

Hydro Solo-E

Complete booster systems
50/60 Hz



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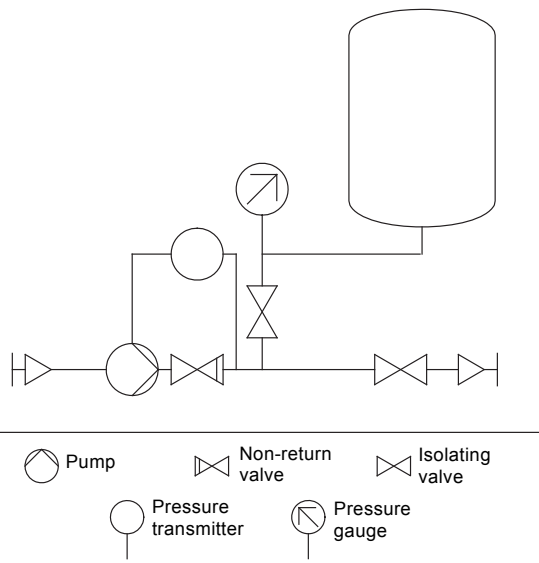
1. Product introduction

Introduction

The Grundfos Hydro Solo-E booster system is a turnkey solution enabling you to keep a constant pressure in your system at all time.

Hydro Solo-E consists of a Grundfos CRE pump fitted with isolating valve, non-return valve, outlet pipe, pressure transmitter, pressure gauge and pressure tank.

Hydro Solo-E is ready for operation on delivery.



TM00 8427 1017

Fig. 1 Schematic drawing of Hydro Solo-E

Applications

Hydro Solo-E is designed for systems where it is crucial to keep a constant pressure. This makes Hydro Solo-E suitable for these applications:

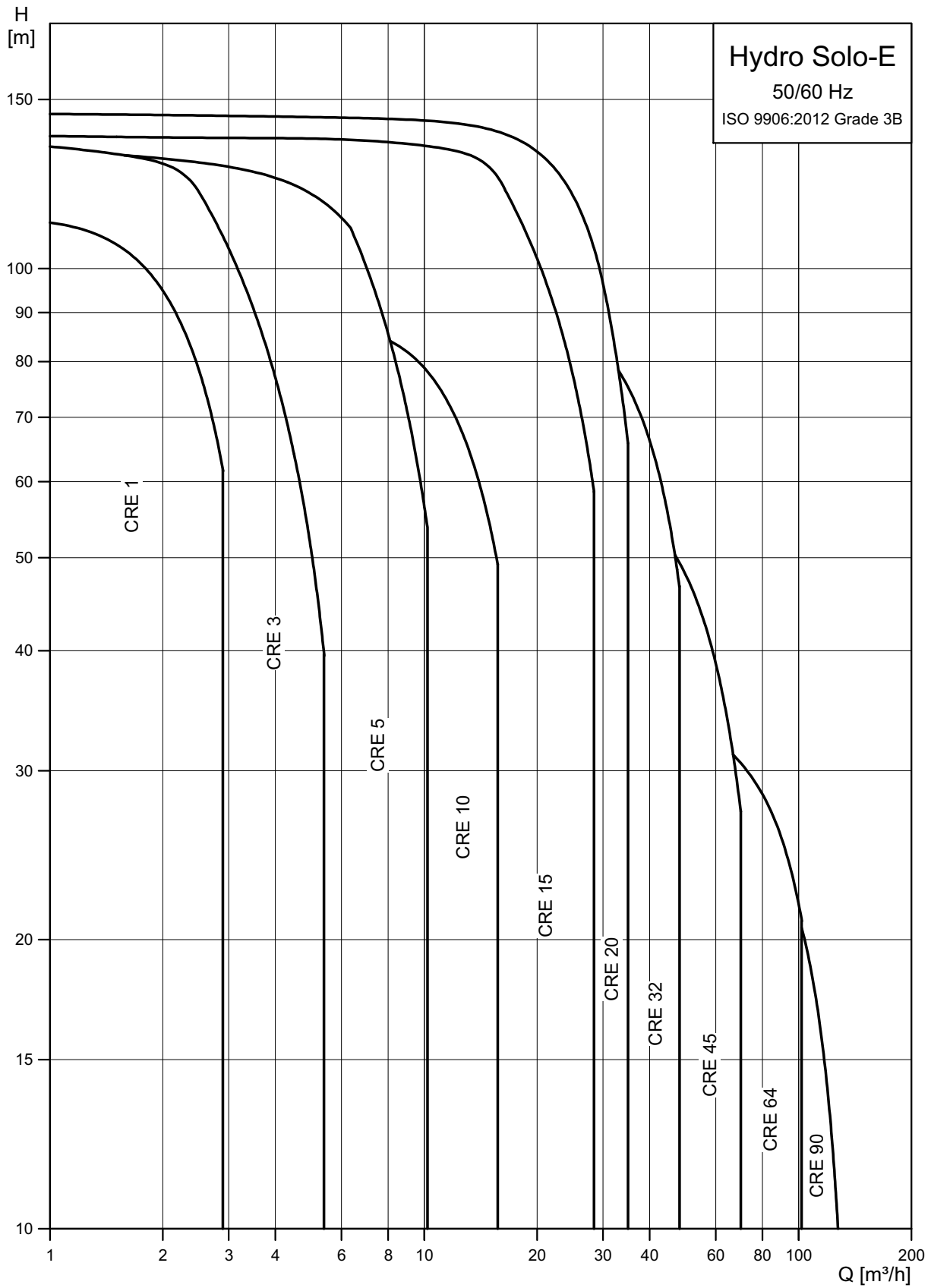
- cluster homes
- blocks of flats
- schools
- hotels or guest houses
- office buildings
- industrial water supply systems
- water treatment systems
- water filtration systems
- small industries
- washing and cleaning systems.

Features

- Easy installation
- constant pressure
- speed-controlled pump
- low energy consumption
- no need for motor protection
- compact solution.

2. Product data

Performance range



Note: Irrespective of the input frequency, the 100 % speed of CRE pumps is approximately 3400 min⁻¹.

TM05 9028 0916

Type key

Example	Hydro Solo	-E	CRIE 15-3	U8	A-	A-	A-	A-	ABCDE
Name									
System type E: E pump S: S pump									
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 U7: 1 x 200-240 V, PE, 50/60 Hz U8: 1 x 200-240 V, N, PE, 50/60 Hz UX: Custom voltage rating (CSU variant)									
Design A: Standard range B: Main switch or controller, wall mounted with 5 m cable									
Starting method A: E B: DOL C: SD									
Material combination A: Stainless steel outlet manifold and standard valve B: Stainless steel outlet manifold and stainless steel inlet manifold C: Galvanised steel manifold D: Galvanised steel manifold and base frame X: Customised									
Drinking water approvals A: ACS-approved components B: Belgaqua-approved components D: DVGW-approved components K: KIWA-approved components N: NFS-approved components V: WRAS-approved components W: WRAS-approved system Y: No special approval									
Options A: Standard hydraulics B: Base frame C: Base frame with machine shoes D: Sensor as dry-running protection E: Pressure switch as dry-running protection F: Level switch for dry-running protection G: CIM module included H: Without non-return valve L: Non-return valve on the inlet side M: Pressure gauge on the inlet side S: CSU variant U: Undersized motor X: More than five options									

Operating conditions

Liquid temperature		0-70 °C
Ambient temperature	CRE 0.37 - 11 kW	0-50 °C

Minimum inlet pressure

The minimum inlet pressure H in metres head required to avoid cavitation in the pump is calculated as follows:

H	=	$p_b \times 10.2 - \text{NPSH} - H_f - H_v - H_s$
p_b	=	Barometric pressure in bar. Barometric pressure can be set to 1, if required.
NPSH	=	Net Positive Suction Head in metres head. NPSH can be read from the NPSH curve at the maximum capacity at which the pump will run.
H_f	=	Friction loss in inlet pipe in metres head.
H_v	=	Vapour pressure in metres head.
H_s	=	Safety margin of minimum 0.5 metres head.

Maximum inlet and system pressures

International range

Pump type	Maximum inlet pressure [bar]			System pressure [bar]	
	4	8	10	10	16
CRE 1-4, 1-9			•	•	
CRE 1-13, 1-17			•		•
CRE 3-4, 3-8, 3-11			•	•	
CRE 3-11, 3-15			•		•
CRE 5-2, 5-5, 5-9			•	•	
CRE 5-12			•		•
CRE 10-1, 10-3		•		•	
CRE 10-5			•	•	
CRE 15-2		•		•	
CRE 15-3, 15-4			•	•	
CRE 20-2, 20-3			•	•	
CRE 32-2-2	•			•	
CRE 45-1	•			•	

Southern Europe range

Pump type	Maximum inlet pressure [bar]				System pressure [bar]	
	4	8	10	15	10	16
CRE 1-4, 1-6, 1-9, 1-13, 1-17			•			•
CRE 3-4, 3-5, 3-8, 3-11, 1-15			•			•
CRE 5-2, 5-4, 5-5, 5-9			•		•	
CRE 5-12				•		•
CRE 10-1, 10-2, 10-3, 10-5		•			•	
CRE 10-6				•	•	
CRE 15-2		•			•	
CRE 15-3, 15-4			•		•	
CRE 20-2, 20-3			•		•	
CRE 32-2-2	•				•	
CRE 45-1	•				•	

The total of inlet pressure and head must not exceed the maximum system pressure.

Example of inlet and system pressures

According to the inlet pressure, the outlet pressure is automatically adjusted by means of the pressure tank so that the system pressure remains constant and does not exceed the maximum system pressure.

Example:

A CRE 10-3 A-A-A has been selected and the system has the following characteristics:

Maximum system pressure: 10 bar

Inlet pressure: 7 bar

Desired system pressure: 9 bar

The pump is allowed to start at an inlet pressure of 7 bar and creates a outlet pressure of 9 less 7 equal to 2 bar, so that the system pressure remains 9 bar, and does not exceed the maximum system pressure of 10 bar.

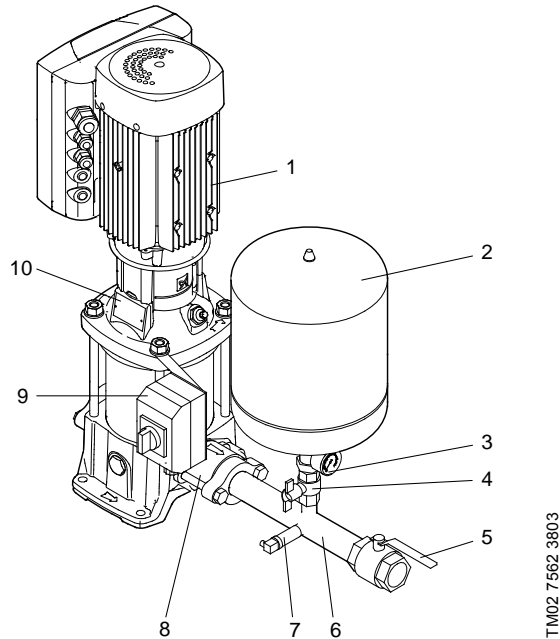
3. Construction

System components

The outlet side of the pump is fitted with a non-return valve, a stainless-steel outlet pipe (EN/DIN 1.4401 or EN/DIN 1.4571) and an isolating valve.

The outlet pipe is fitted with a pressure transmitter and an isolating valve for the pressure gauge and the pressure tank.

The pump is fitted with an on/off switch for the supply voltage.



TM02 7562 3803

Fig. 2 Hydro Solo-E

Pos.	Description	Quantity
1	CRE pump	1
2	Pressure tank	1
3	Pressure gauge	1
4	Isolating valve for pressure tank and pressure gauge	1
5	Isolating valve	1
6	Outlet pipe, stainless steel	1
7	Pressure transmitter	1
8	Non-return valve	1
9	On/off switch	1
10	Nameplate	1

4. Installation

Mechanical installation

Location

Install the booster system in a well ventilated room to ensure sufficient cooling of the pump.

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

Allow sufficient clearance around the booster system to enable the operator to work freely.

Enclosure class: IP55

Insulation class: F.

Pipework

The system in which Hydro Solo E is incorporated must be designed for the maximum pump pressure.

The pipes connected to the booster system must be of adequate size. To avoid resonance, expansion joints must be fitted both in the outlet and inlet pipes.

Connect the pipes to the outlet pipe and the pump inlet port.

Tighten the booster system before startup.

We recommend that you fit pipe supports on the inlet and outlet side.

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.

Pressure tank

The pressure tank is precharged to the correct pressure. If the setpoint is altered, a new precharge pressure must be calculated to obtain optimum duty.

Calculation of precharge pressure:

Precharge pressure is equal to $0.7 \times \text{setpoint}$

Measure the precharge pressure of the pressure tank in a pressureless system.

We recommend that you refill the tank with nitrogen.

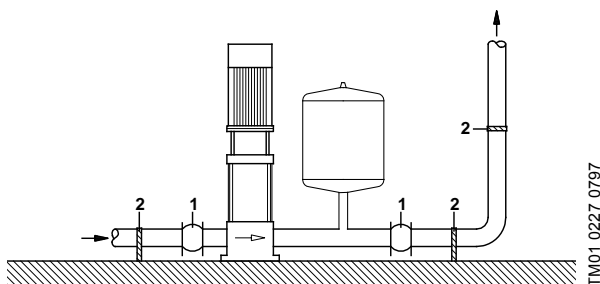


Fig. 3 Pipework

Pos.	Description
1	Expansion joint
2	Pipe support

Note: The expansion joints and pipe supports shown in fig. 3 are not included in a standard booster system.

Electrical installation

The electrical installation and protection must be carried out in accordance with local regulations.

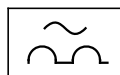
- The pump must be connected to an external mains switch.
- The pump must always be correctly earthed.
Note: The 4.0 - 7.5 kW motors must be connected to especially reliable/sturdy earth connections due to an earth leakage current above 3.5 mA.
- The pump requires no external motor protection.
 The motor incorporates thermal protection against slow overloading and blocking.

Note: Do not switch the power on/off more than four times a day.

Additional protection

Connecting the pump to an electric installation with an earth leakage circuit breaker (ELCB) is not a requirement. However, if you choose to use this additional protection, the earth leakage circuit breakers must be marked with the following symbols:

Single-phase



The earth leakage circuit breakers must trip out when earth fault currents with DC content (pulsating DC) occur.

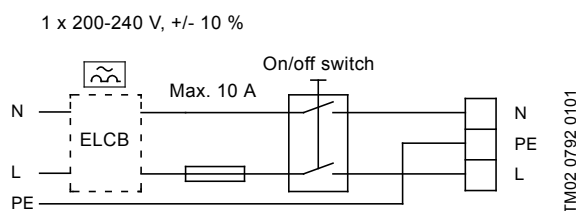


Fig. 4 Wiring diagram, single-phase

Three-phase



The earth leakage circuit breakers must trip out when earth fault currents with DC content (pulsating DC) and smooth DC earth fault currents occur.

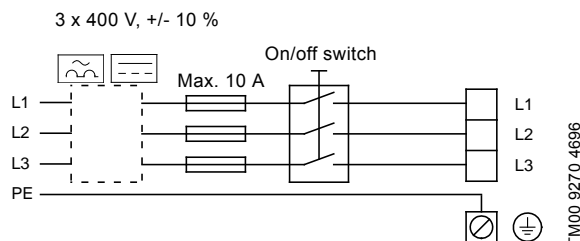
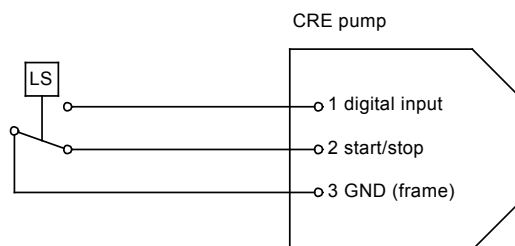
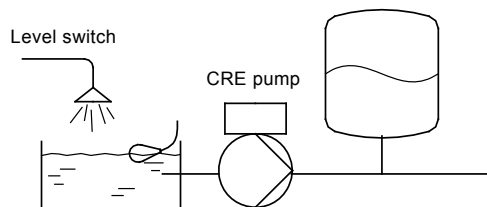
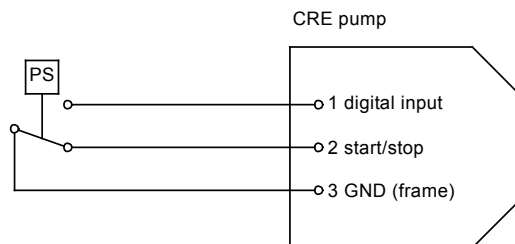
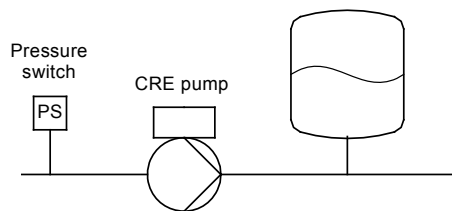


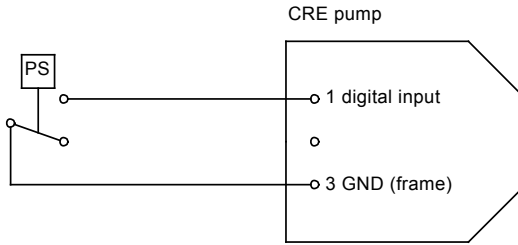
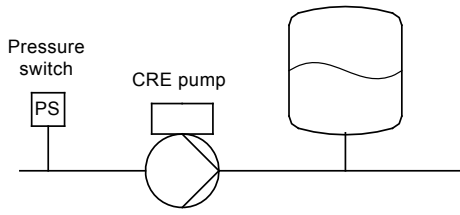
Fig. 5 Wiring diagram, three-phase, 2.2 - 7.5 kW

Reset after water shortage

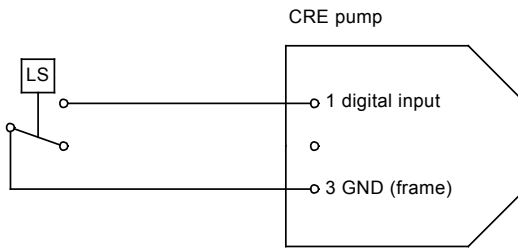
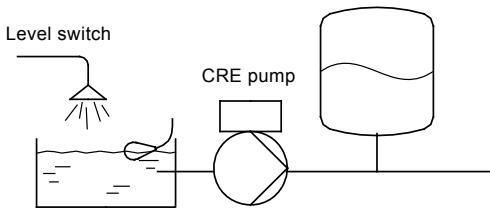
Automatic reset



Manual reset



TM02 2561 4003



TM02 2590 4003

5. Control of CRE pumps

Communication with CRE pumps

Communication with CRE pumps is possible via

- a central building management system
- remote controls (Grundfos R100 and Grundfos GO Remote)
- a control panel.

Central building management system

The operator can communicate with a CRE pump at a distance. Communication can take place via a central building management system allowing the operator to monitor and change control modes and setpoint settings.

The communication interface between the CRE pump and central building management systems varies, depending on pump size.

New-generation CRE, 0.37 to 11 kW

This range of CRE pumps can be fitted with a communication interface module (CIM). This means that no external communication interface is required.

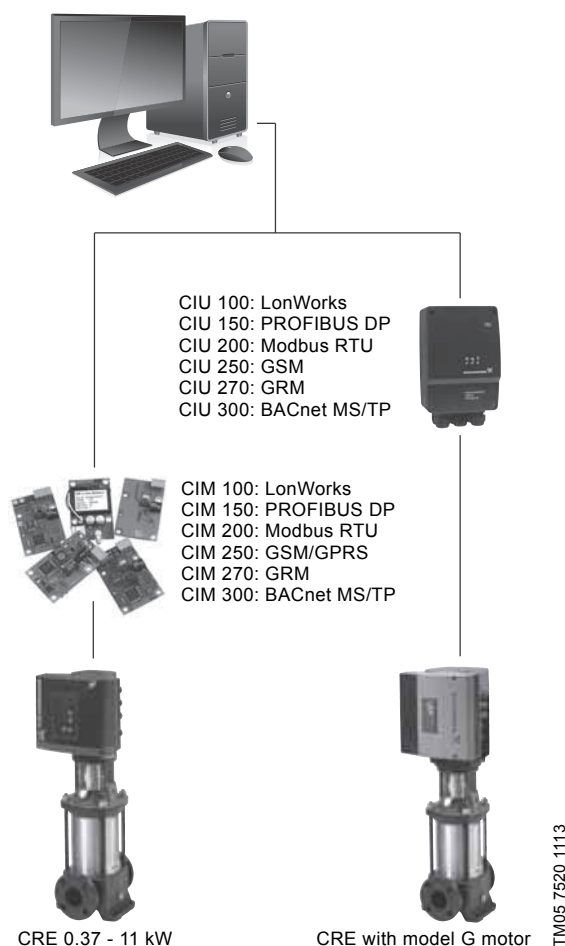


Fig. 6 Communication via a central building management system

Control panel

The operator can change the setpoint settings manually on the control panel of the CRE pump terminal box.

The control panel of the new generation CRE pumps enables radio communication. The Grundfos Eye at the top of the control panel is a pump status indicator light providing information about the pump operating status. Less or more advanced control panels are available on request.

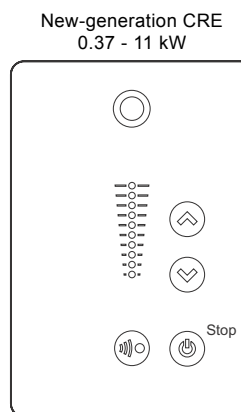


Fig. 7 Standard control panel of CRE pumps

Remote control

The operator can monitor and change control modes and settings of the CRE pump with the R100 or Grundfos GO Remote.

R100

The operator can communicate with the CRE pump by pointing the IR-signal transmitter at the control panel of the terminal box.

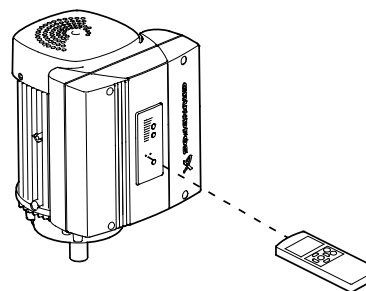


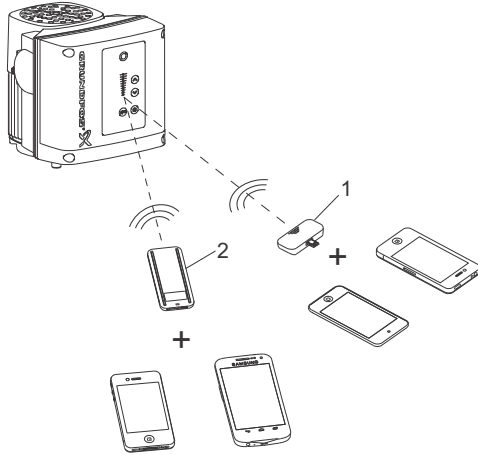
Fig. 8 R100 remote control

Grundfos GO Remote

The pump is designed for wireless radio or infrared communication with Grundfos GO.

Grundfos GO enables you to set functions and gives you access to status overviews, technical product information and actual operating parameters.

Grundfos GO offers the following mobile interfaces (MI).



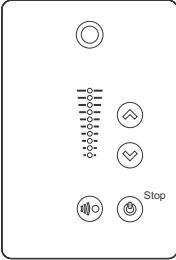
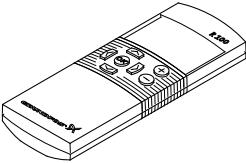
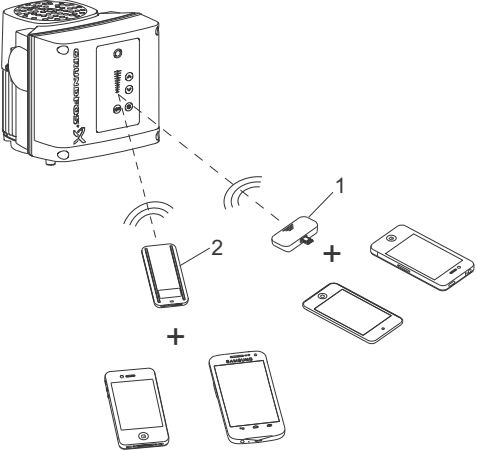
TMD6 6256 0916

Fig. 9 Grundfos GO Remote

Pos.	Description
1	Grundfos MI 204: Add-on module enabling radio or infrared communication. You can use MI 204 in conjunction with an Apple iPhone or iPod with lightning connector, such as fifth-generation or later iPhone or iPod. MI 204 is also available together with an Apple iPod touch and a cover.
2	Grundfos MI 301: Separate module enabling radio or infrared communication. You can use MI 301 in conjunction with an Android or iOS-based smart device with Bluetooth connection.

Grundfos GO Remote is available as an accessory.

Overview of functions

E-pump functions	
	<p>Setting via control panel (0.37 - 11 kW)</p> <ul style="list-style-type: none"> Setpoint Activate/deactivate radio communication Start/stop <p>Reading via control panel (0.37 - 11 kW)</p> <ul style="list-style-type: none"> Setpoint Power on/off <p>Grundfos Eye</p> <ul style="list-style-type: none"> Motor running modes (normal, manual, stop) Warnings and alarms Connection with Grundfos GO via radio/infrared light
	<p>Setting via R100</p> <ul style="list-style-type: none"> Setpoint Start/stop Maximum curve Minimum curve Controlled/uncontrolled PI controller Signal relay Operating range Stop function <p>Reading via R100</p> <ul style="list-style-type: none"> Setpoint Operating indication Pump status
	<p>Setting via Grundfos GO</p> <ul style="list-style-type: none"> Setpoint/predefined setpoint/external setpoint function Control mode (constant pressure, curve, temperature, etc.) Start/stop Operating mode (normal, stop, manual, etc.) Activate/deactivate buttons on product Activate/deactivate LIQTEC Stop function (low flow stop, ΔH, tank volume, minimum flow rate) PID controller Operating range Ramps GENIbus number Activate/deactivate radio communication Analog input/output (inlet pressure, actual speed) Digital input/output Pulse flowmeter Activate/deactivate standstill heating Activate/deactivate motor bearing monitoring Service (date to next service, number of bearing replacements) <p>Reading via Grundfos GO</p> <ul style="list-style-type: none"> Operating indications via Grundfos Eye Flow rate Head Speed Power consumption Operating hours Motor speed Power consumption Actual controlled value Energy consumption Accumulated flow Operating hours Analog input/output (inlet pressure, actual speed) Digital input/output Fitted modules

6. Curve conditions

How to read the curve charts

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

- Tolerances to ISO 9906:2012 Grade 3B, if indicated.
- Measurements have been made with pure water at a temperature of 20 °C.
- The curves describe the pump mean values.
- The curves must not be used as guarantee curves.
- The curves apply to a kinematic viscosity of 1 mm²/s (1 cSt).
- The QH curves apply to fixed speeds of 3480 min⁻¹ at 60 Hz.

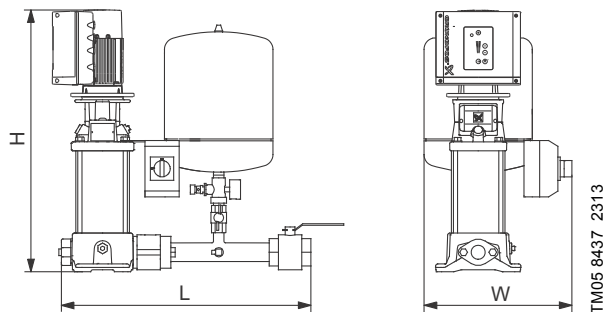
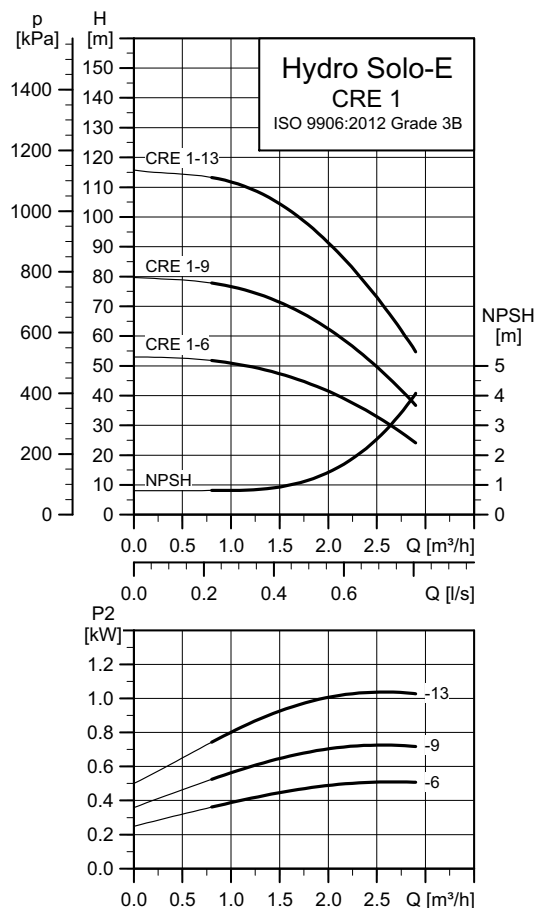
Note: In most cases, the actual speed deviates from the above-mentioned speeds. For realistic curves, please refer to Grundfos Product Center where the pump curves include the characteristics of the selected motor and therefore show curves at actual speeds.

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.

7. Curve charts and technical data

Hydro Solo-E with CRE 1



Electrical data, dimensions and weights

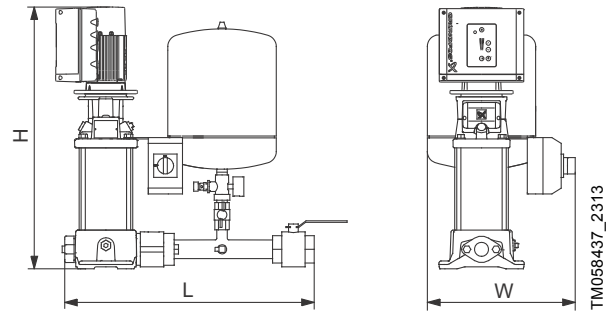
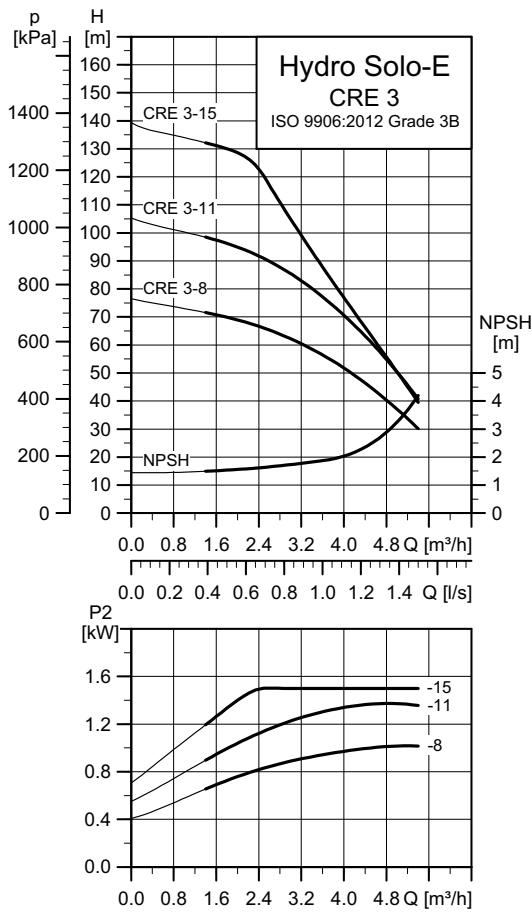
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 1-4	0.37	2.40 - 2.10	1 x 200-240	18	Rp 1" 1/4	38	41	0.6	486	420	486	600
CRE 1-6	0.55	3.45 - 2.90	1 x 200-240	18	Rp 1" 1/4	48	51	0.6	522	420	522	600
CRE 1-9	0.75	4.70 - 3.90	1 x 200-240	18	Rp 1" 1/4	50	53	0.6	582	420	582	600
CRE 1-13	1.1	6.70 - 5.60	1 x 200-240	12	Rp 1" 1/4	45	54	0.6	654	420	654	600
CRE 1-17	1.5	9.10 - 7.60	1 x 200-240	12	Rp 1" 1/4	48	51	0.6	802	420	802	600

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 1-4	0.37	2,40 - 2,10	1 x 200-240	18	Rp 1" 1/4	30	40	0.6	486	420	486	600
CRE 1-6	0.55	3,45 - 2,90	1 x 200-240	18	Rp 1" 1/4	57	77	0.6	522	420	522	600
CRE 1-9	0.75	4,7 - 3,90	1 x 200-240	18	Rp 1" 1/4	59	79	0.6	582	420	582	600
CRE 1-13	1.1	6,70 - 5,60	1 x 200-240	12	Rp 1" 1/4	62	82	0.6	654	420	654	600
CRE 1-17	1.5	9,10 - 7,60	1 x 200-240	12	Rp 1" 1/4	68	88	0.6	802	420	802	600

Hydro Solo-E with CRE 3



Electrical data, dimensions and weights

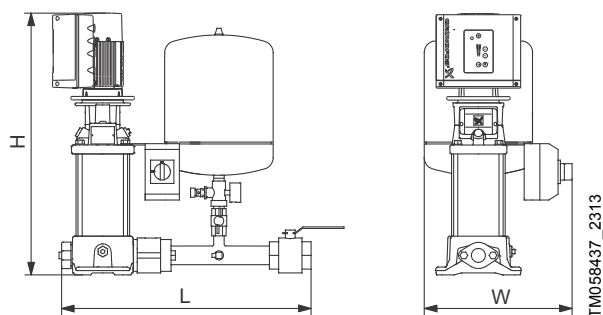
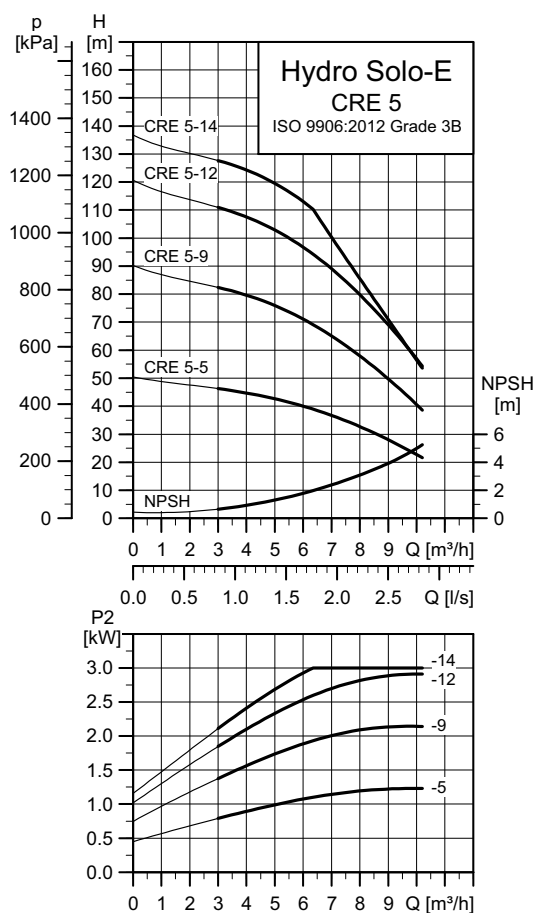
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 3-4	0.55	3.45 - 2.90	1 x 200-240	18	Rp 1" 1/4	38	41	0.6	486	420	486	600
CRE 3-5	0.75	4.70 - 3.90	1 x 200-240	18	Rp 1" 1/4	41	44	0.6	510	420	510	600
CRE 3-8	1.1	6.70 - 5.60	1 x 200-240	18	Rp 1" 1/4	43	51	0.6	564	420	564	600
CRE 3-11	1.5	9.10 - 7.60	1 x 200-240	12	Rp 1" 1/4	48	74	0.6	694	420	694	600
CRE 3-15	2.2	4.15 - 3.40	3 x 380-500	12	Rp 1" 1/4	58	64	0.6	813	420	813	600

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 3-5	0.75	4.70 - 3.90	1 x 200-240	25	Rp 1" 1/4	57	77	0.6	510	420	510	600
CRE 3-8	1.1	6.70 - 5.60	1 x 200-240	25	Rp 1" 1/4	59	79	0.6	564	420	564	600
CRE 3-11	1.5	9.10 - 7.60	1 x 200-240	25	Rp 1" 1/4	65	85	0.6	694	420	694	600
CRE 3-15	2.2	4.15 - 3.40	3 x 380-415	25	Rp 1" 1/4	69	89	0.6	813	420	813	600

Hydro Solo-E with CRE 5



Electrical data, dimensions and weights

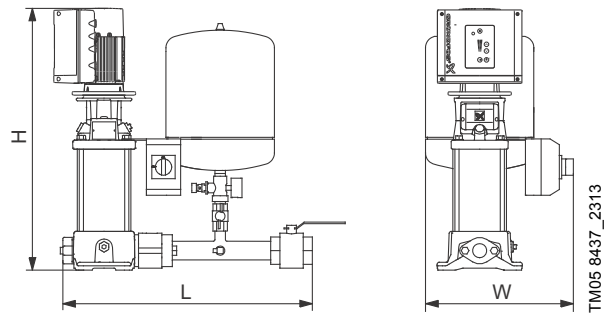
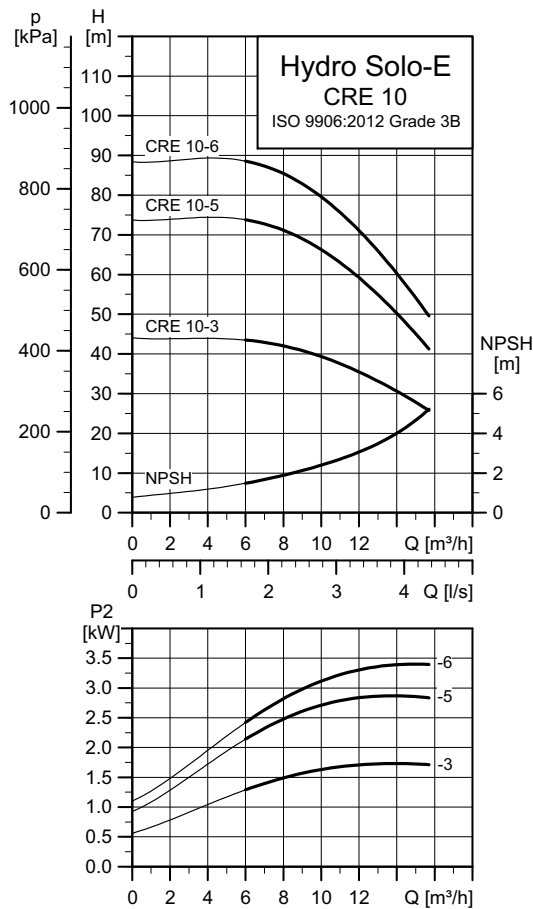
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 5-2	0.55	3.45 - 2.90	1 x 200-240	18	Rp 1" 1/4	44	47	0.6	468	420	468	600
CRE 5-5	1.5	9.10 - 7.60	1 x 200-240	18	Rp 1" 1/4	53	55	0.6	631	420	631	600
CRE 5-9	2.2	4.15 - 3.40	3 x 380-500	18	Rp 1" 1/4	99	101	0.6	739	420	739	600
CRE 5-12	3	6.20 - 5.00	3 x 380-500	12	Rp 1" 1/4	73	76	0.6	885	420	885	600
CRE 5-14	3	5.80 - 4.80	3 x 380-480	12	Rp 1" 1/4	60	69	0.6	938	420	938	600

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 5-2	0.55	3.45 - 2.90	1 x 200-240	25	Rp 1" 1/4	56	76	0.6	468	420	468	600
CRE 5-5	1.5	9.10 - 7.60	1 x 200-240	25	Rp 1" 1/4	64	84	0.6	591	420	631	600
CRE 5-9	2.2	3.3 - 4.0	3 x 380-415	25	Rp 1" 1/4	67	87	0.6	739	420	739	600
CRE 5-12	3	6.2 - 5.0	3 x 380-415	25	Rp 1" 1/4	85	105	0.6	885	420	885	600

Hydro Solo-E with CRE 10



Electrical data, dimensions and weights

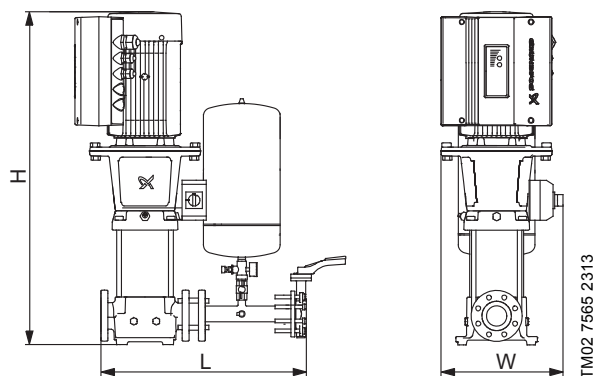
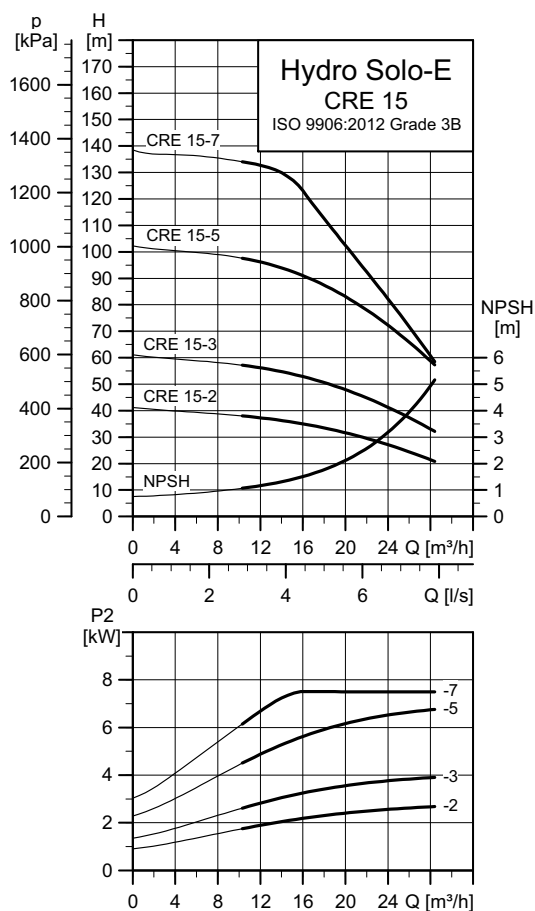
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 10-1	0.75	4.70 - 3.90	1 x 200-240	18	Rp 1" 1/2	58	61	0.6	561	425	561	650
CRE 10-3	2.2	4.15 - 3.40	3 x 380-500	18	Rp 1" 1/2	62	89	0.6	667	425	667	650
CRE 10-5	3	6.20 - 5.00	3 x 380-500	33	Rp 1" 1/2	83	86	0.6	793	425	793	650
CRE 10-6	4	7.60 - 6.20	3 x 380-500	12	Rp 1" 1/2	78	103	0.6	822	400	822	705

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 10-1	0.75	4.70 - 3.90	1 x 200-240	25	Rp 1" 1/2	67	87	0.6	561	425	561	650
CRE 10-3	2.2	4.15 - 3.40	3 x 380-480	25	Rp 1" 1/2	75	95	0.6	667	425	667	650
CRE 10-5	3	6.20 - 5.0	3 x 380-480	25	Rp 1" 1/2	93	113	0.6	793	425	793	650
CRE 10-6	4	8.10 - 6.60	3 x 380-480	25	Rp 1" 1/2	105	125	0.6	860	425	860	650

Hydro Solo-E with CRE 15



Electrical data, dimensions and weights

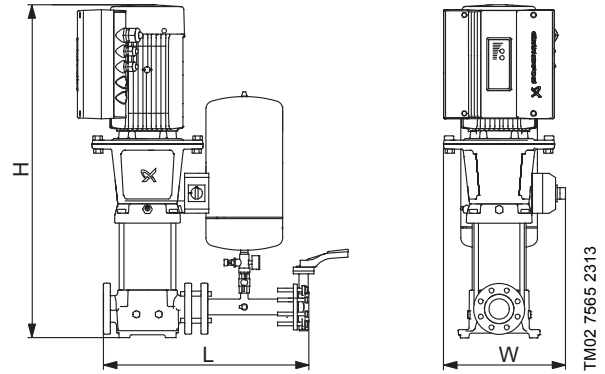
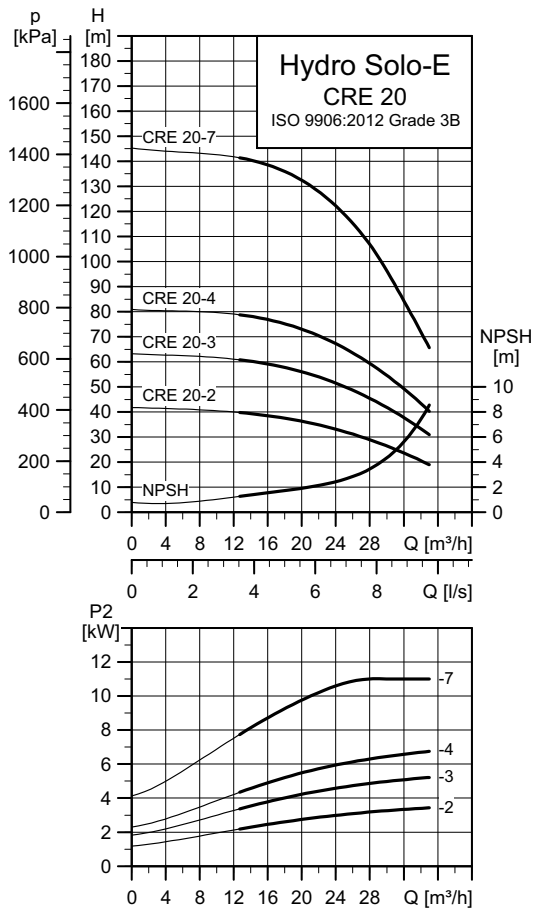
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection		Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
					Inlet	Outlet	Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 15-2	3	6.20 - 5.00	3 x 380-480	18	DN 50	Rp 2"	86	89	0.6	755	425	755	700
CRE 15-3	4	8.10 - 6.60	3 x 380-480	18	DN 50	Rp 2"	98	101	0.6	837	425	837	700
CRE 15-4	5.5	11.0 - 8.80	3 x 380-480	18	DN 50	Rp 2"	110	121	0.6	933	425	933	700
CRE 15-5	7.5	14.10 - 11.20	3 x 380-500	12	DN 50	Rp 2"	111	135	0.6	976	425	976	787
CRE 15-7	7.5	14.10 - 11.20	3 x 380-500	12	DN 50	Rp 2"	115	139	0.6	1066	425	1066	787

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection		Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
					Inlet	Outlet	Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 15-2	3	6.2 - 5.0	3 x 380-480	25	DN 50	Rp 2"	99	119	0.6	755	425	755	700
CRE 15-3	4	8.1 - 6.6	3 x 380-480	25	DN 50	Rp 2"	111	131	0.6	837	425	837	700
CRE 15-4	5.5	11.0 - 8.8	3 x 380-480	25	DN 50	Rp 2"	130	150	0.6	933	425	933	700
CRE 15-5	7.5	14.1 - 11.2	3 x 380-415	25	DN 50	Rp 2"	110	120	0.6	976	425	976	787
CRE 15-7	7.5	14.1 - 11.2	3 x 380-415	25	DN 50	Rp 2"	114	14	0.6	1066	425	1066	787

Hydro Solo-E with CRE 20



Electrical data, dimensions and weights

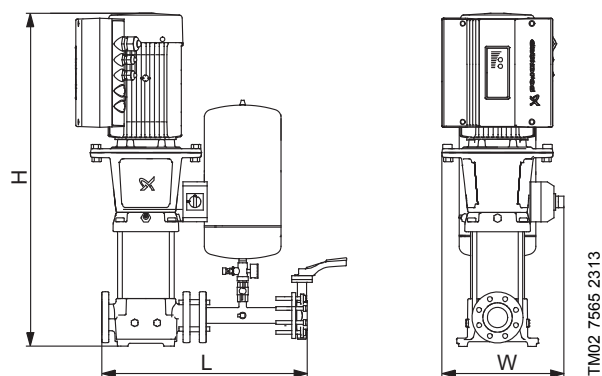
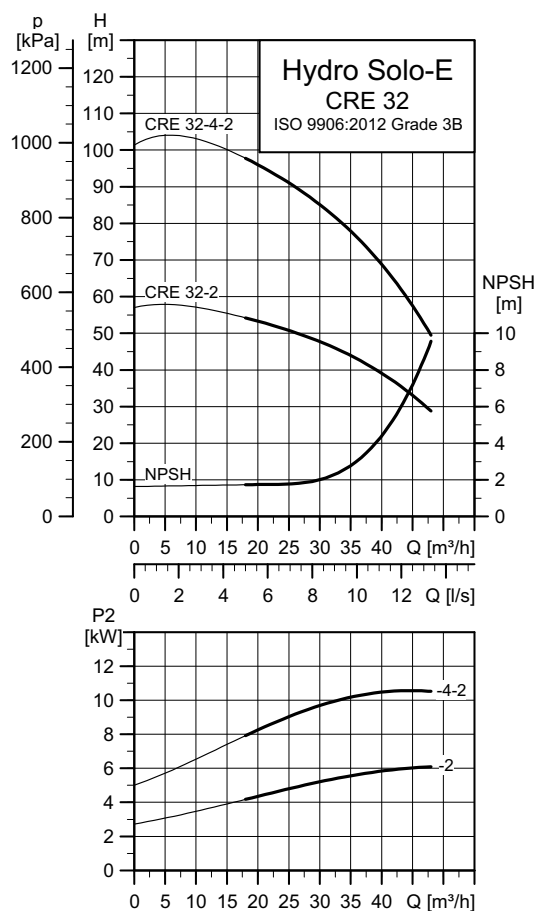
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection		Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
					Inlet	Outlet	Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 20-2	4	8.10 - 6.60	3 x 380-480	18	DN 50	Rp 2"	94	105	0.6	792	425	792	700
CRE 20-3	5.5	11.0 - 8.80	3 x 380-480	18	DN 50	Rp 2"	113	124	0.6	888	425	888	700
CRE 20-4	7.5	14.1 - 11.2	3 x 380-500	33	DN 50	Rp 2"	109	13	0.6	931	425	931	787
CRE 20-7	11	20.3 - 16.0	3 x 380-500	12	DN 50	Rp 2"	138	162	0.6	1160	425	1160	787

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection		Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
					Inlet	Outlet	Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 20-2	4	8.1 - 6.6	3 x 380-480	25	DN 50	Rp 2"	110	130	0.6	792	425	792	700
CRE 20-3	5.5	11.0 - 8.8	3 x 380-480	25	DN 50	Rp 2"	128	148	0.6	888	425	888	700
CRE 20-4	7.5	14.1 - 11.2	3 x 380-415	25	DN 50	Rp 2"	110	120	0.6	931	425	931	787
CRE 20-7	11	20.3 - 16.0	3 x 380-415	25	DN 50	Rp 2"	137	147	0.6	1160	425	1160	787

Hydro Solo-E with CRE 32



Electrical data, dimensions and weights

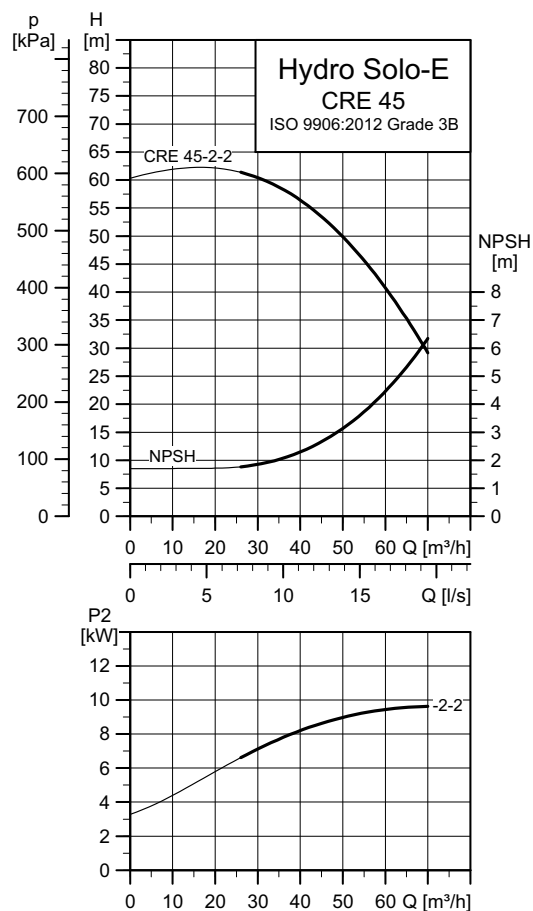
International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 32-2-2	7.5	14.1 - 11.2	3 x 380-500	33	DN 65	118	129	0.6	964	435	964	875

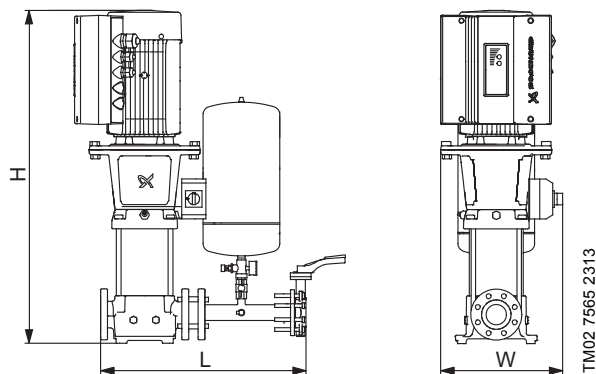
Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m ³]	Connection inlet/outlet	Weight [kg]		Packing [m ³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 32-2-2	5.5	11.0 - 8.8	3 x 380-480	33	DN 65	143	163	0.6	966	430	966	670
CRE 32-4-2	11	20.3 - 16.0	3 x 380-415	25	DN 65	203	213	0.6	1231	435	1231	85

Hydro Solo-E with CRE 45



TM05 9027 0916



Electrical data, dimensions and weights

International range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m³]	Connection inlet/outlet	Weight [kg]		Packing [m³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 45-1	7.5	14.8 - 11.6	3 x 380-480	18	DN 80	133	144	0.6	938	430	988	715

Southern European range

Pump type	Motor [kW]	Full-load current [A]	Supply voltage [V]	Tank volume [m³]	Connection inlet/outlet	Weight [kg]		Packing [m³]	Total height [mm]	Dimensions		
						Net weight	Gross weight			A [mm]	H [mm]	L [mm]
CRE 45-1	7.5	14.8 - 11.6	3 x 380-480	33	DN 80	150	170	0.6	988	430	988	715
CRE 45-2-2	11	20.3 - 16.0	3 x 380-415	25	DN 80	212	222	0.6	1155	450	1155	875

8. Accessories

Grundfos GO

Grundfos GO Remote variant	Product number
Grundfos MI 202	98046376
Grundfos MI 204	98424092
Grundfos MI 204 kit	98612711
Grundfos MI 301	98046408

Dry-running protection

Type	Pressure [bar]	Product number
Hydro Solo-E	0.11 - 2	96421253
	0.22 - 4	96421254
	0.5 - 8	96421255

To protect the booster system against dry running, dry-running protection is required. Install the dry-running protection unit at the site.

9. Grundfos Product Center

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

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



"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 is a navigation bar with the Grundfos logo and 'PRODUCT CENTER'. Below this is a search bar with a 'SEARCH' button. The main content area features four large buttons: 'SIZING' (with a subtext 'Enter pump sizing'), 'CATALOGUE' (with a subtext 'Products and services'), 'REPLACEMENT' (with a subtext 'Replace an old pump with a new'), and 'LIQUIDS' (with a subtext 'Find pump by liquid'). Below these buttons is a 'QUICK SIZING' section with input fields for 'Flow (Q)*' and 'Head (H)*', and radio buttons for 'Select what to size by' (Size by application, Size by pump design, Size by pump family). A 'START SIZING' button is also present. At the bottom of the 'QUICK SIZING' section, there are links for 'ADVANCED SIZING' with options for 'Advanced sizing by application' and 'Guided selection'.

www.grundfos.com Login

GRUNDFOS | PRODUCT CENTER Product range: United Kingdom | 50 Hz | Language: English
Change settings

HOME FIND PRODUCT COMPARE YOUR PROJECTS SAVED ITEMS HELP 1.4.23

FIND PRODUCTS AND SOLUTIONS

Input product number or a whole or partial product name

SIZING
Enter pump sizing

CATALOGUE
Products and services

REPLACEMENT
Replace an old pump with a new

LIQUIDS
Find pump by liquid

QUICK SIZING

Enter duty point:

Flow (Q)* m³/h

Head (H)* m

Select what to size by:

Size by application

Size by pump design

Size by pump family

START SIZING

ADVANCED SIZING: Advanced sizing by application Guided selection

"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.

"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.

Subject to alterations.

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GRUNDFOS A/S
DK-8850 Bjerringbro . Denmark
Telephone: +45 87 50 14 00
www.grundfos.com

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