

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

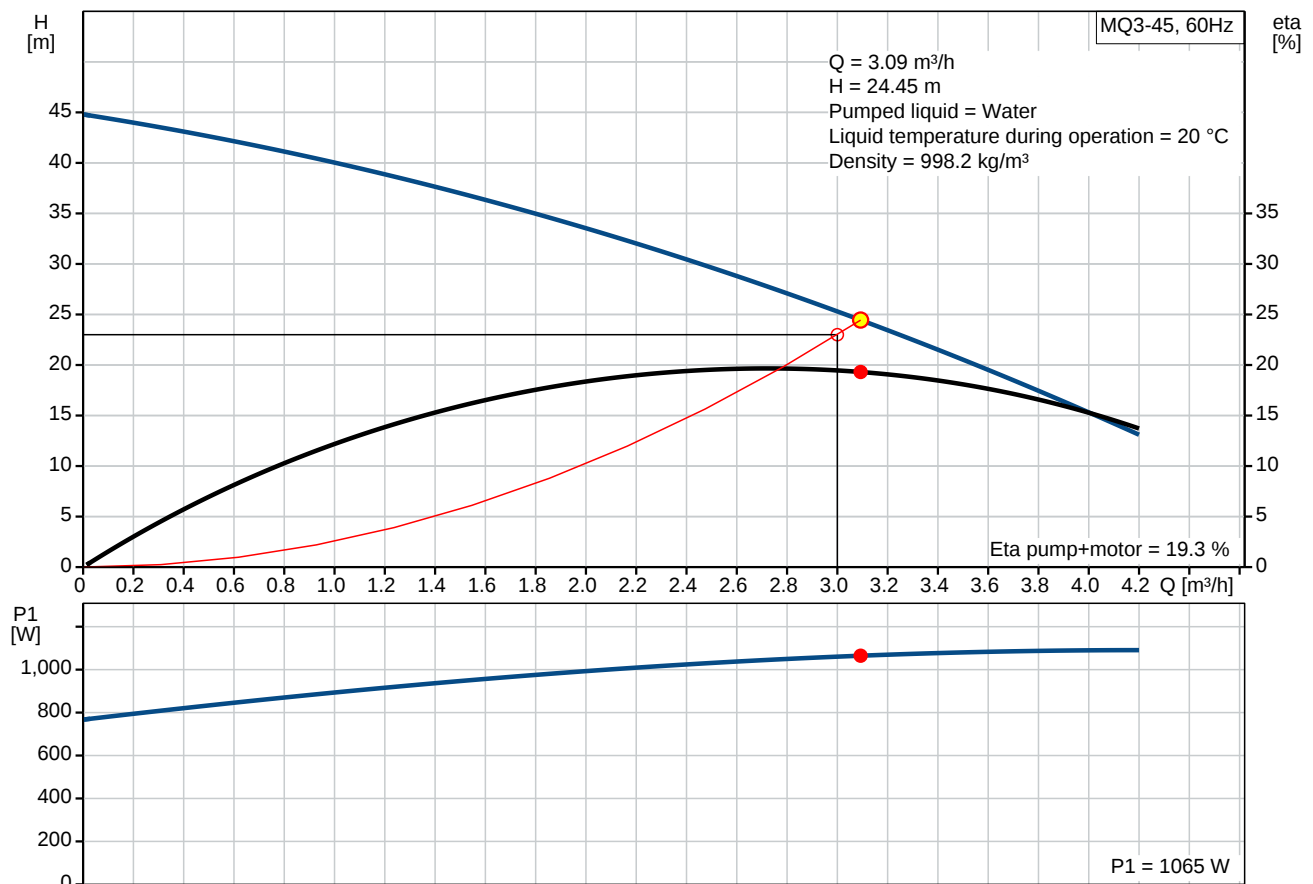
### MQ3-45

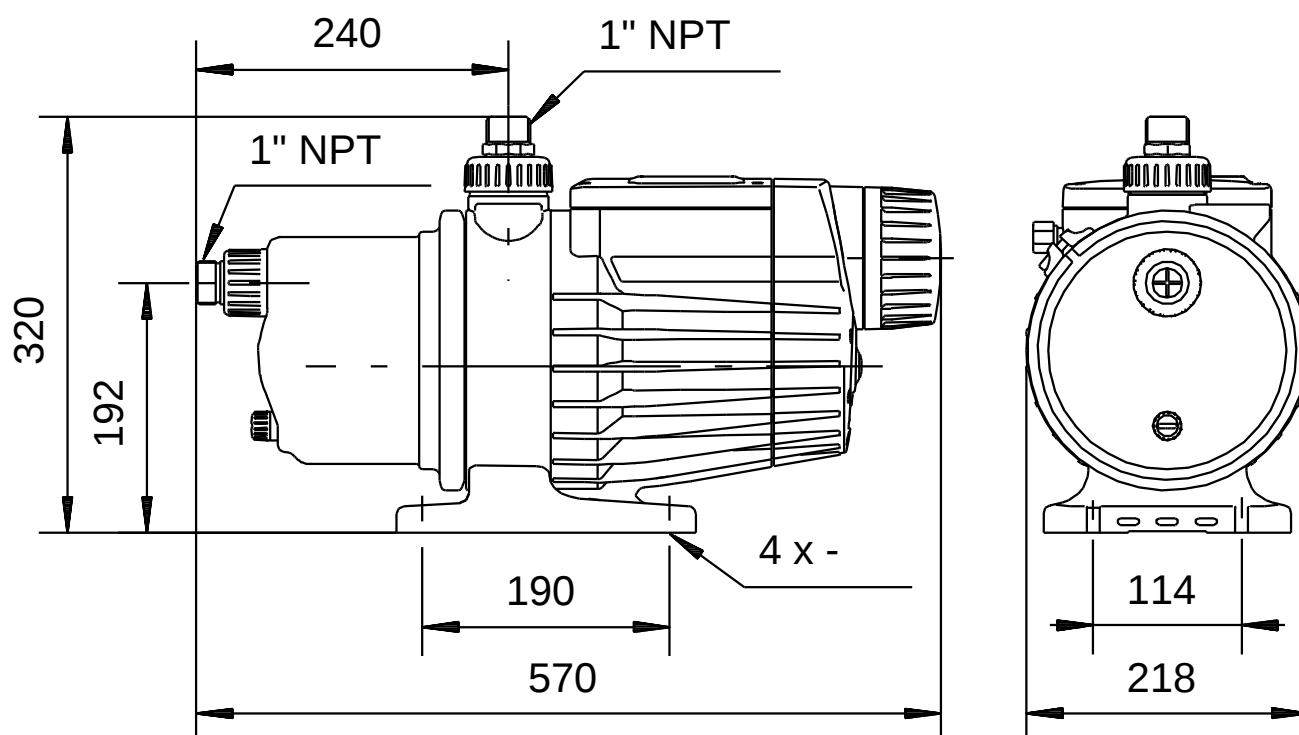


Grundfos MQ booster are an all-in-one unit, designed for pumping clean water from break tanks and shallow wells, and for general pressure-boosting in private homes, farms, and irrigation. The boosters are suitable for both indoor and outdoor use.

Note! Product picture may differ from actual product

| Conditions of Service |                        | Pump Data                    |            | Motor Data        |           |
|-----------------------|------------------------|------------------------------|------------|-------------------|-----------|
| Flow:                 | 3.09 m <sup>3</sup> /h | Maximum operating pressure:  | 7.5 bar    | Rated voltage:    | 220-240 V |
| Head:                 | 24.45 m                | Liquid temperature range:    | 0 .. 35 °C | Mains frequency:  | 60 Hz     |
| Efficiency:           | 19.3 %                 | Maximum ambient temperature: | 45 °C      | Enclosure class:  | IP54      |
| Liquid:               | Water                  | Approvals:                   | CSACUS     | Insulation class: | B         |
| Temperature:          | 20 °C                  | Shaft seal:                  | BVBP       |                   |           |
| NPSH required:        | m                      | Pipe connection:             | NPT1       |                   |           |
| Viscosity:            |                        | Product number:              | 96860207   |                   |           |
| Specific Gravity:     | 1.000                  |                              |            |                   |           |





**Materials:**

Pump housing: POM + 25% glass fibre

Impeller: PPO + 20% glass fibre-PTFE

Material code: A

## Tender Text



Note! Product picture may differ from actual product

Product No.: [96860207](#)

**MQ3-45 A-B-A-BVBP**

### Complete system

The MQ is a complete, all-in-one unit, incorporating pump, motor, diaphragm tank, pressure and flow sensor, controller and non-return valve.

The controller ensures that the pump starts automatically when water is consumed and stops automatically when the consumption ceases. In addition, the controller protects the pump in case of faults.

### Installation

Due to its compact design, the pump does not take up much space and is easy to install. No space around the pump is required.

### Simple operation

The pump features a user-friendly control panel with ON/OFF button and indicator lights for indication of the operational state of the pump.

### Self-priming pump

As it is self-priming, the MQ is able to pump water from a level below the pump. Provided it is filled with water, the pump is able to lift water from a depth of 8 m in less than 5 minutes. This facilitates installation and start-up of the pump and provides more reliable water supply in installations where there is a risk of dry running and leakages in suction hose or pipes.

### Built-in protective functions

If exposed to dry running or excessive temperature, for example in case of seizure or overload, the pump will stop automatically, thus preventing a motor burnout.

### Automatic reset

The pump features an automatic reset function. In case of dry running or similar alarm, the pump will stop. Restarting will be attempted every 30 minutes for a period of 24 hours. The reset function can be deactivated.

### Low noise level

Thanks to its hydraulic design and internal cooling, the pump is extremely low-noise, which makes it suitable for indoor as well as outdoor use.

### Pressure tank

The built-in pressure tank reduces the number of starts and stops in case of leakages in the pipe system, causing less wear on the pump.

### Maintenance

No maintenance of the pump is required.

### Liquid:

Pumped liquid: Water

Liquid temperature range: 0 .. 35 °C

Liquid temperature during operation: 20 °C

Density: 998.2 kg/m<sup>3</sup>

**Technical:**

Actual calculated flow: 3.09 m<sup>3</sup>/h  
Resulting head of the pump: 24.45 m  
Primary shaft seal: BVBP  
Approvals on nameplate: CSACUS  
Curve tolerance: ISO9906:2012 3B

**Materials:**

Pump housing: POM + 25% glass fibre  
Impeller: PPO + 20% glass fibre-PTFE

**Installation:**

Range of ambient temperature: 0 .. 45 °C  
Maximum operating pressure: 7.5 bar  
Pipe connection: NPT1

**Electrical data:**

Power input - P1: 1150 W  
Mains frequency: 60 Hz  
Rated voltage: 1 x 220-240 V  
Rated current: 4.8 A  
Enclosure class (IEC 34-5): IP54  
Insulation class (IEC 85): B  
Length of cable: 2 m  
Type of cable plug: NEMA

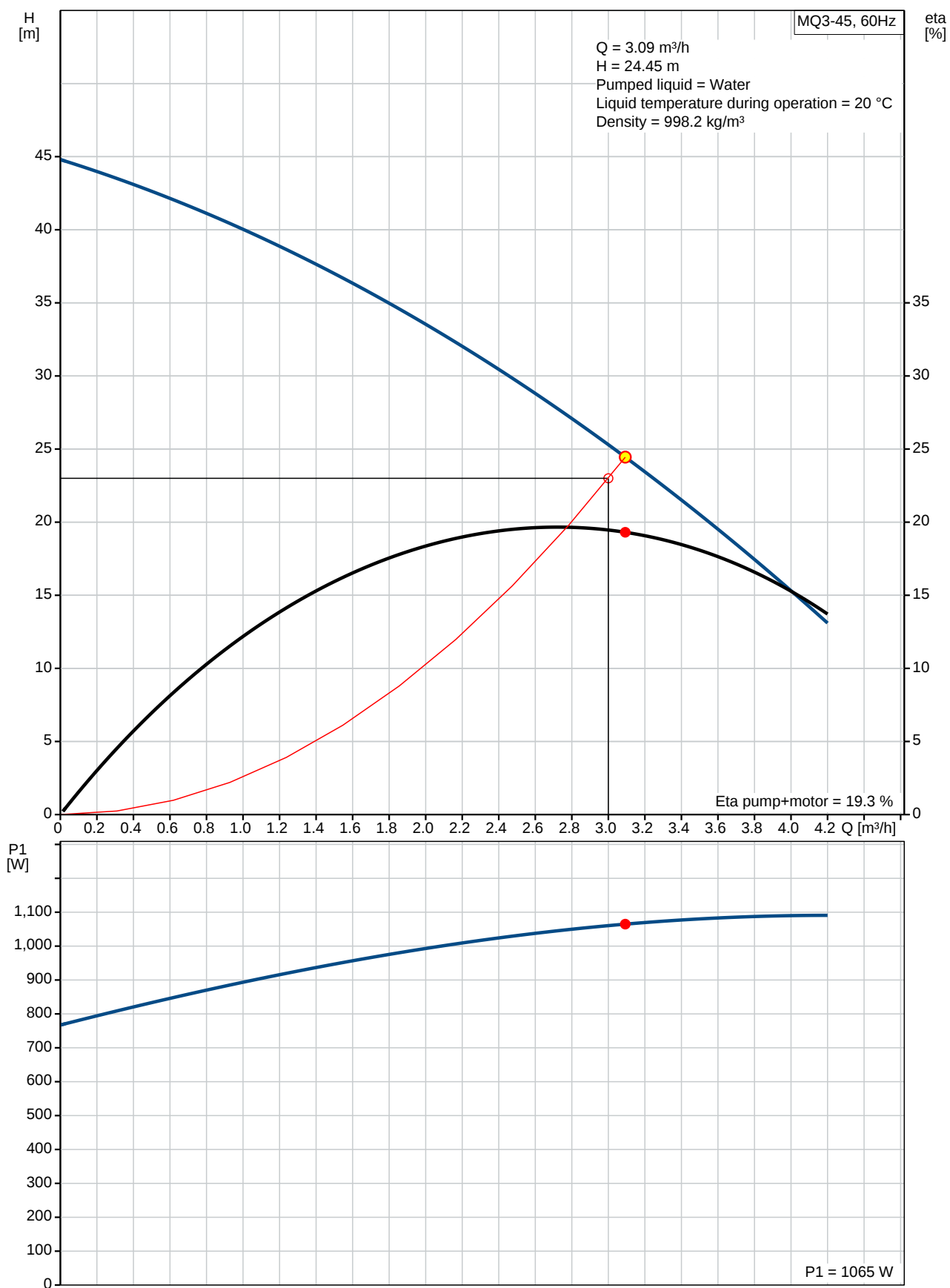
**Others:**

Net weight: 13 kg  
Gross weight: 15.5 kg  
Shipping volume: 0.055 m<sup>3</sup>

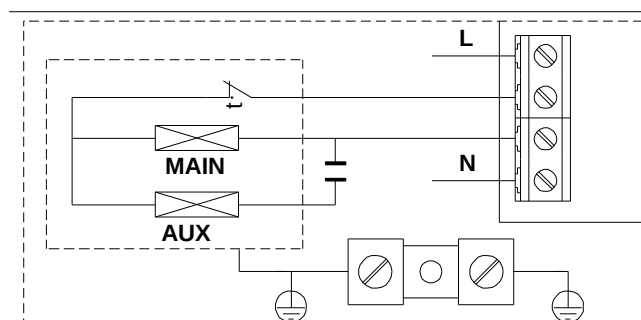
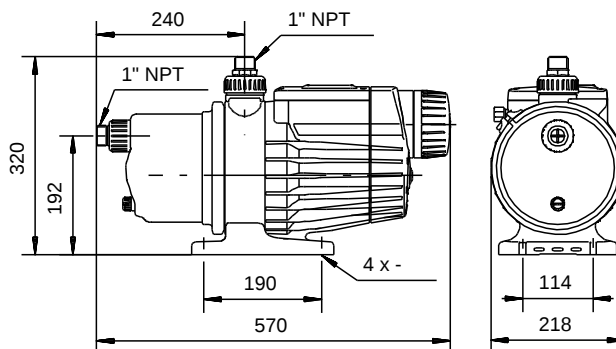
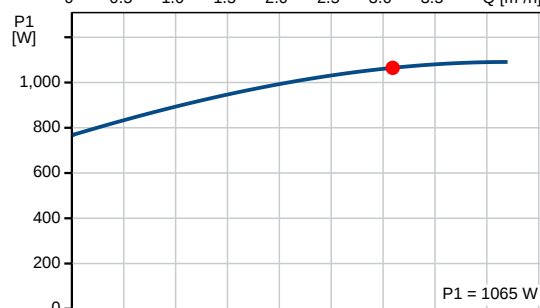
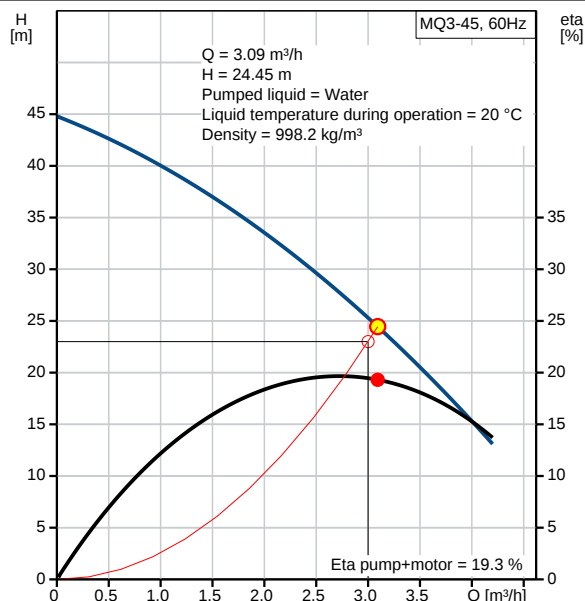
| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | 1    | <p><b>MQ3-45 A-B-A-BVBP</b></p>  <p>Note! Product picture may differ from actual product</p> <p>Product No.: <a href="#">96860207</a></p> <p><b>Complete system</b><br/>The MQ is a complete, all-in-one unit, incorporating pump, motor, diaphragm tank, pressure and flow sensor, controller and non-return valve.<br/>The controller ensures that the pump starts automatically when water is consumed and stops automatically when the consumption ceases. In addition, the controller protects the pump in case of faults.</p> <p><b>Installation</b><br/>Due to its compact design, the pump does not take up much space and is easy to install. No space around the pump is required.</p> <p><b>Simple operation</b><br/>The pump features a user-friendly control panel with ON/OFF button and indicator lights for indication of the operational state of the pump.</p> <p><b>Self-priming pump</b><br/>As it is self-priming, the MQ is able to pump water from a level below the pump. Provided it is filled with water, the pump is able to lift water from a depth of 8 m in less than 5 minutes. This facilitates installation and start-up of the pump and provides more reliable water supply in installations where there is a risk of dry running and leakages in suction hose or pipes.</p> <p><b>Built-in protective functions</b><br/>If exposed to dry running or excessive temperature, for example in case of seizure or overload, the pump will stop automatically, thus preventing a motor burnout.</p> <p><b>Automatic reset</b><br/>The pump features an automatic reset function. In case of dry running or similar alarm, the pump will stop. Restarting will be attempted every 30 minutes for a period of 24 hours. The reset function can be deactivated.</p> <p><b>Low noise level</b><br/>Thanks to its hydraulic design and internal cooling, the pump is extremely low-noise, which makes it suitable for indoor as well as outdoor use.</p> <p><b>Pressure tank</b><br/>The built-in pressure tank reduces the number of starts and stops in case of leakages in the pipe system, causing less wear on the pump.</p> <p><b>Maintenance</b><br/>No maintenance of the pump is required.</p> <p><b>Liquid:</b><br/>Pumped liquid: Water<br/>Liquid temperature range: 0 .. 35 °C<br/>Liquid temperature during operation: 20 °C</p> |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>Density: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b></p> <p>Actual calculated flow: 3.09 m<sup>3</sup>/h</p> <p>Resulting head of the pump: 24.45 m</p> <p>Primary shaft seal: BVBP</p> <p>Approvals on nameplate: CSACUS</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b></p> <p>Pump housing: POM + 25% glass fibre</p> <p>Impeller: PPO + 20% glass fibre-PTFE</p> <p><b>Installation:</b></p> <p>Range of ambient temperature: 0 .. 45 °C</p> <p>Maximum operating pressure: 7.5 bar</p> <p>Pipe connection: NPT1</p> <p><b>Electrical data:</b></p> <p>Power input - P1: 1150 W</p> <p>Mains frequency: 60 Hz</p> <p>Rated voltage: 1 x 220-240 V</p> <p>Rated current: 4.8 A</p> <p>Enclosure class (IEC 34-5): IP54</p> <p>Insulation class (IEC 85): B</p> <p>Length of cable: 2 m</p> <p>Type of cable plug: NEMA</p> <p><b>Others:</b></p> <p>Net weight: 13 kg</p> <p>Gross weight: 15.5 kg</p> <p>Shipping volume: 0.055 m<sup>3</sup></p> |

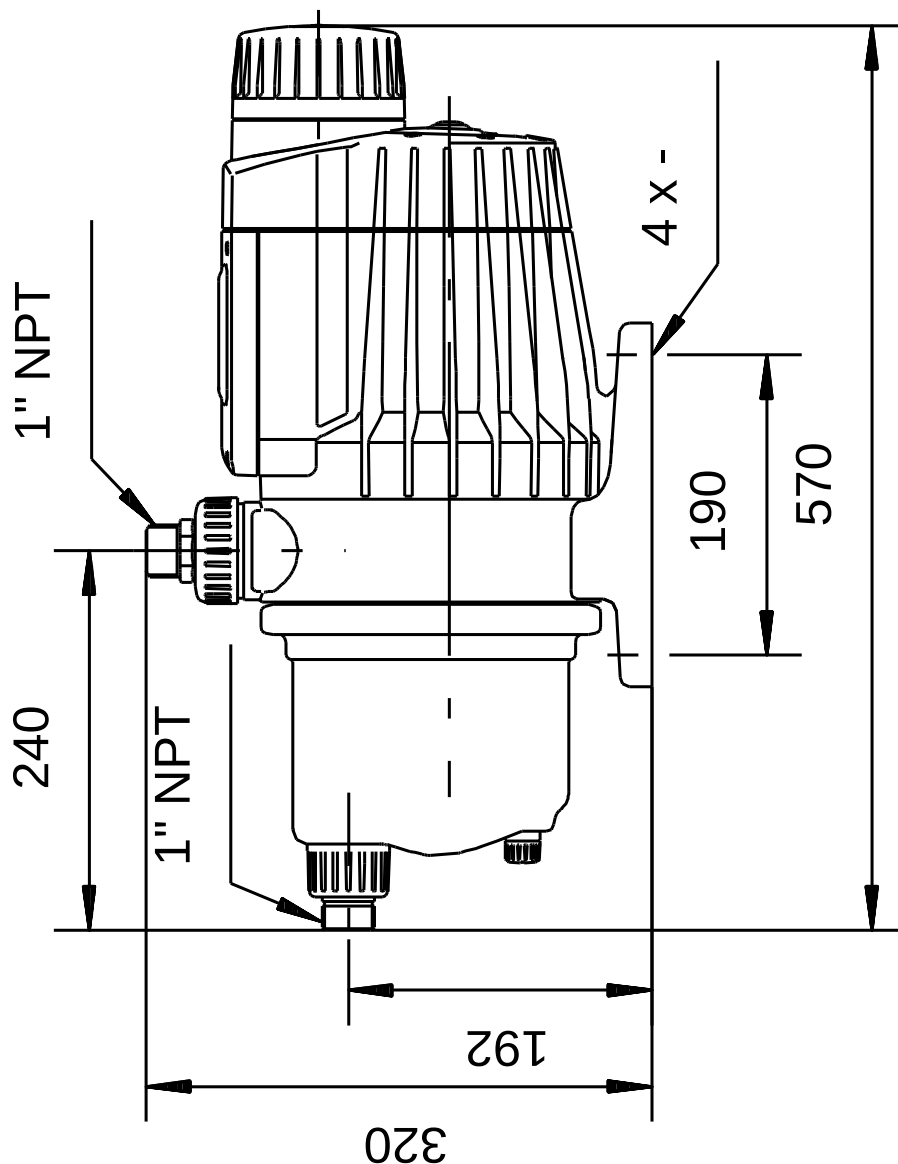
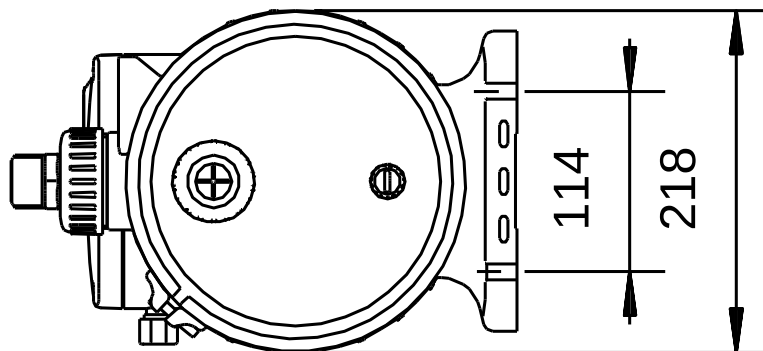
## 96860207 MQ3-45 60 Hz



| Description                          | Value                      |
|--------------------------------------|----------------------------|
| <b>General information:</b>          |                            |
| Product name:                        | MQ3-45 A-B-A-BVBP          |
| Product No:                          | 96860207                   |
| EAN number:                          | 5700312084228              |
| <b>Technical:</b>                    |                            |
| Actual calculated flow:              | 3.09 m³/h                  |
| Resulting head of the pump:          | 24.45 m                    |
| Head max:                            | 45 m                       |
| Primary shaft seal:                  | BVBP                       |
| Approvals on nameplate:              | CSACUS                     |
| Curve tolerance:                     | ISO9906:2012 3B            |
| Pump version:                        | A                          |
| Model:                               | B                          |
| <b>Materials:</b>                    |                            |
| Pump housing:                        | POM + 25% glass fibre      |
| Impeller:                            | PPO + 20% glass fibre-PTFE |
| Material code:                       | A                          |
| <b>Installation:</b>                 |                            |
| Range of ambient temperature:        | 0 .. 45 °C                 |
| Maximum operating pressure:          | 7.5 bar                    |
| Connect code:                        | B                          |
| Pipe connection:                     | NPT1                       |
| <b>Liquid:</b>                       |                            |
| Pumped liquid:                       | Water                      |
| Liquid temperature range:            | 0 .. 35 °C                 |
| Liquid temperature during operation: | 20 °C                      |
| Density:                             | 998.2 kg/m³                |
| <b>Electrical data:</b>              |                            |
| Power input - P1:                    | 1150 W                     |
| Mains frequency:                     | 60 Hz                      |
| Rated voltage:                       | 1 x 220-240 V              |
| Rated current:                       | 4.8 A                      |
| Enclosure class (IEC 34-5):          | IP54                       |
| Insulation class (IEC 85):           | B                          |
| Length of cable:                     | 2 m                        |
| Type of cable plug:                  | NEMA                       |
| <b>Controls:</b>                     |                            |
| Switch:                              | on/off switch included     |
| <b>Others:</b>                       |                            |
| Net weight:                          | 13 kg                      |
| Gross weight:                        | 15.5 kg                    |
| Shipping volume:                     | 0.055 m³                   |
| Sales region:                        | Namreg                     |

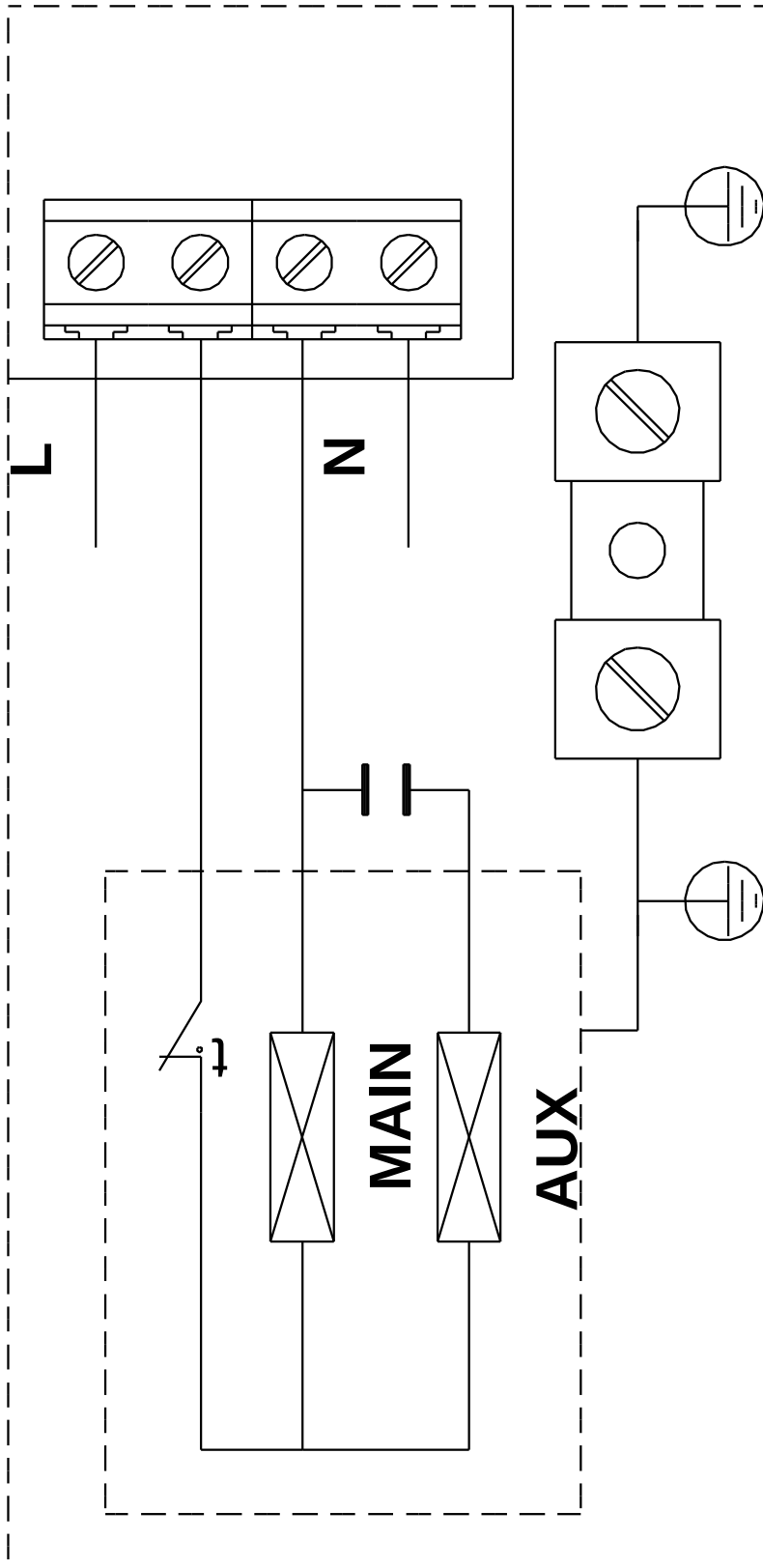


## 96860207 MQ3-45 60 Hz



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

## 96860207 MQ3-45 60 Hz



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



Company name:

Created by:

Phone:

Date:

21/02/2018

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**Order Data:**

Product name: MQ3-45 A-B-A-BVBP

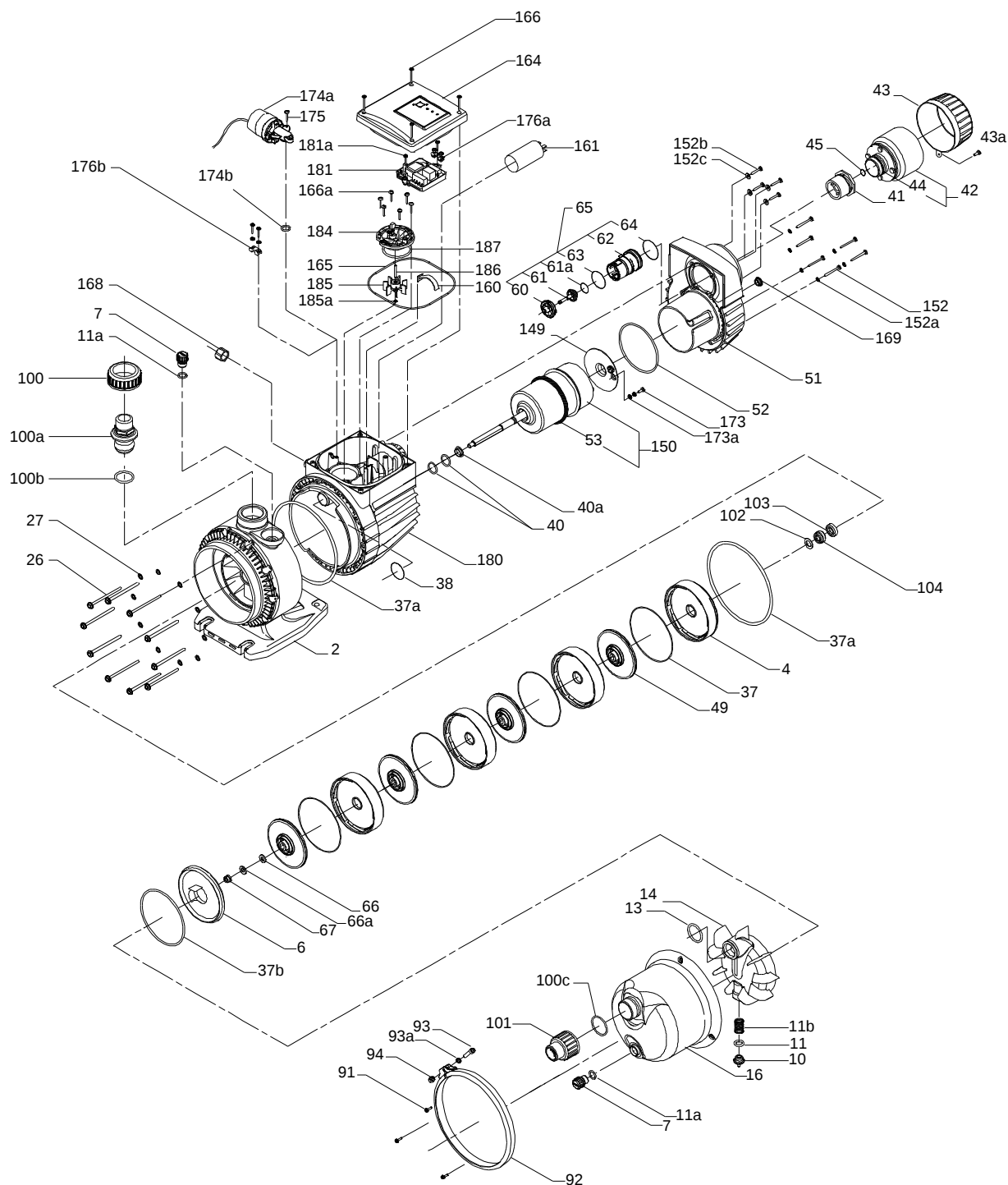
Amount: 1

Product No: 96860207

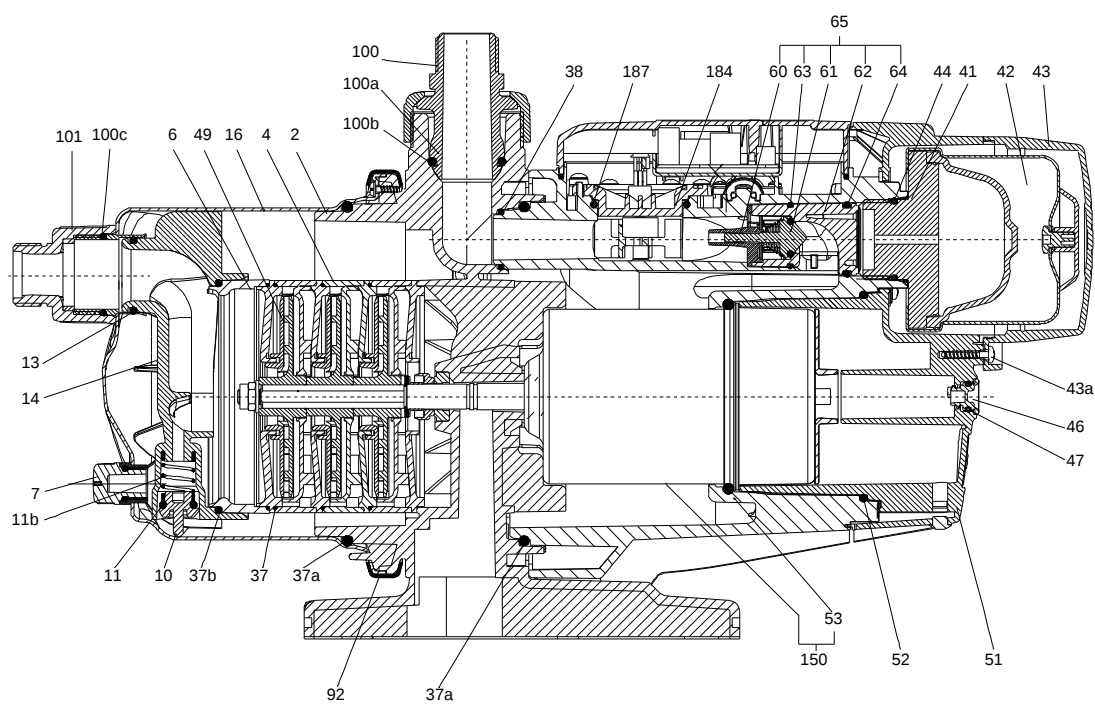
Total: Price on request

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## Exploded view ( TM055952 for MQ)



## Sectional drawing ( TM064501 for MQ )



**Parts list MQ3-45, Product No. 96860207**

**Valid from 22.1.2009 (0904)**

| Pos  | Description          | Annotation | Classification Data    | Part no. | Qty. | Unit |
|------|----------------------|------------|------------------------|----------|------|------|
| -    | Kit, hydraulic parts |            |                        |          | 1    | pcs  |
| 4    | Chamber              |            |                        |          | 3    |      |
| 4a   | Chamber, empty       |            |                        |          | 1    |      |
| 6    | Inlet part           |            |                        |          | 1    |      |
| 10   | Valve seat           |            |                        |          | 1    |      |
| 11   | O-ring               |            | Diameter: 12,29        |          | 1    |      |
|      |                      |            | Material type: NBR     |          |      |      |
|      |                      |            | Thickness: 3,53        |          |      |      |
| 11b  | Flat spring          |            |                        |          | 1    |      |
| 13   | O-ring               |            | Diameter: 31,34        |          | 1    |      |
|      |                      |            | Material type: NBR     |          |      |      |
|      |                      |            | Thickness: 3,53        |          |      |      |
| 14   | Self-priming part    |            |                        |          | 1    |      |
| 37   | O-ring               |            | Diameter: 105,0        |          | 5    |      |
|      |                      |            | Material type: NBR     |          |      |      |
|      |                      |            | Thickness: 1,5         |          |      |      |
| 37a  | O-ring               |            | Diameter: 164,46       |          | 1    |      |
|      |                      |            | Material type: NBR     |          |      |      |
|      |                      |            | Thickness: 5,34        |          |      |      |
| 37b  | O-ring               |            | Diameter: 110,7        |          | 1    |      |
|      |                      |            | Material type: NBR     |          |      |      |
|      |                      |            | Thickness: 3,53        |          |      |      |
| 49   | Impeller             |            |                        |          | 3    |      |
| 66   | Washer               |            | Internal diameter: 8,5 |          | 1    |      |
|      |                      |            | Outer diameter: 17,0   |          |      |      |
| 66.a | Disc spring          |            |                        |          | 1    |      |
| 67   | Nut                  |            | Thread: M8             |          | 1    |      |