

# Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:
REPRESENTATIVE: _____	TYPE OF SERVICE:	DATE: _____
ENGINEER:	SUBMITTED BY:	DATE:
CONTRACTOR:	APPROVED BY:	DATE:
	ORDER NO.:	DATE:

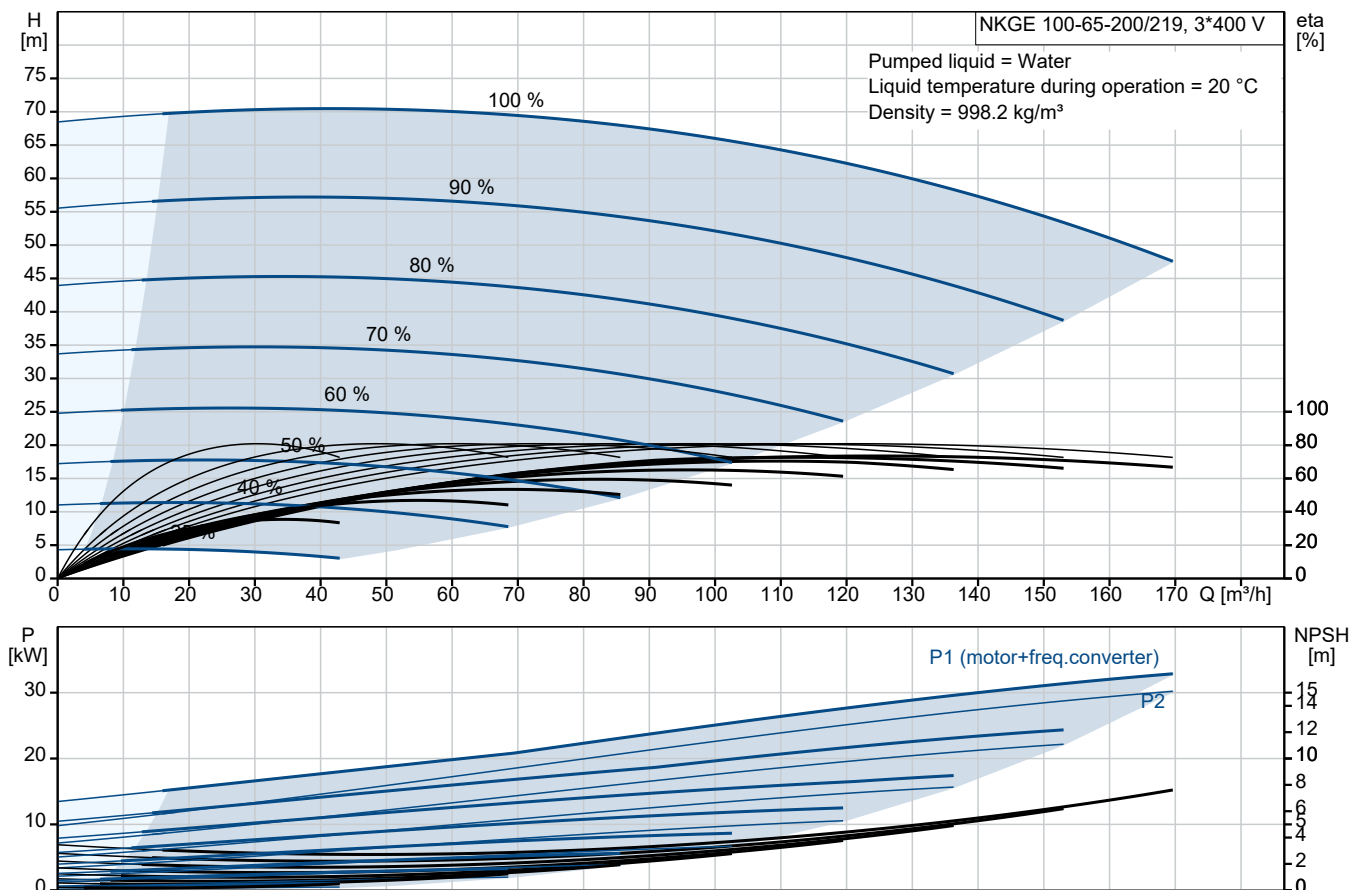
## NKGE 100-65-200/219 AIA2F2KESBQQESW1



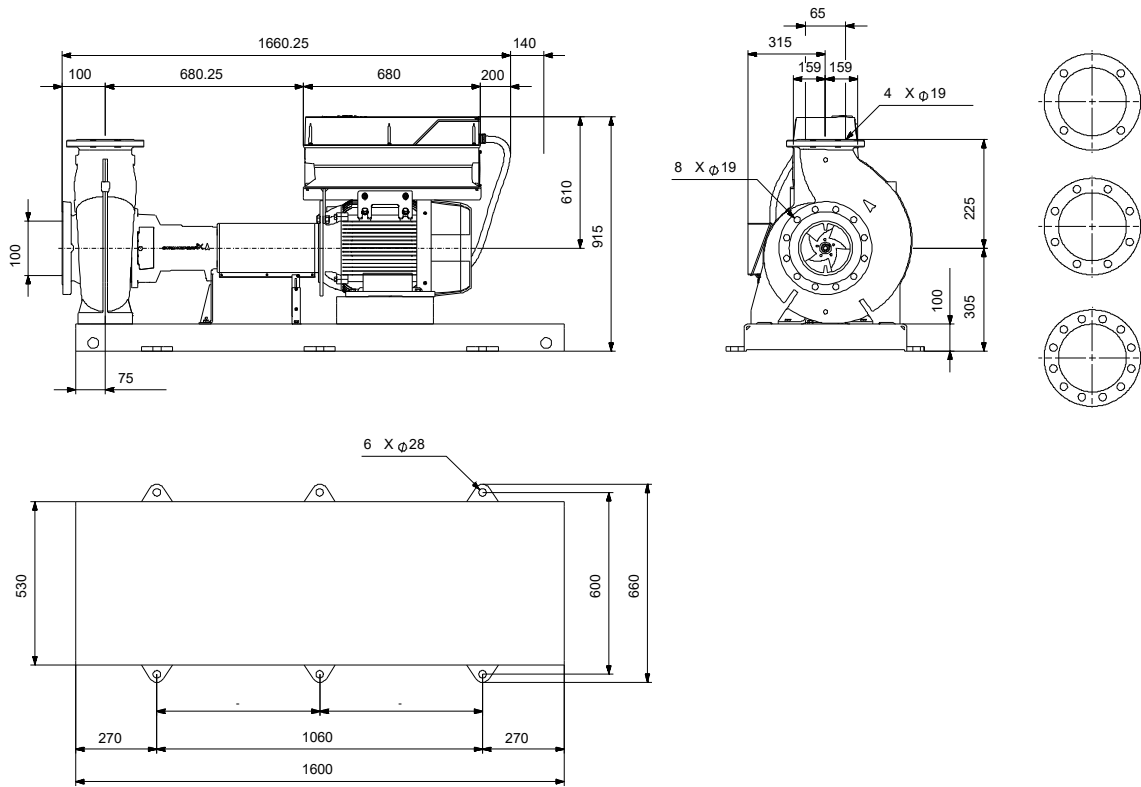
Standard pumps according to ISO 2858 with frequency-controlled motors

Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Liquid temperature range:	-25 .. 120 °C	Rated voltage:	380-420D/660-725Y V
Temperature:	20 °C	Maximum ambient temperature:	50 °C	Mains frequency:	50 Hz
Specific Gravity:	1.000	Shaft seal:	BQQE	Enclosure class:	IP55
		Product number:	On request	Insulation class:	F
				Motor protection:	PTC
				Motor type:	SIEMENS
				Eta 1/1:	94.8 %



# Submittal Data



**Materials:**

- Pump housing: Stainless steel
- Pump housing: ASTM CF8M
- Impeller: Stainless steel
- Impeller: ASTM CF8M
- Impeller: EN 1.4408
- Material code: K
- Code for rubber: E

**Qty. Description**

1 NKG 100-65-200/219 AIA2F2KESBQQESW1



**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 ISO 2858. Flanges are PN 16 with dimensions according to EN 1092-1. 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.

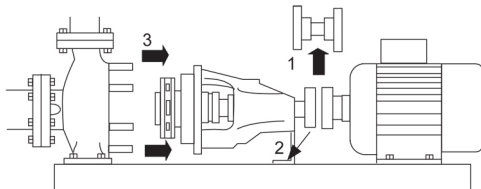
The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

Pump and motor are mounted on a common steel base frame in accordance with ISO 3661.

The back pull-out design together with a spacer coupling makes it possible to service the pump without dismantling the pump housing and motor from the base frame.

This saves realignment of pump and motor after service.

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



## Pump

The pump housing has both a priming and a drain hole closed by plugs. The impeller is a closed impeller with double-curved blades with smooth surfaces. The impeller is statically balanced according to ISO 1940-1 class G6.3 and hydraulically balanced to compensate for axial thrust.

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.

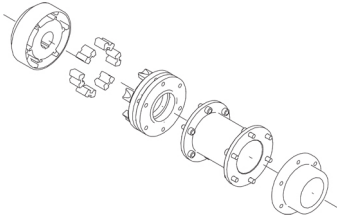
Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

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

**Qty. Description**

1 The pump uses a spacer coupling between the pump and motor shaft.



The pump has loose flanges.

The loose flanges are made of cast iron (EN-GJS-500-7/ASTM 70-50-05).

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**

**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: -25 .. 120 °C  
 Selected liquid temperature: 20 °C  
 Density: 998.2 kg/m<sup>3</sup>

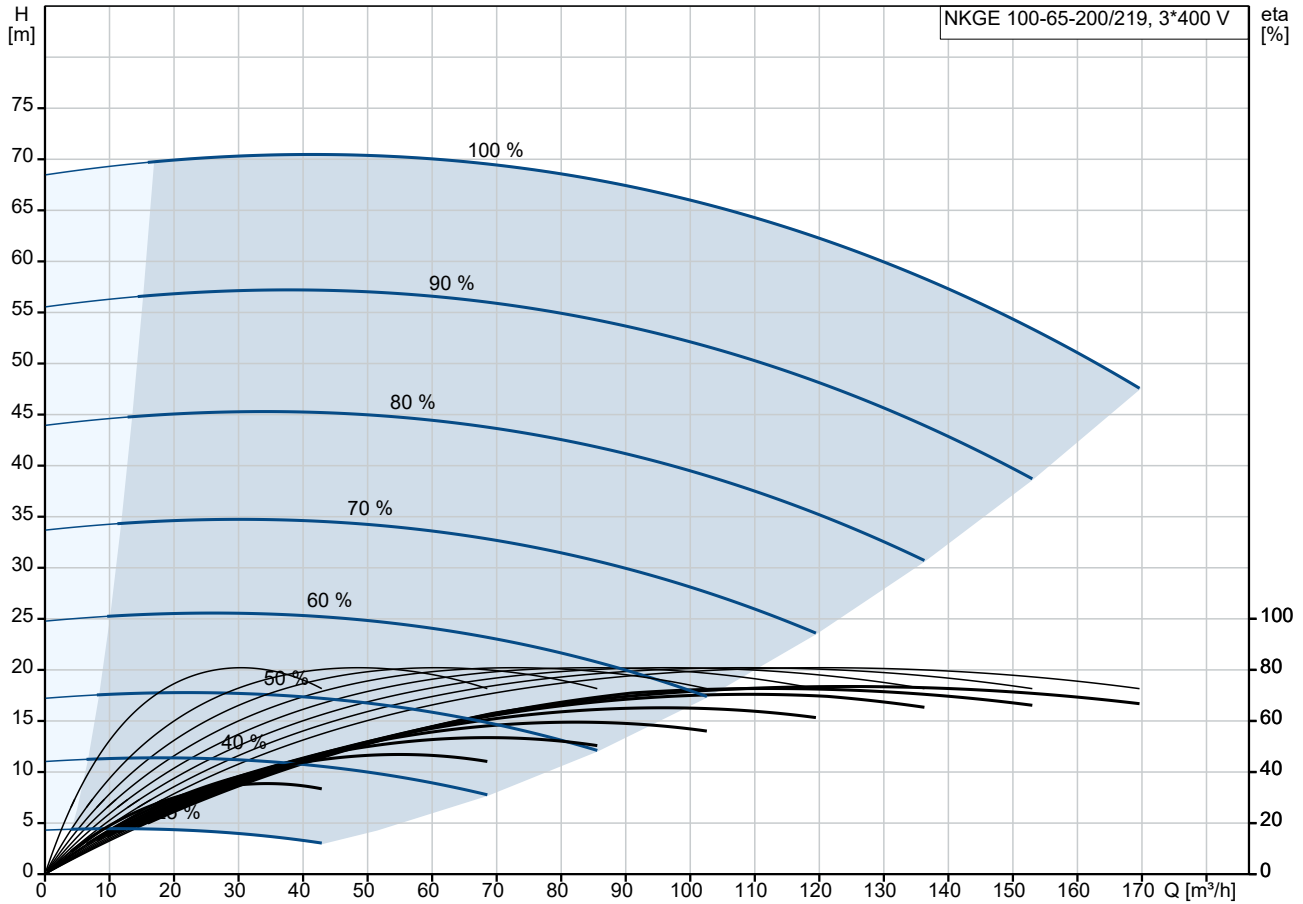
Technical:

Pump speed on which pump data are based: 2955 rpm  
 Rated flow: 119.8 m<sup>3</sup>/h  
 Pump with motor (Yes/No): Y  
 Rated head: 61.57 m  
 Actual impeller diameter: 219 mm  
 Nominal impeller diameter: 200  
 Type of impeller: Standard  
 Code for shaft seal: BQQE  
 Mechanical seal type: Single  
 Curve tolerance: ISO9906:2012 3B  
 Bearing design: Standard

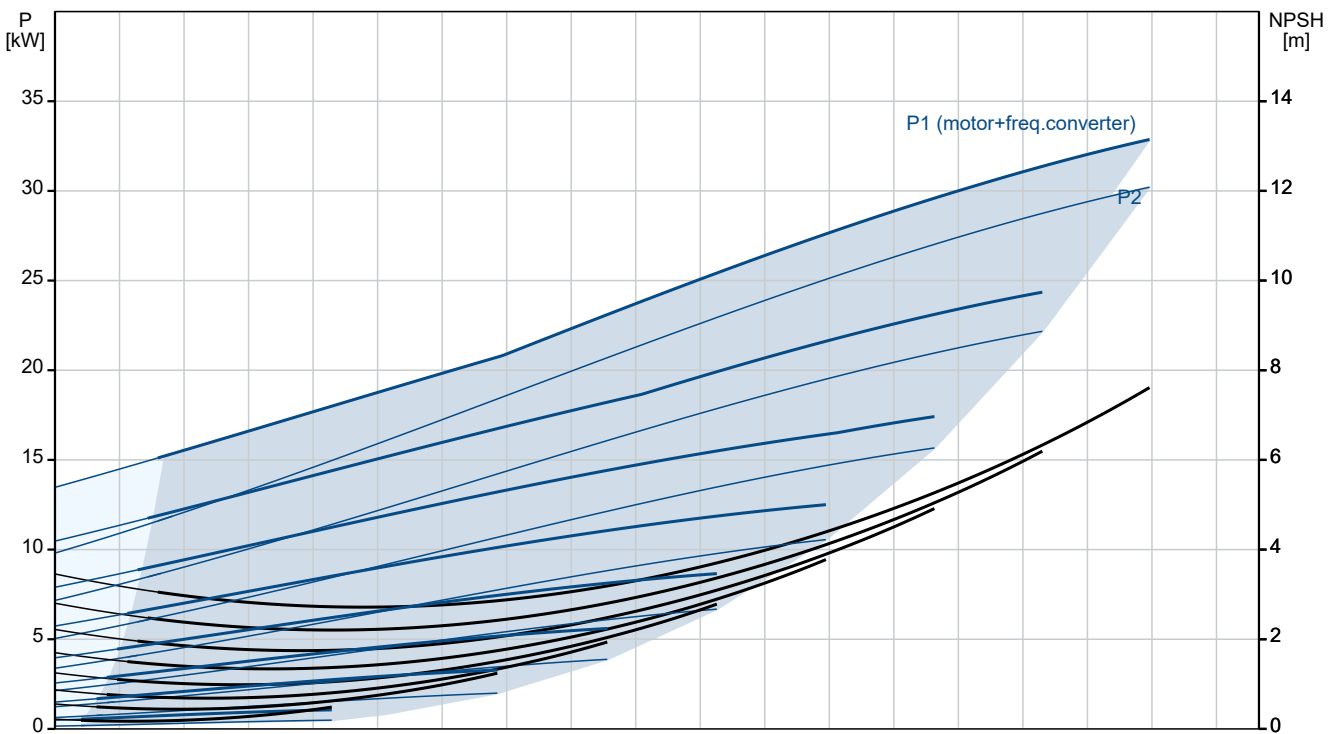
Materials:

Qty.	Description
1	<p>Pump housing: Stainless steel EN 1.4408 ASTM CF8M</p> <p>Wear ring: Stainless steel</p> <p>Flange: Cast iron EN-GJS-500-7 ASTM 70-50-05</p> <p>Impeller: Stainless steel EN 1.4408 ASTM CF8M</p> <p>Internal pump house coating: No coating</p> <p>Shaft: Stainless steel EN 1.4401 AISI 316</p> <p>Installation:</p> <p>Range of ambient temperature: -10 .. 50 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Pipe connection standard: EN 1092-1</p> <p>Type of inlet connection: DIN</p> <p>Type of outlet connection: DIN</p> <p>Size of inlet connection: DN 100</p> <p>Size of outlet connection: DN 65</p> <p>Pressure rating for connection: PN 16</p> <p>Coupling type: Flexible w/spacer</p> <p>Base frame design: EN/ISO</p> <p>Code for base frame: 8</p> <p>Grouting (Yes/No): N</p> <p>Electrical data:</p> <p>Motor type: SIEMENS</p> <p>Rated power - P2: 37 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 3 x 380-420D/660-725Y V</p> <p>Rated current: 64/37 A</p> <p>Starting current: 780 %</p> <p>Cos phi - power factor: 0.88</p> <p>Rated speed: 2955 rpm</p> <p>IE efficiency: IE4 94,8%</p> <p>IE Efficiency class: IE4</p> <p>Motor efficiency at full load: 94.8 %</p> <p>Motor efficiency at 3/4 load: 95.1 %</p> <p>Motor efficiency at 1/2 load: 94.9 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 92779387</p> <p>Bearing insulation type N-end: COATED RING</p> <p>Others:</p> <p>Minimum efficiency index, MEI ≥: 0.70</p> <p>Net weight: 567 kg</p> <p>Gross weight: 622 kg</p> <p>Shipping volume: 1.68 m<sup>3</sup></p> <p>Country of origin: HU</p> <p>Custom tariff no.: 84137059</p> <p>Language on pump nameplate: GB</p>

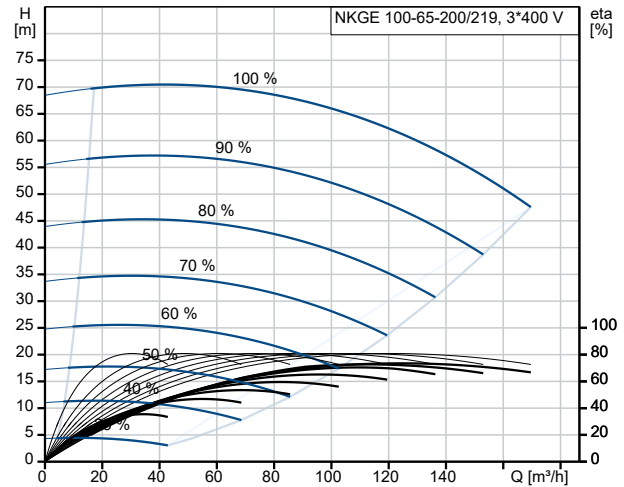
## On request NKGE 100-65-200/219 AIA2F2KESBQQESW1 50 Hz



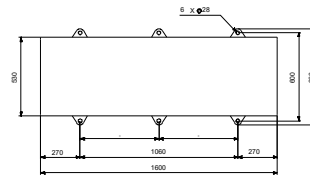
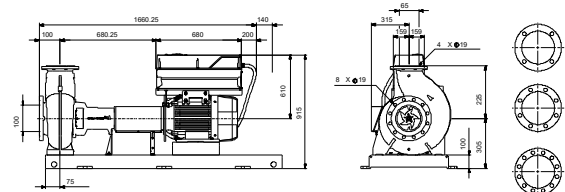
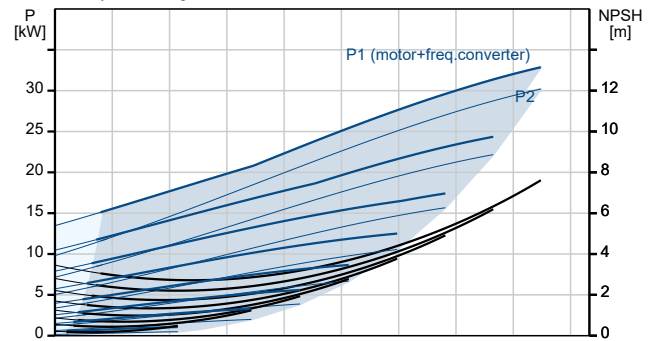
Pumped liquid = Water  
 Liquid temperature during operation = 20 °C  
 Density = 998.2 kg/m³



Description	Value
<b>General information:</b>	
Product name:	NKGE 100-65-200/219 AIA2F2KESBQQESW1
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Pump speed on which pump data are based:	2955 rpm
Rated flow:	119.8 m³/h
Pump with motor (Yes/No):	Y
Rated head:	61.57 m
Actual impeller diameter:	219 mm
Nominal impeller diameter:	200
Type of impeller:	Standard
Shaft diameter:	32 mm
Code for shaft seal:	BQGE
Mechanical seal type:	Single
Curve tolerance:	ISO9906:2012 3B
Pump version:	A2
Bearing design:	Standard
<b>Materials:</b>	
Pump housing:	Stainless steel
Pump housing:	EN 1.4408
Pump housing:	ASTM CF8M
Wear ring:	Stainless steel
Flange:	Cast iron
Flange:	EN-GJS-500-7
Flange:	ASTM 70-50-05
Impeller:	Stainless steel
Impeller:	EN 1.4408
Impeller:	ASTM CF8M
Internal pump house coating:	No coating
Material code:	K
Code for rubber:	E
Shaft:	Stainless steel
Shaft:	EN 1.4401
Shaft:	AISI 316
<b>Installation:</b>	
Range of ambient temperature:	-10 .. 50 °C
Maximum operating pressure:	16 bar
Pipe connection standard:	EN 1092-1
Type of inlet connection:	DIN
Type of outlet connection:	DIN
Size of inlet connection:	DN 100
Size of outlet connection:	DN 65
Pressure rating for connection:	PN 16
Coupling type:	Flexible w/spacer
Base frame design:	EN/ISO
Code for base frame:	8
Grouting (Yes/No):	N
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
<b>Electrical data:</b>	
Motor type:	SIEMENS



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
Rated power - P2:	37 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	64/37 A
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
<b>Controls:</b>	
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
<b>Others:</b>	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	567 kg
Gross weight:	622 kg
Shipping volume:	1.68 m <sup>3</sup>
Country of origin:	HU
Custom tariff no.:	84137059
Language on pump nameplate:	GB



## On request NKGE 100-65-200/219 AIA2F2KESBQQESW1 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.

