Activate warning light in control panel.

E. Shaft Seals

Double tandem mechanical shaft seals protect motor. Oil-filled seal chamber provides continuous lubrication.

F. Volute Case

Modified constant velocity volute handles 3-3/16" solids. 4" ANSI 125 lb. flange.

G. Brass Wear Ring

Prevents rust buildup and reduces leakage and wear. Replaceable to restore original running clearances and pump efficiencies.

H. High Efficiency Impeller

2-vane with rounded ports. Handles 3-3/16" solids. Pump-out vanes help keep trash from seal; reduce pressure at seal faces.

I. Sleeve Bearing

Takes radial shock load; provides flame path.

J. Heavy 416 SST Shaft

Corrosion resistant.

K. Ball Bearings

Upper and lower ball bearings support shaft and rotor and take axial and radial loads.

High Efficiency Hydraulic Design Cuts Pumping Costs and Extends Life of Fluid End Components.

- Two-vane, rounded port, enclosed type impellers handle 3-3/16" solids with ease at high operating efficiencies.
- Modified constant velocity volute offers quiet operation, low radial loads over extended portion of performance curve.

Durable Motor Will Deliver Many Years of Reliable Service.

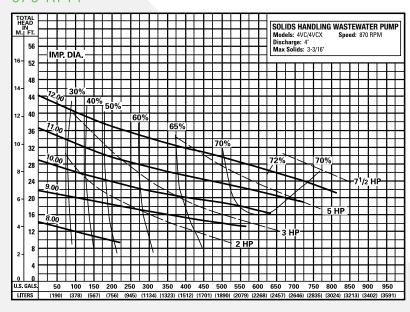
- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Heat sensor thermostats embedded in windings protect motor from overheat conditions.
- Seal leak probes warn of moisture entry; help prevent costly motor burnout.
- Double tandem shaft seals prevent sewage from entering motor.
- Power and control cables are triple sealed with epoxy, compression grommet and terminal board.

Available with Optional FM Approval for Use In Class 1, Groups C and D Hazardous Locations (4VCX only).

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Performance Data

870 RPM



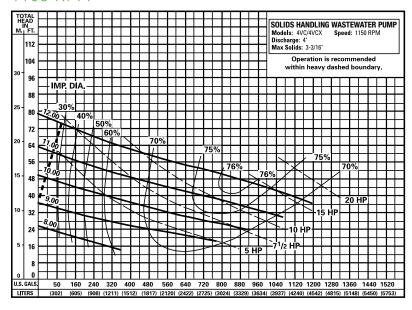
Pump performance is based on clear water (1.0 specific gravity @ 68°F) and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

| Availabl | e Models | Motor Electrical Data | | | | | | | | | | | | |
|------------|--------------------|-----------------------|-------|-------|-------|-------|------|---------|--------|---------|-----------|---------|----------|---------|
| | | | | | | | | Service | | Service | | | | |
| | | | | | | Start | Run | Factor | | Factor | | | NEC Code | Service |
| Standard | Hazardous Location | HP | Volts | Phase | Hertz | Amps | Amps | Amps | Run kW | kW | Start KVA | Run KVA | Letter | Factor |
| 4VC20M8-03 | 4VCX20M8-03 | 2 | 208 | 3 | 60 | 103.5 | 15.1 | 18.1 | 2.7 | 3.3 | 36.0 | 3.8 | K | 1.2 |
| 4VC20M8-23 | 4VCX20M8-23 | 2 | 230 | 3 | 60 | 90 | 13.3 | 16 | 2.7 | 3.3 | 36.0 | 3.8 | K | 1.2 |
| 4VC20M8-43 | 4VCX20M8-43 | 2 | 460 | 3 | 60 | 45 | 6.7 | 8 | 2.7 | 3.3 | 36.0 | 3.8 | K | 1.2 |
| 4VC20M8-53 | 4VCX20M8-53 | 2 | 575 | 3 | 60 | 36 | 5.3 | 6.4 | 2.7 | 3.3 | 36.0 | 3.8 | K | 1.2 |
| 4VC30M8-03 | 4VCX30M8-03 | 3 | 208 | 3 | 60 | 103.5 | 16.7 | 20 | 3.9 | 4.8 | 36.0 | 5.4 | Н | 1.2 |
| 4VC30M8-23 | 4VCX30M8-23 | 3 | 230 | 3 | 60 | 90 | 14.7 | 17.6 | 3.9 | 4.8 | 36.0 | 5.4 | Н | 1.2 |
| 4VC30M8-43 | 4VCX30M8-43 | 3 | 460 | 3 | 60 | 45 | 7.3 | 8.7 | 3.9 | 4.8 | 36.0 | 5.4 | Н | 1.2 |
| 4VC30M8-53 | 4VCX30M8-53 | 3 | 575 | 3 | 60 | 36 | 5.8 | 6.7 | 3.9 | 4.8 | 36.0 | 5.4 | Н | 1.2 |
| 4VC50M8-03 | 4VCX50M8-03 | 5 | 208 | 3 | 60 | 103.5 | 24.1 | 28.8 | 6.0 | 7.3 | 36.0 | 8.4 | J | 1.2 |
| 4VC50M8-23 | 4VCX50M8-23 | 5 | 230 | 3 | 60 | 90 | 21 | 25 | 6.0 | 7.3 | 36.0 | 8.4 | J | 1.2 |
| 4VC50M8-43 | 4VCX50M8-43 | 5 | 460 | 3 | 60 | 45 | 10.5 | 12.5 | 6.0 | 7.3 | 36.0 | 8.4 | J | 1.2 |
| 4VC50M8-53 | 4VCX50M8-53 | 5 | 575 | 3 | 60 | 36 | 8.4 | 10 | 6.0 | 7.3 | 36.0 | 8.4 | J | 1.2 |
| 4VC75M8-03 | 4VCX75M8-03 | 7.5 | 208 | 3 | 60 | 149 | 30.3 | 36.8 | 7.7 | 9.4 | 52.0 | 10.6 | Н | 1.2 |
| 4VC75M8-23 | 4VCX75M8-23 | 7.5 | 230 | 3 | 60 | 130 | 26.4 | 32 | 7.7 | 9.4 | 52.0 | 10.6 | Н | 1.2 |
| 4VC75M8-43 | 4VCX75M8-43 | 7.5 | 460 | 3 | 60 | 65 | 13.2 | 16 | 7.7 | 9.4 | 52.0 | 10.6 | Н | 1.2 |
| 4VC75M8-53 | 4VCX75M8-53 | 7.5 | 575 | 3 | 60 | 52 | 10.6 | 12.8 | 7.7 | 9.4 | 52.0 | 10.6 | Н | 1.2 |

| | Motor Efficiencies and Power Factor | | | | | | | | | | | | |
|-----|-------------------------------------|------------------------|----------------|----------|----------|------------------------|-----------|----------|----------|--|--|--|--|
| | | Motor Eff | Power Factor % | | | | | | | | | | |
| НР | Phase | Service Factor Load | 100% Load | 75% Load | 50% Load | Service Factor Load | 100% Load | 75% Load | 50% Load | | | | |
| 2 | 3 | 73 | 72 | 67 | 59 | 72 | 71 | 65 | 55 | | | | |
| 3 | 3 | 74 | 73 | 69 | 62 | 73 | 72 | 66 | 57 | | | | |
| 5 | 3 | 83 | 81 | 76.5 | 67.5 | 73 | 72 | 66.5 | 58 | | | | |
| 7.5 | 3 | 83.5 | 82 | 77 | 69 | 74 | 73 | 68 | 60 | | | | |

Performance Data

1150 RPM



Pump performance is based on clear water $[1.0 \text{ specific gravity } (0.68^\circ\text{F})]$ and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

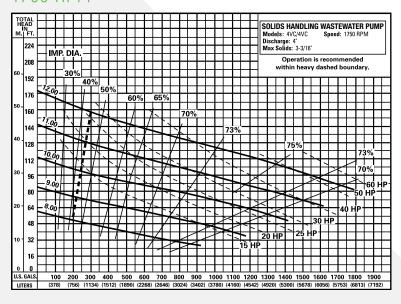
| Availabl | e Models | Motor Electrical Data | | | | | | | | | | | | |
|-------------|--------------------|-----------------------|-------|-------|-------|-------|------|-------------------|--------|-------------------|-----------|---------|----------|---------|
| | | | | | | Start | Run | Service Factor | | Service Factor | | | NEC Code | Service |
| Standard | Hazardous Location | HP | Volts | Phase | Hertz | Amps | Amps | Amps | Run kW | kW | Start KVA | Run KVA | Letter | Factor |
| 4VC50M6-03 | 4VCX50M6-03 | 5 | 208 | 3 | 60 | 106 | 19.3 | 23 | 4.8 | 5.8 | 36.7 | 6.7 | J | 1.2 |
| 4VC50M6-23 | 4VCX50M6-23 | 5 | 230 | 3 | 60 | 92 | 16.8 | 20 | 4.8 | 5.8 | 36.7 | 6.7 | J | 1.2 |
| 4VC50M6-43 | 4VCX50M6-43 | 5 | 460 | 3 | 60 | 46 | 8.4 | 10 | 4.8 | 5.8 | 36.7 | 6.7 | J | 1.2 |
| 4VC50M6-53 | 4VCX50M6-53 | 5 | 575 | 3 | 60 | 37 | 6.7 | 8 | 4.8 | 5.8 | 36.7 | 6.7 | J | 1.2 |
| 4VC75M6-03 | 4VCX75M6-03 | 7.5 | 208 | 3 | 60 | 197 | 27 | 32.2 | 6.8 | 8.4 | 68.5 | 9.4 | Н | 1.2 |
| 4VC75M6-23 | 4VCX75M6-23 | 7.5 | 230 | 3 | 60 | 172 | 23.6 | 28 | 6.8 | 8.4 | 68.5 | 9.4 | Н | 1.2 |
| 4VC75M6-43 | 4VCX75M6-43 | 7.5 | 460 | 3 | 60 | 86 | 11.8 | 14 | 6.8 | 8.4 | 68.5 | 9.4 | Н | 1.2 |
| 4VC75M6-53 | 4VCX75M6-53 | 7.5 | 575 | 3 | 60 | 69 | 9.4 | 11.2 | 6.8 | 8.4 | 68.5 | 9.4 | Н | 1.2 |
| 4VC100M6-03 | 4VCX100M6-03 | 10 | 208 | 3 | 60 | 197 | 34.3 | 41.4 | 8.8 | 10.9 | 68.5 | 12.0 | Н | 1.2 |
| 4VC100M6-23 | 4VCX100M6-23 | 10 | 230 | 3 | 60 | 172 | 30 | 36 | 8.8 | 10.9 | 68.5 | 12.0 | Н | 1.2 |
| 4VC100M6-43 | 4VCX100M6-43 | 10 | 460 | 3 | 60 | 86 | 15 | 18 | 8.8 | 10.9 | 68.5 | 12.0 | Н | 1.2 |
| 4VC100M6-53 | 4VCX100M6-53 | 10 | 575 | 3 | 60 | 69 | 12 | 14.4 | 8.8 | 10.9 | 68.5 | 12.0 | Н | 1.2 |
| 4VC150M6-03 | 4VCX150M6-03 | 15 | 208 | 3 | 60 | 276 | 48 | 59.8 | 13.0 | 15.7 | 95.6 | 17.5 | Н | 1.2 |
| 4VC150M6-23 | 4VCX150M6-23 | 15 | 230 | 3 | 60 | 240 | 44 | 52 | 13.0 | 15.7 | 95.6 | 17.5 | Н | 1.2 |
| 4VC150M6-43 | 4VCX150M6-43 | 15 | 460 | 3 | 60 | 120 | 22 | 26 | 13.0 | 15.7 | 95.6 | 17.5 | Н | 1.2 |
| 4VC150M6-53 | 4VCX150M6-53 | 15 | 575 | 3 | 60 | 96 | 17.6 | 20.8 | 13.0 | 15.7 | 95.6 | 17.5 | Н | 1.2 |
| 4VC200M6-03 | 4VCX200M6-03 | 20 | 208 | 3 | 60 | 333 | 66.3 | 80.5 | 17.2 | 21.4 | 115.5 | 23.0 | G | 1.2 |
| 4VC200M6-23 | 4VCX200M6-23 | 20 | 230 | 3 | 60 | 290 | 58 | 70 | 17.2 | 21.4 | 115.5 | 23.0 | G | 1.2 |
| 4VC200M6-43 | 4VCX200M6-43 | 20 | 460 | 3 | 60 | 145 | 29 | 35 | 17.2 | 21.4 | 115.5 | 23.0 | G | 1.2 |
| 4VC200M6-53 | 4VCX200M6-53 | 20 | 575 | 3 | 60 | 116 | 23 | 28 | 17.2 | 21.4 | 115.5 | 23.0 | G | 1.2 |

| | Motor Efficiencies and Power Factor | | | | | | | | | | | | |
|-----|-------------------------------------|----------------|----------------|----------|----------|----------------|-----------|----------|----------|--|--|--|--|
| | | Motor Eff | Power Factor % | | | | | | | | | | |
| | | Service Factor | | | | Service Factor | | | | | | | |
| HP | Phase | Load | 100% Load | 75% Load | 50% Load | Load | 100% Load | 75% Load | 50% Load | | | | |
| 5 | 3 | 82 | 81 | 77 | 68 | 74 | 72 | 66 | 56 | | | | |
| 7.5 | 3 | 84 | 83 | 79 | 71 | 75 | 73 | 66.5 | 56.5 | | | | |
| 10 | 3 | 87 | 86 | 82 | 75 | 76 | 74 | 67 | 57 | | | | |
| 15 | 3 | 88 | 88 | 86.5 | 82.5 | 76 | 74.5 | 68 | 57.5 | | | | |
| 20 | 3 | 88 | 88 | 87 | 83 | 77 | 75 | 69 | 59 | | | | |

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Performance Data

1750 RPM



Pump performance is based on clear water (1.0 specific gravity @ 68°F) and pump fluid end (hydraulic) efficiency. Motor data based on 40°C ambient temperature.

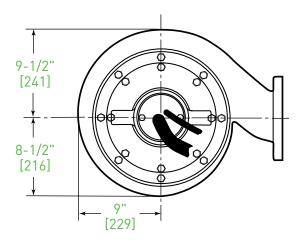
| Availabl | e Models | | | | | | Moto | r Electrical | Data | | | | | |
|-------------|--------------------|----|-------|-------|-------|-------|-------|-------------------|--------|-------------------|-----------|---------|----------|---------|
| | | | | | | Start | Run | Service Factor | | Service Factor | | | NEC Code | Service |
| Standard | Hazardous Location | HP | Volts | Phase | Hertz | Amps | Amps | Amps | Run kW | kW | Start KVA | Run KVA | Letter | Factor |
| 4VC150M4-03 | 4VCX150M4-03 | 15 | 208 | 3 | 60 | 334 | 50.6 | 61 | 15.0 | 18.6 | 115.5 | 17.5 | Е | 1.2 |
| 4VC150M4-23 | 4VCX150M4-23 | 15 | 230 | 3 | 60 | 290 | 44 | 53 | 15.0 | 18.6 | 115.5 | 17.5 | E | 1.2 |
| 4VC150M4-43 | 4VCX150M4-43 | 15 | 460 | 3 | 60 | 145 | 22 | 26.5 | 15.0 | 18.6 | 115.5 | 17.5 | E | 1.2 |
| 4VC150M4-53 | 4VCX150M4-53 | 15 | 575 | 3 | 60 | 116 | 17.6 | 21.2 | 15.0 | 18.6 | 115.5 | 17.5 | E | 1.2 |
| 4VC200M4-03 | 4VCX200M4-03 | 20 | 208 | 3 | 60 | 334 | 69 | 82.8 | 21.2 | 26.1 | 115.5 | 23.9 | G | 1.2 |
| 4VC200M4-23 | 4VCX200M4-23 | 20 | 230 | 3 | 60 | 290 | 60 | 72 | 21.2 | 26.1 | 115.5 | 23.9 | G | 1.2 |
| 4VC200M4-43 | 4VCX200M4-43 | 20 | 460 | 3 | 60 | 145 | 30 | 36 | 21.2 | 26.1 | 115.5 | 23.9 | G | 1.2 |
| 4VC200M4-53 | 4VCX200M4-53 | 20 | 575 | 3 | 60 | 116 | 24 | 28.8 | 21.2 | 26.1 | 115.5 | 23.9 | G | 1.2 |
| 4VC250M4-03 | 4VCX250M4-03 | 25 | 208 | 3 | 60 | 575 | 78.3 | 92.2 | 26.9 | 33.3 | 180.1 | 30.3 | G | 1.2 |
| 4VC250M4-23 | 4VCX250M4-23 | 25 | 230 | 3 | 60 | 452 | 76 | 92 | 26.9 | 33.3 | 180.1 | 30.3 | G | 1.2 |
| 4VC250M4-43 | 4VCX250M4-43 | 25 | 460 | 3 | 60 | 226 | 38 | 46 | 26.9 | 33.3 | 180.1 | 30.3 | G | 1.2 |
| 4VC250M4-53 | 4VCX250M4-53 | 25 | 575 | 3 | 60 | 181 | 30.4 | 36.8 | 26.9 | 33.3 | 180.1 | 30.3 | G | 1.2 |
| 4VC300M4-03 | 4VCX300M4-03 | 30 | 208 | 3 | 60 | 575 | 103.9 | 124 | 33.3 | 41.3 | 180.1 | 37.4 | G | 1.2 |
| 4VC300M4-23 | 4VCX300M4-23 | 30 | 230 | 3 | 60 | 452 | 94 | 114 | 33.3 | 41.3 | 180.1 | 37.4 | G | 1.2 |
| 4VC300M4-43 | 4VCX300M4-43 | 30 | 460 | 3 | 60 | 226 | 47 | 57 | 33.3 | 41.3 | 180.1 | 37.4 | G | 1.2 |
| 4VC300M4-53 | 4VCX300M4-53 | 30 | 575 | 3 | 60 | 181 | 37.6 | 45.6 | 33.3 | 41.3 | 180.1 | 37.4 | G | 1.2 |
| 4VC400M4-23 | 4VCX400M4-23 | 40 | 230 | 3 | 60 | 580 | 122 | 148 | 43.2 | 53.0 | 231.1 | 48.6 | G | 1.2 |
| 4VC400M4-43 | 4VCX400M4-43 | 40 | 460 | 3 | 60 | 290 | 61 | 74 | 43.2 | 53.0 | 231.1 | 48.6 | G | 1.2 |
| 4VC400M4-53 | 4VCX400M4-53 | 40 | 575 | 3 | 60 | 232 | 48.8 | 59.2 | 43.2 | 53.0 | 231.1 | 48.6 | G | 1.2 |
| 4VC500M4-43 | 4VCX500M4-43 | 50 | 460 | 3 | 60 | 290 | 67 | 79 | 46.9 | 54.6 | 231.1 | 53.4 | E | 1.2 |
| 4VC500M4-53 | 4VCX500M4-53 | 50 | 575 | 3 | 60 | 232 | 54 | 63 | 46.9 | 54.6 | 231.1 | 53.4 | E | 1.2 |
| 4VC600M4-43 | 4VCX600M4-43 | 60 | 460 | 3 | 60 | 290 | 79 | 79 | 52.8 | 52.8 | 231.1 | 62.9 | C | 1.0 |
| 4VC600M4-53 | 4VCX600M4-53 | 60 | 575 | 3 | 60 | 232 | 63 | 63 | 52.8 | 52.8 | 231.1 | 62.9 | C | 1.0 |

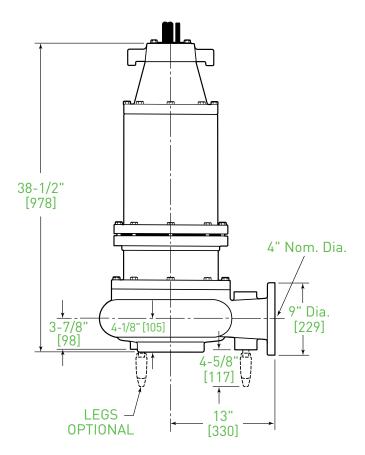
| | Motor Efficiencies and Power Factor | | | | | | | | | | | | |
|----|-------------------------------------|------------------------|----------------|----------|----------|------------------------|-----------|----------|----------|--|--|--|--|
| | | Motor Eff | Power Factor % | | | | | | | | | | |
| HP | Phase | Service Factor Load | 100% Load | 75% Load | 50% Load | Service Factor Load | 100% Load | 75% Load | 50% Load | | | | |
| 15 | 3 | 85 | 84 | 79 | 69 | 88 | 86 | 78 | 68 | | | | |
| 20 | 3 | 88 | 87.5 | 81 | 72.5 | 91 | 89 | 79 | 69 | | | | |
| 25 | 3 | 87 | 86 | 81 | 73 | 91 | 89 | 80 | 70 | | | | |
| 30 | 3 | 87 | 86 | 83 | 79 | 91 | 89 | 82 | 73 | | | | |
| 40 | 3 | 86 | 86 | 88 | 87.5 | 90 | 89 | 86 | 80 | | | | |
| 50 | 3 | 87 | 86 | 86.5 | 88 | 87 | 88 | 88.5 | 84 | | | | |
| 60 | 3 | 87 | 87 | 86 | 88 | 84 | 84 | 89 | 86 | | | | |

Dimensions

[Dimensions in mm]

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1101 MYERS PARKWAY ASHLAND, OHIO 44805 PH: 855-274-8948 WWW.FEMYERS.COM 490 PINEBUSH ROAD, UNIT 4 CAMBRIDGE, ONTARIO, CANADA N1T 0A5 PH: 800-387-4386 ORDERS FAX: 888-606-5484 WWW.FEMYERS.COM

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