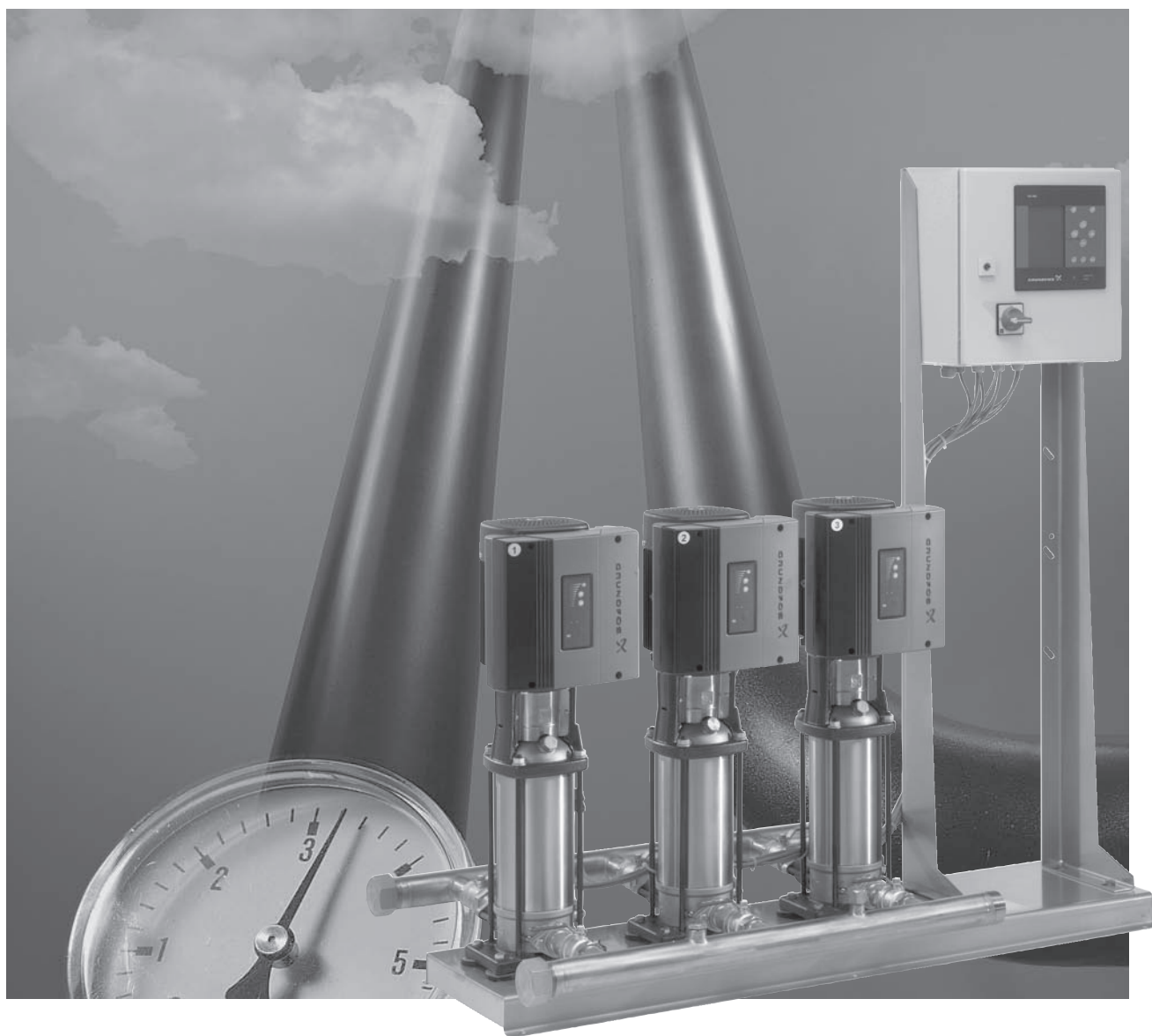


# BoosterpaQ<sup>®</sup> Hydro MPC

Booster sets with 2 to 6 pumps  
60 Hz



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- It is our mission - the basis of our existence - to successfully develop, produce and sell high-quality pumps and pumping systems world-wide, contributing to a better quality of life and a healthy environment



Bjerringbro, Denmark



Fresno, California



Olathe, Kansas



Monterrey, Mexico



Allentown, Pennsylvania



Oakville, Ontario

- One of the 3 largest pump companies in the world
- The second largest manufacturer of submersible motors in the world
- World headquarters in Denmark
- North American headquarters in Kansas City - Manufacturing in Fresno, California
- 72 companies in 41 countries
- More than 10 million motors and pumps produced annually worldwide
- North American companies operating in USA, Canada and Mexico
- Continuous reinvestment in growth and development enables the company to **BE** responsible, **THINK** ahead, and **INNOVATE**

### Introduction

Grundfos Hydro MPC booster sets are designed for transfer and pressure boosting of clean water in

- waterworks
- apartment buildings & hotels
- irrigation
- industry
- hospitals
- schools.

As standard, Hydro MPC booster sets consist of two to six CR(E) pumps connected in parallel and mounted on a base frame provided with a control cabinet and all the necessary fittings.

Most of the booster sets are available with either CR pumps and/or CRE pumps. For further information, see page 9.

The pumps of the booster set can be removed without interfering with the pipework on either side of the manifolds. Consequently, even on the largest booster sets, service can be performed by a single person with a fork-lift truck or a crane.

Hydro MPC booster sets are divided into seven groups based on control variants. For further information, see “Product range” page 6 and “Overview of variants” on page 15.

#### Hydro MPC-E

Booster sets with two to six CRE pumps. The terminology CRE means CR pump that includes an integrated variable frequency drive/motor with sizes from 1 to 10 HP.

#### Hydro MPC-ED

Booster sets with two CRE pumps and one to four constant speed CR pumps.

#### Hydro MPC-ES

Booster sets with one CRE pump and one to five constant speed CR pumps.

#### Hydro MPC-EF

Booster sets with two to six CR pumps, each connected to external variable frequency drive (VFD).

#### Hydro MPC-EDF

Booster sets with two CR pumps connected to external VFD's and one to four constant speed CR pumps.

#### Hydro MPC-F

Booster sets with two to six CR pumps connected to one external VFD.

The speed-controlled operation alternates between the pumps of the booster set.

#### Hydro MPC-S

Booster sets with two to six constant speed CR pumps.

#### Why select a booster set with electronically speed-controlled motors?

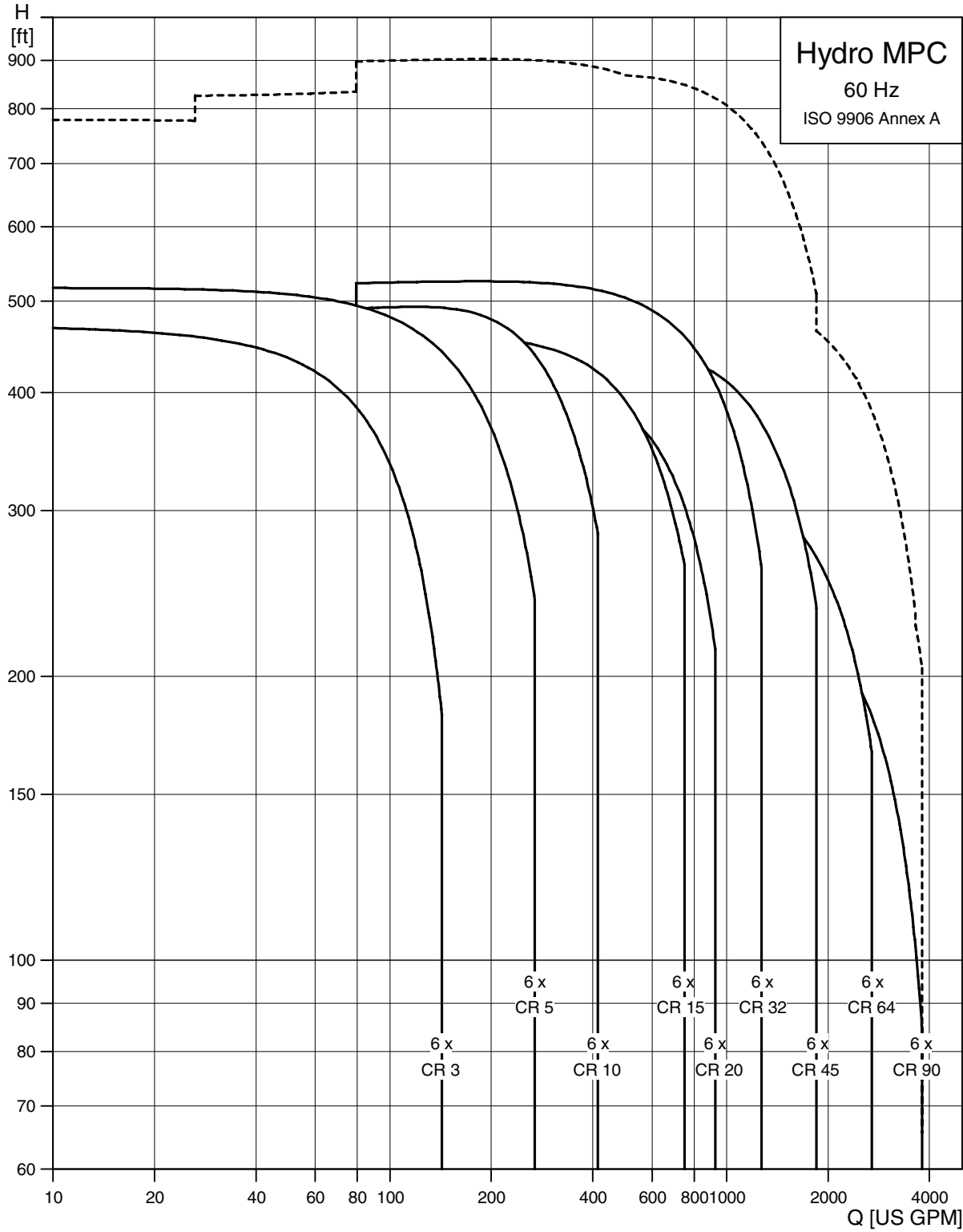
Select a Hydro MPC booster set when

- controlled operation is required, i.e. consumption fluctuates,
- constant pressure is required,
- control and monitoring of the performance is required.

Adjustment of performance offers obvious advantages:

- Improved comfort thanks to reduced noise emission, constant pressure control
- Reduced water hammer effect (only electronically speed-controlled pumps)
- Reduced maintenance costs.

## Performance range



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**Note:** The area within the dotted line applies to Hydro MPC booster sets available on request. The performance range is based on the standard range of the CR and CRI pumps.

### Product range

Variant	Hydro MPC-E	Hydro MPC-ED	Hydro MPC-ES
<b>Hydraulic data</b>			
Max. head [ft]	536	536	536
Flow rate [gpm]	0 - 2400	0 - 3600	0 - 3600
Liquid temperature [° F]	32 to 158	32 to 158	32 to 158
Max. operating pressure [psi]	232 <sup>1)</sup>	232 <sup>1)</sup>	232 <sup>1)</sup>
<b>Motor data</b>			
Number of pumps	2 - 6	3 - 6	2 - 6
Motor power [HP]	1 - 10	1 - 10	1 - 10
<b>Shaft seal</b>			
KUHE (TC/C-TC/EPDM)	● <sup>2)</sup>	● <sup>2)</sup>	● <sup>2)</sup>
HQQE (SiC/SiC/EPDM)	● <sup>2)</sup>	● <sup>2)</sup>	● <sup>2)</sup>
<b>Materials</b>			
CR Pumps: Cast iron and stainless steel AISI 304	●	●	●
CRI Pumps: Stainless steel AISI 304	○	○	○
CRN Pumps: Stainless steel AISI 316	○	○	○
Manifold: Stainless steel	●	●	●
<b>Functions</b>			
Constant pressure control	●	●	●
Automatic cascade control	●	●	●
Pump changeover/alternation	●	●	●
GENIbus communication (external)	○	○	○
Integrated VFD/motor (on pump)	●	●	●
External VFD (in cabinet)	-	-	-

- Available as standard.
- Available on request.

- 1) Booster sets with a maximum operating pressure higher than 232 psi are available on request.
- 2) Standard shaft seal for CR 5 - CR 20 is HQQE. Standard shaft seal for CR 32 - CR 90 is KUHE.

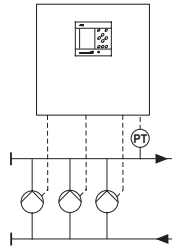
Variant	Hydro MPC-EF	Hydro MPC-EDF	Hydro MPC-F
<b>Hydraulic data</b>			
Max. head [ft]	536	536	536
Flow rate [gpm]	0 - 3600	0 - 3600	0 - 3600
Liquid temperature [° F]	32 to 158	32 to 158	32 to 158
Max. operating pressure [psi]	232 <sup>1)</sup>	232 <sup>1)</sup>	232 <sup>1)</sup>
<b>Motor data</b>			
Number of pumps	2 - 6	3 - 6	2 - 6
Motor power [HP]	2 - 60	2 - 60	2 - 60
<b>Shaft seal</b>			
KUHE (TC/C-TC/EPDM)	● <sup>2)</sup>	● <sup>2)</sup>	● <sup>2)</sup>
HQQE (SiC/SiC/EPDM)	● <sup>2)</sup>	● <sup>2)</sup>	● <sup>2)</sup>
<b>Materials</b>			
CR Pumps: Cast iron and stainless steel AISI 304	●	●	●
CRI Pumps: Stainless steel AISI 304	○	○	○
CRN Pumps: Stainless steel AISI 316	○	○	○
Manifold: Stainless steel	●	●	●
<b>Functions</b>			
Constant pressure control	●	●	●
Automatic cascade control	●	●	●
Pump changeover/alternation	●	●	●
GENIbus communication (external)	○	○	○
Integrated VFD/motor (on pump)	-	-	-
External VFD (in cabinet)	●	●	●

● Available as standard.

○ Available on request.

1) Booster sets with a maximum operating pressure higher than 232 psi are available on request.

2) Standard shaft seal for CR 5 - CR 20 is HQQE. Standard shaft seal for CR 32 - CR 90 is KUHE.



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Variant	Hydro MPC-S
<b>Hydraulic data</b>	
Max. head [ft]	155
Flow rate [gpm]	0 - 3600
Liquid temperature [° F]	32 to 158
Max. operating pressure [psi]	232 <sup>1)</sup>
<b>Motor data</b>	
Number of pumps	2 - 6
Motor power [HP]	1 - 60
<b>Shaft seal</b>	
KUHE (TC/C-TC/EPDM)	● <sup>2)</sup>
HQQE (SiC/SiC/EPDM)	● <sup>2)</sup>
<b>Materials</b>	
CR Pumps: Cast iron and stainless steel AISI 304	●
CRI Pumps: Stainless steel AISI 304	○
CRN Pumps: Stainless steel AISI 316	○
Manifold: Stainless steel	●
<b>Functions</b>	
Constant pressure control	● <sup>3)</sup>
Automatic cascade control	●
Pump changeover/alternation	●
GENibus communication (external)	○
Integrated VFD/motor (on pump)	-
External VFD (in cabinet)	-

- Available as standard.
- Available on request.

- 1) Booster sets with a maximum operating pressure higher than 232 psi are available on request.
- 2) Standard shaft seal for CR 5 - CR 20 is HQQE. Standard shaft seal for CR 32 - CR 90 is KUHE.
- 3) The pressure will range between  $H_{set}$  and  $H_{stop}$ . For further information, see page 17.



## Type key

Example	Hydro MPC	-ED	/	/NS	2 CRE 10-3	1 CR 10-3	3x460 V, PE, 60Hz
Type range							
Subgroups: Pumps with integrated frequency converter: -E, -ED, -ES Pumps with external frequency converter: -EF, -EDF, -F Mains-operated pumps (start/stop): -S							
Manifold material: : Stainless steel							
Suction manifold: : with suction manifold /NS : without suction manifold							
Number of pumps with integrated VFD/motor and pump type							
Number of mains-operated pumps and pump type							
Supply voltage, frequency							

## Operating conditions

### Operating pressure

As standard, the maximum operating pressure is 232 psi.

On request, Grundfos offers Hydro MPC booster sets with a higher maximum operating pressure.

### Temperature

Liquid temperature: 32 °F to 158 °F

Ambient temperature: 32 °F to 104 °F.

On request, Grundfos offers Hydro MPC booster sets with a higher maximum temperature range.

### Relative humidity

Max. relative humidity: 95 %.

## Pump

CR pumps are non-self-priming, vertical multistage centrifugal pumps.

Each pump consists of a base and a pump head. The chamber stack and outer sleeve are secured between the pump head and the base by means of staybolts. The base has suction and discharge ports on the same level (in-line) and of the same port size.

CRE pumps are based on CR pumps. The difference between the CR and CRE pump range is the motor. CRE pumps are fitted with a Grundfos MLE motor that includes an integrated variable frequency drive.

For further information, see the CR Product Guide literature number L-CR-PG-001. The Product Guide is available in WebCAPS on [www.grundfos.com](http://www.grundfos.com), see page 103.

For information about the pump's position in the booster set, see fig. 4 on page 12.

## Shaft seal

All pumps are equipped with a maintenance-free mechanical cartridge type shaft seal.

The standard shaft seal for pump sizes CR3, CR5, CR10, CR15, and CR20 is a HQQE. Seal faces of the HQQE shaft seal are silicon carbide/silicon carbide with rubber parts of EPDM. The standard shaft seal for pump sizes CR32, CR45, CR64, and CR90 is a KUHE. Seal faces of the KUHE shaft seal are tungsten carbide/carbon with embedded tungsten carbide with rubber parts of EPDM.

**Note:** Other shaft seal variants are available on request.



GR3395

**Fig. 1** Cartridge shaft seal, HQQE shown above

The shaft seal can be replaced without dismantling the pump. The shaft seal of pumps with motors of 15 HP and up can be replaced without removing the motor.

For further information, see the data booklet titled "Shaft seals" (publication number 96519875). The data booklet is available in WebCAPS on [www.grundfos.com](http://www.grundfos.com), see page 103.

## Motor

### Grundfos standard motors - ML and Baldor motors

CR pumps are fitted with a Grundfos specified motor. The motors are all heavy-duty 2-pole, NEMA C-face motors. The standard motor for pumps 10 HP and below, with 3-phase power, is the Grundfos ML motor with a TEFC enclosure. The standard motor for pumps above 10 HP is a Baldor motor with an ODP enclosure.

Single phase motors are available up to 10 HP. The standard motor for single phase power is a Baldor motor with a TEFC enclosure.

### Integrated frequency-controlled motors - MLE motors

The MLE motors consists of a 2-pole, TEFC rated enclosure, NEMA C-faced motor and an integrated variable frequency drive in a NEMA 3R enclosure.

In single phase power, (1 x 208-230 V), Grundfos offers MLE motors from 0.5 HP to 1.5 HP.

In three phase power, (3 x 208-230 V), Grundfos offers MLE motors from 1.5 HP to 7.5 HP.

In three phase power, (3 x 460 V), Grundfos offers MLE motors from 1 HP to 10 HP.

Motors with integrated variable frequency drive require no external motor protection. The motor incorporates thermal protection against slow overloading and seizure (IEC 34-11: TP 211).

### Optional motors

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

- explosion proof motors
- motors with anti-condensation heating unit
- energy efficient and premium efficiency motors
- motors with thermal protection

## Manifold

A suction manifold of stainless steel (316 or 316 Ti) is fitted on the suction side of the pumps. An isolating valve is fitted between the suction manifold and the individual pumps. A discharge manifold of stainless steel (316 or 316 Ti) is fitted on the discharge side of the pumps. An isolating valve and a check valve are fitted between the discharge manifold and the individual pumps. For suction lift applications the check valve may be fitted on the suction side on request.

For information about the position of the suction and discharge manifold, see fig. 4 on page 12.

## Control panel

The control panel is fitted with all the necessary components. If necessary, Hydro MPC booster sets are fitted with a fan to remove surplus heat generated by the VFD.

### Control panel variants

The control panel are divided into two groups based on construction:

- Systems with the control panel mounted on the base frame next to the pumps, (solid base).
- Systems with the control panel mounted on a separate base frame, (split base).  
The control panel is mounted on its own base frame and therefore suitable for floor mounting near the booster system.

For further information, see fig. 4 on page 12 and the chapter of Technical data for the individual Hydro MPC.

## CU 351

CU 351, the control unit of the Hydro MPC, is placed in the door of the control cabinet.



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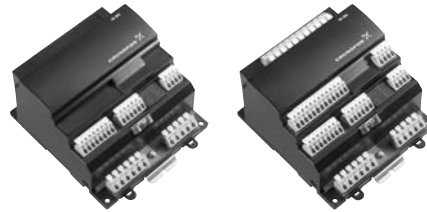
Fig. 2 CU 351

The CU 351 features an LCD display, a number of buttons and two indicator lights. The control panel enables manual setting and change of parameters such as setpoint.

The CU 351 includes application-optimized software for setting the booster set to the application in question.

## IO 351

IO 351 is a module for exchange of digital and analog signals between CU 351 and the remaining electrical system via GENibus. IO 351 comes in the variants A and B.



TM 03 2110 - GrA0815

Fig. 3 IO 351A and IO 351B

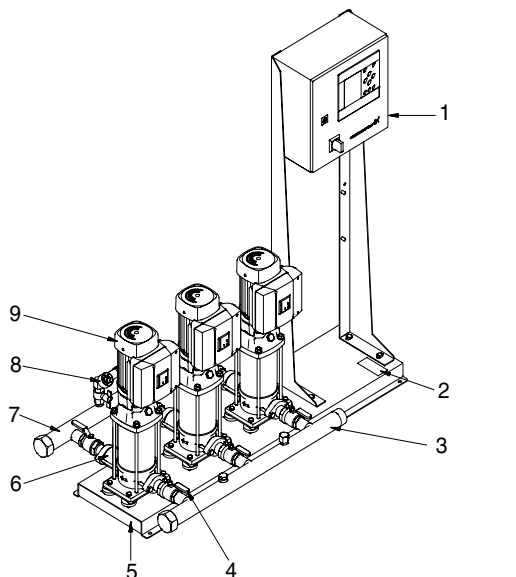
### IO 351A

IO 351A is used for one to three Grundfos pumps with fixed speed.

### IO 351B

IO 351B is used for one to six Grundfos pumps with fixed speed and/or one to three pumps controlled by external variable frequency drives, (VFD). The module can also be used as an input-output module for communication with monitoring equipment or another external equipment.

## System components



**Fig. 4** System components

Pos.	Description	Quantity
1	Control panel	1
2	Nameplate	1
3	Suction manifold (316 stainless steel)	1
4	Isolating valve	2 per pump
5	Base frame (304 stainless steel)	1
6	Check valve	1 per pump
7	Discharge manifold (316 stainless steel)	1
8	Pressure transmitter/gauge	1 per manifold
9	Pump	2 - 6

## Mechanical installation

### Location

The booster set must be installed in a well-ventilated area to ensure sufficient cooling of the control panel and pumps.

**Note:** Hydro MPC is not designed for outdoor installation and must not be exposed to direct sunlight.

The booster set should be placed with a 3 feet clearance in front and on the two sides for inspection and removal.

### Pipework

Arrows on the pump base show the direction of flow of water through the pump.

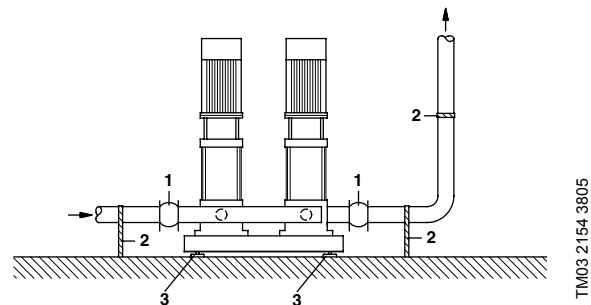
The pipework connected to the booster set must be of adequate size.

The pipes are connected to the manifolds of the booster set. Either end can be used. Apply sealing compound to the unused end of the manifold and fit the screw cap. For manifolds with flanges, a blanking flange with gasket must be fitted.

To optimize operation and minimize noise and vibration, it may be necessary to consider vibration dampening of the booster set.

Noise and vibration are generated by the rotating components in the motor and pump and by the flow in the pipe and fittings. The effect on the environment is subjective and depends on correct installation and the state of the remaining system.

If booster sets are installed where the first consumer on the line is close to the booster set, it is advisable to fit expansion joints on the suction and discharge pipes to prevent vibration being transmitted through the pipework.



**Fig. 5** Schematic view of hydraulic installation

Pos.	Description
1	Expansion joint
2	Pipe support and good location for system isolation valve
3	Machine shoe
4	Discharge Pipe Isolation Valve

**Note:** Expansion joints, pipe supports and machine shoes shown in the figure above are not supplied with a standard booster set.

All nuts should be tightened prior to start-up.

The pipes must be fastened to parts of the building to ensure that they cannot move or be twisted.

### Foundation

The booster set should be positioned on an even and solid surface, such as a concrete floor or foundation. If the booster set is not fitted with machine shoes, it must be bolted to the floor or foundation.

**Note:** As a rule unless protected, the weight of a concrete foundation should be a minimum of 1.5 x the weight of the booster set.

### Dampening

To prevent the transmission of vibrations to buildings, it may be necessary to isolate the booster set foundation from building parts by means of vibration dampers.

Determining the correct damper varies from installation to installation, and a wrong damper may increase the vibration level. Vibration dampers should therefore be sized by the supplier of vibration dampers.

If the booster set is installed on a base frame with vibration dampers, expansion joints should always be fitted on the manifolds. This is important to prevent the booster set from “hanging” in the pipework.

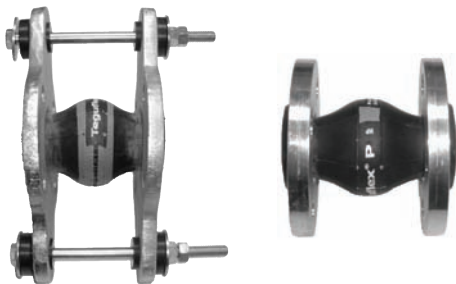
## Expansion joints

Expansion joints are installed to

- absorb expansions/contractions in the pipework caused by changing liquid temperature
- reduce mechanical strains in connection with pressure surges in the pipework
- isolate mechanical structure-borne noise in the pipework (only rubber bellows expansion joints).

**Note:** Expansion joints must not be installed to compensate for inaccuracies in the pipework such as center displacement of flanges.

Fit expansion joints at a distance of minimum 1 to 1 1/2 times the nominal flange diameter from the manifold on the suction as well as on the discharge side. This prevents the development of turbulence in the expansion joints, resulting in better suction conditions and a minimum pressure loss on the pressure side. At high water velocities (> 10 ft/s) it is advisable to install larger expansion joints corresponding to the pipework.



TM02 4981 1902 - TM02 4979 1902

**Fig. 6** Examples of rubber bellows expansion joints with and without limit rods

Expansion joints with limit rods can be used to minimize the forces caused by the expansion joints. Expansion joints with limit rods are always recommended for flanges larger than 6 inches.

The pipes should be anchored so that it does not stress the expansion joints and the pump. Follow the supplier's instructions and pass them on to advisers or pipe installers.

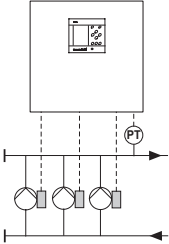
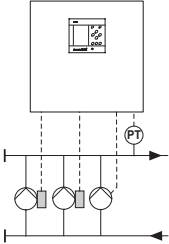
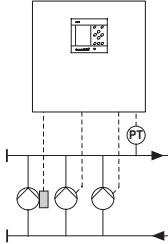
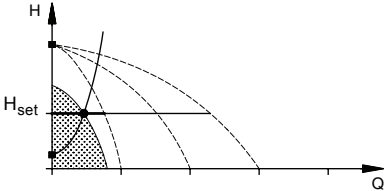
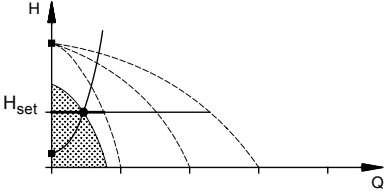
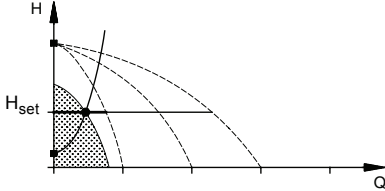
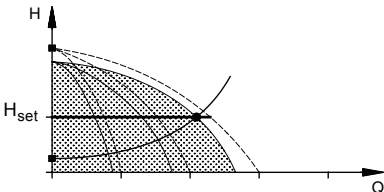
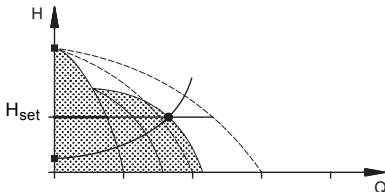
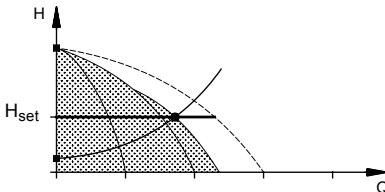
## Electrical installation

The electrical installation should be carried out by an authorized person in accordance with local regulations.

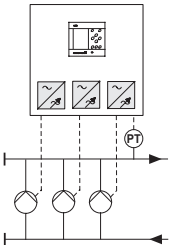
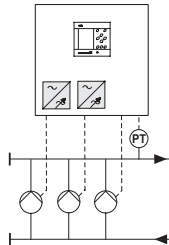
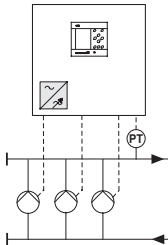
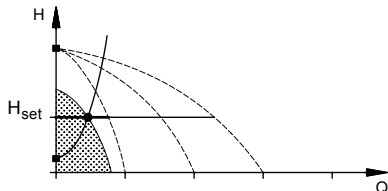
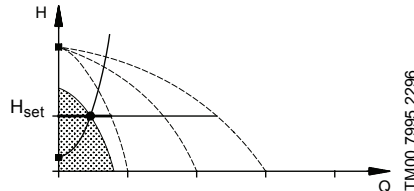
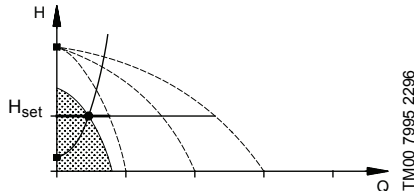
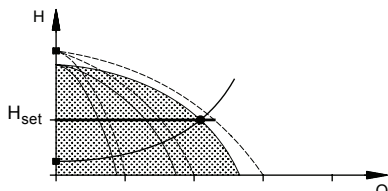
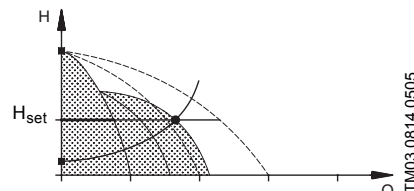
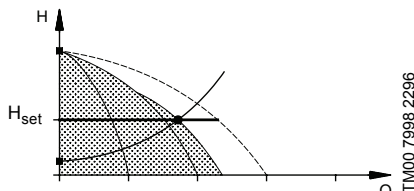
- The electrical installation of the booster set must be carried out in accordance with enclosure class or panel rating.
- Make sure that the booster set is suitable for the electricity supply to which it is connected.
- Make sure that the wire cross-section corresponds to the specifications in the wiring diagram and panel label - max. amps..

**Note:** The mains connection should be carried out as shown in the wiring diagram.

## Overview of variants, examples

Booster sets with pumps with integrated frequency converter		
Hydro MPC-E	Hydro MPC-ED	Hydro MPC-ES
Hydro MPC booster set with three CRE pumps.	Hydro MPC booster set with two CRE pumps and one constant speed CR pump.	Hydro MPC booster set with one CRE pump and two constant speed CR pumps.
		
TM03 0993 0905	TM03 0994 0905	TM03 0996 0905
One CRE pump in operation.	One CRE pump in operation.	One CRE pump in operation.
		
TM00 7995 2296	TM00 7995 2296	TM00 7995 2296
Three CRE pumps in operation.	Two CRE pumps and one constant speed CR pump in operation.	One CRE pump and two constant speed CR pumps in operation.
		
TM00 7996 2296	TM03 0814 0505	TM00 7998 2296
<ul style="list-style-type: none"> <li>Hydro MPC-E maintains constant pressure through continuous variable adjustment of the speed of the CRE pumps.</li> <li>The performance is adjusted to the demand through cutting in/out the required number of CRE pumps and through parallel control of the pumps in operation.</li> <li>Pump changeover is automatic and depends on load, time and fault.</li> <li>All pumps in operation will run at equal speed.</li> </ul>	<ul style="list-style-type: none"> <li>Hydro MPC-ED maintains constant pressure through continuous variable adjustment of the speed of two CRE pumps, while the CR pump is running at a constant speed.</li> <li>One CRE pump always starts first. If the pressure cannot be maintained by the pump, the second CRE pump will be cut in. If the two pumps cannot maintain the pressure, the CR pump will be cut in.</li> <li>Pump changeover is automatic and depends on load, time and fault.</li> </ul>	<ul style="list-style-type: none"> <li>Hydro MPC-ES maintains constant pressure through continuous variable adjustment of the speed of the single CRE pump. The other pumps are cut in/out according to demand to achieve a performance corresponding to the consumption.</li> <li>The CRE pump always starts first. If the pressure cannot be maintained by the pump, one or both of the constant speed CR pumps will be cut in.</li> <li>Changeover among the constant speed pumps is automatic and depends on load, time and fault.</li> </ul>

### Booster sets with pumps connected to external frequency converters

Hydro MPC-EF	Hydro MPC-EDF	Hydro MPC-F
<p>Hydro MPC booster set with three CR pumps connected to external variable frequency drives, (VFD), in the control panel.</p>	<p>Hydro MPC booster set with two CR pumps connected to external variable frequency drives, (VFD), in the control panel and one constant speed CR pump.</p>	<p>Hydro MPC booster set with three CR pumps. One of the pumps is connected to an external variable frequency drive, (VFD), in the control panel. The speed-controlled operation alternates between the pumps of the Hydro MPC.</p>
		
TM03 0995 0905	TM03 0997 0905	TM03 1265 1505
<p>One CR pump connected to an external VFD in operation.</p>	<p>One CR pump connected to an external VFD in operation.</p>	<p>One CR pump connected to an external VFD in operation.</p>
		
TM00 7995 2296	TM00 7995 2296	TM00 7995 2296
<p>Three CR pumps connected to external VFDs' in operation.</p>	<p>Two CR pumps connected to external VFDs' and one constant speed CR pump in operation.</p>	<p>One CR pump connected to an external VFD and two constant speed CR pumps in operation.</p>
		
TM00 7996 2296	TM03 0814 0505	TM00 7998 2296
<ul style="list-style-type: none"> <li>Hydro MPC-EF maintains constant pressure through continuous variable adjustment of the speed of the pumps.</li> <li>The performance is adjusted to the demand through cutting in/out the required number of pumps and through parallel control of the pumps in operation.</li> <li>Pump changeover is automatic and depends on load, time and fault.</li> <li>All pumps in operation will run at equal speed.</li> </ul>	<ul style="list-style-type: none"> <li>Hydro MPC-EDF maintains constant pressure through continuous variable adjustment of the speed of two CR pumps connected to external VFDs' in the control panel, while one CR pump is constant speed. The speed controlled operation is dedicated to the CR pumps and do not alternate with the constant speed pump.</li> <li>One CR pump connected to an external VFD always starts first. If the pressure cannot be maintained by the pump, the second CR pump connected to an external VFD will be cut in. If the pressure cannot be maintained by the two pumps, the constant speed pump will be cut in.</li> <li>Pump changeover is automatic and depends on load, time and fault.</li> </ul>	<ul style="list-style-type: none"> <li>Hydro MPC-F maintains constant pressure through continuous variable adjustment of the speed of the CR pump connected to an external VFD. The speed controlled operation alternates between the pumps.</li> <li>One CR pump connected to the VFD always starts first. If the pressure cannot be maintained by the pump, one or two constant speed CR pumps will be cut in.</li> <li>Pump changeover is automatic and depends on load, time and fault.</li> </ul>



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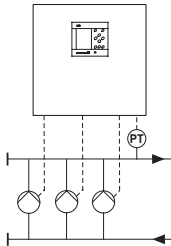
**Booster sets with direct online/constant speed pumps (on/off)**

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**Hydro MPC-S**

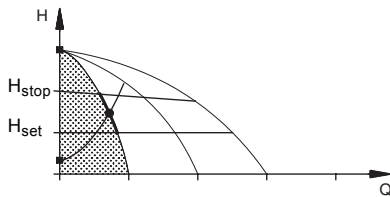
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Hydro MPC booster set with three constant speed CR pumps.



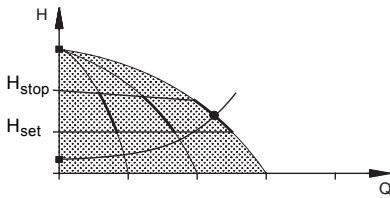
TM03 0999 0905

One constant speed CR pump in operation.



TM03 2045 3505

Three constant speed CR pumps in operation.



TM03 2046 3505

- Hydro MPC-S maintains pressure range through cutting in/out the required number of pumps.
  - The operating range of the pumps will lie between the lines  $H_{set}$  and  $H_{stop}$  (cut-out pressure). The cut-out pressure cannot be set, but is calculated automatically.
  - Pump changeover is automatic and depends on load, time and fault.
-

## Overview of functions

	Hydro MPC						
	-E	-ED	-ES	-EF	-EDF	-F	-S
<b>Functions via the CU 351 control panel</b>							
Constant-pressure control	●	●	●	●	●	●	● <sup>2)</sup>
Automatic cascade control	●	●	●	●	●	●	●
Alternative setpoints	●	●	●	●	●	●	●
Redundant primary sensor (option)	○	○	○	○	○	○	○
Min. changeover time	●	●	●	●	●	●	●
Number of starts per hour	●	●	●	●	●	●	●
Standby pumps	●	●	●	●	●	●	●
Forced pump changeover	●	● <sup>1)</sup>	● <sup>1)</sup>	●	● <sup>1)</sup>	●	●
Test run	●	●	●	●	●	●	●
Dry-running protection (suction transducer)	●	●	●	●	●	●	●
Stop function	●	●	●	●	●	●	● <sup>3)</sup>
Password	●	●	●	●	●	●	●
Clock program	●	●	●	●	●	●	●
Proportional pressure	●	●	●	●	●	●	●
Pilot pump	●	●	●	●	●	●	●
Soft pressure build-up	●	●	●	●	●	●	●
Emergency run	●	●	●	●	●	●	●
Pump curve data	●	●	●	●	●	●	●
Flow estimation	●	●	●	●	●	●	●
Limit exceeded 1 and 2	●	●	●	●	●	●	●
End of curve protection	●	●	●	●	●	●	●
<b>Communication</b>							
GENIbus connection (external)	○	○	○	○	○	○	○
Other bus protocols: PROFIBUS, Interbus-S and radio/modem/PLC, Modbus via G100 gateway	○	○	○	○	○	○	○
Ethernet connection	●	●	●	●	●	●	●

● Standard.

○ On request.

1) Pump changeover only possible among pumps of the same type.

2) The pressure will be almost constant between  $H_{set}$  and  $H_{stop}$ . For further information, see page 17.

3) Hydro MPC-S will have on/off control of all pumps. For further information, see page 20.

## Description of functions

### Constant-pressure control

Constant-pressure control ensures that the Hydro MPC booster set delivers a constant pressure despite a change in consumption.

#### Example

A Hydro MPC booster is used for water supply in a high-rise building.

A pressure transmitter on the discharge manifold measures the discharge pressure. The value is compared with the setpoint. The PID controller of the booster set controller adjusts the performance as the consumption pattern changes, ensuring that the discharge pressure matches the setpoint. Consequently a constant pressure is maintained.

### Redundant primary sensor

Normally, signals from a primary sensor on the discharge side controls the Hydro MPC.

A redundant primary sensor can be fitted as backup for the primary sensor in order to increase the reliability and prevent stop of operation.

**Note:** The redundant primary sensor is available as a factory-fitted option.

### Automatic cascade control

Cascade control ensures that the performance of Hydro MPC is automatically adapted to consumption by switching pumps on or off.

The booster set thus runs as energy-efficiently as possible and with a limited number of pumps switched on.

### External influence

This function makes it possible to make an external analog signal influence the setpoint. The analog signal may be a 0-100% signal from another control unit, a signal transmitter such as a flow sensor, or a parameter in the system.

### Influence function

This function is similar to the external influence except the user has the ability to define the relationship between the measuring parameter which is to influence the setpoint and the desired influence as a percentage.

### Alternative setpoints

This function makes it possible to set up to six setpoints as alternatives to the primary setpoint.

The performance of the booster set can thus be adapted to other consumption patterns.

#### Example

A Hydro MPC booster set is used for irrigation of a hilly golf course.

Constant-pressure irrigation of golf course sections of different sizes and at different altitudes may require more than one setpoint.

For golf course sections at a higher elevation a higher discharge pressure is required to meet the pressure requirement at the higher elevation.

### Number of starts per hour

This function limits the number of pump starts and stops per hour. It reduces noise emission and improves the comfort of booster sets with constant speed pumps.

Each time a pump starts or stops, the controller calculates when the next pump is allowed to start/stop in order not to exceed the permissible number of starts per hour.

The function always allows pumps to be started to meet the requirement, but pump stops will be delayed, if needed, in order not to exceed the permissible number of starts/stops per hour.

### Standby pumps

It is possible to let one or more pumps function as standby pumps. A booster set with for instance four pumps, one being standby pump, will run like a booster set with three pumps, as the maximum number of pumps in operation is the total number of pump minus the number of standby pumps.

If a pump is stopped due to a fault, the standby pump is cut in. This function ensures that the Hydro MPC booster set can maintain the nominal performance even if one of the pumps is stopped due to a fault.

The standby pump/s alternates between all pumps of the same type. This ensures equal wear of all pumps of the same type.

## Forced pump changeover

This function ensures that the pumps run for the same number of operating hours over time.

In certain applications the required flow remains constant for long periods and does not require all pumps to run. In such situations, pump changeover does not take place naturally, and forced pump changeover may thus be required.

Once every 24 hours the controller checks if any pump in operation has been running continuously for the last 24 hours.

If this is the case, the pump with the largest number of operating hours is stopped and replaced by the pump with the lowest number of operating hours.

## Test run

This function is primarily used in connection with pumps that do not run every day.

The function ensures that

- pumps do not seize up during a long standstill due to deposits from the pumped liquid.
- the pumped liquid does not decay in the pump.
- trapped air is removed from the pump.

The pump starts automatically and runs for a short time.

## Dry-running protection

This function is one of the most important ones, as dry running may damage bearings and shaft seals.

The inlet pressure of the booster set or the level in a tank, if any, on the inlet side is monitored. If the inlet pressure or the water level is too low, all pumps are stopped.

## Stop function

The stop function is only used in connection with Hydro MPC booster sets with variable-speed pumps.

**Note:** Hydro MPC-S will have on/off control of all pumps.

In case of low flow the booster set changes from constant-pressure operation to on/off operation to maintain the pressure in the tank. The purpose is to

- save energy
- prevent heating of shaft seal faces due to increased mechanical friction as a result of reduced cooling by the pumped liquid
- prevent heating of the pumped liquid.

In order to use the stop function the diaphragm tank needs to function properly.

## Pilot pump

The pilot pump takes over the operation from the main pumps in periods when the consumption is so small that the stop function of the main pumps is activated.

The purpose is to

- save energy
- reduce the number of operating hours of the main pumps.

## Password

Passwords make it possible to limit the access to the menus **Operation** and **Settings** in the controller of the booster set.

## Operation menu

Via the **Operation** menu it is possible to set and monitor the most basic parameters, such as setpoint, setpoint influence, primary sensor and redundant primary sensor.

## Settings menu

Via the **Settings** menu it is possible to monitor and set various functions such as setpoint, setpoint influence and number of starts per hour.

## Clock program

This function makes it possible to set up to ten setpoints with day and time for their activation/deactivation. An example of application is sprinkling of golf courses at fixed times for the individual greens.

## Proportional pressure

This function is used in pressure regulated systems and automatically adapts the setpoint set to the current flow rate. The adaptation can be linear or square.

The function has these purposes:

- to compensate for pressure losses
- to reduce the energy consumption
- to increase the comfort the user.

## **Soft pressure build-up**

This function ensures a soft start of systems that are connected to piping that has no water in them yet. It has two phases:

1. The piping is slowly filled with water.
2. When the pressure sensor of the systems detects that the piping has been filled, the pressure is increased until it reaches the setpoint.

The function can be used for preventing water hammer in high-rise buildings with unstable voltage supply or in sprinkling applications.

## **Emergency run**

The function is especially suited for important systems where the operation must not be interrupted. If activated this function will keep the pumps running regardless of warnings or alarms. The pumps will run according to the setpoint set specifically for this function.

When sizing a booster set, it is important to ensure

- that the performance of the booster set can meet the highest possible demand both in terms of flow rate and pressure.
- that the booster set is not oversized. This is important in relation to installation and operating costs.

## Consumption pattern

The consumption pattern can be illustrated as a 24-hour profile and duty-time profile.

### 24-hour profile

The 24-hour profile shows the consumption during 24 hours.

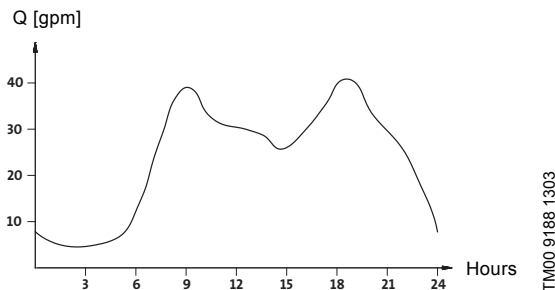


Fig. 7 24-hour profile

### Duty-time profile

The duty-time profile is based on the 24-hour profile and gives an overview of how many per cent per day the booster operates at a specific flow rate.

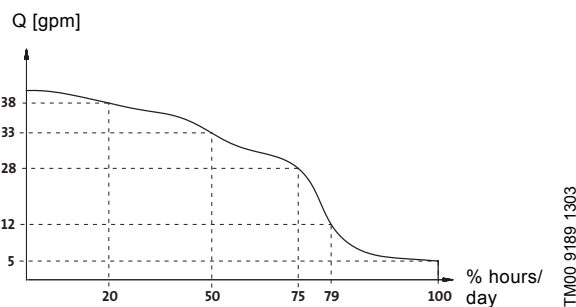


Fig. 8 Duty-time profile

The example in the duty profile above shows:

- 100 % of the time: Flow rate  $\geq$  5 gpm
- 79 % of the time: Flow rate  $>$  12 gpm
- 75 % of the time: Flow rate  $>$  28 gpm
- 50 % of the time: Flow rate  $>$  33 gpm
- 20 % of the time: Flow rate  $\geq$  38 gpm

## Selection of booster set

When sizing, the following should be considered:

1. The **consumption pattern** to be met by the booster set:
  - How much does the consumption vary?
  - How suddenly does the consumption vary?
  - See page 23.
2. The distribution of consumption over **time**. See page 23.
3. The **type** of booster set to be selected. The selection of type should be based upon the consumption pattern. The following types are available:
  - E, -ED, -ES, -EF, -EDF, -F and -S.
  - See page 23.
4. The **system size** to be selected (pump performance and number of pumps). The selection of system size should be based upon the consumption pattern, considering the following aspects:
  - highest demand
  - efficiency
  - NPSH value
  - are stand-by pumps required?
  - See page 24.
5. The **diaphragm tank** to be selected. See page 25.
6. The **dry-running protection** to be selected. See page 26.

### WinCAPS and WebCAPS

WinCAPS and WebCAPS are both selection programs offered by Grundfos.

The two programs make it possible to calculate a Hydro MPC booster set's specific duty point and energy consumption.

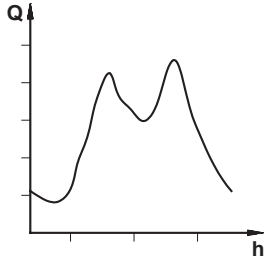
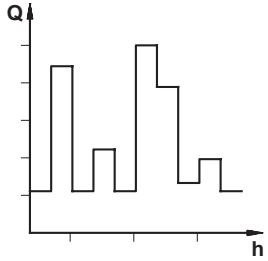
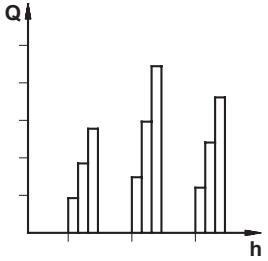
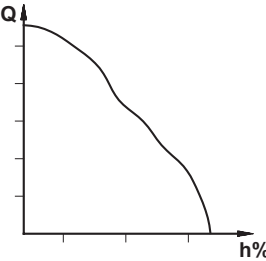
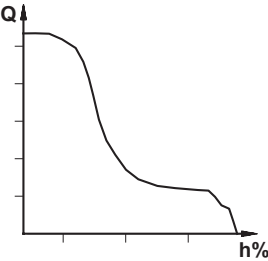
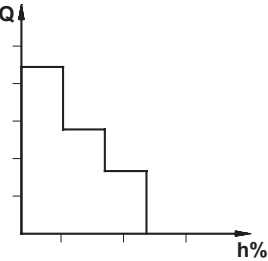
When you enter the dimensions of the pump, WinCAPS and WebCAPS can calculate the exact duty point and energy consumption. For further information, see pages 104 to 103.

## Type of booster set

The booster set type should be selected on the basis of the consumption pattern, i.e. the 24-hour and duty-time profiles.

If the consumption is variable and optimum comfort is required, pumps with continuously variable speed control should be used.

Examples of consumption patterns and their 24-hour and duty-time profiles:

	Water supply	Industry	Irrigation
24-hour profile	 <p>TM00 9197 1705</p>	 <p>TM00 9200 1705</p>	 <p>TM00 9198 1705</p>
	<p><b>Flow rate:</b> Highly variable.</p> <p><b>Pressure:</b> Constant.</p>	<p><b>Flow rate:</b> Highly variable with sudden changes.</p> <p><b>Pressure:</b> Constant.</p>	<p><b>Flow rate:</b> Constant and known.</p> <p><b>Pressure:</b> Constant.</p>
Duty-time profile	 <p>TM00 9201 1705</p>	 <p>TM00 9199 1705</p>	 <p>TM00 9202 1705</p>
	<p>Consumption is highly variable. Continuously variable speed control of the pumps is recommended.</p> <p><b>Recommended types:</b> -E, -ED, -ES, -EF, -EDF, -F.</p>	<p>Consumption is highly variable with sudden changes. Continuously variable speed control of the pumps is recommended.</p> <p><b>Recommended types:</b> -E, -ED, -ES, -EF, -EDF, -F.</p>	<p>Variations in consumption are regular, yet known. Simple control is recommended.</p> <p><b>Recommended type:</b> -S.</p>

## Selection of pumps

### Pump size

The system must meet the highest possible demand. But as the highest demand will often occur for a comparatively short part of the duty period only, it is important to select a type of pump which can meet the varying demand throughout the duty period.

### Efficiency

In order to achieve the optimum operating economy, select the pumps on the basis of optimum efficiency, i.e. the pumps should, as much as possible, operate within their nominal performance ranges.

As the booster set is always sized on the basis of the highest possible consumption, the duty point of the pumps should be to the right on the efficiency curve (see the pump performance curve) in order to keep efficiency high when consumption drops.

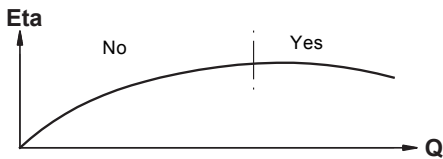


Fig. 9 Pump efficiency curve

Optimum efficiency is ensured by selecting a duty point within the hatched area.

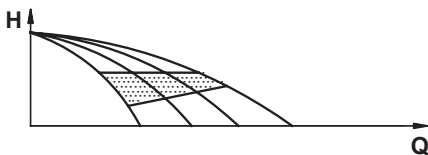


Fig. 10 Area of optimum efficiency

TM00 9190 1705

TM00 9192 1705

### NPSH

In order to avoid cavitation, never select a pump with a duty point too far to the right on the NPSHr (NPSH required), curve in applications where suction pressure is low or in suction lift applications. Always check the NPSHr values of the pumps at the highest possible consumption with suction pressure, NPSHa (NPSH available), at this highest possible consumption rate.

CR pumps can be fitted with low NPSH impellers to decrease the pump's required NPSH. See CR Custom-Built Product Guide for more information.

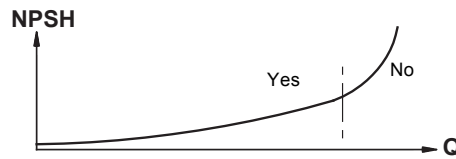


Fig. 11 NPSHr curve for pump

TM00 9191 1705

### Stand-by pump

To most customers reliable supplies are a major factor. Often it is not acceptable if the system does not maintain its maximum flow even during pump repairs or breakdown. In order to prevent any disruption of the supply in such a situation, the booster set can be equipped with a stand-by pump.

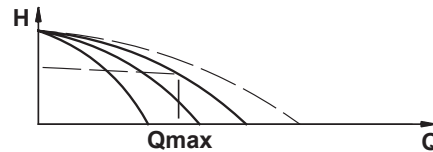


Fig. 12 System with stand-by pump

If flow or pressure is not critical, a standby pump may be omitted. The end result will be a reduced pressure at a required flow or a reduced flow at a required pressure if one of the pumps is requiring service.

TM00 9193 1705

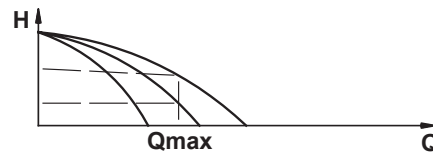


Fig. 13 System without stand-by pump

TM00 9194 1705



### Selection of diaphragm tank

The need for a diaphragm tank should be estimated on the basis of the following guidelines:

- All Hydro MPC booster sets in buildings must be equipped with a diaphragm tank due to the stop function.
- Normally, Hydro MPC booster sets in water supply applications require no diaphragm tank as long piping layouts partly hold the necessary capacity, partly have the elasticity to give sufficient capacity.  
**Note:** To avoid the risk of water hammering a diaphragm tank may be necessary.
- The need for a diaphragm tank for Hydro MPC booster sets in industrial applications should be estimated from situation to situation on the basis of the individual factors on site.

Pump type	Recommended diaphragm tank size [gallons]						
	-E	-ED	-ES	-EF	-EDF	-F	-S
CR(E) 3	4.4	4.4	4.4	4.4	4.4	4.4	20
CR(E) 5	4.4	4.4	4.4	4.4	4.4	4.4	34
CR(E) 10	10.2	10.2	10.2	10.2	10.2	10.2	62
CR(E) 15	34	34	34	34	34	34	211
CR(E) 20	34	34	34	34	34	34	211
CR(E) 32	44	44	44	44	44	44	317
CR(E) 45	86	86	86	86	86	86	528
CR(E) 64	132	132	132	132	132	132	1056
CR(E) 90	-	-	-	132	132	132	1056

The size of the recommended diaphragm tank in gallons can be calculated from the following equations:

#### Hydro MPC-E, -ED, -ES, -EF, -EDF and -F

$$V_0 = \frac{k_Q \cdot Q \cdot (p_{set} + 14.5)^2 \cdot \left(\frac{3600}{N} - 10\right)}{60 \cdot (k_f \cdot p_{set} + 14.5) \cdot k_H \cdot p_{set}}$$

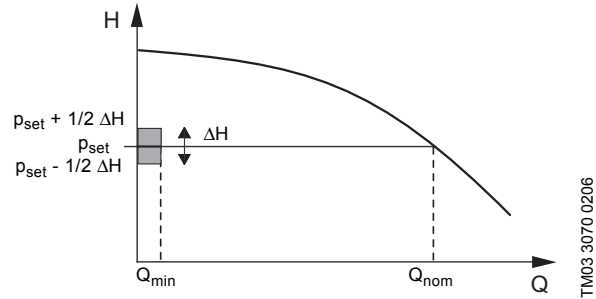
#### Hydro MPC-S

$$V_0 = \frac{15 \cdot Q \cdot (p_{set} + 14.5) \cdot (k_H \cdot p_{set} + p_{set} + 14.5)}{N \cdot (k_f \cdot p_{set} + 14.5) \cdot k_H \cdot p_{set}}$$

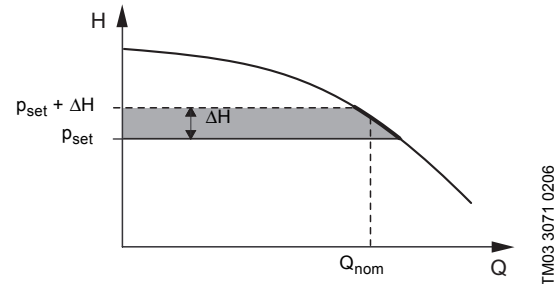
Symbol	Description
$V_0$	Tank volume [gallons]
$k_Q$	The ratio between nominal flow rate of one pump $Q_{nom}$ and the flow rate $Q_{min}$ at which the pump is to change to on/off operation. $k_Q = Q_{min}/Q_{nom}$ . (0.10 for CR Pumps, 10%)
$Q$	Mean flow rate, $Q_{nom}$ [gpm]
$p_{set}$	Setpoint [psi]
$k_H$	The ratio between the on/off band $\Delta H$ and the setpoint $p_{set}$ . $k_H = \Delta H/p_{set}$

Symbol	Description
$k_f$	The ratio between tank pre-charge pressure $p_0$ and the setpoint $p_{set}$ . $k_f = p_0/p_{set}$ . 0.9 for Hydro MPC-S 0.7 for Hydro MPC-E, -ED, -ES, -EF, -EDF and -F
$N$	Maximum number of starts/stops per hour

#### Hydro MPC-E, -ED, -ES, -EF, -EDF and -F



#### Hydro MPC-S



The tank values are based on the following data:

Symbol	Hydro MPC	
	-E, -ED, -ES, -EF, -EDF and -F	-S
$Q$	$Q_{nom}$ of one pump	$Q_{nom}$ of one pump
$k_Q$	10%	-
$p_{set}$	58 psi	58 psi
$k_H$	20%	25%
$k_f$	0.7	0.9

#### Example of Hydro MPC-E and -S with CR(E) 10

Symbol	Hydro MPC-E	Hydro MPC-S
$Q$ [gpm]	44	44
$k_Q$	10%	-
$k_H$	20%	25%
$p_{set}$ [psi]	58	58
$N$ [h <sup>-1</sup> ]	200	100
<b>Result</b>		
$V_0$ [gallons]	4.83	43.0
Selected tank	<b>4.4 or 10.2 gallon</b>	<b>44 or 62 gallon</b>
$\Delta H$ [psi]	11.6	14.5
$p_0$ [psi]	40.6	52.2

## Dry-running protection

The booster set must be protected against dry-running. The inlet conditions determine the type of dry-running protection:

- If the system draws from a tank or a pit, select a float switch located in the tank, or liquid level switch for dry-running protection. The use of a float switch in these applications is recommended because the float switch will initialize the dry run protection before air enters the suction manifold & pumps therefore eliminating the need to vent the system after a dry-run fault has occurred.
- If the system has an inlet pressure, select a pressure transmitter or a pressure switch for dry-running protection.

## Minimum inlet pressure - NPSHR

Calculation of the inlet pressure "H" is recommended when ....

- the liquid temperature is high,
- the flow is significantly higher than the rated flow,
- 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 suction side of the pump. The maximum suction lift "L" in feet can be calculated as follows:

$$H = p_b - \text{NPSHR} - H_f - H_v - H_s - L$$

$P_b$  = Barometric pressure in feet absolute.  
(Barometric pressure can be set to 33.9 feet. At sea level. In closed systems, pb indicates system pressure in feet.)

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

$H_f$  = Friction loss in suction pipe in feet.  
(At the highest flow the pump will be delivering.)

$H_v$  = Vapor pressure in feet. (To be read from the vapor pressure scale. " $H_v$ " depends on the liquid temperature " $T_m$ ").

$H_s$  = Safety margin = minimum 2.0 feet.

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

If the "H" calculated is negative, cavitation will occur. An inlet pressure of minimum value "H" feet (positive) is required.

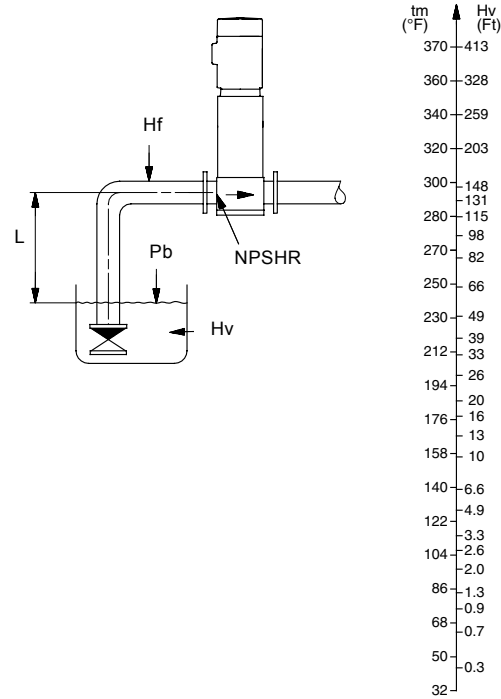


Fig. 14 Minimum inlet pressure - NPSHR

**Note:** In order to avoid cavitation **never**, select a pump whose duty point lies too far to the right on the NPSHR curve.

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

CR pumps can be fitted with low NPSH impellers to decrease the pump's required NPSH. See CR Custom-Built Product Guide for more information.

TM02 7729 3903

## How to read the curve charts

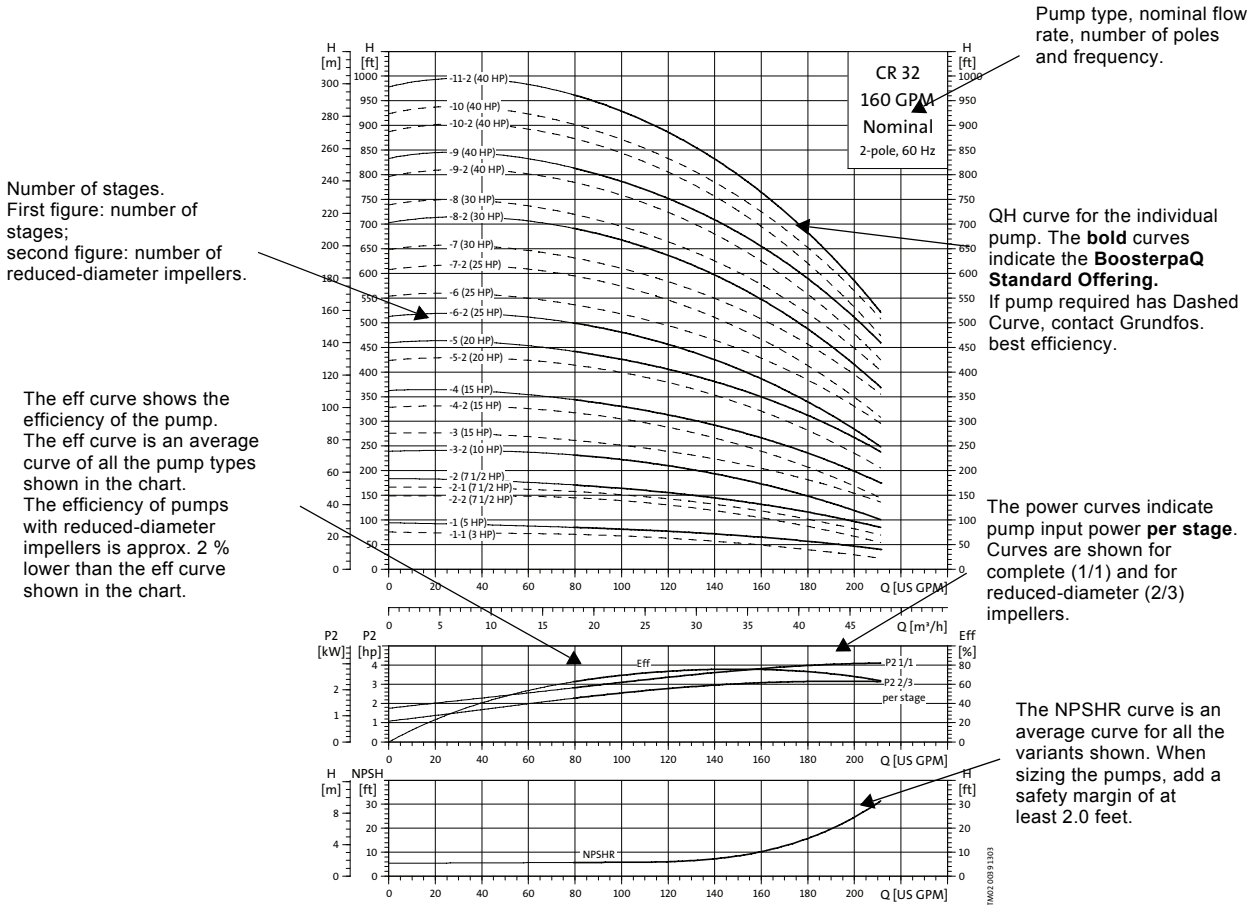


Fig. 15 How to read the curve charts

## Guidelines to performance curves

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

1. The motors used for the measurements are standard motors (ODP, TEFC or MLE).
2. Measurements have been made with airless water at a temperature of 68 °F.
3. The curves apply to a kinematic viscosity of  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt).
4. Due to the risk of overheating, the pumps should not be used at a flow below the minimum flow rate.
5. The QH curves apply to actual speed with the motor types mentioned at 60 Hz.

TM02 0039 1303

## Example: How to select a system

A booster system is a parallel application of pumping where 2 to 6 pumps are connected to a common suction and common discharge manifold. In parallel applications the flows of each pump will add together and the head will remain the same.

### Example 1

- A design maximum flow rate of 300 gpm is required.
- A pressure boost of 100 psi (231 feet) is required.
- Application: constant pressure domestic water supply.
- Power supply: 460V/3/60 Hz

1. Determine the number of pumps desired for the system.

The number of pumps required for the booster system depends on the application. Given 300 gpm design flow for a domestic water supply application, it is known from a typical load profile (see page 21), for this application that the flow will vary significantly. Several factors impact the selection of the number of pumps. These include low flow efficiency, redundant/stand-by pumps, space limitations and overall cost of the system.

For this example, assume three pumps best satisfy the the varying conditions. If the number of pumps required for the system is three then each pump would need to be able to deliver 100 gpm @ 231 ft to meet the design requirement of 300 gpm @ 231ft. Remember that pumping in parallel, flow is additive while head remains the same. This breaks down the total flow for the system into individual flows required from each pump.

2. After determining the number of pumps needed for the system it is time to look at individual pump curves on the following pages and select the pump that will meet the individual conditions.

In this example a CR15-5 will meet the individual conditions of 100 gpm @ 231 ft. The selection will be a 3-pump CR15-5 to meet the total flow of 300 gpm @ 231 feet.

3. Now the number of pumps in the system is known and an individual pump model has been selected. It is now time to select the type of system. The requirements state that constant pressure is required with variable flow requirements, (see page 21). The recommended types of systems to meet the constant pressure and highly variable flow requirement are: -E, -ED, -ES, -EF, -EDF, -F type systems, (see pages 14-15). All of the above mentioned systems incorporate at least one variable speed controlled pumps. The systems that include all variable speed controlled pumps, and give the greatest flexibility and redundancy, are the -E & -EF systems.

For this example an MPC-E system is selected to incorporate the greatest flexibility and redundancy for the system The name of the system will be: MPC-E 3CRE15-5

### Example 2

- A design maximum flow rate of 300 gpm is required.
- A pressure boost of 100 psi (231 feet) is required.
- Application: constant flow - tank fill application.
- One 100% stand-by pump required.
- Power supply: 460V/3/60 Hz

1. Determine the number of pumps required for this application. This application is a constant flow-rate application, when the booster system is needed to run, a constant 300 gpm flow rate is required.

The number of pumps required for this application is two, one duty pump and one stand-by pump with each pump capable of delivering 300 gpm @ 231 ft head.

2. After determining what the individual flow required from each pump is, look at the individual pump curves on the following pages and select the pump that will meet the condition.

In this example a CR64-3-2 will meet the condition so the selection will be a 2-pump CR64-3-2, one duty pump and one stand-by pump.

3. The number of pumps in the system have been determined as well as the model of the the pumps. Now select the type of system that best meets the application. The requirements for this example states that a constant flow rate of 300 gpm at a boost pressure of 231 ft is needed any time the pump(s) are called to run. The recommended type of system to meet the constant flow rate at a constant head is an: -S system, (see page 21). The name of this system will be a MPC-S 2CR64-3-2.

## Example: Calculating total system pressure drop

### Example

- A design maximum flow rate of 300 gpm is required.
- A pressure boost of 100 psi (231 feet) is required.
- Application: constant pressure domestic water supply.
- Power supply: 460V/3/60 Hz
- BoosterpaQ System Selection: MPC-E 3CRE15-5

Calculating the total system pressure drop is very important to ensure the system will meet the design condition. A common way to calculate the total system pressure drop requires a hydraulic data book with information on pipe friction pressure loss and various fittings pressure loss information. The total system pressure drop loss consists of the following:

- Suction manifold losses due to water passing through the manifold with interconnecting piping connections. These losses can be considered as water passing through a “Tee Fitting” with in-line flow.
- Manifold exit loss, this loss can be considered as an “Abrupt Contraction” to flow.
- Suction isolation valve loss.
- Check valve loss.
- Discharge isolation valve loss.
- Manifold entry loss, this loss can be considered as an “Abrupt Enlargement” to flow.
- Discharge manifold losses due to water passing through the manifold with interconnecting piping connections. These losses can be considered as water passing through a “Tee Fitting” with in-line flow.

In this example there is a design flow of 300 gpm and a 3-pump MPC-E 3CRE15-5 system has been chosen, which has four-inch manifolds. Consider that each pump on this system is operating at 100 gpm. Base the calculation on the worst case scenario, that is, the flow path of the furthestmost pump from the BoosterpaQ manifold connections to the building’s piping.

1. Calculate the suction manifold losses due to water passing through the manifold with interconnecting piping connections. There is a pressure drop from the first interconnecting pipe and the flow will drop from 300 gpm to 200 gpm. Referencing a hydraulic data book, the loss associated with this is equivalent to 7.2 ft of pipe. The friction loss for incoming flow of 300 gpm flowing through 4” pipe is 4.89 ft per 100 feet of pipe, so the loss would be  $7.2 \times 4.89 / 100 = 0.35$  ft pressure drop.

The next manifold loss the flow will drop from 200 gpm to 100 gpm.

Referencing a hydraulic data book, the friction loss for incoming flow of 200 gpm flowing through a 4” pipe is 2.25 ft per 100 feet of piping so the loss would be  $7.2 \times 2.25 / 100 = 0.16$  ft pressure drop. The total pressure drop for the suction manifold losses is equal to  $0.35 + 0.16 = 0.51$  feet.

2. Calculate the manifold exit loss for the 100 gpm flowing into the interconnecting piping connected to the furthestmost pump. Use an “abrupt contraction” to flow as the bases for the calculation. Referencing a hydraulic data book, this is equivalent to 4 feet of piping of the smaller diameter piping; in this case the interconnection piping is 2” piping. Referencing a hydraulic data book for 2” piping with a flow of 100 gpm we find a pressure drop of 17.5 ft per 100 ft of piping. This pressure drop is  $4 \times 17.5 / 100 = 0.7$  ft
3. Calculate the suction isolation valve loss for 100 gpm flow through a 2-inch ball valve. In this example the isolation valve is a ball valve which has negligible pressure drop so will not be considered. For systems that have a butterfly valve this loss should be considered.
4. Calculate the loss through the check valve. Referencing the check valve manufacture’s published pressure drop curve with a flow of 100 gpm through a 2” check valve results in a pressure drop of 8 feet.
5. Calculate the discharge isolation valve loss for 100 gpm flow through a 2-inch ball valve. See step # 3 above.
6. Calculate the discharge manifold entry loss for 100 gpm flow entering the manifold. Use an “abrupt enlargement” as the bases for this calculation. Referencing a hydraulic data book, find an equivalent length of pipe equal to 3.5 ft and find that 100 gpm flow through a 2-inch pipe has a friction loss of 14.51 ft per 100 ft of pipe. The pressure drop for the manifold entry loss is  $3.5 \times 14.51 / 100 = 0.51$  ft.
7. The manifold losses due to water passing through the manifold will be the same as calculated in step #1 and is equal to 0.51 feet.
8. Now add all the pressure drops up. In this example there is:  $0.51 + 0.7 + 0 + 8 + 0 + 0.51 + 0.51 = 9.8$  ft.
9. Now look at the individual pump performance curve and see if the pump selected, (CR15-5), is capable of 100 gpm @ 231 ft + 9.8 ft (241 ft).

## How to read the curve charts

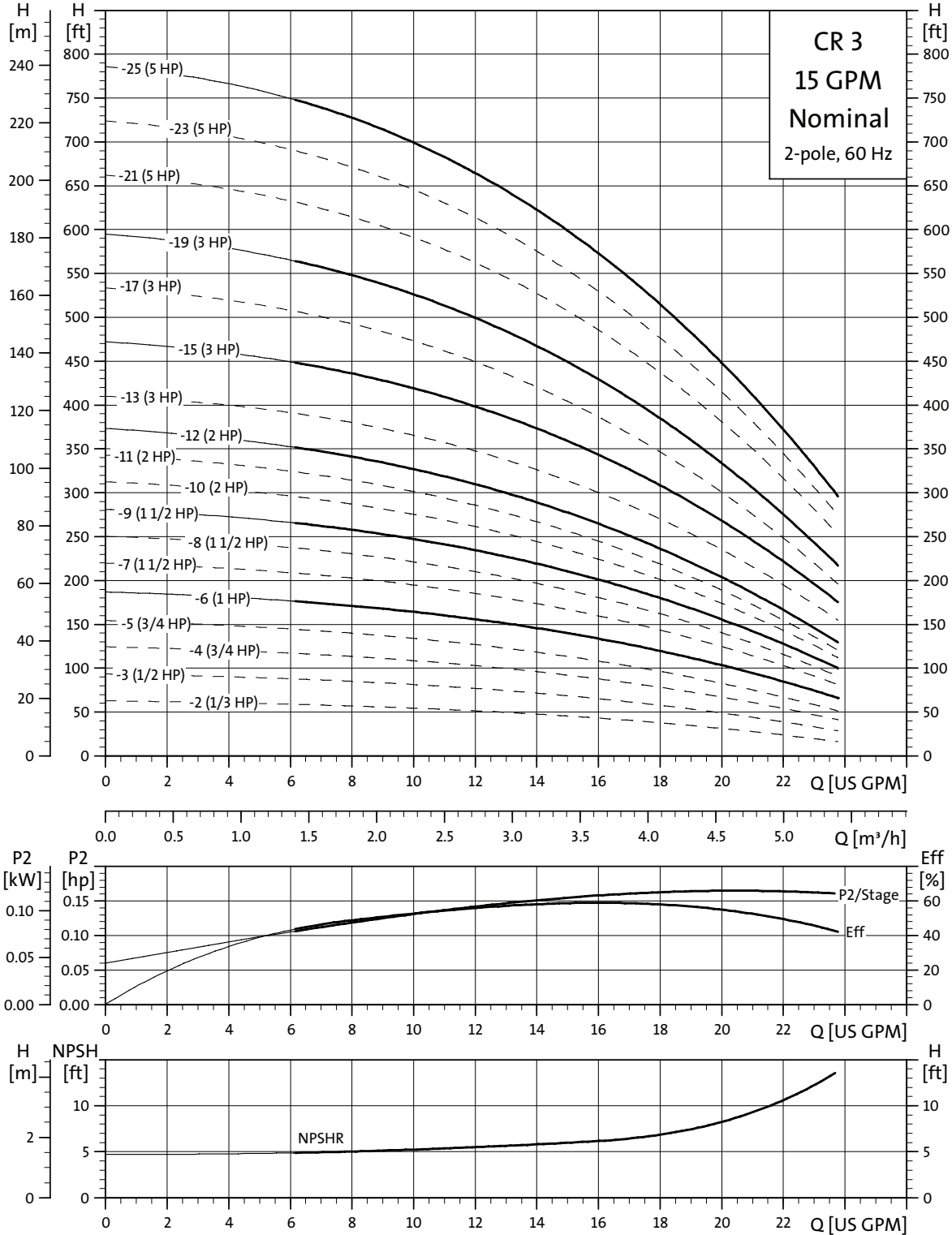
The guidelines below apply to the curves shown on the following pages:

1. Tolerances to ISO 9906, Annex A, if indicated.
2. The curves show the pump mean values.
3. The curves should not be used as guarantee curves.
4. Measurements were made with pure water at a temperature of 68 °F.
5. The curves apply to a kinematic viscosity of  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt)
6. Curves represent single pump performance and do not represent system performance. See page 28 for proper sizing.
7. Bold portion of performance curve is correctly sized, do not size pumps out of this range.

# Performance curves

BoosterpaQ® Hydro MPC  
with CR 3 pumps

## CR 3



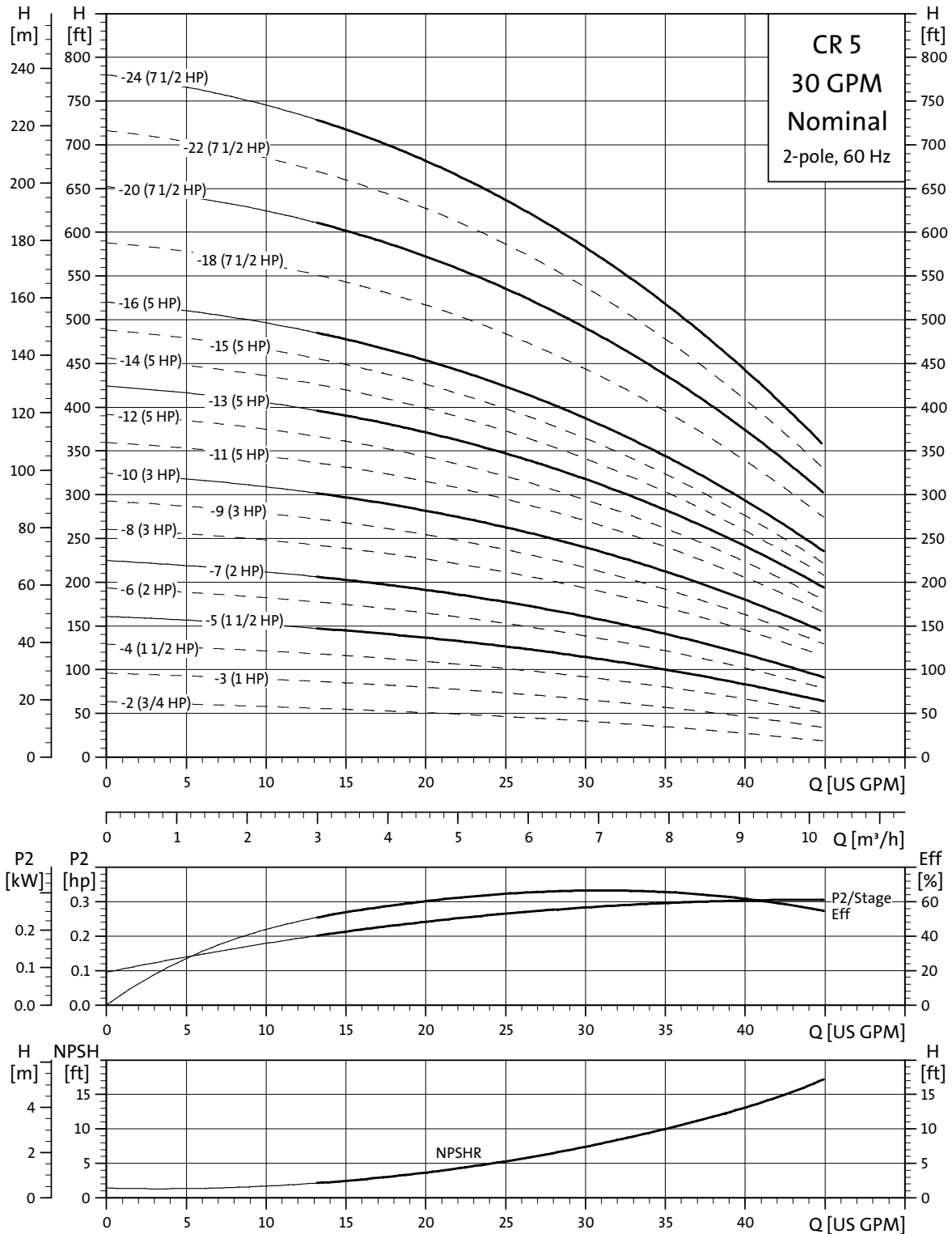
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 4084 xxxx

# Performance curves

BoosterpaQ<sup>®</sup> Hydro MPC  
with CR 5 pumps

## CR 5

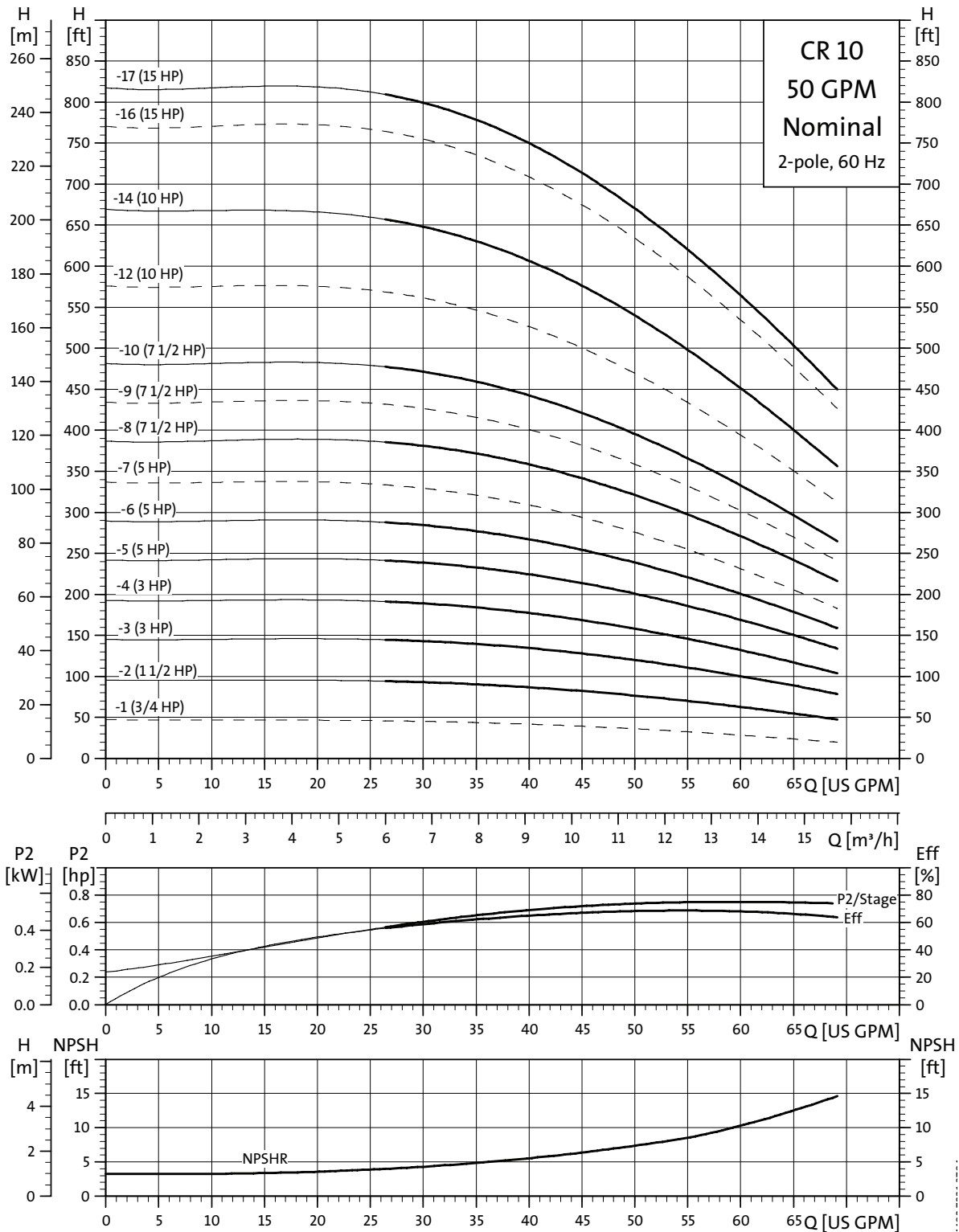


Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 4085



## CR 10



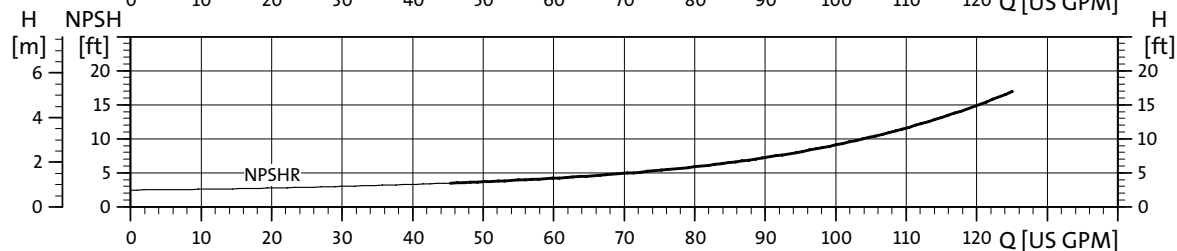
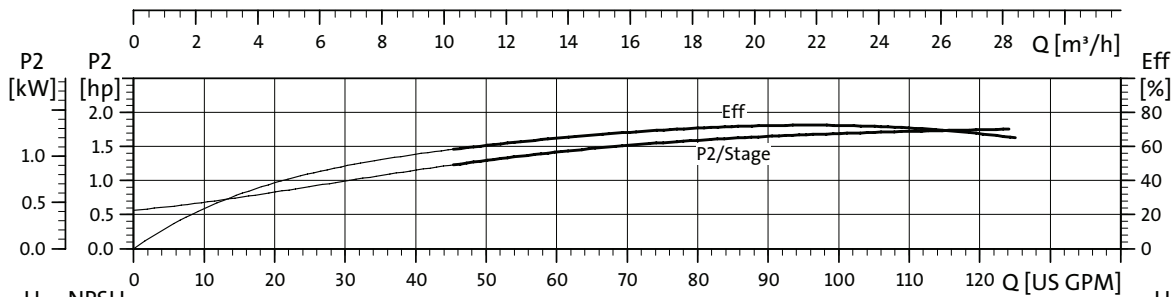
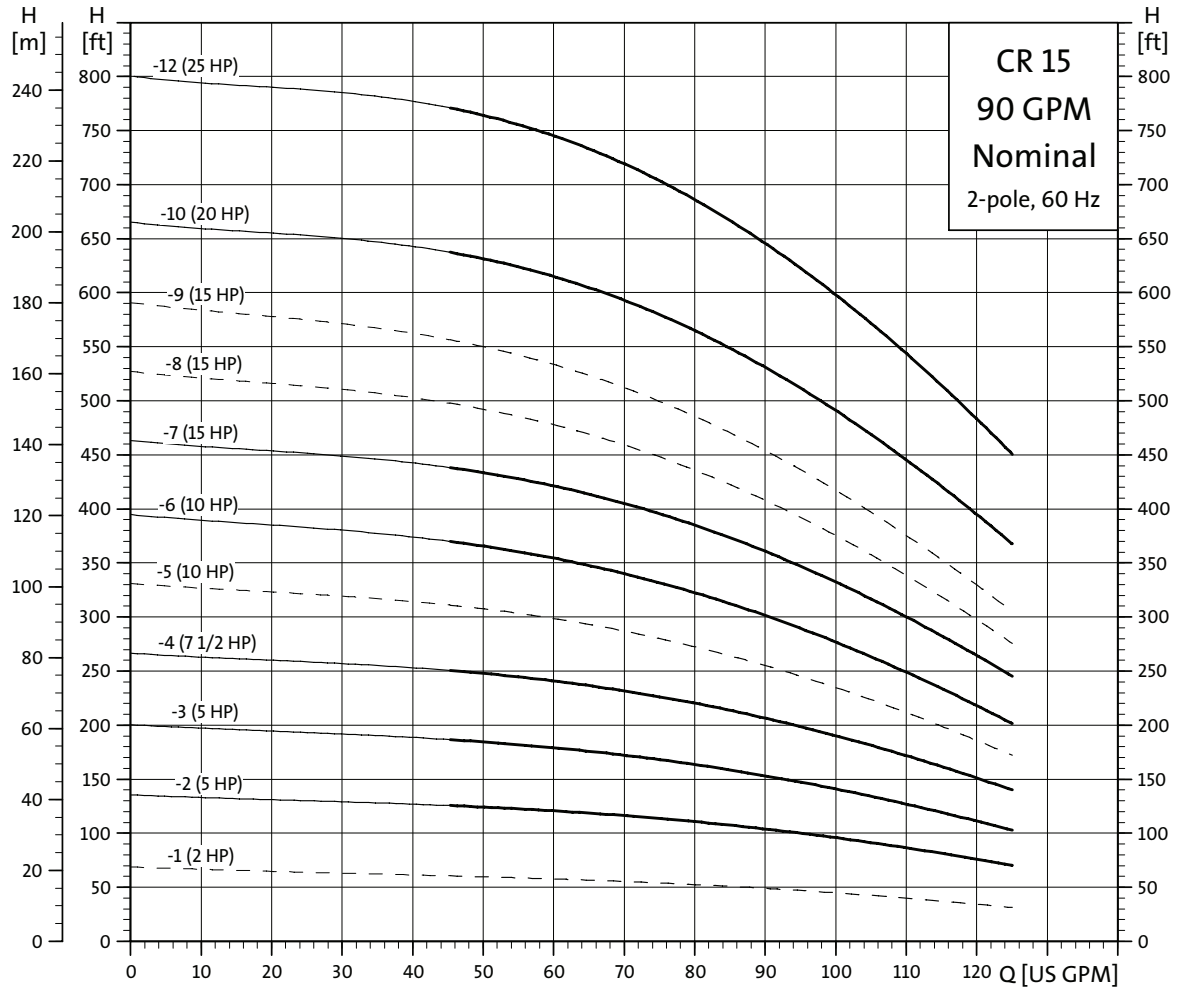
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 7221

# Performance curves

BoosterpaQ<sup>®</sup> Hydro MPC  
with CR 15 pumps

## CR 15



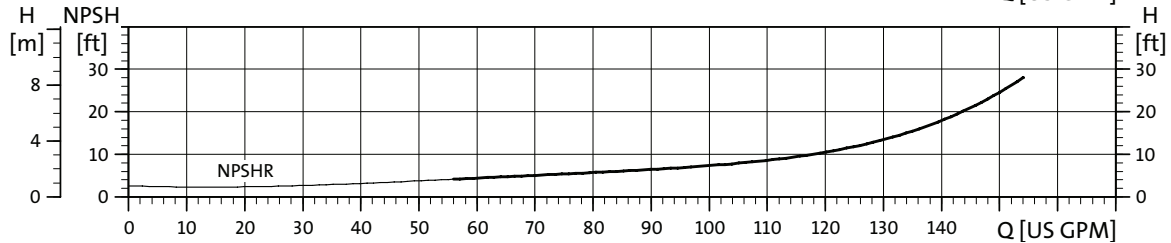
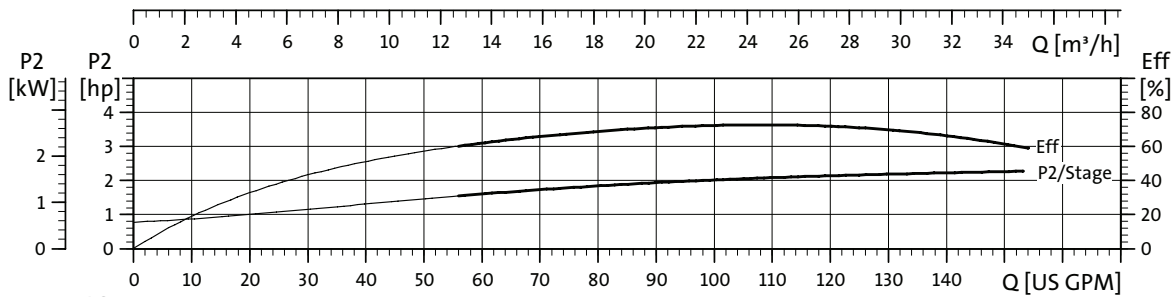
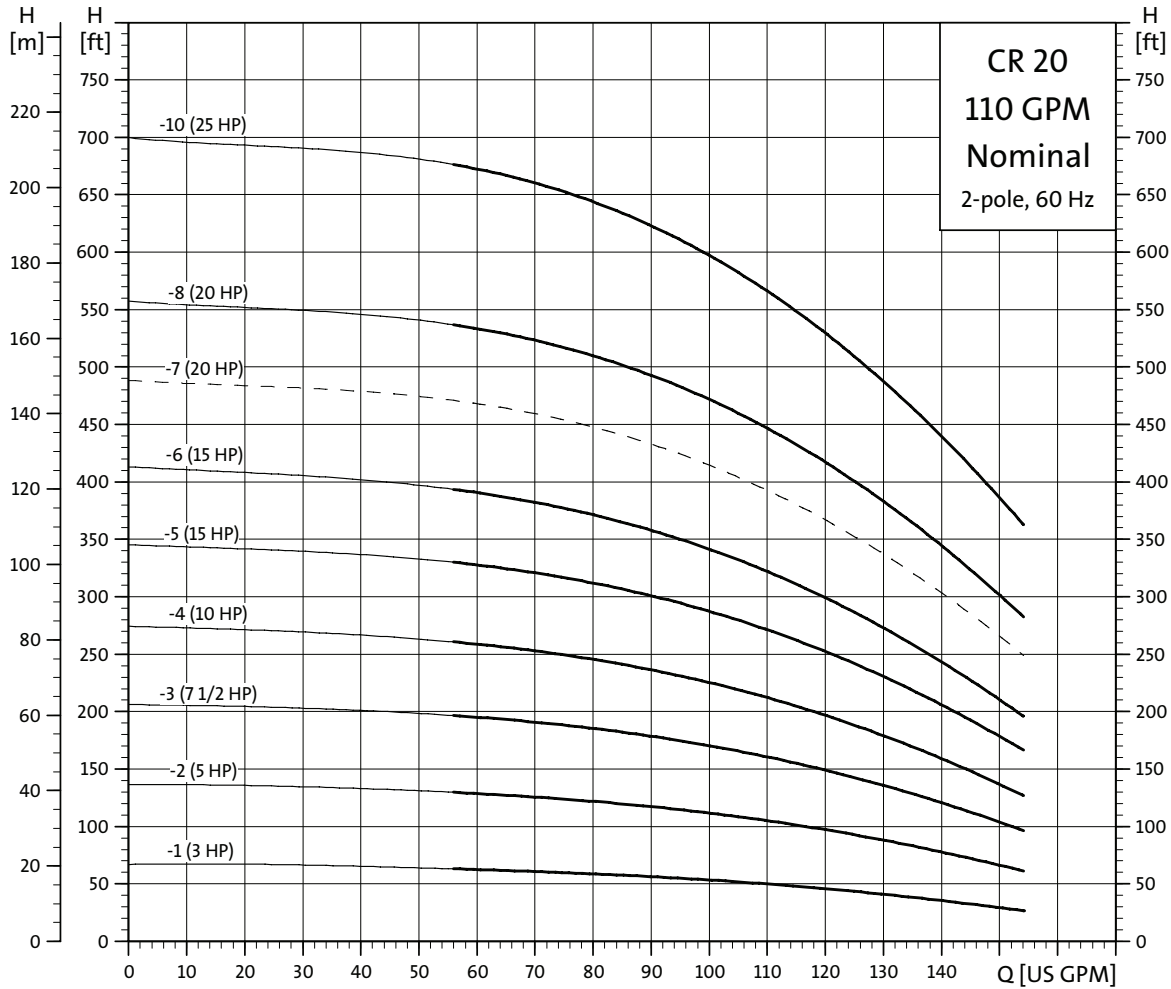
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 7222

# Performance curves

BoosterpaQ® Hydro MPC  
with CR 20 pumps

## CR 20



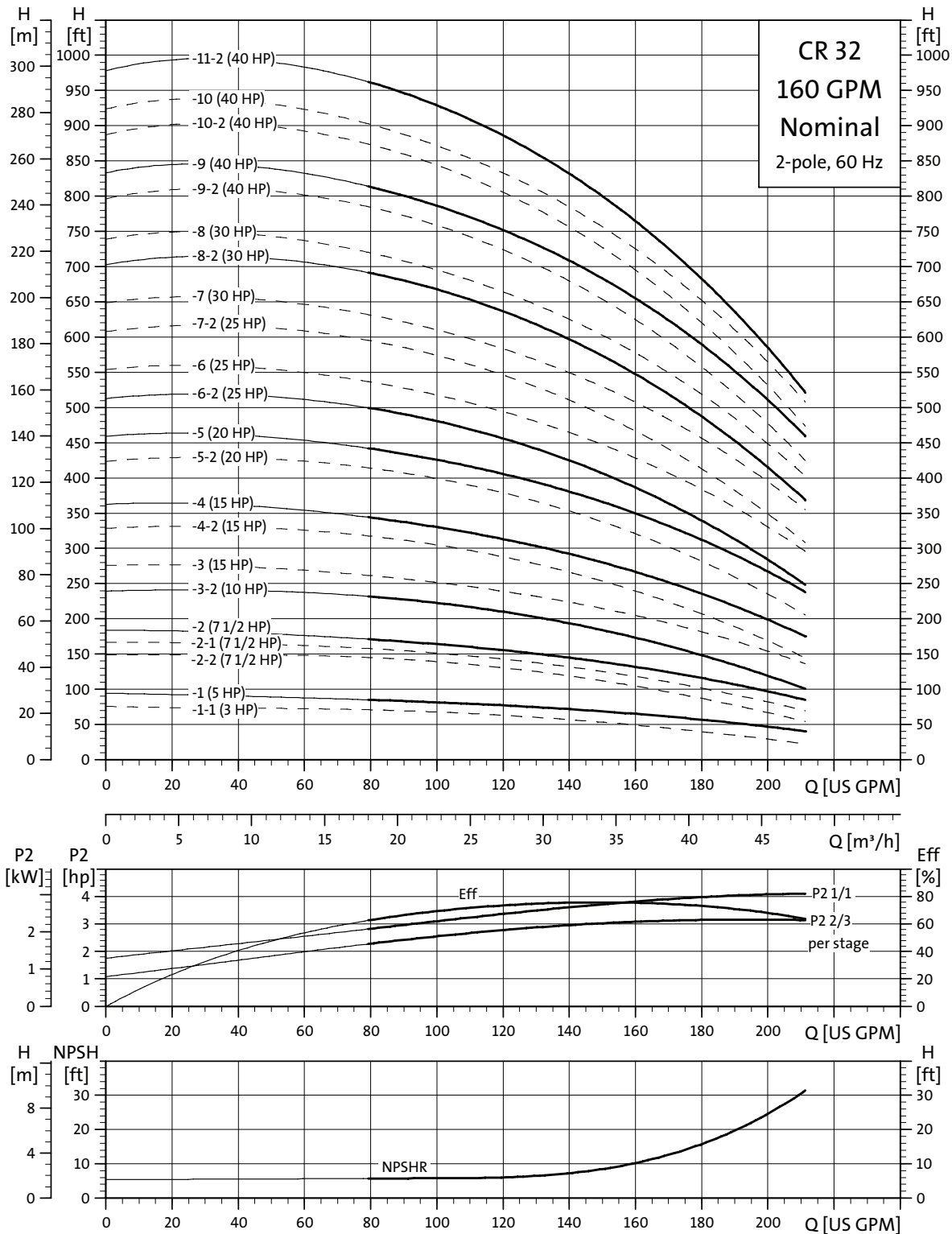
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 7223

# Performance curves

BoosterpaQ® Hydro MPC  
with CR 32 pumps

## CR 32



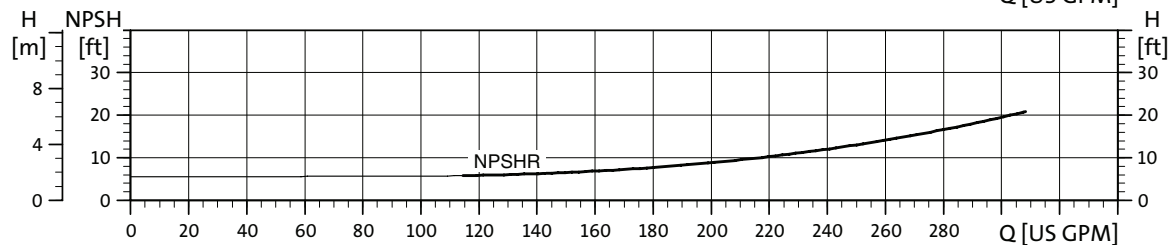
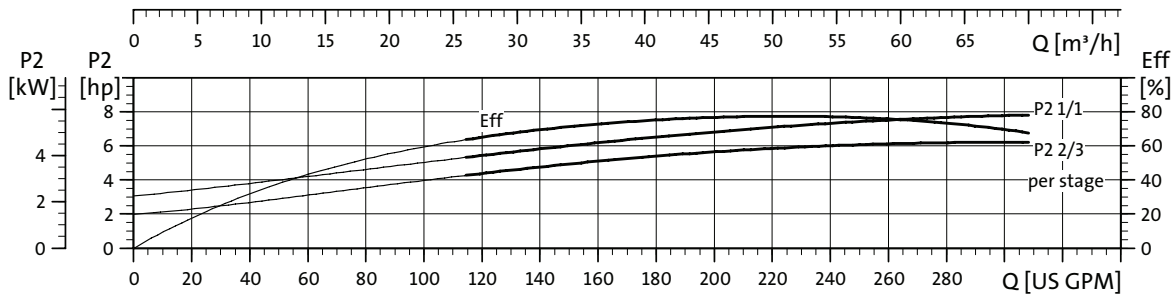
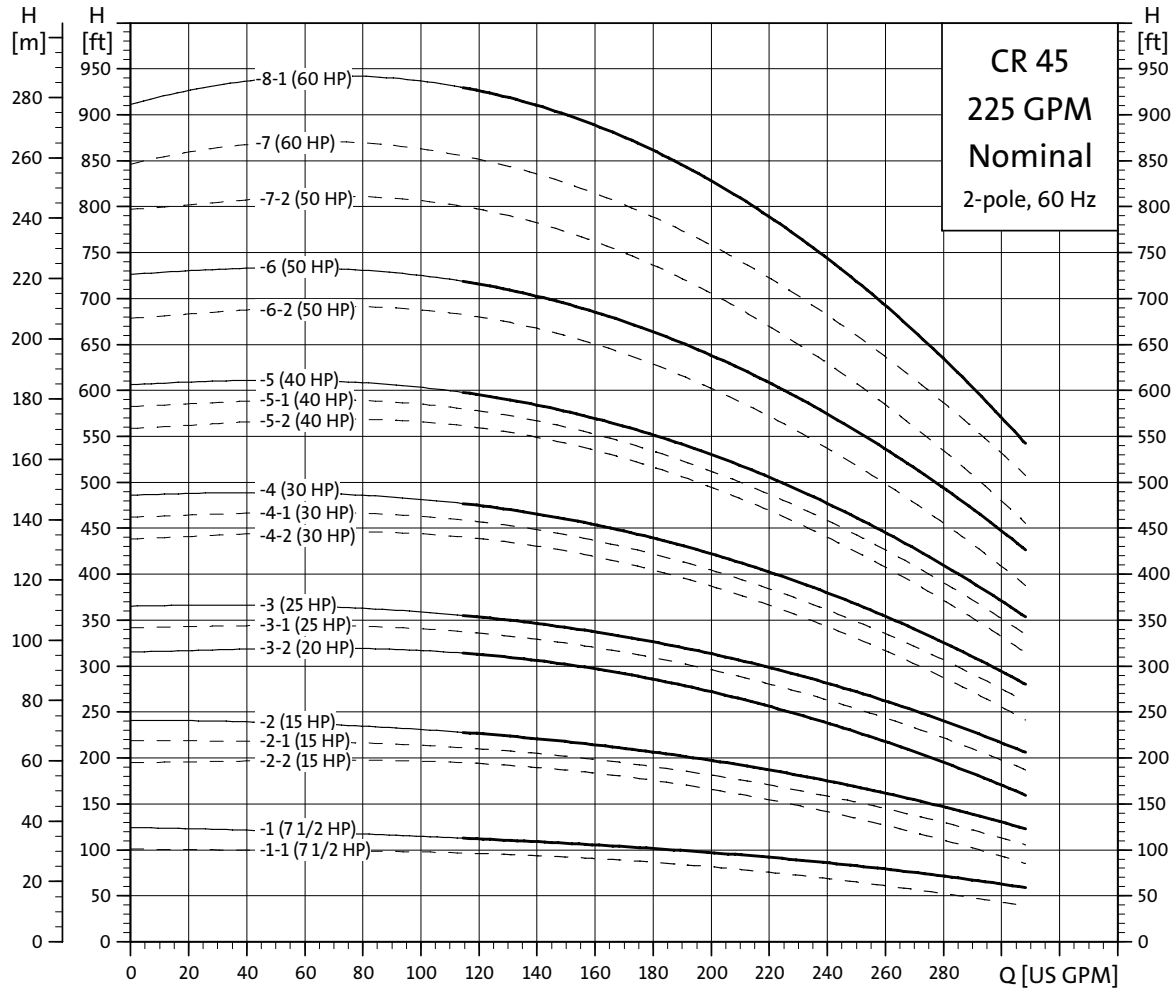
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 0039

# Performance curves

BoosterpaQ® Hydro MPC  
with CR 45 pumps

## CR 45



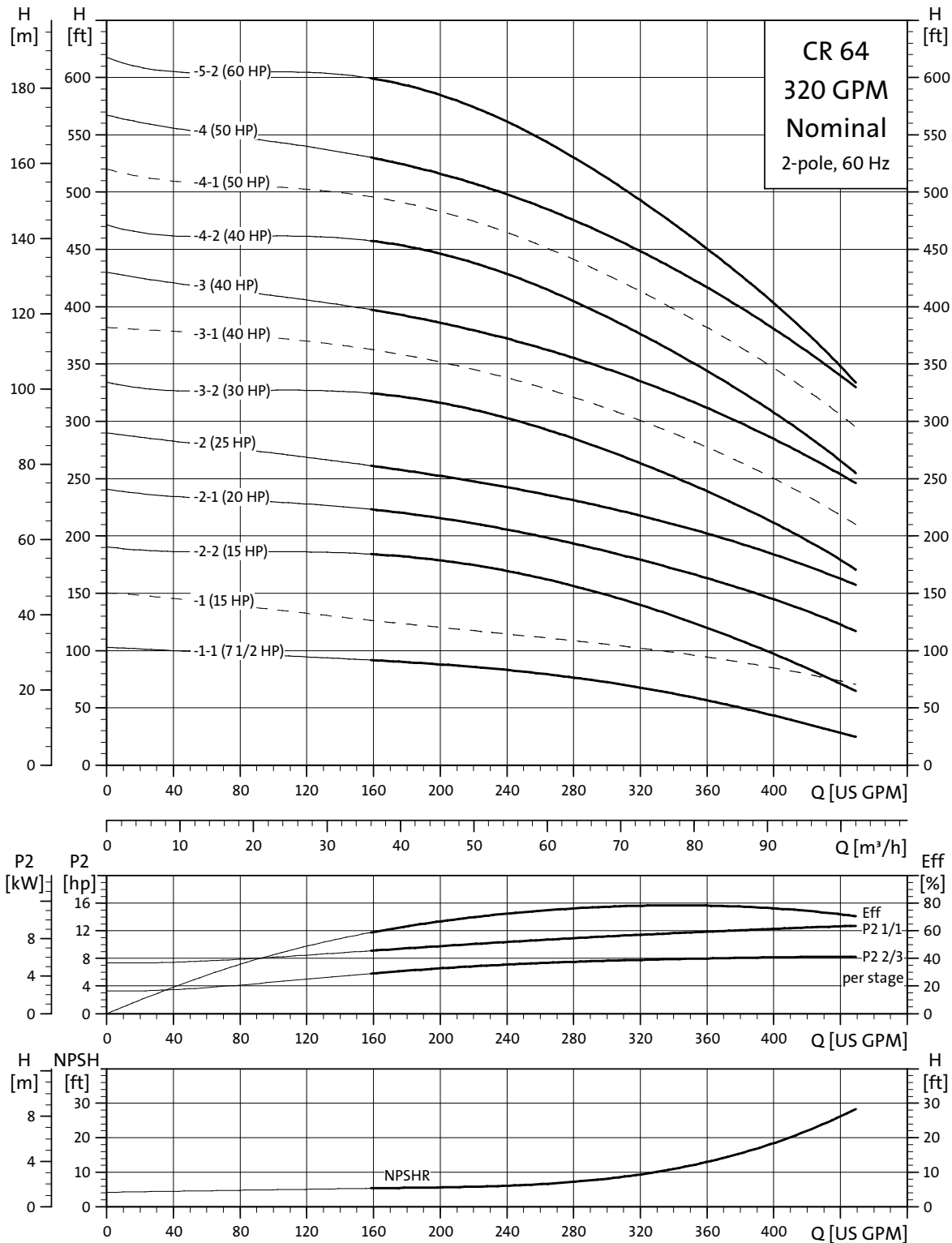
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 0040

# Performance curves

BoosterpaQ® Hydro MPC  
with CR 64 pumps

## CR 64



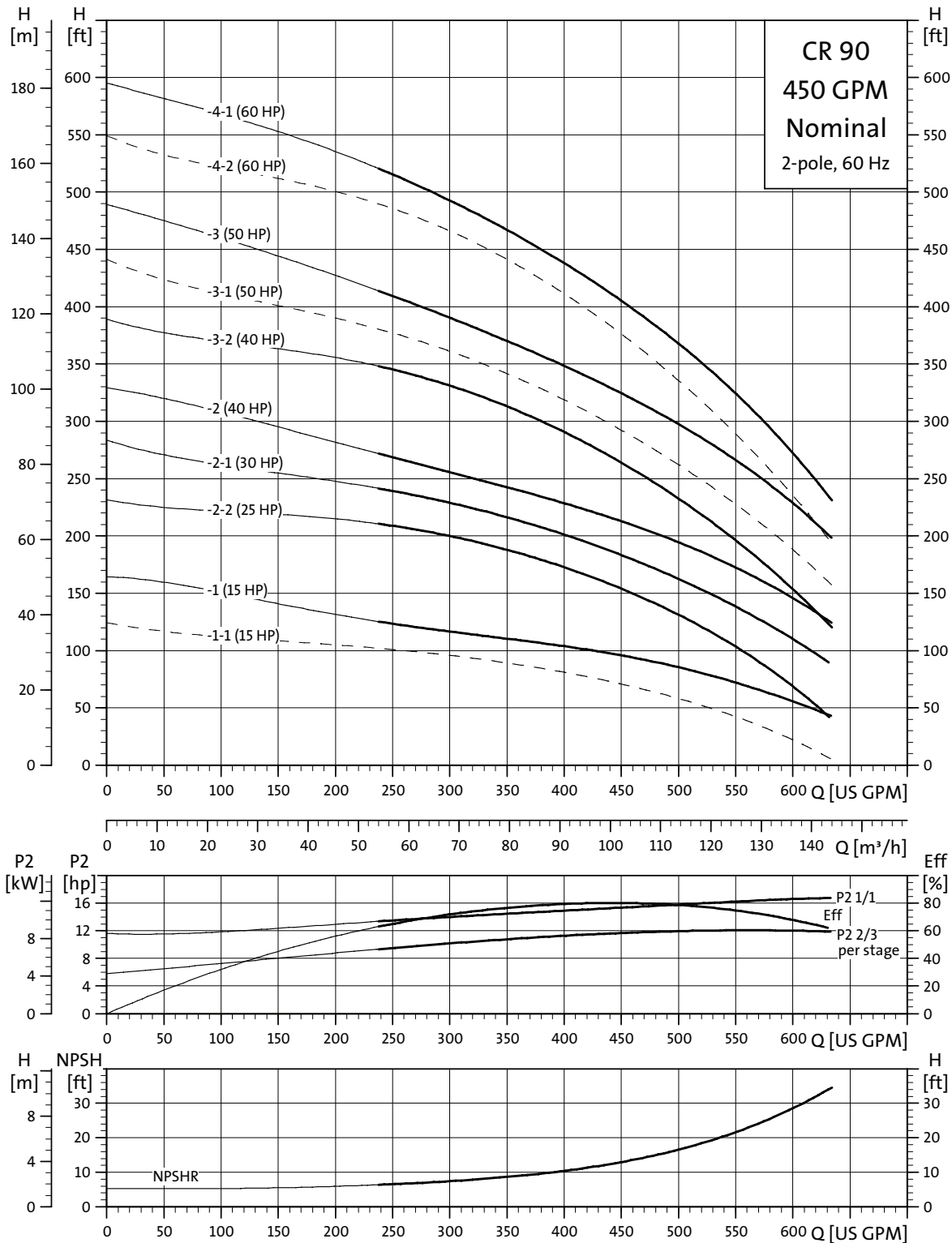
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 0041

# Performance curves

BoosterpaQ<sup>®</sup> Hydro MPC  
with CR 90 pumps

## CR 90



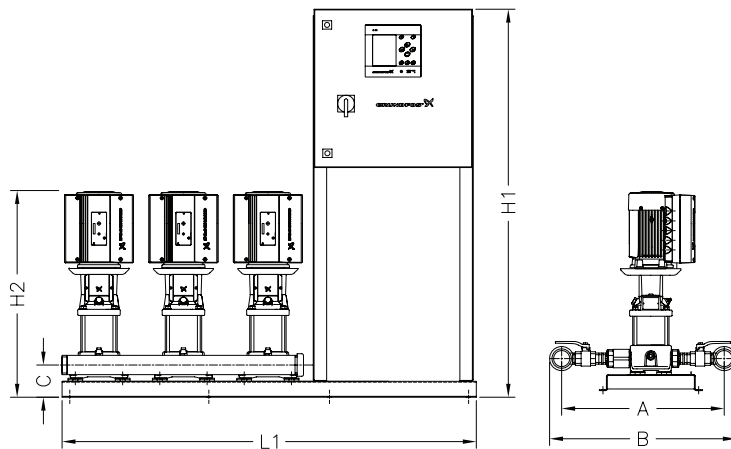
Pump curves shown with solid bold line represent standard BoosterpaQ pump offerings. Pump curves shown with dashed line represent non-standard BoosterpaQ pump offerings, which are available upon request.

TM02 0042

# Technical data/ dimensions and weights

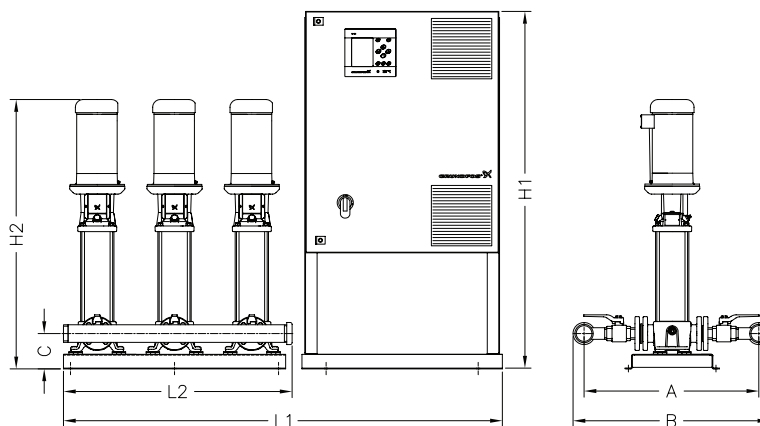
BoosterpaQ<sup>®</sup> Hydro MPC  
with CR(E) 3

## Hydro MPC with CR(E) 3



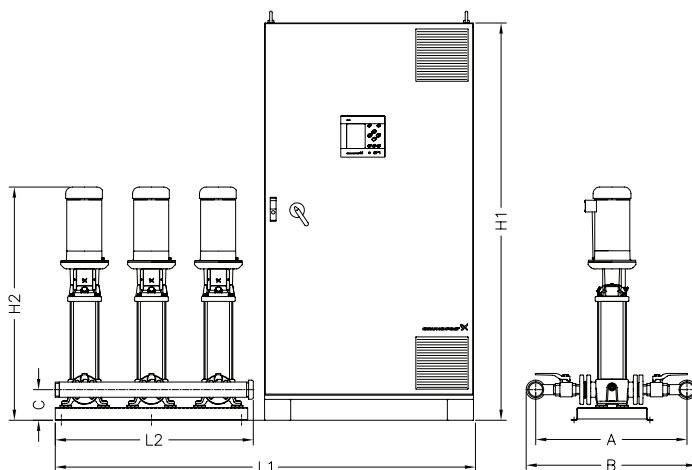
TM03 9997 4807 3CR3-5-E.pdf

Fig. 16 Drawing of a Hydro MPC booster set with a control panel mounted on the same base plate as the pumps. (Design A)



TM03 9999 4807 3CR3-5-F.pdf

Fig. 17 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



TM03 9988 4807 3CR3-5-EF.pdf

Fig. 18 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 3

## Hydro MPC-E with CRE 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 3-6	1	2" NPT	23.1	25.5	4.8	57.9	27.4	41.3	41.3	24x15x8	256	315	A,1
	CR(E) 3-9	1.5					57.9	29.5	41.3	41.3	24x15x8	262	321	A,1
	CR(E) 3-12	2					57.9	31.6	41.3	41.3	24x15x8	274	333	A,1
	CR(E) 3-15	3					57.9	36.8	41.3	41.3	24x15x8	298	357	A,1
3	CR(E) 3-6	1	2" NPT	23.1	25.5	4.8	57.9	27.4	53.9	53.9	24x15x8	380	451	A,1
	CR(E) 3-9	1.5					57.9	29.5	53.9	53.9	24x15x8	389	460	A,1
	CR(E) 3-12	2					57.9	31.6	53.9	53.9	24x15x8	407	478	A,1
	CR(E) 3-15	3					57.9	36.8	53.9	53.9	24x15x8	443	514	A,1
4	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	74.4	74.4	24x24x8	495	595	A,1
	CR(E) 3-9	1.5					57.9	29.5	74.4	74.4	24x24x8	507	607	A,1
	CR(E) 3-12	2					57.9	31.6	74.4	74.4	24x24x8	531	631	A,1
	CR(E) 3-15	3					57.9	36.8	74.4	74.4	24x24x8	579	679	A,1
5	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	86.2	61.4	24x24x8	666	778	B,1
	CR(E) 3-9	1.5					57.9	29.5	86.2	61.4	24x24x8	681	793	B,1
	CR(E) 3-12	2					57.9	31.6	86.2	61.4	24x24x8	711	823	B,1
	CR(E) 3-15	3					57.9	36.8	86.2	61.4	24x24x8	771	883	B,1
6	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	98.8	74.0	30x24x8	794	939	B,1
	CR(E) 3-9	1.5					57.9	29.5	98.8	74.0	30x24x8	812	957	B,1
	CR(E) 3-12	2					57.9	31.6	98.8	74.0	30x24x8	848	993	B,1
	CR(E) 3-15	3					57.9	36.8	98.8	74.0	30x24x8	920	1065	B,1

## Hydro MPC-ED with CR(E) 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 3-6	1	2" NPT	23.1	25.5	4.8	57.9	27.4	41.3	41.3	24x15x8	256	315	A,1
	CR(E) 3-9	1.5					57.9	29.5	41.3	41.3	24x15x8	262	321	A,1
	CR(E) 3-12	2					57.9	31.6	41.3	41.3	24x15x8	274	333	A,1
	CR(E) 3-15	3					57.9	36.8	41.3	41.3	24x15x8	298	357	A,1
3	CR(E) 3-6	1	2" NPT	23.1	25.5	4.8	57.9	27.4	61.8	61.8	24x24x8	349	437	A,1
	CR(E) 3-9	1.5					57.9	29.5	61.8	61.8	24x24x8	362	450	A,1
	CR(E) 3-12	2					57.9	31.6	61.8	61.8	24x24x8	397	485	A,1
	CR(E) 3-15	3					57.9	36.8	61.8	61.8	24x24x8	429	517	A,1
4	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	74.4	74.4	30x24x8	433	555	A,1
	CR(E) 3-9	1.5					57.9	29.5	74.4	74.4	30x24x8	453	575	A,1
	CR(E) 3-12	2					57.9	31.6	74.4	74.4	30x24x8	511	633	A,1
	CR(E) 3-15	3					57.9	36.8	74.4	74.4	30x24x8	551	673	A,1
5	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	86.2	61.4	30x24x8	573	708	B,1
	CR(E) 3-9	1.5					57.9	29.5	86.2	61.4	30x24x8	600	735	B,1
	CR(E) 3-12	2					57.9	31.6	86.2	61.4	30x24x8	681	816	B,1
	CR(E) 3-15	3					57.9	36.8	86.2	61.4	30x24x8	729	864	B,1
6	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	106.7	74.0	39x32x12	670	873	B,1
	CR(E) 3-9	1.5					57.9	29.5	106.7	74.0	39x32x12	704	907	B,1
	CR(E) 3-12	2					57.9	31.6	106.7	74.0	39x32x12	808	1011	B,1
	CR(E) 3-15	3					57.9	36.8	106.7	74.0	39x32x12	864	1067	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 3

## Hydro MPC-ES with CR(E) 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 3-6	1	2" NPT	23.1	25.5	4.8	57.9	27.4	49.2	49.2	24x24x8	225	301	A,1
	CR(E) 3-9	1.5					57.9	29.5	49.2	49.2	24x24x8	235	311	A,1
	CR(E) 3-12	2					57.9	31.6	49.2	49.2	24x24x8	264	340	A,1
	CR(E) 3-15	3					57.9	36.8	49.2	49.2	24x24x8	284	360	A,1
3	CR(E) 3-6	1	2" NPT	23.1	25.5	4.8	57.9	27.4	61.8	61.8	24x24x8	318	407	A,1
	CR(E) 3-9	1.5					57.9	29.5	61.8	61.8	24x24x8	335	424	A,1
	CR(E) 3-12	2					57.9	31.6	61.8	61.8	24x24x8	387	476	A,1
	CR(E) 3-15	3					57.9	36.8	61.8	61.8	24x24x8	415	504	A,1
4	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	74.4	74.4	30x24x8	402	525	A,1
	CR(E) 3-9	1.5					57.9	29.5	74.4	74.4	30x24x8	426	549	A,1
	CR(E) 3-12	2					57.9	31.6	74.4	74.4	30x24x8	501	624	A,1
	CR(E) 3-15	3					57.9	36.8	74.4	74.4	30x24x8	537	660	A,1
5	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	94.1	61.4	47x32x12	542	761	B,1
	CR(E) 3-9	1.5					57.9	29.5	94.1	61.4	47x32x12	573	792	B,1
	CR(E) 3-12	2					57.9	31.6	94.1	61.4	47x32x12	671	890	B,1
	CR(E) 3-15	3					57.9	36.8	94.1	61.4	47x32x12	715	934	B,1
6	CR(E) 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	27.4	106.7	74.0	47x32x12	639	871	B,1
	CR(E) 3-9	1.5					57.9	29.5	106.7	74.0	47x32x12	677	909	B,1
	CR(E) 3-12	2					57.9	31.6	106.7	74.0	47x32x12	798	1030	B,1
	CR(E) 3-15	3					57.9	36.8	106.7	74.0	47x32x12	850	1082	B,1

## Hydro MPC-EF with CR 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	59.3	26.6	39x32x12	194	354	B,1
	CR 3-9	1.5					57.9	26.9	59.3	26.6	39x32x12	208	368	B,1
	CR 3-12	2					57.9	31.6	59.3	26.6	39x32x12	254	421	B,1
	CR 3-15	3					57.9	35.1	59.3	26.6	39x32x12	270	438	B,1
3	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	68.9	36.2	39x32x12	287	464	B,1
	CR 3-9	1.5					57.9	26.9	68.9	36.2	39x32x12	308	485	B,1
	CR 3-12	2					57.9	31.6	68.9	36.2	39x32x12	377	565	B,1
	CR 3-15	3					57.9	35.1	68.9	36.2	39x32x12	401	589	B,1
4	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	81.5	48.8	47x32x12	371	593	B,1
	CR 3-9	1.5					57.9	26.9	81.5	48.8	47x32x12	399	621	B,1
	CR 3-12	2					57.9	31.6	81.5	48.8	47x32x12	491	727	B,1
	CR 3-15	3					57.9	35.1	81.5	48.8	47x32x12	523	759	B,1
5	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	94.1	61.4	47x32x12	511	750	B,1
	CR 3-9	1.5					57.9	26.9	94.1	61.4	47x32x12	546	785	B,1
	CR 3-12	2					57.9	31.6	94.1	61.4	47x32x12	661	918	B,1
	CR 3-15	3					57.9	35.1	94.1	61.4	47x32x12	701	958	B,1
6	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	79.0	24.8	114.6	74.0	71x39x16	608	1011	B,1
	CR 3-9	1.5					79.0	26.9	114.6	74.0	71x39x16	650	1053	B,1
	CR 3-12	2					79.0	31.6	114.6	74.0	71x39x16	788	1212	B,1
	CR 3-15	3					79.0	35.1	114.6	74.0	71x39x16	836	1260	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 3

## Hydro MPC-EDF with CR 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	59.3	26.6	39x32x12	194	354	B,1
	CR 3-9	1.5					57.9	26.9	59.3	26.6	39x32x12	208	368	B,1
	CR 3-12	2					57.9	31.6	59.3	26.6	39x32x12	254	421	B,1
	CR 3-15	3					57.9	35.1	59.3	26.6	39x32x12	270	438	B,1
3	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	68.9	36.2	39x32x12	287	460	B,1
	CR 3-9	1.5					57.9	26.9	68.9	36.2	39x32x12	308	481	B,1
	CR 3-12	2					57.9	31.6	68.9	36.2	39x32x12	377	557	B,1
	CR 3-15	3					57.9	35.1	68.9	36.2	39x32x12	401	581	B,1
4	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	81.5	48.8	47x32x12	371	585	B,1
	CR 3-9	1.5					57.9	26.9	81.5	48.8	47x32x12	399	613	B,1
	CR 3-12	2					57.9	31.6	81.5	48.8	47x32x12	491	712	B,1
	CR 3-15	3					57.9	35.1	81.5	48.8	47x32x12	523	744	B,1
5	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	94.1	61.4	47x32x12	511	738	B,1
	CR 3-9	1.5					57.9	26.9	94.1	61.4	47x32x12	546	773	B,1
	CR 3-12	2					57.9	31.6	94.1	61.4	47x32x12	661	895	B,1
	CR 3-15	3					57.9	35.1	94.1	61.4	47x32x12	701	935	B,1
6	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	106.7	74.0	47x32x12	608	848	B,1
	CR 3-9	1.5					57.9	26.9	106.7	74.0	47x32x12	650	890	B,1
	CR 3-12	2					57.9	31.6	106.7	74.0	47x32x12	788	1035	B,1
	CR 3-15	3					57.9	35.1	106.7	74.0	47x32x12	836	1083	B,1

## Hydro MPC-F with CR 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	59.3	26.6	39x32x12	194	353	B,1
	CR 3-9	1.5					57.9	26.9	59.3	26.6	39x32x12	208	367	B,1
	CR 3-12	2					57.9	31.6	59.3	26.6	39x32x12	254	416	B,1
	CR 3-15	3					57.9	35.1	59.3	26.6	39x32x12	270	432	B,1
3	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	68.9	36.2	39x32x12	287	459	B,1
	CR 3-9	1.5					57.9	26.9	68.9	36.2	39x32x12	308	480	B,1
	CR 3-12	2					57.9	31.6	68.9	36.2	39x32x12	377	553	B,1
	CR 3-15	3					57.9	35.1	68.9	36.2	39x32x12	401	577	B,1
4	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	81.5	48.8	39x32x12	371	557	B,1
	CR 3-9	1.5					57.9	26.9	81.5	48.8	39x32x12	399	585	B,1
	CR 3-12	2					57.9	31.6	81.5	48.8	39x32x12	491	680	B,1
	CR 3-15	3					57.9	35.1	81.5	48.8	39x32x12	523	713	B,1
5	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	94.1	61.4	47x32x12	511	739	B,1
	CR 3-9	1.5					57.9	26.9	94.1	61.4	47x32x12	546	774	B,1
	CR 3-12	2					57.9	31.6	94.1	61.4	47x32x12	661	892	B,1
	CR 3-15	3					57.9	35.1	94.1	61.4	47x32x12	701	932	B,1
6	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	106.7	74.0	47x32x12	608	849	B,1
	CR 3-9	1.5					57.9	26.9	106.7	74.0	47x32x12	650	891	B,1
	CR 3-12	2					57.9	31.6	106.7	74.0	47x32x12	788	1033	B,1
	CR 3-15	3					57.9	35.1	106.7	74.0	47x32x12	836	1081	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 3

## Hydro MPC-S with CR 3

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	49.2	49.2	24x24x8	194	271	A,1
	CR 3-9	1.5					57.9	26.9	49.2	49.2	24x24x8	208	285	A,1
	CR 3-12	2					57.9	31.6	49.2	49.2	24x24x8	254	331	A,1
	CR 3-15	3					57.9	35.1	49.2	49.2	24x24x8	270	347	A,1
3	CR 3-6	1	2" NPT	23.1	25.5	4.8	57.9	24.8	61.8	61.8	24x24x8	287	376	A,1
	CR 3-9	1.5					57.9	26.9	61.8	61.8	24x24x8	308	397	A,1
	CR 3-12	2					57.9	31.6	61.8	61.8	24x24x8	377	466	A,1
	CR 3-15	3					57.9	35.1	61.8	61.8	24x24x8	401	490	A,1
4	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	74.4	74.4	30x24x8	371	494	A,1
	CR 3-9	1.5					57.9	26.9	74.4	74.4	30x24x8	399	522	A,1
	CR 3-12	2					57.9	31.6	74.4	74.4	30x24x8	491	614	A,1
	CR 3-15	3					57.9	35.1	74.4	74.4	30x24x8	523	646	A,1
5	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	94.1	61.4	47x32x12	511	730	B,1
	CR 3-9	1.5					57.9	26.9	94.1	61.4	47x32x12	546	765	B,1
	CR 3-12	2					57.9	31.6	94.1	61.4	47x32x12	661	880	B,1
	CR 3-15	3					57.9	35.1	94.1	61.4	47x32x12	701	920	B,1
6	CR 3-6	1	2 1/2" NPT	24.1	27.0	4.8	57.9	24.8	106.7	74.0	47x32x12	608	840	B,1
	CR 3-9	1.5					57.9	26.9	106.7	74.0	47x32x12	650	882	B,1
	CR 3-12	2					57.9	31.6	106.7	74.0	47x32x12	788	1020	B,1
	CR 3-15	3					57.9	35.1	106.7	74.0	47x32x12	836	1068	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

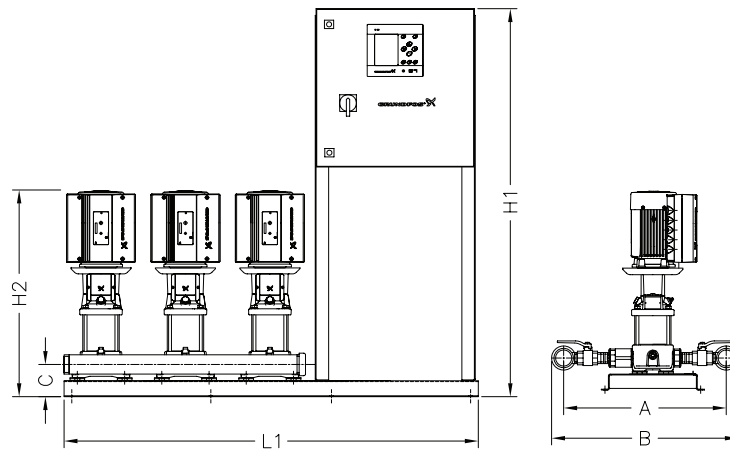
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

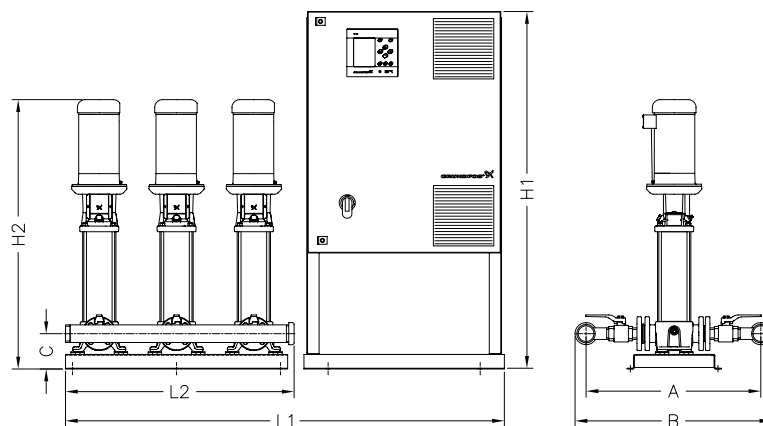
BoosterpaQ<sup>®</sup> Hydro MPC  
with CR(E) 5

## Hydro MPC with CR(E) 5



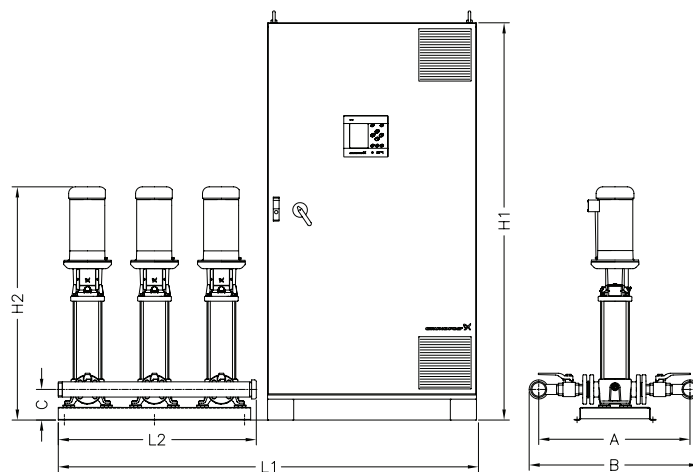
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Fig. 19 Drawing of a Hydro MPC booster set with a control panel mounted on the same base plate as the pumps. (Design A)



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Fig. 20 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



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Fig. 21 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-E with CR(E) 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	28.5	41.3	41.3	24x15x8	257	316	A,1
	CR(E) 5-7	2					57.9	30.6	41.3	41.3	24x15x8	270	330	A,1
	CR(E) 5-10	3					57.9	36.8	41.3	41.3	24x15x8	296	355	A,1
	CR(E) 5-13	5					57.9	42.0	41.3	41.3	24x15x8	386	446	A,1
	CR(E) 5-16	5					57.9	45.3	41.3	41.3	24x15x8	394	453	A,1
3	CR(E) 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	28.5	53.9	53.9	24x15x8	376	447	A,1
	CR(E) 5-7	2					57.9	30.6	53.9	53.9	24x15x8	395	467	A,1
	CR(E) 5-10	3					57.9	36.8	53.9	53.9	24x15x8	434	506	A,1
	CR(E) 5-13	5					57.9	42.0	53.9	53.9	24x15x8	569	641	A,1
	CR(E) 5-16	5					57.9	45.3	53.9	53.9	24x15x8	581	652	A,1
4	CR(E) 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	28.5	74.4	74.4	24x24x8	498	597	A,1
	CR(E) 5-7	2					57.9	30.6	74.4	74.4	24x24x8	524	624	A,1
	CR(E) 5-10	3					57.9	36.8	74.4	74.4	24x24x8	576	675	A,1
	CR(E) 5-13	5					57.9	42.0	74.4	74.4	24x24x8	756	856	A,1
	CR(E) 5-16	5					57.9	45.3	74.4	74.4	24x24x8	771	871	A,1
5	CR(E) 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	28.5	86.2	61.4	24x24x8	670	781	B,1
	CR(E) 5-7	2					57.9	30.6	86.2	61.4	24x24x8	703	814	B,1
	CR(E) 5-10	3					57.9	36.8	86.2	61.4	24x24x8	767	879	B,1
	CR(E) 5-13	5					57.9	42.0	86.2	61.4	24x24x8	992	1104	B,1
	CR(E) 5-16	5					57.9	45.3	86.2	61.4	24x24x8	1012	1123	B,1
6	CR(E) 5-5	1.5	4" ANSI	24.1	33.1	4.8	57.9	28.5	98.8	74.0	30x24x8	799	943	B,1
	CR(E) 5-7	2					57.9	30.6	98.8	74.0	30x24x8	838	983	B,1
	CR(E) 5-10	3					57.9	36.8	98.8	74.0	30x24x8	916	1060	B,1
	CR(E) 5-13	5					57.9	42.0	98.8	74.0	30x24x8	1186	1330	B,1
	CR(E) 5-16	5					57.9	45.3	98.8	74.0	30x24x8	1209	1353	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-ED with CR(E) 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	28.5	41.3	41.3	24x15x8	257	316	A,1
	CR(E) 5-7	2					57.9	30.6	41.3	41.3	24x15x8	270	330	A,1
	CR(E) 5-10	3					57.9	36.8	41.3	41.3	24x15x8	296	355	A,1
	CR(E) 5-13	5					57.9	42.0	41.3	41.3	24x15x8	386	446	A,1
	CR(E) 5-16	5					57.9	45.3	41.3	41.3	24x15x8	394	453	A,1
3	CR(E) 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	28.5	61.8	61.8	24x24x8	349	437	A,1
	CR(E) 5-7	2					57.9	30.6	61.8	61.8	24x24x8	385	474	A,1
	CR(E) 5-10	3					57.9	36.8	61.8	61.8	24x24x8	420	508	A,1
	CR(E) 5-13	5					57.9	42.0	61.8	61.8	24x24x8	529	617	A,1
	CR(E) 5-16	5					57.9	45.3	61.8	61.8	24x24x8	541	629	A,1
4	CR(E) 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	28.5	74.4	74.4	30x24x8	444	566	A,1
	CR(E) 5-7	2					57.9	30.6	74.4	74.4	30x24x8	504	626	A,1
	CR(E) 5-10	3					57.9	36.8	74.4	74.4	30x24x8	548	670	A,1
	CR(E) 5-13	5					57.9	42.0	74.4	74.4	30x24x8	676	798	A,1
	CR(E) 5-16	5					57.9	45.3	74.4	74.4	30x24x8	691	813	A,1
5	CR(E) 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	28.5	86.2	61.4	30x24x8	589	724	B,1
	CR(E) 5-7	2					57.9	30.6	86.2	61.4	30x24x8	673	808	B,1
	CR(E) 5-10	3					57.9	36.8	86.2	61.4	30x24x8	725	860	B,1
	CR(E) 5-13	5					57.9	42.0	86.2	61.4	30x24x8	872	1007	B,1
	CR(E) 5-16	5					57.9	45.3	86.2	61.4	30x24x8	892	1026	B,1
6	CR(E) 5-5	1.5	4" ANSI	24.1	33.1	4.8	57.9	28.5	106.7	74.0	39x32x12	691	893	B,1
	CR(E) 5-7	2					57.9	30.6	106.7	74.0	39x32x12	798	1001	B,1
	CR(E) 5-10	3					57.9	36.8	106.7	74.0	39x32x12	860	1062	B,1
	CR(E) 5-13	5					57.9	42.0	106.7	74.0	39x32x12	1026	1228	B,1
	CR(E) 5-16	5					57.9	45.3	106.7	74.0	39x32x12	1049	1251	B,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-ES with CR(E) 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	28.5	49.2	49.2	24x24x8	230	306	A,1
	CR(E) 5-7	2					57.9	30.6	49.2	49.2	24x24x8	260	336	A,1
	CR(E) 5-10	3					57.9	36.8	49.2	49.2	24x24x8	282	358	A,1
	CR(E) 5-13	5					57.9	42.0	49.2	49.2	24x24x8	346	422	A,1
	CR(E) 5-16	5					57.9	45.3	49.2	49.2	24x24x8	354	430	A,1
3	CR(E) 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	28.5	61.8	61.8	24x24x8	322	410	A,1
	CR(E) 5-7	2					57.9	30.6	61.8	61.8	24x24x8	375	464	A,1
	CR(E) 5-10	3					57.9	36.8	61.8	61.8	24x24x8	406	495	A,1
	CR(E) 5-13	5					57.9	42.0	61.8	61.8	24x24x8	489	578	A,1
	CR(E) 5-16	5					57.9	45.3	61.8	61.8	24x24x8	501	589	A,1
4	CR(E) 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	28.5	74.4	74.4	30x24x8	417	540	A,1
	CR(E) 5-7	2					57.9	30.6	74.4	74.4	30x24x8	494	617	A,1
	CR(E) 5-10	3					57.9	36.8	74.4	74.4	30x24x8	534	657	A,1
	CR(E) 5-13	5					57.9	42.0	74.4	74.4	30x24x8	636	759	A,1
	CR(E) 5-16	5					57.9	45.3	74.4	74.4	30x24x8	651	774	A,1
5	CR(E) 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	28.5	94.1	61.4	47x32x12	562	780	B,1
	CR(E) 5-7	2					57.9	30.6	94.1	61.4	47x32x12	663	881	B,1
	CR(E) 5-10	3					57.9	36.8	94.1	61.4	47x32x12	711	930	B,1
	CR(E) 5-13	5					57.9	42.0	94.1	61.4	47x32x12	832	1051	B,1
	CR(E) 5-16	5					57.9	45.3	94.1	61.4	47x32x12	852	1070	B,1
6	CR(E) 5-5	1.5	4" ANSI	24.1	33.1	4.8	57.9	28.5	106.7	74.0	47x32x12	664	895	B,1
	CR(E) 5-7	2					57.9	30.6	106.7	74.0	47x32x12	788	1019	B,1
	CR(E) 5-10	3					57.9	36.8	106.7	74.0	47x32x12	846	1077	B,1
	CR(E) 5-13	5					57.9	42.0	106.7	74.0	47x32x12	986	1217	B,1
	CR(E) 5-16	5					57.9	45.3	106.7	74.0	47x32x12	1009	1240	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-EF with CR 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	25.9	56.3	23.6	39x32x12	203	364	B,1
	CR 5-7	2					57.9	30.6	56.3	23.6	39x32x12	250	418	B,1
	CR 5-10	3					57.9	35.1	56.3	23.6	39x32x12	268	436	B,1
	CR 5-13	5					57.9	39.8	56.3	23.6	39x32x12	306	474	B,1
	CR 5-16	5					57.9	43.0	56.3	23.6	39x32x12	314	482	B,1
3	CR 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	25.9	68.9	36.2	39x32x12	295	472	B,1
	CR 5-7	2					57.9	30.6	68.9	36.2	39x32x12	365	553	B,1
	CR 5-10	3					57.9	35.1	68.9	36.2	39x32x12	392	580	B,1
	CR 5-13	5					57.9	39.8	68.9	36.2	39x32x12	449	637	B,1
	CR 5-16	5					57.9	43.0	68.9	36.2	39x32x12	461	649	B,1
4	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	81.5	48.8	47x32x12	390	612	B,1
	CR 5-7	2					57.9	30.6	81.5	48.8	47x32x12	484	720	B,1
	CR 5-10	3					57.9	35.1	81.5	48.8	47x32x12	520	756	B,1
	CR 5-13	5					57.9	39.8	81.5	48.8	47x32x12	596	832	B,1
	CR 5-16	5					57.9	43.0	81.5	48.8	47x32x12	611	848	B,1
5	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	94.1	61.4	47x32x12	535	773	B,1
	CR 5-7	2					57.9	30.6	94.1	61.4	47x32x12	653	909	B,1
	CR 5-10	3					57.9	35.1	94.1	61.4	47x32x12	697	954	B,1
	CR 5-13	5					57.9	39.8	94.1	61.4	47x32x12	792	1049	B,1
	CR 5-16	5					57.9	43.0	94.1	61.4	47x32x12	812	1068	B,1
6	CR 5-5	1.5	4" ANSI	24.1	33.1	4.8	79.0	25.9	114.6	74.0	71x39x16	637	1039	C,1
	CR 5-7	2					79.0	30.6	114.6	74.0	71x39x16	778	1202	C,1
	CR 5-10	3					79.0	35.1	114.6	74.0	71x39x16	832	1256	C,1
	CR 5-13	5					79.0	39.8	114.6	74.0	71x39x16	946	1370	C,1
	CR 5-16	5					79.0	43.0	114.6	74.0	71x39x16	969	1393	C,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-EDF with CR 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	25.9	56.3	23.6	39x32x12	203	364	B,1
	CR 5-7	2					57.9	30.6	56.3	23.6	39x32x12	250	418	B,1
	CR 5-10	3					57.9	35.1	56.3	23.6	39x32x12	268	436	B,1
	CR 5-13	5					57.9	39.8	56.3	23.6	39x32x12	306	474	B,1
	CR 5-16	5					57.9	43.0	56.3	23.6	39x32x12	314	482	B,1
3	CR 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	25.9	68.9	36.2	39x32x12	295	468	B,1
	CR 5-7	2					57.9	30.6	68.9	36.2	39x32x12	365	546	B,1
	CR 5-10	3					57.9	35.1	68.9	36.2	39x32x12	392	573	B,1
	CR 5-13	5					57.9	39.8	68.9	36.2	39x32x12	449	630	B,1
	CR 5-16	5					57.9	43.0	68.9	36.2	39x32x12	461	641	B,1
4	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	81.5	48.8	47x32x12	390	604	B,1
	CR 5-7	2					57.9	30.6	81.5	48.8	47x32x12	484	705	B,1
	CR 5-10	3					57.9	35.1	81.5	48.8	47x32x12	520	741	B,1
	CR 5-13	5					57.9	39.8	81.5	48.8	47x32x12	596	817	B,1
	CR 5-16	5					57.9	43.0	81.5	48.8	47x32x12	611	833	B,1
5	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	94.1	61.4	47x32x12	535	762	B,1
	CR 5-7	2					57.9	30.6	94.1	61.4	47x32x12	653	887	B,1
	CR 5-10	3					57.9	35.1	94.1	61.4	47x32x12	697	931	B,1
	CR 5-13	5					57.9	39.8	94.1	61.4	47x32x12	792	1027	B,1
	CR 5-16	5					57.9	43.0	94.1	61.4	47x32x12	812	1046	B,1
6	CR 5-5	1.5	4" ANSI	24.1	33.1	4.8	57.9	25.9	106.7	74.0	47x32x12	637	876	B,1
	CR 5-7	2					57.9	30.6	106.7	74.0	47x32x12	778	1025	B,1
	CR 5-10	3					57.9	35.1	106.7	74.0	47x32x12	832	1079	B,1
	CR 5-13	5					57.9	39.8	106.7	74.0	47x32x12	946	1193	B,1
	CR 5-16	5					57.9	43.0	106.7	74.0	47x32x12	969	1216	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-F with CR 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	25.9	56.3	23.6	39x32x12	203	362	B,1
	CR 5-7	2					57.9	30.6	56.3	23.6	39x32x12	250	413	B,1
	CR 5-10	3					57.9	35.1	56.3	23.6	39x32x12	268	431	B,1
	CR 5-13	5					57.9	39.8	56.3	23.6	39x32x12	306	469	B,1
	CR 5-16	5					57.9	43.0	56.3	23.6	39x32x12	314	476	B,1
3	CR 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	25.9	68.9	36.2	39x32x12	295	467	B,1
	CR 5-7	2					57.9	30.6	68.9	36.2	39x32x12	365	541	B,1
	CR 5-10	3					57.9	35.1	68.9	36.2	39x32x12	392	568	B,1
	CR 5-13	5					57.9	39.8	68.9	36.2	39x32x12	449	625	B,1
	CR 5-16	5					57.9	43.0	68.9	36.2	39x32x12	461	637	B,1
4	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	81.5	48.8	39x32x12	390	576	B,1
	CR 5-7	2					57.9	30.6	81.5	48.8	39x32x12	484	674	B,1
	CR 5-10	3					57.9	35.1	81.5	48.8	39x32x12	520	709	B,1
	CR 5-13	5					57.9	39.8	81.5	48.8	39x32x12	596	785	B,1
	CR 5-16	5					57.9	43.0	81.5	48.8	39x32x12	611	801	B,1
5	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	94.1	61.4	47x32x12	535	762	B,1
	CR 5-7	2					57.9	30.6	94.1	61.4	47x32x12	653	884	B,1
	CR 5-10	3					57.9	35.1	94.1	61.4	47x32x12	697	928	B,1
	CR 5-13	5					57.9	39.8	94.1	61.4	47x32x12	792	1023	B,1
	CR 5-16	5					57.9	43.0	94.1	61.4	47x32x12	812	1042	B,1
6	CR 5-5	1.5	4" ANSI	24.1	33.1	4.8	57.9	25.9	106.7	74.0	47x32x12	637	877	B,1
	CR 5-7	2					57.9	30.6	106.7	74.0	47x32x12	778	1023	B,1
	CR 5-10	3					57.9	35.1	106.7	74.0	47x32x12	832	1076	B,1
	CR 5-13	5					57.9	39.8	106.7	74.0	47x32x12	946	1190	B,1
	CR 5-16	5					57.9	43.0	106.7	74.0	47x32x12	969	1213	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 5

## Hydro MPC-S with CR 5

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 5-5	1.5	2" NPT	23.1	25.5	4.8	57.9	25.9	49.2	49.2	24x24x8	203	280	A,1
	CR 5-7	2					57.9	30.6	49.2	49.2	24x24x8	250	327	A,1
	CR 5-10	3					57.9	35.1	49.2	49.2	24x24x8	268	345	A,1
	CR 5-13	5					57.9	39.8	49.2	49.2	24x24x8	306	383	A,1
	CR 5-16	5					57.9	43.0	49.2	49.2	24x24x8	314	391	A,1
3	CR 5-5	1.5	2.5" NPT	24.1	27.0	4.8	57.9	25.9	61.8	61.8	24x24x8	295	384	A,1
	CR 5-7	2					57.9	30.6	61.8	61.8	24x24x8	365	455	A,1
	CR 5-10	3					57.9	35.1	61.8	61.8	24x24x8	392	482	A,1
	CR 5-13	5					57.9	39.8	61.8	61.8	24x24x8	449	539	A,1
	CR 5-16	5					57.9	43.0	61.8	61.8	24x24x8	461	550	A,1
4	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	74.4	74.4	30x24x8	390	513	A,1
	CR 5-7	2					57.9	30.6	74.4	74.4	30x24x8	484	608	A,1
	CR 5-10	3					57.9	35.1	74.4	74.4	30x24x8	520	643	A,1
	CR 5-13	5					57.9	39.8	74.4	74.4	30x24x8	596	719	A,1
	CR 5-16	5					57.9	43.0	74.4	74.4	30x24x8	611	735	A,1
5	CR 5-5	1.5	3" NPT	24.1	27.6	4.8	57.9	25.9	94.1	61.4	47x32x12	535	754	B,1
	CR 5-7	2					57.9	30.6	94.1	61.4	47x32x12	653	872	B,1
	CR 5-10	3					57.9	35.1	94.1	61.4	47x32x12	697	916	B,1
	CR 5-13	5					57.9	39.8	94.1	61.4	47x32x12	792	1012	B,1
	CR 5-16	5					57.9	43.0	94.1	61.4	47x32x12	812	1031	B,1
6	CR 5-5	1.5	4" ANSI	24.1	33.1	4.8	57.9	25.9	106.7	74.0	47x32x12	637	869	B,1
	CR 5-7	2					57.9	30.6	106.7	74.0	47x32x12	778	1010	B,1
	CR 5-10	3					57.9	35.1	106.7	74.0	47x32x12	832	1064	B,1
	CR 5-13	5					57.9	39.8	106.7	74.0	47x32x12	946	1178	B,1
	CR 5-16	5					57.9	43.0	106.7	74.0	47x32x12	969	1201	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

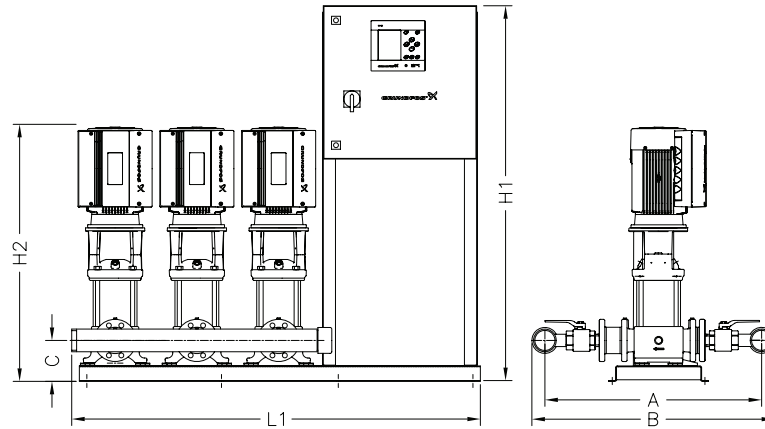
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

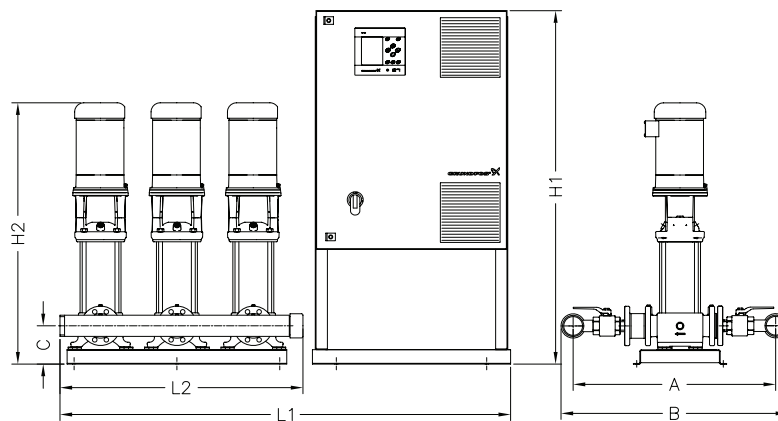
BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC with CR(E) 10



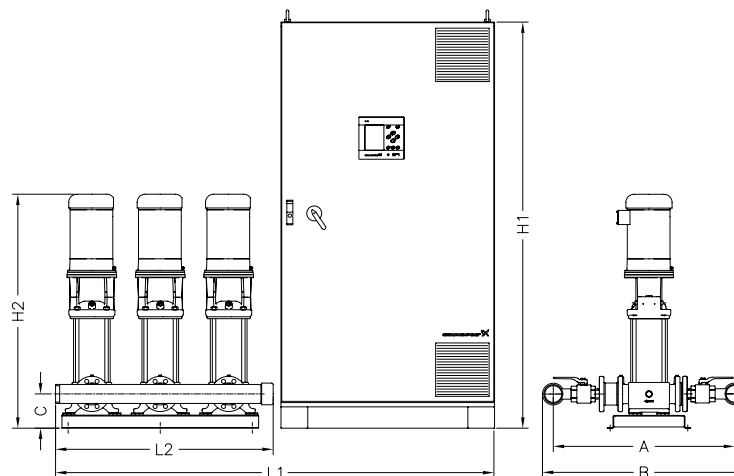
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Fig. 22 Drawing of a Hydro MPC booster set with a control panel mounted on the same base plate as the pumps. (Design A)



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Fig. 23 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



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Fig. 24 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-E with CRE 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 10-2	1.5	2.5" NPT	32.4	35.3	6.3	57.9	29.6	42.5	42.5	24x15x8	361	420	A,1
	CR(E) 10-3	3					57.9	33.4	42.5	42.5	24x15x8	407	467	A,1
	CR(E) 10-4	3					57.9	34.6	42.5	42.5	24x15x8	412	471	A,1
	CR(E) 10-5	5					57.9	36.8	42.5	42.5	24x15x8	498	557	A,1
	CR(E) 10-6	5					57.9	39.0	42.5	42.5	24x15x8	503	562	A,1
	CR(E) 10-8	7.5					57.9	41.8	42.5	42.5	24x15x8	527	586	A,1
	CR(E) 10-10	7.5					57.9	46.5	42.5	42.5	24x15x8	545	604	A,1
3	CR(E) 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	29.6	55.1	55.1	24x15x8	533	604	A,1
	CR(E) 10-3	3					57.9	33.4	55.1	55.1	24x15x8	603	674	A,1
	CR(E) 10-4	3					57.9	34.6	55.1	55.1	24x15x8	610	681	A,1
	CR(E) 10-5	5					57.9	36.8	55.1	55.1	24x15x8	739	811	A,1
	CR(E) 10-6	5					57.9	39.0	55.1	55.1	24x15x8	746	817	A,1
	CR(E) 10-8	7.5					57.9	41.8	55.1	55.1	24x15x8	782	854	A,1
	CR(E) 10-10	7.5					57.9	46.5	55.1	55.1	24x15x8	809	880	A,1
4	CR(E) 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	29.6	76.8	76.8	24x24x8	747	847	A,1
	CR(E) 10-3	3					57.9	33.4	76.8	76.8	24x24x8	841	940	A,1
	CR(E) 10-4	3					57.9	34.6	76.8	76.8	24x24x8	850	949	A,1
	CR(E) 10-5	5					57.9	36.8	76.8	76.8	24x24x8	1022	1122	A,1
	CR(E) 10-6	5					57.9	39.0	76.8	76.8	24x24x8	1031	1131	A,1
	CR(E) 10-8	7.5					57.9	41.8	76.8	76.8	24x24x8	1080	1180	A,1
	CR(E) 10-10	7.5					57.9	46.5	76.8	76.8	24x24x8	1115	1215	A,1
5	CR(E) 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	29.6	89.5	64.7	24x24x8	930	1042	B,1
	CR(E) 10-3	3					57.9	33.4	89.5	64.7	24x24x8	1048	1159	B,1
	CR(E) 10-4	3					57.9	34.6	89.5	64.7	24x24x8	1059	1170	B,1
	CR(E) 10-5	5					57.9	36.8	89.5	64.7	24x24x8	1275	1386	B,1
	CR(E) 10-6	5					57.9	39.0	89.5	64.7	24x24x8	1286	1397	B,1
	CR(E) 10-8	7.5					57.9	41.8	89.5	64.7	24x24x8	1347	1458	B,1
	CR(E) 10-10	7.5					57.9	46.5	89.5	64.7	24x24x8	1391	1502	B,1
6	CR(E) 10-2	1.5	6" ANSI	32.4	43.4	6.3	57.9	29.6	102.2	77.4	30x24x8	1132	1277	B,1
	CR(E) 10-3	3					57.9	33.4	102.2	77.4	30x24x8	1273	1418	B,1
	CR(E) 10-4	3					57.9	34.6	102.2	77.4	30x24x8	1286	1431	B,1
	CR(E) 10-5	5					57.9	36.8	102.2	77.4	30x24x8	1545	1690	B,1
	CR(E) 10-6	5					57.9	39.0	102.2	77.4	30x24x8	1559	1703	B,1
	CR(E) 10-8	7.5					57.9	41.8	102.2	77.4	30x24x8	1632	1777	B,1
	CR(E) 10-10	7.5					57.9	46.5	102.2	77.4	30x24x8	1685	1830	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-ED with CR(E) 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 10-2	1.5	2.5" NPT	32.4	35.3	6.3	57.9	29.6	42.5	42.5	24x15x8	361	420	A,1
	CR(E) 10-3	3					57.9	33.4	42.5	42.5	24x15x8	407	467	A,1
	CR(E) 10-4	3					57.9	34.6	42.5	42.5	24x15x8	412	471	A,1
	CR(E) 10-5	5					57.9	36.8	42.5	42.5	24x15x8	498	557	A,1
	CR(E) 10-6	5					57.9	39.0	42.5	42.5	24x15x8	503	562	A,1
	CR(E) 10-8	7.5					57.9	41.8	42.5	42.5	24x15x8	527	586	A,1
	CR(E) 10-10	7.5					57.9	46.5	42.5	42.5	24x15x8	545	604	A,1
3	CR(E) 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	29.6	63.0	63.0	24x24x8	506	594	A,1
	CR(E) 10-3	3					57.9	33.4	63.0	63.0	24x24x8	589	677	A,1
	CR(E) 10-4	3					57.9	34.6	63.0	63.0	24x24x8	596	684	A,1
	CR(E) 10-5	5					57.9	36.8	63.0	63.0	24x24x8	699	787	A,1
	CR(E) 10-6	5					57.9	39.0	63.0	63.0	24x24x8	706	794	A,1
	CR(E) 10-8	7.5					57.9	41.8	63.0	63.0	24x24x8	783	872	A,1
	CR(E) 10-10	7.5					57.9	46.5	63.0	63.0	24x24x8	810	898	A,1
4	CR(E) 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	29.6	76.8	76.8	30x24x8	693	815	A,1
	CR(E) 10-3	3					57.9	33.4	76.8	76.8	30x24x8	813	935	A,1
	CR(E) 10-4	3					57.9	34.6	76.8	76.8	30x24x8	822	944	A,1
	CR(E) 10-5	5					57.9	36.8	76.8	76.8	30x24x8	942	1064	A,1
	CR(E) 10-6	5					57.9	39.0	76.8	76.8	30x24x8	951	1073	A,1
	CR(E) 10-8	7.5					57.9	41.8	76.8	76.8	30x24x8	1082	1205	A,1
	CR(E) 10-10	7.5					57.9	46.5	76.8	76.8	30x24x8	1117	1240	A,1
5	CR(E) 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	29.6	89.5	64.7	30x24x8	849	984	B,1
	CR(E) 10-3	3					57.9	33.4	89.5	64.7	30x24x8	1006	1140	B,1
	CR(E) 10-4	3					57.9	34.6	89.5	64.7	30x24x8	1017	1151	B,1
	CR(E) 10-5	5					57.9	36.8	89.5	64.7	30x24x8	1155	1289	B,1
	CR(E) 10-6	5					57.9	39.0	89.5	64.7	30x24x8	1166	1300	B,1
	CR(E) 10-8	7.5					57.9	41.8	89.5	64.7	30x24x8	1350	1485	B,1
	CR(E) 10-10	7.5					57.9	46.5	89.5	64.7	30x24x8	1394	1529	B,1
6	CR(E) 10-2	1.5	6" ANSI	32.4	43.4	6.3	57.9	29.6	110.1	77.4	39x32x12	1024	1227	B,1
	CR(E) 10-3	3					57.9	33.4	110.1	77.4	39x32x12	1217	1419	B,1
	CR(E) 10-4	3					57.9	34.6	110.1	77.4	39x32x12	1230	1433	B,1
	CR(E) 10-5	5					57.9	36.8	110.1	77.4	39x32x12	1385	1588	B,1
	CR(E) 10-6	5					57.9	39.0	110.1	77.4	39x32x12	1399	1601	B,1
	CR(E) 10-8	7.5					57.9	41.8	110.1	77.4	39x32x12	1636	1840	B,1
	CR(E) 10-10	7.5					57.9	46.5	110.1	77.4	39x32x12	1689	1893	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-ES with CR(E) 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 10-2	1.5	2.5" NPT	32.4	35.3	6.3	43*	29.6	50.4	50.4	24x24x8	334	410	A,1
	CR(E) 10-3	3					43*	33.4	50.4	50.4	24x24x8	393	469	A,1
	CR(E) 10-4	3					43*	34.6	50.4	50.4	24x24x8	398	474	A,1
	CR(E) 10-5	5					57.9	36.8	50.4	50.4	24x24x8	458	534	A,1
	CR(E) 10-6	5					57.9	39.0	50.4	50.4	24x24x8	463	539	A,1
	CR(E) 10-8	7.5					57.9	41.8	50.4	50.4	24x24x8	528	604	A,1
	CR(E) 10-10	7.5					57.9	46.5	50.4	50.4	24x24x8	546	622	A,1
3	CR(E) 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	29.6	63.0	63.0	24x24x8	479	567	A,1
	CR(E) 10-3	3					57.9	33.4	63.0	63.0	24x24x8	575	664	A,1
	CR(E) 10-4	3					57.9	34.6	63.0	63.0	24x24x8	582	670	A,1
	CR(E) 10-5	5					57.9	36.8	63.0	63.0	24x24x8	659	748	A,1
	CR(E) 10-6	5					57.9	39.0	63.0	63.0	24x24x8	666	755	A,1
	CR(E) 10-8	7.5					57.9	41.8	63.0	63.0	24x24x8	784	874	A,1
	CR(E) 10-10	7.5					57.9	46.5	63.0	63.0	24x24x8	811	900	A,1
4	CR(E) 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	29.6	76.8	76.8	30x24x8	666	789	A,1
	CR(E) 10-3	3					57.9	33.4	76.8	76.8	30x24x8	799	921	A,1
	CR(E) 10-4	3					57.9	34.6	76.8	76.8	30x24x8	808	930	A,1
	CR(E) 10-5	5					57.9	36.8	76.8	76.8	30x24x8	902	1025	A,1
	CR(E) 10-6	5					57.9	39.0	76.8	76.8	30x24x8	911	1034	A,1
	CR(E) 10-8	7.5					57.9	41.8	76.8	76.8	30x24x8	1083	1207	A,1
	CR(E) 10-10	7.5					57.9	46.5	76.8	76.8	30x24x8	1118	1242	A,1
5	CR(E) 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	29.6	97.4	64.7	47x32x12	822	1041	B,1
	CR(E) 10-3	3					57.9	33.4	97.4	64.7	47x32x12	992	1210	B,1
	CR(E) 10-4	3					57.9	34.6	97.4	64.7	47x32x12	1003	1221	B,1
	CR(E) 10-5	5					57.9	36.8	97.4	64.7	47x32x12	1115	1333	B,1
	CR(E) 10-6	5					57.9	39.0	97.4	64.7	47x32x12	1126	1344	B,1
	CR(E) 10-8	7.5					57.9	41.8	97.4	64.7	47x32x12	1351	1570	B,1
	CR(E) 10-10	7.5					57.9	46.5	97.4	64.7	47x32x12	1395	1614	B,1
6	CR(E) 10-2	1.5	6" ANSI	32.4	43.4	6.3	57.9	29.6	110.1	77.4	47x32x12	997	1228	B,1
	CR(E) 10-3	3					57.9	33.4	110.1	77.4	47x32x12	1203	1434	B,1
	CR(E) 10-4	3					57.9	34.6	110.1	77.4	47x32x12	1216	1447	B,1
	CR(E) 10-5	5					57.9	36.8	110.1	77.4	47x32x12	1345	1576	B,1
	CR(E) 10-6	5					57.9	39.0	110.1	77.4	47x32x12	1359	1590	B,1
	CR(E) 10-8	7.5					57.9	41.8	110.1	77.4	47x32x12	1637	1870	B,1
	CR(E) 10-10	7.5					57.9	46.5	110.1	77.4	47x32x12	1690	1923	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-EF with CR 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 10-2	1.5	2.5" NPT	32.4	35.3	6.3	43*	26.9	58.7	26.0	39x32x12	307	467	B,1
	CR 10-3	3					43*	31.6	58.7	26.0	39x32x12	379	547	B,1
	CR 10-4	3					43*	32.9	58.7	26.0	39x32x12	384	551	B,1
	CR 10-5	5					57.9	35.5	58.7	26.0	39x32x12	418	586	B,1
	CR 10-6	5					57.9	36.8	58.7	26.0	39x32x12	423	590	B,1
	CR 10-8	7.5					57.9	41.8	58.7	26.0	39x32x12	529	707	B,1
	CR 10-10	7.5					57.9	46.5	58.7	26.0	39x32x12	547	724	B,1
3	CR 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	26.9	71.3	38.6	39x32x12	452	629	B,1
	CR 10-3	3					57.9	31.6	71.3	38.6	39x32x12	561	749	B,1
	CR 10-4	3					57.9	32.9	71.3	38.6	39x32x12	568	756	B,1
	CR 10-5	5					57.9	35.5	71.3	38.6	39x32x12	619	807	B,1
	CR 10-6	5					57.9	36.8	71.3	38.6	39x32x12	626	814	B,1
	CR 10-8	7.5					57.9	41.8	71.3	38.6	39x32x12	785	988	B,1
	CR 10-10	7.5					57.9	46.5	71.3	38.6	39x32x12	812	1015	B,1
4	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	87.2	54.5	47x32x12	639	861	B,1
	CR 10-3	3					57.9	31.6	87.2	54.5	47x32x12	785	1021	B,1
	CR 10-4	3					57.9	32.9	87.2	54.5	47x32x12	794	1030	B,1
	CR 10-5	5					57.9	35.5	87.2	54.5	47x32x12	862	1099	B,1
	CR 10-6	5					57.9	36.8	87.2	54.5	47x32x12	871	1108	B,1
	CR 10-8	7.5					79.0	41.8	95.0	54.5	71x39x16	1084	1487	C,1
	CR 10-10	7.5					79.0	46.5	95.0	54.5	71x39x16	1119	1523	C,1
5	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	97.4	64.7	47x32x12	795	1034	B,1
	CR 10-3	3					57.9	31.6	97.4	64.7	47x32x12	978	1234	B,1
	CR 10-4	3					57.9	32.9	97.4	64.7	47x32x12	989	1245	B,1
	CR 10-5	5					57.9	35.5	97.4	64.7	47x32x12	1075	1331	B,1
	CR 10-6	5					57.9	36.8	97.4	64.7	47x32x12	1086	1342	B,1
	CR 10-8	7.5					79.0	41.8	105.3	64.7	71x39x16	1352	1780	C,1
	CR 10-10	7.5					79.0	46.5	105.3	64.7	71x39x16	1396	1824	C,1
6	CR 10-2	1.5	6" ANSI	32.4	43.4	6.3	79.0	26.9	117.9	77.4	71x39x16	970	1373	C,1
	CR 10-3	3					79.0	31.6	117.9	77.4	71x39x16	1189	1613	C,1
	CR 10-4	3					79.0	32.9	117.9	77.4	71x39x16	1202	1626	C,1
	CR 10-5	5					79.0	35.5	117.9	77.4	71x39x16	1305	1729	C,1
	CR 10-6	5					79.0	36.8	117.9	77.4	71x39x16	1319	1742	C,1
	CR 10-8	7.5					79.0	41.8	117.9	77.4	71x39x16	1638	2092	C,1
	CR 10-10	7.5					79.0	46.5	117.9	77.4	71x39x16	1691	2145	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-EDF with CR 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 10-2	1.5	2.5" NPT	32.4	35.3	6.3	43*	26.9	58.7	26.0	39x32x12	307	467	B
	CR 10-3	3					43*	31.6	58.7	26.0	39x32x12	379	547	B
	CR 10-4	3					43*	32.9	58.7	26.0	39x32x12	384	551	B
	CR 10-5	5					57.9	35.5	58.7	26.0	39x32x12	418	586	B
	CR 10-6	5					57.9	36.8	58.7	26.0	39x32x12	423	590	B
	CR 10-8	7.5					57.9	41.8	58.7	26.0	39x32x12	529	707	B
	CR 10-10	7.5					57.9	46.5	58.7	26.0	39x32x12	547	724	B
3	CR 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	26.9	71.3	38.6	39x32x12	452	625	B
	CR 10-3	3					57.9	31.6	71.3	38.6	39x32x12	561	741	B
	CR 10-4	3					57.9	32.9	71.3	38.6	39x32x12	568	748	B
	CR 10-5	5					57.9	35.5	71.3	38.6	39x32x12	619	800	B
	CR 10-6	5					57.9	36.8	71.3	38.6	39x32x12	626	806	B
	CR 10-8	7.5					57.9	41.8	71.3	38.6	39x32x12	785	976	B
	CR 10-10	7.5					57.9	46.5	71.3	38.6	39x32x12	812	1003	B
4	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	87.2	54.5	47x32x12	639	853	B
	CR 10-3	3					57.9	31.6	87.2	54.5	47x32x12	785	1006	B
	CR 10-4	3					57.9	32.9	87.2	54.5	47x32x12	794	1015	B
	CR 10-5	5					57.9	35.5	87.2	54.5	47x32x12	862	1084	B
	CR 10-6	5					57.9	36.8	87.2	54.5	47x32x12	871	1093	B
	CR 10-8	7.5					57.9	41.8	87.2	54.5	47x32x12	1084	1316	B
	CR 10-10	7.5					57.9	46.5	87.2	54.5	47x32x12	1119	1351	B
5	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	97.4	64.7	47x32x12	795	1022	B
	CR 10-3	3					57.9	31.6	97.4	64.7	47x32x12	978	1212	B
	CR 10-4	3					57.9	32.9	97.4	64.7	47x32x12	989	1223	B
	CR 10-5	5					57.9	35.5	97.4	64.7	47x32x12	1075	1309	B
	CR 10-6	5					57.9	36.8	97.4	64.7	47x32x12	1086	1320	B
	CR 10-8	7.5					57.9	41.8	97.4	64.7	47x32x12	1352	1597	B
	CR 10-10	7.5					57.9	46.5	97.4	64.7	47x32x12	1396	1641	B
6	CR 10-2	1.5	6" ANSI	32.4	43.4	6.3	57.9	26.9	110.1	77.4	47x32x12	970	1210	B
	CR 10-3	3					57.9	31.6	110.1	77.4	47x32x12	1189	1436	B
	CR 10-4	3					57.9	32.9	110.1	77.4	47x32x12	1202	1449	B
	CR 10-5	5					57.9	35.5	110.1	77.4	47x32x12	1305	1552	B
	CR 10-6	5					57.9	36.8	110.1	77.4	47x32x12	1319	1565	B
	CR 10-8	7.5					57.9	41.8	110.1	77.4	47x32x12	1638	1896	B
	CR 10-10	7.5					57.9	46.5	110.1	77.4	47x32x12	1691	1949	B

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-F with CR 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 10-2	1.5	2.5" NPT	32.4	35.3	6.3	43*	26.9	58.7	26.0	39x32x12	307	465	B,1
	CR 10-3	3					43*	31.6	58.7	26.0	39x32x12	379	542	B,1
	CR 10-4	3					43*	32.9	58.7	26.0	39x32x12	384	546	B,1
	CR 10-5	5					57.9	35.5	58.7	26.0	39x32x12	418	580	B,1
	CR 10-6	5					57.9	36.8	58.7	26.0	39x32x12	423	585	B,1
	CR 10-8	7.5					57.9	41.8	58.7	26.0	39x32x12	529	698	B,1
	CR 10-10	7.5					57.9	46.5	58.7	26.0	39x32x12	547	715	B,1
3	CR 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	26.9	71.3	38.6	39x32x12	452	624	B,1
	CR 10-3	3					57.9	31.6	71.3	38.6	39x32x12	561	737	B,1
	CR 10-4	3					57.9	32.9	71.3	38.6	39x32x12	568	743	B,1
	CR 10-5	5					57.9	35.5	71.3	38.6	39x32x12	619	795	B,1
	CR 10-6	5					57.9	36.8	71.3	38.6	39x32x12	626	802	B,1
	CR 10-8	7.5					57.9	41.8	71.3	38.6	39x32x12	785	968	B,1
	CR 10-10	7.5					57.9	46.5	71.3	38.6	39x32x12	812	995	B,1
4	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	87.2	54.5	47x32x12	639	853	B,1
	CR 10-3	3					57.9	31.6	87.2	54.5	47x32x12	785	1002	B,1
	CR 10-4	3					57.9	32.9	87.2	54.5	47x32x12	794	1011	B,1
	CR 10-5	5					57.9	35.5	87.2	54.5	47x32x12	862	1080	B,1
	CR 10-6	5					57.9	36.8	87.2	54.5	47x32x12	871	1089	B,1
	CR 10-8	7.5					57.9	41.8	87.2	54.5	47x32x12	1084	1309	B,1
	CR 10-10	7.5					57.9	46.5	87.2	54.5	47x32x12	1119	1344	B,1
5	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	97.4	64.7	47x32x12	795	1023	B,1
	CR 10-3	3					57.9	31.6	97.4	64.7	47x32x12	978	1208	B,1
	CR 10-4	3					57.9	32.9	97.4	64.7	47x32x12	989	1219	B,1
	CR 10-5	5					57.9	35.5	97.4	64.7	47x32x12	1075	1305	B,1
	CR 10-6	5					57.9	36.8	97.4	64.7	47x32x12	1086	1317	B,1
	CR 10-8	7.5					57.9	41.8	97.4	64.7	47x32x12	1352	1591	B,1
	CR 10-10	7.5					57.9	46.5	97.4	64.7	47x32x12	1396	1635	B,1
6	CR 10-2	1.5	6" ANSI	32.4	43.4	6.3	79.0	26.9	117.9	77.4	71x39x16	970	1358	C,1
	CR 10-3	3					79.0	31.6	117.9	77.4	71x39x16	1189	1580	C,1
	CR 10-4	3					79.0	32.9	117.9	77.4	71x39x16	1202	1594	C,1
	CR 10-5	5					79.0	35.5	117.9	77.4	71x39x16	1305	1697	C,1
	CR 10-6	5					79.0	36.8	117.9	77.4	71x39x16	1319	1710	C,1
	CR 10-8	7.5					79.0	41.8	117.9	77.4	71x39x16	1638	2038	C,1
	CR 10-10	7.5					79.0	46.5	117.9	77.4	71x39x16	1691	2091	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 10

## Hydro MPC-S with CR 10

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 10-2	1.5	2.5" NPT	32.4	35.3	6.3	43*	26.9	50.4	50.4	24x24x8	307	383	A,1
	CR 10-3	3					43*	31.6	50.4	50.4	24x24x8	379	456	A,1
	CR 10-4	3					43*	32.9	50.4	50.4	24x24x8	384	460	A,1
	CR 10-5	5					57.9	35.5	50.4	50.4	24x24x8	418	495	A,1
	CR 10-6	5					57.9	36.8	50.4	50.4	24x24x8	423	499	A,1
	CR 10-8	7.5					57.9	41.8	50.4	50.4	24x24x8	529	606	A,1
	CR 10-10	7.5					57.9	46.5	50.4	50.4	24x24x8	547	624	A,1
3	CR 10-2	1.5	3" NPT	32.4	35.9	6.3	57.9	26.9	63.0	63.0	24x24x8	452	541	A,1
	CR 10-3	3					57.9	31.6	63.0	63.0	24x24x8	561	650	A,1
	CR 10-4	3					57.9	32.9	63.0	63.0	24x24x8	568	657	A,1
	CR 10-5	5					57.9	35.5	63.0	63.0	24x24x8	619	709	A,1
	CR 10-6	5					57.9	36.8	63.0	63.0	24x24x8	626	715	A,1
	CR 10-8	7.5					57.9	41.8	63.0	63.0	24x24x8	785	876	A,1
	CR 10-10	7.5					57.9	46.5	63.0	63.0	24x24x8	812	902	A,1
4	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	76.8	76.8	30x24x8	639	762	A,1
	CR 10-3	3					57.9	31.6	76.8	76.8	30x24x8	785	908	A,1
	CR 10-4	3					57.9	32.9	76.8	76.8	30x24x8	794	917	A,1
	CR 10-5	5					57.9	35.5	76.8	76.8	30x24x8	862	986	A,1
	CR 10-6	5					57.9	36.8	76.8	76.8	30x24x8	871	995	A,1
	CR 10-8	7.5					57.9	41.8	76.8	76.8	30x24x8	1084	1209	A,1
	CR 10-10	7.5					57.9	46.5	76.8	76.8	30x24x8	1119	1244	A,1
5	CR 10-2	1.5	4" ANSI	32.4	41.4	6.3	57.9	26.9	97.4	64.7	47x32x12	795	1015	B,1
	CR 10-3	3					57.9	31.6	97.4	64.7	47x32x12	978	1197	B,1
	CR 10-4	3					57.9	32.9	97.4	64.7	47x32x12	989	1208	B,1
	CR 10-5	5					57.9	35.5	97.4	64.7	47x32x12	1075	1294	B,1
	CR 10-6	5					57.9	36.8	97.4	64.7	47x32x12	1086	1305	B,1
	CR 10-8	7.5					57.9	41.8	97.4	64.7	47x32x12	1352	1572	B,1
	CR 10-10	7.5					57.9	46.5	97.4	64.7	47x32x12	1396	1616	B,1
6	CR 10-2	1.5	6" ANSI	32.4	43.4	6.3	57.9	26.9	110.1	77.4	47x32x12	970	1202	B,1
	CR 10-3	3					57.9	31.6	110.1	77.4	47x32x12	1189	1421	B,1
	CR 10-4	3					57.9	32.9	110.1	77.4	47x32x12	1202	1434	B,1
	CR 10-5	5					57.9	35.5	110.1	77.4	47x32x12	1305	1537	B,1
	CR 10-6	5					57.9	36.8	110.1	77.4	47x32x12	1319	1551	B,1
	CR 10-8	7.5					57.9	41.8	110.1	77.4	47x32x12	1638	1872	B,1
	CR 10-10	7.5					57.9	46.5	110.1	77.4	47x32x12	1691	1925	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

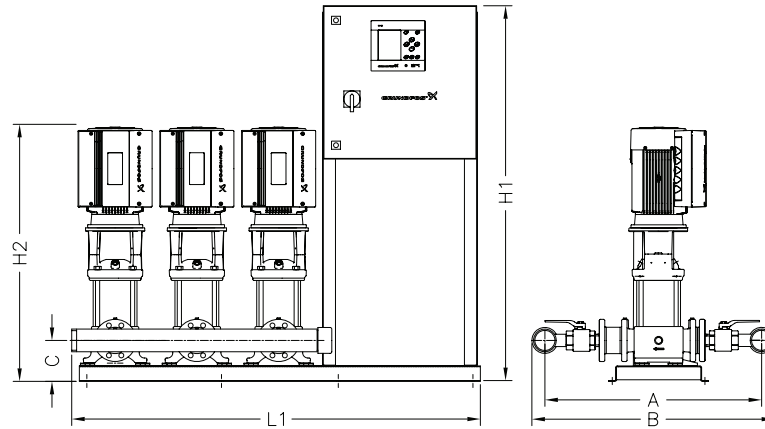
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

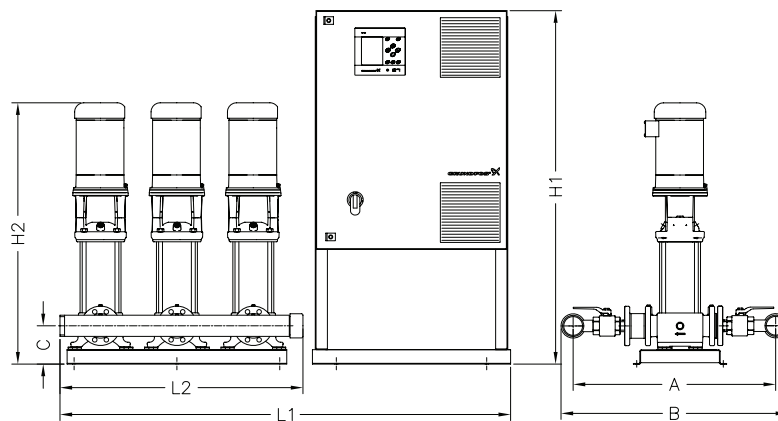
BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC with CR(E) 15



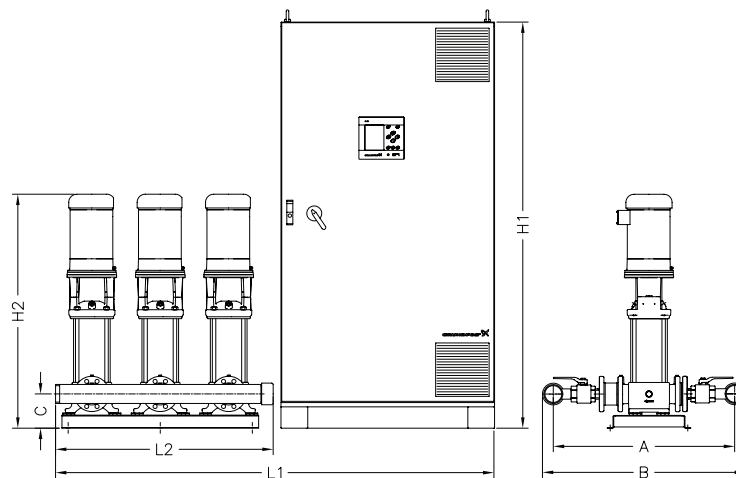
TM04 0000 4807 3CR10-15-E.pdf

Fig. 25 Drawing of a Hydro MPC booster set with a control panel mounted on the same base plate as the pumps. (Design A)



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Fig. 26 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



TM04 0001 4807 3CR10-15-EF.pdf

Fig. 27 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC-E with CRE 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	35.4	43.7	43.7	24x15x8	520	580	A,1
	CR(E) 15-3	5					57.9	37.3	43.7	43.7	24x15x8	529	588	A,1
	CR(E) 15-4	7.5					57.9	39.4	43.7	43.7	24x15x8	562	622	A,1
	CR(E) 15-6	10					57.9	42.9	43.7	43.7	24x15x8	594	653	A,1
3	CR(E) 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	35.4	56.3	56.3	24x15x8	762	833	A,1
	CR(E) 15-3	7.5					57.9	37.3	56.3	56.3	24x15x8	775	847	A,1
	CR(E) 15-4	7.5					57.9	39.4	56.3	56.3	24x15x8	825	897	A,1
	CR(E) 15-6	10					57.9	42.9	56.3	56.3	24x15x8	872	943	A,1
4	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	76.8	76.8	24x24x8	1031	1130	A,1
	CR(E) 15-3	7.5					57.9	37.3	76.8	76.8	24x24x8	1048	1148	A,1
	CR(E) 15-4	7.5					57.9	39.4	76.8	76.8	24x24x8	1115	1214	A,1
	CR(E) 15-6	10					57.9	42.9	76.8	76.8	24x24x8	1177	1277	A,1
5	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	91.9	67.1	24x24x8	1322	1434	B,1
	CR(E) 15-3	7.5					57.9	37.3	91.9	67.1	24x24x8	1344	1456	B,1
	CR(E) 15-4	7.5					57.9	39.4	91.9	67.1	24x24x8	1427	1539	B,1
	CR(E) 15-6	10					57.9	42.9	91.9	67.1	24x24x8	1505	1617	B,1
6	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	104.5	79.7	30x24x8	1463	1607	B,1
	CR(E) 15-3	7.5					57.9	37.3	104.5	79.7	30x24x8	1489	1634	B,1
	CR(E) 15-4	7.5					57.9	39.4	104.5	79.7	30x24x8	1589	1734	B,1
	CR(E) 15-6	10					57.9	42.9	104.5	79.7	30x24x8	1683	1828	B,1

## Hydro MPC-ED with CRE 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	35.4	43.7	43.7	24x15x8	520	580	A,1
	CR(E) 15-3	5					57.9	37.3	43.7	43.7	24x15x8	529	588	A,1
	CR(E) 15-4	7.5					57.9	39.4	43.7	43.7	24x15x8	562	622	A,1
	CR(E) 15-6	10					57.9	42.9	43.7	43.7	24x15x8	594	653	A,1
3	CR(E) 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	35.4	64.2	64.2	24x24x8	722	810	A,1
	CR(E) 15-3	7.5					57.9	37.3	64.2	64.2	24x24x8	735	823	A,1
	CR(E) 15-4	7.5					57.9	39.4	64.2	64.2	24x24x8	826	915	A,1
	CR(E) 15-6	10					57.9	42.9	64.2	64.2	24x24x8	864	952	A,1
4	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	76.8	76.8	30x24x8	951	1073	A,1
	CR(E) 15-3	7.5					57.9	37.3	76.8	76.8	30x24x8	968	1090	A,1
	CR(E) 15-4	7.5					57.9	39.4	76.8	76.8	30x24x8	1117	1239	A,1
	CR(E) 15-6	10					57.9	42.9	76.8	76.8	30x24x8	1161	1284	A,1
5	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	91.9	67.1	30x24x8	1202	1337	B,1
	CR(E) 15-3	7.5					57.9	37.3	91.9	67.1	30x24x8	1224	1359	B,1
	CR(E) 15-4	7.5					57.9	39.4	91.9	67.1	30x24x8	1430	1566	B,1
	CR(E) 15-6	10					57.9	42.9	91.9	67.1	30x24x8	1481	1617	B,1
6	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	112.4	79.7	39x32x12	1426	1628	B,1
	CR(E) 15-3	7.5					57.9	37.3	112.4	79.7	39x32x12	1452	1655	B,1
	CR(E) 15-4	7.5					57.9	39.4	112.4	79.7	39x32x12	1716	1920	B,1
	CR(E) 15-6	10					57.9	42.9	112.4	79.7	39x32x12	1774	1978	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC-ES with CRE 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	35.4	51.6	51.6	24x24x8	480	556	A,1
	CR(E) 15-3	7.5					57.9	37.3	51.6	51.6	24x24x8	489	565	A,1
	CR(E) 15-4	7.5					57.9	39.4	51.6	51.6	24x24x8	563	640	A,1
	CR(E) 15-6	10					57.9	42.9	51.6	51.6	24x24x8	586	662	A,1
3	CR(E) 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	35.4	64.2	64.2	24x24x8	682	771	A,1
	CR(E) 15-3	7.5					57.9	37.3	64.2	64.2	24x24x8	695	784	A,1
	CR(E) 15-4	7.5					57.9	39.4	64.2	64.2	24x24x8	827	917	A,1
	CR(E) 15-6	10					57.9	42.9	64.2	64.2	24x24x8	856	945	A,1
4	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	76.8	76.8	30x24x8	911	1033	A,1
	CR(E) 15-3	7.5					57.9	37.3	76.8	76.8	30x24x8	928	1051	A,1
	CR(E) 15-4	7.5					57.9	39.4	76.8	76.8	30x24x8	1118	1241	A,1
	CR(E) 15-6	10					57.9	42.9	76.8	76.8	30x24x8	1153	1277	A,1
5	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	99.8	67.1	47x32x12	1162	1380	B,1
	CR(E) 15-3	7.5					57.9	37.3	99.8	67.1	47x32x12	1184	1403	B,1
	CR(E) 15-4	7.5					57.9	39.4	99.8	67.1	47x32x12	1431	1651	B,1
	CR(E) 15-6	10					57.9	42.9	99.8	67.1	47x32x12	1473	1693	B,1
6	CR(E) 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	35.4	112.4	79.7	47x32x12	1386	1617	B,1
	CR(E) 15-3	7.5					57.9	37.3	112.4	79.7	47x32x12	1412	1644	B,1
	CR(E) 15-4	7.5					57.9	39.4	112.4	79.7	47x32x12	1717	1950	B,1
	CR(E) 15-6	10					57.9	42.9	112.4	79.7	47x32x12	1766	1999	B,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC-EF with CR 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	62.0	29.3	39x32x12	440	608	B,1
	CR 15-3	7.5					57.9	35.0	62.0	29.3	39x32x12	449	627	B,1
	CR 15-4	7.5					57.9	39.5	62.0	29.3	39x32x12	564	742	B,1
	CR 15-6	10					57.9	43.0	62.0	29.3	39x32x12	578	755	B,1
	CR 15-7	15					57.9	47.9	62.0	29.3	39x32x12	649	882	B,1
3	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	74.6	41.9	39x32x12	642	830	B,1
	CR 15-3	7.5					57.9	35.0	74.6	41.9	39x32x12	655	858	B,1
	CR 15-4	7.5					57.9	39.5	74.6	41.9	39x32x12	828	1031	B,1
	CR 15-6	10					57.9	43.0	74.6	41.9	39x32x12	848	1051	B,1
	CR 15-7	15					57.9	47.9	74.6	41.9	39x32x12	955	1241	B,1
4	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	87.2	54.5	47x32x12	871	1107	B,1
	CR 15-3	7.5					57.9	35.0	87.2	54.5	47x32x12	888	1145	B,1
	CR 15-4	7.5					57.9	39.5	87.2	54.5	47x32x12	1119	1375	B,1
	CR 15-6	10					57.9	43.0	87.2	54.5	47x32x12	1145	1402	B,1
	CR 15-7	15					57.9	47.9	87.2	54.5	47x32x12	1289	1655	B,1
5	CR 15-2	5	6" ANSI	37.0	48.0	6.3	79.0	33.3	107.7	67.1	71x39x16	1122	1526	C,1
	CR 15-3	7.5					79.0	35.0	107.7	67.1	71x39x16	1144	1573	C,1
	CR 15-4	7.5					79.0	39.5	107.7	67.1	71x39x16	1432	1861	C,1
	CR 15-6	10					79.0	43.0	107.7	67.1	71x39x16	1465	1894	C,1
	CR 15-7	15					79.0	47.9	107.7	67.1	71x39x16	1644	2210	C,1
6	CR 15-2	5	6" ANSI	37.0	48.0	6.3	79.0	33.3	120.3	79.7	71x39x16	1346	1770	C,1
	CR 15-3	7.5					79.0	35.0	120.3	79.7	71x39x16	1372	1827	C,1
	CR 15-4	7.5					79.0	39.5	120.3	79.7	71x39x16	1718	2172	C,1
	CR 15-6	10					79.0	43.0	120.3	79.7	71x39x16	1758	2212	C,1
	CR 15-7	15					79.0	48.4	120.3	79.7	71x39x16	1973	2592	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC-EDF with CR 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	62.0	29.3	39x32x12	440	608	B,1
	CR 15-3	7.5					57.9	35.0	62.0	29.3	39x32x12	449	627	B,1
	CR 15-4	7.5					57.9	39.5	62.0	29.3	39x32x12	564	742	B,1
	CR 15-6	10					57.9	43.0	62.0	29.3	39x32x12	578	755	B,1
	CR 15-7	15					57.9	47.9	62.0	29.3	39x32x12	649	882	B,1
3	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	74.6	41.9	39x32x12	642	823	B,1
	CR 15-3	7.5					57.9	35.0	74.6	41.9	39x32x12	655	846	B,1
	CR 15-4	7.5					57.9	39.5	74.6	41.9	39x32x12	828	1019	B,1
	CR 15-6	10					57.9	43.0	74.6	41.9	39x32x12	848	1039	B,1
	CR 15-7	15					57.9	47.9	74.6	41.9	39x32x12	955	1201	B,1
4	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	87.2	54.5	47x32x12	871	1092	B,1
	CR 15-3	7.5					57.9	35.0	87.2	54.5	47x32x12	888	1120	B,1
	CR 15-4	7.5					57.9	39.5	87.2	54.5	47x32x12	1119	1351	B,1
	CR 15-6	10					57.9	43.0	87.2	54.5	47x32x12	1145	1377	B,1
	CR 15-7	15					57.9	47.9	87.2	54.5	47x32x12	1289	1575	B,1
5	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	99.8	67.1	47x32x12	1122	1356	B,1
	CR 15-3	7.5					57.9	35.0	99.8	67.1	47x32x12	1144	1388	B,1
	CR 15-4	7.5					57.9	39.5	99.8	67.1	47x32x12	1432	1677	B,1
	CR 15-6	10					57.9	43.0	99.8	67.1	47x32x12	1465	1710	B,1
	CR 15-7	15					57.9	47.9	99.8	67.1	47x32x12	1644	1944	B,1
6	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	112.4	79.7	47x32x12	1346	1593	B,1
	CR 15-3	7.5					57.9	35.0	112.4	79.7	47x32x12	1372	1630	B,1
	CR 15-4	7.5					57.9	39.5	112.4	79.7	47x32x12	1718	1977	B,1
	CR 15-6	10					57.9	43.0	112.4	79.7	47x32x12	1758	2016	B,1
	CR 15-7	15					57.9	48.4	112.4	79.7	47x32x12	1973	2286	B,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC-F with CR 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	62.0	29.3	39x32x12	440	603	B,1
	CR 15-3	7.5					57.9	35.0	62.0	29.3	39x32x12	449	616	B,1
	CR 15-4	7.5					57.9	39.5	62.0	29.3	39x32x12	564	733	B,1
	CR 15-6	10					57.9	43.0	62.0	29.3	39x32x12	578	746	B,1
	CR 15-7	15					57.9	47.9	62.0	29.3	39x32x12	649	845	B,1
3	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	74.6	41.9	39x32x12	642	818	B,1
	CR 15-3	7.5					57.9	35.0	74.6	41.9	39x32x12	655	836	B,1
	CR 15-4	7.5					57.9	39.5	74.6	41.9	39x32x12	828	1011	B,1
	CR 15-6	10					57.9	43.0	74.6	41.9	39x32x12	848	1031	B,1
	CR 15-7	15					57.9	47.9	74.6	41.9	39x32x12	955	1166	B,1
4	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	87.2	54.5	47x32x12	871	1088	B,1
	CR 15-3	7.5					57.9	35.0	87.2	54.5	47x32x12	888	1111	B,1
	CR 15-4	7.5					57.9	39.5	87.2	54.5	47x32x12	1119	1344	B,1
	CR 15-6	10					57.9	43.0	87.2	54.5	47x32x12	1145	1370	B,1
	CR 15-7	15					57.9	47.9	87.2	54.5	47x32x12	1289	1541	B,1
5	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	99.8	67.1	47x32x12	1122	1353	B,1
	CR 15-3	7.5					57.9	35.0	99.8	67.1	47x32x12	1144	1380	B,1
	CR 15-4	7.5					57.9	39.5	99.8	67.1	47x32x12	1432	1671	B,1
	CR 15-6	10					79.0	43.0	107.7	67.1	71x39x16	1465	1851	C,1
	CR 15-7	15					79.0	47.9	107.7	67.1	71x39x16	1644	2058	C,1
6	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	112.4	79.7	47x32x12	1346	1590	B,1
	CR 15-3	7.5					57.9	35.0	112.4	79.7	47x32x12	1372	1622	B,1
	CR 15-4	7.5					79.0	39.5	120.3	79.7	71x39x16	1718	2118	C,1
	CR 15-6	10					79.0	43.0	120.3	79.7	71x39x16	1758	2158	C,1
	CR 15-7	15					79.0	48.4	120.3	79.7	71x39x16	1973	2401	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 15

## Hydro MPC-S with CR 15

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design
2	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	51.6	51.6	24x24x8	440	517	A,1
	CR 15-3	7.5					57.9	35.0	51.6	51.6	24x24x8	449	526	A,1
	CR 15-4	7.5					57.9	39.5	51.6	51.6	24x24x8	564	642	A,1
	CR 15-6	10					57.9	43.0	51.6	51.6	24x24x8	578	655	A,1
	CR 15-7	15					57.9	47.9	51.6	51.6	24x24x8	649	726	A,1
3	CR 15-2	5	4" ANSI	37.0	46.0	6.3	57.9	33.3	64.2	64.2	24x24x8	642	732	A,1
	CR 15-3	7.5					57.9	35.0	64.2	64.2	24x24x8	655	745	A,1
	CR 15-4	7.5					57.9	39.5	64.2	64.2	24x24x8	828	919	A,1
	CR 15-6	10					57.9	43.0	64.2	64.2	24x24x8	848	938	A,1
	CR 15-7	15					57.9	47.9	64.2	64.2	24x24x8	955	1046	A,1
4	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	76.8	76.8	30x24x8	871	994	A,1
	CR 15-3	7.5					57.9	35.0	76.8	76.8	30x24x8	888	1012	A,1
	CR 15-4	7.5					57.9	39.5	76.8	76.8	30x24x8	1119	1243	A,1
	CR 15-6	10					57.9	43.0	76.8	76.8	30x24x8	1145	1270	A,1
	CR 15-7	15					57.9	47.9	76.8	76.8	30x24x8	1289	1413	A,1
5	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	99.8	67.1	47x32x12	1122	1341	B,1
	CR 15-3	7.5					57.9	35.0	99.8	67.1	47x32x12	1144	1363	B,1
	CR 15-4	7.5					57.9	39.5	99.8	67.1	47x32x12	1432	1653	B,1
	CR 15-6	10					57.9	43.0	99.8	67.1	47x32x12	1465	1686	B,1
	CR 15-7	15					57.9	47.9	99.8	67.1	47x32x12	1644	1865	B,1
6	CR 15-2	5	6" ANSI	37.0	48.0	6.3	57.9	33.3	112.4	79.7	47x32x12	1346	1578	B,1
	CR 15-3	7.5					57.9	35.0	112.4	79.7	47x32x12	1372	1605	B,1
	CR 15-4	7.5					57.9	39.5	112.4	79.7	47x32x12	1718	1952	B,1
	CR 15-6	10					57.9	43.0	112.4	79.7	47x32x12	1758	1992	B,1
	CR 15-7	15					57.9	48.4	112.4	79.7	47x32x12	1973	2207	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

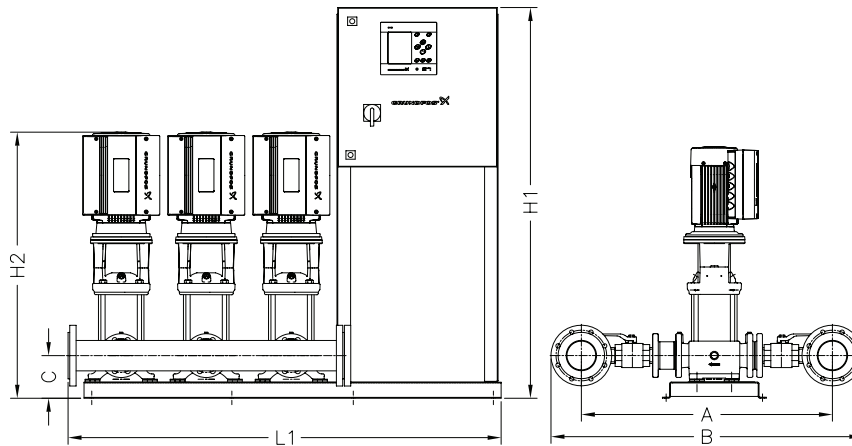
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

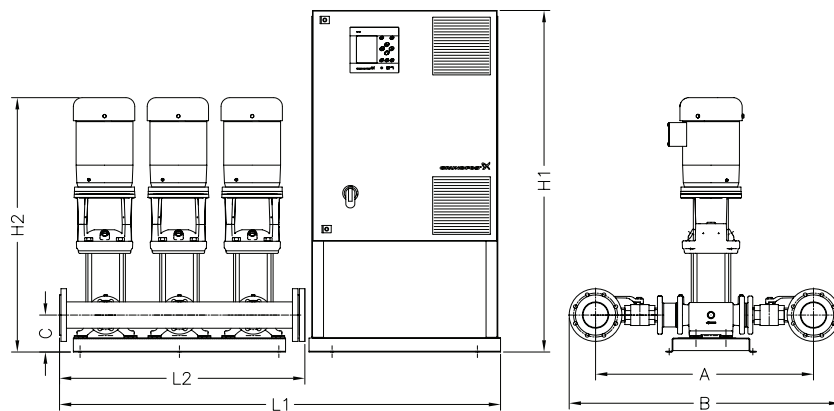
BoosterpaQ<sup>®</sup> Hydro MPC  
with CR(E) 20

## Hydro MPC with CR(E) 20



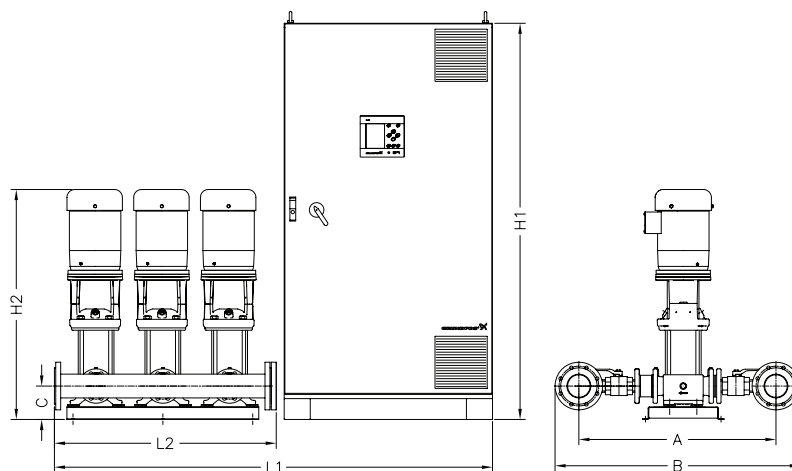
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Fig. 28 Drawing of a Hydro MPC booster set with a control panel mounted on the same base plate as the pumps. (Design A)



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Fig. 29 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



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Fig. 30 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 20

## Hydro MPC-E with CRE 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	33.4	43.7	43.7	24x15x8	438	498	A,1
	CR(E) 20-2	5					57.9	35.5	43.7	43.7	24x15x8	520	580	A,1
	CR(E) 20-3	7.5					57.9	37.6	43.7	43.7	24x15x8	554	613	A,1
	CR(E) 20-4	10					57.9	39.4	43.7	43.7	24x15x8	580	640	A,1
3	CR(E) 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	33.4	56.3	56.3	24x15x8	639	710	A,1
	CR(E) 20-2	5					57.9	35.5	56.3	56.3	24x15x8	762	833	A,1
	CR(E) 20-3	7.5					57.9	37.6	56.3	56.3	24x15x8	812	883	A,1
	CR(E) 20-4	10					57.9	39.4	56.3	56.3	24x15x8	852	924	A,1
4	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	76.8	76.8	24x24x8	867	966	A,1
	CR(E) 20-2	5					57.9	35.5	76.8	76.8	24x24x8	1031	1130	A,1
	CR(E) 20-3	7.5					57.9	37.6	76.8	76.8	24x24x8	1097	1197	A,1
	CR(E) 20-4	10					57.9	39.4	76.8	76.8	24x24x8	1151	1250	A,1
5	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	91.9	67.1	24x24x8	1117	1229	B,1
	CR(E) 20-2	5					57.9	35.5	91.9	67.1	24x24x8	1322	1434	B,1
	CR(E) 20-3	7.5					57.9	37.6	91.9	67.1	24x24x8	1405	1517	B,1
	CR(E) 20-4	10					57.9	39.4	91.9	67.1	24x24x8	1472	1584	B,1
6	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	104.5	79.7	30x24x8	1340	1485	B,1
	CR(E) 20-2	5					57.9	35.5	104.5	79.7	30x24x8	1586	1731	B,1
	CR(E) 20-3	7.5					57.9	37.6	104.5	79.7	30x24x8	1685	1831	B,1
	CR(E) 20-4	10					57.9	39.4	104.5	79.7	30x24x8	1766	1911	B,1

## Hydro MPC-ED with CRE 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	33.4	43.7	43.7	24x15x8	438	498	A,1
	CR(E) 20-2	5					57.9	35.5	43.7	43.7	24x15x8	520	580	A,1
	CR(E) 20-3	7.5					57.9	37.6	43.7	43.7	24x15x8	554	613	A,1
	CR(E) 20-4	10					57.9	39.4	43.7	43.7	24x15x8	580	640	A,1
3	CR(E) 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	33.4	64.2	64.2	24x24x8	625	713	A,1
	CR(E) 20-2	5					57.9	35.5	64.2	64.2	24x24x8	722	810	A,1
	CR(E) 20-3	7.5					57.9	37.6	64.2	64.2	24x24x8	813	901	A,1
	CR(E) 20-4	10					57.9	39.4	64.2	64.2	24x24x8	844	933	A,1
4	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	76.8	76.8	30x24x8	839	961	A,1
	CR(E) 20-2	5					57.9	35.5	76.8	76.8	30x24x8	951	1073	A,1
	CR(E) 20-3	7.5					57.9	37.6	76.8	76.8	30x24x8	1099	1222	A,1
	CR(E) 20-4	10					57.9	39.4	76.8	76.8	30x24x8	1135	1257	A,1
5	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	91.9	67.1	30x24x8	1075	1210	B,1
	CR(E) 20-2	5					57.9	35.5	91.9	67.1	30x24x8	1202	1337	B,1
	CR(E) 20-3	7.5					57.9	37.6	91.9	67.1	30x24x8	1408	1544	B,1
	CR(E) 20-4	10					57.9	39.4	91.9	67.1	30x24x8	1448	1584	B,1
6	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	112.4	79.7	39x32x12	1284	1486	B,1
	CR(E) 20-2	5					57.9	35.5	112.4	79.7	39x32x12	1426	1628	B,1
	CR(E) 20-3	7.5					57.9	37.6	112.4	79.7	39x32x12	1689	1894	B,1
	CR(E) 20-4	10					57.9	39.4	112.4	79.7	39x32x12	1734	1938	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP is 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 20

## Hydro MPC-ES with CRE 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	33.4	51.6	51.6	24x24x8	424	500	A,1
	CR(E) 20-2	5					57.9	35.5	51.6	51.6	24x24x8	480	556	A,1
	CR(E) 20-3	7.5					57.9	37.6	51.6	51.6	24x24x8	555	631	A,1
	CR(E) 20-4	10					57.9	39.4	51.6	51.6	24x24x8	572	649	A,1
3	CR(E) 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	33.4	64.2	64.2	24x24x8	611	700	A,1
	CR(E) 20-2	5					57.9	35.5	64.2	64.2	24x24x8	682	771	A,1
	CR(E) 20-3	7.5					57.9	37.6	64.2	64.2	24x24x8	814	903	A,1
	CR(E) 20-4	10					57.9	39.4	64.2	64.2	24x24x8	836	926	A,1
4	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	76.8	76.8	30x24x8	825	947	A,1
	CR(E) 20-2	5					57.9	35.5	76.8	76.8	30x24x8	911	1033	A,1
	CR(E) 20-3	7.5					57.9	37.6	76.8	76.8	30x24x8	1100	1224	A,1
	CR(E) 20-4	10					57.9	39.4	76.8	76.8	30x24x8	1127	1250	A,1
5	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	99.8	67.1	47x32x12	1061	1279	B,1
	CR(E) 20-2	5					57.9	35.5	99.8	67.1	47x32x12	1162	1380	B,1
	CR(E) 20-3	7.5					57.9	37.6	99.8	67.1	47x32x12	1409	1629	B,1
	CR(E) 20-4	10					57.9	39.4	99.8	67.1	47x32x12	1440	1660	B,1
6	CR(E) 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	33.4	112.4	79.7	47x32x12	1270	1501	B,1
	CR(E) 20-2	5					57.9	35.5	112.4	79.7	47x32x12	1386	1617	B,1
	CR(E) 20-3	7.5					57.9	37.6	112.4	79.7	47x32x12	1690	1924	B,1
	CR(E) 20-4	10					57.9	39.4	112.4	79.7	47x32x12	1726	1959	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 20

## Hydro MPC-EF with CR 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design
2	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	62.0	29.3	39x32x12	410	578	B,1
	CR 20-2	5					57.9	33.1	62.0	29.3	39x32x12	440	608	B,1
	CR 20-3	7.5					57.9	37.6	62.0	29.3	39x32x12	556	733	B,1
	CR 20-4	10					57.9	39.4	62.0	29.3	39x32x12	564	742	B,1
	CR 20-5	15					57.9	44.3	62.0	29.3	39x32x12	636	869	B,1
	CR 20-6	15					57.9	46.0	62.0	29.3	39x32x12	645	877	B,1
3	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	74.6	41.9	47x32x12	597	813	B,1
	CR 20-2	5					57.9	33.1	74.6	41.9	47x32x12	642	858	B,1
	CR 20-3	7.5					57.9	37.6	74.6	41.9	47x32x12	815	1046	B,1
	CR 20-4	10					57.9	39.4	74.6	41.9	47x32x12	828	1059	B,1
	CR 20-5	15					57.9	44.3	74.6	41.9	47x32x12	936	1249	B,1
	CR 20-6	15					57.9	46.0	74.6	41.9	47x32x12	949	1262	B,1
4	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	87.2	54.5	47x32x12	811	1047	B,1
	CR 20-2	5					57.9	33.1	87.2	54.5	47x32x12	871	1107	B,1
	CR 20-3	7.5					57.9	37.6	87.2	54.5	47x32x12	1101	1357	B,1
	CR 20-4	10					57.9	39.4	87.2	54.5	47x32x12	1119	1375	B,1
	CR 20-5	15					79.0	44.3	95.1	54.5	71x39x16	1262	1775	C,1
	CR 20-6	15					79.0	46.0	95.1	54.5	71x39x16	1280	1793	C,1
5	CR 20-1	3	6" ANSI	37.0	48.0	6.3	79.0	31.4	107.7	67.1	71x39x16	1047	1451	C,1
	CR 20-2	5					79.0	33.1	107.7	67.1	71x39x16	1122	1526	C,1
	CR 20-3	7.5					79.0	37.6	107.7	67.1	71x39x16	1410	1839	C,1
	CR 20-4	10					79.0	39.4	107.7	67.1	71x39x16	1432	1861	C,1
	CR 20-5	15					79.0	44.3	107.7	67.1	71x39x16	1611	2177	C,1
	CR 20-6	15					79.0	46.0	107.7	67.1	71x39x16	1633	2199	C,1
6	CR 20-1	3	6" ANSI	37.0	48.0	6.3	79.0	31.4	120.3	79.7	71x39x16	1256	1680	C,1
	CR 20-2	5					79.0	33.1	120.3	79.7	71x39x16	1346	1770	C,1
	CR 20-3	7.5					79.0	37.6	120.3	79.7	71x39x16	1691	2146	C,1
	CR 20-4	10					79.0	39.4	120.3	79.7	71x39x16	1718	2172	C,1
	CR 20-5	15					84.0	44.3	151.7	79.7	72x72x18	1933	3161	C,1
	CR 20-6	15					84.0	46.0	151.7	79.7	72x72x18	1959	3188	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 20

## Hydro MPC-EDF with CR 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	62.0	29.3	39x32x12	410	578	B,1
	CR 20-2	5					57.9	33.1	62.0	29.3	39x32x12	440	608	B,1
	CR 20-3	7.5					57.9	37.6	62.0	29.3	39x32x12	556	733	B,1
	CR 20-4	10					57.9	39.4	62.0	29.3	39x32x12	564	742	B,1
	CR 20-5	15					57.9	44.3	62.0	29.3	39x32x12	636	869	B,1
	CR 20-6	15					57.9	46.0	62.0	29.3	39x32x12	645	877	B,1
3	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	74.6	41.9	39x32x12	597	778	B,1
	CR 20-2	5					57.9	33.1	74.6	41.9	39x32x12	642	823	B,1
	CR 20-3	7.5					57.9	37.6	74.6	41.9	39x32x12	815	1006	B,1
	CR 20-4	10					57.9	39.4	74.6	41.9	39x32x12	828	1019	B,1
	CR 20-5	15					57.9	44.3	74.6	41.9	39x32x12	936	1181	B,1
	CR 20-6	15					57.9	46.0	74.6	41.9	39x32x12	949	1195	B,1
4	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	87.2	54.5	47x32x12	811	1032	B,1
	CR 20-2	5					57.9	33.1	87.2	54.5	47x32x12	871	1092	B,1
	CR 20-3	7.5					57.9	37.6	87.2	54.5	47x32x12	1101	1333	B,1
	CR 20-4	10					57.9	39.4	87.2	54.5	47x32x12	1119	1351	B,1
	CR 20-5	15					57.9	44.3	87.2	54.5	47x32x12	1262	1549	B,1
	CR 20-6	15					57.9	46.0	87.2	54.5	47x32x12	1280	1567	B,1
5	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	99.8	67.1	47x32x12	1047	1281	B,1
	CR 20-2	5					57.9	33.1	99.8	67.1	47x32x12	1122	1356	B,1
	CR 20-3	7.5					57.9	37.6	99.8	67.1	47x32x12	1410	1655	B,1
	CR 20-4	10					57.9	39.4	99.8	67.1	47x32x12	1432	1677	B,1
	CR 20-5	15					57.9	44.3	99.8	67.1	47x32x12	1611	1911	B,1
	CR 20-6	15					57.9	46.0	99.8	67.1	47x32x12	1633	1933	B,1
6	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	112.4	79.7	47x32x12	1256	1503	B,1
	CR 20-2	5					57.9	33.1	112.4	79.7	47x32x12	1346	1593	B,1
	CR 20-3	7.5					57.9	37.6	112.4	79.7	47x32x12	1691	1950	B,1
	CR 20-4	10					57.9	39.4	112.4	79.7	47x32x12	1718	1977	B,1
	CR 20-5	15					57.9	44.3	112.4	79.7	47x32x12	1933	2247	B,1
	CR 20-6	15					57.9	46.0	112.4	79.7	47x32x12	1959	2273	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 20

## Hydro MPC-F with CR 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	62.0	29.3	39x32x12	410	573	B,1
	CR 20-2	5					57.9	33.1	62.0	29.3	39x32x12	440	603	B,1
	CR 20-3	7.5					57.9	37.6	62.0	29.3	39x32x12	556	724	B,1
	CR 20-4	10					57.9	39.4	62.0	29.3	39x32x12	564	733	B,1
	CR 20-5	15					57.9	44.3	62.0	29.3	39x32x12	636	832	B,1
	CR 20-6	15					57.9	46.0	62.0	29.3	39x32x12	645	841	B,1
3	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	74.6	41.9	39x32x12	597	773	B,1
	CR 20-2	5					57.9	33.1	74.6	41.9	39x32x12	642	818	B,1
	CR 20-3	7.5					57.9	37.6	74.6	41.9	39x32x12	815	998	B,1
	CR 20-4	10					57.9	39.4	74.6	41.9	39x32x12	828	1011	B,1
	CR 20-5	15					57.9	44.3	74.6	41.9	39x32x12	936	1146	B,1
	CR 20-6	15					57.9	46.0	74.6	41.9	39x32x12	949	1159	B,1
4	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	87.2	54.5	47x32x12	811	1028	B,1
	CR 20-2	5					57.9	33.1	87.2	54.5	47x32x12	871	1088	B,1
	CR 20-3	7.5					57.9	37.6	87.2	54.5	47x32x12	1101	1326	B,1
	CR 20-4	10					57.9	39.4	87.2	54.5	47x32x12	1119	1344	B,1
	CR 20-5	15					57.9	44.3	87.2	54.5	47x32x12	1262	1514	B,1
	CR 20-6	15					57.9	46.0	87.2	54.5	47x32x12	1280	1532	B,1
5	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	99.8	67.1	47x32x12	1047	1278	B,1
	CR 20-2	5					57.9	33.1	99.8	67.1	47x32x12	1122	1353	B,1
	CR 20-3	7.5					79.0	37.6	107.7	67.1	71x39x16	1410	1796	C,1
	CR 20-4	10					79.0	39.4	107.7	67.1	71x39x16	1432	1818	C,1
	CR 20-5	15					79.0	44.3	107.7	67.1	71x39x16	1611	2025	C,1
	CR 20-6	15					79.0	46.0	107.7	67.1	71x39x16	1633	2047	C,1
6	CR 20-1	3	6" ANSI	37.0	48.0	6.3	79.0	31.4	120.3	79.7	71x39x16	1256	1647	C,1
	CR 20-2	5					79.0	33.1	120.3	79.7	71x39x16	1346	1737	C,1
	CR 20-3	7.5					79.0	37.6	120.3	79.7	71x39x16	1691	2092	C,1
	CR 20-4	10					79.0	39.4	120.3	79.7	71x39x16	1718	2118	C,1
	CR 20-5	15					79.0	44.3	120.3	79.7	71x39x16	1933	2361	C,1
	CR 20-6	15					79.0	46.0	120.3	79.7	71x39x16	1959	2387	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 20

## Hydro MPC-S with CR 20

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design
2	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	51.6	51.6	24x24x8	410	487	A,1
	CR 20-2	5					57.9	33.1	51.6	51.6	24x24x8	440	517	A,1
	CR 20-3	7.5					57.9	37.6	51.6	51.6	24x24x8	556	633	A,1
	CR 20-4	10					57.9	39.4	51.6	51.6	24x24x8	564	642	A,1
	CR 20-5	15					57.9	44.3	51.6	51.6	24x24x8	636	713	A,1
	CR 20-6	15					57.9	46.0	51.6	51.6	24x24x8	645	722	A,1
3	CR 20-1	3	4" ANSI	37.0	46.0	6.3	57.9	31.4	64.2	64.2	24x24x8	597	687	A,1
	CR 20-2	5					57.9	33.1	64.2	64.2	24x24x8	642	732	A,1
	CR 20-3	7.5					57.9	37.6	64.2	64.2	24x24x8	815	905	A,1
	CR 20-4	10					57.9	39.4	64.2	64.2	24x24x8	828	919	A,1
	CR 20-5	15					57.9	44.3	64.2	64.2	24x24x8	936	1026	A,1
	CR 20-6	15					57.9	46.0	64.2	64.2	24x24x8	949	1039	A,1
4	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	76.8	76.8	30x24x8	811	934	A,1
	CR 20-2	5					57.9	33.1	76.8	76.8	30x24x8	871	994	A,1
	CR 20-3	7.5					57.9	37.6	76.8	76.8	30x24x8	1101	1226	A,1
	CR 20-4	10					57.9	39.4	76.8	76.8	30x24x8	1119	1243	A,1
	CR 20-5	15					57.9	44.3	76.8	76.8	30x24x8	1262	1387	A,1
	CR 20-6	15					57.9	46.0	76.8	76.8	30x24x8	1280	1404	A,1
5	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	99.8	67.1	47x32x12	1047	1266	B,1
	CR 20-2	5					57.9	33.1	99.8	67.1	47x32x12	1122	1341	B,1
	CR 20-3	7.5					57.9	37.6	99.8	67.1	47x32x12	1410	1631	B,1
	CR 20-4	10					57.9	39.4	99.8	67.1	47x32x12	1432	1653	B,1
	CR 20-5	15					57.9	44.3	99.8	67.1	47x32x12	1611	1832	B,1
	CR 20-6	15					57.9	46.0	99.8	67.1	47x32x12	1633	1854	B,1
6	CR 20-1	3	6" ANSI	37.0	48.0	6.3	57.9	31.4	112.4	79.7	47x32x12	1256	1488	B,1
	CR 20-2	5					57.9	33.1	112.4	79.7	47x32x12	1346	1578	B,1
	CR 20-3	7.5					57.9	37.6	112.4	79.7	47x32x12	1691	1926	B,1
	CR 20-4	10					57.9	39.4	112.4	79.7	47x32x12	1718	1952	B,1
	CR 20-5	15					57.9	44.3	112.4	79.7	47x32x12	1933	2167	B,1
	CR 20-6	15					57.9	46.0	112.4	79.7	47x32x12	1959	2194	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

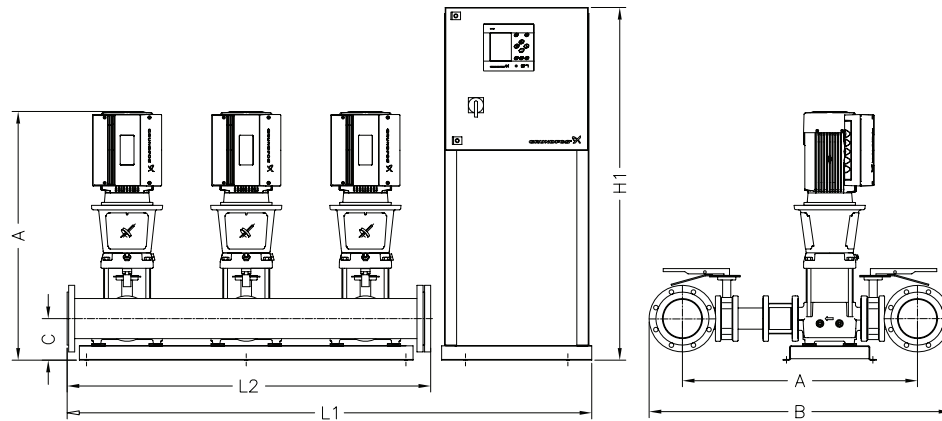
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

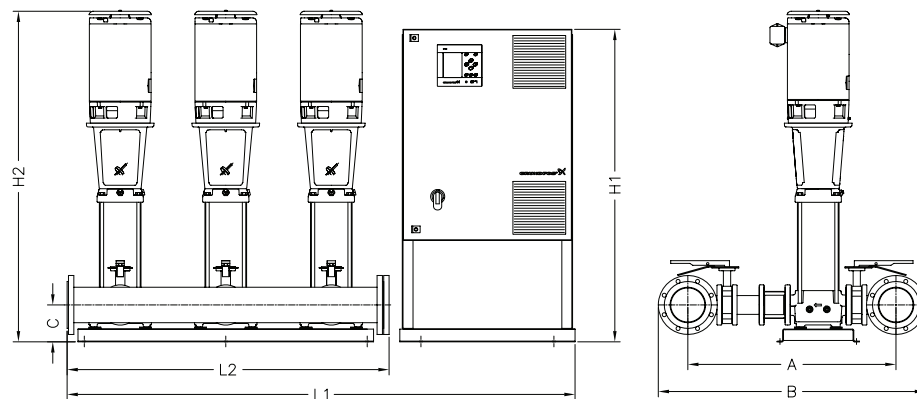
BoosterpaQ<sup>®</sup> Hydro MPC  
with CR(E) 32

## Hydro MPC with CR(E) 32



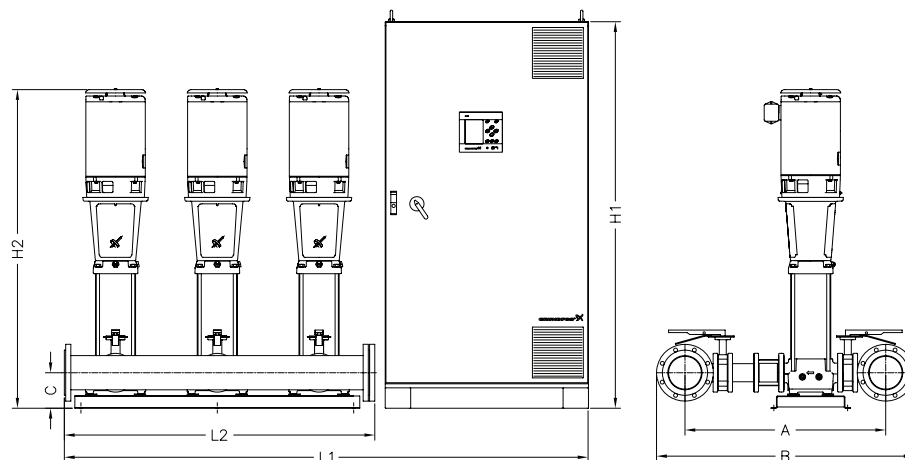
TM04 0006 4807 3CR32-E.pdf

**Fig. 31** Drawing of a Hydro MPC booster set with integrated VFD/motors and control panel and pumps on separate base plates. (Design A)



TM04 0008 8407 3CR32-F.pdf

**Fig. 32** Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



TM04 0007 4807 3CR32-EF.pdf

**Fig. 33** Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 32

## Hydro MPC-E with CRE 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	37.4	57.2	40.3	24x15x8	651	710	A,1
	CR(E) 32-2	7.5					57.9	40.9	57.2	40.3	24x15x8	683	743	A,1
	CR(E) 32-3-2	10					57.9	43.7	57.2	40.3	24x15x8	716	775	A,1
3	CR(E) 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	37.4	77.0	60.1	24x15x8	962	1033	A,1
	CR(E) 32-2	7.5					57.9	40.9	77.0	60.1	24x15x8	1010	1082	A,1
	CR(E) 32-3-2	10					57.9	43.7	77.0	60.1	24x15x8	1058	1130	A,1
4	CR(E) 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	37.4	104.5	79.7	24x24x8	1312	1412	A,1
	CR(E) 32-2	7.5					57.9	40.9	104.5	79.7	24x24x8	1377	1476	A,1
	CR(E) 32-3-2	10					57.9	43.7	104.5	79.7	24x24x8	1441	1541	A,1
5	CR(E) 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	39.0	124.4	99.6	24x24x8	1672	1783	A,1
	CR(E) 32-2	7.5					57.9	42.5	124.4	99.6	24x24x8	1753	1864	A,1
	CR(E) 32-3-2	10					57.9	45.2	124.4	99.6	24x24x8	1833	1944	A,1
6	CR(E) 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	39.0	144.0	119.2	30x24x8	1958	2103	A,1
	CR(E) 32-2	7.5					57.9	42.5	144.0	119.2	30x24x8	2055	2200	A,1
	CR(E) 32-3-2	10					57.9	45.2	144.0	119.2	30x24x8	2151	2296	A,1

## Hydro MPC-ED with CRE 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	37.4	57.2	40.3	24x15x8	651	710	A,1
	CR(E) 32-2	7.5					57.9	40.9	57.2	40.3	24x15x8	683	743	A,1
	CR(E) 32-3-2	10					57.9	43.7	57.2	40.3	24x15x8	716	775	A,1
3	CR(E) 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	37.4	84.9	60.1	24x24x8	922	1010	A,1
	CR(E) 32-2	7.5					57.9	40.9	84.9	60.1	24x24x8	1011	1100	A,1
	CR(E) 32-3-2	10					57.9	43.7	84.9	60.1	24x24x8	1050	1139	A,1
4	CR(E) 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	37.4	104.5	79.7	30x24x8	1232	1354	A,1
	CR(E) 32-2	7.5					57.9	40.9	104.5	79.7	30x24x8	1379	1501	A,1
	CR(E) 32-3-2	10					57.9	43.7	104.5	79.7	30x24x8	1425	1548	A,1
5	CR(E) 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	39.0	124.4	99.6	30x24x8	1552	1686	A,1
	CR(E) 32-2	7.5					57.9	42.5	124.4	99.6	30x24x8	1756	1891	A,1
	CR(E) 32-3-2	10					57.9	45.2	124.4	99.6	30x24x8	1809	1944	A,1
6	CR(E) 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	39.0	151.9	119.2	39x32x12	1798	2000	A,1
	CR(E) 32-2	7.5					57.9	42.5	151.9	119.2	39x32x12	2059	2263	A,1
	CR(E) 32-3-2	10					57.9	45.2	151.9	119.2	39x32x12	2119	2323	A,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 32

## Hydro MPC-ES with CRE 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/ out panel [lb]	Weight w/panel [lb]	Design
2	CR(E) 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	37.4	65.1	40.3	24x24x8	611	687	A,1
	CR(E) 32-2	7.5					57.9	40.9	65.1	40.3	24x24x8	684	761	A,1
	CR(E) 32-3-2	10					57.9	43.7	65.1	40.3	24x24x8	708	784	A,1
3	CR(E) 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	37.4	84.9	60.1	24x24x8	882	971	A,1
	CR(E) 32-2	7.5					57.9	40.9	84.9	60.1	24x24x8	1012	1102	A,1
	CR(E) 32-3-2	10					57.9	43.7	84.9	60.1	24x24x8	1042	1132	A,1
4	CR(E) 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	37.4	104.5	79.7	30x24x8	1192	1315	A,1
	CR(E) 32-2	7.5					57.9	40.9	104.5	79.7	30x24x8	1380	1503	A,1
	CR(E) 32-3-2	10					57.9	43.7	104.5	79.7	30x24x8	1417	1541	A,1
5	CR(E) 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	39.0	132.2	99.6	47x32x12	1512	1730	A,1
	CR(E) 32-2	7.5					57.9	42.5	132.2	99.6	47x32x12	1757	1976	A,1
	CR(E) 32-3-2	10					57.9	45.2	132.2	99.6	47x32x12	1801	2020	A,1
6	CR(E) 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	39.0	151.9	119.2	47x32x12	1758	1989	A,1
	CR(E) 32-2	7.5					57.9	42.5	151.9	119.2	47x32x12	2060	2293	A,1
	CR(E) 32-3-2	10					57.9	45.2	151.9	119.2	47x32x12	2111	2344	A,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 32

## Hydro MPC-EF with CR 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	36.0	73.0	40.3	39x32x12	571	739	B,1
	CR 32-2	7.5					57.9	41.1	73.0	40.3	39x32x12	685	863	B,1
	CR 32-3-2	10					57.9	43.9	73.0	40.3	39x32x12	700	877	B,1
	CR 32-4	15					57.9	51.4	73.0	40.3	39x32x12	799	1032	B,1
	CR 32-5	20					57.9	56.0	73.0	40.3	39x32x12	941	1175	B,1
	CR 32-6-2	25					57.9	61.8	73.0	40.3	39x32x12	918	1153	B,1
3	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	92.7	60.1	47x32x12	842	1058	B,1
	CR 32-2	7.5					57.9	41.1	92.7	60.1	47x32x12	1013	1244	B,1
	CR 32-3-2	10					57.9	43.9	92.7	60.1	47x32x12	1034	1265	B,1
	CR 32-4	15					57.9	51.4	92.7	60.1	47x32x12	1184	1497	B,1
	CR 32-5	20					57.9	56.0	92.7	60.1	47x32x12	1396	1713	B,1
	CR 32-6-2	25					57.9	61.8	92.7	60.1	47x32x12	1362	1679	B,1
4	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	112.4	79.7	47x32x12	1152	1388	B,1
	CR 32-2	7.5					57.9	41.1	112.4	79.7	47x32x12	1381	1637	B,1
	CR 32-3-2	10					79.0	43.9	120.3	79.7	71x39x16	1409	1812	C,1
	CR 32-4	15					79.0	51.4	120.3	79.7	71x39x16	1608	2122	C,1
	CR 32-5	20					79.0	56.0	120.3	79.7	71x39x16	1891	2409	C,1
	CR 32-6-2	25					79.0	61.8	120.3	79.7	71x39x16	1846	2364	C,1
5	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	132.2	99.6	47x32x12	1472	1728	B,1
	CR 32-2	7.5					79.0	42.7	140.1	99.6	71x39x16	1758	2186	C,1
	CR 32-3-2	10					79.0	45.5	140.1	99.6	71x39x16	1793	2221	C,1
	CR 32-4	15					79.0	53.0	140.1	99.6	71x39x16	2041	2608	C,1
	CR 32-5	20					79.0	57.6	140.1	99.6	71x39x16	2396	2968	C,1
	CR 32-6-2	25					79.0	63.3	140.1	99.6	71x39x16	2339	2911	C,1
6	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	151.9	119.2	47x32x12	1718	1995	B,1
	CR 32-2	7.5					79.0	42.7	159.8	119.2	71x39x16	2061	2515	C,1
	CR 32-3-2	10					79.0	45.5	159.8	119.2	71x39x16	2103	2557	C,1
	CR 32-4	15					84.0	53.0	191.2	119.2	72x72x18	2401	3630	C,1
	CR 32-5	20					84.0	57.6	191.2	119.2	72x72x18	2826	4061	C,1
	CR 32-6-2	25					84.0	63.3	191.2	119.2	72x72x18	2758	3993	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 32

## Hydro MPC-EDF with CR 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	36.0	73.0	40.3	39x32x12	571	739	B,1
	CR 32-2	7.5					57.9	41.1	73.0	40.3	39x32x12	685	863	B,1
	CR 32-3-2	10					57.9	43.9	73.0	40.3	39x32x12	700	877	B,1
	CR 32-4	15					57.9	51.4	73.0	40.3	39x32x12	799	1032	B,1
	CR 32-5	20					57.9	56.0	73.0	40.3	39x32x12	941	1175	B,1
	CR 32-6-2	25					57.9	61.8	73.0	40.3	39x32x12	918	1153	B,1
3	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	92.7	60.1	39x32x12	842	1022	B,1
	CR 32-2	7.5					57.9	41.1	92.7	60.1	39x32x12	1013	1204	B,1
	CR 32-3-2	10					57.9	43.9	92.7	60.1	39x32x12	1034	1225	B,1
	CR 32-4	15					57.9	51.4	92.7	60.1	39x32x12	1184	1429	B,1
	CR 32-5	20					57.9	56.0	92.7	60.1	39x32x12	1396	1646	B,1
	CR 32-6-2	25					57.9	61.8	92.7	60.1	39x32x12	1362	1612	B,1
4	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	112.4	79.7	47x32x12	1152	1373	B,1
	CR 32-2	7.5					57.9	41.1	112.4	79.7	47x32x12	1381	1613	B,1
	CR 32-3-2	10					57.9	43.9	112.4	79.7	47x32x12	1409	1641	B,1
	CR 32-4	15					57.9	51.4	112.4	79.7	47x32x12	1608	1895	B,1
	CR 32-5	20					57.9	56.0	112.4	79.7	47x32x12	1891	2185	B,1
	CR 32-6-2	25					57.9	61.8	112.4	79.7	47x32x12	1846	2140	B,1
5	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	132.2	99.6	47x32x12	1472	1706	B,1
	CR 32-2	7.5					57.9	42.7	132.2	99.6	47x32x12	1758	2003	B,1
	CR 32-3-2	10					57.9	45.5	132.2	99.6	47x32x12	1793	2038	B,1
	CR 32-4	15					57.9	53.0	132.2	99.6	47x32x12	2041	2342	B,1
	CR 32-5	20					57.9	57.6	132.2	99.6	47x32x12	2396	2705	B,1
	CR 32-6-2	25					57.9	63.3	132.2	99.6	47x32x12	2339	2648	B,1
6	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	151.9	119.2	47x32x12	1718	1965	B,1
	CR 32-2	7.5					57.9	42.7	151.9	119.2	47x32x12	2061	2319	B,1
	CR 32-3-2	10					57.9	45.5	151.9	119.2	47x32x12	2103	2361	B,1
	CR 32-4	15					57.9	53.0	151.9	119.2	47x32x12	2401	2715	B,1
	CR 32-5	20					57.9	57.6	151.9	119.2	47x32x12	2826	3152	B,1
	CR 32-6-2	25					57.9	63.3	151.9	119.2	47x32x12	2758	3083	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 32

## Hydro MPC-F with CR 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	36.0	73.0	40.3	39x32x12	571	733	B,1
	CR 32-2	7.5					57.9	41.1	73.0	40.3	39x32x12	685	854	B,1
	CR 32-3-2	10					57.9	43.9	73.0	40.3	39x32x12	700	868	B,1
	CR 32-4	15					57.9	51.4	73.0	40.3	39x32x12	799	995	B,1
	CR 32-5	20					57.9	56.0	73.0	40.3	39x32x12	941	1144	B,1
	CR 32-6-2	25					57.9	61.8	73.0	40.3	39x32x12	918	1121	B,1
3	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	92.7	60.1	39x32x12	842	1018	B,1
	CR 32-2	7.5					57.9	41.1	92.7	60.1	39x32x12	1013	1196	B,1
	CR 32-3-2	10					57.9	43.9	92.7	60.1	39x32x12	1034	1217	B,1
	CR 32-4	15					57.9	51.4	92.7	60.1	39x32x12	1184	1394	B,1
	CR 32-5	20					57.9	56.0	92.7	60.1	39x32x12	1396	1617	B,1
	CR 32-6-2	25					57.9	61.8	92.7	60.1	47x32x12	1362	1611	B,1
4	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	112.4	79.7	47x32x12	1152	1370	B,1
	CR 32-2	7.5					57.9	41.1	112.4	79.7	47x32x12	1381	1606	B,1
	CR 32-3-2	10					57.9	43.9	112.4	79.7	47x32x12	1409	1634	B,1
	CR 32-4	15					57.9	51.4	112.4	79.7	47x32x12	1608	1861	B,1
	CR 32-5	20					57.9	56.0	112.4	79.7	47x32x12	1891	2158	B,1
	CR 32-6-2	25					57.9	61.8	112.4	79.7	47x32x12	1846	2113	B,1
5	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	132.2	99.6	47x32x12	1472	1703	B,1
	CR 32-2	7.5					79.0	42.7	140.1	99.6	71x39x16	1758	2143	C,1
	CR 32-3-2	10					79.0	45.5	140.1	99.6	71x39x16	1793	2179	C,1
	CR 32-4	15					79.0	53.0	140.1	99.6	71x39x16	2041	2455	C,1
	CR 32-5	20					79.0	57.6	140.1	99.6	71x39x16	2396	2827	C,1
	CR 32-6-2	25					79.0	63.3	140.1	99.6	71x39x16	2339	2770	C,1
6	CR 32-1	5	8" ANSI	40.7	54.2	8.5	79.0	37.6	159.8	119.2	71x39x16	1718	2109	C,1
	CR 32-2	7.5					79.0	42.7	159.8	119.2	71x39x16	2061	2461	C,1
	CR 32-3-2	10					79.0	45.5	159.8	119.2	71x39x16	2103	2503	C,1
	CR 32-4	15					79.0	53.0	159.8	119.2	71x39x16	2401	2830	C,1
	CR 32-5	20					79.0	57.6	159.8	119.2	71x39x16	2826	3276	C,1
	CR 32-6-2	25					79.0	63.3	159.8	119.2	71x39x16	2758	3208	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 32

## Hydro MPC-S with CR 32

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 32-1	5	4" ANSI	38.5	47.5	6.9	57.9	36.0	65.1	40.3	24x24x8	571	648	B,1
	CR 32-2	7.5					57.9	41.1	65.1	40.3	24x24x8	685	763	B,1
	CR 32-3-2	10					57.9	43.9	65.1	40.3	24x24x8	700	777	B,1
	CR 32-4	15					57.9	51.4	65.1	40.3	24x24x8	799	876	B,1
	CR 32-5	20					57.9	56.0	65.1	40.3	24x24x8	941	1023	B,1
	CR 32-6-2	25					57.9	61.8	65.1	40.3	24x24x8	918	1000	B,1
3	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	84.9	60.1	24x24x8	842	931	B,1
	CR 32-2	7.5					57.9	41.1	84.9	60.1	24x24x8	1013	1104	B,1
	CR 32-3-2	10					57.9	43.9	84.9	60.1	24x24x8	1034	1125	B,1
	CR 32-4	15					57.9	51.4	84.9	60.1	24x24x8	1184	1274	B,1
	CR 32-5	20					57.9	56.0	84.9	60.1	24x24x8	1396	1493	B,1
	CR 32-6-2	25					57.9	61.8	84.9	60.1	24x24x8	1362	1459	B,1
4	CR 32-1	5	6" ANSI	38.5	49.5	6.9	57.9	36.0	104.5	79.7	30x24x8	1152	1275	B,1
	CR 32-2	7.5					57.9	41.1	104.5	79.7	30x24x8	1381	1505	B,1
	CR 32-3-2	10					57.9	43.9	104.5	79.7	30x24x8	1409	1534	B,1
	CR 32-4	15					57.9	51.4	104.5	79.7	30x24x8	1608	1733	B,1
	CR 32-5	20					57.9	56.0	104.5	79.7	30x24x8	1891	2026	B,1
	CR 32-6-2	25					57.9	61.8	104.5	79.7	30x24x8	1846	1980	B,1
5	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	132.2	99.6	47x32x12	1472	1691	B,1
	CR 32-2	7.5					57.9	42.7	132.2	99.6	47x32x12	1758	1978	B,1
	CR 32-3-2	10					57.9	45.5	132.2	99.6	47x32x12	1793	2014	B,1
	CR 32-4	15					57.9	53.0	132.2	99.6	47x32x12	2041	2263	B,1
	CR 32-5	20					57.9	57.6	132.2	99.6	47x32x12	2396	2628	B,1
	CR 32-6-2	25					57.9	63.3	132.2	99.6	47x32x12	2339	2571	B,1
6	CR 32-1	5	8" ANSI	40.7	54.2	8.5	57.9	37.6	151.9	119.2	47x32x12	1718	1950	B,1
	CR 32-2	7.5					57.9	42.7	151.9	119.2	47x32x12	2061	2295	B,1
	CR 32-3-2	10					57.9	45.5	151.9	119.2	47x32x12	2103	2337	B,1
	CR 32-4	15					57.9	53.0	151.9	119.2	47x32x12	2401	2636	B,1
	CR 32-5	20					57.9	57.6	151.9	119.2	47x32x12	2826	3075	B,1
	CR 32-6-2	25					57.9	63.3	151.9	119.2	47x32x12	2758	3006	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

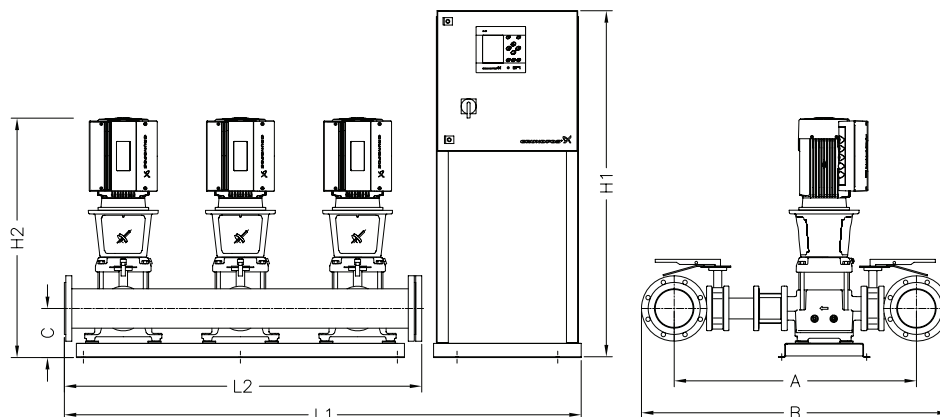
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

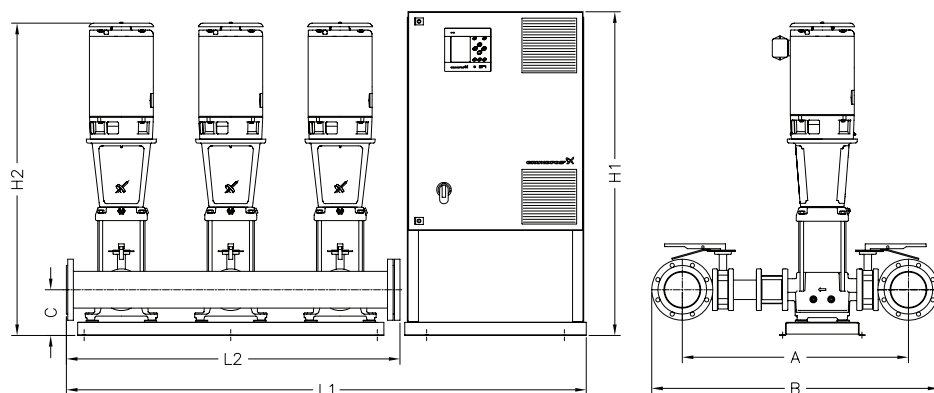
BoosterpaQ<sup>®</sup> Hydro MPC  
with CR(E) 45

## Hydro MPC with CR(E) 45



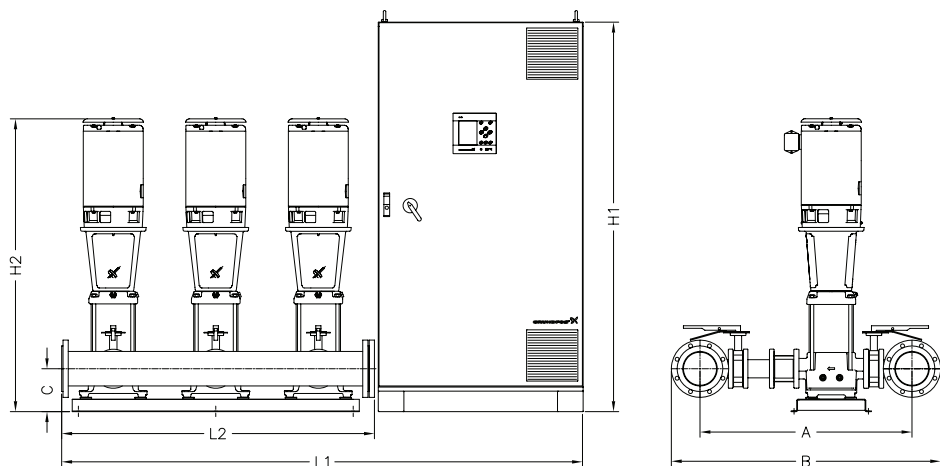
TM04 0009 4807 3CR45-E.pdf

**Fig. 34** Drawing of a Hydro MPC booster set with integrated VFD/motors and control panel and pumps on separate base plates. (Design A)



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**Fig. 35** Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



TM04 0010 4807 3CR45-EF.pdf

**Fig. 36** Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 45

## Hydro MPC-E with CRE 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.2	57.3	40.4	24x15x8	711	770	A,1
3	CR(E) 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.2	77.0	60.1	24x15x8	1052	1123	A,1
4	CR(E) 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	41.7	104.7	79.9	24x24x8	1473	1573	A,1
5	CR(E) 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	41.7	124.4	99.6	24x24x8	1765	1877	A,1
6	CR(E) 45-1	7.5	10" ANSI	42.4	55.9	12.2	57.9	44.1	144.1	119.3	30x24x8	2125	2270	A,1

## Hydro MPC-ED with CRE 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.2	57.3	40.4	24x15x8	711	770	A,1
3	CR(E) 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.2	84.9	60.1	24x24x8	1053	1141	A,1
4	CR(E) 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	41.7	104.7	79.9	30x24x8	1475	1598	A,1
5	CR(E) 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	41.7	124.4	99.6	30x24x8	1768	1904	A,1
6	CR(E) 45-1	7.5	10" ANSI	42.4	55.9	12.2	57.9	44.1	152.0	119.3	39x32x12	2129	2333	A,1

## Hydro MPC-ES with CRE 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.2	65.2	40.4	24x24x8	712	788	A,1
3	CR(E) 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.2	84.9	60.1	24x24x8	1054	1143	A,1
4	CR(E) 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	41.7	104.7	79.9	30x24x8	1476	1600	A,1
5	CR(E) 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	41.7	132.2	99.6	47x32x12	1769	1989	A,1
6	CR(E) 45-1	7.5	10" ANSI	42.4	55.9	12.2	57.9	44.1	152.0	119.3	47x32x12	2130	2363	A,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 45

## Hydro MPC-EF with CR 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	73.1	40.4	39x32x12	713	891	B,1
	CR 45-2	15					57.9	48.4	73.1	40.4	39x32x12	816	1048	B,1
	CR 45-3-2	20					57.9	53.4	73.1	40.4	39x32x12	961	1196	B,1
	CR 45-3	25					57.9	56.4	73.1	40.4	39x32x12	921	1156	B,1
	CR 45-4	30					57.9	60.1	73.1	40.4	47x32x12	1043	1345	B,1
3	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	92.7	60.1	47x32x12	1055	1286	B,1
	CR 45-2	15					57.9	48.4	92.7	60.1	47x32x12	1209	1522	B,1
	CR 45-3-2	20					57.9	53.4	92.7	60.1	47x32x12	1427	1743	B,1
	CR 45-3	25					57.9	56.4	92.7	60.1	47x32x12	1367	1684	B,1
	CR 45-4	30					79.0	60.1	100.6	60.1	71x39x16	1550	2072	C,1
4	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	79.0	42.0	120.4	79.9	71x39x16	1477	1881	C,1
	CR 45-2	15					79.0	50.0	120.4	79.9	71x39x16	1682	2196	C,1
	CR 45-3-2	20					79.0	55.0	120.4	79.9	71x39x16	1973	2491	C,1
	CR 45-3	25					79.0	58.0	120.4	79.9	71x39x16	1894	2412	C,1
	CR 45-4	30					79.0	61.7	120.4	79.9	71x39x16	2137	2733	C,1
5	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	79.0	42.0	140.1	99.6	71x39x16	1770	2199	C,1
	CR 45-2	15					79.0	50.0	140.1	99.6	71x39x16	2026	2594	C,1
	CR 45-3-2	20					79.0	55.0	140.1	99.6	71x39x16	2389	2962	C,1
	CR 45-3	25					79.0	58.0	140.1	99.6	71x39x16	2290	2863	C,1
	CR 45-4	30					79.0	61.7	140.1	99.6	71x39x16	2595	3264	C,1
6	CR 45-1	7.5	10" ANSI	42.4	55.9	12.2	79.0	44.3	159.9	119.3	71x39x16	2131	2585	C,1
	CR 45-2	15					84.0	52.3	191.3	119.3	72x72x18	2438	3668	C,1
	CR 45-3-2	20					84.0	57.3	191.3	119.3	72x72x18	2874	4110	C,1
	CR 45-3	25					84.0	60.3	191.3	119.3	72x72x18	2755	3991	C,1
	CR 45-4	30					84.0	64.1	191.3	119.3	72x72x18	3121	4472	C,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 45

## Hydro MPC-EDF with CR 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	73.1	40.4	39x32x12	713	891	B,1
	CR 45-2	15					57.9	48.4	73.1	40.4	39x32x12	816	1048	B,1
	CR 45-3-2	20					57.9	53.4	73.1	40.4	39x32x12	961	1196	B,1
	CR 45-3	25					57.9	56.4	73.1	40.4	39x32x12	921	1156	B,1
	CR 45-4	30					57.9	60.1	73.1	40.4	39x32x12	1043	1317	B,1
3	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	92.7	60.1	39x32x12	1055	1246	B,1
	CR 45-2	15					57.9	48.4	92.7	60.1	39x32x12	1209	1455	B,1
	CR 45-3-2	20					57.9	53.4	92.7	60.1	39x32x12	1427	1677	B,1
	CR 45-3	25					57.9	56.4	92.7	60.1	39x32x12	1367	1617	B,1
	CR 45-4	30					57.9	60.1	92.7	60.1	47x32x12	1550	1867	B,1
4	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	42.0	112.5	79.9	47x32x12	1477	1709	B,1
	CR 45-2	15					57.9	50.0	112.5	79.9	47x32x12	1682	1970	B,1
	CR 45-3-2	20					57.9	55.0	112.5	79.9	47x32x12	1973	2267	B,1
	CR 45-3	25					57.9	58.0	112.5	79.9	47x32x12	1894	2188	B,1
	CR 45-4	30					57.9	61.7	112.5	79.9	47x32x12	2137	2470	B,1
5	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	42.0	132.2	99.6	47x32x12	1770	2015	B,1
	CR 45-2	15					57.9	50.0	132.2	99.6	47x32x12	2026	2328	B,1
	CR 45-3-2	20					57.9	55.0	132.2	99.6	47x32x12	2389	2700	B,1
	CR 45-3	25					57.9	58.0	132.2	99.6	47x32x12	2290	2601	B,1
	CR 45-4	30					57.9	61.7	140.1	99.6	71x39x16	2595	3091	C,1
6	CR 45-1	7.5	10" ANSI	42.4	55.9	12.2	57.9	44.3	152.0	119.3	47x32x12	2131	2389	B,1
	CR 45-2	15					57.9	52.3	152.0	119.3	47x32x12	2438	2753	B,1
	CR 45-3-2	20					57.9	57.3	152.0	119.3	47x32x12	2874	3200	B,1
	CR 45-3	25					79.0	60.3	159.9	119.3	71x39x16	2755	3228	C,1
	CR 45-4	30					79.0	64.1	159.9	119.3	71x39x16	3121	3632	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 45

## Hydro MPC-F with CR 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	73.1	40.4	39x32x12	713	882	B,1
	CR 45-2	15					57.9	48.4	73.1	40.4	39x32x12	816	1012	B,1
	CR 45-3-2	20					57.9	53.4	73.1	40.4	39x32x12	961	1164	B,1
	CR 45-3	25					57.9	56.4	73.1	40.4	39x32x12	921	1125	B,1
	CR 45-4	30					57.9	60.1	73.1	40.4	47x32x12	1043	1294	B,1
3	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	92.7	60.1	39x32x12	1055	1238	B,1
	CR 45-2	15					57.9	48.4	92.7	60.1	39x32x12	1209	1419	B,1
	CR 45-3-2	20					57.9	53.4	92.7	60.1	39x32x12	1427	1647	B,1
	CR 45-3	25					57.9	56.4	92.7	60.1	47x32x12	1367	1616	B,1
	CR 45-4	30					57.9	60.1	92.7	60.1	47x32x12	1550	1818	B,1
4	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	42.0	112.5	79.9	47x32x12	1477	1702	B,1
	CR 45-2	15					57.9	50.0	112.5	79.9	47x32x12	1682	1935	B,1
	CR 45-3-2	20					57.9	55.0	112.5	79.9	47x32x12	1973	2240	B,1
	CR 45-3	25					57.9	58.0	112.5	79.9	47x32x12	1894	2161	B,1
	CR 45-4	30					57.9	61.7	112.5	79.9	47x32x12	2137	2424	B,1
5	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	79.0	42.0	140.1	99.6	71x39x16	1770	2156	C,1
	CR 45-2	15					79.0	50.0	140.1	99.6	71x39x16	2026	2441	C,1
	CR 45-3-2	20					79.0	55.0	140.1	99.6	71x39x16	2389	2822	C,1
	CR 45-3	25					79.0	58.0	140.1	99.6	71x39x16	2290	2723	C,1
	CR 45-4	30					79.0	61.7	140.1	99.6	71x39x16	2595	3047	C,1
6	CR 45-1	7.5	10" ANSI	42.4	55.9	12.2	79.0	44.3	159.9	119.3	71x39x16	2131	2531	C,1
	CR 45-2	15					79.0	52.3	159.9	119.3	71x39x16	2438	2867	C,1
	CR 45-3-2	20					79.0	57.3	159.9	119.3	71x39x16	2874	3324	C,1
	CR 45-3	25					79.0	60.3	159.9	119.3	71x39x16	2755	3206	C,1
	CR 45-4	30					79.0	64.1	159.9	119.3	71x39x16	3121	3590	C,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 45

## Hydro MPC-S with CR 45

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	65.2	40.4	24x24x8	713	791	B,1
	CR 45-2	15					57.9	48.4	65.2	40.4	24x24x8	816	893	B,1
	CR 45-3-2	20					57.9	53.4	65.2	40.4	24x24x8	961	1043	B,1
	CR 45-3	25					57.9	56.4	65.2	40.4	24x24x8	921	1003	B,1
	CR 45-4	30					57.9	60.1	65.2	40.4	24x24x8	1043	1125	B,1
3	CR 45-1	7.5	6" ANSI	40.3	51.3	8.3	57.9	40.4	84.9	60.1	24x24x8	1055	1145	B,1
	CR 45-2	15					57.9	48.4	84.9	60.1	24x24x8	1209	1299	B,1
	CR 45-3-2	20					57.9	53.4	84.9	60.1	24x24x8	1427	1524	B,1
	CR 45-3	25					57.9	56.4	84.9	60.1	24x24x8	1367	1465	B,1
	CR 45-4	30					57.9	60.1	84.9	60.1	24x24x8	1550	1647	B,1
4	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	42.0	104.7	79.9	30x24x8	1477	1602	B,1
	CR 45-2	15					57.9	50.0	104.7	79.9	30x24x8	1682	1807	B,1
	CR 45-3-2	20					57.9	55.0	104.7	79.9	30x24x8	1973	2107	B,1
	CR 45-3	25					57.9	58.0	104.7	79.9	30x24x8	1894	2028	B,1
	CR 45-4	30					57.9	61.7	112.5	79.9	39x32x12	2137	2327	B,1
5	CR 45-1	7.5	8" ANSI	42.4	55.9	9.8	57.9	42.0	132.2	99.6	47x32x12	1770	1991	B,1
	CR 45-2	15					57.9	50.0	132.2	99.6	47x32x12	2026	2248	B,1
	CR 45-3-2	20					57.9	55.0	132.2	99.6	47x32x12	2389	2623	B,1
	CR 45-3	25					57.9	58.0	132.2	99.6	47x32x12	2290	2524	B,1
	CR 45-4	30					57.9	61.7	132.2	99.6	47x32x12	2595	2828	B,1
6	CR 45-1	7.5	10" ANSI	42.4	55.9	12.2	57.9	44.3	152.0	119.3	47x32x12	2131	2365	B,1
	CR 45-2	15					57.9	52.3	152.0	119.3	47x32x12	2438	2674	B,1
	CR 45-3-2	20					57.9	57.3	152.0	119.3	47x32x12	2874	3123	B,1
	CR 45-3	25					57.9	60.3	152.0	119.3	47x32x12	2755	3004	B,1
	CR 45-4	30					57.9	64.1	152.0	119.3	47x32x12	3121	3370	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

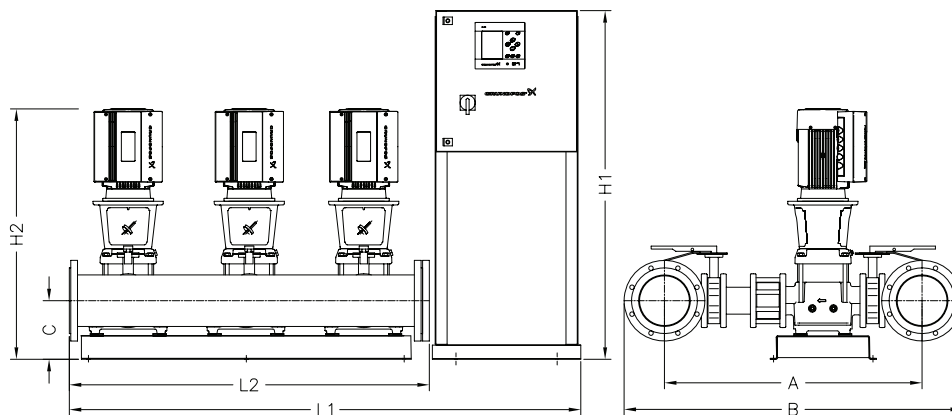
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

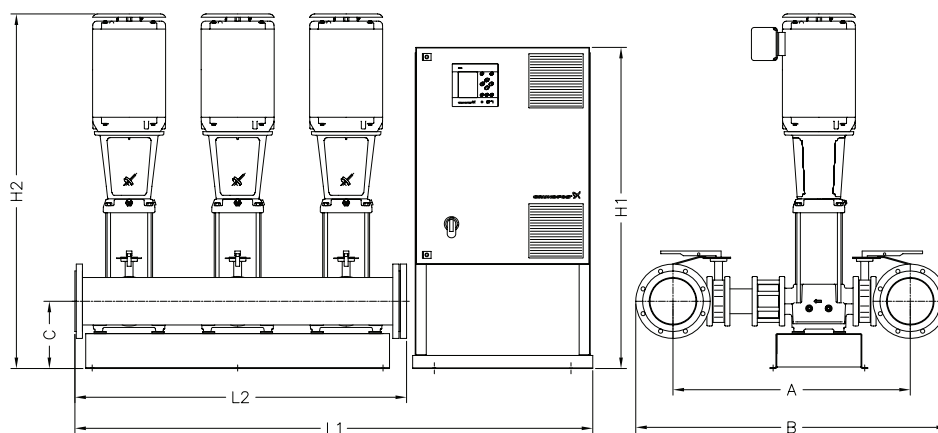
BoosterpaQ® Hydro MPC  
with CR(E) 64

## Hydro MPC with CR(E) 64



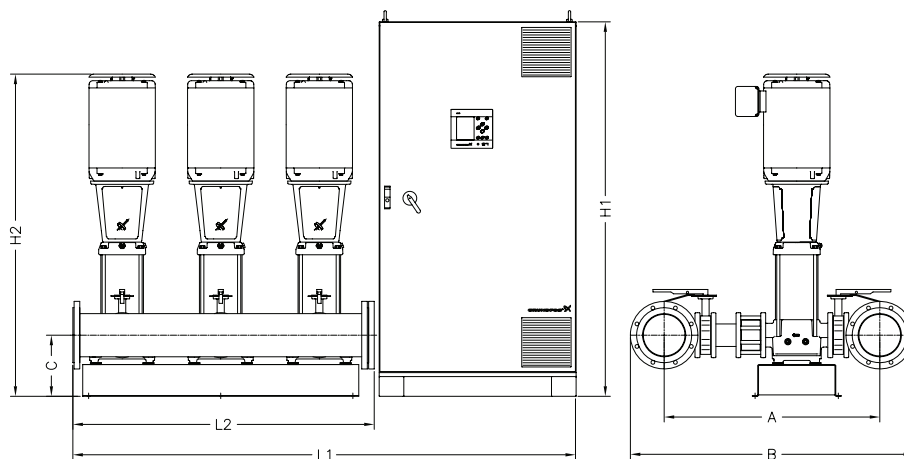
TM04 0012 4807 3CR64-E.pdf

Fig. 37 Drawing of a Hydro MPC booster set with integrated VFD/motors and control panel and pumps on separate base plates. (Design A)



TM04 0014 4807 3CR64-F.pdf

Fig. 38 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



TM04 0013 4807 3CR64-EF.pdf

Fig. 39 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 64

## Hydro MPC-E with CRE 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.3	57.3	40.4	24x15x8	814	874	A,1
3	CR(E) 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	41.8	77.1	60.2	24x15x8	1214	1285	A,1
4	CR(E) 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	57.9	41.8	104.7	79.9	24x24x8	1554	1654	A,1
5	CR(E) 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	57.9	44.2	132.0	107.2	24x24x8	2286	2397	A,1
6	CR(E) 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	57.9	44.2	135.0	110.2	30x24x8	2854	2999	A,1

## Hydro MPC-ED with CR(E) 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.3	57.3	40.4	24x15x8	814	874	A,1
3	CR(E) 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	41.8	85.0	60.2	24x24x8	1215	1303	A,1
4	CR(E) 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	57.9	41.8	104.7	79.9	30x24x8	1556	1679	A,1
5	CR(E) 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	57.9	44.2	132.0	107.2	30x24x8	2289	2424	A,1
6	CR(E) 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	57.9	44.2	142.9	110.2	39x32x12	2858	3062	A,1

## Hydro MPC-ES with CR(E) 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design, Comments
2	CR(E) 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.3	65.2	40.4	24x24x8	815	892	A,1
3	CR(E) 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	41.8	85.0	60.2	24x24x8	1216	1305	A,1
4	CR(E) 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	57.9	41.8	104.7	79.9	30x24x8	1557	1681	A,1
5	CR(E) 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	57.9	44.2	139.9	107.2	47x32x12	2290	2509	A,1
6	CR(E) 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	57.9	44.2	142.9	110.2	47x32x12	2859	3092	A,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. Pump HP requirements & panel dimensions are based on 3x460V power. Pump HP and panel dimensions may change based on other voltages, ex. CRE15-3 is 5 HP in 3x460V and requires 7.5 HP in 3x208V. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 64

## Hydro MPC-EF with CR 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.5	73.1	40.4	39x32x12	816	994	B,1
	CR 64-2-2	15					57.9	48.6	73.1	40.4	39x32x12	922	1155	B,1
	CR 64-2-1	20					57.9	50.5	73.1	40.4	39x32x12	1050	1285	B,1
	CR 64-2	25					57.9	53.5	73.1	40.4	39x32x12	1014	1249	B,1
	CR 64-3-2	30					57.9	57.4	73.1	40.4	47x32x12	1124	1426	B,1
	CR 64-3	40					57.9	58.8	73.1	40.4	47x32x12	1242	1547	B,1
3	CR 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	42.1	92.9	60.2	47x32x12	1217	1448	B,1
	CR 64-2-2	15					57.9	50.2	92.9	60.2	47x32x12	1376	1690	B,1
	CR 64-2-1	20					57.9	52.1	92.9	60.2	47x32x12	1568	1885	B,1
	CR 64-2	25					57.9	55.1	92.9	60.2	47x32x12	1514	1831	B,1
	CR 64-3-2	30					57.9	59.0	100.7	60.2	71x39x16	1679	2201	C,1
	CR 64-3	40					79.0	60.3	100.7	60.2	71x39x16	1856	2382	C,1
4	CR 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	79.0	42.1	120.4	79.9	71x39x16	1558	1962	C,1
	CR 64-2-2	15					79.0	50.2	120.4	79.9	71x39x16	1770	2284	C,1
	CR 64-2-1	20					79.0	52.1	120.4	79.9	71x39x16	2026	2544	C,1
	CR 64-2	25					79.0	55.1	120.4	79.9	71x39x16	1954	2472	C,1
	CR 64-3-2	30					79.0	59.0	120.4	79.9	71x39x16	2174	2769	C,1
	CR 64-3	40					79.0	60.3	120.4	79.9	71x39x16	2410	3011	C,1
5	CR 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	79.0	44.5	147.7	107.2	71x39x16	2291	2721	C,1
	CR 64-2-2	15					79.0	52.6	147.7	107.2	71x39x16	2556	3123	C,1
	CR 64-2-1	20					79.0	54.5	147.7	107.2	71x39x16	2876	3451	C,1
	CR 64-2	25					79.0	57.5	147.7	107.2	71x39x16	2786	3361	C,1
	CR 64-3-2	30					79.0	61.3	147.7	107.2	71x39x16	3060	3732	C,1
	CR 64-3	40					79.0	62.7	147.7	107.2	71x39x16	3355	4034	C,1
6	CR 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	79.0	44.5	150.8	110.2	71x39x16	2860	3315	C,1
	CR 64-2-2	15					84.0	52.6	182.2	110.2	72x72x18	3178	4407	C,1
	CR 64-2-1	20					84.0	54.5	182.2	110.2	72x72x18	3562	4800	C,1
	CR 64-2	25					84.0	57.5	182.2	110.2	72x72x18	3454	4692	C,1
	CR 64-3-2	30					84.0	61.3	182.2	110.2	72x72x18	3783	5138	C,1
	CR 64-3	40					84.0	62.7	182.2	110.2	72x72x18	4137	5500	C,1

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 64

## Hydro MPC-EDF with CR 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.5	73.1	40.4	39x32x12	816	994	B,1
	CR 64-2-2	15					57.9	48.6	73.1	40.4	39x32x12	922	1155	B,1
	CR 64-2-1	20					57.9	50.5	73.1	40.4	39x32x12	1050	1285	B,1
	CR 64-2	25					57.9	53.5	73.1	40.4	39x32x12	1014	1249	B,1
	CR 64-3-2	30					57.9	57.4	73.1	40.4	47x32x12	1124	1426	B,1
	CR 64-3	40					57.9	58.8	73.1	40.4	47x32x12	1242	1547	B,1
3	CR 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	42.1	92.9	60.2	39x32x12	1217	1408	B,1
	CR 64-2-2	15					57.9	50.2	92.9	60.2	39x32x12	1376	1622	B,1
	CR 64-2-1	20					57.9	52.1	92.9	60.2	39x32x12	1568	1818	B,1
	CR 64-2	25					57.9	55.1	92.9	60.2	39x32x12	1514	1764	B,1
	CR 64-3-2	30					57.9	59.0	92.9	60.2	47x32x12	1679	1996	B,1
	CR 64-3	40					78.0	60.3	92.9	60.2	47x32x12	1856	2180	B,1
4	CR 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	57.9	42.1	112.5	79.9	47x32x12	1558	1791	B,1
	CR 64-2-2	15					57.9	50.2	112.5	79.9	47x32x12	1770	2057	B,1
	CR 64-2-1	20					57.9	52.1	112.5	79.9	47x32x12	2026	2320	B,1
	CR 64-2	25					57.9	55.1	112.5	79.9	47x32x12	1954	2248	B,1
	CR 64-3-2	30					57.9	59.0	120.4	79.9	71x39x16	2174	2654	C,1
	CR 64-3	40					78.0	60.3	120.4	79.9	71x39x16	2410	2900	C,1
5	CR 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	57.9	44.5	139.9	107.2	47x32x12	2291	2537	B,1
	CR 64-2-2	15					57.9	52.6	139.9	107.2	47x32x12	2556	2857	B,1
	CR 64-2-1	20					57.9	54.5	139.9	107.2	47x32x12	2876	3189	B,1
	CR 64-2	25					57.9	57.5	139.9	107.2	47x32x12	2786	3099	B,1
	CR 64-3-2	30					57.9	61.3	147.7	107.2	71x39x16	3060	3559	C,1
	CR 64-3	40					78.0	62.7	147.7	107.2	71x39x16	3355	3868	C,1
6	CR 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	57.9	44.5	142.9	110.2	47x32x12	2860	3119	B,1
	CR 64-2-2	15					57.9	52.6	142.9	110.2	47x32x12	3178	3492	B,1
	CR 64-2-1	20					57.9	54.5	142.9	110.2	47x32x12	3562	3890	B,1
	CR 64-2	25					57.9	57.5	142.9	110.2	47x32x12	3454	3782	B,1
	CR 64-3-2	30					57.9	61.3	150.8	110.2	71x39x16	3783	4298	C,1
	CR 64-3	40					78.0	62.7	150.8	110.2	71x39x16	4137	4670	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 64

## Hydro MPC-F with CR 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.5	73.1	40.4	39x32x12	816	985	B,1
	CR 64-2-2	15					57.9	48.6	73.1	40.4	39x32x12	922	1118	B,1
	CR 64-2-1	20					57.9	50.5	73.1	40.4	39x32x12	1050	1254	B,1
	CR 64-2	25					57.9	53.5	73.1	40.4	39x32x12	1014	1218	B,1
	CR 64-3-2	30					57.9	57.4	73.1	40.4	47x32x12	1124	1375	B,1
	CR 64-3	40					57.9	58.8	73.1	40.4	47x32x12	1242	1505	B,1
3	CR 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	42.1	92.9	60.2	39x32x12	1217	1400	B,1
	CR 64-2-2	15					57.9	50.2	92.9	60.2	39x32x12	1376	1586	B,1
	CR 64-2-1	20					57.9	52.1	92.9	60.2	39x32x12	1568	1789	B,1
	CR 64-2	25					57.9	55.1	92.9	60.2	47x32x12	1514	1763	B,1
	CR 64-3-2	30					57.9	59.0	92.9	60.2	47x32x12	1679	1947	B,1
	CR 64-3	40					78.0	60.3	92.9	60.2	47x32x12	1856	2143	B,1
4	CR 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	57.9	42.1	112.5	79.9	47x32x12	1558	1783	B,1
	CR 64-2-2	15					57.9	50.2	112.5	79.9	47x32x12	1770	2023	B,1
	CR 64-2-1	20					57.9	52.1	112.5	79.9	47x32x12	2026	2293	B,1
	CR 64-2	25					57.9	55.1	112.5	79.9	47x32x12	1954	2221	B,1
	CR 64-3-2	30					57.9	59.0	112.5	79.9	47x32x12	2174	2460	B,1
	CR 64-3	40					78.0	60.3	112.5	79.9	47x32x12	2410	2721	B,1
5	CR 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	57.9	44.5	147.7	107.2	71x39x16	2291	2678	C,1
	CR 64-2-2	15					57.9	52.6	147.7	107.2	71x39x16	2556	2971	C,1
	CR 64-2-1	20					57.9	54.5	147.7	107.2	71x39x16	2876	3311	C,1
	CR 64-2	25					57.9	57.5	147.7	107.2	71x39x16	2786	3221	C,1
	CR 64-3-2	30					57.9	61.3	147.7	107.2	71x39x16	3060	3515	C,1
	CR 64-3	40					78.0	62.7	147.7	107.2	71x39x16	3355	3841	C,1
6	CR 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	57.9	44.5	150.8	110.2	71x39x16	2860	3261	C,1
	CR 64-2-2	15					57.9	52.6	150.8	110.2	71x39x16	3178	3607	C,1
	CR 64-2-1	20					57.9	54.5	150.8	110.2	71x39x16	3562	4015	C,1
	CR 64-2	25					57.9	57.5	150.8	110.2	71x39x16	3454	3907	C,1
	CR 64-3-2	30					57.9	61.3	150.8	110.2	71x39x16	3783	4256	C,1
	CR 64-3	40					78.0	62.7	150.8	110.2	71x39x16	4137	4647	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary ± 1 in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR(E) 64

## Hydro MPC-S with CR 64

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 64-1-1	7.5	6" ANSI	42.6	53.6	8.3	57.9	40.5	65.2	40.4	24x24x8	816	894	B,1
	CR 64-2-2	15					57.9	48.6	65.2	40.4	24x24x8	922	1000	B,1
	CR 64-2-1	20					57.9	50.5	65.2	40.4	24x24x8	1050	1132	B,1
	CR 64-2	25					57.9	53.5	65.2	40.4	24x24x8	1014	1096	B,1
	CR 64-3-2	30					57.9	57.4	65.2	40.4	24x24x8	1124	1206	B,1
	CR 64-3	40					57.9	58.8	65.2	40.4	30x24x14	1242	1362	B,1
3	CR 64-1-1	7.5	8" ANSI	42.6	56.1	9.8	57.9	42.1	85.0	60.2	24x24x8	1217	1308	B,1
	CR 64-2-2	15					57.9	50.2	85.0	60.2	24x24x8	1376	1467	B,1
	CR 64-2-1	20					57.9	52.1	85.0	60.2	24x24x8	1568	1666	B,1
	CR 64-2	25					57.9	55.1	85.0	60.2	24x24x8	1514	1612	B,1
	CR 64-3-2	30					57.9	59.0	92.9	60.2	39x32x12	1679	1852	B,1
	CR 64-3	40					78.0	60.3	92.9	60.2	39x32x12	1856	2041	B,1
4	CR 64-1-1	7.5	8" ANSI	48.3	61.8	9.8	57.9	42.1	104.7	79.9	30x24x8	1558	1683	B,1
	CR 64-2-2	15					57.9	50.2	104.7	79.9	30x24x8	1770	1895	B,1
	CR 64-2-1	20					57.9	52.1	104.7	79.9	30x24x8	2026	2160	B,1
	CR 64-2	25					57.9	55.1	104.7	79.9	30x24x8	1954	2088	B,1
	CR 64-3-2	30					57.9	59.0	112.5	79.9	39x32x12	2174	2363	B,1
	CR 64-3	40					78.0	60.3	112.5	79.9	39x32x12	2410	2614	B,1
5	CR 64-1-1	7.5	10" ANSI	48.0	64.0	12.2	57.9	44.5	139.9	107.2	47x32x12	2291	2513	B,1
	CR 64-2-2	15					57.9	52.6	139.9	107.2	47x32x12	2556	2778	B,1
	CR 64-2-1	20					57.9	54.5	139.9	107.2	47x32x12	2876	3112	B,1
	CR 64-2	25					57.9	57.5	139.9	107.2	47x32x12	2786	3022	B,1
	CR 64-3-2	30					57.9	61.3	139.9	107.2	47x32x12	3060	3297	B,1
	CR 64-3	40					78.0	62.7	139.9	107.2	47x32x12	3355	3611	B,1
6	CR 64-1-1	7.5	12" ANSI	49.9	68.9	12.2	57.9	44.5	142.9	110.2	47x32x12	2860	3095	B,1
	CR 64-2-2	15					57.9	52.6	142.9	110.2	47x32x12	3178	3413	B,1
	CR 64-2-1	20					57.9	54.5	142.9	110.2	47x32x12	3562	3813	B,1
	CR 64-2	25					57.9	57.5	142.9	110.2	47x32x12	3454	3705	B,1
	CR 64-3-2	30					57.9	61.3	142.9	110.2	47x32x12	3783	4035	B,1
	CR 64-3	40					78.0	62.7	142.9	110.2	47x32x12	4137	4412	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

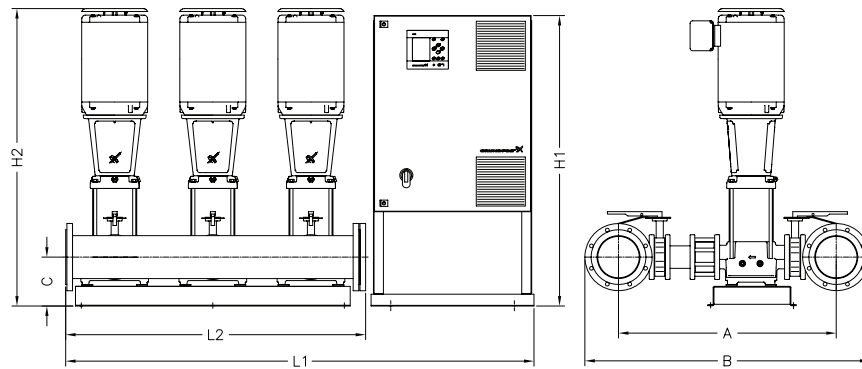
Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

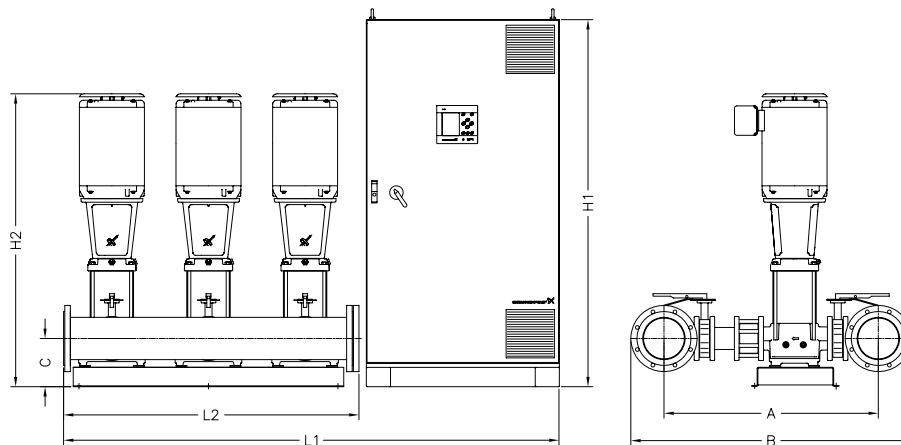
BoosterpaQ<sup>®</sup> Hydro MPC  
with CR 90

## Hydro MPC with CR 90



TM04 0015 4807 3CR90-F.pdf

Fig. 40 Drawing of a Hydro MPC booster set with control panel and pumps on separate base plates. (Design B)



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Fig. 41 Drawing of a Hydro MPC booster set with a floor-mounted control panel. (Design C)

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR 90

## Hydro MPC-EF with CR 90

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 90-1	15	6" ANSI	43.5	54.5	8.3	57.9	45.8	73.1	40.4	39x32x12	923	1156	B,1
	CR 90-2-2	25					57.9	54.3	73.1	40.4	39x32x12	1033	1268	B,1
	CR 90-2-1	30					57.9	54.9	73.1	40.4	47x32x12	1127	1429	B,1
	CR 90-2	40					57.9	56.3	73.1	40.4	47x32x12	1245	1550	B,1
	CR 90-3-2	40					57.9	59.9	73.1	40.4	47x32x12	1268	1573	B,1
	CR 90-3	50					79.0	59.4	80.9	40.4	71x39x16	1548	2073	C,1
3	CR 90-1	15	8" ANSI	43.5	57.0	9.8	57.9	47.3	92.9	60.2	47x32x12	1298	1612	B,1
	CR 90-2-2	25					57.9	55.8	92.9	60.2	47x32x12	1514	1831	B,1
	CR 90-2-1	30					79.0	56.5	100.7	60.2	71x39x16	1655	2178	C,1
	CR 90-2	40					79.0	57.8	100.7	60.2	71x39x16	1832	2359	C,1
	CR 90-3-2	40					79.0	61.5	100.7	60.2	71x39x16	1856	2383	C,1
	CR 90-3	50					84.0	61.0	132.2	60.2	72x72x18	2276	3522	C,1
4	CR 90-1	15	10" ANSI	48.1	64.1	12.2	79.0	49.7	120.5	79.9	71x39x16	1977	2491	C,1
	CR 90-2-2	25					79.0	58.2	120.5	79.9	71x39x16	2265	2784	C,1
	CR 90-2-1	30					79.0	58.8	120.5	79.9	71x39x16	2453	3052	C,1
	CR 90-2	40					79.0	60.2	120.5	79.9	71x39x16	2689	3294	C,1
	CR 90-3-2	40					79.0	63.8	120.5	79.9	71x39x16	2721	3326	C,1
	CR 90-3	50					84.0	63.3	151.9	79.9	72x72x18	3281	4639	C,1
5	CR 90-1	15	12" ANSI	50.9	69.9	12.2	79.0	49.7	140.2	99.7	71x39x16	2612	3179	C,1
	CR 90-2-2	25					79.0	58.2	140.2	99.7	71x39x16	2972	3545	C,1
	CR 90-2-1	30					79.0	58.8	140.2	99.7	71x39x16	3207	3879	C,1
	CR 90-2	40					79.0	60.2	140.2	99.7	71x39x16	3502	4181	C,1
	CR 90-3-2	40					79.0	63.8	140.2	99.7	71x39x16	3541	4221	C,1
	CR 90-3	50					84.0	63.3	171.7	99.7	72x72x18	4241	5710	C,1
6	CR 90-1	15	12" ANSI	50.9	69.9	12.2	84.0	49.7	182.2	110.2	72x72x18	3045	4274	C,1
	CR 90-2-2	25					84.0	58.2	182.2	110.2	72x72x18	3477	4713	C,1
	CR 90-2-1	30					84.0	58.8	182.2	110.2	72x72x18	3759	5113	C,1
	CR 90-2	40					84.0	60.2	182.2	110.2	72x72x18	4113	5476	C,1
	CR 90-3-2	40					84.0	63.8	182.2	110.2	72x72x18	4161	5523	C,1
	CR 90-3	50					84.0	63.3	182.2	110.2	72x72x18	5001	6579	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ<sup>®</sup> Hydro MPC  
with CR 90

## Hydro MPC-EDF with CR 90

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 90-1	15	6" ANSI	43.5	54.5	8.3	57.9	45.8	73.1	40.4	39x32x12	923	1156	B,1
	CR 90-2-2	25					57.9	54.3	73.1	40.4	39x32x12	1033	1268	B,1
	CR 90-2-1	30					57.9	54.9	73.1	40.4	47x32x12	1127	1429	B,1
	CR 90-2	40					57.9	56.3	73.1	40.4	47x32x12	1245	1550	B,1
	CR 90-3-2	40					57.9	59.9	73.1	40.4	47x32x12	1268	1573	B,1
	CR 90-3	50					79.0	59.4	80.9	40.4	71x39x16	1548	2073	C,1
3	CR 90-1	15	8" ANSI	43.5	57.0	9.8	57.9	47.3	92.9	60.2	39x32x12	1298	1544	B,1
	CR 90-2-2	25					57.9	55.8	92.9	60.2	39x32x12	1514	1764	B,1
	CR 90-2-1	30					57.9	56.5	92.9	60.2	47x32x12	1655	1973	B,1
	CR 90-2	40					57.9	57.8	92.9	60.2	47x32x12	1832	2157	B,1
	CR 90-3-2	40					57.9	61.5	92.9	60.2	47x32x12	1856	2181	B,1
	CR 90-3	50					79.0	61.0	100.7	60.2	71x39x16	2276	2822	C,1
4	CR 90-1	15	10" ANSI	48.1	64.1	12.2	57.9	49.7	112.6	79.9	47x32x12	1977	2265	B,1
	CR 90-2-2	25					57.9	58.2	112.6	79.9	47x32x12	2265	2560	B,1
	CR 90-2-1	30					57.9	58.8	112.6	79.9	47x32x12	2453	2790	B,1
	CR 90-2	40					79.0	60.2	120.5	79.9	71x39x16	2689	3184	C,1
	CR 90-3-2	40					79.0	63.8	120.5	79.9	71x39x16	2721	3216	C,1
	CR 90-3	50					79.0	63.3	120.5	79.9	71x39x16	3281	3848	C,1
5	CR 90-1	15	12" ANSI	50.9	69.9	12.2	57.9	49.7	132.4	99.7	47x32x12	2612	2913	B,1
	CR 90-2-2	25					57.9	58.2	132.4	99.7	47x32x12	2972	3282	B,1
	CR 90-2-1	30					79.0	58.8	140.2	99.7	71x39x16	3207	3706	C,1
	CR 90-2	40					79.0	60.2	140.2	99.7	71x39x16	3502	4016	C,1
	CR 90-3-2	40					79.0	63.8	140.2	99.7	71x39x16	3541	4056	C,1
	CR 90-3	50					79.0	63.3	140.2	99.7	71x39x16	4241	4828	C,1
6	CR 90-1	15	12" ANSI	50.9	69.9	12.2	57.9	49.7	142.9	110.2	47x32x12	3045	3360	B,1
	CR 90-2-2	25					57.9	58.2	142.9	110.2	47x32x12	3477	3803	B,1
	CR 90-2-1	30					79.0	58.8	150.8	110.2	71x39x16	3759	4273	C,1
	CR 90-2	40					79.0	60.2	150.8	110.2	71x39x16	4113	4647	C,1
	CR 90-3-2	40					79.0	63.8	150.8	110.2	71x39x16	4161	4694	C,1
	CR 90-3	50					79.0	63.3	150.8	110.2	71x39x16	5001	5606	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.



# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR 90

## Hydro MPC-F with CR 90

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 90-1	15	6" ANSI	43.5	54.5	8.3	57.9	45.8	73.1	40.4	39x32x12	923	1119	B,1
	CR 90-2-2	25					57.9	54.3	73.1	40.4	39x32x12	1033	1237	B,1
	CR 90-2-1	30					57.9	54.9	73.1	40.4	47x32x12	1127	1378	B,1
	CR 90-2	40					57.9	56.3	73.1	40.4	47x32x12	1245	1510	B,1
	CR 90-3-2	40					57.9	59.9	73.1	40.4	47x32x12	1268	1533	B,1
	CR 90-3	50					57.9	59.4	73.1	40.4	47x32x12	1548	1850	B,1
3	CR 90-1	15	8" ANSI	43.5	57.0	9.8	57.9	47.3	92.9	60.2	39x32x12	1298	1508	B,1
	CR 90-2-2	25					57.9	55.8	92.9	60.2	47x32x12	1514	1763	B,1
	CR 90-2-1	30					57.9	56.5	92.9	60.2	47x32x12	1655	1924	B,1
	CR 90-2	40					57.9	57.8	92.9	60.2	47x32x12	1832	2122	B,1
	CR 90-3-2	40					57.9	61.5	92.9	60.2	47x32x12	1856	2146	B,1
	CR 90-3	50					79.0	61.0	92.9	60.2	71x39x16	2276	2751	C,1
4	CR 90-1	15	10" ANSI	48.1	64.1	12.2	57.9	49.7	112.6	79.9	47x32x12	1977	2230	B,1
	CR 90-2-2	25					57.9	58.2	112.6	79.9	47x32x12	2265	2533	B,1
	CR 90-2-1	30					57.9	58.8	112.6	79.9	47x32x12	2453	2743	B,1
	CR 90-2	40					57.9	60.2	112.6	79.9	47x32x12	2689	3007	B,1
	CR 90-3-2	40					57.9	63.8	112.6	79.9	47x32x12	2721	3039	B,1
	CR 90-3	50					79.0	63.3	120.5	79.9	71x39x16	3281	3782	C,1
5	CR 90-1	15	12" ANSI	50.9	69.9	12.2	79.0	49.7	140.2	99.7	71x39x16	2612	3027	C,1
	CR 90-2-2	25					79.0	58.2	140.2	99.7	71x39x16	2972	3404	C,1
	CR 90-2-1	30					79.0	58.8	140.2	99.7	71x39x16	3207	3661	C,1
	CR 90-2	40					79.0	60.2	140.2	99.7	71x39x16	3502	3991	C,1
	CR 90-3-2	40					79.0	63.8	140.2	99.7	71x39x16	3541	4031	C,1
	CR 90-3	50					79.0	63.3	140.2	99.7	71x39x16	4241	4767	C,1
6	CR 90-1	15	12" ANSI	50.9	69.9	12.2	79.0	49.7	150.8	110.2	71x39x16	3045	3474	C,1
	CR 90-2-2	25					79.0	58.2	150.8	110.2	71x39x16	3477	3927	C,1
	CR 90-2-1	30					79.0	58.8	150.8	110.2	71x39x16	3759	4231	C,1
	CR 90-2	40					79.0	60.2	150.8	110.2	71x39x16	4113	4627	C,1
	CR 90-3-2	40					79.0	63.8	150.8	110.2	71x39x16	4161	4674	C,1
	CR 90-3	50					79.0	63.3	150.8	110.2	71x39x16	5001	5550	C,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC  
with CR 90

## Hydro MPC-S with CR 90

No. of pumps	Pump type	Motor [hp]	Connection size [in.]	A [in]	B [in]	C [in]	H1 [in]	H2 [in]	L1 [in]	L2 [in]	Panel dim. HxWxD [in]	Wt. w/out panel [lb]	Weight w/panel [lb]	Design
2	CR 90-1	15	6" ANSI	43.5	54.5	8.3	57.9	45.8	65.2	40.4	24x24x8	923	1001	B,1
	CR 90-2-2	25					57.9	54.3	65.2	40.4	24x24x8	1033	1115	B,1
	CR 90-2-1	30					57.9	54.9	65.2	40.4	24x24x8	1127	1210	B,1
	CR 90-2	40					57.9	56.3	65.2	40.4	30x24x14	1245	1366	B,1
	CR 90-3-2	40					57.9	59.9	65.2	40.4	30x24x14	1268	1389	B,1
	CR 90-3	50					57.9	59.4	65.2	40.4	30x24x14	1548	1670	B,1
3	CR 90-1	15	8" ANSI	43.5	57.0	9.8	57.9	47.3	85.0	60.2	24x24x8	1298	1389	B,1
	CR 90-2-2	25					57.9	55.8	85.0	60.2	24x24x8	1514	1612	B,1
	CR 90-2-1	30					57.9	56.5	92.9	60.2	39x32x12	1655	1830	B,1
	CR 90-2	40					57.9	57.8	92.9	60.2	39x32x12	1832	2019	B,1
	CR 90-3-2	40					57.9	61.5	92.9	60.2	39x32x12	1856	2043	B,1
	CR 90-3	50					57.9	61.0	92.9	60.2	39x32x12	2276	2465	B,1
4	CR 90-1	15	10" ANSI	48.1	64.1	12.2	57.9	49.7	104.7	79.9	30x24x8	1977	2102	B,1
	CR 90-2-2	25					57.9	58.2	104.7	79.9	30x24x8	2265	2401	B,1
	CR 90-2-1	30					57.9	58.8	112.6	79.9	39x32x12	2453	2646	B,1
	CR 90-2	40					57.9	60.2	112.6	79.9	39x32x12	2689	2899	B,1
	CR 90-3-2	40					57.9	63.8	112.6	79.9	39x32x12	2721	2931	B,1
	CR 90-3	50					57.9	63.3	112.6	79.9	39x32x12	3281	3491	B,1
5	CR 90-1	15	12" ANSI	50.9	69.9	12.2	57.9	49.7	132.4	99.7	47x32x12	2612	2834	B,1
	CR 90-2-2	25					57.9	58.2	132.4	99.7	47x32x12	2972	3206	B,1
	CR 90-2-1	30					57.9	58.8	132.4	99.7	47x32x12	3207	3443	B,1
	CR 90-2	40					57.9	60.2	132.4	99.7	47x32x12	3502	3759	B,1
	CR 90-3-2	40					57.9	63.8	132.4	99.7	47x32x12	3541	3799	B,1
	CR 90-3	50					57.9	63.3	132.4	99.7	47x32x12	4241	4499	B,1
6	CR 90-1	15	12" ANSI	50.9	69.9	12.2	57.9	49.7	142.9	110.2	47x32x12	3045	3280	B,1
	CR 90-2-2	25					57.9	58.2	142.9	110.2	47x32x12	3477	3726	B,1
	CR 90-2-1	30					57.9	58.8	142.9	110.2	47x32x12	3759	4011	B,1
	CR 90-2	40					57.9	60.2	142.9	110.2	47x32x12	4113	4390	B,1
	CR 90-3-2	40					57.9	63.8	142.9	110.2	47x32x12	4161	4437	B,1
	CR 90-3	50					57.9	63.3	142.9	110.2	47x32x12	5001	5277	B,1

Design A: Hydro MPC booster set with a control panel mounted on the same base plate as the pumps.

Design B: Hydro MPC booster set with a control panel and pumps mounted on separate base plates.

Design C: Hydro MPC booster set with a floor mounted control panel.

Comments: 1. All control panel dimensions based on 460/3/60 power. Dimensions may vary  $\pm 1$  in. and vary due to options requested and component changes. Please contact Grundfos for a Certified drawing for construction purposes..

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC

## Maximum System Amps (Full Load Amperage)

No. of pumps	Motor [hp]	MPC-E, -ED, -ES				MPC-EF, -EDF, -F, -S				
		1x230V	3x208V	3x230V	3x460V	1x230V	3x208V	3x230V	3x460V	3x575V
2	1	11.4	7.5	7.7	4.4	13.0	7.5	7.7	4.4	4.1
	1.5	16.0	10.4	10.2	5.6	20.0	10.4	10.2	5.6	5.5
	2		12.4	11.8	6.4	24.0	12.4	11.8	6.4	7.1
	3		18.8	18.0	9.5	33.0	18.8	18.0	9.5	7.9
	5		29.4	29.0	15.0	49.0	29.4	29.0	15.0	12.5
	7.5		43.0	44.0	22.6	68.6	43.0	44.0	22.6	16.7
	10				29.8	81.0	57.0	58.0	29.8	20.7
	15						77.0	73.0	37.0	29.5
	20						105.0	97.0	49.0	39.9
	25						129.0	119.0	60.0	48.5
	30							141.0	71.0	56.7
	40							193.0	97.0	75.5
	50							233.0	117.0	93.5
3	1	16.6	10.8	11.1	6.0	19.0	10.8	11.1	6.0	5.4
	1.5	23.5	15.1	14.8	7.9	29.5	15.1	14.8	7.9	7.5
	2		18.1	17.2	9.1	35.5	18.1	17.2	9.1	9.9
	3		27.7	26.5	13.8	49.0	27.7	26.5	13.8	11.1
	5		43.6	43.0	22.0	73.0	43.6	43.0	22.0	18.0
	7.5		64.0	65.5	33.4	102.4	64.0	65.5	33.4	24.3
	10				44.2	121.0	85.0	86.5	44.2	30.3
	15						115.0	109.0	55.0	43.5
	20						157.0	145.0	73.0	59.1
	25						193.0	178.0	89.5	72.0
	30							211.0	106.0	84.3
	40							289.0	145.0	112.5
	50							349.0	175.0	139.5
4	1	21.8	14.0	14.4	7.7	25.0	14.0	14.4	7.7	6.7
	1.5	31.0	19.8	19.4	10.2	39.0	19.8	19.4	10.2	9.5
	2		23.8	22.6	11.8	47.0	23.8	22.6	11.8	12.7
	3		36.6	35.0	18.0	65.0	36.6	35.0	18.0	14.3
	5		57.8	57.0	29.0	97.0	57.8	57.0	29.0	23.5
	7.5		85.0	87.0	44.2	136.2	85.0	87.0	44.2	31.9
	10				58.6	161.0	113.0	115.0	58.6	39.9
	15						153.0	145.0	73.0	57.5
	20						209.0	193.0	97.0	78.3
	25						257.0	237.0	119.0	95.5
	30							281.0	141.0	111.9
	40							385.0	193.0	149.5
	50							465.0	233.0	185.5
5	1	27.0	17.3	17.8	9.4	31.0	17.3	17.8	9.4	8.0
	1.5	38.5	24.5	24.0	12.5	48.5	24.5	24.0	12.5	11.5
	2		29.5	28.0	14.5	58.5	29.5	28.0	14.5	15.5
	3		45.5	43.5	22.3	81.0	45.5	43.5	22.3	17.5
	5		72.0	71.0	36.0	121.0	72.0	71.0	36.0	29.0
	7.5		106.0	108.5	55.0	170.0	106.0	108.5	55.0	39.5
	10				73.0	201.0	141.0	143.5	73.0	49.5
	15						191.0	181.0	91.0	71.5
	20						261.0	241.0	121.0	97.5
	25						321.0	296.0	148.5	119.0
	30							351.0	176.0	139.5
	40							481.0	241.0	186.5
	50							581.0	291.0	231.5

Notes: 1. Maximum system amperage reflect panels with no options and may change due to panel options requested.

# Technical data/ dimensions and weights

BoosterpaQ® Hydro MPC

## Maximum System Amps (Full Load Amperage)

No. of pumps	Motor [hp]	MPC-E, -ED, -ES				MPC-EF, -EDF, -F, -S				
		1x230V	3x208V	3x230V	3x460V	1x230V	3x208V	3x230V	3x460V	3x575V
6	1	32.2	20.5	21.1	11.1	37.0	20.5	21.1	11.1	9.3
	1.5	46.0	29.2	28.6	14.8	58.0	29.2	28.6	14.8	13.5
	2		35.2	33.4	17.2	70.0	35.2	33.4	17.2	18.3
	3		54.4	52.0	26.5	97.0	54.4	52.0	26.5	20.7
	5		86.2	85.0	43.0	145.0	86.2	85.0	43.0	34.5
	7.5		127.0	130.0	65.8	203.8	127.0	130.0	65.8	47.1
	10				87.4	241.0	169.0	172.0	87.4	59.1
	15						229.0	217.0	109.0	85.5
	20						313.0	289.0	145.0	116.7
	25						385.0	355.0	178.0	142.5
	30							421.0	211.0	167.1
	40							577.0	289.0	223.5
	50							697.0	349.0	277.5

Notes: 1. Maximum system amperage reflect panels with no options and may change due to panel options requested.

All optional equipment, if required, must be specified when ordering the Hydro MPC booster set, as it must be fitted from factory prior to delivery.

## Diaphragm tank

In most systems a diaphragm tank must be installed on the discharge side of the system. See page 25 for recommended size.

## Redundant primary sensor

In order to increase the reliability, a redundant primary sensor can be connected as backup sensor for the primary sensor.

**Note:** The redundant primary sensor <sup>1)</sup> must be of the same type as the primary sensor.

<sup>1)</sup> The redundant primary sensor is normally connected to the analog input AI3 of CU 351. If this input is used for another function, such as External setpoint, the redundant sensor must be connected to the analog input AI2. If, however, this input is also occupied, the number of analog inputs must be increased by installing an IO 351B module, see page 101.

## Dry-running protection

Dry-running protection must always be installed on the suction side of the system.

The following types of dry run protection are available with each BoosterpaQ.

- Pressure transducer (4-20mA) <sup>2)</sup>
- Liquid level switch <sup>1)</sup>

<sup>1)</sup> Only one type of dry-running protection can be selected, as it must be connected to the same digital input of CU 351. This also applies to level switches.  
For further information about CU 351, see page 11.

<sup>2)</sup> The inlet pressure sensor is normally connected to the analog input AI2 of CU 351. If this input is used for another function, such as External setpoint, the sensor must be connected to the analog input AI3. If, however, this input is also occupied, the number of analog inputs must be increased by installing an IO 351B module, see page 101.  
For further information about IO 351B, see page 101.

## Position of non-return valve

As standard, non-return valves are fitted on the discharge side. They can also be fitted on the suction side of the pump.

## Emergency operation switch

The emergency operation switch enables emergency operation if a fault occurs in the CU 351. The emergency operation switch are located inside the panel as standard but can be located through the door if requested.

**Note:** The motor protection and the dry-running protection are not activated during emergency operation.

**Note:** Order 1 switch for each pump.

## Service disconnect switch

By means of a repair switch fitted to the individual pumps of the Hydro MPC booster set, the pumps can be switched off during repair, etc.

**Note:** Order 1 switch for each pump.

## Pump run indicator light

The indicator light is on when the relevant pump is in operation.

**Note:** Order 1 operation indicator light for each pump.

## System Fault indicator light

The fault indicator light is on if a fault occurs in the booster set.

**Note:** Phase failure causes no fault indication.

## Individual pump fault indicator light

The fault indicator light is on if a fault occurs in the pump.

**Note:** Order 1 fault indicator light for each pump.

## IO 351B interface

The IO 351B interface enables exchange of nine additional digital inputs and seven additional digital outputs.

**Note:** As standard the CU 351 supports the installation of one IO 351B interface.

## G10 LON interface

The G10 LON interface for CU 351 connects the Grundfos Hydro MPC booster set to a LON network. The interface incorporates a LON functional profile, 8120 "Pump Controller", which makes it possible to:

- start/stop pumps and perform setpoint control
- control the operating mode of the pumps
- retrieve information about warnings, alarms and other status information
- monitor operational values such as pressure, flow rate, pump speed, energy consumption<sup>1)</sup>, liquid temperature etc.

<sup>1)</sup> Only available for Hydro MPC E booster sets.

**Note:** A GENIbus module has to be installed.

## GENIbus module

The GENIbus module is an add-on module that enables communication with external GENIbus devices.

## G100 gateway

The G100 gateway enables communication of operating data, such as measured values and setpoints, between Grundfos products with GENIbus module and a main network for control and monitoring.

**Note:** A GENIbus module needs to be included with this option.

## Surge arrestor

A surge arrestor is mounted in the control panel to aid in the protection against a lightning strike and power spikes.

## Phase-failure monitor

The booster set should be protected against phase failure.

**Note:** A potential-free switch is available for external monitoring. Systems that include all variable frequency drives do not need this option as the VFD will protect the motors from loss of phase.

## Panel dome light

The dome light is on in case of a system alarm.

**Note:** Phase failure causes no alarm indication.

## Audible alarm

The audible alarm sounds in case of a system alarm. Two types are available:

- 80 dB
- 100 dB

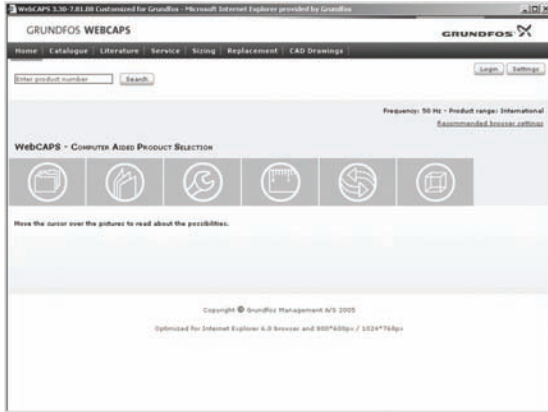
## Voltmeter

A voltmeter indicates the mains voltage between the main phases.

## Ammeter

An ammeter indicates the current of one phase per pump.

## WebCAPS

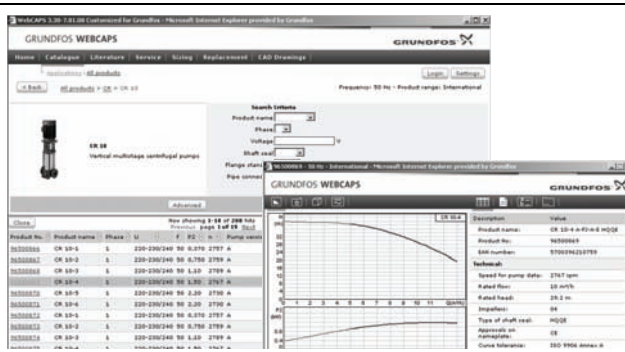


WebCAPS is a **Web-based Computer Aided Product Selection** program available on [www.grundfos.com](http://www.grundfos.com).

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into 6 sections:

- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



### Catalogue

This section is based on fields of application and pump types, and contains

- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



### Literature

In this section you can access all the latest documents of a given pump, such as

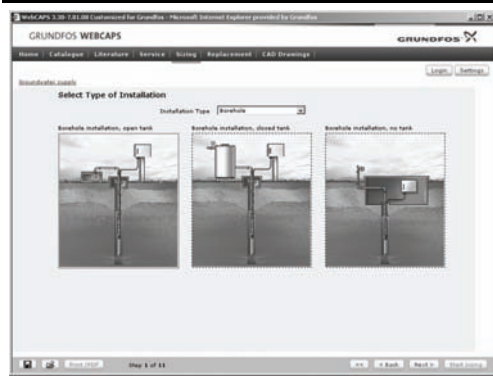
- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures, etc.



### Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

Furthermore, this section contains service videos showing you how to replace service parts.



## Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

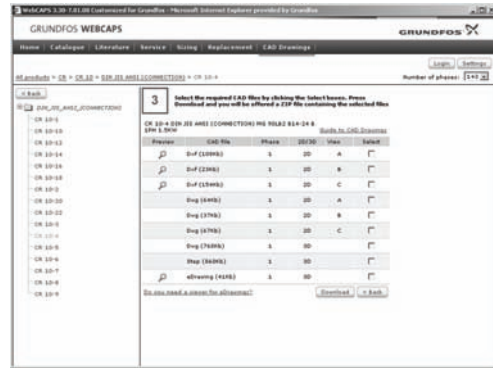
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



## Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump. The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



## CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

## WinCAPS



Fig. 42 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185,000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.









<b>L-BPQ-PG-01</b> 05/08	<b>US</b>
Repl. L-BPQ-PG-01 11/07	

Subject to alterations.

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