

# Submittal Data

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

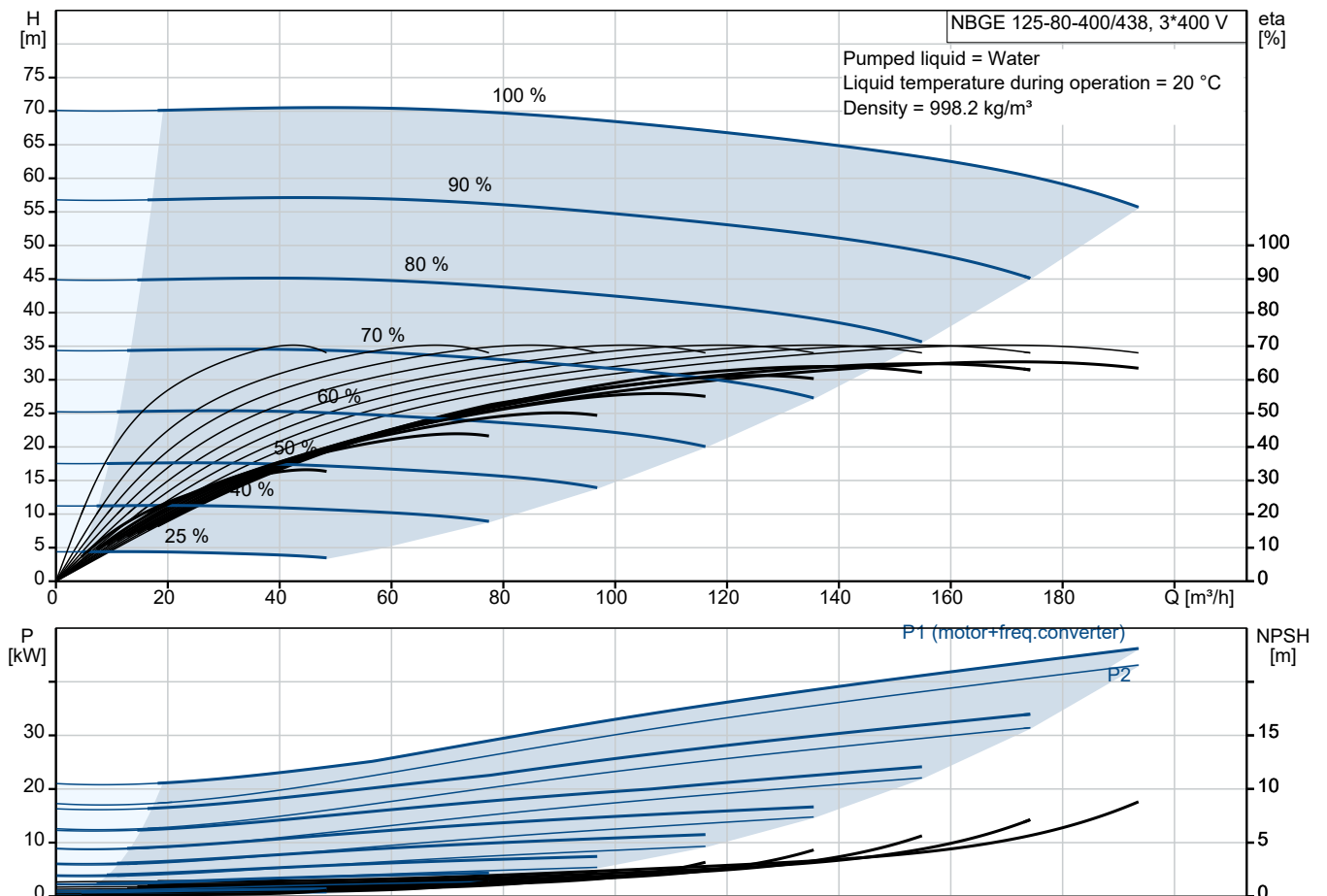


## NBGE 125-80-400/438 AIASF2KVSBQQVTVW3

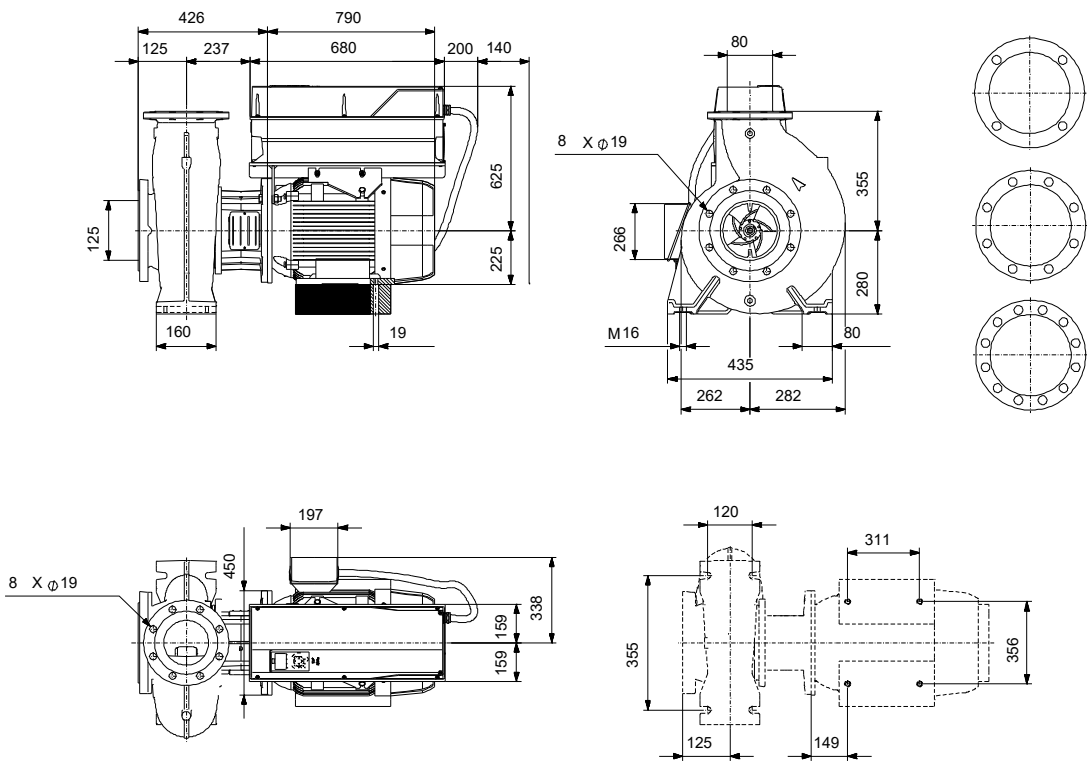
End-suction close-coupled pumps according to ISO 2858 with frequency-controlled motors.

Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Liquid temperature range:	-10 .. 90 °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:	BQQV	Enclosure class:	IP55
		Product number:	On request	Insulation class:	F
				Motor protection:	PTC
				Eta 1/1:	95.4 %



# 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: V

Qty. Description

1 NBGE 125-80-400/438 AIASF2KVSBBQVTW3



Note! Product picture may differ from actual product

Product No.: On request

Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to ISO 2858 (16 bar). Flanges are PN 16 with dimensions according to EN 1092-1. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

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

The pump is close-coupled to a fan-cooled asynchronous motor.

The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipes.



## 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 motor stool is made of cast iron (EN-GJL-250) and the pump cover is made of stainless steel (EN 1.4408). Coupling guards are fitted to the motor stool.

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 pump housing has feet.

The pump is to be secured to the foundation with bolts through the pump housing feet and motor feet. The pump is delivered with steel support blocks. The support blocks provide horizontal alignment of the pump and ensure clearance between the motor stool/motor flange and the foundation.

The pump has loose flanges.

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

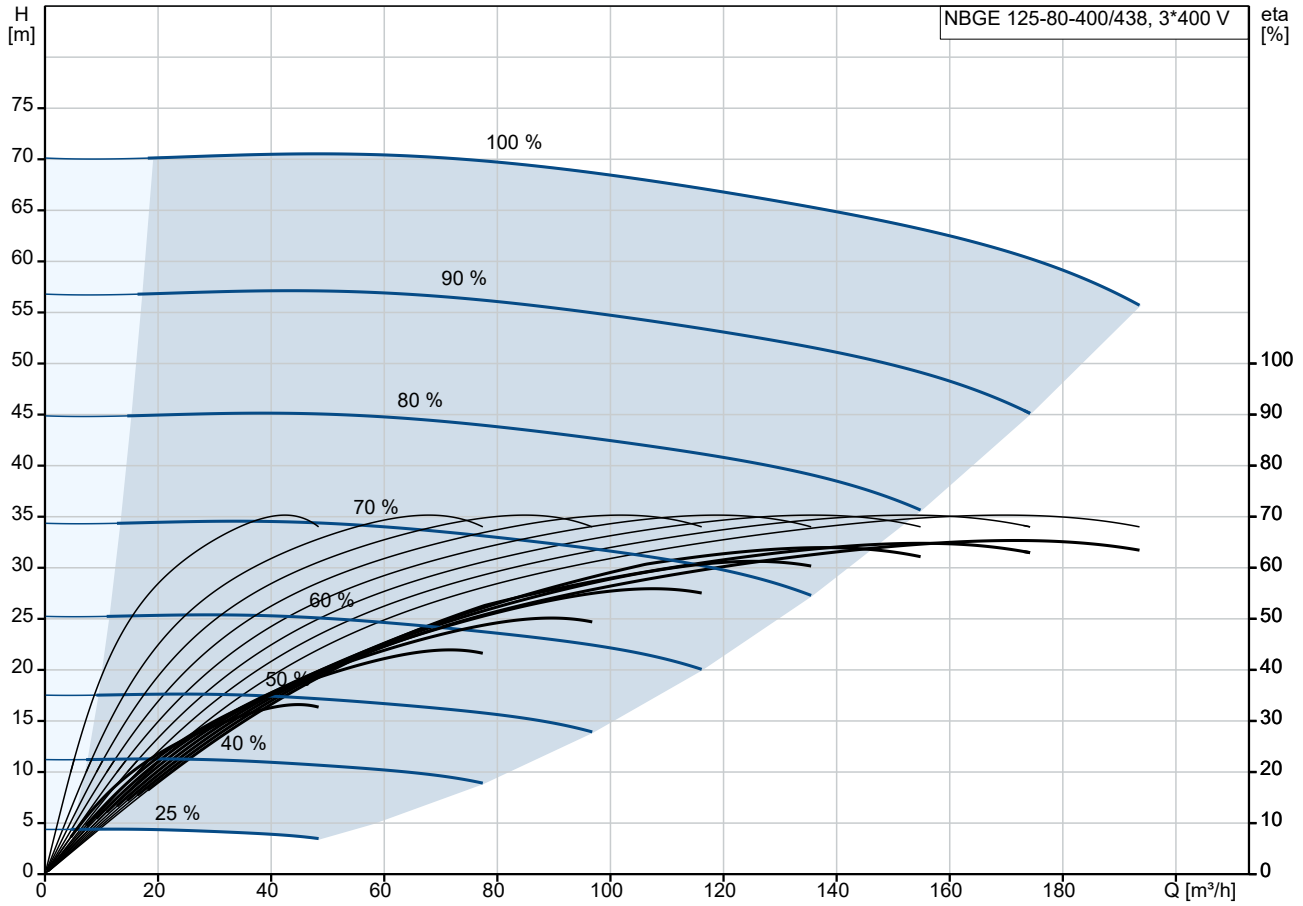
The language on the pump nameplate is English.

## Motor

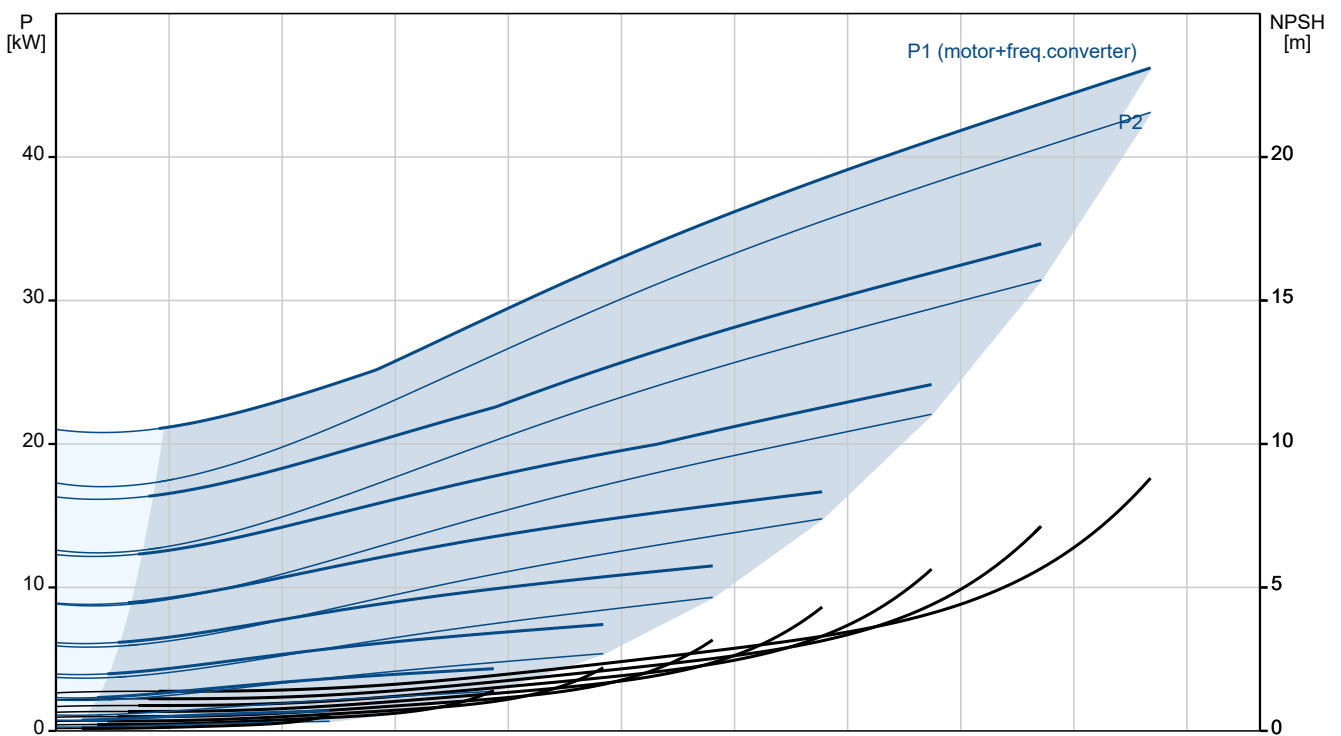
Qty.	Description
1	<p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p>The motor efficiency is classified as IE4 in accordance with IEC 60034-30-1.</p> <p>The motor has thermistors (PTC sensors) in 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.</p> <p>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.</p> <p>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.</p> <p>The motor is equipped with bearing current protection. This protects the bearings from failure due to bearing currents, which can be caused e.g. by the high-frequency switching of a variable frequency drive.</p> <p><b>Further product details</b></p> <p><b>Technical data</b></p> <p>Controls:</p> <p>VFD product number: 99616825</p> <p>Frequency converter: Built-in</p> <p>Type of frequency converter: CUE 3X380-500V IP55 RUG 45KW</p> <p>Appr. for VFD: CE, CULUS, C-TICK</p> <p>Pressure sensor: N</p> <p>Liquid:</p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -10 .. 90 °C</p> <p>Selected liquid temperature: 20 °C</p> <p>Density: 998.2 kg/m<sup>3</sup></p> <p>Technical:</p> <p>Pump speed on which pump data are based: 1485 rpm</p> <p>Rated flow: 176.5 m<sup>3</sup>/h</p> <p>Rated head: 59.58 m</p> <p>Actual impeller diameter: 438 mm</p> <p>Nominal impeller diameter: 400</p> <p>Type of impeller: Standard</p> <p>Shaft seal arrangement: Single</p> <p>Code for shaft seal: BQQV</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p>Bearing design: Standard</p> <p>Materials:</p> <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</p>

Qty.	Description
1	<p data-bbox="566 338 662 369">AISI 316</p> <p data-bbox="199 398 327 430">Installation:</p> <p data-bbox="199 430 694 461">Range of ambient temperature: -10 .. 50 °C</p> <p data-bbox="199 461 630 492">Maximum operating pressure: 16 bar</p> <p data-bbox="199 492 678 524">Pipe connection standard: EN 1092-1</p> <p data-bbox="199 524 646 555">Size of inlet connection: DN 125</p> <p data-bbox="199 555 630 586">Size of outlet connection: DN 80</p> <p data-bbox="199 586 630 618">Pressure rating for connection: PN 16</p> <p data-bbox="199 618 646 649">Bearing lubrication: Grease</p> <p data-bbox="199 649 614 680">Pump housing with feet: Yes</p> <p data-bbox="199 680 582 712">Support block (Yes/No): Y</p> <p data-bbox="199 734 359 766">Electrical data:</p> <p data-bbox="199 766 630 797">Rated power - P2: 45 kW</p> <p data-bbox="199 797 630 828">Mains frequency: 50 Hz</p> <p data-bbox="199 828 853 860">Rated voltage: 3 x 380-420D/660-725Y V</p> <p data-bbox="199 860 694 891">Rated current: 81.0/47.0 A</p> <p data-bbox="199 891 630 922">Starting current: 800 %</p> <p data-bbox="199 922 614 954">Cos phi - power factor: 0.84</p> <p data-bbox="199 954 678 985">Rated speed: 1485 rpm</p> <p data-bbox="199 985 678 1016">IE efficiency: IE4 95,4%</p> <p data-bbox="199 1016 598 1048">IE Efficiency class: IE4</p> <p data-bbox="199 1048 646 1079">Motor efficiency at full load: 95.4 %</p> <p data-bbox="199 1079 646 1111">Motor efficiency at 3/4 load: 95.7 %</p> <p data-bbox="199 1111 646 1142">Motor efficiency at 1/2 load: 95.4 %</p> <p data-bbox="199 1142 582 1173">Number of poles: 4</p> <p data-bbox="199 1173 614 1205">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="199 1205 582 1236">Insulation class (IEC 85): F</p> <p data-bbox="199 1236 678 1267">Motor No: 92691594</p> <p data-bbox="199 1267 885 1299">Bearing insulation type N-end: CERAMIC SHAFT COATING</p> <p data-bbox="199 1321 279 1352">Others:</p> <p data-bbox="199 1352 630 1384">Minimum efficiency index, MEI ≥: 0.44</p> <p data-bbox="199 1384 646 1415">Net weight: 617 kg</p> <p data-bbox="199 1415 646 1447">Gross weight: 698 kg</p> <p data-bbox="199 1447 646 1478">Shipping volume: 1.6 m<sup>3</sup></p> <p data-bbox="199 1478 598 1509">Country of origin: HU</p> <p data-bbox="199 1509 678 1541">Custom tariff no.: 84137051</p> <p data-bbox="199 1541 598 1572">Language on pump nameplate: GB</p>

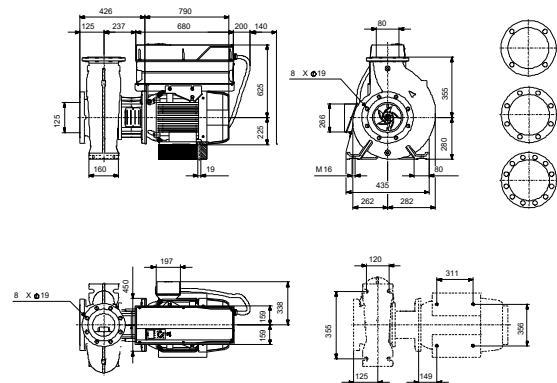
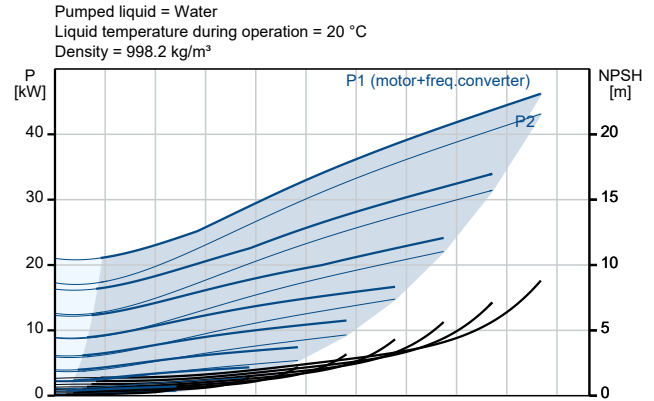
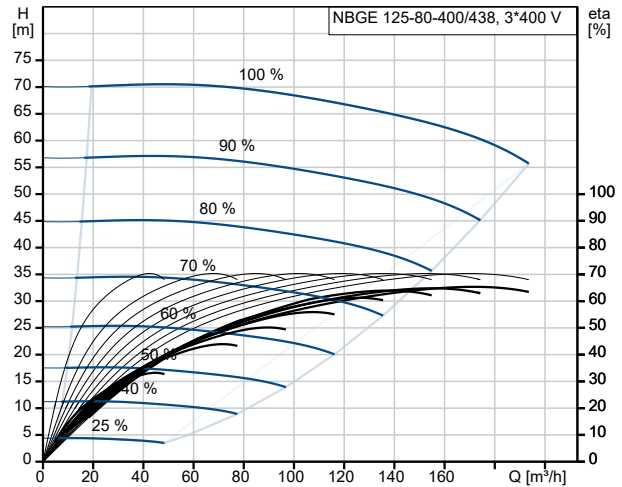
## On request NBGE 125-80-400/438 AIASF2KVSBQQVTW3 50 Hz



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



Description	Value
<b>General information:</b>	
Product name:	NBGE 125-80-400/438 AIASF2KVSBBQQVTW3
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Pump speed on which pump data are based:	1485 rpm
Rated flow:	176.5 m <sup>3</sup> /h
Rated head:	59.58 m
Actual impeller diameter:	438 mm
Nominal impeller diameter:	400
Type of impeller:	Standard
Shaft seal arrangement:	Single
Shaft diameter:	42 mm
Code for shaft seal:	BQQV
Curve tolerance:	ISO9906:2012 3B
Pump version:	AS
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:	V
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
Size of inlet connection:	DN 125
Size of outlet connection:	DN 80
Pressure rating for connection:	PN 16
Bearing lubrication:	Grease
Pump housing with feet:	Yes
Support block (Yes/No):	Y
Connect code:	F2
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-10 .. 90 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Rated power - P2:	45 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	81.0/47.0 A
Starting current:	800 %





Company name:

Created by:

Phone:

Date:

24/10/2024

Description	Value
Cos phi - power factor:	0.84
Rated speed:	1485 rpm
IE efficiency:	IE4 95,4%
IE Efficiency class:	IE4
Motor efficiency at full load:	95.4 %
Motor efficiency at 3/4 load:	95.7 %
Motor efficiency at 1/2 load:	95.4 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	92691594
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	CERAMIC SHAFT COATING
<b>Controls:</b>	
VFD product number:	99616825
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 45KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
<b>Others:</b>	
Minimum efficiency index, MEI ≥:	0.44
Net weight:	617 kg
Gross weight:	698 kg
Shipping volume:	1.6 m <sup>3</sup>
Country of origin:	HU
Custom tariff no.:	84137051
Language on pump nameplate:	GB



## On request NBGE 125-80-400/438 AIASF2KVSBQQVTW3 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.

