

Submittal Data

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

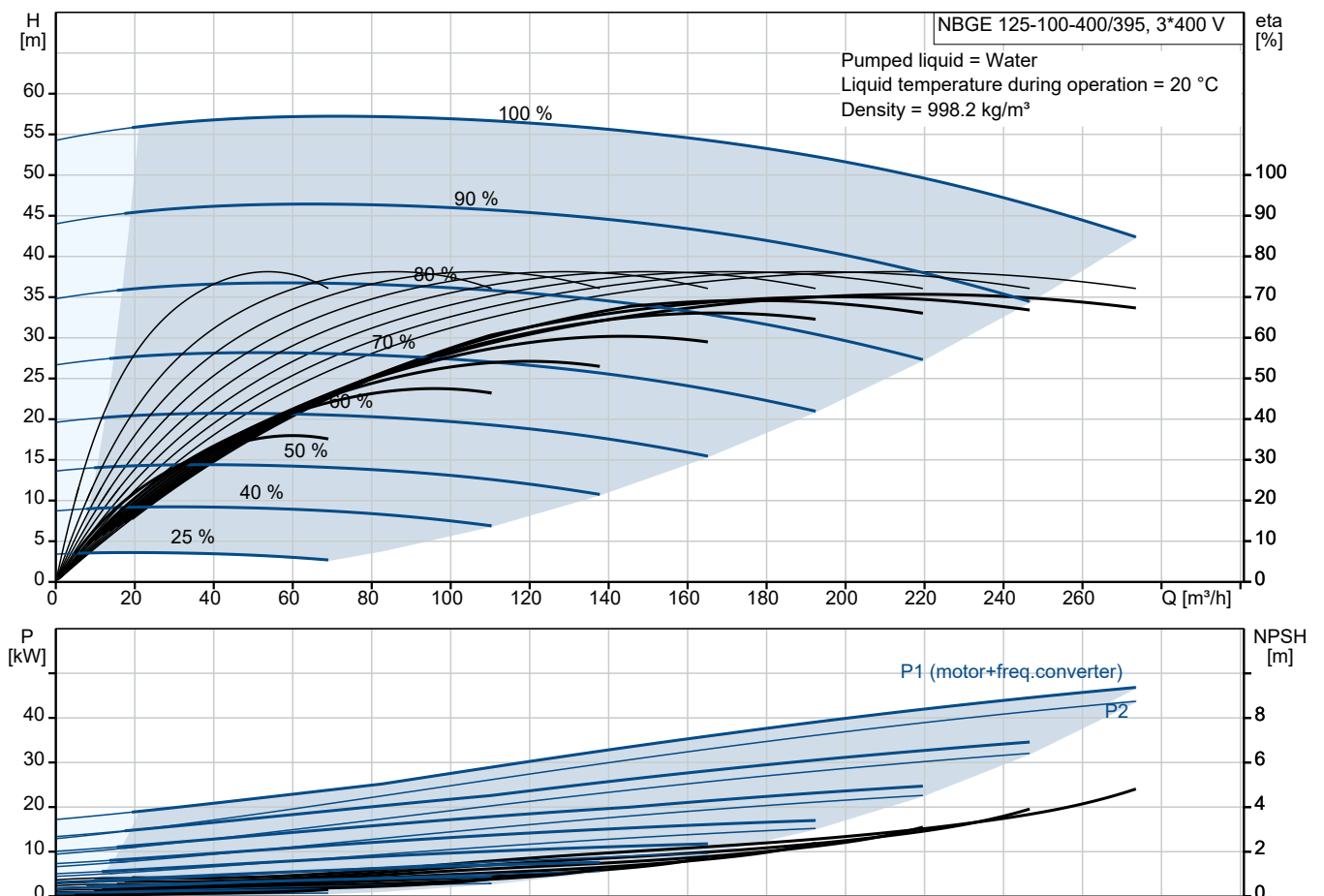


NBGE 125-100-400/395 BIASF2AVSBQQVTW3

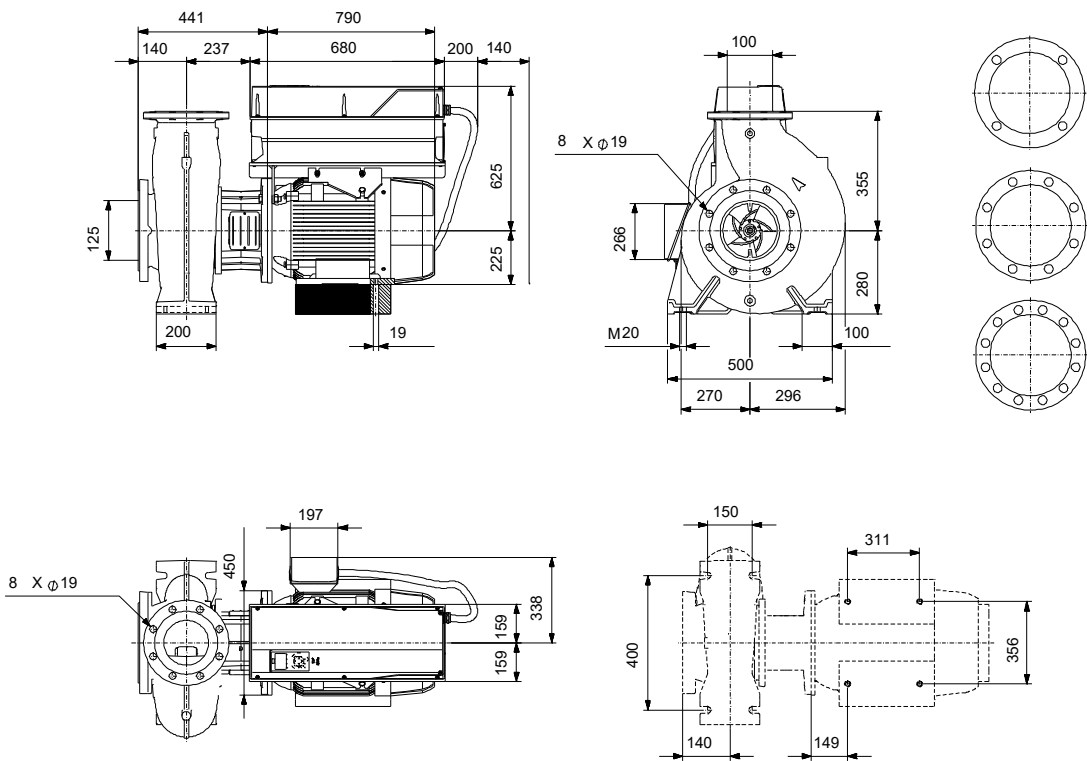
End-suction close-coupled pumps according to ISO 2858 with frequency-controlled motors.

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: Cast iron
 Pump housing: ASTM class 35
 Impeller: Cast iron
 Impeller: ASTM class 30
 Impeller: EN-GJL-200
 Material code: A
 Code for rubber: V

Qty. Description

1 NBGE 125-100-400/395 BIASF2AVSBQQVTW3



Note! Product picture may differ from actual product

Product No.: On request

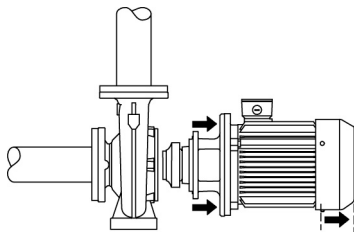
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to ISO 2858 (16 bar). Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back 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 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.

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



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.

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.

Motor stool and pump cover are made of cast iron (EN-GJL-250). 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.

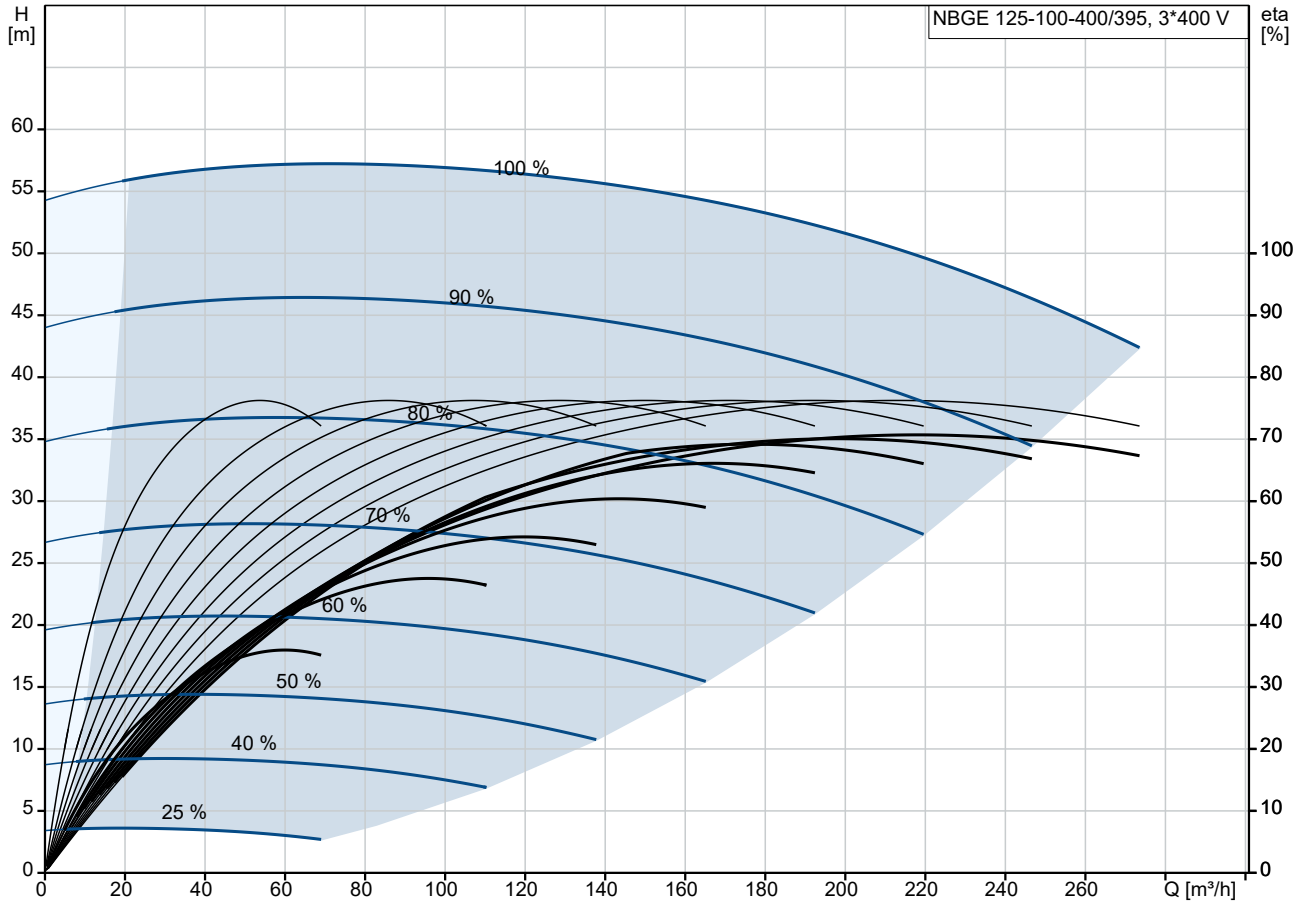
The pump is to be secured to the foundation with bolts through the pump housing feet and motor feet. The pump is delivered with steel support blocks. The support blocks provide horizontal alignment of the pump and ensure clearance between the motor stool/motor flange and the foundation.

The language on the pump nameplate is English.

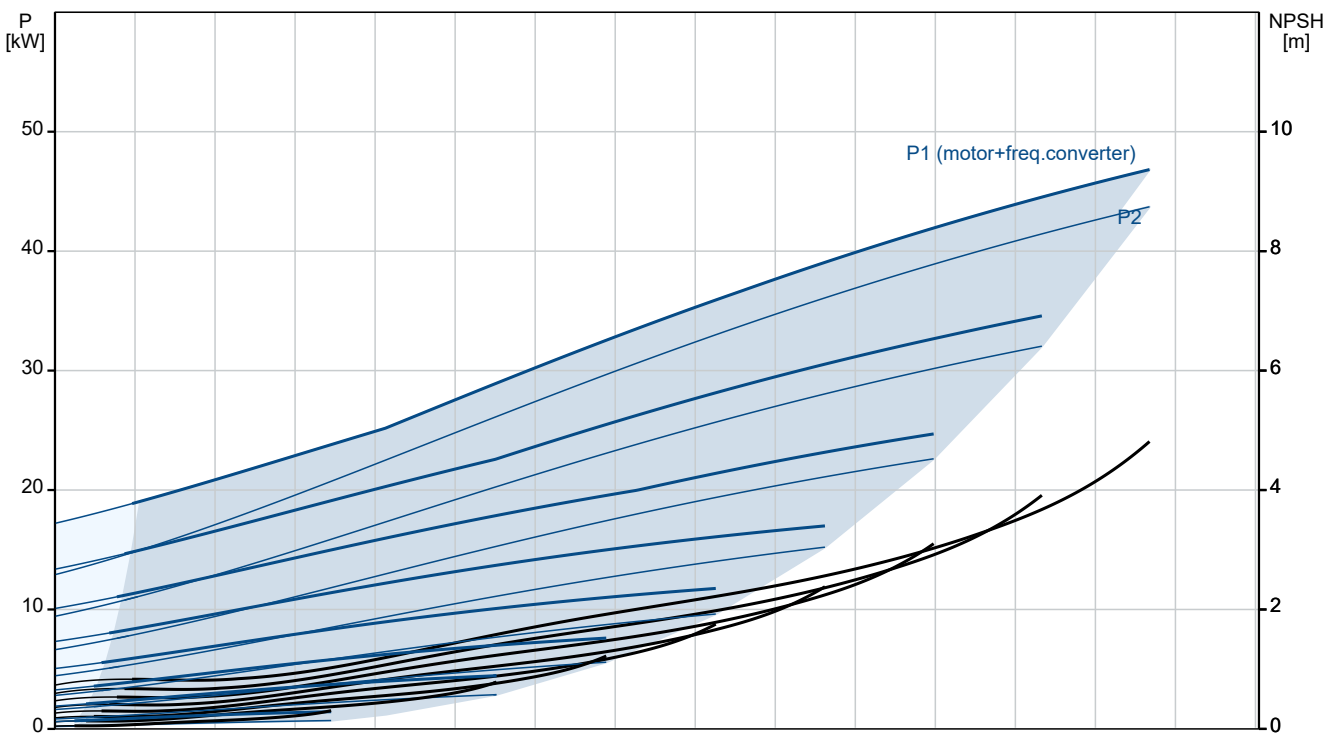
Qty.	Description																																																
1	<p data-bbox="201 338 284 371">Motor</p> <p data-bbox="201 376 1394 427">The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p data-bbox="201 432 1015 461">The motor efficiency is classified as IE4 in accordance with IEC 60034-30-1.</p> <p data-bbox="201 465 1433 517">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 data-bbox="201 521 1422 598">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 data-bbox="201 602 1410 656">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 data-bbox="201 660 1457 714">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 data-bbox="201 784 512 817">Further product details</p> <p data-bbox="201 822 1457 898">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.</p> <p data-bbox="201 967 400 1001">Technical data</p> <p data-bbox="201 1030 300 1059">Controls:</p> <p data-bbox="201 1064 948 1211"> <table border="0"> <tr> <td>VFD product number:</td> <td>99616825</td> </tr> <tr> <td>Frequency converter:</td> <td>Built-in</td> </tr> <tr> <td>Type of frequency converter:</td> <td>CUE 3X380-500V IP55 RUG 45KW</td> </tr> <tr> <td>Appr. for VFD:</td> <td>CE, CULUS, C-TICK</td> </tr> <tr> <td>Pressure sensor:</td> <td>N</td> </tr> </table> </p> <p data-bbox="201 1243 276 1272">Liquid:</p> <p data-bbox="201 1276 695 1393"> <table border="0"> <tr> <td>Pumped liquid:</td> <td>Water</td> </tr> <tr> <td>Liquid temperature range:</td> <td>-10 .. 90 °C</td> </tr> <tr> <td>Selected liquid temperature:</td> <td>20 °C</td> </tr> <tr> <td>Density:</td> <td>998.2 kg/m³</td> </tr> </table> </p> <p data-bbox="201 1424 314 1453">Technical:</p> <p data-bbox="201 1458 818 1758"> <table border="0"> <tr> <td>Pump speed on which pump data are based:</td> <td>1485 rpm</td> </tr> <tr> <td>Rated flow:</td> <td>212 m³/h</td> </tr> <tr> <td>Rated head:</td> <td>50.34 m</td> </tr> <tr> <td>Actual impeller diameter:</td> <td>395 mm</td> </tr> <tr> <td>Nominal impeller diameter:</td> <td>400</td> </tr> <tr> <td>Type of impeller:</td> <td>Standard</td> </tr> <tr> <td>Shaft seal arrangement:</td> <td>Single</td> </tr> <tr> <td>Code for shaft seal:</td> <td>BQQV</td> </tr> <tr> <td>Curve tolerance:</td> <td>ISO9906:2012 3B</td> </tr> <tr> <td>Bearing design:</td> <td>Standard</td> </tr> </table> </p> <p data-bbox="201 1789 309 1818">Materials:</p> <p data-bbox="201 1823 730 2092"> <table border="0"> <tr> <td>Pump housing:</td> <td>Cast iron EN-GJL-250 ASTM class 35</td> </tr> <tr> <td>Wear ring:</td> <td>Brass</td> </tr> <tr> <td>Impeller:</td> <td>Cast iron EN-GJL-200 ASTM class 30</td> </tr> <tr> <td>Internal pump house coating:</td> <td>CED</td> </tr> <tr> <td>Shaft:</td> <td>Stainless steel</td> </tr> </table> </p>	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	Pumped liquid:	Water	Liquid temperature range:	-10 .. 90 °C	Selected liquid temperature:	20 °C	Density:	998.2 kg/m ³	Pump speed on which pump data are based:	1485 rpm	Rated flow:	212 m ³ /h	Rated head:	50.34 m	Actual impeller diameter:	395 mm	Nominal impeller diameter:	400	Type of impeller:	Standard	Shaft seal arrangement:	Single	Code for shaft seal:	BQQV	Curve tolerance:	ISO9906:2012 3B	Bearing design:	Standard	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
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Qty.	Description
1	<p data-bbox="564 338 679 367">EN 1.4301</p> <p data-bbox="564 369 660 398">AISI 304</p> <p data-bbox="201 432 325 461">Installation:</p> <p data-bbox="201 463 687 492">Range of ambient temperature: -10 .. 50 °C</p> <p data-bbox="201 495 635 524">Maximum operating pressure: 16 bar</p> <p data-bbox="201 526 683 555">Pipe connection standard: EN 1092-2</p> <p data-bbox="201 557 647 586">Size of inlet connection: DN 125</p> <p data-bbox="201 589 647 618">Size of outlet connection: DN 100</p> <p data-bbox="201 620 635 649">Pressure rating for connection: PN 16</p> <p data-bbox="201 651 647 680">Bearing lubrication: Grease</p> <p data-bbox="201 683 608 712">Pump housing with feet: Yes</p> <p data-bbox="201 714 580 743">Support block (Yes/No): Y</p> <p data-bbox="201 768 360 797">Electrical data:</p> <p data-bbox="201 799 635 828">Rated power - P2: 45 kW</p> <p data-bbox="201 831 635 860">Mains frequency: 50 Hz</p> <p data-bbox="201 862 842 891">Rated voltage: 3 x 380-420D/660-725Y V</p> <p data-bbox="201 893 687 922">Rated current: 81.0/47.0 A</p> <p data-bbox="201 925 635 954">Starting current: 800 %</p> <p data-bbox="201 956 608 985">Cos phi - power factor: 0.84</p> <p data-bbox="201 987 667 1016">Rated speed: 1485 rpm</p> <p data-bbox="201 1019 676 1048">IE efficiency: IE4 95,4%</p> <p data-bbox="201 1050 603 1079">IE Efficiency class: IE4</p> <p data-bbox="201 1081 639 1111">Motor efficiency at full load: 95.4 %</p> <p data-bbox="201 1113 639 1142">Motor efficiency at 3/4 load: 95.7 %</p> <p data-bbox="201 1144 639 1173">Motor efficiency at 1/2 load: 95.4 %</p> <p data-bbox="201 1176 580 1205">Number of poles: 4</p> <p data-bbox="201 1207 616 1236">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="201 1238 580 1267">Insulation class (IEC 85): F</p> <p data-bbox="201 1270 671 1299">Motor No: 92691594</p> <p data-bbox="201 1301 879 1330">Bearing insulation type N-end: CERAMIC SHAFT COATING</p> <p data-bbox="201 1355 280 1384">Others:</p> <p data-bbox="201 1386 635 1415">Minimum efficiency index, MEI ≥: 0.70</p> <p data-bbox="201 1417 639 1447">Net weight: 622 kg</p> <p data-bbox="201 1449 639 1478">Gross weight: 709 kg</p> <p data-bbox="201 1480 647 1509">Shipping volume: 1.88 m³</p> <p data-bbox="201 1512 603 1541">Country of origin: HU</p> <p data-bbox="201 1543 671 1572">Custom tariff no.: 84137051</p> <p data-bbox="201 1574 603 1603">Language on pump nameplate: GB</p>

On request NBGE 125-100-400/395 BIASF2AVSBQQVTW3 50 Hz



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





Company name:

Created by:

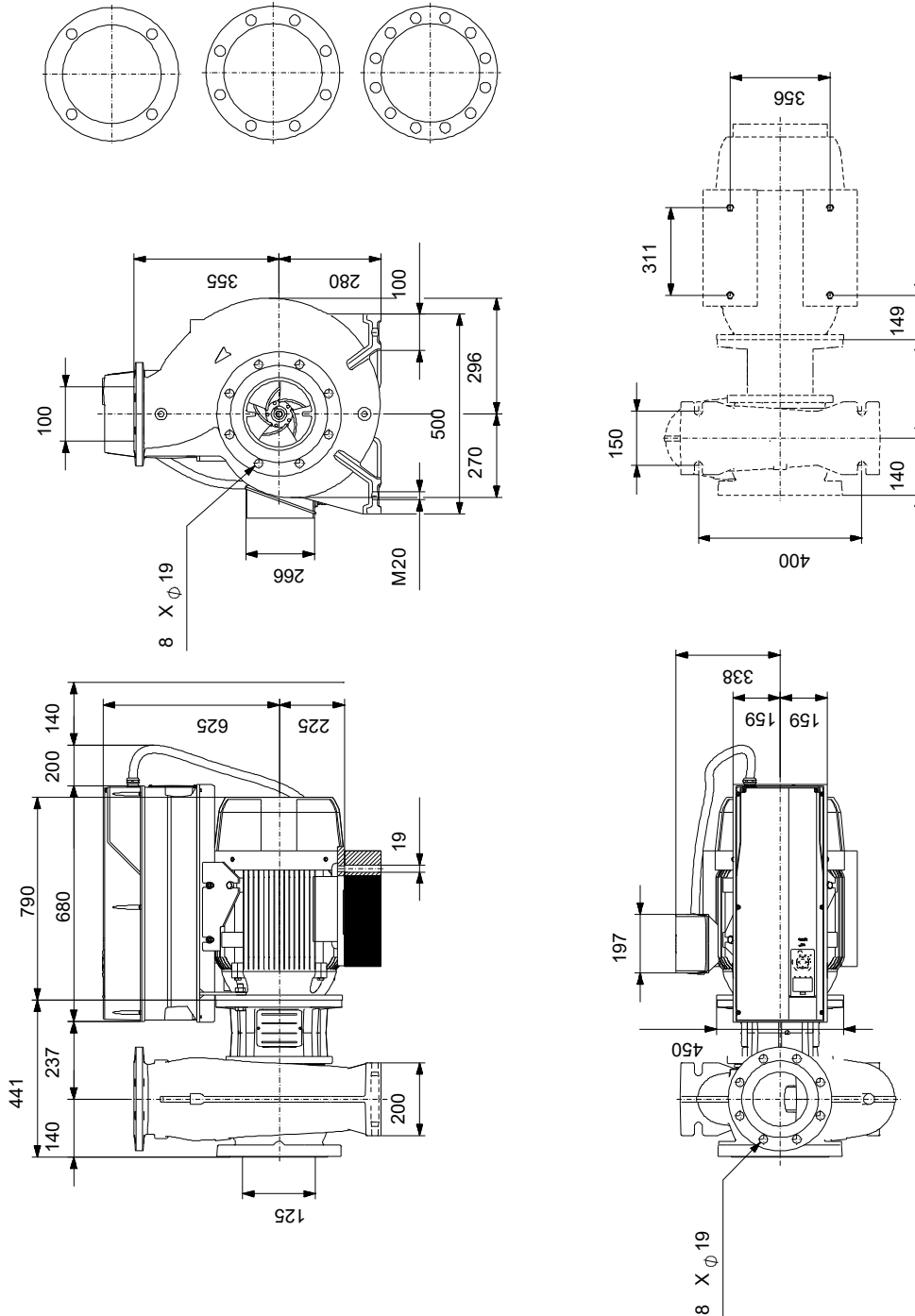
Phone:

Date:

25/10/2024

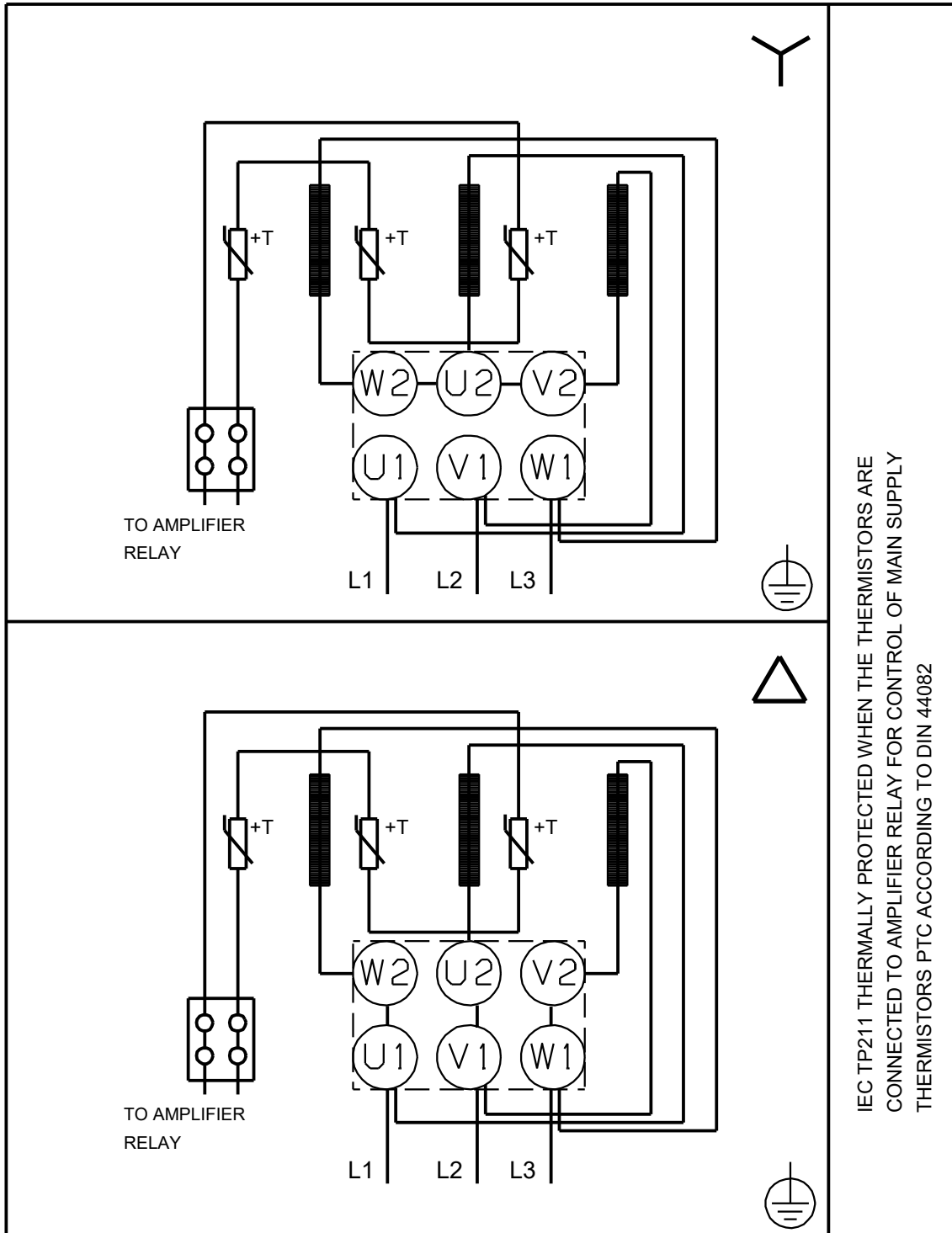
Description	Value
IE Efficiency class:	IE4
Motor efficiency at full load:	95.4 %
Motor efficiency at 3/4 load:	95.7 %
Motor efficiency at 1/2 load:	95.4 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	92691594
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	CERAMIC SHAFT COATING
Controls:	
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
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	622 kg
Gross weight:	709 kg
Shipping volume:	1.88 m ³
Country of origin:	HU
Custom tariff no.:	84137051
Language on pump nameplate:	GB

On request NBGE 125-100-400/395 BIASF2AVSBQQVTW3 50 Hz



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

On request NBGE 125-100-400/395 BIASF2AVSBQQVTW3 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.

