

NK50-160/150A1F2AE-SBAQE

Grundfos Pump 97829219



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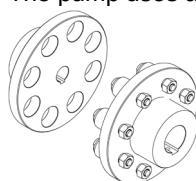
<https://www.lenntech.com/grundfos/NKBASIS/97829219/NK-50-160-150-A1-F-A-E-BAQE.html>

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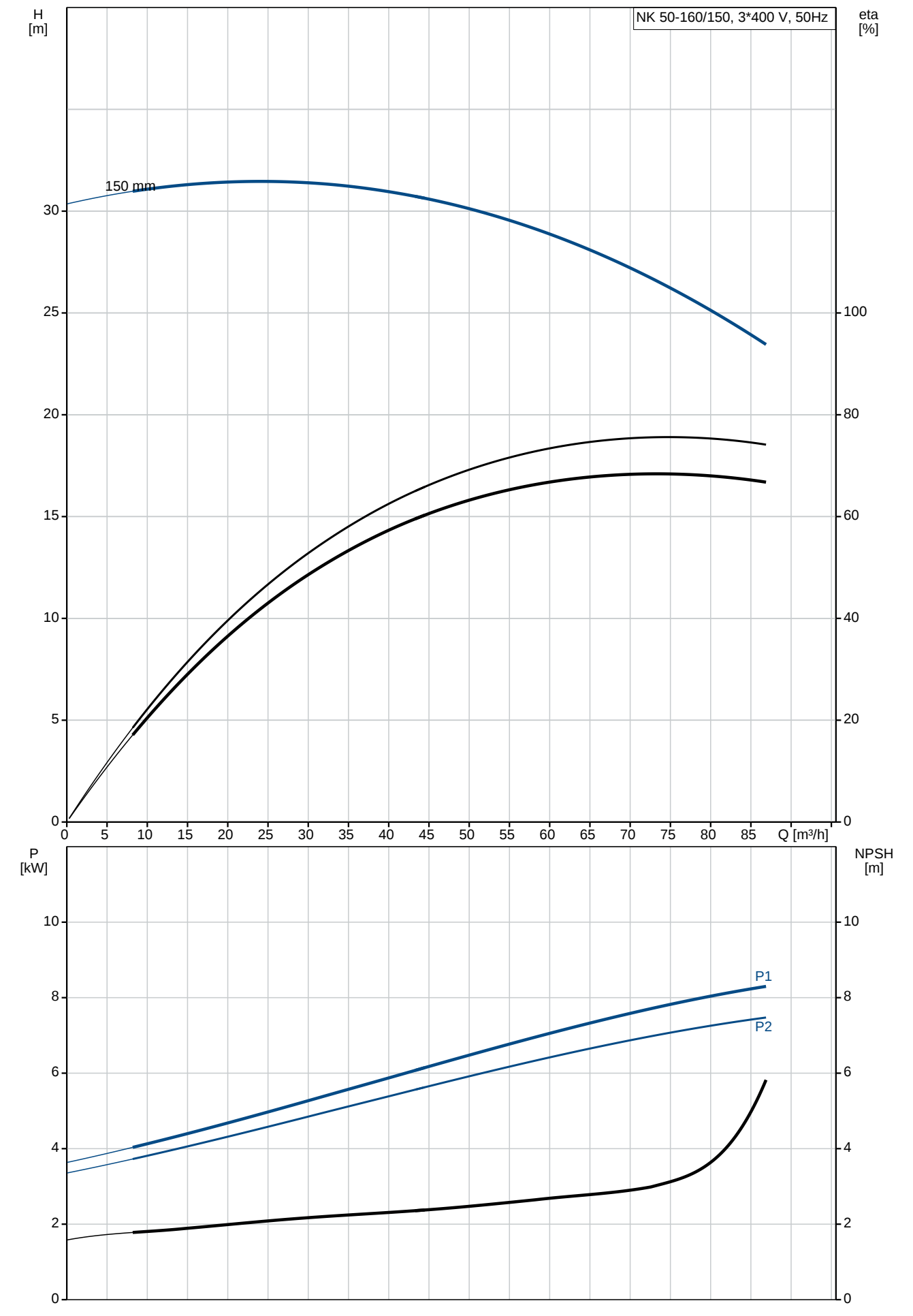
fax. +31-15-261.62.89

Position	Qty.	Description
	1	NK 50-160/150 A1-F-A-E-BAQE  Product No.: 97829219 Non-self-priming, single-stage, centrifugal volute 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. Further product details 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 makes it possible to make service on 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.  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. An integral part of the process is a pretreatment. The entire process consists of these elements: 1) Alkaline-based cleaning. 2) Zinc phosphating. 3) Cathodic electro-deposition. 4) Curing to a dry film thickness 18-22 my m. The colour code for the finished product is NCS 9000/RAL 9005. 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. Wear rings used in pump housing and for impeller are made of bronze/brass or cast iron. 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. Primary seal: - Rotating seal ring material: Carbon graphite, metal-impregnated - Stationary seat material: Silicon carbide (SiC) This material pairing has a very good corrosion resistance and is especially suitable for water up to +120 °C. However, seal life will be reduced at temperatures above +90 °C. The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face. Secondary seal material: EPDM (ethylene-propylene rubber)

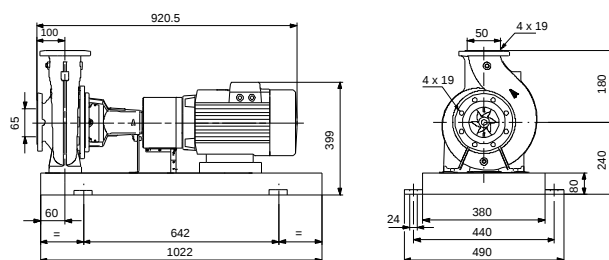
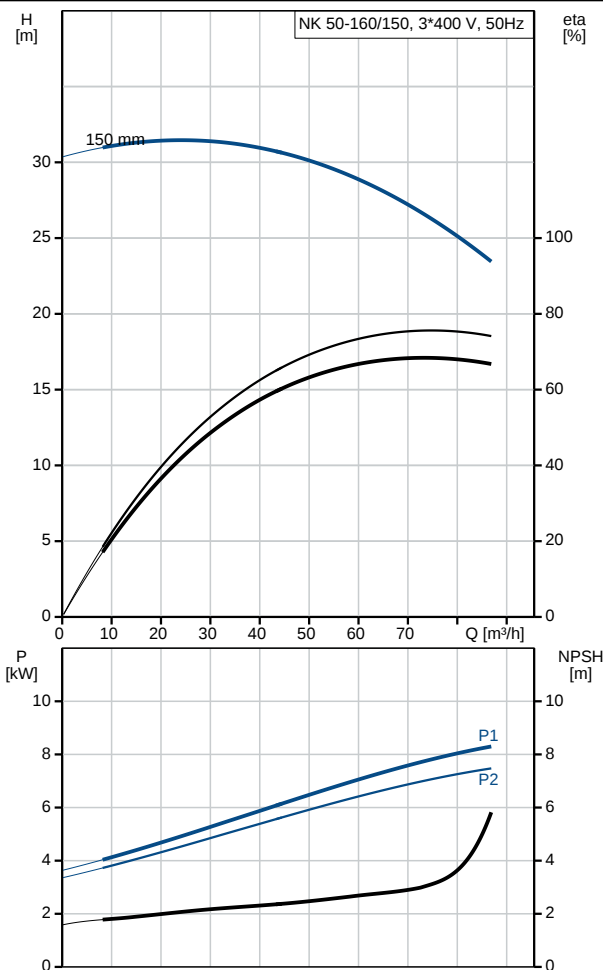
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		EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils. The shaft is made of stainless steel and has a diameter of 24 mm where the coupling is mounted. The pump uses a standard coupling between the pump and motor shaft.  Motor The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards and mounting designation B3 (IM 1001). Electrical tolerances comply with IEC 60034. The motor efficiency is classified as IE3 in accordance with IEC 60034-30. 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 can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center. Technical data Liquid: <table><tr><td>Pumped liquid:</td><td>Water</td></tr><tr><td>Liquid temperature range:</td><td>0 .. 120 °C</td></tr><tr><td>Liquid temperature during operation:</td><td>20 °C</td></tr><tr><td>Density:</td><td>998.2 kg/m³</td></tr></table> Technical: <table><tr><td>Speed for pump data:</td><td>2910 rpm</td></tr><tr><td>Rated flow:</td><td>77.1 m³/h</td></tr><tr><td>Rated head:</td><td>25.5 m</td></tr><tr><td>Actual impeller diameter:</td><td>150 mm</td></tr><tr><td>Impeller nom:</td><td>160 mm</td></tr><tr><td>Primary shaft seal:</td><td>BAQE</td></tr><tr><td>Secondary shaft seal:</td><td>NONE</td></tr><tr><td>Curve tolerance:</td><td>ISO9906:2012 3B</td></tr></table> Materials: <table><tr><td>Pump housing:</td><td>Cast iron EN-GJL-250 ASTM A48-40 B</td></tr><tr><td>Impeller:</td><td>Cast iron EN-GJL-200 ASTM A48-30 B</td></tr><tr><td>Rubber:</td><td>EPDM</td></tr><tr><td>Wear ring mat.:</td><td>High alloy brass(CuZn34Mn3Al2</td></tr></table> Installation: <table><tr><td>Maximum ambient temperature:</td><td>60 °C</td></tr><tr><td>Maximum operating pressure:</td><td>16 bar</td></tr><tr><td>Flange standard:</td><td>EN 1092-2</td></tr><tr><td>Pump inlet:</td><td>DN 65</td></tr><tr><td>Pump outlet:</td><td>DN 50</td></tr><tr><td>Pressure rating:</td><td>PN 16</td></tr><tr><td>Coupling type:</td><td>Standard</td></tr><tr><td>Base frame:</td><td>EN / ISO</td></tr></table>	Pumped liquid:	Water	Liquid temperature range:	0 .. 120 °C	Liquid temperature during operation:	20 °C	Density:	998.2 kg/m³	Speed for pump data:	2910 rpm	Rated flow:	77.1 m³/h	Rated head:	25.5 m	Actual impeller diameter:	150 mm	Impeller nom:	160 mm	Primary shaft seal:	BAQE	Secondary shaft seal:	NONE	Curve tolerance:	ISO9906:2012 3B	Pump housing:	Cast iron EN-GJL-250 ASTM A48-40 B	Impeller:	Cast iron EN-GJL-200 ASTM A48-30 B	Rubber:	EPDM	Wear ring mat.:	High alloy brass(CuZn34Mn3Al2	Maximum ambient temperature:	60 °C	Maximum operating pressure:	16 bar	Flange standard:	EN 1092-2	Pump inlet:	DN 65	Pump outlet:	DN 50	Pressure rating:	PN 16	Coupling type:	Standard	Base frame:	EN / ISO
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Position	Qty.	Description
		Electrical data: Motor type: 132SB IE Efficiency class: IE3 Rated power - P2: 7.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415D/660-690Y V Rated current: 14,4-14,0/8,30-8,10 A Starting current: 780-910 % Cos phi - power factor: 0,88-0,86 Rated speed: 2910-2920 rpm Efficiency: IE3 90,1% - IE3 90,4% Motor efficiency at full load: 90.1-90.4 % Motor efficiency at 3/4 load: 90.8 % Motor efficiency at 1/2 load: 90.8 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Lubricant type: Grease Others: Minimum efficiency index, MEI $\geq$: 0.70 ErP status: EuP Standalone/Prod. Net weight: 171 kg Gross weight: 191 kg Shipping volume: 0.674 m³

97829219 NK 50-160/150 50 Hz

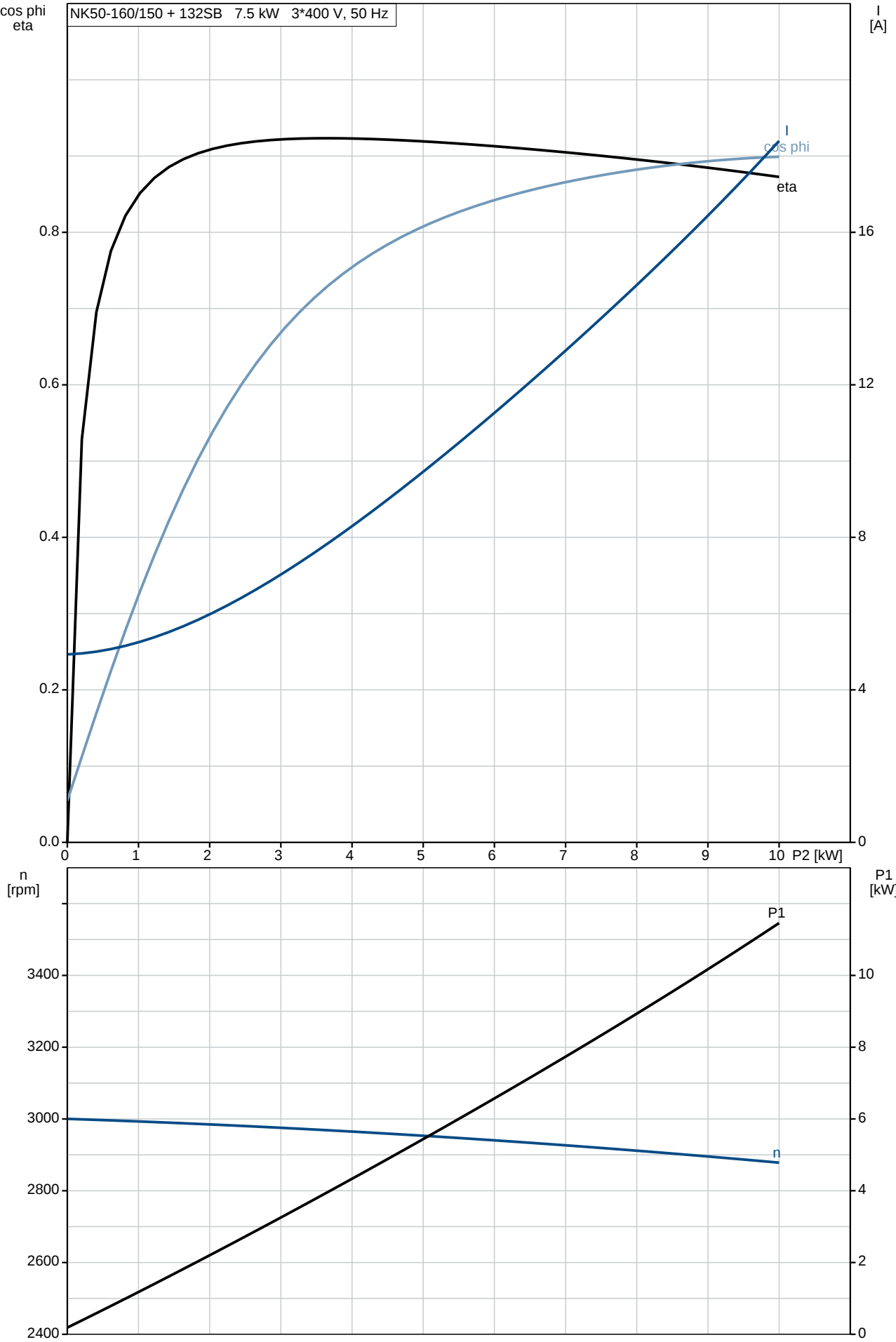


Description	Value
General information:	
Product name:	NK 50-160/150 A1-F-A-E-BAQE
Product No:	97829219
EAN number:	5710625390381
Technical:	
Speed for pump data:	2910 rpm
Rated flow:	77.1 m³/h
Rated head:	25.5 m
Actual impeller diameter:	150 mm
Impeller nom:	160 mm
Primary shaft seal:	BAQE
Secondary shaft seal:	NONE
Shaft diameter:	24 mm
Curve tolerance:	ISO9906:2012 3B
Pump version:	A1
Materials:	
Pump housing:	Cast iron EN-GJL-250 ASTM A48-40 B
Impeller:	Cast iron EN-GJL-200 ASTM A48-30 B
Material code:	A
Rubber:	EPDM
Code for rubber:	E
Wear ring mat.:	High alloy brass(CuZn34Mn3Al2
Installation:	
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Connect code:	F
Pump inlet:	DN 65
Pump outlet:	DN 50
Pressure rating:	PN 16
Coupling type:	Standard
Wear ring(s):	neckring(s)
Base frame:	EN / ISO
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	132SB
IE Efficiency class:	IE3
Rated power - P2:	7.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D/660-690Y V
Rated current:	14,4-14,0/8,30-8,10 A
Starting current:	780-910 %
Cos phi - power factor:	0,88-0,86
Rated speed:	2910-2920 rpm
Efficiency:	IE3 90,1% - IE3 90,4%
Motor efficiency at full load:	90.1-90.4 %
Motor efficiency at 3/4 load:	90.8 %
Motor efficiency at 1/2 load:	90.8 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	87370377
Lubricant type:	Grease

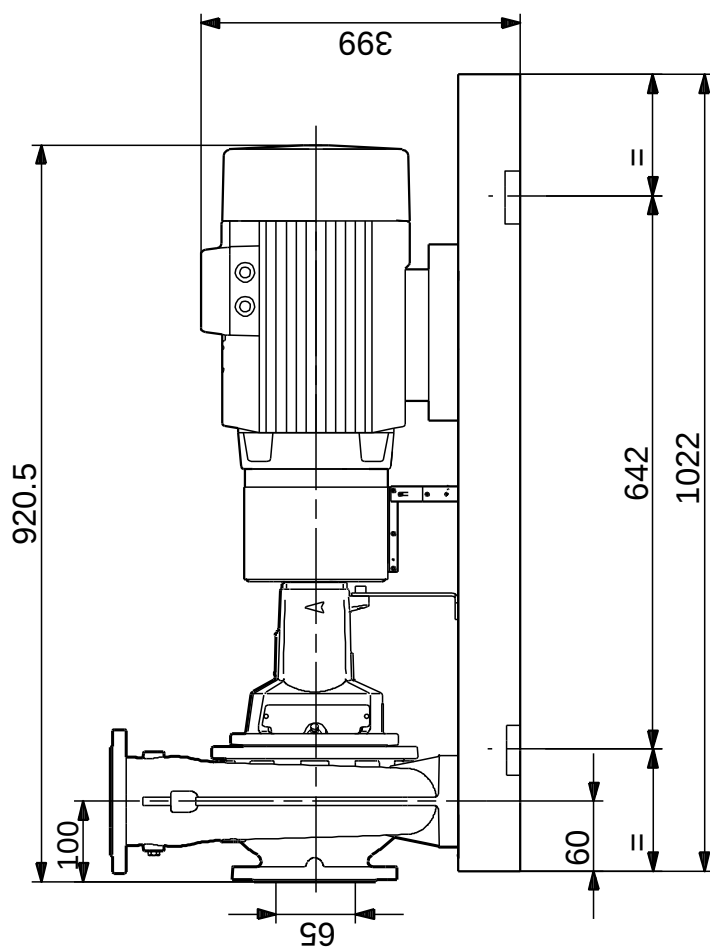
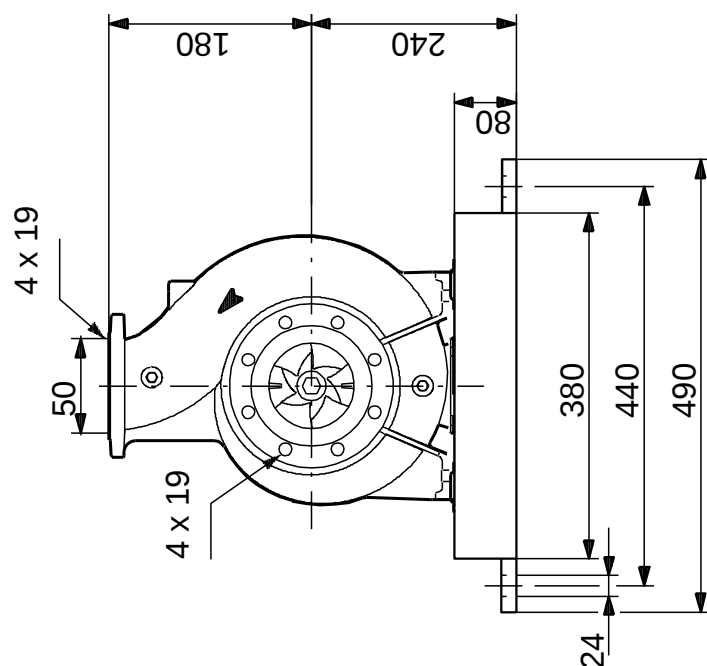


Description	Value
Others:	
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	171 kg
Gross weight:	191 kg
Shipping volume:	0.674 m³

97829219 NK 50-160/150 50 Hz

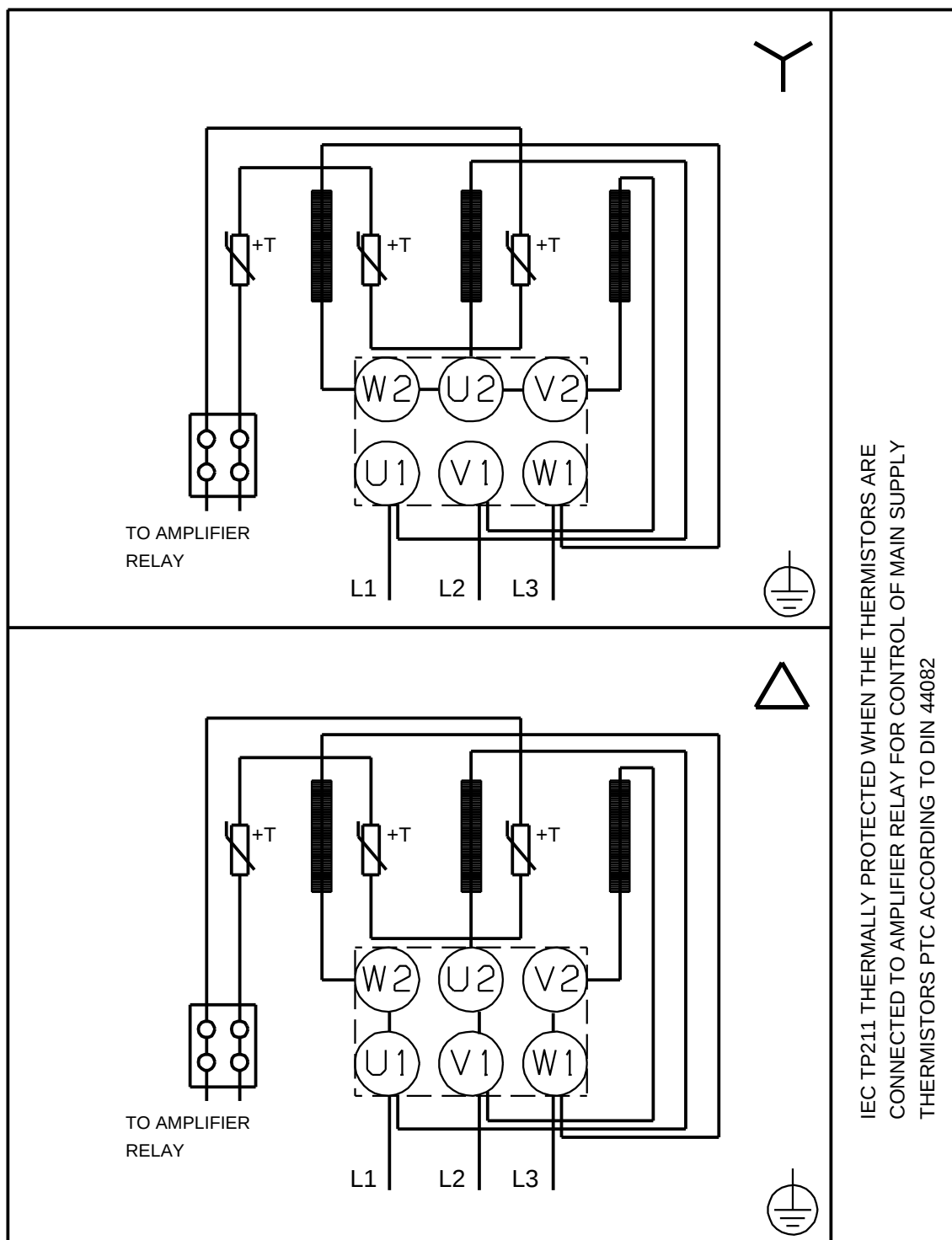


97829219 NK 50-160/150 50 Hz



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

97829219 NK 50-160/150 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.

*Disclaimer: The information about the Grundfos pump in this document may be outdated.
Data may be subject to alterations without further notice.
Please contact us to verify the data above is still accurate/up-to-date.*

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