

Hydro MPC

Booster systems with 2 to 6 pumps
50/60 Hz



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1. Product introduction

Applications

The Grundfos Hydro MPC booster systems are designed for the transfer and pressure boosting of clean water in places such as:

- water-supply systems
- irrigation systems
- industrial applications
- commercial buildings
- high-rise buildings.

As standard, the Hydro MPC booster systems consist of two to six identical Grundfos CR, CRI, CRE or CRIE pumps connected in parallel and mounted on a common base frame with a control cabinet and all necessary fittings.

Most of the booster systems are available with CR, CRI pumps and/or CRE, CRIE pumps. For further information, see page 14.

The pumps of the booster system can be removed without interfering with the pipes on either side of the manifolds.

Hydro MPC comes in three control variants. For further information, see the product ranges on pages 8 and 9 and *Control variants* on page 16.

Hydro MPC-E

Booster systems with two to six identical electronically speed-controlled pumps.

Pipe connection from R 2 to DN 400.

From 0.37 to 22 kW, Hydro MPC-E is fitted with CRE, CRIE pumps with integrated frequency converter.

As from 30 kW, Hydro MPC-E is fitted with CR pumps connected to Grundfos CUE frequency converters; one per pump.

Hydro MPC-F

Booster systems with two to six identical CR, CRI pumps connected to one Grundfos CUE frequency converter. The speed-controlled operation alternates between the pumps of the booster system.

Pipe connection from R 2 to DN 400 and motor sizes from 0.55 to 75 kW.

Hydro MPC-S

Booster systems with two to six identical mains-operated CR, CRI pumps.

Pipe connection from R 2 to DN 400 and motor sizes from 0.37 to 75 kW.

Benefits

Perfect constant-pressure control



Fig. 1 CU 352

The pumps of the Hydro MPC booster system are controlled individually by the CU 352 multipump control unit which contains application-optimised software and pump-curve data. CU 352 thus knows the exact hydraulic and electrical data of the pumps to be controlled. Furthermore, a log function enables monitoring of the system performance over a period of time.

User-friendliness

Hydro MPC features a built-in startup wizard in a wide range of languages that guides the installer through a series of steps until the system is correctly installed and commissioned. When the installation is complete, the large, user-friendly colour display ensures that day-to-day operations are equally easy.

Gr1014555

Reliability



TM04 4568 1709

Fig. 2 Grundfos CR pumps

Hydro MPC is built on the highly renowned Grundfos CR pump range. CR pumps are known for their reliability, efficiency and adaptability.

Every vital piece of Hydro MPC is made by Grundfos. You are thus guaranteed long-lasting technology that requires a minimum of maintenance and provides a maximum of efficiency.

Low energy consumption

The Hydro MPC-E systems with the newest MGE motors from 0.37 to 11 kW have a total efficiency which exceeds the Super Premium Efficiency EuP IE5 level according to IEC 60034-30-1.



TM06 7469 3416

Fig. 3 MGE motor with a total efficiency exceeding the EuP IE5 up to 11 kW and IE4 from 15 kW to 22 kW levels according to IEC 60034-30-1

All other motors used in the Hydro MPC systems meet the legislative requirements of the EuP IE3 level.

Furthermore, Hydro MPC uses pump curve data to calculate and optimise the cut-in and cut-out of pumps. High-efficient motors, advanced control in combination with optimised hydraulics for both the CR pump and the manifold ensure that the system uses a minimum of energy.

Flexibility

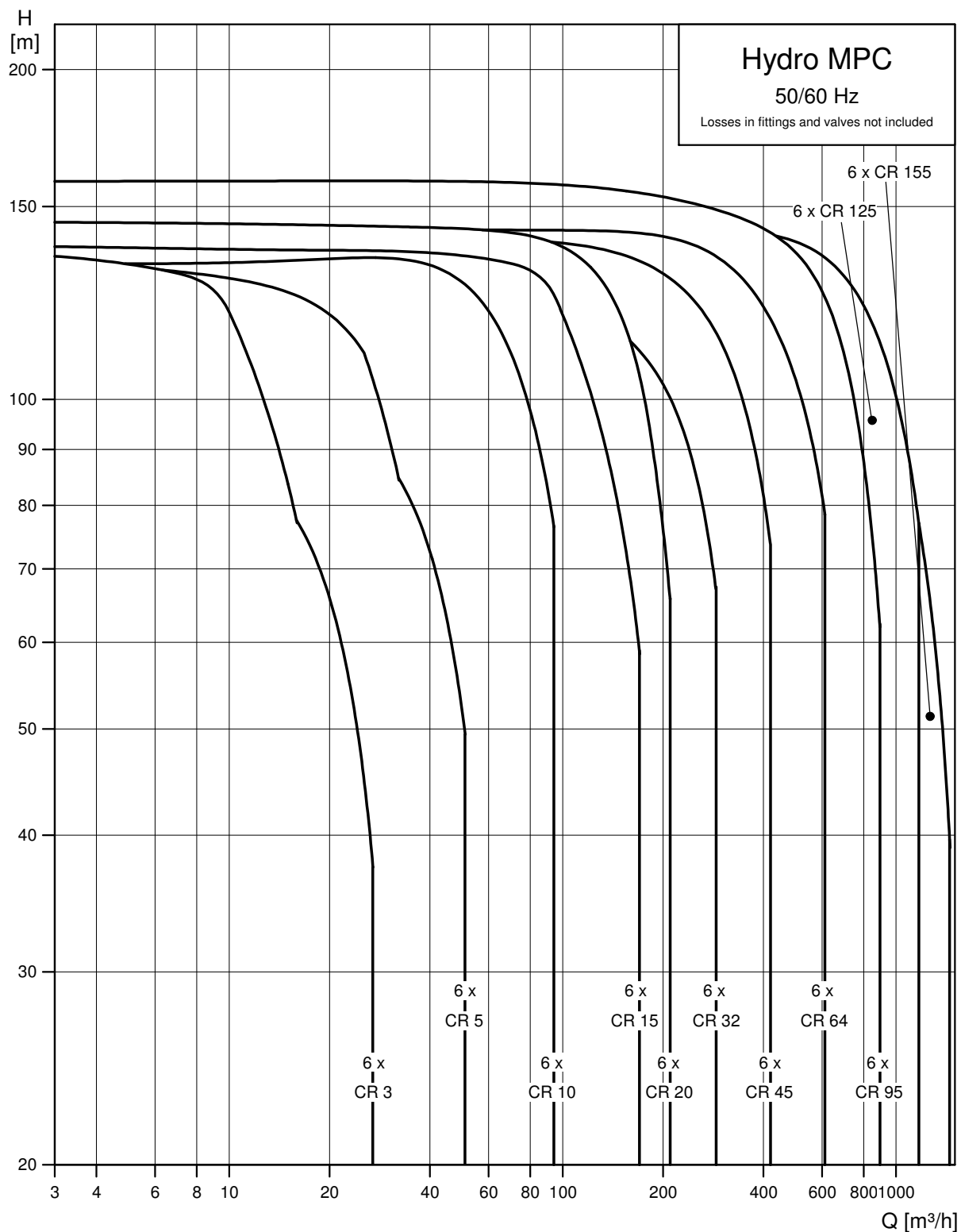
The elements of Hydro MPC can be combined in a number of ways to make sure that we build the perfect solution for you!

Custom-built solutions

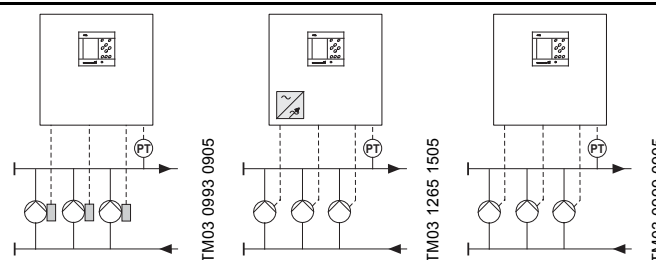
If this data booklet does not provide you with a solution that meets your specific pumping needs, please contact us.

2. Product data

Performance range



Product range, 50 Hz and 50/60 Hz



Control variant	Hydro MPC-E	Hydro MPC-F	Hydro MPC-S
Frequency	50/60 Hz	50 Hz	50 Hz
Hydraulic data			
Maximum head [m]	146	146	146
Flow rate [m ³ /h]	0-1460	0-1460	0-1460
Liquid temperature [°C]	0-60 ¹	0-60 ¹	0-60
Maximum operating pressure [bar]	16 ²	16 ²	16 ²
Motor data			
Number of pumps	2-6	2-6	2-6
Motor power [kW]	0.37 - 55 ³	0.55 - 55	0.37 - 55
Shaft seal			
HQQE (SiC/SiC/EPDM)	•	•	•
Materials			
CRE, CRIE 3 to CRE, CRIE 20: stainless steel EN/DIN 1.4301 / AISI 304	•	•	•
CR, CRE 32 to CR, CRE 155: cast iron and stainless steel EN/DIN 1.4301 / AISI 304	•	•	•
Manifold: stainless steel ⁶	•	•	•
Pipe connection			
Union connection	R 2 - R 2 1/2	R 2 - R 2 1/2	R 2 - R 2 1/2
DIN flange	DN 80 - DN 400	DN 80 - DN 400	DN 80 - DN 400
Functions			
Constant-pressure control	•	•	• ⁴
Automatic cascade control	•	•	•
Pump changeover	•	•	•
Stop function	•	•	-
Proportional-pressure control	•	•	-
Multisensor, HVAC	• ⁷	• ⁷	• ⁷
Bus communication, external	○	○	○
Integrated frequency converter in pump	•	•	-
External frequency converter in cabinet	•	•	-
Ethernet connection	•	•	•
Alternative setpoints	•	•	•
Redundant primary sensor, option	•	•	•
Secondary sensor	• ⁸	• ⁸	• ⁸
Standby pump	•	•	•
Emergency run	•	•	•
Specific energy calculation	• ⁵	-	-
Log function	•	•	•
Monitoring of non-return valve	• ⁹	-	-
Reduced operation	•	•	•
Service contact information	•	•	•
Help texts	•	•	•

- Available as standard.
- Available on request.

¹ Higher temperature is available on request.

² Booster systems with a maximum operating pressure higher than 16 bar are available on request.

³ The Hydro MPC-E booster systems from 0.37 to 22 kW are fitted with speed-controlled CRE, CRIE pumps with integrated frequency converters. The Hydro MPC-E booster systems from 30 to 75 kW are fitted with CR, CRI pumps connected to Grundfos CUE frequency converters.

⁴ The pressure will be almost constant between H_{set} and H_{stop} . For further information, see page 16.

⁵ Requires that a flowmeter has been installed and connected.

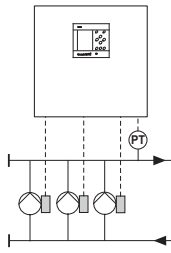
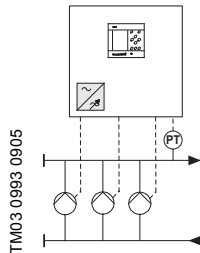
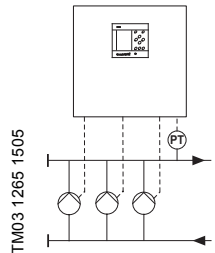
⁶ In some regions, galvanised manifolds are available as an option. For further information, contact Grundfos.

⁷ Requires additional sensors.

⁸ Requires an additional secondary sensor.

⁹ Systems with MGE motors, 0.37 to 22 kW.

Product range, 60 Hz and 50/60 Hz

			
Control variant	Hydro MPC-E	Hydro MPC-F	Hydro MPC-S
Frequency	50/60 Hz	60 Hz	60 Hz
Hydraulic data			
Maximum head [m]	155	155	155
Flow rate [m ³ /h]	0-1460	0-1460	0-1460
Liquid temperature [°C]	0-60 ¹	0-60 ¹	0-60 ¹
Maximum operating pressure [bar]	16 ²	16 ²	16 ²
Motor data			
Number of pumps	2-6	2-6	2-6
Motor power [kW]	0.37 - 55 ³	0.55 - 55	0.37 - 55
Shaft seal			
HQQE (SiC/SiC/EPDM)	•	•	•
Materials			
CRE, CRIE 3 - 20: stainless steel EN/DIN 1.4301 / AISI 304	•	•	•
CR, CRE 32 - 155: cast iron and stainless steel EN/DIN 1.4301 / AISI 304	•	•	•
Manifold: Stainless steel ⁶	•	•	•
Pipe connection			
Union connection	R 2 - R 2 1/2	R 2 - R 2 1/2	R 2 - R 2 1/2
DIN flange	DN 80 - DN 400	DN 80 - DN 400	DN 80 - DN 400
Functions			
Constant-pressure control	•	•	• ⁴
Automatic cascade control	•	•	•
Pump changeover or alternation	•	•	•
Stop function	•	•	-
Proportional-pressure control	•	•	-
Multisensor, HVAC	• ⁷	• ⁷	• ⁷
Bus communication, external	○	○	○
Integrated frequency converter in pump	•	-	-
External frequency converter in cabinet	•	•	-
Ethernet connection	•	•	•
Alternative setpoints	•	•	•
Redundant primary sensor, option	•	•	•
Secondary sensor	• ⁸	• ⁸	• ⁸
Standby pump	•	•	•
Emergency run	•	•	•
Specific energy calculation	• ⁵	-	-
Log function	•	•	•
Monitoring	• ⁹	-	-
Reduced operation	•	•	•
Service contact information	•	•	•
Help texts	•	•	•

• Available as standard.

○ Available on request.

¹ Higher temperature is available on request.

² Booster systems with a maximum operating pressure higher than 16 bar are available on request.

³ The Hydro MPC-E booster systems from 0.37 to 22 kW are fitted with speed-controlled CRE, CRIE pumps with integrated frequency converters. The Hydro MPC-E booster systems from 30 to 55 kW are fitted with CR, CRI pumps connected to Grundfos CUE frequency converters.

⁴ The pressure will be almost constant between H_{set} and H_{stop} . For further information, see page 16.

⁵ Requires that a flowmeter has been installed and connected.

⁶ In some regions, galvanised manifolds are available as an option. For further information, contact Grundfos.

⁷ Requires additional sensors.

⁸ Requires an additional secondary sensor.

⁹ Systems with MGE motors, 0.37 to 22 kW.

Type key

Hydro MPC

See optional equipment for booster system on page 153.

Code	Example	Hydro MPC	-E	6	CRE 150-4-5	U1	A-	A-	A-	ABCD
Type range										
System type										
E	All pumps, E-motor or CUE									
F	Fixed-speed pumps, one CUE									
S	Fixed-speed pumps									
X	Customised-system pumps									
Number of main pumps										
Pump type										
Voltage code										
U1	3 x 380-415 V, N, PE, 50/60 Hz									
U2	3 x 380-415 V, PE, 50/60 Hz									
U3	3 x 380-415 V, N, PE, 50 Hz									
U4	3 x 380-415 V, PE, 50 Hz									
U5	3 x 380-415 V, N, PE, 60 Hz									
U6	3 x 380-415 V, PE, 60 Hz									
U7	1 x 200-240 V, PE, 50/60 Hz									
U8	1 x 200-240 V, N, PE, 50/60 Hz									
U9	3 x 220-240 V, PE, 60 Hz									
UA	3 x 440-480 V, PE, 60 Hz									
UB	1 x 220-240 V, N, PE, 50/60 Hz									
UC	1 x 220-240 V, N, PE, 50 Hz									
UD	3 x 440-480 V, N, PE, 60 Hz									
UJ	1 x 208-230 V, PE, 60 Hz									
UK	3 x 208-230 V, PE, 60 Hz									
UL	3 x 460-480 V, PE, 60 Hz									
UX	CSU variant (special voltage rating)									
Design										
A	Systems with the control cabinet mounted on the same base frame as the pumps									
C	Systems with the control cabinet mounted on its own base for floor mounting*									
D	Systems with the control cabinet mounted on its own base frame*									
E	ASEAN design and systems with the control cabinet mounted on the same base frame as the pumps									
F	ASEAN design and systems with the control cabinet centred on the base frame									
G	ASEAN design and systems with the control cabinet mounted on its own base for floor mounting*									
H	ASEAN design and systems with the control cabinet mounted on its own base frame*									
I	ASEAN design and systems with the control cabinet prepared for wall mounting*									
W	Systems with the control cabinet prepared for wall mounting*									
Starting method										
A	E									
B	DOL									
C	SD									
Material combination										
A	Stainless-steel manifold, base frame and standard valves									
B	Stainless-steel manifold, base frames and valves									
C	Galvanised-steel manifold, base frame and standard valves									
D	Stainless-steel manifold, galvanised steel base frame and standard valves									
H	Galvanised-steel manifold, base frame painted black and standard valves									
I	Stainless-steel manifold, base frame painted black and standard valves									
X	Customised material combination									
Options										
A	Standard hydraulics									
B	Pilot pump									
C	Bypass									
D	Non-return valve									
E	Elbow manifold									
F	No inlet manifold									
G	Diaphragm tank									
H	Dry-running protection									
i	Repair switch									
J	Redundant sensor									
K	One free position									
L	Two free positions									
M	Three free positions									
N	PN 10 pressure rating									
O	PN 25 pressure rating									
P	Low precharge pressure									
Q	PN 40 pressure rating									
R	RPM = 50 Hz									
S	Customised variant									
T	Certificate									
U	Undersized motor									
V	Standard controls with options									
W	Customised controls									
X	More than four options									

Control MPC

See optional equipment for Control MPC on page 150.

Code	Example	Control MPC	E	6x	000A	DOL	U1	W	A	O
Type range										
System type										
E	All pumps with E motor									
EC	All pumps with CUE									
F	Fixed-speed pumps, 1 CUE									
EF	All VFD non CUE									
S	Fixed-speed pumps									
E2	2000 series									
Number of main pumps										
Main pump current										
Start method										
E	Electronic									
DOL	Direct-on-line starter									
SD	Star-delta starter									
SST	Soft starter									
Voltage supply										
U11	3 x 400 V, 50 Hz, PE									
U12	3 x 400 V, 60 Hz, PE									
U13	3 x 400 V, 50 Hz, N, PE									
U14	3 x 400 V, 60 Hz, N, PE									
U15	3 x 380 V, 50 Hz, PE									
U16	3 x 380 V, 50 Hz, N, PE									
UX										
Design										
W	Wall mounting									
F	Floor standing									
O	Outdoor									
X	Customized									
Standard versions										
A	Standard version A O10: Dry-running protection, digital input (or O9) O9: Dry-running protection, inlet-pressure sensor (or O10) O1: Redundant primary sensor (prepared for connection only) O2: Show repair switches in wiring diagram									
B	Standard version B O10: Dry-running protection, digital input (or O9) O9: Dry-running protection, inlet-pressure sensor (or O10) O1: Redundant primary sensor (prepared for connection only) O2: Show repair switches in wiring diagram O3: Emergency operation switch (mounted in panel)									
C	Standard version C O10: Dry-running protection, digital input (or O9) O9: Dry-running protection, inlet-pressure sensor (or O10) O1: Redundant primary sensor (prepared for connection only) O2: Show repair switches in wiring diagram O12: Operation light pump (lamp in front door) O11: Fault light pump (lamp in front door) O16: Voltmeter (in front door) O15: Ammeter (in front door)									
D	Standard version D O10: Dry-running protection, digital input O9: Dry-running protection, inlet-pressure sensor O1: Redundant primary sensor O2: Show repair switches in wiring O3: Emergency operation switch O4: IO 351B interface									
E	Standard version E O7: Dry-running protection, electrode relay O1: Redundant primary sensor O2: Show repair switches in wiring diagram O3: Emergency operation switch									
F	Standard version F O8: Dry-running protection, vibration limit switch O1: Redundant primary sensor O2: Show repair switches in wiring diagram O3: Emergency operation switch									
Option										
O	option added									

Operating conditions

Operating pressure

As standard, the maximum operating pressure is 16 bar.

The Hydro MPC booster systems with a higher maximum operating pressure are available on request.

Temperature

Liquid temperature: 0-60 °C.

Ambient temperature: 0-40 °C.

Relative humidity

Maximum 95 %.

3. Construction

Pump

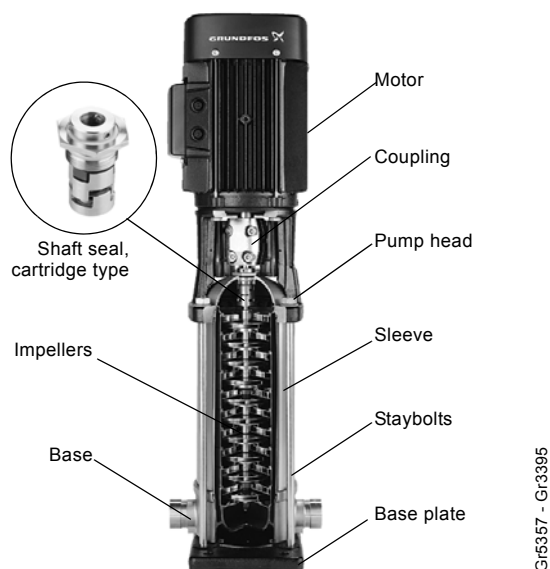


Fig. 4 CR pump

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 inlet and outlet ports at the same level (in line) and of the same port size.

CRE and CRIE pumps are based on CR and CRI pumps. The difference between the CR and CRE pump ranges is the motor. CRE and CRIE pumps are fitted with a motor with integrated frequency converter.

CR and CRE pumps have pump head and base of cast iron while CRI and CRIE pumps have pump head and base of stainless steel.

All hydraulic parts are made of stainless steel.

For further information, see the following data booklets by using the QR code or link:

Title	QR code	Link	Publication number
CR, CRI, CRN 50 Hz		http://net.grundfos.com/qr/i/99301179	99301179
CR, CRI, CRN 60 Hz		http://net.grundfos.com/qr/i/99301180	99301180
CR, CRI, CRN, CRT, CRE, CRIE, CRNE, CRTE custom-built pumps		http://net.grundfos.com/qr/i/96486346	96486346
CRE, CRIE, CRNE 50/60 Hz		http://net.grundfos.com/qr/i/98423696	98423696
Grundfos E-pumps 50/60 Hz		http://net.grundfos.com/qr/i/96570076	96570076

The data booklets are available in Grundfos Product Center on www.grundfos.com. See page 159.

For information about the pump position in the booster system, see fig. 8 on page 15.

Shaft seal

All pumps have a maintenance-free mechanical cartridge type HQQE shaft seal. Seal faces are silicon carbide/silicon carbide. Rubber parts are of EPDM.

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



Gr83395

Fig. 5 Cartridge shaft seal

The shaft seal can be replaced without dismantling the pump. The shaft seal of pumps with motors of 11 kW and up can be replaced without removing the motor.

For further information, see the data booklet on shaft seals, publication number 96519875. The data booklet is available in Grundfos Product Center on www.grundfos.com. See page 159.

Motors

CR and CRI pumps

CR and CRI pumps are fitted with a totally enclosed, fan-cooled, 2-pole Grundfos standard motor.

Principal dimensions are in accordance with the EN standards.

Electrical tolerances to EN 60034.

Standard motor	
Mounting designation	Up to 4 kW: V18 From 5.5 kW: V1
Insulation class	F
Efficiency class	IE3
Enclosure class	IP55 ¹
Power supply, 50 Hz Tolerance: ± 10 %	P2: 0.37 - 1.5 kW: 3 x 220-240/380-415 V, 50 Hz P2: 2.2 - 11 kW: 3 x 380-415 V, 50 Hz P2: 15-55 kW: 3 x 380-415/660-690 V, 50 Hz
Power supply, 60 Hz Tolerance: ± 10 %	P2: 0.55 - 75 kW: 3 x 220-277/380-480 V, 60 Hz

¹ IP65 available on request.

Three-phase Grundfos motors from 3 kW and up have a built-in thermistor (PTC) according to DIN 44082, class TP 211 according to IEC 34-11.

CRE and CRIE pumps

CRE and CRIE pumps are fitted with a totally enclosed, fan-cooled, 2-pole motor with integrated frequency converter.

Principal dimensions are in accordance with EN standards.

Electrical tolerances to EN 60034.

Motor with integrated frequency converter			
	P2: ≤ 1.1 kW	P2: 0.75 - 11 kW	P2: 15-22 kW
Mounting designation	V18	Up to 4 kW: V18 From 5.5 kW: V1	
Insulation class	F		
Efficiency class	Up to 11 kW: exceeding IE5 See section <i>Low energy consumption</i> on page 6 From 15-22 kW: IE4		
Enclosure class	IP54		
Power supply	1 x 200-240 V,	3 x 380-500 V,	3 x 380-480 V,
Tolerance: ± 10 %	50/60 Hz	50/60 Hz	50/60 Hz

Motors with integrated frequency converter require no external motor protection. The motor incorporates thermal protection against slow overloading and seizure, class TP 211 according to IEC 34-11.

Manifold

A stainless steel inlet manifold (AISI 316Ti/EN DIN 1.4571) is fitted on the inlet side of the pumps.

Note: In some regions, AISI 304 and galvanised manifolds are available as an option. For further information, contact Grundfos.

A stainless steel outlet manifold (AISI 316Ti/EN DIN 1.4571) is fitted on the outlet side of the pumps.

An isolating valve and a non-return valve are fitted between the outlet manifold and the individual pumps. The non-return valve can be fitted on the inlet side on request.

For information about the position of the inlet and outlet manifolds, see fig. 8 on page 15.

Control cabinet

The control cabinet is fitted with all the necessary components. If necessary, the Hydro MPC booster systems are fitted with a fan to remove surplus heat generated by the frequency converter.

Control cabinet variants

The control cabinets are divided into four different designs:

- **Design A:** systems with the control cabinet mounted on the same base frame as the pumps.
- **Design C:** systems with the control cabinet mounted on its own base for floor mounting. The control cabinet can be placed up to 2 metres from the pumps.
- **Design D:** systems with the control cabinet mounted on its own base frame. The control cabinet can be placed up to 2 metres from the pumps.

For further information, see fig. 8 on page 15 and technical data on page 84.

CU 352

The CU 352 multipump control unit of Hydro MPC is located in the door of the control cabinet.



Fig. 6 CU 352

CU 352 features a colour display, ten buttons and two indicator lights. The control panel enables manual setting and change of parameters such as setpoint, start/stop of system or individual pumps.

CU 352 has application-optimised software for adapting the system to the application in question.

IO 351

IO 351 is a module for exchange of digital and analog signals between CU 352 and the remaining electrical system via GENIbus. IO 351 is available in the A and B variants.



Fig. 7 IO 351A and IO 351B

IO 351A

IO 351A is used for one to three mains-operated Grundfos pumps.

IO 351B

IO 351B is used for one to six mains-operated Grundfos pumps and/or pumps controlled by external Grundfos CUE frequency converters. The module can also be used as an input-output module for communication with monitoring equipment or other external equipment.

Base frame

The pumps in a Hydro MPC system are mounted on a common base frame. The base frame is made of stainless steel AISI 304, except for systems with CR(E) 95, CR(E) 125 and CR(E) 155 pumps which are mounted on a base frame made of galvanised C-channels.

System components

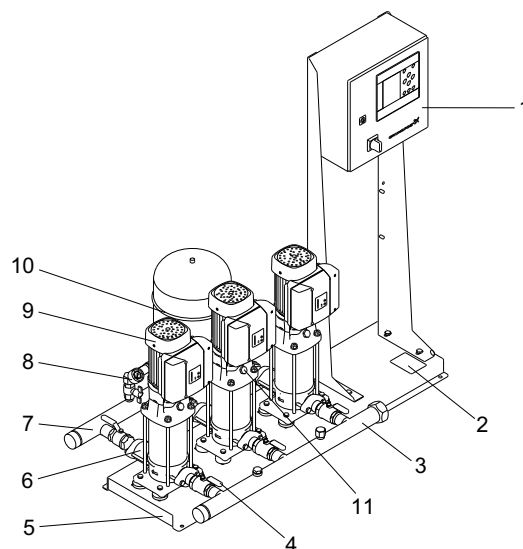


Fig. 8 System components

Pos.	Description	Quantity
1	Control cabinet	1
2	Nameplate	1
3	Inlet manifold	1
4	Isolating valve	2 per pump
5	Base frame	1
6	Non-return valve	1 per pump
7	Outlet manifold	1
8	Pressure transmitter or gauge	1
9	Pump	2-6
10	Diaphragm tank (optional)	1

Flange dimensions

PN 16 flanges, DN80-200

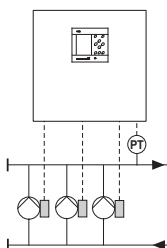
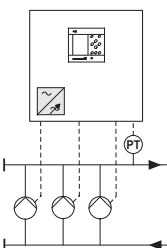
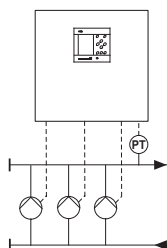
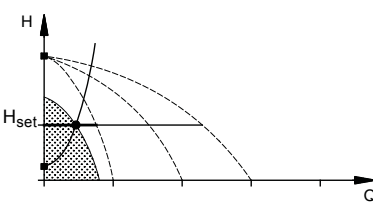
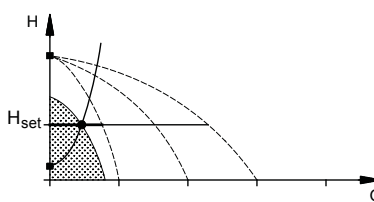
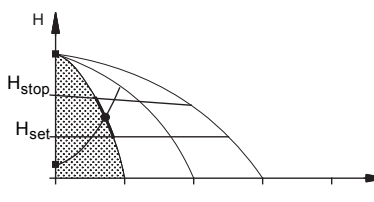
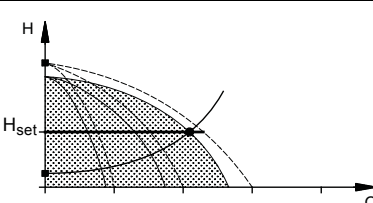
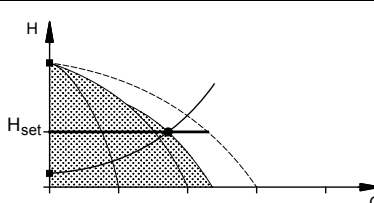
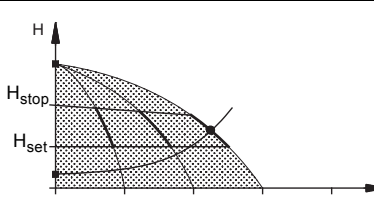
Standard: EN 1092-2 PN 16 (1.6 MPa)						
Nominal diameter (D)						
DN	80	100	125	150	200	
D ₁	80	100	125	150	200	
D ₂	160	180	210	240	295	
D ₃	200	220	250	285	340	
S	8 x 19	8 x 19	8 x 19	8 x 23	12 x 23	

PN 16 flanges, DN250-400

Standard: EN 1092-2 PN 16 (1.6 MPa)						
Nominal diameter (DN)						
DN	250	300	350	400		
D ₁	250	300	350	400		
D ₂	355	410	470	525		
D ₃	405	460	520	580		
S	12 x 28	12 x 28	16 x 28	16 x 28		

4. Functions

Control variants

Booster systems with speed-controlled pumps	Booster systems with pumps connected to one CUE frequency converter	Booster systems with mains-operated pumps
Hydro MPC-E	Hydro MPC-F	Hydro MPC-S
Hydro MPC booster system with three CRE, CRIE pumps.  TM03 0993 0905	Hydro MPC booster system with three CR pumps. One of the pumps is connected to a Grundfos CUE frequency converter in the control cabinet. The speed-controlled operation alternates between the pumps of Hydro MPC.  TM03 1265 1505	Hydro MPC booster system with three mains-operated CR, CRI pumps.  TM03 0999 0905
One CRE, CRIE pump in operation.  TM00 7995 2296	One CR pump connected to a Grundfos CUE frequency converter in operation.  TM00 7995 2296	One mains-operated CR, CRI pump in operation.  TM03 2045 3505
Three CRE, CRIE pumps in operation.  TM00 7996 2296	One CR pump connected to a Grundfos CUE frequency converter and two mains-operated CR pumps in operation.  TM00 7998 2296	Three mains-operated CR, CRI pumps in operation.  TM03 2046 3505
- Hydro MPC-E maintains a constant pressure through continuously variable adjustment of the speed of the CRE, CRIE pumps connected. - The performance is adjusted to the demand through cutting in/out the required number of CRE, CRIE pumps and through parallel control of the pumps in operation. - Pump changeover is automatic and depends on load, operating hours and fault. - All pumps in operation run at the same speed.	- Hydro MPC-F maintains a constant pressure through continuously variable adjustment of the speed of the CR pump connected to a Grundfos CUE frequency converter. The speed-controlled operation alternates between the pumps. - One CR pump connected to the Grundfos CUE frequency converter always starts first. If the pump cannot maintain the pressure, one or two mains-operated CR pumps are cut in. - Pump changeover is automatic and depends on load, operating hours and fault.	- Hydro MPC-S maintains an almost constant pressure through cutting in/out the required number of pumps. - The operating range of the pumps lies 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, operating hours and fault.

CU 352 control panel

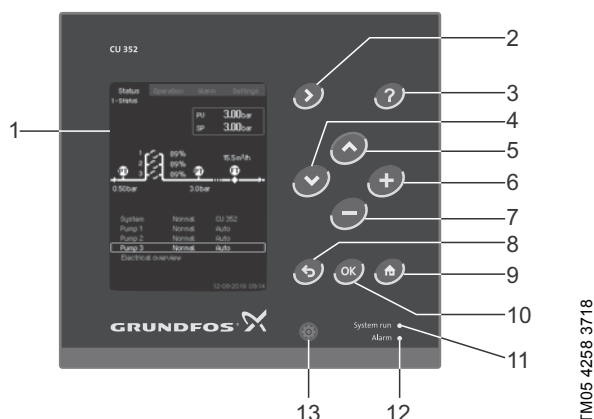


Fig. 9 CU 352 control panel

Key

Pos.	Description
1	Display
2	Arrow to the right
3	Help
4	Down
5	Up
6	Plus
7	Minus
8	Esc.
9	Home
10	OK
11	Indicator light, operation (green)
12	Indicator light, fault (red)
13	Display brightness

"Status" menu

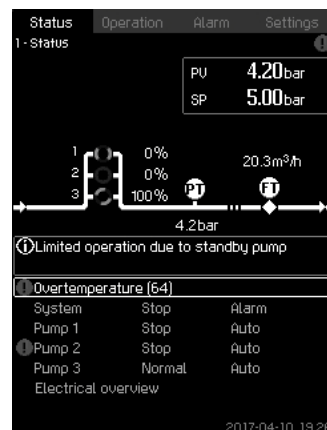


Fig. 10 "Status" menu

Description

- Reading of process value (PV) of control parameter and selected setpoint (SP).
- Graphical illustration of system (upper display half).
- Indication if any incidents occur during operation (middle of display).
- Reading of performance of system and individual pumps (lower display half).
- Button for further information.
- Active buttons are on.

"Operation" menu

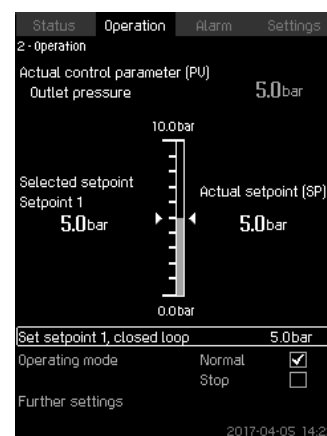


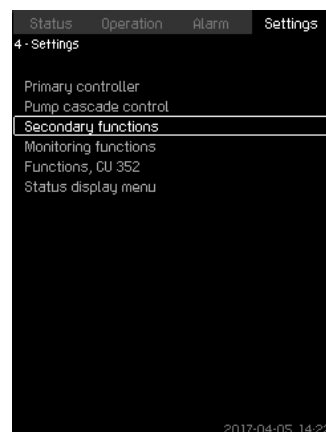
Fig. 11 "Operation" menu

Description

- Setting of basic parameters, for instance setpoint or start/stop of system or individual pumps.
- Reading of selected setpoint and current setpoint.
- Button for further information.
- Active buttons are on.

"Alarm" menu**Fig. 12** "Alarm" menu**Description**

- Overview of current warnings and alarms in clear text with detailed information:
 - The cause of the fault.
 - The remedy for the fault.
 - Where the fault occurred: system, pump no. 1...
 - When the fault occurred (time and date).
 - When the fault disappeared (time and date).
 - Whom to contact for service.
- Alarm log with up to 24 warnings and alarms.
- Button  for further information.
- Active buttons are on.

"Settings" menu**Fig. 13** "Settings" menu**Description**

- Various settings:
 - External setpoint influence
 - Redundant primary sensor
 - Standby pumps
 - Stop function
 - Proportional pressure
 - Display language
 - Ethernet, etc.
- Button  for further information.
- Active buttons are on.

Overview of functions

	Hydro MPC		
	-E	-F	-S
Functions via the CU 352 control panel			
Constant-pressure control	•	•	• ¹
Proportional pressure	•	•	-
Automatic cascade control	•	•	•
Alternative setpoints	•	•	•
Multisensor ⁵	•	•	•
Redundant primary sensor ⁴	•	•	•
Minimum changeover time	•	•	•
Secondary sensor ⁵	•	•	•
Number of starts per hour	•	•	•
Standby pumps	•	•	•
Forced pump changeover	•	•	•
Pump test run	•	•	•
Dry-running protection ⁴	•	•	•
Stop function	•	•	_2
Password	•	•	•
Clock program	•	•	•
Pilot pump ⁴	•	•	
Soft pressure buildup	•	•	•
Emergency run	•	•	•
Pump curve data	•	•	•
Flow estimation	•	•	•
Limit 1 and 2 exceeded	•	•	•
Pumps outside duty range	•	•	•
Log function	•	•	•
Monitoring of non-return valve ⁵	•	-	-
Specific energy calculation	• ³	-	-
Setpoint ramp	•	•	•
Reduced operation	•	•	•
Communication			
Ethernet connection	•	•	•
Other bus protocols: PROFIBUS, LonWorks, Modbus, GRM, GSM, BACnet MS/TP, Industrial Ethernet via CIM modules.	○	○	○
For further information, see <i>Optional equipment</i> , page 150.			
External GENIbus connection	○	○	○

• Standard.

○ On request.

- Not available.

¹ The pressure will be almost constant between H_{set} and H_{stop} . For further information, see page 16.

² Hydro MPC-S has on/off control of all pumps. For further information, see page 23.

³ Requires that a flowmeter has been installed and connected.

⁴ Hardware not supplied as standard, but the functionality is available in the controller.

⁵ Systems with MGE motors, 0.37 - 22 kW.

Description of selected functions

Constant-pressure control of E-systems

Constant-pressure control ensures that the system delivers a constant pressure despite a change in consumption.

When taps are opened, water is drawn from the diaphragm tank, if installed. The pressure drops to a set cut-in pressure, and the first speed-controlled pump starts. The speed of the pump in operation is continuously increased to meet the demand. As the consumption rises, more pumps are cut in until the performance of the pumps in operation corresponds to the demand. During operation, CU 352 controls the speed of each pump individually according to known pump curve data downloaded into CU 352.

Furthermore, CU 352 regularly estimates whether pumps are to be cut in or out to ensure the best efficiency.

When the water consumption falls, pumps are cut out one by one to maintain the set outlet pressure.

Display language



Fig. 14 Display language

Via CU 352, you can select the language for the display.

Options

- English
- Danish
- German
- French
- Italian
- Spanish
- Portuguese
- Greek
- Dutch
- Swedish
- Finnish
- Polish
- Russian
- Korean
- Chinese
- Japanese
- Czech
- Turkish
- Hungarian
- Bulgarian
- Croatian
- Latvian
- Lithuanian
- Romanian
- Slovakian
- Slovenian
- Serbian Latin
- Indonesian
- Malay
- Estonian

Pump curve data

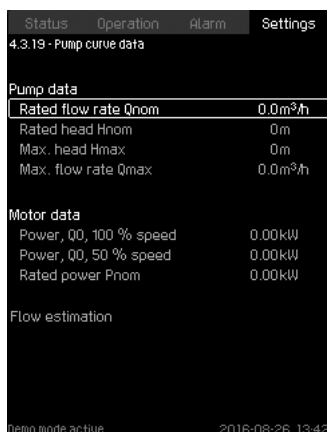


Fig. 15 Pump curve data

As standard, Hydro MPC helps you minimise energy consumption and cut energy costs. By means of pump curve data stored from factory, CU 352 knows exactly which and how many pumps to control. These pump curve data enable CU 352 to optimise performance and minimise energy consumption.

Redundant primary sensor

A redundant sensor can be installed as backup for the primary sensor in order to increase reliability and prevent stop of operation. The redundant primary sensor is at the same reference point as the primary sensor, i.e. in the outlet manifold of the booster system.

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 system thus runs as energy-efficiently as possible with a constant pressure and a limited number of pumps.

Alternative setpoints

This function makes it possible to set up to six setpoints as alternatives to the primary setpoint. The setpoints can be set for closed loop and open loop. The performance of the system can thus be adapted to other consumption patterns.

Example

A Hydro MPC booster system 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 altitude, a higher outlet pressure is required.

Log values

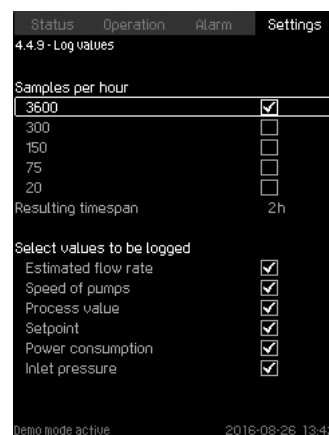


Fig. 16 Log values

The log function enables monitoring of selected parameters. The data can be presented in the display or exported as a CSV file via the built-in Ethernet connection.

Specific energy calculation

For MPC-E systems with a flowmeter connected, CU 352 can calculate and show the specific energy used. It is shown as two values, the actual value and the average value.

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 systems with mains-operated pumps.

Each time a pump starts or stops, CU 352 calculates when the next pump is allowed to start or stop in order not to exceed the permissible number of starts per hour.

This function always allows pumps to be started to meet the requirement, but pump stops are delayed, if necessary, in order not to exceed the permissible number of starts or stops per hour.

Standby pumps

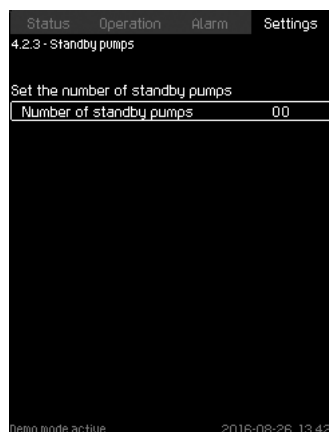


Fig. 17 Standby pumps

It is possible to let one or more pumps function as standby pumps. A booster system with, for instance, four pumps, one having the status of standby pump, will run like a booster system with three pumps, as the maximum number of pumps in operation is the total number of pumps minus the number of standby pumps. If a pump stops due to a fault, the standby pump is cut in. This function ensures that the system can maintain the rated performance even if one of the pumps stops due to a fault.

The status as standby pump alternates between all pumps of the same type, for instance electronically speed-controlled pumps.

Forced pump changeover

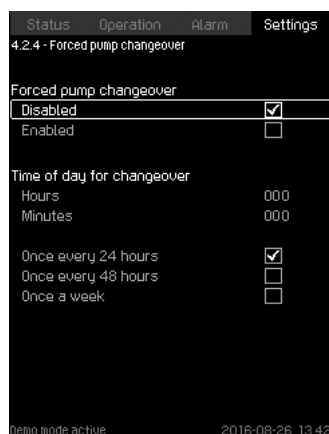


Fig. 18 Forced pump changeover

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 stops and is replaced by the pump with the lowest number of operating hours.

Pump test run

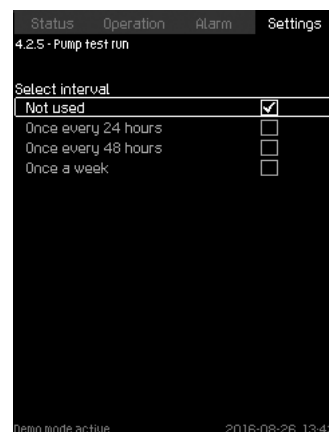


Fig. 19 Pump test run

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

Benefits:

- 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 system 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 stop. Level switches, pressure switches or analog sensors signalling water shortage at a set level can be used. Furthermore, you can set the system to be reset and restarted manually or automatically after a situation with water shortage.

Stop function

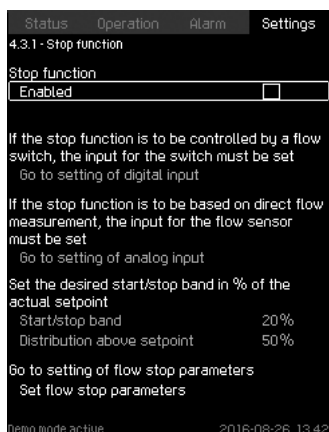


Fig. 20 Stop function

The stop function makes it possible to stop the last pump in operation if there is no or a very small consumption.

Purpose:

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

This function is only used in the Hydro MPC booster systems with variable-speed pumps.

Note: Hydro MPC-S has on/off control of all pumps.

When the stop function is enabled, the operation of the system is continuously monitored to detect a low flow rate. If CU 352 detects no or a low flow rate (Q less than Q_{min}), it changes from normal constant-pressure operation to on/off control of the last pump in operation.

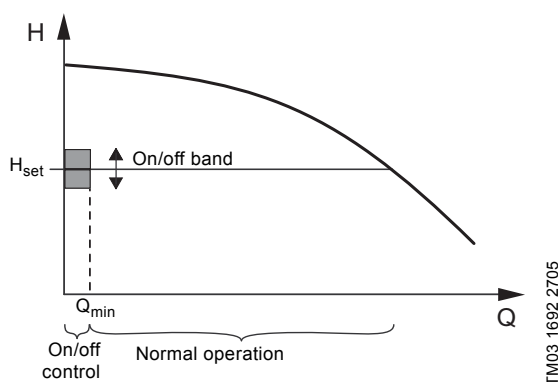


Fig. 21 On/off band

As long as the flow rate is lower than Q_{min} , the pump runs in on/off operation. If the flow rate is increased to above Q_{min} , the pumps return to normal constant-pressure operation.

Via CU 352, you can set Hydro MPC to operate as energy-efficiently as possible or with the highest level of comfort.

Stop parameters

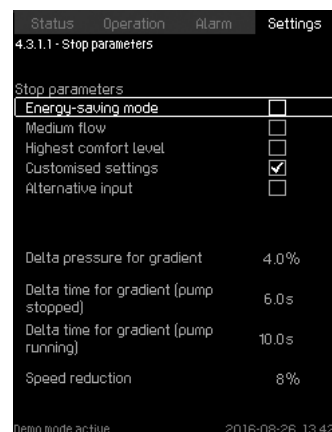


Fig. 22 Stop parameters

Five stop parameters can be selected:

- Energy-saving mode (factory setting)
If you want the highest energy-saving mode possible.
- Medium flow
If you want a compromise between the highest energy-saving mode and the highest comfort level.
- Highest comfort level
If you want the highest comfort level without too many pump starts or stops.
- Customised settings
If you want to make your own settings.
- Alternative input
If you select this function, you can define the stop flow on the basis of the system setpoint, total tank volume or precharge pressure.

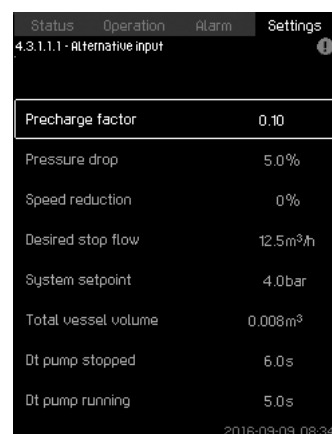


Fig. 23 Alternative input

Setpoint ramp



Fig. 24 Setpoint ramp

If this function is enabled, any setpoint change made via the controller, via clock program, when changing between alternative setpoints or via a SCADA system, will be made gradually over time. In this way, smooth setpoint changes can be made, thus causing no discomfort to the consumer.

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.

Purpose:

- to reduce the necessary size of the diaphragm tank
- to reduce the number of operating hours of the main pumps.

Password

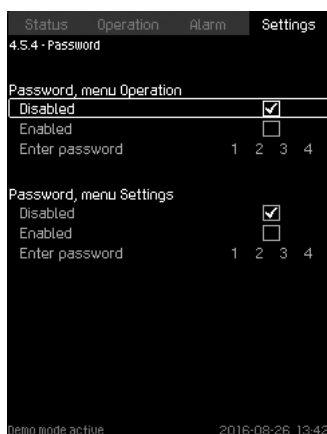


Fig. 25 Password

Passwords make it possible to limit the access to the "Operation" and "Settings" menus in the controller. If access is limited, it is not possible to view or set any parameter in the menus.

Clock program



Fig. 26 Clock program

This function makes it possible to set up to ten events with specification of day and time for their activation or deactivation.

An example of application is sprinkling of golf courses at fixed times for the individual greens.

Proportional pressure

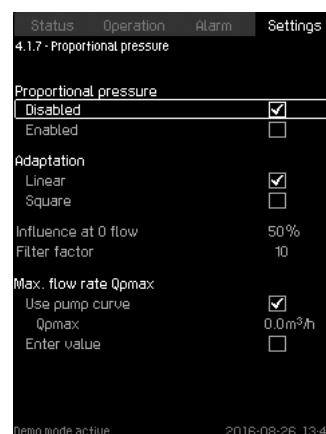


Fig. 27 Proportional pressure

This function can be used in applications with a large pipe system, for instance a village supplied with water from a pumping station or waterworks.

Purpose:

- to deliver the required water at all times
- to compensate for friction loss
- to keep energy consumption at a minimum
- to ensure the highest comfort level at tapping points, etc.
- to minimise water loss from leaks
- to reduce wear and tear on pipes.

In situations with high flow rates, the pressure loss in the pipe system is relatively high. To deliver a system pressure of 5 bar in such a situation, the outlet pressure of the system must be set to 6 bar if the pressure loss in the pipe system is 1 bar.

In a low-flow situation, the pressure loss in the pipe system may only be 0.2 bar. Here the system pressure would be 5.8 bar if the setpoint was fixed to 6 bar. That is 0.8 bar too high compared with the peak situation above.

To compensate for this excessive system pressure, the proportional-pressure function of CU 352 automatically adapts the setpoint to the actual flow rate. The adaptation can be linear or square. Such an automatic adaptation offers you large energy savings and optimum comfort at the tapping point!

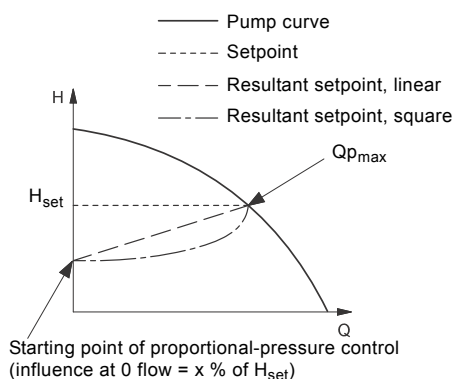


Fig. 28 Proportional-pressure control

Note: Q_{pmax} is the expected maximum flow rate. It can either be set to the maximum flow the system can deliver at a determined setpoint, or a value can be entered manually based on a known or assessed maximum flow rate.

Example

Influence at 0 flow (Q₀) = pressure loss in supply pipe x 100 / setpoint.

Influence at 0 flow (Q₀) = 1 bar x 100 / 6 bar = 16.67 %.

Setpoint at Q_{min} with proportional-pressure control:

6 bar - (6 bar x 0.1667) = 5 bar.

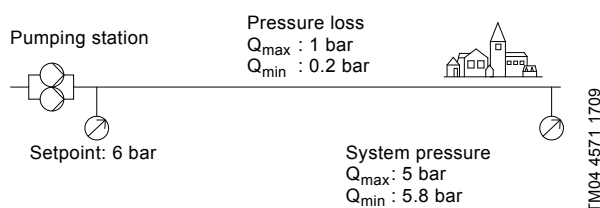


Fig. 29 Without proportional-pressure control

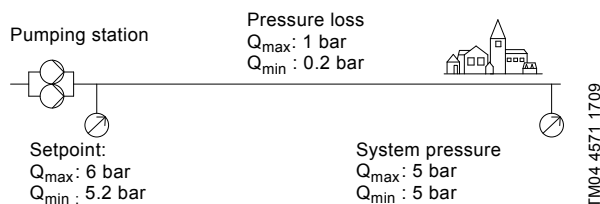


Fig. 30 With proportional-pressure control

Soft pressure build-up

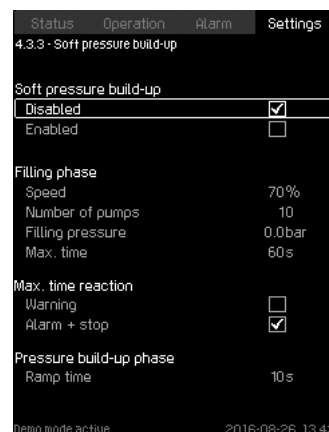


Fig. 31 Soft pressure build-up

This function ensures a soft start of systems with for instance empty pipes.

It has two phases:

1. The pipe is slowly filled with water.
2. When the system's pressure sensor detects that the pipe has been filled with water, the pressure is increased until it reaches the setpoint. See fig. 32.

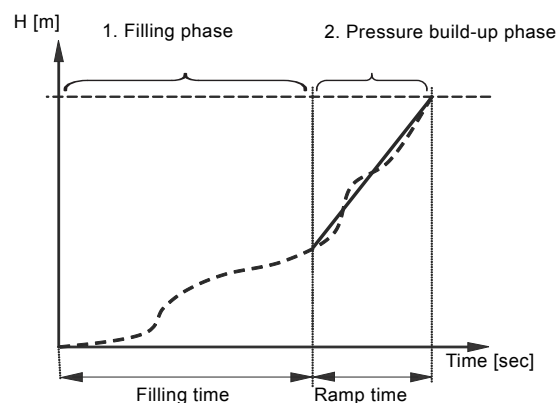


Fig. 32 Filling and pressure buildup phases

The function can be used to prevent water hammer in high-rise buildings with unstable power supply or in irrigation systems.

Emergency run

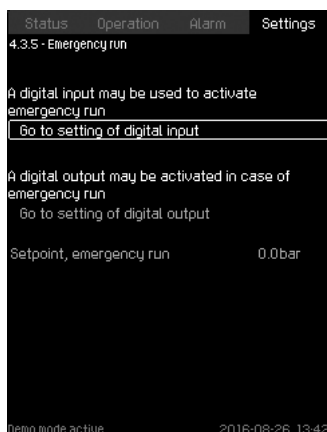


Fig. 33 Emergency run

This function is especially suited for important systems where the operation must not be interrupted. The function keeps all pumps running regardless of warnings or alarms. The pumps run according to a setpoint set specifically for this function.

Reduced operation

This function makes it possible to reduce the operation of the system via a digital input. The function is used in applications where the mains power is sometimes switched to generator power. To avoid using more power than the generator can deliver, the system can be derated via a digital input.

Status display menu

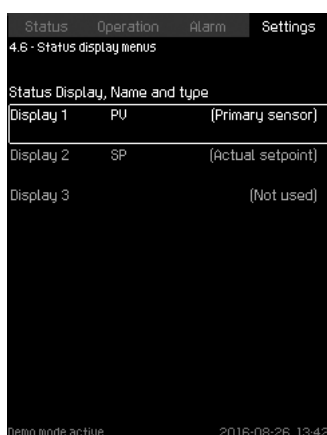


Fig. 34 Status display menu

The main status menu can show up to three status values.

In this menu, you can define each status value and a name for the value. Examples:

PV: process value

SP: setpoint

Q: flow rate.

Setting range

1. Name of each display value.
2. Selection of displays 1 to 3.

Setting the display value

1. Go to the Settings menu.
2. Select "Status display menu".
3. Mark the display and press [ok].
4. Enter a name for the display value.
5. Define the function of the display.

Status display menus

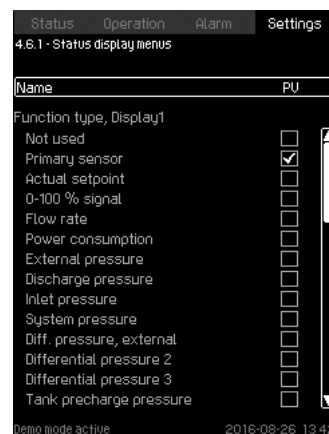


Fig. 35 Status display menus

Factory settings

Display 1: PV, primary sensor.

Display 2: SP, actual setpoint.

Non-return valve



Fig. 36 Non-return valve

This function enables CU 352 to detect if a non-return valve is leaking or faulty.

A small leakage results in a warning after five seconds. If a non-return valve is faulty, an alarm is given after 10 seconds, and the pump stops. In this case, the pump is not able to overcome the backflow through the pump with the faulty non-return valve.

Note: The function is only valid for MPC-E systems with MGE motors, model G, F, H, I and J.

Multisensor settings

This function is designed to control up to six zones in an HVAC system within a defined differential-pressure band. The function influences the actual setpoint if one of the multisensors is below or above its limits.

Furthermore, the system can optimise the actual setpoint if the energy-saving mode is activated by reducing the actual setpoint until the minimum limit of one of the multisensors is reached.

Multisensor settings

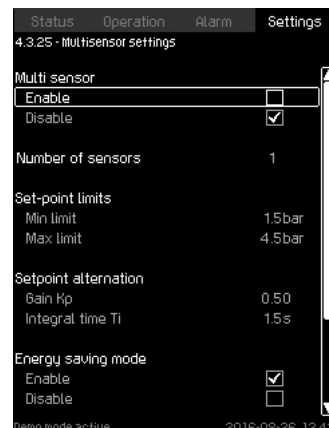


Fig. 37 Multisensor settings

Volume counter

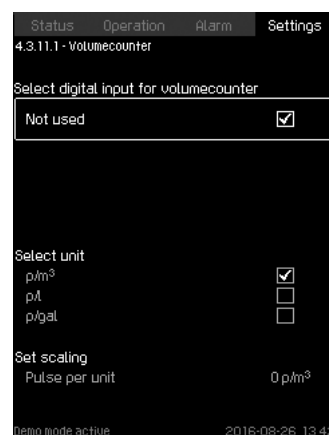


Fig. 38 Volume counter

You can set CU 352 to accumulate a pumped volume from a digital water meter.

Note: This menu only appears if an IO 351B module is connected to CU 352.

5. Installation

Mechanical installation

Location

Install the booster system in a well-ventilated room to ensure sufficient cooling of control cabinet and pumps.

Note: The booster system is not designed for outdoor installation and must not be exposed to direct sunlight.

Place the booster system with a 1-metre clearance on all sides for inspection and removal.

Pipes

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

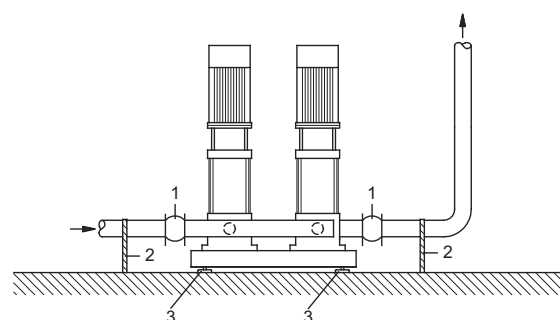
The pipes connected to the booster system must be of adequate size.

Connect the pipes to the manifolds of the booster system. Either end can be used. Apply sealing compound to the unused end of the manifold and fit the screw cap. For manifolds with flanges, fit a blanking flange with gasket.

To optimise operation and minimise noise and vibration, it may be necessary to consider vibration dampening of the booster system.

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

If booster systems are installed in blocks of flats or the first consumer on the line is close to the booster system, we recommend that you fit expansion joints on the inlet and outlet pipes to prevent vibration from being transmitted through the pipes.



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Fig. 39 Schematic view of hydraulic installation

Pos.	Description
1	Expansion joint
2	Pipe support
3	Vibration damper

Note: Expansion joints, pipe supports and machine shoes shown in fig. 39 are not included in a standard booster system.

Tighten all nuts before startup.

Fasten the pipes to parts of the building to ensure that they cannot move or be twisted.

Foundation

Position the booster system on an even and solid surface, such as a concrete floor or foundation. If the booster system is not fitted with vibration dampers, bolt it to the floor or foundation.

Note: As a rule of thumb, the weight of a concrete foundation must be 1.5 times the weight of the booster system.

Dampening

To prevent the transmission of vibrations to buildings, we recommend that you isolate the booster system foundation from building parts by means of vibration dampers.

Which is the right damper varies from installation to installation, and a wrong damper may increase the vibration level. Vibration dampers must, therefore, be sized by the supplier.

If you install the booster system on a base frame with vibration dampers, always fit expansion joints on the manifolds. This is important to prevent the booster system from "hanging" in the pipes.

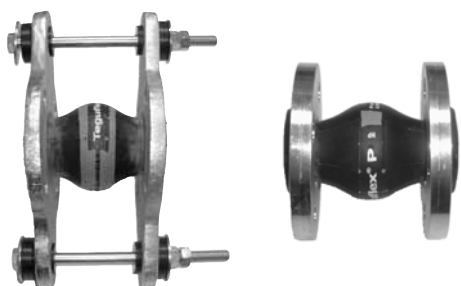
Expansion joints

Expansion joints provide these advantages:

- absorption of thermal expansion and contraction of pipes caused by variations in liquid temperature
- reduction of mechanical influences in connection with pressure surges in the pipes
- isolation of structure-borne noise in the pipes (only rubber bellows expansion joints).

Note: Do not fit expansion joints to compensate for inaccuracies in the pipes, such as centre displacement of flanges.

Fit expansion joints at a distance of a minimum of 1 to 1.5 times the nominal flange diameter from the manifold on the inlet as well as on the outlet side. This prevents the development of turbulence in the expansion joints, resulting in better inlet conditions and a minimum pressure loss on the outlet side. At high water velocities of more than 5 m/s we recommend that you fit larger expansion joints corresponding to the pipes.



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Fig. 40 Examples of rubber bellows expansion joints with and without limiting rods

Expansion joints with limiting rods can be used to minimise the forces caused by the expansion joints. We recommend that you always use expansion joints with limiting rods for flanges larger than DN 100.

Anchor the pipes so that they do not stress the expansion joints, manifolds and the pump. Follow the supplier's instructions and pass them on to advisers or pipe installers.

Electrical installation

The electrical installation must be carried out by authorised staff in accordance with local regulations and the relevant wiring diagram.

- The electrical installation of the booster system must be carried out in accordance with enclosure class IP54.
- Check that the power supply and frequency correspond to the values stated on the nameplate. Contact Grundfos if you have special voltage requirements.
- Make sure that the conductor cross-section meets the specifications in the wiring diagram.

6. Sizing

Take these parameters into account when sizing a booster system:

- The performance of the booster system must meet the highest possible demand both in terms of flow rate and pressure.
- The booster system must not be oversized. This is important in relation to installation and operating costs.

You can size the Grundfos Hydro MPC booster systems via Grundfos Product Center or this data booklet.

Sizing in Grundfos Product Center (recommended)

We recommend that you size your Hydro MPC booster system in Grundfos Product Center, which is a selection program offered by Grundfos. For further information, see page 159.

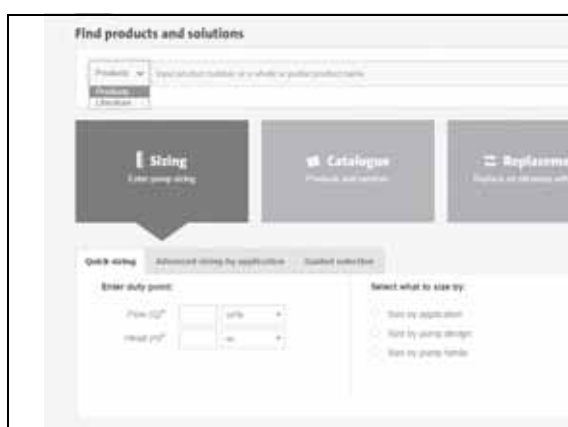


Fig. 41 Sizing in Grundfos Product Center

Sizing via this data booklet

There are seven steps:

1. maximum flow requirement
2. required outlet pressure
3. system layout
4. consumption profile and load profile
5. inlet pressure
6. selection of booster system
7. accessories.

1. Maximum flow requirement

The total consumption and the required maximum flow rate depend on the application in question. The maximum flow requirement can be calculated by means of the table below which is based on statistical data.

Consumer	Unit	Q_{year}	Consumption period d	Q_{day}	fd	$Q(m)_{\text{day}}$	ft	Maximum flow rate
		[m ³ /year]	[days/year]	[m ³ /day]		[m ³ /day]		[m ³ /h]
Residence building	Residence (2.5 persons)	183	365	0.5	1.3	0.65	1.7	0.046
Office building	Employee	25	250	0.1	1.2	0.12	3.6	0.018
Shopping centre	Employee	25	300	0.08	1.2	0.1	4.3	0.018
Supermarket	Employee	80	300	0.27	1.5	0.4	3.0	0.05
Hotel	Bed	180	365	0.5	1.5	0.75	4.0	0.125
Hospital	Bed	300	365	0.8	1.2	1.0	3.0	0.12
School	Pupil	8	200	0.04	1.3	0.065	2.5	0.007

fd : Maximum consumption factor, day

ft : Maximum consumption factor, hour

Example: Hotel with 540 beds

Number of beds: n
 Total annual consumption: $Q_{\text{year}} \times n$
 Consumption period: d
 Average consumption per day: $(Q_{\text{year}} \times n) / d$
 Yearly maximum consumption: $Q(m)_{\text{day}} = fd \times Q_{\text{day}}$
 Maximum flow requirement per hour: $Q_{\text{max}} = \text{maximum flow rate/hour} \times \text{number of beds.}$

Calculation

n = 540 beds.
 $Q_{\text{year}} \times n$ = $180 \times 540 = 97,200 \text{ m}^3/\text{year.}$
 d = 365 days/year.
 $(Q_{\text{year}} \times n)/d$ = $97,200/365 = 266.3 \text{ m}^3/\text{day.}$
 $Q(m)_{\text{day}}$ = $fd \times Q_{\text{day}} = 1.5 \times 266.3 = 399.4 \text{ m}^3/\text{day.}$
 Q_{max} = Maximum flow rate/hour $\times$ number of beds = $0.125 \times 540 = 67.5 \text{ m}^3/\text{h.}$

2. Required outlet pressure

The required outlet pressure of Hydro MPC can be calculated with the following equation:

$$p_{\text{set}} = p_{\text{tap}(\text{min})} + p_f + (h_{\text{max}}/10.2)$$

$$p_{\text{boost}} = p_{\text{set}} - p_{\text{in}(\text{min})}$$

Key

p_{set} = Required outlet pressure in bar

$p_{\text{tap}(\text{min})}$ = Required minimum pressure at the highest tapping point in bar

p_f = Total pipe friction loss in metres

h_{max} = Height from booster outlet port to highest tapping point in metres

$p_{\text{in}(\text{min})}$ = Minimum inlet pressure in bar

p_{boost} = Required boost in bar.

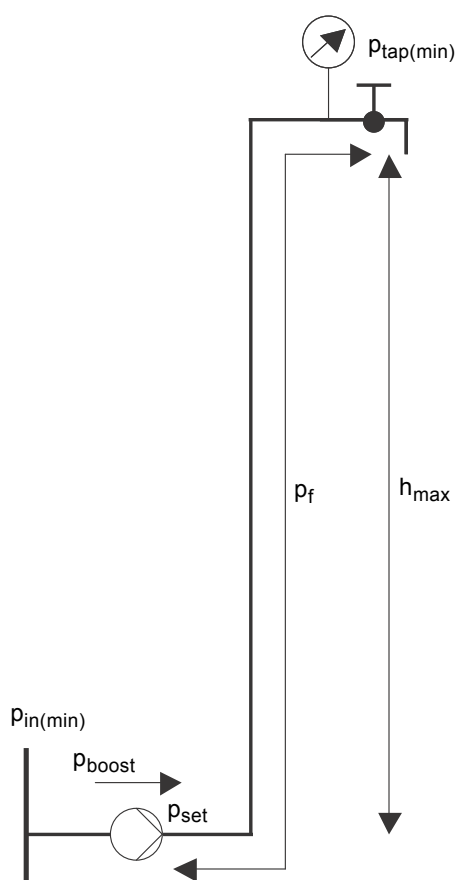


Fig. 42 Calculation of required outlet pressure

Calculation

$$p_{\text{tap}(\text{min})} = 2 \text{ bar}$$

$$p_f = 1.2 \text{ bar}$$

$$h_{\text{max}} = 41.5 \text{ metres}$$

$$p_{\text{in}(\text{min})} = 2 \text{ bar}$$

$$p_{\text{set}} = 2 + 1.2 + (41.5/10.2) = 7.3 \text{ bar}$$

$$p_{\text{boost}} = 7.3 - 2 = 5.3 \text{ bar.}$$

3. System layout

What is the system layout?

a) Direct boosting

Example: Hydro MPC connected to water mains designed to distribute water from one place to another.

b) Break tank

Example: Hydro MPC connected to a break tank installed before the booster system.

c) Pressure boosting in zones

Example: High-rise building or hilly landscape where the water supply system is divided into zones.

d) Roof tank

Example: Hydro MPC distributes water to a roof tank on top of a high-rise building.

4. Consumption profile and load profile

The consumption pattern of the installation can be illustrated as a 24-hour consumption profile and a load profile.

24-hour consumption profile

The 24-hour consumption profile is the relation between the time of the day and the flow rate.

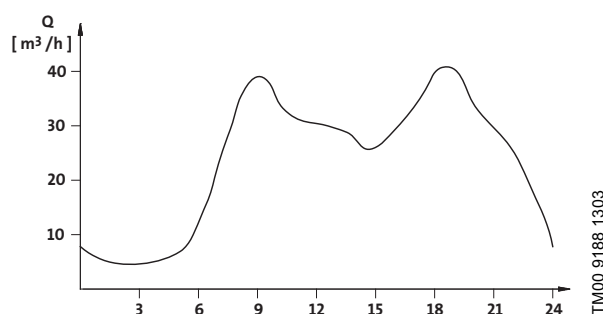


Fig. 43 Example of 24-hour consumption profile

Note: If the consumption is variable, and optimum comfort is required, use pumps with continuously variable speed.

Load profile

When the 24-hour consumption profile has been determined, the load profile can be made.

The load profile gives an overview of how many per cent per day the booster system operates at a specific flow rate.

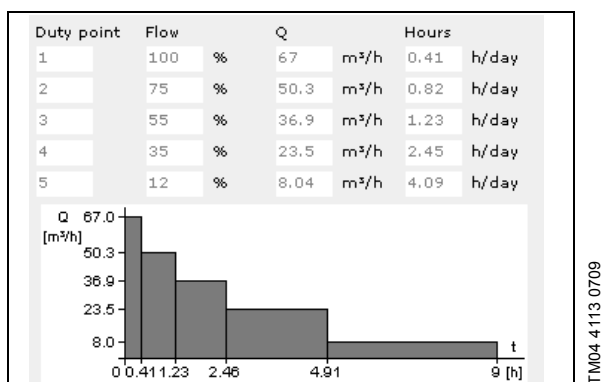
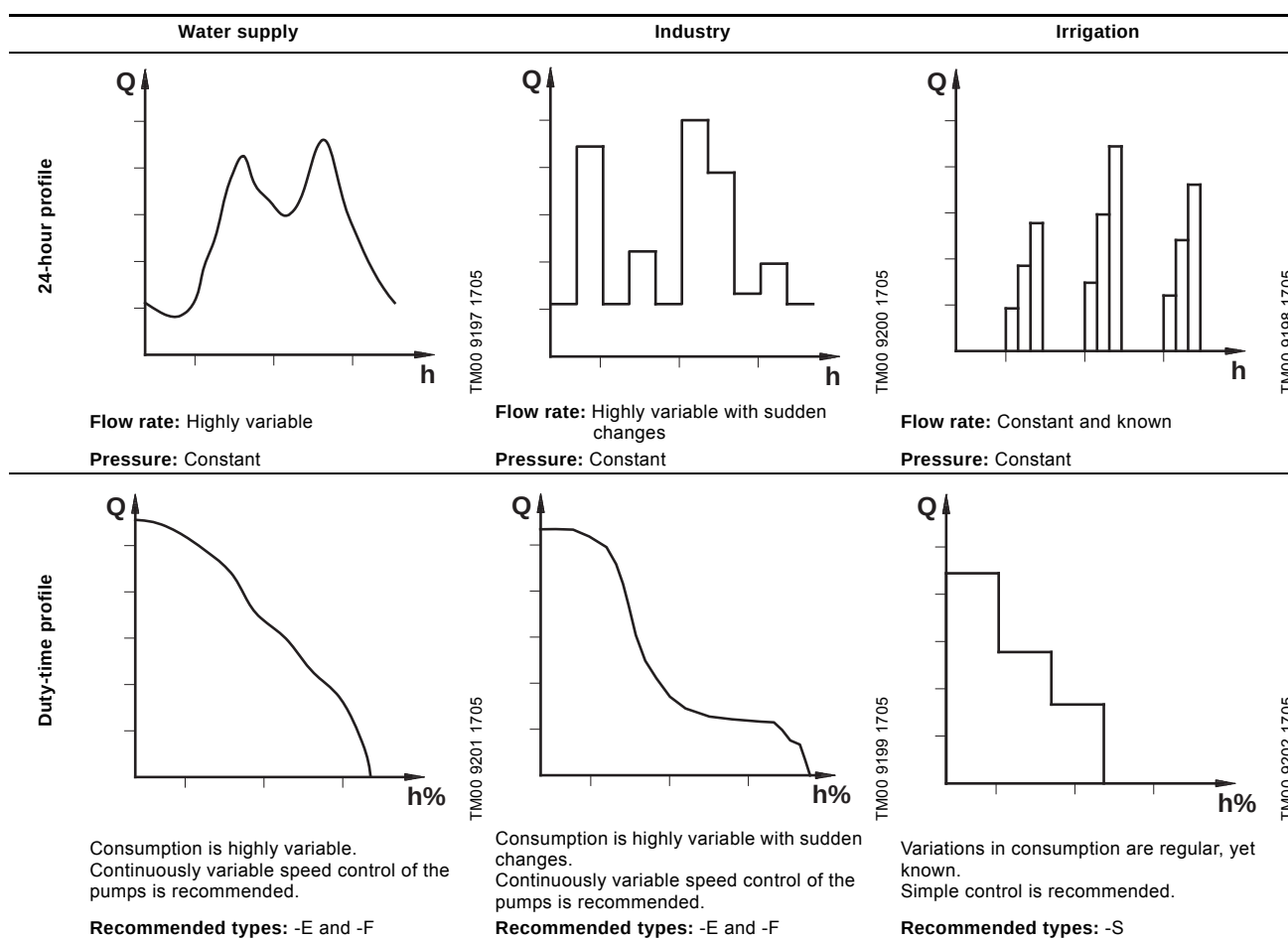


Fig. 44 Load profile

Examples of typical 24-hour consumption profiles and their load profiles:



5. Inlet pressure

If there is a positive inlet pressure, take the inlet pressure into consideration to ensure safe operation.

If there is a positive inlet pressure, this has to be added to the outlet pressure supplied by the booster system in order to evaluate the resulting maximum outlet pressure.

Example

A Hydro MPC-E booster system with 3 CRIE 20-7 pumps has been selected.

Maximum operating pressure: 16 bar.

Maximum inlet pressure: 10 bar.

Outlet pressure against a closed valve: 10 bar.

The selected system is allowed to start at an inlet pressure of a maximum of 5.8 bar, as the maximum operating pressure is limited to 16 bar. If the maximum inlet pressure exceeds 5.8 bar, select a system rated PN 25.

6. Selection of Hydro MPC booster system

Select the booster system on the basis of these factors: maximum flow requirement, required outlet pressure, load profile, number of pumps required and possible standby pumps.

7. Accessories

When you have selected the optimum Hydro MPC booster system, consider whether you require any of the accessories mentioned below.

Dry-running protection

Every booster system must be protected against dry running.

The inlet conditions determine the type of dry-running protection:

- If the system draws water from a tank or a well, select a level switch or an electrode relay for dry-running protection.
- If the system has an inlet pressure, select a pressure transmitter or a pressure switch for dry-running protection.

Pilot pump

If a pilot pump is selected, size it according to the size of the main pumps in the system. As a rule of thumb, the pilot pump must not be smaller than one-fifth of the flow of a main pump at the desired setpoint.

Diaphragm tank

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

- Due to the stop function, all Hydro MPC booster systems in buildings must be equipped with a diaphragm tank.
- Normally, the Hydro MPC booster systems in water-supply applications require no diaphragm tank, as miles of piping partly hold the necessary capacity, partly have the elasticity to give sufficient capacity.

Note: To avoid the risk of water hammer, a diaphragm tank may be necessary.

- Estimate the need for a diaphragm tank for the Hydro MPC booster systems in industrial applications from situation to situation on the basis of the individual factors on site.

Note: If the Hydro MPC booster system includes pilot pumps, the diaphragm tank is to be sized according to the capacity of this pump.

For further information about optional equipment and accessories, see pages 153 to 157.

Pump type	Recommended diaphragm tank size [litres]		
	-E	-F	-S
CR(I), CR(I)E 3	8	8	80
CR(I), CR(I)E 5	12	12	120
CR(I), CR(I)E 10	18	18	180
CR(I), CR(I)E 15	80	80	300
CR(I), CR(I)E 20	80	80	400
CR, CRE 32	80	80	600
CR, CRE 45	120	120	800
CR, CRE 64	120	120	1000
CR, CRE 95	180	180	1500
CR, CRE 125	300	300	1500
CR, CRE 155	400	400	1500

The size of the obligatory diaphragm tank in litres can be calculated from the following equations:

Hydro MPC-E and -F

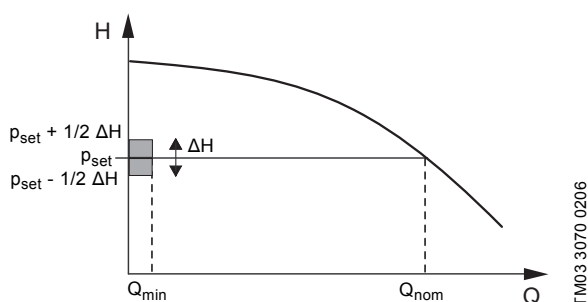
$$V_0 = \frac{k_Q \times Q \times (p_{\text{set}} + 1)^2 \times \left(\frac{3600}{N} - 10 \right)}{3.6 \times (k_f \times p_{\text{set}} + 1) \times k_H \times p_{\text{set}}}$$

Hydro MPC-S

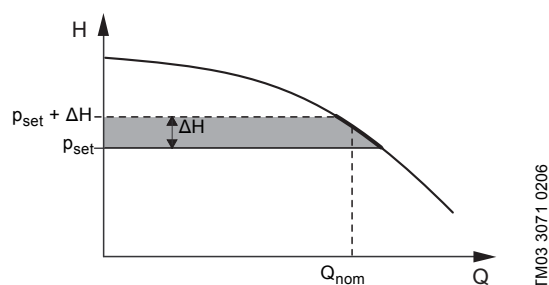
$$V_0 = \frac{1000 \times Q \times (p_{\text{set}} + 1) \times (k_H \times p_{\text{set}} + p_{\text{set}} + 1)}{4 \times N \times (k_f \times p_{\text{set}} + 1) \times k_H \times p_{\text{set}}}$$

Symbol	Description
V_0	Tank volume [litres]
k_Q	The ratio between rated flow rate of one pump Q_{nom} and the flow rate Q_{min} at which the pump is to change to on/off operation $k_Q = Q_{\text{min}}/Q_{\text{nom}}$
Q	Mean flow rate, Q_{nom} [m^3/h]
p_{set}	Setpoint [bar]
k_H	The ratio between the on/off band ΔH and the setpoint p_{set} . $k_H = \Delta H/p_{\text{set}}$
k_f	The ratio between tank precharge pressure p_0 and the setpoint p_{set} $k_f = p_0/p_{\text{set}}$ 0.9 for Hydro MPC-S 0.7 for Hydro MPC-E and -F
N	Maximum number of starts or stops per hour

Hydro MPC-E and -F



Hydro MPC-S



The tank values are based on the following data:

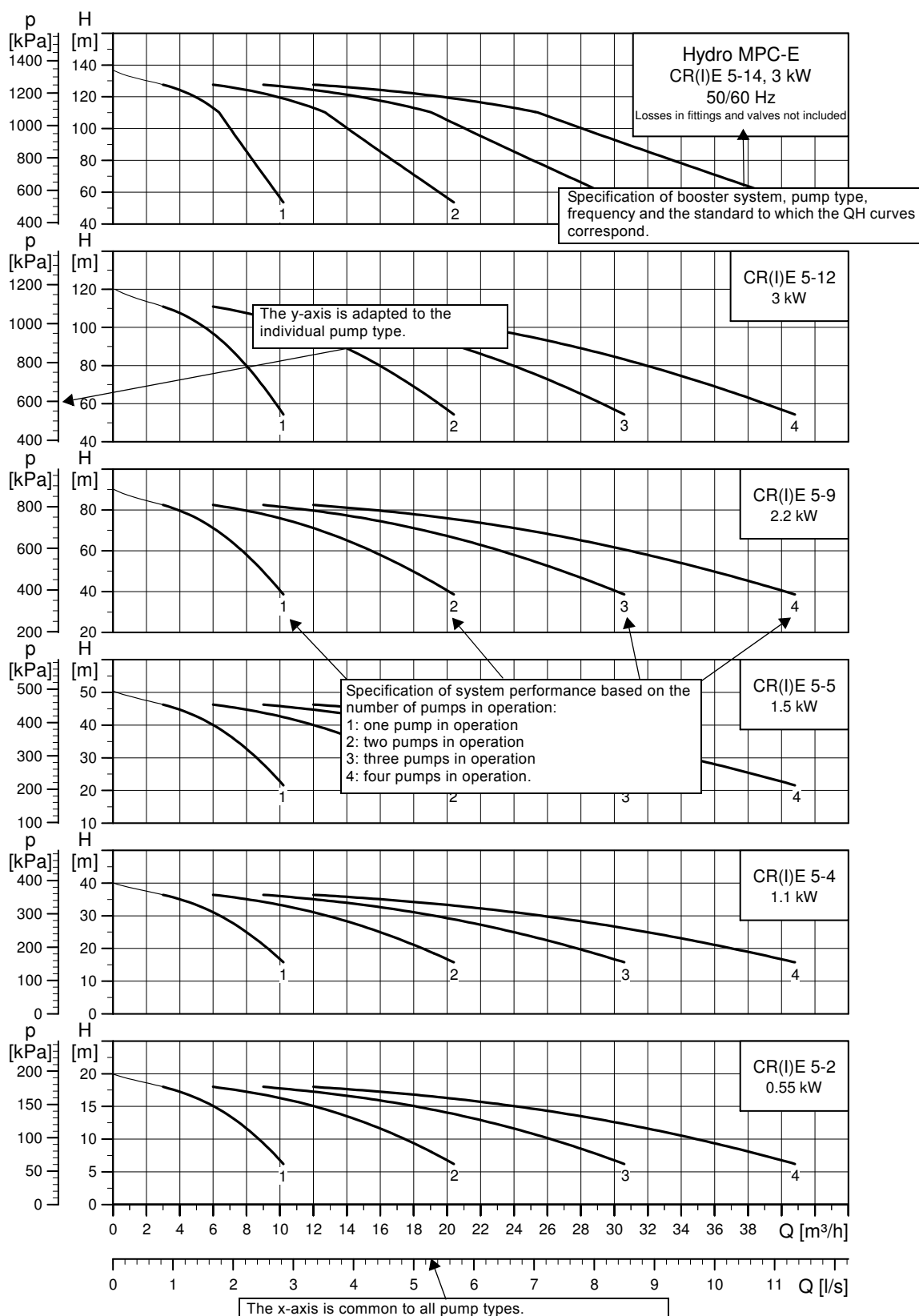
Symbol	Hydro MPC	
	-E and -F	-S
Q	Q_{nom} of one pump	Q_{nom} of one pump
k_Q	10 %	-
p_{set}	4 bar	4 bar
k_H	20 %	25 %
k_f	0.7	0.9

Example of Hydro MPC-E and -S with CRE, CRIE 20

Symbol	Hydro MPC-E	Hydro MPC-S
Q [m^3/h]	10	10
k_Q	10 %	-
k_H	20 %	25 %
p_{set} [bar]	4	4
N [h^{-1}]	200	100
Result		
V_0 [litres]	18.3	163
Selected tank	18	180
ΔH [bar]	0.8	1
p_0 [bar]	2.8	3.6

Understanding the curve charts

The x-axis showing the flow rate (Q) in m³/h is common to all the curves; the y-axis showing the head (H) in metres has been adapted to the individual pump type.



Example: How to select a system

- A flow rate of 67.5 m³/h is required.
- A head of 73 metres is required.

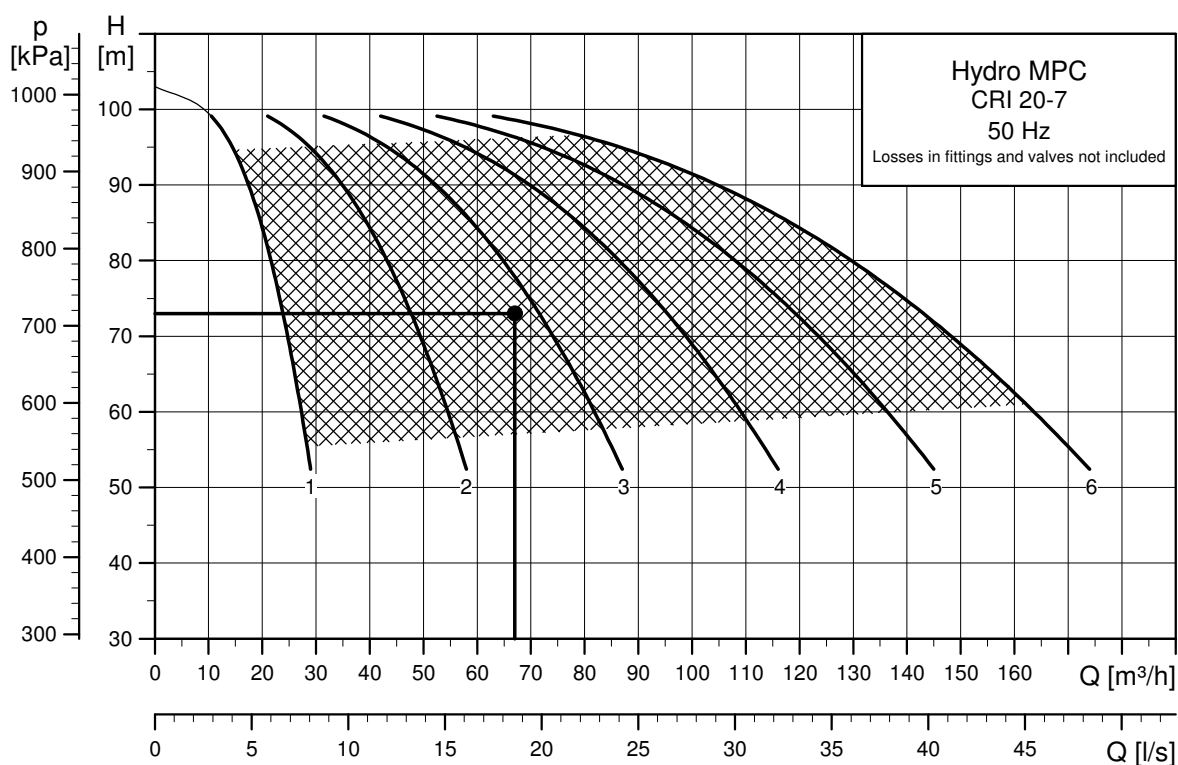
Draw a vertical line from the required flow rate.

Draw a horizontal line from the required head.

The intersection of the two lines gives the number of pumps required for the system (three CRE, CRIE 20-7).

The pump type best meeting this specification is found by means of the y-axis, for instance three CRE, CRIE 20-7.

Select only booster systems with performance ranges within the hatched area in the example.



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7. Curve conditions

How to read the curve charts

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

- Measurements have been made with airless water at a temperature of 20 °C.
- The curves apply to a kinematic viscosity of ν is equal to 1 mm²/s (1 cSt).
- The QH curves apply to fixed speeds of 2900 min⁻¹ at 50 Hz and 3480 min⁻¹ at 60 Hz.

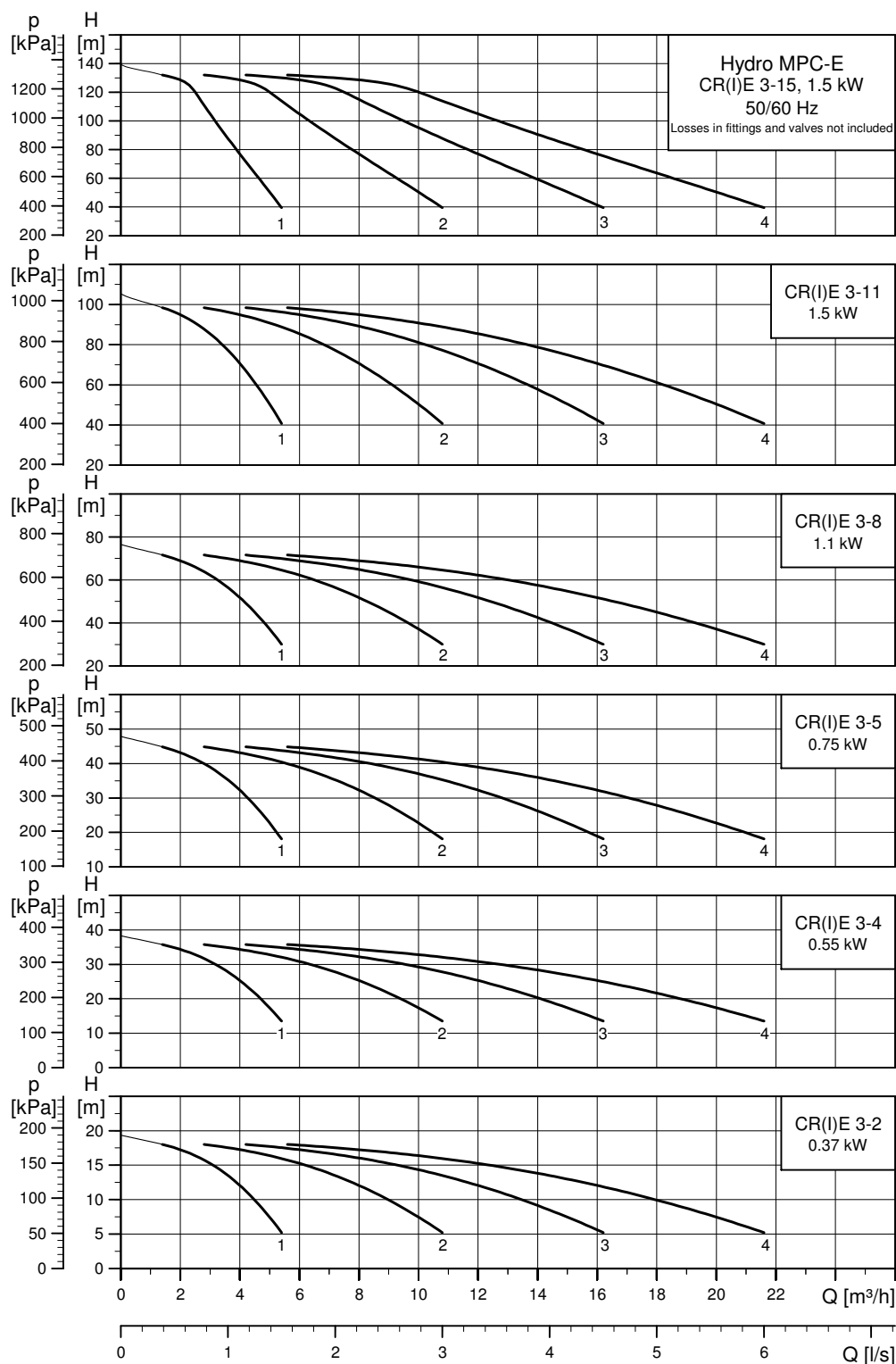
Note: In most cases, the actual speed deviates from the above-mentioned speeds. For realistic curves, please refer to Grundfos Product Center where the pump curves include the characteristics of the selected motor and therefore show curves at actual speeds.

In Grundfos Product Center, you can also adjust the curves depending on the density and viscosity.

- The conversion between head H [m] and pressure p [kPa] applies to a water density of ρ equal to 1000 kg/m³.

8. Curve charts, Hydro MPC-E, 50/60 Hz

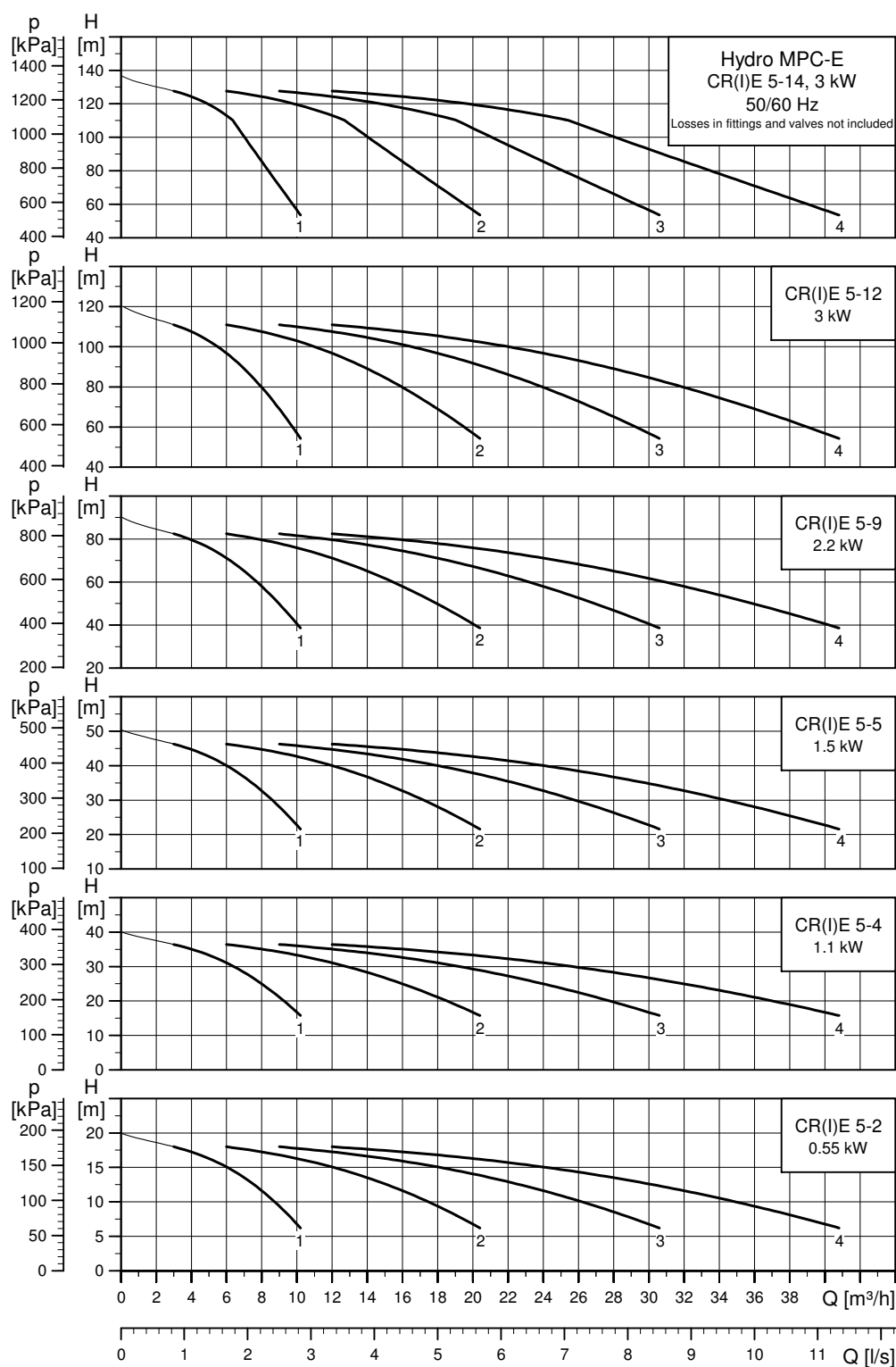
Hydro MPC-E with CRE, CRIE 3



TM06 7279 2518

Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

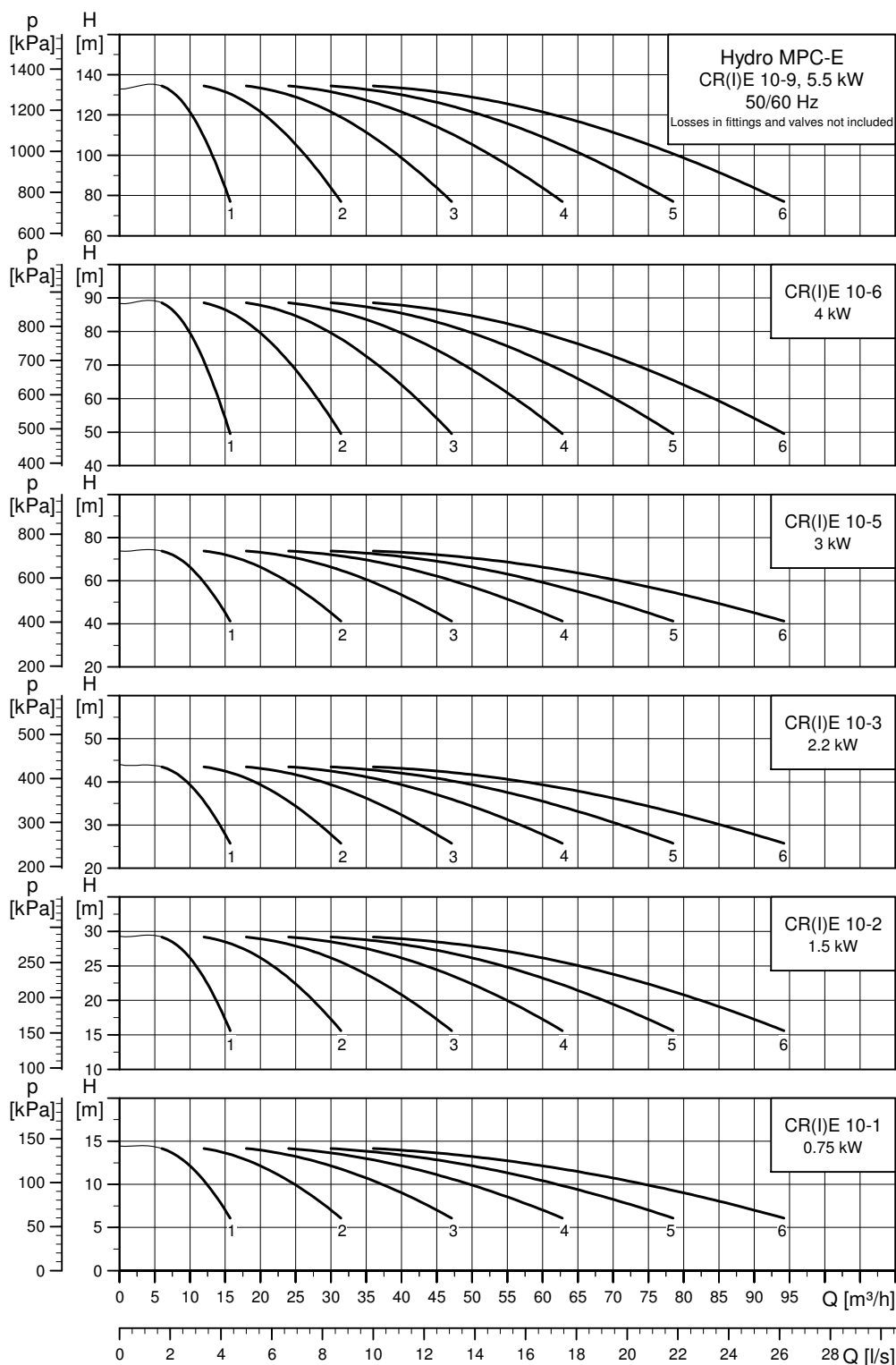
Hydro MPC-E with CRE, CRIE 5



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM05 7280 2518

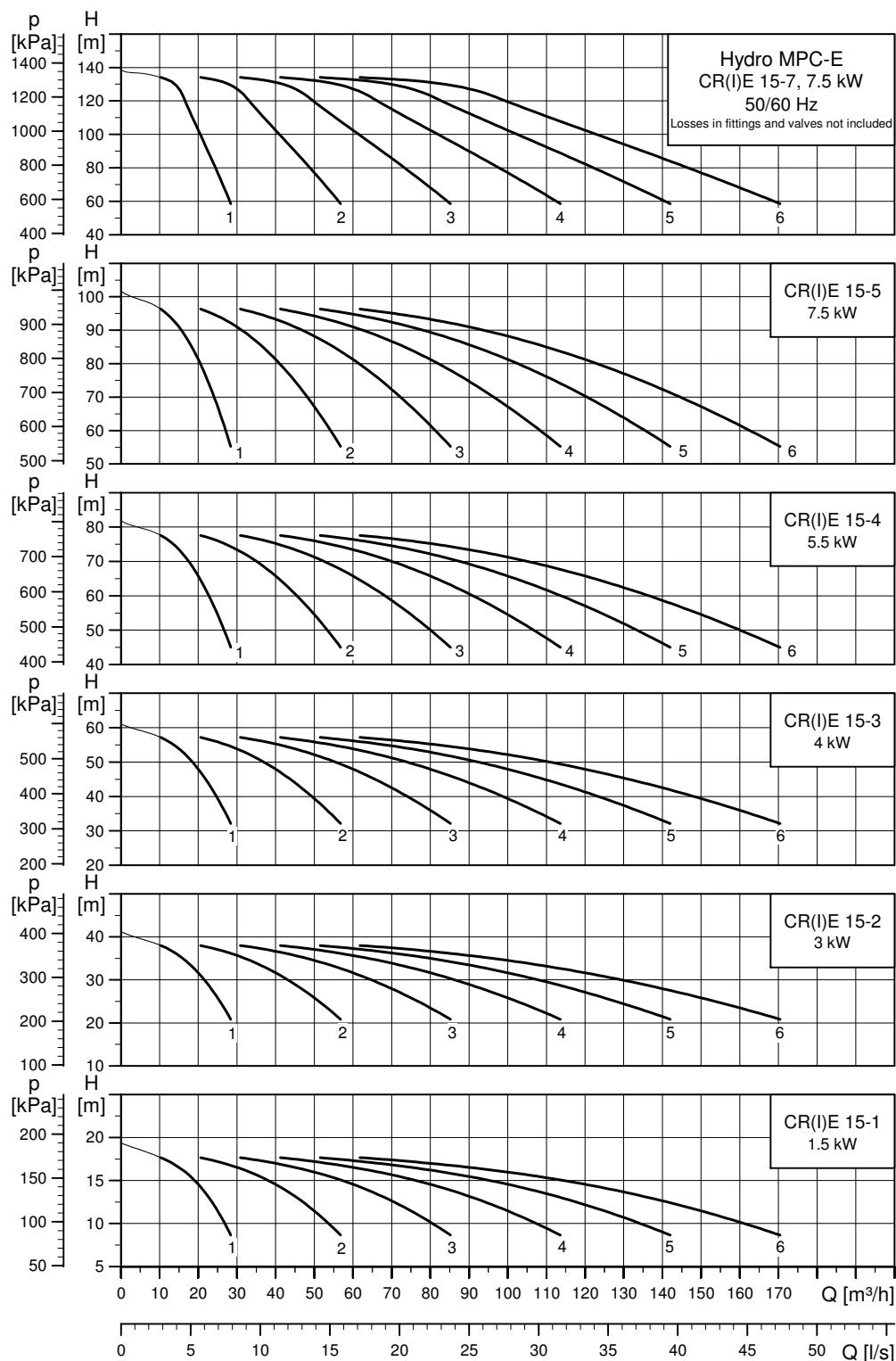
Hydro MPC-E with CRE, CRIE 10



TM06 7281 2518

Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

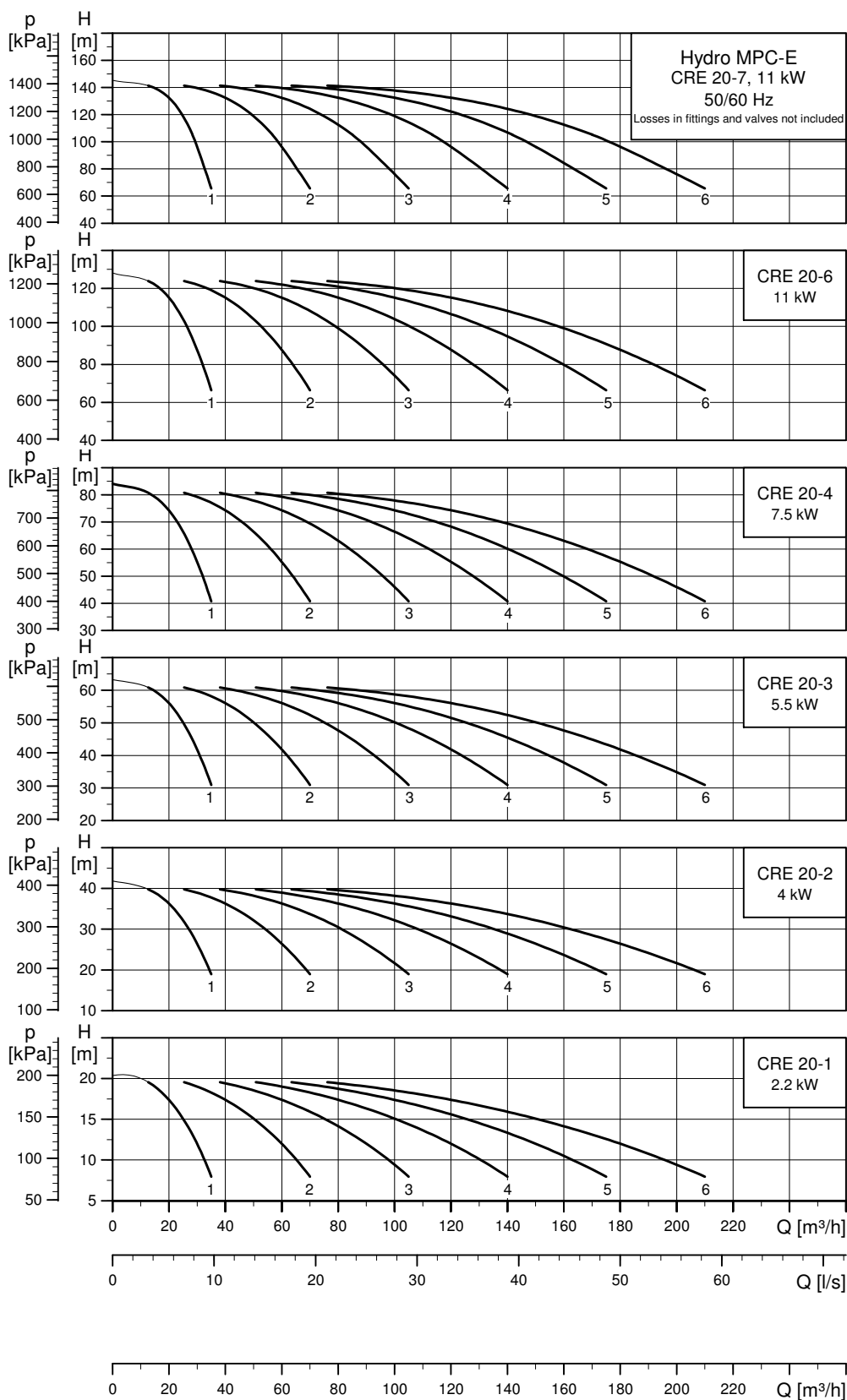
Hydro MPC-E with CRE, CRIE 15



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM05 7282 2518

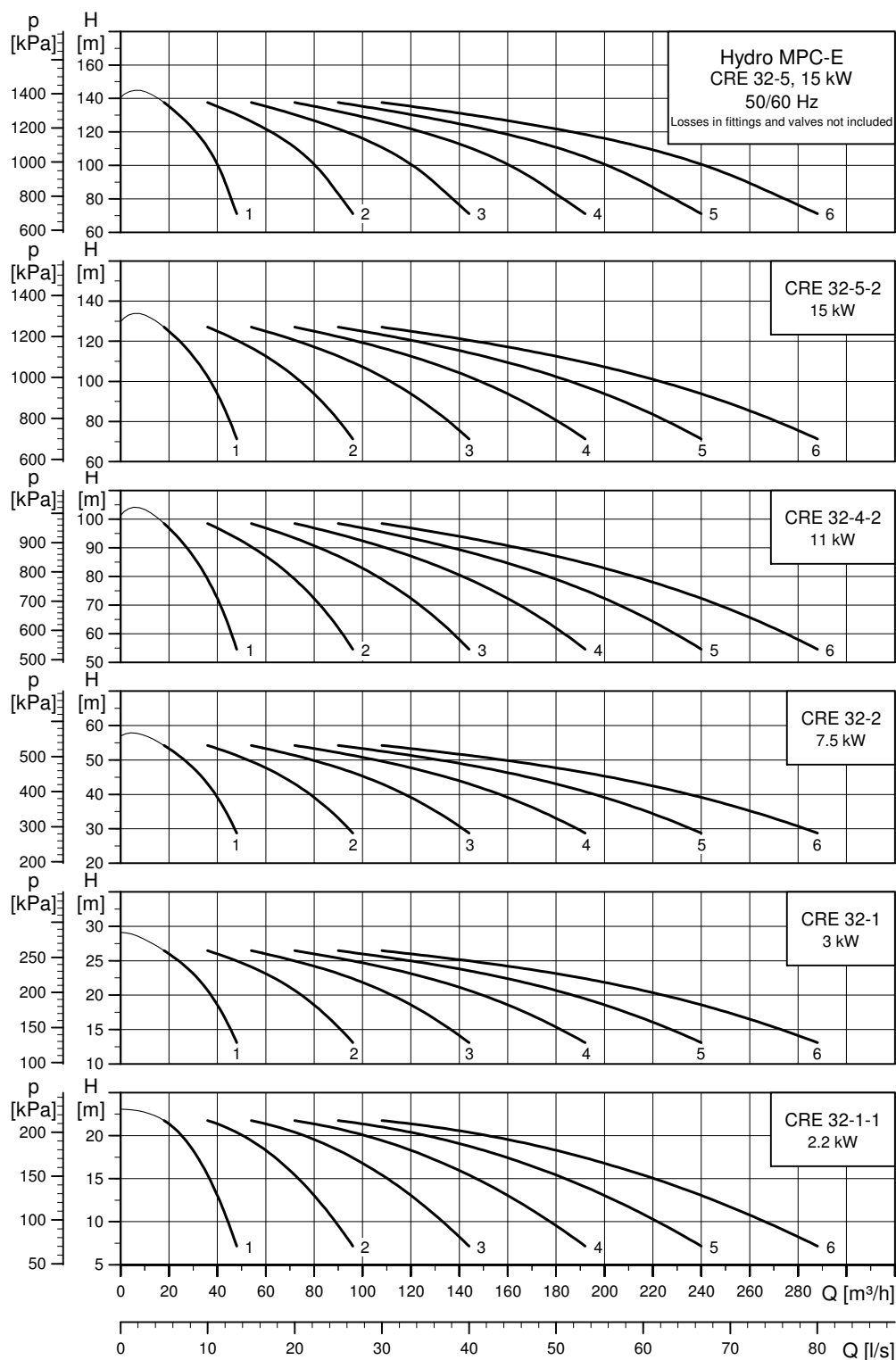
Hydro MPC-E with CRE, CRIE 20



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM05 7283 2518

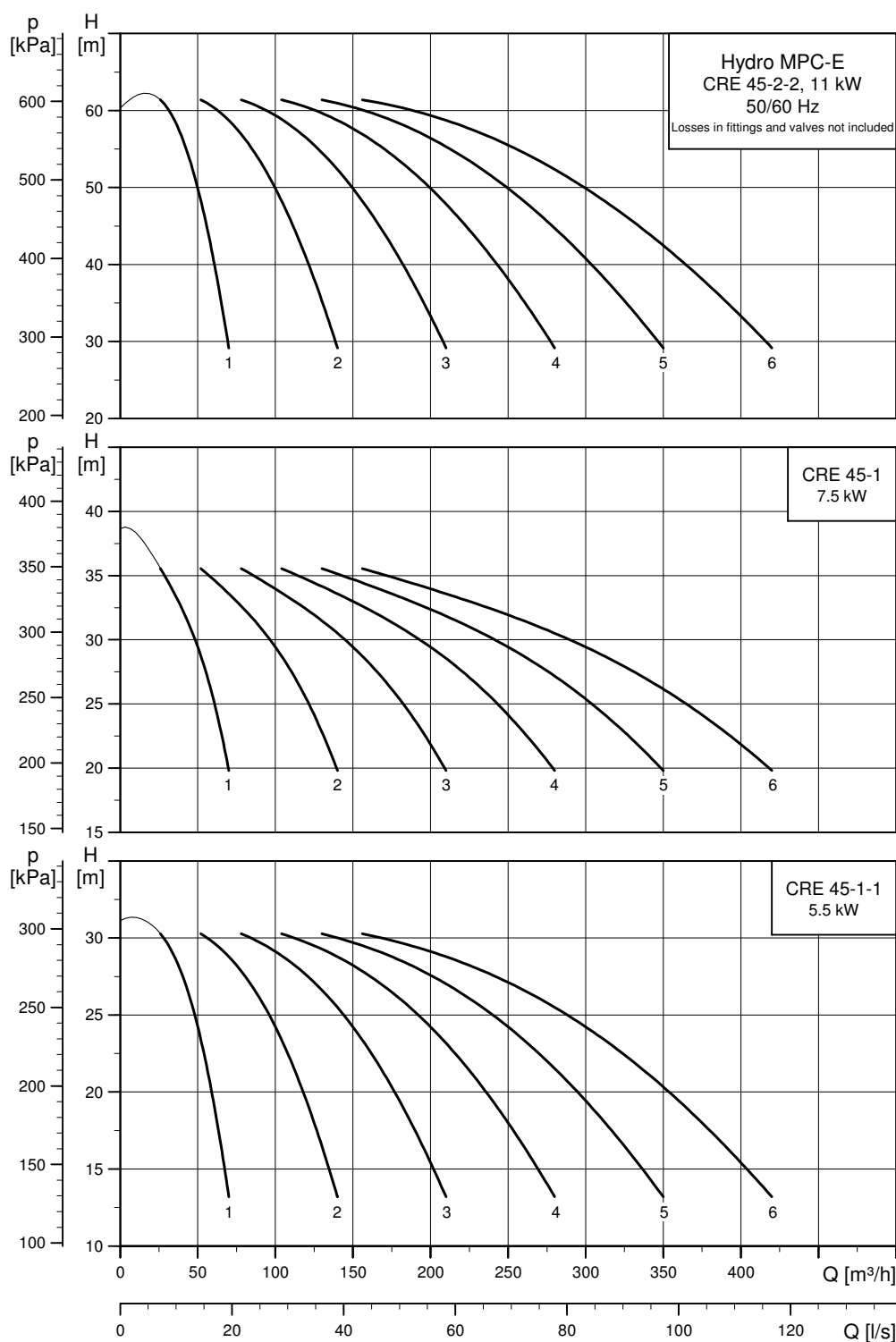
Hydro MPC-E with CRE 32



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM05 7284 2518

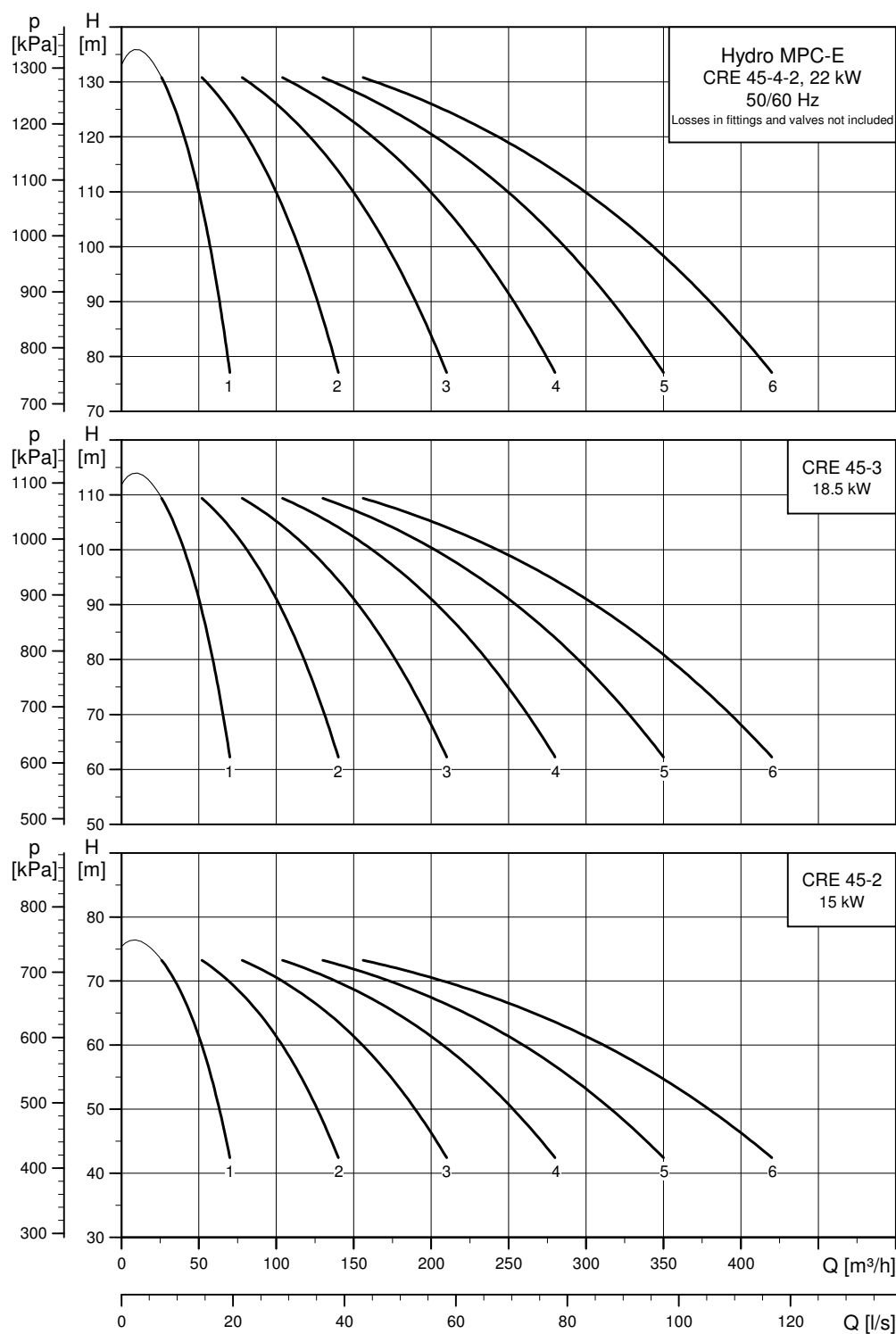
Hydro MPC-E with CRE 45



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min^{-1} .

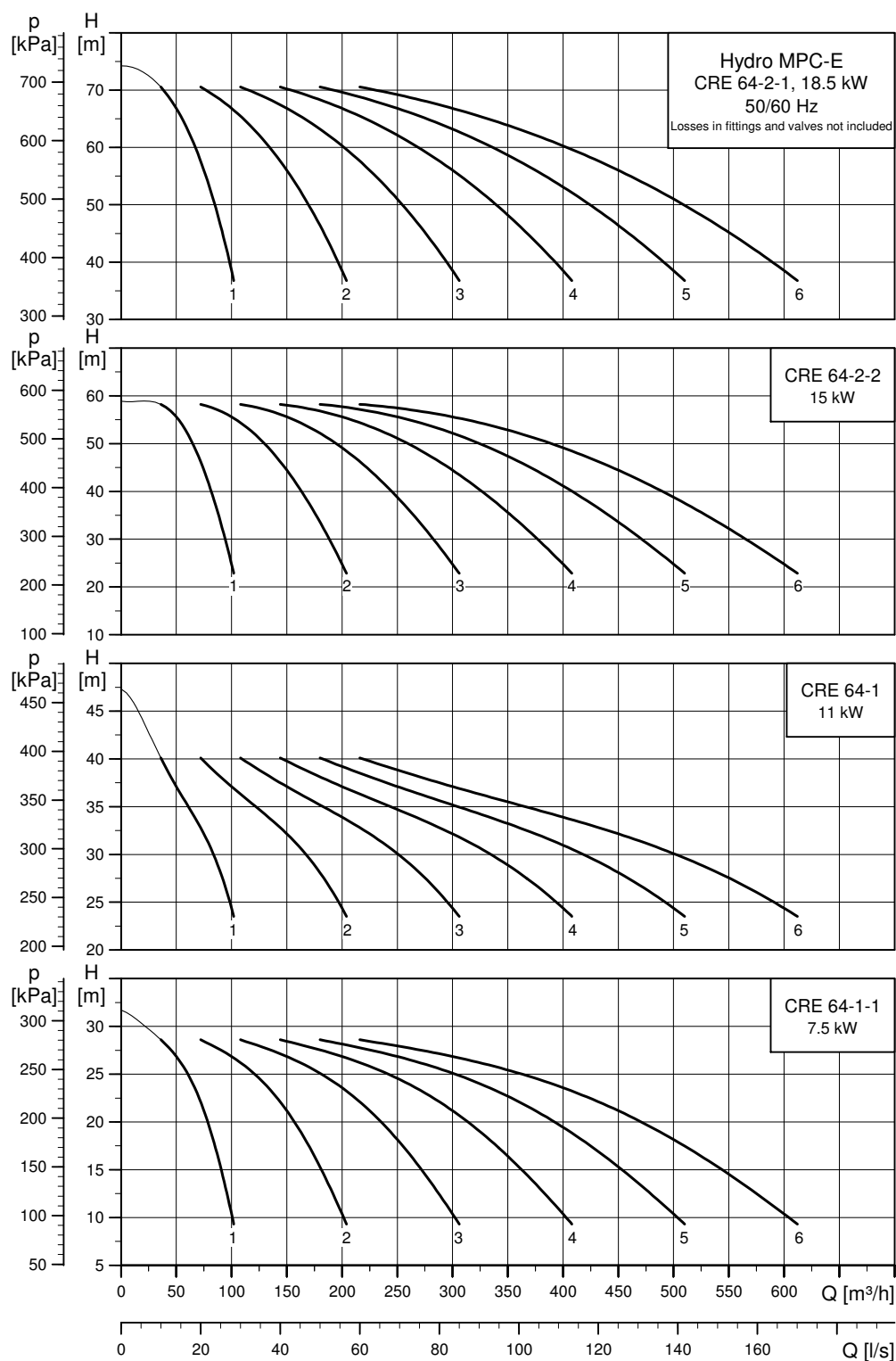
TM05 7285 2518

Hydro MPC-E with CRE 45



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

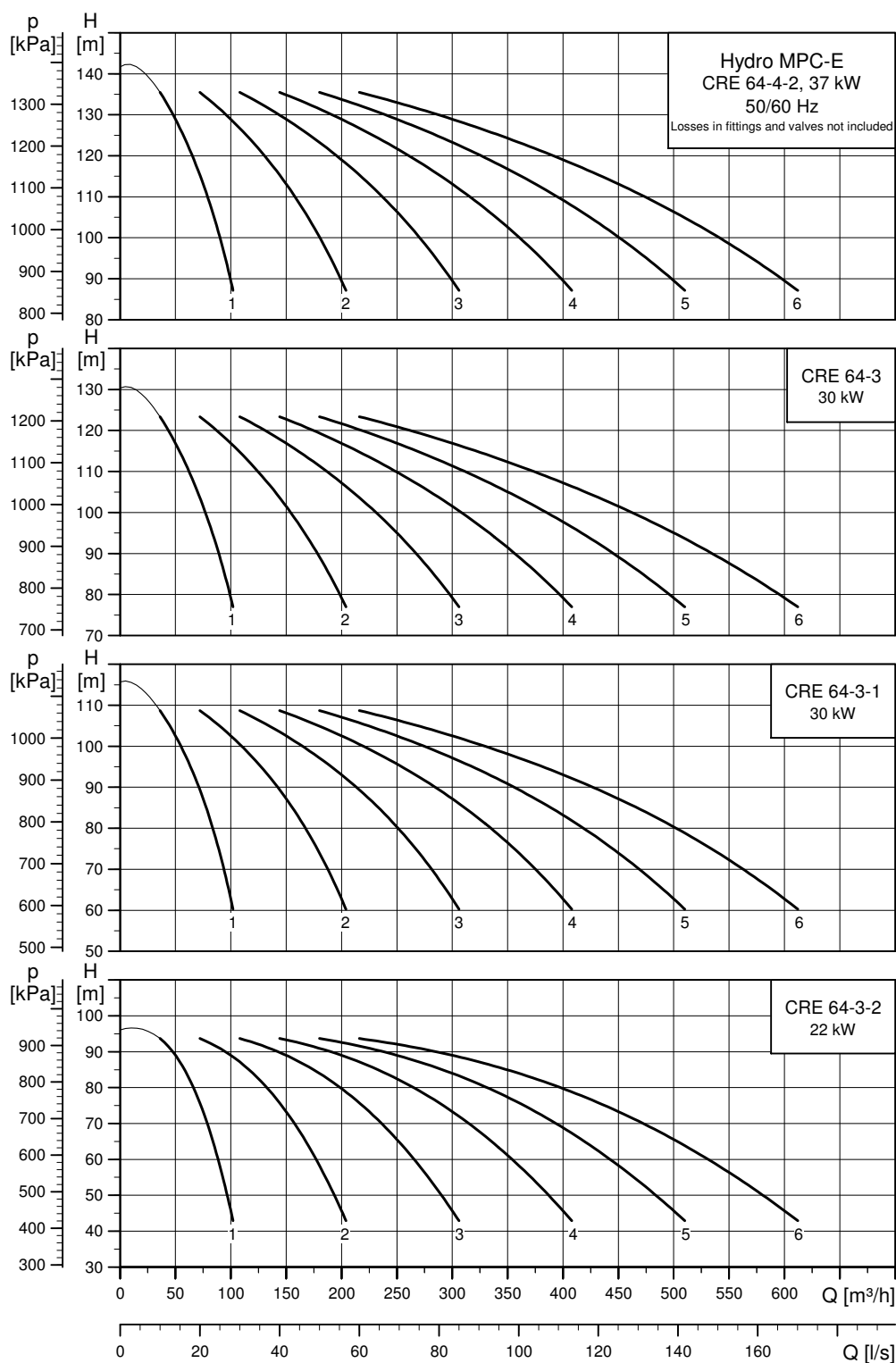
Hydro MPC-E with CRE 64



TM05 7287 2518

Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min^{-1} .

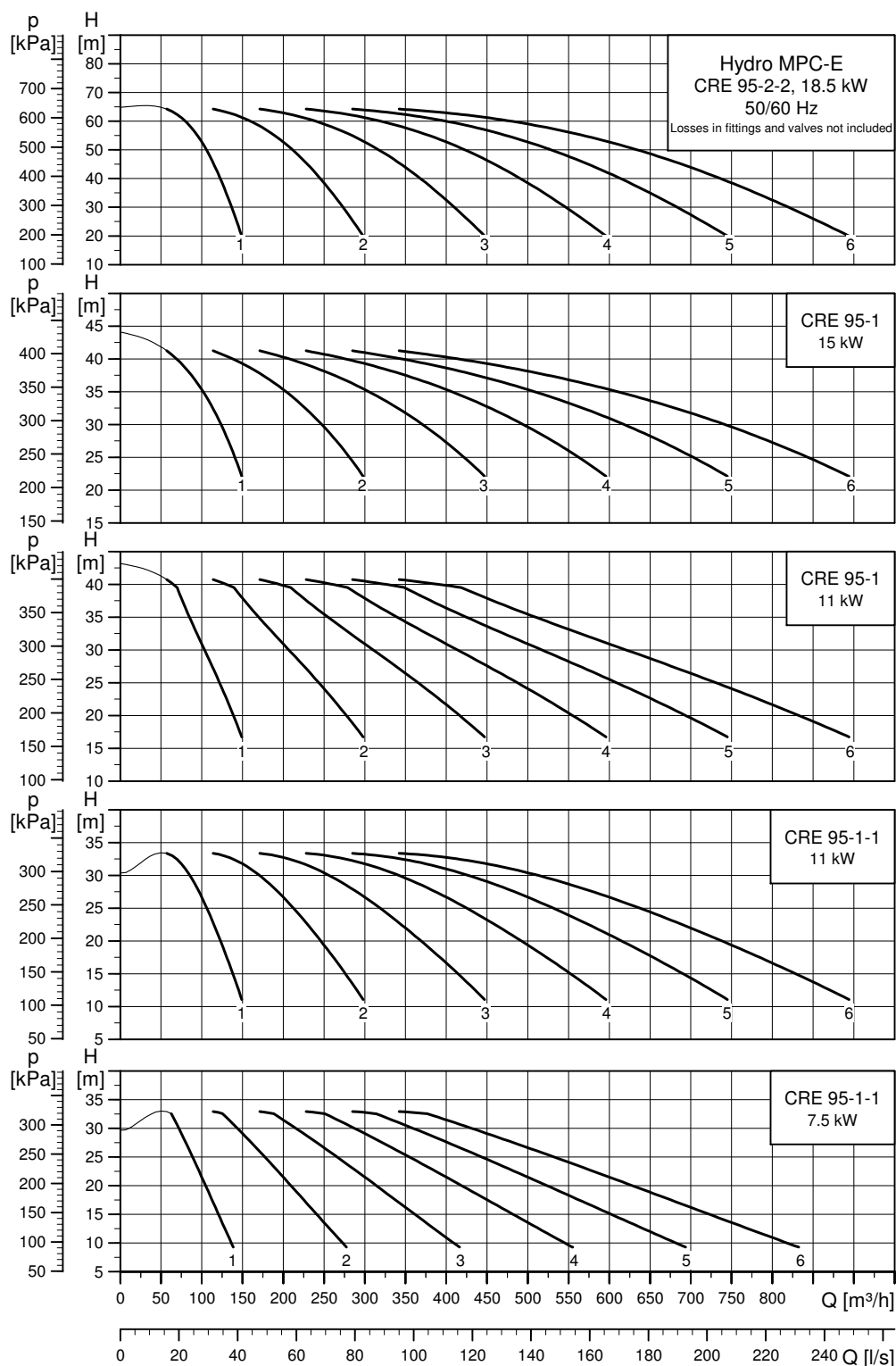
Hydro MPC-E with CRE 64



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM05 7288 2518

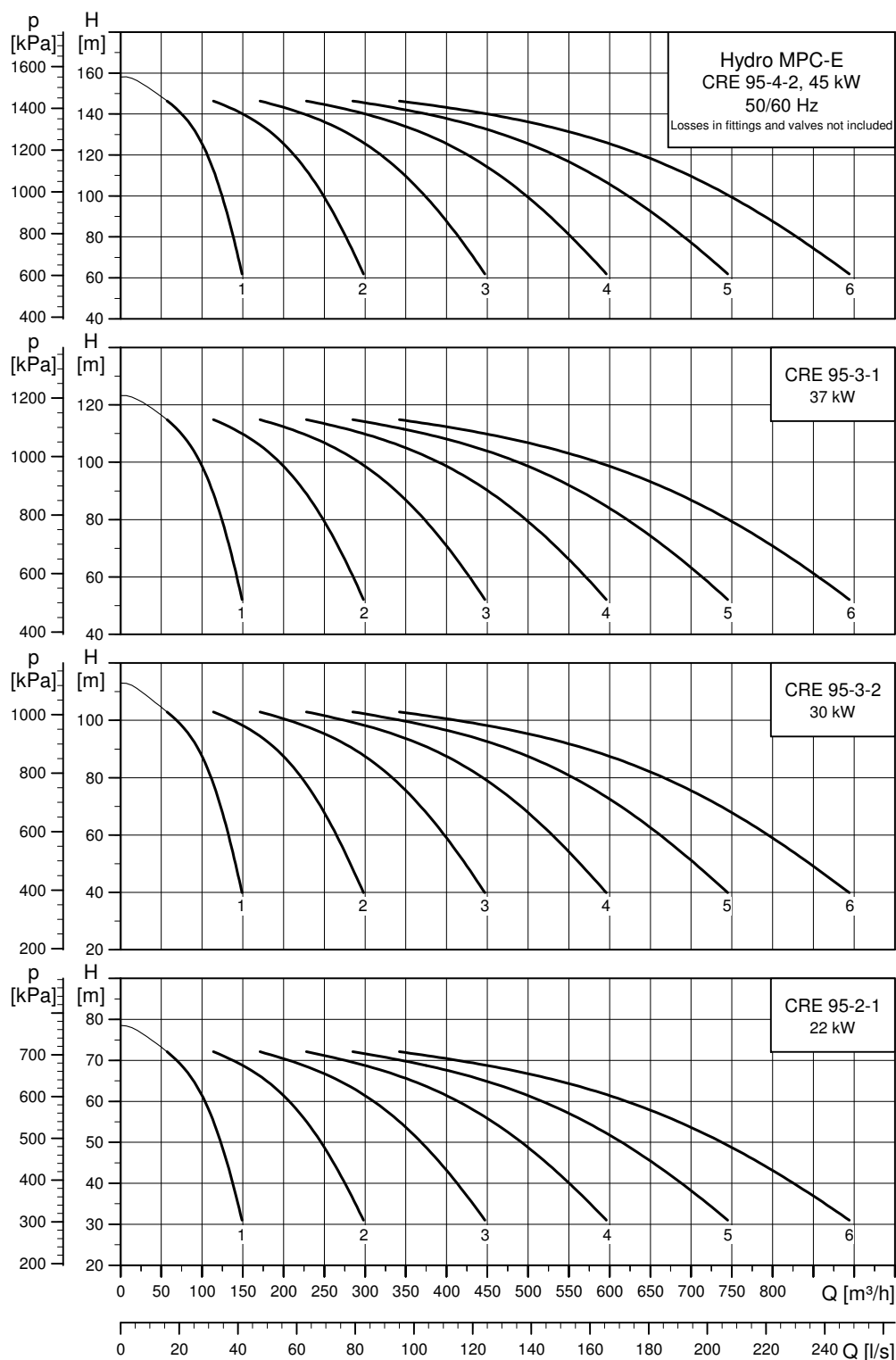
Hydro MPC-E with CRE 95



TM07 1624 2518

Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min^{-1} .

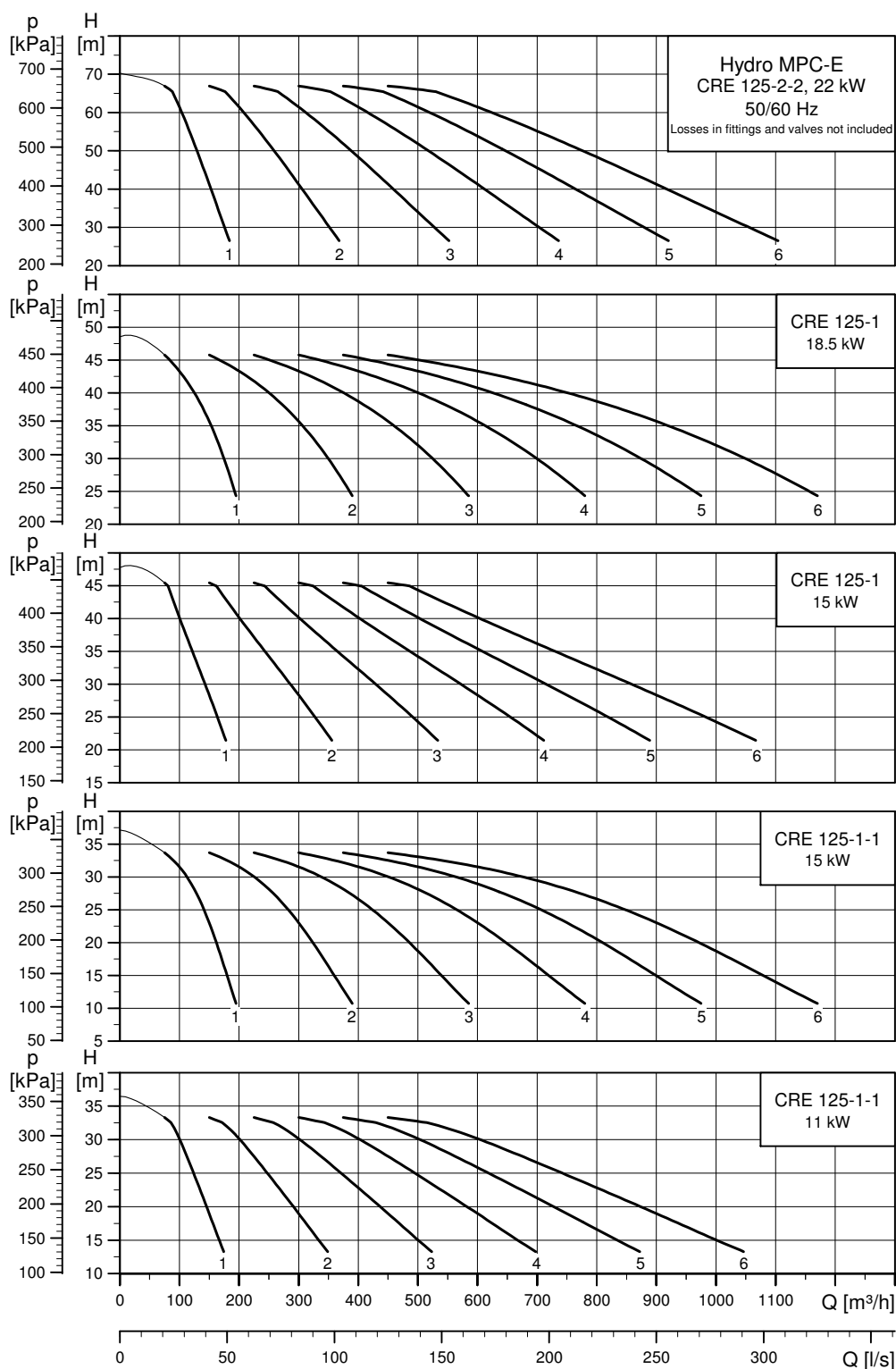
Hydro MPC-E with CRE 95



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM07 1625 2518

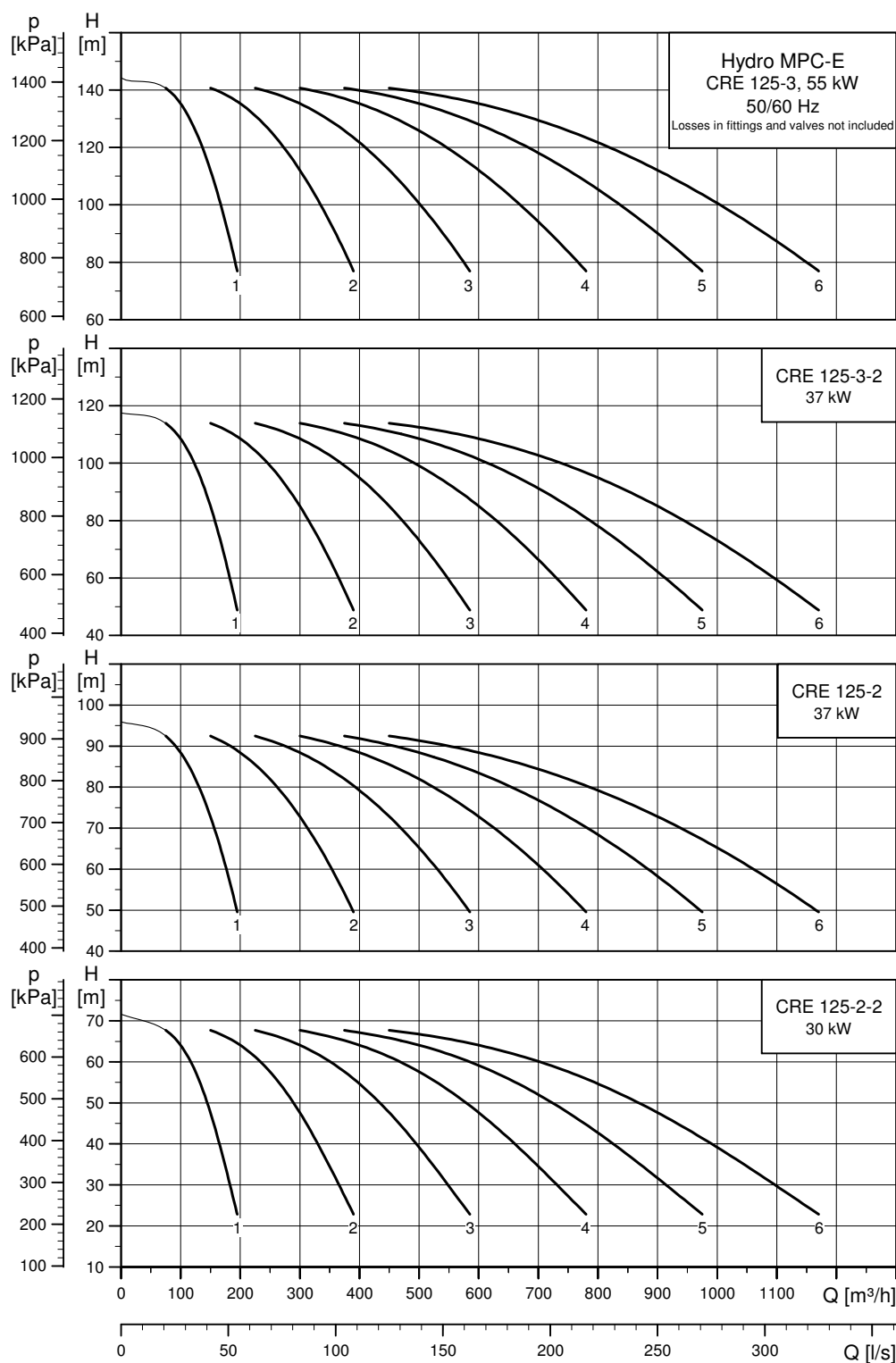
Hydro MPC-E with CRE 125



TM05 7291 218

Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min^{-1} .

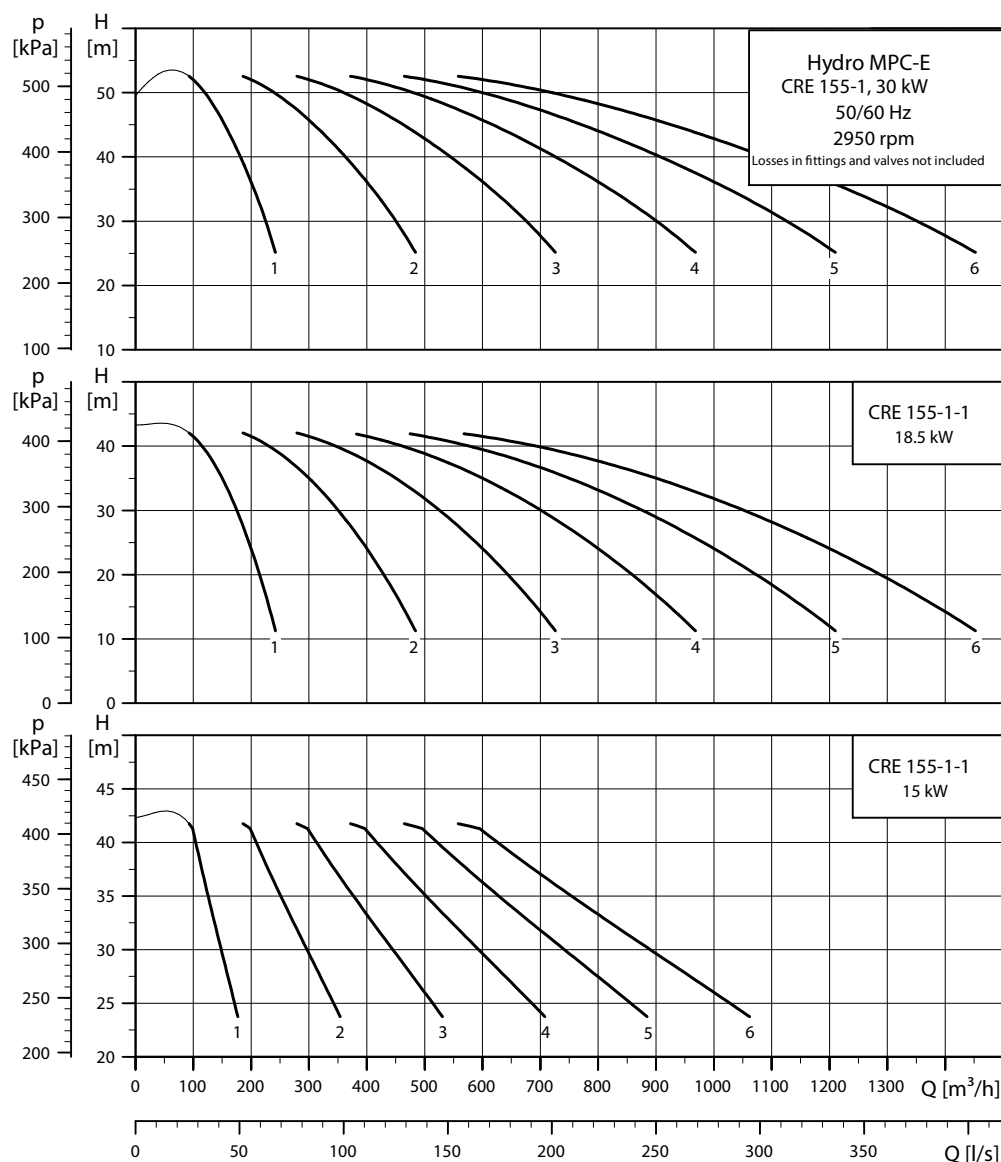
Hydro MPC-E with CRE 125



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM07 1629 2518

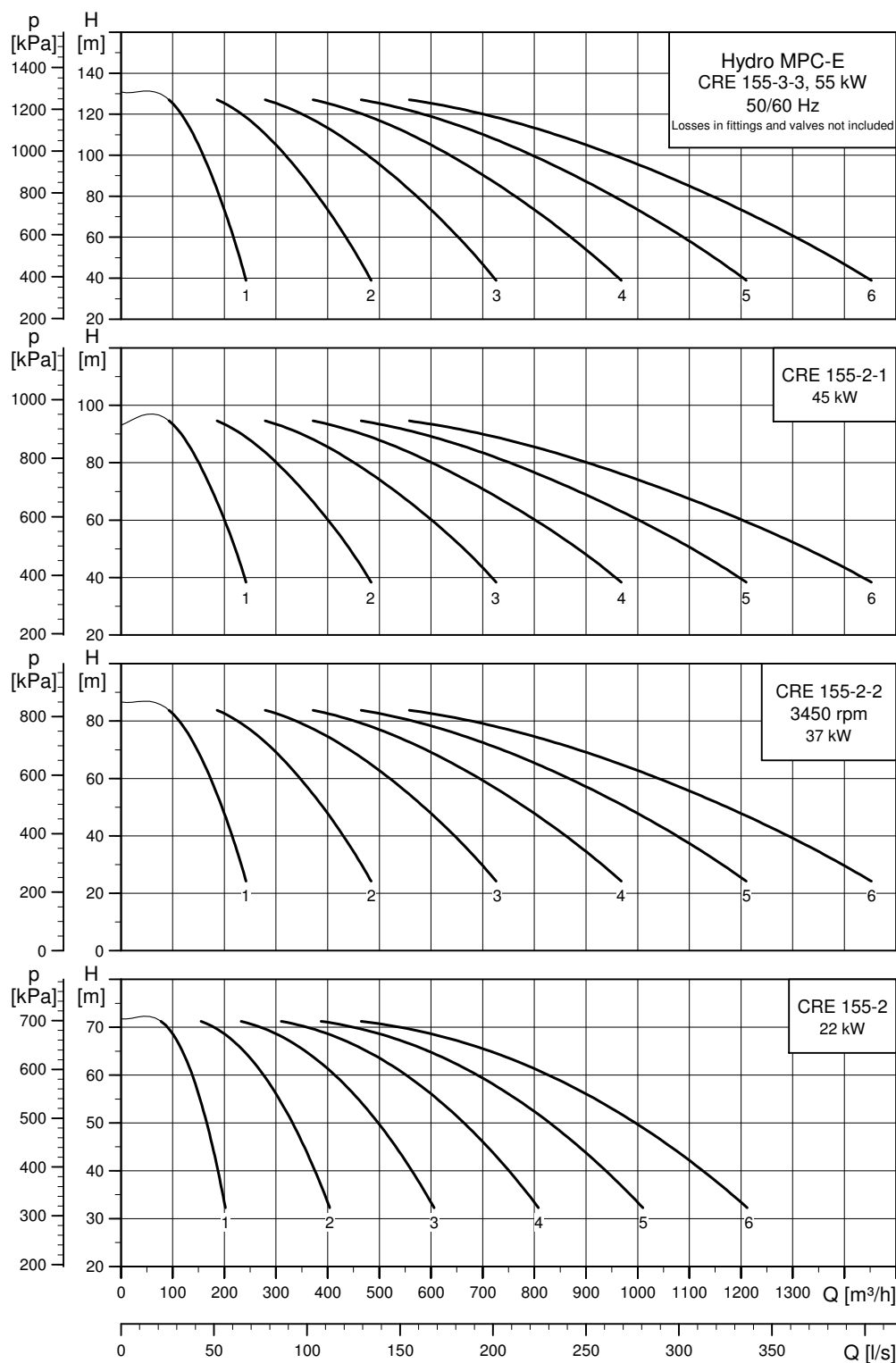
Hydro MPC-E with CRE 155



Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min⁻¹.

TM07 1627 2518

Hydro MPC-E with CRE 155

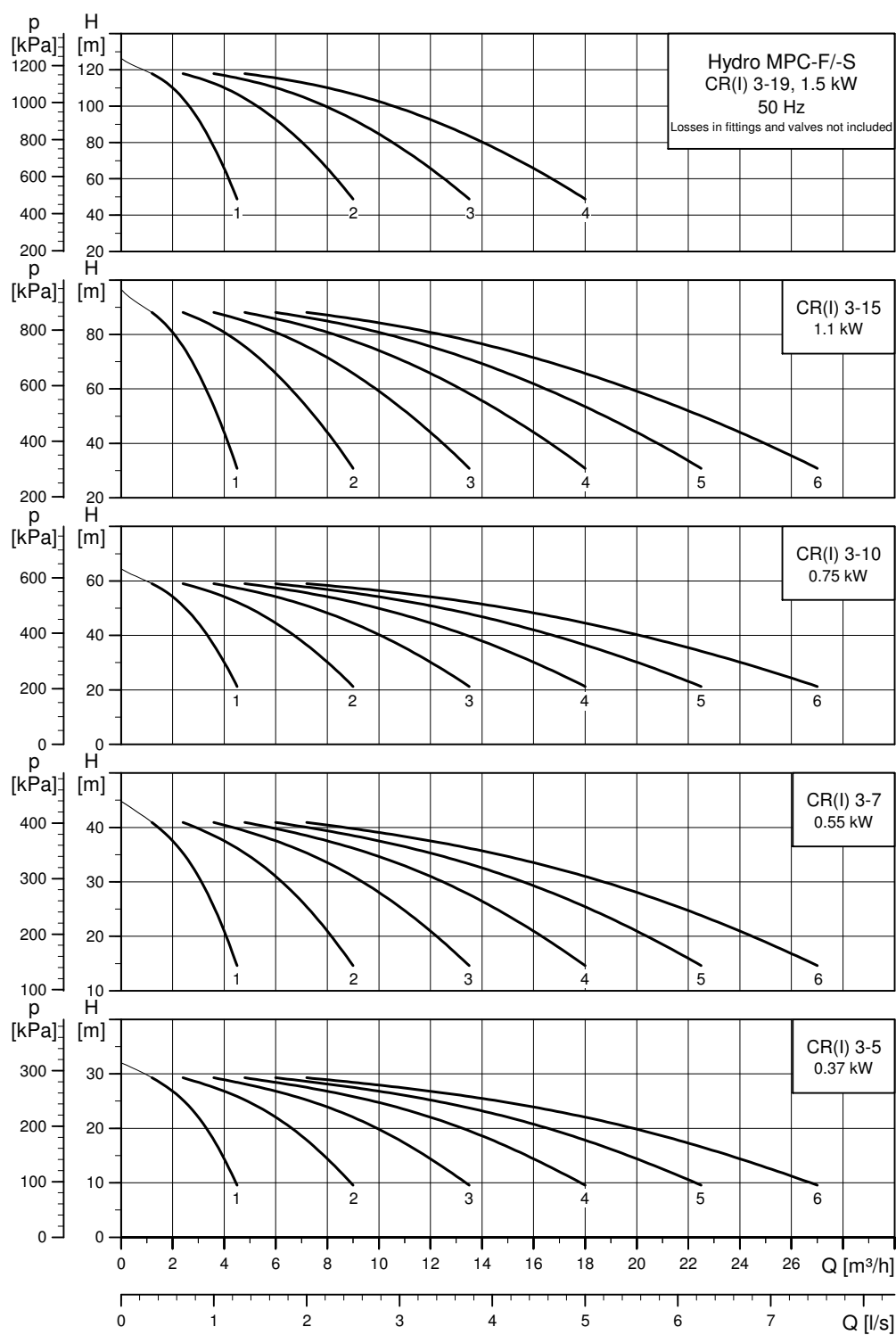


Note: Irrespective of the input frequency, the 100 % speed of pumps is approximately 3480 min^{-1} .

TM07 1628 2518

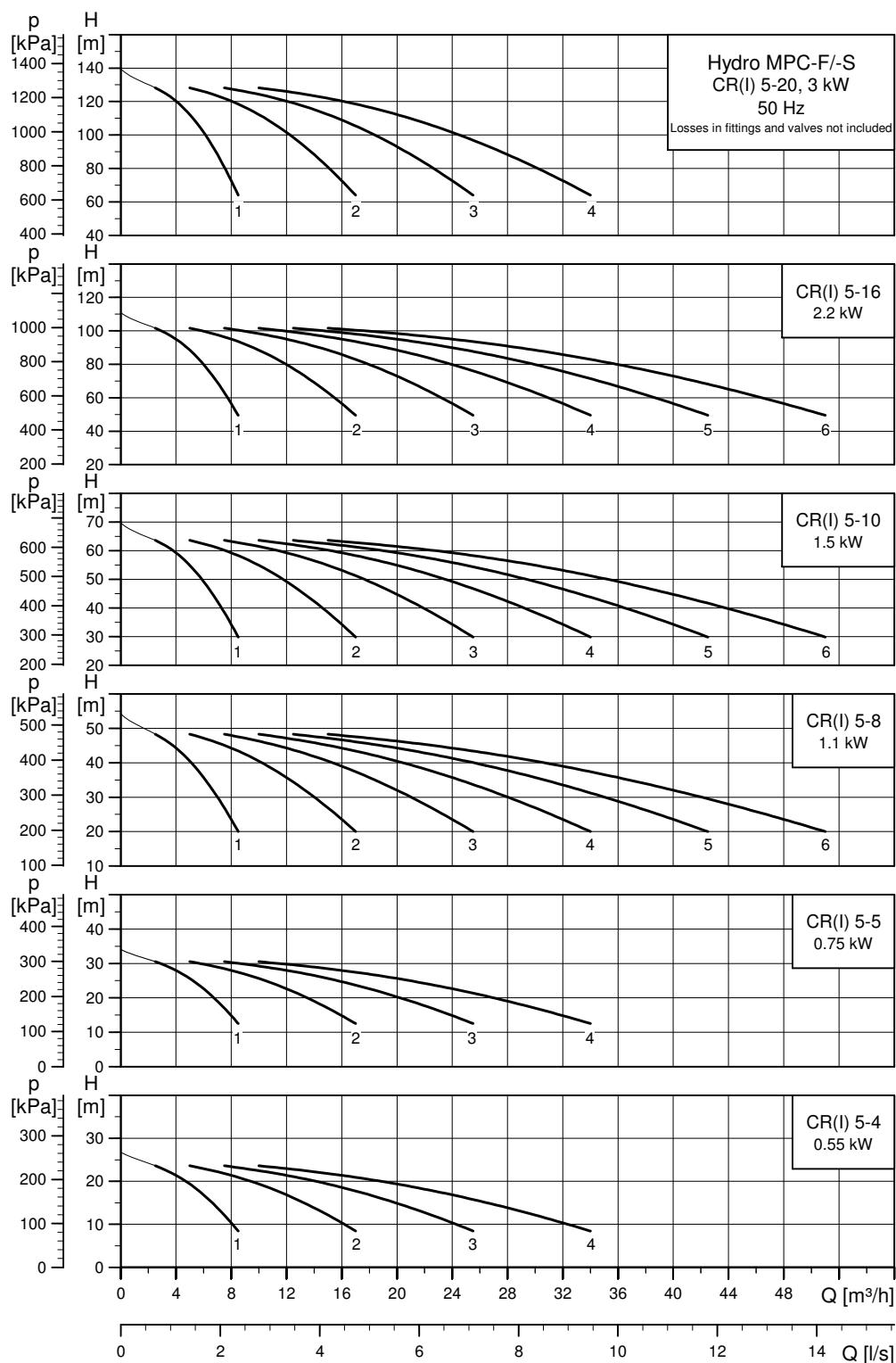
9. Curve charts, Hydro MPC-F/-S, 50 Hz

Hydro MPC-F/-S with CR(I) 3



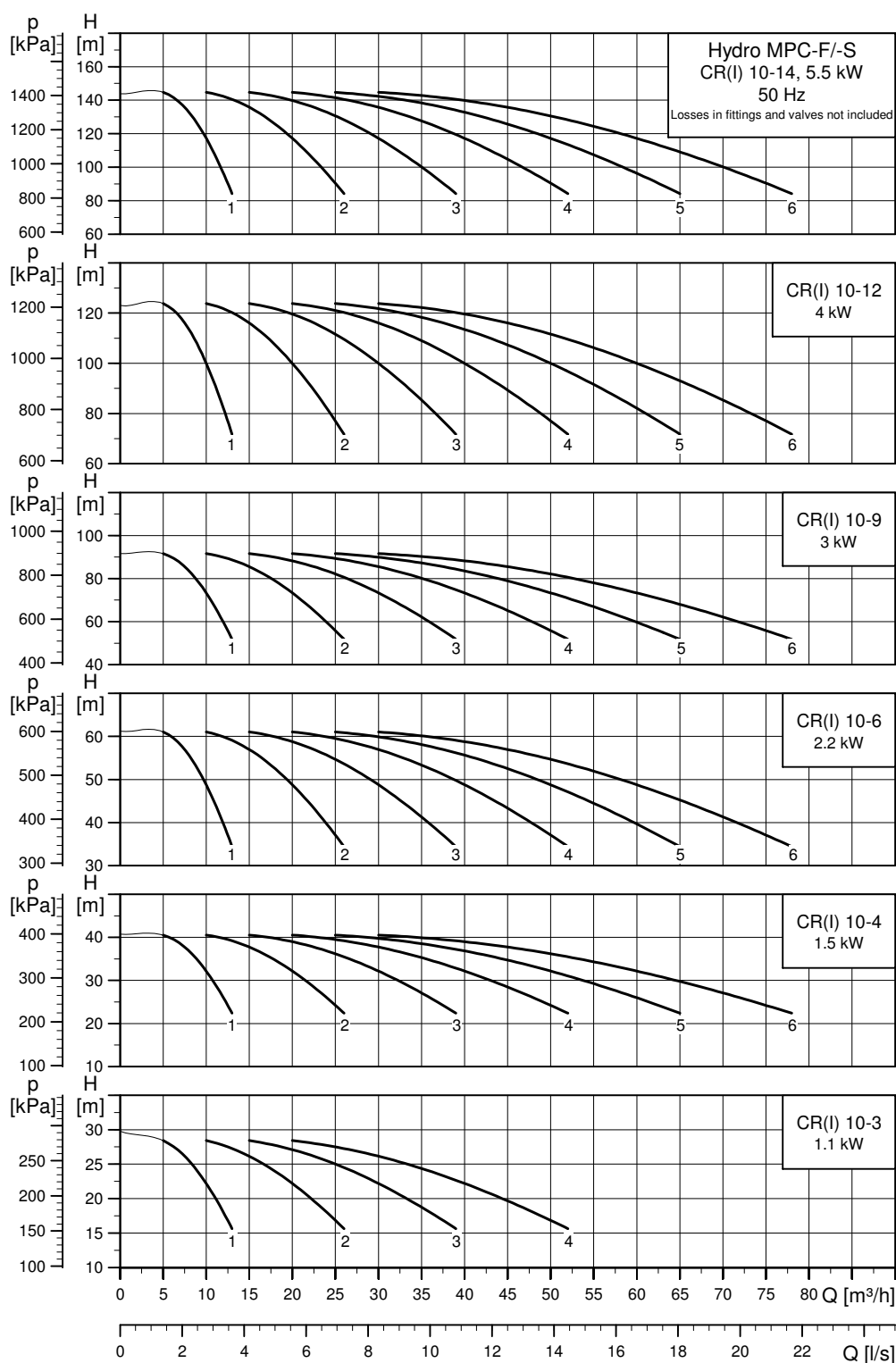
TM03 0989 2518

Hydro MPC-F/-S with CR(I) 5



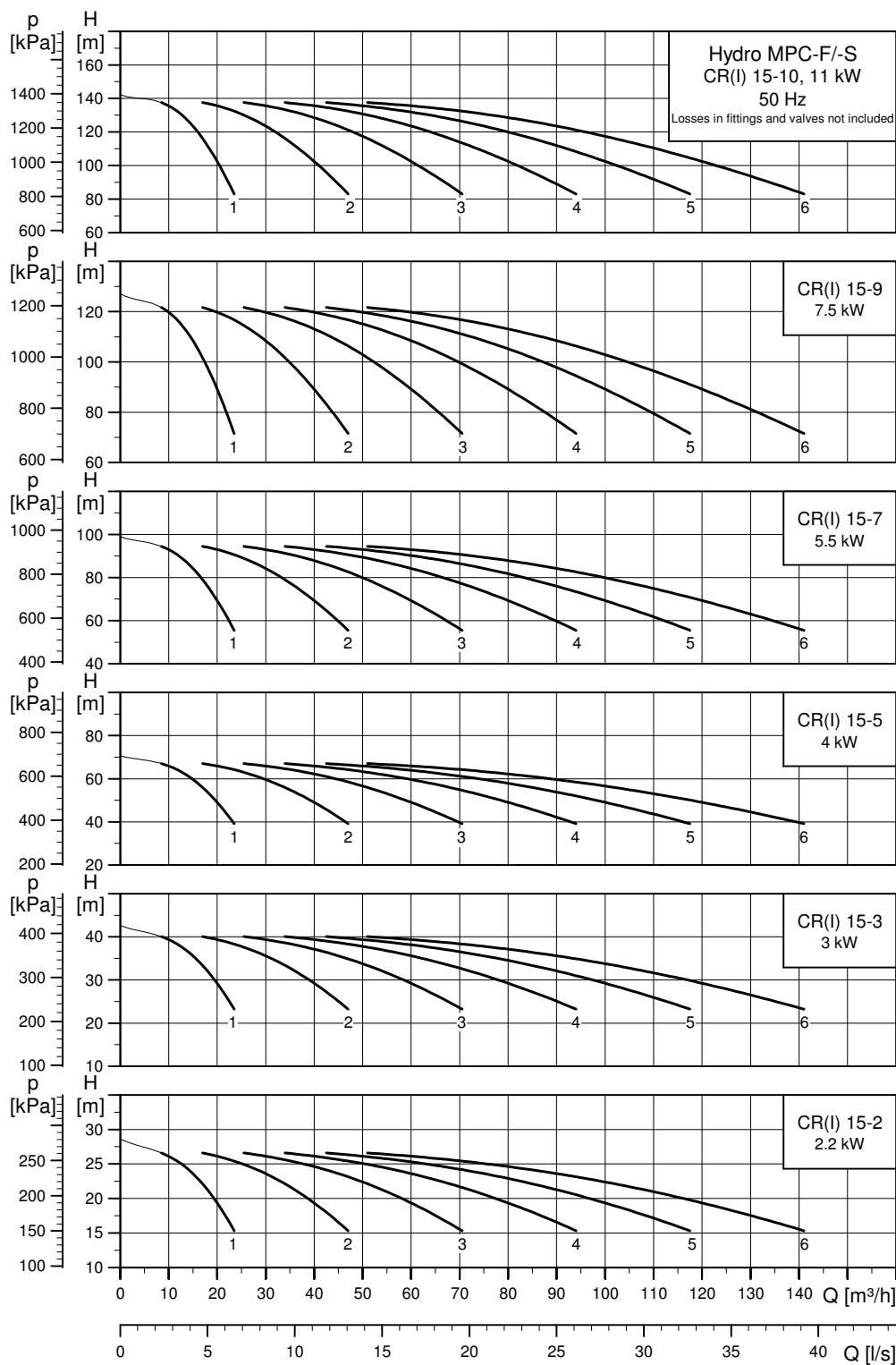
TM03 09902518

Hydro MPC-F/-S with CR(I) 10



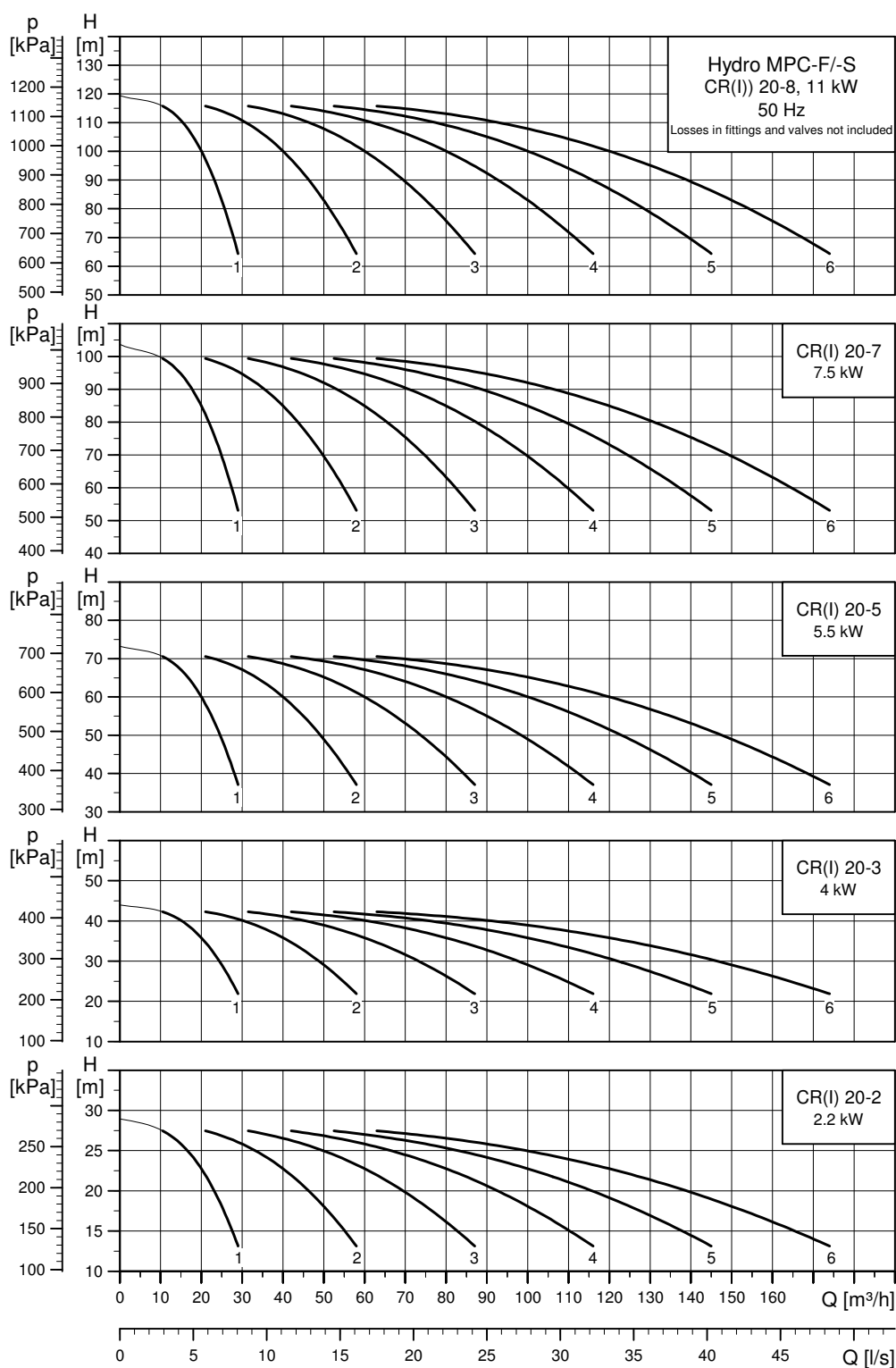
TM03 0991 2518

Hydro MPC-F/-S with CR(I) 15



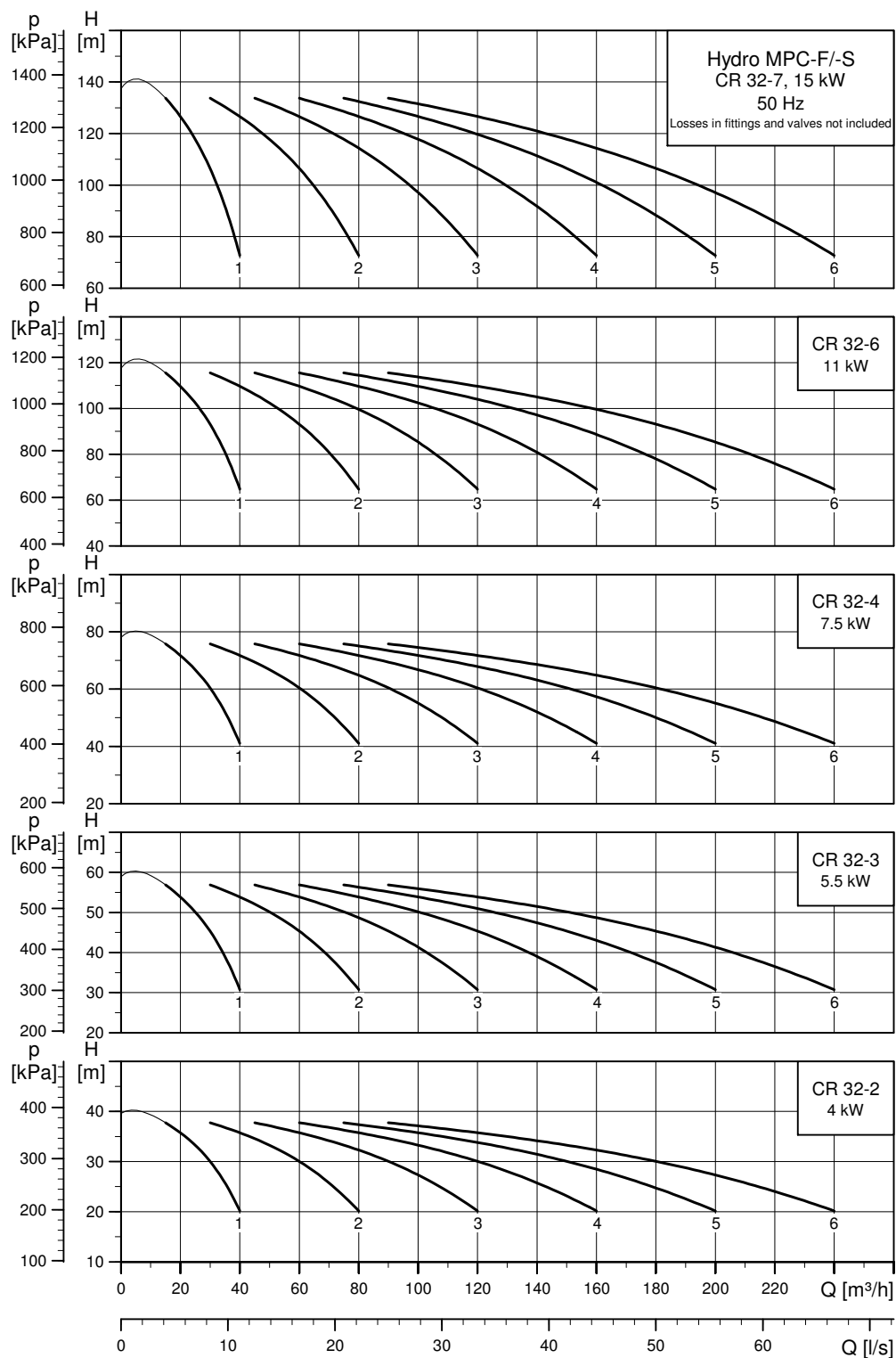
TM03 1066 2518

Hydro MPC-F/-S with CR(I) 20



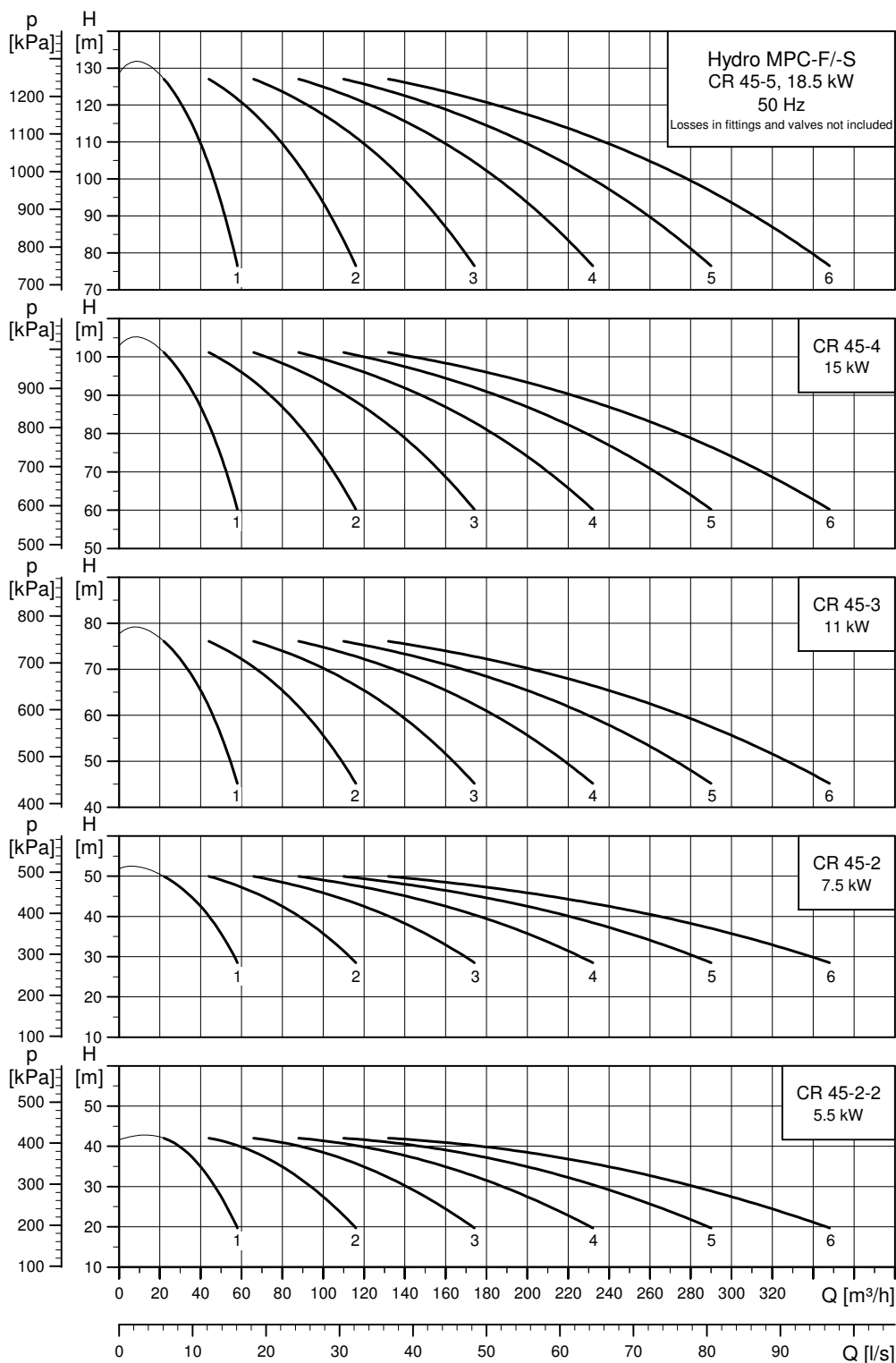
TM03 1067 2518

Hydro MPC-F/-S with CR 32



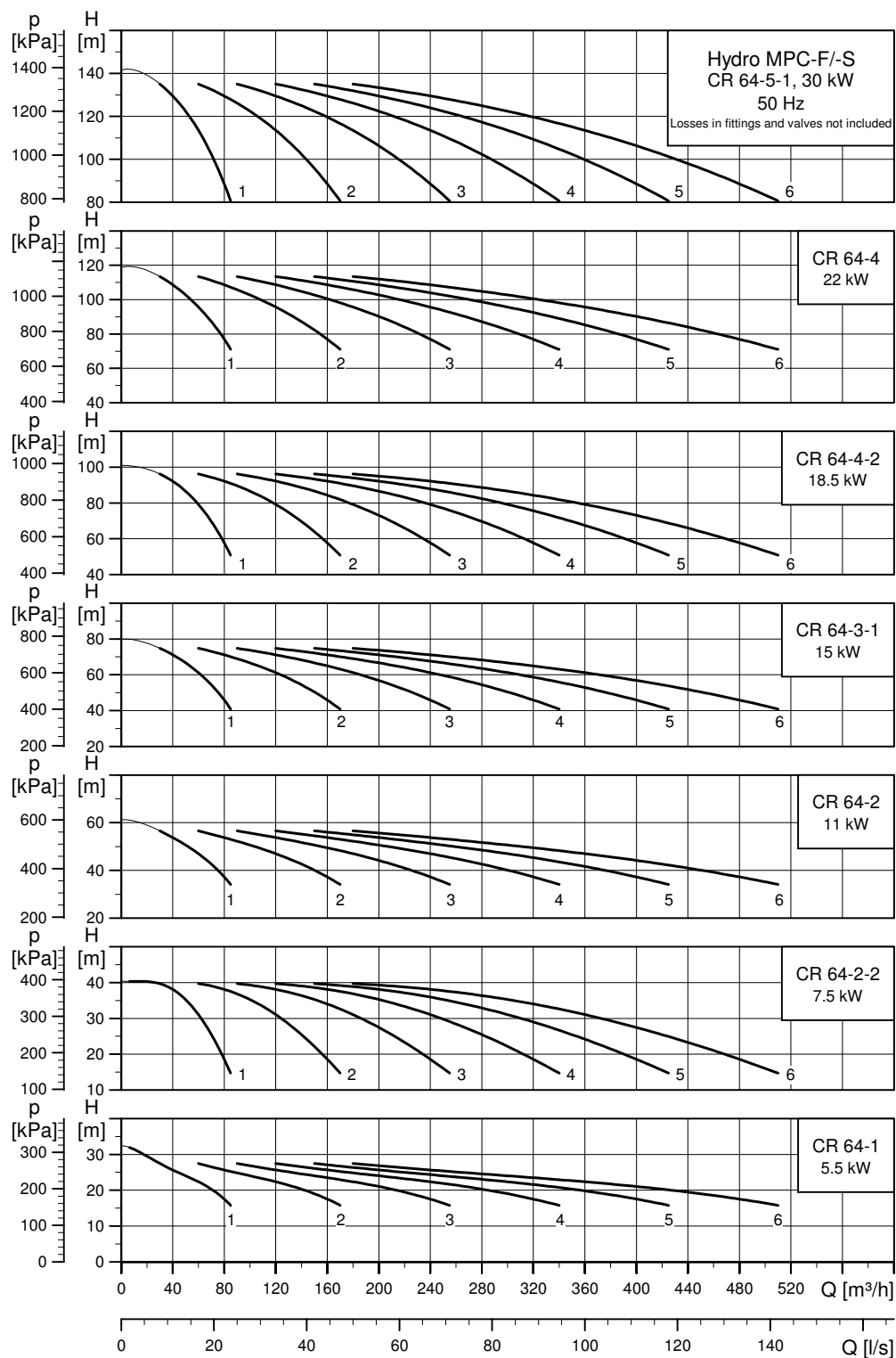
TM03 1068 2518

Hydro MPC-F/-S with CR 45



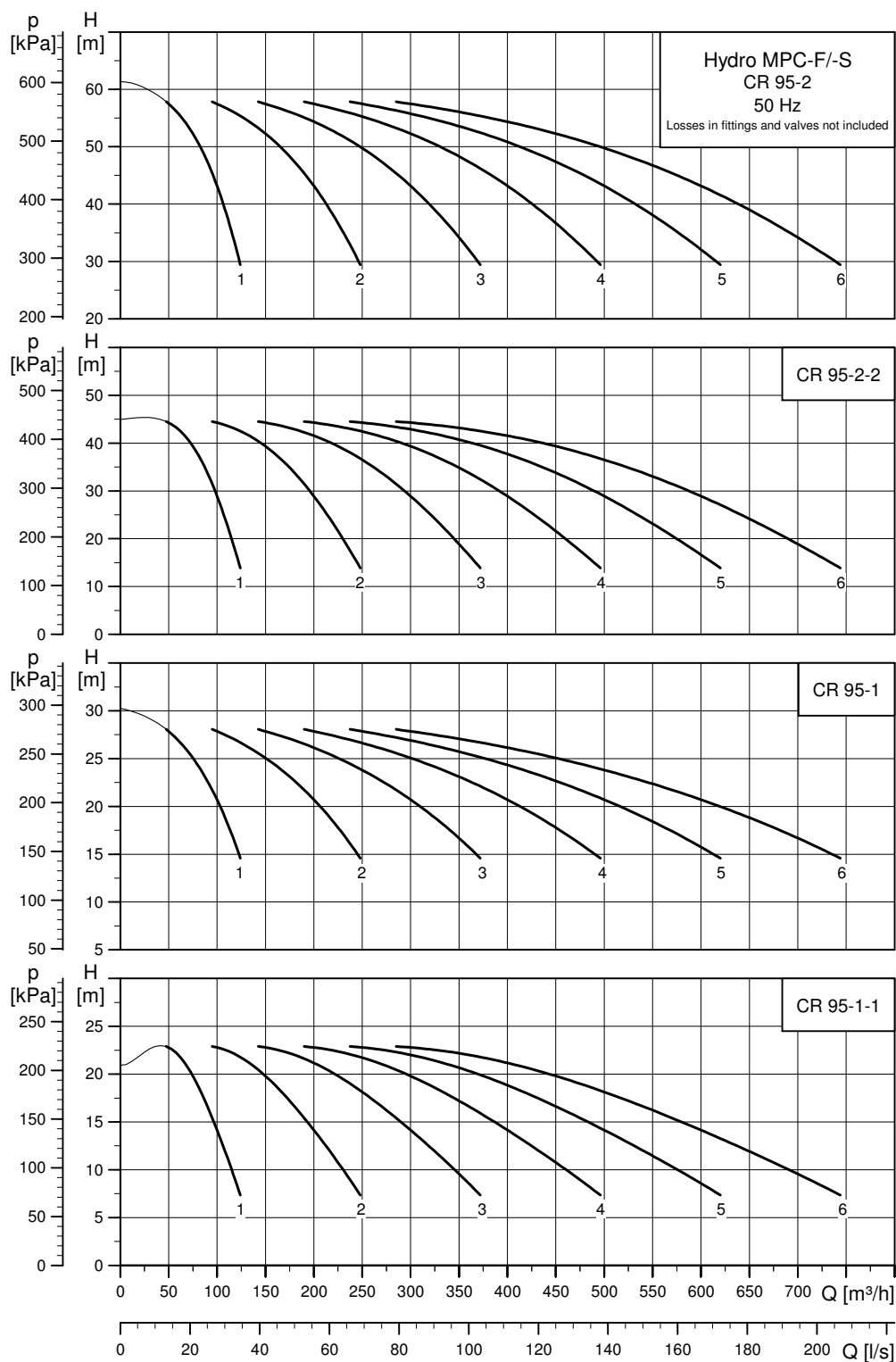
TM03 1069 2518

Hydro MPC-F/-S with CR 64



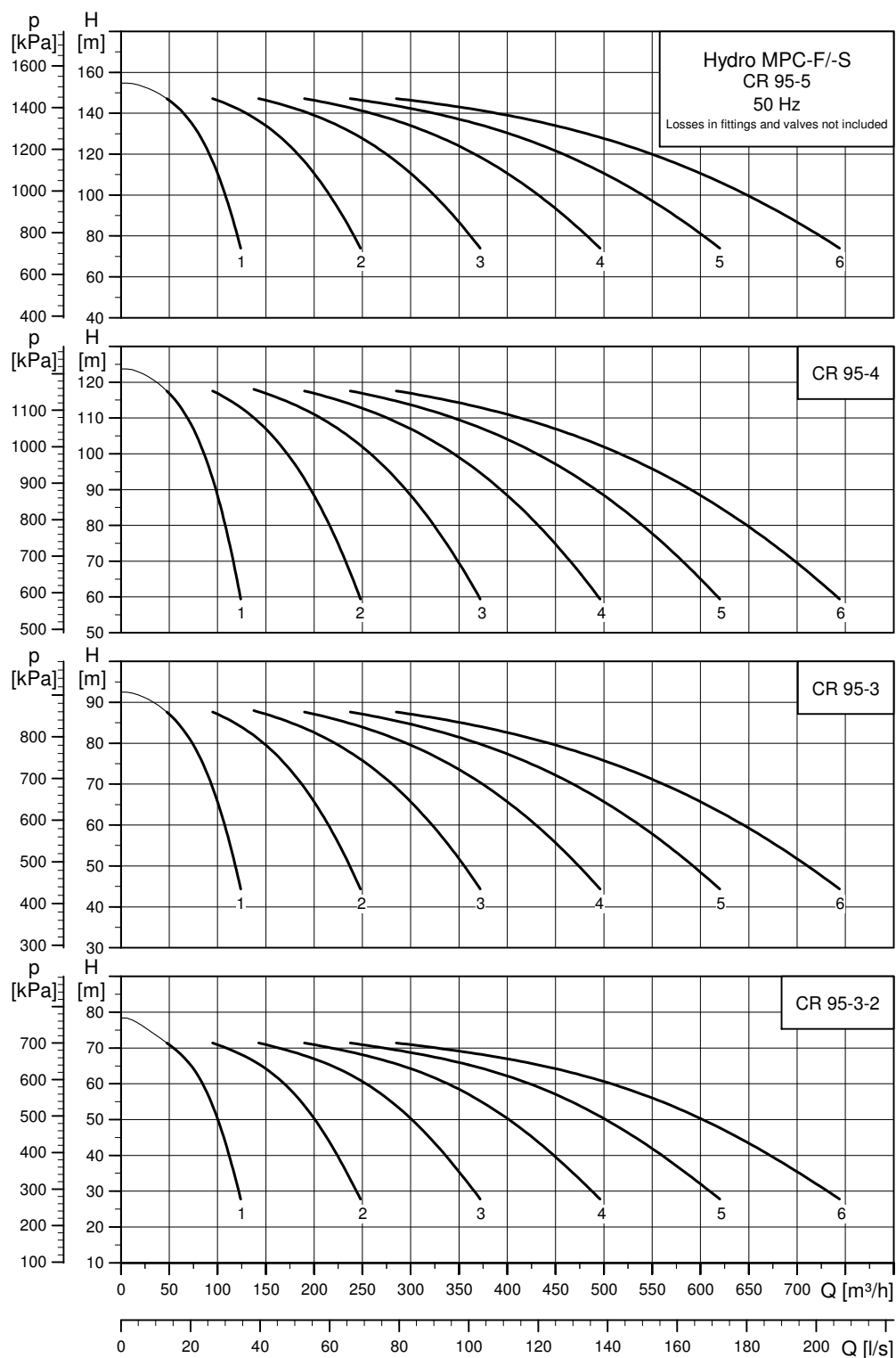
TM03 1070 2518

Hydro MPC-F/-S with CR 95



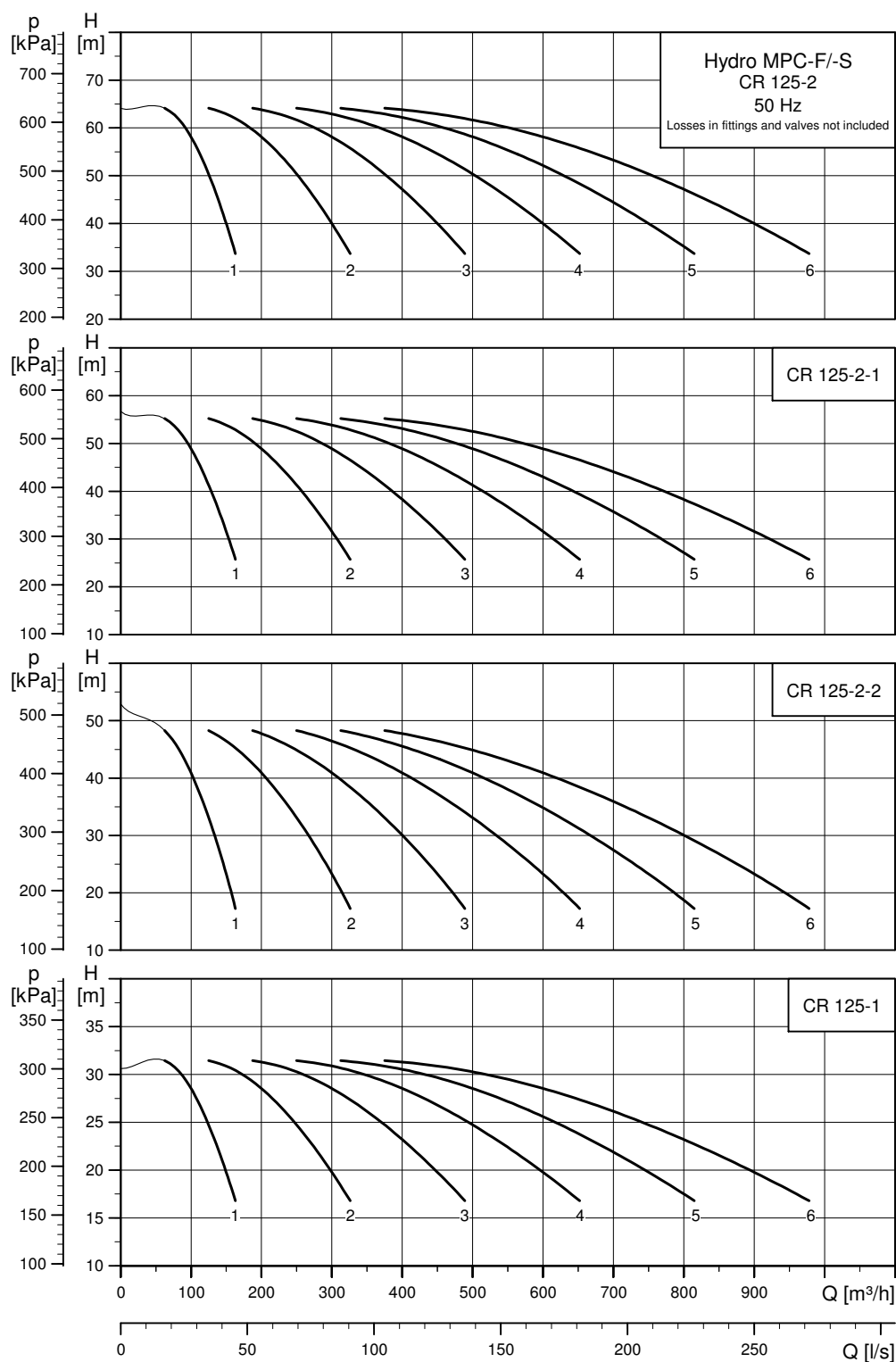
TM07 1214 2518

Hydro MPC-F/-S with CR 95



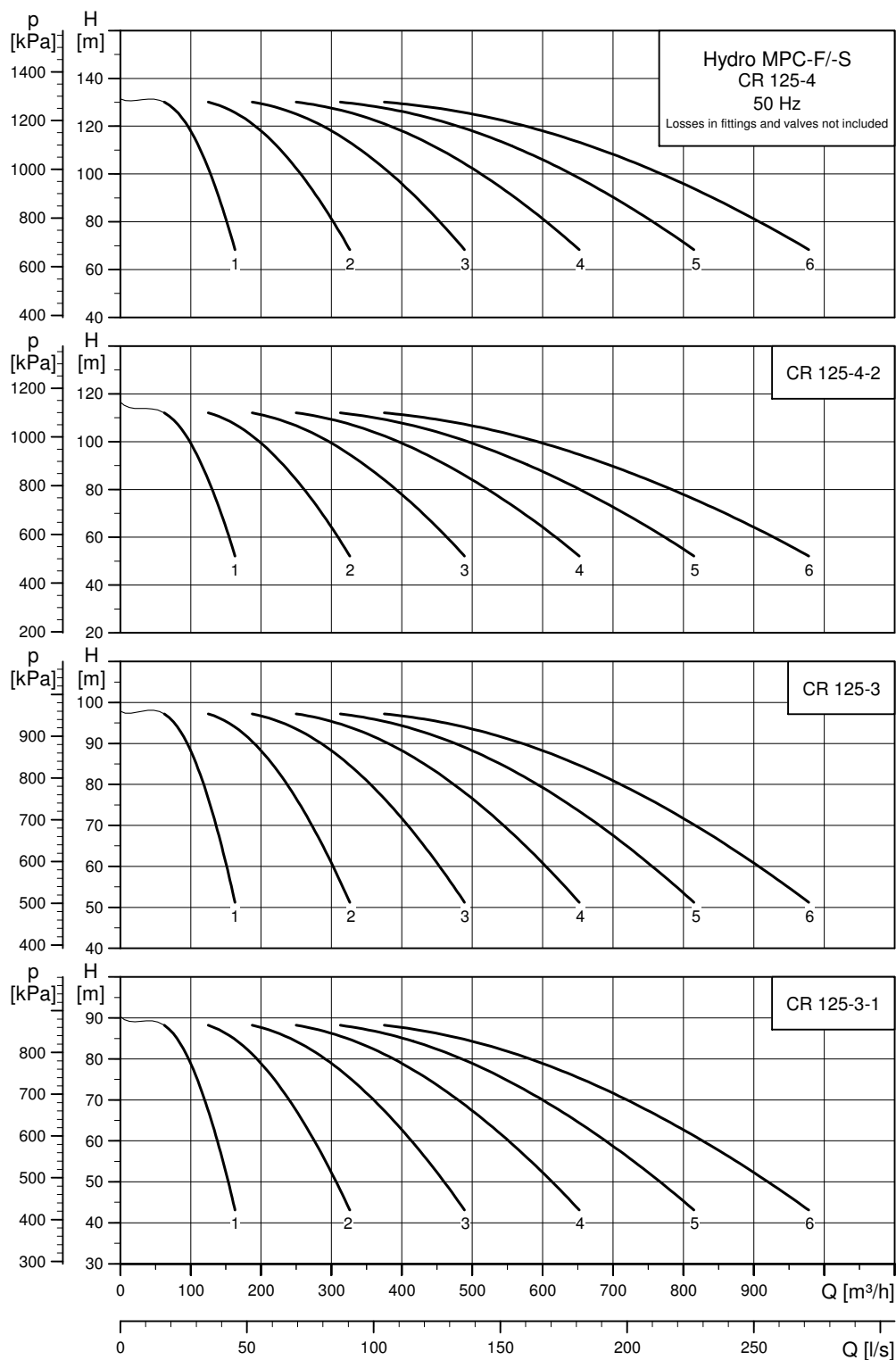
TM07 1215 2518

Hydro MPC-F/-S with CR 125



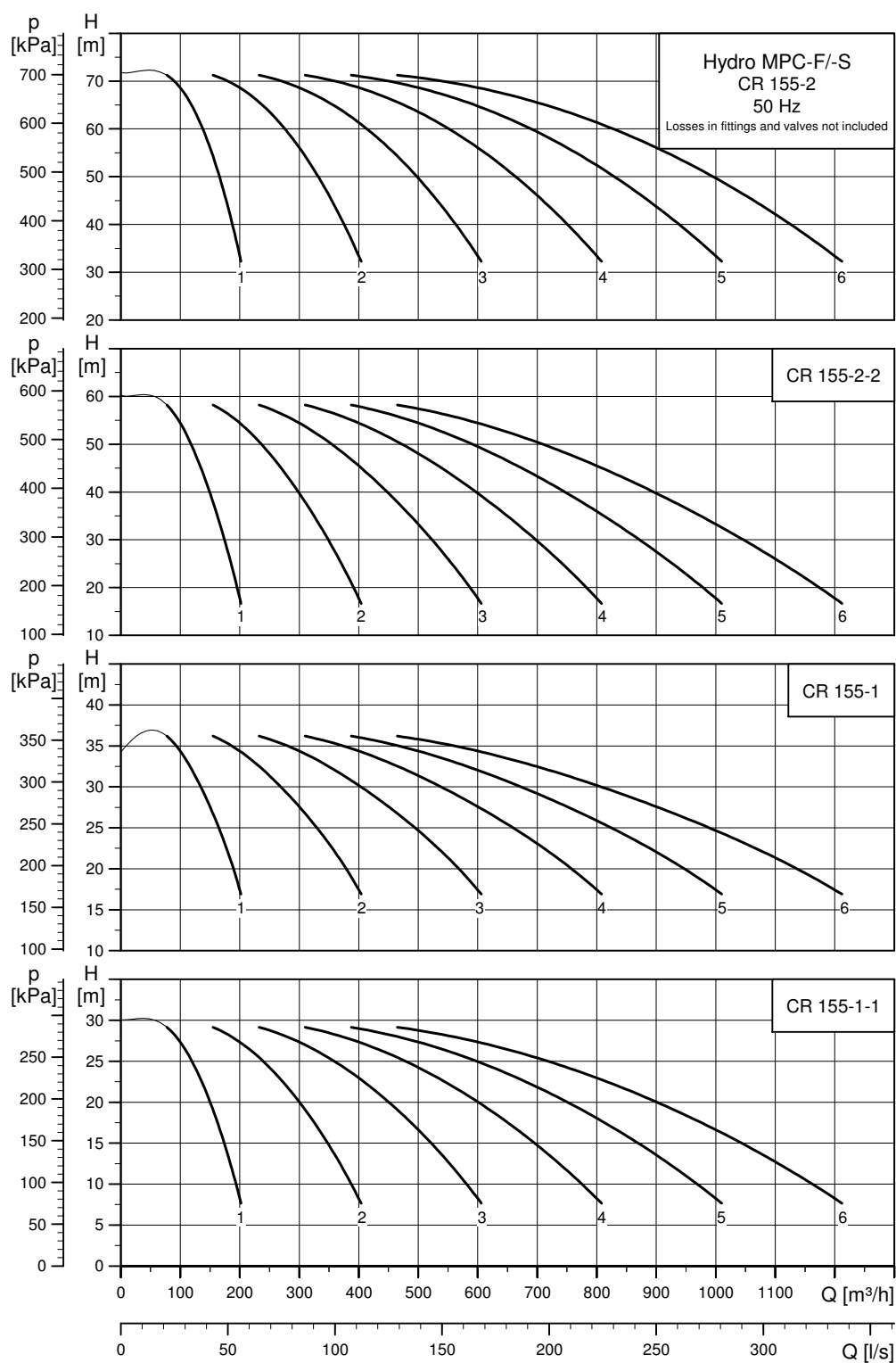
TM071216 2518

Hydro MPC-F/-S with CR 125



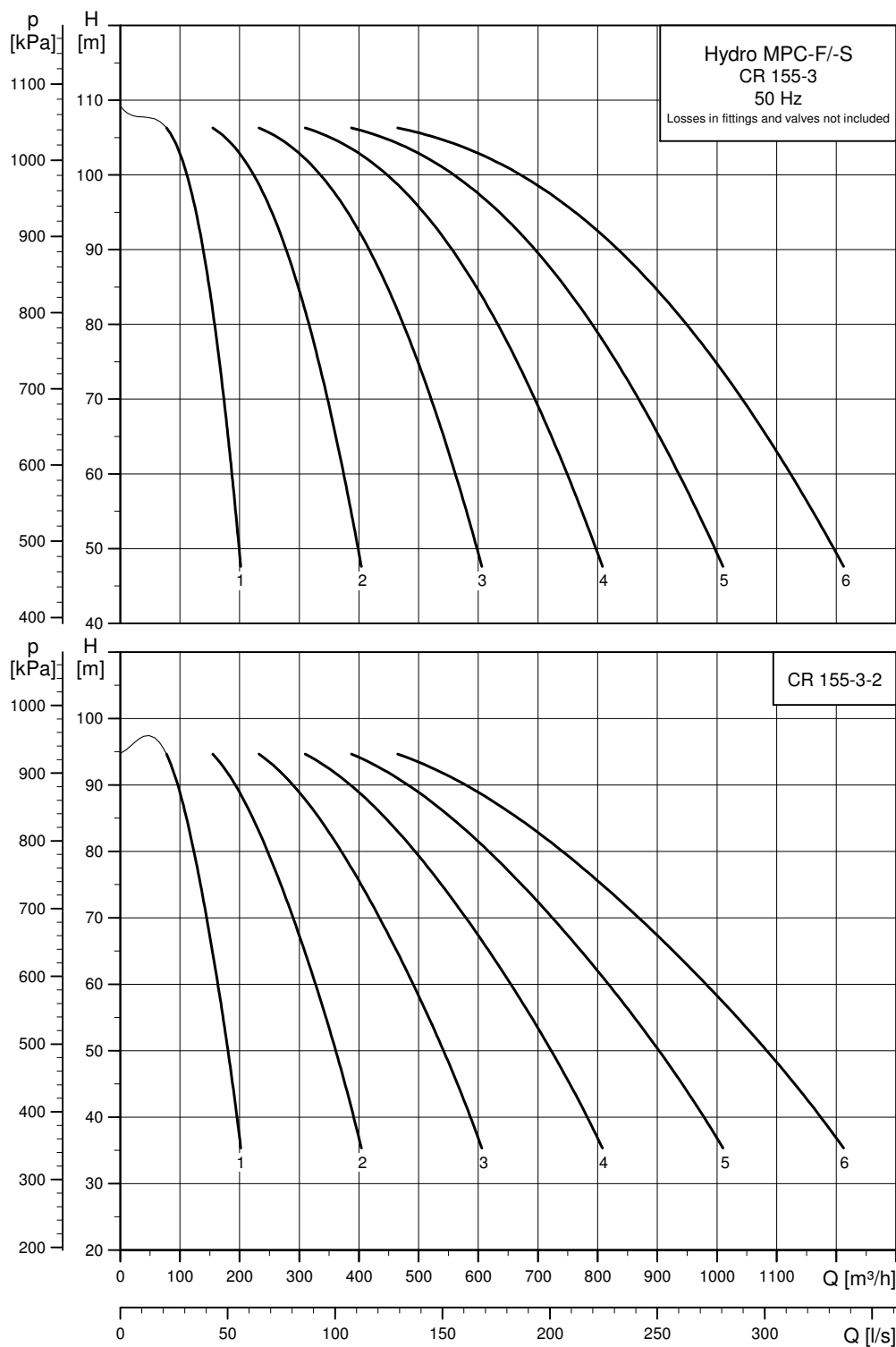
TM071217 2518

Hydro MPC-F/-S with CR 155



TM07 1218 2518

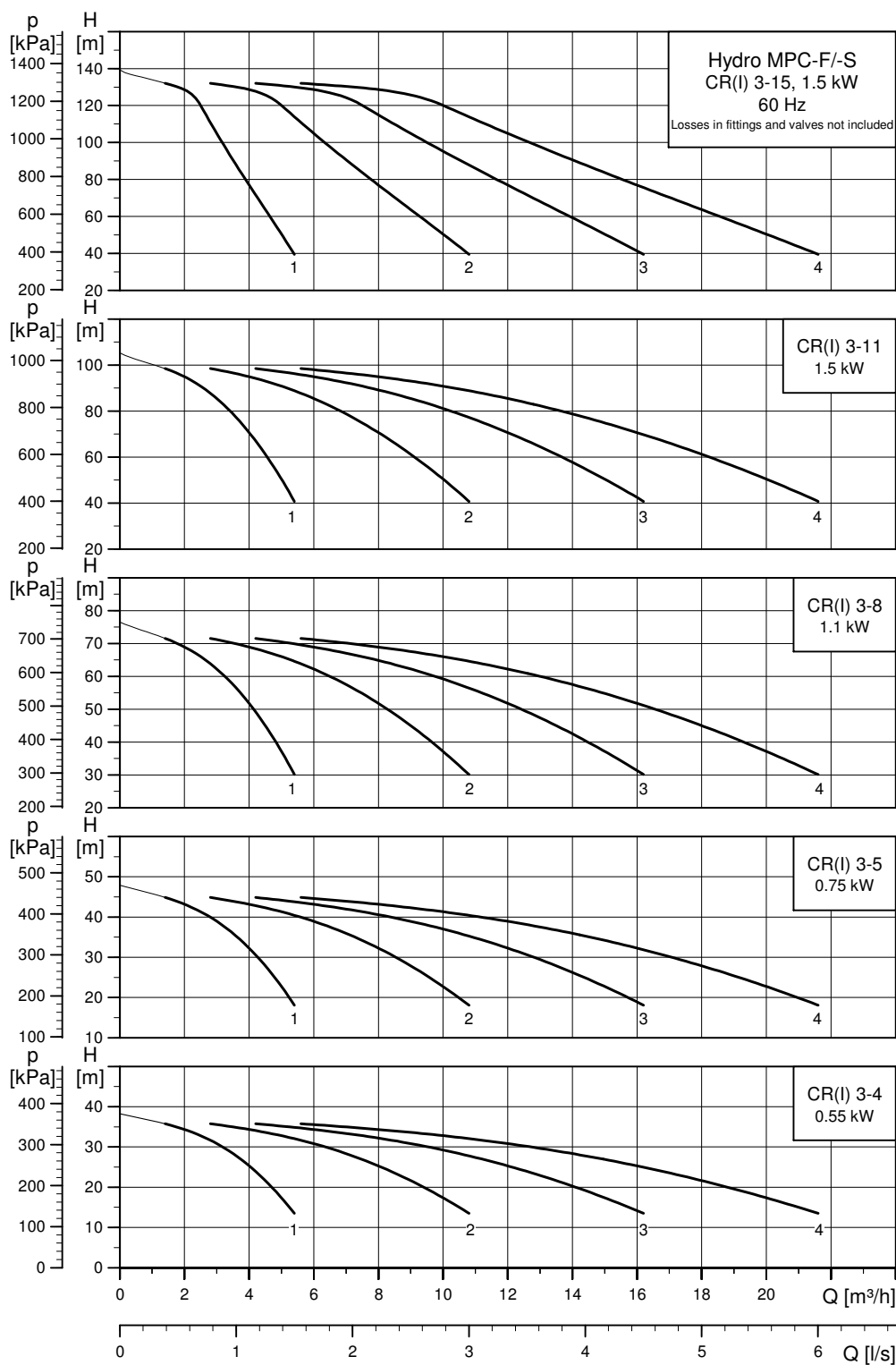
Hydro MPC -F/-S with CR 155



TM07 1219 2518

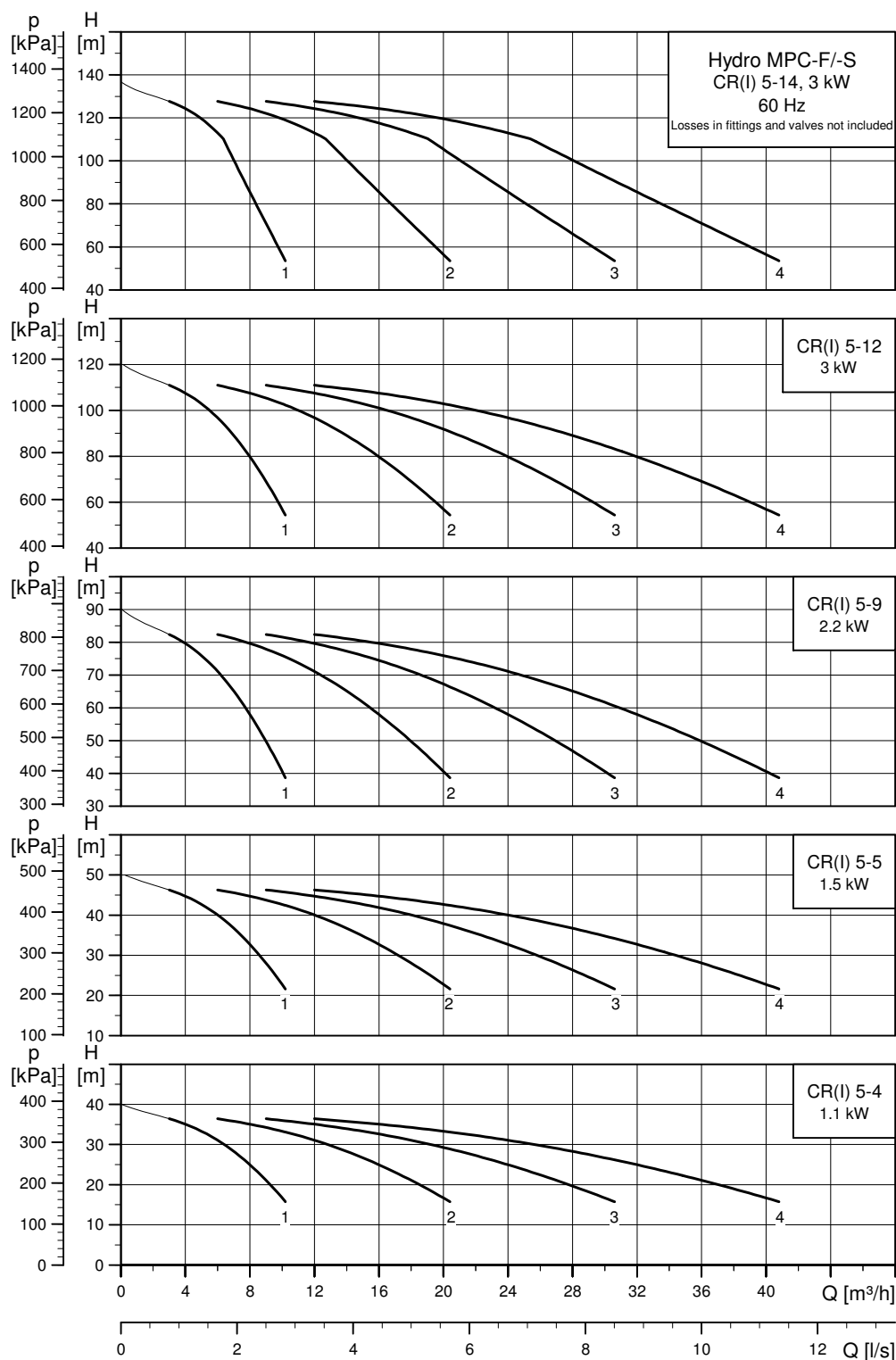
10. Curve charts, Hydro MPC-F/-S, 60 Hz

Hydro MPC-F/-S with CR(I) 3



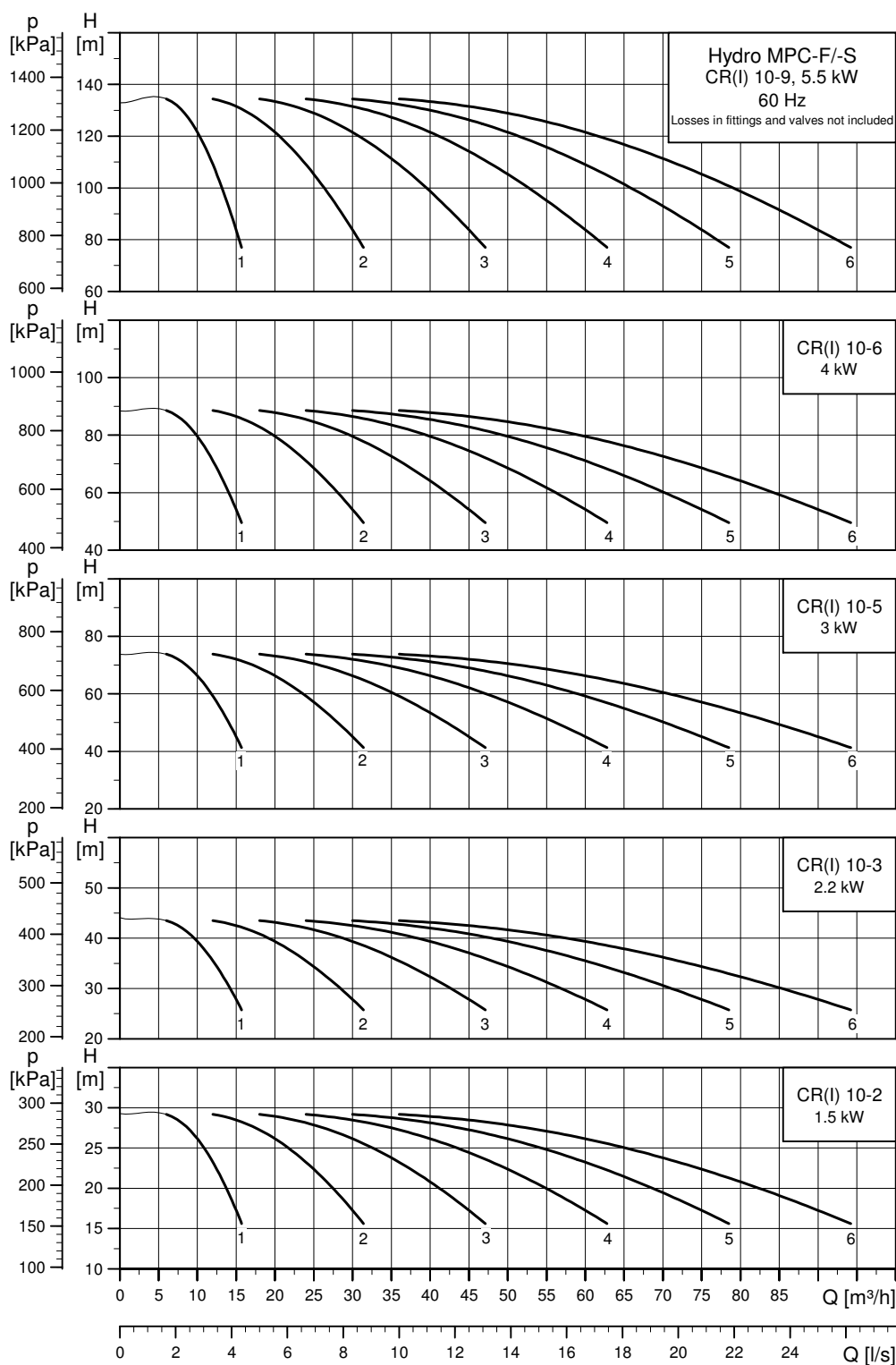
TM03 3349 25/18

Hydro MPC-F/-S with CR(I) 5



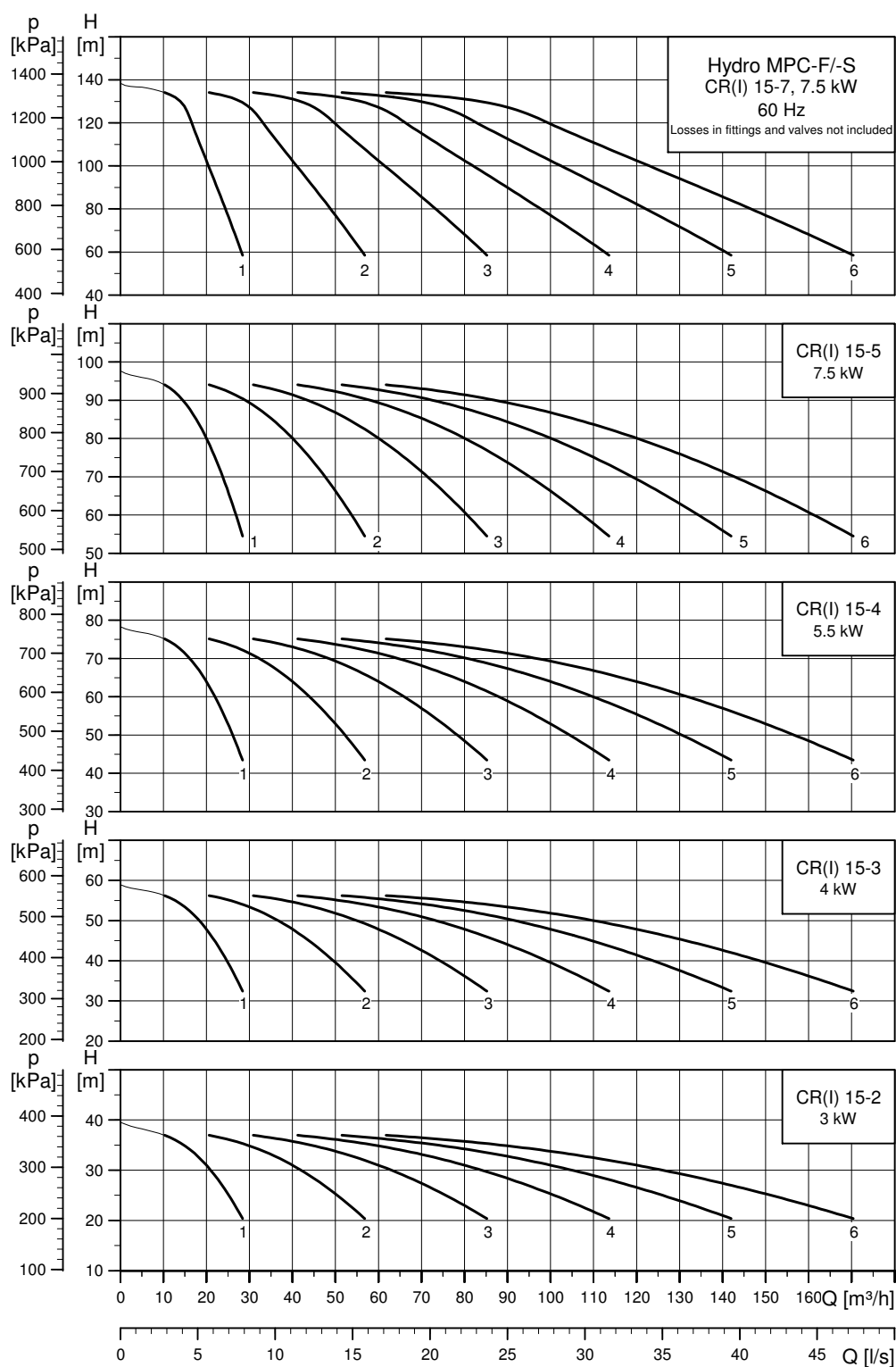
TM03 1144 2518

Hydro MPC-F/-S with CR(I) 10



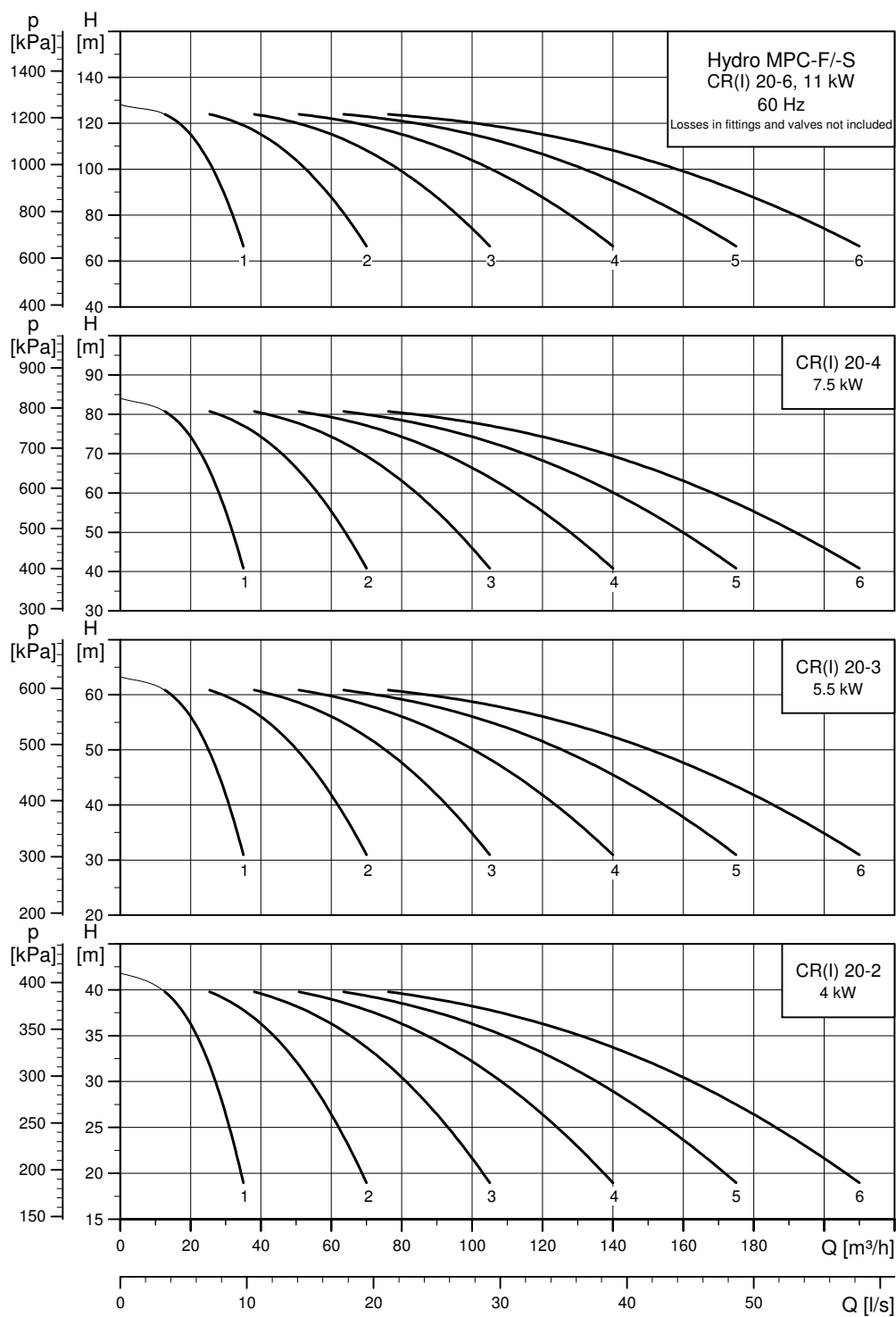
TM03 1145 2518

Hydro MPC-F/-S with CR(I) 15



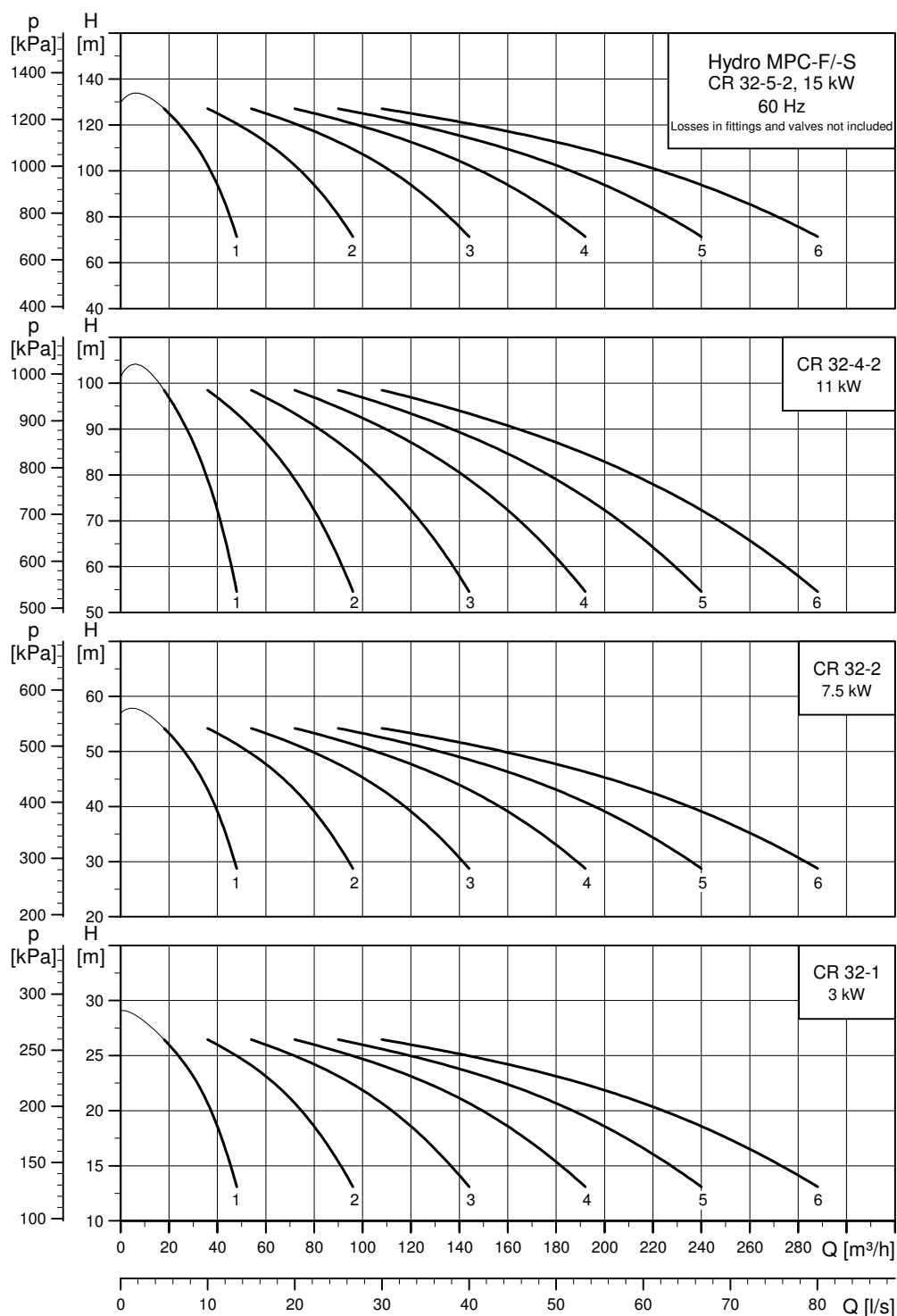
TM03 1146 25/18

Hydro MPC-F/-S with CR(I) 20



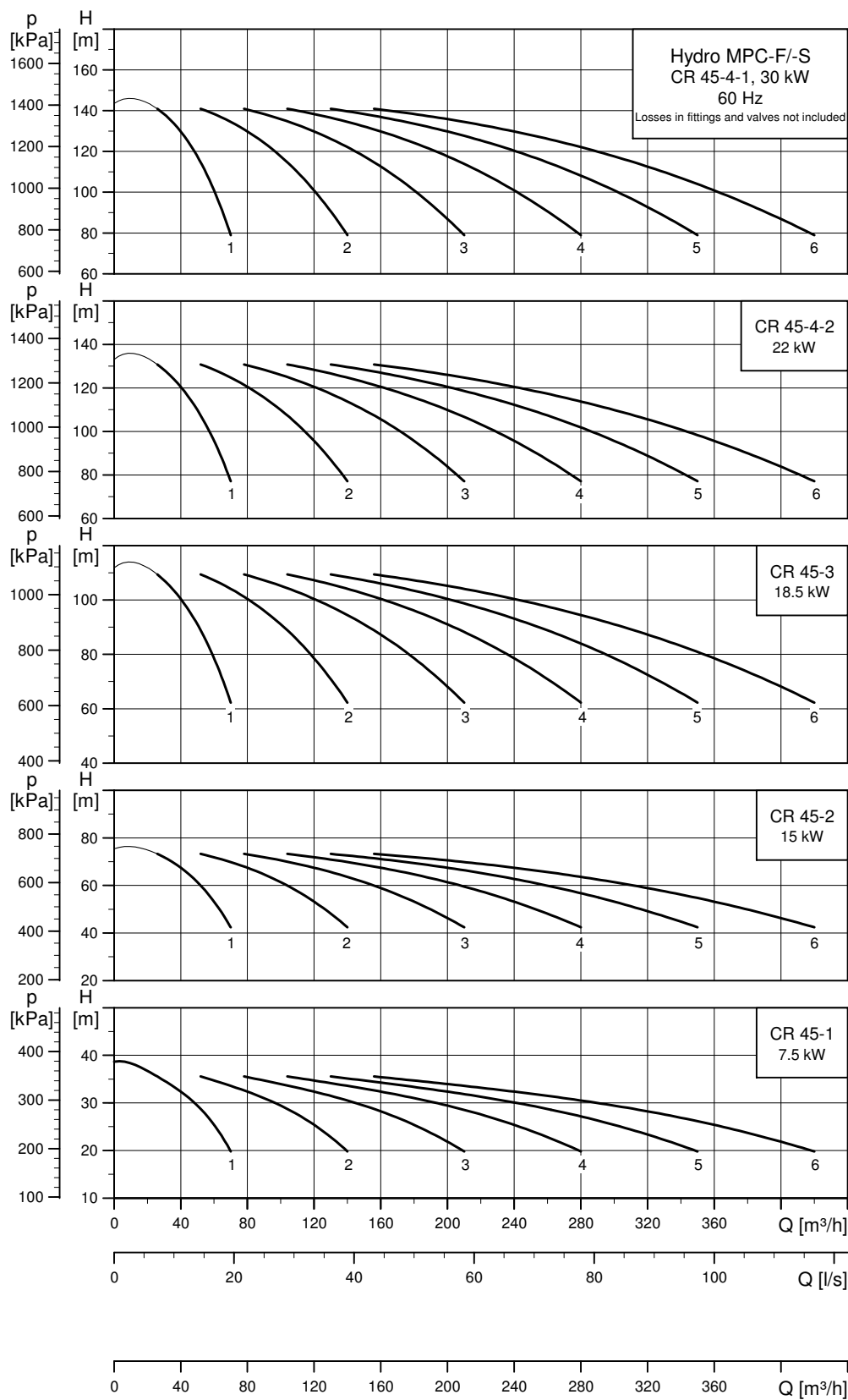
TM03 1147 2518

Hydro MPC-F/-S with CR 32



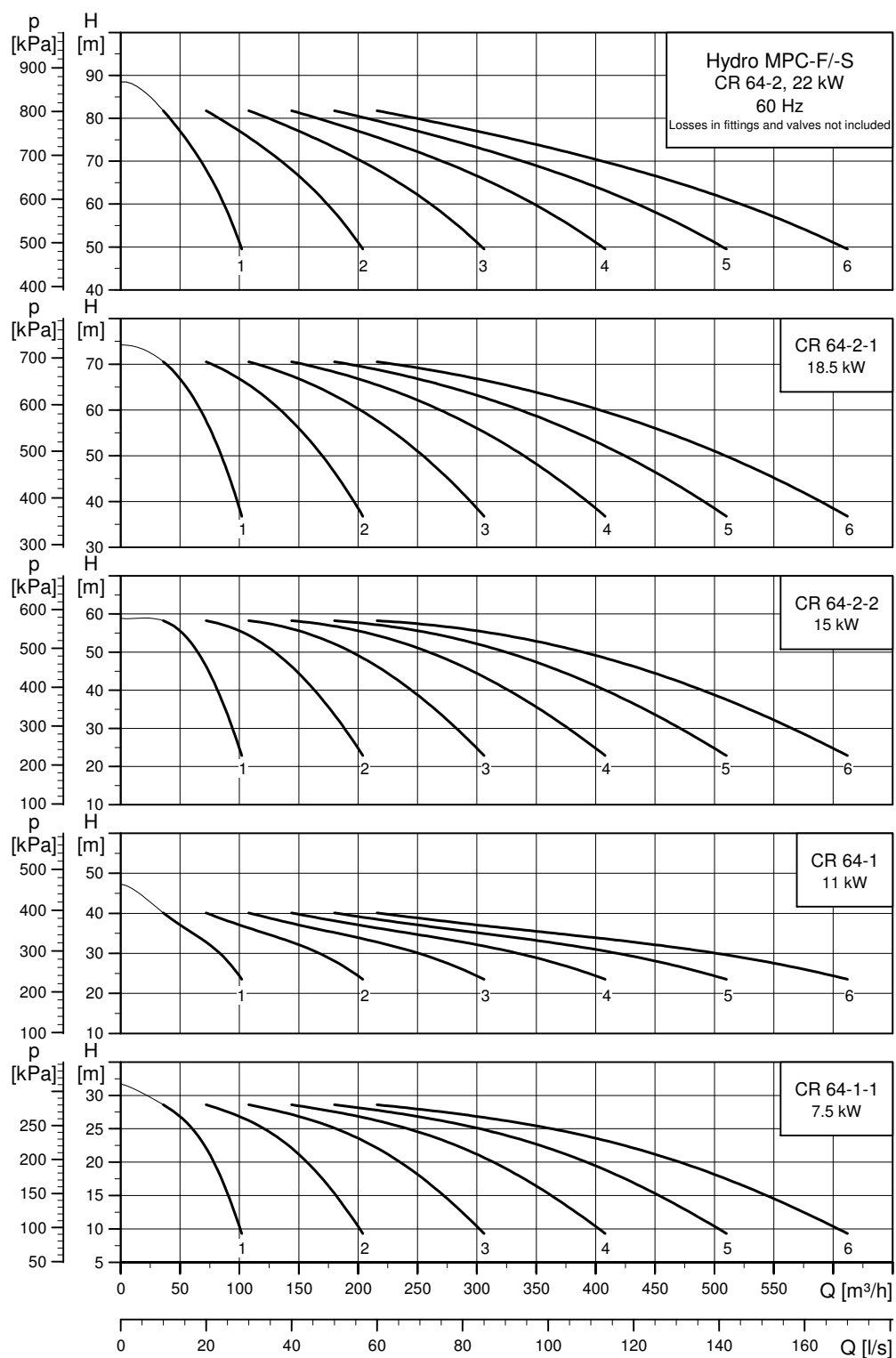
TM03 1148 2518

Hydro MPC-F/-S with CR 45



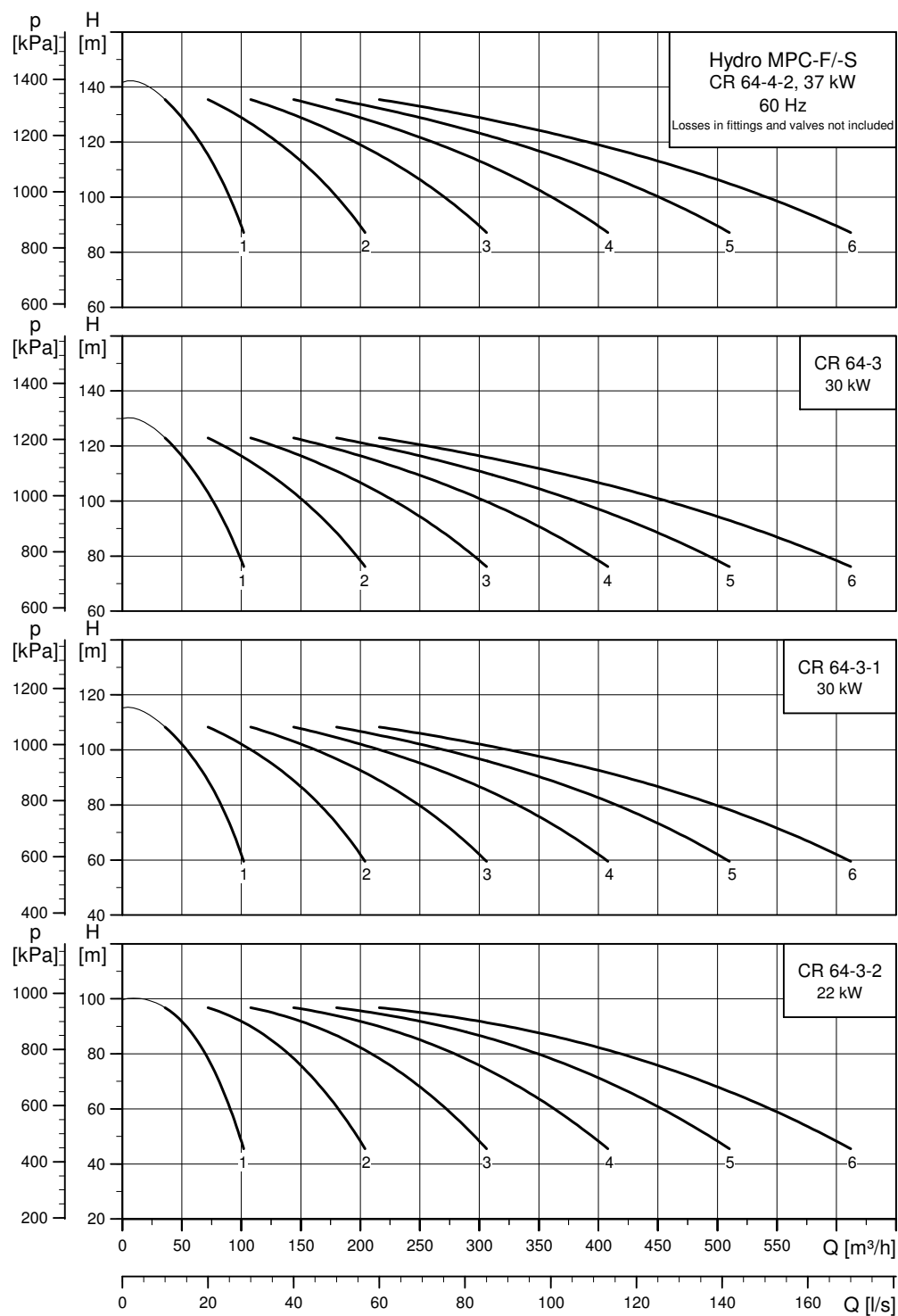
TM03 1149 2518

Hydro MPC-F/-S with CR 64



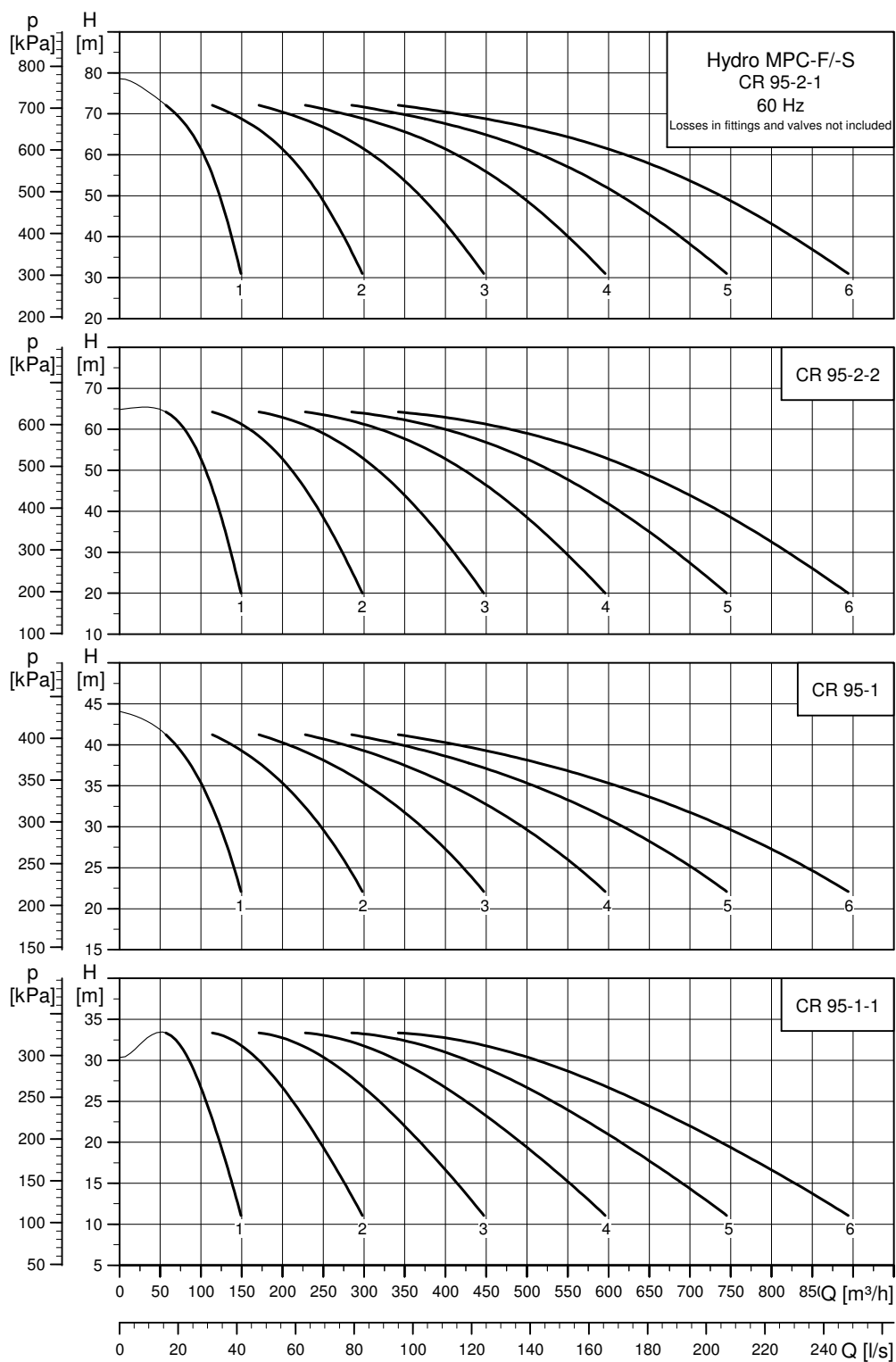
TM03 1150 2518

Hydro MPC-F/-S with CR 64



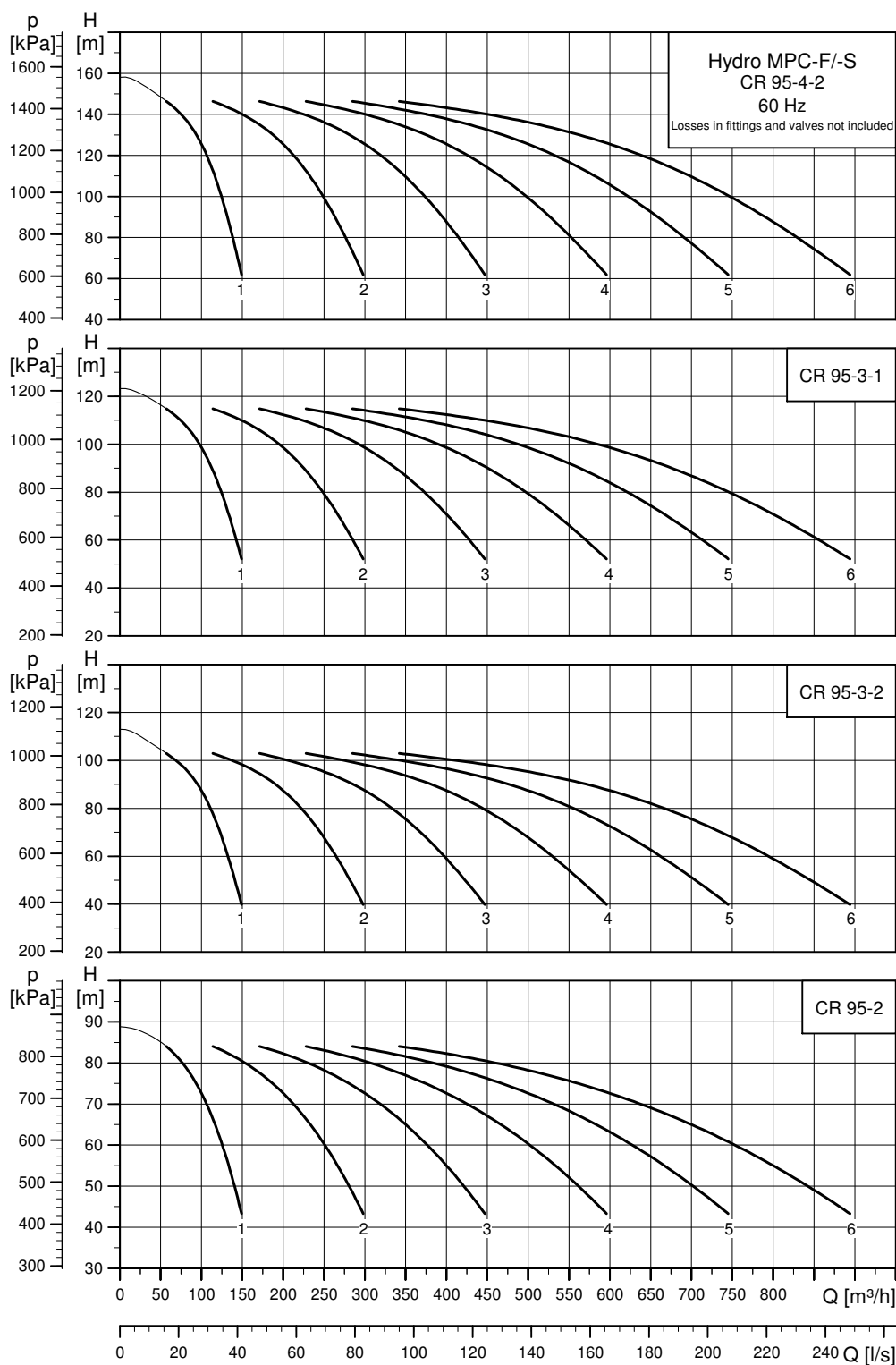
TM04 4776 2518

Hydro MPC-F/-S with CR 95



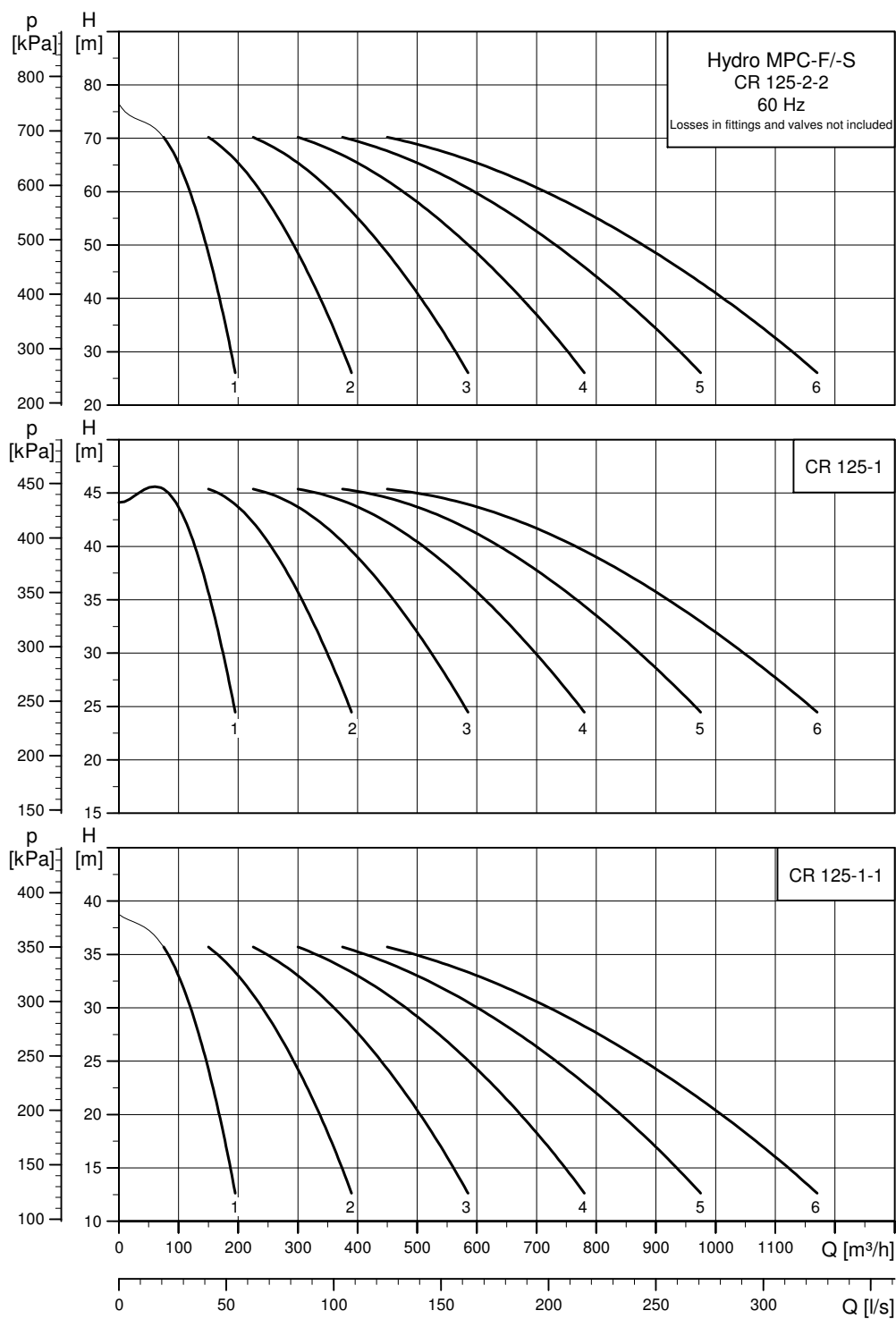
TM07 1220 2518

Hydro MPC-F/-S with CR 95



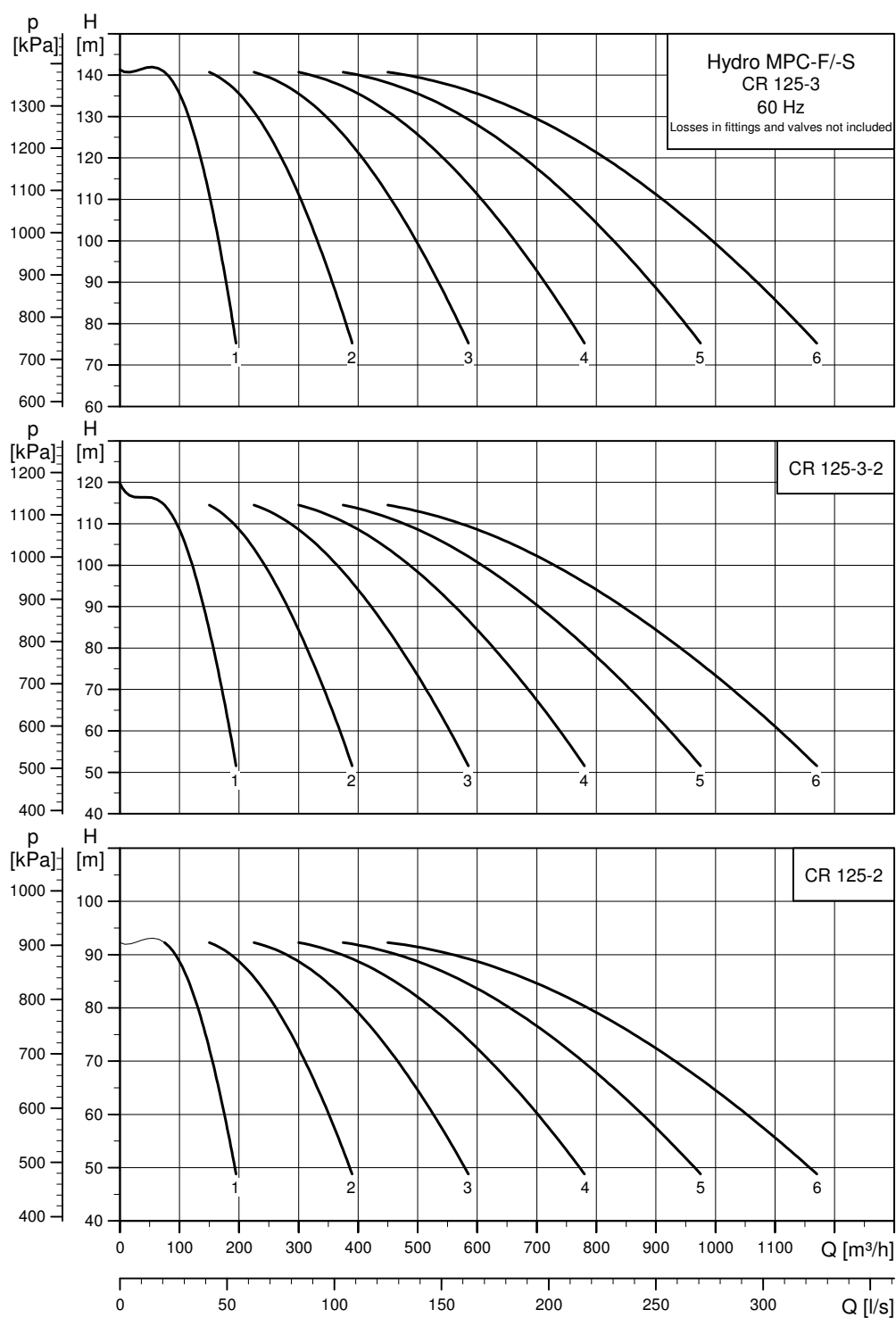
TM07 1221 2518

Hydro MPC-F/-S with CR 125



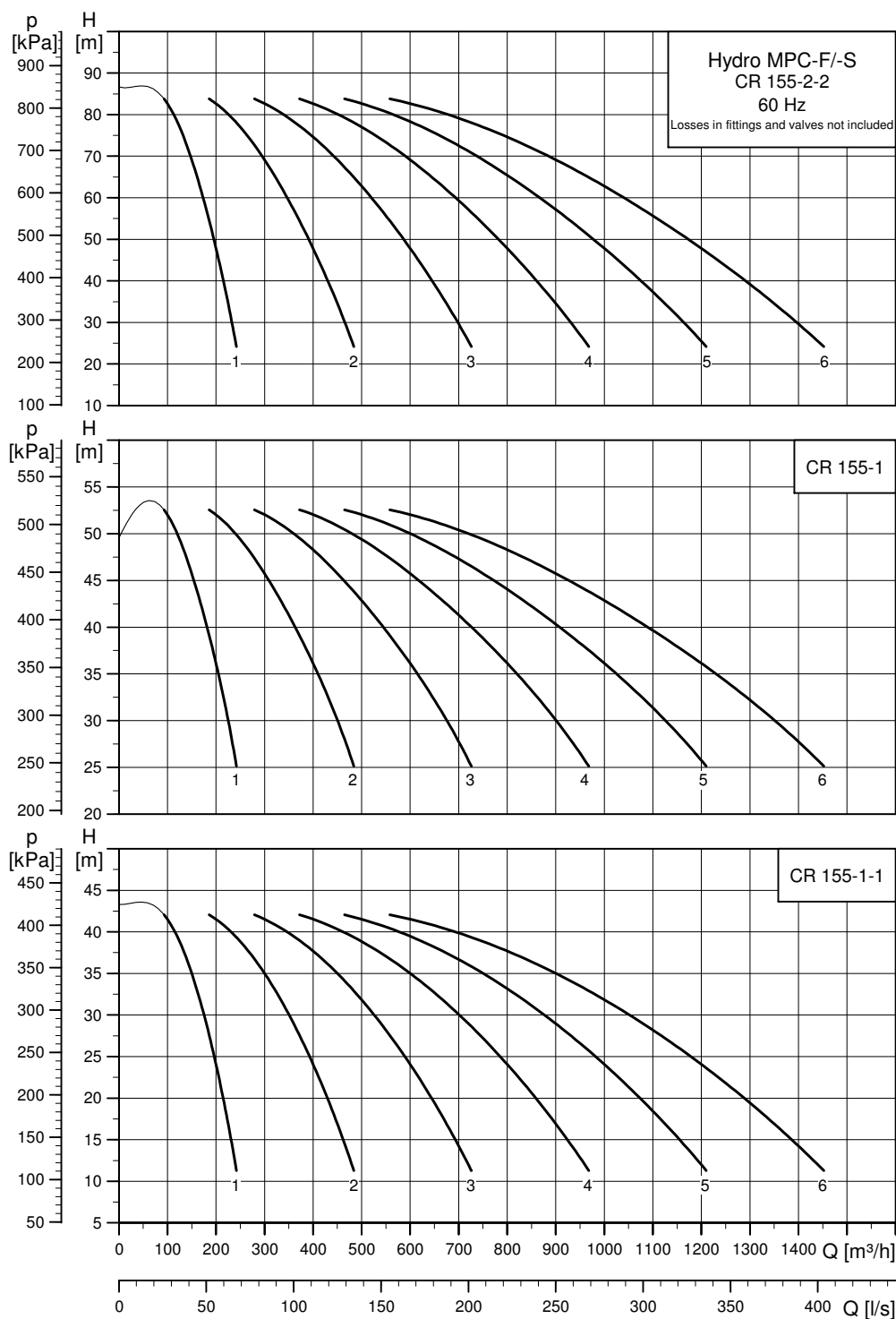
TM07 1222 2518

Hydro MPC-F/-S with CR 125



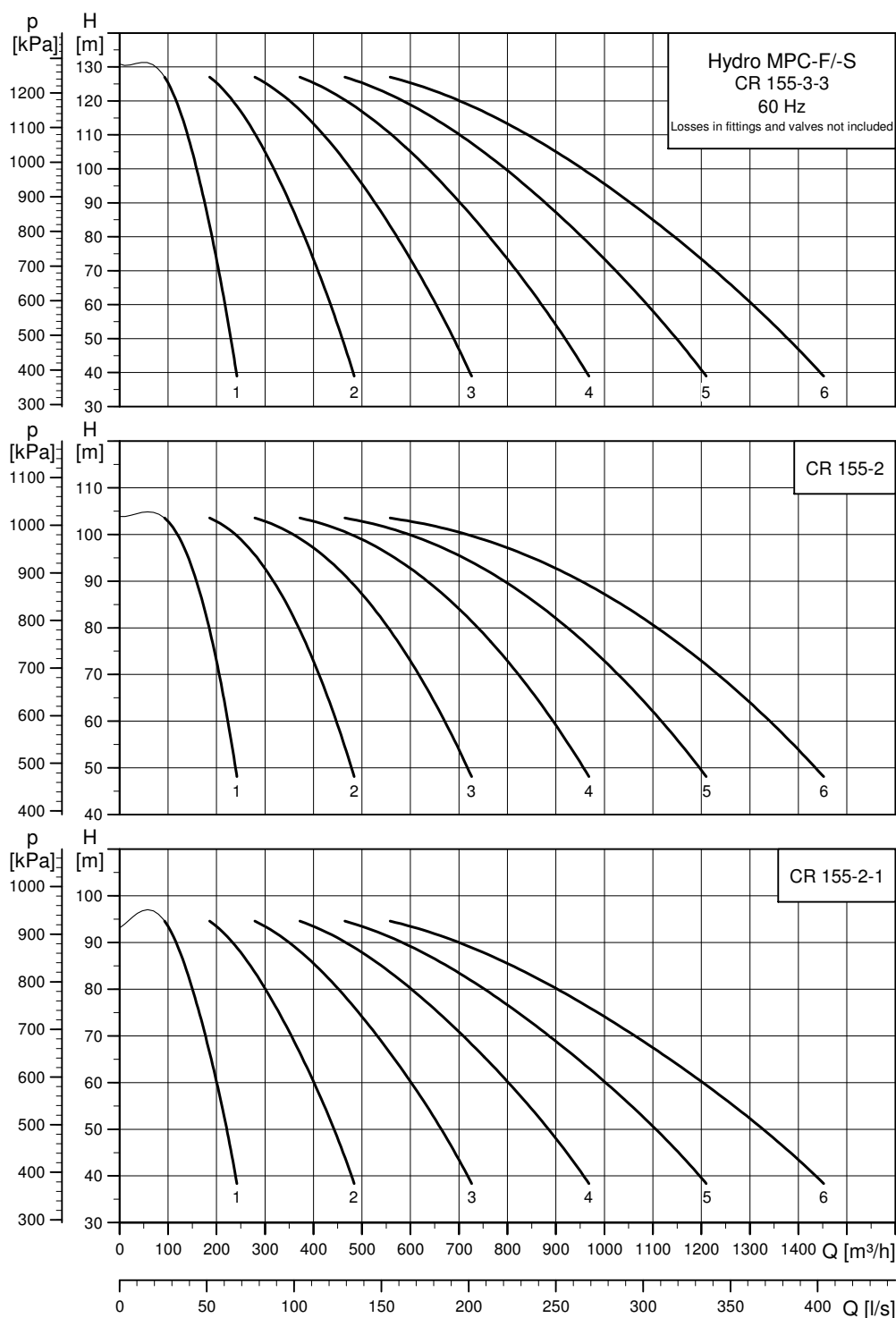
TM07 1223 2518

Hydro MPC-F/-S with CR 155



TM07 1224 2518

Hydro MPC-F/-S with CR 155



TM07 1225 2518

11. Technical data, Hydro MPC-E, 50/60 Hz

Hydro MPC-E with CRE, CRIE 3 or CRE, CRIE 5

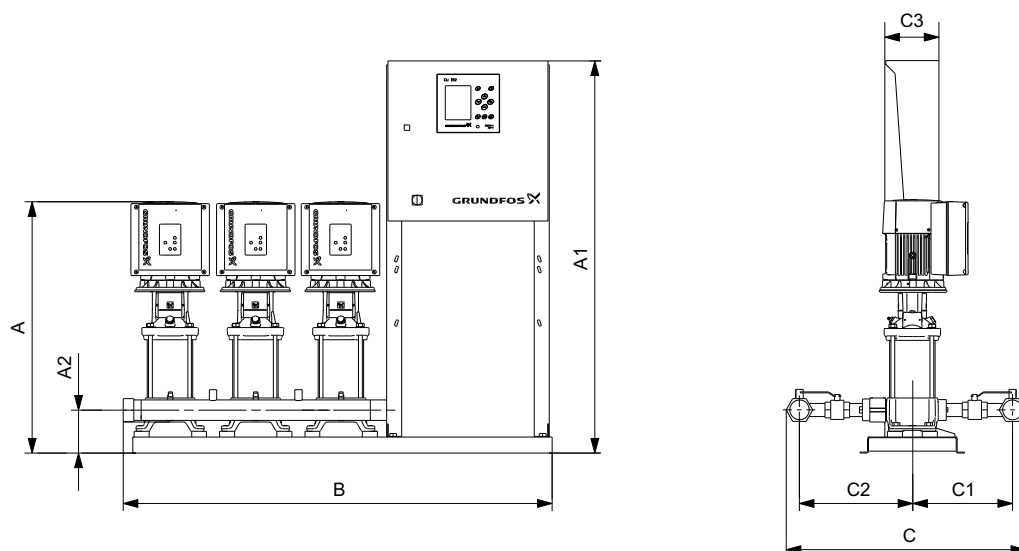


Fig. 45 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.

TM07 0464 3318

Electrical data, dimensions and weights

Hydro MPC-E with CRE, CRIE 3

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRIE 3-2	U1	0.37	2.8	R 2"	533	1460	112	1050	-	726	295	355	-	92	A
	CRIE 3-4	U1	0.55	3.1	R 2"	551	1460	112	1050	-	726	295	355	-	94	A
	CRIE 3-5	U1	0.75	4.2	R 2"	575	1460	112	1050	-	726	295	355	-	97	A
	CRIE 3-8	U1	1.1	6	R 2"	629	1460	112	1050	-	726	295	355	-	101	A
	CRIE 3-11	U2	1.5	6.4	R 2"	759	1460	112	1050	-	726	295	355	-	117	A
	CRIE 3-15	U2	1.5	6.4	R 2"	831	1460	112	1050	-	726	295	355	-	120	A
3	CRIE 3-2	U1	0.37	2.8	R 2"	533	1460	112	1350	-	726	295	355	-	120	A
	CRIE 3-4	U1	0.55	3.1	R 2"	551	1460	112	1350	-	726	295	355	-	122	A
	CRIE 3-5	U1	0.75	4.2	R 2"	575	1460	112	1350	-	726	295	355	-	128	A
	CRIE 3-8	U1	1.1	6	R 2"	629	1460	112	1350	-	726	295	355	-	134	A
	CRIE 3-11	U2	1.5	9.3	R 2"	759	1460	112	1350	-	726	295	355	-	155	A
	CRIE 3-15	U2	1.5	9.3	R 2"	831	1460	112	1350	-	726	295	355	-	160	A
4	CRIE 3-2	U1	0.37	5.5	R 2 1/2"	533	1460	112	1690	-	741	295	355	-	152	A
	CRIE 3-4	U1	0.55	6.2	R 2 1/2"	551	1460	112	1690	-	741	295	355	-	154	A
	CRIE 3-5	U1	0.75	8.3	R 2 1/2"	575	1460	112	1690	-	741	295	355	-	161	A
	CRIE 3-8	U1	1.1	11.9	R 2 1/2"	629	1460	112	1690	-	741	295	355	-	169	A
	CRIE 3-11	U2	1.5	11.4	R 2 1/2"	759	1460	112	1690	-	741	295	355	-	191	A
	CRIE 3-15	U2	1.5	11.4	R 2 1/2"	831	1460	112	1690	-	741	295	355	-	198	A

Voltage code, U1: 3 x 380-415 V $\pm$ 10 %, N, PE.

Voltage code, U2: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Maximum current in neutral conductor, Max. I₀ [A], applies to booster systems with single-phase motors.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-E with CRE, CRIE 5

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRIE 5-2	U1	0.55	3.1	R 2"	533	1460	112	1050	-	726	295	355	-	93	A
	CRIE 5-4	U2	1.1	4.2	R 2"	633	1460	112	1050	-	726	295	355	-	108	A
	CRIE 5-5	U2	1.5	6.4	R 2"	696	1460	112	1050	-	726	295	355	-	114	A
	CRIE 5-9	U2	2.2	8.2	R 2"	804	1460	112	1050	-	726	295	355	-	121	A
	CRIE 5-12	U2	3	12.4	R 2"	950	1460	112	1050	-	726	295	355	-	144	A
	CRIE 5-14	U2	3	12.4	R 2"	1004	1460	112	1050	-	726	295	355	-	147	A
3	CRIE 5-2	U1	0.55	3.1	R 2"	533	1460	112	1350	-	726	295	355	-	121	A
	CRIE 5-4	U2	1.1	6.6	R 2"	633	1460	112	1350	-	726	295	355	-	140	A
	CRIE 5-5	U2	1.5	9.3	R 2"	696	1460	112	1350	-	726	295	355	-	150	A
	CRIE 5-9	U2	2.2	12.3	R 2"	804	1460	112	1350	-	726	295	355	-	161	A
	CRIE 5-12	U2	3	18.6	R 2"	950	1460	112	1350	-	726	295	355	-	196	A
	CRIE 5-14	U2	3	18.6	R 2"	1004	1460	112	1350	-	726	295	355	-	200	A
4	CRIE 5-2	U1	0.55	6.2	R 2 1/2"	533	1460	112	1690	-	741	295	355	-	152	A
	CRIE 5-4	U2	1.1	8.8	R 2 1/2"	633	1460	112	1690	-	741	295	355	-	177	A
	CRIE 5-5	U2	1.5	11.4	R 2 1/2"	696	1460	112	1690	-	741	295	355	-	185	A
	CRIE 5-9	U2	2.2	16.2	R 2 1/2"	804	1460	112	1690	-	741	295	355	-	200	A
	CRIE 5-12	U2	3	22.6	R 2 1/2"	950	1460	112	1690	-	741	295	355	-	246	A
	CRIE 5-14	U2	3	22.6	R 2 1/2"	1004	1460	112	1690	-	741	295	355	-	251	A

Voltage code, U1: 3 x 380-415 V $\pm$ 10 %, N, PE.

Voltage code, U2: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

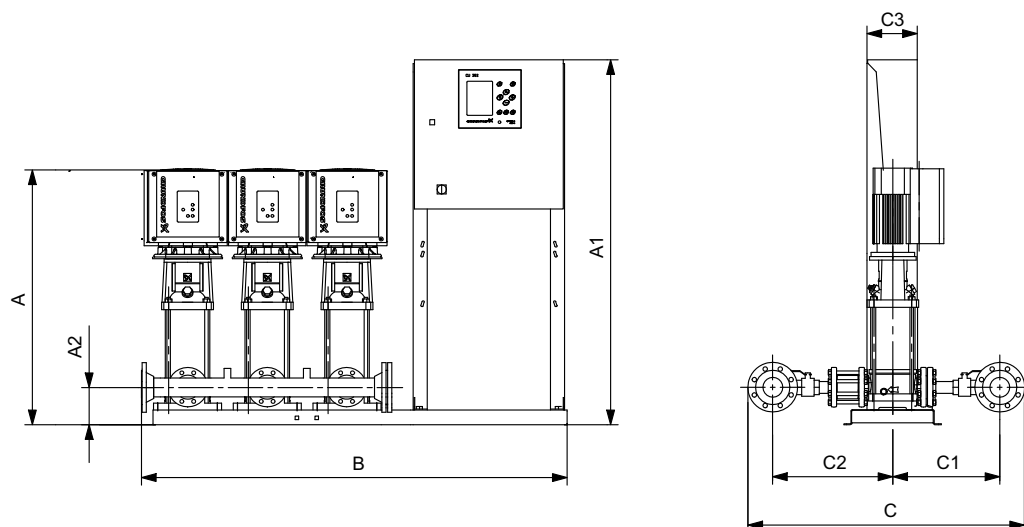
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Maximum current in neutral conductor, Max. I₀ [A], applies to booster systems with single-phase motors.

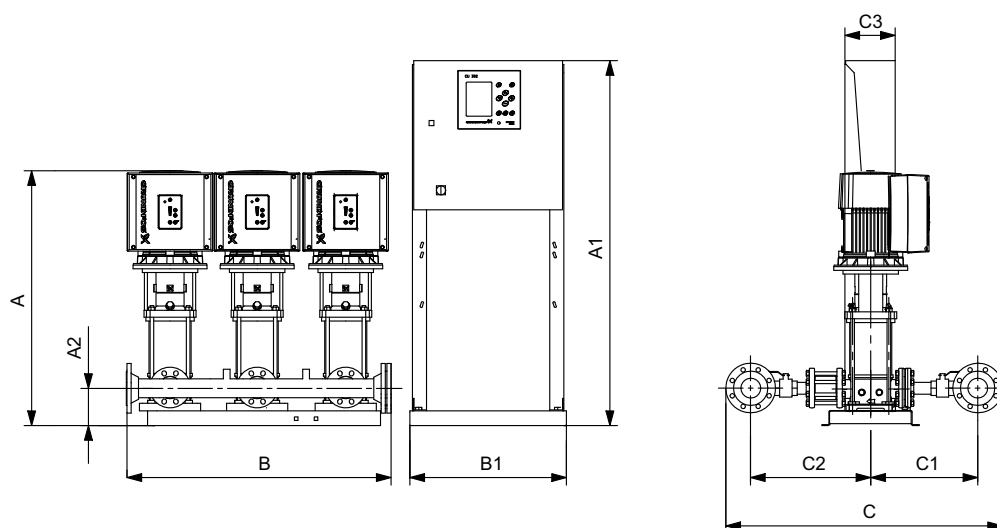
Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-E with CRE, CRIE 10



TM072033 3318

Fig. 46 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM072035 3318

Fig. 47 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-E with CRE, CRIE 10

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRIE 10-1	U1	0.75	4.2	R 2 1/2"	633	1460	142	1080	-	891	371	431	-	128	A
	CRIE 10-2	U2	1.5	6.4	R 2 1/2"	709	1460	142	1080	-	891	371	431	-	145	A
	CRIE 10-3	U2	2.2	8.2	R 2 1/2"	739	1460	142	1080	-	891	371	431	-	151	A
	CRIE 10-5	U2	3	12.4	R 2 1/2"	864	1460	142	1080	-	891	371	431	-	173	A
	CRIE 10-6	U2	4	16	R 2 1/2"	894	1460	142	1080	-	891	371	431	-	182	A
	CRIE 10-9	U2	5.5	20	R 2 1/2"	1047	1460	142	1080	-	891	371	431	-	225	A
3	CRIE 10-1	U1	0.75	4.2	DN80	633	1460	142	1380	-	1000	371	431	-	190	A
	CRIE 10-2	U2	1.5	9.3	DN80	709	1460	142	1380	-	1000	371	431	-	213	A
	CRIE 10-3	U2	2.2	12.3	DN80	739	1460	142	1380	-	1000	371	431	-	222	A
	CRIE 10-5	U2	3	18.6	DN80	864	1460	142	1380	-	1000	371	431	-	255	A
	CRIE 10-6	U2	4	24	DN80	894	1460	142	1380	-	1000	371	431	-	268	A
	CRIE 10-9	U2	5.5	29.9	DN80	1047	1460	142	1380	-	1000	371	431	-	335	A
4	CRIE 10-1	U1	0.75	8.3	DN80	633	1460	142	1720	-	1000	371	431	-	236	A
	CRIE 10-2	U2	1.5	11.4	DN80	709	1460	142	1720	-	1000	371	431	-	261	A
	CRIE 10-3	U2	2.2	16.2	DN80	739	1460	142	1720	-	1000	371	431	-	273	A
	CRIE 10-5	U2	3	22.6	DN80	864	1460	142	1720	-	1000	371	431	-	317	A
	CRIE 10-6	U2	4	29.6	DN80	894	1460	142	1720	-	1000	371	431	-	334	A
	CRIE 10-9	U2	5.5	39.9	DN80	1047	1460	142	1720	-	1000	371	431	-	430	A
5	CRIE 10-1	U1	0.75	8.3	DN100	633	1460	142	1642	410	1020	371	431	-	291	D
	CRIE 10-2	U2	1.5	14.2	DN100	709	1460	142	1642	630	1020	371	431	-	334	D
	CRIE 10-3	U2	2.2	20.2	DN100	739	1460	142	1642	630	1020	371	431	-	349	D
	CRIE 10-5	U2	3	28.2	DN100	864	1460	142	1642	630	1020	371	431	-	404	D
	CRIE 10-6	U2	4	36.9	DN100	894	1460	142	1642	630	1020	371	431	-	426	D
	CRIE 10-9	U2	5.5	49.8	DN100	1047	1460	142	1642	630	1020	371	431	-	546	D
6	CRIE 10-1	U1	0.75	8.3	DN100	633	1460	142	1962	410	1020	371	431	-	344	D
	CRIE 10-2	U2	1.5	17	DN100	709	1460	142	1962	630	1020	371	431	-	393	D
	CRIE 10-3	U2	2.2	24.3	DN100	739	1460	142	1962	630	1020	371	431	-	411	D
	CRIE 10-5	U2	3	33.9	DN100	864	1460	142	1962	630	1020	371	431	-	478	D
	CRIE 10-6	U2	4	44.3	DN100	894	1460	142	1962	630	1020	371	431	-	503	D
	CRIE 10-9	U2	5.5	59.8	DN100	1047	1460	142	1962	630	1020	371	431	-	659	D

Voltage code, U1: 3 x 380-415 V $\pm$ 10 %, N. PE.Voltage code, U2: 3 x 380-415 V $\pm$ 10 %, PE.

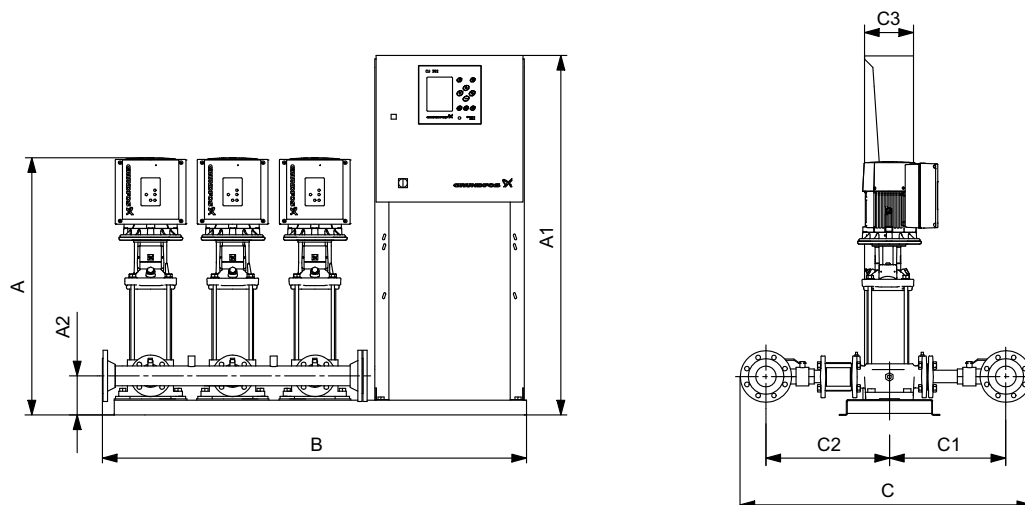
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

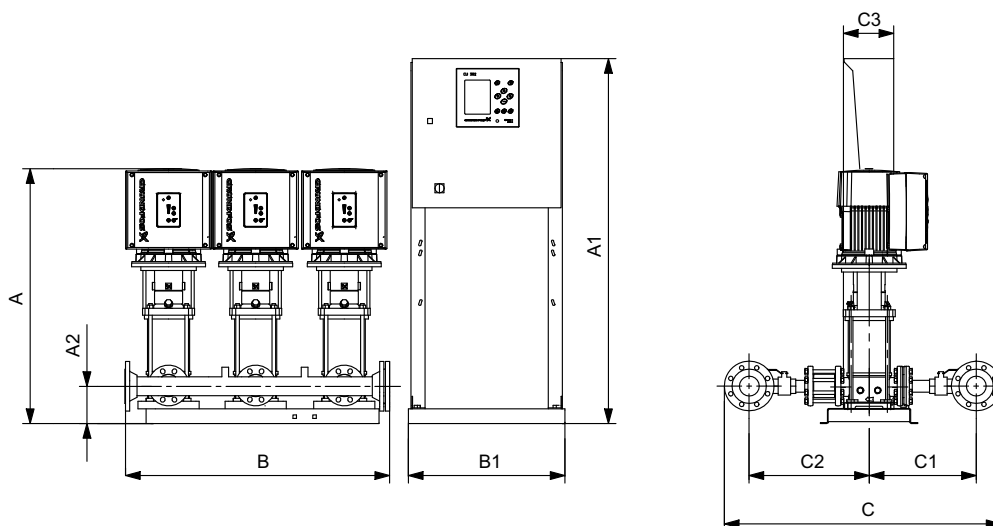
Maximum current in neutral conductor. Max. I₀ [A]. applies to booster systems with single-phase motors.Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-E with CRE, CRIE 15 or CRE, CRIE 20



TM07 1941 3318

Fig. 48 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2035 3318

Fig. 49 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-E with CRE, CRIE 15

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRIE 15-1	U2	1.5	6.4	DN80	749	1460	152	1110	-	1135	438	497	-	173	A
	CRIE 15-2	U2	3	12.4	DN80	814	1460	152	1110	-	1135	438	497	-	197	A
	CRIE 15-3	U2	4	16	DN80	859	1460	152	1110	-	1135	438	497	-	205	A
	CRIE 15-4	U2	5.5	20	DN80	967	1460	152	1110	-	1135	438	497	-	244	A
	CRIE 15-5	U2	7.5	30	DN80	1036	1460	152	1022	410	1135	438	497	-	282	D
	CRIE 15-7	U2	7.5	30	DN80	1126	1460	152	1022	410	1135	438	497	-	288	D
3	CRIE 15-1	U2	1.5	9.3	DN100	749	1460	152	1410	-	1155	438	497	-	235	A
	CRIE 15-2	U2	3	18.6	DN100	814	1460	152	1410	-	1155	438	497	-	271	A
	CRIE 15-3	U2	4	24	DN100	859	1460	152	1410	-	1155	438	497	-	283	A
	CRIE 15-4	U2	5.5	29.9	DN100	967	1460	152	1410	-	1155	438	497	-	345	A
	CRIE 15-5	U2	7.5	45	DN100	1036	1460	152	1522	410	1155	438	497	-	401	D
	CRIE 15-7	U2	7.5	45	DN100	1126	1460	152	1522	410	1155	438	497	-	410	D
4	CRIE 15-1	U2	1.5	11.4	DN100	749	1460	152	1750	-	1155	438	497	-	289	A
	CRIE 15-2	U2	3	22.6	DN100	814	1460	152	1750	-	1155	438	497	-	337	A
	CRIE 15-3	U2	4	29.6	DN100	859	1460	152	1750	-	1155	438	497	-	353	A
	CRIE 15-4	U2	5.5	39.9	DN100	967	1460	152	1750	-	1155	438	497	-	442	A
	CRIE 15-5	U2	7.5	54.6	DN100	1036	1460	152	2022	410	1155	438	497	-	517	D
	CRIE 15-7	U2	7.5	54.6	DN100	1126	1460	152	2022	410	1155	438	497	-	529	D
5	CRIE 15-1	U2	1.5	14.2	DN150	749	1460	152	1704	630	1220	438	497	-	390	D
	CRIE 15-2	U2	3	28.2	DN150	814	1460	152	1704	630	1220	438	497	-	450	D
	CRIE 15-3	U2	4	36.9	DN150	859	1460	152	1704	630	1220	438	497	-	472	D
	CRIE 15-4	U2	5.5	49.8	DN150	967	1460	152	1704	630	1220	438	497	-	582	D
	CRIE 15-5	U2	7.5	68.2	DN150	1036	1460	152	2524	630	1220	438	497	-	687	D
	CRIE 15-7	U2	7.5	68.2	DN150	1126	1460	152	2524	630	1220	438	497	-	702	D
6	CRIE 15-1	U2	1.5	17	DN150	749	1460	152	2024	630	1220	438	497	-	451	D
	CRIE 15-2	U2	3	33.9	DN150	814	1460	152	2024	630	1220	438	497	-	523	D
	CRIE 15-3	U2	4	44.3	DN150	859	1460	152	2024	630	1220	438	497	-	549	D
	CRIE 15-4	U2	5.5	59.8	DN150	967	1460	152	2024	630	1220	438	497	-	692	D
	CRIE 15-5	U2	7.5	81.8	DN150	1036	1460	152	3024	790	1220	438	497	-	805	D
	CRIE 15-7	U2	7.5	81.8	DN150	1126	1460	152	3024	790	1220	438	497	-	823	D

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-E with CRE, CRIE 20

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRIE 20-1	U2	2.2	8.2	DN80	749	1460	152	1110	-	1135	438	497	-	177	A
	CRIE 20-2	U2	4	16	DN80	814	1460	152	1110	-	1135	438	497	-	203	A
	CRIE 20-3	U2	5.5	20	DN80	922	1460	152	1110	-	1135	438	497	-	242	A
	CRIE 20-4	U2	7.5	30	DN80	991	1460	152	1022	410	1135	438	497	-	278	D
	CRIE 20-7	U2	11	42	DN80	1260	1460	192	1022	410	1135	438	497	-	338	D
3	CRIE 20-1	U2	2.2	12.3	DN100	749	1460	152	1410	-	1155	438	497	-	241	A
	CRIE 20-2	U2	4	24	DN100	814	1460	152	1410	-	1155	438	497	-	280	A
	CRIE 20-3	U2	5.5	29.9	DN100	922	1460	152	1410	-	1155	438	497	-	342	A
	CRIE 20-4	U2	7.5	45	DN100	991	1460	152	1522	410	1155	438	497	-	395	D
	CRIE 20-7	U2	11	63	DN100	1260	1460	192	1522	410	1155	438	497	-	484	D
4	CRIE 20-1	U2	2.2	16.2	DN100	749	1460	152	1750	-	1155	438	497	-	297	A
	CRIE 20-2	U2	4	29.6	DN100	814	1460	152	1750	-	1155	438	497	-	349	A
	CRIE 20-3	U2	5.5	39.9	DN100	922	1460	152	1750	-	1155	438	497	-	438	A
	CRIE 20-4	U2	7.5	54.6	DN100	991	1460	152	2022	410	1155	438	497	-	509	D
	CRIE 20-7	U2	11	78.4	DN100	1260	1460	192	2022	630	1155	438	497	-	644	D
5	CRIE 20-1	U2	2.2	20.2	DN150	749	1460	152	1704	630	1220	438	497	-	400	D
	CRIE 20-2	U2	4	36.9	DN150	814	1460	152	1704	630	1220	438	497	-	467	D
	CRIE 20-3	U2	5.5	49.8	DN150	922	1460	152	1704	630	1220	438	497	-	577	D
	CRIE 20-4	U2	7.5	68.2	DN150	991	1460	152	2524	630	1220	438	497	-	677	D
	CRIE 20-7	U2	11	98	DN150	1260	1460	192	2524	630	1220	438	497	-	828	D
6	CRIE 20-1	U2	2.2	24.3	DN150	749	1460	152	2024	630	1220	438	497	-	463	D
	CRIE 20-2	U2	4	44.3	DN150	814	1460	152	2024	630	1220	438	497	-	543	D
	CRIE 20-3	U2	5.5	59.8	DN150	922	1460	152	2024	630	1220	438	497	-	686	D
	CRIE 20-4	U2	7.5	81.8	DN150	991	1460	152	3024	790	1220	438	497	-	793	D
	CRIE 20-7	U2	11	117.6	DN150	1260	1460	192	3024	790	1220	438	497	-	981	D

Voltage code. U2: 3 x 380-415 V ± 10 %. PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

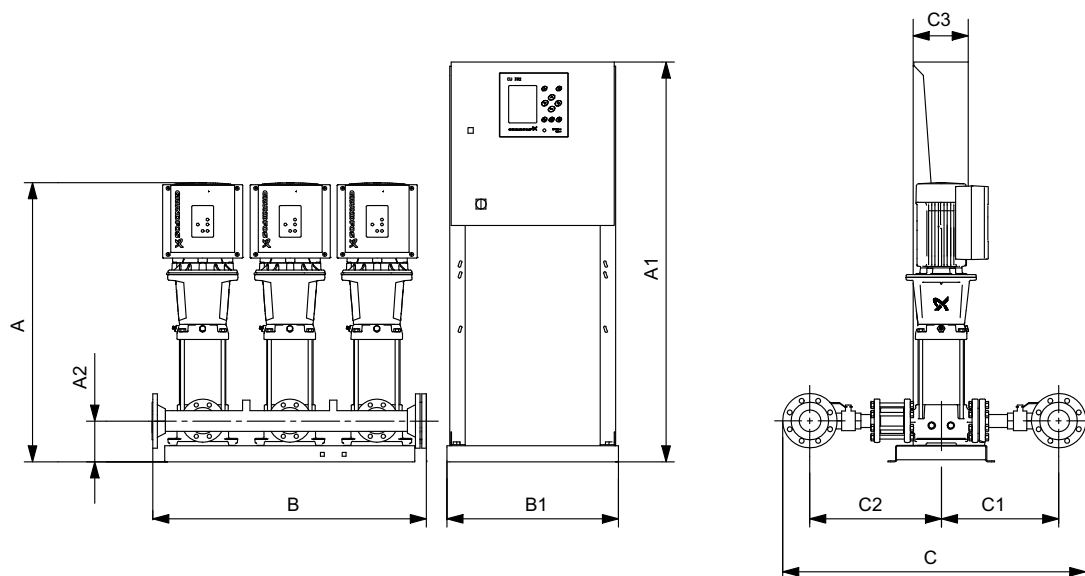
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-E with CRE 32



TM07 0478 3318

Fig. 50 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-E with CRE 32

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRE 32-1-1	U2	2.2	8.2	DN100	841	1460	167	1022	410	1180	379	579	-	242	D
	CRE 32-1	U2	3	12.4	DN100	901	1460	167	1022	410	1180	379	579	-	260	D
	CRE 32-2	U2	7.5	30	DN100	1026	1460	167	1022	410	1180	379	579	-	315	D
	CRE 32-4-2	U2	11	42	DN100	1333	1460	207	1022	410	1180	379	579	-	387	D
	CRE 32-5-2	U2	15	58.5	DN100	1468	1460	207	1022	410	1180	379	579	-	540	D
	CRE 32-5	U2	15	58.5	DN100	1468	1460	207	1022	410	1180	379	579	-	540	D
3	CRE 32-1-1	U2	2.2	12.3	DN150	841	1460	167	1524	410	1245	379	579	-	355	D
	CRE 32-1	U2	3	18.6	DN150	901	1460	167	1524	410	1245	379	579	-	383	D
	CRE 32-2	U2	7.5	45	DN150	1026	1460	167	1524	410	1245	379	579	-	465	D
	CRE 32-4-2	U2	11	63	DN150	1333	1460	207	1524	410	1245	379	579	-	573	D
	CRE 32-5-2	U2	15	87.7	DN150	1468	1460	207	1524	630	1245	379	579	-	799	D
	CRE 32-5	U2	15	87.7	DN150	1468	1460	207	1524	630	1245	379	579	-	799	D
4	CRE 32-1-1	U2	2.2	16.2	DN150	841	1460	167	2024	410	1245	379	579	-	443	D
	CRE 32-1	U2	3	22.6	DN150	901	1460	167	2024	410	1245	379	579	-	480	D
	CRE 32-2	U2	7.5	54.6	DN150	1026	1460	167	2024	410	1245	379	579	-	596	D
	CRE 32-4-2	U2	11	78.4	DN150	1333	1460	207	2024	630	1245	379	579	-	756	D
	CRE 32-5-2	U2	15	116.9	DN150	1468	1460	207	2024	630	1245	379	579	-	1046	D
	CRE 32-5	U2	15	116.9	DN150	1468	1460	207	2024	630	1245	379	579	-	1046	D
5	CRE 32-1-1	U2	2.2	20.2	DN150	841	1460	167	2524	630	1245	379	579	-	560	D
	CRE 32-1	U2	3	28.2	DN150	901	1460	167	2524	630	1245	379	579	-	606	D
	CRE 32-2	U2	7.5	68.2	DN150	1026	1460	167	2524	630	1245	379	579	-	754	D
	CRE 32-4-2	U2	11	98	DN150	1333	1460	207	2524	630	1245	379	579	-	935	D
	CRE 32-5-2	U2	15	146.1	DN150	1468	1460	207	2524	830	1245	379	579	-	1321	D
	CRE 32-5	U2	15	146.1	DN150	1468	1460	207	2524	830	1245	379	579	-	1321	D
6	CRE 32-1-1	U2	2.2	24.3	DN150	841	1460	167	3024	630	1245	379	579	-	653	D
	CRE 32-1	U2	3	33.9	DN150	901	1460	167	3024	630	1245	379	579	-	708	D
	CRE 32-2	U2	7.5	81.8	DN150	1026	1460	167	3024	790	1245	379	579	-	885	D
	CRE 32-4-2	U2	11	117.6	DN150	1333	1460	207	3024	790	1245	379	579	-	1110	D
	CRE 32-5-2	U2	15	175.3	DN150	1468	1460	207	3024	830	1245	379	579	-	1567	D
	CRE 32-5	U2	15	175.3	DN150	1468	1460	207	3024	830	1245	379	579	-	1567	D

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

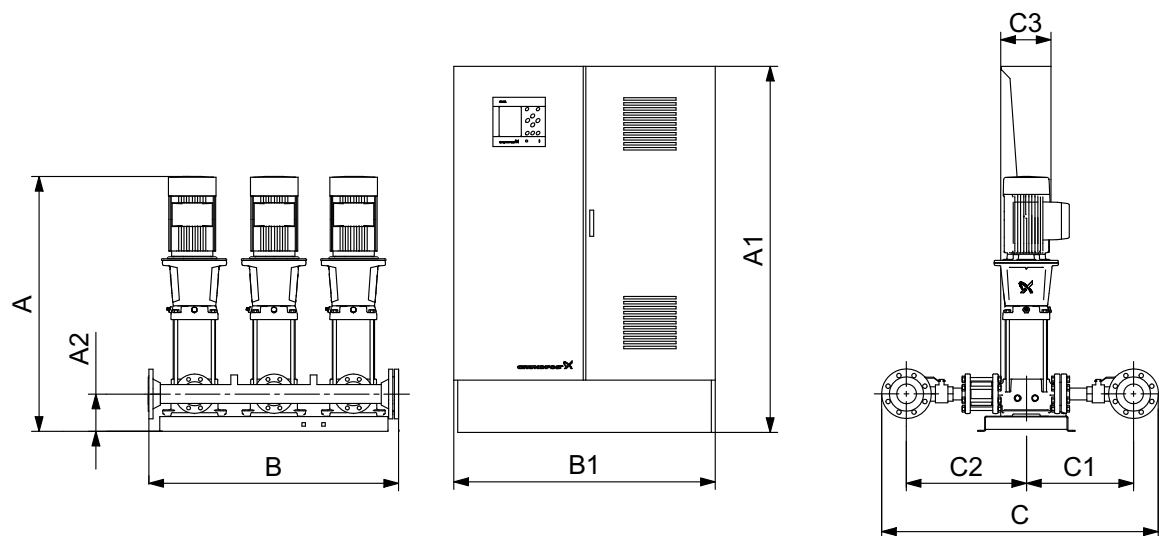
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

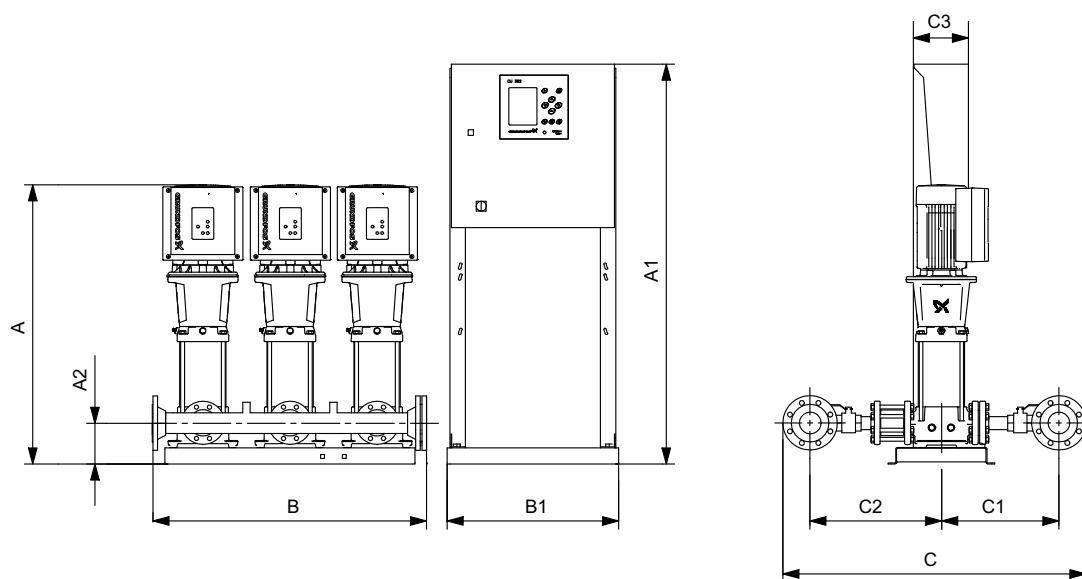
Dimensions may vary by ± 10 mm.

Hydro MPC-E with CRE 45 or CRE 64



TM07 2034 3318

Fig. 51 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0478 3318

Fig. 52 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-E with CR(E) 45

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CRE 45-1-1	U2	5.5	29.9	DN200	986	1460	202	1526	410	1390	419	629	-	490	D
	CRE 45-1	U2	7.5	45	DN200	1010	1460	202	1526	410	1390	419	629	-	524	D
	CRE 45-2-2	U2	11	63	DN200	1257	1460	242	1526	410	1390	419	629	-	624	D
	CRE 45-2	U2	15	87.7	DN200	1322	1460	242	1526	630	1390	419	629	-	841	D
	CRE 45-3	U2	18.5	107.5	DN200	1446	1460	242	1526	630	1390	419	629	-	891	D
	CRE 45-4-2	U2	22	125.5	DN200	1552	1460	242	1526	630	1390	419	629	-	955	D
4	CRE 45-1-1	U2	5.5	39.9	DN200	986	1460	202	2026	410	1390	419	629	-	626	D
	CRE 45-1	U2	7.5	54.6	DN200	1010	1460	202	2026	410	1390	419	629	-	671	D
	CRE 45-2-2	U2	11	78.4	DN200	1257	1460	242	2026	630	1390	419	629	-	820	D
	CRE 45-2	U2	15	116.9	DN200	1322	1460	242	2026	630	1390	419	629	-	1097	D
	CRE 45-3	U2	18.5	143.3	DN200	1446	1460	242	2026	630	1390	419	629	-	1164	D
	CRE 45-4-2	U2	22	167.3	DN200	1552	1500	242	2026	600	1390	419	629	300	1242	C
5	CRE 45-1-1	U2	5.5	49.8	DN200	986	1460	202	2526	630	1390	419	629	-	789	D
	CRE 45-1	U2	7.5	68.2	DN200	1010	1460	202	2526	630	1390	419	629	-	847	D
	CRE 45-2-2	U2	11	98	DN200	1257	1460	242	2526	630	1390	419	629	-	1016	D
	CRE 45-2	U2	15	146.1	DN200	1322	1460	242	2526	830	1390	419	629	-	1386	D
	CRE 45-3	U2	18.5	179.1	DN200	1446	1460	242	2526	830	1390	419	629	-	1476	D
	CRE 45-4-2	U2	22	209.1	DN200	1552	1460	242	2526	1030	1390	419	629	-	1574	D
6	CRE 45-1-1	U2	5.5	59.8	DN200	986	1460	202	3026	630	1390	419	629	-	935	D
	CRE 45-1	U2	7.5	81.8	DN200	1010	1460	202	3026	790	1390	419	629	-	994	D
	CRE 45-2-2	U2	11	117.6	DN200	1257	1460	242	3026	790	1390	419	629	-	1204	D
	CRE 45-2	U2	15	175.3	DN200	1322	1460	242	3026	830	1390	419	629	-	1641	D
	CRE 45-3	U2	18.5	214.9	DN200	1446	1600	242	3026	800	1390	419	629	500	1726	C
	CRE 45-4-2	U2	22	250.9	DN200	1552	1700	242	3026	1000	1390	419	629	300	1912	C

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-E with CR(E) 64

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CRE 64-1-1	U2	7.5	45	DN200	1012	1460	202	1526	410	1390	421	631	-	532	D
	CRE 64-1	U2	11	63	DN200	1179	1460	242	1526	410	1390	421	631	-	621	D
	CRE 64-2-2	U2	15	87.7	DN200	1327	1460	242	1526	630	1390	421	631	-	852	D
	CRE 64-2-1	U2	18.5	107.5	DN200	1371	1460	242	1526	630	1390	421	631	-	890	D
	CRE 64-3-2	U2	22	125.5	DN200	1479	1460	242	1526	630	1390	421	631	-	956	D
	CR 64-3-1	U2	30	165.9	DN200	1549	2000	242	1526	1200	1390	421	631	500	1686	C
	CR 64-3	U2	30	165.9	DN200	1549	2000	242	1526	1200	1390	421	631	500	1686	C
4	CRE 64-4-2	U2	37	198.9	DN200	1657	2000	242	1526	1200	1390	421	631	500	1764	C
	CRE 64-1-1	U2	7.5	54.6	DN200	1012	1460	202	2026	410	1390	421	631	-	682	D
	CRE 64-1	U2	11	78.4	DN200	1179	1460	242	2026	630	1390	421	631	-	817	D
	CRE 64-2-2	U2	15	116.9	DN200	1327	1460	242	2026	630	1390	421	631	-	1112	D
	CRE 64-2-1	U2	18.5	143.3	DN200	1371	1460	242	2026	630	1390	421	631	-	1163	D
	CRE 64-3-2	U2	22	167.3	DN200	1479	1500	242	2026	600	1390	421	631	300	1243	C
	CR 64-3-1	U2	30	220.6	DN200	1549	2000	242	2026	1200	1390	421	631	500	2070	C
5	CR 64-3	U2	30	220.6	DN200	1549	2000	242	2026	1200	1390	421	631	500	2070	C
	CR 64-4-2	U2	37	264.6	DN200	1657	2000	242	2026	1200	1390	421	631	500	2257	C
	CRE 64-1-1	U2	7.5	68.2	DN200	1012	1460	202	2526	630	1390	421	631	-	861	D
	CRE 64-1	U2	11	98	DN200	1179	1460	242	2526	630	1390	421	631	-	1011	D
	CRE 64-2-2	U2	15	146.1	DN200	1327	1460	242	2526	830	1390	421	631	-	1404	D
	CRE 64-2-1	U2	18.5	179.1	DN200	1371	1460	242	2526	830	1390	421	631	-	1475	D
	CRE 64-3-2	U2	22	209.1	DN200	1479	1460	242	2526	1030	1390	421	631	-	1576	D
6	CR 64-3-1	U2	30	275.6	DN200	1549	2000	242	2526	1200	1390	421	631	500	2519	C
	CR 64-3	U2	30	275.6	DN200	1549	2000	242	2526	1200	1390	421	631	500	2519	C
	CR 64-4-2	U2	37	330.6	DN200	1657	2000	242	2526	1200	1390	421	631	500	2706	C
	CRE 64-1-1	U2	7.5	81.8	DN200	1012	1460	202	3026	790	1390	421	631	-	1011	D
	CRE 64-1	U2	11	117.6	DN200	1179	1460	242	3026	790	1390	421	631	-	1198	D
	CRE 64-2-2	U2	15	175.3	DN200	1327	1460	242	3026	830	1390	421	631	-	1663	D
	CRE 64-2-1	U2	18.5	214.9	DN200	1371	1600	242	3026	800	1390	421	631	500	1724	C
6	CRE 64-3-2	U2	22	250.9	DN200	1479	1700	242	3026	1000	1390	421	631	300	1914	C
	CR 64-3-1	U2	30	330.6	DN200	1549	2000	242	3026	1200	1390	421	631	500	2918	C
	CR 64-3	U2	30	330.6	DN200	1549	2000	242	3026	1200	1390	421	631	500	2918	C
6	CR 64-4-2	U2	37	397.4	DN200	1657	2000	242	3026	1200	1390	421	631	500	3394	C

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

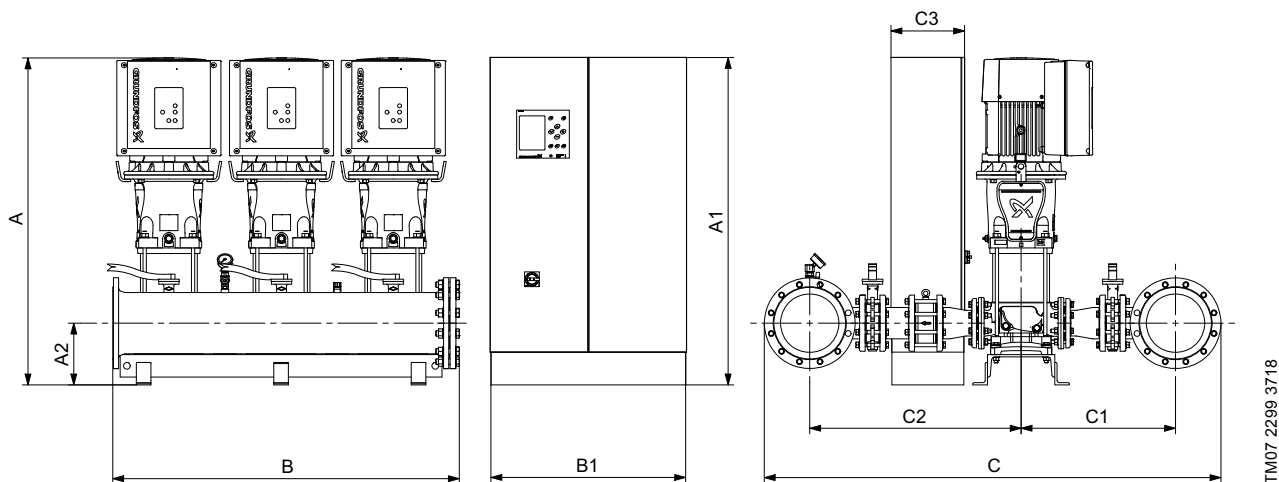
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

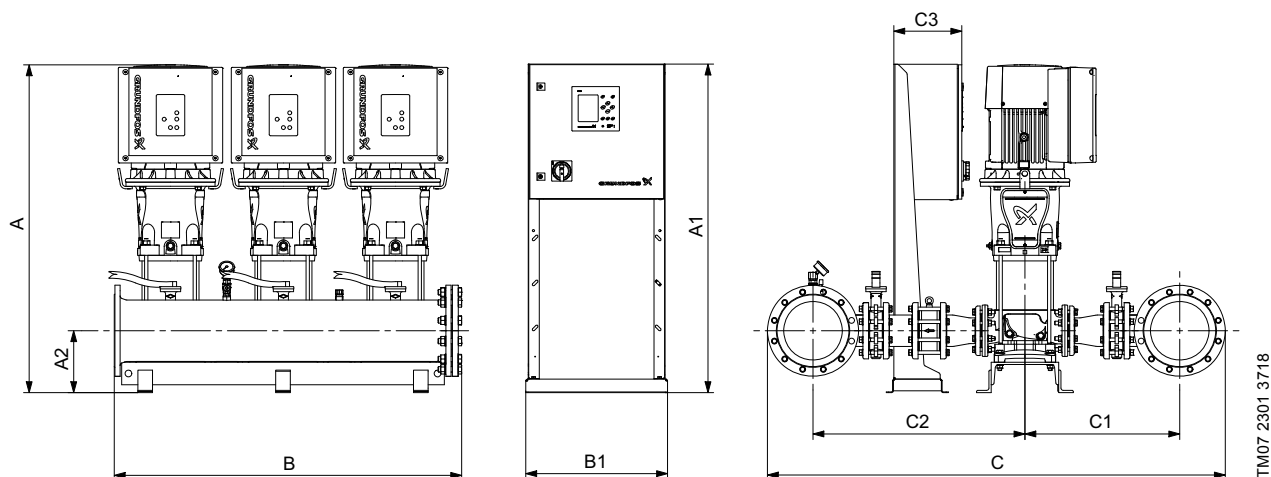
Dimensions may vary by ± 10 mm.

Hydro MPC-E with CR(E) 95



TM07 2299 3718

Fig. 53 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2301 3718

Fig. 54 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-E with CR(E) 95

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRE 95-1-1	U2	7.5	27.3	DN200	1215	1460	277	1026	410	1970	690	940	-	574	D
	CRE 95-1-1	U2	11	42	DN200	1234	1460	277	1026	410	1970	690	940	-	624	D
	CRE 95-1	U2	11	39.3	DN200	1234	1460	277	1026	630	1970	690	940	-	624	D
	CRE 95-1	U2	15	58.5	DN200	1299	1460	277	1026	410	1970	690	940	-	771	D
	CRE 95-2-2	U2	18.5	71.7	DN200	1447	1460	277	1026	630	1970	690	940	-	812	D
	CRE 95-2-1	U2	22	83.7	DN200	1473	1460	277	1026	630	1970	690	940	-	841	D
	CR 95-3-2	U2	30	110.2	DN200	1653	1600	277	1026	1200	1970	690	940	500	1175	C
	CR 95-3-1	U2	37	132.4	DN200	1678	2000	277	1026	1200	1970	690	940	500	1312	C
3	CRE 95-4-2	U2	45	164.9	DN200	1874	2000	277	1026	1200	1970	690	940	500	1687	C
	CRE 95-1-1	U2	7.5	41	DN250	1215	1460	277	1528	630	2035	690	940	-	924	D
	CRE 95-1-1	U2	11	63	DN250	1234	1460	277	1528	410	2035	690	940	-	992	D
	CRE 95-1	U2	11	58.8	DN250	1234	1460	277	1528	630	2035	690	940	-	1001	D
	CRE 95-1	U2	15	87.7	DN250	1299	1460	277	1528	630	2035	690	940	-	1209	D
	CRE 95-2-2	U2	18.5	107.5	DN250	1447	1460	277	1528	630	2035	690	940	-	1265	D
	CRE 95-2-1	U2	22	125.5	DN250	1473	1460	277	1528	630	2035	690	940	-	1317	D
	CR 95-3-2	U2	30	165.9	DN250	1653	2000	277	1528	1200	2035	690	940	500	2067	C
4	CR 95-3-1	U2	37	198.9	DN250	1678	2000	277	1528	1200	2035	690	940	500	2126	C
	CR 95-4-2	U2	45	246.6	DN250	1874	2000	277	1528	1200	2035	690	940	500	2501	C
	CRE 95-1-1	U2	7.5	54.6	DN250	1215	1460	277	2028	410	2035	690	940	-	1180	D
	CRE 95-1-1	U2	11	78.4	DN250	1234	1460	277	2028	630	2035	690	940	-	1285	D
	CRE 95-1	U2	11	78.4	DN250	1234	1460	277	2028	630	2035	690	940	-	1287	D
	CRE 95-1	U2	15	116.9	DN250	1299	1460	277	2028	630	2035	690	940	-	1562	D
	CRE 95-2-2	U2	18.5	143.3	DN250	1447	1460	277	2028	630	2035	690	940	-	1637	D
	CRE 95-2-1	U2	22	167.3	DN250	1473	1500	277	2028	600	2035	690	940	300	1700	C
5	CR 95-3-2	U2	30	220.6	DN250	1653	2000	277	2028	1200	2035	690	940	500	2553	C
	CR 95-3-1	U2	37	264.6	DN250	1678	2000	277	2028	1200	2035	690	940	500	2714	C
	CR 95-4-2	U2	45	329.4	DN250	1874	2100	277	2028	2000	2035	690	940	600	3062	C
	CRE 95-1-1	U2	7.5	68.2	DN300	1215	1460	277	2530	630	2090	690	940	-	1577	D
	CRE 95-1-1	U2	11	98	DN300	1234	1460	277	2530	630	2090	690	940	-	1690	D
	CRE 95-1	U2	11	98	DN300	1234	1460	277	2530	630	2090	690	940	-	1692	D
	CRE 95-1	U2	15	146.1	DN300	1299	1460	277	2530	830	2090	690	940	-	2060	D
	CRE 95-2-2	U2	18.5	179.1	DN300	1447	1460	277	2530	830	2090	690	940	-	2161	D
6	CRE 95-2-1	U2	22	209.1	DN300	1473	1460	277	2530	1030	2090	690	940	-	2239	D
	CR 95-3-2	U2	30	275.6	DN300	1653	2000	277	2530	1200	2090	690	940	500	3215	C
	CR 95-3-1	U2	37	330.6	DN300	1678	2000	277	2530	1200	2090	690	940	500	3371	C
	CR 95-4-2	U2	45	411.4	DN300	1874	2000	277	2530	1200	2090	690	940	500	4149	C
	CRE 95-1-1	U2	7.5	81.8	DN350	1215	1460	277	3032	790	2150	690	940	-	1919	D
	CRE 95-1-1	U2	11	117.6	DN350	1234	1460	277	3032	790	2150	690	940	-	2062	D
	CRE 95-1	U2	11	117.6	DN350	1234	1460	277	3032	790	2150	690	940	-	2065	D
	CRE 95-1	U2	15	175.3	DN350	1299	1460	277	3032	830	2150	690	940	-	2500	D
6	CRE 95-2-2	U2	18.5	214.9	DN350	1447	1600	277	3032	800	2150	690	940	500	2597	C
	CRE 95-2-1	U2	22	250.9	DN350	1473	1700	277	3032	1000	2150	690	940	300	2760	C
	CR 95-3-2	U2	30	330.6	DN350	1653	2000	277	3032	1200	2150	690	940	500	3803	C
	CR 95-3-1	U2	37	397.4	DN350	1678	2000	277	3032	1200	2150	690	940	500	4241	C
	CR 95-4-2	U2	45	493.4	DN350	1874	2000	277	3032	1200	2150	690	940	500	5124	C

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

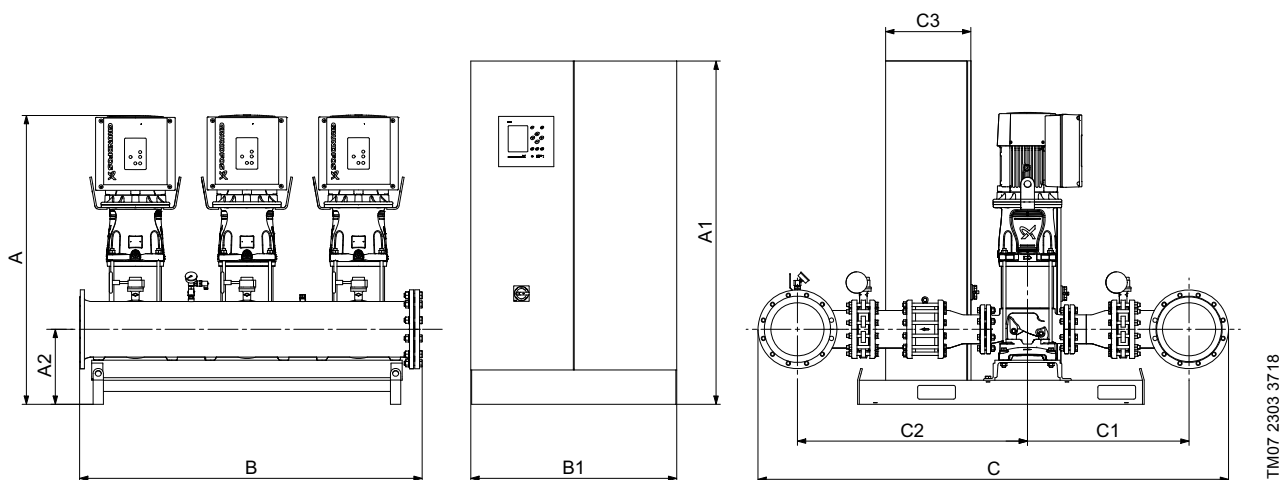
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

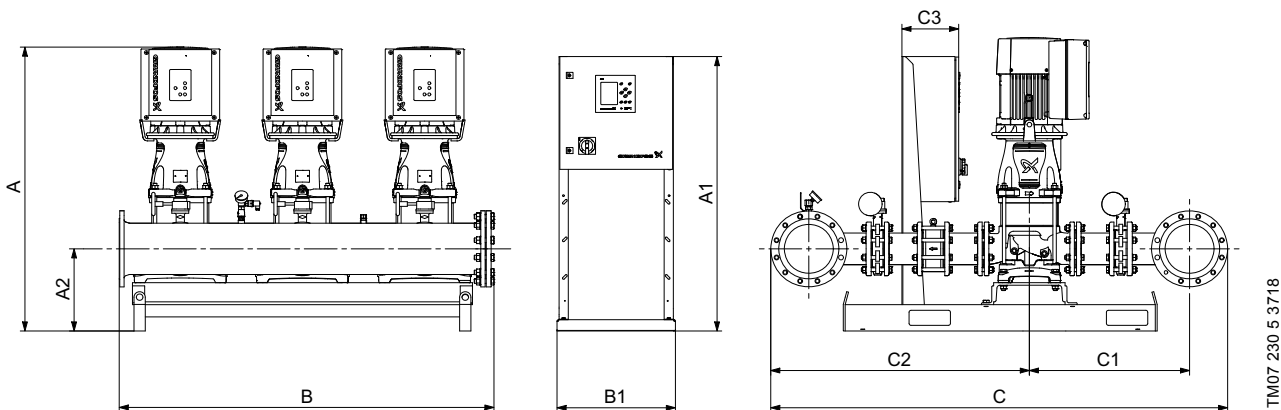
Dimensions may vary by ± 10 mm.

Hydro MPC-E with CRE 125 or CRE 155



TM07 2303 3718

Fig. 55 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 230 5 3718

Fig. 56 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-E with CR(E) 125

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRE 125-1-1	U2	11	39.3	DN250	1448	1460	439	1328	630	2440	860	1176	-	963	D
	CRE 125-1-1	U2	15	58.5	DN250	1513	1460	439	1328	410	2440	860	1176	-	1111	D
	CRE 125-1	U2	15	58.5	DN250	1513	1460	439	1328	410	2440	860	1176	-	1111	D
	CRE 125-1	U2	18.5	71.7	DN250	1557	1460	439	1328	630	2440	860	1176	-	1140	D
	CRE 125-2-2	U2	22	83.7	DN250	1705	1460	439	1328	630	2440	860	1176	-	1190	D
	CR 125-2-2	U2	30	110.2	DN250	1777	1600	439	1328	1200	2440	860	1176	500	1510	C
	CR 125-2	U2	37	132.4	DN250	1802	2000	439	1328	1200	2440	860	1176	500	1648	C
	CR 125-3-2	U2	45	164.9	DN250	2019	2000	439	1328	1200	2440	860	1176	500	2034	C
3	CRE 125-3	U2	55	192.9	DN250	2057	2000	439	1328	1200	2440	860	1176	500	2269	C
	CRE 125-1-1	U2	11	58.8	DN250	1448	1460	439	1978	630	2440	860	1176	-	1354	D
	CRE 125-1-1	U2	15	87.7	DN250	1513	1460	439	1978	630	2440	860	1176	-	1562	D
	CRE 125-1	U2	15	87.7	DN250	1513	1460	439	1978	630	2440	860	1176	-	1562	D
	CRE 125-1	U2	18.5	107.5	DN250	1557	1460	439	1978	630	2440	860	1176	-	1601	D
	CRE 125-2-2	U2	22	125.5	DN250	1705	1460	439	1978	630	2440	860	1176	-	1683	D
	CR 125-2-2	U2	30	165.9	DN250	1777	2000	439	1978	1200	2440	860	1176	500	2414	C
	CR 125-2	U2	37	198.9	DN250	1802	2000	439	1978	1200	2440	860	1176	500	2474	C
4	CR 125-3-2	U2	45	246.6	DN250	2019	2000	439	1978	1200	2440	860	1176	500	2866	C
	CR 125-3	U2	55	288.6	DN250	2057	2000	439	1978	1200	2440	860	1176	500	3228	C
	CRE 125-1-1	U2	11	78.4	DN300	1448	1460	439	2630	630	2495	860	1176	-	1924	D
	CRE 125-1-1	U2	15	116.9	DN300	1513	1460	439	2630	630	2495	860	1176	-	2200	D
	CRE 125-1	U2	15	116.9	DN300	1513	1460	439	2630	630	2495	860	1176	-	2200	D
	CRE 125-1	U2	18.5	143.3	DN300	1557	1460	439	2630	630	2495	860	1176	-	2251	D
	CRE 125-2-2	U2	22	167.3	DN300	1705	1500	439	2630	600	2495	860	1176	300	2360	C
	CR 125-2-2	U2	30	220.6	DN300	1777	2000	439	2630	1200	2495	860	1176	500	3188	C
5	CR 125-2	U2	37	264.6	DN300	1802	2000	439	2630	1200	2495	860	1176	500	3351	C
	CR 125-3-2	U2	45	329.4	DN300	2019	2100	439	2630	2000	2495	860	1176	600	3722	C
	CR 125-3	U2	55	385.4	DN300	2057	2000	439	2630	1200	2495	860	1176	500	4523	C
	CRE 125-1-1	U2	11	98	DN350	1448	1460	439	3282	630	2555	860	1176	-	2383	D
	CRE 125-1-1	U2	15	146.1	DN350	1513	1460	439	3282	830	2555	860	1176	-	2752	D
	CRE 125-1	U2	15	146.1	DN350	1513	1460	439	3282	830	2555	860	1176	-	2751	D
	CRE 125-1	U2	18.5	179.1	DN350	1557	1460	439	3282	830	2555	860	1176	-	2823	D
	CRE 125-2-2	U2	22	209.1	DN350	1705	1460	439	3282	1030	2555	860	1176	-	2952	D
6	CR 125-2-2	U2	30	275.6	DN350	1777	2000	439	3282	1200	2555	860	1176	500	3897	C
	CR 125-2	U2	37	330.6	DN350	1802	2000	439	3282	1200	2555	860	1176	500	4054	C
	CR 125-3-2	U2	45	411.4	DN350	2019	2000	439	3282	1200	2555	860	1176	500	4861	C
	CR 125-3	U2	55	481.4	DN350	2057	2000	439	3282	1200	2555	860	1176	500	5464	C
	CRE 125-1-1	U2	11	117.6	DN350	1448	1460	439	3932	790	2555	860	1176	-	2783	D
	CRE 125-1-1	U2	15	175.3	DN350	1513	1460	439	3932	830	2555	860	1176	-	3220	D
	CRE 125-1	U2	15	175.3	DN350	1513	1460	439	3932	830	2555	860	1176	-	3219	D
	CRE 125-1	U2	18.5	214.9	DN350	1557	1600	439	3932	800	2555	860	1176	500	3281	C
6	CRE 125-2-2	U2	22	250.9	DN350	1705	1700	439	3932	1000	2555	860	1176	300	3504	C
	CR 125-2-2	U2	30	330.6	DN350	1777	2000	439	3932	1200	2555	860	1176	500	4510	C
	CR 125-2	U2	37	397.4	DN350	1802	2000	439	3932	1200	2555	860	1176	500	4950	C
	CR 125-3-2	U2	45	493.4	DN350	2019	2000	439	3932	1200	2555	860	1176	500	5868	C
	CR 125-3	U2	55	577.4	DN350	2057	2000	439	3932	1200	2555	860	1176	500	6582	C

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-E with CR(E) 155

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRE 155-1-1	U2	15	58.5	DN250	1513	1460	439	1328	410	2688	947	1337	-	1218	D
	CRE 155-1-1	U2	18.5	71.7	DN250	1557	1460	439	1328	630	2688	947	1337	-	1246	D
	CR 155-1	U2	30	110.2	DN250	1655	1600	439	1328	1200	2688	947	1337	500	1595	C
	CR 155-2-2	U2	37	132.4	DN250	1802	2000	439	1328	1200	2688	947	1337	500	1755	C
	CR 155-2-1	U2	45	164.9	DN250	1897	2000	439	1328	1200	2688	947	1337	500	2120	C
	CR 155-2	U2	30	110.2	DN250	1777	1600	439	1328	1200	2688	947	1337	500	1617	C
3	CR 155-3-3	U2	55	192.9	DN250	2057	2000	439	1328	1200	2688	947	1337	500	2376	C
	CRE 155-1-1	U2	15	87.7	DN300	1513	1460	439	1980	630	2743	947	1337	-	1762	D
	CRE 155-1-1	U2	18.5	107.5	DN300	1557	1460	439	1980	630	2743	947	1337	-	1799	D
	CR 155-1	U2	30	165.9	DN300	1655	2000	439	1980	1200	2743	947	1337	500	2582	C
	CR 155-2-2	U2	37	198.9	DN300	1802	2000	439	1980	1200	2743	947	1337	500	2674	C
	CR 155-2-1	U2	45	246.6	DN300	1897	2000	439	1980	1200	2743	947	1337	500	3035	C
4	CR 155-2	U2	30	165.9	DN300	1777	2000	439	1980	1200	2743	947	1337	500	2614	C
	CR 155-3-3	U2	55	288.6	DN300	2057	2000	439	1980	1200	2743	947	1337	500	3429	C
	CRE 155-1-1	U2	15	116.9	DN350	1513	1460	439	2632	630	2803	947	1337	-	2490	D
	CRE 155-1-1	U2	18.5	143.3	DN350	1557	1460	439	2632	630	2803	947	1337	-	2540	D
	CR 155-1	U2	30	220.6	DN350	1655	2000	439	2632	1200	2803	947	1337	500	3435	C
	CR 155-2-2	U2	37	264.6	DN350	1802	2000	439	2632	1200	2803	947	1337	500	3641	C
5	CR 155-2-1	U2	45	329.4	DN350	1897	2100	439	2632	2000	2803	947	1337	600	3970	C
	CR 155-2	U2	30	220.6	DN350	1777	2000	439	2632	1200	2803	947	1337	500	3478	C
	CR 155-3-3	U2	55	385.4	DN350	2057	2000	439	2632	1200	2803	947	1337	500	4816	C
	CRE 155-1-1	U2	15	146.1	DN400	1513	1460	439	3284	830	2863	947	1337	-	3034	D
	CRE 155-1-1	U2	18.5	179.1	DN400	1557	1460	439	3284	830	2863	947	1337	-	3104	D
	CR 155-1	U2	30	275.6	DN400	1655	2000	439	3284	1200	2863	947	1337	500	4126	C
6	CR 155-2-2	U2	37	330.6	DN400	1802	2000	439	3284	1200	2863	947	1337	500	4337	C
	CR 155-2-1	U2	45	411.4	DN400	1897	2000	439	3284	1200	2863	947	1337	500	5091	C
	CR 155-2	U2	30	275.6	DN400	1777	2000	439	3284	1200	2863	947	1337	500	4180	C
	CR 155-3-3	U2	55	481.4	DN400	2057	2000	439	3284	1200	2863	947	1337	500	5750	C
	CRE 155-1-1	U2	15	175.3	DN400	1513	1460	439	3934	830	2863	947	1337	-	3579	D
	CRE 155-1-1	U2	18.5	214.9	DN400	1557	1600	439	3934	800	2863	947	1337	500	3638	C
6	CR 155-1	U2	30	330.6	DN400	1655	2000	439	3934	1200	2863	947	1337	500	4805	C
	CR 155-2-2	U2	37	397.4	DN400	1802	2000	439	3934	1200	2863	947	1337	500	5310	C
	CR 155-2-1	U2	45	493.4	DN400	1897	2000	439	3934	1200	2863	947	1337	500	6166	C
	CR 155-2	U2	30	330.6	DN400	1777	2000	439	3934	1200	2863	947	1337	500	4870	C
6	CR 155-3-3	U2	55	577.4	DN400	2057	2000	439	3934	1200	2863	947	1337	500	6945	C

Voltage code, U2: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

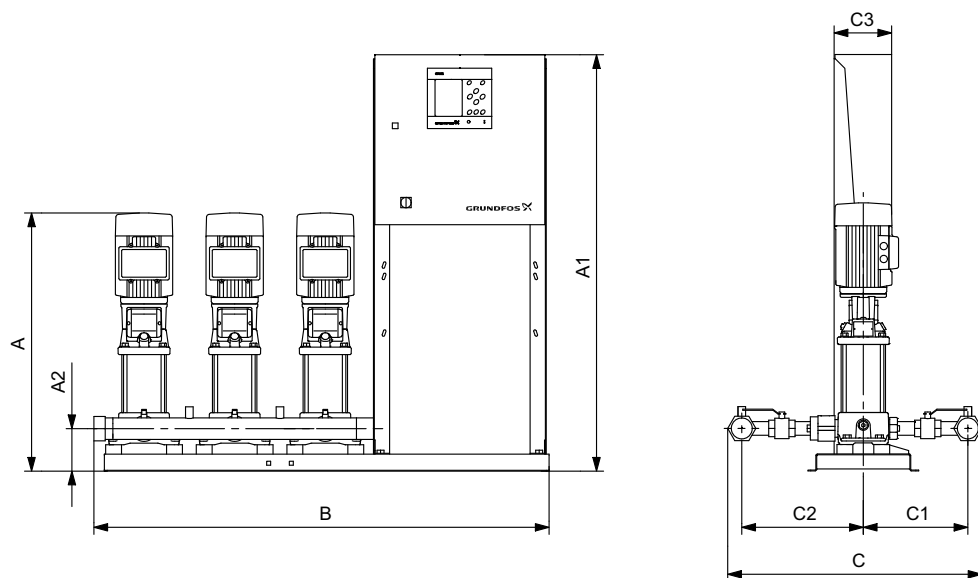
Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

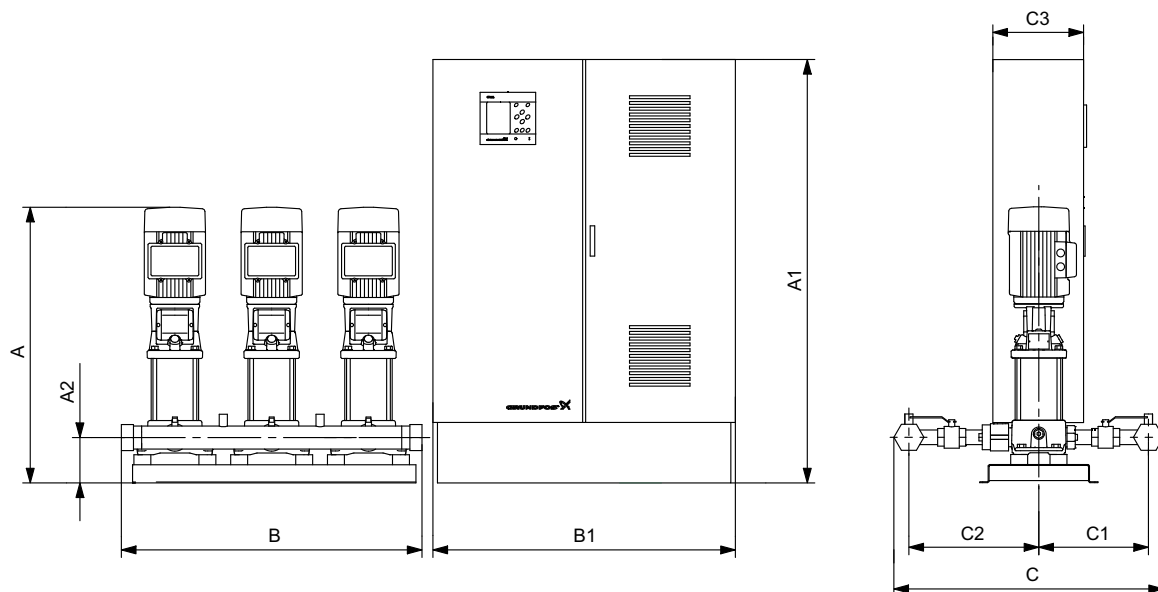
12. Technical data, Hydro MPC-F/-S, 50 Hz

Hydro MPC-F/-S with CR(I) 3 or CR(I) 5



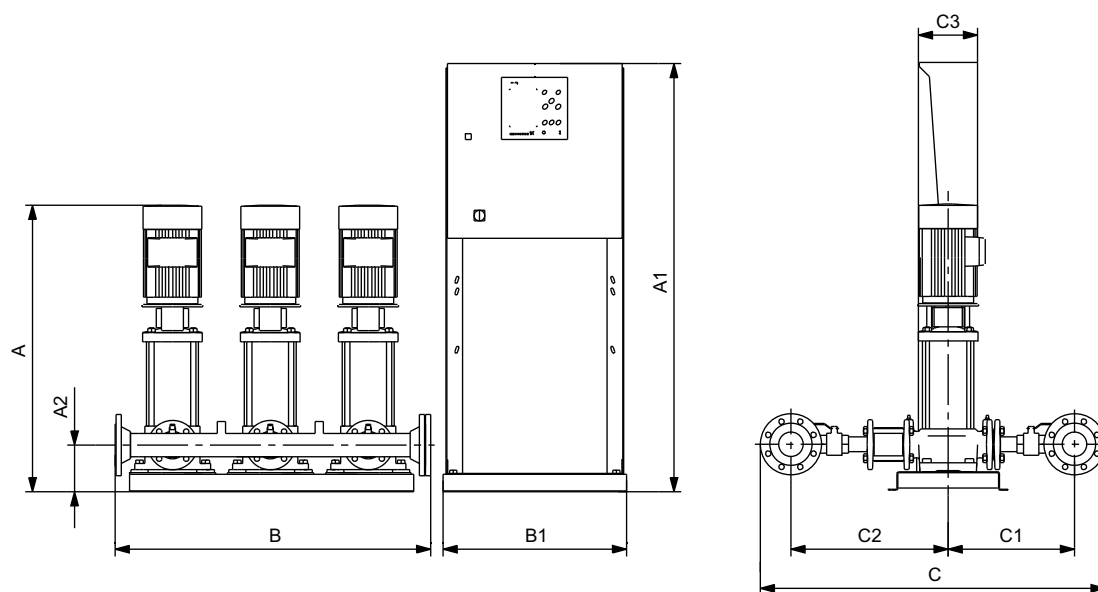
TM07 0498 3318

Fig. 57 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0490 3318

Fig. 58 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0510 3718

Fig. 59 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR(I) 3

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 3-7	U4	0.55	3.2	R 2"	582	1300	112	605	600	605	295	355	400	105	C
	CRI 3-10	U4	0.75	4.2	R 2"	682	1300	112	605	600	605	295	355	400	114	C
	CRI 3-15	U4	1.1	5.3	R 2"	792	1300	112	605	600	605	295	355	400	155	C
	CRI 3-19	U4	1.5	7	R 2"	910	1300	112	605	600	605	295	355	400	174	C
3	CRI 3-7	U4	0.55	4.7	R 2"	582	1300	112	925	600	925	295	355	400	166	C
	CRI 3-10	U4	0.75	6.1	R 2"	682	1300	112	925	600	925	295	355	400	180	C
	CRI 3-15	U4	1.1	7.8	R 2"	792	1300	112	925	600	925	295	355	400	194	C
	CRI 3-19	U4	1.5	10.2	R 2"	910	1300	112	925	600	925	295	355	400	221	C
4	CRI 3-7	U4	0.55	6.2	R 2 1/2"	582	1460	112	1245	790	1245	295	355	-	221	D
	CRI 3-10	U4	0.75	8	R 2 1/2"	682	1460	112	1245	790	1245	295	355	-	241	D
	CRI 3-15	U4	1.1	10.3	R 2 1/2"	792	1460	112	1245	790	1245	295	355	-	258	D
	CRI 3-19	U4	1.5	13.4	R 2 1/2"	910	1460	112	1245	790	1245	295	355	-	295	D

Hydro MPC-S with CR(I) 3

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 3-5	U4	0.37	2.1	R 2"	546	1460	112	1050	-	726	295	355	-	103	A
	CRI 3-7	U4	0.55	3.1	R 2"	582	1460	112	1050	-	726	295	355	-	103	A
	CRI 3-10	U4	0.75	3.9	R 2"	682	1460	112	1050	-	726	295	355	-	113	A
	CRI 3-15	U4	1.1	5.1	R 2"	792	1460	112	1050	-	726	295	355	-	121	A
3	CRI 3-19	U4	1.5	6.5	R 2"	910	1460	112	1050	-	726	295	355	-	140	A
	CRI 3-5	U4	0.37	3.1	R 2"	546	1460	112	1570	-	726	295	355	-	135	A
	CRI 3-7	U4	0.55	4.6	R 2"	582	1460	112	1570	-	726	295	355	-	136	A
	CRI 3-10	U4	0.75	5.8	R 2"	682	1460	112	1350	-	726	295	355	-	140	A
4	CRI 3-15	U4	1.1	7.6	R 2"	792	1460	112	1570	-	726	295	355	-	163	A
	CRI 3-19	U4	1.5	9.7	R 2"	910	1460	112	1570	-	726	295	355	-	191	A
	CRI 3-5	U4	0.37	4.1	R 2 1/2"	546	1460	112	1890	-	741	295	355	-	159	A
	CRI 3-7	U4	0.55	6.1	R 2 1/2"	582	1460	112	1890	-	741	295	355	-	160	A
4	CRI 3-10	U4	0.75	7.7	R 2 1/2"	682	1460	112	1890	-	741	295	355	-	180	A
	CRI 3-15	U4	1.1	10.1	R 2 1/2"	792	1460	112	1890	-	741	295	355	-	196	A
	CRI 3-19	U4	1.5	12.9	R 2 1/2"	910	1460	112	1890	-	741	295	355	-	233	A

Voltage code, U1: 3 x 380-415 V $\pm$ 10 %, N, PE.

Voltage code, U2: 3 x 380-415 V $\pm$ 10 %, PE.

Voltage code, U4: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Maximum current in neutral conductor, Max. I₀ [A], applies to booster systems with single-phase motors.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F with CR(I) 5

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 5-4	U4	0.55	3.2	R 2"	564	1300	112	605	600	605	295	355	400	104	C
	CRI 5-5	U4	0.75	4.2	R 2"	637	1300	112	605	600	605	295	355	400	112	C
	CRI 5-8	U4	1.1	5.3	R 2"	738	1300	112	605	600	605	295	355	400	152	C
	CRI 5-10	U4	1.5	7	R 2"	838	1300	112	605	600	605	295	355	400	170	C
	CRI 5-16	U4	2.2	9.6	R 2"	1040	1300	112	605	600	605	295	355	400	184	C
	CRI 5-20	U4	3	12.9	R 2"	1167	1300	112	605	600	605	295	355	400	198	C
3	CRI 5-4	U4	0.55	4.7	R 2"	564	1300	112	925	600	925	295	355	400	165	C
	CRI 5-5	U4	0.75	6.1	R 2"	637	1300	112	925	600	925	295	355	400	177	C
	CRI 5-8	U4	1.1	7.8	R 2"	738	1300	112	925	600	925	295	355	400	189	C
	CRI 5-10	U4	1.5	10.2	R 2"	838	1300	112	925	600	925	295	355	400	214	C
	CRI 5-16	U4	2.2	14.1	R 2"	1040	1300	112	925	600	925	295	355	400	236	C
	CRI 5-20	U4	3	19.3	R 2"	1167	1300	112	925	600	925	295	355	400	258	C
4	CRI 5-4	U4	0.55	6.2	R 2 1/2"	564	1460	112	1245	790	1245	295	355	-	219	D
	CRI 5-5	U4	0.75	8	R 2 1/2"	637	1460	112	1245	790	1245	295	355	-	236	D
	CRI 5-8	U4	1.1	10.3	R 2 1/2"	738	1460	112	1245	790	1245	295	355	-	251	D
	CRI 5-10	U4	1.5	13.4	R 2 1/2"	838	1460	112	1245	790	1245	295	355	-	287	D
	CRI 5-16	U4	2.2	18.6	R 2 1/2"	1040	1460	112	1245	790	1245	295	355	-	314	D
	CRI 5-20	U4	3	25.6	R 2 1/2"	1167	1460	112	1245	790	1245	295	355	-	344	D

Hydro MPC-S with CR(I) 5

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 5-4	U4	0.55	3.1	R 2"	564	1460	112	1050	-	726	295	355	-	102	A
	CRI 5-5	U4	0.75	3.9	R 2"	637	1460	112	1050	-	726	295	355	-	110	A
	CRI 5-8	U4	1.1	5.1	R 2"	738	1460	112	1050	-	726	295	355	-	118	A
	CRI 5-10	U4	1.5	6.5	R 2"	838	1460	112	1050	-	726	295	355	-	136	A
	CRI 5-16	U4	2.2	9.1	R 2"	1040	1460	112	1050	-	726	295	355	-	149	A
	CRI 5-20	U4	3	12.7	R 2"	1167	1460	112	1050	-	726	295	355	-	163	A
3	CRI 5-4	U4	0.55	4.6	R 2"	564	1460	112	1570	-	726	295	355	-	135	A
	CRI 5-5	U4	0.75	5.8	R 2"	637	1460	112	1350	-	726	295	355	-	136	A
	CRI 5-8	U4	1.1	7.6	R 2"	738	1460	112	1570	-	726	295	355	-	158	A
	CRI 5-10	U4	1.5	9.7	R 2"	838	1460	112	1570	-	726	295	355	-	185	A
	CRI 5-16	U4	2.2	13.6	R 2"	1040	1460	112	1350	-	726	295	355	-	194	A
	CRI 5-20	U4	3	19	R 2"	1167	1460	112	1570	-	726	295	355	-	227	A
4	CRI 5-4	U4	0.55	6.1	R 2 1/2"	564	1460	112	1890	-	741	295	355	-	158	A
	CRI 5-5	U4	0.75	7.7	R 2 1/2"	637	1460	112	1890	-	741	295	355	-	175	A
	CRI 5-8	U4	1.1	10.1	R 2 1/2"	738	1460	112	1890	-	741	295	355	-	190	A
	CRI 5-10	U4	1.5	12.9	R 2 1/2"	838	1460	112	1890	-	741	295	355	-	225	A
	CRI 5-16	U4	2.2	18.1	R 2 1/2"	1040	1460	112	1890	-	741	295	355	-	252	A
	CRI 5-20	U4	3	25.3	R 2 1/2"	1167	1460	112	1890	-	741	295	355	-	281	A

Voltage code, U4: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

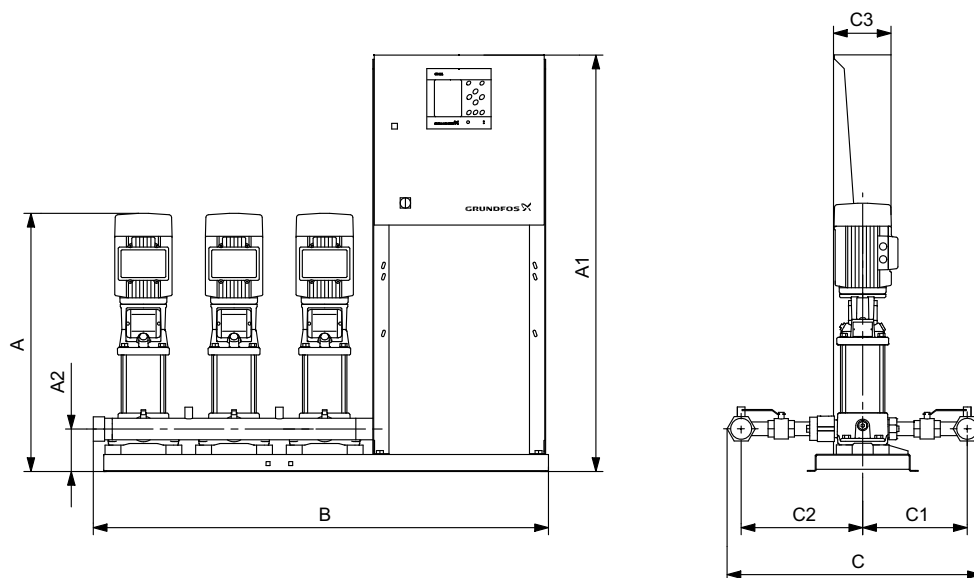
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Maximum current in neutral conductor, Max. I₀ [A], applies to booster systems with single-phase motors.

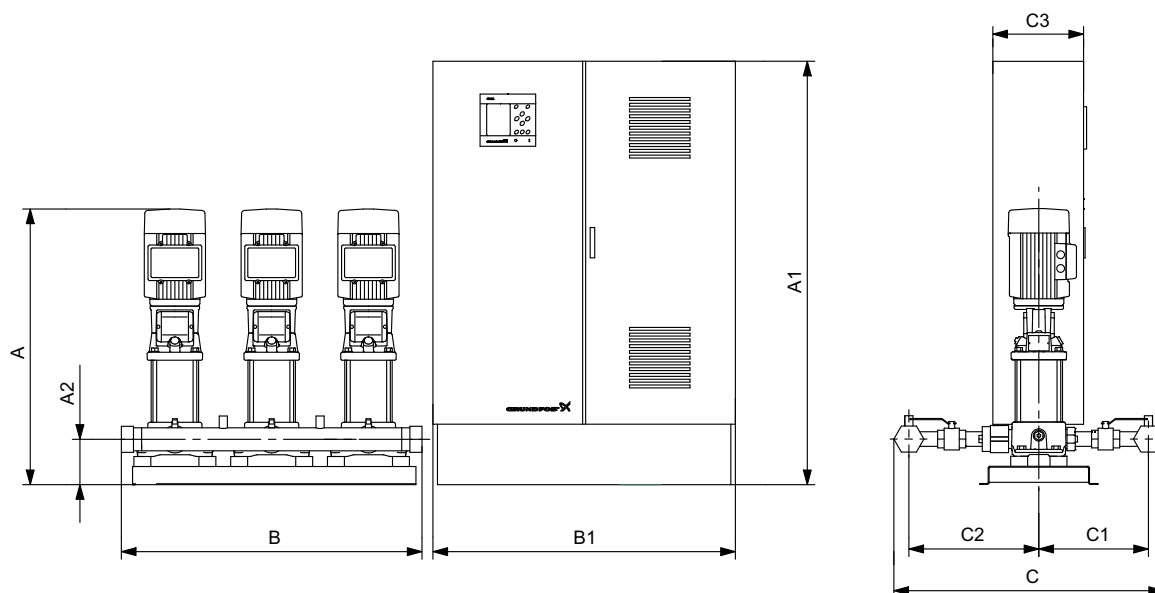
Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F/-S with CR(I) 10



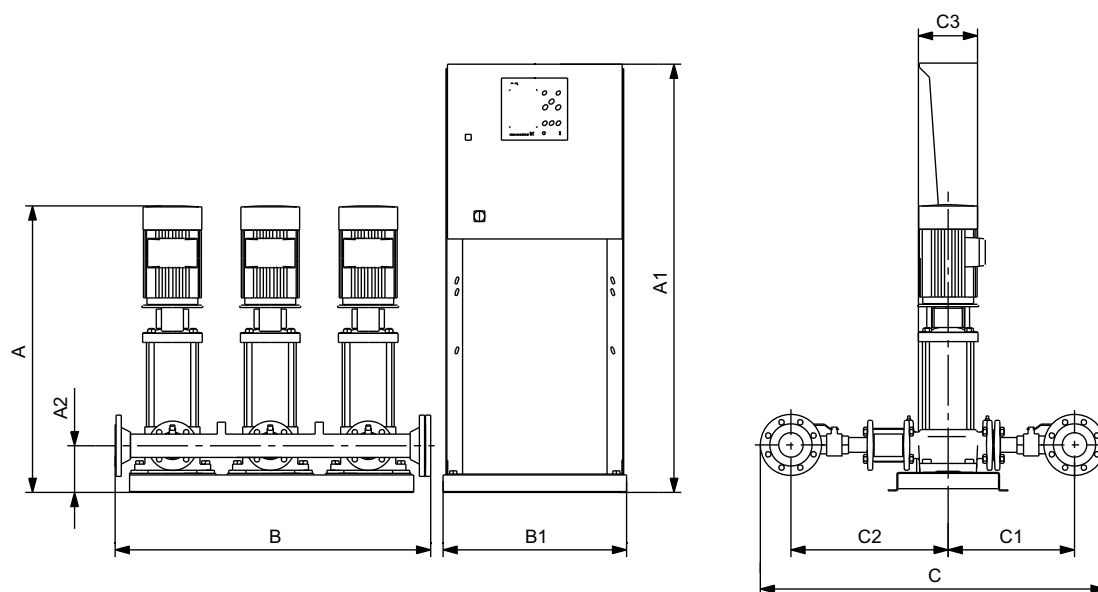
TM07 0498 3318

Fig. 60 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0490 3318

Fig. 61 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0510 3318

Fig. 62 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR(I) 10

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 10-3	U4	1.1	5.3	R 2 1/2"	700	1300	142	665	600	665	371	431	400	182	C
	CRI 10-4	U4	1.5	7	R 2 1/2"	776	1300	142	665	600	665	371	431	400	200	C
	CRI 10-6	U4	2.2	9.6	R 2 1/2"	876	1300	142	665	600	665	371	431	400	211	C
	CRI 10-9	U4	3	12.9	R 2 1/2"	985	1300	142	665	600	665	371	431	400	226	C
	CRI 10-12	U4	4	16.2	R 2 1/2"	1112	1300	142	665	600	665	371	431	400	256	C
3	CRI 10-3	U4	1.1	7.8	R 2 1/2"	700	1300	142	925	600	925	371	431	400	233	C
	CRI 10-4	U4	1.5	10.2	R 2 1/2"	776	1300	142	925	600	925	371	431	400	259	C
	CRI 10-6	U4	2.2	14.1	R 2 1/2"	876	1300	142	925	600	925	371	431	400	275	C
	CRI 10-9	U4	3	19.3	R 2 1/2"	985	1300	142	925	600	925	371	431	400	298	C
	CRI 10-12	U4	4	24.2	R 2 1/2"	1112	1460	142	925	830	925	371	431	-	370	D
4	CRI 10-3	U4	1.1	10.3	DN80	700	1460	142	1322	790	1322	371	431	-	323	D
	CRI 10-4	U4	1.5	13.4	DN80	776	1460	142	1322	790	1322	371	431	-	360	D
	CRI 10-6	U4	2.2	18.6	DN80	876	1460	142	1322	790	1322	371	431	-	380	D
	CRI 10-9	U4	3	25.6	DN80	985	1460	142	1322	790	1322	371	431	-	411	D
	CRI 10-12	U4	4	32.1	DN80	1112	1460	142	1322	790	1322	371	431	-	472	D
5	CRI 10-3	U4	1.1	12.9	DN80	700	1460	142	1642	830	1642	371	431	-	381	D
	CRI 10-4	U4	1.5	16.6	DN80	776	1460	142	1642	830	1642	371	431	-	425	D
	CRI 10-6	U4	2.2	23.2	DN80	876	1460	142	1642	830	1642	371	431	-	451	D
	CRI 10-9	U4	3	31.9	DN80	985	1460	142	1642	830	1642	371	431	-	488	D
	CRI 10-12	U4	4	40	DN80	1112	1460	142	1642	830	1642	371	431	-	565	D
6	CRI 10-3	U4	1.1	15.4	DN100	700	1460	142	1962	830	1962	371	431	-	441	D
	CRI 10-4	U4	1.5	19.9	DN100	776	1460	142	1962	830	1962	371	431	-	495	D
	CRI 10-6	U4	2.2	27.7	DN100	876	1460	142	1962	830	1962	371	431	-	525	D
	CRI 10-9	U4	3	38.2	DN100	985	1460	142	1962	830	1962	371	431	-	569	D
	CRI 10-12	U4	4	47.9	DN100	1112	1460	142	1962	1030	1962	371	431	-	717	D

Voltage code, U4: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Maximum current in neutral conductor, Max. I₀ [A], applies to booster systems with single-phase motors.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-S with CR(I) 10

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 10-3	U4	1.1	5.1	R 2 1/2"	700	1460	142	1080	-	891	371	431	-	148	A
	CRI 10-4	U4	1.5	6.5	R 2 1/2"	776	1460	142	1080	-	891	371	431	-	166	A
	CRI 10-6	U4	2.2	9.1	R 2 1/2"	876	1460	142	1080	-	891	371	431	-	176	A
	CRI 10-9	U4	3	12.7	R 2 1/2"	985	1460	142	1080	-	891	371	431	-	190	A
	CRI 10-12	U4	4	15.9	R 2 1/2"	1112	1460	142	1080	-	891	371	431	-	221	A
3	CRI 10-3	U4	1.1	7.6	R 2 1/2"	700	1460	142	1600	-	891	371	431	-	202	A
	CRI 10-4	U4	1.5	9.7	R 2 1/2"	776	1460	142	1600	-	891	371	431	-	230	A
	CRI 10-6	U4	2.2	13.6	R 2 1/2"	876	1460	142	1380	-	891	371	431	-	234	A
	CRI 10-9	U4	3	19	R 2 1/2"	985	1460	142	1600	-	891	371	431	-	267	A
	CRI 10-12	U4	4	23.8	R 2 1/2"	1112	1460	142	1600	-	891	371	431	-	312	A
4	CRI 10-3	U4	1.1	10.1	DN80	700	1460	142	1920	-	1000	371	431	-	262	A
	CRI 10-4	U4	1.5	12.9	DN80	776	1460	142	1920	-	1000	371	431	-	298	A
	CRI 10-6	U4	2.2	18.1	DN80	876	1460	142	1920	-	1000	371	431	-	318	A
	CRI 10-9	U4	3	25.3	DN80	985	1460	142	1920	-	1000	371	431	-	348	A
	CRI 10-12	U4	4	31.7	DN80	1112	1460	142	1920	-	1000	371	431	-	409	A
5	CRI 10-3	U4	1.1	12.6	DN80	700	1460	142	1642	630	1000	371	431	-	329	D
	CRI 10-4	U4	1.5	16.1	DN80	776	1460	142	1642	630	1000	371	431	-	374	D
	CRI 10-6	U4	2.2	22.6	DN80	876	1460	142	1642	630	1000	371	431	-	399	D
	CRI 10-9	U4	3	31.6	DN80	985	1460	142	1642	630	1000	371	431	-	436	D
	CRI 10-12	U4	4	39.6	DN80	1112	1460	142	1642	630	1000	371	431	-	513	D
6	CRI 10-3	U4	1.1	15.1	DN100	700	1460	142	1962	630	1020	371	431	-	388	D
	CRI 10-4	U4	1.5	19.3	DN100	776	1460	142	1962	630	1020	371	431	-	442	D
	CRI 10-6	U4	2.2	27.1	DN100	876	1460	142	1962	630	1020	371	431	-	472	D
	CRI 10-9	U4	3	37.9	DN100	985	1460	142	1962	630	1020	371	431	-	517	D
	CRI 10-12	U4	4	47.5	DN100	1112	1460	142	1962	630	1020	371	431	-	609	D

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

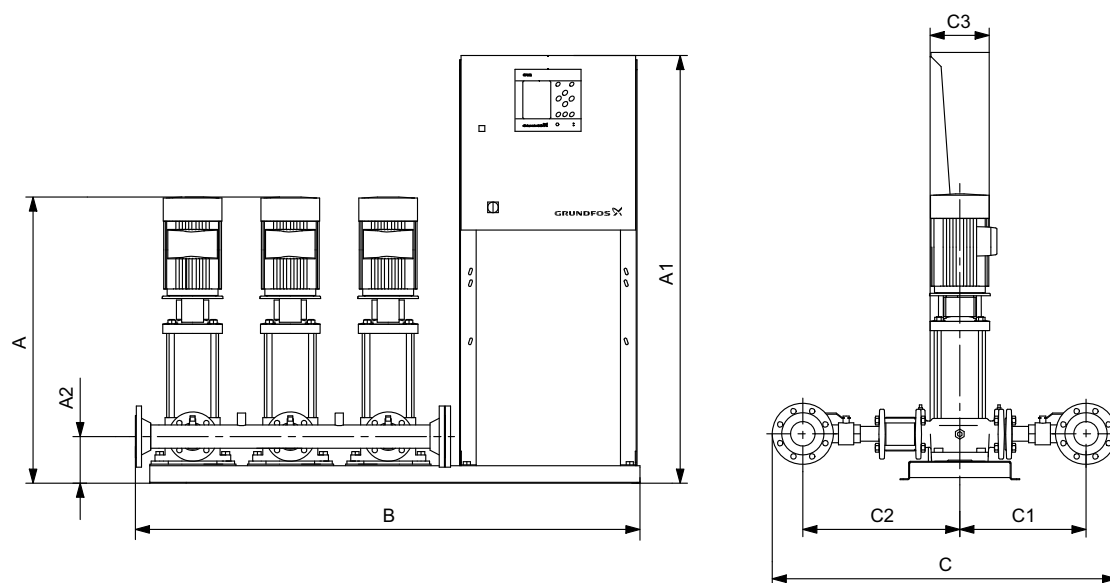
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Maximum current in neutral conductor, Max. I₀ [A], applies to booster systems with single-phase motors.

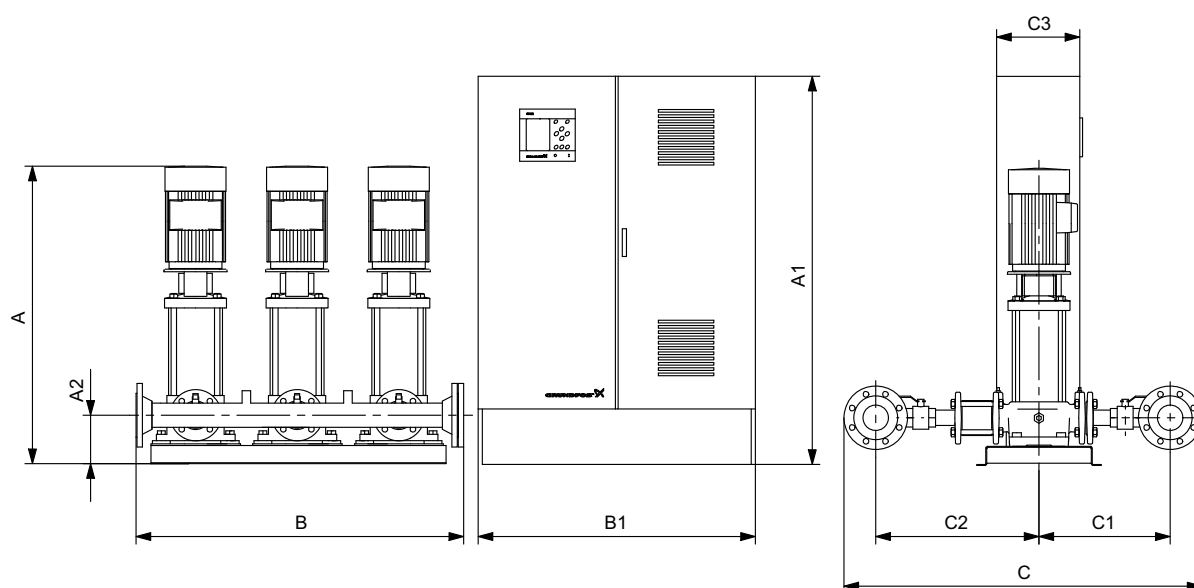
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR(I) 15 or CR(I) 20



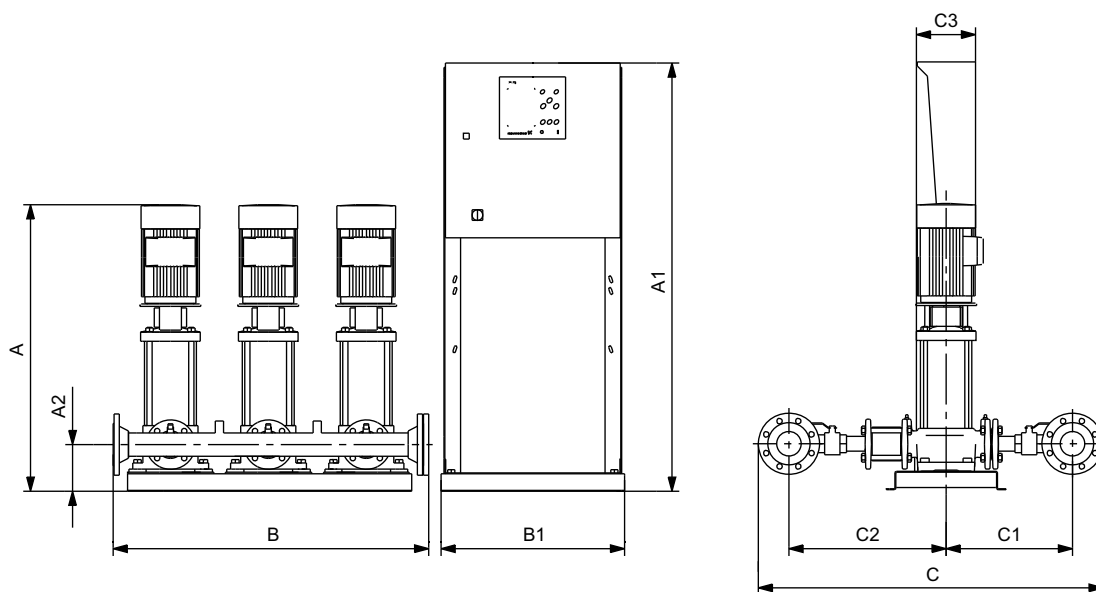
TM07 0500 3318

Fig. 63 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0493 3318

Fig. 64 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0510 3318

Fig. 65 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR(I) 15

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 15-2	U4	2.2	9.6	DN80	796	1300	152	742	600	742	438	497	400	232	C
	CRI 15-3	U4	3	12.9	DN80	860	1300	152	742	600	742	438	497	400	243	C
	CRI 15-5	U4	4	16.2	DN80	987	1300	152	742	600	742	438	497	400	273	C
	CRI 15-7	U4	5.5	22.9	DN80	1128	1460	152	742	830	742	438	497	-	344	D
	CRI 15-9	U4	7.5	28.8	DN80	1206	1600	152	742	800	742	438	497	500	345	C
3	CRI 15-2	U4	2.2	14.1	DN100	796	1300	152	1062	600	1062	438	497	400	304	C
	CRI 15-3	U4	3	19.3	DN100	860	1300	152	1062	600	1062	438	497	400	321	C
	CRI 15-5	U4	4	24.2	DN100	987	1460	152	1062	830	1062	438	497	-	393	D
	CRI 15-7	U4	5.5	33.9	DN100	1128	1600	152	1062	800	1062	438	497	500	432	C
	CRI 15-9	U4	7.5	43	DN100	1206	1600	152	1062	800	1062	438	497	500	472	C
4	CRI 15-2	U4	2.2	18.6	DN100	796	1460	152	1382	790	1382	438	497	-	396	D
	CRI 15-3	U4	3	25.6	DN100	860	1460	152	1382	790	1382	438	497	-	418	D
	CRI 15-5	U4	4	32.1	DN100	987	1460	152	1382	790	1382	438	497	-	479	D
	CRI 15-7	U4	5.5	44.9	DN100	1128	1900	152	1382	800	1382	438	497	400	640	C
	CRI 15-9	U4	7.5	57.2	DN100	1206	1900	152	1382	800	1382	438	497	400	692	C
5	CRI 15-2	U4	2.2	23.2	DN150	796	1460	152	1704	830	1704	438	497	-	495	D
	CRI 15-3	U4	3	31.9	DN150	860	1460	152	1704	830	1704	438	497	-	521	D
	CRI 15-5	U4	4	40	DN150	987	1460	152	1704	830	1704	438	497	-	598	D
	CRI 15-7	U4	5.5	56.1	DN150	1128	1500	152	1704	1000	1704	438	497	400	679	C
	CRI 15-9	U4	7.5	71.6	DN150	1206	1500	152	1704	1000	1704	438	497	400	798	C
6	CRI 15-2	U4	2.2	27.7	DN150	796	1460	152	2024	830	2024	438	497	-	565	D
	CRI 15-3	U4	3	38.2	DN150	860	1460	152	2024	830	2024	438	497	-	597	D
	CRI 15-5	U4	4	47.9	DN150	987	1460	152	2024	1030	2024	438	497	-	745	D
	CRI 15-7	U4	5.5	67.1	DN150	1128	1500	152	2024	1000	2024	438	497	400	844	C
	CRI 15-9	U4	7.5	85.8	DN150	1206	1500	152	2024	1000	2024	438	497	400	940	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR(I) 15

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 15-2	U4	2.2	9.1	DN80	796	1460	152	1110	-	1135	438	497	-	197	A
	CRI 15-3	U4	3	12.7	DN80	860	1460	152	1110	-	1135	438	497	-	207	A
	CRI 15-5	U4	4	15.9	DN80	987	1460	152	1110	-	1135	438	497	-	238	A
	CRI 15-7	U4	5.5	22.1	DN80	1128	1460	152	1310	-	1135	438	497	-	283	A
	CRI 15-9	U4	7.5	28.5	DN80	1206	1460	152	1310	-	1135	438	497	-	311	A
3	CRI 15-2	U4	2.2	13.6	DN100	796	1460	152	1410	-	1155	438	497	-	263	A
	CRI 15-3	U4	3	19	DN100	860	1460	152	1630	-	1155	438	497	-	290	A
	CRI 15-5	U4	4	23.8	DN100	987	1460	152	1630	-	1155	438	497	-	335	A
	CRI 15-7	U4	5.5	33.1	DN100	1128	1460	152	1062	790	1155	438	497	-	415	D
	CRI 15-9	U4	7.5	42.7	DN100	1206	1460	152	1062	790	1155	438	497	-	455	D
4	CRI 15-2	U4	2.2	18.1	DN100	796	1460	152	1950	-	1155	438	497	-	334	A
	CRI 15-3	U4	3	25.3	DN100	860	1460	152	1950	-	1155	438	497	-	356	A
	CRI 15-5	U4	4	31.7	DN100	987	1460	152	1950	-	1155	438	497	-	416	A
	CRI 15-7	U4	5.5	44.1	DN100	1128	1460	152	1382	790	1155	438	497	-	522	D
	CRI 15-9	U4	7.5	57	DN100	1206	1460	152	1382	790	1155	438	497	-	582	D
5	CRI 15-2	U4	2.2	22.6	DN150	796	1460	152	1704	630	1220	438	497	-	442	D
	CRI 15-3	U4	3	31.6	DN150	860	1460	152	1704	630	1220	438	497	-	469	D
	CRI 15-5	U4	4	39.6	DN150	987	1460	152	1704	630	1220	438	497	-	546	D
	CRI 15-7	U4	5.5	55.2	DN150	1128	1460	152	1704	1030	1220	438	497	-	675	D
	CRI 15-9	U4	7.5	71.2	DN150	1206	1460	152	1704	1030	1220	438	497	-	742	D
6	CRI 15-2	U4	2.2	27.1	DN150	796	1460	152	2024	630	1220	438	497	-	512	D
	CRI 15-3	U4	3	37.9	DN150	860	1460	152	2024	630	1220	438	497	-	545	D
	CRI 15-5	U4	4	47.5	DN150	987	1460	152	2024	630	1220	438	497	-	636	D
	CRI 15-7	U4	5.5	66.2	DN150	1128	2000	152	2024	800	1220	438	497	400	765	C
	CRI 15-9	U4	7.5	85.4	DN150	1206	2000	152	2024	800	1220	438	497	400	844	C

Voltage code, U4: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F with CR(I) 20

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 20-2	U4	2.2	9.6	DN80	796	1300	152	742	600	742	438	497	400	232	C
	CRI 20-3	U4	4	16.2	DN80	897	1300	152	742	600	742	438	497	400	267	C
	CRI 20-5	U4	5.5	22.9	DN80	1038	1460	152	742	830	742	438	497	-	338	D
	CRI 20-7	U4	7.5	28.8	DN80	1116	1600	152	742	800	742	438	497	500	339	C
3	CRI 20-2	U4	2.2	14.1	DN100	796	1300	152	1062	600	1062	438	497	400	304	C
	CRI 20-3	U4	4	24.2	DN100	897	1460	152	1062	830	1062	438	497	-	384	D
	CRI 20-5	U4	5.5	33.9	DN100	1038	1600	152	1062	800	1062	438	497	500	423	C
	CRI 20-7	U4	7.5	43	DN100	1116	1600	152	1062	800	1062	438	497	500	463	C
4	CRI 20-2	U4	2.2	18.6	DN100	796	1460	152	1382	790	1382	438	497	-	396	D
	CRI 20-3	U4	4	32.1	DN100	897	1460	152	1382	790	1382	438	497	-	467	D
	CRI 20-5	U4	5.5	44.9	DN100	1038	1900	152	1382	800	1382	438	497	400	627	C
	CRI 20-7	U4	7.5	57.2	DN100	1116	1900	152	1382	800	1382	438	497	400	680	C
5	CRI 20-2	U4	2.2	23.2	DN150	796	1460	152	1704	830	1704	438	497	-	495	D
	CRI 20-3	U4	4	40	DN150	897	1460	152	1704	830	1704	438	497	-	583	D
	CRI 20-5	U4	5.5	56.1	DN150	1038	1500	152	1704	1000	1704	438	497	400	663	C
	CRI 20-7	U4	7.5	71.6	DN150	1116	1500	152	1704	1000	1704	438	497	400	783	C
6	CRI 20-2	U4	2.2	27.7	DN150	796	1460	152	2024	830	2024	438	497	-	565	D
	CRI 20-3	U4	4	47.9	DN150	897	1460	152	2024	1030	2024	438	497	-	727	D
	CRI 20-5	U4	5.5	67.1	DN150	1038	1500	152	2024	1000	2024	438	497	400	826	C
	CRI 20-7	U4	7.5	85.8	DN150	1116	1500	152	2024	1000	2024	438	497	400	922	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR(I) 20

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 20-2	U4	2.2	9.1	DN80	796	1460	152	1110	-	1135	438	497	-	197	A
	CRI 20-3	U4	4	15.9	DN80	897	1460	152	1110	-	1135	438	497	-	232	A
	CRI 20-5	U4	5.5	22.1	DN80	1038	1460	152	1310	-	1135	438	497	-	277	A
	CRI 20-7	U4	7.5	28.5	DN80	1116	1460	152	1310	-	1135	438	497	-	304	A
3	CRI 20-2	U4	2.2	13.6	DN100	796	1460	152	1410	-	1155	438	497	-	263	A
	CRI 20-3	U4	4	23.8	DN100	897	1460	152	1630	-	1155	438	497	-	325	A
	CRI 20-5	U4	5.5	33.1	DN100	1038	1460	152	1062	790	1155	438	497	-	406	D
	CRI 20-7	U4	7.5	42.7	DN100	1116	1460	152	1062	790	1155	438	497	-	446	D
4	CRI 20-2	U4	2.2	18.1	DN100	796	1460	152	1950	-	1155	438	497	-	334	A
	CRI 20-3	U4	4	31.7	DN100	897	1460	152	1950	-	1155	438	497	-	404	A
	CRI 20-5	U4	5.5	44.1	DN100	1038	1460	152	1382	790	1155	438	497	-	510	D
	CRI 20-7	U4	7.5	57	DN100	1116	1460	152	1382	790	1155	438	497	-	569	D
5	CRI 20-2	U4	2.2	22.6	DN150	796	1460	152	1704	630	1220	438	497	-	442	D
	CRI 20-3	U4	4	39.6	DN150	897	1460	152	1704	630	1220	438	497	-	531	D
	CRI 20-5	U4	5.5	55.2	DN150	1038	1460	152	1704	1030	1220	438	497	-	660	D
	CRI 20-7	U4	7.5	71.2	DN150	1116	1460	152	1704	1030	1220	438	497	-	727	D
6	CRI 20-2	U4	2.2	27.1	DN150	796	1460	152	2024	630	1220	438	497	-	512	D
	CRI 20-3	U4	4	47.5	DN150	897	1460	152	2024	630	1220	438	497	-	618	D
	CRI 20-5	U4	5.5	66.2	DN150	1038	2000	152	2024	800	1220	438	497	400	746	C
	CRI 20-7	U4	7.5	85.4	DN150	1116	2000	152	2024	800	1220	438	497	400	826	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

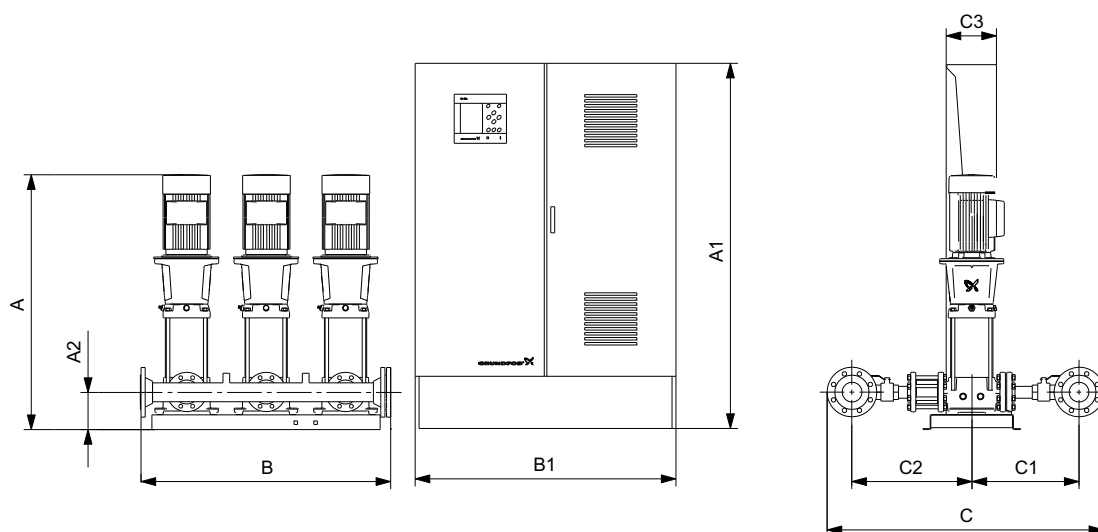
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

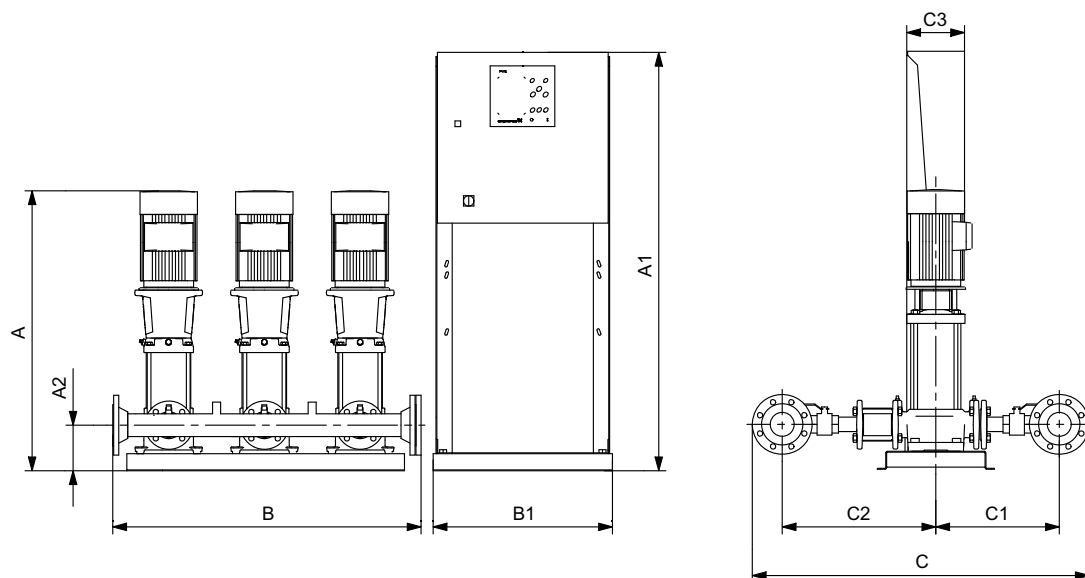
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR 32



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Fig. 66 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



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Fig. 67 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 32

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 32-2	U4	4	16.2	DN100	1009	1300	167	1022	600	1022	379	579	400	329	C
	CR 32-3	U4	5.5	22.9	DN100	1098	1460	167	1022	830	1022	379	579	-	383	D
	CR 32-4	U4	7.5	28.8	DN100	1156	1600	167	1022	800	1022	379	579	500	384	C
	CR 32-6	U4	11	42.5	DN100	1538	1600	207	1022	800	1022	379	579	500	509	C
3	CR 32-2	U4	4	24.2	DN150	1009	1460	167	1524	830	1524	379	579	-	495	D
	CR 32-3	U4	5.5	33.9	DN150	1098	1600	167	1524	800	1524	379	579	500	509	C
	CR 32-4	U4	7.5	43	DN150	1156	1600	167	1524	800	1524	379	579	500	549	C
	CR 32-6	U4	11	62.8	DN150	1538	1600	207	1524	800	1524	379	579	500	731	C
4	CR 32-2	U4	4	32.1	DN150	1009	1460	167	2024	790	2024	379	579	-	611	D
	CR 32-3	U4	5.5	44.9	DN150	1098	1900	167	2024	800	2024	379	579	400	740	C
	CR 32-4	U4	7.5	57.2	DN150	1156	1900	167	2024	800	2024	379	579	400	791	C
	CR 32-6	U4	11	83.1	DN150	1538	1900	207	2024	800	2024	379	579	400	981	C
5	CR 32-2	U4	4	40	DN150	1009	1460	167	2524	830	2524	379	579	-	746	D
	CR 32-3	U4	5.5	56.1	DN150	1098	1500	167	2524	1000	2524	379	579	400	793	C
	CR 32-4	U4	7.5	71.6	DN150	1156	1500	167	2524	1000	2524	379	579	400	911	C
	CR 32-6	U4	11	103.6	DN150	1538	1500	207	2524	1000	2524	379	579	400	1210	C
6	CR 32-2	U4	4	47.9	DN150	1009	1460	167	3024	1030	3024	379	579	-	919	D
	CR 32-3	U4	5.5	67.1	DN150	1098	1500	167	3024	1000	3024	379	579	400	978	C
	CR 32-4	U4	7.5	85.8	DN150	1156	1500	167	3024	1000	3024	379	579	400	1073	C
	CR 32-6	U4	11	123.9	DN150	1538	1600	207	3024	1200	3024	379	579	500	1391	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 32

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 32-2	U4	4	15.9	DN100	1009	1460	167	1022	410	1180	379	579	-	300	D
	CR 32-3	U4	5.5	22.1	DN100	1098	1460	167	1022	630	1180	379	579	-	330	D
	CR 32-4	U4	7.5	28.5	DN100	1156	1460	167	1022	630	1180	379	579	-	357	D
	CR 32-6	U4	11	40.7	DN100	1538	1460	207	1022	790	1180	379	579	-	469	D
3	CR 32-2	U4	4	23.8	DN150	1009	1460	167	1524	630	1245	379	579	-	446	D
	CR 32-3	U4	5.5	33.1	DN150	1098	1460	167	1524	790	1245	379	579	-	491	D
	CR 32-4	U4	7.5	42.7	DN150	1156	1460	167	1524	790	1245	379	579	-	531	D
	CR 32-6	U4	11	61	DN150	1538	1460	207	1524	790	1245	379	579	-	695	D
4	CR 32-2	U4	4	31.7	DN150	1009	1460	167	2024	630	1245	379	579	-	556	D
	CR 32-3	U4	5.5	44.1	DN150	1098	1460	167	2024	790	1245	379	579	-	620	D
	CR 32-4	U4	7.5	57	DN150	1156	1460	167	2024	790	1245	379	579	-	679	D
	CR 32-6	U4	11	81.4	DN150	1538	1460	207	2024	790	1245	379	579	-	898	D
5	CR 32-2	U4	4	39.6	DN150	1009	1460	167	2524	630	1245	379	579	-	696	D
	CR 32-3	U4	5.5	55.2	DN150	1098	1460	167	2524	1030	1245	379	579	-	780	D
	CR 32-4	U4	7.5	71.2	DN150	1156	1460	167	2524	1030	1245	379	579	-	846	D
	CR 32-6	U4	11	101.7	DN150	1538	1460	207	2524	1030	1245	379	579	-	1133	D
6	CR 32-2	U4	4	47.5	DN150	1009	1460	167	3024	630	1245	379	579	-	814	D
	CR 32-3	U4	5.5	66.2	DN150	1098	2000	167	3024	800	1245	379	579	400	898	C
	CR 32-4	U4	7.5	85.4	DN150	1156	2000	167	3024	800	1245	379	579	400	977	C
	CR 32-6	U4	11	121.9	DN150	1538	1500	207	3024	1200	1245	379	579	400	1375	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

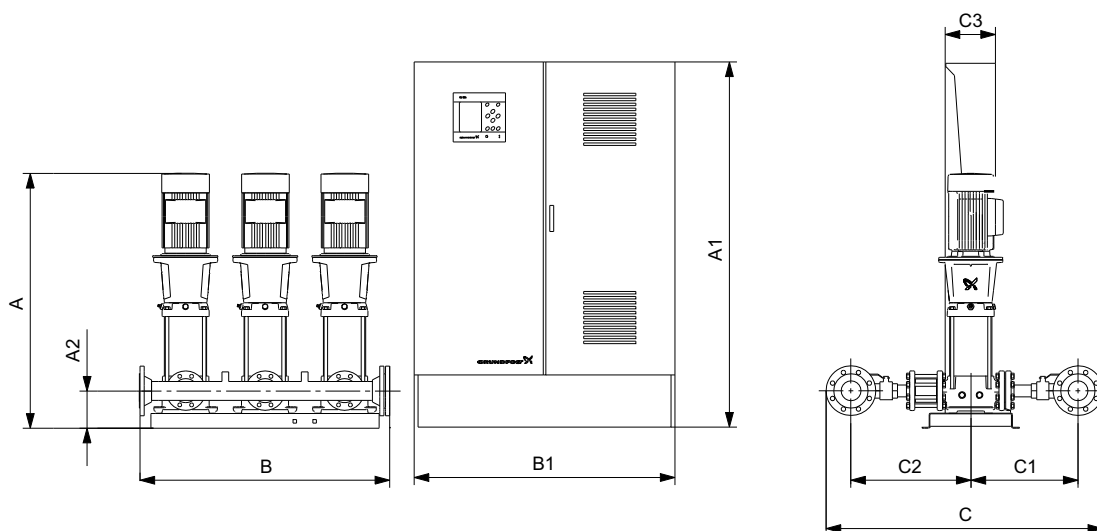
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

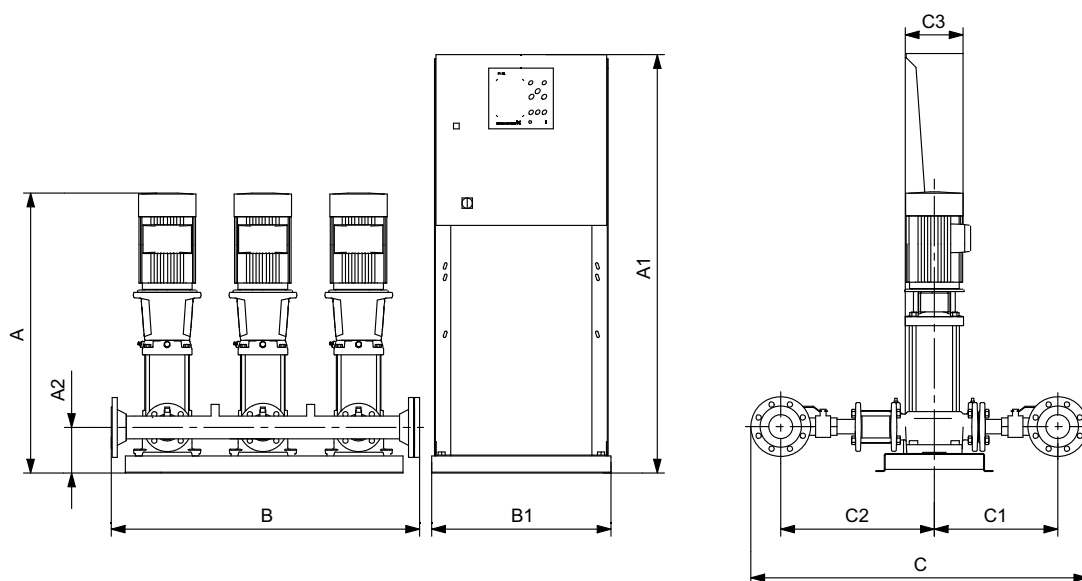
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR 45 or CR 64



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Fig. 68 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2039 3318

Fig. 69 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 45

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 45-2-2	U4	5.5	33.9	DN200	1092	1600	202	1526	800	1526	419	629	500	570	C
	CR 45-2	U4	7.5	43	DN200	1080	1600	202	1526	800	1526	419	629	500	600	C
	CR 45-3	U4	11	62.8	DN200	1402	1600	242	1526	800	1526	419	629	500	775	C
	CR 45-4	U4	15	83	DN200	1482	1500	242	1526	1000	1526	419	629	400	872	C
	CR 45-5	U4	18.5	101	DN200	1606	1700	242	1526	1000	1526	419	629	400	942	C
4	CR 45-2-2	U4	5.5	44.9	DN200	1092	1900	202	2026	800	2026	419	629	400	816	C
	CR 45-2	U4	7.5	57.2	DN200	1080	1900	202	2026	800	2026	419	629	400	855	C
	CR 45-3	U4	11	83.1	DN200	1402	1900	242	2026	800	2026	419	629	400	1037	C
	CR 45-4	U4	15	109.9	DN200	1482	1900	242	2026	800	2026	419	629	400	1103	C
	CR 45-5	U4	18.5	134.8	DN200	1606	1900	242	2026	800	2026	419	629	400	1166	C
5	CR 45-2-2	U4	5.5	56.1	DN200	1092	1500	202	2526	1000	2526	419	629	400	888	C
	CR 45-2	U4	7.5	71.6	DN200	1080	1500	202	2526	1000	2526	419	629	400	992	C
	CR 45-3	U4	11	103.6	DN200	1402	1500	242	2526	1000	2526	419	629	400	1280	C
	CR 45-4	U4	15	137	DN200	1482	1700	242	2526	1000	2526	419	629	400	1343	C
	CR 45-5	U4	18.5	168	DN200	1606	2400	242	2526	1200	2526	419	629	600	1498	C
6	CR 45-2-2	U4	5.5	67.1	DN200	1092	1500	202	3026	1000	3026	419	629	400	1089	C
	CR 45-2	U4	7.5	85.8	DN200	1080	1500	202	3026	1000	3026	419	629	400	1166	C
	CR 45-3	U4	11	123.9	DN200	1402	1600	242	3026	1200	3026	419	629	500	1471	C
	CR 45-4	U4	15	163.9	DN200	1482	2200	242	3026	1200	3026	419	629	400	1634	C
	CR 45-5	U4	18.5	201.4	DN200	1606	2000	242	3026	1200	3026	419	629	400	1766	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 45

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 45-2-2	U4	5.5	33.1	DN200	1092	1460	202	1526	790	1390	419	629	-	552	D
	CR 45-2	U4	7.5	42.7	DN200	1080	1460	202	1526	790	1390	419	629	-	582	D
	CR 45-3	U4	11	61	DN200	1402	1460	242	1526	790	1390	419	629	-	740	D
	CR 45-4	U4	15	80.8	DN200	1482	1300	242	1526	600	1390	419	629	400	790	C
	CR 45-5	U4	18.5	100.3	DN200	1606	1460	242	1526	830	1390	419	629	-	856	D
4	CR 45-2-2	U4	5.5	44.1	DN200	1092	1460	202	2026	790	1390	419	629	-	696	D
	CR 45-2	U4	7.5	57	DN200	1080	1460	202	2026	790	1390	419	629	-	743	D
	CR 45-3	U4	11	81.4	DN200	1402	1460	242	2026	790	1390	419	629	-	953	D
	CR 45-4	U4	15	107.8	DN200	1482	1460	242	2026	790	1390	419	629	-	1017	D
	CR 45-5	U4	18.5	133.8	DN200	1606	1460	242	2026	790	1390	419	629	-	1089	D
5	CR 45-2-2	U4	5.5	55.2	DN200	1092	1460	202	2526	1030	1390	419	629	-	875	D
	CR 45-2	U4	7.5	71.2	DN200	1080	1460	202	2526	1030	1390	419	629	-	926	D
	CR 45-3	U4	11	101.7	DN200	1402	1460	242	2526	1030	1390	419	629	-	1203	D
	CR 45-4	U4	15	134.6	DN200	1482	1600	242	2526	800	1390	419	629	500	1302	C
	CR 45-5	U4	18.5	167.1	DN200	1606	2200	242	2526	1200	1390	419	629	400	1418	C
6	CR 45-2-2	U4	5.5	66.2	DN200	1092	2000	202	3026	800	1390	419	629	400	1010	C
	CR 45-2	U4	7.5	85.4	DN200	1080	2000	202	3026	800	1390	419	629	400	1070	C
	CR 45-3	U4	11	121.9	DN200	1402	1500	242	3026	1200	1390	419	629	400	1455	C
	CR 45-4	U4	15	161.5	DN200	1482	2000	242	3026	1000	1390	419	629	400	1547	C
	CR 45-5	U4	18.5	200.5	DN200	1606	2000	242	3026	1600	1390	419	629	400	1734	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-F with CR 64

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 64-1	U4	5.5	33.9	DN200	1014	1600	202	1526	800	1526	421	631	500	567	C
	CR 64-2-2	U4	7.5	43	DN200	1085	1600	202	1526	800	1526	421	631	500	611	C
	CR 64-2	U4	11	62.8	DN200	1327	1600	242	1526	800	1526	421	631	500	774	C
	CR 64-3-1	U4	15	83	DN200	1409	1500	242	1526	1000	1526	421	631	400	873	C
	CR 64-4-2	U4	18.5	101	DN200	1536	1700	242	1526	1000	1526	421	631	400	946	C
	CR 64-4	U4	22	119.4	DN200	1562	1700	242	1526	1000	1526	421	631	400	996	C
4	CR 64-5-1	U4	30	162.4	DN200	1714	2400	242	1526	1200	1526	421	631	600	1410	C
	CR 64-1	U4	5.5	44.9	DN200	1014	1900	202	2026	800	2026	421	631	400	812	C
	CR 64-2-2	U4	7.5	57.2	DN200	1085	1900	202	2026	800	2026	421	631	400	870	C
	CR 64-2	U4	11	83.1	DN200	1327	1900	242	2026	800	2026	421	631	400	1035	C
	CR 64-3-1	U4	15	109.9	DN200	1409	1900	242	2026	800	2026	421	631	400	1104	C
	CR 64-4-2	U4	18.5	134.8	DN200	1536	1900	242	2026	800	2026	421	631	400	1172	C
5	CR 64-4	U4	22	159.1	DN200	1562	1900	242	2026	1000	2026	421	631	400	1276	C
	CR 64-5-1	U4	30	216.1	DN200	1714	1900	242	2026	1000	2026	421	631	400	1821	C
	CR 64-1	U4	5.5	56.1	DN200	1014	1500	202	2526	1000	2526	421	631	400	884	C
	CR 64-2-2	U4	7.5	71.6	DN200	1085	1500	202	2526	1000	2526	421	631	400	1010	C
	CR 64-2	U4	11	103.6	DN200	1327	1500	242	2526	1000	2526	421	631	400	1278	C
	CR 64-3-1	U4	15	137	DN200	1409	1700	242	2526	1000	2526	421	631	400	1345	C
6	CR 64-4-2	U4	18.5	168	DN200	1536	2400	242	2526	1200	2526	421	631	600	1504	C
	CR 64-4	U4	22	198.6	DN200	1562	2400	242	2526	1200	2526	421	631	600	1598	C
	CR 64-5-1	U4	30	269.6	DN200	1714	2000	242	2526	1600	2526	421	631	400	2226	C
	CR 64-1	U4	5.5	67.1	DN200	1014	1500	202	3026	1000	3026	421	631	400	1084	C
	CR 64-2-2	U4	7.5	85.8	DN200	1085	1500	202	3026	1000	3026	421	631	400	1188	C
	CR 64-3-1	U4	15	163.9	DN200	1409	2200	242	3026	1200	3026	421	631	400	1637	C
6	CR 64-2-2	U4	7.5	85.8	DN200	1085	1500	202	3026	1000	3026	421	631	400	1188	C
	CR 64-4	U4	22	238.1	DN200	1562	2200	242	3026	1000	3026	421	631	500	1871	C
	CR 64-5-1	U4	30	323.4	DN200	1714	2000	242	3026	1000	3026	421	631	400	2955	C

Voltage code, U4: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-S with CR 64

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 64-1	U4	5.5	33.1	DN200	1014	1460	202	1526	790	1390	421	631	-	549	D
	CR 64-2-2	U4	7.5	42.7	DN200	1085	1460	202	1526	790	1390	421	631	-	593	D
	CR 64-2	U4	11	61	DN200	1327	1460	242	1526	790	1390	421	631	-	739	D
	CR 64-3-1	U4	15	80.8	DN200	1409	1300	242	1526	600	1390	421	631	400	791	C
	CR 64-4-2	U4	18.5	100.3	DN200	1536	1460	242	1526	830	1390	421	631	-	860	D
	CR 64-4	U4	22	118.6	DN200	1562	1460	242	1526	830	1390	421	631	-	918	D
4	CR 64-5-1	U4	30	160.6	DN200	1714	2000	242	1526	1000	1390	421	631	400	1327	C
	CR 64-1	U4	5.5	44.1	DN200	1014	1460	202	2026	790	1390	421	631	-	692	D
	CR 64-2-2	U4	7.5	57	DN200	1085	1460	202	2026	790	1390	421	631	-	757	D
	CR 64-2	U4	11	81.4	DN200	1327	1460	242	2026	790	1390	421	631	-	952	D
	CR 64-3-1	U4	15	107.8	DN200	1409	1460	242	2026	790	1390	421	631	-	1019	D
	CR 64-4-2	U4	18.5	133.8	DN200	1536	1460	242	2026	790	1390	421	631	-	1094	D
5	CR 64-4	U4	22	158.2	DN200	1562	1460	242	2026	830	1390	421	631	-	1173	D
	CR 64-5-1	U4	30	214.1	DN200	1714	1460	242	2026	830	1390	421	631	-	1674	D
	CR 64-1	U4	5.5	55.2	DN200	1014	1460	202	2526	1030	1390	421	631	-	871	D
	CR 64-2-2	U4	7.5	71.2	DN200	1085	1460	202	2526	1030	1390	421	631	-	944	D
	CR 64-2	U4	11	101.7	DN200	1327	1460	242	2526	1030	1390	421	631	-	1201	D
	CR 64-3-1	U4	15	134.6	DN200	1409	1600	242	2526	800	1390	421	631	500	1304	C
6	CR 64-4-2	U4	18.5	167.1	DN200	1536	2200	242	2526	1200	1390	421	631	400	1425	C
	CR 64-4	U4	22	197.7	DN200	1562	2000	242	2526	1600	1390	421	631	400	1477	C
	CR 64-5-1	U4	30	267.7	DN200	1714	2000	242	2526	1600	1390	421	631	400	2181	C
	CR 64-1	U4	5.5	66.2	DN200	1014	2000	202	3026	800	1390	421	631	400	1004	C
	CR 64-2-2	U4	7.5	85.4	DN200	1085	2000	202	3026	800	1390	421	631	400	1092	C
	CR 64-2	U4	11	121.9	DN200	1327	1500	242	3026	1200	1390	421	631	400	1454	C
6	CR 64-3-1	U4	15	161.5	DN200	1409	2000	242	3026	1000	1390	421	631	400	1549	C
	CR 64-4-2	U4	18.5	200.5	DN200	1536	2000	242	3026	1600	1390	421	631	400	1742	C
	CR 64-4	U4	22	237.4	DN200	1562	2000	242	3026	1600	1390	421	631	400	1771	C
	CR 64-5-1	U4	30	321.2	DN200	1714	2000	242	3026	1600	1390	421	631	400	2559	C

Voltage code, U4: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

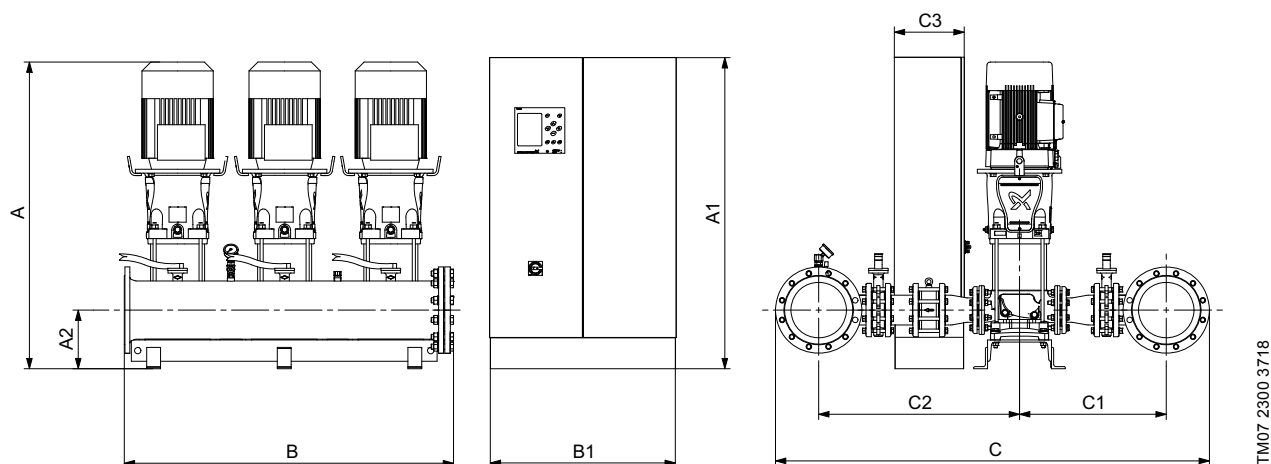
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

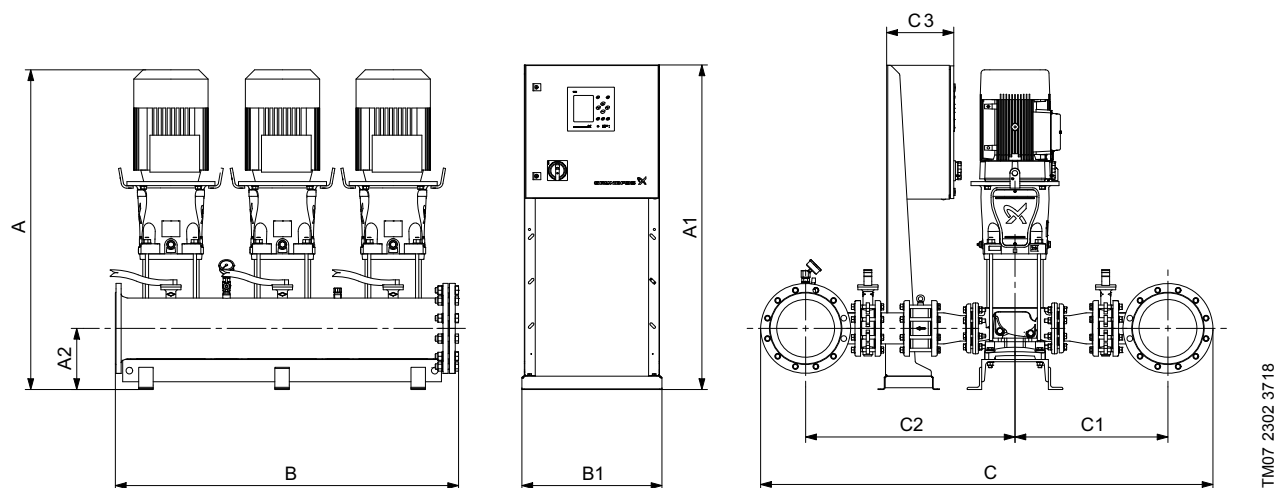
Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F/-S with CR 95



TM07 2300 3718

Fig. 70 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2302 3718

Fig. 71 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 95

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 95-1-1	U4	5.5	22.9	DN200	1217	1460	277	1026	830	1026	690	940	-	641	D
	CR 95-1	U4	7.5	28.8	DN200	1205	1600	277	1026	800	1026	690	940	500	636	C
	CR 95-2-2	U4	11	42.5	DN200	1403	1600	277	1026	800	1026	690	940	500	747	C
	CR 95-2	U4	15	56.1	DN200	1403	1600	277	1026	800	1026	690	940	500	771	C
	CR 95-3-2	U4	18.5	67.6	DN200	1552	1600	277	1026	800	1026	690	940	500	864	C
	CR 95-3	U4	22	79.9	DN200	1578	1700	277	1026	1000	1026	690	940	400	913	C
	CR 95-4	U4	30	108.9	DN200	1757	1700	277	1026	1000	1026	690	940	400	1168	C
3	CR 95-5	U4	37	131.9	DN200	1887	2000	277	1026	1200	1026	690	940	500	1320	C
	CR 95-1-1	U4	5.5	33.9	DN200	1217	1600	277	1526	800	1526	690	940	500	870	C
	CR 95-1	U4	7.5	43	DN200	1205	1600	277	1526	800	1526	690	940	500	901	C
	CR 95-2-2	U4	11	62.8	DN200	1403	1600	277	1526	800	1526	690	940	500	1060	C
	CR 95-2	U4	15	83	DN200	1403	1500	277	1526	1000	1526	690	940	400	1145	C
	CR 95-3-2	U4	18.5	101	DN200	1552	1700	277	1526	1000	1526	690	940	400	1222	C
	CR 95-3	U4	22	119.4	DN200	1578	1700	277	1526	1000	1526	690	940	400	1272	C
4	CR 95-4	U4	30	162.4	DN200	1757	2400	277	1526	1200	1526	690	940	600	1692	C
	CR 95-5	U4	37	197.6	DN200	1887	2000	277	1526	1000	1526	690	940	400	2067	C
	CR 95-1-1	U4	5.5	44.9	DN250	1217	1900	277	2028	800	2028	690	940	400	1311	C
	CR 95-1	U4	7.5	57.2	DN250	1205	1900	277	2028	800	2028	690	940	400	1350	C
	CR 95-2-2	U4	11	83.1	DN250	1403	1900	277	2028	800	2028	690	940	400	1510	C
	CR 95-2	U4	15	109.9	DN250	1403	1900	277	2028	800	2028	690	940	400	1561	C
	CR 95-3-2	U4	18.5	134.8	DN250	1552	1900	277	2028	800	2028	690	940	400	1634	C
5	CR 95-3	U4	22	159.1	DN250	1578	1900	277	2028	1000	2028	690	940	400	1738	C
	CR 95-4	U4	30	216.1	DN250	1757	1900	277	2028	1000	2028	690	940	400	2290	C
	CR 95-5	U4	37	263.1	DN250	1887	1900	277	2028	1200	2028	690	940	400	2552	C
	CR 95-1-1	U4	5.5	56.1	DN300	1217	1500	277	2530	1000	2530	690	940	400	1599	C
	CR 95-1	U4	7.5	71.6	DN300	1205	1500	277	2530	1000	2530	690	940	400	1703	C
	CR 95-2-2	U4	11	103.6	DN300	1403	1500	277	2530	1000	2530	690	940	400	1964	C
	CR 95-2	U4	15	137	DN300	1403	1700	277	2530	1000	2530	690	940	400	2009	C
6	CR 95-3-2	U4	18.5	168	DN300	1552	2400	277	2530	1200	2530	690	940	600	2175	C
	CR 95-3	U4	22	198.6	DN300	1578	2400	277	2530	1200	2530	690	940	600	2268	C
	CR 95-4	U4	30	269.6	DN300	1757	2000	277	2530	1600	2530	690	940	400	2906	C
	CR 95-5	U4	37	328.9	DN300	1887	2000	277	2530	1000	2530	690	940	400	3403	C
	CR 95-1-1	U4	5.5	67.1	DN300	1217	1500	277	3030	1000	3030	690	940	400	1921	C
	CR 95-1	U4	7.5	85.8	DN300	1205	1500	277	3030	1000	3030	690	940	400	1998	C
	CR 95-2-2	U4	11	123.9	DN300	1403	1600	277	3030	1200	3030	690	940	500	2271	C
6	CR 95-2	U4	15	163.9	DN300	1403	2200	277	3030	1200	3030	690	940	400	2412	C
	CR 95-3-2	U4	18.5	201.4	DN300	1552	2000	277	3030	1200	3030	690	940	400	2557	C
	CR 95-3	U4	22	238.1	DN300	1578	2200	277	3030	1000	3030	690	940	500	2654	C
	CR 95-4	U4	30	323.4	DN300	1757	2000	277	3030	1000	3030	690	940	400	3750	C
	CR 95-5	U4	37	394.4	DN300	1887	2000	277	3030	1000	3030	690	940	400	3965	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 95

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 95-1-1	U4	5.5	22.1	DN200	1217	1460	277	1026	630	1970	690	940	-	589	D
	CR 95-1	U4	7.5	28.5	DN200	1205	1460	277	1026	630	1970	690	940	-	610	D
	CR 95-2-2	U4	11	40.7	DN200	1403	1460	277	1026	790	1970	690	940	-	706	D
	CR 95-2	U4	15	53.9	DN200	1403	1460	277	1026	790	1970	690	940	-	730	D
	CR 95-3-2	U4	18.5	66.9	DN200	1552	1460	277	1026	790	1970	690	940	-	806	D
	CR 95-3	U4	22	79.1	DN200	1578	1460	277	1026	790	1970	690	940	-	835	D
	CR 95-4	U4	30	107.1	DN200	1757	1460	277	1026	830	1970	690	940	-	1091	D
3	CR 95-5	U4	37	131.2	DN200	1887	1600	277	1026	800	1970	690	940	500	1133	C
	CR 95-1-1	U4	5.5	33.1	DN200	1217	1460	277	1526	790	1970	690	940	-	853	D
	CR 95-1	U4	7.5	42.7	DN200	1205	1460	277	1526	790	1970	690	940	-	883	D
	CR 95-2-2	U4	11	61	DN200	1403	1460	277	1526	790	1970	690	940	-	1025	D
	CR 95-2	U4	15	80.8	DN200	1403	1300	277	1526	600	1970	690	940	400	1063	C
	CR 95-3-2	U4	18.5	100.3	DN200	1552	1460	277	1526	830	1970	690	940	-	1136	D
	CR 95-3	U4	22	118.6	DN200	1578	1460	277	1526	830	1970	690	940	-	1194	D
4	CR 95-4	U4	30	160.6	DN200	1757	2000	277	1526	1000	1970	690	940	400	1609	C
	CR 95-5	U4	37	196.7	DN200	1887	2000	277	1526	1200	1970	690	940	400	1708	C
	CR 95-1-1	U4	5.5	44.1	DN250	1217	1460	277	2028	790	2035	690	940	-	1190	D
	CR 95-1	U4	7.5	57	DN250	1205	1460	277	2028	790	2035	690	940	-	1237	D
	CR 95-2-2	U4	11	81.4	DN250	1403	1460	277	2028	790	2035	690	940	-	1426	D
	CR 95-2	U4	15	107.8	DN250	1403	1460	277	2028	790	2035	690	940	-	1475	D
	CR 95-3-2	U4	18.5	133.8	DN250	1552	1460	277	2028	790	2035	690	940	-	1556	D
5	CR 95-3	U4	22	158.2	DN250	1578	1460	277	2028	830	2035	690	940	-	1635	D
	CR 95-4	U4	30	214.1	DN250	1757	1460	277	2028	830	2035	690	940	-	2144	D
	CR 95-5	U4	37	262.4	DN250	1887	1900	277	2028	800	2035	690	940	400	2323	C
	CR 95-1-1	U4	5.5	55.2	DN300	1217	1460	277	2530	1030	2090	690	940	-	1587	D
	CR 95-1	U4	7.5	71.2	DN300	1205	1460	277	2530	1030	2090	690	940	-	1637	D
	CR 95-2-2	U4	11	101.7	DN300	1403	1460	277	2530	1030	2090	690	940	-	1887	D
	CR 95-2	U4	15	134.6	DN300	1403	1600	277	2530	800	2090	690	940	500	1968	C
6	CR 95-3-2	U4	18.5	167.1	DN300	1552	2200	277	2530	1200	2090	690	940	400	2096	C
	CR 95-3	U4	22	197.7	DN300	1578	2000	277	2530	1600	2090	690	940	400	2147	C
	CR 95-4	U4	30	267.7	DN300	1757	2000	277	2530	1600	2090	690	940	400	2861	C
	CR 95-5	U4	37	327.9	DN300	1887	2000	277	2530	1600	2090	690	940	400	3035	C
	CR 95-1-1	U4	5.5	66.2	DN300	1217	2000	277	3030	800	2090	690	940	400	1842	C
	CR 95-1	U4	7.5	85.4	DN300	1205	2000	277	3030	800	2090	690	940	400	1902	C
	CR 95-2-2	U4	11	121.9	DN300	1403	1500	277	3030	1200	2090	690	940	400	2255	C
6	CR 95-2	U4	15	161.5	DN300	1403	2000	277	3030	1000	2090	690	940	400	2325	C
	CR 95-3-2	U4	18.5	200.5	DN300	1552	2000	277	3030	1600	2090	690	940	400	2525	C
	CR 95-3	U4	22	237.4	DN300	1578	2000	277	3030	1600	2090	690	940	400	2554	C
	CR 95-4	U4	30	321.2	DN300	1757	2000	277	3030	1600	2090	690	940	400	3353	C
	CR 95-5	U4	37	393.4	DN300	1887	2000	277	3030	800	2090	690	940	400	3591	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

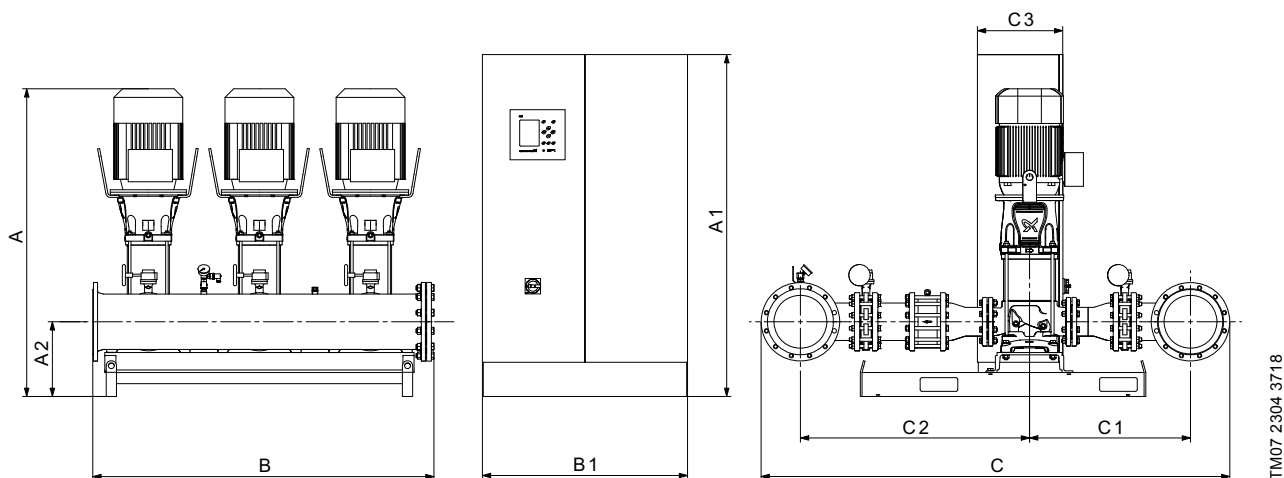
Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

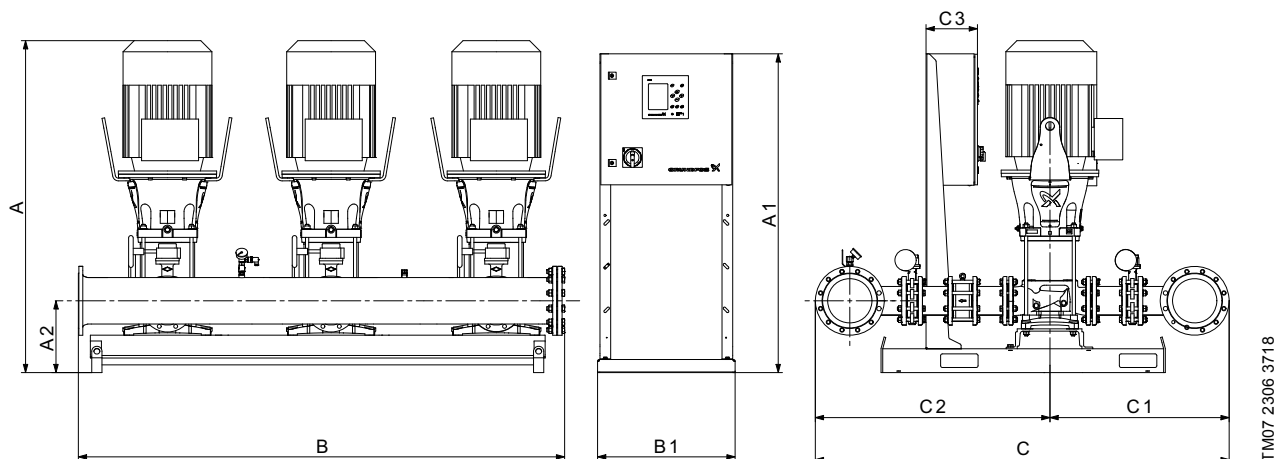
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR 125 or CR 155



TM07 2304 3718

Fig. 72 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2306 3718

Fig. 73 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 125

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 125-1	U4	11	42.5	DN200	1513	1600	439	1326	800	1326	860	1176	500	987	C
	CR 125-2-2	U4	15	56.1	DN200	1635	1600	439	1326	800	1326	860	1176	500	1032	C
	CR 125-2-1	U4	18.5	67.6	DN200	1679	1600	439	1326	800	1326	860	1176	500	1113	C
	CR 125-2	U4	22	79.9	DN200	1705	1700	439	1326	1000	1326	860	1176	400	1162	C
	CR 125-3-1	U4	30	108.9	DN200	1899	1700	439	1326	1000	1326	860	1176	400	1424	C
	CR 125-3	U4	37	131.9	DN200	1924	2000	439	1326	1200	1326	860	1176	500	1564	C
	CR 125-4-2	U4	37	131.9	DN200	2046	2000	439	1326	1200	1326	860	1176	500	1585	C
	CR 125-4	U4	45	160.1	DN200	2141	2200	439	1326	1000	1326	860	1176	500	1939	C
3	CR 125-1	U4	11	62.8	DN250	1513	1600	439	1978	800	1978	860	1176	500	1485	C
	CR 125-2-2	U4	15	83	DN250	1635	1500	439	1978	1000	1978	860	1176	400	1602	C
	CR 125-2-1	U4	18.5	101	DN250	1679	1700	439	1978	1000	1978	860	1176	400	1660	C
	CR 125-2	U4	22	119.4	DN250	1705	1700	439	1978	1000	1978	860	1176	400	1711	C
	CR 125-3-1	U4	30	162.4	DN250	1899	2400	439	1978	1200	1978	860	1176	600	2141	C
	CR 125-3	U4	37	197.6	DN250	1924	2000	439	1978	1000	1978	860	1176	400	2498	C
	CR 125-4-2	U4	37	197.6	DN250	2046	2000	439	1978	1000	1978	860	1176	400	2529	C
	CR 125-4	U4	45	237.6	DN250	2141	2200	439	1978	1000	1978	860	1176	500	2757	C
4	CR 125-1	U4	11	83.1	DN300	1513	1900	439	2630	800	2630	860	1176	400	2130	C
	CR 125-2-2	U4	15	109.9	DN300	1635	1900	439	2630	800	2630	860	1176	400	2222	C
	CR 125-2-1	U4	18.5	134.8	DN300	1679	1900	439	2630	800	2630	860	1176	400	2271	C
	CR 125-2	U4	22	159.1	DN300	1705	1900	439	2630	1000	2630	860	1176	400	2375	C
	CR 125-3-1	U4	30	216.1	DN300	1899	1900	439	2630	1000	2630	860	1176	400	2945	C
	CR 125-3	U4	37	263.1	DN300	1924	1900	439	2630	1200	2630	860	1176	400	3186	C
	CR 125-4-2	U4	37	263.1	DN300	2046	1900	439	2630	1200	2630	860	1176	400	3230	C
	CR 125-4	U4	45	315.1	DN300	2141	2000	439	2630	1200	2630	860	1176	500	3706	C
5	CR 125-1	U4	11	103.6	DN300	1513	1500	439	3280	1000	3280	860	1176	400	2554	C
	CR 125-2-2	U4	15	137	DN300	1635	1700	439	3280	1000	3280	860	1176	400	2650	C
	CR 125-2-1	U4	18.5	168	DN300	1679	2400	439	3280	1200	3280	860	1176	600	2786	C
	CR 125-2	U4	22	198.6	DN300	1705	2400	439	3280	1200	3280	860	1176	600	2879	C
	CR 125-3-1	U4	30	269.6	DN300	1899	2000	439	3280	1600	3280	860	1176	400	3536	C
	CR 125-3	U4	37	328.9	DN300	1924	2000	439	3280	1000	3280	860	1176	400	4003	C
	CR 125-4-2	U4	37	328.9	DN300	2046	2000	439	3280	1000	3280	860	1176	400	4054	C
	CR 125-4	U4	45	392.9	DN300	2141	2000	439	3280	1200	3280	860	1176	500	4674	C
6	CR 125-1	U4	11	123.9	DN350	1513	1600	439	3932	1200	3932	860	1176	500	3026	C
	CR 125-2-2	U4	15	163.9	DN350	1635	2200	439	3932	1200	3932	860	1176	400	3228	C
	CR 125-2-1	U4	18.5	201.4	DN350	1679	2000	439	3932	1200	3932	860	1176	400	3338	C
	CR 125-2	U4	22	238.1	DN350	1705	2200	439	3932	1000	3932	860	1176	500	3434	C
	CR 125-3-1	U4	30	323.4	DN350	1899	2000	439	3932	1000	3932	860	1176	400	4553	C
	CR 125-3	U4	37	394.4	DN350	1924	2000	439	3932	1000	3932	860	1176	400	4732	C
	CR 125-4-2	U4	37	394.4	DN350	2046	2000	439	3932	1000	3932	860	1176	400	4794	C
	CR 125-4	U4	45	470.4	DN350	2141	2000	439	3932	1200	3932	860	1176	500	5499	C

Hydro MPC-S with CR 125

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 125-1	U4	11	40.7	DN200	1513	1460	439	1326	790	2375	860	1176	-	947	D
	CR 125-2-2	U4	15	53.9	DN200	1635	1460	439	1326	790	2375	860	1176	-	991	D
	CR 125-2-1	U4	18.5	66.9	DN200	1679	1460	439	1326	790	2375	860	1176	-	1055	D
	CR 125-2	U4	22	79.1	DN200	1705	1460	439	1326	790	2375	860	1176	-	1084	D
	CR 125-3-1	U4	30	107.1	DN200	1899	1460	439	1326	830	2375	860	1176	-	1347	D
	CR 125-3	U4	37	131.2	DN200	1924	1600	439	1326	800	2375	860	1176	500	1377	C
	CR 125-4-2	U4	37	131.2	DN200	2046	1600	439	1326	800	2375	860	1176	500	1398	C
3	CR 125-4	U4	45	155.2	DN200	2141	2000	439	1326	1000	2375	860	1176	400	1607	C
	CR 125-1	U4	11	61	DN250	1513	1460	439	1978	790	2440	860	1176	-	1450	D
	CR 125-2-2	U4	15	80.8	DN250	1635	1300	439	1978	600	2440	860	1176	400	1519	C
	CR 125-2-1	U4	18.5	100.3	DN250	1679	1460	439	1978	830	2440	860	1176	-	1575	D
	CR 125-2	U4	22	118.6	DN250	1705	1460	439	1978	830	2440	860	1176	-	1632	D
	CR 125-3-1	U4	30	160.6	DN250	1899	2000	439	1978	1000	2440	860	1176	400	2058	C
	CR 125-3	U4	37	196.7	DN250	1924	2000	439	1978	1200	2440	860	1176	400	2140	C
4	CR 125-4-2	U4	37	196.7	DN250	2046	2000	439	1978	1200	2440	860	1176	400	2171	C
	CR 125-4	U4	45	232.7	DN250	2141	2000	439	1978	1200	2440	860	1176	400	2404	C
	CR 125-1	U4	11	81.4	DN300	1513	1460	439	2630	790	2495	860	1176	-	2039	D
	CR 125-2-2	U4	15	107.8	DN300	1635	1460	439	2630	790	2495	860	1176	-	2129	D
	CR 125-2-1	U4	18.5	133.8	DN300	1679	1460	439	2630	790	2495	860	1176	-	2186	D
	CR 125-2	U4	22	158.2	DN300	1705	1460	439	2630	830	2495	860	1176	-	2264	D
	CR 125-3-1	U4	30	214.1	DN300	1899	1460	439	2630	830	2495	860	1176	-	2788	D
5	CR 125-3	U4	37	262.4	DN300	1924	1900	439	2630	800	2495	860	1176	400	2952	C
	CR 125-4-2	U4	37	262.4	DN300	2046	1900	439	2630	800	2495	860	1176	400	2993	C
	CR 125-4	U4	45	310.4	DN300	2141	2000	439	2630	1600	2495	860	1176	400	3315	C
	CR 125-1	U4	11	101.7	DN300	1513	1460	439	3280	1030	2495	860	1176	-	2477	D
	CR 125-2-2	U4	15	134.6	DN300	1635	1600	439	3280	800	2495	860	1176	500	2609	C
	CR 125-2-1	U4	18.5	167.1	DN300	1679	2200	439	3280	1200	2495	860	1176	400	2707	C
	CR 125-2	U4	22	197.7	DN300	1705	2000	439	3280	1600	2495	860	1176	400	2758	C
6	CR 125-3-1	U4	30	267.7	DN300	1899	2000	439	3280	1600	2495	860	1176	400	3490	C
	CR 125-3	U4	37	327.9	DN300	1924	2000	439	3280	1600	2495	860	1176	400	3635	C
	CR 125-4-2	U4	37	327.9	DN300	2046	2000	439	3280	1600	2495	860	1176	400	3686	C
	CR 125-4	U4	45	387.9	DN300	2141	2000	439	3280	1600	2495	860	1176	400	4108	C
	CR 125-1	U4	11	121.9	DN350	1513	1500	439	3932	1200	2555	860	1176	400	3010	C
	CR 125-2-2	U4	15	161.5	DN350	1635	2000	439	3932	1000	2555	860	1176	400	3141	C
	CR 125-2-1	U4	18.5	200.5	DN350	1679	2000	439	3932	1600	2555	860	1176	400	3306	C
6	CR 125-2	U4	22	237.4	DN350	1705	2000	439	3932	1600	2555	860	1176	400	3334	C
	CR 125-3-1	U4	30	321.2	DN350	1899	2000	439	3932	1600	2555	860	1176	400	4156	C
	CR 125-3	U4	37	393.4	DN350	1924	2000	439	3932	800	2555	860	1176	400	4358	C
	CR 125-4-2	U4	37	393.4	DN350	2046	2000	439	3932	800	2555	860	1176	400	4419	C
	CR 125-4	U4	45	465.4	DN350	2141	2000	439	3932	800	2555	860	1176	400	4936	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

Hydro MPC-F with CR 155

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 155-1-1	U4	11	42.5	DN250	1513	1600	439	1328	800	1328	947	1337	500	1181	C
	CR 155-1	U4	15	56.1	DN250	1513	1600	439	1328	800	1328	947	1337	500	1205	C
	CR 155-2-2	U4	22	79.9	DN250	1705	1700	439	1328	1000	1328	947	1337	400	1357	C
	CR 155-2	U4	30	108.9	DN250	1777	1700	439	1328	1000	1328	947	1337	400	1598	C
	CR 155-3-2	U4	37	131.9	DN250	1924	2000	439	1328	1200	1328	947	1337	500	1760	C
	CR 155-3	U4	45	160.1	DN250	2019	2200	439	1328	1000	1328	947	1337	500	2114	C
3	CR 155-1-1	U4	11	62.8	DN300	1513	1600	439	1980	800	1980	947	1337	500	1684	C
	CR 155-1	U4	15	83	DN300	1513	1500	439	1980	1000	1980	947	1337	400	1769	C
	CR 155-2-2	U4	22	119.4	DN300	1705	1700	439	1980	1000	1980	947	1337	400	1910	C
	CR 155-2	U4	30	162.4	DN300	1777	2400	439	1980	1200	1980	947	1337	600	2310	C
	CR 155-3-2	U4	37	197.6	DN300	1924	2000	439	1980	1000	1980	947	1337	400	2700	C
	CR 155-3	U4	45	237.6	DN300	2019	2200	439	1980	1000	1980	947	1337	500	2927	C
4	CR 155-1-1	U4	11	83.1	DN300	1513	1900	439	2630	800	2630	947	1337	400	2346	C
	CR 155-1	U4	15	109.9	DN300	1513	1900	439	2630	800	2630	947	1337	400	2397	C
	CR 155-2-2	U4	22	159.1	DN300	1705	1900	439	2630	1000	2630	947	1337	400	2593	C
	CR 155-2	U4	30	216.1	DN300	1777	1900	439	2630	1000	2630	947	1337	400	3121	C
	CR 155-3-2	U4	37	263.1	DN300	1924	1900	439	2630	1200	2630	947	1337	400	3406	C
	CR 155-3	U4	45	315.1	DN300	2019	2000	439	2630	1200	2630	947	1337	500	3885	C
5	CR 155-1-1	U4	11	103.6	DN350	1513	1500	439	3282	1000	3282	947	1337	400	2891	C
	CR 155-1	U4	15	137	DN350	1513	1700	439	3282	1000	3282	947	1337	400	2936	C
	CR 155-2-2	U4	22	198.6	DN350	1705	2400	439	3282	1200	3282	947	1337	600	3219	C
	CR 155-2	U4	30	269.6	DN350	1777	2000	439	3282	1600	3282	947	1337	400	3825	C
	CR 155-3-2	U4	37	328.9	DN350	1924	2000	439	3282	1000	3282	947	1337	400	4345	C
	CR 155-3	U4	45	392.9	DN350	2019	2000	439	3282	1200	3282	947	1337	500	4965	C
6	CR 155-1-1	U4	11	123.9	DN400	1513	1600	439	3934	1200	3934	947	1337	500	3383	C
	CR 155-1	U4	15	163.9	DN400	1513	2200	439	3934	1200	3934	947	1337	400	3524	C
	CR 155-2-2	U4	22	238.1	DN400	1705	2200	439	3934	1000	3934	947	1337	500	3794	C
	CR 155-2	U4	30	323.4	DN400	1777	2000	439	3934	1000	3934	947	1337	400	4851	C
	CR 155-3-2	U4	37	394.4	DN400	1924	2000	439	3934	1000	3934	947	1337	400	5095	C
	CR 155-3	U4	45	470.4	DN400	2019	2000	439	3934	1200	3934	947	1337	500	5800	C

Hydro MPC-S with CR 155

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 155-1-1	U4	11	40.7	DN250	1513	1460	439	1328	790	2688	947	1337	-	1140	D
	CR 155-1	U4	15	53.9	DN250	1513	1460	439	1328	790	2688	947	1337	-	1164	D
	CR 155-2-2	U4	22	79.1	DN250	1705	1460	439	1328	790	2688	947	1337	-	1279	D
	CR 155-2	U4	30	107.1	DN250	1777	1460	439	1328	830	2688	947	1337	-	1521	D
	CR 155-3-2	U4	37	131.2	DN250	1924	1600	439	1328	800	2688	947	1337	500	1573	C
3	CR 155-3	U4	45	155.2	DN250	2019	2000	439	1328	1000	2688	947	1337	400	1782	C
	CR 155-1-1	U4	11	61	DN300	1513	1460	439	1980	790	2743	947	1337	-	1648	D
	CR 155-1	U4	15	80.8	DN300	1513	1300	439	1980	600	2743	947	1337	400	1687	C
	CR 155-2-2	U4	22	118.6	DN300	1705	1460	439	1980	830	2743	947	1337	-	1832	D
	CR 155-2	U4	30	160.6	DN300	1777	2000	439	1980	1000	2743	947	1337	400	2227	C
4	CR 155-3-2	U4	37	196.7	DN300	1924	2000	439	1980	1200	2743	947	1337	400	2341	C
	CR 155-3	U4	45	232.7	DN300	2019	2000	439	1980	1200	2743	947	1337	400	2575	C
	CR 155-1-1	U4	11	81.4	DN300	1513	1460	439	2630	790	2743	947	1337	-	2255	D
	CR 155-1	U4	15	107.8	DN300	1513	1460	439	2630	790	2743	947	1337	-	2304	D
	CR 155-2-2	U4	22	158.2	DN300	1705	1460	439	2630	830	2743	947	1337	-	2482	D
5	CR 155-2	U4	30	214.1	DN300	1777	1460	439	2630	830	2743	947	1337	-	2965	D
	CR 155-3-2	U4	37	262.4	DN300	1924	1900	439	2630	800	2743	947	1337	400	3172	C
	CR 155-3	U4	45	310.4	DN300	2019	2000	439	2630	1600	2743	947	1337	400	3493	C
	CR 155-1-1	U4	11	101.7	DN350	1513	1460	439	3282	1030	2803	947	1337	-	2814	D
	CR 155-1	U4	15	134.6	DN350	1513	1600	439	3282	800	2803	947	1337	500	2895	C
6	CR 155-2-2	U4	22	197.7	DN350	1705	2000	439	3282	1600	2803	947	1337	400	3098	C
	CR 155-2	U4	30	267.7	DN350	1777	2000	439	3282	1600	2803	947	1337	400	3779	C
	CR 155-3-2	U4	37	327.9	DN350	1924	2000	439	3282	1600	2803	947	1337	400	3978	C
	CR 155-3	U4	45	387.9	DN350	2019	2000	439	3282	1600	2803	947	1337	400	4399	C
	CR 155-1-1	U4	11	121.9	DN400	1513	1500	439	3934	1200	2863	947	1337	400	3367	C
6	CR 155-1	U4	15	161.5	DN400	1513	2000	439	3934	1000	2863	947	1337	400	3436	C
	CR 155-2-2	U4	22	237.4	DN400	1705	2000	439	3934	1600	2863	947	1337	400	3695	C
	CR 155-2	U4	30	321.2	DN400	1777	2000	439	3934	1600	2863	947	1337	400	4454	C
	CR 155-3-2	U4	37	393.4	DN400	1924	2000	439	3934	800	2863	947	1337	400	4721	C
	CR 155-3	U4	45	465.4	DN400	2019	2000	439	3934	800	2863	947	1337	400	5237	C

Voltage code, U4: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

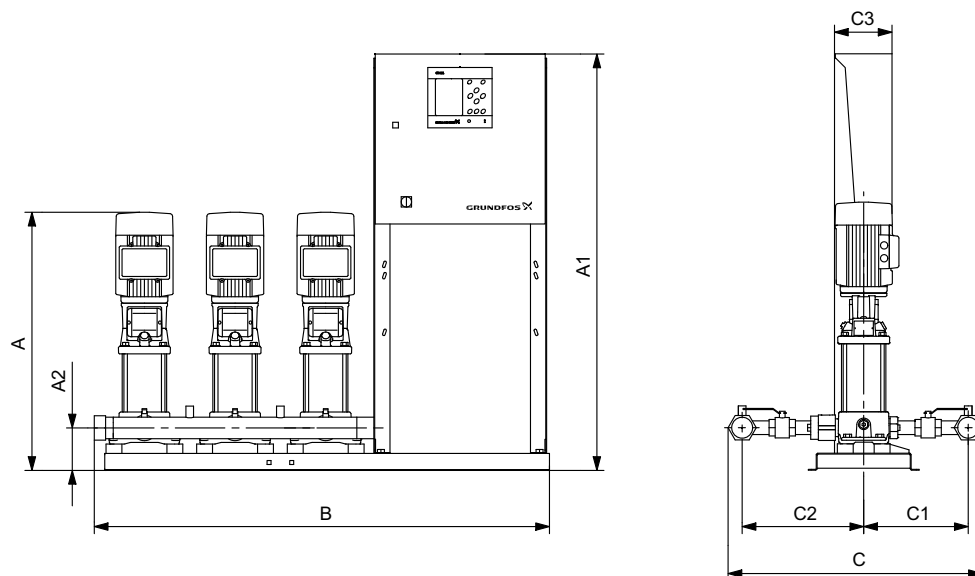
Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

All pumps are fitted with three-phase motors.

Dimensions may vary by ± 10 mm.

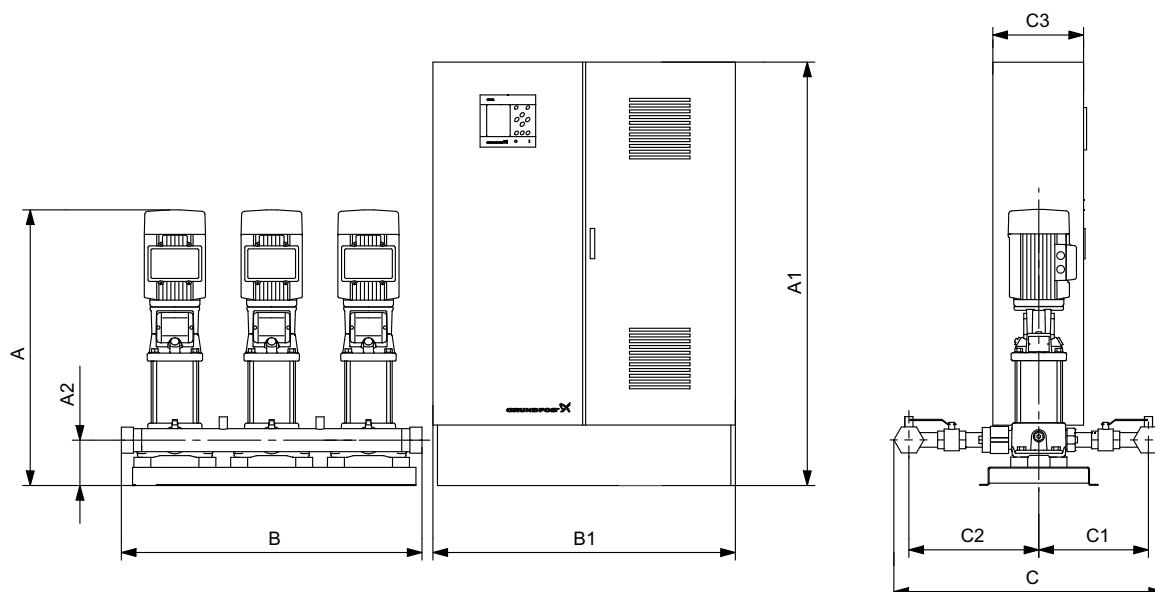
13. Technical data, Hydro MPC-F/-S, 60 Hz

Hydro MPC-F/-S with CR(I) 3 or CR(I) 5



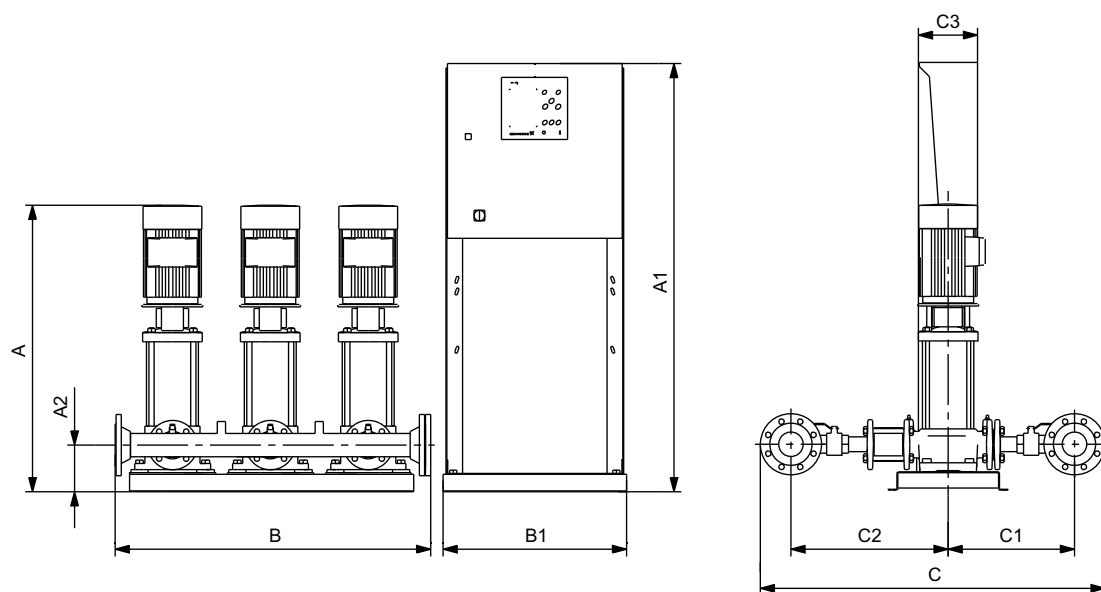
TM07 0498 3718

Fig. 74 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0490 3718

Fig. 75 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0510 3718

Fig. 76 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR(I) 3

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 3-4	U6	0.55	3.2	R 2"	528	1300	112	605	600	605	295	355	400	102	C
	CRI 3-5	U6	0.75	4.2	R 2"	592	1300	112	605	600	605	295	355	400	110	C
	CRI 3-8	U6	1.1	5.3	R 2"	666	1300	112	605	600	605	295	355	400	149	C
	CRI 3-11	U6	1.5	7	R 2"	766	1300	112	605	600	605	295	355	400	167	C
3	CRI 3-4	U6	0.55	4.7	R 2"	528	1300	112	925	600	925	295	355	400	162	C
	CRI 3-5	U6	0.75	6.1	R 2"	592	1300	112	925	600	925	295	355	400	174	C
	CRI 3-8	U6	1.1	7.8	R 2"	666	1300	112	925	600	925	295	355	400	185	C
	CRI 3-11	U6	1.5	10.2	R 2"	766	1300	112	925	600	925	295	355	400	210	C
4	CRI 3-4	U6	0.55	6.2	R 2 1/2"	528	1460	112	1245	790	1245	295	355	-	216	D
	CRI 3-5	U6	0.75	8	R 2 1/2"	592	1460	112	1245	790	1245	295	355	-	232	D
	CRI 3-8	U6	1.1	10.3	R 2 1/2"	666	1460	112	1245	790	1245	295	355	-	246	D
	CRI 3-11	U6	1.5	13.4	R 2 1/2"	766	1460	112	1245	790	1245	295	355	-	281	D

Hydro MPC-S with CR(I) 3

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 3-4	U6	0.55	3.1	R 2"	528	1460	112	1050	-	726	295	355	-	101	A
	CRI 3-5	U6	0.75	3.9	R 2"	592	1460	112	1050	-	726	295	355	-	109	A
	CRI 3-8	U6	1.1	5.1	R 2"	666	1460	112	1050	-	726	295	355	-	115	A
	CRI 3-11	U6	1.5	6.5	R 2"	766	1460	112	1050	-	726	295	355	-	133	A
3	CRI 3-4	U6	0.55	4.6	R 2"	528	1460	112	1570	-	726	295	355	-	132	A
	CRI 3-5	U6	0.75	5.8	R 2"	592	1460	112	1350	-	726	295	355	-	134	A
	CRI 3-8	U6	1.1	7.6	R 2"	666	1460	112	1570	-	726	295	355	-	154	A
	CRI 3-11	U6	1.5	9.7	R 2"	766	1460	112	1570	-	726	295	355	-	180	A
4	CRI 3-4	U6	0.55	6.1	R 2 1/2"	528	1460	112	1890	-	741	295	355	-	155	A
	CRI 3-5	U6	0.75	7.7	R 2 1/2"	592	1460	112	1890	-	741	295	355	-	171	A
	CRI 3-8	U6	1.1	10.1	R 2 1/2"	666	1460	112	1890	-	741	295	355	-	184	A
	CRI 3-11	U6	1.5	12.9	R 2 1/2"	766	1460	112	1890	-	741	295	355	-	219	A

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F with CR(I) 5

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 5-4	U6	1.1	5.3	R 2"	630	1300	112	605	600	605	295	355	400	147	C
	CRI 5-5	U6	1.5	7	R 2"	703	1300	112	605	600	605	295	355	400	164	C
	CRI 5-9	U6	2.2	9.6	R 2"	851	1300	112	605	600	605	295	355	400	176	C
	CRI 5-12	U6	3	12.9	R 2"	951	1300	112	605	600	605	295	355	400	189	C
3	CRI 5-4	U6	1.1	7.8	R 2"	630	1300	112	925	600	925	295	355	400	182	C
	CRI 5-5	U6	1.5	10.2	R 2"	703	1300	112	925	600	925	295	355	400	206	C
	CRI 5-9	U6	2.2	14.1	R 2"	851	1300	112	925	600	925	295	355	400	223	C
	CRI 5-12	U6	3	19.3	R 2"	951	1300	112	925	600	925	295	355	400	243	C
4	CRI 5-4	U6	1.1	10.3	R 2 1/2"	630	1460	112	1245	790	1245	295	355	-	241	D
	CRI 5-5	U6	1.5	13.4	R 2 1/2"	703	1460	112	1245	790	1245	295	355	-	275	D
	CRI 5-9	U6	2.2	18.6	R 2 1/2"	851	1460	112	1245	790	1245	295	355	-	297	D
	CRI 5-12	U6	3	25.6	R 2 1/2"	951	1460	112	1245	790	1245	295	355	-	324	D

Hydro MPC-S with CR(I) 5

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 5-4	U6	1.1	5.1	R 2"	630	1460	112	1050	-	726	295	355	-	113	A
	CRI 5-5	U6	1.5	6.5	R 2"	703	1460	112	1050	-	726	295	355	-	130	A
	CRI 5-9	U6	2.2	9.1	R 2"	851	1460	112	1050	-	726	295	355	-	141	A
	CRI 5-12	U6	3	12.7	R 2"	951	1460	112	1050	-	726	295	355	-	153	A
3	CRI 5-4	U6	1.1	7.6	R 2"	630	1460	112	1570	-	726	295	355	-	151	A
	CRI 5-5	U6	1.5	9.7	R 2"	703	1460	112	1570	-	726	295	355	-	176	A
	CRI 5-9	U6	2.2	13.6	R 2"	851	1460	112	1350	-	726	295	355	-	182	A
	CRI 5-12	U6	3	19	R 2"	951	1460	112	1570	-	726	295	355	-	213	A
4	CRI 5-4	U6	1.1	10.1	R 2 1/2"	630	1460	112	1890	-	741	295	355	-	180	A
	CRI 5-5	U6	1.5	12.9	R 2 1/2"	703	1460	112	1890	-	741	295	355	-	213	A
	CRI 5-9	U6	2.2	18.1	R 2 1/2"	851	1460	112	1890	-	741	295	355	-	235	A
	CRI 5-12	U6	3	25.3	R 2 1/2"	951	1460	112	1890	-	741	295	355	-	262	A

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

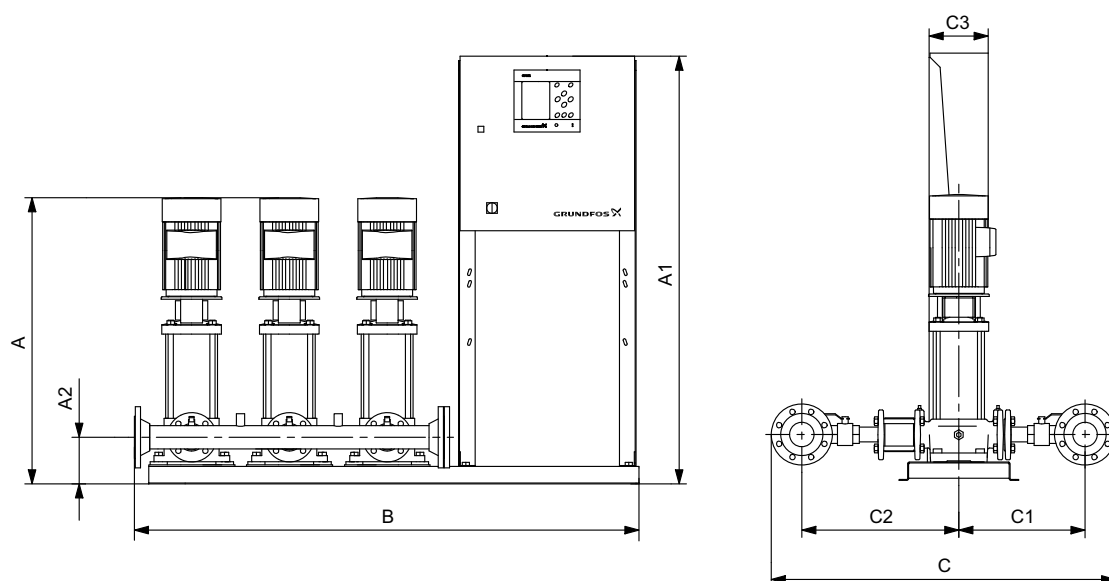
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Dimensions may vary by ± 10 mm.

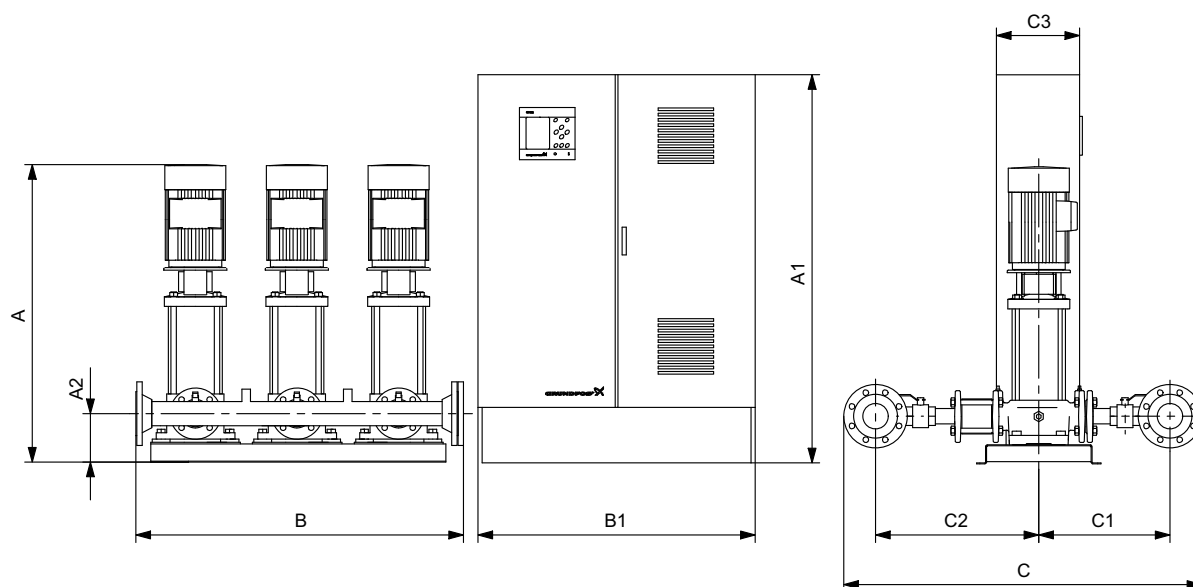
Hydro MPC-F/-S with CR(I) 10

Note: The manifold connection is either R thread or DIN flange. For further details, see the relevant table on page 130 or 131.



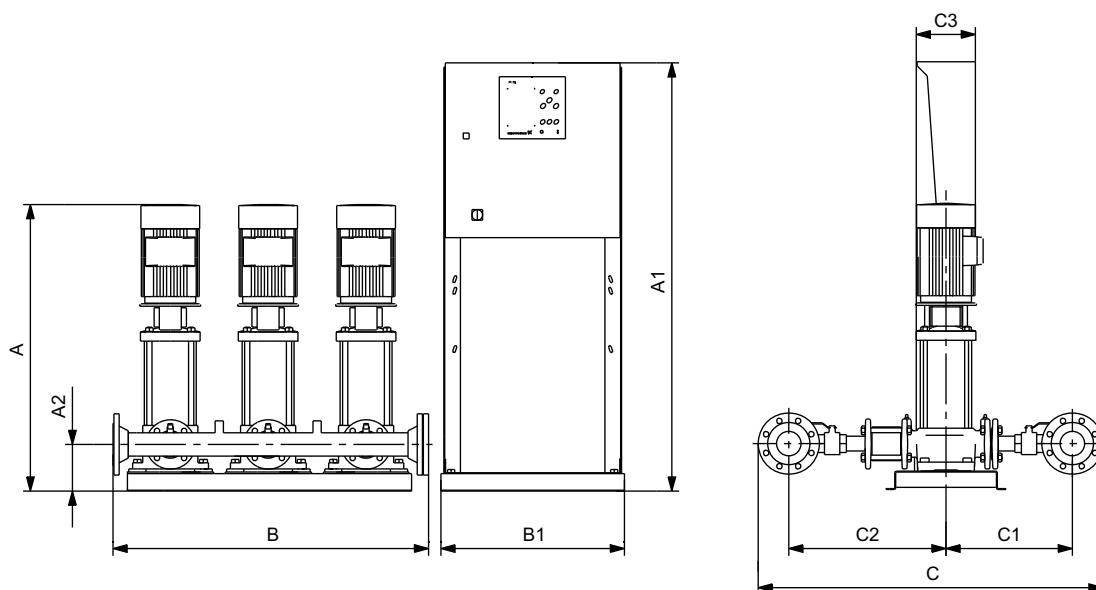
TM07 0500 3718

Fig. 77 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0493 3718

Fig. 78 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM05 0510 3718

Fig. 79 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR(I) 10

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 10-2	U6	1.5	7	R 2 1/2"	716	1300	142	665	600	665	371	431	400	196	C
	CRI 10-3	U6	2.2	9.6	R 2 1/2"	786	1300	142	665	600	665	371	431	400	205	C
	CRI 10-5	U6	3	12.9	R 2 1/2"	865	1300	142	665	600	665	371	431	400	218	C
	CRI 10-6	U6	4	16.2	R 2 1/2"	932	1300	142	665	600	665	371	431	400	244	C
	CRI 10-9	U6	5.5	22.9	R 2 1/2"	1073	1460	142	665	830	665	371	431	-	317	D
3	CRI 10-2	U6	1.5	10.2	DN80	716	1300	142	1062	600	1062	371	431	400	270	C
	CRI 10-3	U6	2.2	14.1	DN80	786	1300	142	1062	600	1062	371	431	400	283	C
	CRI 10-5	U6	3	19.3	DN80	865	1300	142	1062	600	1062	371	431	400	302	C
	CRI 10-6	U6	4	24.2	DN80	932	1460	142	1062	830	1062	371	431	-	368	D
	CRI 10-9	U6	5.5	33.9	DN80	1073	1600	142	1062	800	1062	371	431	500	411	C
4	CRI 10-2	U6	1.5	13.4	DN80	716	1460	142	1322	790	1322	371	431	-	352	D
	CRI 10-3	U6	2.2	18.6	DN80	786	1460	142	1322	790	1322	371	431	-	368	D
	CRI 10-5	U6	3	25.6	DN80	865	1460	142	1322	790	1322	371	431	-	394	D
	CRI 10-6	U6	4	32.1	DN80	932	1460	142	1322	790	1322	371	431	-	447	D
	CRI 10-9	U6	5.5	44.9	DN80	1073	1900	142	1322	800	1322	371	431	400	611	C
5	CRI 10-2	U6	1.5	16.6	DN100	716	1460	142	1642	830	1642	371	431	-	417	D
	CRI 10-3	U6	2.2	23.2	DN100	786	1460	142	1642	830	1642	371	431	-	439	D
	CRI 10-5	U6	3	31.9	DN100	865	1460	142	1642	830	1642	371	431	-	470	D
	CRI 10-6	U6	4	40	DN100	932	1460	142	1642	830	1642	371	431	-	537	D
	CRI 10-9	U6	5.5	56.1	DN100	1073	1500	142	1642	1000	1642	371	431	400	622	C
6	CRI 10-2	U6	1.5	19.9	DN100	716	1460	142	1962	830	1962	371	431	-	483	D
	CRI 10-3	U6	2.2	27.7	DN100	786	1460	142	1962	830	1962	371	431	-	507	D
	CRI 10-5	U6	3	38.2	DN100	865	1460	142	1962	830	1962	371	431	-	545	D
	CRI 10-6	U6	4	47.9	DN100	932	1460	142	1962	1030	1962	371	431	-	681	D
	CRI 10-9	U6	5.5	67.1	DN100	1073	1500	142	1962	1000	1962	371	431	400	786	C

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-S with CR(I) 10

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 10-2	U6	1.5	6.5	R 2 1/2"	716	1460	142	1080	-	891	371	431	-	162	A
	CRI 10-3	U6	2.2	9.1	R 2 1/2"	786	1460	142	1080	-	891	371	431	-	170	A
	CRI 10-5	U6	3	12.7	R 2 1/2"	865	1460	142	1080	-	891	371	431	-	182	A
	CRI 10-6	U6	4	15.9	R 2 1/2"	932	1460	142	1080	-	891	371	431	-	209	A
	CRI 10-9	U6	5.5	22.1	R 2 1/2"	1073	1460	142	1280	-	891	371	431	-	256	A
3	CRI 10-2	U6	1.5	9.7	DN80	716	1460	142	1600	-	1000	371	431	-	240	A
	CRI 10-3	U6	2.2	13.6	DN80	786	1460	142	1380	-	1000	371	431	-	241	A
	CRI 10-5	U6	3	19	DN80	865	1460	142	1600	-	1000	371	431	-	272	A
	CRI 10-6	U6	4	23.8	DN80	932	1460	142	1600	-	1000	371	431	-	310	A
	CRI 10-9	U6	5.5	33.1	DN80	1073	1460	142	1062	790	1000	371	431	-	393	D
4	CRI 10-2	U6	1.5	12.9	DN80	716	1460	142	1920	-	1000	371	431	-	290	A
	CRI 10-3	U6	2.2	18.1	DN80	786	1460	142	1920	-	1000	371	431	-	306	A
	CRI 10-5	U6	3	25.3	DN80	865	1460	142	1920	-	1000	371	431	-	332	A
	CRI 10-6	U6	4	31.7	DN80	932	1460	142	1920	-	1000	371	431	-	384	A
	CRI 10-9	U6	5.5	44.1	DN80	1073	1460	142	1322	790	1000	371	431	-	494	D
5	CRI 10-2	U6	1.5	16.1	DN100	716	1460	142	1642	630	1020	371	431	-	366	D
	CRI 10-3	U6	2.2	22.6	DN100	786	1460	142	1642	630	1020	371	431	-	386	D
	CRI 10-5	U6	3	31.6	DN100	865	1460	142	1642	630	1020	371	431	-	418	D
	CRI 10-6	U6	4	39.6	DN100	932	1460	142	1642	630	1020	371	431	-	485	D
	CRI 10-9	U6	5.5	55.2	DN100	1073	1460	142	1642	1030	1020	371	431	-	619	D
6	CRI 10-2	U6	1.5	19.3	DN100	716	1460	142	1962	630	1020	371	431	-	430	D
	CRI 10-3	U6	2.2	27.1	DN100	786	1460	142	1962	630	1020	371	431	-	454	D
	CRI 10-5	U6	3	37.9	DN100	865	1460	142	1962	630	1020	371	431	-	493	D
	CRI 10-6	U6	4	47.5	DN100	932	1460	142	1962	630	1020	371	431	-	572	D
	CRI 10-9	U6	5.5	66.2	DN100	1073	2000	142	1962	800	1020	371	431	400	707	C

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

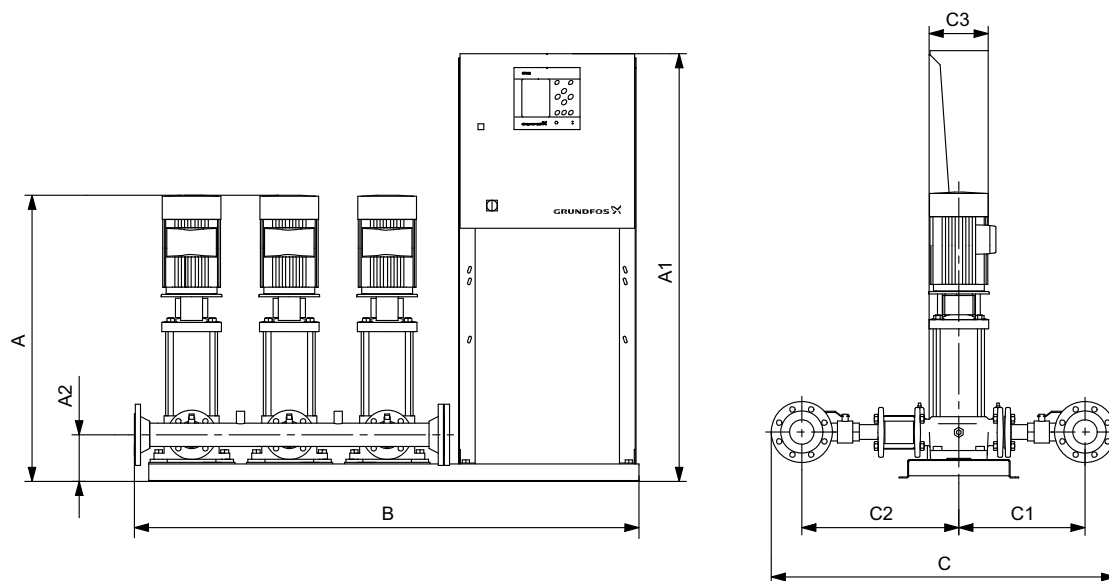
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

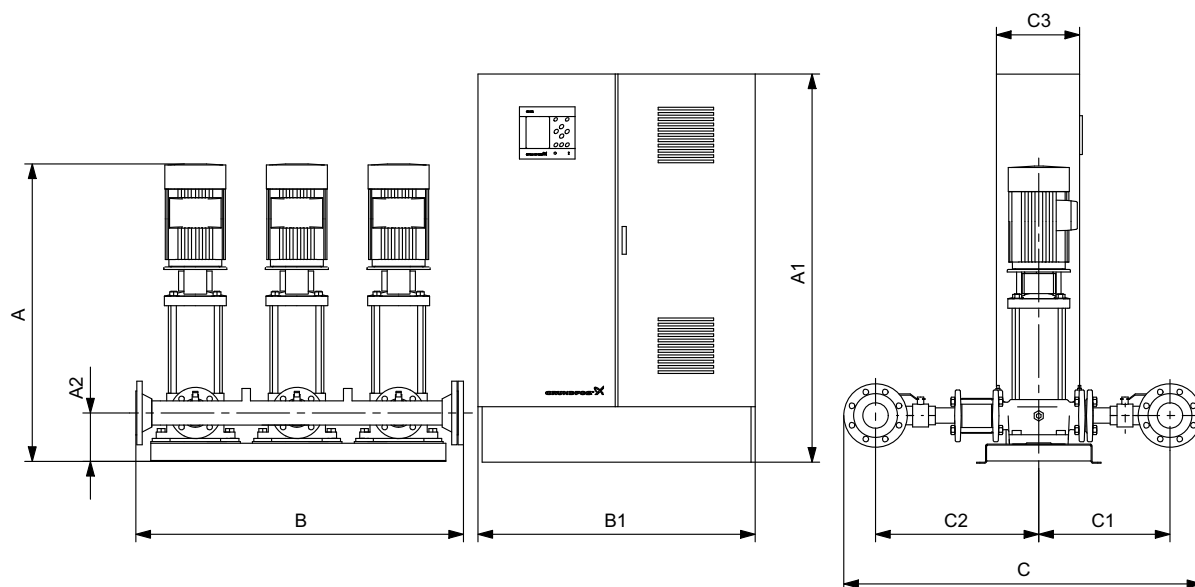
Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F/-S with CR(I) 15 or CR(I) 20



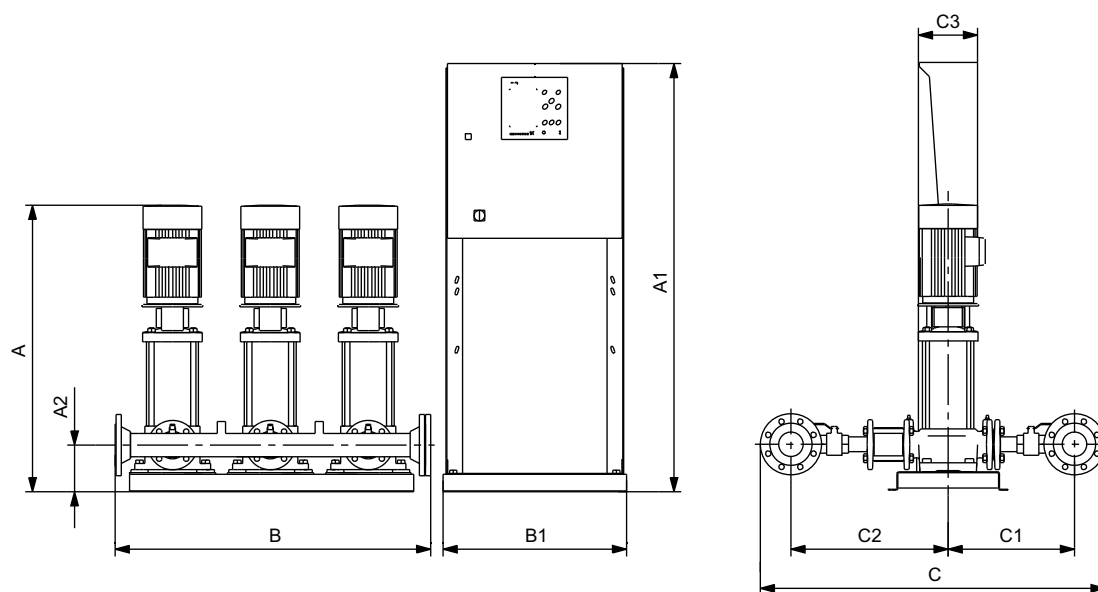
TM07 0500 3718

Fig. 80 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps (design A). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0493 3718

Fig. 81 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 0510 3718

Fig. 82 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR(I) 15

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 15-2	U6	3	12.9	DN80	815	1300	152	742	600	742	438	497	400	241	C
	CRI 15-3	U6	4	16.2	DN80	897	1300	152	742	600	742	438	497	400	267	C
	CRI 15-4	U6	5.5	22.9	DN80	993	1460	152	742	830	742	438	497	-	336	D
	CRI 15-5	U6	7.5	28.8	DN80	1026	1600	152	742	800	742	438	497	500	333	C
3	CRI 15-2	U6	3	19.3	DN100	815	1300	152	1062	600	1062	438	497	400	318	C
	CRI 15-3	U6	4	24.2	DN100	897	1460	152	1062	830	1062	438	497	-	384	D
	CRI 15-4	U6	5.5	33.9	DN100	993	1600	152	1062	800	1062	438	497	500	420	C
	CRI 15-5	U6	7.5	43	DN100	1026	1600	152	1062	800	1062	438	497	500	454	C
4	CRI 15-2	U6	3	25.6	DN100	815	1460	152	1382	790	1382	438	497	-	414	D
	CRI 15-3	U6	4	32.1	DN100	897	1460	152	1382	790	1382	438	497	-	467	D
	CRI 15-4	U6	5.5	44.9	DN100	993	1900	152	1382	800	1382	438	497	400	622	C
	CRI 15-5	U6	7.5	57.2	DN100	1026	1900	152	1382	800	1382	438	497	400	667	C
5	CRI 15-2	U6	3	31.9	DN150	815	1460	152	1704	830	1704	438	497	-	516	D
	CRI 15-3	U6	4	40	DN150	897	1460	152	1704	830	1704	438	497	-	583	D
	CRI 15-4	U6	5.5	56.1	DN150	993	1500	152	1704	1000	1704	438	497	400	658	C
	CRI 15-5	U6	7.5	71.6	DN150	1026	1500	152	1704	1000	1704	438	497	400	768	C
6	CRI 15-2	U6	3	38.2	DN150	815	1460	152	2024	830	2024	438	497	-	590	D
	CRI 15-3	U6	4	47.9	DN150	897	1460	152	2024	1030	2024	438	497	-	727	D
	CRI 15-4	U6	5.5	67.1	DN150	993	1500	152	2024	1000	2024	438	497	400	820	C
	CRI 15-5	U6	7.5	85.8	DN150	1026	1500	152	2024	1000	2024	438	497	400	904	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR(I) 15

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 15-2	U6	3	12.7	DN80	815	1460	152	1110	-	1135	438	497	-	205	A
	CRI 15-3	U6	4	15.9	DN80	897	1460	152	1110	-	1135	438	497	-	232	A
	CRI 15-4	U6	5.5	22.1	DN80	993	1460	152	1310	-	1135	438	497	-	275	A
	CRI 15-5	U6	7.5	28.5	DN80	1026	1460	152	1310	-	1135	438	497	-	298	A
3	CRI 15-2	U6	3	19	DN100	815	1460	152	1630	-	1155	438	497	-	287	A
	CRI 15-3	U6	4	23.8	DN100	897	1460	152	1630	-	1155	438	497	-	325	A
	CRI 15-4	U6	5.5	33.1	DN100	993	1460	152	1062	790	1155	438	497	-	403	D
	CRI 15-5	U6	7.5	42.7	DN100	1026	1460	152	1062	790	1155	438	497	-	437	D
4	CRI 15-2	U6	3	25.3	DN100	815	1460	152	1950	-	1155	438	497	-	352	A
	CRI 15-3	U6	4	31.7	DN100	897	1460	152	1950	-	1155	438	497	-	404	A
	CRI 15-4	U6	5.5	44.1	DN100	993	1460	152	1382	790	1155	438	497	-	506	D
	CRI 15-5	U6	7.5	57	DN100	1026	1460	152	1382	790	1155	438	497	-	557	D
5	CRI 15-2	U6	3	31.6	DN150	815	1460	152	1704	630	1220	438	497	-	464	D
	CRI 15-3	U6	4	39.6	DN150	897	1460	152	1704	630	1220	438	497	-	531	D
	CRI 15-4	U6	5.5	55.2	DN150	993	1460	152	1704	1030	1220	438	497	-	655	D
	CRI 15-5	U6	7.5	71.2	DN150	1026	1460	152	1704	1030	1220	438	497	-	712	D
6	CRI 15-2	U6	3	37.9	DN150	815	1460	152	2024	630	1220	438	497	-	538	D
	CRI 15-3	U6	4	47.5	DN150	897	1460	152	2024	630	1220	438	497	-	618	D
	CRI 15-4	U6	5.5	66.2	DN150	993	2000	152	2024	800	1220	438	497	400	740	C
	CRI 15-5	U6	7.5	85.4	DN150	1026	2000	152	2024	800	1220	438	497	400	808	C

Hydro MPC-F with CR(I) 20

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 20-2	U6	4	16.2	DN80	852	1300	152	742	600	742	438	497	400	265	C
	CRI 20-3	U6	5.5	22.9	DN80	948	1460	152	742	830	742	438	497	-	332	D
	CRI 20-4	U6	7.5	28.8	DN80	981	1600	152	742	800	742	438	497	500	331	C
	CRI 20-6	U6	11	42.5	DN80	1280	1600	192	1022	800	1022	438	497	500	446	C
3	CRI 20-2	U6	4	24.2	DN100	852	1460	152	1062	830	1062	438	497	-	381	D
	CRI 20-3	U6	5.5	33.9	DN100	948	1600	152	1062	800	1062	438	497	500	414	C
	CRI 20-4	U6	7.5	43	DN100	981	1600	152	1062	800	1062	438	497	500	451	C
	CRI 20-6	U6	11	62.8	DN100	1280	1600	192	1522	800	1522	438	497	500	619	C
4	CRI 20-2	U6	4	32.1	DN100	852	1460	152	1382	790	1382	438	497	-	463	D
	CRI 20-3	U6	5.5	44.9	DN100	948	1900	152	1382	800	1382	438	497	400	614	C
	CRI 20-4	U6	7.5	57.2	DN100	981	1900	152	1382	800	1382	438	497	400	662	C
	CRI 20-6	U6	11	83.1	DN100	1280	1900	192	2022	800	2022	438	497	400	839	C
5	CRI 20-2	U6	4	40	DN150	852	1460	152	1704	830	1704	438	497	-	578	D
	CRI 20-3	U6	5.5	56.1	DN150	948	1500	152	1704	1000	1704	438	497	400	648	C
	CRI 20-4	U6	7.5	71.6	DN150	981	1500	152	1704	1000	1704	438	497	400	763	C
	CRI 20-6	U6	11	103.6	DN150	1280	1500	192	2524	1000	2524	438	497	400	1065	C
6	CRI 20-2	U6	4	47.9	DN150	852	1460	152	2024	1030	2024	438	497	-	721	D
	CRI 20-3	U6	5.5	67.1	DN150	948	1500	152	2024	1000	2024	438	497	400	808	C
	CRI 20-4	U6	7.5	85.8	DN150	981	1500	152	2024	1000	2024	438	497	400	898	C
	CRI 20-6	U6	11	123.9	DN150	1280	1600	192	3024	1200	3024	438	497	500	1216	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR(I) 20

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CRI 20-2	U6	4	15.9	DN80	852	1460	152	1110	-	1135	438	497	-	230	A
	CRI 20-3	U6	5.5	22.1	DN80	948	1460	152	1310	-	1135	438	497	-	271	A
	CRI 20-4	U6	7.5	28.5	DN80	981	1460	152	1310	-	1135	438	497	-	296	A
	CRI 20-6	U6	11	40.7	DN80	1280	1460	192	1022	790	1135	438	497	-	405	D
3	CRI 20-2	U6	4	23.8	DN100	852	1460	152	1630	-	1155	438	497	-	322	A
	CRI 20-3	U6	5.5	33.1	DN100	948	1460	152	1062	790	1155	438	497	-	397	D
	CRI 20-4	U6	7.5	42.7	DN100	981	1460	152	1062	790	1155	438	497	-	434	D
	CRI 20-6	U6	11	61	DN100	1280	1460	192	1522	790	1155	438	497	-	584	D
4	CRI 20-2	U6	4	31.7	DN100	852	1460	152	1950	-	1155	438	497	-	400	A
	CRI 20-3	U6	5.5	44.1	DN100	948	1460	152	1382	790	1155	438	497	-	498	D
	CRI 20-4	U6	7.5	57	DN100	981	1460	152	1382	790	1155	438	497	-	553	D
	CRI 20-6	U6	11	81.4	DN100	1280	1460	192	2022	790	1155	438	497	-	755	D
5	CRI 20-2	U6	4	39.6	DN150	852	1460	152	1704	630	1220	438	497	-	526	D
	CRI 20-3	U6	5.5	55.2	DN150	948	1460	152	1704	1030	1220	438	497	-	645	D
	CRI 20-4	U6	7.5	71.2	DN150	981	1460	152	1704	1030	1220	438	497	-	707	D
	CRI 20-6	U6	11	101.7	DN150	1280	1460	192	2524	1030	1220	438	497	-	988	D
6	CRI 20-2	U6	4	47.5	DN150	852	1460	152	2024	630	1220	438	497	-	612	D
	CRI 20-3	U6	5.5	66.2	DN150	948	2000	152	2024	800	1220	438	497	400	728	C
	CRI 20-4	U6	7.5	85.4	DN150	981	2000	152	2024	800	1220	438	497	400	802	C
	CRI 20-6	U6	11	121.9	DN150	1280	1500	192	3024	1200	1220	438	497	400	1201	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

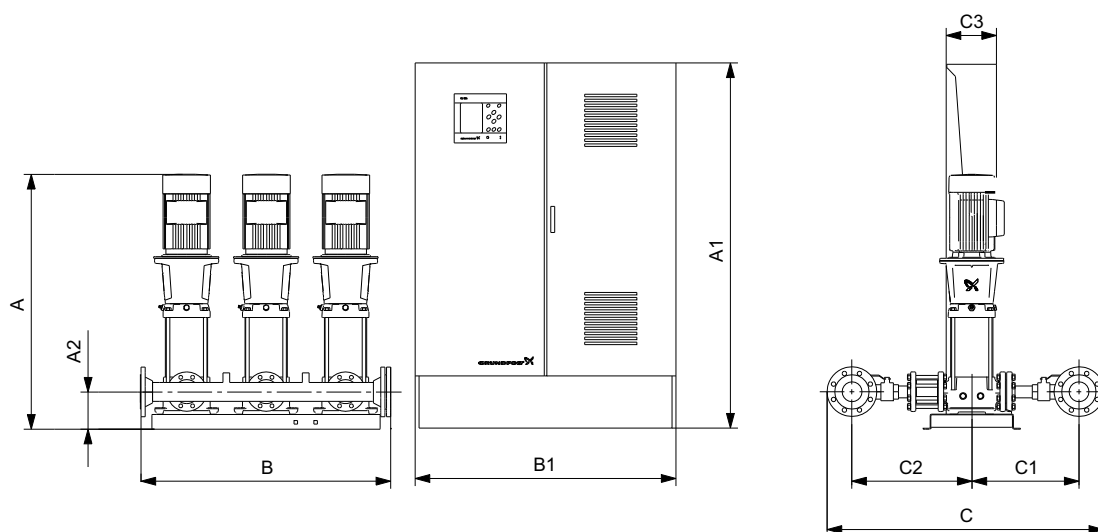
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

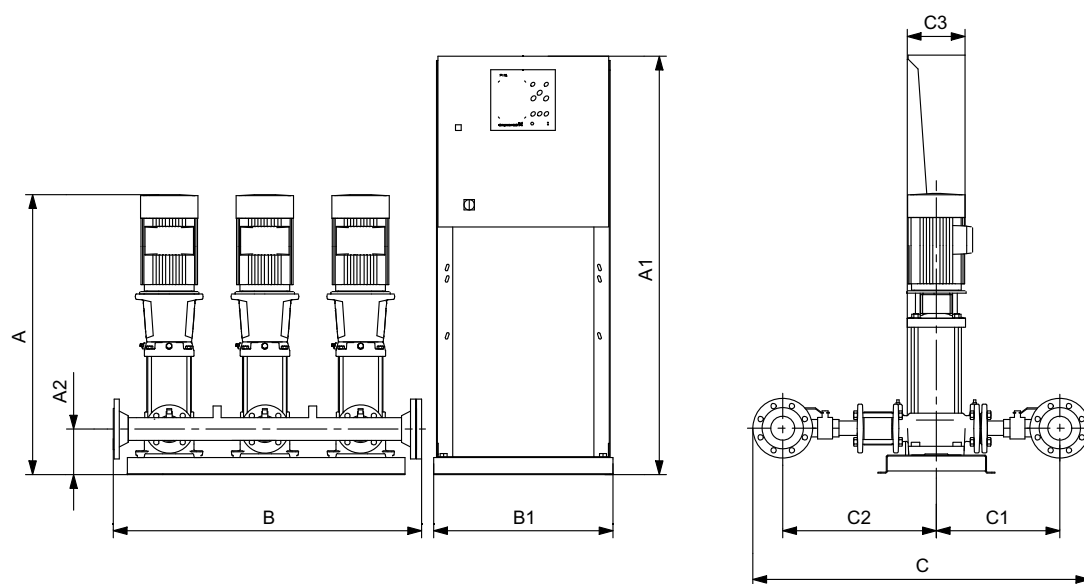
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR 32



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Fig. 83 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



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Fig. 84 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 32

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 32-1	U6	3	12.9	DN100	902	1300	167	1022	600	1022	379	579	400	299	C
	CR 32-2	U6	7.5	28.8	DN100	1016	1600	167	1022	800	1022	379	579	500	371	C
	CR 32-4-2	U6	11	42.5	DN100	1398	1600	207	1022	800	1022	379	579	500	497	C
	CR 32-5-2	U6	15	56.1	DN100	1468	1600	207	1022	800	1022	379	579	500	528	C
3	CR 32-1	U6	3	19.3	DN150	902	1300	167	1524	600	1524	379	579	400	423	C
	CR 32-2	U6	7.5	43	DN150	1016	1600	167	1524	800	1524	379	579	500	530	C
	CR 32-4-2	U6	11	62.8	DN150	1398	1600	207	1524	800	1524	379	579	500	712	C
	CR 32-5-2	U6	15	83	DN150	1468	1500	207	1524	1000	1524	379	579	400	807	C
4	CR 32-1	U6	3	25.6	DN150	902	1460	167	2024	790	2024	379	579	-	552	D
	CR 32-2	U6	7.5	57.2	DN150	1016	1900	167	2024	800	2024	379	579	400	765	C
	CR 32-4-2	U6	11	83.1	DN150	1398	1900	207	2024	800	2024	379	579	400	957	C
	CR 32-5-2	U6	15	109.9	DN150	1468	1900	207	2024	800	2024	379	579	400	1020	C
5	CR 32-1	U6	3	31.9	DN150	902	1460	167	2524	830	2524	379	579	-	671	D
	CR 32-2	U6	7.5	71.6	DN150	1016	1500	167	2524	1000	2524	379	579	400	880	C
	CR 32-4-2	U6	11	103.6	DN150	1398	1500	207	2524	1000	2524	379	579	400	1179	C
	CR 32-5-2	U6	15	137	DN150	1468	1700	207	2524	1000	2524	379	579	400	1240	C
6	CR 32-1	U6	3	38.2	DN150	902	1460	167	3024	830	3024	379	579	-	774	D
	CR 32-2	U6	7.5	85.8	DN150	1016	1500	167	3024	1000	3024	379	579	400	1035	C
	CR 32-4-2	U6	11	123.9	DN150	1398	1600	207	3024	1200	3024	379	579	500	1354	C
	CR 32-5-2	U6	15	163.9	DN150	1468	2200	207	3024	1200	3024	379	579	400	1514	C

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-S with CR 32

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 32-1	U6	3	12.7	DN100	902	1460	167	1022	410	1180	379	579	-	270	D
	CR 32-2	U6	7.5	28.5	DN100	1016	1460	167	1022	630	1180	379	579	-	345	D
	CR 32-4-2	U6	11	40.7	DN100	1398	1460	207	1022	790	1180	379	579	-	457	D
	CR 32-5-2	U6	15	53.9	DN100	1468	1460	207	1022	790	1180	379	579	-	487	D
3	CR 32-1	U6	3	19	DN150	902	1460	167	1524	630	1245	379	579	-	402	D
	CR 32-2	U6	7.5	42.7	DN150	1016	1460	167	1524	790	1245	379	579	-	512	D
	CR 32-4-2	U6	11	61	DN150	1398	1460	207	1524	790	1245	379	579	-	677	D
	CR 32-5-2	U6	15	80.8	DN150	1468	1300	207	1524	600	1245	379	579	400	725	C
4	CR 32-1	U6	3	25.3	DN150	902	1460	167	2024	630	1245	379	579	-	497	D
	CR 32-2	U6	7.5	57	DN150	1016	1460	167	2024	790	1245	379	579	-	654	D
	CR 32-4-2	U6	11	81.4	DN150	1398	1460	207	2024	790	1245	379	579	-	873	D
	CR 32-5-2	U6	15	107.8	DN150	1468	1460	207	2024	790	1245	379	579	-	935	D
5	CR 32-1	U6	3	31.6	DN150	902	1460	167	2524	630	1245	379	579	-	621	D
	CR 32-2	U6	7.5	71.2	DN150	1016	1460	167	2524	1030	1245	379	579	-	814	D
	CR 32-4-2	U6	11	101.7	DN150	1398	1460	207	2524	1030	1245	379	579	-	1103	D
	CR 32-5-2	U6	15	134.6	DN150	1468	1600	207	2524	800	1245	379	579	500	1199	C
6	CR 32-1	U6	3	37.9	DN150	902	1460	167	3024	630	1245	379	579	-	724	D
	CR 32-2	U6	7.5	85.4	DN150	1016	2000	167	3024	800	1245	379	579	400	939	C
	CR 32-4-2	U6	11	121.9	DN150	1398	1500	207	3024	1200	1245	379	579	400	1339	C
	CR 32-5-2	U6	15	161.5	DN150	1468	2000	207	3024	1000	1245	379	579	400	1427	C

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

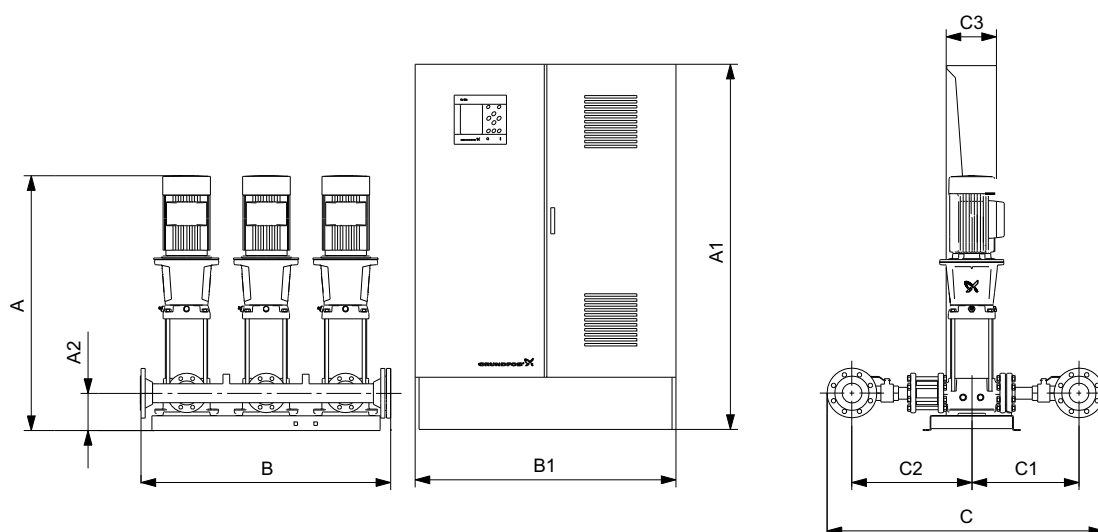
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

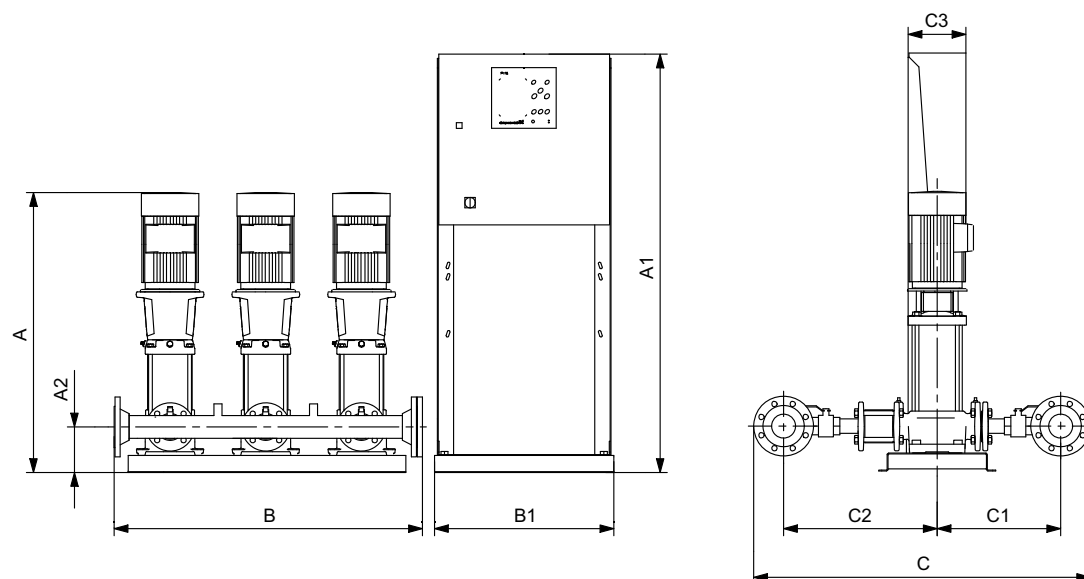
Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F/-S with CR 45 or CR 64



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Fig. 85 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2039 3718

Fig. 86 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 45

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 45-1	U6	7.5	43	DN200	1000	1600	202	1526	800	1526	419	629	500	589	C
	CR 45-2	U6	15	83	DN200	1322	1500	242	1526	1000	1526	419	629	400	849	C
	CR 45-3	U6	18.5	101	DN200	1446	1700	242	1526	1000	1526	419	629	400	919	C
	CR 45-4-2	U6	22	119.4	DN200	1552	1700	242	1526	1000	1526	419	629	400	981	C
4	CR 45-1	U6	7.5	57.2	DN200	1000	1900	202	2026	800	2026	419	629	400	840	C
	CR 45-2	U6	15	109.9	DN200	1322	1900	242	2026	800	2026	419	629	400	1072	C
	CR 45-3	U6	18.5	134.8	DN200	1446	1900	242	2026	800	2026	419	629	400	1137	C
	CR 45-4-2	U6	22	159.1	DN200	1552	1900	242	2026	1000	2026	419	629	400	1256	C
5	CR 45-1	U6	7.5	71.6	DN200	1000	1500	202	2526	1000	2526	419	629	400	973	C
	CR 45-2	U6	15	137	DN200	1322	1700	242	2526	1000	2526	419	629	400	1304	C
	CR 45-3	U6	18.5	168	DN200	1446	2400	242	2526	1200	2526	419	629	600	1460	C
	CR 45-4-2	U6	22	198.6	DN200	1552	2400	242	2526	1200	2526	419	629	600	1573	C
6	CR 45-1	U6	7.5	85.8	DN200	1000	1500	202	3026	1000	3026	419	629	400	1144	C
	CR 45-2	U6	15	163.9	DN200	1322	2200	242	3026	1200	3026	419	629	400	1588	C
	CR 45-3	U6	18.5	201.4	DN200	1446	2000	242	3026	1200	3026	419	629	400	1721	C
	CR 45-4-2	U6	22	238.1	DN200	1552	2200	242	3026	1000	3026	419	629	500	1841	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 45

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 45-1	U6	7.5	42.7	DN200	1000	1460	202	1526	790	1390	419	629	-	571	D
	CR 45-2	U6	15	80.8	DN200	1322	1300	242	1526	600	1390	419	629	400	767	C
	CR 45-3	U6	18.5	100.3	DN200	1446	1460	242	1526	830	1390	419	629	-	834	D
	CR 45-4-2	U6	22	118.6	DN200	1552	1460	242	1526	830	1390	419	629	-	903	D
4	CR 45-1	U6	7.5	57	DN200	1000	1460	202	2026	790	1390	419	629	-	728	D
	CR 45-2	U6	15	107.8	DN200	1322	1460	242	2026	790	1390	419	629	-	987	D
	CR 45-3	U6	18.5	133.8	DN200	1446	1460	242	2026	790	1390	419	629	-	1059	D
	CR 45-4-2	U6	22	158.2	DN200	1552	1460	242	2026	830	1390	419	629	-	1153	D
5	CR 45-1	U6	7.5	71.2	DN200	1000	1460	202	2526	1030	1390	419	629	-	907	D
	CR 45-2	U6	15	134.6	DN200	1322	1600	242	2526	800	1390	419	629	500	1263	C
	CR 45-3	U6	18.5	167.1	DN200	1446	2200	242	2526	1200	1390	419	629	400	1381	C
	CR 45-4-2	U6	22	197.7	DN200	1552	2000	242	2526	1600	1390	419	629	400	1452	C
6	CR 45-1	U6	7.5	85.4	DN200	1000	2000	202	3026	800	1390	419	629	400	1048	C
	CR 45-2	U6	15	161.5	DN200	1322	2000	242	3026	1000	1390	419	629	400	1501	C
	CR 45-3	U6	18.5	200.5	DN200	1446	2000	242	3026	1600	1390	419	629	400	1690	C
	CR 45-4-2	U6	22	237.4	DN200	1552	2000	242	3026	1600	1390	419	629	400	1741	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-F with CR 64

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 64-1-1	U6	7.5	43	DN200	1002	1600	202	1526	800	1526	421	631	500	597	C
	CR 64-1	U6	11	62.8	DN200	1244	1600	242	1526	800	1526	421	631	500	761	C
	CR 64-2-2	U6	15	83	DN200	1327	1500	242	1526	1000	1526	421	631	400	860	C
	CR 64-2-1	U6	18.5	101	DN200	1371	1700	242	1526	1000	1526	421	631	400	918	C
	CR 64-3-1	U6	30	162.4	DN200	1549	2400	242	1526	1200	1526	421	631	600	1382	C
	CR 64-3	U6	30	162.4	DN200	1549	2400	242	1526	1200	1526	421	631	600	1382	C
4	CR 64-4-2	U6	37	197.6	DN200	1657	2000	242	1526	1000	1526	421	631	400	1758	C
	CR 64-1-1	U6	7.5	57.2	DN200	1002	1900	202	2026	800	2026	421	631	400	851	C
	CR 64-1	U6	11	83.1	DN200	1244	1900	242	2026	800	2026	421	631	400	1017	C
	CR 64-2-2	U6	15	109.9	DN200	1327	1900	242	2026	800	2026	421	631	400	1086	C
	CR 64-2-1	U6	18.5	134.8	DN200	1371	1900	242	2026	800	2026	421	631	400	1136	C
	CR 64-3-1	U6	30	216.1	DN200	1549	1900	242	2026	1000	2026	421	631	400	1783	C
5	CR 64-3	U6	30	216.1	DN200	1549	1900	242	2026	1000	2026	421	631	400	1783	C
	CR 64-4-2	U6	37	263.1	DN200	1657	1900	242	2026	1200	2026	421	631	400	2043	C
	CR 64-1-1	U6	7.5	71.6	DN200	1002	1500	202	2526	1000	2526	421	631	400	987	C
	CR 64-1	U6	11	103.6	DN200	1244	1500	242	2526	1000	2526	421	631	400	1255	C
	CR 64-2-2	U6	15	137	DN200	1327	1700	242	2526	1000	2526	421	631	400	1323	C
	CR 64-2-1	U6	18.5	168	DN200	1371	2400	242	2526	1200	2526	421	631	600	1459	C
6	CR 64-3-1	U6	30	269.6	DN200	1549	2000	242	2526	1600	2526	421	631	400	2180	C
	CR 64-3	U6	30	269.6	DN200	1549	2000	242	2526	1600	2526	421	631	400	2180	C
	CR 64-4-2	U6	37	328.9	DN200	1657	2000	242	2526	1000	2526	421	631	400	2677	C
	CR 64-1-1	U6	7.5	85.8	DN200	1002	1500	202	3026	1000	3026	421	631	400	1161	C
	CR 64-1	U6	11	123.9	DN200	1244	1600	242	3026	1200	3026	421	631	500	1442	C
	CR 64-2-2	U6	15	163.9	DN200	1327	2200	242	3026	1200	3026	421	631	400	1610	C
6	CR 64-2-1	U6	18.5	201.4	DN200	1371	2000	242	3026	1200	3026	421	631	400	1719	C
	CR 64-2	U6	22	238.1	DN200	1397	2200	242	3026	1000	3026	421	631	500	1816	C
	CR 64-3-1	U6	30	323.4	DN200	1549	2000	242	3026	1000	3026	421	631	400	2900	C
	CR 64-3	U6	30	323.4	DN200	1549	2000	242	3026	1000	3026	421	631	400	2900	C
6	CR 64-4-2	U6	37	394.4	DN200	1657	2000	242	3026	1000	3026	421	631	400	3116	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 64

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
3	CR 64-1-1	U6	7.5	42.7	DN200	1002	1460	202	1526	790	1390	421	631	-	580	D
	CR 64-1	U6	11	61	DN200	1244	1460	242	1526	790	1390	421	631	-	725	D
	CR 64-2-2	U6	15	80.8	DN200	1327	1300	242	1526	600	1390	421	631	400	778	C
	CR 64-2-1	U6	18.5	100.3	DN200	1371	1460	242	1526	830	1390	421	631	-	833	D
	CR 64-2	U6	22	118.6	DN200	1397	1460	242	1526	830	1390	421	631	-	890	D
	CR 64-3-2	U6	22	118.6	DN200	1479	1460	242	1526	830	1390	421	631	-	904	D
	CR 64-3-1	U6	30	160.6	DN200	1549	2000	242	1526	1000	1390	421	631	400	1299	C
4	CR 64-3	U6	30	160.6	DN200	1549	2000	242	1526	1000	1390	421	631	400	1299	C
	CR 64-1-1	U6	7.5	57	DN200	1002	1460	202	2026	790	1390	421	631	-	739	D
	CR 64-1	U6	11	81.4	DN200	1244	1460	242	2026	790	1390	421	631	-	934	D
	CR 64-2-2	U6	15	107.8	DN200	1327	1460	242	2026	790	1390	421	631	-	1001	D
	CR 64-2-1	U6	18.5	133.8	DN200	1371	1460	242	2026	790	1390	421	631	-	1058	D
	CR 64-2	U6	22	158.2	DN200	1397	1460	242	2026	830	1390	421	631	-	1137	D
	CR 64-3-2	U6	22	158.2	DN200	1479	1460	242	2026	830	1390	421	631	-	1155	D
5	CR 64-3-1	U6	30	214.1	DN200	1549	1460	242	2026	830	1390	421	631	-	1637	D
	CR 64-3	U6	30	214.1	DN200	1549	1460	242	2026	830	1390	421	631	-	1637	D
	CR 64-1-1	U6	7.5	71.2	DN200	1002	1460	202	2526	1030	1390	421	631	-	921	D
	CR 64-1	U6	11	101.7	DN200	1244	1460	242	2526	1030	1390	421	631	-	1178	D
	CR 64-2-2	U6	15	134.6	DN200	1327	1600	242	2526	800	1390	421	631	500	1282	C
	CR 64-2-1	U6	18.5	167.1	DN200	1371	2200	242	2526	1200	1390	421	631	400	1379	C
	CR 64-2	U6	22	197.7	DN200	1397	2000	242	2526	1600	1390	421	631	400	1431	C
6	CR 64-3-2	U6	22	197.7	DN200	1479	2000	242	2526	1600	1390	421	631	400	1453	C
	CR 64-3-1	U6	30	267.7	DN200	1549	2000	242	2526	1600	1390	421	631	400	2134	C
	CR 64-3	U6	30	267.7	DN200	1549	2000	242	2526	1600	1390	421	631	400	2134	C
	CR 64-1-1	U6	7.5	85.4	DN200	1002	2000	202	3026	800	1390	421	631	400	1064	C
	CR 64-1	U6	11	121.9	DN200	1244	1500	242	3026	1200	1390	421	631	400	1426	C
	CR 64-2-2	U6	15	161.5	DN200	1327	2000	242	3026	1000	1390	421	631	400	1523	C
	CR 64-2-1	U6	18.5	200.5	DN200	1371	2000	242	3026	1600	1390	421	631	400	1688	C
6	CR 64-2	U6	22	237.4	DN200	1397	2000	242	3026	1600	1390	421	631	400	1717	C
	CR 64-3-2	U6	22	237.4	DN200	1479	2000	242	3026	1600	1390	421	631	400	1744	C
	CR 64-3-1	U6	30	321.2	DN200	1549	2000	242	3026	1600	1390	421	631	400	2503	C
6	CR 64-3	U6	30	321.2	DN200	1549	2000	242	3026	1600	1390	421	631	400	2503	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

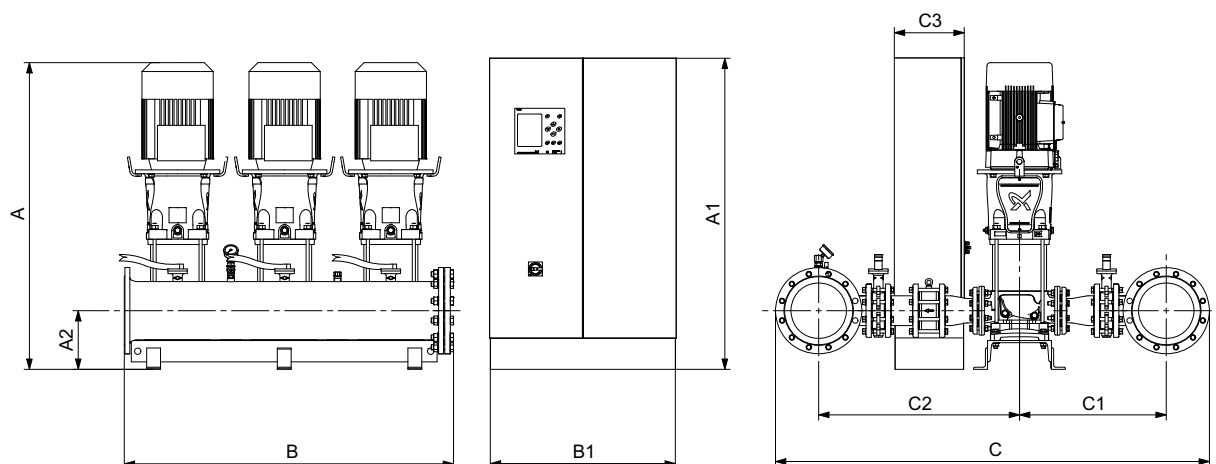
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

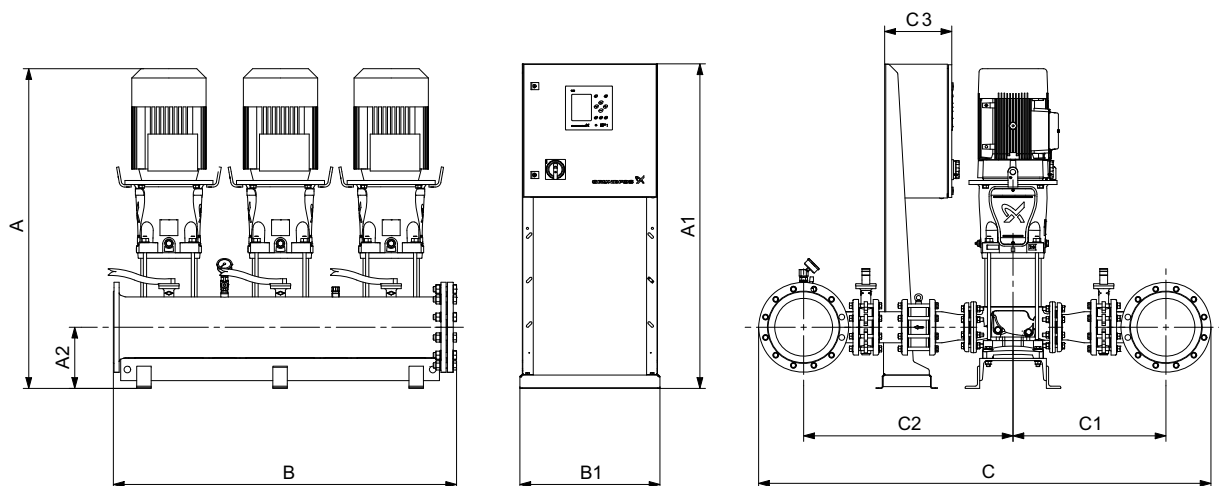
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR 95



TM07 2300 3718

Fig. 87 Dimensional sketch of a Hydro MPC booster system with a floor-mounted control cabinet (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2302 3718

Fig. 88 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 95

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 95-1-1	U6	11	42.5	DN200	1299	1600	277	1026	800	1026	690	940	500	735	C
	CR 95-1	U6	15	56.1	DN200	1299	1600	277	1026	800	1026	690	940	500	759	C
	CR 95-2-2	U6	18.5	67.6	DN200	1447	1600	277	1026	800	1026	690	940	500	852	C
	CR 95-2-1	U6	22	79.9	DN200	1473	1700	277	1026	1000	1026	690	940	400	901	C
	CR 95-2	U6	30	108.9	DN200	1548	1700	277	1026	1000	1026	690	940	400	1144	C
	CR 95-3-2	U6	30	108.9	DN200	1653	1700	277	1026	1000	1026	690	940	400	1156	C
	CR 95-3-1	U6	37	131.9	DN200	1678	2000	277	1026	1200	1026	690	940	500	1296	C
3	CR 95-4-2	U6	45	160.1	DN200	1874	2200	277	1026	1000	1026	690	940	500	1659	C
	CR 95-1-1	U6	11	62.8	DN250	1299	1600	277	1528	800	1528	690	940	500	1131	C
	CR 95-1	U6	15	83	DN250	1299	1500	277	1528	1000	1528	690	940	400	1217	C
	CR 95-2-2	U6	18.5	101	DN250	1447	1700	277	1528	1000	1528	690	940	400	1293	C
	CR 95-2-1	U6	22	119.4	DN250	1473	1700	277	1528	1000	1528	690	940	400	1344	C
	CR 95-2	U6	30	162.4	DN250	1548	2400	277	1528	1200	1528	690	940	600	1745	C
	CR 95-3-2	U6	30	162.4	DN250	1653	2400	277	1528	1200	1528	690	940	600	1763	C
4	CR 95-3-1	U6	37	197.6	DN250	1678	2000	277	1528	1000	1528	690	940	400	2120	C
	CR 95-4-2	U6	45	237.6	DN250	1874	2200	277	1528	1000	1528	690	940	500	2362	C
	CR 95-1-1	U6	11	83.1	DN250	1299	1900	277	2028	800	2028	690	940	400	1486	C
	CR 95-1	U6	15	109.9	DN250	1299	1900	277	2028	800	2028	690	940	400	1537	C
	CR 95-2-2	U6	18.5	134.8	DN250	1447	1900	277	2028	800	2028	690	940	400	1610	C
	CR 95-2-1	U6	22	159.1	DN250	1473	1900	277	2028	1000	2028	690	940	400	1714	C
	CR 95-2	U6	30	216.1	DN250	1548	1900	277	2028	1000	2028	690	940	400	2241	C
5	CR 95-3-2	U6	30	216.1	DN250	1653	1900	277	2028	1000	2028	690	940	400	2266	C
	CR 95-3-1	U6	37	263.1	DN250	1678	1900	277	2028	1200	2028	690	940	400	2500	C
	CR 95-4-2	U6	45	315.1	DN250	1874	2000	277	2028	1200	2028	690	940	500	3006	C
	CR 95-1-1	U6	11	103.6	DN300	1299	1700	277	2530	1000	2530	690	940	400	1934	C
	CR 95-1	U6	15	137	DN300	1299	1700	277	2530	1000	2530	690	940	400	1979	C
	CR 95-2-2	U6	18.5	168	DN300	1447	2400	277	2530	1200	2530	690	940	600	2145	C
	CR 95-2-1	U6	22	198.6	DN300	1473	2400	277	2530	1200	2530	690	940	600	2238	C
6	CR 95-2	U6	30	269.6	DN300	1548	2000	277	2530	1600	2530	690	940	400	2846	C
	CR 95-3-2	U6	30	269.6	DN300	1653	2000	277	2530	1600	2530	690	940	400	2876	C
	CR 95-3-1	U6	37	328.9	DN300	1678	2000	277	2530	1000	2530	690	940	400	3343	C
	CR 95-4-2	U6	45	392.9	DN300	1874	2000	277	2530	1200	2530	690	940	500	3985	C
	CR 95-1-1	U6	11	123.9	DN350	1299	1600	277	3032	1200	3032	690	940	500	2306	C
	CR 95-1	U6	15	163.9	DN350	1299	2200	277	3032	1200	3032	690	940	400	2447	C
	CR 95-2-2	U6	18.5	201.4	DN350	1447	2000	277	3032	1200	3032	690	940	400	2592	C
6	CR 95-2-1	U6	22	238.1	DN350	1473	2200	277	3032	1000	3032	690	940	500	2689	C
	CR 95-2	U6	30	323.4	DN350	1548	2000	277	3032	1000	3032	690	940	400	3749	C
	CR 95-3-2	U6	30	323.4	DN350	1653	2000	277	3032	1000	3032	690	940	400	3785	C
	CR 95-3-1	U6	37	394.4	DN350	1678	2000	277	3032	1000	3032	690	940	400	3964	C
	CR 95-4-2	U6	45	470.4	DN350	1874	2000	277	3032	1200	3032	690	940	500	4696	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 95

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 95-1-1	U6	11	40.7	DN200	1299	1460	277	1026	790	1970	690	940	-	694	D
	CR 95-1	U6	15	53.9	DN200	1299	1460	277	1026	790	1970	690	940	-	718	D
	CR 95-2-2	U6	18.5	66.9	DN200	1447	1460	277	1026	790	1970	690	940	-	794	D
	CR 95-2-1	U6	22	79.1	DN200	1473	1460	277	1026	790	1970	690	940	-	823	D
	CR 95-2	U6	30	107.1	DN200	1548	1460	277	1026	830	1970	690	940	-	1067	D
	CR 95-3-2	U6	30	107.1	DN200	1653	1460	277	1026	830	1970	690	940	-	1079	D
	CR 95-3-1	U6	37	131.2	DN200	1678	1600	277	1026	800	1970	690	940	500	1109	C
3	CR 95-4-2	U6	45	155.2	DN200	1874	2000	277	1026	1000	1970	690	940	400	1327	C
	CR 95-1-1	U6	11	61	DN250	1299	1460	277	1528	790	2035	690	940	-	1096	D
	CR 95-1	U6	15	80.8	DN250	1299	1300	277	1528	600	2035	690	940	400	1135	C
	CR 95-2-2	U6	18.5	100.3	DN250	1447	1460	277	1528	830	2035	690	940	-	1208	D
	CR 95-2-1	U6	22	118.6	DN250	1473	1460	277	1528	830	2035	690	940	-	1265	D
	CR 95-2	U6	30	160.6	DN250	1548	2000	277	1528	1000	2035	690	940	400	1662	C
	CR 95-3-2	U6	30	160.6	DN250	1653	2000	277	1528	1000	2035	690	940	400	1680	C
4	CR 95-3-1	U6	37	196.7	DN250	1678	2000	277	1528	1200	2035	690	940	400	1762	C
	CR 95-4-2	U6	45	232.7	DN250	1874	2000	277	1528	1200	2035	690	940	400	2009	C
	CR 95-1-1	U6	11	81.4	DN250	1299	1460	277	2028	790	2035	690	940	-	1402	D
	CR 95-1	U6	15	107.8	DN250	1299	1460	277	2028	790	2035	690	940	-	1451	D
	CR 95-2-2	U6	18.5	133.8	DN250	1447	1460	277	2028	790	2035	690	940	-	1532	D
	CR 95-2-1	U6	22	158.2	DN250	1473	1460	277	2028	830	2035	690	940	-	1611	D
	CR 95-2	U6	30	214.1	DN250	1548	1460	277	2028	830	2035	690	940	-	2096	D
5	CR 95-3-2	U6	30	214.1	DN250	1653	1460	277	2028	830	2035	690	940	-	2120	D
	CR 95-3-1	U6	37	262.4	DN250	1678	1900	277	2028	800	2035	690	940	400	2275	C
	CR 95-4-2	U6	45	310.4	DN250	1874	2000	277	2028	1600	2035	690	940	400	2615	C
	CR 95-1-1	U6	11	101.7	DN300	1299	1460	277	2530	1030	2090	690	940	-	1857	D
	CR 95-1	U6	15	134.6	DN300	1299	1600	277	2530	800	2090	690	940	500	1938	C
	CR 95-2-2	U6	18.5	167.1	DN300	1447	2200	277	2530	1200	2090	690	940	400	2066	C
	CR 95-2-1	U6	22	197.7	DN300	1473	2000	277	2530	1600	2090	690	940	400	2117	C
6	CR 95-2	U6	30	267.7	DN300	1548	2000	277	2530	1600	2090	690	940	400	2801	C
	CR 95-3-2	U6	30	267.7	DN300	1653	2000	277	2530	1600	2090	690	940	400	2831	C
	CR 95-3-1	U6	37	327.9	DN300	1678	2000	277	2530	1600	2090	690	940	400	2975	C
	CR 95-4-2	U6	45	387.9	DN300	1874	2000	277	2530	1600	2090	690	940	400	3419	C
	CR 95-1-1	U6	11	121.9	DN350	1299	1500	277	3032	1200	2150	690	940	400	2290	C
	CR 95-1	U6	15	161.5	DN350	1299	2000	277	3032	1000	2150	690	940	400	2359	C
	CR 95-2-2	U6	18.5	200.5	DN350	1447	2000	277	3032	1600	2150	690	940	400	2560	C
6	CR 95-2-1	U6	22	237.4	DN350	1473	2000	277	3032	1600	2150	690	940	400	2589	C
	CR 95-2	U6	30	321.2	DN350	1548	2000	277	3032	1600	2150	690	940	400	3352	C
	CR 95-3-2	U6	30	321.2	DN350	1653	2000	277	3032	1600	2150	690	940	400	3388	C
	CR 95-3-1	U6	37	393.4	DN350	1678	2000	277	3032	800	2150	690	940	400	3590	C
	CR 95-4-2	U6	45	465.4	DN350	1874	2000	277	3032	800	2150	690	940	400	4132	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

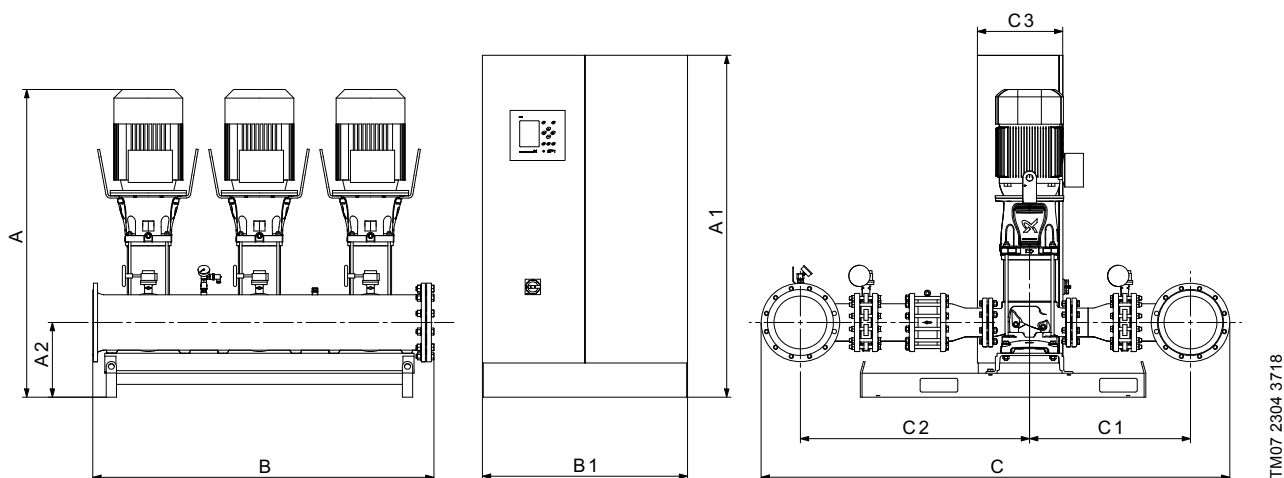
Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

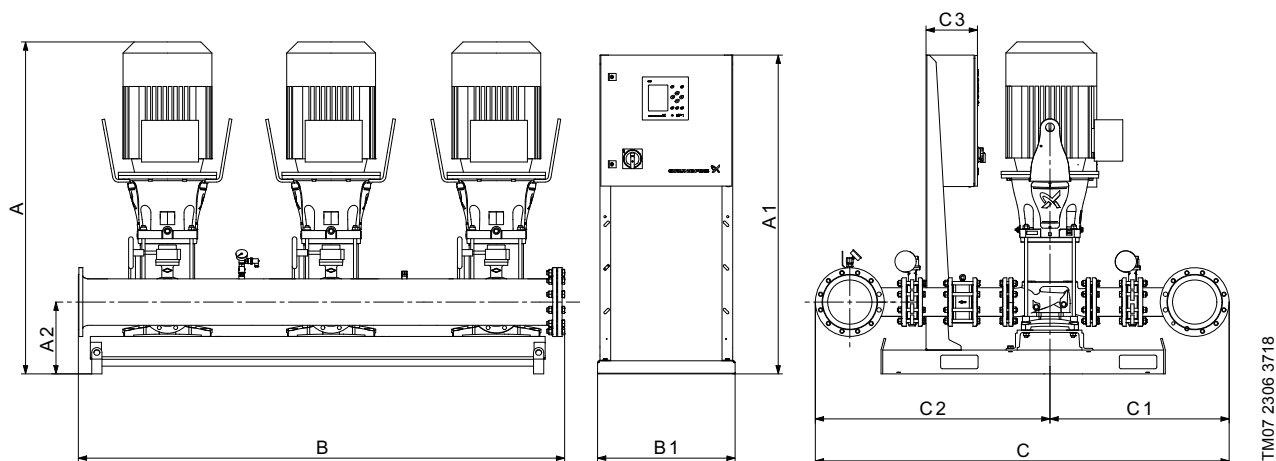
Dimensions may vary by ± 10 mm.

Hydro MPC-F/-S with CR 125 or CR 155



TM07 2304 3718

Fig. 89 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design C). The booster system is shown as an example. The pumps supplied may differ from the sketch.



TM07 2306 3718

Fig. 90 Dimensional sketch of a Hydro MPC booster system with a control cabinet mounted on a separate base frame (design D). The booster system is shown as an example. The pumps supplied may differ from the sketch.

Electrical data, dimensions and weights

Hydro MPC-F with CR 125

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 125-1-1	U6	15	56.1	DN250	1513	1600	439	1328	800	1328	860	1176	500	1099	C
	CR 125-1	U6	18.5	67.6	DN250	1557	1600	439	1328	800	1328	860	1176	500	1180	C
	CR 125-2-2	U6	30	108.9	DN250	1777	1700	439	1328	1000	1328	860	1176	400	1491	C
	CR 125-2	U6	37	131.9	DN250	1802	2000	439	1328	1200	1328	860	1176	500	1631	C
	CR 125-3-2	U6	45	160.1	DN250	2019	2200	439	1328	1000	1328	860	1176	500	2006	C
3	CR 125-3	U6	55	191.1	DN250	2057	2200	439	1328	1000	1328	860	1176	500	2233	C
	CR 125-1-1	U6	15	83	DN250	1513	1500	439	1978	1000	1978	860	1176	400	1571	C
	CR 125-1	U6	18.5	101	DN250	1557	1700	439	1978	1000	1978	860	1176	400	1629	C
	CR 125-2-2	U6	30	162.4	DN250	1777	2400	439	1978	1200	1978	860	1176	600	2110	C
	CR 125-2	U6	37	197.6	DN250	1802	2000	439	1978	1000	1978	860	1176	400	2467	C
4	CR 125-3-2	U6	45	237.6	DN250	2019	2200	439	1978	1000	1978	860	1176	500	2726	C
	CR 125-3	U6	55	285.6	DN250	2057	2000	439	1978	1200	1978	860	1176	500	3117	C
	CR 125-1-1	U6	15	109.9	DN300	1513	1900	439	2630	800	2630	860	1176	400	2181	C
	CR 125-1	U6	18.5	134.8	DN300	1557	1900	439	2630	800	2630	860	1176	400	2230	C
	CR 125-2-2	U6	30	216.1	DN300	1777	1900	439	2630	1000	2630	860	1176	400	2903	C
5	CR 125-2	U6	37	263.1	DN300	1802	1900	439	2630	1200	2630	860	1176	400	3142	C
	CR 125-3-2	U6	45	315.1	DN300	2019	2000	439	2630	1200	2630	860	1176	500	3664	C
	CR 125-3	U6	55	380.4	DN300	2057	2000	439	2630	1200	2630	860	1176	500	4357	C
	CR 125-1-1	U6	15	137	DN350	1513	1700	439	3282	1000	3282	860	1176	400	2671	C
	CR 125-1	U6	18.5	168	DN350	1557	2400	439	3282	1200	3282	860	1176	600	2807	C
6	CR 125-2-2	U6	30	269.6	DN350	1777	2000	439	3282	1600	3282	860	1176	400	3557	C
	CR 125-2	U6	37	328.9	DN350	1802	2000	439	3282	1000	3282	860	1176	400	4023	C
	CR 125-3-2	U6	45	392.9	DN350	2019	2000	439	3282	1200	3282	860	1176	500	4695	C
	CR 125-3	U6	55	474.9	DN350	2057	2000	439	3282	1200	3282	860	1176	500	5260	C
	CR 125-1-1	U6	15	163.9	DN350	1513	2200	439	3932	1200	3932	860	1176	400	3167	C
6	CR 125-1	U6	18.5	201.4	DN350	1557	2000	439	3932	1200	3932	860	1176	400	3276	C
	CR 125-2-2	U6	30	323.4	DN350	1777	2000	439	3932	1000	3932	860	1176	400	4491	C
	CR 125-2	U6	37	394.4	DN350	1802	2000	439	3932	1000	3932	860	1176	400	4670	C
	CR 125-3-2	U6	45	470.4	DN350	2019	2000	439	3932	1200	3932	860	1176	500	5437	C
	CR 125-3	U6	55	569.4	DN350	2057	2000	439	3932	1200	3932	860	1176	500	6123	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 125

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 125-1-1	U6	15	53.9	DN250	1513	1460	439	1328	790	2440	860	1176	-	1058	D
	CR 125-1	U6	18.5	66.9	DN250	1557	1460	439	1328	790	2440	860	1176	-	1122	D
	CR 125-2-2	U6	30	107.1	DN250	1777	1460	439	1328	830	2440	860	1176	-	1414	D
	CR 125-2	U6	37	131.2	DN250	1802	1600	439	1328	800	2440	860	1176	500	1444	C
	CR 125-3-2	U6	45	155.2	DN250	2019	2000	439	1328	1000	2440	860	1176	400	1674	C
3	CR 125-3	U6	55	189.2	DN250	2057	2000	439	1328	1000	2440	860	1176	400	1913	C
	CR 125-1-1	U6	15	80.8	DN250	1513	1300	439	1978	600	2440	860	1176	400	1488	C
	CR 125-1	U6	18.5	100.3	DN250	1557	1460	439	1978	830	2440	860	1176	-	1544	D
	CR 125-2-2	U6	30	160.6	DN250	1777	2000	439	1978	1000	2440	860	1176	400	2027	C
	CR 125-2	U6	37	196.7	DN250	1802	2000	439	1978	1200	2440	860	1176	400	2109	C
4	CR 125-3-2	U6	45	232.7	DN250	2019	2000	439	1978	1200	2440	860	1176	400	2373	C
	CR 125-3	U6	55	283.7	DN250	2057	2000	439	1978	1600	2440	860	1176	400	2817	C
	CR 125-1-1	U6	15	107.8	DN300	1513	1460	439	2630	790	2495	860	1176	-	2088	D
	CR 125-1	U6	18.5	133.8	DN300	1557	1460	439	2630	790	2495	860	1176	-	2145	D
	CR 125-2-2	U6	30	214.1	DN300	1777	1460	439	2630	830	2495	860	1176	-	2747	D
5	CR 125-2	U6	37	262.4	DN300	1802	1900	439	2630	800	2495	860	1176	400	2910	C
	CR 125-3-2	U6	45	310.4	DN300	2019	2000	439	2630	1600	2495	860	1176	400	3273	C
	CR 125-3	U6	55	378.4	DN300	2057	2000	439	2630	1600	2495	860	1176	400	3725	C
	CR 125-1-1	U6	15	134.6	DN350	1513	1600	439	3282	800	2555	860	1176	500	2630	C
	CR 125-1	U6	18.5	167.1	DN350	1557	2200	439	3282	1200	2555	860	1176	400	2728	C
6	CR 125-2-2	U6	30	267.7	DN350	1777	2000	439	3282	1600	2555	860	1176	400	3511	C
	CR 125-2	U6	37	327.9	DN350	1802	2000	439	3282	1600	2555	860	1176	400	3656	C
	CR 125-3-2	U6	45	387.9	DN350	2019	2000	439	3282	1600	2555	860	1176	400	4129	C
	CR 125-3	U6	55	472.9	DN350	2057	2000	439	3282	1600	2555	860	1176	400	4687	C
	CR 125-1-1	U6	15	161.5	DN350	1513	2000	439	3932	1000	2555	860	1176	400	3079	C
6	CR 125-1	U6	18.5	200.5	DN350	1557	2000	439	3932	1600	2555	860	1176	400	3244	C
	CR 125-2-2	U6	30	321.2	DN350	1777	2000	439	3932	1600	2555	860	1176	400	4094	C
	CR 125-2	U6	37	393.4	DN350	1802	2000	439	3932	800	2555	860	1176	400	4296	C
	CR 125-3-2	U6	45	465.4	DN350	2019	2000	439	3932	800	2555	860	1176	400	4874	C
6	CR 125-3	U6	55	567.6	DN350	2057	2000	439	3932	1200	2555	860	1176	400	5544	C

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by $\pm$ 10 mm.

Hydro MPC-F with CR 155

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 155-1-1	U6	18.5	67.6	DN250	1557	1600	439	1328	800	1328	947	1337	500	1286	C
	CR 155-1	U6	30	108.9	DN250	1655	1700	439	1328	1000	1328	947	1337	400	1577	C
	CR 155-2-2	U6	37	131.9	DN250	1802	2000	439	1328	1200	1328	947	1337	500	1738	C
	CR 155-2-1	U6	45	160.1	DN250	1897	2200	439	1328	1000	1328	947	1337	500	2093	C
	CR 155-2	U6	55	191.1	DN250	1935	2200	439	1328	1000	1328	947	1337	500	2319	C
3	CR 155-3-3	U6	55	191.1	DN250	2057	2200	439	1328	1000	1328	947	1337	500	2340	C
	CR 155-1-1	U6	18.5	101	DN300	1557	1700	439	1980	1000	1980	947	1337	400	1828	C
	CR 155-1	U6	30	162.4	DN300	1655	2400	439	1980	1200	1980	947	1337	600	2278	C
	CR 155-2-2	U6	37	197.6	DN300	1802	2000	439	1980	1000	1980	947	1337	400	2667	C
	CR 155-2-1	U6	45	237.6	DN300	1897	2200	439	1980	1000	1980	947	1337	500	2895	C
4	CR 155-2	U6	55	285.6	DN300	1935	2000	439	1980	1200	1980	947	1337	500	3286	C
	CR 155-3-3	U6	55	285.6	DN300	2057	2000	439	1980	1200	1980	947	1337	500	3318	C
	CR 155-1-1	U6	18.5	134.8	DN350	1557	1900	439	2632	800	2632	947	1337	400	2518	C
	CR 155-1	U6	30	216.1	DN350	1655	1900	439	2632	1000	2632	947	1337	400	3149	C
	CR 155-2-2	U6	37	263.1	DN350	1802	1900	439	2632	1200	2632	947	1337	400	3432	C
5	CR 155-2-1	U6	45	315.1	DN350	1897	2000	439	2632	1200	2632	947	1337	500	3914	C
	CR 155-2	U6	55	380.4	DN350	1935	2000	439	2632	1200	2632	947	1337	500	4607	C
	CR 155-3-3	U6	55	380.4	DN350	2057	2000	439	2632	1200	2632	947	1337	500	4650	C
	CR 155-1-1	U6	18.5	168	DN400	1557	2400	439	3284	1200	3284	947	1337	600	3088	C
	CR 155-1	U6	30	269.6	DN400	1655	2000	439	3284	1600	3284	947	1337	400	3786	C
6	CR 155-2-2	U6	37	328.9	DN400	1802	2000	439	3284	1000	3284	947	1337	400	4306	C
	CR 155-2-1	U6	45	392.9	DN400	1897	2000	439	3284	1200	3284	947	1337	500	4927	C
	CR 155-2	U6	55	474.9	DN400	1935	2000	439	3284	1200	3284	947	1337	500	5491	C
	CR 155-3-3	U6	55	474.9	DN400	2057	2000	439	3284	1200	3284	947	1337	500	5545	C
	CR 155-1-1	U6	18.5	201.4	DN400	1557	2000	439	3934	1200	3934	947	1337	400	3633	C
6	CR 155-1	U6	30	323.4	DN400	1655	2000	439	3934	1000	3934	947	1337	400	4786	C
	CR 155-2-2	U6	37	394.4	DN400	1802	2000	439	3934	1000	3934	947	1337	400	5031	C
	CR 155-2-1	U6	45	470.4	DN400	1897	2000	439	3934	1200	3934	947	1337	500	5735	C
	CR 155-2	U6	55	569.4	DN400	1935	2000	439	3934	1200	3934	947	1337	500	6421	C
	CR 155-3-3	U6	55	569.4	DN400	2057	2000	439	3934	1200	3934	947	1337	500	6486	C

Voltage code, U6: 3 x 380-415 V ± 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

Dimensions may vary by ± 10 mm.

Hydro MPC-S with CR 155

Number of pumps	Pump type	Voltage code	Motor [kW]	Max. IN at 400 V [A]	Connections	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	C [mm]	C1 [mm]	C2 [mm]	C3 [mm]	Weight [kg]	Design
2	CR 155-1-1	U6	18.5	66.9	DN250	1557	1460	439	1328	790	2688	947	1337	-	1228	D
	CR 155-1	U6	30	107.1	DN250	1655	1460	439	1328	830	2688	947	1337	-	1500	D
	CR 155-2-2	U6	37	131.2	DN250	1802	1600	439	1328	800	2688	947	1337	500	1551	C
	CR 155-2-1	U6	45	155.2	DN250	1897	2000	439	1328	1000	2688	947	1337	400	1760	C
	CR 155-2	U6	55	189.2	DN250	1935	2000	439	1328	1000	2688	947	1337	400	1999	C
3	CR 155-3-3	U6	55	189.2	DN250	2057	2000	439	1328	1000	2688	947	1337	400	2021	C
	CR 155-1-1	U6	18.5	100.3	DN300	1557	1460	439	1980	830	2743	947	1337	-	1742	D
	CR 155-1	U6	30	160.6	DN300	1655	2000	439	1980	1000	2743	947	1337	400	2195	C
	CR 155-2-2	U6	37	196.7	DN300	1802	2000	439	1980	1200	2743	947	1337	400	2309	C
	CR 155-2-1	U6	45	232.7	DN300	1897	2000	439	1980	1200	2743	947	1337	400	2542	C
4	CR 155-2	U6	55	283.7	DN300	1935	2000	439	1980	1600	2743	947	1337	400	2986	C
	CR 155-3-3	U6	55	283.7	DN300	2057	2000	439	1980	1600	2743	947	1337	400	3018	C
	CR 155-1-1	U6	18.5	133.8	DN350	1557	1460	439	2632	790	2803	947	1337	-	2433	D
	CR 155-1	U6	30	214.1	DN350	1655	1460	439	2632	830	2803	947	1337	-	2994	D
	CR 155-2-2	U6	37	262.4	DN350	1802	1900	439	2632	800	2803	947	1337	400	3201	C
5	CR 155-2-1	U6	45	310.4	DN350	1897	2000	439	2632	1600	2803	947	1337	400	3522	C
	CR 155-2	U6	55	378.4	DN350	1935	2000	439	2632	1600	2803	947	1337	400	3974	C
	CR 155-3-3	U6	55	378.4	DN350	2057	2000	439	2632	1600	2803	947	1337	400	4018	C
	CR 155-1-1	U6	18.5	167.1	DN400	1557	2200	439	3284	1200	2863	947	1337	400	3008	C
	CR 155-1	U6	30	267.7	DN400	1655	2000	439	3284	1600	2863	947	1337	400	3740	C
6	CR 155-2-2	U6	37	327.9	DN400	1802	2000	439	3284	1600	2863	947	1337	400	3939	C
	CR 155-2-1	U6	45	387.9	DN400	1897	2000	439	3284	1600	2863	947	1337	400	4360	C
	CR 155-2	U6	55	472.9	DN400	1935	2000	439	3284	1600	2863	947	1337	400	4918	C
	CR 155-3-3	U6	55	472.9	DN400	2057	2000	439	3284	1600	2863	947	1337	400	4972	C
	CR 155-1-1	U6	18.5	200.5	DN400	1557	2000	439	3934	1600	2863	947	1337	400	3601	C
6	CR 155-1	U6	30	321.2	DN400	1655	2000	439	3934	1600	2863	947	1337	400	4390	C
	CR 155-2-2	U6	37	393.4	DN400	1802	2000	439	3934	800	2863	947	1337	400	4656	C
	CR 155-2-1	U6	45	465.4	DN400	1897	2000	439	3934	800	2863	947	1337	400	5172	C
	CR 155-2	U6	55	567.6	DN400	1935	2000	439	3934	1200	2863	947	1337	400	5842	C
	CR 155-3-3	U6	55	567.6	DN400	2057	2000	439	3934	1200	2863	947	1337	400	5907	C

Voltage code, U6: 3 x 380-415 V $\pm$ 10 %, PE.

Design A: Hydro MPC booster system with a control cabinet mounted on the same base frame as the pumps.

Design C: Hydro MPC booster system with a floor-mounted control cabinet.

Design D: Hydro MPC booster system with a control cabinet mounted on a separate base frame.

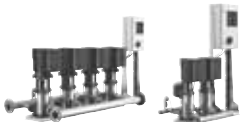
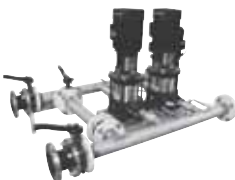
Dimensions may vary by $\pm$ 10 mm.

14. Optional equipment

Booster system

All optional equipment must be specified when ordering the booster system, as it must be fitted from factory prior to delivery.

See options in the Hydro MPC type key on page 10.

Option		Description	Location	Options (type key for Hydro MPC)
Standard hydraulics, PN16		This is the standard option for Hydro MPC hydraulics rated for PN16 as a minimum.	System	A
Pilot pump		The pilot pump takes over the operation from the main pumps during periods when consumption is so low that the stop function of the main pumps is activated. A pilot pump is typically used in booster systems as from 5.5 kW. Pilot pumps are available for Hydro MPC-E and -F control variants.	System	B
Bypass connection		The bypass connection is a pipe diversion consisting of a manifold, two isolating valves and a non-return valve. The bypass connection allows water to bypass the pumps from the inlet to the outlet manifold. For further description, see table below.	System	C
NRV on inlet side		As standard, the non-return valves are fitted on the outlet side of the pumps of the booster system. In installations with suction lift, we recommend that you install non-return valves on the inlet side of the pumps to prevent dry running.	Inlet side	D
Elbow manifold	-	Manifolds with elbows in one end can reduce dead ends. On request.	Inlet/outlet side	E
No inlet manifold	-	Depending on the application or installation site, the Hydro MPC can be ordered without inlet manifold.	-	F
Diaphragm tank		In buildings it is usually necessary to install a diaphragm tank on the outlet side of the booster system. - As standard, the Hydro MPC booster system is designed for a maximum system pressure of 16 bar. - A standard Hydro MPC booster system includes pressure transmitters and one gauge with a rated pressure of 16 bar (full scale). - Hydro MPC booster systems designed for PN16 diaphragm tanks up to 33 litres are mounted on the outlet manifold. Note: Diaphragm tank larger than 25 litres, see Diaphragm tanks on page 152. For further description, see table below.	On outlet manifold up to 33L	G
Dry-running protection		The booster system must be protected against dry running. The inlet conditions determine the type of dry-running protection. - If the system draws water from a tank or a well, select a level switch or an electrode relay for dry-running protection. - If the system has an inlet pressure, select a pressure transmitter or a pressure switch for dry-running protection. For further description, see table below.	On inlet manifold	H
Repair switch	-	By means of a repair switch fitted on the individual pumps of the Hydro booster system, the supply voltage to the pump can be switched off during, for example, repair. Note: One switch per pump.	On the pump	I

Option		Description	Location	Options (type key for Hydro MPC)
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 must be of the same type as the primary sensor.	-	J
One free pump position		Systems with one free pump position are available from a 3-pump up to a 6-pump system. The booster systems, including the cabinet, are prepared for the future pump.	-	K
Two free pump positions	-	Systems with two free pump positions are available from a 4-pump up to a 6-pump system. The booster systems, including the cabinet, are prepared for the future pumps.	-	L
Three free pump positions		Systems with three free pump positions are available from a 5-pump up to a 6-pump system. The booster systems, including the cabinet, are prepared for the future pumps.	-	M
PN10 pressure rating	-	With this option the Hydro MPC hydraulics are rated to PN10 as a minimum.	-	N
PN25 pressure rating	-	With this option the Hydro MPC hydraulics are rated to PN25 as a minimum.	-	O
PN40 pressure rating	-	With this option the Hydro MPC hydraulics are rated to PN40 as a minimum.	-	P
Low pre-pressure (low NPSH)	-	The booster systems are available with CR low-NPSH pumps designed to eliminate the risk of cavitation and ensure a stable and reliable operation. The CR low-NPSH has a special inlet design that reduces the NPSH value required by the pump and prevents erosion and destruction of pump, pipes and valves. The improved inlet design may expose the low-NPSH pump to more stress than conventional pumps without affecting the stability of operation. The CR low-NPSH pump reduces excess pressure itself and does not require any additional tank to provide supplementary pressure. Note: Systems are available on request with CR low-NPSH from CR/CRI 3 to CR/CRI 20 and CRN(E) from CRN(E) 3 to CRN(E) 64.	-	Q
RPM = 50 Hz	-	50 Hz pumps.	-	R
Customised variant	-	Customised systems can be produced on request. For further information contact your local Grundfos sales office.	-	S
Certificate	-	For further information contact your local Grundfos sales office.	-	T
Undersized motor		We recommend a Hydro Booster system with undersized motors if operating conditions deviate from those stated in the Hydro MPC Data Booklet and Grundfos Product Center. We especially recommend undersized motors if the duty point is constant and the flow rate is significantly lower than the maximum recommended flow rate.	-	U
Standard controls with options		See standard Control MPC options on page 11.	-	V
Customised controls		See Control MPC options on page 11.	-	W

Bypass connection, option C

Description	Connection
CR(I), CR(I)E 3 (2-3 pumps) CR(I), CR(I)E 5 (2-3 pumps)	Rp 2
CR(I), CR(I)E 3 (4-6 pumps) CR(I), CR(I)E 5 (4-6 pumps)	Rp 2 1/2
CR(I), CR(I)E 10 (2-3 pumps)	Rp 2 1/2
CR(I), CR(I)E 10 (4-5 pumps)	DN 80
CR(I), CR(I)E 10 (6 pumps)	DN 100
CR(I), CR(I)E 15, 20 (2 pumps)	DN 80
CR(I), CR(I)E 15, 20 (3-4 pumps) CR, CRE 32 (2 pumps)	DN 100
CR, CRE 15, 20 (5-6 pumps) CR, CRE 32 (3-6 pumps)	DN 150
CR, CRE 45 (2 pumps) CR, CRE 64 (2 pumps)	DN 150
CR, CRE 45 (3-6 pumps) CR, CRE 64 (3-6 pumps)	DN 200
CR, CRE 95 (2 pumps)	DN 150
CR, CRE 95 (3-4 pumps)	DN 200
CR, CRE 95 (5-6 pumps)	DN 250

Diaphragm tank, option G

Description	Maximum system pressure [bar]	Volume [litres]	Connection
Diaphragm tank and Hydro MPC booster system for PN 16	16	8	G 3/4
		12	G 3/4
		25	G 3/4

Dry-running protection, option H

Description	Range [bar]
Dry-running protection by means of electrode relay, without electrodes and electrode cable *	-
Pressure switch*	0-2
	0-4
	0-8
	0-16
Inlet pressure sensor**	0-1
	0-4
	0-6
	0-10
	0-16

* Only one type of dry-running protection can be selected, as it must be connected to the same digital input as CU 352. This also applies to level switches. For further information about CU 352, see page 15.

** The inlet pressure sensor is normally connected to the analog input AI2 of CU 352. If this input is used for another function, such as "External setpoint", connect the sensor to analog input AI3. If, however, this input is also occupied, increase the number of analog inputs by installing an IO 351B module, see page 153. For further information about IO 351B, see page 15.

Repair switch, option I

Description	Motor current and starting method	Location
Repair switch	≤ 16 A, DOL	On the pump
	> 16 A < 25 A, DOL	
	> 25 A < 40 A, DOL	
	> 40 A < 63 A, DOL	
	> 63 A < 80 A, DOL	
	> 80 A < 100 A, DOL	
	> 100 A < 125 A, DOL	
	> 125 A < 175 A, DOL	
	> 175 A < 250 A, DOL	
	≤ 16 A, Y/Δ	
	> 16 A < 25 A, Y/Δ	
	> 25 A < 40 A, Y/Δ	
	> 40 A < 63 A, Y/Δ	
	> 63 A < 80 A, Y/Δ	
	> 80 A < 100 A, Y/Δ	
	> 100 A < 125 A, Y/Δ	
	> 125 A < 175 A, Y/Δ	
	> 175 A < 250 A, Y/Δ	

Redundant primary sensor, option J

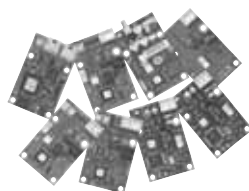
Description	Range [bar]
Redundant primary sensor*	0-10
	0-16

* The redundant primary sensor is normally connected to the analog input AI3 of CU 352. If this input is used for another function, such as "External setpoint", connect the redundant sensor to analog input AI2. If, however, this input is also occupied, increase the number of analog inputs by installing an IO 351B module, see page 153.

Control MPC

All optional equipment for Control MPC must be specified when ordering the booster system, as it must be fitted from factory prior to delivery. Standard Hydro MPC systems are produced with Control cabinet standard version A.

See options in the Control MPC type key on page 11.

Operating-panel options					Included in pre-defined Control MPC standard			
Option		Description	Location	Options (type key for Control MPC)	A	B	E	F
Redundant primary sensor	-	The redundant primary sensor is visible on the wiring diagram. Note: The redundant primary sensor is not included.	In the control cabinet	O1	•	•	•	•
Show repair switches in wiring diagram	-	The repair switches are visible on the wiring diagram. Note: Repair switches are not included.	In the control cabinet	O2	•	•	•	•
Emergency-operation switch	-	The emergency-operation switch enables emergency operation if a fault occurs in the CU 352. Note: The motor protection and the dry-running protection are not activated during emergency operation. Note: One switch for each pump.	In the control cabinet	O3	-	•	•	•
IO 351B interface		This option features a factory-fitted and non-programmed IO 351B interface enabling exchange of additional digital in-/outputs, seven additional outputs, two additional analog inputs and three analog outputs. Note: The CU 352 supports up to two IO 351B interfaces.	In the control cabinet	O4	-	-	-	-
Potential-free contacts	-	Potential-free contacts are used to indicate that the pumps in the system are running or that an alarm is present.	In the control cabinet	O5	-	-	-	-
CIM - Communication interface modules		The CIM modules enable communication of operating data, such as measured values and setpoints, between Hydro MPC and a building-management system. Note: CIM modules must be fitted by authorised staff. The CIM module enables transfer of data such as: • operating mode • setpoint • control mode • warnings and alarms • power/energy consumption We offer the following CIM modules:		O6				
• CIM 050		GENIbus module	In the control cabinet	O6a	-	-	-	-
• CIM 110		LonWorks module		O6b	-	-	-	-
• CIM 150		PROFIBUS DP Module		O6c	-	-	-	-
• CIM 200		Modbus RTU Module		O6d	-	-	-	-
• CIM 260		3G/4G GRM Grundfos Remote Management		O6e	-	-	-	-
• CIM 280		3G/4G GRM Grundfos Remote Management		O6f	-	-	-	-
• CIM 300		BACnet MS/TP Module		O6g	-	-	-	-
• CIM 500		Ethernet module		O6h	-	-	-	-

Operating-panel options					Included in pre-defined Control MPC standard			
Option		Description	Location	Options (type key for Control MPC)	A	B	E	F
Dry-running protection - electrode relay	-	Electrode Relay mounted in panel. Note: Order electrodes separately.	In the control cabinet	O7	-	-	•	-
Dry-running protection - vibration-limit switch	-	The vibration-limit switch is visible on the wiring diagram. Note: Vibration-limit switch not included.	In the control cabinet	O8	-	-	-	•
Dry-running protection - inlet pressure sensor	-	The inlet-pressure sensor is visible on the wiring diagram. Note: Inlet-pressure switch not included.	In the control cabinet	O9	•	•	-	-
Dry-running protection - digital input	-	Digital input is visible on the wiring diagram.	In the control cabinet	O10	•	•	-	-
Fault light, pump		The fault light is on if a fault occurs in the pump. Note: One fault light for each pump.	In door of control cabinet	O11	-	-	-	-
Operating light, pump		The operating light when the relevant pumps is in operation. Note: One operating light for each pump.	In door of control cabinet	O12	-	-	-	-
Fault light, system		The fault light is on if a fault occurs in the system. Note: Phase failure causes no fault indication.	In door of control cabinet	O13	-	-	-	-
Operating light, system		The operating light is on when the system is in operation.	In door of control cabinet	O14	-	-	-	-
Ammeter	-	An ammeter indicates the current of one phase per pump. Note: One ammeter for each pump.	In door of control cabinet	O15	-	-	-	-
Voltmeter	-	A voltmeter indicates the mains voltages between mains phases and between the neutral conductor, N, and the mains phases. Note: One voltmeter for each pump.	In door of control cabinet	O16	-	-	-	-
Pilot pump control	-	With this option the Control MPC is prepared for connection, meaning that it includes fuses and motor starter. The pilot pump is visible on the wiring diagram.	In the control cabinet	O17	-	-	-	-
Main switch with door interlock	-	The cabinet door can only be opened if the main switch is in off position.	In the control cabinet	O18	-	-	-	-
Main switch for neutral conductor	-	The main switch for switching off the neutral conductor is only used in connection with single-phase motors. Select this option according to the local rules for the installation site. As standard, the main switch does not switch off the neutral conductor.	In the control cabinet	O19	-	-	-	-
Phase-failure monitoring	-	Protect the booster system against phase failure. Note: A potential-free switch is available for external monitoring	In the control cabinet	O20	-	-	-	-
Panel light and socket	-	The panel light is on when the door of the control cabinet is open. Panel lights for 50 Hz are in accordance with EN 60529/10.91. Note: The panel light and socket are to be connected to a separate power supply.	In the control cabinet	O21	-	-	-	-
Transient-voltage protection	-	The transient-voltage protection protects the booster system against high-energy transients.	In the control cabinet	O22	-	-	-	-
Lightning protection	-	The booster system can be protected against strokes of lightning. The lightning protection is in accordance with IEC 61024-1:1992-10, class B & C. Note: Additional earthing facilities must be arranged by the customer at the installation site.	In the control cabinet	O23	-	-	-	-

Operating-panel options					Included in pre-defined Control MPC standard			
Option		Description	Location	Options (type key for Control MPC)	A	B	E	F
Backup battery		The battery is connected to the CU352 as a backup in case the power supply is interrupted.	In the control cabinet	O24	-	-	-	-
Ethernet	-	Ethernet entry outside the cabinet for easy connection. The ethernet connection makes it possible to get easy and unlimited access to the setting and monitoring of the Hydro MPC from a remote PC.	Cable entry at the bottom of the cabinet	O25	-	-	-	-
Beacon	-	The beacon is on in case of a system alarm. Note: Phase failure causes no alarm indication.	On top of the control cabinet, external	O26	-	-	-	-
Audible alarm	-	The audible alarm sounds in case of a system alarm.	In the control cabinet	O27	-	-	-	-
Motor filter (LC)	-	The motor filter is mounted in panel for CUE -/ EC systems. Control MPC uses Sinus filters as standard. Other types are on request.	In the control cabinet	O28	-	-	-	-

All options can be added to the predefined package choice

- Included in the predefined package
- Not included in the predefined package

15. Accessories

All accessories can be fitted to the Hydro MPC booster system after delivery.

Option		Description
Dry-running protection	-	The booster system must be protected against dry running. Dry-running protection by means of level switches is used in installations where the booster system draws water from a tank or well. For further description, see table below.
Diaphragm tank		Always install a diaphragm tank on the outlet side of the booster system. Note: The diaphragm tanks are separate tanks without valve, fittings and pipes. For further data, see tables below.
Foot valve		The booster system must be protected against dry running. Dry-running protection by means of level switches is used in installations where the booster system draws water from a tank or well. Foot valves are typically used in minor booster systems with suction lift, for example when Hydro MPC draws water from a break tank placed at a lower geodetic height than the booster system. Foot valves are designed to ensure optimum inlet conditions. For further description, see table below.
Adjustable vibration damper		The vibration damper reduces any vibrations from the system to the floor allowing the system to be height-adjusted by ± 20 mm. For further description, see table below.
Grundfos GO Remote	-	Grundfos GO Remote is used for wireless infrared or radio communication with the pumps. Various Grundfos GO Remote variants are available. The variants MI 204 complete kit, MI 204 and MI 301 are described in the following. For further description, see table below.
• MI 204 (complete kit)		MI 204 (complete kit) The MI 204 is a complete solution, consisting of an Apple iPod touch 5G and a Grundfos cover for infrared and radio communication with Grundfos pumps or systems Supplied with the product: • Apple iPod touch 5G, including accessories • Grundfos iPodtouch 5 cover • battery charger • quick guide.
• MI 204		MI 204 The MI 204 is an add-on module with built-in infrared and radio communication. The MI 204 can be used in conjunction with Apple iPod Touch 5 or later and iPhone 5 or later. Supplied with the product: • Grundfos MI 204 • quick guide.
• MI 301		MI 301 • The MI 301 is a module with built-in infrared and radio communication. Use the MI 301 in conjunction with an Android- or iOS-based Smartphone with a Bluetooth connection. The MI 301 has a rechargeable Li-ion battery and must be charged separately.

Dry-running protection

Description	Product number
Level switch including 5 metres of cable*	96020142

* The input for the level switch is not included. See page 153.
Only one type of dry-running protection can be selected, as it must be connected to the same digital input as CU 352. This also applies to level switches.

Diaphragm tank

Diaphragm tank, 10 bar

Capacity [litres]	Connection	Product number
8	G 3/4	96528335
12	G 3/4	96528336
18	G 3/4	96528337
24	G 1	96528339
33	G 1	96528340
60	G 1	96528341
80	G 1	96528342
100	G 1	99082696
150	G 1	99082697
200	G 1 1/4	99082698
300	G 1 1/4	99082699
500	G 1 1/4	99082700
750	G 2	99082701
1000	G 2	99082702
1500	G 2	99082703
2000	G 2	99082704
3000	G 2	99082705

Diaphragm tank, 16 bar

Capacity [litres]	Connection	Product number
8	G 3/4	96573347
12	G 3/4	96573348
25	G 3/4	96573349
80	G 1	96603420
100	G 1	99082706
150	G 1	99082707
200	G 1 1/4	99082708
300	G 1 1/4	99082709
500	G 1 1/4	99082710
750	G 2	99082711
1000	G 2	99082712
1500	G 2	99082713
2000	G 2	99082714
3000	G 2 1/2	99082715

Foot valve

Description	Connection	Product number
Foot valve	Rp 2	956120
	Rp 3	956130
	Rp 4	956449

Adjustable vibration damper

Description	Pump	Product number
Vibration damper	CR(I), CR(I)E 3 and 5	96412344
	CR(I), CR(I)E 10 to 20	96412345
	CR, CRE 32 to 90	96412347

Note: The product number covers one (1) machine shoe.

Grundfos GO Remote

Product numbers for MI 204 (complete kit), MI 204 and MI 301

Grundfos GO Remote variant	Product number
Grundfos MI 204 (complete kit)	98612711
Grundfos MI 204	98424092
Grundfos MI 301	98046408

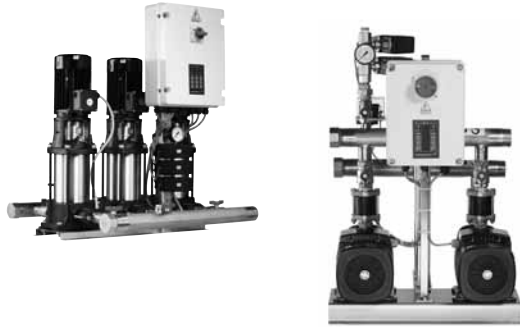
Additional documentation

The documents and publication numbers below refer to printed documentation of Hydro MPC, Group versions.

Document	Publication number
Installation and operating instructions	
Hydro MPC	96605907
Quick guide	
Hydro MPC	99107595
Catalogue	
Hydro booster systems - custom-built solutions 50/60 Hz	96881732

In addition to printed documentation, Grundfos offers product documentation in Grundfos Product Center at www.grundfos.com. See page 91.

16. Alternative booster systems

Booster system	Data and features	
	Maximum head	10 to 145 m
	Flow rate	2 to 144 m ³ /h
	Maximum operating pressure	16 bar
	Number of pumps	2 or 4
	Pump types	CRE, CRIE, CME
	TM06 7609 3716 - TM06 7610 3716 GA5733 - GA9833 Features • Specially designed for water supply in buildings. • 100 % adaptation to consumption. • Easy to install and commission. • Small footprint. • Data communication via Grundfos R100 remote control or Grundfos GO Remote.	

17. Grundfos Product Center

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

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



This drop-down menu enables you to set the search function to "Product" or "Literature".

"SIZING" enables you to size a pump based on entered data and selection choices.

"REPLACEMENT" enables you to find a replacement product. Search results will include information on the following:

- the lowest purchase price
- the lowest energy consumption
- the lowest total life cycle cost.

The screenshot shows the Grundfos Product Center website. At the top, there's a navigation bar with the Grundfos logo and 'PRODUCT CENTER'. Below it, a search bar with a dropdown menu set to 'Products' and a 'SEARCH' button. The main content area has four large tiles: 'Sizing' (Enter pump sizing), 'Catalogue' (Products and services), 'Replacement' (Replace an old pump with a new), and 'Liquids' (Find pump by liquid). Below these tiles, there's a 'Quick sizing' section with tabs for 'Quick sizing', 'Advanced sizing by application', and 'Guided selection'. The 'Quick sizing' tab is active, showing input fields for 'Flow (Q)*' and 'Head (H)*', and a 'Select what to size by:' section with radio buttons for 'Size by application', 'Size by pump design', and 'Size by pump family'. A 'START SIZING' button is at the bottom right of the quick sizing section.

"CATALOGUE" gives you access to the Grundfos product catalogue.

"LIQUIDS" enables you to find pumps designed for aggressive, flammable or other special liquids.

All the information you need in one place

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

Downloads

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

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