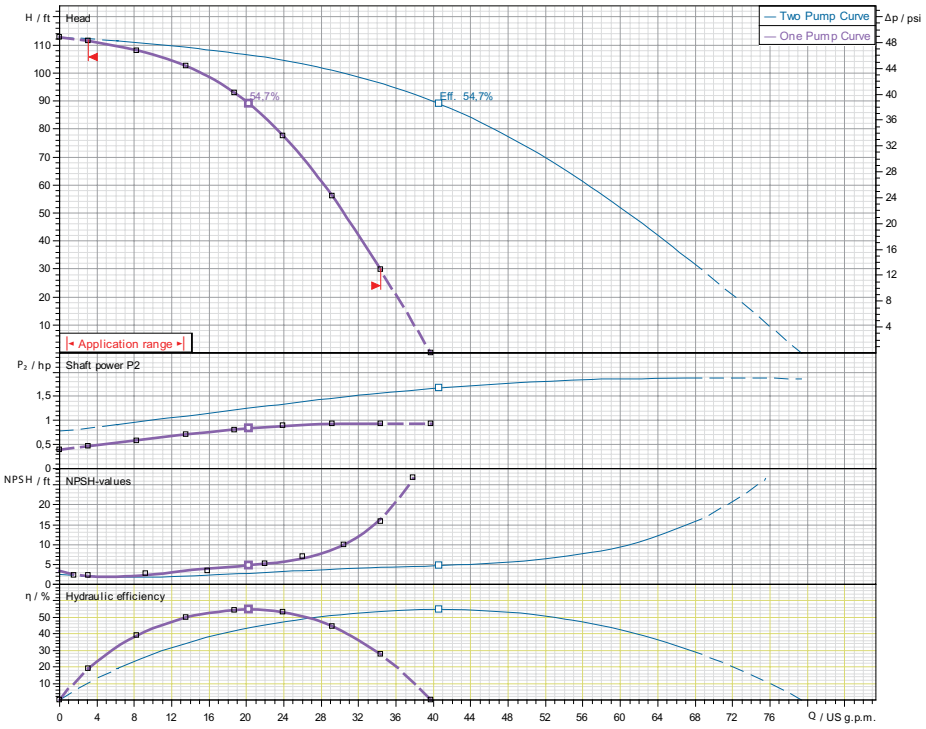
Submittal Data Sheet

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

CO-2 HELIX V20-03-1/1/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-03-1/1/VCE				1			3600



Applications

- Water Supply
- Pressure Boosting
- Agriculture
- Cooling Circuits
- Washing / Sprinkling Systems
- 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
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 Availible Upon Request)
Standard	Meets UL 508A
Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) 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

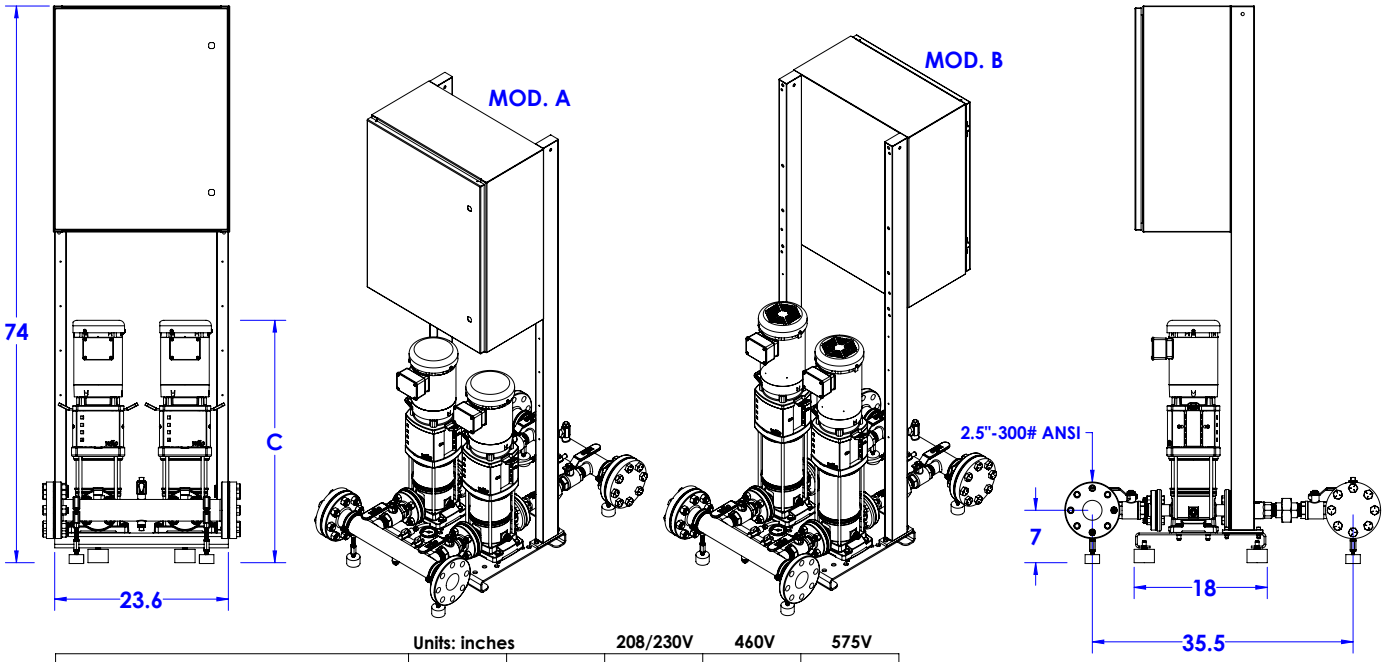
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

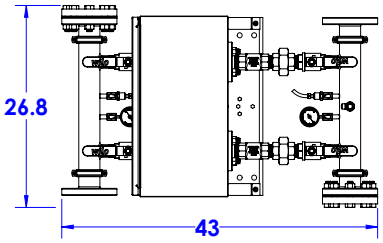
Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-03-1/1/VCE





Units: inches

CO-2 HELIX	MOD.	C	208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
CO-2 HELIX V20-04-1/1.5/VCE	A	32.2	497	497	518
CO-2 HELIX V20-05-1/1.5/VCE	A	33.2	501	501	522
CO-2 HELIX V20-06-1/2/VCE	A	35.2	507	507	528
CO-2 HELIX V20-07-1/2/VCE	A	36.2	549	549	570
CO-2 HELIX V20-08-1/3/VCE	B	38.1	561	555	576
CO-2 HELIX V20-09-1/3/VCE	B	39.1	563	557	578
CO-2 HELIX V20-10-1/3/VCE	B	40.1	569	563	584
CO-2 HELIX V20-11-1/5/VCE	B	43.9	615	615	630
CO-2 HELIX V20-12-1/5/VCE	B	44.9	619	619	634
CO-2 HELIX V20-13-1/5/VCE	B	46.9	629	629	644
CO-2 HELIX V20-14-1/5/VCE	B	46.9	633	633	648

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

TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-03-1/1/VCE	1	3	208-230/460/575	3-2.8/1.4/1.1	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	65

WILO USA LLC +1 262 204-6600
www.wilo-usa.com
info@wilo-usa.com

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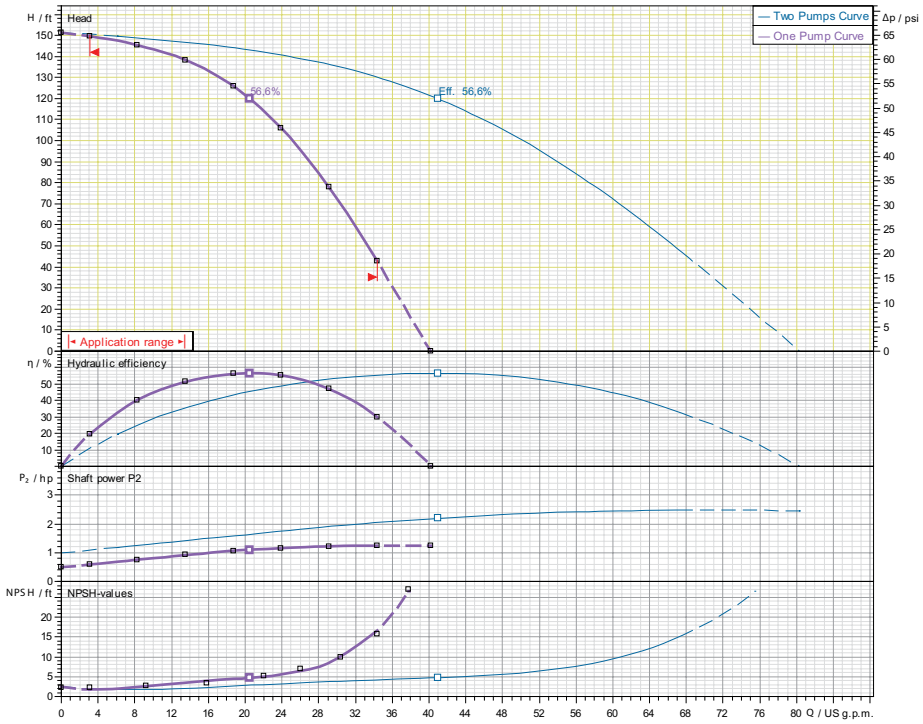
Submittal Data Sheet

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

CO-2 HELIX V20-04-1/1.5/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-04-1/1.5/VCE				1.5			3600



Applications

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

Materials of Construction

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Elastomers	EPDM
Isolation Valves	304 Stainless Steel Ball Valves
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 Availible Upon Request)
Standard	Meets UL 508A
Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) 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
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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
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Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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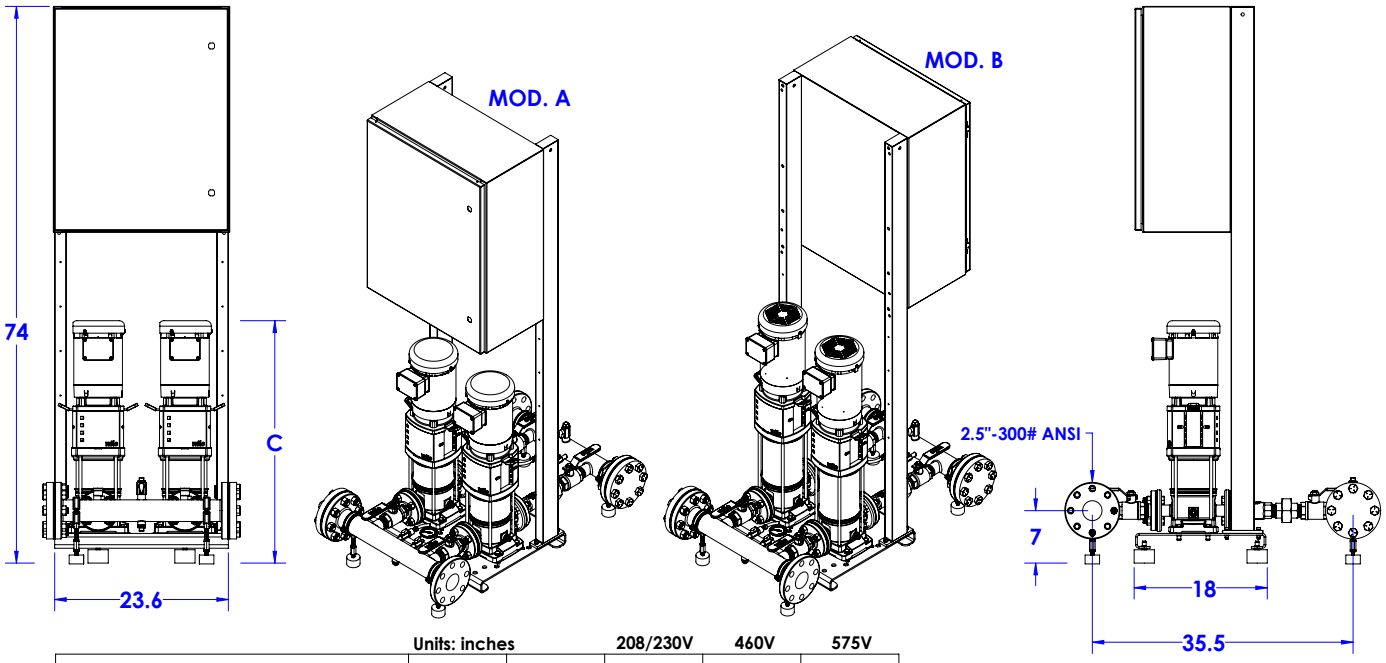
CO-2 HELIX V20-04-1/1.5/VCE



Units: inches

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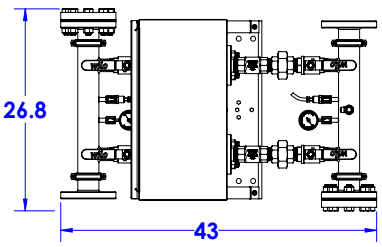

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TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-04-1/1.5/VCE	1.5	3	208-230/460/575	4-3.8/1.9/1.5	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	80

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CO-2 HELIX V20-05-1/1.5/VCE

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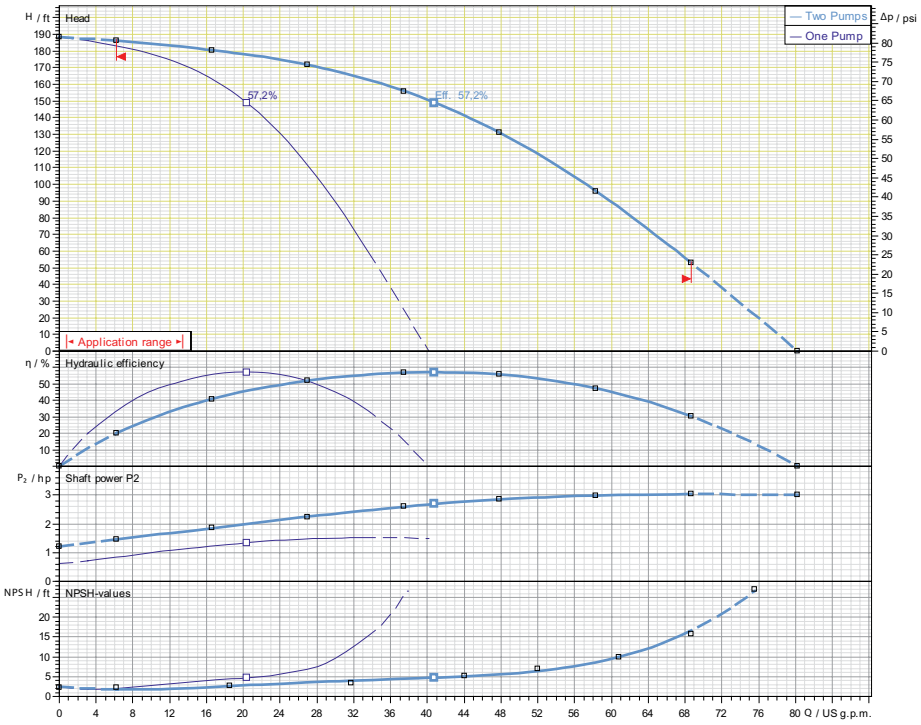
Engineer:	
Contractor:	
Submitted By:	Date:
Approved By:	Date:

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-05-1/1.5/VCE				1.5			3600



Applications

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- Pressure Boosting
- Agriculture
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- Washing / Sprinkling Systems
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Motor Protection Index	IP54
Insulation Class	F

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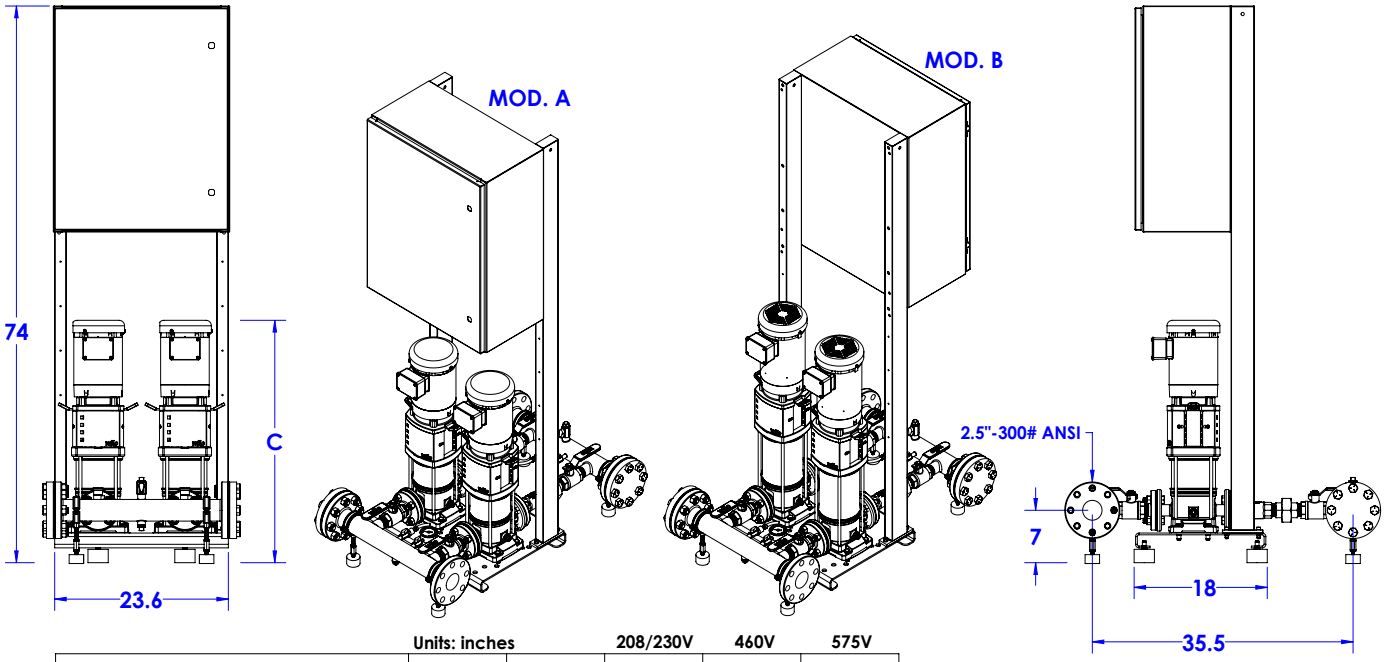
CO-2 HELIX V20-05-1/1.5/VCE



Units: inches

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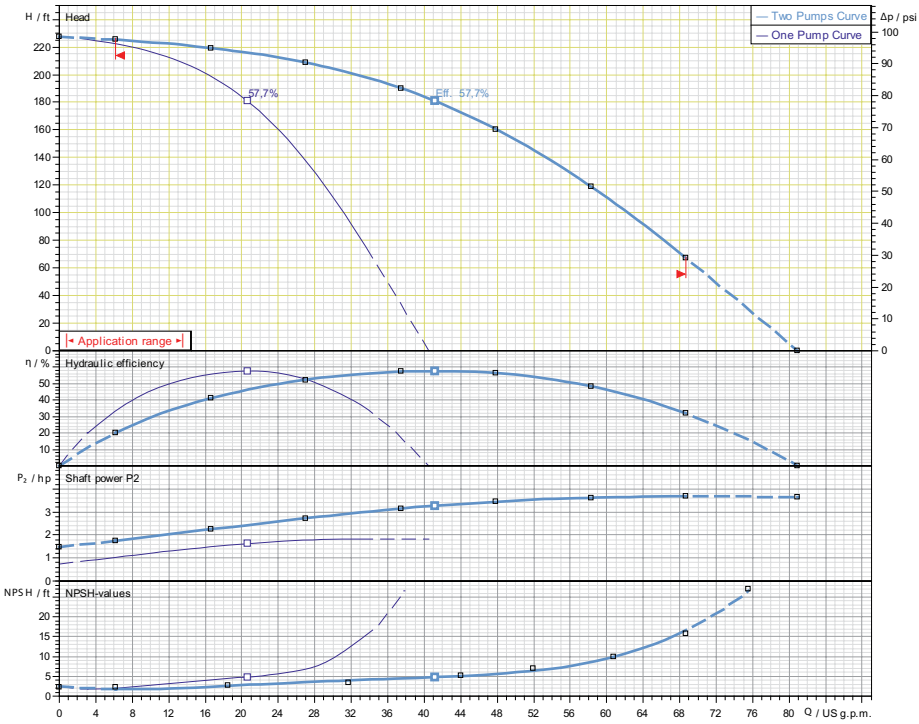
Wilo CO-Helix – NSF 61/372 Pressure Boosting System

CO-2 HELIX V20-06-1/2/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-06-1/2/VCE				2			3600



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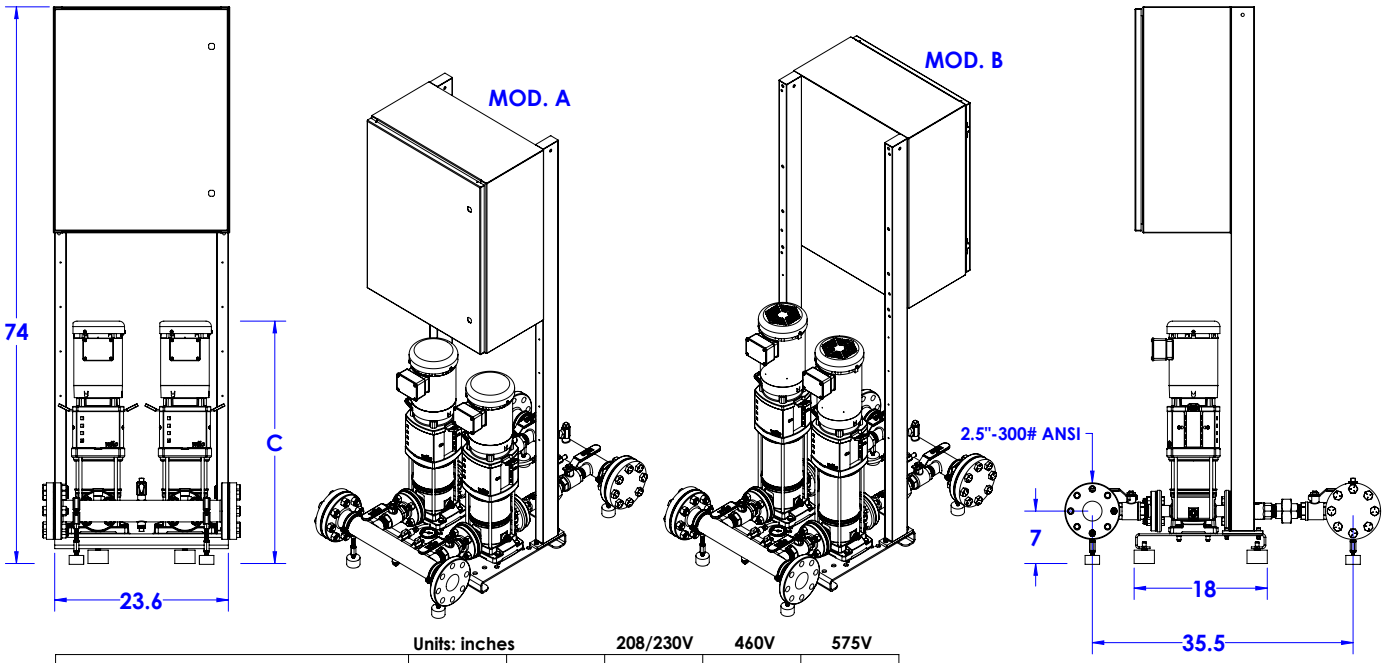

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Project:	
Engineer:	
Contractor:	
Submitted By:	Date:
Approved By:	Date:

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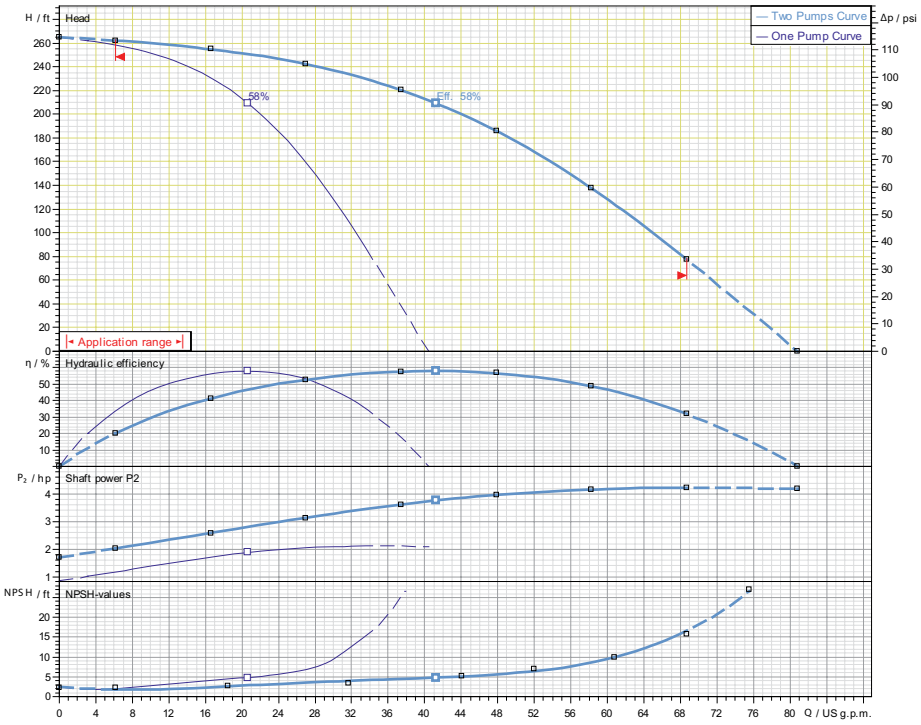

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Mechanical Seal	Cartridge Seal: Sleeve AISI316L / Spring Clips AISI304
Pressure Transducers	316 Stainless Steel
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Enclosure	NEMA 12 (3R Availible Upon Request)
Standard	Meets UL 508A
Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) 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

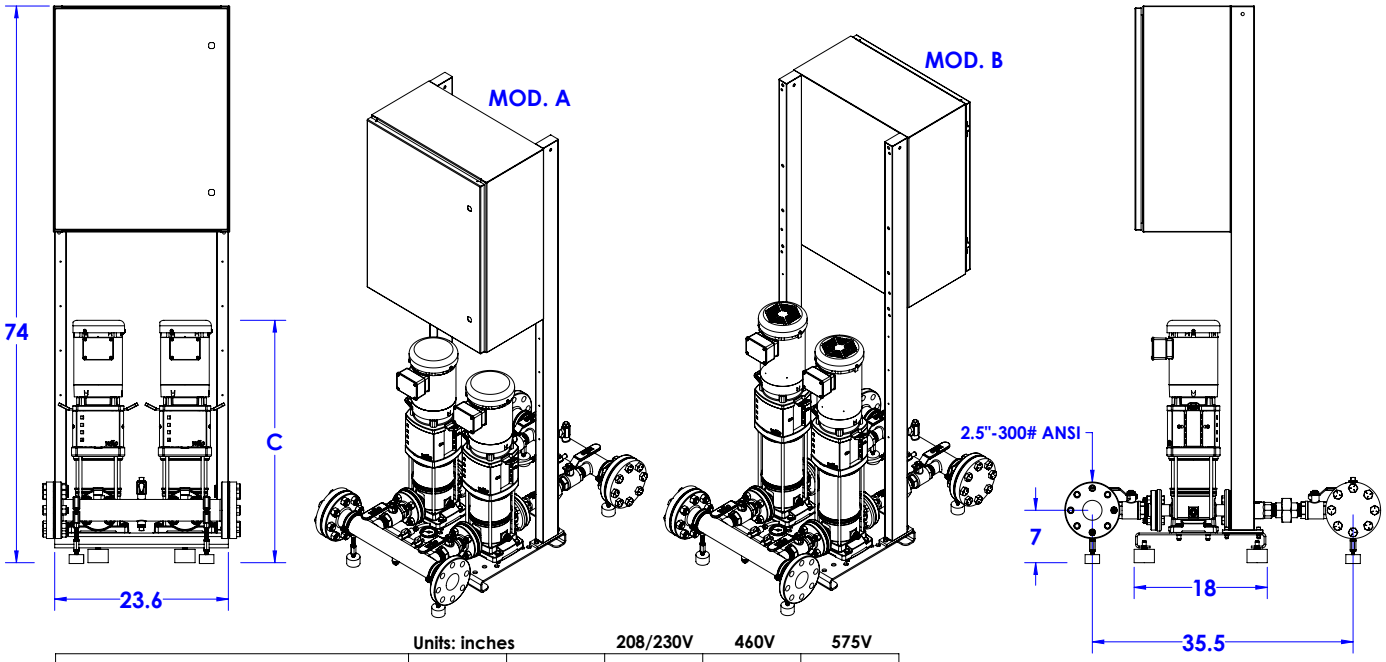
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

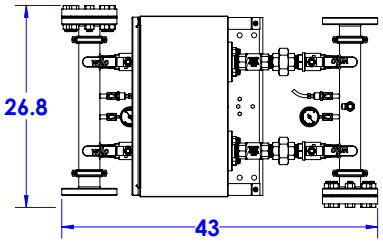
Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-07-1/2/VCE





Units: inches

CO-2 HELIX	MOD.	C	208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
CO-2 HELIX V20-04-1/1.5/VCE	A	32.2	497	497	518
CO-2 HELIX V20-05-1/1.5/VCE	A	33.2	501	501	522
CO-2 HELIX V20-06-1/2/VCE	A	35.2	507	507	528
CO-2 HELIX V20-07-1/2/VCE	A	36.2	549	549	570
CO-2 HELIX V20-08-1/3/VCE	B	38.1	561	555	576
CO-2 HELIX V20-09-1/3/VCE	B	39.1	563	557	578
CO-2 HELIX V20-10-1/3/VCE	B	40.1	569	563	584
CO-2 HELIX V20-11-1/5/VCE	B	43.9	615	615	630
CO-2 HELIX V20-12-1/5/VCE	B	44.9	619	619	634
CO-2 HELIX V20-13-1/5/VCE	B	46.9	629	629	644
CO-2 HELIX V20-14-1/5/VCE	B	46.9	633	633	648

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

TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-07-1/2/VCE	2	3	208-230/460/575	5.3-5.0/2.5/2.0	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	91

WILO USA LLC +1 262 204-6600
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info@wilo-usa.com

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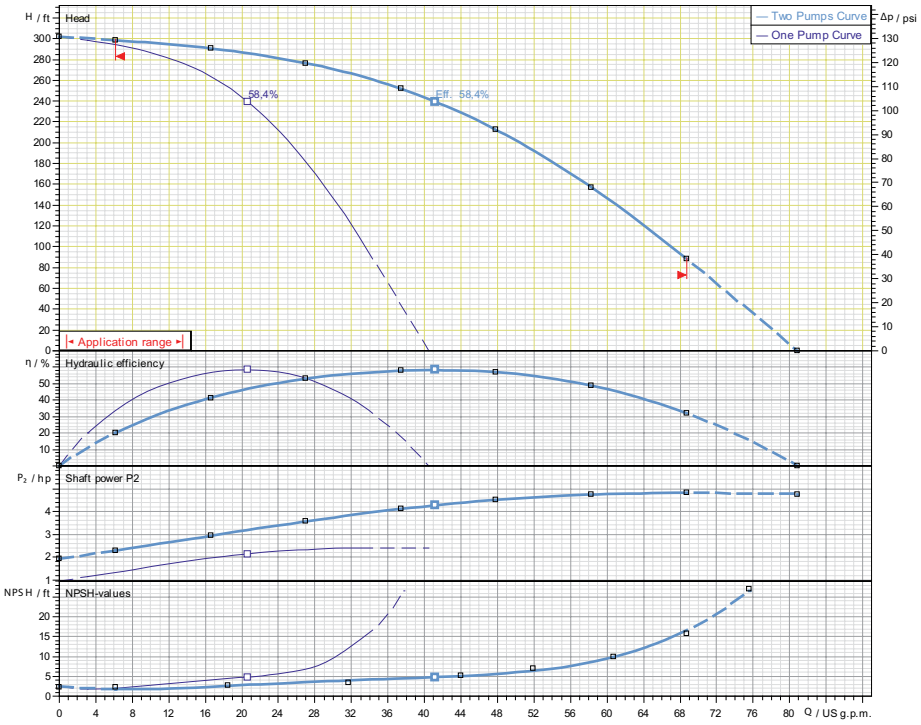
Submittal Data Sheet

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

CO-2 HELIX V20-08-1/3/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-08-1/3/VCE				3			3600



Applications

- Water Supply
- Pressure Boosting
- Agriculture
- Cooling Circuits
- Washing / Sprinkling Systems
- 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
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 Availible Upon Request)
Standard	Meets UL 508A
Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) 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

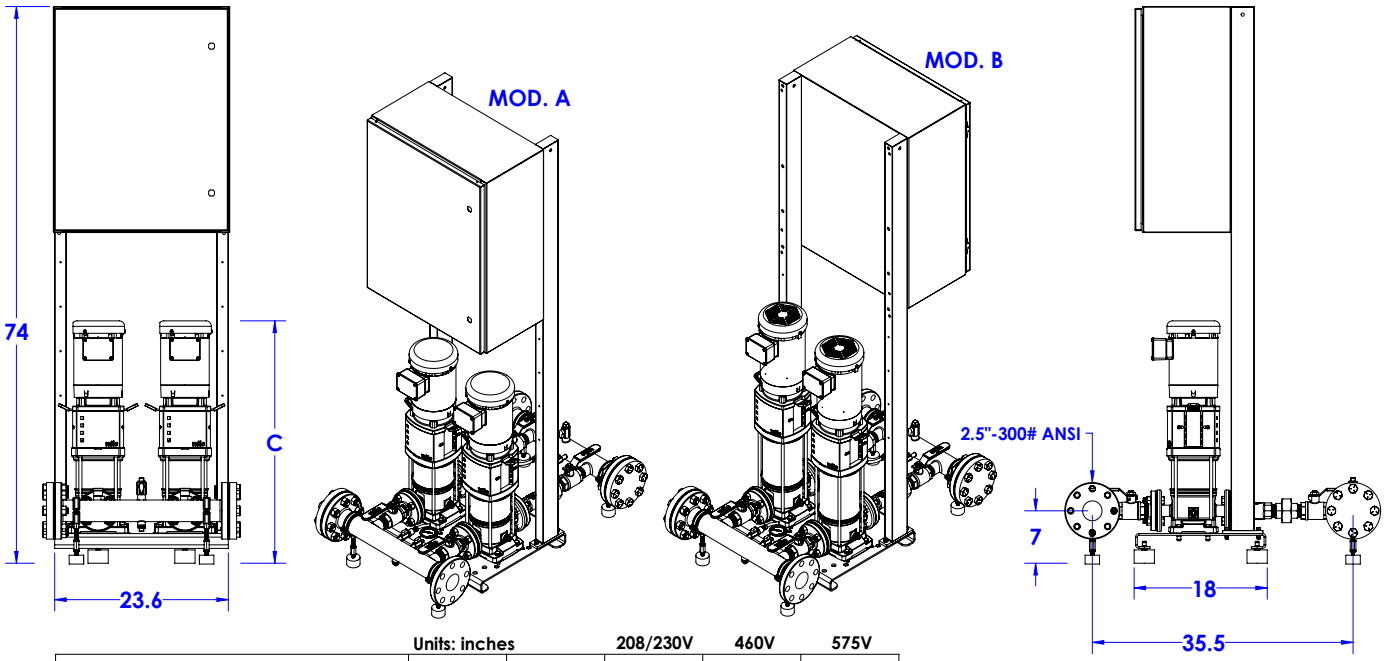
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-08-1/3/VCE



CO-2 HELIX	MOD.	C	Units: inches 208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
CO-2 HELIX V20-04-1/1.5/VCE	A	32.2	497	497	518
CO-2 HELIX V20-05-1/1.5/VCE	A	33.2	501	501	522
CO-2 HELIX V20-06-1/2/VCE	A	35.2	507	507	528
CO-2 HELIX V20-07-1/2/VCE	A	36.2	549	549	570
CO-2 HELIX V20-08-1/3/VCE	B	38.1	561	555	576
CO-2 HELIX V20-09-1/3/VCE	B	39.1	563	557	578
CO-2 HELIX V20-10-1/3/VCE	B	40.1	569	563	584
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CO-2 HELIX V20-13-1/5/VCE	B	46.9	629	629	644
CO-2 HELIX V20-14-1/5/VCE	B	46.9	633	633	648

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

TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-08-1/3/VCE	3	3	208-230/460/575	7.9-7.2/3.6/2.9	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	101

WILO USA LLC +1 262 204-6600
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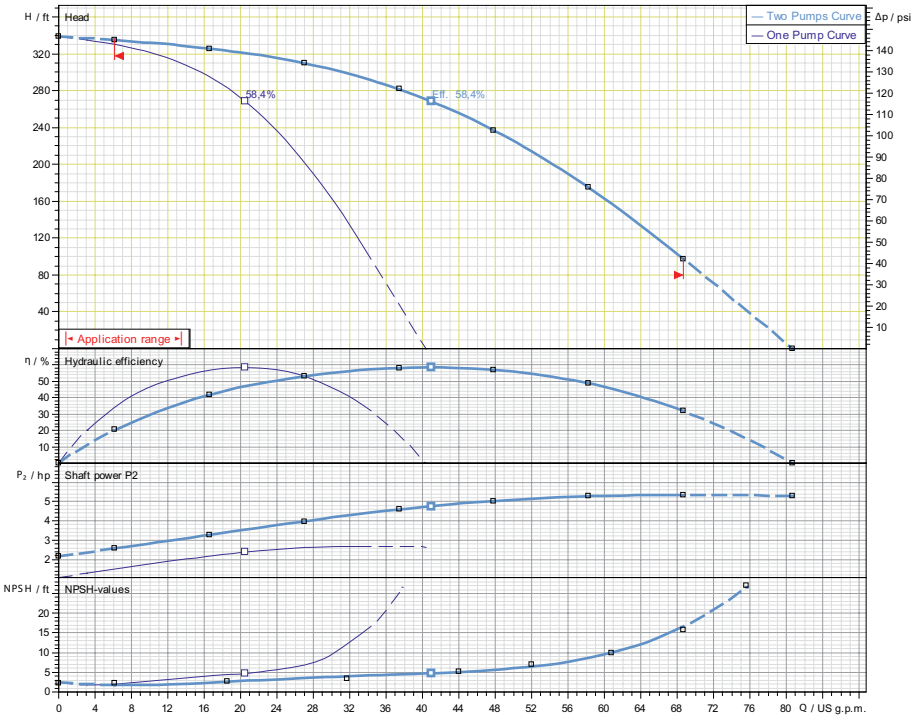
Submittal Data Sheet

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

CO-2 HELIX V20-09-1/3/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-09-1/3/VCE				3			3600



Applications

- Water Supply
- Pressure Boosting
- Agriculture
- Cooling Circuits
- Washing / Sprinkling Systems
- 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
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 Availible Upon Request)
Standard	Meets UL 508A
Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) 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

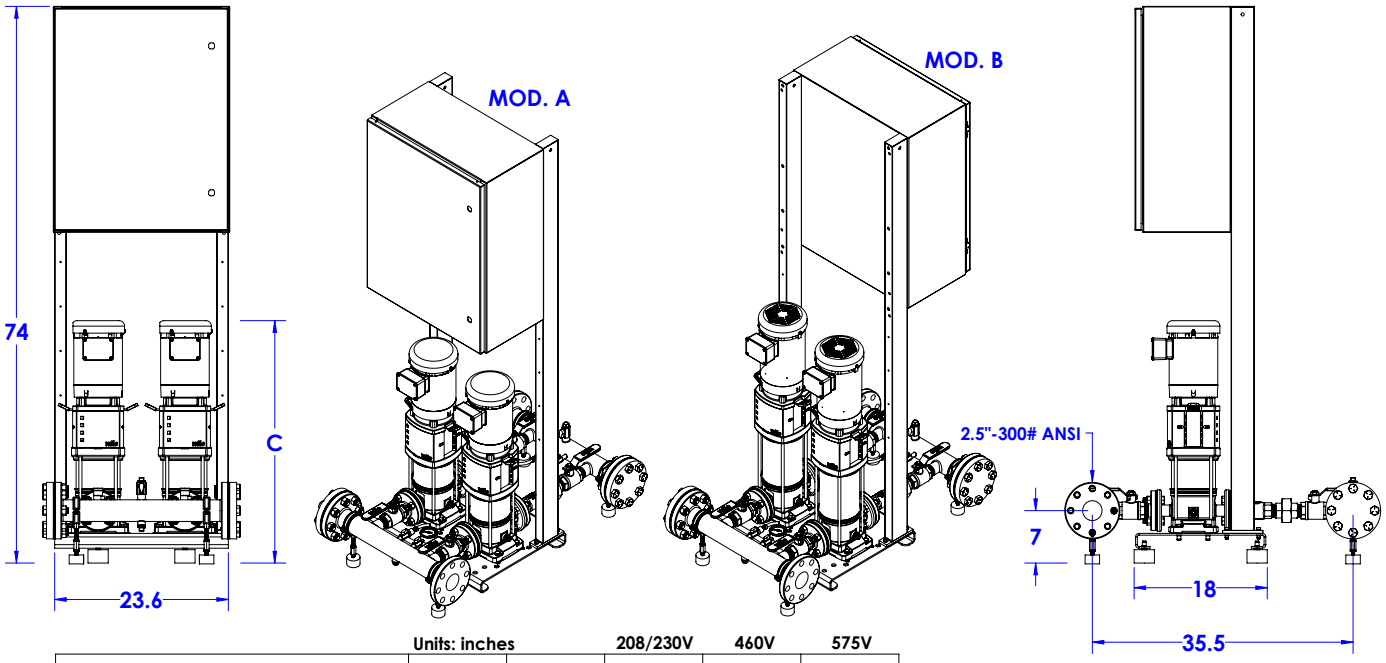
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-09-1/3/VCE



Units: inches

CO-2 HELIX	MOD.	C	208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
CO-2 HELIX V20-04-1/1.5/VCE	A	32.2	497	497	518
CO-2 HELIX V20-05-1/1.5/VCE	A	33.2	501	501	522
CO-2 HELIX V20-06-1/2/VCE	A	35.2	507	507	528
CO-2 HELIX V20-07-1/2/VCE	A	36.2	549	549	570
CO-2 HELIX V20-08-1/3/VCE	B	38.1	561	555	576
CO-2 HELIX V20-09-1/3/VCE	B	39.1	563	557	578
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CO-2 HELIX V20-14-1/5/VCE	B	46.9	633	633	648

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

TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-09-1/3/VCE	3	3	208-230/460/575	7.9-7.2/3.6/2.9	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	103

WILO USA LLC +1 262 204-6600
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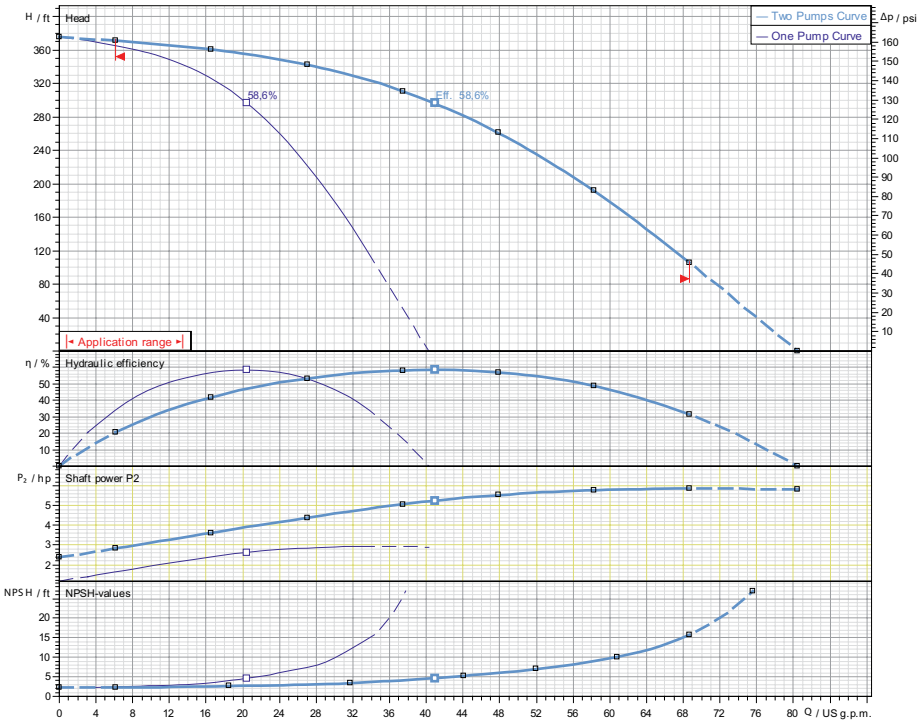
Submittal Data Sheet

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

CO-2 HELIX V20-10-1/3/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-10-1/3/VCE				3			3600



Applications

- Water Supply
- Pressure Boosting
- Agriculture
- Cooling Circuits
- Washing / Sprinkling Systems
- 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
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 Availible Upon Request)
Standard	Meets UL 508A
Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) 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
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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

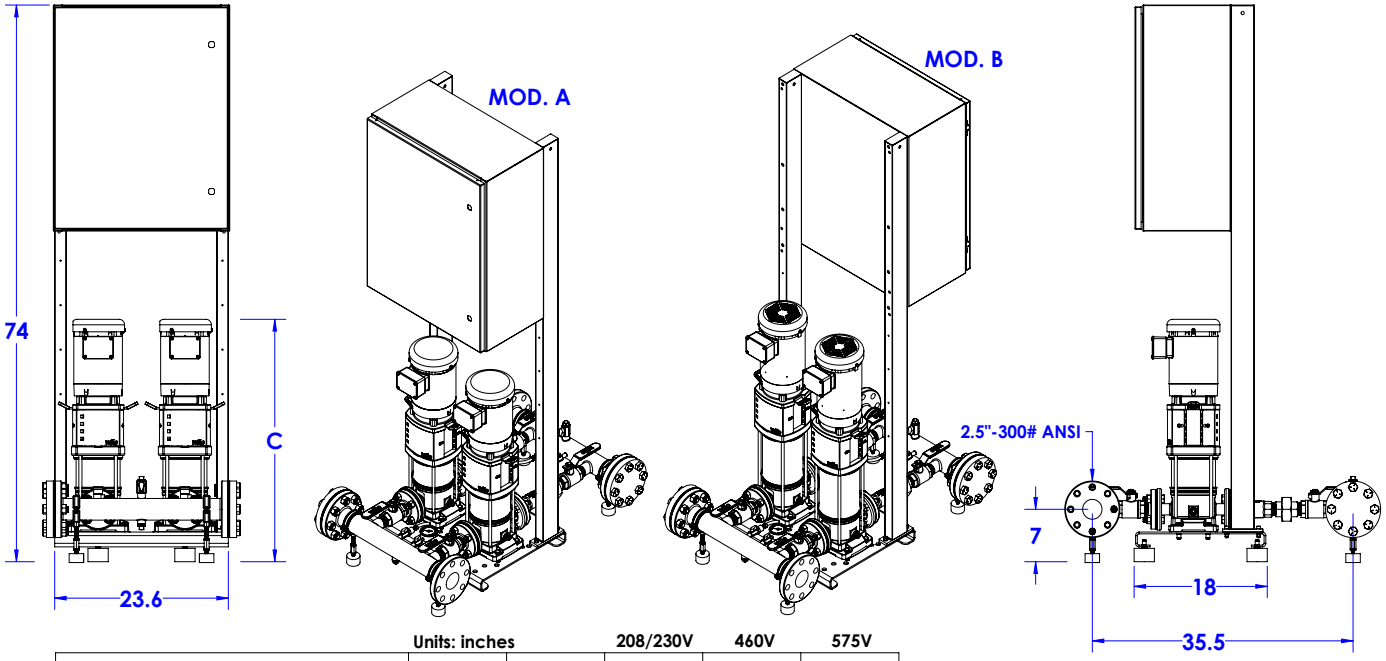
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-10-1/3/VCE



Units: inches

CO-2 HELIX	MOD.	C	208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
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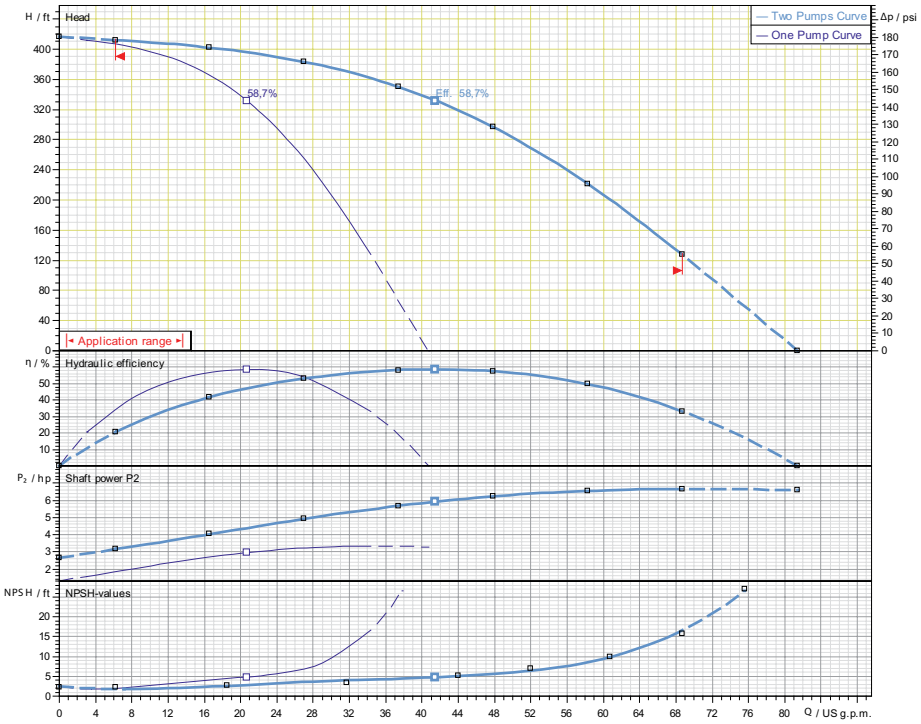
Submittal Data Sheet

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

CO-2 HELIX V20-11-1/5/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-11-1/5/VCE				5			3600



Applications

- Water Supply
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Materials of Construction

Pump Volute	AISI304 stainless steel with ANSI flanges
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Pressure Transducers	316 Stainless Steel
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System base	Steel (S235JR)
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Liquid Temp Range	-4°F to +248°F (Min. 32 °F for Domestic Water)
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Power Supply	208-230/460~3 or 575~3
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Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
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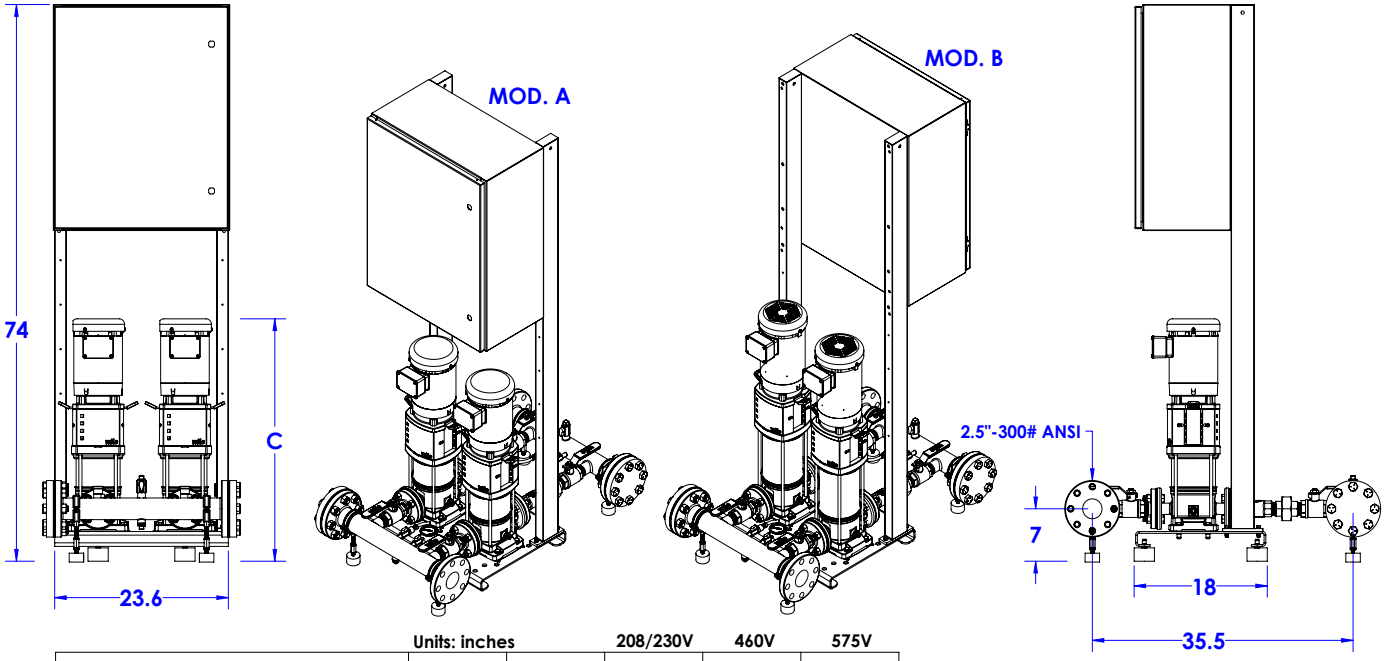
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-11-1/5/VCE



		Units: inches	208/230V	460V	575V
CO-2 HELIX	**MOD.**	**C**	**Wt. (lbs)**	**Wt. (lbs)**	**Wt. (lbs)**
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
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CO-2 HELIX V20-09-1/3/VCE	B	39.1	563	557	578
CO-2 HELIX V20-10-1/3/VCE	B	40.1	569	563	584
CO-2 HELIX V20-11-1/5/VCE	B	43.9	615	615	630
CO-2 HELIX V20-12-1/5/VCE	B	44.9	619	619	634
CO-2 HELIX V20-13-1/5/VCE	B	46.9	629	629	644
CO-2 HELIX V20-14-1/5/VCE	B	46.9	633	633	648

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

TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	**(HP)**	**(~)**	**(V)**	**(A)**	**(PSI)**	**Suction / Discharge Pump Size (300 Class ANSI)**	**Gauge Tap Size**	**Transducer Tap Size**	**Hydronumatic Tank Valve on Manifold (Plugged)**	**Pump Weight (lbs)**
CO-2 HELIX V20-11-1/5/VCE	5	3	208-230/460/575	12-11.8/5.9/4.7	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	142

WILO USA LLC +1 262 204-6600
www.wilo-usa.com
info@wilo-usa.com

WILO Canada Inc. +1 403 276-9456
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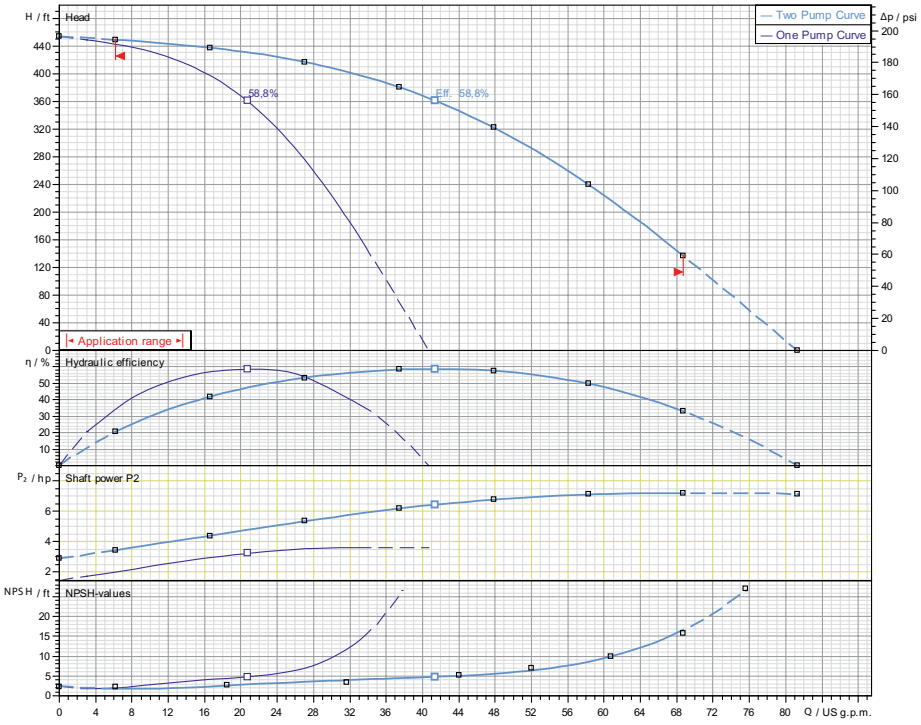
Submittal Data Sheet

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

CO-2 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-2 HELIX V20-12-1/5/VCE				5			3600



Applications

- Water Supply
- Pressure Boosting
- Agriculture
- Cooling Circuits
- Washing / Sprinkling Systems
- 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
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	363 PSI

Technical Data – Panel

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

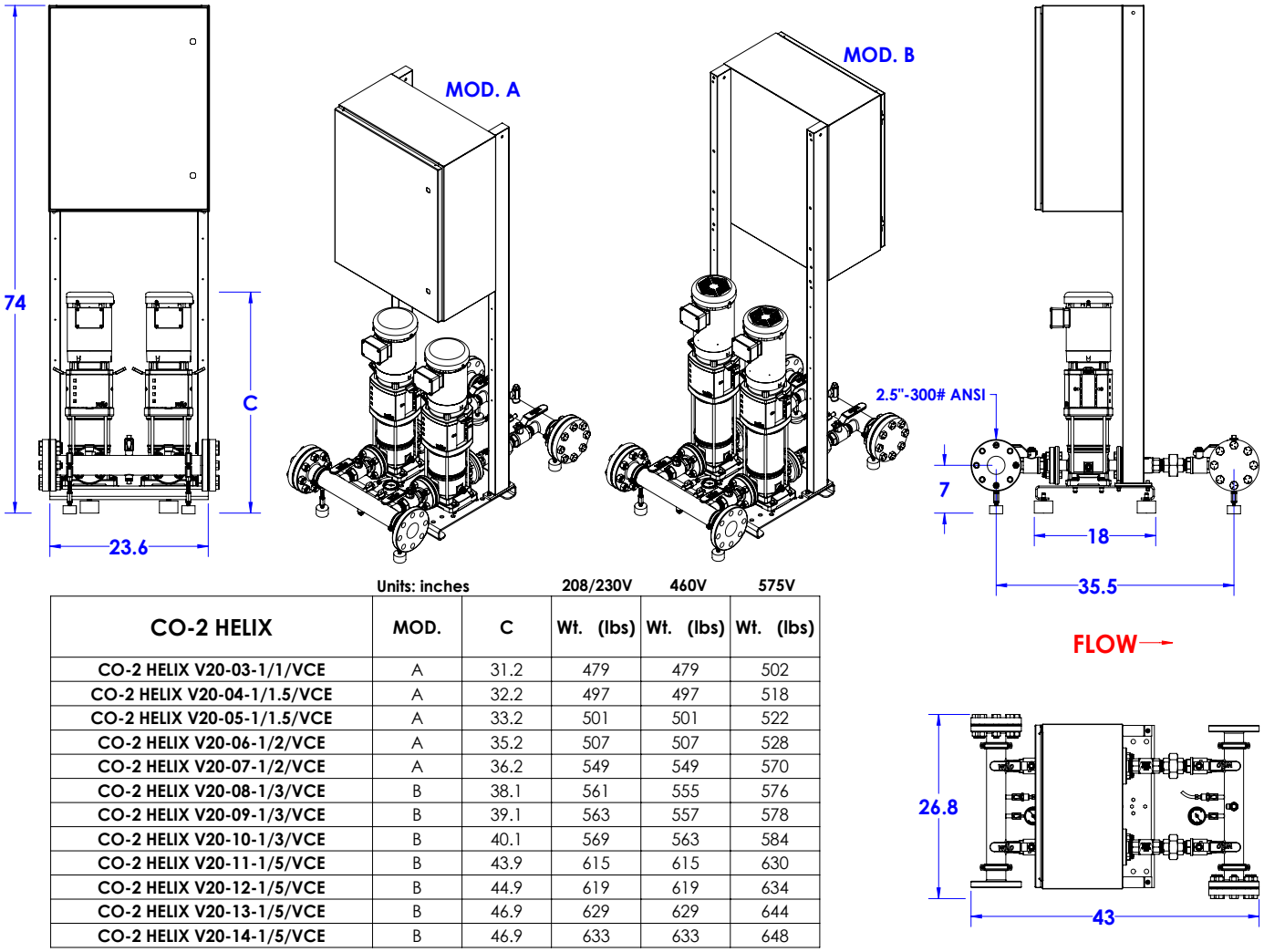
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-12-1/5/VCE



Units: inches

CO-2 HELIX	MOD.	C	208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
CO-2 HELIX V20-04-1/1.5/VCE	A	32.2	497	497	518
CO-2 HELIX V20-05-1/1.5/VCE	A	33.2	501	501	522
CO-2 HELIX V20-06-1/2/VCE	A	35.2	507	507	528
CO-2 HELIX V20-07-1/2/VCE	A	36.2	549	549	570
CO-2 HELIX V20-08-1/3/VCE	B	38.1	561	555	576
CO-2 HELIX V20-09-1/3/VCE	B	39.1	563	557	578
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CO-2 HELIX V20-14-1/5/VCE	B	46.9	633	633	648

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

TEFC Motor Data					Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-12-1/5/VCE	5	3	208-230/460/575	12-11.8/5.9/4.7	363	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	142

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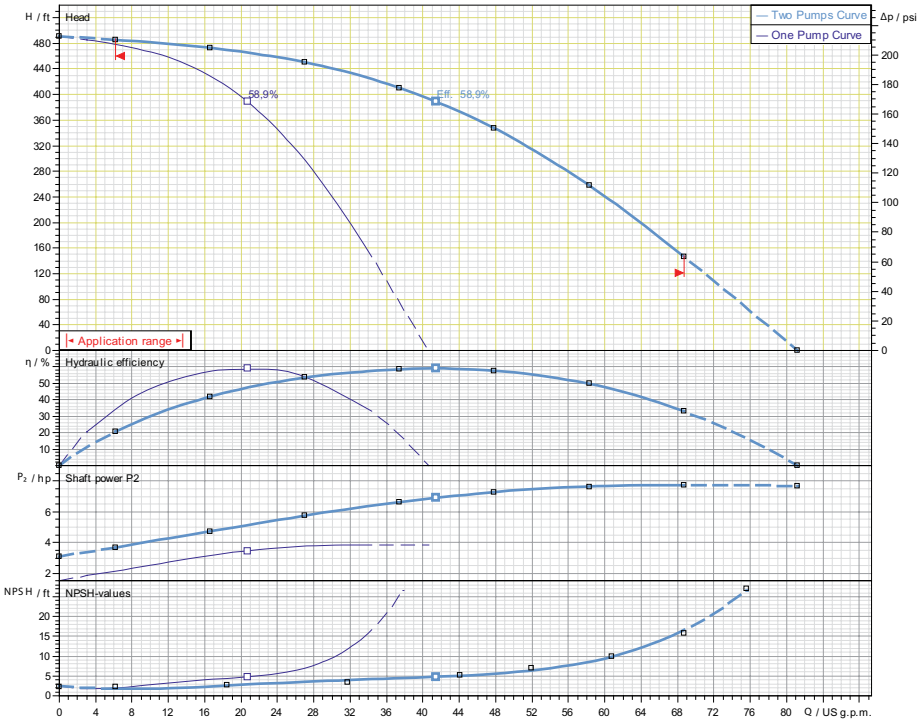
Submittal Data Sheet

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

CO-2 HELIX V20-13-1/5/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-13-1/5/VCE				5			3600



Applications

- Water Supply
- Pressure Boosting
- Agriculture
- Cooling Circuits
- Washing / Sprinkling Systems
- 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
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	363 PSI

Technical Data – Panel

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

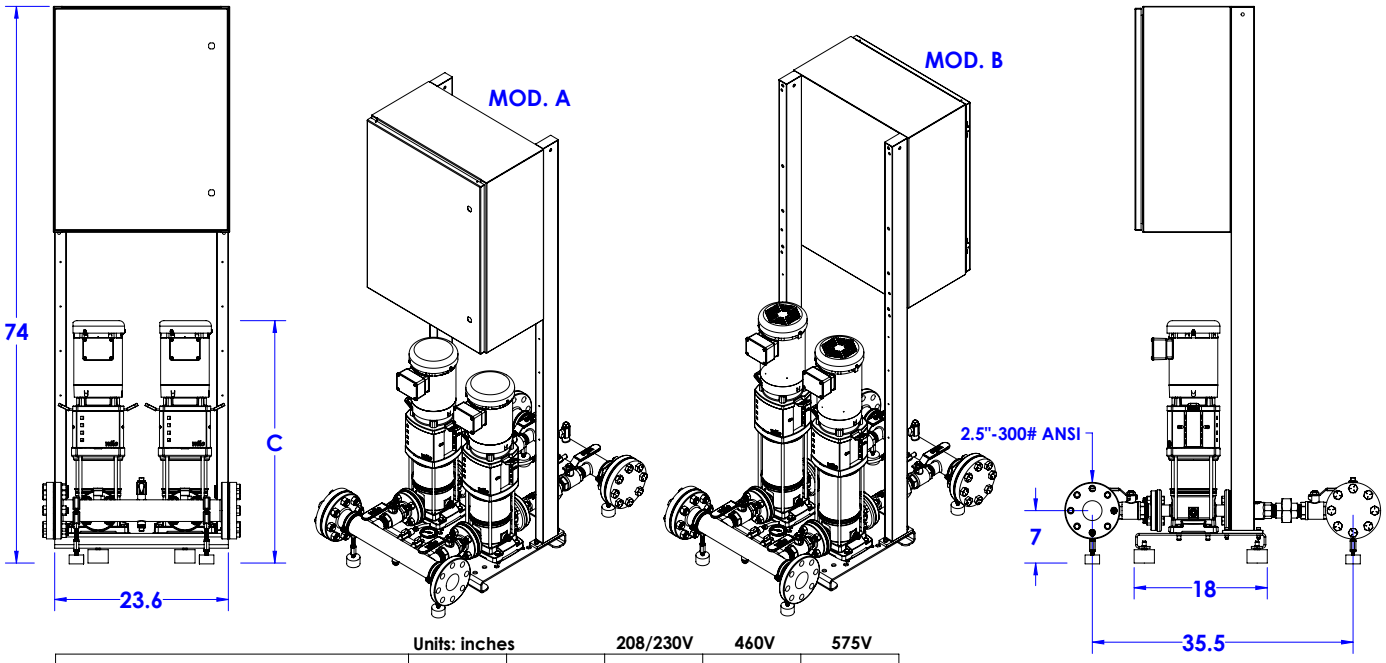
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-13-1/5/VCE



Units: inches

CO-2 HELIX	MOD.	C	208/230V Wt. (lbs)	460V Wt. (lbs)	575V Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	A	31.2	479	479	502
CO-2 HELIX V20-04-1/1.5/VCE	A	32.2	497	497	518
CO-2 HELIX V20-05-1/1.5/VCE	A	33.2	501	501	522
CO-2 HELIX V20-06-1/2/VCE	A	35.2	507	507	528
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TEFC Motor Data						Dimensions				
	P2	Phase	Voltage	FLA (per pump)	Pmax	Dimensions-inches				Individual Pump Weight
Model	(HP)	(~)	(V)	(A)	(PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Pump Weight (lbs)
CO-2 HELIX V20-13-1/5/VCE	5	3	208-230/460/575	12-11.8/5.9/4.7	363	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	144

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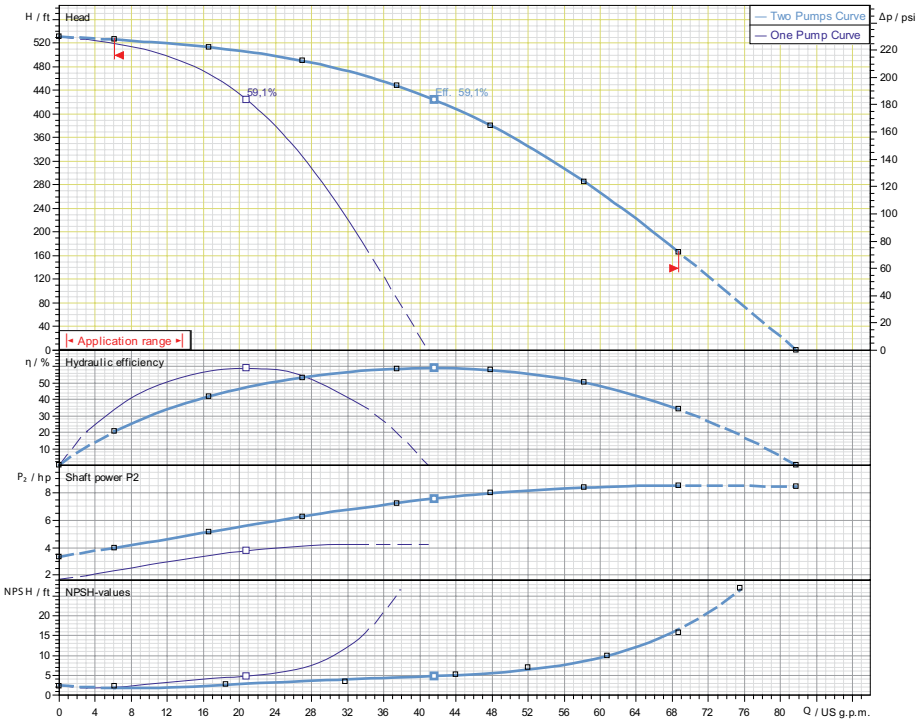
CO-2 HELIX V20-14-1/5/VCE

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

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-14-1/5/VCE				5			3600



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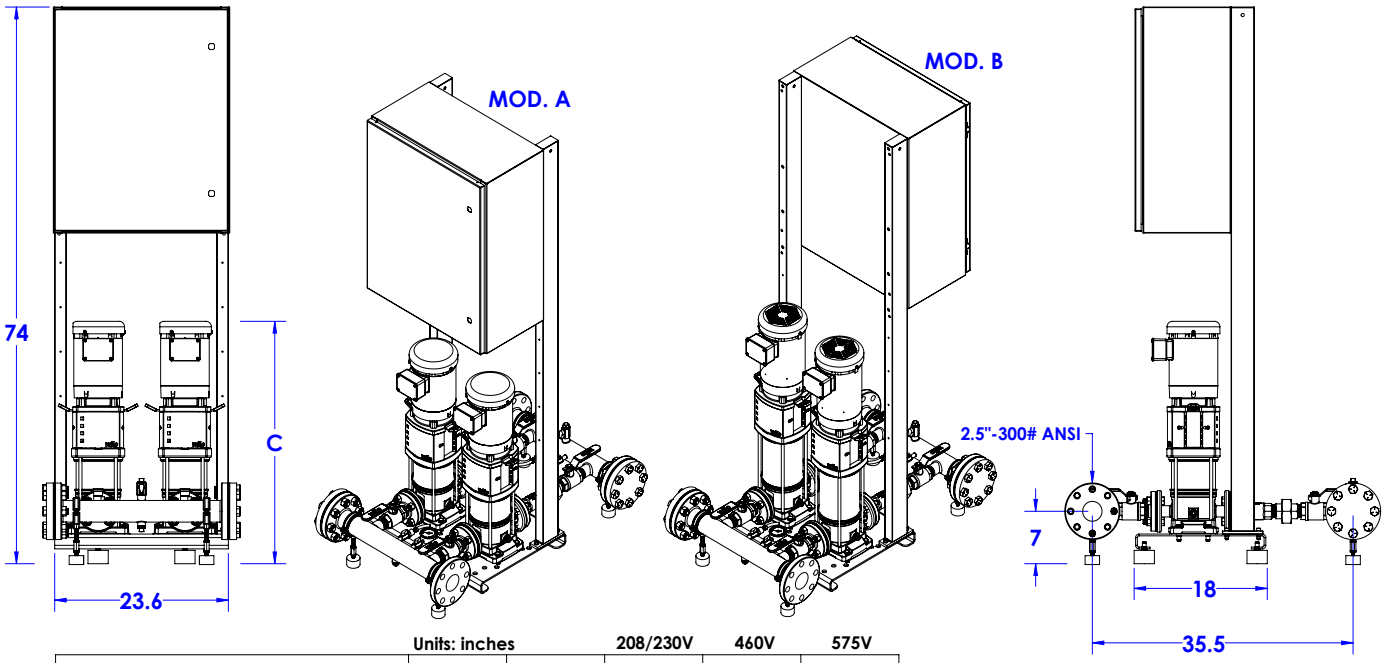
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

CO-2 HELIX V20-14-1/5/VCE



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