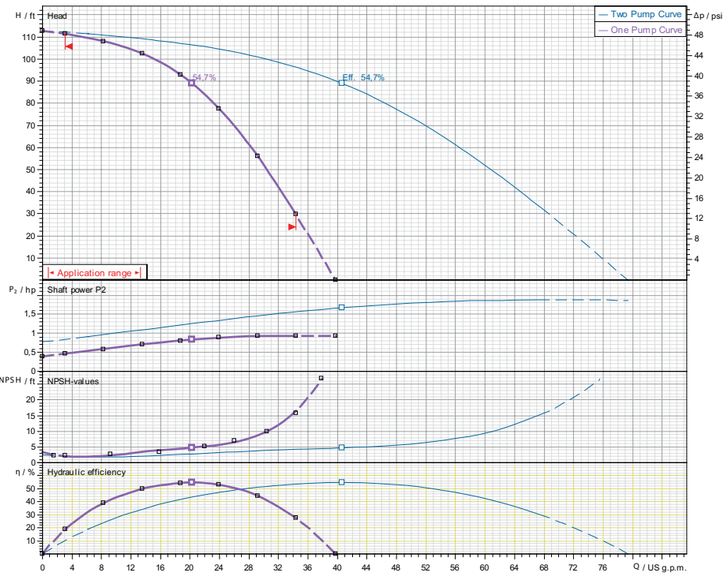
Submittal Data Sheet

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 +180°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

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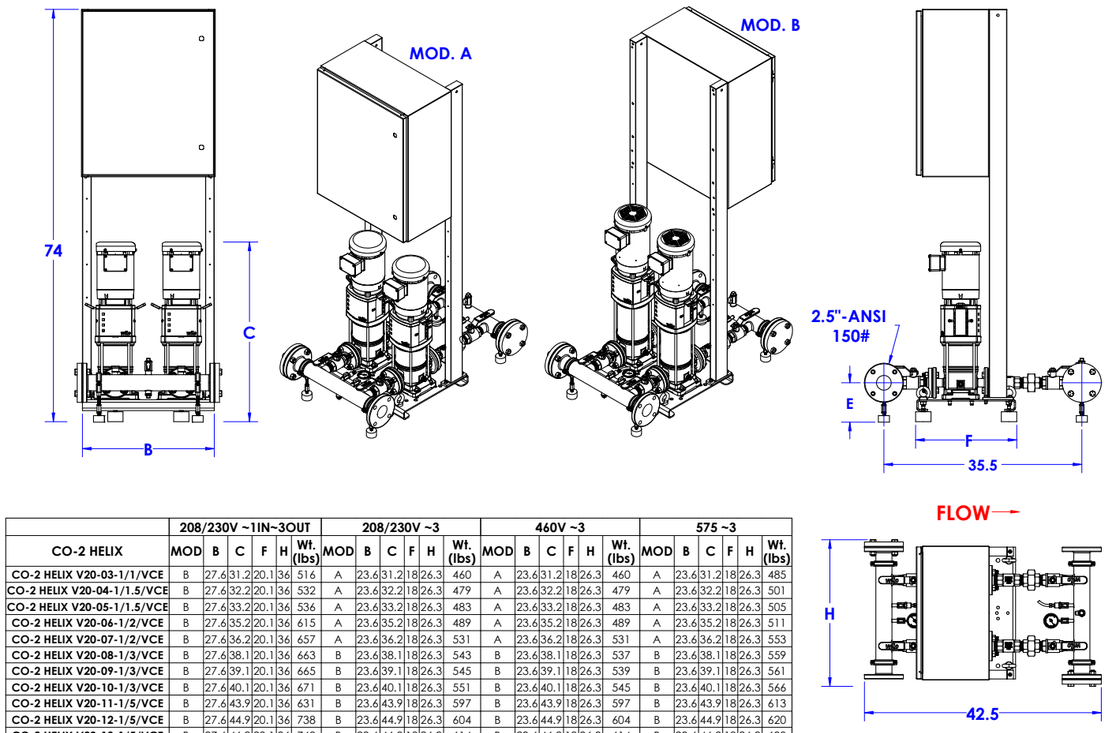

CO-2 HELIX	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
CO-2 HELIX V20-05-1/1.5/VCE	B	27.6	33.2	20.1	36	536	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	505
CO-2 HELIX V20-06-1/2/VCE	B	27.6	35.2	20.1	36	615	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	511
CO-2 HELIX V20-07-1/2/VCE	B	27.6	36.2	20.1	36	657	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	553
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CO-2 HELIX V20-14-1/5/VCE	B	27.6	46.9	20.1	36	752	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	634

Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches: Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight: 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

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

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

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Engineer:

Contractor:

Submitted By: Date:

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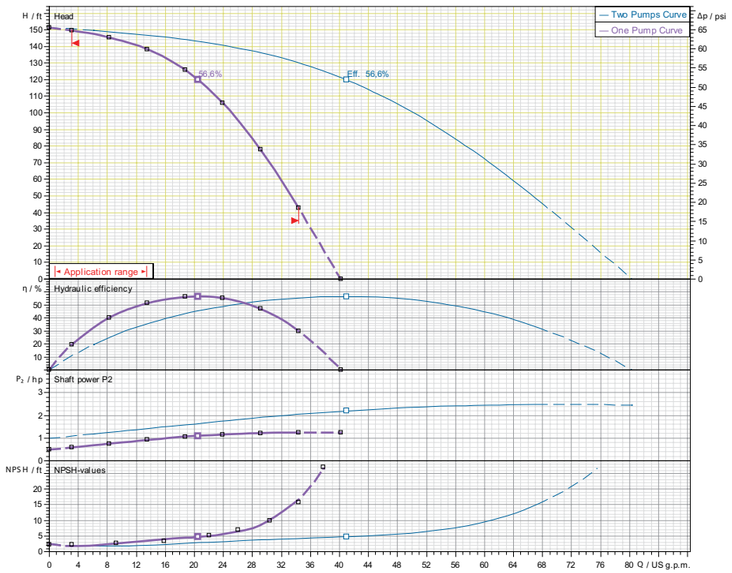

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Technical Data – PLC

User Interface	7" Diagonal Color LCD Touchscreen
Display Resolution	800 x 480 Pixels
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Max. Current Consumption	320mA@24V
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Additional Ports	2.0 USB Port; Micro-SD Port

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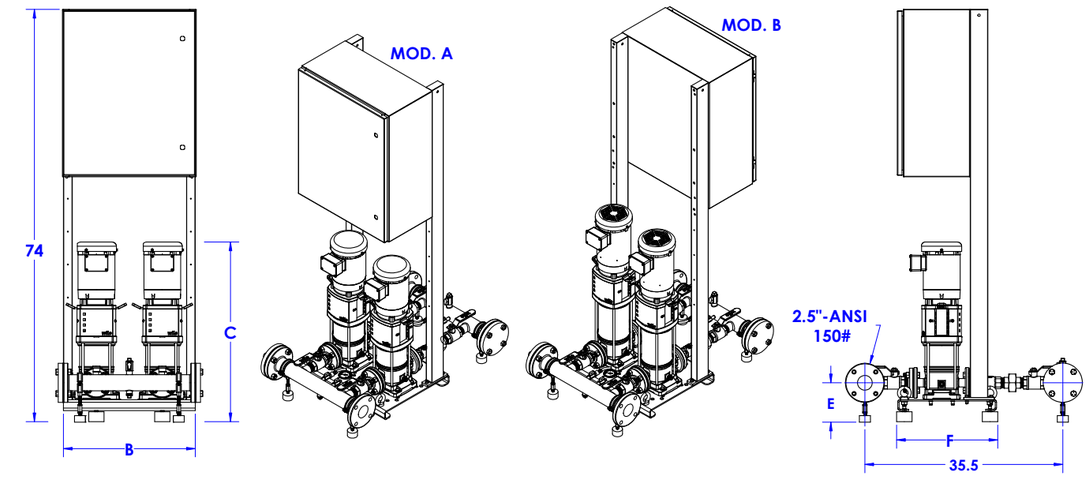

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CO-2 HELIX V20-04-1/1.5/VCE	1.5	3	208-230/460/575	4-3.8/1.9/1.5	232	1-1/4"	1/4" FNPT	1/4" FNPT	3/4" MNPT x 3/4" FNPT	80

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Project:	
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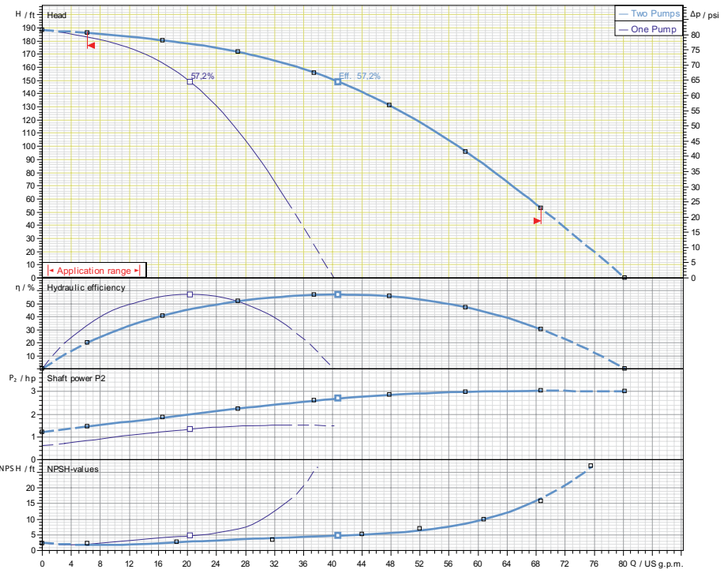

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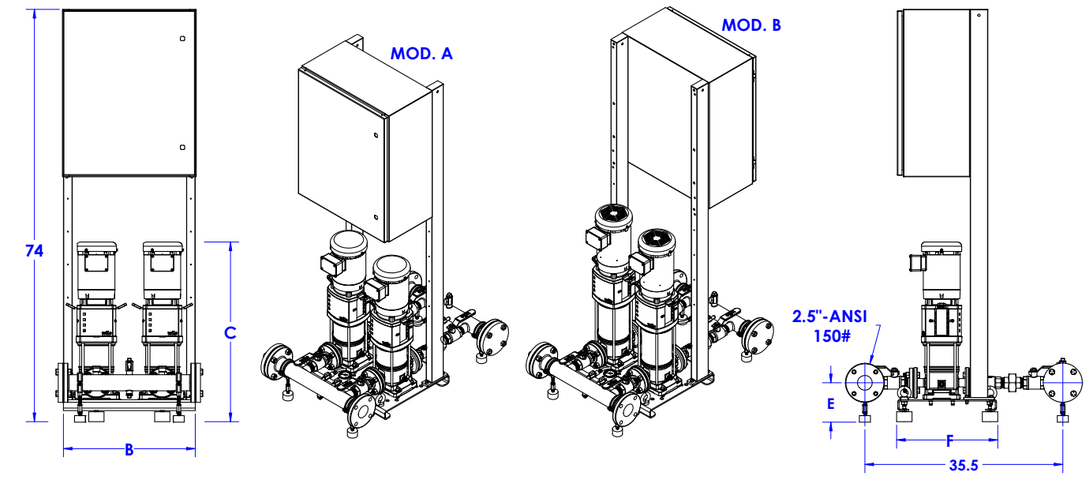

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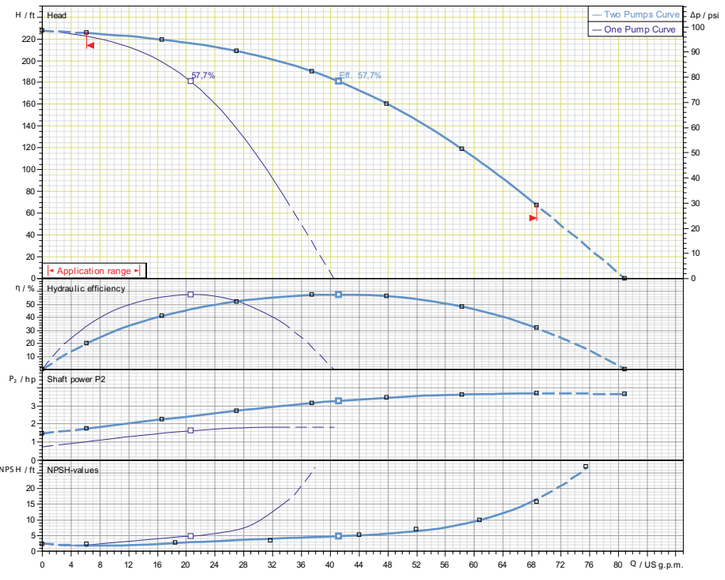

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Isolation Valves	304 Stainless Steel Ball Valves
Check Valves	316 Stainless Steel, Non-slam, Plunger-type with EPDM seal
Mechanical Seal	Cartridge Seal: Sleeve AISI316L / Spring Clips AISI304
Pressure Transducers	316 Stainless Steel
Pressure Guages	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 +180°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

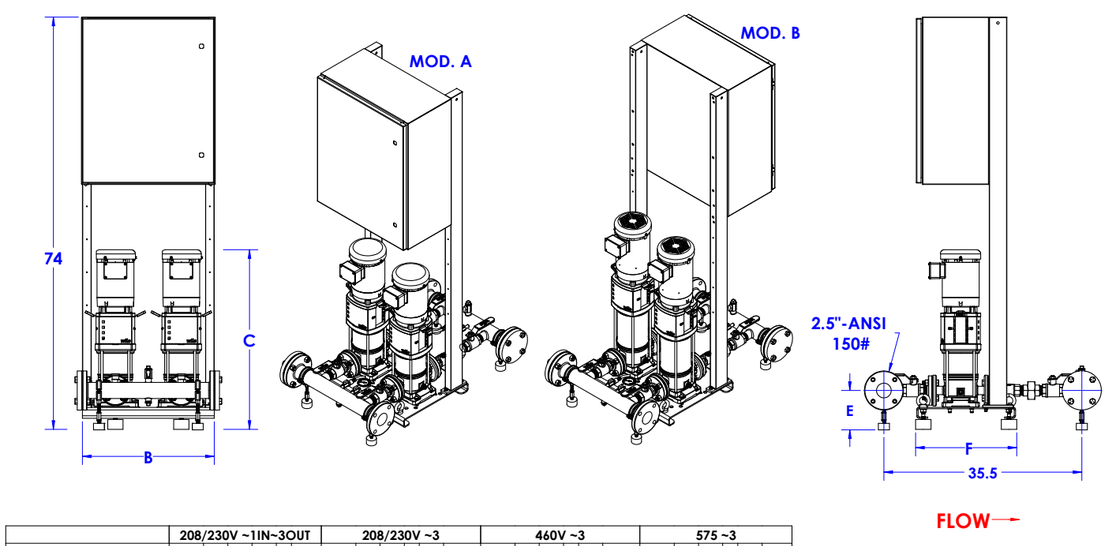
Power Supply	208-230-3 or 460-3 or 575-3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

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



	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
CO-2 HELIX	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
CO-2 HELIX V20-05-1/1.5/VCE	B	27.6	33.2	20.1	36	536	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	505
CO-2 HELIX V20-06-1/2/VCE	B	27.6	35.2	20.1	36	615	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	511
CO-2 HELIX V20-07-1/2/VCE	B	27.6	36.2	20.1	36	657	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	553
CO-2 HELIX V20-08-1/3/VCE	B	27.6	38.1	20.1	36	663	B	23.6	38.1	18	26.3	543	B	23.6	38.1	18	26.3	537	B	23.6	38.1	18	26.3	559
CO-2 HELIX V20-09-1/3/VCE	B	27.6	39.1	20.1	36	665	B	23.6	39.1	18	26.3	545	B	23.6	39.1	18	26.3	539	B	23.6	39.1	18	26.3	561
CO-2 HELIX V20-10-1/3/VCE	B	27.6	40.1	20.1	36	671	B	23.6	40.1	18	26.3	551	B	23.6	40.1	18	26.3	545	B	23.6	40.1	18	26.3	566
CO-2 HELIX V20-11-1/5/VCE	B	27.6	43.9	20.1	36	631	B	23.6	43.9	18	26.3	597	B	23.6	43.9	18	26.3	597	B	23.6	43.9	18	26.3	613
CO-2 HELIX V20-12-1/5/VCE	B	27.6	44.9	20.1	36	738	B	23.6	44.9	18	26.3	604	B	23.6	44.9	18	26.3	604	B	23.6	44.9	18	26.3	620
CO-2 HELIX V20-13-1/5/VCE	B	27.6	46.9	20.1	36	748	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	630
CO-2 HELIX V20-14-1/5/VCE	B	27.6	46.9	20.1	36	752	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	634

Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight Pump Weight (lbs)
CO-2 HELIX V20-06-1/2/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	88

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Submittal Data Sheet

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

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

Project:

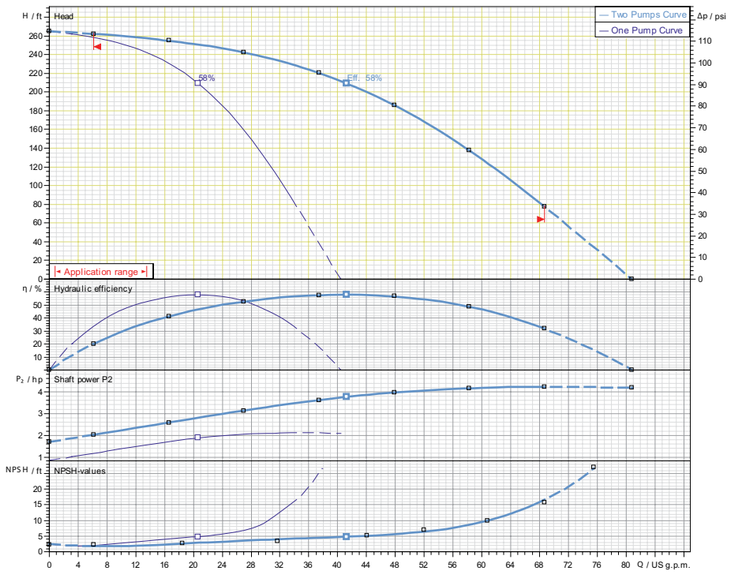
Engineer:

Contractor:

Submitted By: Date:

Approved By: Date:

Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
	CO-2 HELIX V20-07-1/2/VCE				2			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 +180°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

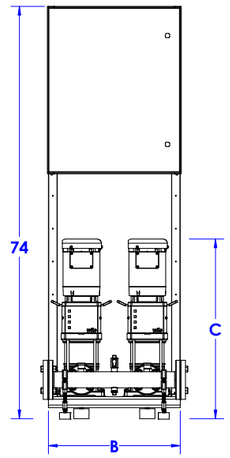
Power Supply	208-230-3 or 460-3 or 575-3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

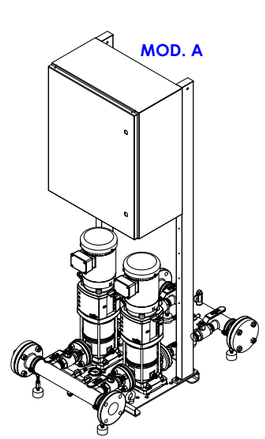
Approval Stamp

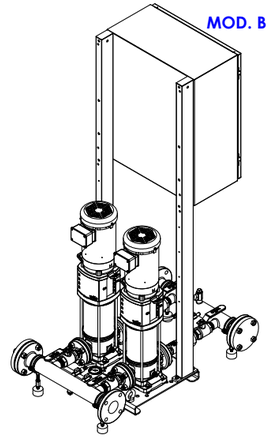
Submittal Data Sheet

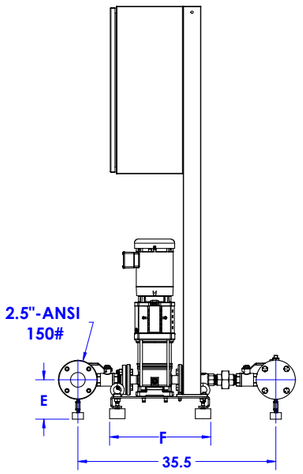
Wilo CO-Helix – NSF 61/372 Pressure Boosting System

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

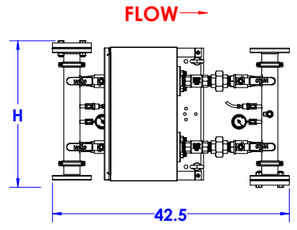








CO-2 HELIX	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
CO-2 HELIX V20-05-1/1.5/VCE	B	27.6	33.2	20.1	36	536	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	505
CO-2 HELIX V20-06-1/2/VCE	B	27.6	35.2	20.1	36	615	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	511
CO-2 HELIX V20-07-1/2/VCE	B	27.6	36.2	20.1	36	657	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	553
CO-2 HELIX V20-08-1/3/VCE	B	27.6	38.1	20.1	36	663	B	23.6	38.1	18	26.3	543	B	23.6	38.1	18	26.3	537	B	23.6	38.1	18	26.3	559
CO-2 HELIX V20-09-1/3/VCE	B	27.6	39.1	20.1	36	665	B	23.6	39.1	18	26.3	545	B	23.6	39.1	18	26.3	539	B	23.6	39.1	18	26.3	561
CO-2 HELIX V20-10-1/3/VCE	B	27.6	40.1	20.1	36	671	B	23.6	40.1	18	26.3	551	B	23.6	40.1	18	26.3	545	B	23.6	40.1	18	26.3	566
CO-2 HELIX V20-11-1/5/VCE	B	27.6	43.9	20.1	36	631	B	23.6	43.9	18	26.3	597	B	23.6	43.9	18	26.3	597	B	23.6	43.9	18	26.3	613
CO-2 HELIX V20-12-1/5/VCE	B	27.6	44.9	20.1	36	738	B	23.6	44.9	18	26.3	604	B	23.6	44.9	18	26.3	604	B	23.6	44.9	18	26.3	620
CO-2 HELIX V20-13-1/5/VCE	B	27.6	46.9	20.1	36	748	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	630
CO-2 HELIX V20-14-1/5/VCE	B	27.6	46.9	20.1	36	752	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	634



Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches: Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight: 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

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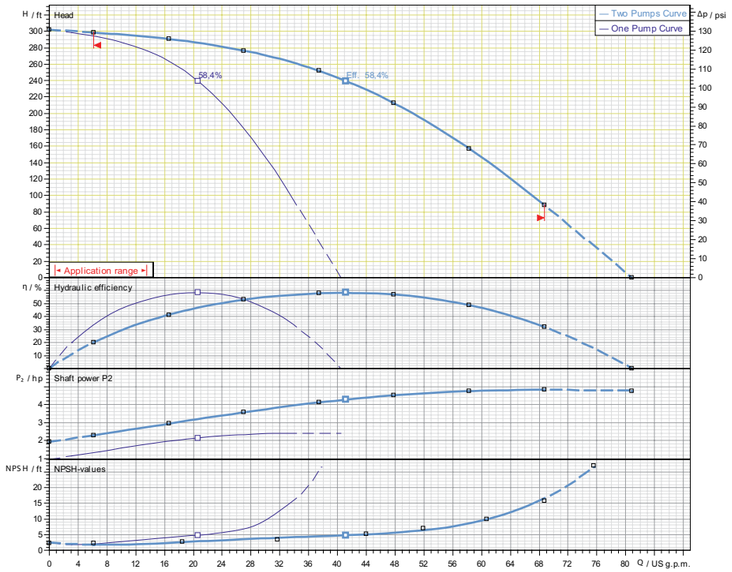
Submittal Data Sheet

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 +180°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

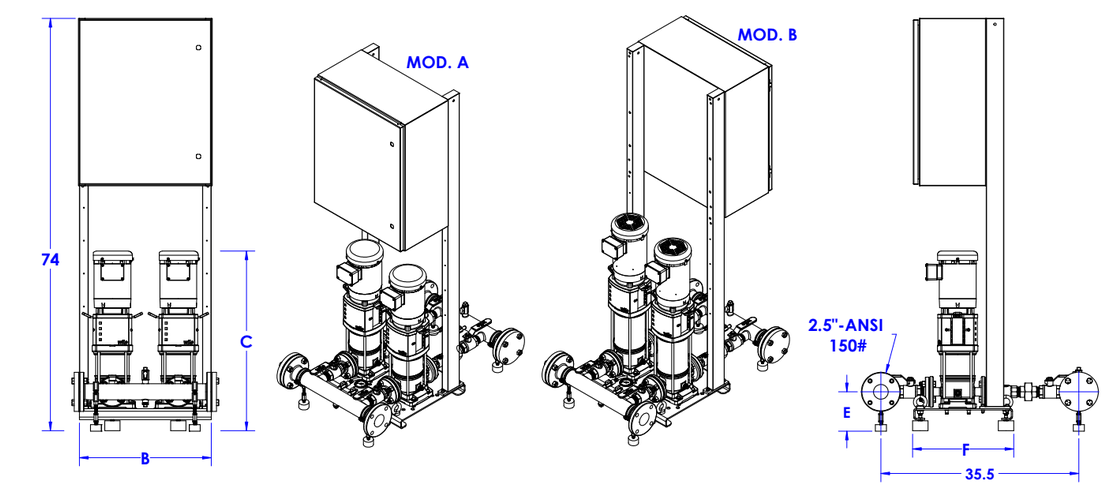
Power Supply	208-230-3 or 460-3 or 575-3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

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



	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
CO-2 HELIX	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
CO-2 HELIX V20-05-1/1.5/VCE	B	27.6	33.2	20.1	36	536	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	505
CO-2 HELIX V20-06-1/2/VCE	B	27.6	35.2	20.1	36	615	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	511
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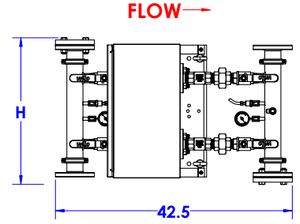

Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual 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

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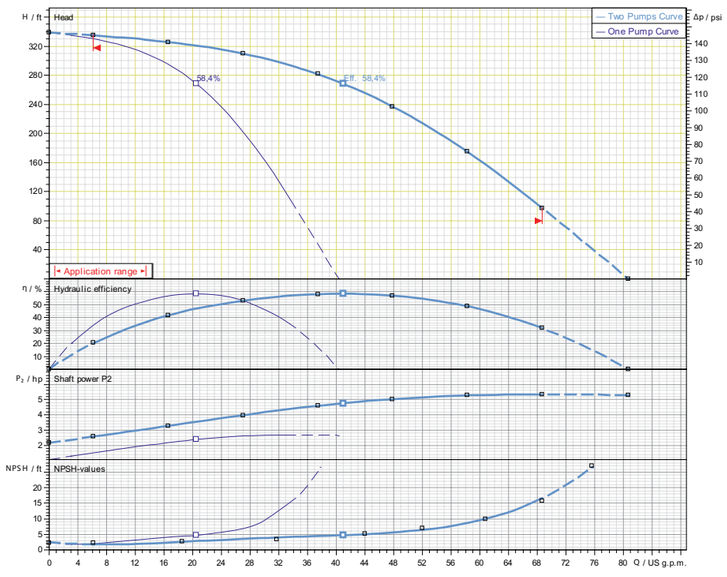
Submittal Data Sheet

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 +180°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

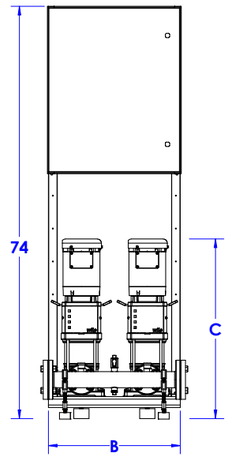
Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

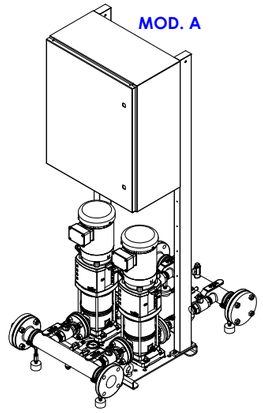
Approval Stamp

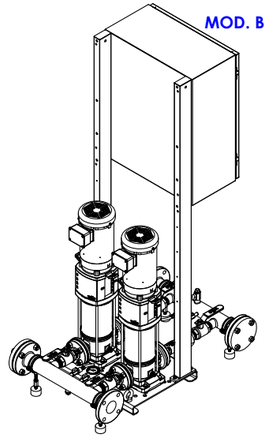
Submittal Data Sheet

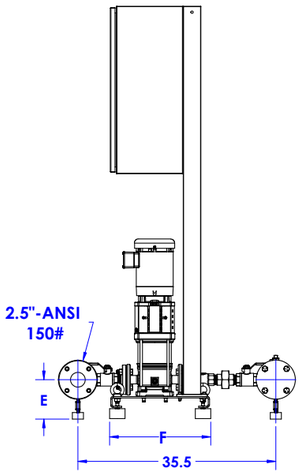
Wilo CO-Helix – NSF 61/372 Pressure Boosting System

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

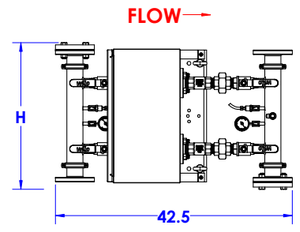








CO-2 HELIX	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
CO-2 HELIX V20-05-1/1.5/VCE	B	27.6	33.2	20.1	36	536	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	505
CO-2 HELIX V20-06-1/2/VCE	B	27.6	35.2	20.1	36	615	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	511
CO-2 HELIX V20-07-1/2/VCE	B	27.6	36.2	20.1	36	657	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	553
CO-2 HELIX V20-08-1/3/VCE	B	27.6	38.1	20.1	36	663	B	23.6	38.1	18	26.3	543	B	23.6	38.1	18	26.3	537	B	23.6	38.1	18	26.3	559
CO-2 HELIX V20-09-1/3/VCE	B	27.6	39.1	20.1	36	665	B	23.6	39.1	18	26.3	545	B	23.6	39.1	18	26.3	539	B	23.6	39.1	18	26.3	561
CO-2 HELIX V20-10-1/3/VCE	B	27.6	40.1	20.1	36	671	B	23.6	40.1	18	26.3	551	B	23.6	40.1	18	26.3	545	B	23.6	40.1	18	26.3	566
CO-2 HELIX V20-11-1/5/VCE	B	27.6	43.9	20.1	36	631	B	23.6	43.9	18	26.3	597	B	23.6	43.9	18	26.3	597	B	23.6	43.9	18	26.3	613
CO-2 HELIX V20-12-1/5/VCE	B	27.6	44.9	20.1	36	738	B	23.6	44.9	18	26.3	604	B	23.6	44.9	18	26.3	604	B	23.6	44.9	18	26.3	620
CO-2 HELIX V20-13-1/5/VCE	B	27.6	46.9	20.1	36	748	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	630
CO-2 HELIX V20-14-1/5/VCE	B	27.6	46.9	20.1	36	752	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	618	B	23.6	46.9	18	26.3	634



Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches: Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight: 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

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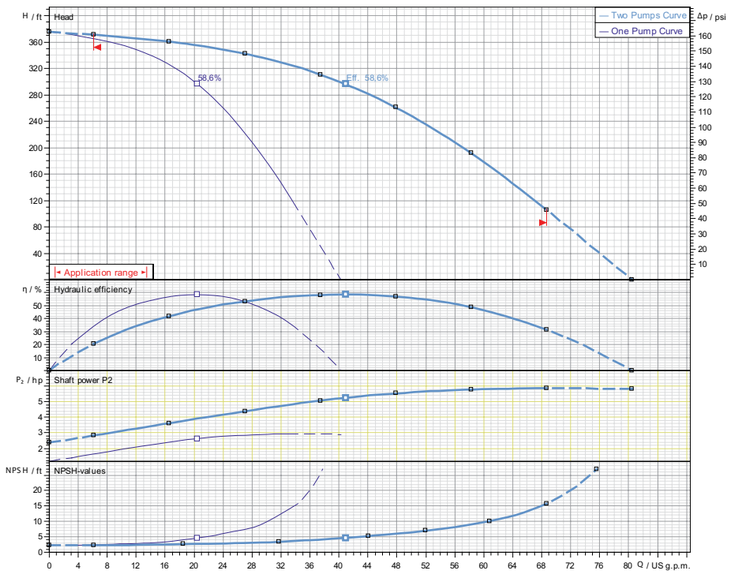
Submittal Data Sheet

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 +180°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

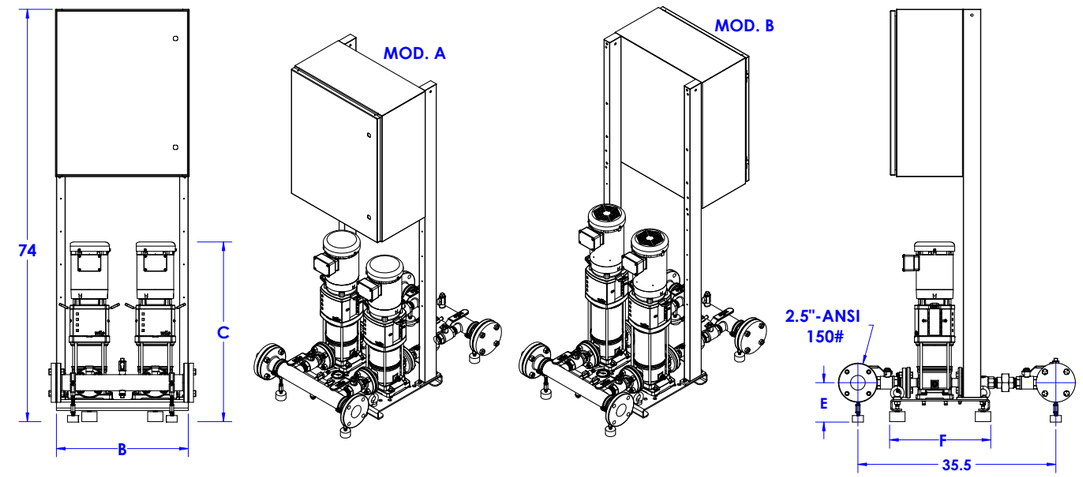
Power Supply	208-230-3 or 460-3 or 575-3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
Motor Efficiency	Nema Premium Efficiency (IE3) - Meets NEMA 12-12 Rule
Enclosure Construction	Rolled Steel / Cast Iron
Motor Protection Index	IP54
Insulation Class	F

Approval Stamp

Submittal Data Sheet

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

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



CO-2 HELIX	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
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CO-2 HELIX V20-13-1/5/VCE	B	27.6	46.9	20.1	36	748	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	630
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Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches: Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight: Pump Weight (lbs)
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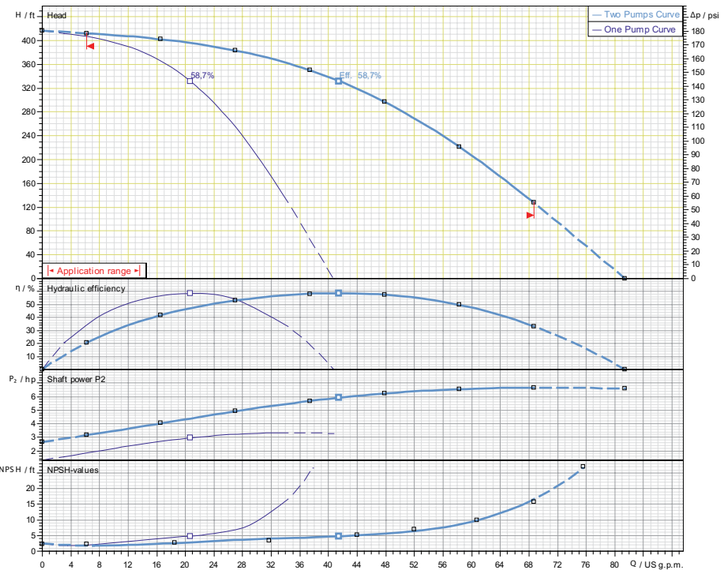
Submittal Data Sheet

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
- Pressure Boosting
- Agriculture
- Cooling Circuits
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Pressure Transducers	316 Stainless Steel
Pressure Guages	304 Stainless Steel Housing with 316 Stainless Steel wetted parts
System base	Steel (S235JR)
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Liquid Temp Range	-4°F to +180°F (Min. 32 °F for Domestic Water)
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Max System Pressure	232 PSI

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Power Supply	208-230/460~3 or 575~3
Enclosure	NEMA 12 (3R Availible Upon Request)
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Variable Frequency Drives	Danfoss FC-51 (1-10 HP for 208-23/460v~3) Danfoss FC-101 (1-10 HP for 575v~3)

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User Interface	7" Diagonal Color LCD Touchscreen
Display Resolution	800 x 480 Pixels
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Number of Analog Inputs	9
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Onboard Communications	Modbus Protocol (Optional Gateways for BacNET, LonWorks, and CANbus)
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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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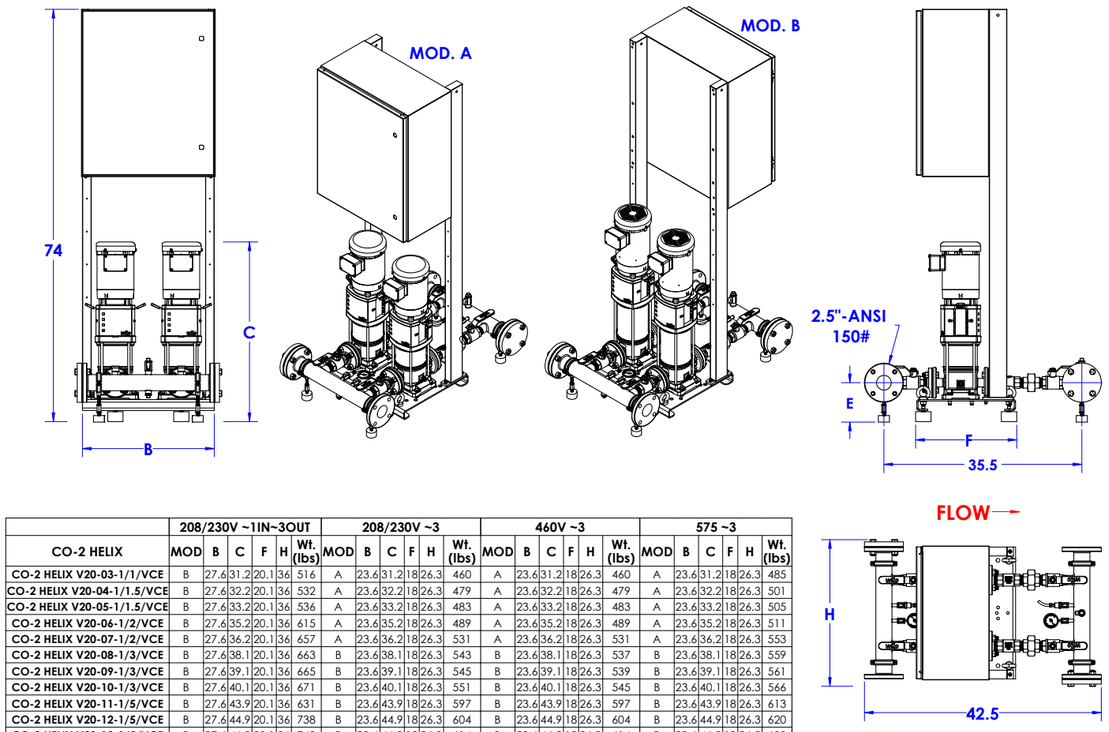
Wilo CO-Helix – NSF 61/372 Pressure Boosting System

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



CO-2 HELIX	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
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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

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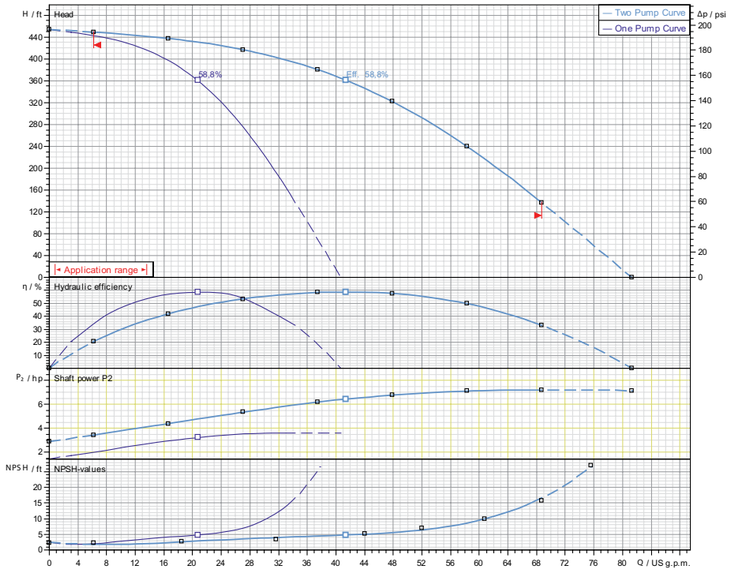
Submittal Data Sheet

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 +180°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

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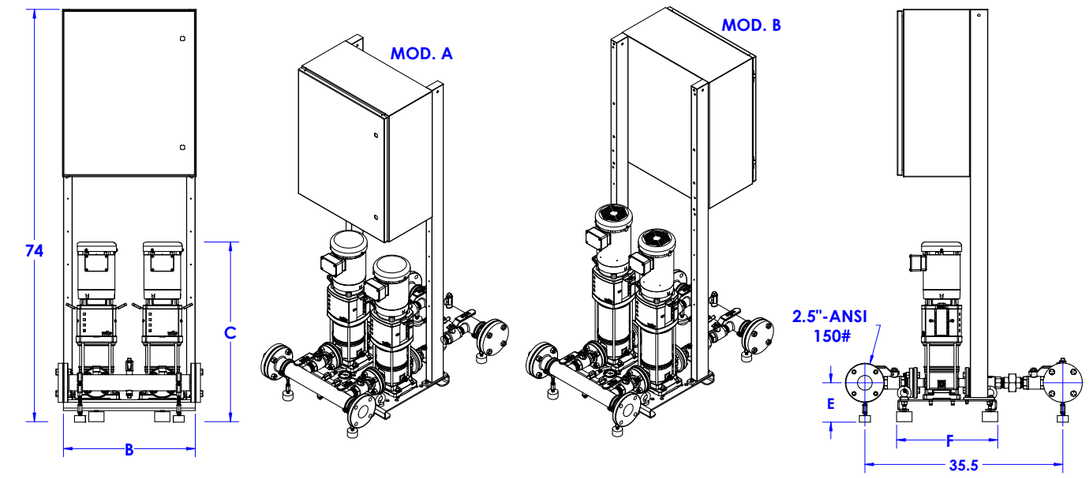

CO-2 HELIX	208/230V ~1IN~3OUT						208/230V ~3						460V ~3						575 ~3					
	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
CO-2 HELIX V20-03-1/1/VCE	B	27.6	31.2	20.1	36	516	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	460	A	23.6	31.2	18	26.3	485
CO-2 HELIX V20-04-1/1.5/VCE	B	27.6	32.2	20.1	36	532	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	479	A	23.6	32.2	18	26.3	501
CO-2 HELIX V20-05-1/1.5/VCE	B	27.6	33.2	20.1	36	536	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	483	A	23.6	33.2	18	26.3	505
CO-2 HELIX V20-06-1/2/VCE	B	27.6	35.2	20.1	36	615	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	489	A	23.6	35.2	18	26.3	511
CO-2 HELIX V20-07-1/2/VCE	B	27.6	36.2	20.1	36	657	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	531	A	23.6	36.2	18	26.3	553
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CO-2 HELIX V20-13-1/5/VCE	B	27.6	46.9	20.1	36	748	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	614	B	23.6	46.9	18	26.3	630
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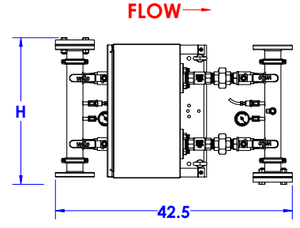

Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches: Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight: 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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Tag #	Model #	Flow	BOOST PSI	Min. Inlet PSI	HP/Pump	Phase	Voltage	RPM
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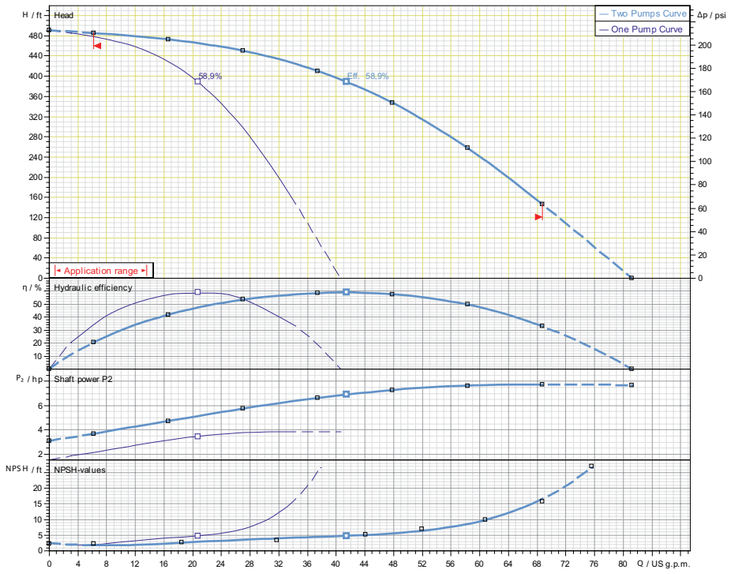

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Standard	Meets UL 508A
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Technical Data – PLC

User Interface	7" Diagonal Color LCD Touchscreen
Display Resolution	800 x 480 Pixels
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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

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Power Supply	208-230~3 or 460~3 or 575~3
Motor Enclosure	Totally Enclosed Fan Cooled (TEFC)
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Motor Protection Index	IP54
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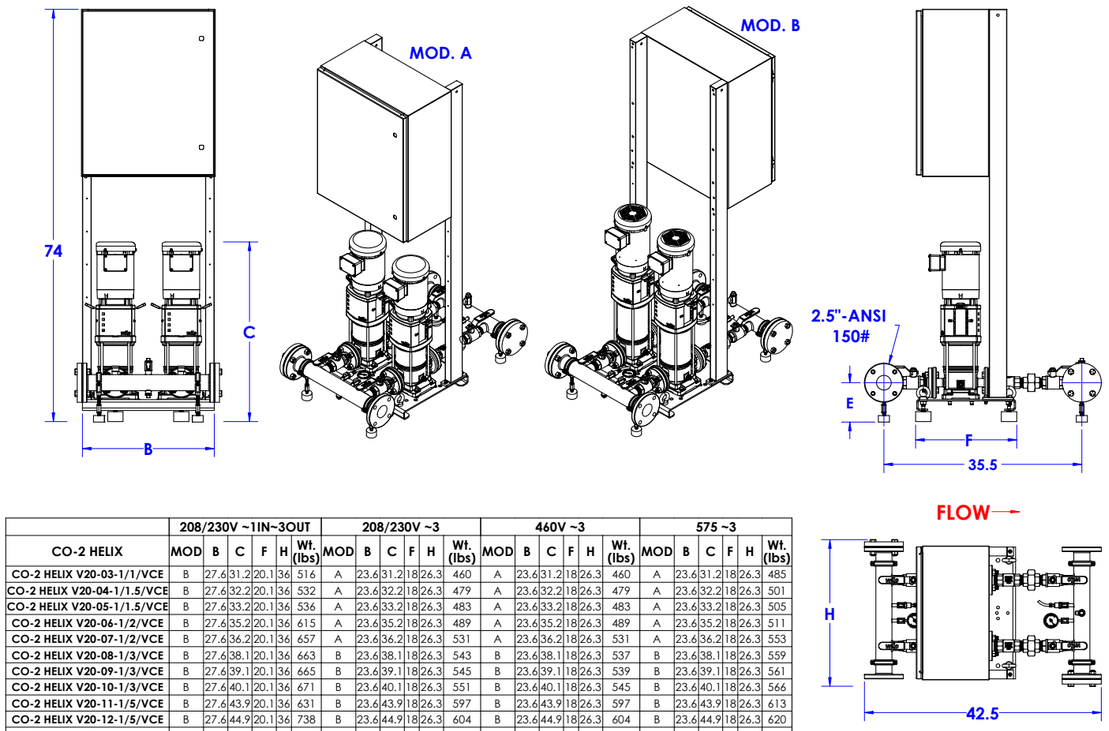

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	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)	MOD	B	C	F	H	Wt. (lbs)
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Units: inches

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

TEFC Motor Data

Dimensions

Model	P2 (HP)	Phase (~)	Voltage (V)	FLA (per pump) (A)	Pmax (PSI)	Dimensions-inches: Suction / Discharge Pump Size (300 Class ANSI)	Gauge Tap Size	Transducer Tap Size	Hydronumatic Tank Valve on Manifold (Plugged)	Individual Pump Weight: Pump Weight (lbs)
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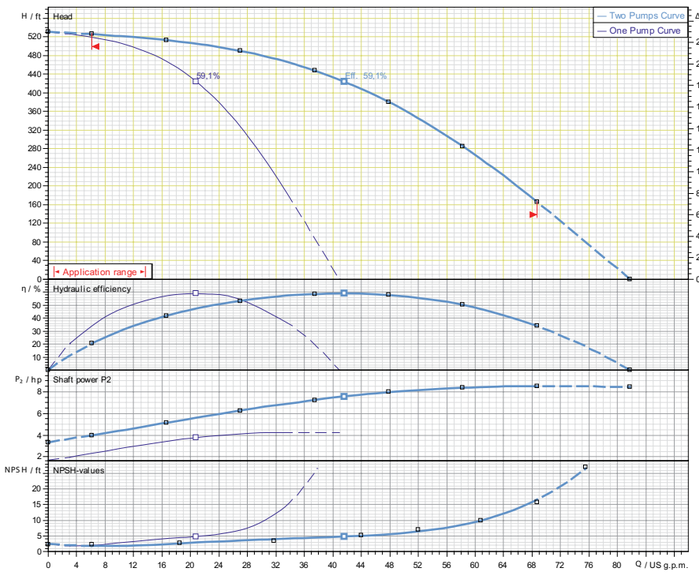

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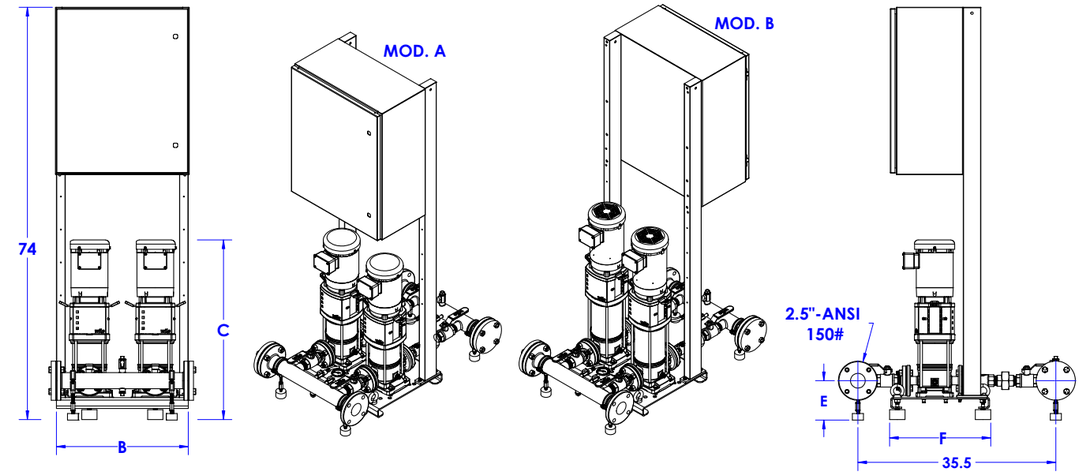

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