

Qty. Description

1 NKE 50-315/285 AIA1F2AVSBQQVSW1



Note! Product picture may differ from actual product

Product No.: On request

Non-self-priming, single-stage, centrifugal pump designed according to ISO 5199 with dimensions and rated performance according to EN 733. Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, a radial discharge port and horizontal shaft. It is of the back pull-out design enabling removal of the motor, coupling, bearing bracket and impeller without disturbing the pump housing or pipework.

The unbalanced rubber bellows seal is according to DIN EN 12756.

The pump is fitted with a foot-mounted, fan-cooled asynchronous motor. Pump and motor are mounted on a common base frame.

Pump and motor are mounted on a common steel base frame in accordance with ISO 3661. The back pull-out design makes it possible to service the pump when the pump housing is still connected to the inlet and discharge pipes.

- 1) Remove the bolts in the bearing bracket support foot and motor foot.
- 2) Remove the bearing bracket and the motor from the pump housing.



Pump

The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.



Seal faces:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

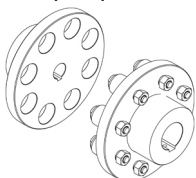
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: FKM (fluorocarbon rubber)

FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.

The shaft is made of stainless steel and has a diameter of 32 mm where the coupling is mounted.

The pump uses a standard coupling between the pump and motor shaft.



Qty. Description

1 The language on the pump nameplate is English.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE4 in accordance with IEC 60034-30-1.

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Further product details

Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

Technical data

Controls:

VFD product number: 99616824
 Frequency converter: Built-in
 Type of frequency converter: CUE 3X380-500V IP55 RUG 37KW
 Appr. for VFD: CE, CULUS, C-TICK
 Pressure sensor: N

Liquid:

Pumped liquid: Water
 Liquid temperature range: -10 .. 90 °C
 Selected liquid temperature: 20 °C
 Density: 998.2 kg/m³

Technical:

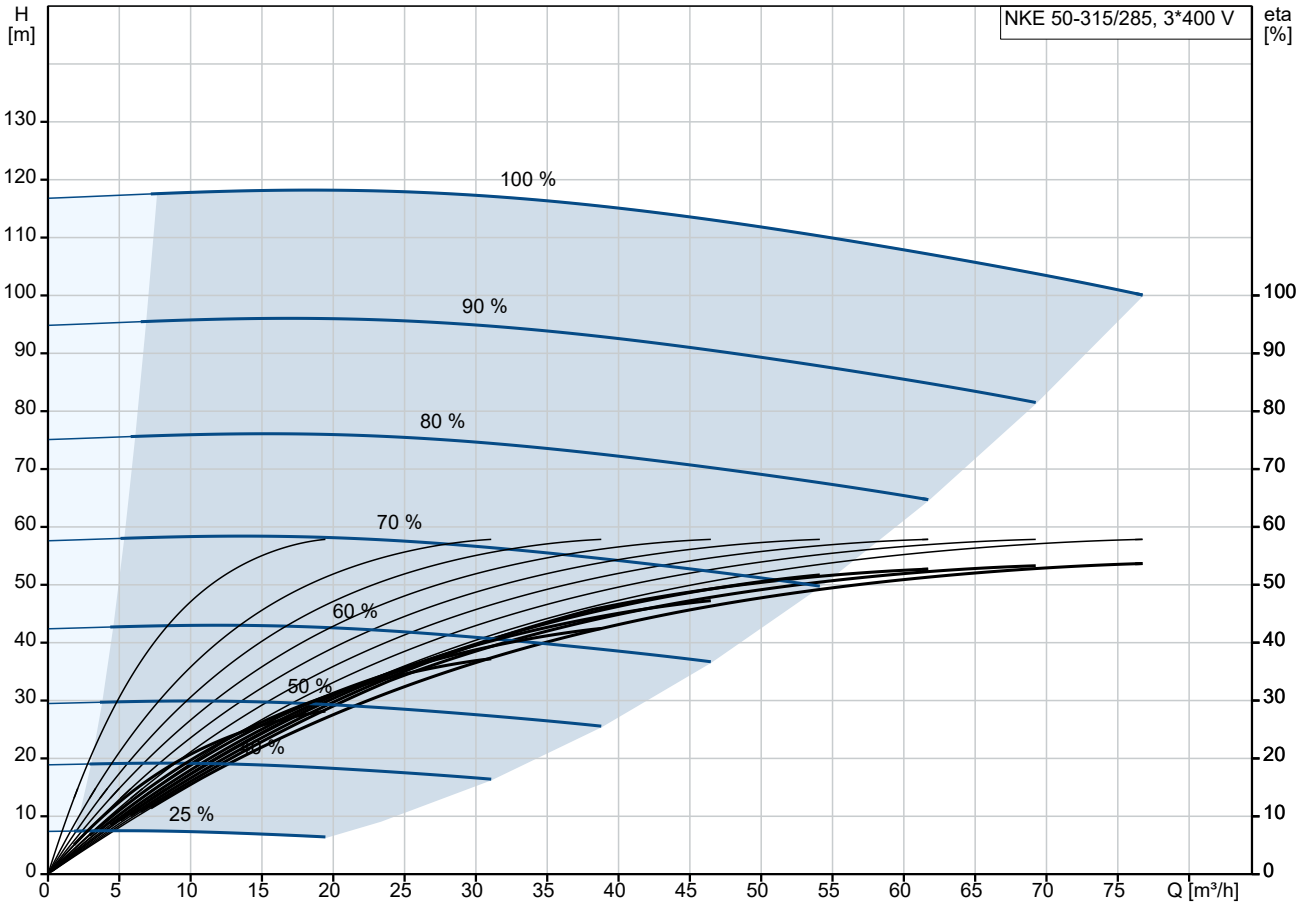
Pump speed on which pump data are based: 2955 rpm
 Rated flow: 76.73 m³/h
 Pump with motor (Yes/No): Y
 Rated head: 99.99 m
 Actual impeller diameter: 285 mm
 Nominal impeller diameter: 315
 Code for shaft seal: BQQV
 Mechanical seal type: Single
 Curve tolerance: ISO9906:2012 3B
 Bearing design: Standard

Materials:

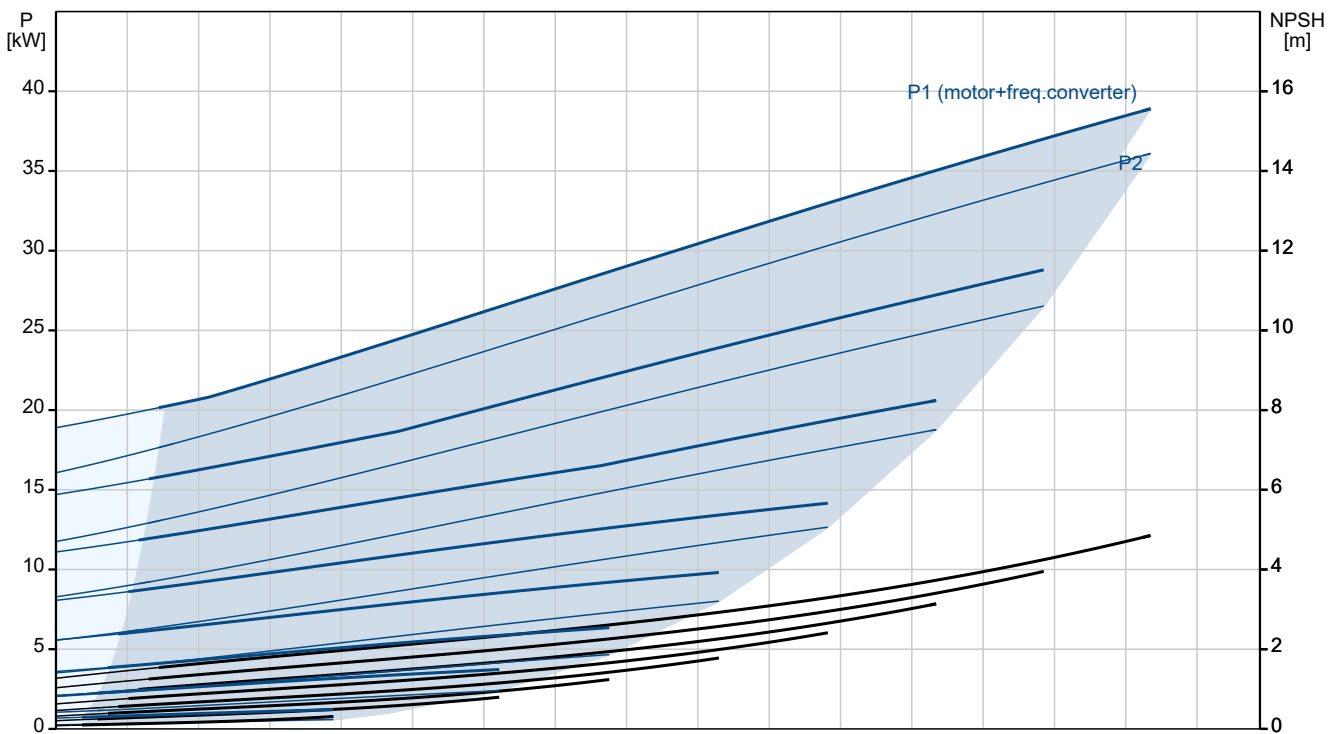
Pump housing: Cast iron
 EN-GJL-250
 ASTM class 35
 Wear ring: Brass
 Impeller: Cast iron
 EN-GJL-200
 ASTM class 30
 Internal pump house coating: CED
 Shaft: Stainless steel

Qty.	Description
1	<p data-bbox="564 342 679 365">EN 1.4301</p> <p data-bbox="564 371 660 394">AISI 304</p> <p data-bbox="201 434 325 456">Installation:</p> <p data-bbox="201 463 689 486">Range of ambient temperature: -10 .. 50 °C</p> <p data-bbox="201 492 635 515">Maximum operating pressure: 16 bar</p> <p data-bbox="201 521 683 544">Pipe connection standard: EN 1092-2</p> <p data-bbox="201 551 608 573">Type of inlet connection: DIN</p> <p data-bbox="201 580 608 602">Type of outlet connection: DIN</p> <p data-bbox="201 609 635 631">Size of inlet connection: DN 65</p> <p data-bbox="201 638 635 660">Size of outlet connection: DN 50</p> <p data-bbox="201 667 635 689">Pressure rating for connection: PN 16</p> <p data-bbox="201 696 772 719">Coupling type: Flexible w/o spacer</p> <p data-bbox="201 725 647 748">Base frame design: EN/ISO</p> <p data-bbox="201 754 616 777">Code for base frame: 8 ST</p> <p data-bbox="201 784 584 806">Grouting (Yes/No): N</p> <p data-bbox="201 857 360 880">Electrical data:</p> <p data-bbox="201 887 676 909">Motor type: SIEMENS</p> <p data-bbox="201 916 635 938">Rated power - P2: 37 kW</p> <p data-bbox="201 945 635 967">Mains frequency: 50 Hz</p> <p data-bbox="201 974 842 996">Rated voltage: 3 x 380-420D/660-725Y V</p> <p data-bbox="201 1003 647 1025">Rated current: 64/37 A</p> <p data-bbox="201 1032 635 1055">Starting current: 780 %</p> <p data-bbox="201 1061 616 1084">Cos phi - power factor: 0.88</p> <p data-bbox="201 1090 670 1113">Rated speed: 2955 rpm</p> <p data-bbox="201 1120 676 1142">IE efficiency: IE4 94,8%</p> <p data-bbox="201 1149 603 1171">IE Efficiency class: IE4</p> <p data-bbox="201 1178 641 1200">Motor efficiency at full load: 94.8 %</p> <p data-bbox="201 1207 641 1229">Motor efficiency at 3/4 load: 95.1 %</p> <p data-bbox="201 1236 641 1258">Motor efficiency at 1/2 load: 94.9 %</p> <p data-bbox="201 1265 584 1288">Number of poles: 2</p> <p data-bbox="201 1294 616 1317">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="201 1323 584 1346">Insulation class (IEC 85): F</p> <p data-bbox="201 1352 676 1375">Motor No: 92779387</p> <p data-bbox="201 1382 734 1404">Bearing insulation type N-end: COATED RING</p> <p data-bbox="201 1456 280 1478">Others:</p> <p data-bbox="201 1485 635 1507">Minimum efficiency index, MEI ≥: 0.50</p> <p data-bbox="201 1514 641 1536">Net weight: 605 kg</p> <p data-bbox="201 1543 641 1565">Gross weight: 660 kg</p> <p data-bbox="201 1572 647 1594">Shipping volume: 1.68 m³</p> <p data-bbox="201 1601 603 1624">Country of origin: HU</p> <p data-bbox="201 1630 676 1653">Custom tariff no.: 84137059</p> <p data-bbox="201 1659 603 1682">Language on pump nameplate: GB</p>

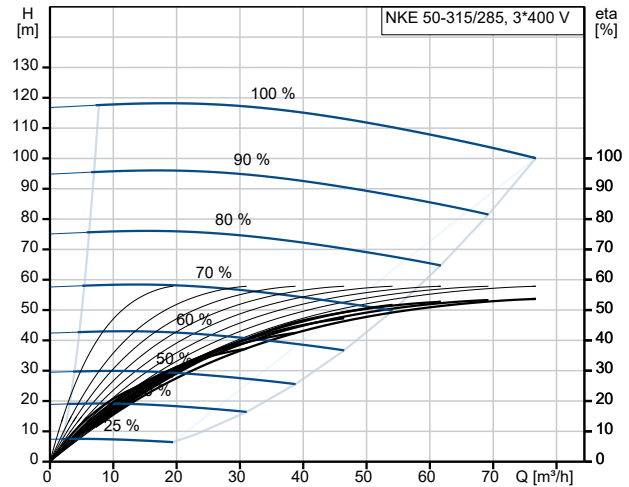
On request NKE 50-315/285 AIA1F2AVSBQQVSW1 50 Hz



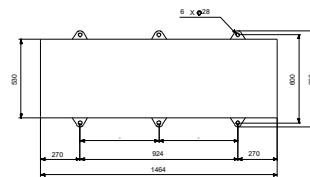
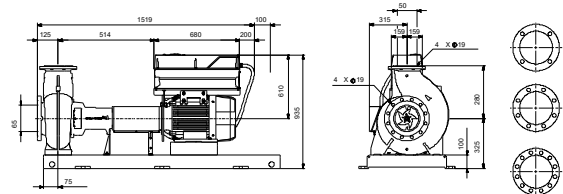
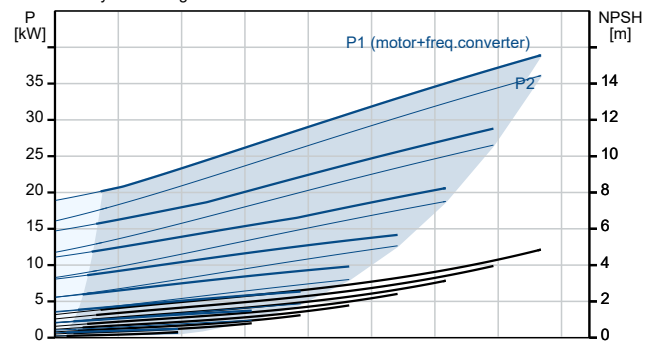
Pumped liquid = Water
 Liquid temperature during operation = 20 °C
 Density = 998.2 kg/m³



Description	Value
General information:	
Product name:	NKE 50-315/285 AIA1F2AVSBQQVSW1
Product No:	On request
EAN number:	On request
Technical:	
Pump speed on which pump data are based:	2955 rpm
Rated flow:	76.73 m ³ /h
Pump with motor (Yes/No):	Y
Rated head:	99.99 m
Actual impeller diameter:	285 mm
Nominal impeller diameter:	315
Shaft diameter:	32 mm
Code for shaft seal:	BQQV
Mechanical seal type:	Single
Curve tolerance:	ISO9906:2012 3B
Pump version:	A1
Bearing design:	Standard
Materials:	
Pump housing:	Cast iron
Pump housing:	EN-GJL-250
Pump housing:	ASTM class 35
Wear ring:	Brass
Impeller:	Cast iron
Impeller:	EN-GJL-200
Impeller:	ASTM class 30
Internal pump house coating:	CED
Material code:	A
Code for rubber:	V
Shaft:	Stainless steel
Shaft:	EN 1.4301
Shaft:	AISI 304
Installation:	
Range of ambient temperature:	-10 .. 50 °C
Maximum operating pressure:	16 bar
Pipe connection standard:	EN 1092-2
Type of inlet connection:	DIN
Type of outlet connection:	DIN
Size of inlet connection:	DN 65
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 16
Coupling type:	Flexible w/o spacer
Base frame design:	EN/ISO
Code for base frame:	8 ST
Grouting (Yes/No):	N
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-10 .. 90 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m ³
Electrical data:	
Motor type:	SIEMENS
Rated power - P2:	37 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	64/37 A



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





Company name:

Created by:

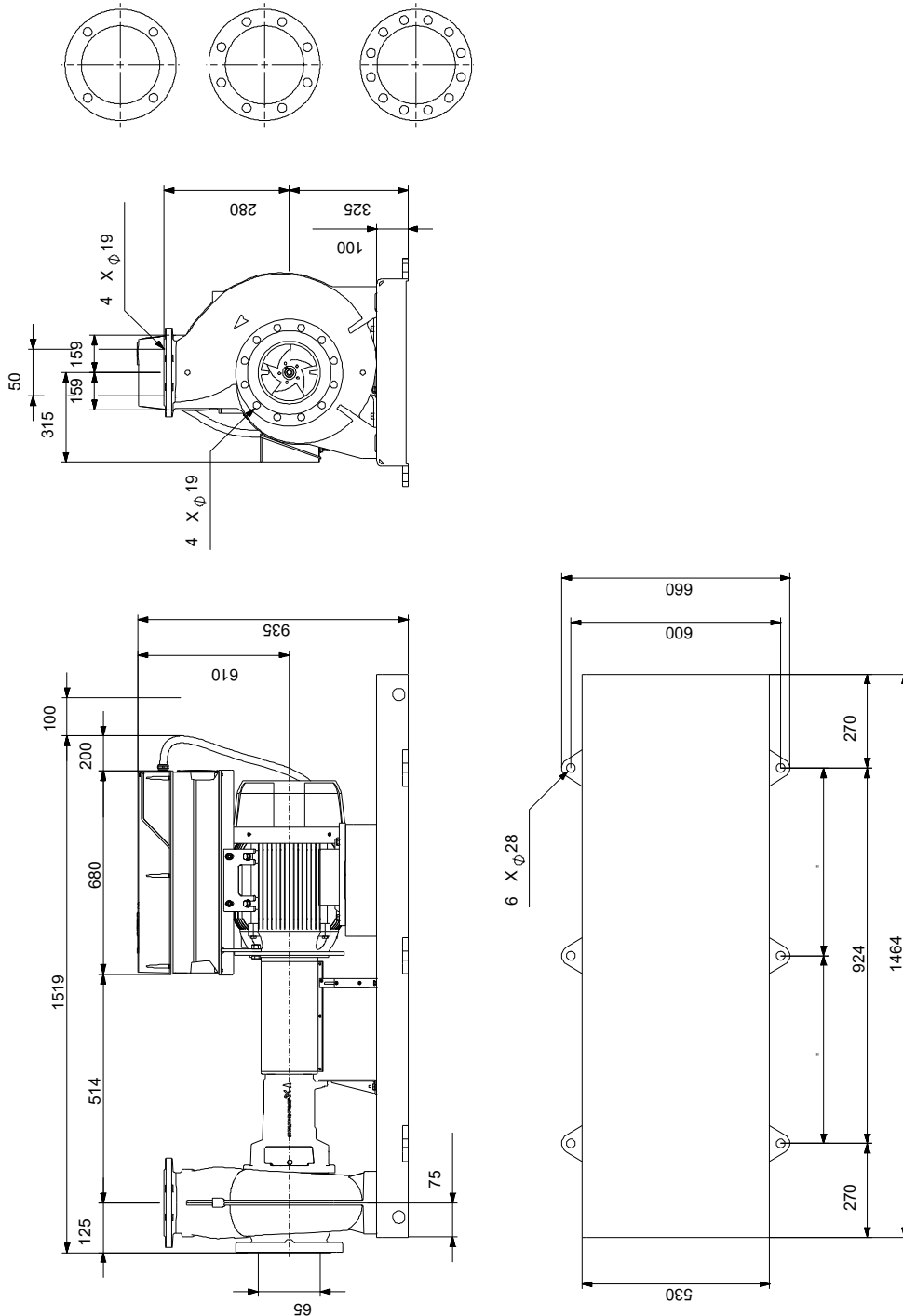
Phone:

Date:

23/10/2024

Description	Value
Starting current:	780 %
Cos phi - power factor:	0.88
Rated speed:	2955 rpm
IE efficiency:	IE4 94,8%
IE Efficiency class:	IE4
Motor efficiency at full load:	94.8 %
Motor efficiency at 3/4 load:	95.1 %
Motor efficiency at 1/2 load:	94.9 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	92779387
Bearing insulation type N-end:	COATED RING
Controls:	
VFD product number:	99616824
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 37KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.50
Net weight:	605 kg
Gross weight:	660 kg
Shipping volume:	1.68 m ³
Country of origin:	HU
Custom tariff no.:	84137059
Language on pump nameplate:	GB

On request NKE 50-315/285 AIA1F2AVSBQQVSW1 50 Hz



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

On request NKE 50-315/285 AIA1F2AVSBQQVSW1 50 Hz



IEC TP211 THERMALLY PROTECTED WHEN THE THERMISTORS ARE
CONNECTED TO AMPLIFIER RELAY FOR CONTROL OF MAIN SUPPLY
THERMISTORS PTC ACCORDING TO DIN 44082

Note! All units are in [mm] unless others are stated.

