

**HYDRO MPC-E 2 CRIE5-4**

Atkreipkite dėmesį! Paveikslėlyje parodytas produktas gali skirtis nuo tikrojo

Produkto Nr.: [98658783](#)

Pressure booster system supplied as compact assembly according to DIN standard 1988/T5.

All pumps are speed-controlled.

From 0.37 to 11 kW, the booster system is equipped with CR, CRE, CRI, CRIE pumps with electronically commutated permanent-magnet motors with extremely high efficiency. The total efficiency of the motor including the frequency converter applies to IE5 level in IEC60034-31.

From 15 to 22 kW, the booster system is equipped with CR, CRE, CRI, CRIE pumps with motors with integrated frequency control. The total efficiency of the motor including the frequency converter is better than the IE3 level in IEC60034-31, even though this standard only applies to the motor.

- \* Hydro MPC-E maintains a constant pressure through continuous adjustment of the speed of the pumps.
- \* The system performance is adapted to the demand through cutting in/out the required number of pumps and through parallel control of the pumps in operation.
- \* Pump changeover is automatic and depends on load, time and fault.

The system consists of these parts:

Pagrindinio siurblio pavadinimas: :vertical, multistage, centrifugal pumps, type CRIE5-4

- \* Pump parts in contact with the pumped liquid are made of stainless steel EN DIN 1.4301
- \* Pump bases and heads are of either cast iron/stainless steel (CRI) or cast iron EN-GJS-500-7 (CR), depending on pump type; other vital parts are made of stainless steel EN DIN 1.4301
- \* The pumps are equipped with a service-friendly cartridge shaft seal, HQQE (SiC/SiC/EPDM)
- \* Two stainless steel manifolds to EN DIN 1.4571
- \* Stainless steel base frame to EN DIN 1.4301 up to CR 64. Above CR 64 the pumps are placed on a galvanized C-profile frame
- \* One non-return valve (POM) and two isolating valves for each pump
- \* Non-return valves are certified according to DVGW, isolating valves according to DIN and DVGW
- \* Adapter with isolating valve for connection of diaphragm tank
- \* Pressure gauge and pressure transmitter (analog output 4-20 mA)
- \* Control MPC in a steel cabinet, IP54, including main switch, all required fuses, motor protection, switching equipment and microprocessor-controlled CU 352.

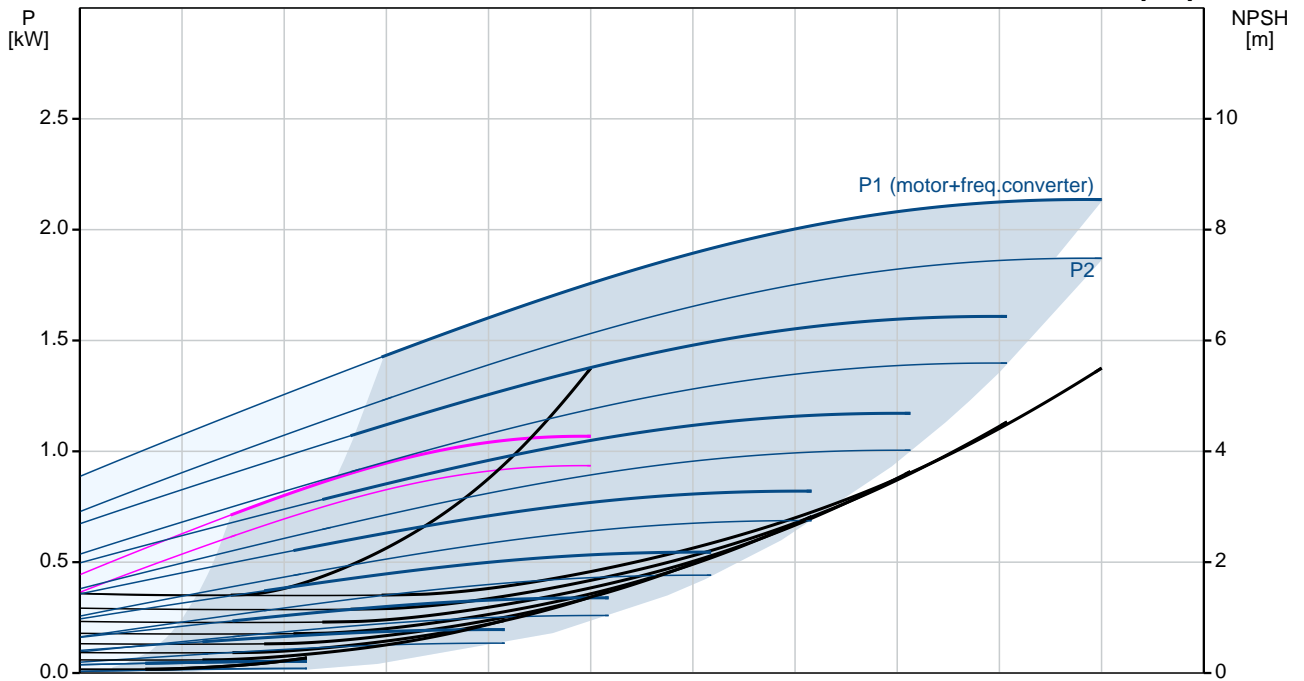
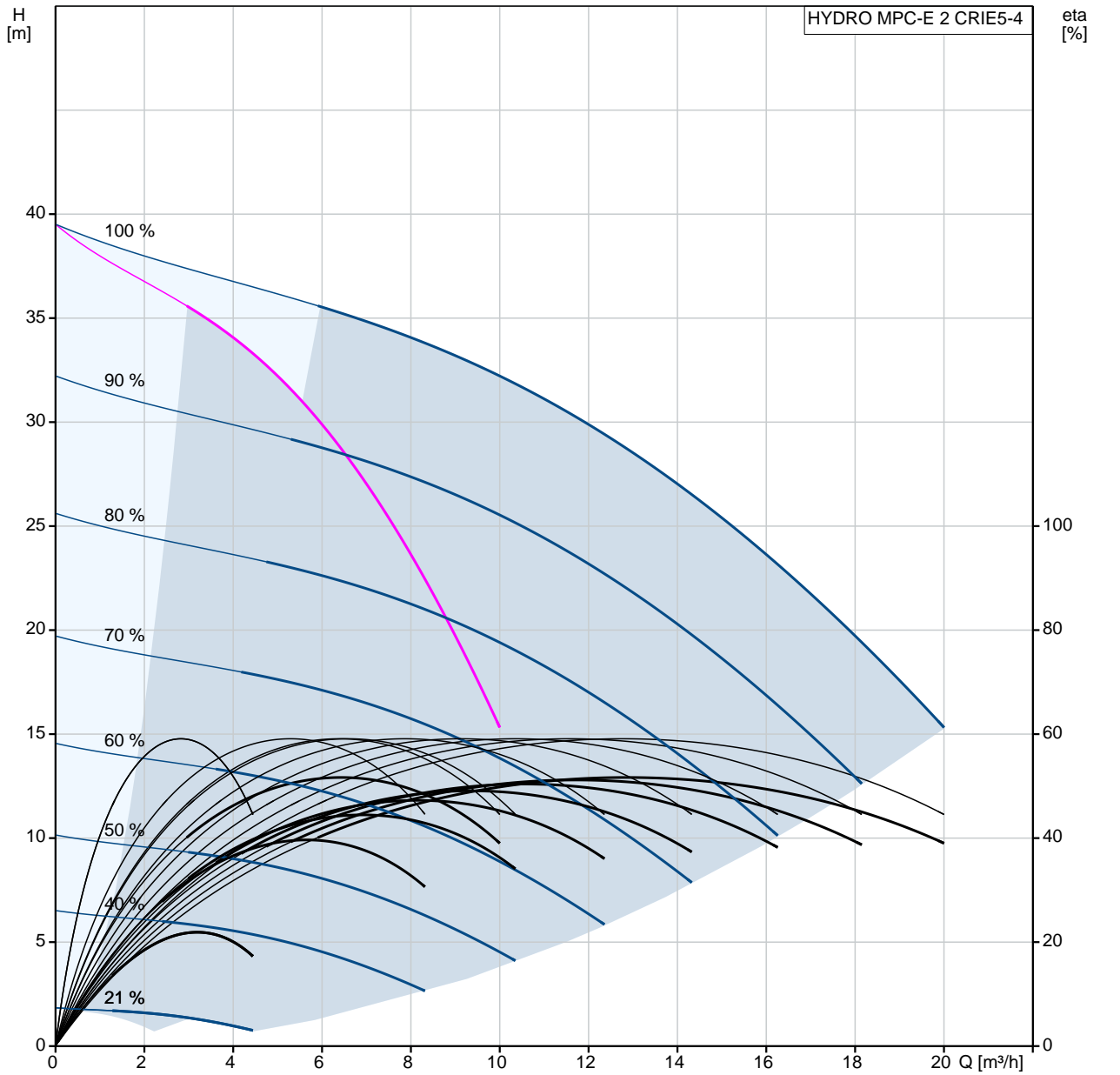
Dry-running protection and diaphragm tank are available according to the list of accessories.

Pump operation is controlled by Control MPC with the following functions:

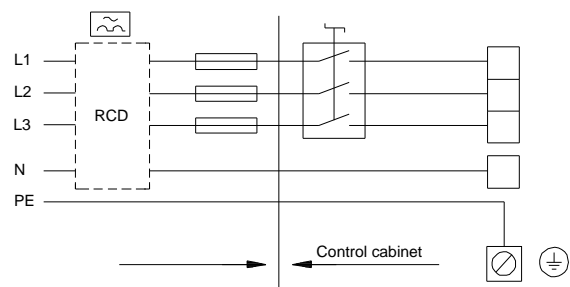
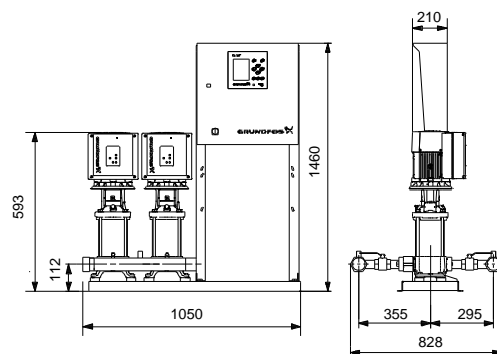
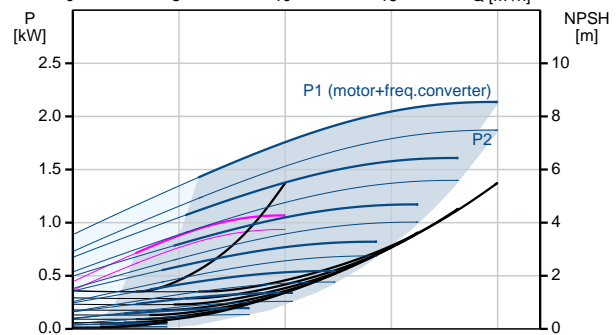
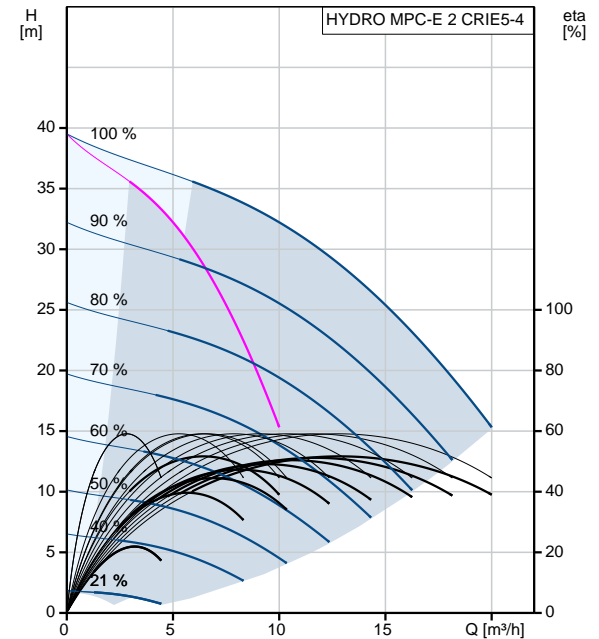
- \* Intelligent multipump controller, CU 352.
  - Constant-pressure control through continuously variable adjustment of the speed of each individual pump.
  - PID controller with adjustable PI parameters ( $K_p + T_i$ ).
  - Constant pressure at setpoint, independent of inlet pressure.
  - Soft pressure build-up ( $T_o$  to prevent water hammer during startup).
  - On/off operation at low flow.
  - Automatic cascade control of pumps for optimum efficiency.

Kiekis	Aprašymas																				
	<p>Selection of min. time between start/stop, automatic pump changeover and pump priority.</p> <p>Automatic pump test function to prevent idle pumps from seizing up.</p> <p>Possibility of standby pump allocation.</p> <p>Possibility of backup sensor (redundant primary sensor).</p> <p>Secondary sensor (Possible to switch to another sensor/setpoint).</p> <p>Multi-sensor (up to 6 sensors to influence the setpoint).</p> <p>Manual operation.</p> <p>Possibility of external setpoint influence.</p> <p>Log function.</p> <p>Setpoint ramp.</p> <p>Possibility of digital remote-control functions:</p> <p>System on/off.</p> <p>Max., min. or user-defined duty.</p> <p>Up to 6 alternative setpoints.</p> <p>Digital inputs and outputs can be configured individually.</p> <p>Pump and system monitoring functions:</p> <p>Minimum and maximum limits of current value.</p> <p>Inlet pressure.</p> <p>Non-return valve monitoring.</p> <p>Motor protection.</p> <p>Sensors and cables monitored for malfunction.</p> <p>Alarm log with the previous 24 warnings/alarms.</p> <p>Display and indication functions:</p> <p>Colour screen display.</p> <p>Green indicator light for operating indications and red indicator light for fault indications</p> <p>Potential-free changeover contacts for operation and fault.</p> <p>Grundfos bus communication.</p> <p>It is possible to add CIM communication modules for communicating with Scada/BMS.</p> <p>Pumps, piping, cabling complete as well as Control MPC are mounted on the base frame. The booster system has been preset and tested.</p> <p>Galimi sistemos variantai.</p> <table data-bbox="225 1256 734 1496"> <tr> <td>Skystis:</td> <td>Vanduo</td> </tr> <tr> <td>Leidžiama skysio temp.:</td> <td>5 °C .. 60 °C</td> </tr> <tr> <td>Maks. sistemos slėgis:</td> <td>16 bar</td> </tr> <tr> <td>Debitas (sistemos):</td> <td>20.4 m³/h</td> </tr> <tr> <td>Maitinimas tampa:</td> <td>380-415 V</td> </tr> <tr> <td>Nom. sistemos srov. :</td> <td>6,0A-400V A</td> </tr> <tr> <td>Nominali galia:</td> <td>1.1 kW</td> </tr> <tr> <td>Neto masė :</td> <td>107 kg</td> </tr> </table> <table data-bbox="225 1525 699 1585"> <tr> <td>Maximum head:</td> <td>39 m</td> </tr> <tr> <td>Maximum flow:</td> <td>20.4 m³/h</td> </tr> </table>	Skystis:	Vanduo	Leidžiama skysio temp.:	5 °C .. 60 °C	Maks. sistemos slėgis:	16 bar	Debitas (sistemos):	20.4 m³/h	Maitinimas tampa:	380-415 V	Nom. sistemos srov. :	6,0A-400V A	Nominali galia:	1.1 kW	Neto masė :	107 kg	Maximum head:	39 m	Maximum flow:	20.4 m³/h
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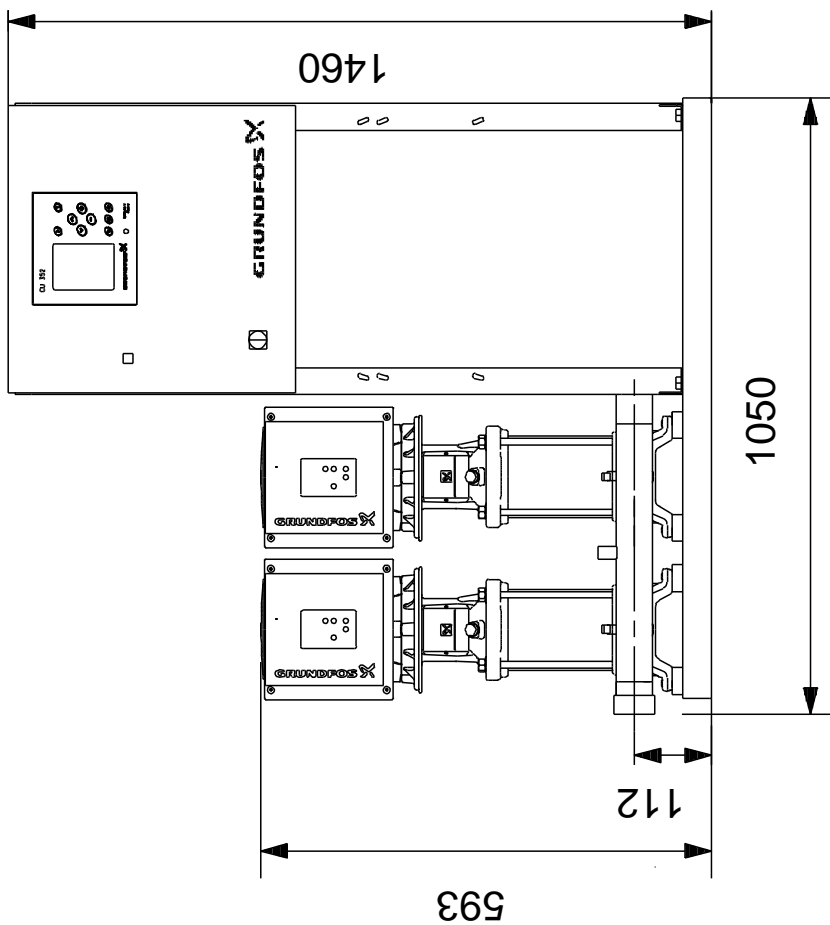
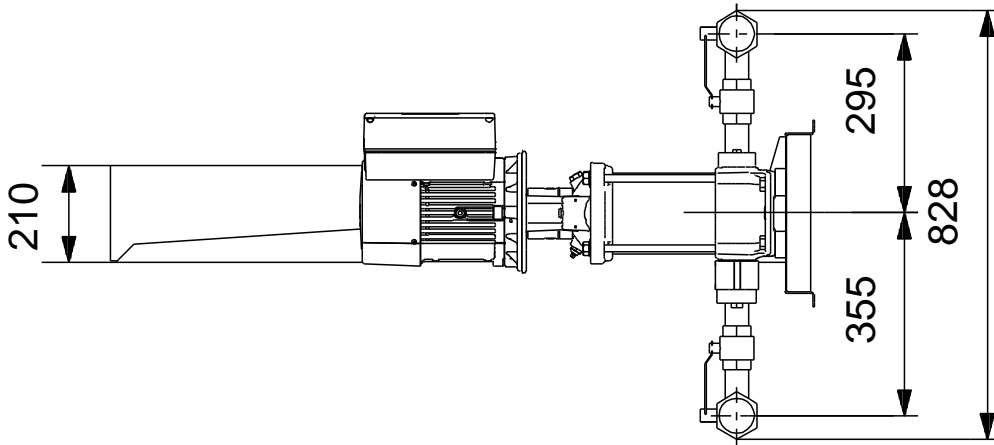
# 98658783 HYDRO MPC-E 2 CRIE5-4



Aprašymas	Vert
<b>Bendra informacija:</b>	
Produkto pavadinimas:	HYDRO MPC-E 2 CRIE5-4
Produkto Nr.:	98658783
EAN numeris:	5711499076548
<b>Techniniai duomenys:</b>	
Nominalus debitas:	14 m <sup>3</sup> /h
Maximum flow:	20.4 m <sup>3</sup> /h
Maks. debitas:	20.4 m <sup>3</sup> /h
Nominalus slgio aukštis:	26.2 m
Maks. slgio aukštis:	39 m
Pagrindinio siurblio pavadinimas:	CRIE5-4
Pagrindinio siurblio Nr.:	98390048
Siurbli skai ius:	2
<b>Medžiagos:</b>	
Kolektoriai:	EN/DIN 1.4571/ AISI 316 TI
<b>rengimas:</b>	
Aplinkos temperat ros intervalas:	5 .. 45 °C
Maksimalus darbinis slgis:	16 bar
Vamzdyno vadas:	R 2"
Vamzdyno išvadas:	R 2"
Slgis:	PN 16
žeminimas:	N, PE
Sistemos projektas:	A
<b>Skystis:</b>	
Siurbiamas skystis:	Vanduo
Skys io temperat ros diapazonas:	5 .. 60 °C
Skys io temperat ra eksploataavimo metu:	20 °C
Tankis:	998.2 kg/m <sup>3</sup>
<b>Elektrotechniniai duomenys:</b>	
Pagrindinio siurblio galia (P2):	1.1 kW
Elektros tinklo dažnis:	50 / 60 Hz
Nominali tampa:	3 x 380-415 V
Nominali sistemos srov :	6,0A-400V A
Paleidimo b das:	Variable frequency drives
Korpuso klas (IEC 34-5):	IP54
Radio trikdži slopinimas:	EMC DIRECTIVE(2014/30/EU)
Pagrindinio siurblio fazi skai ius:	1
<b>Valdikliai:</b>	
Valdymo tipas:	E
Apsauga nuo sausos eigos, mechanin :	PRESSURE SENSOR 0-6 BAR
<b>Bakas:</b>	
Slginio bako t ris:	18 l
Diafragminis bakas:	Taip
<b>Kita:</b>	
Neto mas :	107 kg
Bendra mas :	145 kg
Produkto serija:	Tarptautinis
Konfig racijos failo Nr.:	98272373
Control MPC konfig. failas:	98271946
Hydro MPC konfig. failas:	98272015
Country of origin:	DE
Custom tariff no.:	84137075

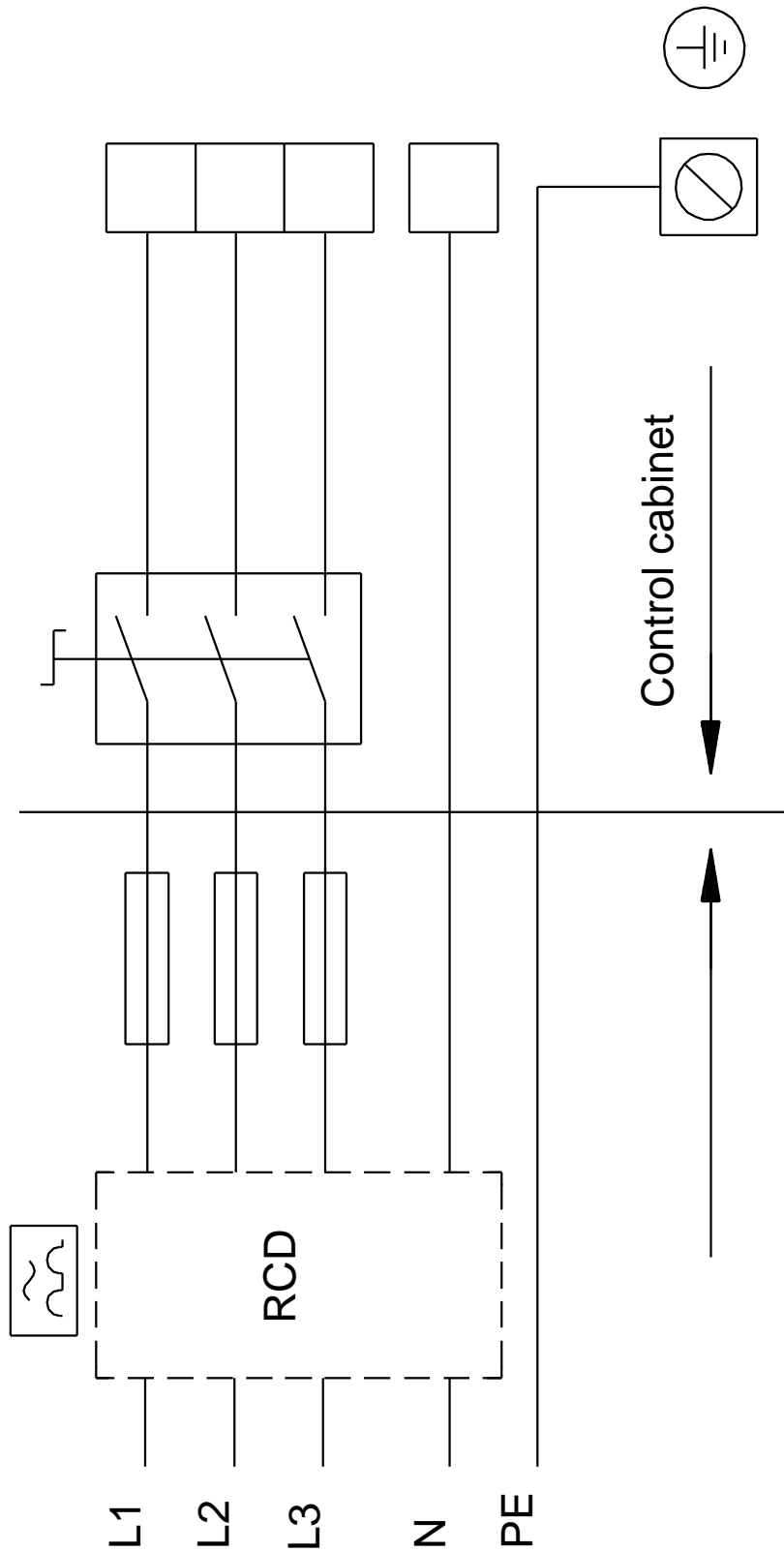


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Atkreipkite dėmesį! Visi matavimai, jei nenurodyta kitaip, pateikti milimetrais.  
Atsakomybės apribojimas: šiame supaprastintame matavimo brėžinyje neparodytos visos detalės.

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