GRUNDFOS **DATA BOOKLET**

# CRI15-04 A-FGJ-I-E-HQQE 3x400D 50 HZ

## Grundfos Pump 96501913

**Thank you for your interest in our products**
Please contact us for more information, or visit our website
http://www.lenntech.com/grundfos/CRI15/96501913/CRI-15-4-A-FGJ-I-E-HQQE.html

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**Date:** -

| Position | Qty. | Description |
|---|---|---|
| | 1 | **CRI 15-4 A-FGJ-I-E-HQQE** |

**Note! Product picture may differ from actual product**

Product No.: 96501913

Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. Pump materials in contact with the liquid are in stainless steel. A cartridge shaft seal ensures high reliability, safe handling and easy service and access. Power transmission is via a split coupling. Pipework connection is via combined DIN-ANSI-JIS flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

## Further product details

The product carries the Grundfos Blueflux® label. It represents the best from Grundfos within energy-efficient motors and frequency converters. Grundfos Blueflux® solutions either meet or exceed legislative requirements such as the EuP IE3 grade.

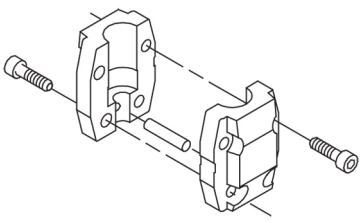
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An 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.

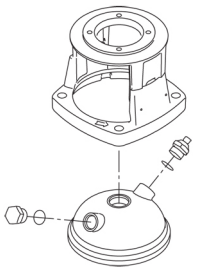
The colour code for the finished product is NCS 9000/RAL 9005.

## Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



The pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). The pump head has a combined 1/2" priming plug and air vent screw.



The pump is fitted with a balanced O-ring seal unit with rigid torque transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

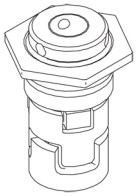
Primary seal:

- 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: EPDM (ethylene-propylene rubber)

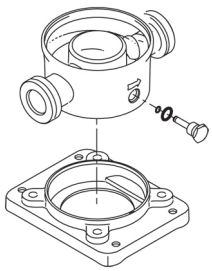
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is screwed into the pump head.

The chambers and impellers are made of stainless steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surface, and the shape of the blades ensure a high efficiency.

The pump has a stainless steel base mounted on a separate base plate. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. The discharge side of the base has a drain plug. The pump is secured to the foundation by four bolts through the base plate. The flanges are fastened to the base by means of locking rings.



## Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with tapped-hole flange (FT).

Motor mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II).

| Position | Qty. | Description |
|---|---|---|

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 Win-/WebCAPS.

## Technical data

**Liquid:**

| | |
|---|---|
| Pumped liquid: | Water |
| Liquid temperature range: | 253 .. 393 K |
| Liquid temp: | 293 K |
| Density: | 998.2 kg/m³ |

**Technical:**

| | |
|---|---|
| Speed for pump data: | 2917 rpm |
| Rated flow: | 17 m³/h |
| Rated head: | 44.8 m |
| Shaft seal: | HQQE |
| Approvals on nameplate: | CE,TR |
| Curve tolerance: | ISO 9906:1999 Annex A |

**Materials:**

| | |
|---|---|
| Pump housing: | Stainless steel<br>DIN W.-Nr. 1.4408<br>ASTM A 351 CF 8M |
| Impeller: | Stainless steel<br>DIN W.-Nr. 1.4301<br>AISI 304 |

**Installation:**

| | |
|---|---|
| Maximum ambient temperature: | 333 K |
| Max pressure at stated temp: | 16 bar / 120 °C<br>16 bar / -20 °C |
| Flange standard: | DIN |
| Pipe connection: | DN 50 |
| Pressure stage: | PN 16 |
| Flange size for motor: | FT130 |

**Electrical data:**

| | |
|---|---|
| Motor type: | 112MC |
| IE Efficiency class: | IE3 |
| Number of poles: | 2 |
| Rated power - P2: | 4 kW |
| Power (P2) required by pump: | 4 kW |
| Mains frequency: | 50 Hz |
| Rated voltage: | 3 x 380-415 D V |
| Rated current: | 7.9 A |

| Position | Qty. | Description |
|---|---|---|
| | | Starting current: 1000-1110 %<br>Cos phi - power factor: 0,87-0,87<br>Rated speed: 2920-2940 rpm<br>Efficiency: IE3 88,1%<br>Motor efficiency at full load: 88,1-88,1 %<br>Motor efficiency at 3/4 load: 88,6-88,2 %<br>Motor efficiency at 1/2 load: 85,2-88,1 %<br>Enclosure class (IEC 34-5): 55 (Protect. water jets/dust)<br>Insulation class (IEC 85): F<br><br>**Others:**<br>Label: Grundfos Blueflux<br>Minimum efficiency index, MEI ≥: 0.7<br>Net weight: 73.5 kg<br>Gross weight: 98.1 kg<br>Shipping volume: 0.12 m3 |

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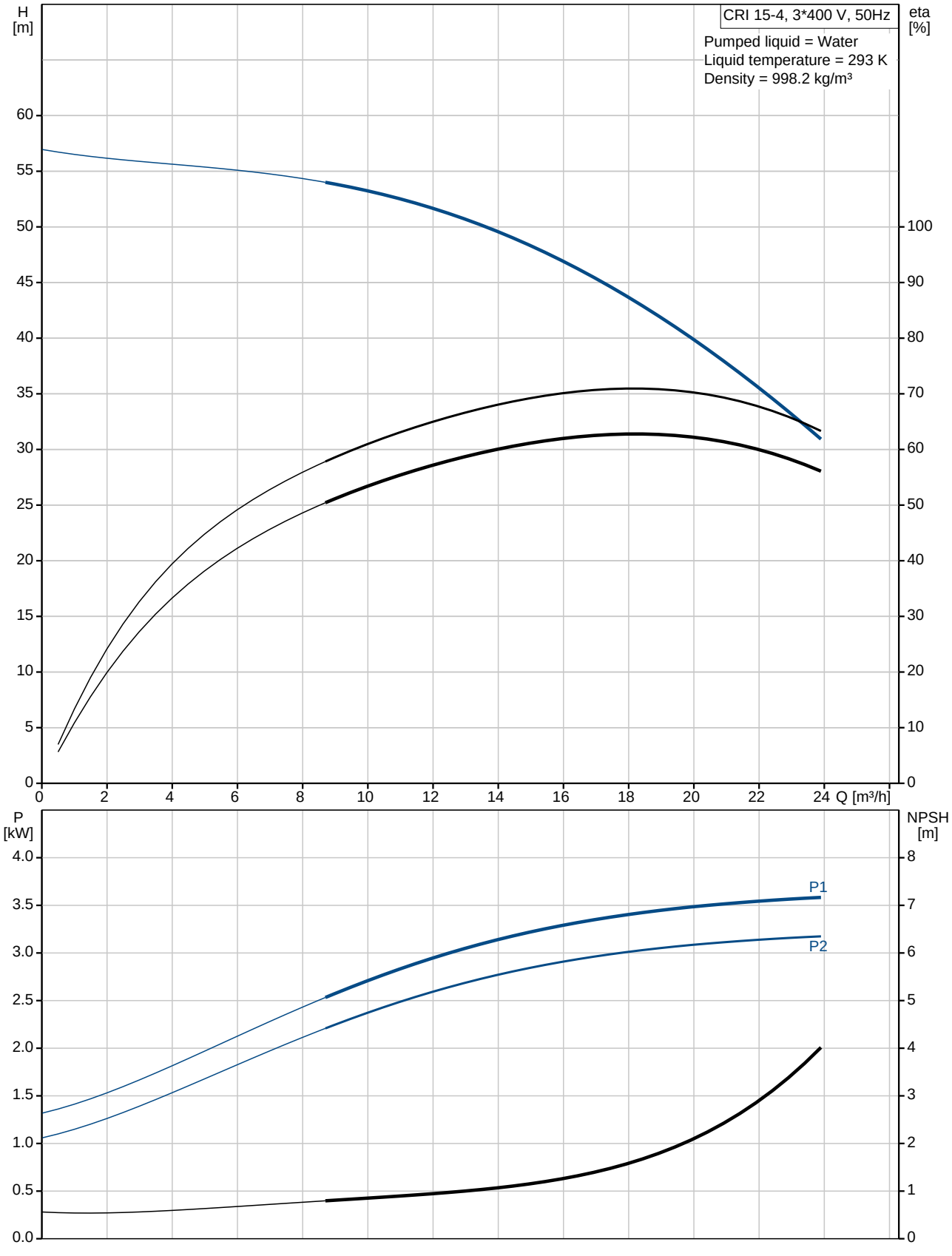
# 96501913 CRI 15-4 50 Hz



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| Description | Value |
|---|---|
| Product name: | CRI 15-4 A-FGJ-I-E-HQQE |
| Product No: | 96501913 |
| EAN number: | 5700396231723 |
| **Technical:** | |
| Speed for pump data: | 2917 rpm |
| Rated flow: | 17 m³/h |
| Rated head: | 44.8 m |
| Impellers: | 04 |
| Shaft seal: | HQQE |
| Approvals on nameplate: | CE,TR |
| Curve tolerance: | ISO 9906:1999 Annex A |
| Stages: | 04 |
| Pump version: | A |
| Model: | A |
| **Materials:** | |
| Pump housing: | Stainless steel |
| | DIN W.-Nr. 1.4408 |
| | ASTM A 351 CF 8M |
| Impeller: | Stainless steel |
| | DIN W.-Nr. 1.4301 |
| | AISI 304 |
| Material code: | I |
| Code for rubber: | E |
| **Installation:** | |
| Maximum ambient temperature: | 333 K |
| Max pressure at stated temp: | 16 bar / 120 °C |
| | 16 bar / -20 °C |
| Flange standard: | DIN |
| Connect code: | FGJ |
| Pipe connection: | DN 50 |
| Pressure stage: | PN 16 |
| Flange size for motor: | FT130 |
| **Liquid:** | |
| Pumped liquid: | Water |
| Liquid temperature range: | 253 .. 393 K |
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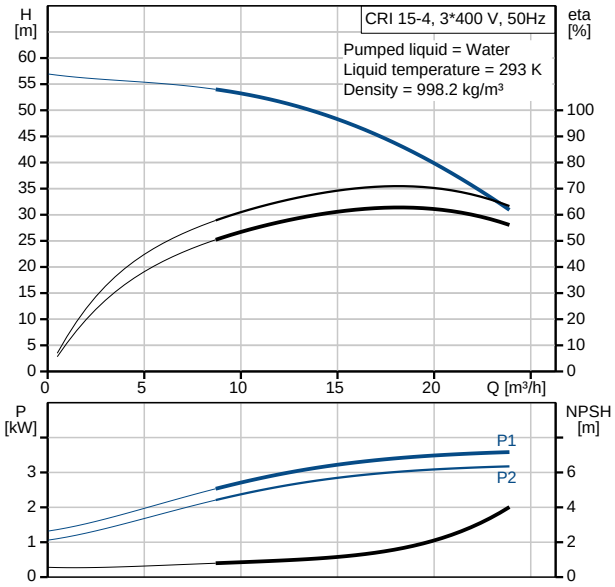
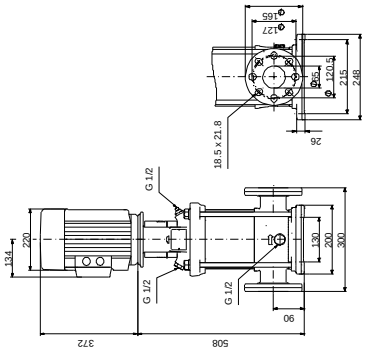
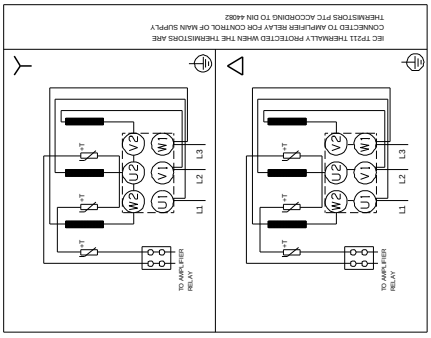
| Density: | 998.2 kg/m³ |
| **Electrical data:** | |
| Motor type: | 112MC |
| IE Efficiency class: | IE3 |
| Number of poles: | 2 |
| Rated power - P2: | 4 kW |
| Power (P2) required by pump: | 4 kW |
| Mains frequency: | 50 Hz |
| Rated voltage: | 3 x 380-415 D V |
| Rated current: | 7.9 A |
| Starting current: | 1000-1110 % |
| Cos phi - power factor: | 0,87-0,87 |
| Rated speed: | 2920-2940 rpm |
| Efficiency: | IE3 88,1% |
| Motor efficiency at full load: | 88,1-88,1 % |
| Motor efficiency at 3/4 load: | 88,6-88,2 % |
| Motor efficiency at 1/2 load: | 85,2-88,1 % |
| Enclosure class (IEC 34-5): | 55 (Protect. water jets/dust) |
| Insulation class (IEC 85): | F |
| Motor protec: | PTC |
| Motor No: | 85U15413 |
| **Others:** | |





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| Description | Value |
|---|---|
| Label: | Grundfos Blueflux |
| Minimum efficiency index, MEI ≥: | 0.7 |
| Net weight: | 73.5 kg |
| Gross weight: | 98.1 kg |
| Shipping volume: | 0.12 m3 |

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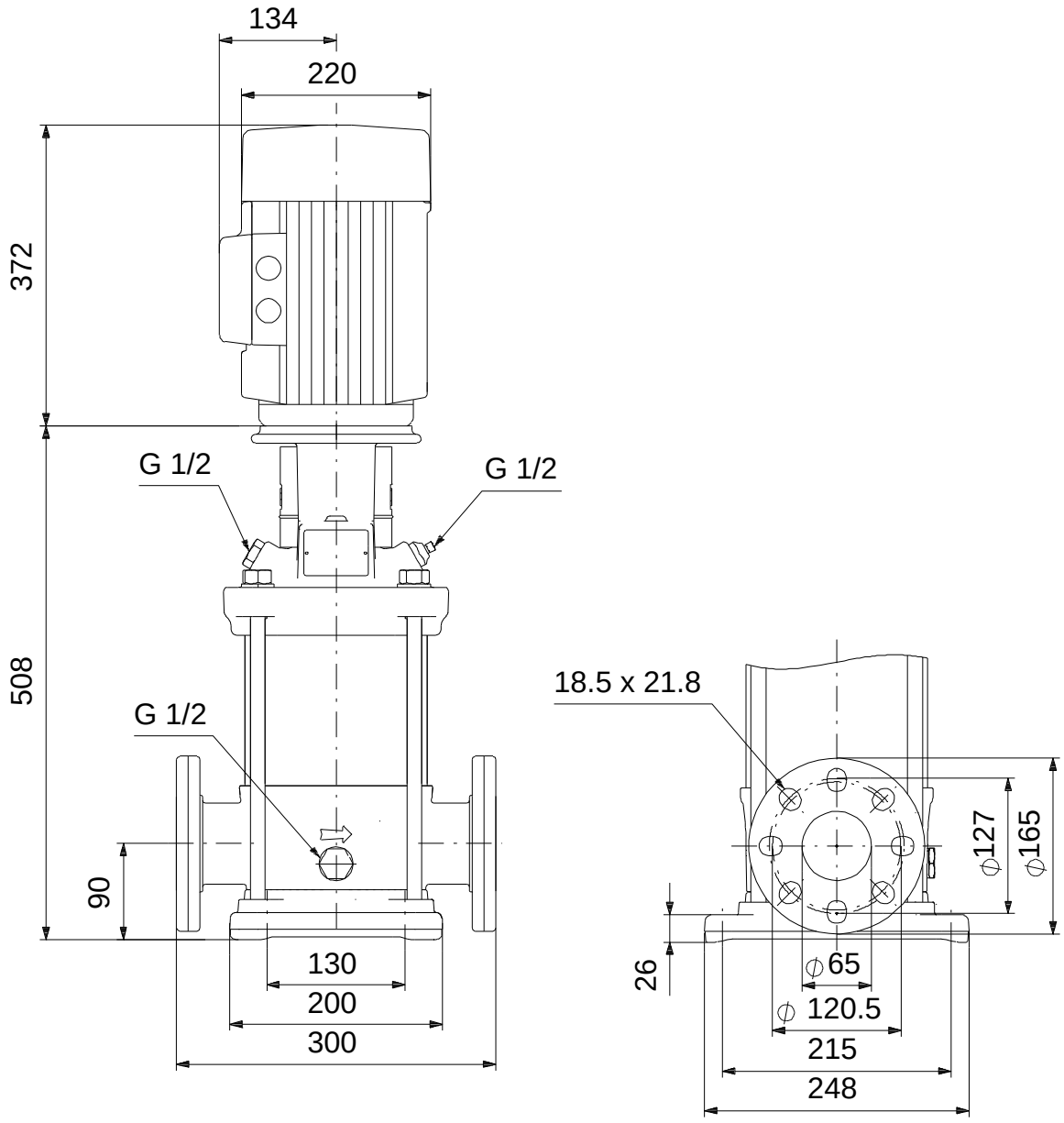


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

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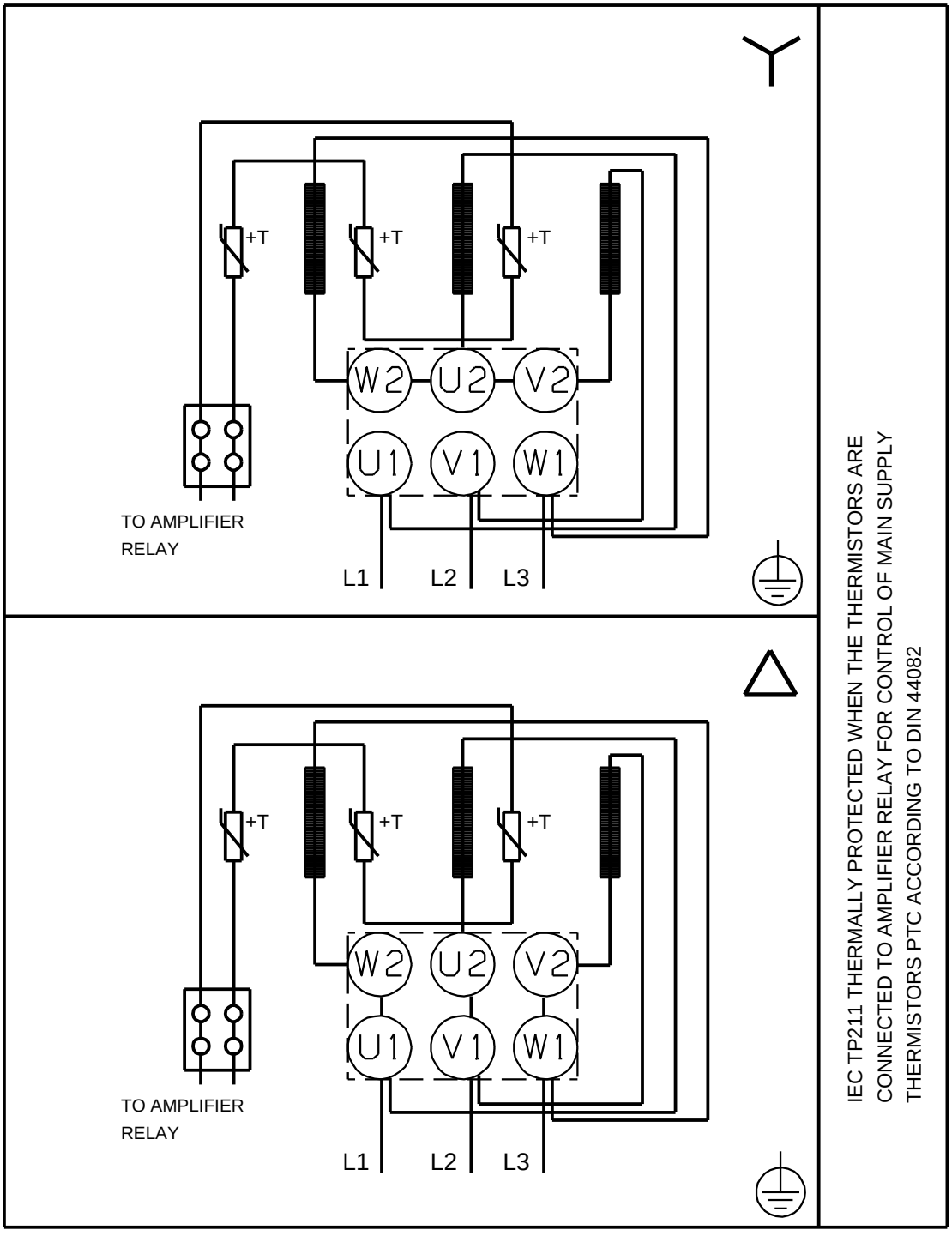


Note! All units are in [mm] unless others are stated.

*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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