1. Product data

Introduction

This data booklet deals with Grundfos CR, CRI and CRN as well as CRE, CRIE and CRNE pumps.

CR, CRI, CRN

GR 5381

Fig. 1 CR, CRI and CRN pumps

CR, CRI and CRN pumps are vertical, multistage centrifugal pumps. The in-line design of the pumps enables installation in a horizontal one-pipe system where the suction and discharge ports are in the same horizontal level and have the same pipe dimensions. This design provides a more compact pump design and pipework.

Grundfos CR pumps are available in various sizes and various numbers of stages to provide the flow and pressure required.

CR pumps are designed for a variety of applications ranging from the pumping of potable water to the pumping of chemicals. The pumps are therefore suitable for a wide diversity of pumping systems where the performance and material of the pump meet specific demands.

The CR pumps consist of two main components: the motor and the pump unit. The CR pump motor is a Grundfos motor designed to EN standards.

The pump unit consists of optimised hydraulics, various types of connections, a sleeve, a pump head and various other parts.

CR pumps are available in various material versions according to the pumped liquid.

CRE, CRIE, CRNE

TM02 7397 0511

Fig. 2 CRE, CRIE and CRNE pumps

CRE, CRIE and CRNE pumps are built on the basis of CR, CRI, CRN pumps.

CRE, CRIE and CRNE pumps belong to the so-called E-pump family. CRE, CRIE and CRNE pumps are referred to as E-pumps.

The difference between the CR and CRE pump ranges is the motor. CRE, CRIE and CRNE pumps are fitted with an E-motor, i.e. a motor with built-in frequency converter.

The CRE pump motor is a Grundfos MGE motor designed to EN standards.

The frequency converter enables continuously variable control of the motor speed, which makes it possible to set the pump to operation at any duty point. The purpose of continuously variable speed control of the motor speed is to adjust the performance to a given requirement.

CRE, CRIE and CRNE pumps are available with an integrated pressure sensor connected to the frequency converter.

The pump materials are identical to those of the CR, CRI and CRN pump range.

Selecting a CRE pump

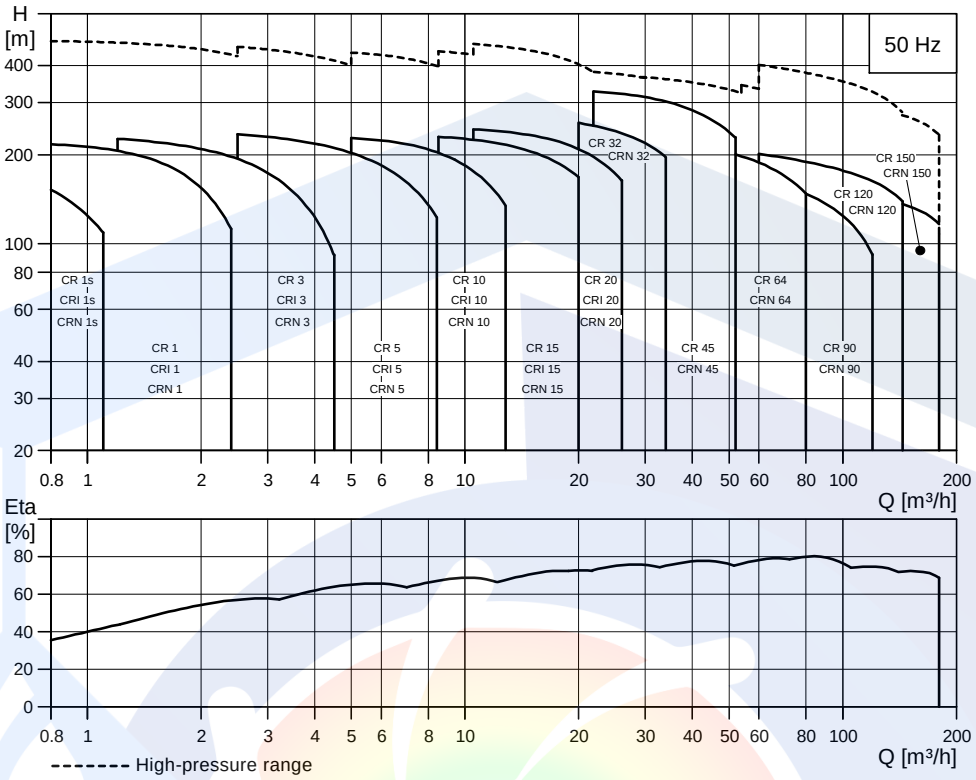
Select a CRE pump if the following features are required:

- Controlled operation, i.e. consumption fluctuates.
- Constant pressure.
- Communication with the pump.

Adaptation of performance through frequency-controlled speed control offers obvious benefits such as:

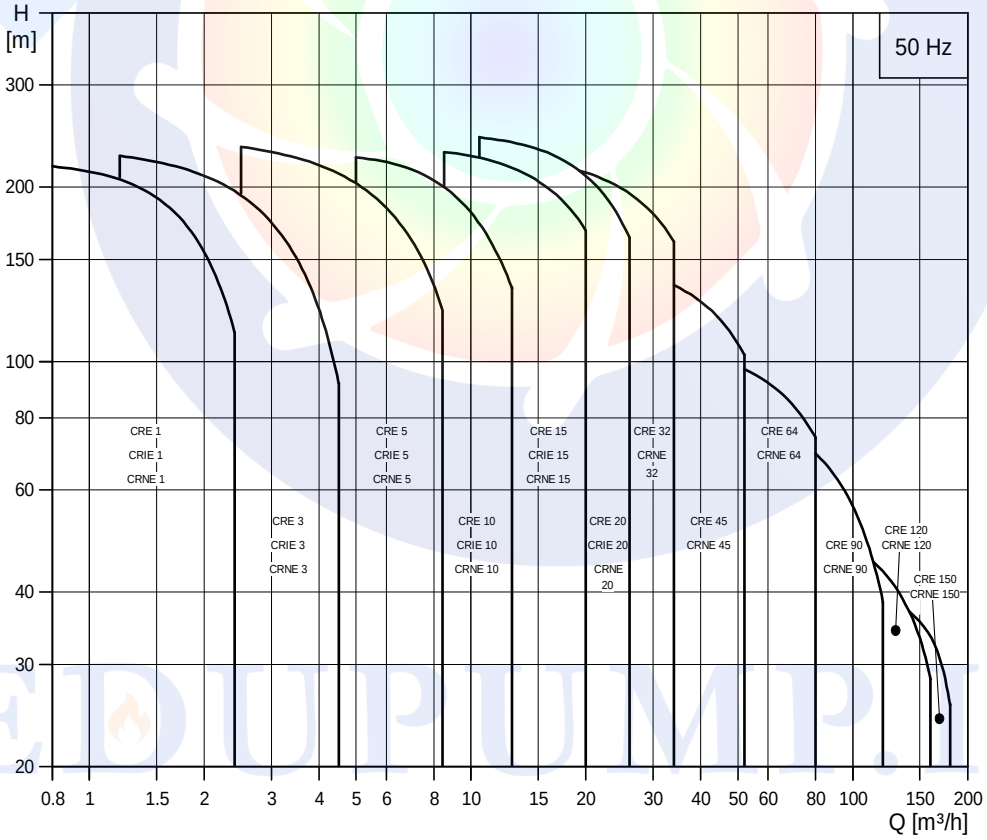
- energy savings
- increased comfort
- control and monitoring of the pump performance.

Performance range of CR, CRI, CRN



TM02 1192 4708

Performance range of CRE, CRIE, CRNE

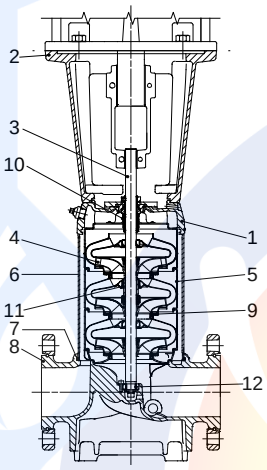


TM02 7281 4708

CR(E) 32, 45, 64 and 90

TM01 2150 1298 - GrA4355

Sectional drawing



TM01 1836 1403

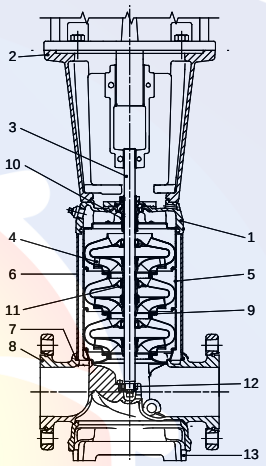
Materials, CR(E)

Pos.	Designation	Materials	EN/DIN	AISI/ASTM
1	Pump head	Cast iron EN-GJS-500-7	EN-JS1050	ASTM 80-55-06
2	Motor stool	Cast iron EN-GJL-200	EN-JL1030	ASTM 25B
3	Shaft	Stainless steel	1.4057	AISI 431
4	Impeller	Stainless steel	1.4301	AISI 304
5	Chamber	Stainless steel	1.4301	AISI 304
6	Sleeve	Stainless steel	1.4301	AISI 304
7	O-ring for sleeve	EPDM or FKM		
8	Base	Cast iron EN-GJS-500-7	EN-JS1050	ASTM 80-55-06
9	Neck ring	Carbon-graphite-filled PTFE		
10	Shaft seal			
11	Bearing ring	Bronze		
12	Bottom bearing ring	Tungsten carbide/tungsten carbide		
	Rubber parts	EPDM or FKM		

CRN(E) 32, 45, 64 and 90

TM02 7399 3403

Sectional drawing



TM01 1837 1403

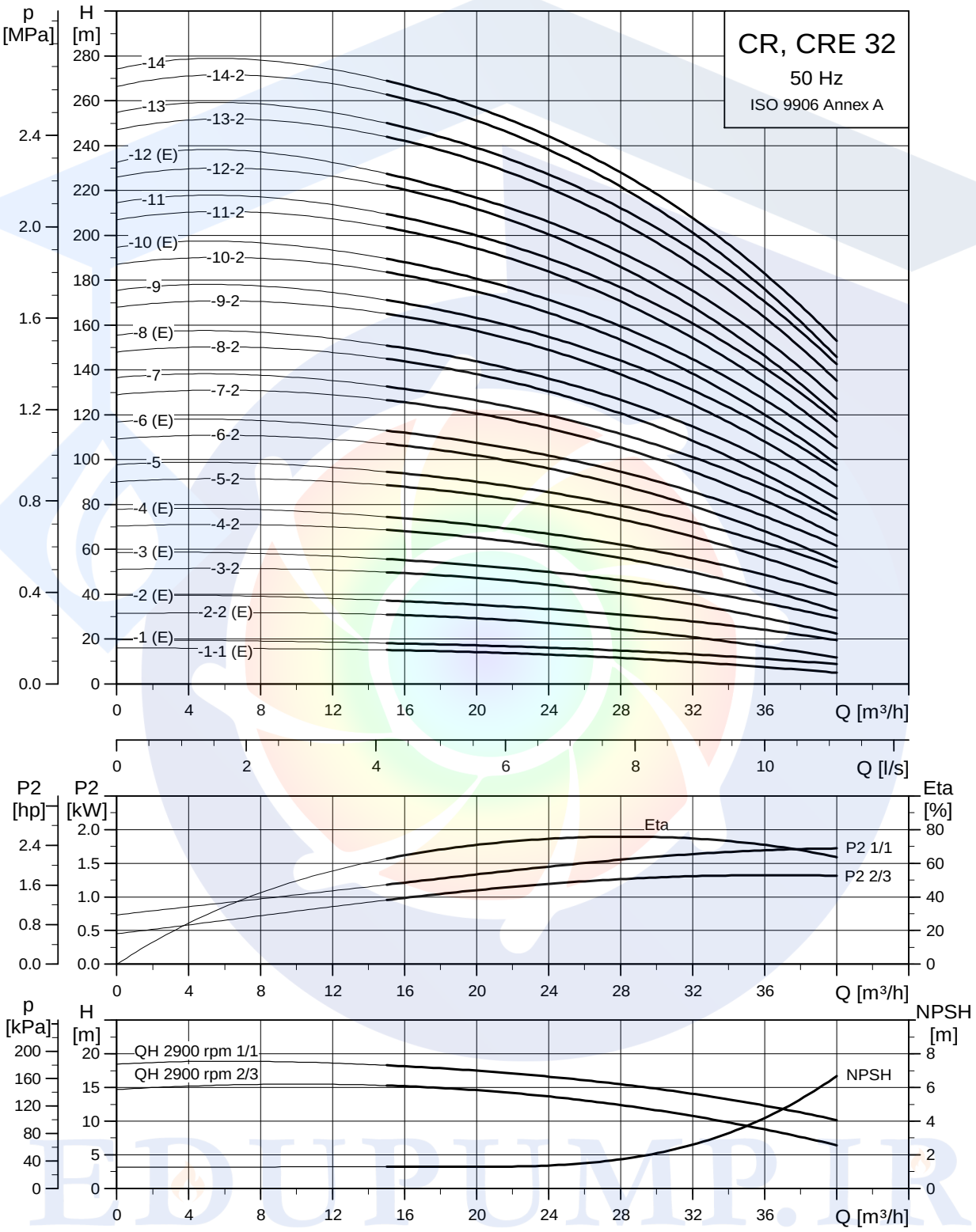
Materials, CRN(E)

Pos.	Designation	Materials	EN/DIN	AISI/ASTM
1	Pump head	Stainless steel	1.4408	CF 8M equal to AISI 316
2	Motor stool	Cast iron EN-GJL-200[1)]	EN-JL1030	ASTM 25B
3	Shaft	Stainless steel	1.4462	
4	Impeller	Stainless steel	1.4401	AISI 316
5	Chamber	Stainless steel	1.4401	AISI 316
6	Sleeve	Stainless steel	1.4401	AISI 316
7	O-ring for sleeve	EPDM or FKM		
8	Base	Stainless steel	1.4408	CF 8M equal to AISI 316
9	Neck ring	Carbon-graphite filled PTFE		
10	Shaft seal			
11	Bearing ring	Carbon-graphite filled PTFE		
12	Bottom bearing ring	Tungsten carbide/tungsten carbide		
13	Base plate	Cast iron EN-GJS-500-7[1)]	EN-JS1050	ASTM 88-55-06
	Rubber parts	EPDM or FKM		

[1)] Stainless steel available on request.

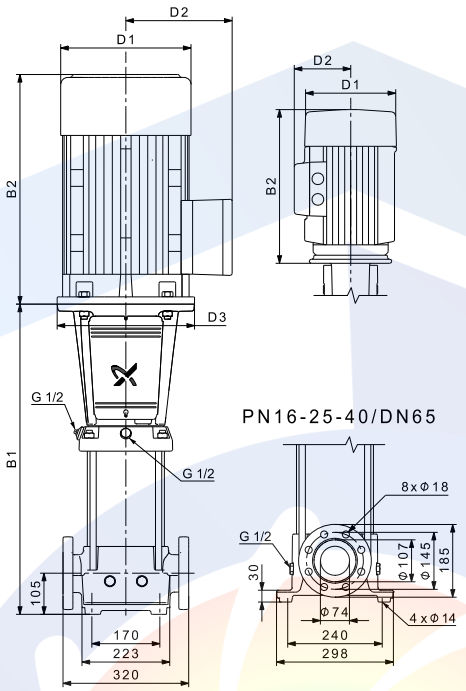
Performance curves

CR, CRE 32



Technical data

Dimensional sketch



TM01 1749 3298

Dimensions and weights

Pump type	Motor P_2 [kW]	CR						CRE					
		Dimension [mm]					Net weight [kg]	Dimension [mm]					Net weight [kg]
		B1	B1+B2	D1	D2	D3		B1	B1+B2	D1	D2	D3	
CR(E) 32-1-1	1.5	505	786	178	110	270	64	505	786	178	167	270	70
CR(E) 32-1	2.2	505	826	178	110	270	64	505	826	178	167	270	74
CR(E) 32-2-2	3	575	910	198	120	270	73	575	910	198	177	270	81
CR(E) 32-2	4	575	947	220	134	270	82	575	947	220	188	270	92
CR 32-3-2	5.5	645	1036	220	134	300	96	-	-	-	-	-	-
CR(E) 32-3	5.5	645	1036	220	134	300	96	645	1036	220	188	300	103
CR 32-4-2	7.5	715	1094	260	159	300	111	-	-	-	-	-	-
CR(E) 32-4	7.5	715	1094	260	159	300	111	715	1106	260	213	300	109
CR 32-5-2	11	895	1366	314	204	350	159	-	-	-	-	-	-
CR 32-5	11	895	1366	314	204	350	159	-	-	-	-	-	-
CR 32-6-2	11	965	1436	314	204	350	162	-	-	-	-	-	-
CR(E) 32-6	11	965	1436	314	204	350	162	965	1436	314	308	350	191
CR 32-7-2	15	1035	1506	314	204	350	177	-	-	-	-	-	-
CR 32-7	15	1035	1506	314	204	350	177	-	-	-	-	-	-
CR 32-8-2	15	1105	1576	314	204	350	183	-	-	-	-	-	-
CR(E) 32-8	15	1105	1576	314	204	350	183	1105	1576	314	308	350	215
CR 32-9-2	18.5	1175	1690	314	204	350	200	-	-	-	-	-	-
CR 32-9	18.5	1175	1690	314	204	350	200	-	-	-	-	-	-
CR 32-10-2	18.5	1245	1760	314	204	350	203	-	-	-	-	-	-
CR(E) 32-10	18.5	1245	1760	314	204	350	203	1245	1760	314	308	350	234
CR 32-11-2	22	1315	1856	314	204	350	220	-	-	-	-	-	-
CR 32-11	22	1315	1856	314	204	350	220	-	-	-	-	-	-
CR 32-12-2	22	1385	1926	314	204	350	224	-	-	-	-	-	-
CR(E) 32-12	22	1385	1926	314	204	350	224	1385	1926	314	308	350	254
CR 32-13-2	30	1455	2065	407	315	400	329	-	-	-	-	-	-
CR 32-13	30	1455	2065	407	315	400	329	-	-	-	-	-	-
CR 32-14-2	30	1525	2135	407	315	400	332	-	-	-	-	-	-
CR 32-14	30	1525	2135	407	315	400	332	-	-	-	-	-	-

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