

Unlocking the Potential: Grundfos Industrial Solution

GRUNDFOS 

Possibility in every drop

Topics / Agenda



- Grundfos Product Centre
- Optimized Sizing Tool
- What is unique about the optimized sizing function?
- ‘Live’ run through of ‘optimize sizing’ function + FAQs
- Q&A

Grundfos Product Centre



- A visit to Grundfos Product Centre → Truly discover Grundfos Potential !!
- Discover more Grundfos range → Dosing, end suction, inline, submersible, horizontal/vertical multistage, split casing, etc.
- All pump family available for sizing.

The screenshot shows the Grundfos Product Centre website interface. At the top, there is a dark blue banner with the text "Find a Grundfos product" in white. Below this banner is a white search bar with a dropdown menu labeled "Products" and a search input field with the placeholder text "Search for...". To the right of the search bar is a blue search button with a white magnifying glass icon. Below the search bar is a dark blue section with the text "Size your product" in white, followed by the subtitle "Find the right pump for your installation requirements." in a smaller white font. At the bottom of the page, there is a white navigation bar with three dropdown menus: "Size by" (set to "Pump family"), "Select pump family" (set to "CR, CRE, CRI, CRIE, CRN, CRNE, CRT, CRTE"), and "Select product group" (set to "All"). To the right of these dropdowns is a blue button with a white right-pointing arrow.



- All pump information available:

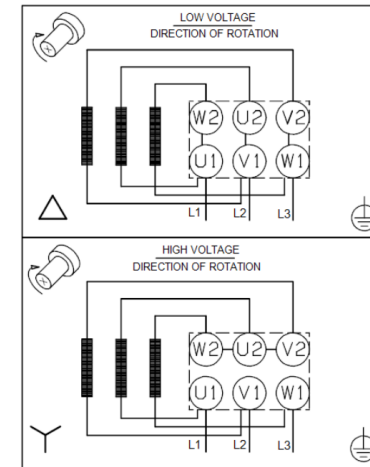
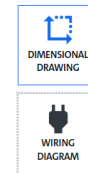
- Pump Datasheet
- Wiring Diagram
- Dimensional Drawing (2D, 3D, Autocad)
- Literature (IOM, databooklet, service manual, etc.)

CR 20-17 A-F-A-E-HQQE Model number 96800415

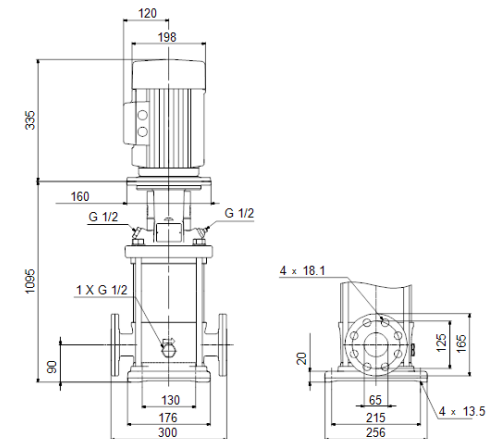
Variants Quotation **Specifications** Sizing results Spare parts CAD Drawings Documentation Services Accessories

Product name	CR 20-17 A-F-A-E-HQQE	Liquid	
Product No	96800415	Pumped liquid	Water
EAN number	5700310727035	Liquid temperature range	-20 .. 120 °C
		Selected liquid temperature	20 °C
		Density	998.2 kg/m ³
		Kinematic viscosity	1 mm ² /s
Technical		Electrical data	
Pump speed on which pump data are based	1430 rpm	Motor standard	IEC
Actual calculated flow	9.779 m ³ /h	Motor type	100LB
Resulting head of the pump	51.9 m	Rated power - P2	2.2 kW
Maximum head	62 m	Power (P2) required by pump	2.2 kW
Stages	17	Mains frequency	50 Hz
Impellers	17	Rated voltage	3 x 380-415D V
Number of reduced-diameter impellers	0	Rated current	4.9 A
Low NPSH	N	Starting current	600-660 %
Pump orientation	Vertical	Cos phi - power factor	0.79-0.73
Shaft seal arrangement	Single	Rated speed	1450 rpm
Code for shaft seal	HQQE	IE Efficiency class	IE3
Approvals	CE,EAC,UKCA,SEPRO	Motor efficiency at full load	86.7 %
Approvals for drinking water	WRAS,ACS	Motor efficiency at 3/4 load	87.7-87.2 %
Curve tolerance	ISO9906:2012 3B	Motor efficiency at 1/2 load	87.6-85.6 %
Pump version	A	Number of poles	4
Model	A		
Materials			

Variants Quotation Specifications Sizing results Spare parts CAD **Drawings** Documentation Services Accessories



Variants Quotation Specifications Sizing results Spare parts CAD **Drawings** Documentation



Optimize Sizing Tool



Conventional Sizing

Which pump should we choose when there is 85 models which match your required flow and head?



Optimize sizing tool

Filter sizing selection base on 4 evaluation criteria:

- Lowest Energy Consumption?
- Lowest investment cost (pump cost)?
- Smallest ?
- Lowest life cycle cost (LCC) ?

Final model lock down to max of 4 models only

Curve	Product No	Product name	Life cycle cost [EUR/10 years]^	Energy [kWh/year]	Energy costs [EUR /a]	Eta pump [%]	Eta pump+motor [%]
<input type="checkbox"/>	96122664	CRE 32-6	108694	20035	6411.27	73.6	65.1
<input type="checkbox"/>	96122665	CRE 32-7	113170	20327	6504.56	72.4	64.2
<input type="checkbox"/>	96121972	CR 32-12-2	117378	23183	7418.66	62.4	58.1
<input type="checkbox"/>	96122028	CR 32-12-2	117378	23183	7418.66	62.4	58.1

Comparison for Optimizing Sizing Function



- Focused on the right hydraulic selection
- Clear overview + comparison (Energy / LCC / Compactness / Price)



<The NEW 'Quick Size' function>



Optimized E-pump selection



Focused on load profile



Clear visualization

Available for: CR / CM
Still to come: MT range

Visualizing conventional pump vs Epump (Pump with Inverter):

- Life Cycle Cost (LCC)
- CO2 emissions

- Customizable load profile
- Default profile available:
 - > Pressure Boosting
 - > Industry
 - > Full Load

An aerial photograph of a dam and a river in a lush, green forested valley. The river flows from the top right towards the bottom left, passing through a dam structure. The water is a vibrant turquoise color, indicating rapids or a dam. The surrounding landscape is densely forested with green trees. In the bottom right corner, the Grundfos logo and tagline are visible.

Move into... Live Presentation of Tool

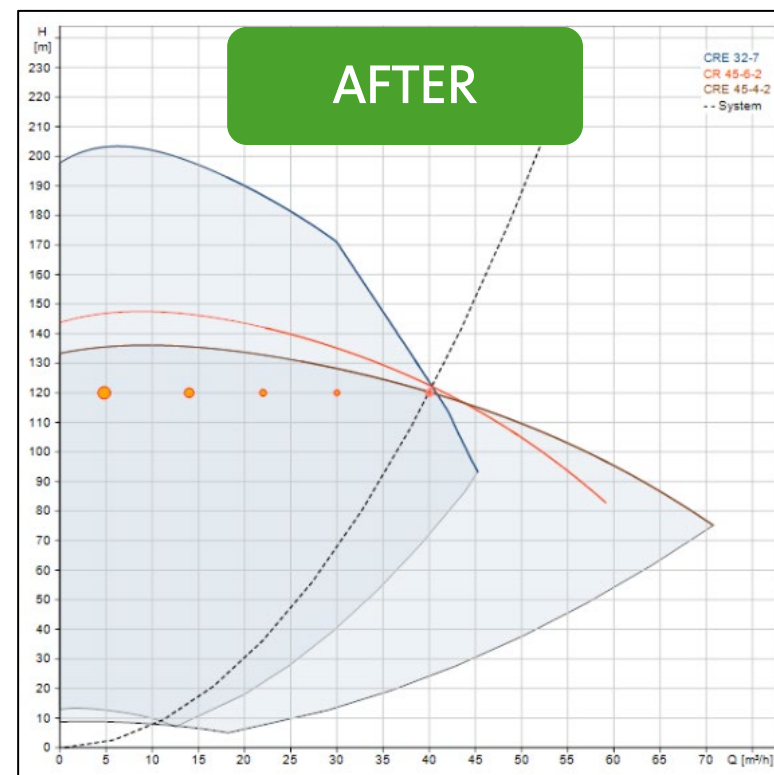
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Now.. Let's compare again (w and w/o the optimize function)



Curve	Product No	Product name	Life cycle cost [EUR/10 years]^	Energy [kWh/year]	Energy costs [EUR /a]	Eta pump [%]	Eta pump+motor [%]
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Criteria	Product name	P2 [kW]	Energy [kWh/year]	CO2 emission [kg/Year]	Life cycle cost [EUR/10 years]	Price index	Pump + motor length [mm]
Lowest LCC	CRE 32-7	18.5	28264	16100	113589	145	1561
Lowest energy	CRE 32-7	18.5	28264	16100	113589	145	1561
Lowest price	CR 45-6-2	22	38850	22100	140276	100	1621
Most compact	CRE 45-4-2	22	37184	21200	143152	151	1461