

Inventflow: Grundfos A-partner

Grundfos TPE 50-430/2 S-A-F-A-BQQE-LDB

Find the pump here:

<https://inventflow.nl/en/pompenfilter/tpe/grundfos-tpe-50-430-2-s-a-f-a-bqqe-ldb>

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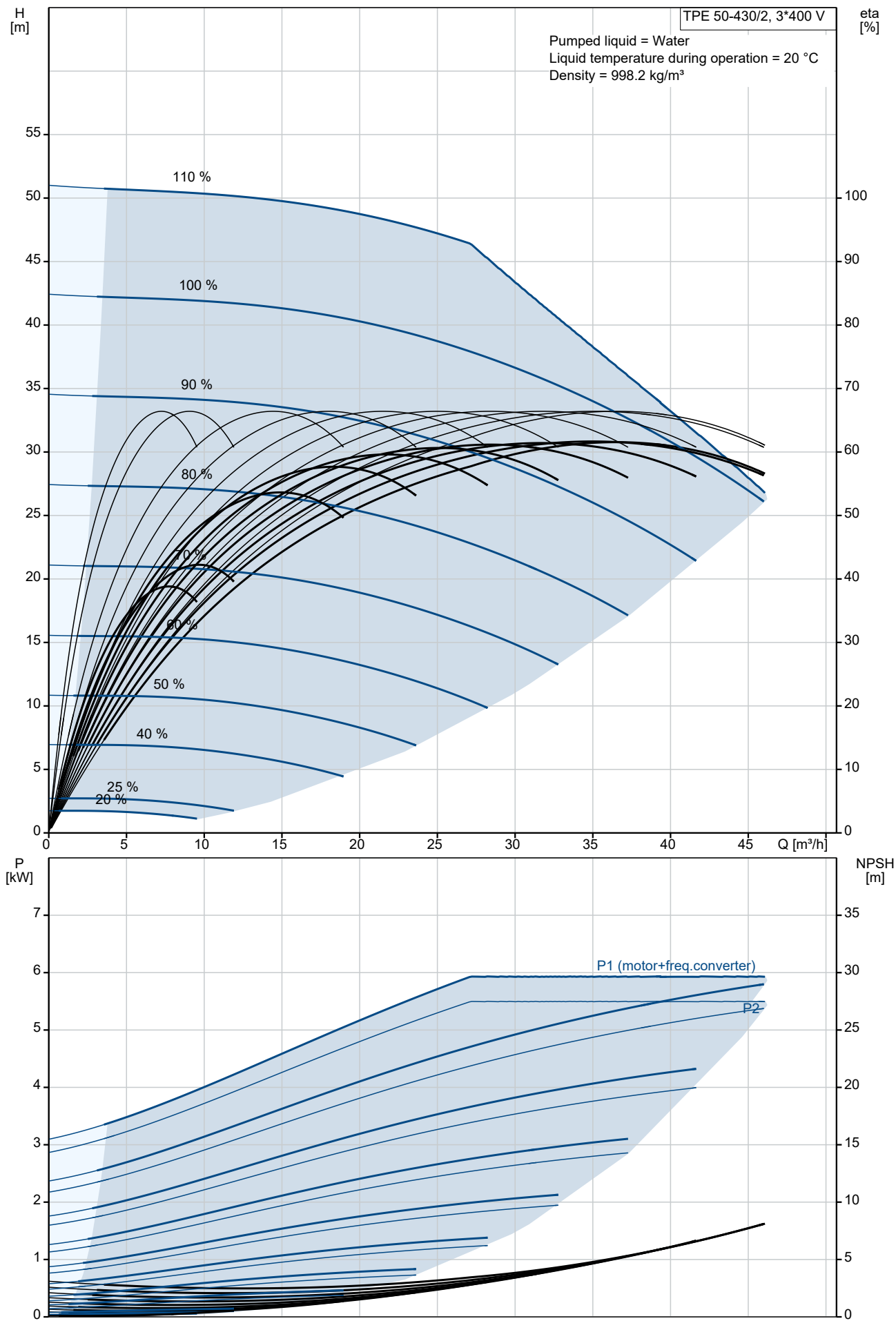
Datasheet



Qty.	Description
1	TPE 50-430/2 S-A-F-A-BQQE-LDB  Note! Product picture may differ from actual product Product No.: 99114665 Single-stage, centrifugal volute in-line, single-head pump. The in-line design with opposite suction and discharge ports enables mounting in pipework or on a concrete foundation. The shaft seal is a corrosion resistant maintenance-free mechanical seal. The pump is fitted with an IEC-flanged three-phase MGE motor with frequency converter and PI-controller integrated in the motor terminal box. No additional motor protection is required as both motor and electronics are protected by integrated overload and temperature protection. A differential pressure transmitter fitted on the pump registers the differential pressure across the pump and enables constant pressure or proportional pressure control of the pump. A control panel enables setting of required setpoint as well as setting of pump to MIN or MAX operation or to STOP. The control panel has indicator lights for "Operation" and "Fault". Communication with the pump is possible by means of Grundfos R100 Remote Control enabling further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption". The terminal box holds terminals for the connection of : - Pump start/stop (potential-free contact), - external remote setpoint setting via analog signal, 0 - 5 V, 0 - 10 V, 0(4) - 20 mA, - 5 V voltage supply for setpoint potentiometer, I_{max} = 5 mA, - differential pressure sensor factory-fitted, - input for forced control to MIN or MAX (potential-free contact), - potential-free fault signal relay with changeover contact, - RS485 GENIbus.

Qty.	Description
	Controls: Frequency converter: Built-in Liquid: Pumped liquid: Water Liquid temperature range: -25 .. 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Technical: Pump speed on which pump data are based: 2920 rpm Rated flow: 35.1 m³/h Rated head: 33.9 m Actual impeller diameter: 177 mm Code for shaft seal: BQQE Curve tolerance: ISO9906:2012 3B2 Materials: Pump housing: Cast iron EN-GJL-250 ASTM class 35 Impeller: Cast iron EN-GJL-200 ASTM class 30 Installation: Range of ambient temperature: -20 .. 50 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C Type of connection: DIN Size of connection: DN 50 Pressure rating for connection: PN 16 Port-to-port length: 340 mm Flange size for motor: FF265 Electrical data: Motor type: 132SE IE Efficiency class: IE5 Rated power - P2: 5.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 10.3-8.20 A Cos phi - power factor: 0.92-0.88 Rated speed: 360-4000 rpm Efficiency: 92.7% Motor efficiency at full load: 92.7 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98971271 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 80.3 kg Gross weight: 99 kg Shipping volume: 0.39 m³ Danish VVS No.: 381943430 Finnish LVI No.: 4616383 Country of origin: HU Custom tariff no.: 84137051

99114665 TPE 50-430/2 S-A-F-A-BQQE-LDB 50 Hz



Description	Value
General information:	
Product name:	TPE 50-430/2 S-A-F-A-BQQE-LDB
Product No:	99114665
EAN number:	5712607033576
Technical:	
Pump speed on which pump data are based:	2920 rpm
Rated flow:	35.1 m³/h
Rated head:	33.9 m
Maximum head:	430 dm
Actual impeller diameter:	177 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B2
Pump version:	A
Materials:	
Pump housing:	Cast iron
Pump housing:	EN-GJL-250
Pump housing:	ASTM class 35
Impeller:	Cast iron
Impeller:	EN-GJL-200
Impeller:	ASTM class 30
Material code:	A
Installation:	
Range of ambient temperature:	-20 .. 50 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C
Type of connection:	DIN
Size of connection:	DN 50
Pressure rating for connection:	PN 16
Port-to-port length:	340 mm
Flange size for motor:	FF265
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	132SE
IE Efficiency class:	IE5
Rated power - P2:	5.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-500 V
Rated current:	10.3-8.20 A
Cos phi - power factor:	0.92-0.88
Rated speed:	360-4000 rpm
Efficiency:	92.7 %
Motor efficiency at full load:	92.7 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	ELEC
Motor No:	98971271
Controls:	
Control panel:	HMI300 - Advanced
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	80.3 kg
Gross weight:	99 kg
Shipping volume:	0.39 m³
Config. file no:	99247885

Performance curves for Grundfos TPE 50-430/2 pump.

Top Graph: Head (H) [m] vs. Flow (Q) [m³/h]

Curves for efficiency levels: 110 %, 100 %, 90 %, 80 %, 70 %, 60 %, 50 %, 40 %, 30 %, 25 %, 20 %.

Pumped liquid = Water
Liquid temperature during operation = 20 °C
Density = 998.2 kg/m³

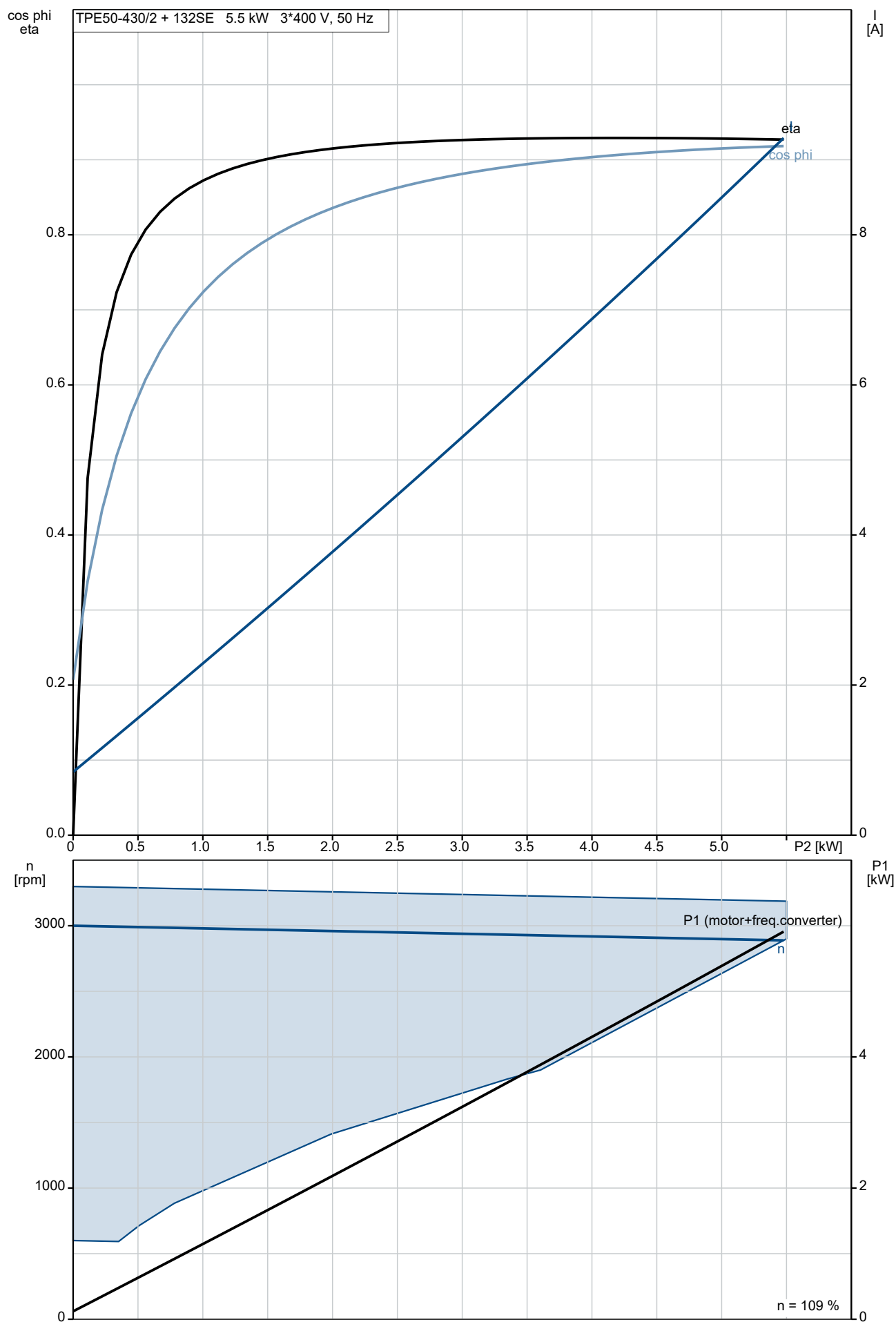
Bottom Graph: Power (P) [kW] and NPSH [m] vs. Flow (Q) [m³/h]

Curves for P1 (motor+freq.converter) and P2.

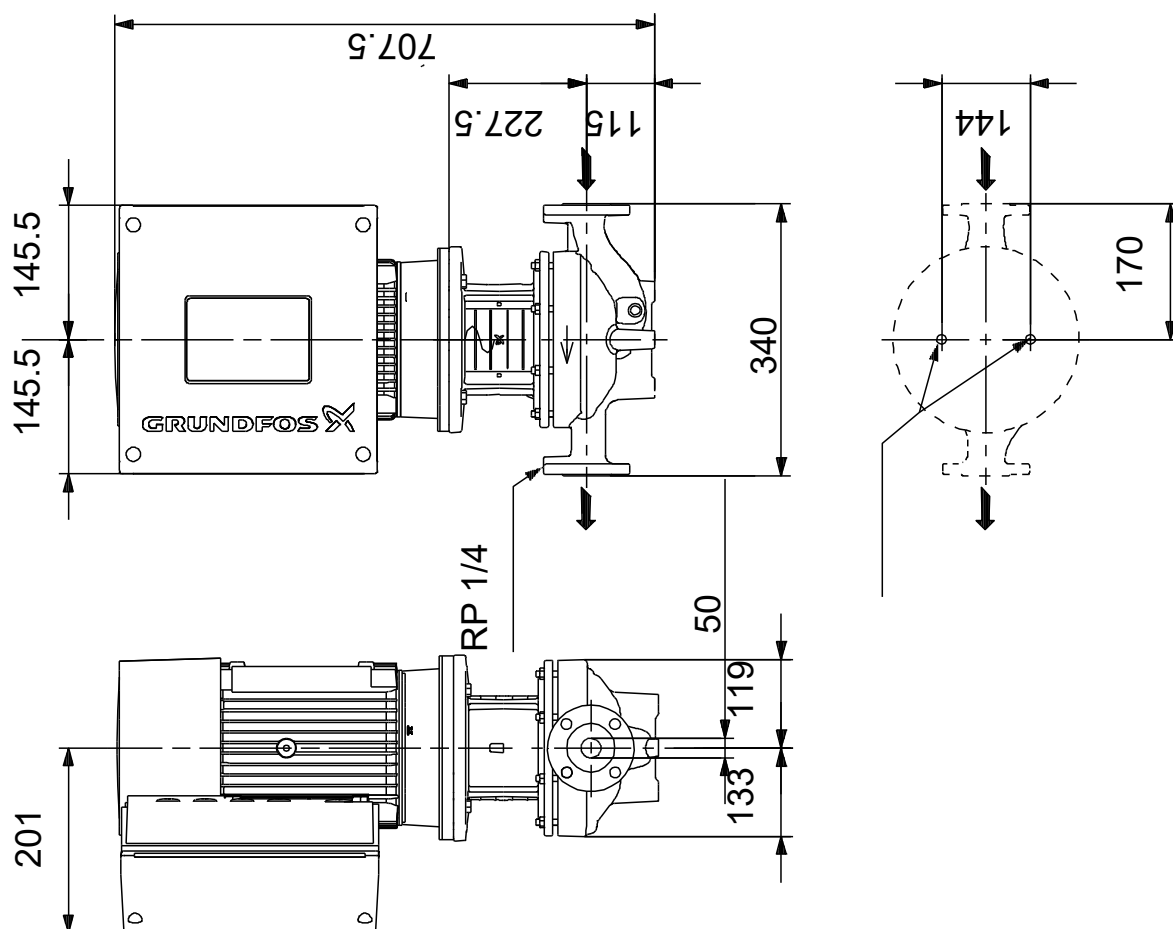
NPSH curves are shown for different flow rates.

Description	Value
Danish VVS No.:	381943430
Finnish LVI No.:	4616383
Country of origin:	HU
Custom tariff no.:	84137051

99114665 TPE 50-430/2 S-A-F-A-BQQE-LDB 50 Hz



99114665 TPE 50-430/2 S-A-F-A-BQQE-LDB 50 Hz



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

Spare parts TPE 50-430/2, Product No. 99114665
Produced After 1811 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, bracket			99184283	1	pcs
	Pan head thread forming screw				1	
	Bracket				1	
152	Cross recess countersunk screw				1	
-	Kit, capillary tubes			99184237	1	pcs
508	Tube				1	
509	Capillary tube.				1	
-	Kit, sensor			99268414	1	pcs
	Housing				1	
	Clip				1	
	Fitting				2	
7a	Pan washer head screw				2	
501	Sensor				1	
510	Mounting bush.				2	
530	Cable				1	
-	Motor			99987884	1	pcs
-	Kit, Ball bearing			98881510	1	
153	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
154	Ball bearing				1	
156d	Seal ring				1	
156c	Seal ring				1	
157	O-ring		Diameter: 62 Material type: NBR Thickness: 3		1	
158	Waved washer				1	
187	Retaining ring				1	
188	Retaining ring				1	
-	Kit, Blanking plug			99052475	1	
252b	Plug cpl.				4	
252b	Blanking plug				1	
-	Kit, cable gland			98736096	1	
293	Cable glands set				1	
-	Kit, connector plugs			98403113	1	
266	Connector plug 10-pole				1	
266	Connector plug 2-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
-	Kit, control box			98878619	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
251a	Control box cpl.				1	
252b	Plug cpl.				4	
252b	Blanking plug				1	
266	Connector plug 10-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
268a	Base				1	
268	Pan head screw				1	
273b	Battery				1	
273a	Cross recess Pan head screw				3	
273	Funct. Module cpl.				1	
275a	Pin				1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
286	Spacer				1	
287	Cover				1	
288b	Retaining ring				8	
288a	Pan head thread forming screw				8	
288	Wire clamp				4	
289a	Pan head thread forming screw				1	
289	Wire clamp				1	
290	Control panel, cpl.				1	
301	Jumper				1	
-	Kit, Control box upper			98869867	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
-	Kit, Control panel			98939971	1	
290	Control panel, cpl.				1	
-	Kit, cover			98330622	1	
287	Cover				1	
-	Kit, end shield (NDE)			98869883	1	
156c	Seal ring				1	
156a	End shield NDE				1	
157	O-ring		Diameter: 62 Material type: NBR Thickness: 3		1	
158	Waved washer				1	
206	Pan head thread forming screw				4	
-	Kit, fan			98869877	1	
152	Pan head thread forming screw				4	
156c	Seal ring				1	
156	Fan				1	
-	Kit, fan cover			99957566	1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
-	Kit, flange (DE)			98869892	1	
	Glue				0	
156c	Seal ring				1	
156b	Flange				1	
201c	Drain plug				4	
-	Kit, Funct. module			98334777	1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
273a	Cross recess Pan head screw				5	
273	Funct. Module cpl.				1	
275a	Pin				1	
286	Spacer				1	
-	Kit, Isolation cover			98859508	1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, Lower part cpl.			98859571	1	
178	Pan head thread forming screw				4	
251a	Control box cpl.				1	
275a	Pin				1	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, motor			99010775	1	
	Terminal				3	
40	Parallel key				1	
99a	Retaining ring				1	
111	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
150	Stator w/housing				1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
153	Ball bearing				1	
156d	Gasket				1	
156c	Seal ring				1	
156c	Seal ring				1	
156b	Flange				1	
156a	End shield NDE				1	
156	Fan				1	
157	O-ring		Diameter: 62 Material type: NBR Thickness: 3		1	
158	Waved washer				1	
159f	Retaining ring				1	
172	Shaft w/rotor				1	
181	Pan head staybolt				4	
186	Drain plug				4	
203	Terminal plug				1	
289a	Pan head thread forming screw				2	
-	Kit, plug			99028676	1	
152	Pan head thread forming screw				2	
203	Terminal plug				1	
205	Gasket				1	
-	Kit, screws			99028712	1	
268a	Base				1	
268	Pan head screw				1	
288b	Retaining ring				8	
288a	Pan head thread forming screw				8	
288	Wire clamp				4	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
289a	Pan head thread forming screw				1	
289	Wire clamp				1	
-	Kit, staybolts			98881543	1	
181	Pan head staybolt				4	
111	Ball bearing		Designation: 6206.2Z.C3.SYN	99078033	1	
111	Ball bearing		Designation: 6206.2Z.C3.SYN	97501070	1	
152	Pan head thread forming screw			99834207	4	
152	Pan head thread forming screw			99814578	4	
153	Ball bearing			98638919	1	
186	Drain plug			99980519	4	
251d	Pan head thread forming screw			98995460	4	
266	Connector plug 3-pole			99421265	1	
1a	Motor stool			98996940	1	pcs
18	Plug			96620482	1	pcs
18	Plug			98164277	1	pcs
19	Pipe plug		Thread: R 3/8	96620487	2	pcs
49	Impeller		Outer diameter: 177	96794866	1	pcs
- 50	Pump housing cpl.			98925091	1	pcs
36	Nut		Thread: M10	96620484	6	
67	Nut		Thread: M14	92526531	1	pcs
72a	O-ring			92547662	1	pcs
72a	O-ring			92526508	1	pcs
72a	O-ring			97511824	1	pcs
72a	O-ring			99756265	1	pcs
77a	Pan head screw			99266550	4	pcs
105	Shaft seal			99380916	1	pcs
105	Shaft seal			99884645	1	pcs
510	Mounting bush.			99079267	2	pcs