

Qty. Description

1 NKE 80-400/397 AIA1F2AVSBQQVRW3



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 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.

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 service 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.



Pump

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)

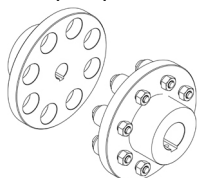
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

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 shaft is made of stainless steel and has a diameter of 42 mm where the coupling is mounted.

The pump uses a standard coupling between the pump and motor shaft.



Qty. Description

1 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

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: 99616823
 Frequency converter: Built-in
 Type of frequency converter: CUE 3X380-500V IP55 RUG 30KW
 Appr. for VFD: CE, CULUS, C-TICK
 Pressure sensor: N

Liquid:

Pumped liquid: Water
 Liquid temperature range: -10 .. 90 °C
 Selected liquid temperature: 20 °C
 Density: 998.2 kg/m³

Technical:

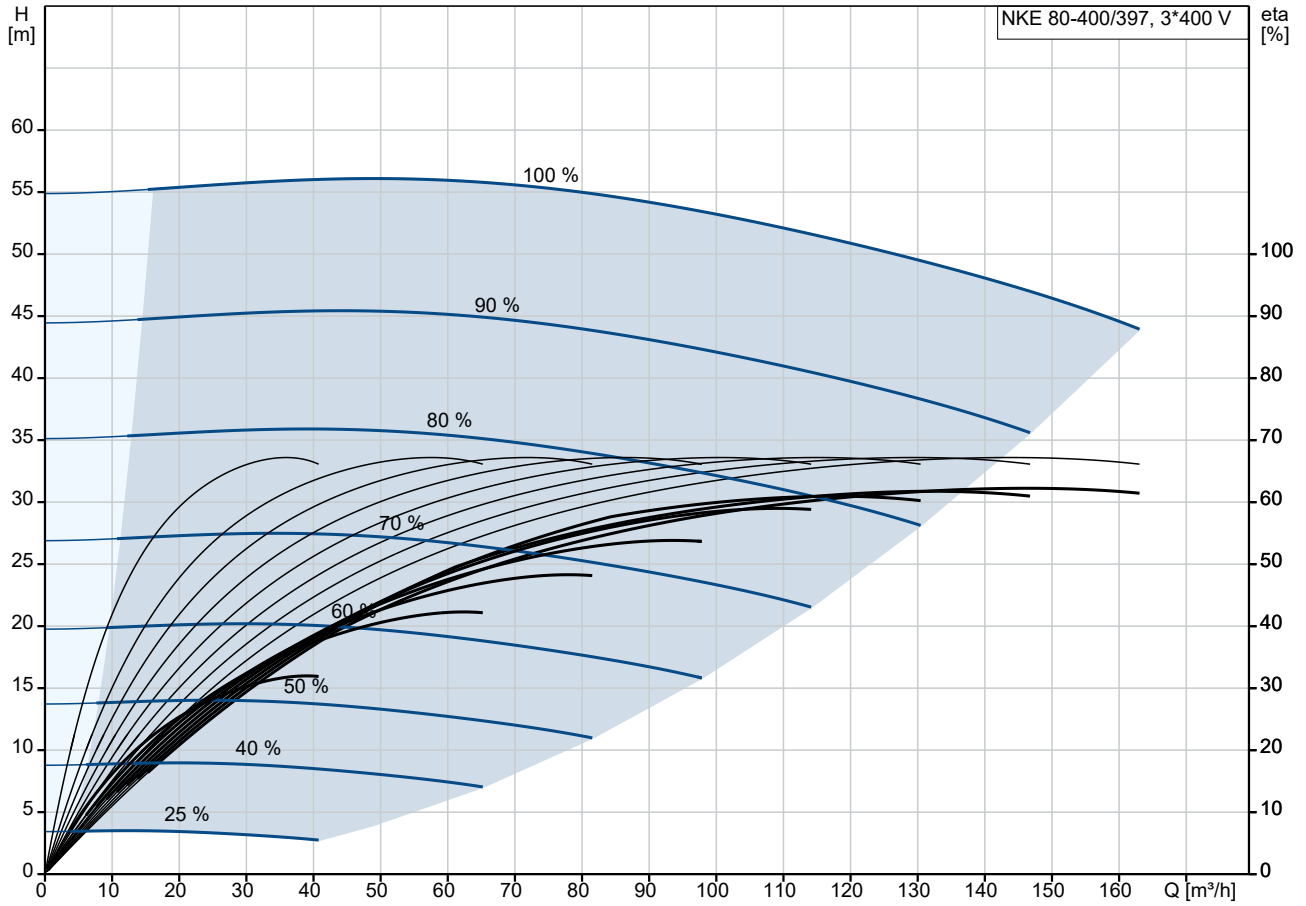
Pump speed on which pump data are based: 1475 rpm
 Rated flow: 148.6 m³/h
 Pump with motor (Yes/No): Y
 Rated head: 46.67 m
 Actual impeller diameter: 397 mm
 Nominal impeller diameter: 400
 Code for shaft seal: BQQV
 Mechanical seal type: Single
 Curve tolerance: ISO9906:2012 3B
 Bearing design: Standard

Materials:

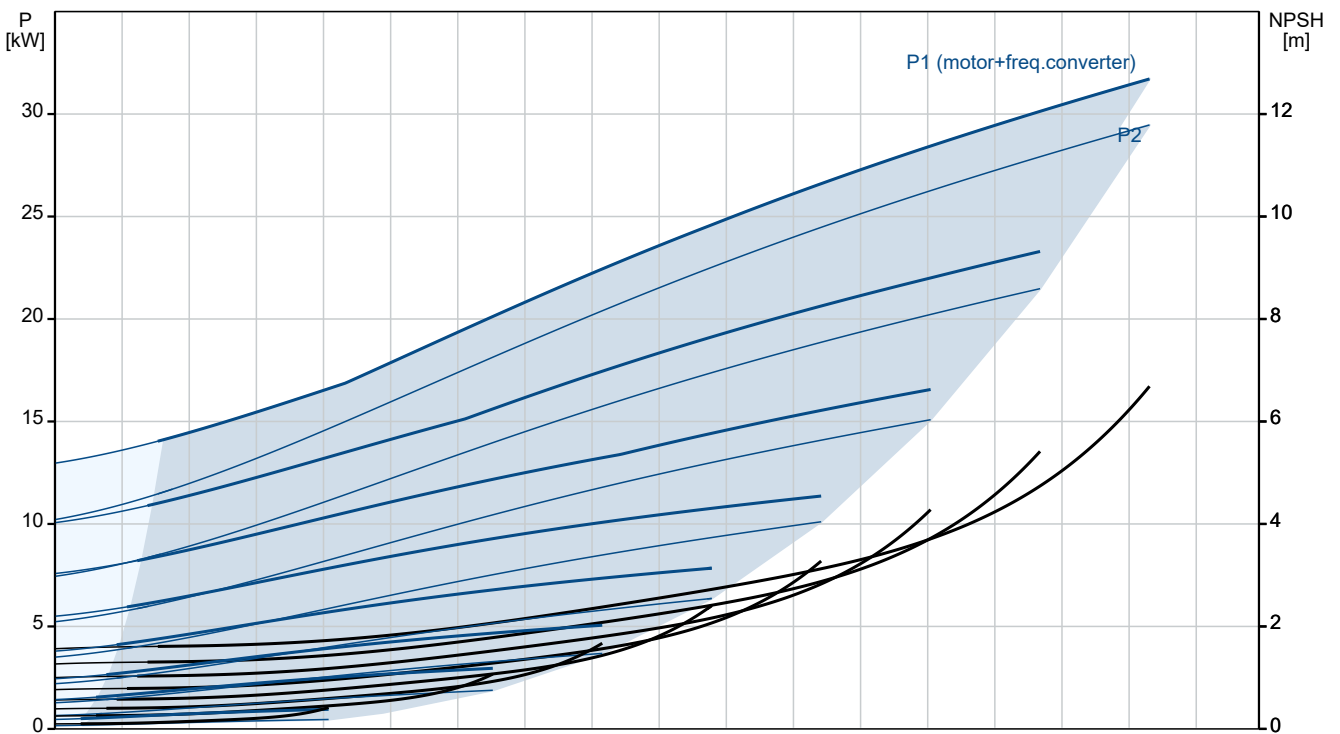
Pump housing: Cast iron
 EN-GJL-250
 ASTM class 35
 Wear ring: Brass
 Impeller: Cast iron
 EN-GJL-200
 ASTM class 30
 Internal pump house coating: CED
 Shaft: Stainless steel

Qty.	Description
1	<p data-bbox="564 342 679 365">EN 1.4301</p> <p data-bbox="564 374 660 396">AISI 304</p> <p data-bbox="204 434 325 456">Installation:</p> <p data-bbox="204 465 689 488">Range of ambient temperature: -10 .. 50 °C</p> <p data-bbox="204 497 635 519">Maximum operating pressure: 16 bar</p> <p data-bbox="204 528 683 551">Pipe connection standard: EN 1092-2</p> <p data-bbox="204 560 608 582">Type of inlet connection: DIN</p> <p data-bbox="204 591 608 613">Type of outlet connection: DIN</p> <p data-bbox="204 622 647 645">Size of inlet connection: DN 100</p> <p data-bbox="204 654 635 676">Size of outlet connection: DN 80</p> <p data-bbox="204 685 635 707">Pressure rating for connection: PN 16</p> <p data-bbox="204 716 772 739">Coupling type: Flexible w/o spacer</p> <p data-bbox="204 748 647 770">Base frame design: EN/ISO</p> <p data-bbox="204 779 616 801">Code for base frame: 8 ST</p> <p data-bbox="204 810 580 833">Grouting (Yes/No): N</p> <p data-bbox="204 869 360 891">Electrical data:</p> <p data-bbox="204 900 676 922">Motor type: SIEMENS</p> <p data-bbox="204 931 635 954">Rated power - P2: 30 kW</p> <p data-bbox="204 963 635 985">Mains frequency: 50 Hz</p> <p data-bbox="204 994 842 1016">Rated voltage: 3 x 380-420D/660-725Y V</p> <p data-bbox="204 1025 689 1048">Rated current: 56.0/32.5 A</p> <p data-bbox="204 1057 635 1079">Starting current: 730 %</p> <p data-bbox="204 1088 608 1111">Cos phi - power factor: 0.81</p> <p data-bbox="204 1120 670 1142">Rated speed: 1475 rpm</p> <p data-bbox="204 1151 676 1173">IE efficiency: IE4 94,9%</p> <p data-bbox="204 1182 603 1205">IE Efficiency class: IE4</p> <p data-bbox="204 1214 641 1236">Motor efficiency at full load: 94.9 %</p> <p data-bbox="204 1245 641 1267">Motor efficiency at 3/4 load: 95.2 %</p> <p data-bbox="204 1276 641 1299">Motor efficiency at 1/2 load: 94.9 %</p> <p data-bbox="204 1308 580 1330">Number of poles: 4</p> <p data-bbox="204 1339 616 1361">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="204 1370 580 1393">Insulation class (IEC 85): F</p> <p data-bbox="204 1402 676 1424">Motor No: 92691562</p> <p data-bbox="204 1433 734 1456">Bearing insulation type N-end: COATED RING</p> <p data-bbox="204 1491 284 1514">Others:</p> <p data-bbox="204 1523 635 1545">Minimum efficiency index, MEI ≥: 0.41</p> <p data-bbox="204 1554 641 1576">Net weight: 747 kg</p> <p data-bbox="204 1585 641 1608">Gross weight: 802 kg</p> <p data-bbox="204 1617 647 1639">Shipping volume: 1.68 m³</p> <p data-bbox="204 1648 603 1671">Country of origin: HU</p> <p data-bbox="204 1680 676 1702">Custom tariff no.: 84137059</p> <p data-bbox="204 1711 603 1733">Language on pump nameplate: GB</p>

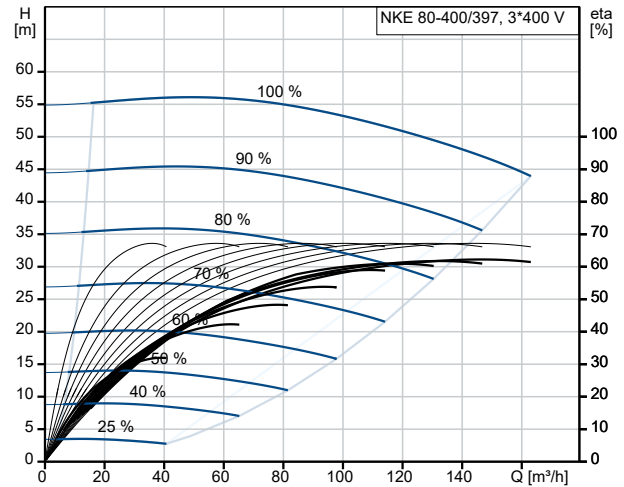
On request NKE 80-400/397 AIA1F2AVSBQQVRW3 50 Hz



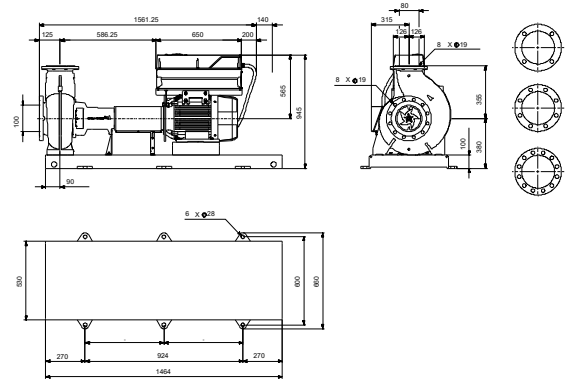
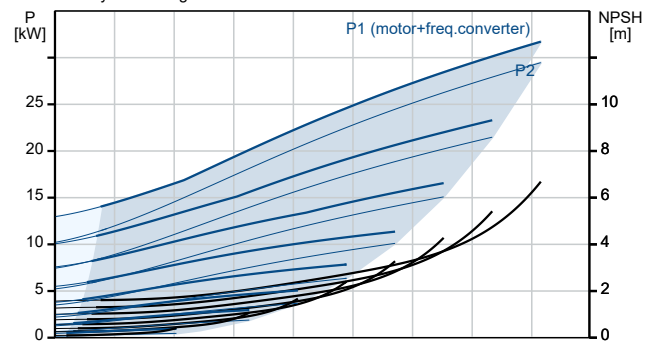
Pumped liquid = Water
Liquid temperature during operation = 20 °C
Density = 998.2 kg/m³



Description	Value
General information:	
Product name:	NKE 80-400/397 AIA1F2AVSBQQVRW3
Product No:	On request
EAN number:	On request
Technical:	
Pump speed on which pump data are based:	1475 rpm
Rated flow:	148.6 m ³ /h
Pump with motor (Yes/No):	Y
Rated head:	46.67 m
Actual impeller diameter:	397 mm
Nominal impeller diameter:	400
Shaft diameter:	42 mm
Code for shaft seal:	BQQV
Mechanical seal type:	Single
Curve tolerance:	ISO9906:2012 3B
Pump version:	A1
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:	V
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 100
Size of outlet connection:	DN 80
Pressure rating for connection:	PN 16
Coupling type:	Flexible w/o spacer
Base frame design:	EN/ISO
Code for base frame:	8 ST
Grouting (Yes/No):	N
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-10 .. 90 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m ³
Electrical data:	
Motor type:	SIEMENS
Rated power - P2:	30 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	56.0/32.5 A



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



IF THIS THERMAL PROTECTED MAINS THE THERMISTORS ARE CONNECTED TO AMPLIFIER RELAY FOR CONTROL OF MAINS SUPPLY. THERMISTORE PTC ACCORDING TO DIN 4182.



Company name:

Created by:

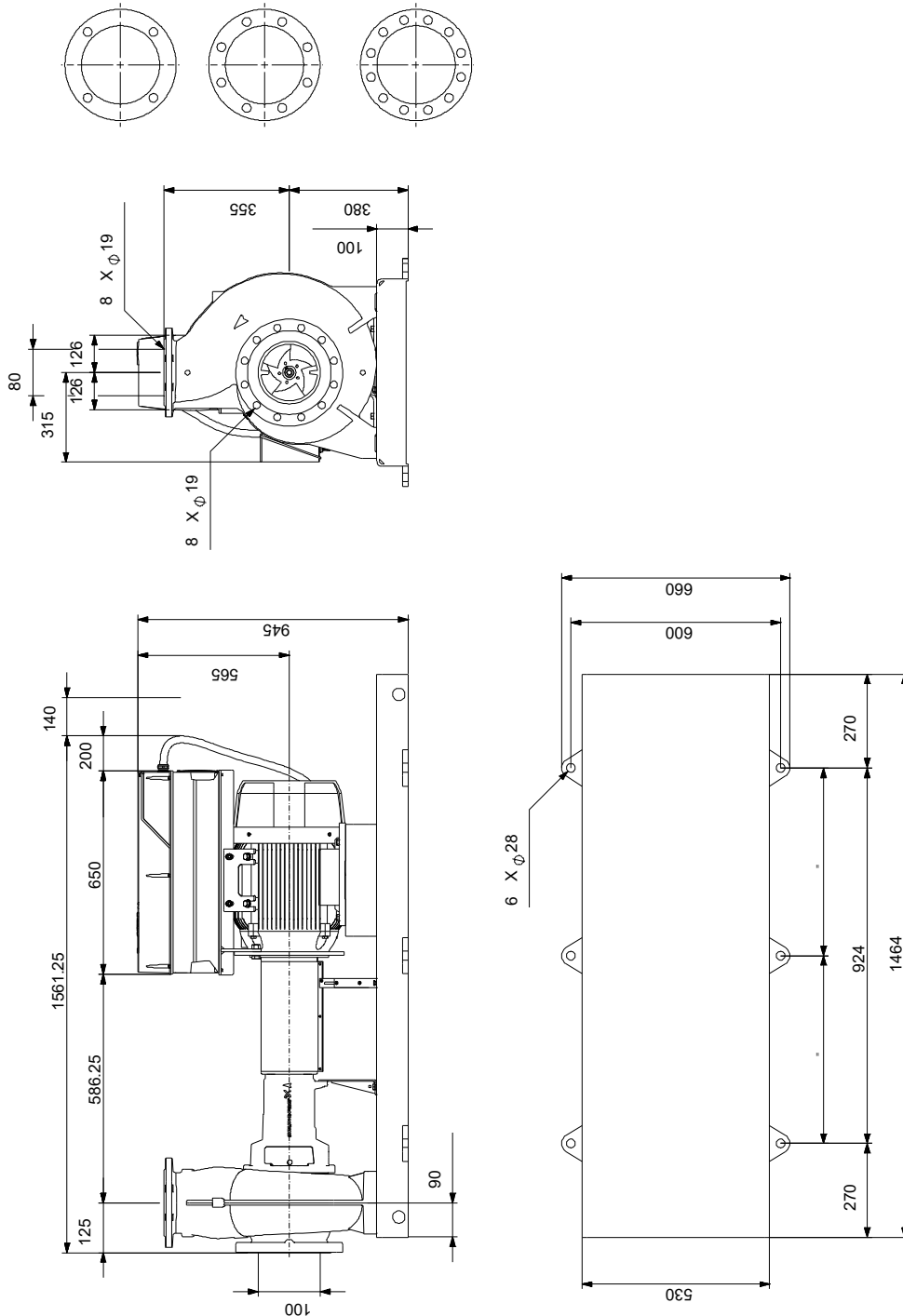
Phone:

Date:

23/10/2024

Description	Value
Starting current:	730 %
Cos phi - power factor:	0.81
Rated speed:	1475 rpm
IE efficiency:	IE4 94,9%
IE Efficiency class:	IE4
Motor efficiency at full load:	94.9 %
Motor efficiency at 3/4 load:	95.2 %
Motor efficiency at 1/2 load:	94.9 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	92691562
Bearing insulation type N-end:	COATED RING
Controls:	
VFD product number:	99616823
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 30KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.41
Net weight:	747 kg
Gross weight:	802 kg
Shipping volume:	1.68 m ³
Country of origin:	HU
Custom tariff no.:	84137059
Language on pump nameplate:	GB

On request NKE 80-400/397 AIA1F2AVSBQQVRW3 50 Hz



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

On request NKE 80-400/397 AIA1F2AVSBQQVRW3 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.

