## Qty. | Description

## Hydro MPC-E 4 CRIE 15-1



Note! Product picture may differ from actual product

Product No.: 98426955

Pressure booster system supplied as compact assembly according to DIN standard 1988/T5.

All pumps are speed-controlled.

From 0.37 to 11 kW, the booster system is equipped with CR, CRE, CRI, CRIE pumps with electronically commutated permanent-magnet motors with extremely high efficiency. The total efficiency of the motor including the frequency converter applies to IE5 level in IEC60034-31.

From 15 to 22 kW, the booster system is equipped with CR, CRE, CRI, CRIE pumps with motors with integrated frequency control. The total efficiency of the motor including the frequency converter is better than the IE3 level in IEC60034-31, even though this standard only applies to the motor.

- \* Hydro MPC-E maintains a constant pressure through continuous adjustment of the speed of the pumps.
- \* The system performance is adapted to the demand through cutting in/out the required number of pumps and through parallel control of the pumps in operation.
- \* Pump changeover is automatic and depends on load, time and fault.

The system consists of these parts:

:vertical, multistage, centrifugal pumps, type CRIE 15-1

Pump parts in contact with the pumped liquid are made of stainless steel EN DIN 1.4301

Pump bases and heads are of either cast iron/stainless steel (CRI) or cast iron EN-GJS-500-7 (CR), depending on pump type; other vital parts are made of stainless steel EN DIN 1.4301

The pumps are equipped with a service-friendly cartridge shaft seal, HQQE (SiC/SiC/EPDM)

- \* Two stainless steel manifolds to EN DIN 1.4571
- Stainless steel base frame to EN DIN 1.4301 up to CR 90; above CR 90 the pumps are placed on a galvanized I-Beam frame
- \* One non-return valve (POM) and two isolating valves for each pump
- \* Non-return valves are certified according to DVGW, isolating valves according to DIN and DVGW
- \* Adapter with isolating valve for connection of diaphragm tank
- Pressure gauge and pressure transmitter (analog output 4-20 mA)
- \* Control MPC in a steel cabinet, IP54, including main switch, all required fuses, motor protection, switching equipment and microprocessor-controlled CU 352.

Dry-running protection and diaphragm tank are available according to the list of accessories.

Pump operation is controlled by Control MPC with the following functions:

Intelligent multipump controller, CU 352.

Constant-pressure control through continuously variable adjustment of the speed of each individual pump.

PID controller with adjustable PI parameters (Kp + Ti).

Constant pressure at setpoint, independent of inlet pressure.

Soft pressure build-up (To prevent water hammer during startup).

On/off operation at low flow.

Automatic cascade control of pumps for optimum efficiency.

Selection of min. time between start/stop, automatic pump changeover and pump priority.

Automatic pump test function to prevent idle pumps from seizing up.

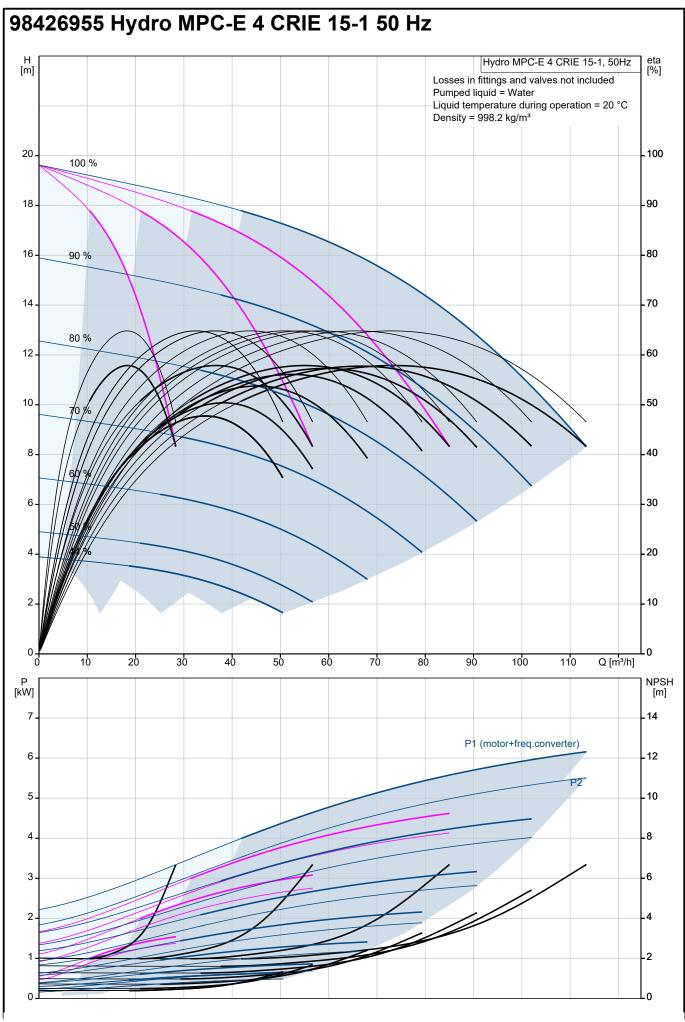
Possibility of standby pump allocation.

Possibility of backup sensor (redundant primary sensor).

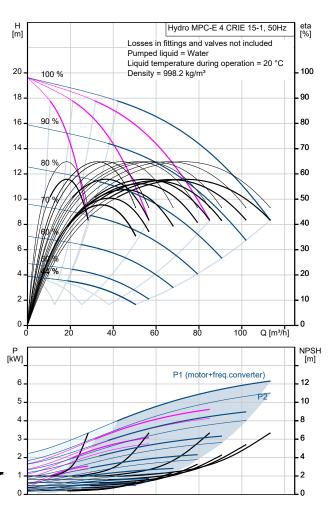
Secondary sensor (Possible to switch to another sensor/setpoint).

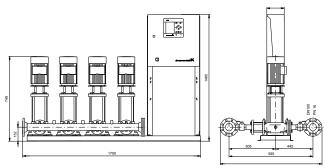
Multi-sensor (up to 6 sensors to influence the setpoint).

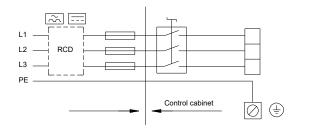
Description Qtv. 1 Manual operation. Possibility of external setpoint influence. Log function. Setpoint ramp. Possibility of digital remote-control functions: System on/off. Max., min. or user-defined duty. Up to 6 alternative setpoints. Digital inputs and outputs can be configured individually. Pump and system monitoring functions: Minimum and maximum limits of current value. Inlet pressure. Non-return valve monitoring. Motor protection. Sensors and cables monitored for malfunction. Alarm log with the previous 24 warnings/alarms. Display and indication functions: Colour screen display. Green indicator light for operating indications and red indicator light for fault indications Potential-free changeover contacts for operation and fault. Grundfos bus communication. It is possible to add CIM communication modules for communicating with Scada/BMS. Pumps, piping, cabling complete as well as Control MPC are mounted on the base frame. The booster system has been preset and tested. There are options to upgrade the pressure boosting system. Flow media: Water 5 °C .. 60 °C Allowed liquid temp.: System pressure max.: 16 bar Flow (Plant): 113.6 m<sup>3</sup>/h Flow without one stand-by pump acc. DIN 1988/T5: 78 m³/h Nom. current of plant: 12 A Nominal power: 1.5 kW Net weight: 284 kg

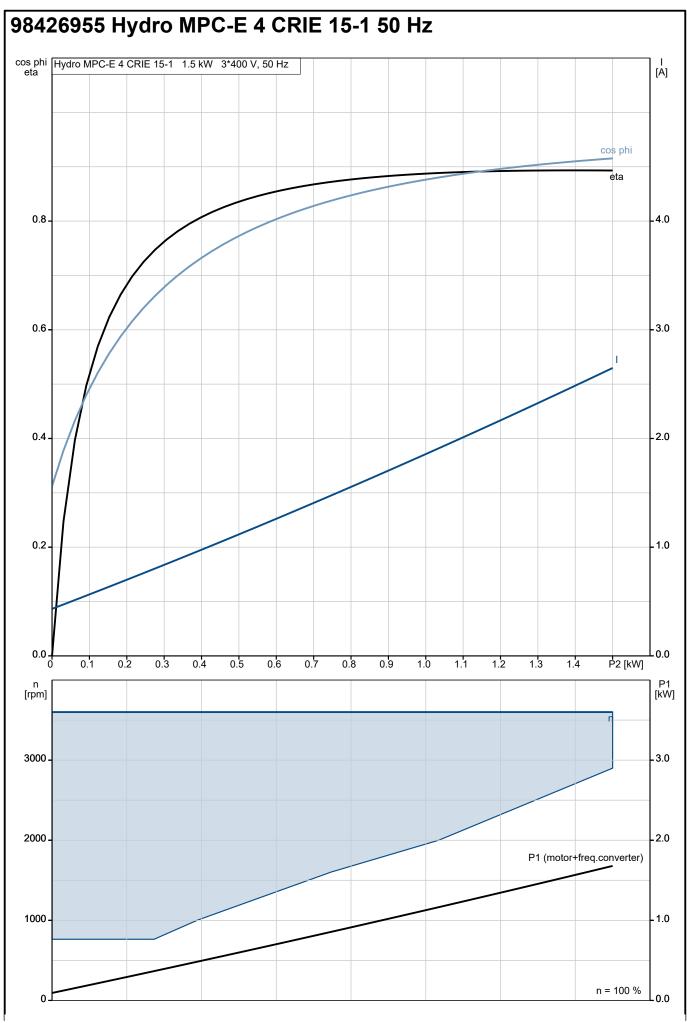


Description	Value		
General information:			
Product name:	Hydro MPC-E 4 CRIE 15-1		
Product No:	98426955		
EAN number:	5711494818594		
Technical:			
Rated flow:	82 m³/h		
Max flow:	113.6 m³/h		
Max flow system:	78 m³/h		
Rated head:	14.5 m		
Head max:	19.6 m		
Main pump name:	CRIE 15-1		
Main pump No:	98390727		
Number of pumps:	4		
Non-ret. valve:	at discharge side		
Materials:			
Manifolds:	EN/DIN 1.4571/ AISI 316 Ti		
Installation:			
Range of ambient temperature:	5 40 °C		
Maximum operating pressure:	16 bar		
Maximum permissible inlet pressure:			
Maximum permissible inlet pressure.	15.1 bar		
Manifold inlet:	DN100		
Manifold outlet:	DN100		
Pressure rating:	PN 16		
Earth connection:	N, PE		
System design:	A		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	5 60 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³		
Electrical data:			
Power (P2) main pump:	1.5 kW		
Mains frequency:	50 Hz		
Rated voltage:	3 x 380-415 V		
Rated current of system:	12 A		
Start. method:			
Start. Hiethou.	oloctronically		
Englacura alaca (IEC 24 5):	electronically		
Enclosure class (IEC 34-5):	IP54		
Enclosure class (IEC 34-5): Radio interference supression:	•		
	IP54		
Radio interference supression:	IP54 EMC DIRECTIVE(2014/30/EU)		
Radio interference supression:  Number of phases of main pump:	IP54 EMC DIRECTIVE(2014/30/EU)		
Radio interference supression:  Number of phases of main pump:  Controls:	IP54 EMC DIRECTIVE(2014/30/EU)		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type:  Dry running protection, mechanical:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type:  Dry running protection, mechanical:  Tank:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4 BAR		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type:  Dry running protection, mechanical:  Tank:  Volume of pressure tank:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4 BAR		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type:  Dry running protection, mechanical:  Tank:  Volume of pressure tank:  Diaphragm tank:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4 BAR		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type:  Dry running protection, mechanical:  Tank:  Volume of pressure tank:  Diaphragm tank:  Others:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4 BAR 12 I Yes		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type: Dry running protection, mechanical:  Tank:  Volume of pressure tank: Diaphragm tank:  Others:  Basis plant:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4 BAR 12 I Yes		
Radio interference supression:  Number of phases of main pump:  Controls:  Control type:  Dry running protection, mechanical:  Tank:  Volume of pressure tank:  Diaphragm tank:  Others:  Basis plant:  Net weight:	IP54 EMC DIRECTIVE(2014/30/EU) 3 E PRESSURE SENSOR 0-4 BAR 12 I Yes Y 284 kg		
Radio interference supression:  Number of phases of main pump:  Controls: Control type: Dry running protection, mechanical:  Tank: Volume of pressure tank: Diaphragm tank: Others: Basis plant: Net weight: Gross weight:	IP54 EMC DIRECTIVE(2014/30/EU)  3  E PRESSURE SENSOR 0-4 BAR  12 I Yes  Y 284 kg 316 kg		
Radio interference supression:  Number of phases of main pump:  Controls: Control type: Dry running protection, mechanical:  Tank: Volume of pressure tank: Diaphragm tank: Others: Basis plant: Net weight: Gross weight: Sales region:	IP54 EMC DIRECTIVE(2014/30/EU)  3  E PRESSURE SENSOR 0-4 BAR  12 I Yes  Y 284 kg 316 kg Great Britain		
Radio interference supression:  Number of phases of main pump:  Controls: Control type: Dry running protection, mechanical:  Tank: Volume of pressure tank: Diaphragm tank: Others: Basis plant: Net weight: Gross weight: Sales region: Config. file no:	IP54 EMC DIRECTIVE(2014/30/EU)  3  E PRESSURE SENSOR 0-4 BAR  12 I Yes  Y 284 kg 316 kg Great Britain 98272401		
Radio interference supression:  Number of phases of main pump:  Controls: Control type: Dry running protection, mechanical:  Tank: Volume of pressure tank: Diaphragm tank: Others: Basis plant: Net weight: Gross weight: Sales region: Config. file no: Config.file Control MPC:	IP54 EMC DIRECTIVE(2014/30/EU)  3  E PRESSURE SENSOR 0-4 BAR  12 I Yes  Y 284 kg 316 kg Great Britain 98272401 98271948		
Radio interference supression:  Number of phases of main pump:  Controls: Control type: Dry running protection, mechanical:  Tank: Volume of pressure tank: Diaphragm tank: Others: Basis plant: Net weight: Gross weight: Sales region: Config. file no: Config.file Control MPC: Config.file Hydro MPC:	IP54 EMC DIRECTIVE(2014/30/EU)  3  E PRESSURE SENSOR 0-4 BAR  12 I Yes  Y 284 kg 316 kg Great Britain 98272401 98271948 98272014		
Radio interference supression:  Number of phases of main pump:  Controls: Control type: Dry running protection, mechanical:  Tank: Volume of pressure tank: Diaphragm tank: Others: Basis plant: Net weight: Gross weight: Sales region: Config. file no: Config.file Control MPC:	IP54 EMC DIRECTIVE(2014/30/EU)  3  E PRESSURE SENSOR 0-4 BAR  12 I Yes  Y 284 kg 316 kg Great Britain 98272401 98271948		

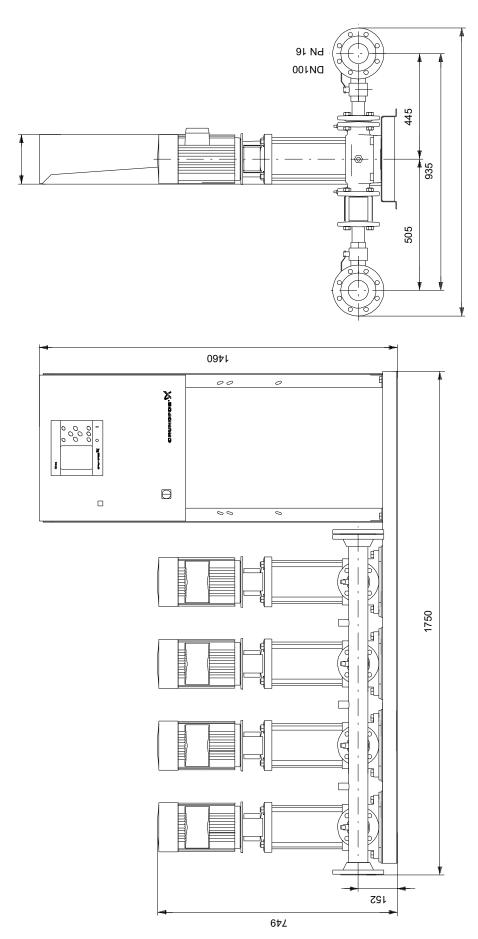




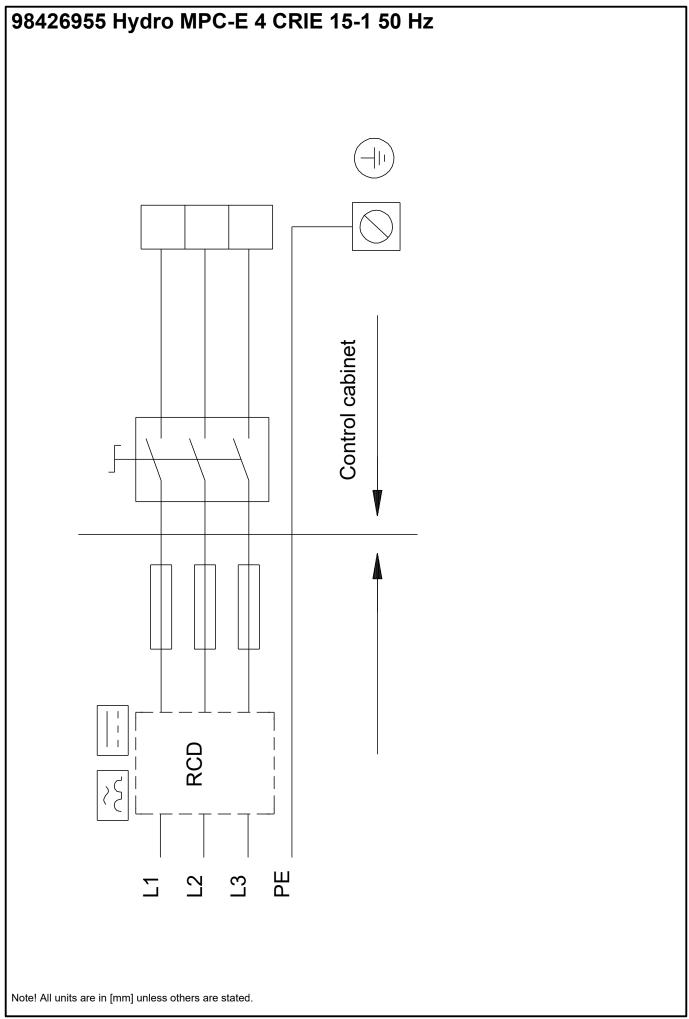




## 98426955 Hydro MPC-E 4 CRIE 15-1 50 Hz



Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



Order Data:						
Position	Your pos.		Amount	Product No	Total	
		Hydro MPC-E 4 CRIE 15-1	1	98426955	Price on request	
					requesi	
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