Company name:
Created by:
Phone:

Date: 16/06/2022

Qty.	Description
1	**NKE 125-315/275 AA2F2AESBAQEPW3**

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 coupling, bearing bracket and impeller without disturbing the motor, pump housing or pipework.

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

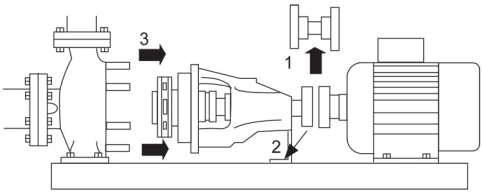
The pump is fitted with a foot-mounted, fan-cooled asynchronous motor. Pump and motor are mounted on a common base frame.

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

The back pull-out design 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.

Wear rings used in pump housing and for impeller are made of bronze/brass.

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.

{IMG Filename: GRALON_NB-NK-G_SHAFTSEAL_Bxxx.gif }

Seal faces:

- Rotating seal ring material: carbon graphite, metal-impregnated
- Stationary seat material: silicon carbide (SiC)

Due to the favourable lubricating properties of carbon graphite, the seal is suitable for use even under poor lubricating conditions, such as hot water.

However, under such conditions, wear on the carbon graphite face can be expected, and seal life will be reduced .

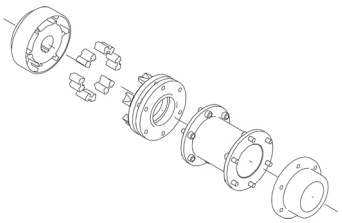
The material pairing is not recommended for liquids containing particles as this will result in wear on the SiC face.

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 42 mm where the coupling is mounted.

The pump uses a spacer 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. 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.

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.

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:	99616822
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 22KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Technical:	
Pump speed on which pump data are based:	1470 rpm
Rated flow:	197.1 m³/h
Pump with motor (Yes/No):	Y
Rated head:	22.82 m
Actual impeller diameter:	275 mm
Nominal impeller diameter:	315
Code for shaft seal:	BAQE
Mechanical seal type:	Single
Curve tolerance:	ISO9906:2012 3B
Bearing design:	Standard
Materials:	
Pump housing:	Cast iron

GRUNDFOS

Company name:
Created by:
Phone:

Date: 16/06/2022

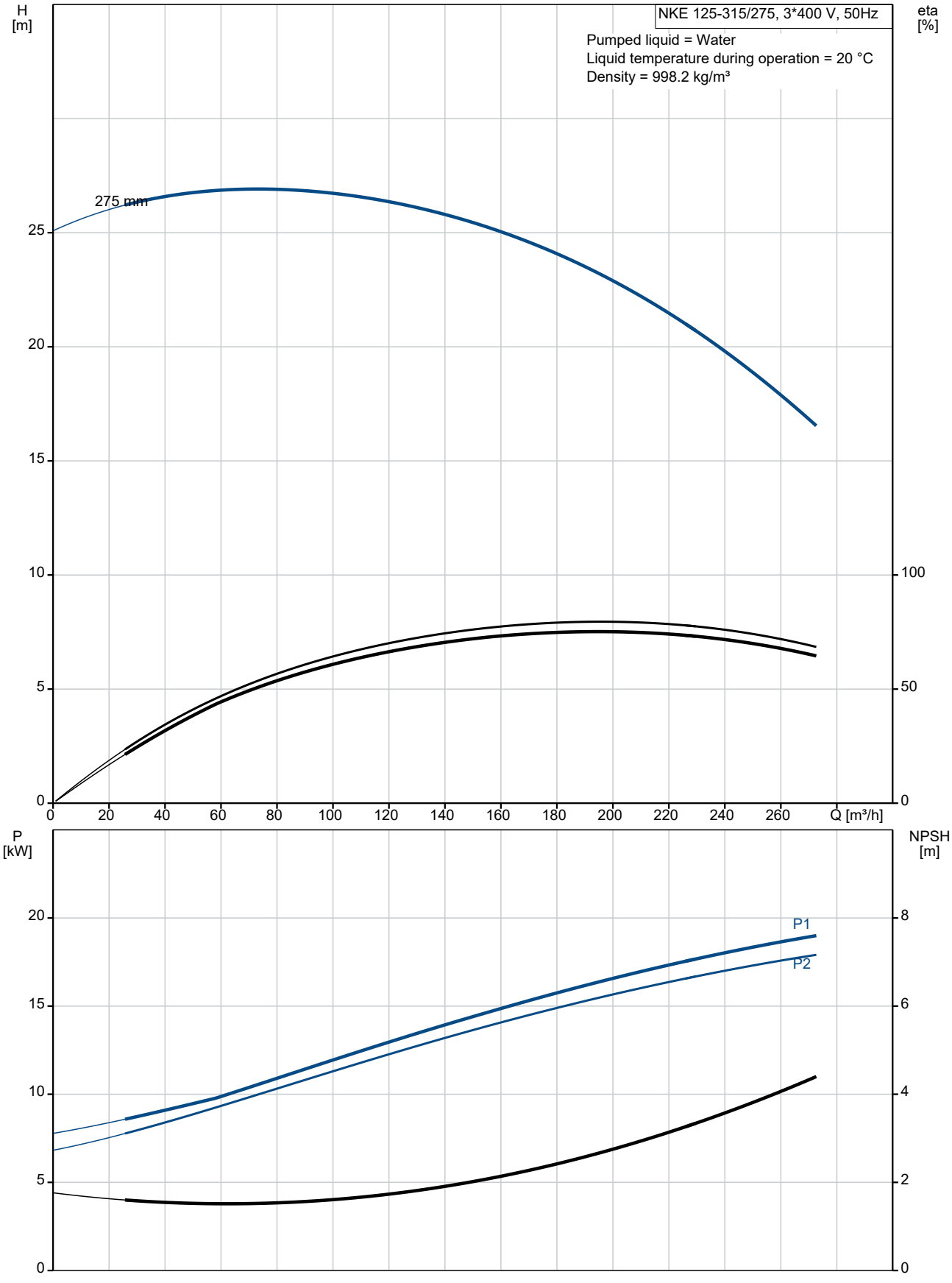
Qty.	Description	
		EN-GJL-250
		ASTM class 35
	Wear ring:	Brass
	Impeller:	Cast iron
		EN-GJL-200
		ASTM class 30
	Internal pump house coating:	CED
	Shaft:	Stainless steel
		EN 1.4301
		AISI 304
	Installation:	
	Range of ambient temperature:	-10 .. 50 °C
	Maximum operating pressure:	16 bar
	Pipe connection standard:	EN 1092-2
	Type of inlet connection:	DIN
	Type of outlet connection:	DIN
	Size of inlet connection:	DN 150
	Size of outlet connection:	DN 125
	Pressure rating for connection:	PN 16
	Coupling type:	Flexible w/spacer
	Base frame design:	EN/ISO
	Code for base frame:	9
	Grouting (Yes/No):	N
	Electrical data:	
	Motor type:	SIEMENS
	IE Efficiency class:	IE4
	Rated power - P2:	18.5 kW
	Mains frequency:	50 Hz
	Rated voltage:	3 x 380-420D/660-725Y V
	Rated current:	36,5-34,0/21,0-19,4 A
	Starting current:	820-820 %
	Cos phi - power factor:	0.81
	Rated speed:	1470 rpm
	Efficiency:	IE4 94,2%
	Motor efficiency at full load:	94.2-94.2 %
	Motor efficiency at 3/4 load:	94.7-94.7 %
	Motor efficiency at 1/2 load:	94.6-94.6 %
	Number of poles:	4
	Enclosure class (IEC 34-5):	IP55
	Insulation class (IEC 85):	F
	Motor No:	92582379
	Bearing insulation type N-end:	HYBRID BEARING
	Others:	
	Minimum efficiency index, MEI ≥:	0.63
	Net weight:	591 kg
	Gross weight:	658 kg
	Shipping volume:	1.7 m³

GRUNDFOS

Company name:
Created by:
Phone:

Date: 16/06/2022

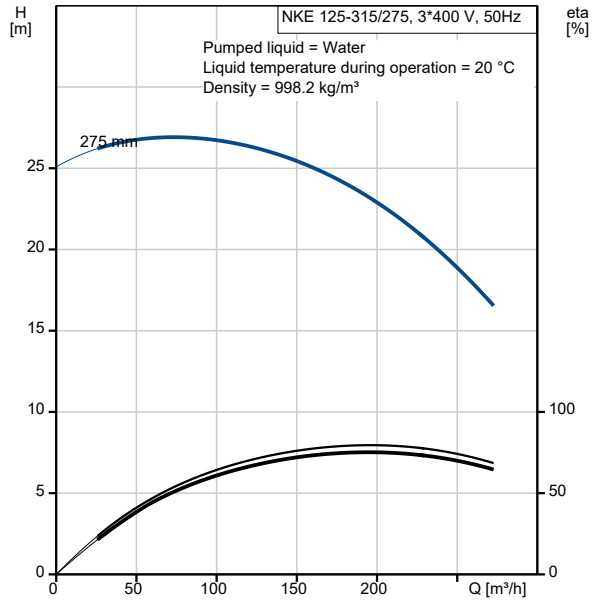
On request NKE 125-315/275 AA2F2AESBAQEPW3 50 Hz

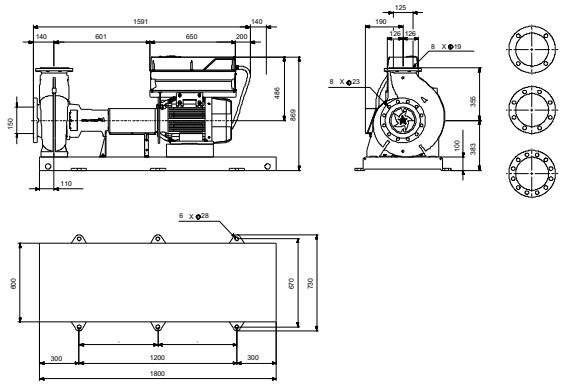


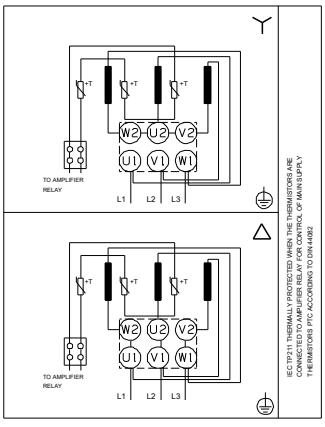
Company name:
Created by:
Phone:

Date: 16/06/2022

Description	Value
General information:	
Product name:	NKE 125-315/275 AA2F2AESBAQEPW3
Product No:	On request
EAN number:	On request
Technical:	
Pump speed on which pump data are based:	1470 rpm
Rated flow:	197.1 m³/h
Pump with motor (Yes/No):	Y
Rated head:	22.82 m
Actual impeller diameter:	275 mm
Nominal impeller diameter:	315
Shaft diameter:	42 mm
Code for shaft seal:	BAQE
Mechanical seal type:	Single
Curve tolerance:	ISO9906:2012 3B
Pump version:	A2
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:	E
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 150
Size of outlet connection:	DN 125
Pressure rating for connection:	PN 16
Coupling type:	Flexible w/spacer
Base frame design:	EN/ISO
Code for base frame:	9
Grouting (Yes/No):	N
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	SIEMENS
IE Efficiency class:	IE4
Rated power - P2:	18.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	36,5-34,0/21,0-19,4 A







GRUNDFOS

Company name:
Created by:
Phone:

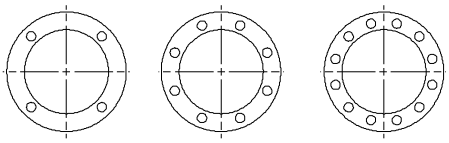
Date: 16/06/2022

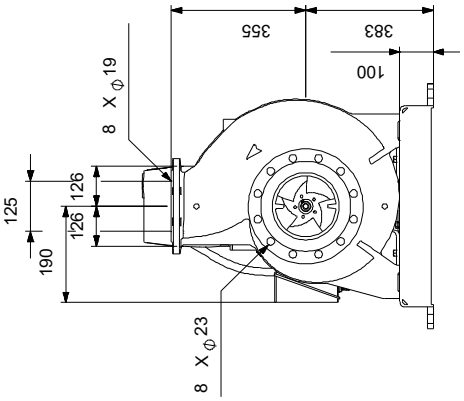
Description	Value
Starting current:	820-820 %
Cos phi - power factor:	0.81
Rated speed:	1470 rpm
Efficiency:	IE4 94,2%
Motor efficiency at full load:	94.2-94.2 %
Motor efficiency at 3/4 load:	94.7-94.7 %
Motor efficiency at 1/2 load:	94.6-94.6 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	92582379
Bearing insulation type N-end:	HYBRID BEARING
Controls:	
VFD product number:	99616822
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 22KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.63
Net weight:	591 kg
Gross weight:	658 kg
Shipping volume:	1.7 m³

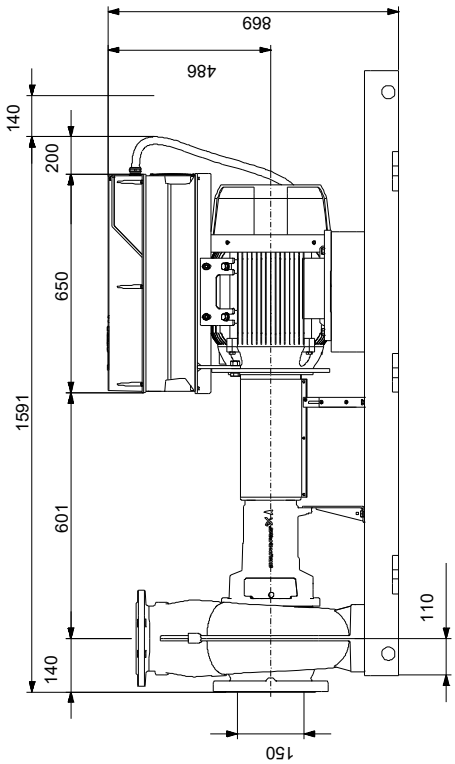
Company name:
Created by:
Phone:

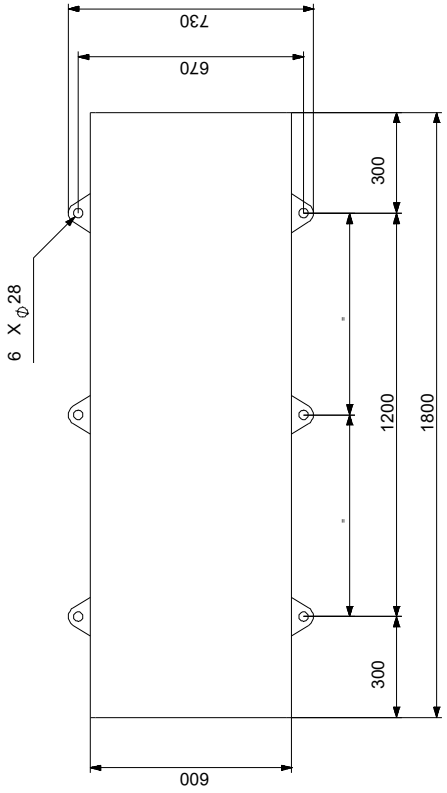
Date: 16/06/2022

On request NKE 125-315/275 AA2F2AESBAQEPW3 50 Hz







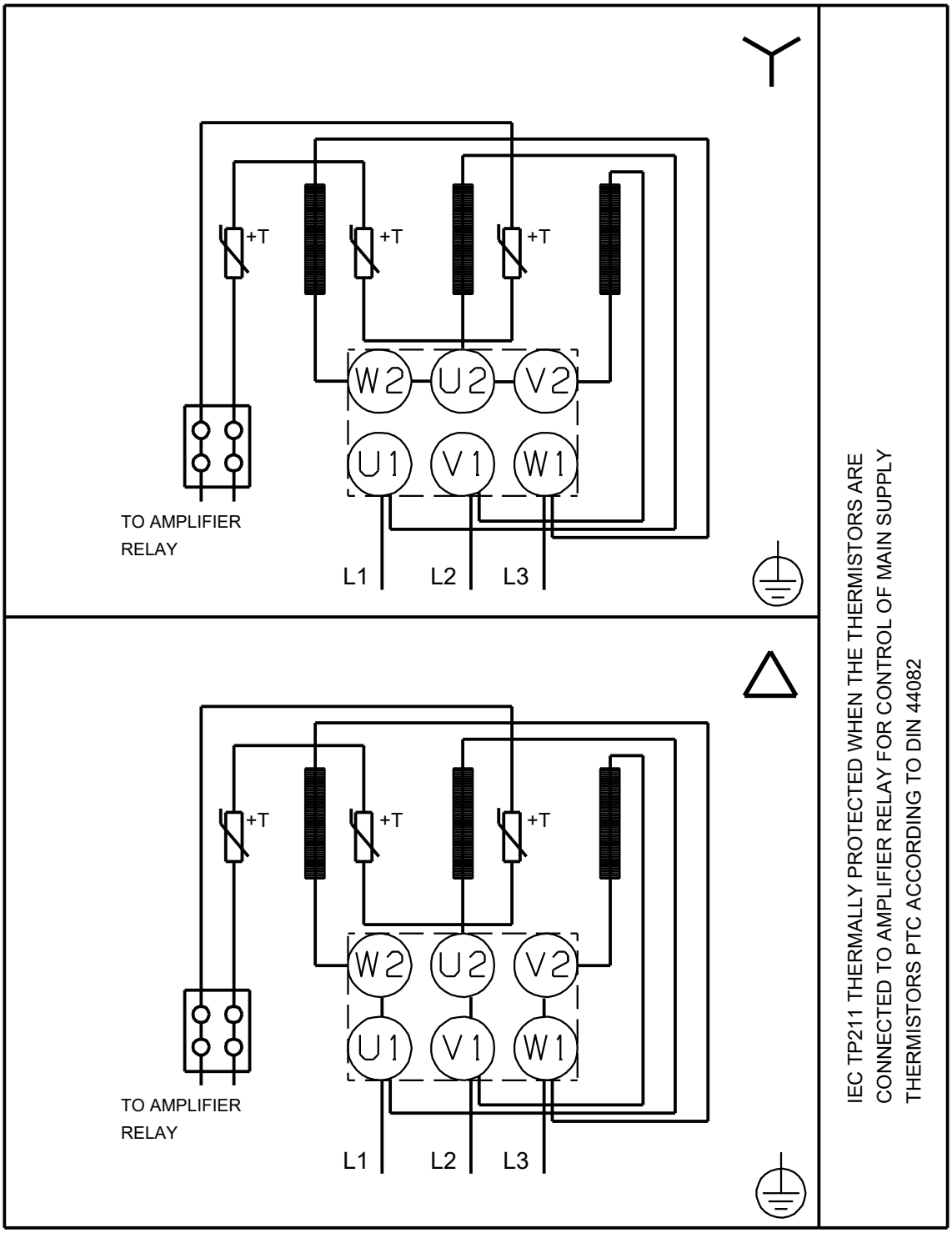


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Company name:
Created by:
Phone:

Date: 16/06/2022

On request NKE 125-315/275 AA2F2AESBAQEPW3 50 Hz



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

Company name:
Created by:
Phone:

Date: 16/06/2022

Order Data:

Product name: NKE 125-315/275
Amount: 1
Product No: On request

Total: Price on request