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1. Product introduction

This data booklet deals with Grundfos CR, CRI and CRN pumps with these nominal flow sizes:

- CR, CRN, CRI 1s, 1, 3, 5, 10, 15, 20
- CR, CRN 32, 45, 64.

Options for larger flow sizes are described in the data booklet for CR, CRN 95-155, 60 Hz available on Grundfos Product Center at <http://net.grundfos.com/qr/i/99407996>.



TM02 7698 3803

Fig. 1 CR, CRI and CRN pumps

Pump Energy Index

Pump Energy Index (PEI) was established by the U.S. Department of Energy (DOE) and adopted by Canada as the standard metric used to evaluate pump efficiency. The value is the ratio of the pump efficiency rating (PER) divided by the calculated minimally compliant PER (PER_{STD}) for the pump type. This provides a representation of a pump's actual performance compared to the minimal standard performance required by regulation. The lower the PEI value, the more efficient a pump is at the tested operating points.

PER is determined by defined testing parameters required by the DOE. This includes testing a particular pump model at its best efficiency point (BEP).

For PEI values there are two different versions:

- PEI_{CL} (constant load): Applies to a bare-shaft pump and a pump sold with a motor
- PEI_{VL} (variable load): Applies to pumps sold with a motor and controller (such as VFD, VSD)

The DOE has set the maximum PEI value as 1.00. Any pump, pump and motor, or pump, motor and controller that exceeds a PEI value of 1.00 can no longer be manufactured after January 26, 2020.

PEI is a generalized efficiency value. PEI cannot be used to determine the efficiency of a pump in a specific application.

Product type	Poles	PEI_{CL} bare-shaft pump	PEI_{CL} pump with motor	PEI_{VL} pump with motor plus controller*	Impeller diameter [in (mm)]
CR, CRN, CRI 10	2	0.87	0.87	0.48	3.66 (92.90)
CR, CRN, CRI 15	2	0.91	0.91	0.48	4.13 (104.80)
CR, CRN, CRI 20	2	0.91	0.91	0.47	4.13 (104.80)
CR, CRN 32	2	0.87	0.87	0.45	4.66
	4	0.90	0.91	0.50	(118.40)
CR, CRN 45	2	0.89	0.89	0.46	5.34 (136)
	4	0.91	0.91	0.47	
CR, CRN 64	2	0.93	0.93	0.46	5.59 (142)
	4	0.94	0.94	0.48	

* Grundfos CUE continuous controls.

Features and benefits

Grundfos CR, CRI, CRN pumps are vertical multistage centrifugal pumps. The in-line design enables installation in a horizontal one-pipe system where the inlet and outlet ports are in the same horizontal plane and have the same pipe dimensions. This design provides a more compact pump design.

Grundfos CR pumps are available in various sizes and various numbers of stages to provide the flow rate and the pressure required.

CR pumps are designed for a variety of applications ranging from pumping potable water to pumping chemicals. The pumps are therefore suitable for a wide variety of pumping systems where the performance and material of the pump meet specific demands.

A CR pump consists of two main components: the motor and the pump unit.

The pump unit consists of optimized hydraulics, various types of connections, a sleeve, a pump head and various other parts.

CR pumps are available in various material versions according to the pumped liquid.

CR pumps fitted with EPDM elastomers are compliant with ANSI/NSF 61 and ANSI/NSF 372. See UL file MH26400 or contact Grundfos.

Pump

The CR pumps are non-self-priming, vertical multistage centrifugal pumps. The pumps are supplied with WEG motors as standard. Grundfos ML motors are available on request.

The pump consists of a base and a pump head. Staybolts secure the chamber stack and sleeve between the pump head and base. The base has inlet and outlet ports on the same level (in-line).

All pumps are fitted with a maintenance-free mechanical shaft seal of the cartridge type.

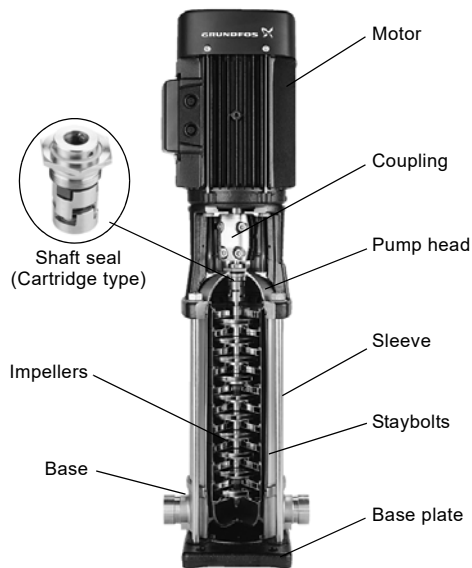


Fig. 2 CR pump

GR5357 - GR3395

Motor

CR, CRI and CRN pumps are fitted with a Grundfos specified motor. The motors are all heavy-duty 2-pole, NEMA C-face motors. The pumps are supplied with WEG motors as standard. Grundfos ML motors (0.33 to 30 HP, TEFC three-phase) are available on request.

Electrical data

Mounting designation	NEMA
Insulation class	F
Efficiency	Premium efficiency - EISA compliant
Enclosure	IP55 TEFC - Totally Enclosed Fan Cooled (Grundfos standard). ODP - Open Drip Proof (on request).
60 Hz standard voltages	1 x 115/208-230 V 3 x 208-230/460 V 3 x 575 V
Number of poles	2

Approvals, WEG



Approvals, Grundfos ML



WEG motors 0.25 to 20 HP

- rolled steel construction
- service factor 1.15
- suitable for VFD operation per NEMA MG 1 part 31.4.4.2
- certified Class I Division 2, Groups A, B, C, D
- certified Class II, Division 2, Groups F, G (three phase only).

WEG motors 25 to 300 HP

- cast iron frame
- rated for severe duty
- service factor 1.25 (25 to 100 HP)
- service factor 1.15 (125 to 300 HP)
- Inverter rated per NEMA MG 1 part 31
- certified Class I Division 2, Groups A, B, C, D
- certified Class II, Division 2, Groups F, G (three phase only).

Grundfos E-motors

We also offer frequency-controlled CRE and CRNE pumps which are the ideal choice for a number of applications characterized by a demand for variable flow at constant pressure. These pumps are suited for water supply systems and pressure boosting as well as for industrial applications. Depending on the application, the pumps offer energy savings, increased comfort and improved processing.

Optional motors

The Grundfos standard range of motors covers a wide variety of application demands. However, for special applications or operating conditions, custom-built motor solutions can be provided.

For special applications or operating conditions, Grundfos offers custom-built motors such as:

- explosion proof motors
- motors with anti-condensation heating unit
- low-noise motors
- motors with thermal protection.

Motor protection

Single-phase Grundfos specified motors up to 7.5 HP have a built-in thermal overload switch.

Three-phase motors must be connected to a motor-protective circuit breaker according to local regulations.

Three-phase Grundfos ML motors 5 HP (4 kW) and larger have a built-in thermistor (PTC) according to DIN 44082 (TP 211 according to IEC 34-11).

Terminal box positions

As standard the terminal box is mounted on the inlet side of the pump.

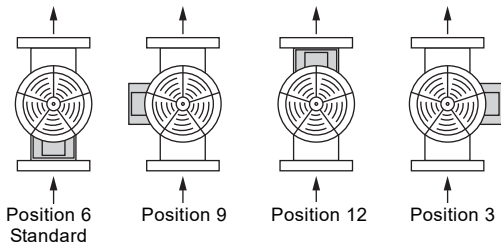


Fig. 3 Terminal box positions

Viscosity

Pumping liquids with densities or kinematic viscosities higher than those of water will cause a considerable pressure drop, a drop in the hydraulic performance and a rise in the power consumption.

In such situations, the pump must be fitted with a larger motor. If in doubt, contact Grundfos.

Ambient temperature and altitude

If the ambient temperature exceeds the maximum temperature limits of the pump or the pump is installed at an altitude exceeding the altitude values in the chart below, the motor must not be fully loaded due to the risk of overheating.

Overheating may result from excessive ambient temperatures or the low density and consequently low cooling effect of the air at high altitudes. In such cases, it may be necessary to use a motor with a higher rated output (P2).

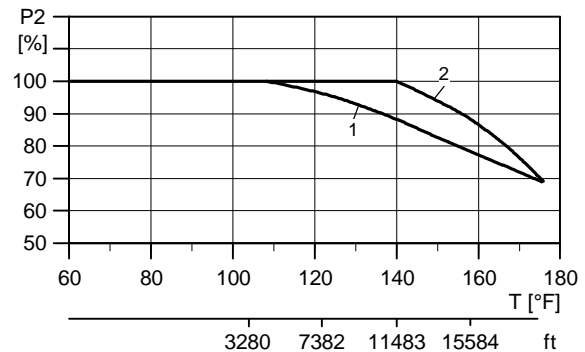


Fig. 4 Relationship between motor output (P2) and ambient temperature (T) and altitude (ft)

Legend

Pos.	Description
1	NEMA energy-efficient motors
2	NEMA premium-efficiency motors

Example: From fig. 4 it appears that P2 must be reduced to 88 % when a pump with a NEMA premium-efficiency ML motor is installed at 15,584 ft (4750 m) above sea level. At an ambient temperature of 167 °F (75 °C), P2 of a standard-efficiency motor must be reduced to 74 % of rated output.

In cases where both the maximum temperature and the maximum altitude are exceeded, the derating factors must be multiplied. Example: $0.89 \times 0.89 = 0.79$.

2. Applications

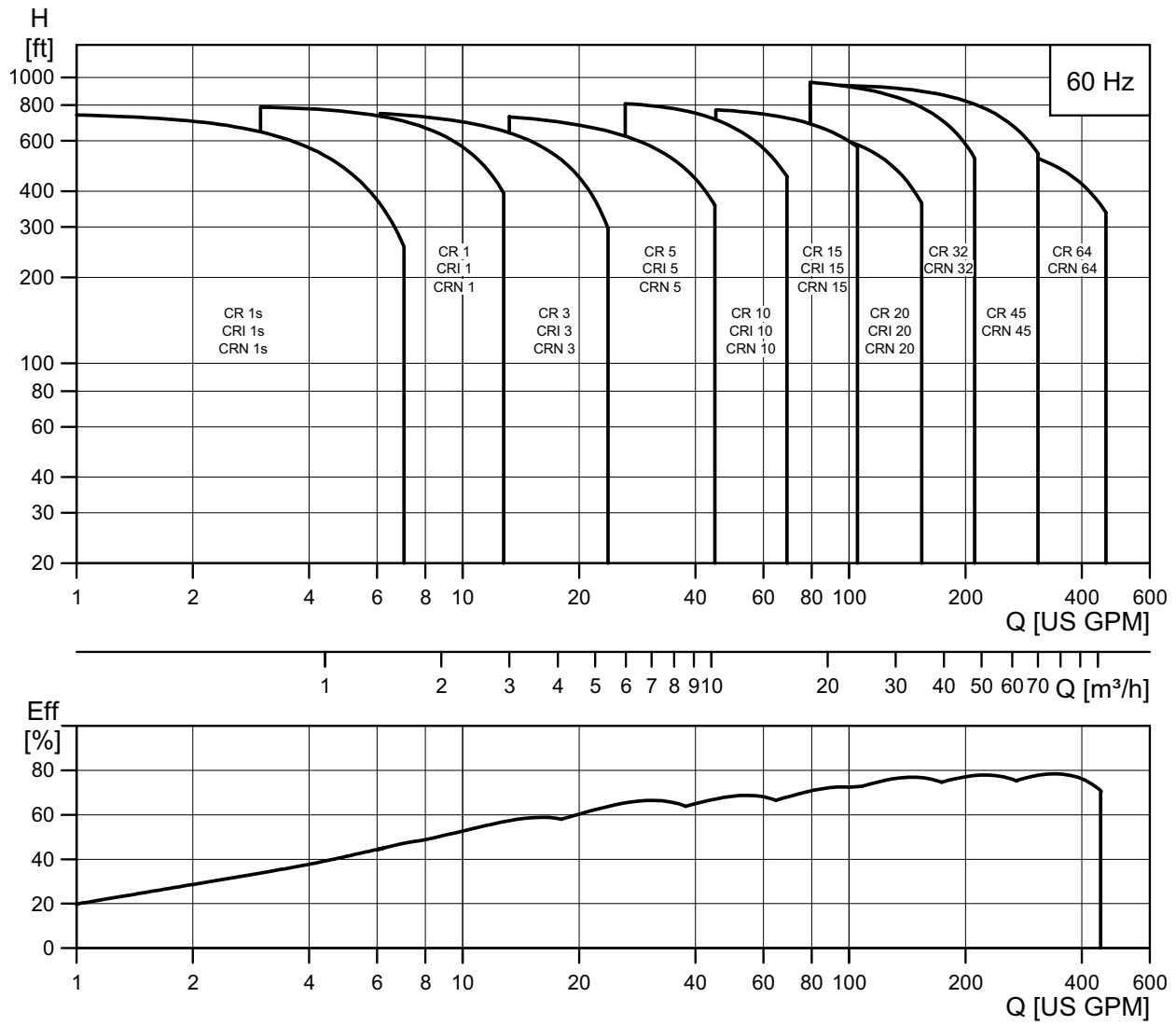
Application	CR, CRI	CRN
Water supply		
Filtration and transfer at waterworks	•	○
Distribution from waterworks	•	○
Pressure boosting in mains	•	○
Pressure boosting in high-rise buildings, hotels, etc.	•	○
Pressure boosting for industrial water supply	•	○
Industry		
Pressure boosting		
Process water systems	•	•
Washing and cleaning systems	•	•
Vehicle washing tunnels	•	○
Fire fighting systems	•	
Liquid transfer		
Cooling and air-conditioning systems (refrigerants)	•	○
Boiler feed and condensate systems	•	○
Machine tools (cooling lubricants)	•	•
Aquafarming ★	•	○
Special transfer duties		
Oils and alcohols	•	•
Acids and alkalis ★		•
Glycol and coolants	•	
Water treatment		
Ultra-filtration systems		•
Reverse osmosis systems ★		•
Softening, ion exchange, demineralizing systems		•
Distillation systems		•
Separators	•	•
Swimming pools ★		•
Irrigation		
Field irrigation (flooding)	•	○
Sprinkler irrigation	•	○
Drip-feed irrigation	•	○

• Recommended version.

○ Alternative version.

★ CRT, CRTE version available. For further information about CRT, CRTE pumps, see [Pumped liquids](#) on page 14 or the related CRT, CRTE product guide.

3. Performance range



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4. Product range

Range	CR 1s	CR 1	CR 3	CR 5	CR 10	CR 15	CR 20	CR 32	CR 45	CR 64	
Nominal flow rate [US gpm]	4.5	8.5	15	30	55	95	110	140	220	340	
Temperature range [°F]								-22 to +250 ¹⁾			
Temperature range [°F] - on request								-40 to +356			
Max. working pressure [psi]★	362	362	362	362	362	362	362	435	435	435	
Max. working pressure [psi] - on request	-	725	725	725	725	725	725	580	580	580	
Max. pump efficiency [%]	35	49	59	67	70	72	72	76	78	79	
CR pumps											
CR: Flow range [US gpm]	0.5 - 5.7	1 - 12.8	1.5 - 23.8	3 - 45	5.5 - 70	9.5 - 125	11-155	14-210	22 -310	34-450	
CR: Max. pump pressure (H [ft])	760	790	790	780	820	800	700	995	940	565	
CR: Motor power [HP]	0.33 - 2	0.33 - 3	0.33 - 5	0.75 - 7.5	0.75 - 15	2-25	3-25	5-50	7.5 - 60	10-60	
Version											
CR: Cast iron and stainless steel AISI 304	•	•	•	•	•	•	•	•	•	•	
CRI: Stainless steel AISI 304	•	•	•	•	•	•	•	-	-	-	
CRN: Stainless steel AISI 316	•	•	•	•	•	•	•	•	•	•	
CRT, CRTE: Titanium	-	See CRT, CRTE product guide					-	-	-	-	-
CR pipe connection											
Oval flange (NPT)	1"	1"	1"	1.25"	2"	2"	2"	-	-	-	
Oval flange (NPT) - on request	1.25"	1.25"	1.25"	1"	1.5"	-	-	-	-	-	
ANSI flange size	1.25"	1.25"	1.25"	1.25"	2"	2"	2"	2.5"	3"	4"	
ANSI flange size - on request	-	-	-	-	-	-	-	3"	4"	5"2)	
ANSI flange class	250 lb.	250 lb.	250 lb.	250 lb.	250 lb.	250 lb.	250 lb.	125/ 250 lb.	125/ 250 lb.	125/ 250 lb.	
CRI pipe connection											
Oval flange (NPT)	1"	1"	1"	1.25"	2"	2"	2"	-	-	-	
Oval flange (NPT) - on request	1.25"	1.25"	1.25"	1"	1.5"	-	-	-	-	-	
ANSI flange size	1.25"	1.25"	1.25"	1.25"	2"	2"	2"	-	-	-	
ANSI flange class	300 lb.	300 lb.	300 lb.	300 lb.	300 lb.	300 lb.	300 lb.	-	-	-	
Clamp coupling (NPT) - on request	1", 1.25"	1", 1.25"	1", 1.25"	1", 1.25"	1.5", 2"	1.5", 2"	1.5", 2"	-	-	-	
Union (NPT ext. Thread) - on request	2"	2"	2"	2"	-	-	-	-	-	-	
CRN pipe connection											
PJE (Vitaallic)	1.25"	1.25"	1.25"	1.25"	2"	2"	2"	-	-	-	
PJE (Vitaallic) - on request	-	-	-	-	-	-	-	3"	4"	4"	
ANSI flange size	1.25"	1.25"	1.25"	1.25"	2"	2"	2"	2.5"	3"	4"	
ANSI flange size - on request	-	-	-	-	-	-	-	3"	-	-	
ANSI flange class	300 lb.	300 lb.	300 lb.	300 lb.	300 lb.	300 lb.	300 lb.	150/ 300 lb.	150/ 300 lb.	150/ 300 lb.	
Clamp coupling (NPT) - on request	1", 1.25"	1", 1.25"	1", 1.25"	1", 1.25"	1.5", 2"	1.5", 2"	1.5", 2"	-	-	-	
Union (NPT ext. Thread) - on request	2"	2"	2"	2"	-	-	-	-	-	-	
CRT pipe connection											
PJE coupling (Vitaallic)	-	1.25"	1.25"	1.25"	2"	2"	-	-	-	-	
ANSI flange size - on request	-	-	-	-	2"	2"	-	-	-	-	

• Available.

★ See section 7. *Operating conditions* on page 14 for specific working pressures.

1) CRN 32 to CRN 64 with HQQE shaft seal: -40 °F to +250 °F.

2) CR 5" flange is not manufactured to ANSI specification. Gasket contact surface is approximately 0.25".

5. Identification

Type key

Example	CR	32	s	-4	-2	-A	-G	-A	-E	-HQQE	O	C	B
Type range: CR, CRI, CRN, CRT													
Flow rate [m ³ /h]													
Undersize impeller (all impellers) CR 1s, CRI 1s, CRN 1s													
Number of impellers													
Number of reduced-diameter impellers CR, CRE, CRN, CRNE 32, 45, 64													
Code for pump version													
Code for pipe connection													
Code for materials													
Code for rubber parts													
Code for shaft seal													
Code for motors [HP (kW)]													
Code for phase and voltage [V]													
Code for speed variant [rpm]													

Key to codes

Code	Description
Pump version	
A	Basic version
B	Oversize motor
C	CR compact
D	Pump with pressure intensifier*
E	Pump with certificate
F	Pump for high temperatures (with air-cooled top)
G	E-pump without operating panel
H	Horizontal version
I	Different pressure rating
J	E-pump with a different maximum speed
K	Pump with low NPSH
L	Pump including Grundfos CUE and certificate
M	Magnetic drive
N	With sensor
O	Cleaned and dried
P	Undersize motor
Q	High-pressure pump with high-speed MGE motor*
R	Belt driven pump
S	High-pressure pump
T	Thrust handling device*
U	ATEX approved pump
V	Cascade function
W	Deep-well pump with ejector*
X	Special version
Y	Electropolished
Z	Pumps with bearing flange
Pipe connection	
A	Oval flange
B	NPT thread
CA	FlexiClamp
CX	Triclamp*
F	DIN flange
FC	DIN 11853-2 flange (collar flange)
FE	EN 1092-1, type E
G	ANSI flange
J	JIS flange
N	Changed diameter of ports
P	PJE coupling (Victaulic type)
X	Special version
Materials	
A	Basic version
C	Carbon free pump
D	Carbon-graphite filled PTFE (bearings)/Tungsten carbide
E	Pickled and passivated (Only Japan)
H	Flanges and base plate EN 1.4408
K	Bronze (bearings)/Tungsten carbide
L	Motor stool, base plate and flanges EN 1.4408
M	Motor stool, base plate, coupling and flanges EN 1.4408 and coupling guards in cobber. Bolts, nuts and spacing pipes EN 1.4401 or higher grade
N	Flanges EN 1.4408
P	PEEK neck ring
Q	Silicon carbide/Silicon carbide bearing in pump and Silicon carbide/Silicon carbide seal faces in thrust handling device
R	Silicon carbide/Silicon carbide bearing
S	PTFE neck rings
T	Base plate EN 1.4408
U	Silicon carbide/Silicon carbide bearing in pump and Silicon carbide/Tungsten carbide seal faces in thrust handling device
X	Special version

Code	Description
Rubber parts in pump	
E	EPDM
F	FXM (Fluoraz®)
K	FFKM (Kalrez®)
N	Neoprene
V	FKM (Viton®)
Shaft seal type designation	
A	O-ring seal with fixed driver*
H	Balanced cartridge seal with O-ring
O	Double seal, back-to-back*
P	Double seal, tandem*
X	Special version*
Seal face material	
B	Carbon, synthetic resin-impregnated
U	Cemented tungsten carbide
Q	Silicon carbide
X	Other ceramics*
Secondary seal material (rubber parts)	
E	EPDM
F	FXM (Fluoraz®)
K	FFKM (Kalrez®)
V	FKM (Viton®)
Motors [HP (kW)]	
C	0.33 (0.25)
D	0.5 (0.37)
E	0.75 (0.55)
F	1 (0.75)
G	1.5 (1.1)
H	2 (1.5)
I	3 (2.2)
K	5 (4)
L	7.5 (5.5)
M	10 (7.5)
N	15 (11)
O	20 (15)
P	25 (18.5)
Q	30 (22)
Phase and voltage (V)	
A	1 x 200-240 V
B	3 x 200-240 V
C	3 x 440-480 V
D	3 x 380-500 V
X	Not defined
Speed variant (rpm)	
A	1450-2000
B	2900-4000
C	4000-5900
2	2-pole
4	4-pole

* Option. See the CR "Custom-built pumps" data booklet available on Grundfos Product Center. See QR code or link below.



<http://net.grundfos.com/qr/i/96486346>

Shaft seal

Example	-H	-Q	-Q	-E
Shaft seal type designation				
Material of rotating seal face				
Material of stationary seal face				
Material of secondary seal (rubber parts)				

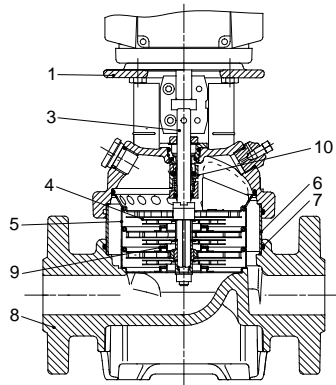
6. Construction

CR 1s, 1, 3, 5, 10, 15 and 20



TM02 1198 0601 - GR7377 - GR7379

Sectional drawing



TM02 1194 1403

Materials: CR

Pos.	Designation	Materials	AISI/ASTM
1	Pump head	Cast iron	A 48-30 B
3	Shaft	Stainless steel	AISI 316 ¹⁾ AISI 431 ²⁾
4	Impeller	Stainless steel	AISI 304
5	Chamber	Stainless steel	AISI 304
6	Sleeve	Stainless steel	AISI 304
7	O-ring for outer sleeve	EPDM or FKM	
8	Base	Cast iron	A 48-30 B
9	Neck ring	PTFE	
10	Shaft seal	Cartridge type	
	Bearing rings	Silicon carbide	
	Rubber parts	EPDM or FKM	
12	FGJ flange	Cast iron	A 48-30 B

1) CR 1s, 1, 3, 5

2) CR 10, 15, 20

3) Stainless steel available on request.

4) CF 8M is cast equivalent of AISI 316 stainless steel.

5) CRI/CRN 1s, 1, 3, 5

6) CRN 10, 15, 20

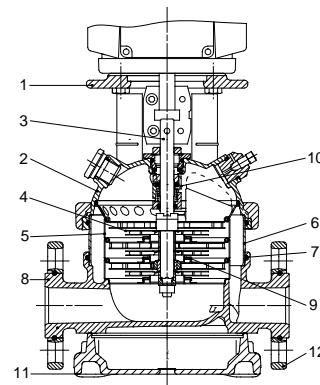
7) CRI 10, 15, 20

CRI, CRN 1s, 1, 3, 5, 10, 15 and 20



TM02 1808 2001 - GR7373 - GR7375

Sectional drawing



TM03 2156 3805

Materials: CRI, CRN

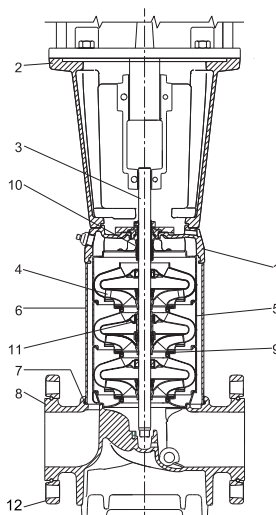
Pos.	Designation	Materials	AISI/ASTM
1	Pump head	Cast iron ³⁾	A 48-30 B
2	Pump head cover	Stainless steel	CF 8M ⁴⁾
3	Shaft	Stainless steel	AISI 316 ⁵⁾ AISI 329 ⁶⁾ AISI 431 ⁷⁾
8	Base	Stainless steel	CF 8M ⁴⁾
9	Neck ring	PTFE	
10	Shaft seal	Cartridge type	
11	Base plate	Cast iron ³⁾	A 48-30 B
	Bearing rings	Silicon carbide	
	Rubber parts	EPDM or FKM	
CRI			
4	Impeller	Stainless steel	AISI 304
5	Chamber	Stainless steel	AISI 304
6	Sleeve	Stainless steel	AISI 304
7	O-ring for outer sleeve	EPDM or FKM	
12	FGJ flange ring	Ductile iron ³⁾	A 65-45-12
	Oval flange	Stainless steel	AISI 316
CRN			
4	Impeller	Stainless steel	AISI 316
5	Chamber	Stainless steel	AISI 316
6	Sleeve	Stainless steel	AISI 316
7	O-ring for outer sleeve	EPDM or FKM	
12	FGJ flange ring	Ductile iron ³⁾	A 65-45-12

CR 32, 45 and 64



TM01 2150 1298

Sectional drawing



TM06 0691 0714

Materials: CR

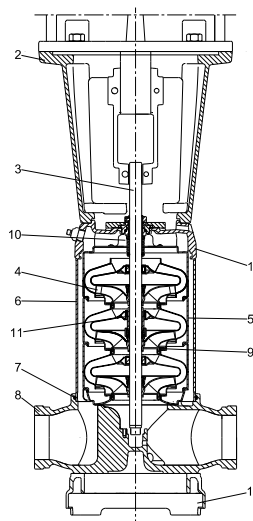
Pos.	Designation	Materials	AISI/ASTM
1	Pump head	Cast iron EN-GJS-500-7	ASTM 80-55-06
2	Motor stool	Cast iron EN-GJL-200	ASTM 25B
3	Shaft	Stainless steel	AISI 431
4	Impeller	Stainless steel	AISI 304
5	Chamber	Stainless steel	AISI 304
6	Sleeve	Stainless steel	AISI 304
7	O-ring for sleeve	EPDM or FKM	
8	Base	Cast iron EN-GJS-500-7	ASTM 80-55-06
9	Neck ring	Carbon-graphite-filled PTFE	
10	Shaft seal		
11	Bearing ring	SiC/SiC	
12	Flange ring	Ductile iron	A 65-45-12
	Rubber parts	EPDM or FKM	

CRN 32, 45 and 64



TM02 7399 3403

Sectional drawing



TM01 1837 3713

Materials: CRN

Pos.	Designation	Materials	AISI/ASTM
1	Pump head	Stainless steel	CF 8M equal to AISI 316
2	Motor stool	Cast iron EN-GJL-200 ¹⁾	ASTM 25B
3	Shaft	Stainless steel	
4	Impeller	Stainless steel	AISI 316
5	Chamber	Stainless steel	AISI 316
6	Sleeve	Stainless steel	AISI 316
7	O-ring for sleeve	EPDM or FKM	
8	Base	Stainless steel	CF 8M equal to AISI 316
9	Neck ring	Carbon-graphite-filled PTFE	
10	Shaft seal		
11	Bearing ring	SiC/SiC	
12	Base plate	Cast iron EN-GJS-500-7 ¹⁾	ASTM 88-55-06
	Flange ring	Ductile iron ¹⁾	A 65-45-12
	Rubber parts	EPDM or FKM	

¹⁾ Stainless steel available on request.

7. Operating conditions

Pumped liquids

The pumps are suitable for pumping thin, non-explosive liquids, not containing solid particles or fibers. The liquid must not chemically attack the pump materials. When pumping liquids with a density and/or viscosity higher than that of water, oversized motors must be used, if required.

Whether a pump is suitable for a particular liquid depends on a number of factors of which the most important are the chloride content, pH value, temperature and content of chemicals and oils.

Please note that aggressive liquids, such as sea water and some acids, may attack or dissolve the protective oxide film of the stainless steel and thus cause corrosion. The CR, CRI, CRN pump types are suitable for the following liquids:

CR, CRI

- Non-corrosive liquids.

For liquid transfer, circulation and pressure boosting of cold or hot clean water.

CRN

- Industrial liquids.

In systems where all parts in contact with the liquid must be made of high-grade stainless steel.

CRT

- Saline liquids
- hypochlorites
- acids.

For saline or chloride-containing liquids, such as sea water or oxidizing agents, such as hypochlorites, CRT pumps of titanium are available. See separate product guide on CRT.

List of pumped liquids

A number of typical liquids are listed on the following pages.

Other pump versions may be applicable, but those stated in the list are considered to be the best choices. The table is intended as a general guide only, and cannot replace actual testing of the pumped liquids and pump materials under specific working conditions. The list must, however, be applied with some caution as factors such as the following may affect the chemical resistance of a specific pump version:

- concentration of the pumped liquid
- liquid temperature
- pressure.

Safety precautions must be made when pumping dangerous liquids.

Notes

D	Often with additives.
E	Density and/or viscosity differ from that of water. Allow for this when calculating motor output and pump performance.
F	Pump selection depends on many factors. Contact Grundfos.
H	Risk of crystallization/precipitation in shaft seal
1	The pumped liquid is highly inflammable.
2	The pumped liquid is combustible.
3	Insoluble in water.
4	Low self-ignition point.

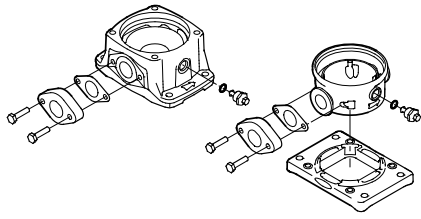
Pumped liquid	Note	Liquid concentration, liquid temperature	CR		CRN	
			1s, 1, 3, 5, 10, 15, 20	32, 45, 64	1s, 1, 3, 5, 10, 15, 20	32, 45, 64
Acetic acid CH ₃ COOH		5 %, 68 °F			HQQE	HQQE/HBQE
Acetone CH ₃ COCH ₃	1, F	100 %, 68 °F			HBQE	HQQE/HBQE
Alkaline degreasing agent	D, F		HQQE	HQQE/HBQE		
Ammonium bicarbonate NH ₄ HCO ₃	E	20 %, 86 °F			HQQE	HQQE/HBQE
Ammonium hydroxide NH ₄ OH		20 %, 104 °F	HQQE	HQQE/HBQE		
Aviation fuel	1, 3, 4, F	100 %, 68 °F	HQBv	HQQV/HBQV		
Benzoic acid C ₆ H ₅ COOH	H	0,5 %, 68 °F			HQQV	HQQV/HBQV
Boiler water		< 248 °F	HQQE	HQQE/HBQE		
	F	248 °F - 356 °F	-	-		
Calcareous water		< 194 °F	HQQE	HQQE		
Calcium acetate (as coolant with inhibitor) Ca(CH ₃ COO) ₂	D, E	30 %, 122 °F	HQQE	HQQE		
Calcium hydroxide Ca(OH) ₂	E	Saturated solution, 122 °F	HQQE	HQQE		
Chloride-containing water	F	< 86 °F, max. 500 ppm			HQQE	HQQE
Chromic acid H ₂ CrO ₄	H	1 %, 68 °F			HQQV	HQQV/HBQV
Citric acid HOC(CH ₂ CO ₂ H) ₂ COOH	H	5 %, 104 °F			HQQE	HQQE/HBQE
Completely desalinated water (demineralized water)		< 248 °F			HQQE	HQQE/HBQE
Condensate		< 194 °F	HQQE	HQQE/HBQE		
Copper sulfate CuSO ₄	E	10 %, 122 °F			HQQE	HQQE
Corn oil	D, E, 3	100 %, 176 °F	HQQV	HQQV/HBQV		
Diesel oil	2, 3, 4, F	100 %, 68 °F	HQBv	HQQV/HBQV		
Domestic hot water (potable water)		< 248 °F	HQQE	HQQE/HBQE		
Ethanol (ethyl alcohol) C ₂ H ₅ OH	1, F	100 %, 68 °F	HQQE	HQQE/HBQE		
Ethylene glycol HOCH ₂ CH ₂ OH	D, E	50 %, 122 °F	HQQE	HQQE		
Formic acid HCOOH		5 %, 68 °F			HQQE	HQQE/HBQE
Glycerine (glycerol) OHCH ₂ CH(OH)CH ₂ OH	D, E	50 %, 122 °F	HQQE	HQQE/HBQE		
Hydraulic oil (mineral)	E, 2, 3	100 %, 212 °F	HQQV	HQQV/HBQE		
Hydraulic oil (synthetic)	E, 2, 3	100 %, 212 °F	HQQV	HQQV/HBQE		
Isopropyl alcohol CH ₃ CHOHCH ₃	1, F	100 %, 68 °F	HQBv	HQQV/HBQV		
Lactic acid CH ₃ CH(OH)COOH	E, H	10 %, 68 °F			HQQE	HQQE/HBQE
Linoleic acid C ₁₇ H ₃₁ COOH	E, 3	100 %, 68 °F	HQQV	HQQV/HBQV		
Methanol (methyl alcohol) CH ₃ OH	1, F	100 %, 68 °F	HQQE	HQQE/HBQE		
Motor oil	E, 2, 3	100 %, 176 °F	HQQV	HQQV/HBQV		
Naphthalene C ₁₀ H ₈	E, H	100 %, 176 °F	HQQV	HQQV/HBQV		
Nitric acid HNO ₃	F	1 %, 68 °F			HQQE	HQQE/HBQE
Oil-containing water		< 212 °F	HQQV	HQQV/HBQV		
Olive oil	D, E, 3	100 %, 176 °F	HQQV	HQQV/HBQV		
Oxalic acid (COOH) ₂	H	1 %, 68 °F			HQQE	HQQE/HBQE
Ozone-containing water (O ₃)		1 PPM, < 105 °F			HQQE	HQQE/HBQE
Peanut oil	D, E, 3	100 %, 194 °F	HQQV	HQQV/HBQV		
Petrol/gasoline	1, 3, 4, F	100 %, 68 °F	HQBv	HQQV/HBQV		
Phosphoric acid H ₃ PO ₄	E	20 %, 68 °F			HQQV	HQQV/HBQV
Propanol C ₃ H ₇ OH	1, F	100 %, 68 °F	HQQV	HQQV/HBQV		
Propylene glycol CH ₃ CH(OH)CH ₂ OH	D, E	50 %, 194 °F	HQQE	HQQE		
Potassium carbonate K ₂ CO ₃	E	20 %, 122 °F	HQQE	HQQE		
Potassium formate (as coolant with inhibitor) KOOCH	D, E	30 %, 122 °F	HQQE	HQQE		
Potassium hydroxide KOH	E	20 %, 122 °F			HQQE	HQQE
Potassium permanganate KmnO ₄		5 %, 68 °F			HQQE	HQQE/HBQE
Rape seed oil	D, E, 3	100 %, 176 °F	HQQV	HQQV/HBQV		
Salicylic acid C ₆ H ₄ (OH)COOH	H	0,1 %, 68 °F			HQQE	HQQE/HBQE
Silicone oil	E, 3	100 %	HQQV	HQQV/HBQV		

Pumped liquid	Note	Liquid concentration, liquid temperature	CR		CRN	
			1s, 1, 3, 5, 10, 15, 20	32, 45, 64	1s, 1, 3, 5, 10, 15, 20	32, 45, 64
Sodium bicarbonate NaHCO ₃	E	10 %, 140 °F			HQQE	HQQE/HBQE
Sodium chloride (as coolant) NaCl	D, E	30 %, < 41 °F, pH > 8	HQQE	HQQE		
Sodium hydroxide NaOH	E	20 %, 122 °F			HQQE	HQQE
Sodium hypochlorite NaOCl	F	0,1 %, 68 °F			HQQE	HQQE
Sodium nitrate NaNO ₃	E	10 %, 140 °F			HQQE	HQQE/HBQE
Sodium phosphate Na ₃ PO ₄	E, H	10 %, 140 °F			HQQE	HQQE
Sodium sulfate Na ₂ SO ₄	E, H	10 %, 140 °F			HQQE	HQQE/HBQE
Softened water		< 248 °F			HQQE	HQQE/HBQE
Soybean oil	D, E, 3	100 %, 176 °F	HQQV	HQQV/HBQV		
Sulfuric acid H ₂ SO ₄	F	1 %, 68 °F			HQQV	HQQV/HQQV
Sulfurous acid H ₂ SO ₃		1 %, 68 °F			HQQE	HQQE/HBQE
Swimming pool water (low chloride)		Max. 5 ppm free chlorine (Cl ₂)	HQQE	HQQE/HBQE		

Operating and inlet pressure

Maximum operating pressure and temperature range

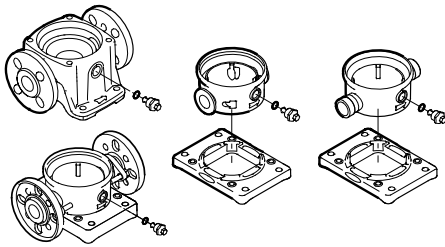
Oval flange



TM02 1379 1101

	Max. operating pressure [psi]	Liquid temp. range [°F]
CR, CRI, CRN 1s	232	-4 to +248
CR, CRI, CRN 1	232	-4 to +248
CR, CRI, CRN 3	232	-4 to +248
CR, CRI, CRN 5	232	-4 to +248
CR 10-1 → CR 10-6	145	-4 to +248
CRI, CRN 10-1 → CRI, CRN 10-10	232	-4 to +248
CR 15-1 → CR 15-5	145	-4 to +248
CRI, CRN 15-1 → CRI, CRN 15-8	232	-4 to +248
CR 20-1 → CR 20-5	145	-4 to +248
CRI, CRN 20-1 → CRI, CRN 20-7	232	-4 to +248

ANSI, Clamp, PJE



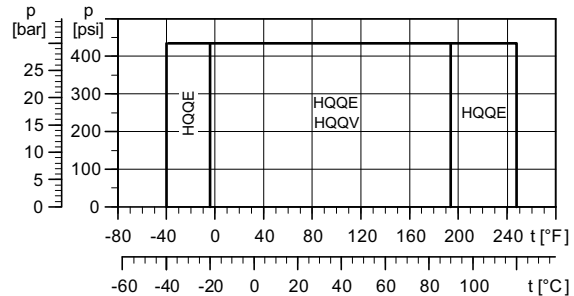
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	Max. operating pressure [psi]	Liquid temp. range [°F]
CR, CRI, CRN 1s	362	-4 to +248
CR, CRI, CRN 1	362	-4 to +248
CR, CRI, CRN 3	362	-4 to +248
CR, CRI, CRN 5	362	-4 to +248
CR, CRI 10-1 → 10-10	232	-4 to +248
CR, CRI 10-12 → 10-17	362	-4 to +248
CRN 10 (all stages)	362	-4 to +248
CR, CRI 15-1 → 15-8	232	-4 to +248
CR, CRI 15-9 → 15-12	362	-4 to +248
CRN 15 (all stages)	362	-4 to +248
CR, CRI 20-1 → 20-7	232	-4 to +248
CR, CRI 20-8 → 20-10	362	-4 to +248
CRN 20 (all stages)	362	-4 to +248
CR, CRN 32-1-1 → 2-5	232	-22 to +248
CR, CRN 32-6-2 → 32-11-2	435	-22 to +248
CR, CRN 45-1-1 → 45-4-2	232	-22 to +248
CR, CRN 45-4-1 → 45-8-1	435	-22 to +248
CR, CRN 64-1-1 → 64-3	232	-22 to +248
CR, CRN 64-4-2 → 64-5-2	435	-22 to +248

Operating range of the shaft seal

The operating range of the shaft seal depends on operating pressure, pump type, type of shaft seal and liquid temperature. The following curves apply to clean water and water with anti-freeze liquids. For selecting the right shaft seal, see [Pumped liquids](#) on page 14.

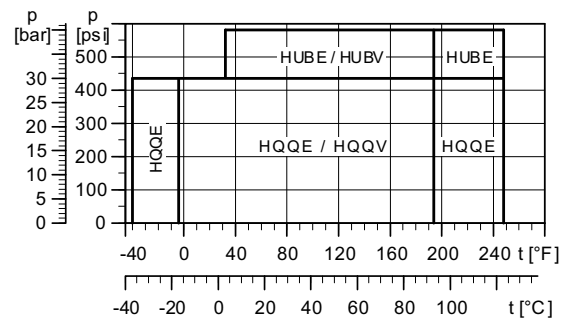
CR 1s to CR 20



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Fig. 5 Operating range of standard shaft seals for CR 1s to CR 20

CR 32 to CR 64 (3 - 60 HP)



TM06 0999 1314

Fig. 6 Operating range of standard shaft seals for CR 32 to CR 64 (3 - 60 HP)

HP

Shaft seal	Description	Max. temp. range [°F]
HQQE	O-ring (cartridge) (balanced seal), SiC/SiC, EPDM	-40 °F to +248 °F
HQQV	O-ring (cartridge) (balanced seal), SiC/SiC, FKM	-4 °F to +194 °F
HUBE	O-ring (cartridge) (balanced seal), TC/carbon, EPDM	+32 °F to +248 °F
HUBV	O-ring (cartridge) (balanced seal), TC/carbon, FKM	+32 °F to +194 °F

Note: TC= tungsten carbide

See section [Variants](#) on page 69, in case of extreme temperatures:

- low temperatures down to -40 °F or
- high temperatures up to +356 °F.

Maximum inlet pressure

The following table shows the maximum permissible inlet pressure. However, the current inlet pressure plus the pressure against a closed valve must always be lower than the maximum permissible operating pressure.

If the maximum permissible operating pressure is exceeded, the bearing in the motor may be damaged and the life of the shaft seal reduced.

Pump type	Stages		Max. [psi (bar)]
	60 Hz	50 Hz	
CR, CRI, CRN 1s	2-27	2-36	145 (10)
CR, CRI, CRN 1	2-25	2-36	145 (10)
	27		217 (15)
CR, CRI, CRN 3	2-17	2-29	145 (10)
	19-25	31-36	217 (15)
CR, CRI, CRN 5	2-9	3-16	145 (10)
	10-24	18-36	217 (15)
CR, CRI, CRN 10	1-5	1-6	116 (8)
	6-17	7-22	145 (10)
CR, CRI, CRN 15	1-2	1-3	116 (8)
	3-12	4-17	145 (10)
CR, CRI, CRN 20	1	1-3	116 (8)
	2-10	4-17	145 (10)
CR, CRN 32	1-1 - 2	1-1 - 4	58 (4)
	3-2 - 6	5-2 - 10	145 (10)
	7-2 - 11-2	11-14	217 (15)
CR, CRN 45	1-1 - 1	1-1 - 2	58 (4)
	2-2 - 3	3-2 - 5	145 (10)
	4-2 - 8-1	6-2 - 13-2	217 (15)
CR, CRN 64	1-1	1-1 - 2-2	58 (4)
	1 - 2-1	2-1 - 4-2	145 (10)
	2 - 5-2	4-1 - 8-1	217 (15)

Examples of operating and inlet pressures

The values for operating pressures and inlet pressures shown in the tables must not be considered individually but must always be compared. See the following examples:

Example 1:

Pump (see page 40): CRE 3-10 A-A-A
 Max. operating pressure: 232 psi (16 bar)
 Max. inlet pressure: 145 psi (10 bar)
 Outlet pressure against a closed valve: 139.2 psi (9.5 bar)

This pump is not allowed to start at an inlet pressure of 145 psi, but at an inlet pressure of $232.0 - 139.2 = 92.8$ psi (6.39 bar).

Example 2:

Pump (see page 46): CRE 10-2 A-GJ-A
 Max. operating pressure: 232 psi (16 bar)
 Max. inlet pressure: 116 psi (8 bar)
 Outlet pressure against a closed valve: 42 psi (3 bar)

This pump is allowed to start at an inlet pressure of 116 psi (8 bar), as the outlet pressure is only 42 psi, which results in an operating pressure of $116 + 42 = 158$ psi (11 bar). On the contrary, the maximum operating pressure of this pump is limited to 158 psi, as a higher operating pressure will require an inlet pressure of more than 116 psi (8 bar).

In case the inlet or operating pressure exceeds the pressure permitted, see section [Variants](#) on page 69.

8. Selection and sizing

Selection of pumps

Base the selection of pumps on these parameters:

- Duty point of the pump. See page 19.
- Sizing data such as pressure loss as a result of height differences, friction loss in the pipes, pump efficiency. See page 19.
- Pump materials. See page 21.
- Pump connections. See page 21.
- Shaft seal. See page 21.

Duty point of the pump

From a duty point, you can select a pump on the basis of the curve charts in the section 9. *Performance curves* starting on page 24.

Ideally, the duty point should match the best efficiency on the pump curve. See the example in fig. 19.

Sizing data

When sizing a pump, take these parameters into account.

- Required flow rate and pressure at the draw-off point.
- Pressure loss as a result of height differences (H_{geo}).
- Friction loss in the pipes (H_f). It may be necessary to account for pressure loss in connection with long pipes, bends, valves, or similar.
- Best efficiency at the estimated duty point.
- NPSH value.

For calculation of the NPSH value, see *Minimum inlet pressure - NPSHA* on page 22.

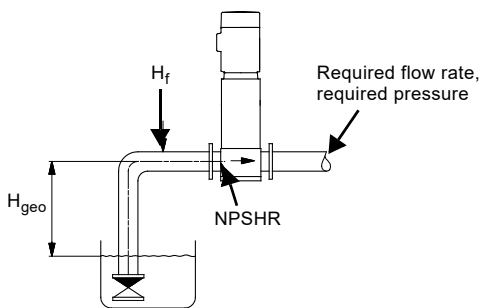


Fig. 7 Sizing data

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Pump efficiency

Before determining the best efficiency point, identify the operation pattern of the pump. If the pump is expected to always operate at the same duty point, then select a pump which is operating at a duty point corresponding to the best efficiency of the pump.

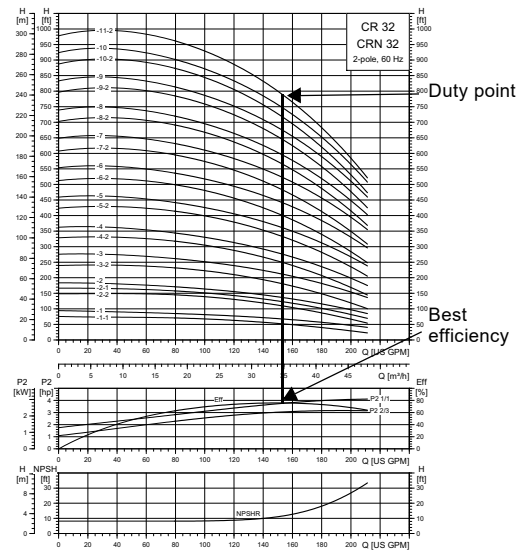


Fig. 8 Example of a CR pump's duty point

As the pump is sized on the basis of the highest possible flow rate, it is important to always have the duty point to the right of the best efficiency point on the efficiency curve (Eff). This must be considered in order to keep efficiency high when the flow rate drops.

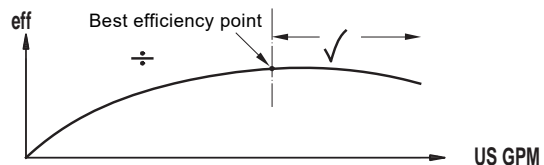


Fig. 9 Best efficiency

Normally, pumps with an external variable frequency drive (VFD) are used in applications characterized by a variable flow rate. Consequently, it is not possible to select a pump that is constantly operating at its best efficiency.

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In order to achieve optimum operating economy, the pump must be selected on the basis of the following criteria:

- The maximum required duty point must be as close as possible to the QH curve of the pump.
- The required duty point must be positioned so that P2 is close to the maximum point of the 100 % curve.

Between the minimum and maximum performance curves, pumps with a VFD have an infinite number of performance curves each representing a specific speed. Therefore, it may not be possible to select a duty point close to the 100 % curve.

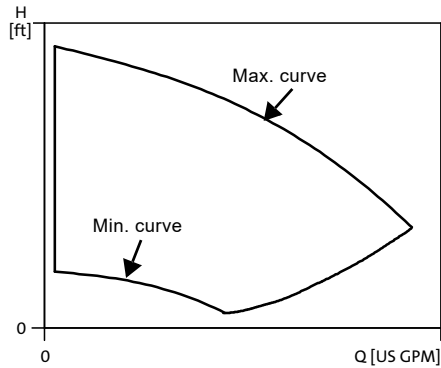


Fig. 10 Minimum and maximum performance curves

In situations where it is not possible to select a duty point close to the 100 % curve the affinity equations to the right can be used. The head (H), the flow rate (Q) and the input power (P) are all the appropriate variables for the motor speed (n). See fig. 11.

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Note:

The approximated formulas apply on the condition that the system characteristic remains unchanged for n and n_x and that it is based on the formula $H = k \times Q^2$, where k is a constant.

The power equation implies that the pump efficiency is unchanged at the two speeds. In practice this is not quite correct.

To obtain a precise calculation of the power savings resulting from a reduction of pump speed, take into account the efficiencies of the frequency converter and the motor.

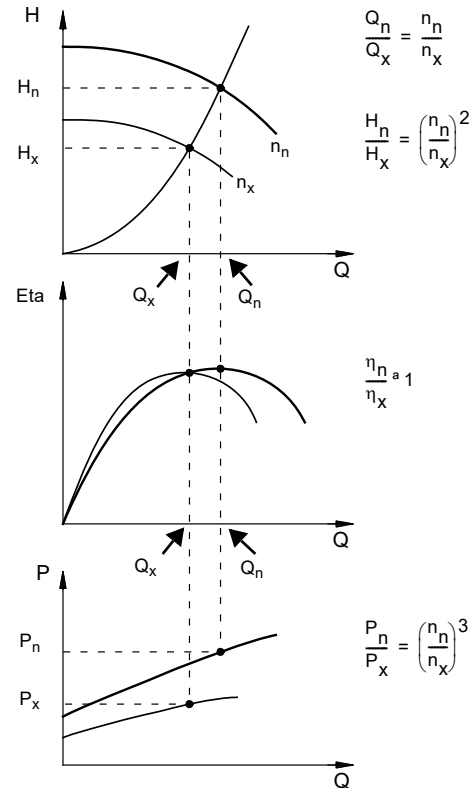


Fig. 11 Affinity equations

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Legend

H_n	Rated head in feet
H_x	Current head in feet
Q_n	Rated flow rate in US gpm
Q_x	Current flow rate in US gpm
n_n	Rated motor speed in min^{-1} ($n_n = 3500 \text{ min}^{-1}$)
n_x	Current motor speed in min^{-1}
η_n	Rated efficiency in %
η_x	Current efficiency in %

Grundfos Product Center

We recommend that you size your pump in Grundfos Product Center, which is a selection program offered by Grundfos.

Grundfos Product Center features a user-friendly and easy-to-use virtual guide which leads you through the selection of the pump for the application in question.

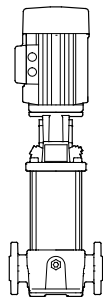
For further information see [Grundfos Product Center](#) on page 74.

Pump material

Select the material variant on the basis of the liquid to be pumped. The product range covers these basic types.

- The CR, CRI pump types are suitable for clean, non-aggressive liquids, such as potable water and oils.
- The CRN pump type is suitable for industrial liquids and acids, see [Pumped liquids](#) on page 14 or contact Grundfos.

For saline or chloride-containing liquids, such as sea water, CRT pumps of titanium are available.



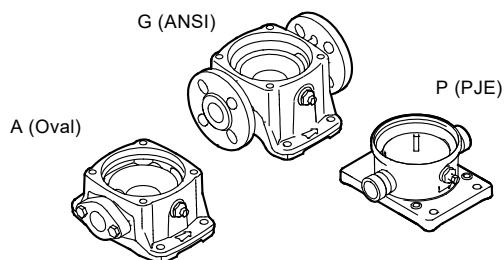
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Fig. 12 CR pump

Pump connection

Selection of pump connection depends on the rated pressure and the pipes. To meet any requirement, the CR, CRI and CRN pumps offer a wide range of flexible connections such as:

- Oval flange (NPT) - fig. 13
- ANSI flange - fig. 13
- PJE coupling - fig. 13
- Clamp coupling
- Union (NPT[M])
- Other connections on request.



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Fig. 13 Pump connections

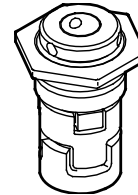
Shaft seal

As standard, the CR range is fitted with a Grundfos shaft seal (Cartridge type) suitable for the most common applications, see fig. 14.

The following three key parameters must be taken into account when selecting the shaft seal:

- Type of pumped liquid
- liquid temperature
- maximum pressure.

Grundfos offers a wide range of shaft seal variants to meet specific demands, see [Pumped liquids](#) on page 14.



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Fig. 14 Shaft seal (Cartridge type)

Inlet pressure and operating pressure

Do not exceed the limit values stated on page 17 and page 18 as regards these pressures:

- maximum inlet pressure
- maximum operating pressure.

Minimum inlet pressure - NPSHA

We recommend that you calculate the inlet pressure "H" in these situations:

- The liquid temperature is high.
- The flow rate is significantly higher than the rated flow rate.
- Water is drawn from depths.
- Water is drawn through long pipes.
- Inlet conditions are poor.

To avoid cavitation, make sure that there is a minimum pressure on the inlet side of the pump.

Calculate the maximum suction lift "H" in feet of head as follows:

$$H = p_b \times 2.31 - \text{NPSHR} - H_f - H_v$$

P_b = Barometric pressure in psi.

P_b can be set to 14.7 psi at sea level. In closed systems, p_b indicates system pressure in psi.

NPSHR = Net Positive Suction Head Required in feet of head. To be read from the NPSHR curve at the highest flow rate the pump will be delivering.

H_f = Friction loss in the inlet pipe in feet of head at the highest flow rate the pump will be delivering.

H_v = Vapor pressure in feet of head. To be read from the vapor pressure scale. H_v depends on the liquid temperature T_m .

If the "H" calculated is positive, the pump can operate at a suction lift of maximum "H" feet.

If the "H" calculated is negative, an inlet pressure of minimum "H" feet is required.

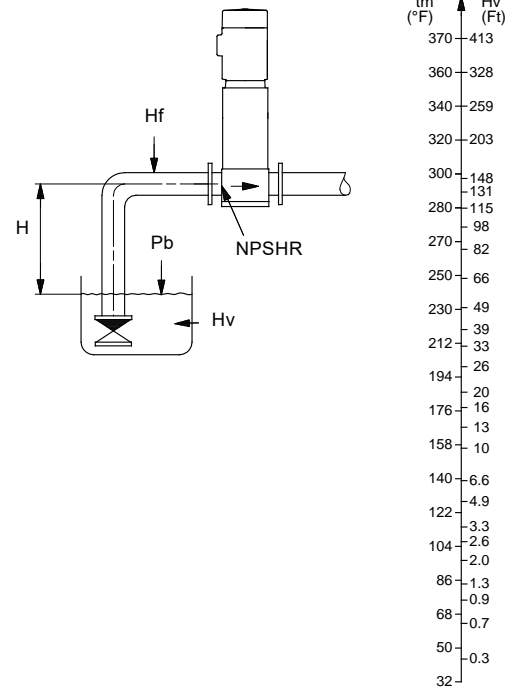


Fig. 15 Minimum inlet pressure - NPSHR

Note:

To avoid cavitation, never select a pump with a duty point too far to the right on the NPSHR curve.

Always check the NPSHR value of the pump at the highest possible flow rate.

In case a lower NPSHR value is required, see [Variants](#) on page 69.

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How to read the curve charts

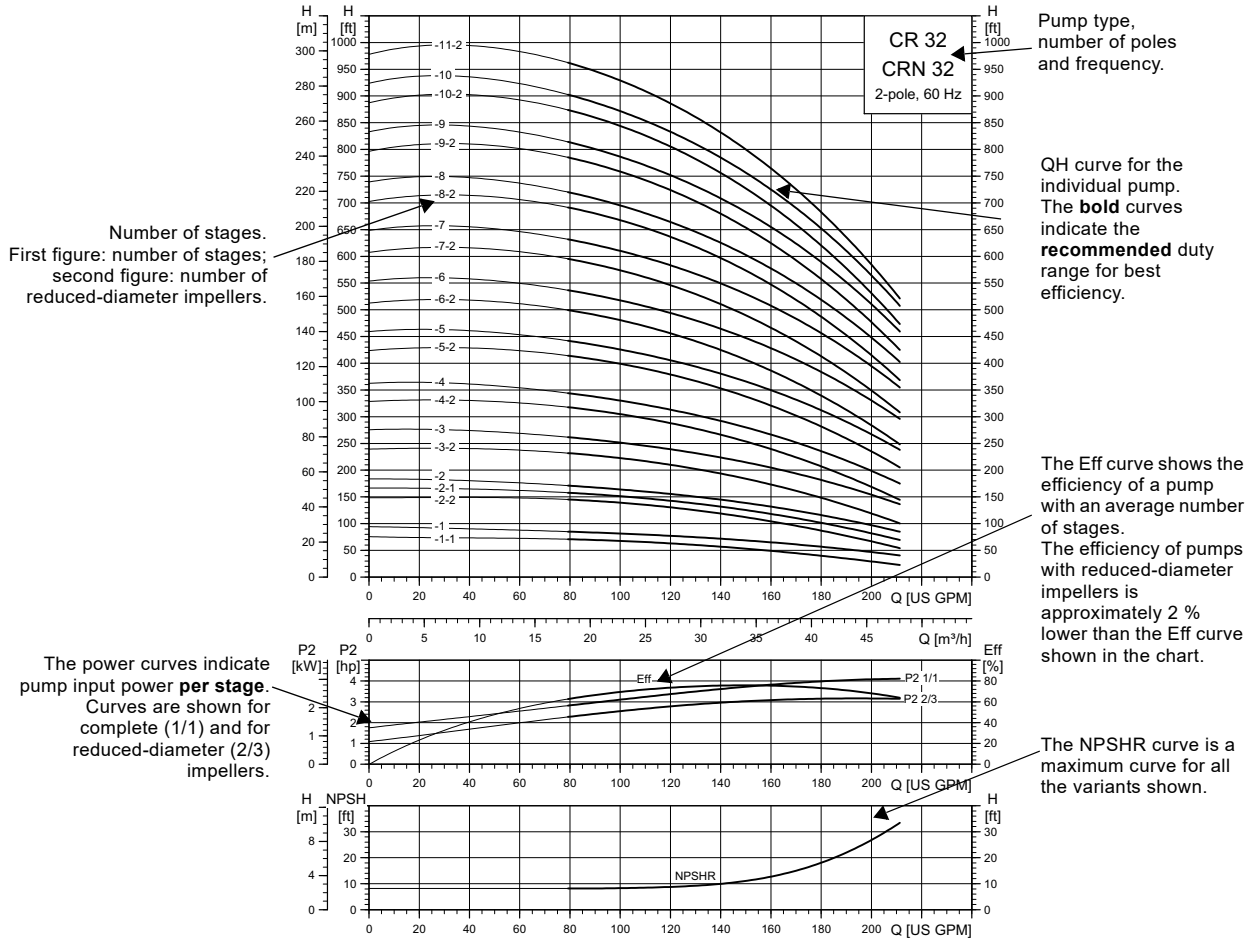


Fig. 16 How to read the curve charts

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Guidelines to performance curves

The guidelines below apply to the curves shown on the following pages:

- Tolerances to ANSI or ISO standards, if indicated on the curve chart.
- The motors used for the measurements are standard motors (ODP, TEFC).
- Measurements have been made with airless water at a temperature of 68 °F (20 °C).
- The curves apply to the following kinematic viscosity: $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt).
- Due to the risk of overheating, the pumps must not be used at a flow rate below the minimum flow rate.
- The QH curves apply to actual speed with the motor types mentioned at 60 Hz.

The curve below shows the minimum flow rate as a percentage of the nominal flow rate in relation to the liquid temperature. The dotted line shows a CR pump fitted with an air-cooled top assembly.

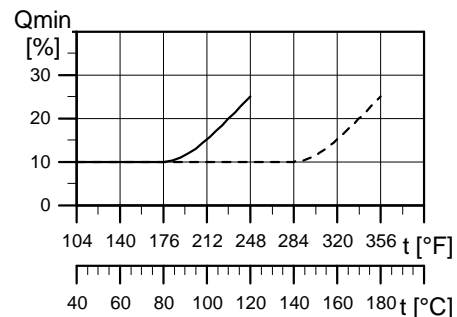
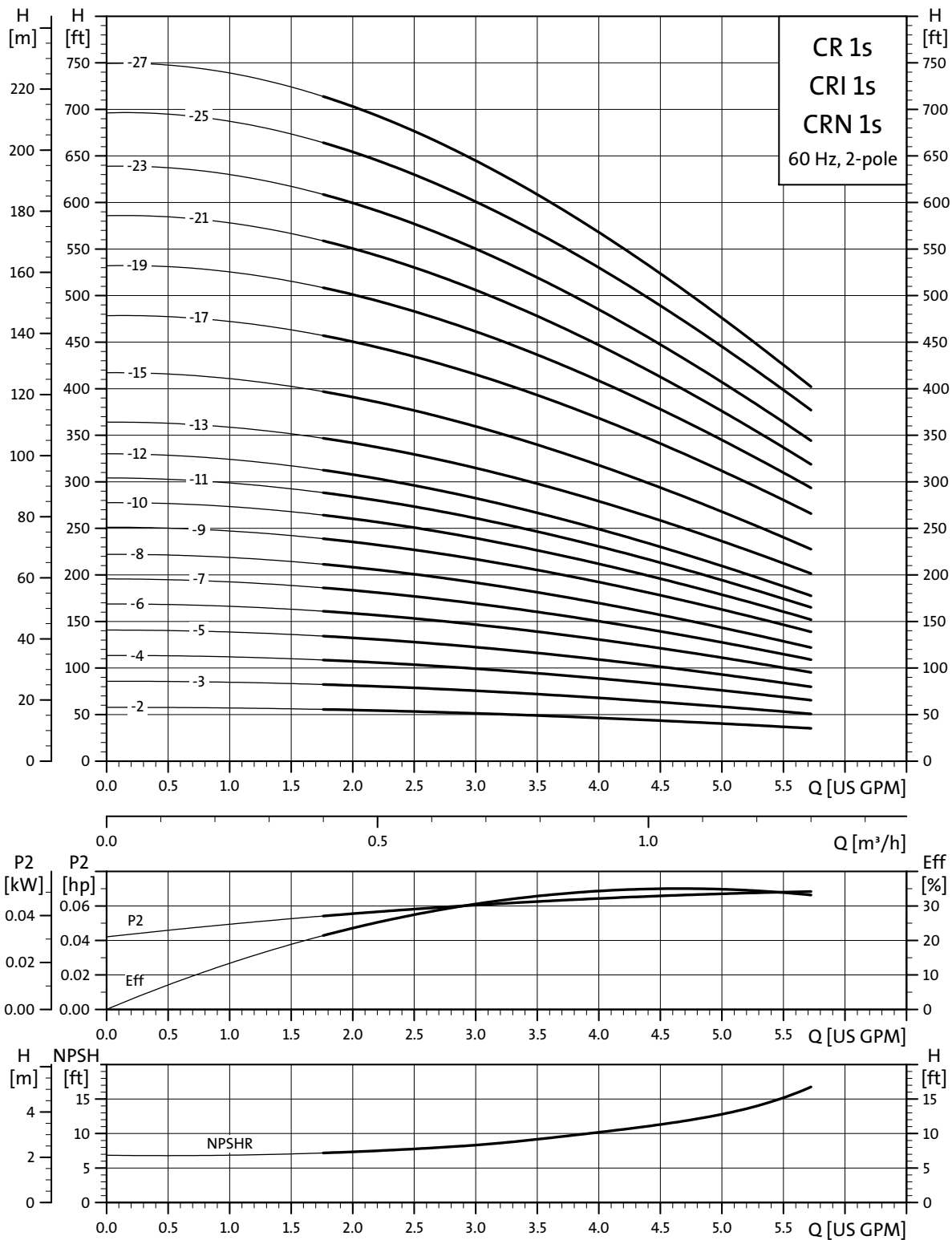


Fig. 17 Minimum flow rate

TM02 7538 16/09

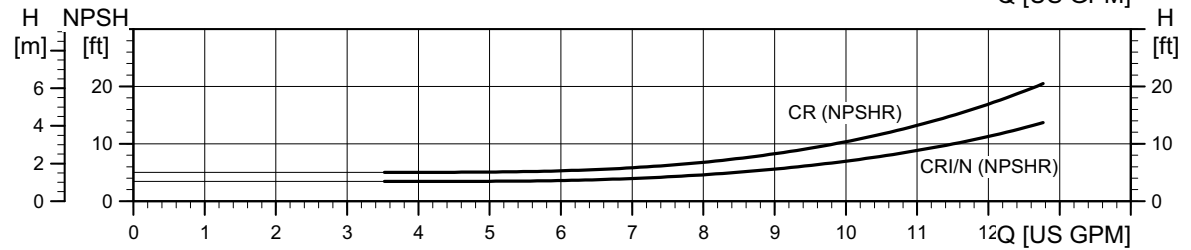
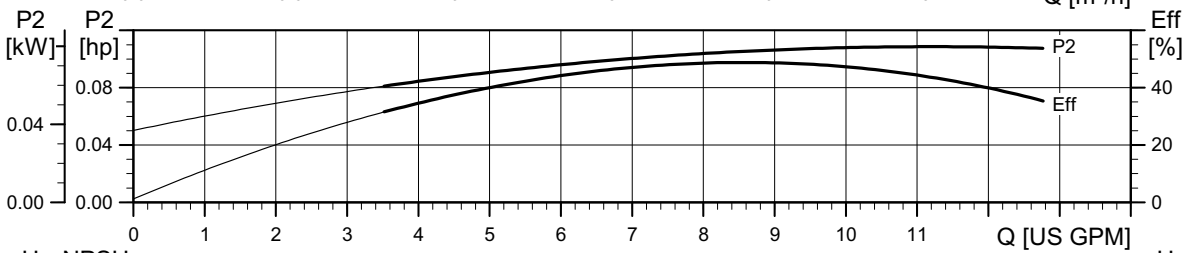
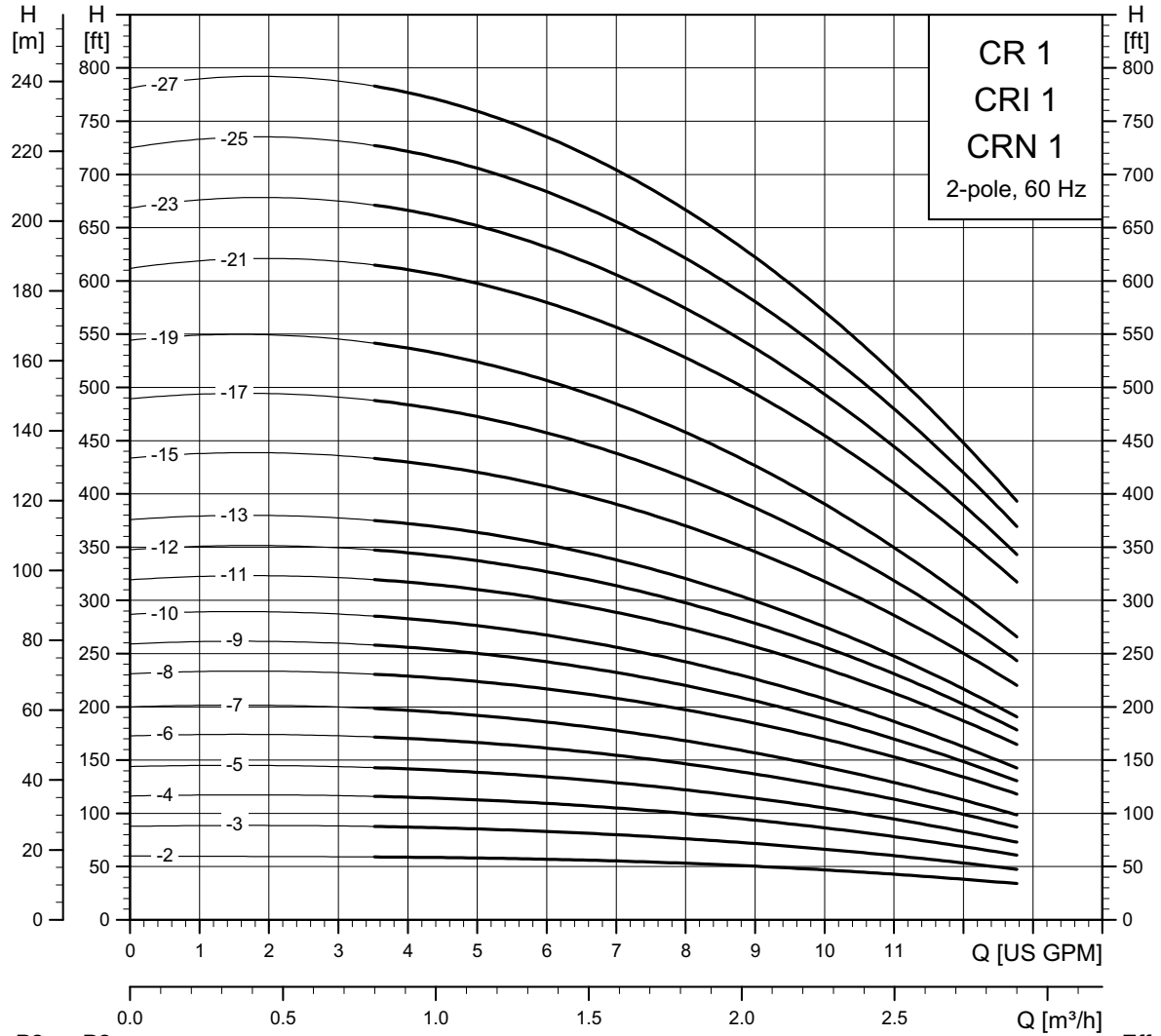
9. Performance curves

CR, CRI, CRN 1s



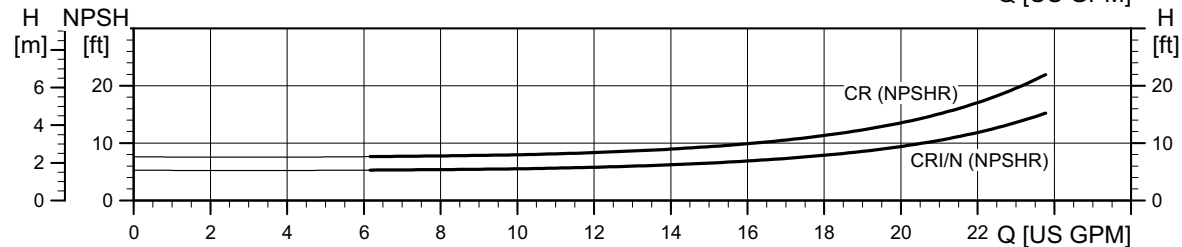
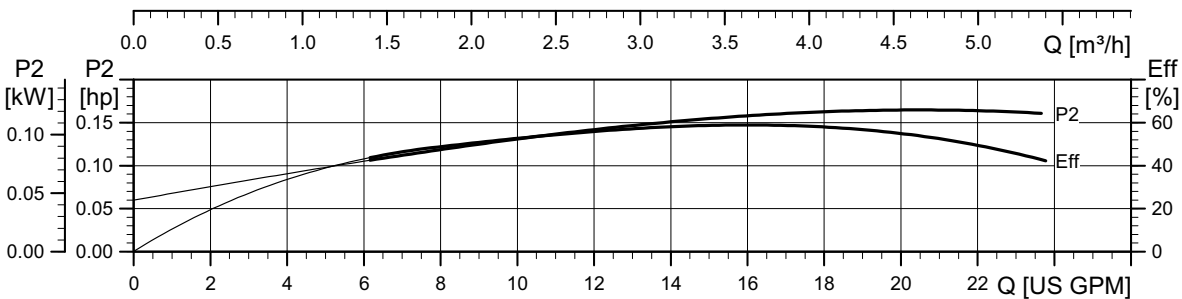
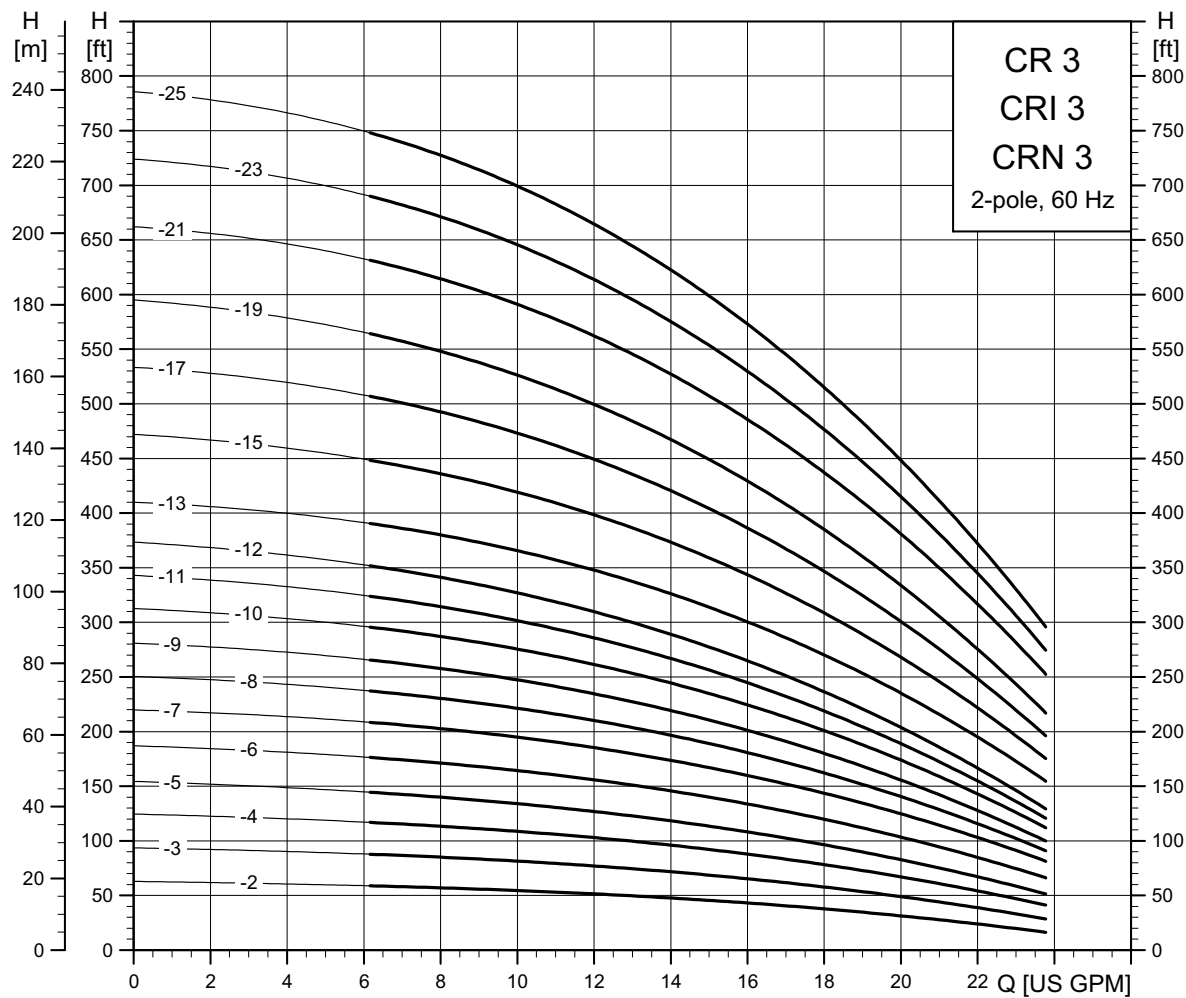
TM02 5741 4719

CR, CRI, CRN 1



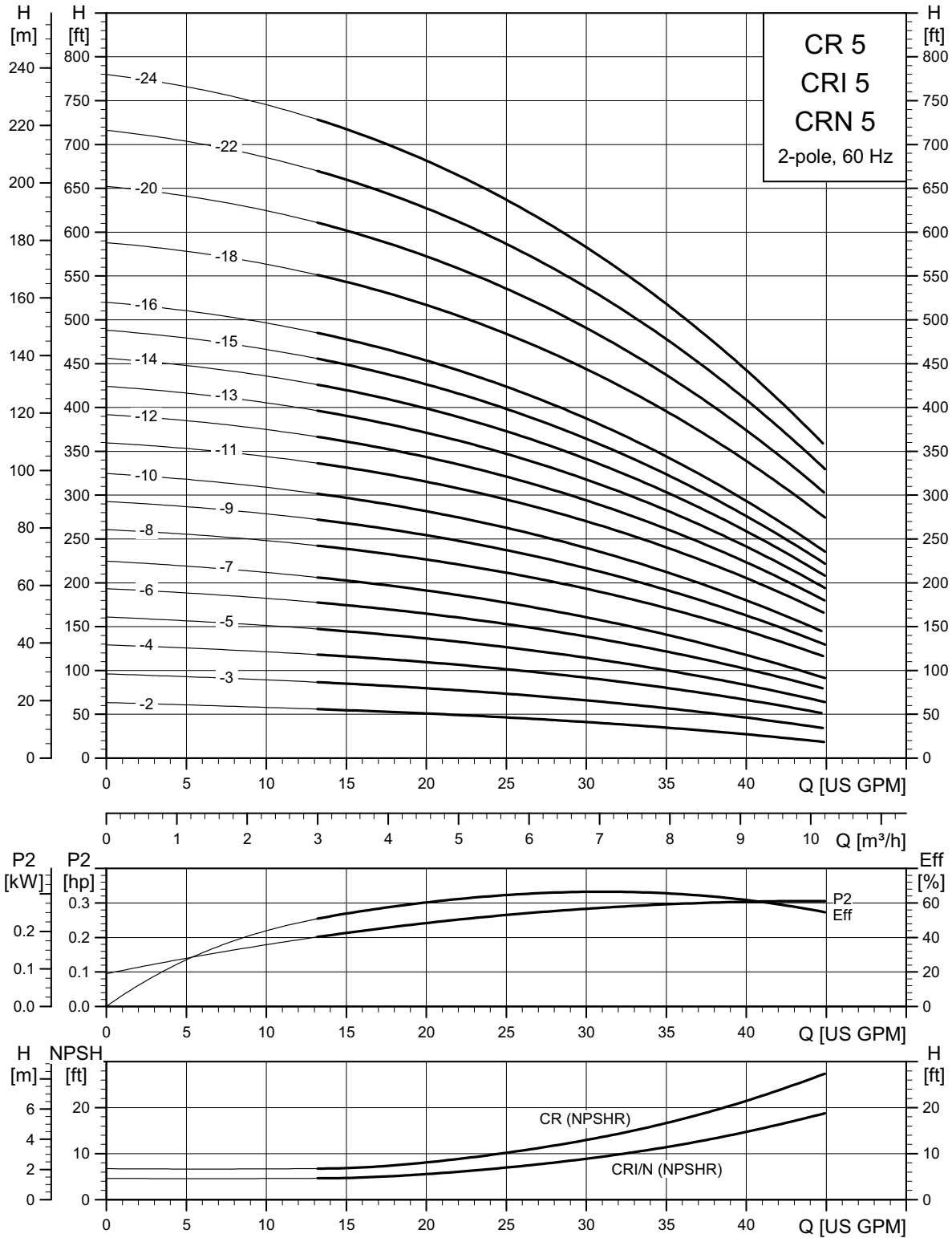
TM02 4083 4719

CR, CRI, CRN 3



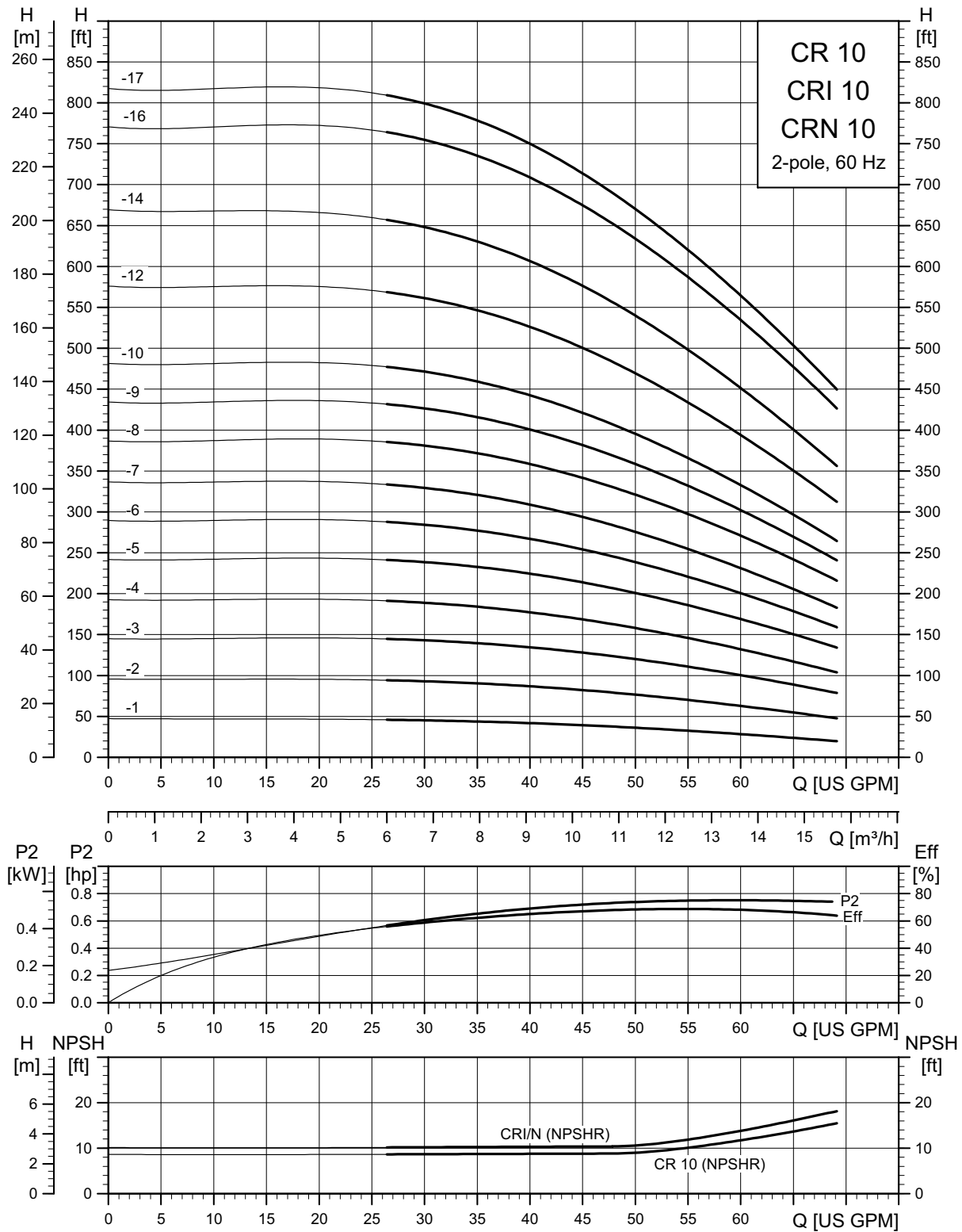
TM02 4084 4719

CR, CRI, CRN 5



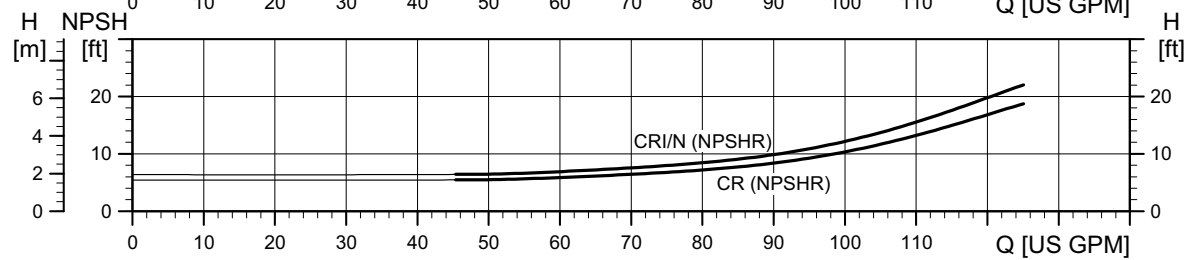
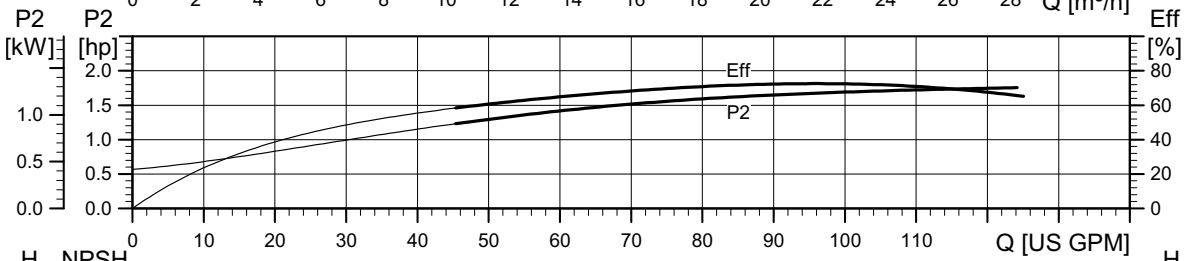
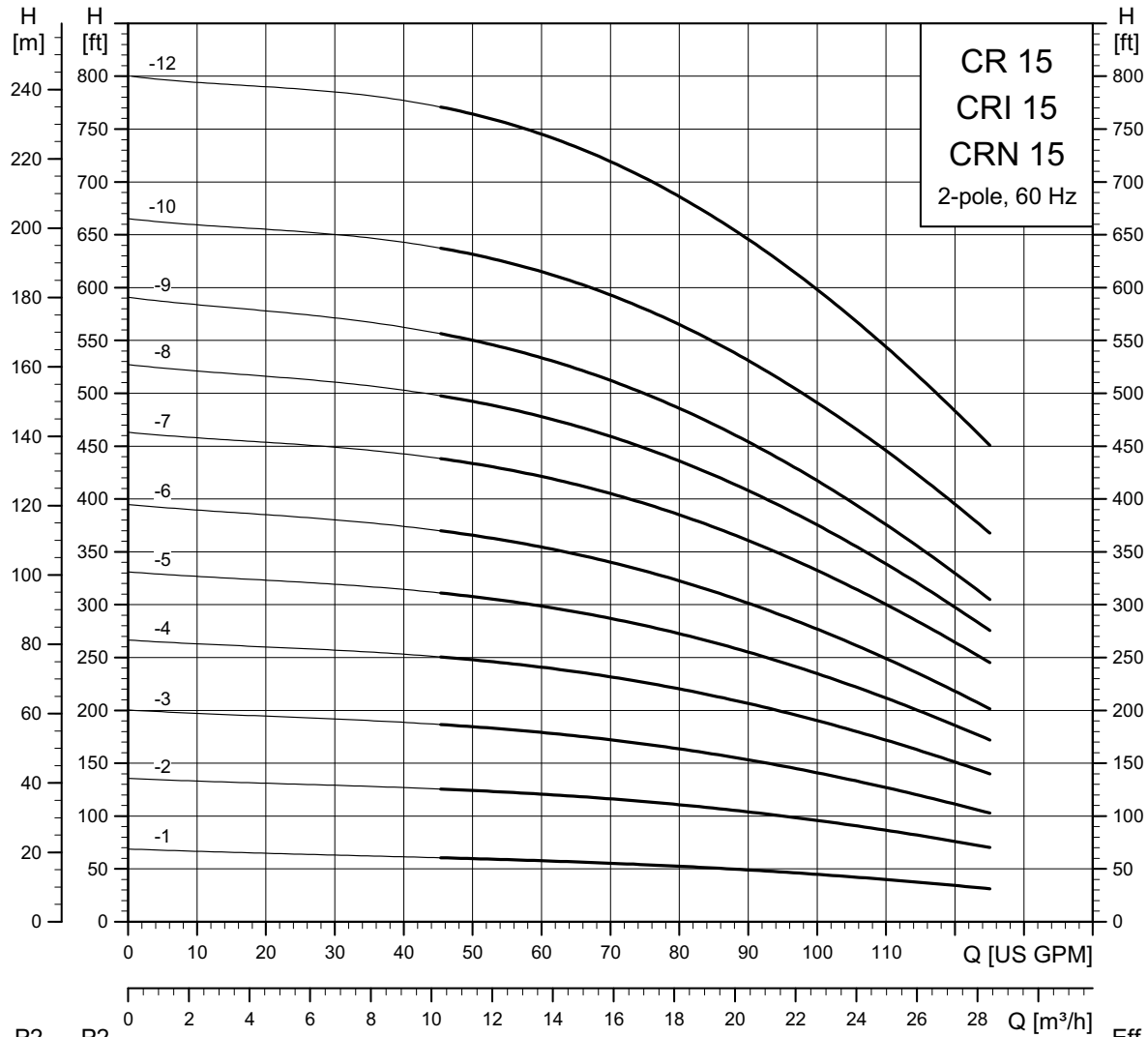
TM02 4085 4719

CR, CRI, CRN 10



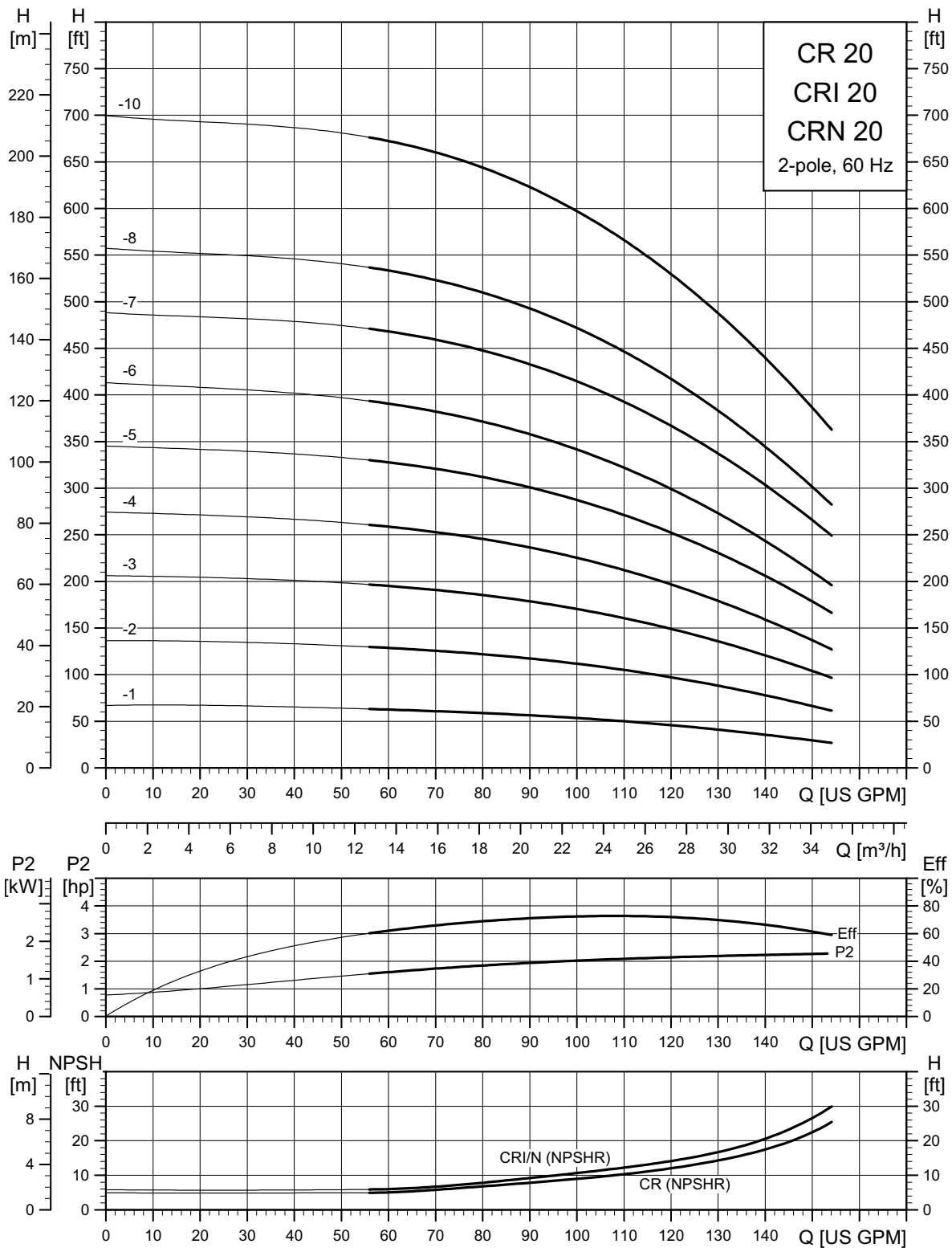
TM02 7221 4719

CR, CRI, CRN 15



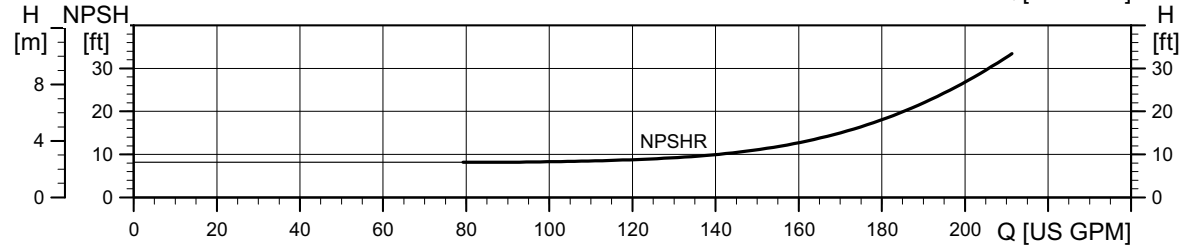
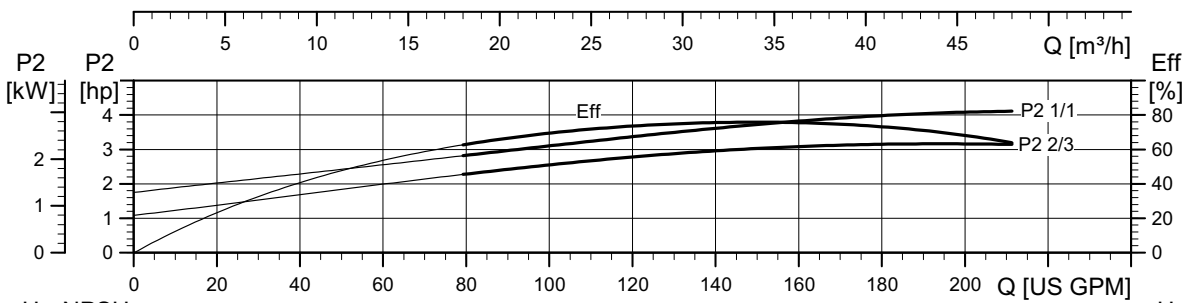
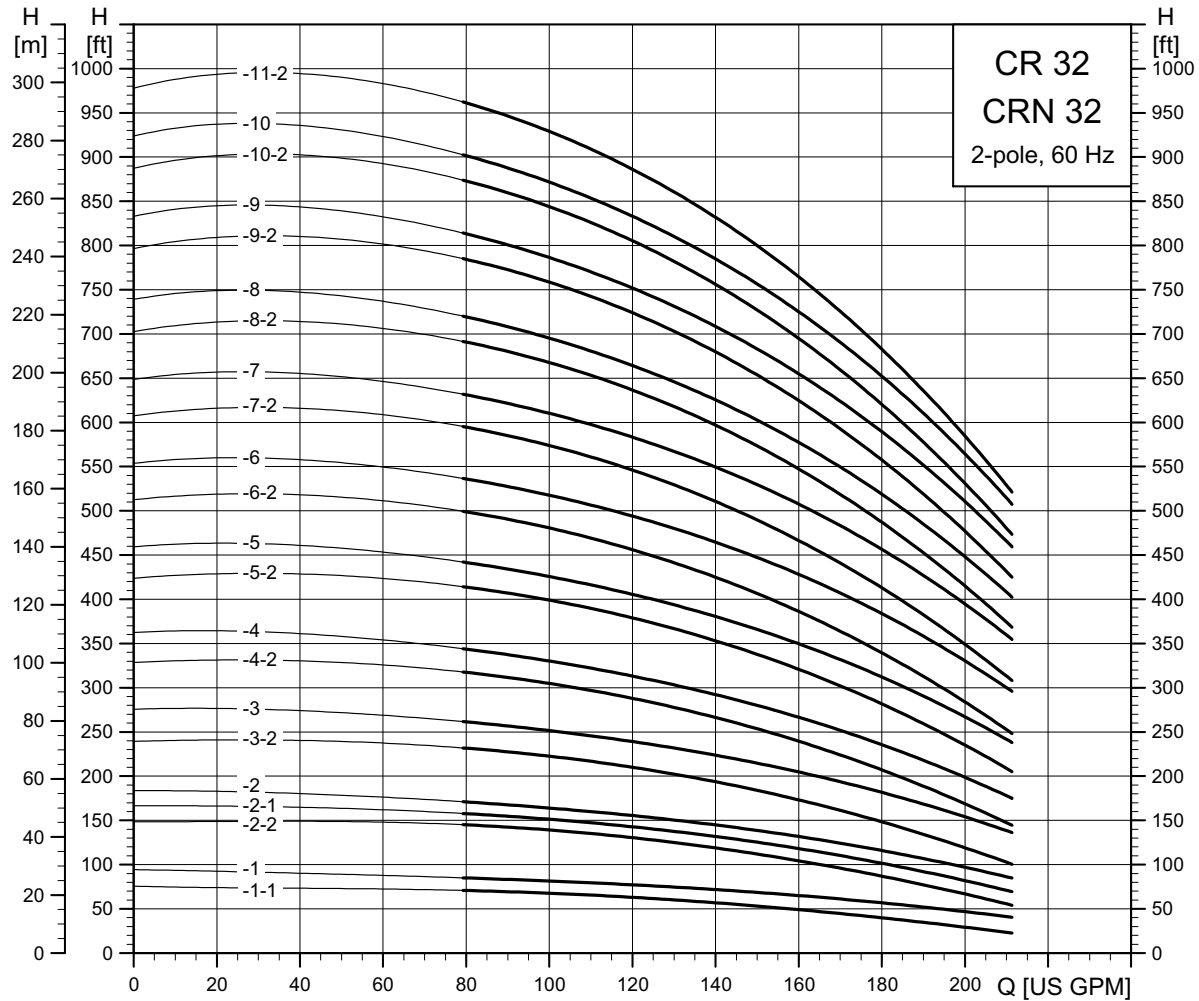
TM02 7222 4719

CR, CRI, CRN 20



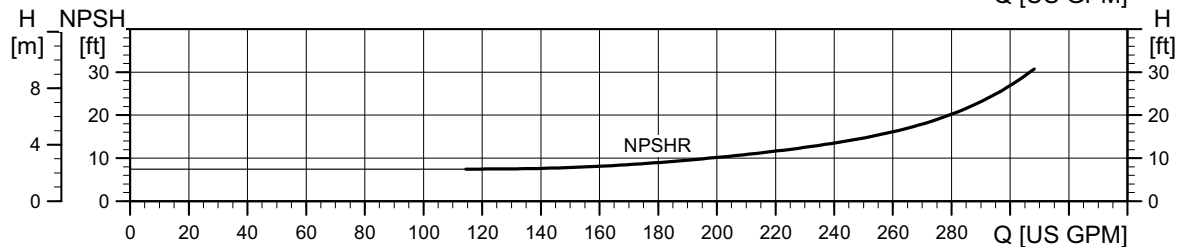
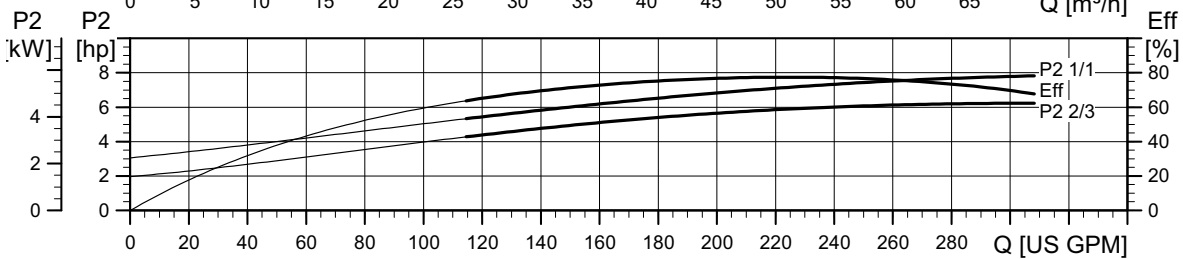
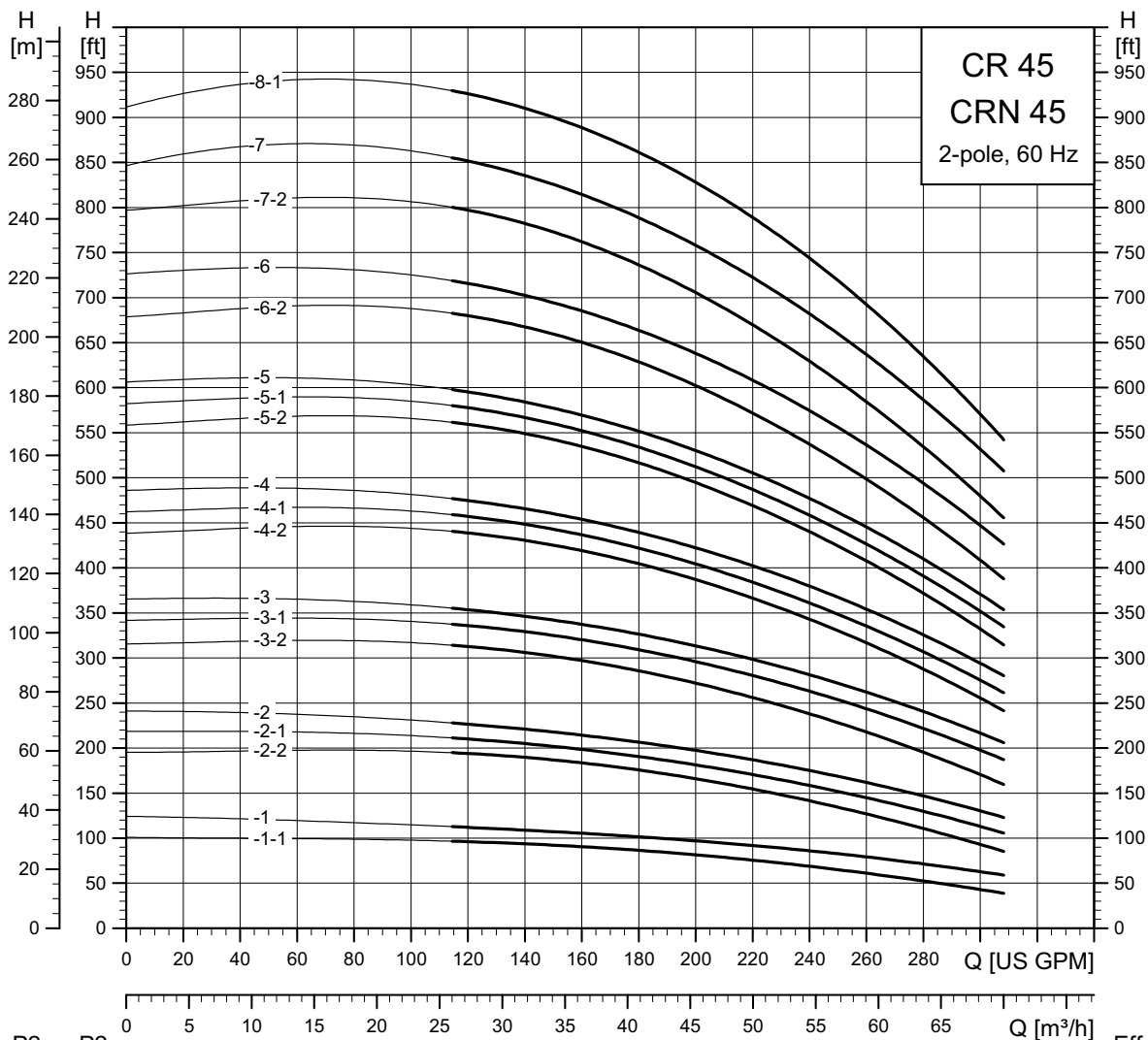
TM02 7223 4719

CR, CRN 32



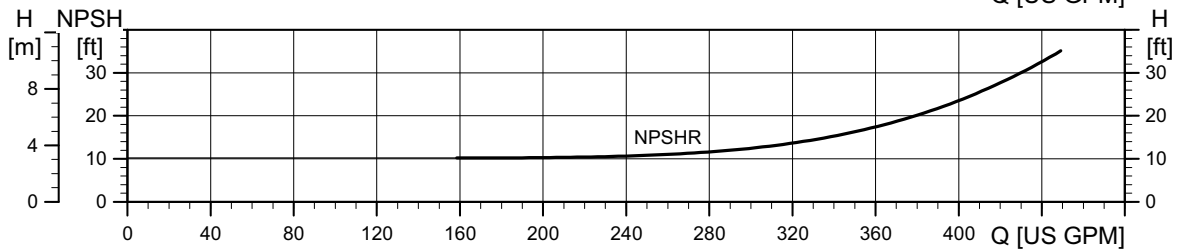
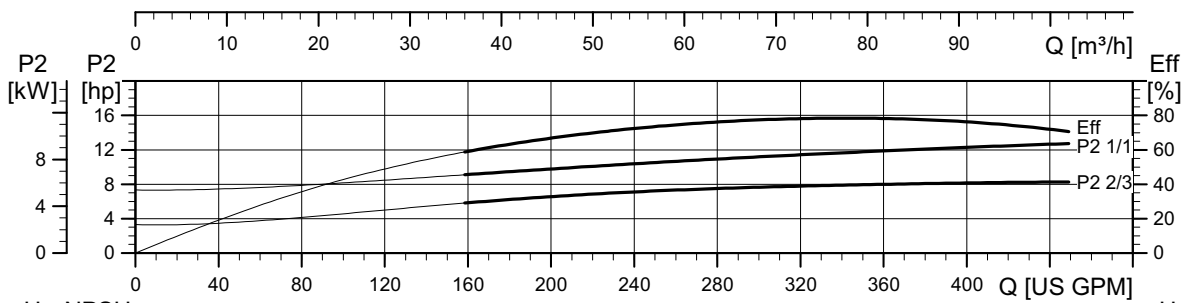
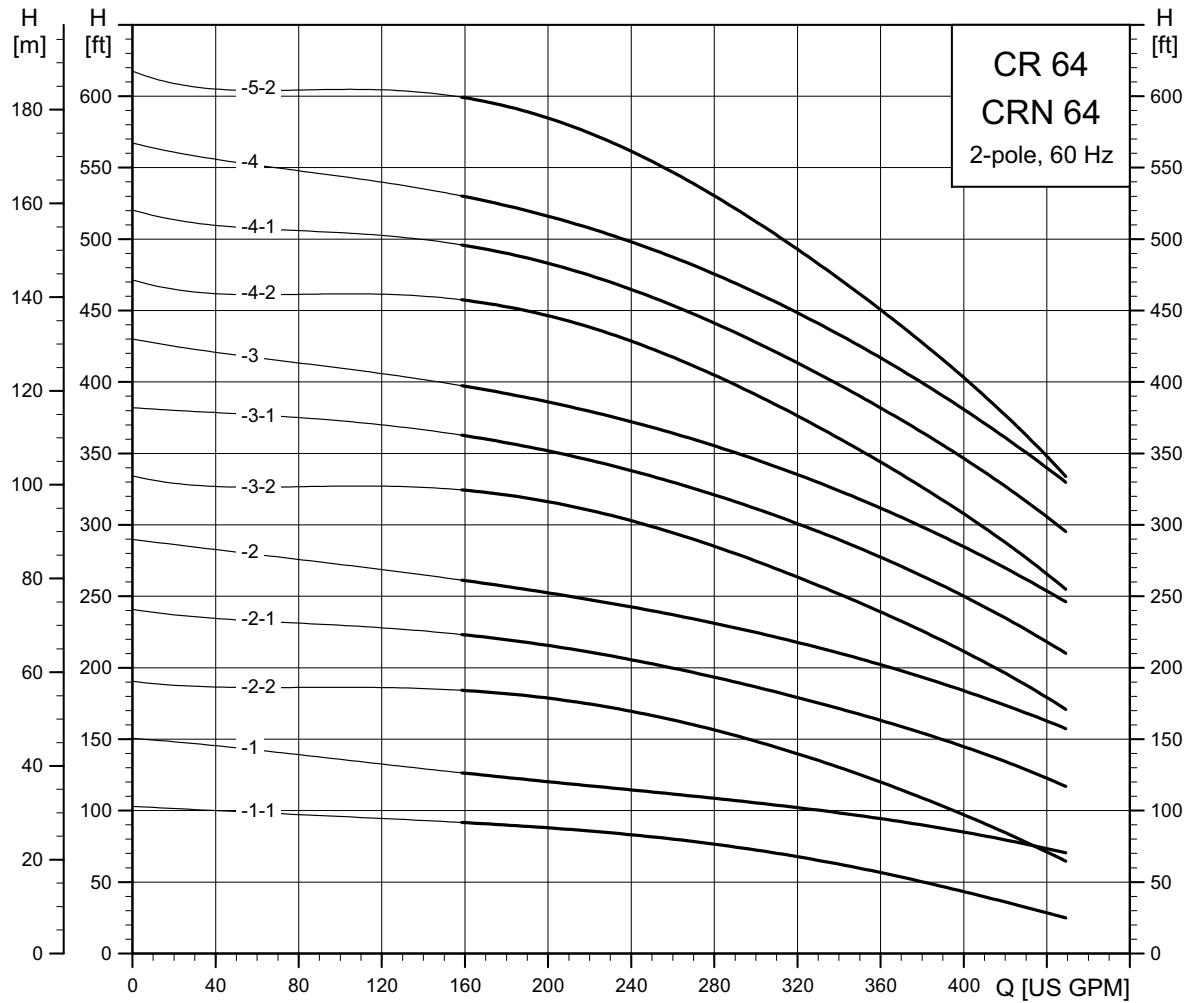
TM02.0039 4719

CR, CRN 45



TM02 0040 4719

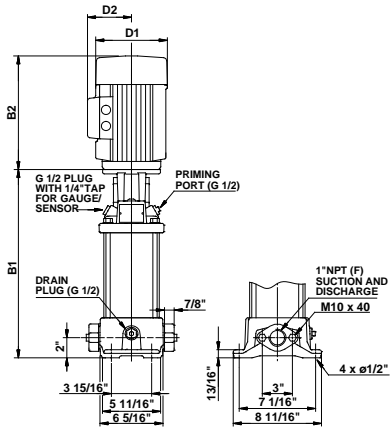
CR, CRN 64



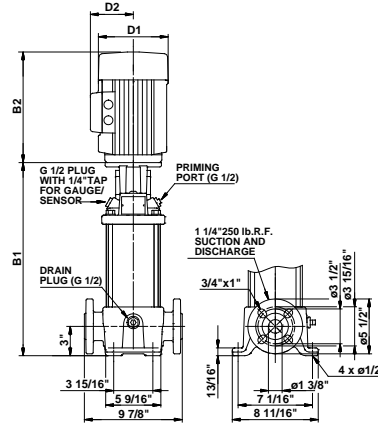
TM02 0041 4719

10. Technical data

CR 1s



TM03 1450 2205



TM03 1451 2205

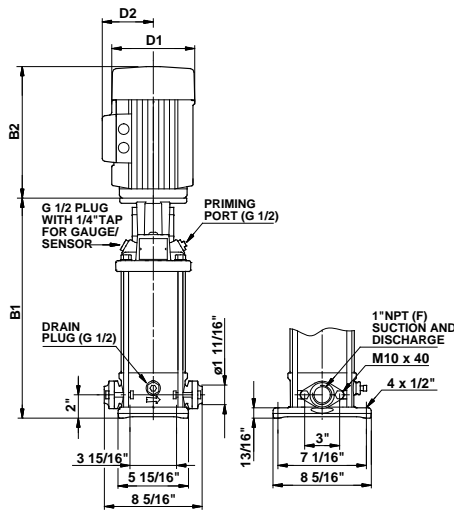
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC		B1+B2	
					D1	D2		
CR 1s-2	1/3	1	•	11.97 (304)	6.64 (169)	5.52 (140)	21.01 (534)	58.20 (26)
		3	•	11.97 (304)	6.69 (170)	5.52 (140)	20.23 (514)	54.45 (25)
CR 1s-3	1/3	1	•	11.97 (304)	6.64 (169)	5.52 (140)	21.01 (534)	58.64 (27)
		3	•	11.97 (304)	6.69 (170)	5.52 (140)	20.23 (514)	54.90 (25)
CR 1s-4	1/3	1	•	12.68 (322)	6.64 (169)	5.52 (140)	21.72 (552)	59.52 (27)
		3	•	12.68 (322)	6.69 (170)	5.52 (140)	20.93 (532)	55.78 (25)
CR 1s-5	1/3	1	•	13.39 (340)	6.64 (169)	5.52 (140)	22.43 (570)	60.41 (27)
		3	•	13.39 (340)	6.69 (170)	5.52 (140)	21.64 (550)	56.66 (26)
CR 1s-6	1/2	1	•	14.09 (358)	6.64 (169)	5.52 (140)	23.53 (598)	63.05 (29)
		3	•	14.09 (358)	6.69 (170)	5.52 (140)	22.75 (578)	59.97 (27)
CR 1s-7	1/2	1	•	14.80 (376)	6.64 (169)	5.52 (140)	24.24 (616)	63.93 (29)
		3	•	14.80 (376)	6.69 (170)	5.52 (140)	23.45 (596)	60.85 (28)
CR 1s-8	1/2	1	•	15.51 (394)	6.64 (169)	5.52 (140)	24.95 (634)	64.82 (29)
		3	•	15.51 (394)	6.69 (170)	5.52 (140)	24.16 (614)	61.73 (28)
CR 1s-9	3/4	1	•	16.22 (412)	7.64 (194)	5.88 (149)	27.50 (699)	71.87 (33)
		3	•	16.22 (412)	6.69 (170)	5.52 (140)	24.87 (632)	63.71 (29)
CR 1s-10	3/4	1	•	16.93 (430)	7.64 (194)	5.88 (149)	28.21 (717)	72.75 (33)
		3	•	16.93 (430)	6.69 (170)	5.52 (140)	25.58 (650)	64.60 (29)
CR 1s-11	3/4	1	•	17.64 (448)	7.64 (194)	5.88 (149)	28.92 (735)	73.41 (33)
		3	•	17.64 (448)	6.69 (170)	5.52 (140)	26.29 (668)	65.26 (30)
CR 1s-12	3/4	1	•	18.35 (466)	7.64 (194)	5.88 (149)	29.63 (753)	74.30 (34)
		3	•	18.35 (466)	6.69 (170)	5.52 (140)	27.00 (686)	66.14 (30)
CR 1s-13	1	1	•	19.06 (484)	7.64 (194)	5.88 (149)	30.73 (781)	77.38 (35)
		3	•	19.06 (484)	6.69 (170)	5.52 (140)	28.10 (714)	70.33 (32)
CR 1s-15	1	1	•	20.47 (520)	7.64 (194)	5.88 (149)	32.15 (817)	78.93 (36)
		3	•	20.47 (520)	6.69 (170)	5.52 (140)	29.52 (750)	71.87 (33)
CR 1s-17	1 1/2	1	•	21.89 (556)	7.64 (194)	5.88 (149)	34.35 (873)	84.22 (38)
		3	•	21.89 (556)	7.64 (194)	5.88 (149)	33.57 (853)	86.42 (39)
CR 1s-19	1 1/2	1	-	23.31 (592)	7.64 (194)	5.88 (149)	35.77 (909)	85.98 (39)
		3	-	23.31 (592)	7.64 (194)	5.88 (149)	34.98 (889)	88.18 (40)
CR 1s-21	1 1/2	1	-	24.72 (628)	7.64 (194)	5.88 (149)	37.19 (945)	87.74 (40)
		3	-	24.72 (628)	7.64 (194)	5.88 (149)	36.40 (925)	89.95 (41)
CR 1s-23	1 1/2	1	-	26.14 (664)	7.64 (194)	5.88 (149)	38.60 (981)	89.51 (41)
		3	-	26.14 (664)	7.64 (194)	5.88 (149)	37.82 (961)	91.71 (42)
CR 1s-25	2	1	-	27.56 (700)	7.64 (194)	5.88 (149)	40.42 (1027)	94.58 (43)
		3	-	27.56 (700)	7.64 (194)	5.88 (149)	40.02 (1017)	100.0 (45)
CR 1s-27	2	1	-	28.98 (736)	7.64 (194)	5.88 (149)	41.83 (1063)	96.34 (44)
		3	-	28.98 (736)	7.64 (194)	5.88 (149)	41.44 (1053)	101.8 (46)

All dimensions in inches unless otherwise noted.

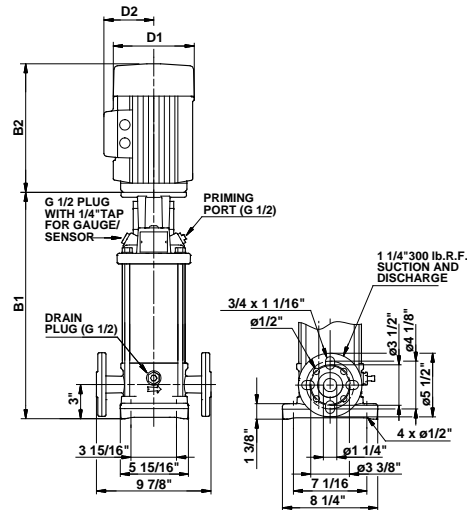
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

- Available.

CRI 1s



TM03 1452 2205



TM03 1453 2205

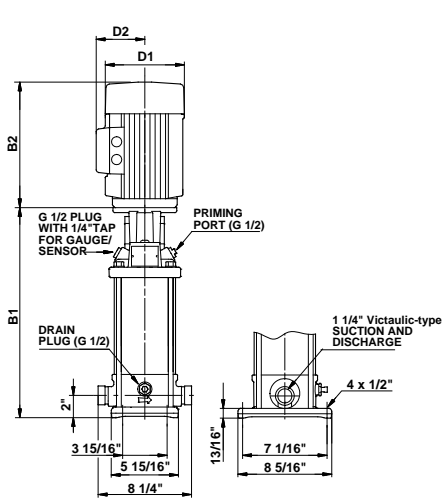
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRI 1s-2	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	52.91 (24)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.16 (22)
CRI 1s-3	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	53.35 (24)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.60 (23)
CRI 1s-4	1/3	1	•	12.80 (325)	6.64 (169)	5.52 (140)	21.84 (555)	54.23 (25)
		3	•	12.80 (325)	6.69 (170)	5.52 (140)	21.05 (535)	50.49 (23)
CRI 1s-5	1/3	1	•	13.50 (343)	6.64 (169)	5.52 (140)	22.55 (573)	55.12 (25)
		3	•	13.50 (343)	6.69 (170)	5.52 (140)	21.76 (553)	51.37 (23)
CRI 1s-6	1/2	1	•	14.21 (361)	6.64 (169)	5.52 (140)	23.65 (601)	57.76 (26)
		3	•	14.21 (361)	6.69 (170)	5.52 (140)	22.86 (581)	54.67 (25)
CRI 1s-7	1/2	1	•	14.92 (379)	6.64 (169)	5.52 (140)	24.36 (619)	58.64 (27)
		3	•	14.92 (379)	6.69 (170)	5.52 (140)	23.57 (599)	55.56 (25)
CRI 1s-8	1/2	1	•	15.63 (397)	6.64 (169)	5.52 (140)	25.07 (637)	59.52 (27)
		3	•	15.63 (397)	6.69 (170)	5.52 (140)	24.28 (617)	56.44 (26)
CRI 1s-9	3/4	1	•	16.34 (415)	7.64 (194)	5.88 (149)	27.62 (702)	66.58 (30)
		3	•	16.34 (415)	6.69 (170)	5.52 (140)	24.99 (635)	58.42 (27)
CRI 1s-10	3/4	1	•	17.05 (433)	7.64 (194)	5.88 (149)	28.33 (720)	67.46 (31)
		3	•	17.05 (433)	6.69 (170)	5.52 (140)	25.70 (653)	59.30 (27)
CRI 1s-11	3/4	1	•	17.76 (451)	7.64 (194)	5.88 (149)	29.04 (738)	68.12 (31)
		3	•	17.76 (451)	6.69 (170)	5.52 (140)	26.41 (671)	59.97 (27)
CRI 1s-12	3/4	1	•	18.46 (469)	7.64 (194)	5.88 (149)	29.75 (756)	69.00 (31)
		3	•	18.46 (469)	6.69 (170)	5.52 (140)	27.12 (689)	60.85 (28)
CRI 1s-13	1	1	•	19.17 (487)	7.64 (194)	5.88 (149)	30.85 (784)	72.09 (33)
		3	•	19.17 (487)	6.69 (170)	5.52 (140)	28.22 (717)	65.04 (30)
CRI 1s-15	1	1	•	20.59 (523)	7.64 (194)	5.88 (149)	32.27 (820)	73.63 (33)
		3	•	20.59 (523)	6.69 (170)	5.52 (140)	29.63 (753)	66.58 (30)
CRI 1s-17	1 1/2	1	•	22.01 (559)	7.64 (194)	5.88 (149)	34.47 (876)	78.93 (36)
		3	•	22.01 (559)	7.64 (194)	5.88 (149)	33.68 (856)	81.13 (37)
CRI 1s-19	1 1/2	1	-	23.43 (595)	7.64 (194)	5.88 (149)	35.89 (912)	80.69 (37)
		3	-	23.43 (595)	7.64 (194)	5.88 (149)	35.10 (892)	82.89 (38)
CRI 1s-21	1 1/2	1	-	24.84 (631)	7.64 (194)	5.88 (149)	37.31 (948)	82.45 (37)
		3	-	24.84 (631)	7.64 (194)	5.88 (149)	36.52 (928)	84.66 (38)
CRI 1s-23	1 1/2	1	-	26.26 (667)	7.64 (194)	5.88 (149)	38.72 (984)	84.22 (38)
		3	-	26.26 (667)	7.64 (194)	5.88 (149)	37.94 (964)	86.42 (39)
CRI 1s-25	2	1	-	27.68 (703)	7.64 (194)	5.88 (149)	40.53 (1030)	89.29 (41)
		3	-	27.68 (703)	7.64 (194)	5.88 (149)	40.14 (1020)	94.80 (43)
CRI 1s-27	2	1	-	29.09 (739)	7.64 (194)	5.88 (149)	41.95 (1066)	91.05 (41)
		3	-	29.09 (739)	7.64 (194)	5.88 (149)	41.56 (1056)	96.56 (44)

All dimensions in inches unless otherwise noted.

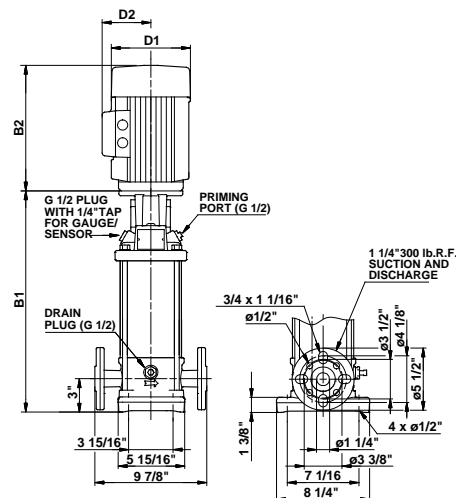
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

- Available.

CRN 1s



TM03 1454 2205



TM03 1453 2205

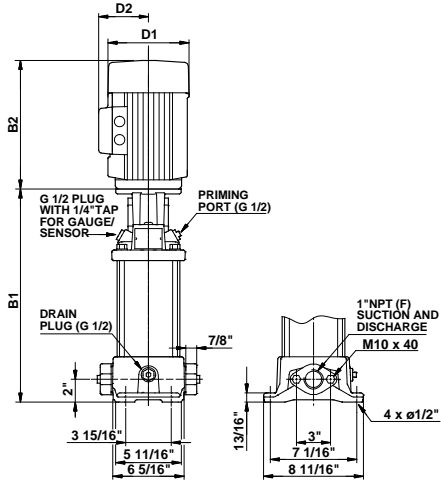
Pump type	P2 [HP]	Ph.	PJE*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRN 1s-2	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	52.69 (24)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	48.94 (22)
CRN 1s-3	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	53.35 (24)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.60 (23)
CRN 1s-4	1/3	1	•	12.80 (325)	6.64 (169)	5.52 (140)	21.84 (555)	54.23 (25)
		3	•	12.80 (325)	6.69 (170)	5.52 (140)	21.05 (535)	50.49 (23)
CRN 1s-5	1/3	1	•	13.50 (343)	6.64 (169)	5.52 (140)	22.55 (573)	55.12 (25)
		3	•	13.50 (343)	6.69 (170)	5.52 (140)	21.76 (553)	51.37 (23)
CRN 1s-6	1/2	1	•	14.21 (361)	6.64 (169)	5.52 (140)	23.65 (601)	57.76 (26)
		3	•	14.21 (361)	6.69 (170)	5.52 (140)	22.86 (581)	54.67 (25)
CRN 1s-7	1/2	1	•	14.92 (379)	6.64 (169)	5.52 (140)	24.36 (619)	58.64 (27)
		3	•	14.92 (379)	6.69 (170)	5.52 (140)	23.57 (599)	55.56 (25)
CRN 1s-8	1/2	1	•	15.63 (397)	6.64 (169)	5.52 (140)	25.07 (637)	59.52 (27)
		3	•	15.63 (397)	6.69 (170)	5.52 (140)	24.28 (617)	56.44 (26)
CRN 1s-9	3/4	1	•	16.34 (415)	7.64 (194)	5.88 (149)	27.62 (702)	66.36 (30)
		3	•	16.34 (415)	6.69 (170)	5.52 (140)	24.99 (635)	58.20 (26)
CRN 1s-10	3/4	1	•	17.05 (433)	7.64 (194)	5.88 (149)	28.33 (720)	67.24 (31)
		3	•	17.05 (433)	6.69 (170)	5.52 (140)	25.70 (653)	59.08 (27)
CRN 1s-11	3/4	1	•	17.76 (451)	7.64 (194)	5.88 (149)	29.04 (738)	67.90 (31)
		3	•	17.76 (451)	6.69 (170)	5.52 (140)	26.41 (671)	59.75 (27)
CRN 1s-12	3/4	1	•	18.46 (469)	7.64 (194)	5.88 (149)	29.75 (756)	68.78 (31)
		3	•	18.46 (469)	6.69 (170)	5.52 (140)	27.12 (689)	60.63 (28)
CRN 1s-13	1	1	•	19.17 (487)	7.64 (194)	5.88 (149)	30.85 (784)	72.09 (33)
		3	•	19.17 (487)	6.69 (170)	5.52 (140)	28.22 (717)	65.04 (30)
CRN 1s-15	1	1	•	20.59 (523)	7.64 (194)	5.88 (149)	32.27 (820)	73.63 (33)
		3	•	20.59 (523)	6.69 (170)	5.52 (140)	29.63 (753)	66.58 (30)
CRN 1s-17	1 1/2	1	•	22.01 (559)	7.64 (194)	5.88 (149)	34.47 (876)	78.71 (36)
		3	•	22.01 (559)	7.64 (194)	5.88 (149)	33.68 (856)	80.91 (37)
CRN 1s-19	1 1/2	1	•	23.43 (595)	7.64 (194)	5.88 (149)	35.89 (912)	80.47 (37)
		3	•	23.43 (595)	7.64 (194)	5.88 (149)	35.10 (892)	82.67 (38)
CRN 1s-21	1 1/2	1	•	24.84 (631)	7.64 (194)	5.88 (149)	37.31 (948)	82.23 (37)
		3	•	24.84 (631)	7.64 (194)	5.88 (149)	36.52 (928)	84.44 (38)
CRN 1s-23	1 1/2	1	•	26.26 (667)	7.64 (194)	5.88 (149)	38.72 (984)	84.00 (38)
		3	•	26.26 (667)	7.64 (194)	5.88 (149)	37.94 (964)	86.20 (39)
CRN 1s-25	2	1	•	27.68 (703)	7.64 (194)	5.88 (149)	40.53 (1030)	89.07 (40)
		3	•	27.68 (703)	7.64 (194)	5.88 (149)	40.14 (1020)	94.58 (43)
CRN 1s-27	2	1	•	29.09 (739)	7.64 (194)	5.88 (149)	41.95 (1066)	90.83 (41)
		3	•	29.09 (739)	7.64 (194)	5.88 (149)	41.56 (1056)	96.34 (44)

All dimensions in inches unless otherwise noted.

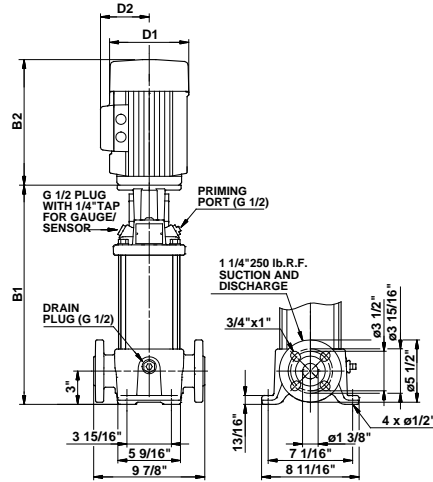
* PJE flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

• Available.

CR 1



TM03 1450 2205



TM03 1451 2205

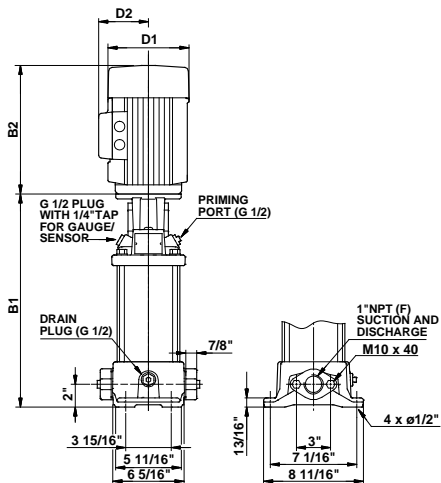
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CR 1-2	1/3	1	•	11.97 (304)	6.64 (169)	5.52 (140)	21.01 (534)	58.20 (26)
		3	•	11.97 (304)	6.69 (170)	5.52 (140)	20.23 (514)	54.45 (25)
CR 1-3	1/3	1	•	11.97 (304)	6.64 (169)	5.52 (140)	21.01 (534)	58.64 (27)
		3	•	11.97 (304)	6.69 (170)	5.52 (140)	20.23 (514)	54.90 (25)
CR 1-4	1/2	1	•	12.68 (322)	6.64 (169)	5.52 (140)	22.11 (562)	61.29 (28)
		3	•	12.68 (322)	6.69 (170)	5.52 (140)	21.33 (542)	58.20 (26)
CR 1-5	1/2	1	•	13.39 (340)	6.64 (169)	5.52 (140)	22.82 (580)	62.39 (28)
		3	•	13.39 (340)	6.69 (170)	5.52 (140)	22.04 (560)	59.30 (27)
CR 1-6	3/4	1	•	14.09 (358)	7.64 (194)	5.88 (149)	25.38 (645)	69.23 (31)
		3	•	14.09 (358)	6.69 (170)	5.52 (140)	22.75 (578)	61.07 (28)
CR 1-7	3/4	1	•	14.80 (376)	7.64 (194)	5.88 (149)	26.09 (663)	70.11 (32)
		3	•	14.80 (376)	6.69 (170)	5.52 (140)	23.45 (596)	61.95 (28)
CR 1-8	1	1	•	15.51 (394)	7.64 (194)	5.88 (149)	27.19 (691)	73.19 (33)
		3	•	15.51 (394)	6.69 (170)	5.52 (140)	24.56 (624)	66.14 (30)
CR 1-9	1	1	•	16.22 (412)	7.64 (194)	5.88 (149)	27.90 (709)	74.30 (34)
		3	•	16.22 (412)	6.69 (170)	5.52 (140)	25.26 (642)	67.24 (31)
CR 1-10	1 1/2	1	•	16.93 (430)	7.64 (194)	5.88 (149)	29.38 (747)	78.48 (36)
		3	•	16.93 (430)	7.64 (194)	5.88 (149)	28.61 (727)	80.69 (37)
CR 1-11	1 1/2	1	•	17.64 (448)	7.64 (194)	5.88 (149)	30.10 (765)	79.15 (36)
		3	•	17.64 (448)	7.64 (194)	5.88 (149)	29.31 (745)	81.35 (37)
CR 1-12	1 1/2	1	•	18.35 (466)	7.64 (194)	5.88 (149)	30.81 (783)	80.25 (36)
		3	•	18.35 (466)	7.64 (194)	5.88 (149)	30.02 (763)	82.45 (37)
CR 1-13	1 1/2	1	•	19.06 (484)	7.64 (194)	5.88 (149)	31.52 (801)	81.13 (37)
		3	•	19.06 (484)	7.64 (194)	5.88 (149)	30.73 (781)	83.33 (38)
CR 1-15	2	1	•	20.47 (520)	7.64 (194)	5.88 (149)	33.33 (847)	85.98 (39)
		3	•	20.47 (520)	7.64 (194)	5.88 (149)	32.94 (837)	91.49 (42)
CR 1-17	2	1	•	21.89 (556)	7.64 (194)	5.88 (149)	34.75 (883)	87.96 (40)
		3	•	21.89 (556)	7.64 (194)	5.88 (149)	34.35 (873)	93.48 (42)
CR 1-19	3	1	-	24.41 (620)	9.45 (240)	8.06 (205)	40.88 (1038)	125.8 (57)
		3	-	24.41 (620)	9.45 (240)	6.69 (170)	38.13 (968)	126.7 (58)
CR 1-21	3	1	-	25.83 (656)	9.45 (240)	8.06 (205)	42.30 (1074)	127.6 (58)
		3	-	25.83 (656)	9.45 (240)	6.69 (170)	39.54 (1004)	128.5 (58)
CR 1-23	3	1	-	27.24 (692)	9.45 (240)	8.06 (205)	43.72 (1110)	129.4 (59)
		3	-	27.24 (692)	9.45 (240)	6.69 (170)	40.96 (1040)	130.2 (59)
CR 1-25	3	1	-	28.66 (728)	9.45 (240)	8.06 (205)	45.14 (1146)	131.1 (60)
		3	-	28.66 (728)	9.45 (240)	6.69 (170)	42.38 (1076)	132.0 (60)
CR 1-27	3	1	-	30.08 (764)	9.45 (240)	8.06 (205)	46.55 (1182)	133.1 (60)
		3	-	30.08 (764)	9.45 (240)	6.69 (170)	43.80 (1112)	134.0 (61)

All dimensions in inches unless otherwise noted.

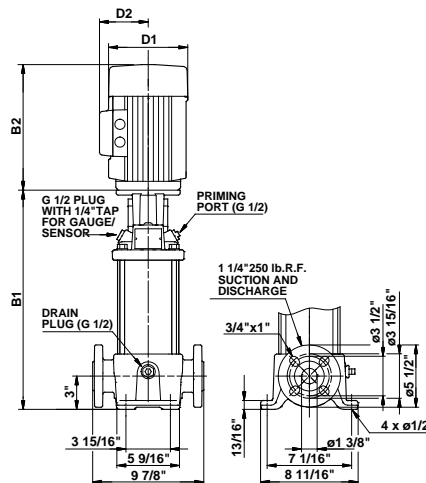
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

• Available.

CRI 1



TM03 1450 2205



TM03 1451 2205

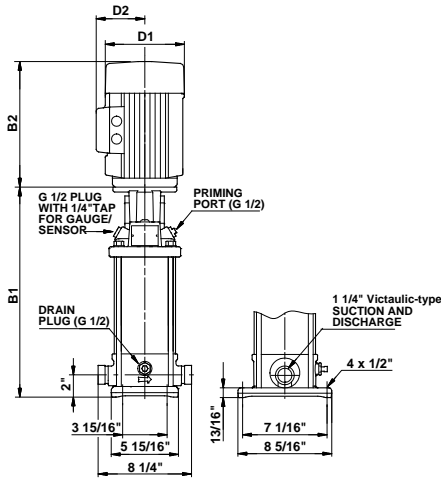
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRI 1-2	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	52.91 (24)
CRI 1-2	1/3	3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.16 (22)
CRI 1-3	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	53.35 (24)
CRI 1-3	1/3	3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.60 (23)
CRI 1-4	1/2	1	•	12.80 (325)	6.64 (169)	5.52 (140)	22.23 (565)	56.00 (25)
CRI 1-4	1/2	3	•	12.80 (325)	6.69 (170)	5.52 (140)	21.45 (545)	52.91 (24)
CRI 1-5	1/2	1	•	13.50 (343)	6.64 (169)	5.52 (140)	22.94 (583)	57.10 (26)
CRI 1-5	1/2	3	•	13.50 (343)	6.69 (170)	5.52 (140)	22.16 (563)	54.01 (25)
CRI 1-6	3/4	1	•	14.21 (361)	7.64 (194)	5.88 (149)	25.50 (648)	63.93 (29)
CRI 1-6	3/4	3	•	14.21 (361)	6.69 (170)	5.52 (140)	22.86 (581)	55.78 (25)
CRI 1-7	3/4	1	•	14.92 (379)	7.64 (194)	5.88 (149)	26.20 (666)	64.82 (29)
CRI 1-7	3/4	3	•	14.92 (379)	6.69 (170)	5.52 (140)	23.57 (599)	56.66 (26)
CRI 1-8	1	1	•	15.63 (397)	7.64 (194)	5.88 (149)	27.31 (694)	67.90 (31)
CRI 1-8	1	3	•	15.63 (397)	6.69 (170)	5.52 (140)	24.67 (627)	60.85 (28)
CRI 1-9	1	1	•	16.34 (415)	7.64 (194)	5.88 (149)	28.01 (712)	69.00 (31)
CRI 1-9	1	3	•	16.34 (415)	6.69 (170)	5.52 (140)	25.38 (645)	61.95 (28)
CRI 1-10	1 1/2	1	•	17.05 (433)	7.64 (194)	5.88 (149)	29.51 (750)	73.19 (33)
CRI 1-10	1 1/2	3	•	17.05 (433)	7.64 (194)	5.88 (149)	28.72 (730)	75.40 (34)
CRI 1-11	1 1/2	1	•	17.76 (451)	7.64 (194)	5.88 (149)	30.22 (768)	73.85 (34)
CRI 1-11	1 1/2	3	•	17.76 (451)	7.64 (194)	5.88 (149)	29.43 (748)	76.06 (35)
CRI 1-12	1 1/2	1	•	18.46 (469)	7.64 (194)	5.88 (149)	30.93 (786)	74.96 (34)
CRI 1-12	1 1/2	3	•	18.46 (469)	7.64 (194)	5.88 (149)	30.14 (766)	77.16 (35)
CRI 1-13	1 1/2	1	•	19.17 (487)	7.64 (194)	5.88 (149)	31.64 (804)	75.62 (34)
CRI 1-13	1 1/2	3	•	19.17 (487)	7.64 (194)	5.88 (149)	30.85 (784)	77.82 (35)
CRI 1-15	2	1	•	20.59 (523)	7.64 (194)	5.88 (149)	33.45 (850)	80.91 (37)
CRI 1-15	2	3	•	20.59 (523)	7.64 (194)	5.88 (149)	33.05 (840)	86.42 (39)
CRI 1-17	2	1	•	22.01 (559)	7.64 (194)	5.88 (149)	34.86 (886)	82.67 (38)
CRI 1-17	2	3	•	22.01 (559)	7.64 (194)	5.88 (149)	34.47 (876)	88.18 (40)
CRI 1-19	3	1	-	24.53 (623)	9.45 (240)	8.06 (205)	41.00 (1041)	118.8 (54)
CRI 1-19	3	3	-	24.53 (623)	9.45 (240)	6.69 (170)	38.25 (971)	119.7 (54)
CRI 1-21	3	1	-	25.94 (659)	9.45 (240)	8.06 (205)	42.42 (1077)	120.5 (55)
CRI 1-21	3	3	-	25.94 (659)	9.45 (240)	6.69 (170)	39.66 (1007)	121.4 (55)
CRI 1-23	3	1	-	27.36 (695)	9.45 (240)	8.06 (205)	43.84 (1113)	122.3 (56)
CRI 1-23	3	3	-	27.36 (695)	9.45 (240)	6.69 (170)	41.08 (1043)	123.2 (56)
CRI 1-25	3	1	-	28.78 (731)	9.45 (240)	8.06 (205)	45.25 (1149)	124.1 (56)
CRI 1-25	3	3	-	28.78 (731)	9.45 (240)	6.69 (170)	42.50 (1079)	125.0 (57)
CRI 1-27	3	1	-	30.20 (767)	9.45 (240)	8.06 (205)	46.67 (1185)	126.1 (57)
CRI 1-27	3	3	-	30.20 (767)	9.45 (240)	6.69 (170)	43.91 (1115)	126.9 (58)

All dimensions in inches unless otherwise noted.

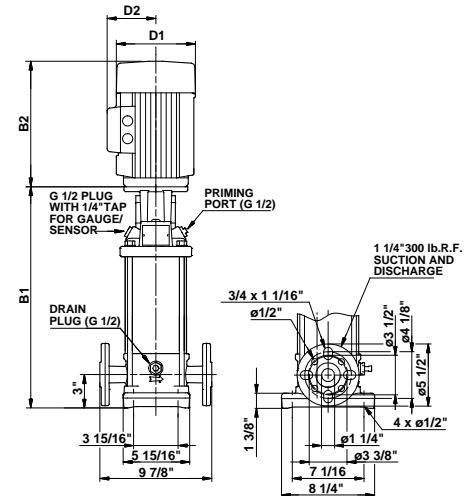
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

• Available.

CRN 1



TM03 1454 2205



TM03 1453 2205

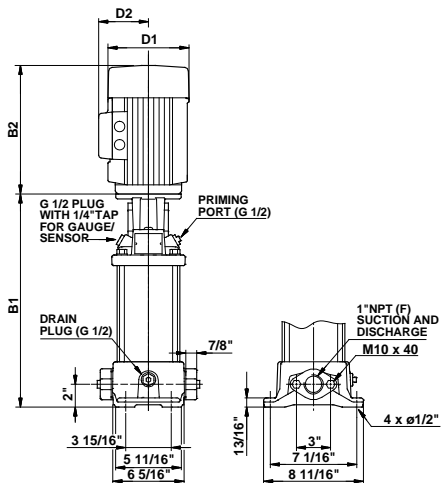
Pump type	P2 [HP]	Ph.	PJE*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRN 1-2	1/3	1	●	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	52.91 (24)
		3	●	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.16 (22)
CRN 1-3	1/3	1	●	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	53.35 (24)
		3	●	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.60 (23)
CRN 1-4	1/2	1	●	12.80 (325)	6.64 (169)	5.52 (140)	22.23 (565)	56.00 (25)
		3	●	12.80 (325)	6.69 (170)	5.52 (140)	21.45 (545)	52.91 (24)
CRN 1-5	1/2	1	●	13.50 (343)	6.64 (169)	5.52 (140)	22.94 (583)	56.88 (26)
		3	●	13.50 (343)	6.69 (170)	5.52 (140)	22.16 (563)	53.79 (24)
CRN 1-6	3/4	1	●	14.21 (361)	7.64 (194)	5.88 (149)	25.50 (648)	63.71 (29)
		3	●	14.21 (361)	6.69 (170)	5.52 (140)	22.86 (581)	55.56 (25)
CRN 1-7	3/4	1	●	14.92 (379)	7.64 (194)	5.88 (149)	26.20 (666)	64.82 (29)
		3	●	14.92 (379)	6.69 (170)	5.52 (140)	23.57 (599)	56.66 (26)
CRN 1-8	1	1	●	15.63 (397)	7.64 (194)	5.88 (149)	27.31 (694)	67.90 (31)
		3	●	15.63 (397)	6.69 (170)	5.52 (140)	24.67 (627)	60.85 (28)
CRN 1-9	1	1	●	16.34 (415)	7.64 (194)	5.88 (149)	28.01 (712)	68.78 (31)
		3	●	16.34 (415)	6.69 (170)	5.52 (140)	25.38 (645)	61.73 (28)
CRN 1-10	1 1/2	1	●	17.05 (433)	7.64 (194)	5.88 (149)	29.51 (750)	72.97 (33)
		3	●	17.05 (433)	7.64 (194)	5.88 (149)	28.72 (730)	75.18 (34)
CRN 1-11	1 1/2	1	●	17.76 (451)	7.64 (194)	5.88 (149)	30.22 (768)	73.63 (33)
		3	●	17.76 (451)	7.64 (194)	5.88 (149)	29.43 (748)	75.84 (34)
CRN 1-12	1 1/2	1	●	18.46 (469)	7.64 (194)	5.88 (149)	30.93 (786)	74.74 (34)
		3	●	18.46 (469)	7.64 (194)	5.88 (149)	30.14 (766)	76.94 (35)
CRN 1-13	1 1/2	1	●	19.17 (487)	7.64 (194)	5.88 (149)	31.64 (804)	75.62 (34)
		3	●	19.17 (487)	7.64 (194)	5.88 (149)	30.85 (784)	77.82 (35)
CRN 1-15	2	1	●	20.59 (523)	7.64 (194)	5.88 (149)	33.45 (850)	80.47 (37)
		3	●	20.59 (523)	7.64 (194)	5.88 (149)	33.05 (840)	85.98 (39)
CRN 1-17	2	1	●	22.01 (559)	7.64 (194)	5.88 (149)	34.86 (886)	82.45 (37)
		3	●	22.01 (559)	7.64 (194)	5.88 (149)	34.47 (876)	87.96 (40)
CRN 1-19	3	1	●	24.53 (623)	9.45 (240)	8.06 (205)	41.00 (1041)	118.3 (54)
		3	●	24.53 (623)	9.45 (240)	6.69 (170)	38.25 (971)	119.2 (54)
CRN 1-21	3	1	●	25.94 (659)	9.45 (240)	8.06 (205)	42.42 (1077)	120.1 (55)
		3	●	25.94 (659)	9.45 (240)	6.69 (170)	39.66 (1007)	121.0 (55)
CRN 1-23	3	1	●	27.36 (695)	9.45 (240)	8.06 (205)	43.84 (1113)	121.9 (55)
		3	●	27.36 (695)	9.45 (240)	6.69 (170)	41.08 (1043)	122.8 (56)
CRN 1-25	3	1	●	28.78 (731)	9.45 (240)	8.06 (205)	45.25 (1149)	123.6 (56)
		3	●	28.78 (731)	9.45 (240)	6.69 (170)	42.50 (1079)	124.5 (57)
CRN 1-27	3	1	●	30.20 (767)	9.45 (240)	8.06 (205)	46.67 (1185)	125.6 (57)
		3	●	30.20 (767)	9.45 (240)	6.69 (170)	43.91 (1115)	126.5 (57)

All dimensions in inches unless otherwise noted.

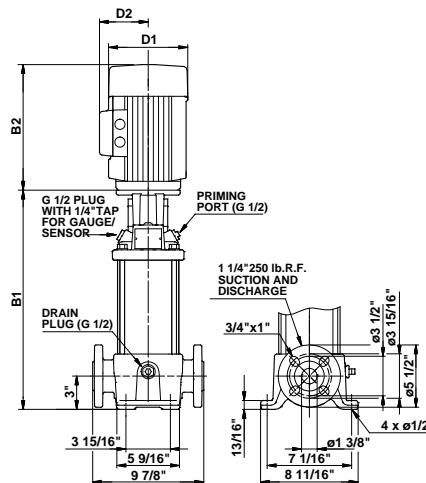
* PJE flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

● Available.

CR 3



TM03 1450 2205



TM03 1451 2205

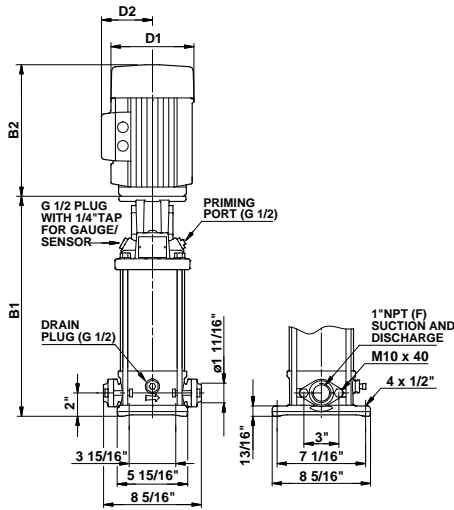
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CR 3-2	1/3	1	•	11.97 (304)	6.64 (169)	5.52 (140)	21.01 (534)	58.20 (26)
		3	•	11.97 (304)	6.69 (170)	5.52 (140)	20.23 (514)	54.45 (25)
CR 3-3	1/2	1	•	11.97 (304)	6.64 (169)	5.52 (140)	21.41 (544)	60.41 (27)
		3	•	11.97 (304)	6.69 (170)	5.52 (140)	20.62 (524)	57.32 (26)
CR 3-4	3/4	1	•	12.68 (322)	7.64 (194)	5.88 (149)	23.96 (609)	67.24 (31)
		3	•	12.68 (322)	6.69 (170)	5.52 (140)	21.33 (542)	59.08 (27)
CR 3-5	3/4	1	•	13.39 (340)	7.64 (194)	5.88 (149)	24.67 (627)	68.34 (31)
		3	•	13.39 (340)	6.69 (170)	5.52 (140)	22.04 (560)	60.19 (27)
CR 3-6	1	1	•	14.09 (358)	7.64 (194)	5.88 (149)	25.77 (655)	71.43 (32)
		3	•	14.09 (358)	6.69 (170)	5.52 (140)	23.14 (588)	64.37 (29)
CR 3-7	1 1/2	1	•	14.80 (376)	7.64 (194)	5.88 (149)	27.27 (693)	75.62 (34)
		3	•	14.80 (376)	7.64 (194)	5.88 (149)	26.48 (673)	77.82 (35)
CR 3-8	1 1/2	1	•	15.51 (394)	7.64 (194)	5.88 (149)	27.97 (711)	76.72 (35)
		3	•	15.51 (394)	7.64 (194)	5.88 (149)	27.19 (691)	78.93 (36)
CR 3-9	1 1/2	1	•	16.22 (412)	7.64 (194)	5.88 (149)	28.68 (729)	77.60 (35)
		3	•	16.22 (412)	7.64 (194)	5.88 (149)	27.90 (709)	79.81 (36)
CR 3-10	2	1	•	16.93 (430)	7.64 (194)	5.88 (149)	29.79 (757)	81.79 (37)
		3	•	16.93 (430)	7.64 (194)	5.88 (149)	29.39 (747)	87.30 (40)
CR 3-11	2	1	•	17.64 (448)	7.64 (194)	5.88 (149)	30.49 (775)	82.45 (37)
		3	•	17.64 (448)	7.64 (194)	5.88 (149)	30.10 (765)	87.96 (40)
CR 3-12	2	1	•	18.35 (466)	7.64 (194)	5.88 (149)	31.20 (793)	83.56 (38)
		3	•	18.35 (466)	7.64 (194)	5.88 (149)	30.81 (783)	89.07 (40)
CR 3-13	3	1	•	20.16 (512)	9.45 (240)	8.06 (205)	36.63 (930)	120.3 (55)
		3	•	20.16 (512)	9.45 (240)	6.69 (170)	33.88 (860)	121.2 (55)
CR 3-15	3	1	•	21.57 (548)	9.45 (240)	8.06 (205)	38.05 (966)	122.1 (55)
		3	•	21.57 (548)	9.45 (240)	6.69 (170)	35.29 (896)	123.0 (56)
CR 3-17	3	1	•	22.99 (584)	9.45 (240)	8.06 (205)	39.47 (1002)	123.9 (56)
		3	•	22.99 (584)	9.45 (240)	6.69 (170)	36.71 (932)	124.7 (57)
CR 3-19	5	1	-	24.41 (620)	10.96 (279)	8.41 (214)	43.72 (1111)	172.1 (78)
		3	-	24.41 (620)	9.45 (240)	6.69 (170)	39.70 (1008)	145.9 (66)
CR 3-21	5	1	-	25.83 (656)	10.96 (279)	8.41 (214)	45.14 (1147)	173.9 (79)
		3	-	25.83 (656)	9.45 (240)	6.69 (170)	41.12 (1044)	147.7 (67)
CR 3-23	5	1	-	27.24 (692)	10.96 (279)	8.41 (214)	46.56 (1183)	175.7 (80)
		3	-	27.24 (692)	9.45 (240)	6.69 (170)	42.54 (1080)	149.4 (68)
CR 3-25	5	1	-	28.66 (728)	10.96 (279)	8.41 (214)	47.97 (1219)	177.6 (81)
		3	-	28.66 (728)	9.45 (240)	6.69 (170)	43.95 (1116)	151.4 (69)

All dimensions in inches unless otherwise noted.

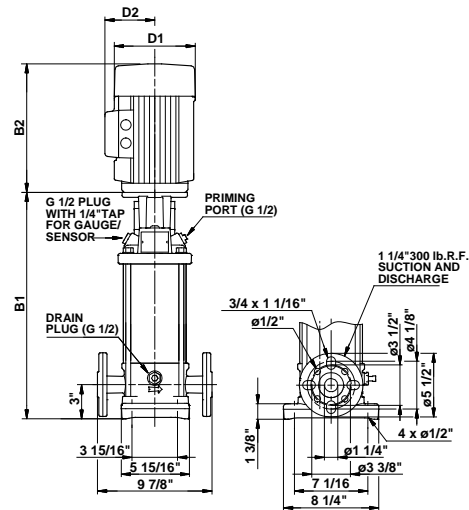
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

● Available.

CRI 3



TM03 1452 2205



TM03 1453 2205

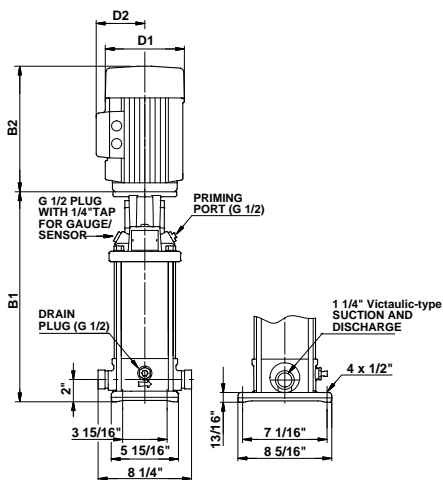
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRI 3-2	1/3	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	52.91 (24)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.16 (22)
CRI 3-3	1/2	1	•	12.09 (307)	6.64 (169)	5.52 (140)	21.52 (547)	55.12 (25)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.74 (527)	52.03 (24)
CRI 3-4	3/4	1	•	12.80 (325)	7.64 (194)	5.88 (149)	24.08 (612)	61.95 (28)
		3	•	12.80 (325)	6.69 (170)	5.52 (140)	21.45 (545)	53.79 (24)
CRI 3-5	3/4	1	•	13.50 (343)	7.64 (194)	5.88 (149)	24.79 (630)	63.05 (29)
		3	•	13.50 (343)	6.69 (170)	5.52 (140)	22.16 (563)	54.90 (25)
CRI 3-6	1	1	•	14.21 (361)	7.64 (194)	5.88 (149)	25.89 (658)	66.14 (30)
		3	•	14.21 (361)	6.69 (170)	5.52 (140)	23.26 (591)	59.08 (27)
CRI 3-7	1 1/2	1	•	14.92 (379)	7.64 (194)	5.88 (149)	27.38 (696)	70.33 (32)
		3	•	14.92 (379)	7.64 (194)	5.88 (149)	26.60 (676)	72.53 (33)
CRI 3-8	1 1/2	1	•	15.63 (397)	7.64 (194)	5.88 (149)	28.09 (714)	71.43 (32)
		3	•	15.63 (397)	7.64 (194)	5.88 (149)	27.31 (694)	73.63 (33)
CRI 3-9	1 1/2	1	•	16.34 (415)	7.64 (194)	5.88 (149)	28.80 (732)	72.31 (33)
		3	•	16.34 (415)	7.64 (194)	5.88 (149)	28.01 (712)	74.52 (34)
CRI 3-10	2	1	•	17.05 (433)	7.64 (194)	5.88 (149)	29.90 (760)	76.50 (35)
		3	•	17.05 (433)	7.64 (194)	5.88 (149)	29.51 (750)	82.01 (37)
CRI 3-11	2	1	•	17.76 (451)	7.64 (194)	5.88 (149)	30.61 (778)	77.16 (35)
		3	•	17.76 (451)	7.64 (194)	5.88 (149)	30.22 (768)	82.67 (38)
CRI 3-12	2	1	•	18.46 (469)	7.64 (194)	5.88 (149)	31.32 (796)	78.26 (36)
		3	•	18.46 (469)	7.64 (194)	5.88 (149)	30.93 (786)	83.78 (38)
CRI 3-13	3	1	•	20.28 (515)	9.45 (240)	8.06 (205)	36.75 (933)	113.3 (51)
		3	•	20.28 (515)	9.45 (240)	6.69 (170)	33.99 (863)	114.2 (52)
CRI 3-15	3	1	•	21.69 (551)	9.45 (240)	8.06 (205)	38.17 (969)	115.3 (52)
		3	•	21.69 (551)	9.45 (240)	6.69 (170)	35.41 (899)	116.1 (53)
CRI 3-17	3	1	•	23.11 (587)	9.45 (240)	8.06 (205)	39.58 (1005)	116.8 (53)
		3	•	23.11 (587)	9.45 (240)	6.69 (170)	36.83 (935)	117.7 (53)
CRI 3-19	5	1	-	24.53 (623)	10.96 (279)	8.41 (214)	43.84 (1114)	165.1 (75)
		3	-	24.53 (623)	9.45 (240)	6.69 (170)	39.82 (1011)	138.8 (63)
CRI 3-21	5	1	-	25.94 (659)	10.96 (279)	8.41 (214)	45.26 (1150)	166.8 (76)
		3	-	25.94 (659)	9.45 (240)	6.69 (170)	41.24 (1047)	140.6 (64)
CRI 3-23	5	1	-	27.36 (695)	10.96 (279)	8.41 (214)	46.67 (1186)	168.6 (77)
		3	-	27.36 (695)	9.45 (240)	6.69 (170)	42.66 (1083)	142.4 (65)
CRI 3-25	5	1	-	28.78 (731)	10.96 (279)	8.41 (214)	48.09 (1222)	170.6 (77)
		3	-	28.78 (731)	9.45 (240)	6.69 (170)	44.07 (1119)	144.4 (66)

All dimensions in inches unless otherwise noted.

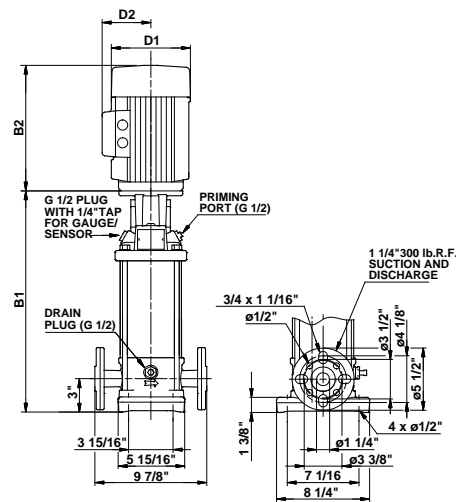
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

- Available.

CRN 3



TM03 1454 2205



TM03 1453 2205

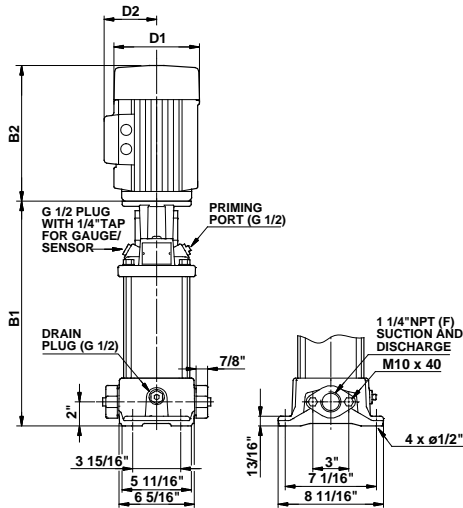
Pump type	P2 [HP]	Ph.	PJE*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRN 3-2	1/3	1	●	12.09 (307)	6.64 (169)	5.52 (140)	21.13 (537)	52.91 (24)
		3	●	12.09 (307)	6.69 (170)	5.52 (140)	20.34 (517)	49.16 (22)
CRN 3-3	1/2	1	●	12.09 (307)	6.64 (169)	5.52 (140)	21.52 (547)	55.12 (25)
		3	●	12.09 (307)	6.69 (170)	5.52 (140)	20.74 (527)	52.03 (24)
CRN 3-4	3/4	1	●	12.80 (325)	7.64 (194)	5.88 (149)	24.08 (612)	61.95 (28)
		3	●	12.80 (325)	6.69 (170)	5.52 (140)	21.45 (545)	53.79 (24)
CRN 3-5	3/4	1	●	13.50 (343)	7.64 (194)	5.88 (149)	24.79 (630)	62.83 (29)
		3	●	13.50 (343)	6.69 (170)	5.52 (140)	22.16 (563)	54.67 (25)
CRN 3-6	1	1	●	14.21 (361)	7.64 (194)	5.88 (149)	25.89 (658)	66.14 (30)
		3	●	14.21 (361)	6.69 (170)	5.52 (140)	23.26 (591)	59.08 (27)
CRN 3-7	1 1/2	1	●	14.92 (379)	7.64 (194)	5.88 (149)	27.38 (696)	70.33 (32)
		3	●	14.92 (379)	7.64 (194)	5.88 (149)	26.60 (676)	72.53 (33)
CRN 3-8	1 1/2	1	●	15.63 (397)	7.64 (194)	5.88 (149)	28.09 (714)	71.21 (32)
		3	●	15.63 (397)	7.64 (194)	5.88 (149)	27.31 (694)	73.41 (33)
CRN 3-9	1 1/2	1	●	16.34 (415)	7.64 (194)	5.88 (149)	28.80 (732)	72.09 (33)
		3	●	16.34 (415)	7.64 (194)	5.88 (149)	28.01 (712)	74.30 (34)
CRN 3-10	2	1	●	17.05 (433)	7.64 (194)	5.88 (149)	29.90 (760)	76.28 (35)
		3	●	17.05 (433)	7.64 (194)	5.88 (149)	29.51 (750)	81.79 (37)
CRN 3-11	2	1	●	17.76 (451)	7.64 (194)	5.88 (149)	30.61 (778)	77.16 (35)
		3	●	17.76 (451)	7.64 (194)	5.88 (149)	30.22 (768)	82.67 (38)
CRN 3-12	2	1	●	18.46 (469)	7.64 (194)	5.88 (149)	31.32 (796)	78.04 (35)
		3	●	18.46 (469)	7.64 (194)	5.88 (149)	30.93 (786)	83.56 (38)
CRN 3-13	3	1	●	20.28 (515)	9.45 (240)	8.06 (205)	36.75 (933)	113.1 (51)
		3	●	20.28 (515)	9.45 (240)	6.69 (170)	33.99 (863)	113.9 (52)
CRN 3-15	3	1	●	21.69 (551)	9.45 (240)	8.06 (205)	38.17 (969)	115.0 (52)
		3	●	21.69 (551)	9.45 (240)	6.69 (170)	35.41 (899)	115.9 (53)
CRN 3-17	3	1	●	23.11 (587)	9.45 (240)	8.06 (205)	39.58 (1005)	116.6 (53)
		3	●	23.11 (587)	9.45 (240)	6.69 (170)	36.83 (935)	117.5 (53)
CRN 3-19	5	1	●	24.53 (623)	10.96 (279)	8.41 (214)	43.84 (1114)	164.6 (75)
		3	●	24.53 (623)	9.45 (240)	6.69 (170)	39.82 (1011)	138.4 (63)
CRN 3-21	5	1	●	25.94 (659)	10.96 (279)	8.41 (214)	45.26 (1150)	166.6 (76)
		3	●	25.94 (659)	9.45 (240)	6.69 (170)	41.24 (1047)	140.4 (64)
CRN 3-23	5	1	●	27.36 (695)	10.96 (279)	8.41 (214)	46.67 (1186)	168.2 (76)
		3	●	27.36 (695)	9.45 (240)	6.69 (170)	42.66 (1083)	141.9 (64)
CRN 3-25	5	1	●	28.78 (731)	10.96 (279)	8.41 (214)	48.09 (1222)	170.2 (77)
		3	●	28.78 (731)	9.45 (240)	6.69 (170)	44.07 (1119)	143.9 (65)

All dimensions in inches unless otherwise noted.

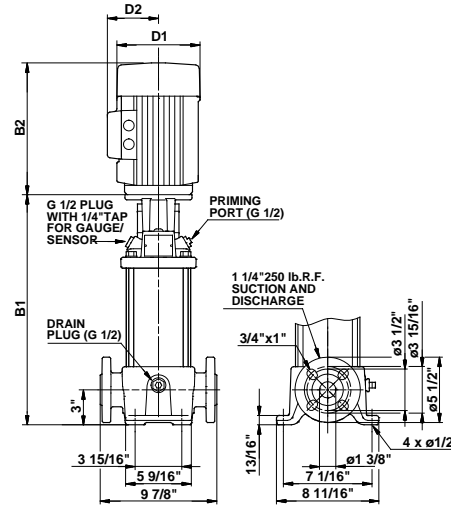
* PJE flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pump and the weight is approximately 9 lb less.

● Available.

CR 5



TM03 1455 2205



TM03 1451 2205

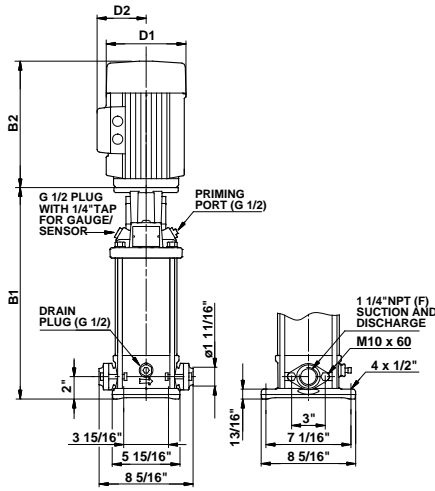
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CR 5-2	3/4	1	●	11.97 (304)	7.64 (194)	5.88 (149)	23.25 (591)	66.14 (30)
		3	●	11.97 (304)	6.69 (170)	5.52 (140)	20.62 (524)	57.98 (26)
CR 5-3	1	1	●	13.03 (331)	7.64 (194)	5.88 (149)	24.71 (628)	69.89 (32)
		3	●	13.03 (331)	6.69 (170)	5.52 (140)	22.08 (561)	62.83 (29)
CR 5-4	1 1/2	1	●	14.09 (358)	7.64 (194)	5.88 (149)	26.56 (675)	74.52 (34)
		3	●	14.09 (358)	7.64 (194)	5.88 (149)	25.77 (655)	76.72 (35)
CR 5-5	2	1	●	15.16 (385)	7.64 (194)	5.88 (149)	28.01 (712)	78.93 (36)
		3	●	15.16 (385)	7.64 (194)	5.88 (149)	27.62 (702)	84.44 (38)
CR 5-6	2	1	●	16.22 (412)	7.64 (194)	5.88 (149)	29.08 (739)	80.47 (37)
		3	●	16.22 (412)	7.64 (194)	5.88 (149)	28.68 (729)	85.98 (39)
CR 5-7	3	1	●	18.39 (467)	9.45 (240)	8.06 (205)	34.86 (885)	117.5 (53)
		3	●	18.39 (467)	9.45 (240)	6.69 (170)	32.10 (815)	118.3 (54)
CR 5-8	3	1	●	19.45 (494)	9.45 (240)	8.06 (205)	35.92 (912)	118.8 (54)
		3	●	19.45 (494)	9.45 (240)	6.69 (170)	33.17 (842)	119.7 (54)
CR 5-9	3	1	●	20.51 (521)	9.45 (240)	8.06 (205)	36.99 (939)	120.1 (55)
		3	●	20.51 (521)	9.45 (240)	6.69 (170)	34.23 (869)	121.0 (55)
CR 5-10	5	1	●	21.57 (548)	10.96 (279)	8.41 (214)	40.89 (1039)	167.5 (76)
		3	●	21.57 (548)	9.45 (240)	6.69 (170)	36.87 (936)	141.3 (64)
CR 5-11	5	1	●	22.64 (575)	10.96 (279)	8.41 (214)	41.95 (1066)	169.0 (77)
		3	●	22.64 (575)	9.45 (240)	6.69 (170)	37.93 (963)	142.8 (65)
CR 5-12	5	1	●	23.70 (602)	10.96 (279)	8.41 (214)	43.01 (1093)	170.4 (77)
		3	●	23.70 (602)	9.45 (240)	6.69 (170)	38.99 (990)	144.1 (65)
CR 5-13	5	1	●	24.76 (629)	10.96 (279)	8.41 (214)	44.08 (1120)	171.7 (78)
		3	●	24.76 (629)	9.45 (240)	6.69 (170)	40.06 (1017)	145.5 (66)
CR 5-14	5	1	●	25.83 (656)	10.96 (279)	8.41 (214)	45.14 (1147)	173.0 (79)
		3	●	25.83 (656)	9.45 (240)	6.69 (170)	41.12 (1044)	146.8 (67)
CR 5-15	5	1	●	26.89 (683)	10.96 (279)	8.41 (214)	46.20 (1174)	174.1 (79)
		3	●	26.89 (683)	9.45 (240)	6.69 (170)	42.18 (1071)	147.9 (67)
CR 5-16	5	1	●	27.95 (710)	10.96 (279)	8.41 (214)	47.26 (1201)	175.4 (80)
		3	●	27.95 (710)	9.45 (240)	6.69 (170)	43.25 (1098)	149.2 (68)
CR 5-18	7 1/2	1	-	30.59 (777)	10.96 (279)	8.41 (214)	49.90 (1268)	200.6 (91)
		3	-	30.59 (777)	10.96 (279)	7.97 (202)	47.54 (1208)	203.0 (92)
CR 5-20	7 1/2	1	-	32.72 (831)	10.96 (279)	8.41 (214)	52.03 (1322)	203.4 (92)
		3	-	32.72 (831)	10.96 (279)	7.97 (202)	49.67 (1262)	205.9 (93)
CR 5-22	7 1/2	1	-	34.84 (885)	10.96 (279)	8.41 (214)	54.15 (1376)	205.9 (93)
		3	-	34.84 (885)	10.96 (279)	7.97 (202)	51.79 (1316)	208.3 (95)
CR 5-24	7 1/2	1	-	36.97 (939)	10.96 (279)	8.41 (214)	56.28 (1430)	208.3 (95)
		3	-	36.97 (939)	10.96 (279)	7.97 (202)	53.92 (1370)	210.7 (96)

All dimensions in inches unless otherwise noted.

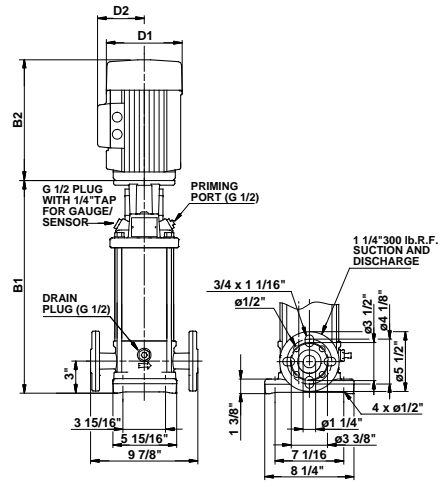
* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pumps and the weight is approximately 9 lb less.

● Available.

CRI 5



TM03 1456 2205



TM03 1453 2205

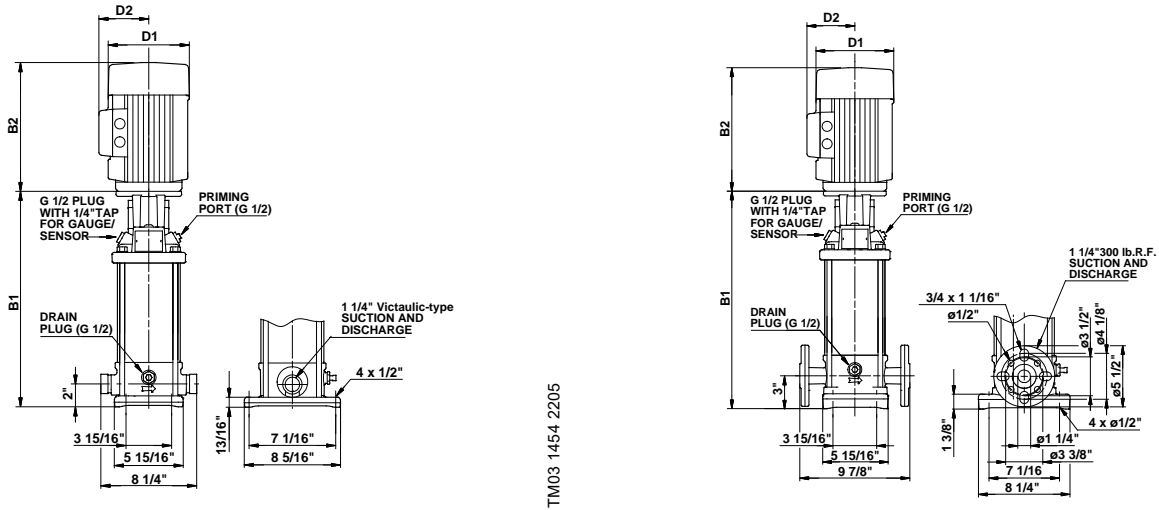
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRI 5-2	3/4	1	●	12.09 (307)	7.64 (194)	5.88 (149)	23.37 (594)	60.85 (28)
		3	●	12.09 (307)	6.69 (170)	5.52 (140)	20.74 (527)	52.69 (24)
CRI 5-3	1	1	●	13.15 (334)	7.64 (194)	5.88 (149)	24.83 (631)	64.82 (29)
		3	●	13.15 (334)	6.69 (170)	5.52 (140)	22.19 (564)	57.76 (26)
CRI 5-4	1 1/2	1	●	14.21 (361)	7.64 (194)	5.88 (149)	26.68 (678)	69.23 (31)
		3	●	14.21 (361)	7.64 (194)	5.88 (149)	25.89 (658)	71.43 (32)
CRI 5-5	2	1	●	15.28 (388)	7.64 (194)	5.88 (149)	28.13 (715)	73.63 (33)
		3	●	15.28 (388)	7.64 (194)	5.88 (149)	27.74 (705)	79.15 (36)
CRI 5-6	2	1	●	16.34 (415)	7.64 (194)	5.88 (149)	29.20 (742)	75.18 (34)
		3	●	16.34 (415)	7.64 (194)	5.88 (149)	28.80 (732)	80.69 (37)
CRI 5-7	3	1	●	18.50 (470)	9.45 (240)	8.06 (205)	34.98 (888)	110.4 (50)
		3	●	18.50 (470)	9.45 (240)	6.69 (170)	32.22 (818)	111.3 (51)
CRI 5-8	3	1	●	19.57 (497)	9.45 (240)	8.06 (205)	36.04 (915)	111.7 (51)
		3	●	19.57 (497)	9.45 (240)	6.69 (170)	33.29 (845)	112.6 (51)
CRI 5-9	3	1	●	20.63 (524)	9.45 (240)	8.06 (205)	37.10 (942)	113.1 (51)
		3	●	20.63 (524)	9.45 (240)	6.69 (170)	34.35 (872)	113.9 (52)
CRI 5-10	5	1	●	21.69 (551)	10.96 (279)	8.41 (214)	41.00 (1042)	160.5 (73)
		3	●	21.69 (551)	9.45 (240)	6.69 (170)	36.99 (939)	134.2 (61)
CRI 5-11	5	1	●	22.76 (578)	10.96 (279)	8.41 (214)	42.07 (1069)	162.0 (74)
		3	●	22.76 (578)	9.45 (240)	6.69 (170)	38.05 (966)	135.8 (62)
CRI 5-12	5	1	●	23.82 (605)	10.96 (279)	8.41 (214)	43.13 (1096)	163.3 (74)
		3	●	23.82 (605)	9.45 (240)	6.69 (170)	39.11 (993)	137.1 (62)
CRI 5-13	5	1	●	24.88 (632)	10.96 (279)	8.41 (214)	44.19 (1123)	164.6 (75)
		3	●	24.88 (632)	9.45 (240)	6.69 (170)	40.17 (1020)	138.4 (63)
CRI 5-14	5	1	●	25.94 (659)	10.96 (279)	8.41 (214)	45.26 (1150)	166.0 (75)
		3	●	25.94 (659)	9.45 (240)	6.69 (170)	41.24 (1047)	139.7 (63)
CRI 5-15	5	1	●	27.01 (686)	10.96 (279)	8.41 (214)	46.32 (1177)	167.3 (76)
		3	●	27.01 (686)	9.45 (240)	6.69 (170)	42.30 (1074)	141.1 (64)
CRI 5-16	5	1	●	28.07 (713)	10.96 (279)	8.41 (214)	47.38 (1204)	168.4 (76)
		3	●	28.07 (713)	9.45 (240)	6.69 (170)	43.36 (1101)	142.2 (65)
CRI 5-18	7 1/2	1	-	30.71 (780)	10.96 (279)	8.41 (214)	50.02 (1271)	193.5 (88)
		3	-	30.71 (780)	10.96 (279)	7.97 (202)	47.66 (1211)	195.9 (89)
CRI 5-20	7 1/2	1	-	32.83 (834)	10.96 (279)	8.41 (214)	52.15 (1325)	196.4 (89)
		3	-	32.83 (834)	10.96 (279)	7.97 (202)	49.78 (1265)	198.8 (90)
CRI 5-22	7 1/2	1	-	34.96 (888)	10.96 (279)	8.41 (214)	54.27 (1379)	198.8 (90)
		3	-	34.96 (888)	10.96 (279)	7.97 (202)	51.91 (1319)	201.2 (91)
CRI 5-24	7 1/2	1	-	37.09 (942)	10.96 (279)	8.41 (214)	56.40 (1433)	201.2 (91)
		3	-	37.09 (942)	10.96 (279)	7.97 (202)	54.04 (1373)	203.7 (92)

All dimensions in inches unless otherwise noted.

* Oval flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pumps and the weight is approximately 9 lb less.

● Available.

CRN 5



TM03 1454 2205

TM03 1453 2205

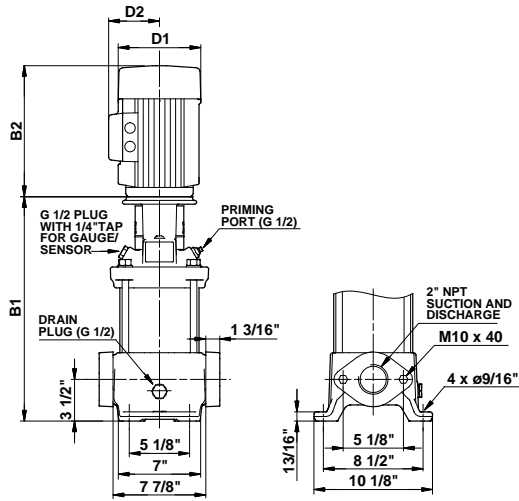
Pump type	P2 [HP]	Ph.	PJE*	ANSI dimensions [inch (mm)]				Net wt. [lb (kg)]
				B1	TEFC			
					D1	D2	B1+B2	
CRN 5-2	3/4	1	•	12.09 (307)	7.64 (194)	5.88 (149)	23.37 (594)	60.85 (28)
		3	•	12.09 (307)	6.69 (170)	5.52 (140)	20.74 (527)	52.69 (24)
CRN 5-3	1	1	•	13.15 (334)	7.64 (194)	5.88 (149)	24.83 (631)	64.60 (29)
		3	•	13.15 (334)	6.69 (170)	5.52 (140)	22.19 (564)	57.54 (26)
CRN 5-4	1 1/2	1	•	14.21 (361)	7.64 (194)	5.88 (149)	26.68 (678)	69.00 (31)
		3	•	14.21 (361)	7.64 (194)	5.88 (149)	25.89 (658)	71.21 (32)
CRN 5-5	2	1	•	15.28 (388)	7.64 (194)	5.88 (149)	28.13 (715)	73.41 (33)
		3	•	15.28 (388)	7.64 (194)	5.88 (149)	27.74 (705)	78.93 (36)
CRN 5-6	2	1	•	16.34 (415)	7.64 (194)	5.88 (149)	29.20 (742)	74.96 (34)
		3	•	16.34 (415)	7.64 (194)	5.88 (149)	28.80 (732)	80.47 (37)
CRN 5-7	3	1	•	18.50 (470)	9.45 (240)	8.06 (205)	34.98 (888)	110.2 (50)
		3	•	18.50 (470)	9.45 (240)	6.69 (170)	32.22 (818)	111.1 (50)
CRN 5-8	3	1	•	19.57 (497)	9.45 (240)	8.06 (205)	36.04 (915)	111.5 (51)
		3	•	19.57 (497)	9.45 (240)	6.69 (170)	33.29 (845)	112.4 (51)
CRN 5-9	3	1	•	20.63 (524)	9.45 (240)	8.06 (205)	37.10 (942)	112.8 (51)
		3	•	20.63 (524)	9.45 (240)	6.69 (170)	34.35 (872)	113.7 (52)
CRN 5-10	5	1	•	21.69 (551)	10.96 (279)	8.41 (214)	41.00 (1042)	160.5 (73)
		3	•	21.69 (551)	9.45 (240)	6.69 (170)	36.99 (939)	134.2 (61)
CRN 5-11	5	1	•	22.76 (578)	10.96 (279)	8.41 (214)	42.07 (1069)	161.6 (73)
		3	•	22.76 (578)	9.45 (240)	6.69 (170)	38.05 (966)	135.3 (61)
CRN 5-12	5	1	•	23.82 (605)	10.96 (279)	8.41 (214)	43.13 (1096)	163.1 (74)
		3	•	23.82 (605)	9.45 (240)	6.69 (170)	39.11 (993)	136.9 (62)
CRN 5-13	5	1	•	24.88 (632)	10.96 (279)	8.41 (214)	44.19 (1123)	164.2 (75)
		3	•	24.88 (632)	9.45 (240)	6.69 (170)	40.17 (1020)	138.0 (63)
CRN 5-14	5	1	•	25.94 (659)	10.96 (279)	8.41 (214)	45.26 (1150)	165.5 (75)
		3	•	25.94 (659)	9.45 (240)	6.69 (170)	41.24 (1047)	139.3 (63)
CRN 5-15	5	1	•	27.01 (686)	10.96 (279)	8.41 (214)	46.32 (1177)	166.8 (76)
		3	•	27.01 (686)	9.45 (240)	6.69 (170)	42.30 (1074)	140.6 (64)
CRN 5-16	5	1	•	28.07 (713)	10.96 (279)	8.41 (214)	47.38 (1204)	167.9 (76)
		3	•	28.07 (713)	9.45 (240)	6.69 (170)	43.36 (1101)	141.7 (64)
CRN 5-18	7 1/2	1	•	30.71 (780)	10.96 (279)	8.41 (214)	50.02 (1271)	193.1 (88)
		3	•	30.71 (780)	10.96 (279)	7.97 (202)	47.66 (1211)	195.5 (89)
CRN 5-20	7 1/2	1	•	32.83 (834)	10.96 (279)	8.41 (214)	52.15 (1325)	195.7 (89)
		3	•	32.83 (834)	10.96 (279)	7.97 (202)	49.78 (1265)	198.2 (90)
CRN 5-22	7 1/2	1	•	34.96 (888)	10.96 (279)	8.41 (214)	54.27 (1379)	198.2 (90)
		3	•	34.96 (888)	10.96 (279)	7.97 (202)	51.91 (1319)	200.6 (91)
CRN 5-24	7 1/2	1	•	37.09 (942)	10.96 (279)	8.41 (214)	56.40 (1433)	200.6 (91)
		3	•	37.09 (942)	10.96 (279)	7.97 (202)	54.04 (1373)	203.0 (92)

All dimensions in inches unless otherwise noted.

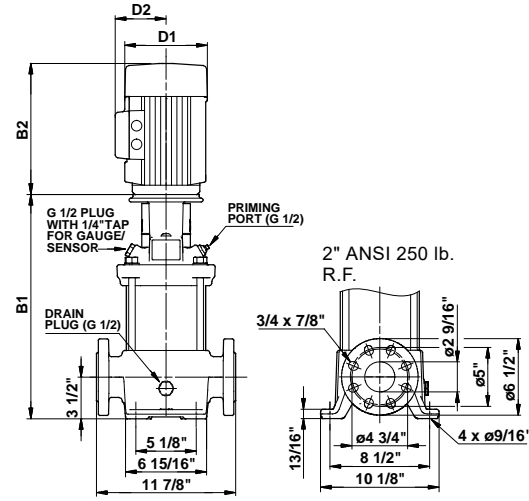
* PJE flanged pump B1 and B1+B2 dimensions are one inch less than ANSI flanged pumps and the weight is approximately 9 lb less.

- Available.

CR 10



TM03 1460 2205



TM03 1461 2205

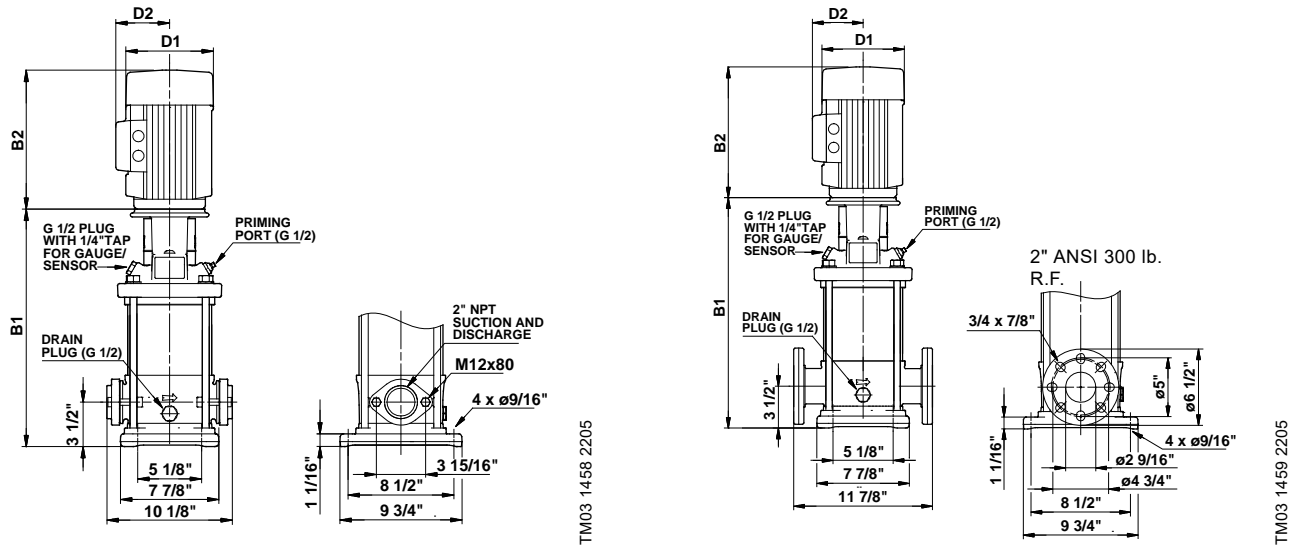
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]									Net wt. [lb (kg)]
				B1	TEFC			ODP					
					D1	D2	B1+B2	D1	D2	B1+B2			
CR 10-1	3/4	1	●	15.28 (388)	7.64 (194)	5.88 (149)	26.56 (675)	-	-	-	97.89 (44)		
		3	●	15.28 (388)	6.69 (170)	5.52 (140)	23.93 (608)	-	-	-	89.73 (41)		
CR 10-2	1 1/2	1	●	15.28 (388)	7.64 (194)	5.88 (149)	27.74 (705)	-	-	-	104.0 (47)		
		3	●	15.28 (388)	7.64 (194)	5.88 (149)	26.95 (685)	-	-	-	106.2 (48)		
CR 10-3	3	1	●	17.20 (437)	9.45 (240)	8.06 (205)	33.68 (855)	-	-	-	153.2 (70)		
		3	●	17.20 (437)	7.64 (194)	5.88 (149)	30.85 (784)	-	-	-	135.1 (61)		
CR 10-4	3	1	●	18.39 (467)	9.45 (240)	8.06 (205)	34.86 (885)	-	-	-	155.4 (71)		
		3	●	18.39 (467)	7.64 (194)	5.88 (149)	32.03 (814)	-	-	-	137.3 (62)		
CR 10-5	5	1	●	19.57 (497)	10.96 (279)	8.41 (214)	38.88 (988)	-	-	-	205.2 (93)		
		3	●	19.57 (497)	9.45 (240)	6.69 (170)	34.86 (885)	-	-	-	179.0 (81)		
CR 10-6	5	1	●	20.75 (527)	10.96 (279)	8.41 (214)	40.06 (1018)	-	-	-	207.4 (94)		
		3	●	20.75 (527)	9.45 (240)	6.69 (170)	36.04 (915)	-	-	-	181.2 (82)		
CR 10-7	7 1/2	1	-	22.24 (565)	10.96 (279)	8.41 (214)	41.56 (1056)	-	-	-	229.9 (104)		
		3	-	22.24 (565)	10.96 (279)	7.97 (202)	39.19 (996)	-	-	-	232.3 (105)		
CR 10-8	7 1/2	1	-	23.43 (595)	10.96 (279)	8.41 (214)	42.74 (1086)	-	-	-	232.1 (105)		
		3	-	23.43 (595)	10.96 (279)	7.97 (202)	40.38 (1026)	-	-	-	234.5 (106)		
CR 10-9	7 1/2	1	-	24.61 (625)	10.96 (279)	8.41 (214)	43.92 (1116)	-	-	-	234.3 (106)		
		3	-	24.61 (625)	10.96 (279)	7.97 (202)	41.56 (1056)	-	-	-	236.7 (107)		
CR 10-10	7 1/2	1	-	25.79 (655)	10.96 (279)	8.41 (214)	45.10 (1146)	-	-	-	236.5 (107)		
		3	-	25.79 (655)	10.96 (279)	7.97 (202)	42.74 (1086)	-	-	-	238.9 (108)		
CR 10-12	10	1	-	28.15 (715)	10.96 (279)	8.41 (214)	47.46 (1206)	-	-	-	250.4 (114)		
		3	-	28.15 (715)	10.96 (279)	7.97 (202)	46.97 (1193)	-	-	-	281.9 (128)		
CR 10-14	15	3	-	33.07 (840)	13.18 (335)	9.45 (240)	51.88 (1318)	11.58 (294)	9.45 (240)	51.72 (1314)	359.5 (163)		
CR 10-16	15	3	-	35.43 (900)	13.18 (335)	9.45 (240)	54.24 (1378)	11.58 (294)	9.45 (240)	54.08 (1374)	363.9 (165)		
CR 10-17	15	3	-	37.80 (960)	13.18 (335)	9.45 (240)	56.60 (1438)	11.58 (294)	9.45 (240)	56.45 (1434)	368.3 (167)		

All dimensions in inches unless otherwise noted.

* Oval flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 3 lb less.

- Available.

CRI 10



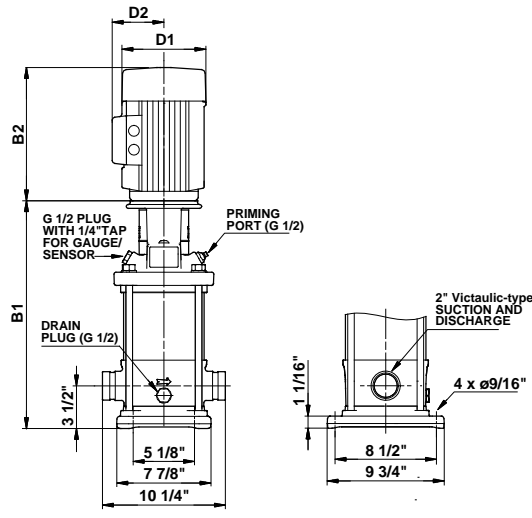
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]						Net wt. [lb (kg)]	
				B1	TEFC			ODP			
					D1	D2	B1+B2	D1	D2		B1+B2
CRI 10-1	1	1	•	15.20 (386)	7.64 (194)	5.88 (149)	26.48 (673)	-	-	-	91.27 (41)
		3	•	15.20 (386)	6.69 (170)	5.52 (140)	23.85 (606)	-	-	-	83.11 (38)
CRI 10-2	1 1/2	1	•	15.20 (386)	7.64 (194)	5.88 (149)	27.66 (703)	-	-	-	95.24 (43)
		3	•	15.20 (386)	7.64 (194)	5.88 (149)	26.87 (683)	-	-	-	97.44 (44)
CRI 10-3	3	1	•	17.13 (435)	9.45 (240)	8.06 (205)	33.60 (853)	-	-	-	146.6 (67)
		3	•	17.13 (435)	7.64 (194)	5.88 (149)	30.77 (782)	-	-	-	128.5 (58)
CRI 10-4	3	1	•	18.31 (465)	9.45 (240)	8.06 (205)	34.78 (883)	-	-	-	148.8 (68)
		3	•	18.31 (465)	7.64 (194)	5.88 (149)	31.95 (812)	-	-	-	130.7 (59)
CRI 10-5	5	1	•	19.49 (495)	10.96 (279)	8.41 (214)	38.80 (986)	-	-	-	196.4 (89)
		3	•	19.49 (495)	9.45 (240)	6.69 (170)	34.78 (883)	-	-	-	170.2 (77)
CRI 10-6	5	1	•	20.67 (525)	10.96 (279)	8.41 (214)	39.98 (1016)	-	-	-	198.6 (90)
		3	•	20.67 (525)	9.45 (240)	6.69 (170)	35.96 (913)	-	-	-	172.4 (78)
CRI 10-7	7 1/2	1	•	22.17 (563)	10.96 (279)	8.41 (214)	41.48 (1054)	-	-	-	223.3 (101)
		3	•	22.17 (563)	10.96 (279)	7.97 (202)	39.12 (994)	-	-	-	225.7 (102)
CRI 10-8	7 1/2	1	•	23.35 (593)	10.96 (279)	8.41 (214)	42.66 (1084)	-	-	-	225.5 (102)
		3	•	23.35 (593)	10.96 (279)	7.97 (202)	40.30 (1024)	-	-	-	227.9 (103)
CRI 10-9	7 1/2	1	•	24.53 (623)	10.96 (279)	8.41 (214)	43.84 (1114)	-	-	-	227.7 (103)
		3	•	24.53 (623)	10.96 (279)	7.97 (202)	41.48 (1054)	-	-	-	230.1 (104)
CRI 10-10	7 1/2	1	•	25.71 (653)	10.96 (279)	8.41 (214)	45.02 (1144)	-	-	-	229.9 (104)
		3	•	25.71 (653)	10.96 (279)	7.97 (202)	42.66 (1084)	-	-	-	232.3 (105)
CRI 10-12	10	1	-	28.07 (713)	10.96 (279)	8.41 (214)	47.38 (1204)	-	-	-	241.6 (110)
		3	-	28.07 (713)	10.96 (279)	7.97 (202)	46.90 (1191)	-	-	-	273.1 (124)
CRI 10-14	15	3	-	32.95 (837)	13.18 (335)	9.45 (240)	51.76 (1315)	11.58 (294)	9.45 (240)	51.60 (1311)	352.9 (160)
CRI 10-16	15	3	-	35.31 (897)	13.18 (335)	9.45 (240)	54.12 (1375)	11.58 (294)	9.45 (240)	53.97 (1371)	357.3 (162)
CRI 10-17	15	3	-	37.68 (957)	13.18 (335)	9.45 (240)	56.49 (1435)	11.58 (294)	9.45 (240)	56.33 (1431)	361.7 (164)

All dimensions in inches unless otherwise noted.

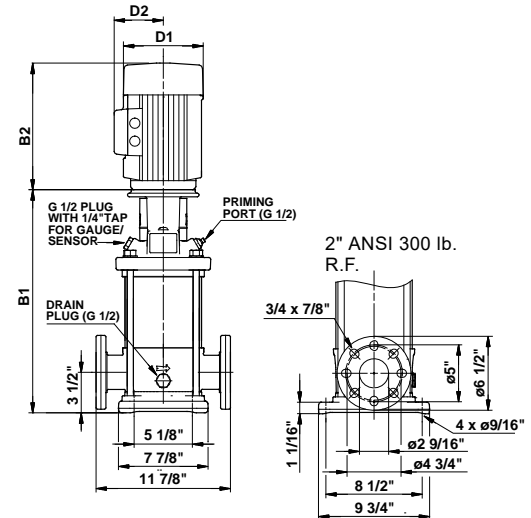
* Oval flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 7 lb less.

- Available.

CRN 10



TM03 1457 2205



TM03 1459 2205

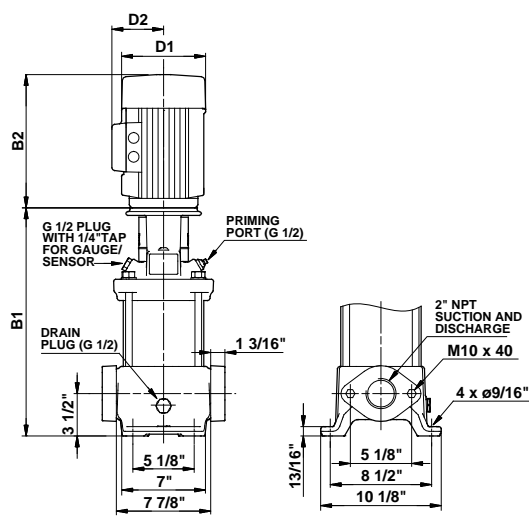
Pump type	P2 [HP]	Ph.	PJE*	ANSI dimensions [inch (mm)]									Net wt. [lb (kg)]
				B1	TEFC			ODP					
					D1	D2	B1+B2	D1	D2	B1+B2			
CRN 10-1	3/4	1	●	15.20 (386)	7.64 (194)	5.88 (149)	26.48 (673)	-	-	-	91.27 (41)		
		3	●	15.20 (386)	6.69 (170)	5.52 (140)	23.85 (606)	-	-	-	83.11 (38)		
CRN 10-2	1 1/2	1	●	15.20 (386)	7.64 (194)	5.88 (149)	27.66 (703)	-	-	-	97.44 (44)		
		3	●	15.20 (386)	7.64 (194)	5.88 (149)	26.87 (683)	-	-	-	99.65 (45)		
CRN 10-3	3	1	●	17.13 (435)	9.45 (240)	8.06 (205)	33.60 (853)	-	-	-	146.6 (67)		
		3	●	17.13 (435)	7.64 (194)	5.88 (149)	30.77 (782)	-	-	-	128.5 (58)		
CRN 10-4	3	1	●	18.31 (465)	9.45 (240)	8.06 (205)	34.78 (883)	-	-	-	148.8 (68)		
		3	●	18.31 (465)	7.64 (194)	5.88 (149)	31.95 (812)	-	-	-	130.7 (59)		
CRN 10-5	5	1	●	19.49 (495)	10.96 (279)	8.41 (214)	38.80 (986)	-	-	-	198.6 (90)		
		3	●	19.49 (495)	9.45 (240)	6.69 (170)	34.78 (883)	-	-	-	172.4 (78)		
CRN 10-6	5	1	●	20.67 (525)	10.96 (279)	8.41 (214)	39.98 (1016)	-	-	-	200.8 (91)		
		3	●	20.67 (525)	9.45 (240)	6.69 (170)	35.96 (913)	-	-	-	174.6 (79)		
CRN 10-7	7 1/2	1	●	22.17 (563)	10.96 (279)	8.41 (214)	41.48 (1054)	-	-	-	223.3 (101)		
		3	●	22.17 (563)	10.96 (279)	7.97 (202)	39.12 (994)	-	-	-	225.7 (102)		
CRN 10-8	7 1/2	1	●	23.35 (593)	10.96 (279)	8.41 (214)	42.66 (1084)	-	-	-	225.5 (102)		
		3	●	23.35 (593)	10.96 (279)	7.97 (202)	40.30 (1024)	-	-	-	227.9 (103)		
CRN 10-9	7 1/2	1	●	24.53 (623)	10.96 (279)	8.41 (214)	43.84 (1114)	-	-	-	227.7 (103)		
		3	●	24.53 (623)	10.96 (279)	7.97 (202)	41.48 (1054)	-	-	-	230.1 (104)		
CRN 10-10	7 1/2	1	●	25.71 (653)	10.96 (279)	8.41 (214)	45.02 (1144)	-	-	-	229.9 (104)		
		3	●	25.71 (653)	10.96 (279)	7.97 (202)	42.66 (1084)	-	-	-	232.3 (105)		
CRN 10-12	10	1	●	28.07 (713)	10.96 (279)	8.41 (214)	47.38 (1204)	-	-	-	241.6 (110)		
		3	●	28.07 (713)	10.96 (279)	7.97 (202)	46.90 (1191)	-	-	-	273.1 (124)		
CRN 10-14	15	3	●	32.95 (837)	13.18 (335)	9.45 (240)	51.76 (1315)	11.58 (294)	9.45 (240)	51.60 (1311)	352.9 (160)		
CRN 10-16	15	3	●	35.31 (897)	13.18 (335)	9.45 (240)	54.12 (1375)	11.58 (294)	9.45 (240)	53.97 (1371)	357.3 (162)		
CRN 10-17	15	3	●	37.68 (957)	13.18 (335)	9.45 (240)	56.49 (1435)	11.58 (294)	9.45 (240)	56.33 (1431)	361.7 (164)		

All dimensions in inches unless otherwise noted.

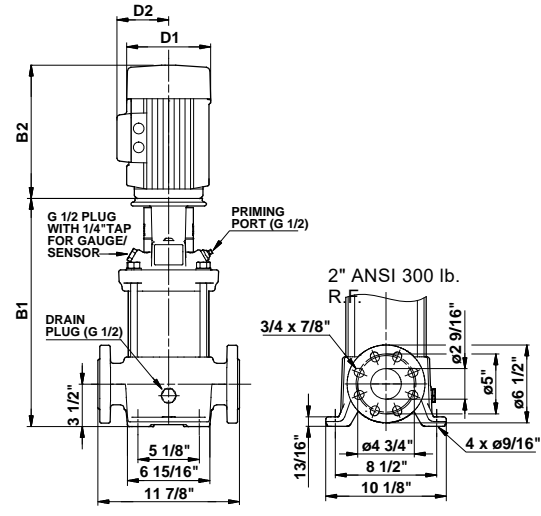
* PJE flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 9 lb less.

- Available.

CR 15



TM03 1460 2205



TM03 1461 2205

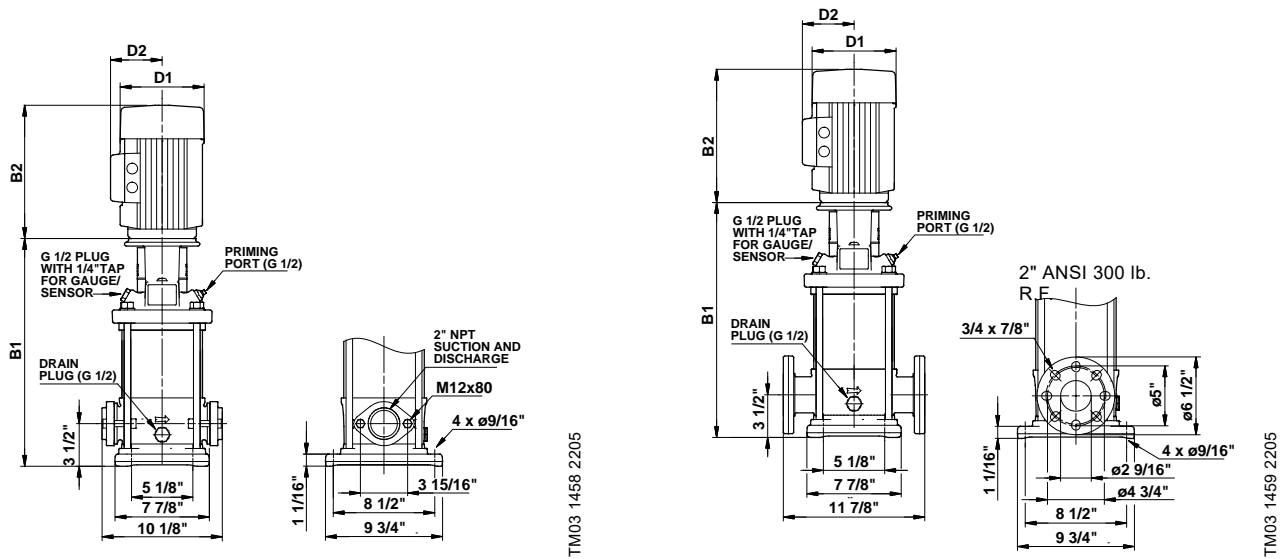
Pump type	P2 [HP]	Ph.	Oval*	ANSI dimensions [inch (mm)]						Net wt. [lb (kg)]	
				B1	TEFC			ODP			
					D1	D2	B1+B2	D1	D2		B1+B2
CR 15-1	2	1	•	16.46 (418)	7.64 (194)	5.88 (149)	29.31 (745)	-	-	-	107.1 (49)
		3	•	16.46 (418)	7.64 (194)	5.88 (149)	28.92 (735)	-	-	-	112.6 (51)
CR 15-2	5	1	•	17.20 (437)	10.96 (279)	8.41 (214)	36.52 (928)	-	-	-	198.6 (90)
		3	•	17.20 (437)	9.45 (240)	6.69 (170)	32.50 (825)	-	-	-	172.4 (78)
CR 15-3	7 1/2	1	•	19.29 (490)	10.96 (279)	8.41 (214)	38.60 (981)	-	-	-	223.3 (101)
		3	•	19.29 (490)	10.96 (279)	7.97 (202)	36.24 (921)	-	-	-	225.7 (102)
CR 15-4	7 1/2	1	•	21.06 (535)	10.96 (279)	8.41 (214)	40.37 (1026)	-	-	-	227.7 (103)
		3	•	21.06 (535)	10.96 (279)	7.97 (202)	38.01 (966)	-	-	-	230.1 (104)
CR 15-5	10	1	•	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	237.2 (108)
		3	•	22.83 (580)	10.96 (279)	7.97 (202)	41.66 (1058)	-	-	-	268.7 (122)
CR 15-6	15	3	-	27.17 (690)	13.18 (335)	9.45 (240)	45.97 (1168)	11.58 (294)	9.45 (240)	45.82 (1164)	346.3 (157)
CR 15-7	15	3	-	28.94 (735)	13.18 (335)	9.45 (240)	47.74 (1213)	11.58 (294)	9.45 (240)	47.59 (1209)	348.5 (158)
CR 15-8	15	3	-	30.71 (780)	13.18 (335)	9.45 (240)	49.52 (1258)	11.58 (294)	9.45 (240)	49.36 (1254)	352.9 (160)
CR 15-9	20	3	-	32.48 (825)	13.18 (335)	9.45 (240)	52.08 (1323)	11.58 (294)	9.45 (240)	51.13 (1299)	381.8 (173)
CR 15-10	20	3	-	34.25 (870)	13.18 (335)	9.45 (240)	53.85 (1368)	11.58 (294)	9.45 (240)	52.90 (1344)	386.2 (175)
CR 15-12	25	3	-	37.17 (944)	14.17 (360)	11.08 (282)	60.74 (1543)	16.21 (412)	11.93 (303)	59.32 (1507)	522.9 (237)

All dimensions in inches unless otherwise noted.

* Oval flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 3 lb less.

- Available.

CRI 15



TM03 1458 2205

TM03 1459 2205

ANSI dimensions [inch (mm)]

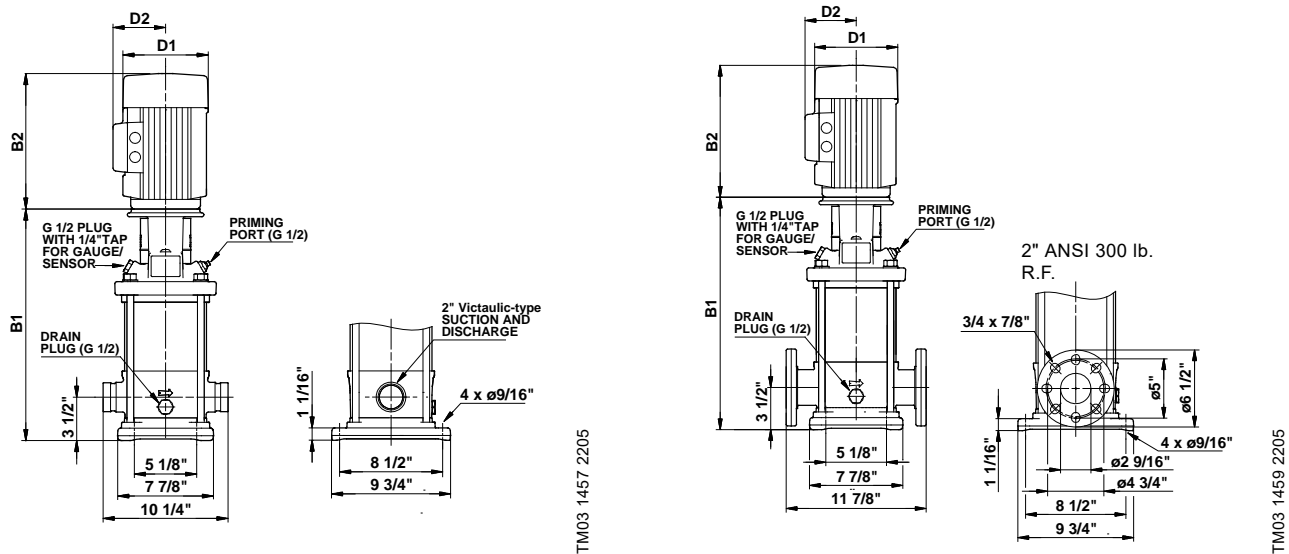
Pump type	P2 [HP]	Ph.	Oval*	B1	TEFC			ODP			Net wt. [lb (kg)]
					D1	D2	B1+B2	D1	D2	B1+B2	
CRI 15-1	2	1	●	16.38 (416)	7.64 (194)	5.88 (149)	29.24 (743)	-	-	-	100.5 (46)
		3	●	16.38 (416)	7.64 (194)	5.88 (149)	28.84 (733)	-	-	-	106.0 (48)
CRI 15-2	5	1	●	17.13 (435)	10.96 (279)	8.41 (214)	36.44 (926)	-	-	-	192.0 (87)
		3	●	17.13 (435)	9.45 (240)	6.69 (170)	32.42 (823)	-	-	-	165.7 (75)
CRI 15-3	7 1/2	1	●	19.21 (488)	10.96 (279)	8.41 (214)	38.52 (979)	-	-	-	216.7 (98)
		3	●	19.21 (488)	10.96 (279)	7.97 (202)	36.16 (919)	-	-	-	219.1 (99)
CRI 15-4	7 1/2	1	●	20.98 (533)	10.96 (279)	8.41 (214)	40.30 (1024)	-	-	-	218.9 (99)
		3	●	20.98 (533)	10.96 (279)	7.97 (202)	37.93 (964)	-	-	-	221.3 (100)
CRI 15-5	10	1	●	22.76 (578)	10.96 (279)	8.41 (214)	42.07 (1069)	-	-	-	228.4 (104)
		3	●	22.76 (578)	10.96 (279)	7.97 (202)	41.58 (1056)	-	-	-	259.9 (118)
CRI 15-6	15	3	●	27.05 (687)	13.18 (335)	9.45 (240)	45.86 (1165)	11.58 (294)	9.45 (240)	45.70 (1161)	337.5 (153)
CRI 15-7	15	3	●	28.82 (732)	13.18 (335)	9.45 (240)	47.63 (1210)	11.58 (294)	9.45 (240)	47.47 (1206)	341.9 (155)
CRI 15-8	15	3	●	30.59 (777)	13.18 (335)	9.45 (240)	49.40 (1255)	11.58 (294)	9.45 (240)	49.24 (1251)	344.1 (156)
CRI 15-9	20	3	-	32.36 (822)	13.18 (335)	9.45 (240)	51.96 (1320)	11.58 (294)	9.45 (240)	51.01 (1296)	375.2 (170)
CRI 15-10	20	3	-	34.13 (867)	13.18 (335)	9.45 (240)	53.73 (1365)	11.58 (294)	9.45 (240)	52.79 (1341)	379.6 (172)
CRI 15-12	25	3	-	37.05 (941)	14.17 (360)	11.08 (282)	60.62 (1540)	16.21 (412)	11.93 (303)	59.20 (1504)	516.3 (234)

All dimensions in inches unless otherwise noted.

* Oval flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 7 lb less.

- Available.

CRN 15



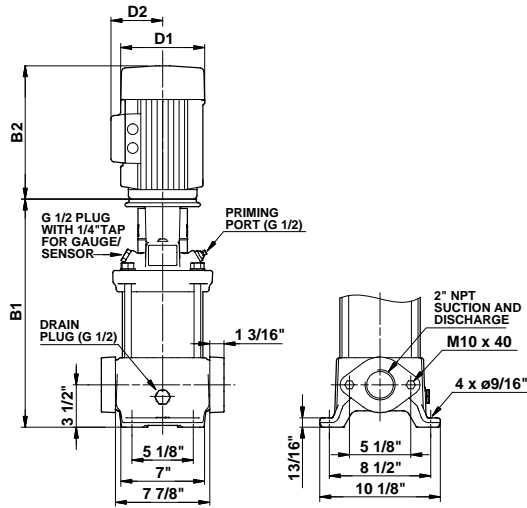
Pump type	P2 [HP]	Ph.	PJE*	ANSI dimensions [inch (mm)]									Net wt. [lb (kg)]
				B1	TEFC			ODP					
					D1	D2	B1+B2	D1	D2	B1+B2			
CRN 15-1	2	1	●	16.38 (416)	7.64 (194)	5.88 (149)	29.24 (743)	-	-	-	100.5 (46)		
				16.38 (416)	7.64 (194)	5.88 (149)	28.84 (733)	-	-	-	106.0 (48)		
CRN 15-2	5	3	●	17.13 (435)	10.96 (279)	8.41 (214)	36.44 (926)	-	-	-	192.0 (87)		
				17.13 (435)	9.45 (240)	6.69 (170)	32.42 (823)	-	-	-	165.7 (75)		
CRN 15-3	7 1/2	1	●	19.21 (488)	10.96 (279)	8.41 (214)	38.52 (979)	-	-	-	216.7 (98)		
				19.21 (488)	10.96 (279)	7.97 (202)	36.16 (919)	-	-	-	219.1 (99)		
CRN 15-4	7 1/2	3	●	20.98 (533)	10.96 (279)	8.41 (214)	40.30 (1024)	-	-	-	221.1 (100)		
				20.98 (533)	10.96 (279)	7.97 (202)	37.93 (964)	-	-	-	223.5 (101)		
CRN 15-5	10	1	●	22.76 (578)	10.96 (279)	8.41 (214)	42.07 (1069)	-	-	-	230.6 (105)		
				22.76 (578)	10.96 (279)	7.97 (202)	41.58 (1056)	-	-	-	262.1 (119)		
CRN 15-6	15	3	●	27.05 (687)	13.18 (335)	9.45 (240)	45.86 (1165)	11.58 (294)	9.45 (240)	45.70 (1161)	339.7 (154)		
CRN 15-7	15	3	●	28.82 (732)	13.18 (335)	9.45 (240)	47.63 (1210)	11.58 (294)	9.45 (240)	47.47 (1206)	344.1 (156)		
CRN 15-8	15	3	●	30.59 (777)	13.18 (335)	9.45 (240)	49.40 (1255)	11.58 (294)	9.45 (240)	49.24 (1251)	346.3 (157)		
CRN 15-9	20	3	●	32.36 (822)	13.18 (335)	9.45 (240)	51.96 (1320)	11.58 (294)	9.45 (240)	51.01 (1296)	375.2 (170)		
CRN 15-10	20	3	●	34.13 (867)	13.18 (335)	9.45 (240)	53.73 (1365)	11.58 (294)	9.45 (240)	52.79 (1341)	379.6 (172)		
CRN 15-12	25	3	●	37.05 (941)	14.17 (360)	11.08 (282)	60.62 (1540)	16.21 (412)	11.93 (303)	59.20 (1504)	516.3 (234)		

All dimensions in inches unless otherwise noted.

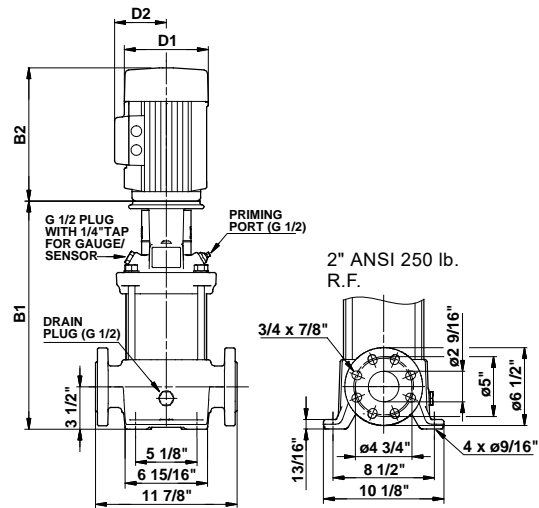
* PJE flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pump and the weight is approximately 9 lb less.

- Available.

CR 20



TMD03 1460 2205



TMD03 1461 2205

ANSI dimensions [inch (mm)]

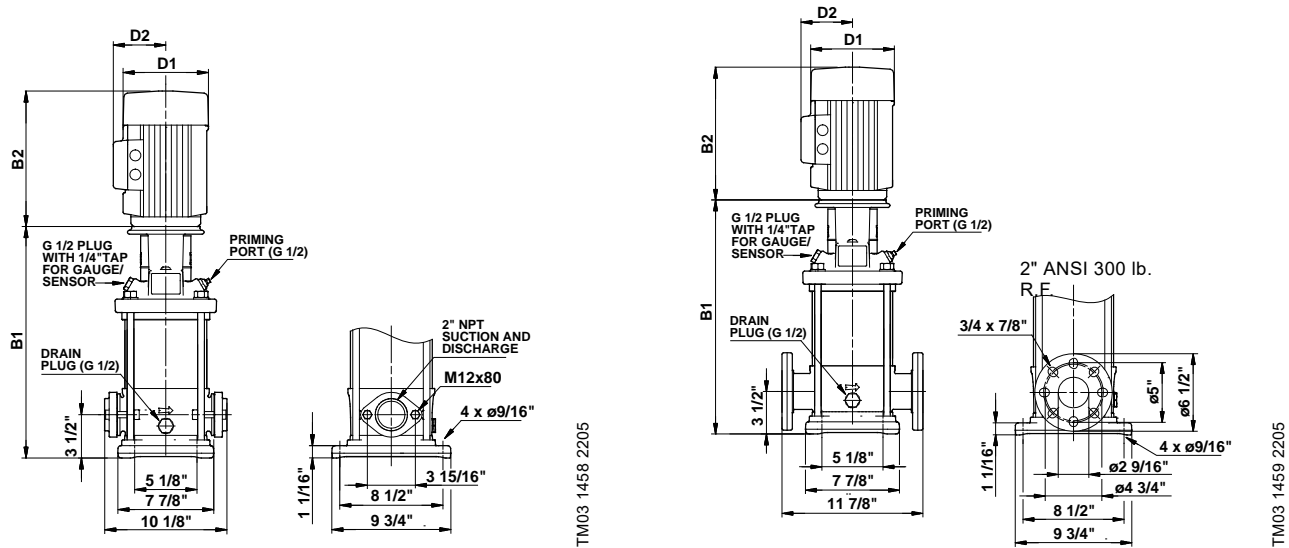
Pump type	P2 [HP]	Ph.	Oval*	B1	TEFC			ODP			Net wt. [lb (kg)]
					D1	D2	B1+B2	D1	D2	B1+B2	
CR 20-1	3	1	●	17.20 (437)	9.45 (240)	8.06 (205)	33.68 (855)	-	-	-	153.2 (70)
		3	●	17.20 (437)	7.64 (194)	5.88 (149)	30.85 (784)	-	-	-	135.1 (61)
CR 20-2	5	1	●	17.20 (437)	10.96 (279)	8.41 (214)	36.52 (928)	-	-	-	198.6 (90)
		3	●	17.20 (437)	9.45 (240)	6.69 (170)	32.50 (825)	-	-	-	172.4 (78)
CR 20-3	7 1/2	1	●	19.29 (490)	10.96 (279)	8.41 (214)	38.60 (981)	-	-	-	223.3 (101)
		3	●	19.29 (490)	10.96 (279)	7.97 (202)	36.24 (921)	-	-	-	225.7 (102)
CR 20-4	10	1	●	21.06 (535)	10.96 (279)	8.41 (214)	40.37 (1026)	-	-	-	232.8 (106)
		3	●	21.06 (535)	10.96 (279)	7.97 (202)	39.89 (1013)	-	-	-	264.3 (120)
CR 20-5	15	3	●	25.39 (645)	13.18 (335)	9.45 (240)	44.20 (1123)	11.58 (294)	9.45 (240)	44.04 (1119)	341.9 (155)
CR 20-6	15	3	●	27.17 (690)	13.18 (335)	9.45 (240)	45.97 (1168)	11.58 (294)	9.45 (240)	45.82 (1164)	346.3 (157)
CR 20-7	20	3	●	28.94 (735)	13.18 (335)	9.45 (240)	48.53 (1233)	11.58 (294)	9.45 (240)	47.59 (1209)	373.0 (169)
CR 20-8	20	3	-	30.71 (780)	13.18 (335)	9.45 (240)	50.30 (1278)	11.58 (294)	9.45 (240)	49.36 (1254)	379.6 (172)
CR 20-10	25	3	-	33.62 (854)	14.17 (360)	11.08 (282)	57.20 (1453)	16.21 (412)	11.93 (303)	55.78 (1417)	516.3 (234)

All dimensions in inches unless otherwise noted.

* Oval flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 3 lb less.

● Available.

CRI 20



TM03 1458 2205

TM03 1459 2205

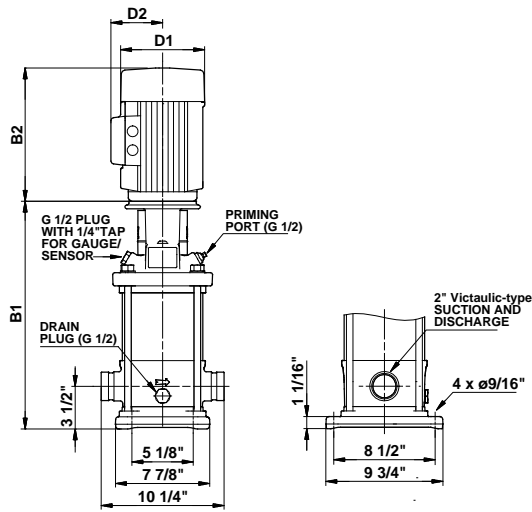
Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]							Net wt. [lb (kg)]	
			Oval*	B1	TEFC			ODP			
					D1	D2	B1+B2	D1	D2		B1+B2
CRI 20-1	3	1	•	17.13 (435)	9.45 (240)	8.06 (205)	33.60 (853)	-	-	-	144.4 (66)
		3	•	17.13 (435)	7.64 (194)	5.88 (149)	30.77 (782)	-	-	-	126.3 (57)
CRI 20-2	5	1	•	17.13 (435)	10.96 (279)	8.41 (214)	36.44 (926)	-	-	-	192.0 (87)
		3	•	17.13 (435)	9.45 (240)	6.69 (170)	32.42 (823)	-	-	-	165.7 (75)
CRI 20-3	7 1/2	1	•	19.21 (488)	10.96 (279)	8.41 (214)	38.52 (979)	-	-	-	216.7 (98)
		3	•	19.21 (488)	10.96 (279)	7.97 (202)	36.16 (919)	-	-	-	219.1 (99)
CRI 20-4	10	1	•	20.98 (533)	10.96 (279)	8.41 (214)	40.30 (1024)	-	-	-	226.1 (103)
		3	•	20.98 (533)	10.96 (279)	7.97 (202)	39.81 (1011)	-	-	-	257.7 (117)
CRI 20-5	15	3	•	25.28 (642)	13.18 (335)	9.45 (240)	44.08 (1120)	11.58 (294)	9.45 (240)	43.93 (1116)	335.3 (152)
CRI 20-6	15	3	•	27.05 (687)	13.18 (335)	9.45 (240)	45.86 (1165)	11.58 (294)	9.45 (240)	45.70 (1161)	337.5 (153)
CRI 20-7	20	3	•	28.82 (732)	13.18 (335)	9.45 (240)	48.41 (1230)	11.58 (294)	9.45 (240)	47.47 (1206)	366.4 (166)
CRI 20-8	20	3	-	30.59 (777)	13.18 (335)	9.45 (240)	50.19 (1275)	11.58 (294)	9.45 (240)	49.24 (1251)	370.8 (168)
CRI 20-10	25	3	-	33.50 (851)	14.17 (360)	11.08 (282)	57.08 (1450)	16.21 (412)	11.93 (303)	55.66 (1414)	509.7 (231)

All dimensions in inches unless otherwise noted.

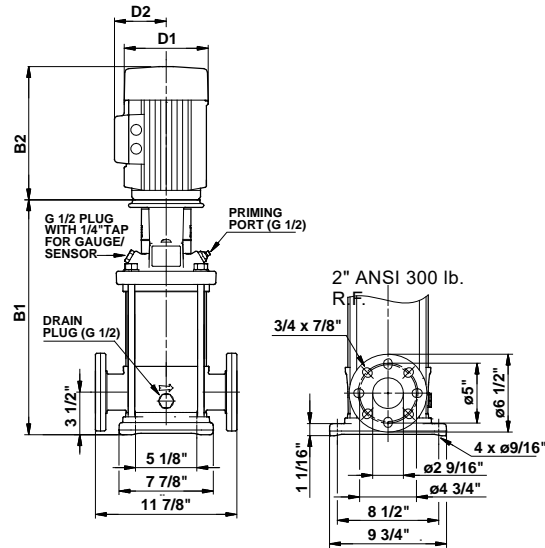
* Oval flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 7 lb less.

- Available.

CRN 20



TM03 1457 2205



TM03 1459 2205

ANSI dimensions [inch (mm)]

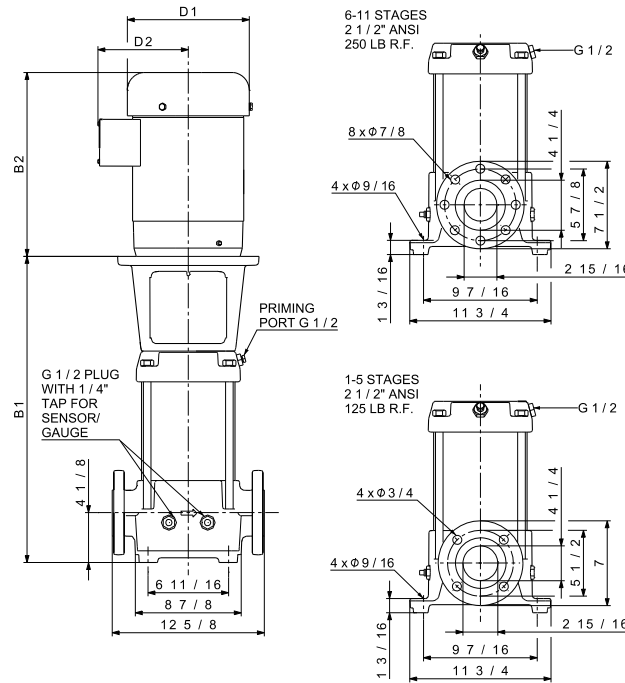
Pump type	P2 [HP]	Ph.	PJE*	B1	TEFC			ODP			Net wt. [lb (kg)]
					D1	D2	B1+B2	D1	D2	B1+B2	
CRN 20-1	3	1	•	17.13 (435)	9.45 (240)	8.06 (205)	33.60 (853)	-	-	-	144.4 (66)
		3	•	17.13 (435)	7.64 (194)	5.88 (149)	30.77 (782)	-	-	-	126.3 (57)
CRN 20-2	5	1	•	17.13 (435)	10.96 (279)	8.41 (214)	36.44 (926)	-	-	-	192.0 (87)
		3	•	17.13 (435)	9.45 (240)	6.69 (170)	32.42 (823)	-	-	-	165.7 (75)
CRN 20-3	7 1/2	1	•	19.21 (488)	10.96 (279)	8.41 (214)	38.52 (979)	-	-	-	216.7 (98)
		3	•	19.21 (488)	10.96 (279)	7.97 (202)	36.16 (919)	-	-	-	219.1 (99)
CRN 20-4	10	1	•	20.98 (533)	10.96 (279)	8.41 (214)	40.30 (1024)	-	-	-	226.1 (103)
		3	•	20.98 (533)	10.96 (279)	7.97 (202)	39.81 (1011)	-	-	-	257.7 (117)
CRN 20-5	15	3	•	25.28 (642)	13.18 (335)	9.45 (240)	44.08 (1120)	11.58 (294)	9.45 (240)	43.93 (1116)	335.3 (152)
CRN 20-6	15	3	•	27.05 (687)	13.18 (335)	9.45 (240)	45.86 (1165)	11.58 (294)	9.45 (240)	45.70 (1161)	339.7 (154)
CRN 20-7	20	3	•	28.82 (732)	13.18 (335)	9.45 (240)	48.41 (1230)	11.58 (294)	9.45 (240)	47.47 (1206)	368.6 (167)
CRN 20-8	20	3	•	30.59 (777)	13.18 (335)	9.45 (240)	50.19 (1275)	11.58 (294)	9.45 (240)	49.24 (1251)	370.8 (168)
CRN 20-10	25	3	•	33.50 (851)	14.17 (360)	11.08 (282)	57.08 (1450)	16.21 (412)	11.93 (303)	55.66 (1414)	509.7 (231)

All dimensions in inches unless otherwise noted.

* PJE flanged pump B1 and B1+B2 dimensions are equal to ANSI flanged pumps and the weight is approximately 9 lb less.

• Available.

CR 32

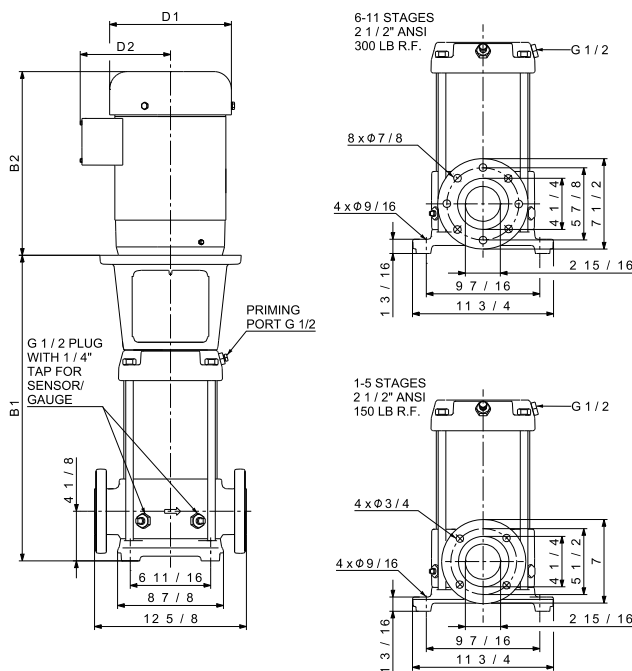


TM02 7699 1009

Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]									Net wt. ¹⁾ [lb (kg)]
			B1	TEFC			ODP					
				D1	D2	B1+B2	D1	D2	B1+B2			
CR 32-1-1	5	1	20.08 (510)	10.96 (279)	8.41 (214)	39.39 (1001)	-	-	-	221.3 (100)		
		3	19.88 (505)	9.45 (240)	6.69 (170)	35.17 (893)	-	-	-	195.1 (89)		
CR 32-1	5	1	20.08 (510)	10.96 (279)	8.41 (214)	39.39 (1001)	-	-	-	221.3 (100)		
		3	19.88 (505)	9.45 (240)	6.69 (170)	35.17 (893)	-	-	-	195.1 (89)		
CR 32-2-2	7 1/2	1	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	245.1 (111)		
		3	22.64 (575)	10.96 (279)	7.97 (202)	39.59 (1006)	-	-	-	247.5 (112)		
CR 32-2-1	7 1/2	1	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	245.1 (111)		
		3	22.64 (575)	10.96 (279)	7.97 (202)	39.59 (1006)	-	-	-	247.5 (112)		
CR 32-2	10	1	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	251.7 (114)		
		3	22.64 (575)	10.96 (279)	7.97 (202)	41.46 (1053)	-	-	-	283.2 (129)		
CR 32-3-2	10	1	25.59 (650)	10.96 (279)	8.41 (214)	44.90 (1141)	-	-	-	258.8 (117)		
		3	25.39 (645)	10.96 (279)	7.97 (202)	44.22 (1123)	-	-	-	290.3 (132)		
CR 32-3	15	3	29.72 (755)	13.18 (335)	9.45 (240)	48.53 (1233)	11.58 (294)	9.45 (240)	48.38 (1229)	374.1 (170)		
CR 32-4-2	15	3	32.48 (825)	13.18 (335)	9.45 (240)	51.29 (1303)	11.58 (294)	9.45 (240)	51.13 (1299)	380.7 (173)		
CR 32-4	20	3	32.48 (825)	13.18 (335)	9.45 (240)	52.08 (1323)	11.58 (294)	9.45 (240)	51.13 (1299)	405.4 (184)		
CR 32-5-2	20	3	35.24 (895)	13.18 (335)	9.45 (240)	54.83 (1393)	11.58 (294)	9.45 (240)	53.89 (1369)	412.2 (187)		
CR 32-5	20	3	35.24 (895)	13.18 (335)	9.45 (240)	54.83 (1393)	11.58 (294)	9.45 (240)	53.89 (1369)	412.2 (187)		
CR 32-6-2	25	3	37.99 (965)	14.17 (360)	11.08 (282)	61.57 (1564)	16.21 (412)	11.93 (303)	60.15 (1528)	550.0 (250)		
CR 32-6	25	3	37.99 (965)	14.17 (360)	11.08 (282)	61.57 (1564)	16.21 (412)	11.93 (303)	60.15 (1528)	550.0 (250)		
CR 32-7-2	30	3	40.75 (1035)	14.17 (360)	11.08 (282)	64.32 (1634)	16.21 (412)	11.93 (303)	62.90 (1598)	557.5 (253)		
CR 32-7	30	3	40.75 (1035)	14.17 (360)	11.08 (282)	64.32 (1634)	16.21 (412)	11.93 (303)	62.90 (1598)	557.5 (253)		
CR 32-8-2	30	3	43.50 (1105)	14.17 (360)	11.08 (282)	67.08 (1704)	16.21 (412)	11.93 (303)	65.66 (1668)	570.3 (259)		
CR 32-8	40	3	43.50 (1105)	15.83 (402)	12.58 (320)	69.61 (1768)	17.67 (449)	13.39 (340)	67.68 (1719)	738.7 (335)		
CR 32-9-2	40	3	46.26 (1175)	15.83 (402)	12.58 (320)	72.37 (1838)	17.67 (449)	13.39 (340)	70.44 (1789)	746.4 (339)		
CR 32-9	40	3	46.26 (1175)	15.83 (402)	12.58 (320)	72.37 (1838)	17.67 (449)	13.39 (340)	70.44 (1789)	746.4 (339)		
CR 32-10-2	40	3	49.02 (1245)	15.83 (402)	12.58 (320)	75.12 (1908)	17.67 (449)	13.39 (340)	73.19 (1859)	753.9 (342)		
CR 32-10	40	3	49.02 (1245)	15.83 (402)	12.58 (320)	75.12 (1908)	17.67 (449)	13.39 (340)	73.19 (1859)	753.9 (342)		
CR 32-11-2	50	3	51.77 (1315)	15.83 (402)	12.58 (320)	77.88 (1978)	17.67 (449)	13.39 (340)	75.95 (1929)	799.1 (363)		

¹⁾ Weights are based on pumps with TEFC motor, see the price list for individual weights. All dimensions in inches unless otherwise noted.

CRN 32

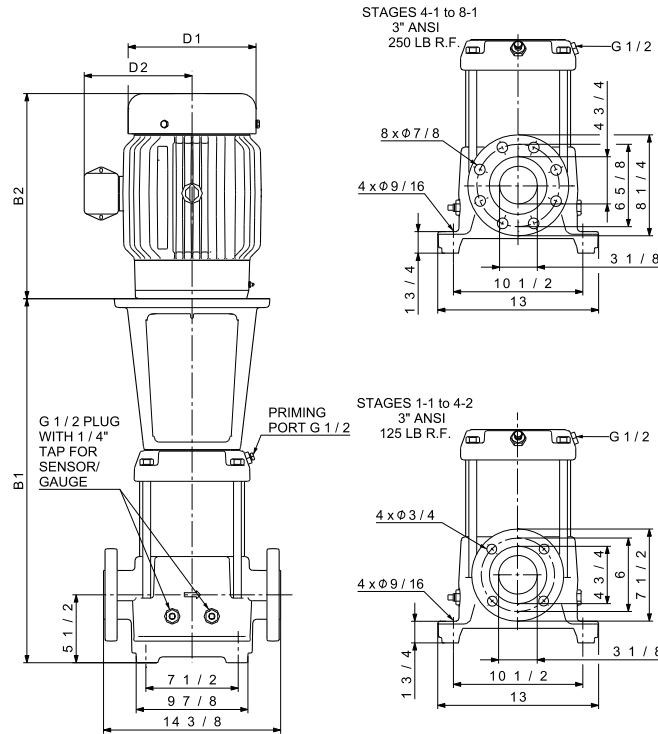


TM02 7703 1009

Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]						Net wt. ¹⁾ [lb (kg)]	
			B1	TEFC			ODP			
				D1	D2	B1+B2	D1	D2		B1+B2
CRN 32-1-1	5	1	20.08 (510)	10.96 (279)	8.41 (214)	39.39 (1001)	-	-	-	226.1 (103)
		3	19.88 (505)	9.45 (240)	6.69 (170)	35.17 (893)	-	-	-	199.9 (91)
CRN 32-1	5	1	20.08 (510)	10.96 (279)	8.41 (214)	39.39 (1001)	-	-	-	226.1 (103)
		3	19.88 (505)	9.45 (240)	6.69 (170)	35.17 (893)	-	-	-	199.9 (91)
CRN 32-2-2	7 1/2	1	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	250.2 (114)
		3	22.64 (575)	10.96 (279)	7.97 (202)	39.59 (1006)	-	-	-	252.6 (115)
CRN 32-2-1	7 1/2	1	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	250.2 (114)
		3	22.64 (575)	10.96 (279)	7.97 (202)	39.59 (1006)	-	-	-	252.6 (115)
CRN 32-2	10	1	22.83 (580)	10.96 (279)	8.41 (214)	42.15 (1071)	-	-	-	256.8 (117)
		3	22.64 (575)	10.96 (279)	7.97 (202)	41.46 (1053)	-	-	-	288.3 (131)
CRN 32-3-2	10	1	25.59 (650)	10.96 (279)	8.41 (214)	44.90 (1141)	-	-	-	263.6 (120)
		3	25.39 (645)	10.96 (279)	7.97 (202)	44.22 (1123)	-	-	-	295.2 (134)
CRN 32-3	15	3	29.72 (755)	13.18 (335)	9.45 (240)	48.53 (1233)	11.58 (294)	9.45 (240)	48.38 (1229)	378.9 (172)
CRN 32-4-2	15	3	32.48 (825)	13.18 (335)	9.45 (240)	51.29 (1303)	11.58 (294)	9.45 (240)	51.13 (1299)	385.5 (175)
CRN 32-4	20	3	32.48 (825)	13.18 (335)	9.45 (240)	52.08 (1323)	11.58 (294)	9.45 (240)	51.13 (1299)	410.2 (186)
CRN 32-5-2	20	3	35.24 (895)	13.18 (335)	9.45 (240)	54.83 (1393)	11.58 (294)	9.45 (240)	53.89 (1369)	416.8 (189)
CRN 32-5	20	3	35.24 (895)	13.18 (335)	9.45 (240)	54.83 (1393)	11.58 (294)	9.45 (240)	53.89 (1369)	416.8 (189)
CRN 32-6-2	25	3	37.99 (965)	14.17 (360)	11.08 (282)	61.57 (1564)	16.21 (412)	11.93 (303)	60.15 (1528)	553.5 (251)
CRN 32-6	25	3	37.99 (965)	14.17 (360)	11.08 (282)	61.57 (1564)	16.21 (412)	11.93 (303)	60.15 (1528)	553.5 (251)
CRN 32-7-2	30	3	40.75 (1035)	14.17 (360)	11.08 (282)	64.32 (1634)	16.21 (412)	11.93 (303)	62.90 (1598)	561.0 (255)
CRN 32-7	30	3	40.75 (1035)	14.17 (360)	11.08 (282)	64.32 (1634)	16.21 (412)	11.93 (303)	62.90 (1598)	561.0 (255)
CRN 32-8-2	30	3	43.50 (1105)	14.17 (360)	11.08 (282)	67.08 (1704)	16.21 (412)	11.93 (303)	65.66 (1668)	573.8 (260)
CRN 32-8	40	3	43.50 (1105)	15.83 (402)	12.58 (320)	69.61 (1768)	17.67 (449)	13.39 (340)	67.68 (1719)	742.3 (337)
CRN 32-9-2	40	3	46.26 (1175)	15.83 (402)	12.58 (320)	72.37 (1838)	17.67 (449)	13.39 (340)	70.44 (1789)	750.0 (340)
CRN 32-9	40	3	46.26 (1175)	15.83 (402)	12.58 (320)	72.37 (1838)	17.67 (449)	13.39 (340)	70.44 (1789)	750.0 (340)
CRN 32-10-2	40	3	49.02 (1245)	15.83 (402)	12.58 (320)	75.12 (1908)	17.67 (449)	13.39 (340)	73.19 (1859)	757.2 (344)
CRN 32-10	40	3	49.02 (1245)	15.83 (402)	12.58 (320)	75.12 (1908)	17.67 (449)	13.39 (340)	73.19 (1859)	757.2 (344)
CRN 32-11-2	50	3	51.77 (1315)	15.83 (402)	12.58 (320)	77.88 (1978)	17.67 (449)	13.39 (340)	75.95 (1929)	802.4 (364)

1) Weights are based on pumps with TEFC motor, see the price list for individual weights.
All dimensions in inches unless otherwise noted.

CR 45

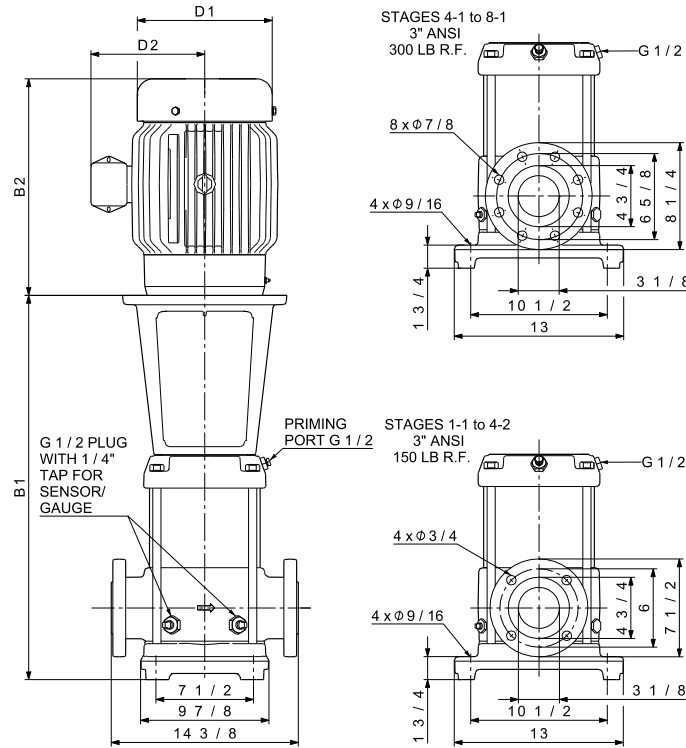


TM02 7700 1009

Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]									Net wt. ¹⁾ [lb (kg)]
			B1	TEFC			ODP					
				D1	D2	B1+B2	D1	D2	B1+B2			
CR 45-1-1	7 1/2	1	22.20 (564)	10.96 (279)	8.41 (214)	41.52 (1055)	-	-	-	259.0 (118)		
		3	22.01 (559)	10.96 (279)	7.97 (202)	38.96 (990)	-	-	-	261.4 (119)		
CR 45-1	10	1	22.20 (564)	10.96 (279)	8.41 (214)	41.52 (1055)	-	-	-	265.6 (121)		
		3	22.01 (559)	10.96 (279)	7.97 (202)	40.83 (1037)	-	-	-	297.1 (135)		
CR 45-2-2	15	3	29.49 (749)	13.18 (335)	9.45 (240)	48.30 (1227)	11.58 (294)	9.45 (240)	48.14 (1223)	389.1 (177)		
CR 45-2-1	15	3	29.49 (749)	13.18 (335)	9.45 (240)	48.30 (1227)	11.58 (294)	9.45 (240)	48.14 (1223)	389.1 (177)		
CR 45-2	15	3	29.49 (749)	13.18 (335)	9.45 (240)	48.30 (1227)	11.58 (294)	9.45 (240)	48.14 (1223)	389.1 (177)		
CR 45-3-2	20	3	32.64 (829)	13.18 (335)	9.45 (240)	52.23 (1327)	11.58 (294)	9.45 (240)	51.29 (1303)	422.4 (192)		
CR 45-3-1	25	3	32.64 (829)	14.17 (360)	11.08 (282)	56.21 (1428)	16.21 (412)	11.93 (303)	54.79 (1392)	551.8 (250)		
CR 45-3	25	3	32.64 (829)	14.17 (360)	11.08 (282)	56.21 (1428)	16.21 (412)	11.93 (303)	54.79 (1392)	551.8 (250)		
CR 45-4-2	30	3	35.79 (909)	14.17 (360)	11.08 (282)	59.36 (1508)	16.21 (412)	11.93 (303)	57.94 (1472)	560.6 (254)		
CR 45-4-1	30	3	35.79 (909)	14.17 (360)	11.08 (282)	59.36 (1508)	16.21 (412)	11.93 (303)	57.94 (1472)	566.3 (257)		
CR 45-4	30	3	35.79 (909)	14.17 (360)	11.08 (282)	59.36 (1508)	16.21 (412)	11.93 (303)	57.94 (1472)	566.3 (257)		
CR 45-5-2	40	3	38.94 (989)	15.83 (402)	12.58 (320)	65.04 (1652)	17.67 (449)	13.39 (340)	63.11 (1603)	742.9 (337)		
CR 45-5-1	40	3	38.94 (989)	15.83 (402)	12.58 (320)	65.04 (1652)	17.67 (449)	13.39 (340)	63.11 (1603)	742.9 (337)		
CR 45-5	40	3	38.94 (989)	15.83 (402)	12.58 (320)	65.04 (1652)	17.67 (449)	13.39 (340)	63.11 (1603)	742.9 (337)		
CR 45-6-2	50	3	42.09 (1069)	15.83 (402)	12.58 (320)	68.19 (1732)	17.67 (449)	13.39 (340)	66.26 (1683)	795.4 (361)		
CR 45-6	50	3	42.09 (1069)	15.83 (402)	12.58 (320)	68.19 (1732)	17.67 (449)	13.39 (340)	66.26 (1683)	795.4 (361)		
CR 45-7-2	50	3	45.24 (1149)	15.83 (402)	12.58 (320)	71.34 (1812)	17.67 (449)	13.39 (340)	69.41 (1763)	804.9 (365)		
CR 45-7	60	3	45.24 (1149)	17.91 (455)	16.02 (407)	74.06 (1881)	17.67 (449)	13.39 (340)	69.41 (1763)	1045 (474)		
CR 45-8-1	60	3	48.39 (1229)	17.91 (455)	16.02 (407)	77.21 (1961)	17.67 (449)	13.39 (340)	72.56 (1843)	1054 (478)		

¹⁾ Weights are based on pumps with TEFC motor, see the price list for individual weights. All dimensions in inches unless otherwise noted.

CRN 45

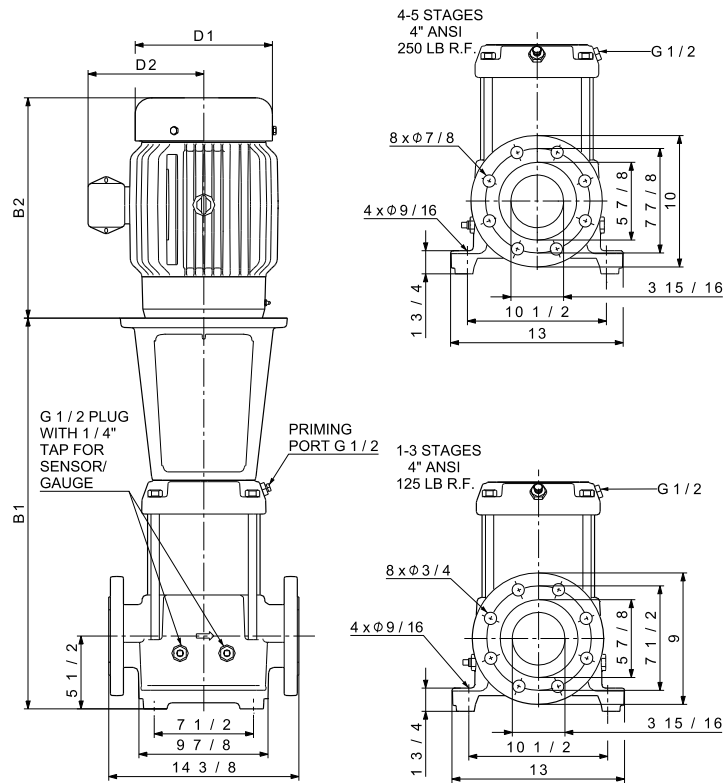


TM02 7704 1009

Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]						Net wt. ¹⁾ [lb (kg)]	
			B1	TEFC			ODP			
				D1	D2	B1+B2	D1	D2		B1+B2
CRN 45-1-1	7 1/2	1	22.20 (564)	10.96 (279)	8.41 (214)	41.52 (1055)	-	-	-	259.4 (118)
		3	22.01 (559)	10.96 (279)	7.97 (202)	38.96 (990)	-	-	-	261.9 (119)
CRN 45-1	10	1	22.20 (564)	10.96 (279)	8.41 (214)	41.52 (1055)	-	-	-	266.1 (121)
		3	22.01 (559)	10.96 (279)	7.97 (202)	40.83 (1037)	-	-	-	297.6 (135)
CRN 45-2-2	15	3	29.49 (749)	13.18 (335)	9.45 (240)	48.30 (1227)	11.58 (294)	9.45 (240)	48.14 (1223)	389.5 (177)
CRN 45-2-1	15	3	29.49 (749)	13.18 (335)	9.45 (240)	48.30 (1227)	11.58 (294)	9.45 (240)	48.14 (1223)	389.5 (177)
CRN 45-2	15	3	29.49 (749)	13.18 (335)	9.45 (240)	48.30 (1227)	11.58 (294)	9.45 (240)	48.14 (1223)	389.5 (177)
CRN 45-3-2	20	3	32.64 (829)	13.18 (335)	9.45 (240)	52.23 (1327)	11.58 (294)	9.45 (240)	51.29 (1303)	422.8 (192)
CRN 45-3-1	25	3	32.64 (829)	14.17 (360)	11.08 (282)	56.21 (1428)	16.21 (412)	11.93 (303)	54.79 (1392)	552.2 (251)
CRN 45-3	25	3	32.64 (829)	14.17 (360)	11.08 (282)	56.21 (1428)	16.21 (412)	11.93 (303)	54.79 (1392)	552.2 (251)
CRN 45-4-2	30	3	35.79 (909)	14.17 (360)	11.08 (282)	59.36 (1508)	16.21 (412)	11.93 (303)	57.94 (1472)	561.0 (255)
CRN 45-4-1	30	3	35.79 (909)	14.17 (360)	11.08 (282)	59.36 (1508)	16.21 (412)	11.93 (303)	57.94 (1472)	564.6 (256)
CRN 45-4	30	3	35.79 (909)	14.17 (360)	11.08 (282)	59.36 (1508)	16.21 (412)	11.93 (303)	57.94 (1472)	564.6 (256)
CRN 45-5-2	40	3	38.94 (989)	15.83 (402)	12.58 (320)	65.04 (1652)	17.67 (449)	13.39 (340)	63.11 (1603)	741.1 (336)
CRN 45-5-1	40	3	38.94 (989)	15.83 (402)	12.58 (320)	65.04 (1652)	17.67 (449)	13.39 (340)	63.11 (1603)	741.1 (336)
CRN 45-5	40	3	38.94 (989)	15.83 (402)	12.58 (320)	65.04 (1652)	17.67 (449)	13.39 (340)	63.11 (1603)	741.1 (336)
CRN 45-6-2	50	3	42.09 (1069)	15.83 (402)	12.58 (320)	68.19 (1732)	17.67 (449)	13.39 (340)	66.26 (1683)	793.6 (360)
CRN 45-6	50	3	42.09 (1069)	15.83 (402)	12.58 (320)	68.19 (1732)	17.67 (449)	13.39 (340)	66.26 (1683)	793.6 (360)
CRN 45-7-2	50	3	45.24 (1149)	15.83 (402)	12.58 (320)	71.34 (1812)	17.67 (449)	13.39 (340)	69.41 (1763)	802.9 (364)
CRN 45-7	60	3	45.24 (1149)	17.91 (455)	16.02 (407)	74.06 (1881)	17.67 (449)	13.39 (340)	69.41 (1763)	1043 (473)
CRN 45-8-1	60	3	48.39 (1229)	17.91 (455)	16.02 (407)	77.21 (1961)	-	-	-	1052 (478)

1) Weights are based on pumps with TEFC motor, see the price list for individual weights. All dimensions in inches unless otherwise noted.

CR 64

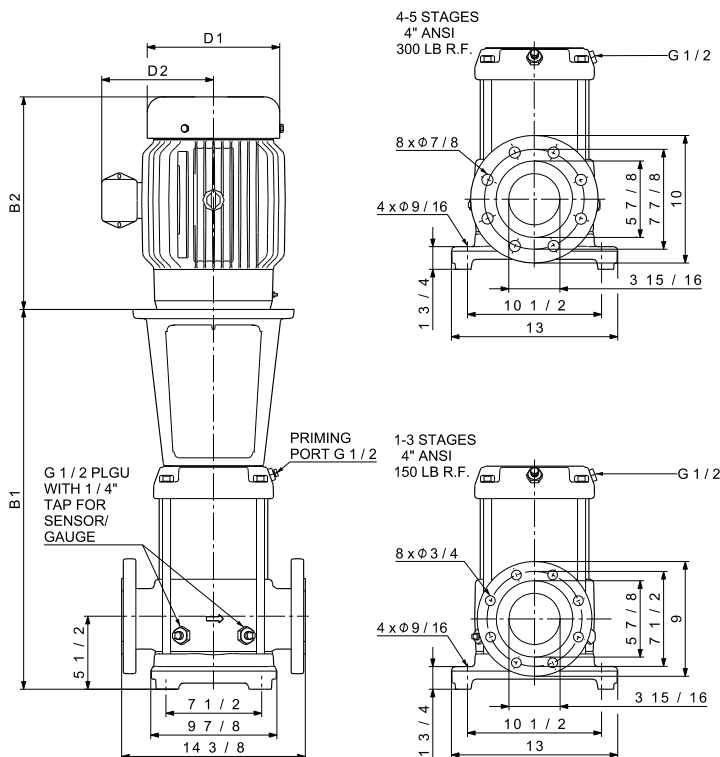


TM02 7701 1009

Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]								
			B1	TEFC			ODP			Net wt. ¹⁾ [lb (kg)]	
				D1	D2	B1+B2	D1	D2	B1+B2		
CR 64-1-1	10	1	22.28 (566)	10.96 (279)	8.41 (214)	41.60 (1057)	-	-	-	274.9 (125)	
CR 64-1-1	10	3	22.09 (561)	10.96 (279)	7.97 (202)	40.91 (1039)	-	-	-	306.4 (139)	
CR 64-1	15	3	26.42 (671)	13.18 (335)	9.45 (240)	45.23 (1149)	11.58 (294)	9.45 (240)	45.07 (1145)	390.2 (177)	
CR 64-2-2	20	3	29.69 (754)	13.18 (335)	9.45 (240)	49.28 (1252)	11.58 (294)	9.45 (240)	48.34 (1228)	424.8 (193)	
CR 64-2-1	20	3	29.69 (754)	13.18 (335)	9.45 (240)	49.28 (1252)	11.58 (294)	9.45 (240)	48.34 (1228)	424.8 (193)	
CR 64-2	25	3	29.69 (754)	14.17 (360)	11.08 (282)	53.26 (1353)	16.21 (412)	11.93 (303)	51.84 (1317)	554.2 (251)	
CR 64-3-2	30	3	32.91 (836)	14.17 (360)	11.08 (282)	56.49 (1435)	16.21 (412)	11.93 (303)	55.07 (1399)	564.6 (256)	
CR 64-3-1	40	3	32.91 (836)	15.83 (402)	12.58 (320)	59.02 (1499)	17.67 (449)	13.39 (340)	57.09 (1450)	733.0 (333)	
CR 64-3	40	3	32.91 (836)	15.83 (402)	12.58 (320)	59.02 (1499)	17.67 (449)	13.39 (340)	57.09 (1450)	733.0 (333)	
CR 64-4-2	40	3	36.18 (919)	15.83 (402)	12.58 (320)	62.29 (1582)	17.67 (449)	13.39 (340)	60.36 (1533)	754.6 (342)	
CR 64-4-1	50	3	36.18 (919)	15.83 (402)	12.58 (320)	62.29 (1582)	17.67 (449)	13.39 (340)	60.36 (1533)	792.1 (359)	
CR 64-4	50	3	36.18 (919)	15.83 (402)	12.58 (320)	62.29 (1582)	17.67 (449)	13.39 (340)	60.36 (1533)	792.1 (359)	
CR 64-5-2	60	3	39.41 (1001)	17.91 (455)	16.02 (407)	68.23 (1733)	17.67 (449)	13.39 (340)	63.59 (1615)	1042 (473)	

¹⁾ Weights are based on pumps with TEFC motor, see the price list for individual weights. All dimensions in inches unless otherwise noted.

CRN 64



TM02 7705 1009

Pump type	P2 [HP]	Ph.	ANSI dimensions [inch (mm)]							Net wt. ¹⁾ [lb (kg)]
			B1	TEFC			ODP			
				D1	D2	B1+B2	D1	D2	B1+B2	
CRN 64-1-1	10	1	22.28 (566)	10.96 (279)	8.41 (214)	41.60 (1057)	-	-	-	276.2 (125)
		3	22.09 (561)	10.96 (279)	7.97 (202)	40.91 (1039)	-	-	-	307.7 (140)
CRN 64-1	15	3	26.42 (671)	13.18 (335)	9.45 (240)	45.23 (1149)	11.58 (294)	9.45 (240)	45.07 (1145)	391.5 (178)
CRN 64-2-2	20	3	29.69 (754)	13.18 (335)	9.45 (240)	49.28 (1252)	11.58 (294)	9.45 (240)	48.34 (1228)	426.1 (193)
CRN 64-2-1	20	3	29.69 (754)	13.18 (335)	9.45 (240)	49.28 (1252)	11.58 (294)	9.45 (240)	48.34 (1228)	426.1 (193)
CRN 64-2	25	3	29.69 (754)	14.17 (360)	11.08 (282)	53.26 (1353)	16.21 (412)	11.93 (303)	51.84 (1317)	555.5 (252)
CRN 64-3-2	30	3	32.91 (836)	14.17 (360)	11.08 (282)	56.49 (1435)	16.21 (412)	11.93 (303)	55.07 (1399)	565.9 (257)
CRN 64-3-1	40	3	32.91 (836)	15.83 (402)	12.58 (320)	59.02 (1499)	17.67 (449)	13.39 (340)	57.09 (1450)	734.3 (333)
CRN 64-3	40	3	32.91 (836)	15.83 (402)	12.58 (320)	59.02 (1499)	17.67 (449)	13.39 (340)	57.09 (1450)	734.3 (333)
CRN 64-4-2	40	3	36.18 (919)	15.83 (402)	12.58 (320)	62.29 (1582)	17.67 (449)	13.39 (340)	60.36 (1533)	757.2 (344)
CRN 64-4-1	50	3	36.18 (919)	15.83 (402)	12.58 (320)	62.29 (1582)	17.67 (449)	13.39 (340)	60.36 (1533)	794.7 (361)
CRN 64-4	50	3	36.18 (919)	15.83 (402)	12.58 (320)	62.29 (1582)	17.67 (449)	13.39 (340)	60.36 (1533)	794.7 (361)
CRN 64-5-2	60	3	39.41 (1001)	17.91 (455)	16.02 (407)	68.23 (1733)	17.67 (449)	13.39 (340)	63.59 (1615)	1044 (474)

¹⁾ Weights are based on pumps with TEFC motor, see the price list for individual weights. All dimensions in inches unless otherwise noted.

11. Motor data

Standard motors in the CR range

Motors used in the CR pump range are:

- Grundfos-specified WEG motors
- Grundfos ML motors.

The information in the tables below applies to the following motor types and sizes:

Type	Phase	Motor range [HP]	Cooling method
WEG	1	1/3 - 10	TEFC
	3	1/3 - 300	TEFC
	3	15 - 300	ODP
ML	3	1/3 - 30	TEFC

WEG motors 0.25 to 20 HP

- rolled steel construction
- service factor 1.15
- suitable for VFD operation per NEMA MG 1 part 31.4.4.2
- certified Class I Division 2, Groups A, B, C, D
- certified Class II, Division 2, Groups F, G (three phase only).

WEG motors 25 to 300 HP

- cast iron frame
- rated for severe duty
- service factor 1.25 (25 to 100 HP)
- service factor 1.15 (125 to 300 HP)
- Inverter rated per NEMA MG 1 part 31
- certified Class I Division 2, Groups A, B, C, D
- certified Class II, Division 2, Groups F, G (three phase only).

Grundfos CR pumps are supplied with heavy-duty 2-pole, NEMA energy-efficient C-frame motors built or selected according to rigid Grundfos specifications. All CR pump motors have heavy-duty bearings for maximum thrust requirements.

It is not recommended that an off-the-shelf standard WEG motor be used on a Grundfos pump. Ideally, the best motor choice would be the Grundfos-specified motor.

Three-phase Grundfos-specified motors are NEMA Premium Efficiency (EISA compliant).

Single-phase Grundfos-specified motors up to 7.5 HP have a built-in thermal overload switch.

Other motor types are available, such as Explosion-proof, inverter-duty, IEEE 841 etc.

Contact your local Grundfos company for more information.

Motor dimensions and data on pumps supplied by Grundfos Canada may vary. Contact your local Grundfos company for more information.

All values are subject to change without notice.

ODP motors**Open Drip Proof, constant speed****WEG motors**

HP (kW)	Ph	Frame	Service factor	Voltage [V]	Motoreff. η [%]	Full-load current $I_{1/1}$ [A]	Service-factor current [A]	Starting current I_{start} [A]	Power factor $\cos \phi_{1/1}$	Speed [rpm]
15 (11)	3	254TC	1.15	208-230/460	90.2	38.0-34.4 / 17.2	38.0-39.6 / 19.8	258-234 / 117	0.89	3545
	3	254TC	1.15	575	90.2	14.1	16.2	106	0.87	3545
20 (15)	3	256TC	1.15	208-230/460	91.0	52.6-47.6 / 23.8	52.6-54.7 / 27.4	316-286 / 143	0.87	3525
	3	256TC	1.15	575	91.0	19	21.9	114	0.87	3525
25 (18.5)	3	284TSC	1.25	208-230/460	91.7	63.7-57.6 / 28.8	63.7-72 / 36	414-374 / 187	0.88	3535
	3	284TSC	1.25	575	91.7	23.3	29.1	154	0.87	3544
30 (22)	3	284TSC	1.25	208-230/460	91.7	77.4-70.0 / 35	77.4-87.5 / 43.8	488-441 / 221	0.86	3545
	3	284TSC	1.25	575	91.7	28	35.0	176	0.86	3550
40 (30)	3	324TSC	1.25	208-230/460	92.4	104-93.6 / 46.8	104-117 / 58.5	655-590 / 295	0.86	3545
	3	324TSC	1.25	575	92.4	37.5	46.9	229	0.87	3557
50 (37)	3	324TSC	1.25	208-230/460	93.0	130-117 / 58.7	130-146 / 73.4	819-737 / 370	0.85	3560
	3	324TSC	1.25	575	93.0	47.5	59.4	299	0.85	3560
60 (45)	3	326TSC	1.25	208-230/460	93.6	157-142 / 71	157-178 / 88.8	989-895 / 447	0.85	3560
	3	326TSC	1.25	575	93.6	56.8	71.0	358	0.85	3560
75 (55)	3	365TSC	1.25	208-230/460	93.6	188-170 / 84.8	188-213 / 106	1241-1122 / 560	0.87	3555
	3	365TSC	1.25	575	93.6	67.8	84.8	447	0.87	3555

Note: Motors with a nameplate stating 230/460 V are suitable for operation at 208 V.

TEFC motors

Totally Enclosed Fan Cooled, constant speed

WEG motors



TM07 7440 3820

HP (kW)	Ph	Frame	Service factor	Voltage [V]	Motor eff. η [%]	Full-load current $I_{1/1}$ [A]	Service-factor current [A]	Starting current I_{start} [A]	Power factor $\cos \phi_{1/1}$	Speed [rpm]
1/3 (0.25)	1	56C	1.15	115/208-230	54.0	5.2 / 2.87-2.6	5.98 / 2.87-2.99	36.4 / 20.1-18.2	0.76	3490
	3	56C	1.15	208-230/460	72.0	1.31-1.15 / 0.57	1.31-1.32 / 0.66	9.30-8.17 / 4.05	0.70	3450
	3	56C	1.15	575	72.0	0.458	0.53	3.25	0.76	3450
1/2 (0.37)	1	56C	1.15	115/208-230	60.0	7 / 3.87-3.5	8.05 / 3.87-4.03	56 / 31.0-28	0.76	3490
	3	56C	1.15	208-230/460	74.0	1.73-1.57 / 0.78	1.73-1.81 / 0.9	13.3-12.1 / 6.01	0.80	3435
	3	56C	1.15	575	74.0	0.627	0.72	4.83	0.80	3435
3/4 (0.55)	1	56C	1.15	115/208-230	66.0	8 / 4.42-4	9.2 / 4.42-4.6	64 / 35.4-32	0.91	3500
	3	56C	1.15	208-230/460	77.0	2.48-2.24 / 1.12	2.48-2.58 / 1.29	20.1-18.1 / 9.07	0.80	3440
	3	56C	1.15	575	77.0	0.896	1.03	7.26	0.80	3440
1 (0.75)	1	56C	1.15	115/208-230	70.0	10.1 / 5.64-5.06	11.6 / 5.64-5.82	84.8 / 47.4-42.5	0.92	3500
	3	56C	1.15	208-230/460	78.5	3.32-3.0 / 1.5	3.32-3.45 / 1.73	29.2-26.4 / 13.2	0.80	3435
	3	56C	1.15	575	78.5	1.2	1.38	10.6	0.80	3435
1 1/2 (1.1)	1	56C	1.15	115/208-230	75.0	13.2 / 7.3-6.6	15.2 / 7.3-7.59	106 / 58.4-52.8	0.97	3500
	3	56C	1.15	208-230/460	84.0	4.14-3.74 / 1.87	4.14-4.3 / 2.15	37.7-34.0 / 17.0	0.88	3520
	3	56C	1.15	575	84.0	1.5	1.73	13.7	0.88	3520
2 (1.5)	1	56C	1.15	115/208-230	77.0	17.5 / 9.62-8.73	20.1 / 9.62-10	137 / 75.0-68.1	0.97	3495
	3	56C	1.15	208-230/460	85.5	5.46-4.94 / 2.47	5.46-5.68 / 2.84	54.1-48.9 / 24.5	0.89	3520
	3	56C	1.15	575	85.5	1.98	2.28	19.6	0.89	3520
3 (2.2)	1	182TC	1.15	115/208-230	80.0	24.2 / 19.7-12.1	27.8 / 19.7-13.9	169 / 138-84.7	0.99	3510
	3	182TC	1.15	208-230/460	86.5	8.12-7.34 / 3.67	8.12-8.44 / 4.22	71.5-64.6 / 32.3	0.87	3515
	3	182TC	1.15	575	86.5	2.94	3.38	25.9	0.87	3515
5 (4)	1	184TC	1.15	208-230	84.0	31.7-19.5	31.7-22.4	254-156	0.98	3515
	3	184TC	1.15	208-230/460	88.5	13.1-11.8 / 5.9	13.1-13.6 / 6.79	102-92.0 / 46.0	0.89	3500
	3	184TC	1.15	575	88.5	4.72	5.43	36.8	0.89	3500
7 1/2 (5.5)	1	213TC	1.15	208-230	84.0	31.7-38.8	31.7-44.6	225-275	0.99	3515
	3	213TC	1.15	208-230/460	89.5	19.2-17.3 / 8.67	19.2-19.9 / 9.97	33.3-131 / 65.9	0.89	3530
	3	213TC	1.15	575	89.5	6.94	7.98	52.7	0.89	3530
10 (7.5)	1	215TC	1.15	208-230	86.5	42.5-38.1	42.5-43.8	306-274	0.99	3510
	3	215TC	1.15	208-230/460	90.2	25.4-23.0 / 11.5	25.4-26.5 / 13.2	191-173 / 86.3	0.91	3530
	3	215TC	1.15	575	90.2	9.2	10.6	69	0.91	3530
15 (11)	3	254TC	1.15	208-230/460	91.0	37.6-34.0 / 17	37.6-39.1 / 19.6	308-279 / 139	0.89	3520
	3	254TC	1.15	575	91.0	13.9	16.0	114	0.89	3520
20 (15)	3	256TC	1.15	208-230/460	91.0	50.2-45.4 / 22.7	50.2-52.2 / 26.1	331-300 / 150	0.91	3515
	3	256TC	1.15	575	91.0	18.2	20.9	120	0.91	3515
25 (18.5)	3	284TSC	1.25	208-230/460	91.7	63-57.0 / 28.5	63-71.3 / 35.6	397-359 / 180	0.89	3535
	3	284TSC	1.25	575	91.7	23	28.8	145	0.88	3545
30 (22)	3	286TSC	1.25	208-230/460	91.7	73.8-67.6 / 33.8	73.8-84.5 / 42.3	465-426 / 213	0.89	3535
	3	286TSC	1.25	575	91.7	27	33.8	170	0.89	3540
40 (30)	3	324TSC	1.25	208-230/460	92.4	101-91.6 / 45.8	101-115 / 57.3	636-577 / 289	0.89	3555
	3	324TSC	1.25	575	92.4	37	46.3	233	0.88	3560
50 (37)	3	326TSC	1.25	208-230/460	93.0	124-112 / 56.1	124-140 / 70.1	769-694 / 348	0.89	3550
	3	326TSC	1.25	575	93.0	44.9	56.1	278	0.89	3550
60 (45)	3	364TSC	1.25	208-230/460	93.6	148-134 / 67	148-168 / 83.8	977-884 / 442	0.90	3560
	3	364TSC	1.25	575	93.6	53.6	67.0	354	0.90	3560
75 (55)	3	365TSC	1.25	208-230/460	93.6	181-164 / 81.9	181-205 / 102	1213-1099 / 549	0.90	3555
	3	365TSC	1.25	575	93.6	65.6	82.0	440	0.90	3555

Note: Motors with a nameplate stating 230/460 V are suitable for operation at 208 V.

TEFC

Totally Enclosed Fan Cooled, constant speed

Grundfos ML motors



Gr7848sh



GR 7845



TM04 2512 2708

HP (kW)	Ph	Frame	Service factor	Voltage [V]	Motor eff. η [%]	Full-load current $I_{1/1}$ [A]	Service-factor current [A]	Starting current I_{start} [A]
1/3 (0.25)	3	56C	1.15	208-230/460	78.5	1.12 - 1.1 / 0.55	1.5 - 1.45 / 0.75	7.1 - 7.7 / 3.9
1/2 (0.37)	3	56C	1.15	208-230/460	78.5	1.64 - 1.55 / 0.78	2.0 - 1.9 / 0.95	9.7 - 10.1 / 5.1
3/4 (0.55)	3	56C	1.15	208-230/460	79.0	2.4 - 2.3 / 1.2	2.9 - 2.75 / 1.4	14.2 - 15 / 7.8
1 (0.75)	3	56C	1.15	208-230/460	80.0	3.25 - 3.35 / 1.68	4.0 - 3.9 / 1.95	19.2 - 21.8 / 10.9
1 1/2 (1.1)	3	56C	1.15	208-230/460	84.0	4.7 - 4.6 / 2.3	5.2 - 5.1 / 2.55	33.8 - 36.8 / 18.4
2 (1.5)	3	56C	1.15	208-230/460	85.5	6.0 - 5.8 / 2.9	6.8 - 6.6 / 3.3	48.0 - 52.8 / 26.4
3 (2.2)	3	182TC	1.15	208-230/460	86.5	8.5 - 8.2 / 4.1	9.6 - 9.2 / 4.6	79.9 - 79.5 / 39.8
5 (4)	3	182TC	1.15	208-230/460	88.5	14.1 - 13.1 / 7.29	16.2 - 15.0 / 8.4	207-193 / 107
7 1/2 (5.5)	3	213TC	1.15	208-230/460	89.5	19.5 - 18.1 / 9.09	22.4 - 20.8 / 10.4	289-267 / 135
10 (7.5)	3	215TC	1.15	208-230/460	90.2	26.5 - 24.6 / 12.4	29.0 - 27.0 / 13.6	261-243 / 123
15 (11)	3	254TC	1.15	208-230/460	91.0	37.5 - 34 / 17	41.0 - 37.5 / 18.6	369-338 / 168
20 (15)	3	256TC	1.15	208-230/460	91.0	50.5 - 46 / 23	55.5 - 50.5 / 25.5	450-410 / 207
25 (18.5)	3	284TSC	1.25	208-230/460	91.7	62.0 - 56 / 28	68.0 - 61.5 / 31.0	510-462 / 233
30 (22)	3	286TSC	1.25	208-230/460	91.7	74.0 - 67.0 / 33.5	81.5 - 73.5 / 37.0	595-537 / 271

Note: Motors with a nameplate stating 230/460 V are suitable for operation at 208 V.

12. Accessories

Pipe connections

Various sets of counterflanges and couplings are available for pipe connection.

Counterflanges for CR

A set consists of two counterflanges, two gaskets, bolts and nuts.

Counterflange	Pump type	Description	Pressure class	Pipe connection	Product number
	TM02 5691 3802	CR 1s CR 1 CR 3 CR 5	Threaded	ANSI 250 lb.	1 1/4" NPT 91122260
	TM02 5692 3802	CR 10 CR 15 CR 20	Threaded	ANSI 250 lb.	2" NPT 335021
	TM02 5693 3802 TM02 5694 3802	CR 32	Threaded	ANSI 125 lb.	2 1/2" NPT 559601
			Threaded	ANSI 250 lb.	2 1/2" NPT 345050
	TM02 5695 3802 TM02 5696 3802	CR 45	Threaded	ANSI 125 lb.	3" NPT 569601
			Threaded	ANSI 250 lb.	3" NPT 91121952
	TM02 5697 3802 TM02 5698 3802	CR 64	Threaded	ANSI 125 lb.	4" NPT 579801
			Threaded	ANSI 250 lb.	4" NPT 3600028

Counterflanges for CRN

Counterflanges for CRN pumps are made of stainless steel according to AISI 316. A set consists of two counterflanges, two gaskets, bolts and nuts.

Counterflange	Pump type	Description	Pressure class	Pipe connection	Product number
	TM02 5691 3802 CRI, CRN 1s, 1, 3 and 5	Threaded	ANSI 300 lb.	1 1/4" NPT	91129013
	TM02 5692 3802 CRI, CRN 10, 15, 20	Threaded	ANSI 300 lb.	2" NPT	339919
	TM02 5693 3802 TM02 5694 3802 CRN 32	Threaded	ANSI 150 lb.	2 1/2" NPT	91121951
		Threaded	ANSI 300 lb.	2 1/2" NPT	0ID00138
	TM02 5695 3802 TM02 5696 3802 CRN 45	Threaded	ANSI 150 lb.	3" NPT	91121953
		Threaded	ANSI 300 lb.	3" NPT	91121954
	TM02 5697 3802 TM02 5698 3802 CRN 64	Threaded	ANSI 150 lb.	4" NPT	0ID00148
		Threaded	ANSI 300 lb.	4" NPT	91121955

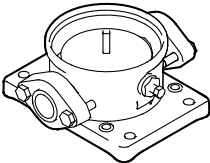
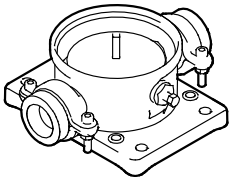
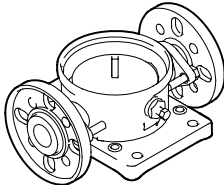
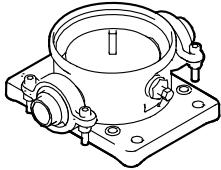
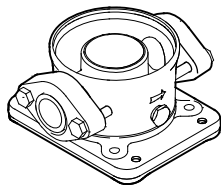
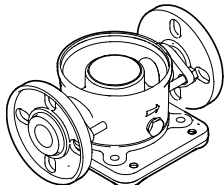
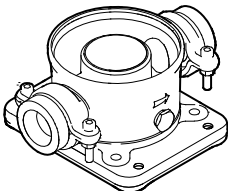
PJE couplings for CRN

Couplings for CRN pumps are made of stainless steel according to AISI 316. A set consists of two couplings, two gaskets, two pipe stubs, bolts and nuts.

Couplings	Pump type	Pipe stub	Rated pressure	Pipe connection	Rubber parts	Number of coupling sets needed	Product number
	TM00 3808 1094 CRI, CRN 1s, 1, 3, 5	Threaded	1160 psi	1 1/4" NPT	EPDM	1	4013010
					FKM	1	0ID00118
	CRI, CRN 10, 15, 20	Threaded	1015 psi	2" NPT	EPDM	1	331301
					FKM	1	0ID00128

FlexiClamp base connections

All sets comprise the necessary number of bolts and nuts as well as a gasket or O-ring.

Base connections	Pump type	Connection	Pipe connection	Rubber parts	Product number
	TM02 1144 0601 CRI, CRN 1s, 1, 3, 5	Oval (cast iron)	1" NPT	Klingersil	96468491
			1 1/4" NPT	Klingersil	96470781
		Oval (stainless steel)	1" NPT	Klingersil	96480850
			1 1/4" NPT	Klingersil	96480851
	TM02 1145 0601 CRI, CRN 1s, 1, 3, 5	Union ext. threaded	2" NPT	EPDM	96480852
				FKM	96480853
	TM02 1146 0601 CRI, CRN 1s, 1, 3, 5	ANSI (FGJ) (stainless steel)	1 1/4" NPT	EPDM	96480858
				FKM	96480859
	TM02 1147 0601 CRI, CRN 1s, 1, 3, 5	Clamp, threaded pipe stub	1" NPT	EPDM	96480854
				FKM	96480855
			1 1/4" NPT	EPDM	96480856
				FKM	96480857
	TM02 7237 2803 CRI, CRN 10, 15, 20	Oval (cast iron)	2" NPT	Klingersil	96498838
			Oval (stainless steel)	2" NPT	Klingersil
	TM02 7238 2803 CRI, CRN 10, 15, 20	ANSI (FGJ) (stainless steel)	2" NPT	EPDM	96511402
				FKM	96511403
	TM02 7239 2803 CRI, CRN 10, 15, 20	Clamp, threaded pipe stub	1 1/2" NPT	EPDM	96500271
				FKM	96500272
			2" NPT	EPDM	96500273
				FKM	96500274
			2" NPT	EPDM	96508602
				FKM	96508603

CR flange guide

Commonly asked questions

What is the "pressure class"?

- The pressure class is a pressure rating expressed as a dimensionless number.
- Pressure class does not affect the pump operating pressure.
- The class rating charts in ANSI B16.5 give actual pounds per square inch maximum allowable pressure at a given temperature.
- 150 lb, 150# or Class 150 are different ways to write the same pressure class.



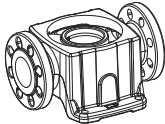

What factors determine the required pressure class?

Pressure ratings are affected by the following:

- Material
- sealing methods
- operating temperatures.

Are pump flanges compatible with mating flanges of a different pressure class?

- The multiflange used on a CR 1s through 20 can be used on both 125 lb and 250 lb installations.
- The multiflange on a CRI/CRN 1s through 20 can be used on both 150 lb and 300 lb installations.
- All other mating flange classes must match the pump flange class.

Pump	Flange	Size	Material	Pressure class	Mate with:
CR 1s to 5		1.25 in	Cast Iron	250 lb	125 or 250 lb
CRI, CRN 1s to 5		1.25 in	Ductile Iron	300 lb	150 or 300 lb
CR 10 to 20		2 in	Cast Iron	250 lb	125 or 250 lb
CRI, CRN 10 to 20		2 in	Ductile Iron	300 lb	150 or 300 lb

13. Variants

Lists of variants - on request

Although the Grundfos CR, CRI, CRN product range offers a number of pumps for different applications, customers require specific pump solutions to satisfy their needs.

Below please find the range of options available for customizing the CR pumps to meet the customers' demands. Contact Grundfos for further information or for requests other than the ones mentioned below.

Motors

Variant	Description
Explosion-proof motors	For operation in hazardous atmospheres, explosion-proof or dust-ignition-proof motors may be required.
Motors with thermal protection	Motors may be fitted with thermostats or thermistors.
Motors with anti-condensation heating unit	For operation in humid environments motors with built-in anti-condensation heating may be required.
Premium efficient motors	Grundfos offers motors from 1 to 75 HP with a Premium efficiency class.
Different motor brand	If technically possible, Grundfos can fit the pump with a motor of a brand other than the standard. This will normally increase the time of delivery. Alternatively, the pump can be supplied without a motor (motor thrust rating must be checked).
Oversized motor	Ambient temperatures above 104 °F or installation at altitudes of more than 3280 ft above sea level require the use of an oversized motor (that is, derating).
4-pole motors	Grundfos offers standard motors fitted with 4-poles.

Connections and other variants

Variant	Description
Pipe connections	In addition to the wide range of standard flange connections, a 232 psi DIN standard clamping flange is available. Customized flanges are available according to specifications.
TriClamp connections	TriClamp connections are of a hygienic design with a sanitary coupling for use in the pharmaceutical and food industry.
Electropolished pumps	To substantially reduce the risk of corrosion of the materials. For use in the pharmaceutical and food industry.

Shaft seals

Variant	Description
Shaft seal with FFKM O-ring material	We recommend shaft seals with FFKM or FXM O-ring material for applications where the pumped liquid may damage the standard O-ring material.
Seal with flush, quench seal	Recommended for applications involving crystallizing, hardening or sticky liquids.
Cool-Top® shaft seal system	Recommended for applications involving extremely high temperatures. No conventional mechanical shaft seal can withstand liquid temperatures of up to 356 °F for any length of time. For that type of application, we recommend Grundfos' unique air-cooled shaft seal system. In order to ensure a low liquid temperature around the standard shaft seal, the pump is fitted with a special air-cooled shaft seal chamber. No separate cooling is required.
Double shaft seal with pressure chamber	Recommended for applications involving poisonous or explosive liquids. Protects the surrounding environment and the people working in the vicinity of the pump. Consists of two seals mounted in a "back-to-back" arrangement inside a separate pressure seal chamber. As the pressure in the chamber is higher than the pump pressure, leakage is prevented. A dosing pump or a special pressure-intensifier generates the seal chamber pressure.
CRN MAGdrive	Magnetically driven pumps for industrial applications. Key applications are industrial processes involving the handling of aggressive, environmental, dangerous or volatile liquids, such as organic compounds and solvents.

Pumps

Variant	Description
Horizontally mounted pump	For safety or height reasons, certain applications, for instance on ships, require the pump to be mounted in the horizontal position. For easy installation the pump is equipped with brackets that support motor and pump.
Low-temperature pump to -40 °F	Exposed to temperatures down to -40 °F, coolant pumps may require neck-rings with a different diameter in order to prevent impeller drag.
High-speed pump up to 681 psi	For high-pressure applications, a unique pump capable of generating up to 681 psi pressure is available. The pump is equipped with a high-speed motor, type MLE. The direction of rotation is the opposite of that of standard pumps, and the chamber stack is turned upside-down, as a result of which the pumped liquid flows in the opposite direction.
High-pressure pump up to 696 psi	For high-pressure applications, a unique double pump system capable of generating up to 696 psi pressure is available.
Low-NPSH pump (improved suction)	Recommended for boiler-feed applications where cavitation may occur due to poor inlet conditions.
Belt-driven pumps	Belt-driven pumps designed to operate in places with limited space or where no electrical power is available.
Pumps for pharmaceutical and biotechnological applications	CRN pumps designed for applications requiring the sterilization and CIP capability of pipes, valves and pumps. (CIP = Clean-In-Place).

14. Submittal data

CR, CRI, CRN	Company name:
Vertical Multistage Centrifugal Pumps	Prepared by:
	Phone number: ()
	Fax number: ()
	Date: Page 1 of:
	Quote number:

Client Information	
Project title:	Client name:
Reference number:	Client number:
Client contact:	Client phone number: ()

Location Information			
For:	Unit:		
Site:	Service:		
Address:	City:	State:	Zip Code:

Application Information							
Operating Conditions				Pumped Fluid			
	Max.	Norm.	Min.	Fluid type:			
Capacity (gpm)				Fluid Temperature (°F)	Rated	Max.	Norm.
Inlet Pressure (psig)				at designated temperature			
Outlet Pressure (psig)				Specific Gravity			
Differential Head (ft)				Vapor Pressure (psia)			
Hydraulic Power (HP)				Viscosity (cp)			
at designated capacity							
NPSH Available (ft)				Fluid ph:		Chlorides (ppm):	
				Hazardous:		Corrosion/Erosion	
Service				Flammable:		caused by:	
Continuous				Other:			
Intermittent (starts/day):							

Pump Information	
Model Information from Type Key and Codes:	----> (Example: CR 5-10 A-FGJ-A-E-HQQE)
Quantity Required:	
Minimum required flow rate:	NPSH required at duty point:

Product Guide additional information pages	
Materials page number:	Performance curve page number:
Technical data page number:	Motor data page number:

Motor Information			
HP:	Phase:	Voltage:	Enclosure:

Custom-built pump information (optional):

Additional Information

15. Quotation text

CR, CRI, CRN

Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:

- Impellers and intermediate chambers are made of AISI _____ Stainless steel
- Pump head and base are made of _____
- Power transmission is via cast iron split coupling. _____
- Pipe connections is via _____
- The motor is a _____ -phase AC motor

Technical

Rated flow rate: _____ gpm
 Rated head: _____ ft
 Minimum liquid temperature: _____ °F
 Maximum liquid temperature: _____ °F
 Type of shaft seal: _____

Materials

Material, pump housing: _____
 Material, shaft: AISI _____ Stainless steel
 Material, impeller: AISI _____ Stainless steel
 Material, sleeve: AISI _____ Stainless steel
 Material, seal metal: AISI _____ Stainless steel
 - seal face: _____
 - seal face: _____
 - seal elastomer: _____

Installation

Maximum ambient temperature: _____ °F
 Max. pressure at stated temperature: _____ psi / °F
 Standard, pipe connection: _____
 Size, pipe connection: _____
 Rated pressure, pipe connection: _____ psi
 Frame size for motor: _____ NEMA

Electrical data

Motor type: _____
 Rated power (P2): _____ HP
 Frequency: _____ Hz
 Rated voltage: _____ V
 Rated current: _____ A
 Service factor: _____
 Starting current: _____ A
 Rated speed: _____ rpm
 Full-load motor efficiency: _____ %
 Insulation class: _____

Additional

Gross weight: _____ lb
 Shipping volume: _____
 Model: _____

16. Grundfos Product Center

Online search and sizing tool to help you make the right choice.

<http://product-selection.grundfos.com>

All the information you need in one place

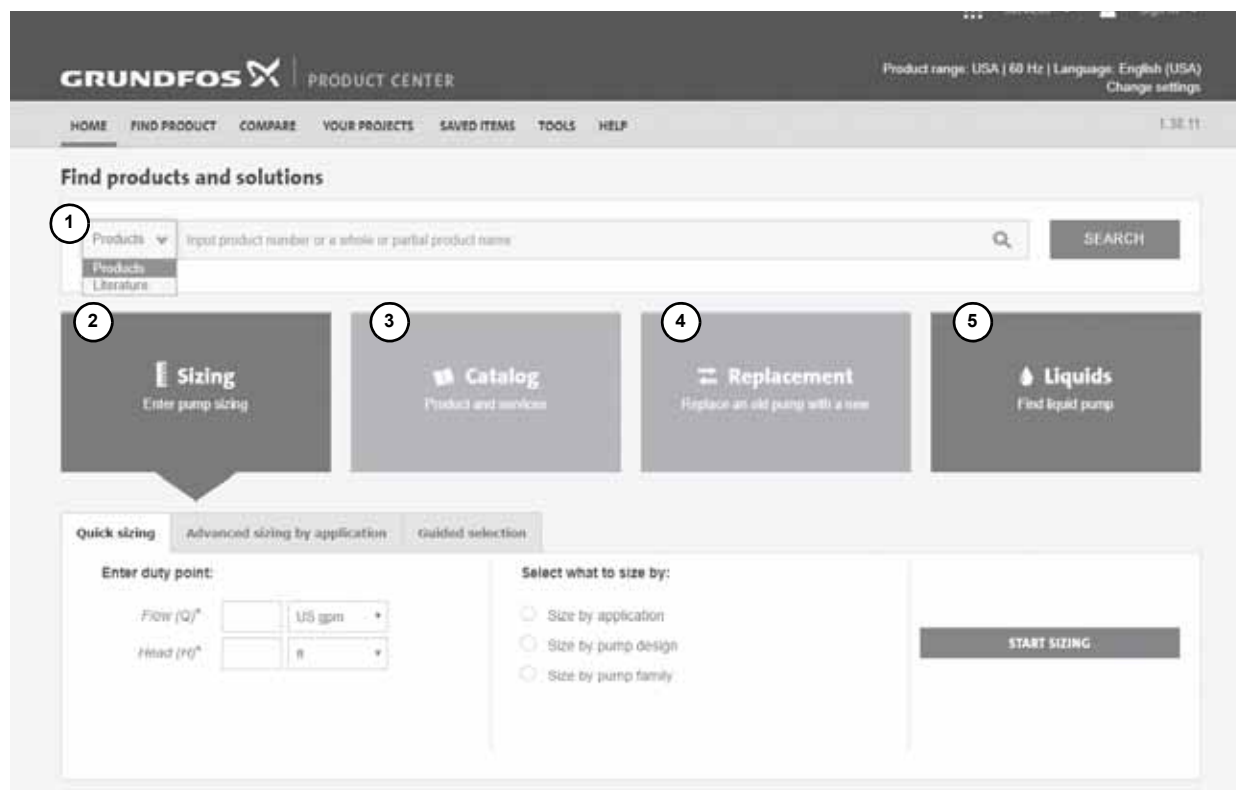
Performance curves, technical specifications, pictures, dimensional drawings, motor curves, wiring diagrams, spare parts, service kits, 3D drawings, documents, system parts. The Product Center displays any recent and saved items - including complete projects - right on the main page.

Downloads

On the product pages, you can download installation and operating instructions, data booklets, service instructions, etc. in PDF format.



TM07 2384



TM07 2383

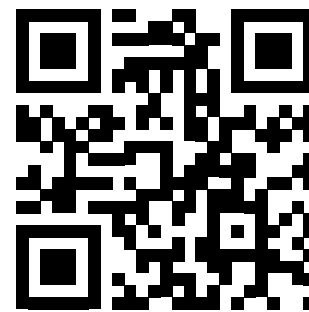
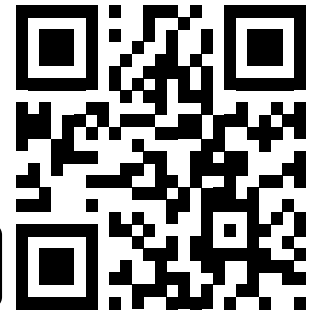
Pos. Description

1	This drop-down menu enables you to set the search function to "Products" or "Literature".
2	SIZING enables you to size a pump based on entered data and selection choices.
3	CATALOGUE gives you access to the Grundfos product catalogue.
4	REPLACEMENT enables you to find a replacement product. Search results will include information on <ul style="list-style-type: none"> • the lowest purchase price • the lowest energy consumption • the lowest total life cycle cost.
5	LIQUIDS enables you to find pumps designed for aggressive, flammable or other special liquids.

Grundfos GO

Mobile solution for professionals on the GO!

Grundfos GO is the mobile tool box for professional users on the go. It is the most comprehensive platform for mobile pump control and pump selection including sizing, replacement and documentation. It offers intuitive, handheld assistance and access to Grundfos online tools, and it saves valuable time for reporting and data collection.



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