

# Submittal Data Sheet

## Wilo CO-Helix - NSF 61/372 Pressure Boosting System



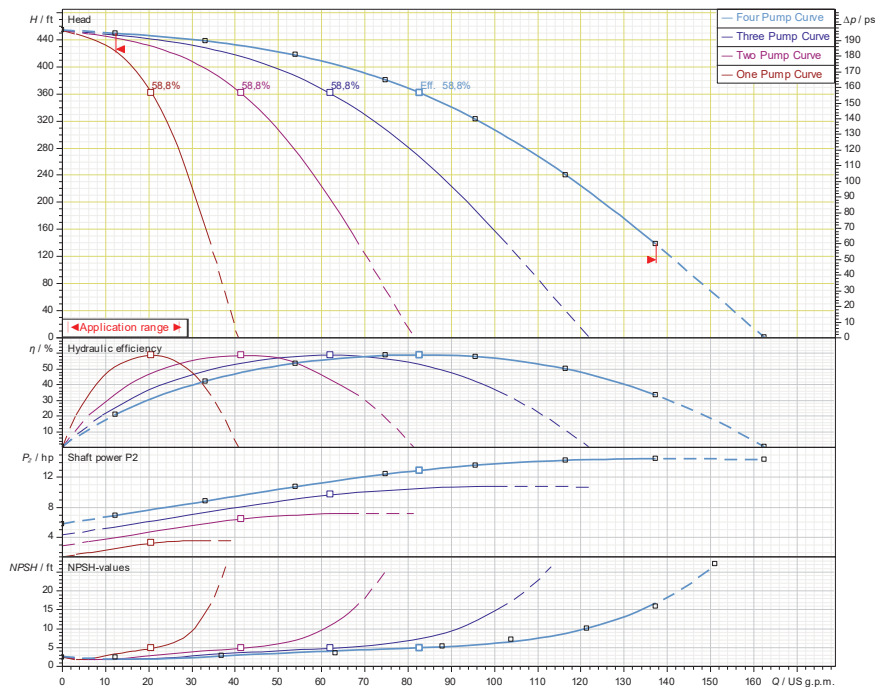
### CO-4 HELIX V20-12-1/5/VCE



|               |       |
|---------------|-------|
| Project:      |       |
| Engineer:     |       |
| Contractor:   |       |
| Submitted By: | Date: |
| Approved By:  | Date: |

| Tag # | Model #                   | Flow | BOOST PSI | Min. Inlet PSI | HP/Pump | Phase | Voltage | RPM  |
|-------|---------------------------|------|-----------|----------------|---------|-------|---------|------|
|       | CO-4 HELIX V20-12-1/5/VCE |      |           |                | 5       |       |         | 3600 |

CO-4 HELIX V20-12-1/5/VCE



#### Applications

- Water Supply
- Agriculture
- Washing /Sprinkling Systems
- Pressure Boosting
- Cooling Circuits
- Condensate Return

#### Materials of Construction

|                             |   |
|-----------------------------|---|
| Pump Volute                 | AISI304 stainless steel with ANSI flanges                         |
| Impeller                    | 3D Laser welded AISI 304 Stainless Steel                          |
| Shaft                       | AISI304, AISI318 LN, or AISI431 Stainless Steel                   |
| Elastomers                  | EPDM  |
| Isolation Valves            | 304 Stainless Steel Ball Valves                                   |
| Suction/Discharge Manifolds | AISI304 Stainless Steel with Male Threaded System Connections     |
| Check Valves                | 316 Stainless Steel, Non-slam, Plunger-type with EPDM seal        |
| Mechanical Seal             | Cartridge Seal: Sleeve AISI316L / Spring Clips AISI304            |
| Pressure Transducers        | 316 Stainless Steel   |
| Pressure Guages             | 304 Stainless Steel Housing with 316 Stainless Steel wetted parts |
| System base                 | Steel (S235JR)  |
| Vibration Isolators         | Neoprene, Height Adjustable                                       |

#### Technical Data - Operational Ranges

|                     |  |
|---------------------|--|
| Liquid Temp Range   | -4°F to +248°F (Min. 32 °F for Domestic Water) |
| Ambient Temp Range  | +32°F to +104 °F                               |
| Max Inlet Pressure  | 145 PSI  |
| Max System Pressure | 232 PSI  |

#### Technical Data - Panel

|                           |  |
|---------------------------|--|
| Power Supply              | 208-230/460-3 or 575-3   |
| Enclosure                 | NEMA 12 (3R Available Upon Request)  |
| Standard                  | Meets UL 508A  |
| Variable Frequency Drives | Danfoss FC-51 (1-10 HP for 208-23/460v-3)<br>Danfoss FC-101 (1-10 HP for 575v-3) |

#### Technical Data - PLC

|                           |  |
|---------------------------|--|
| User Interface            | 7" Diagonal Color LCD Touchscreen                                    |
| Display Resolution        | 800 x 480 Pixels   |
| Supply Voltage            | 24VDC  |
| Max. Current Consumption  | 320mA@24V  |
| Number of Analog Inputs   | 9  |
| Number of Analog Outputs  | 2  |
| Number of Digital Inputs  | 18   |
| Number of Digital Outputs | 17   |
| Onboard Communications    | Modbus Protocol (Optional Gateways for BacNET, LonWorks, and CANbus) |
| Ethernet Port             | RJ45 port capable of transmitting data 10/100Mbps                    |
| Additional Ports          | 2.0 USB Port; Micro-SD Port  |

#### Motor Data

|                        |   |
|------------------------|---|
| Power Supply           | 208-230~3 or 460-3 or 575~3                           |
| Motor Enclosure        | Totally Enclosed Fan Cooled (TEFC)                    |
| Motor Efficiency       | Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule |
| Enclosure Construction | Rolled Steel / Cast Iron                              |
| Motor Protection Index | IP54  |
| Insulation Class       | F   |

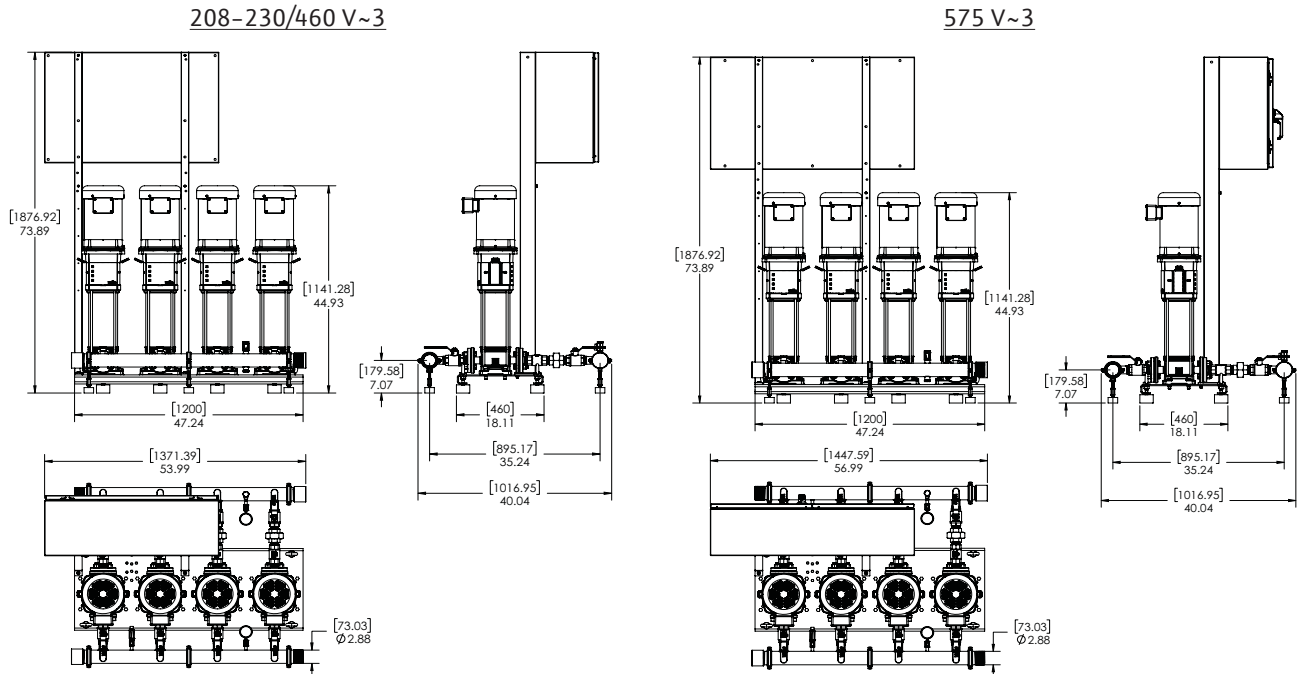
Approval Stamp

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## CO-4 HELIX V20-12-1/5/VCE



Special Note: All weights and dimensions are approximate and should not be used as exact rough-in dimensions

### Dimensions and Weights

| Model                     | Voltage (V)   | H (in) | W (in) | L (in) | Dimensions-inches  |  |                |                     |  | Individual Pump Weight | Package Weight       |
|---------------------------|---------------|--------|--------|--------|--------------------|--|----------------|---------------------|--|------------------------|----------------------|
|                           |               |        |        |        | System Header Size | Suction / Discharge Pump Size (300 Class ANSI) | Gauge Tap Size | Transducer Tap Size | Hydrumnatic Tank Valve on Manifold (Plugged) | Pump Weight (lbs)      | Package Weight (lbs) |
| CO-4 HELIX V20-12-1/5/VCE | 208-230/460 V | 73-7/8 | 54     | 40     | 2-1/2" MNPT        | 1-1/4"   | 1/4" FNPT      | 1/4" FNPT           | 3/4" MNPT x 3/4" FNPT                        | 142                    | 1,078                |
|                           | 575 V         | 73-7/8 | 57     | 40     |                    |  |                |                     |  |                        |                      |

### TEFC Motor Data

| Model                     | P2 (HP) | Phase (-) | Voltage (V)     | FLA (per pump) (A) | Pmax (PSI) |
|---------------------------|---------|-----------|-----------------|--------------------|------------|
| CO-4 HELIX V20-12-1/5/VCE | 5       | 3         | 208-230/460/575 | 12-11.8/5.9/4.7    | 232        |