

**HYDRO MPC-E 3 CRIE3-4**

Produkto Nr.: [98389607](#)

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:

- \* 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 (To prevent water hammer during startup).
  - On/off operation at low flow.
  - Automatic cascade control of pumps for optimum efficiency.
  - Selection of min. time between start/stop, automatic pump changeover and pump priority.
  - Automatic pump test function to prevent idle pumps from seizing up.
  - Possibility of standby pump allocation.
  - Possibility of backup sensor (redundant primary sensor).
  - Secondary sensor (Possible to switch to another sensor/setpoint).
  - Multi-sensor (up to 6 sensors to influence the setpoint).
  - Manual operation.
  - Possibility of external setpoint influence.
  - Log function.

Kiekis	Aprašymas
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Setpoint ramp.  
Possibility of digital remote-control functions:  
System on/off.  
Max., min. or user-defined duty.  
Up to 6 alternative setpoints.  
Digital inputs and outputs can be configured individually.  
Pump and system monitoring functions:  
Minimum and maximum limits of current value.  
Inlet pressure.  
Non-return valve monitoring.  
Motor protection.  
Sensors and cables monitored for malfunction.  
Alarm log with the previous 24 warnings/alarms.  
Display and indication functions:  
Colour screen display.  
Green indicator light for operating indications and red indicator light for fault indications  
Potential-free changeover contacts for operation and fault.  
Grundfos bus communication.

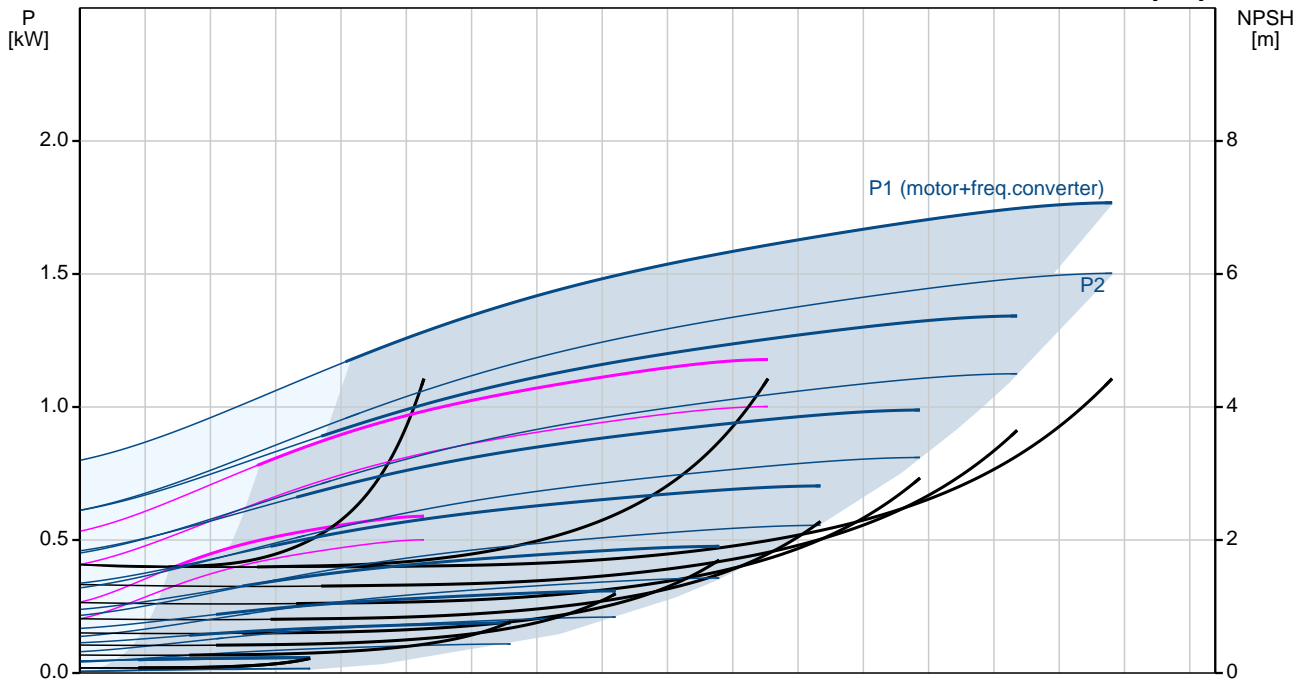
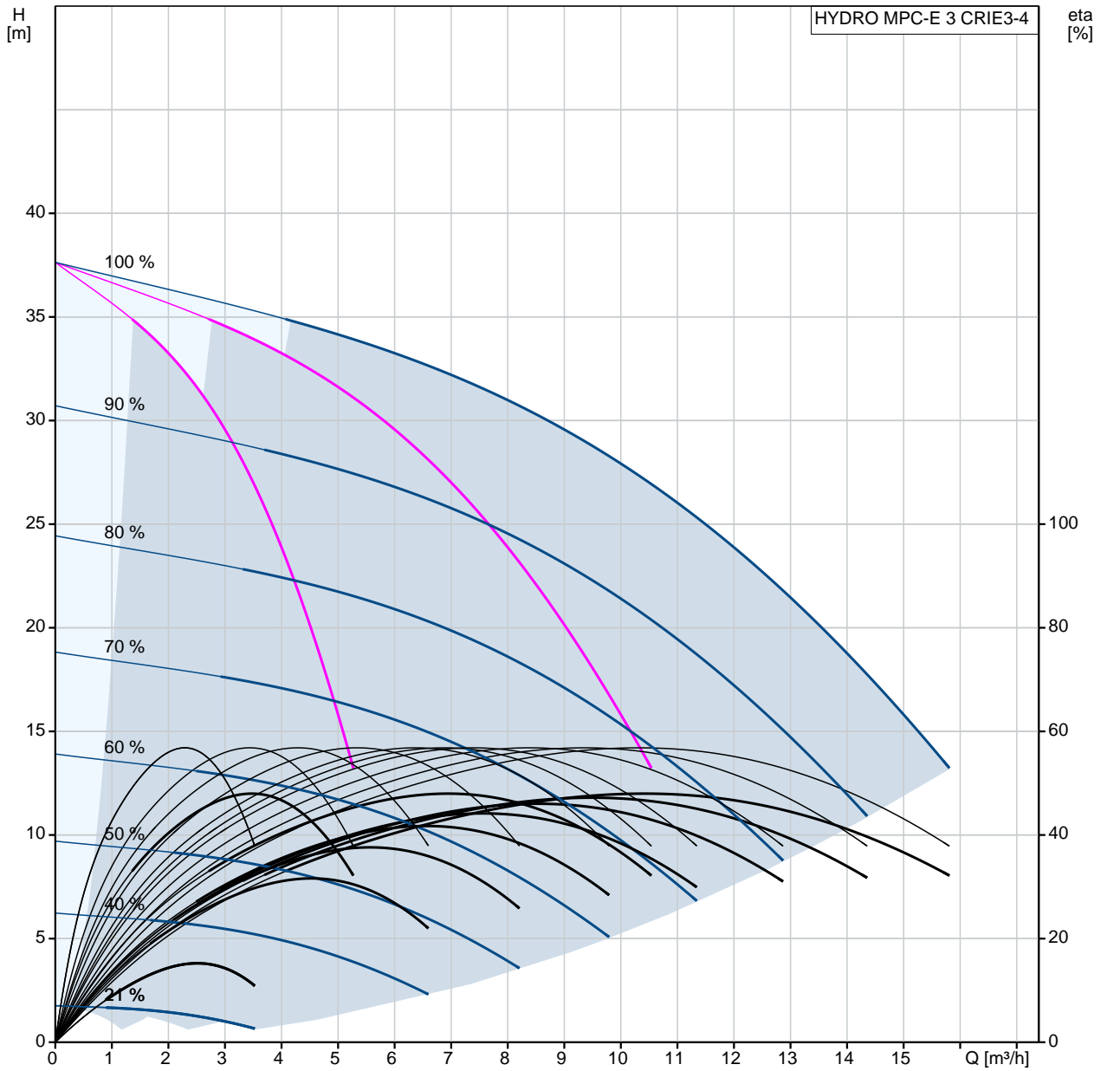
It is possible to add CIM communication modules for communicating with Scada/BMS.

Pumps, piping, cabling complete as well as Control MPC are mounted on the base frame.  
The booster system has been preset and tested.

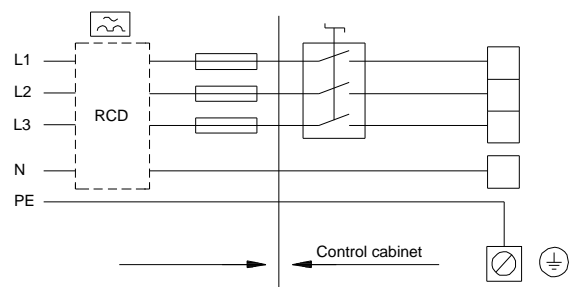
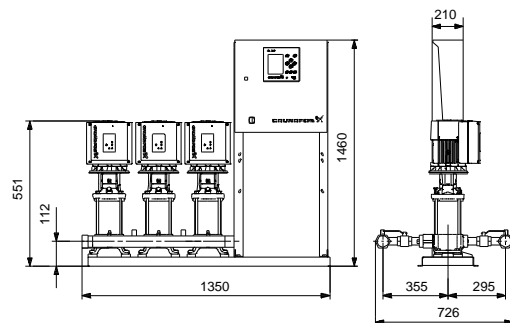
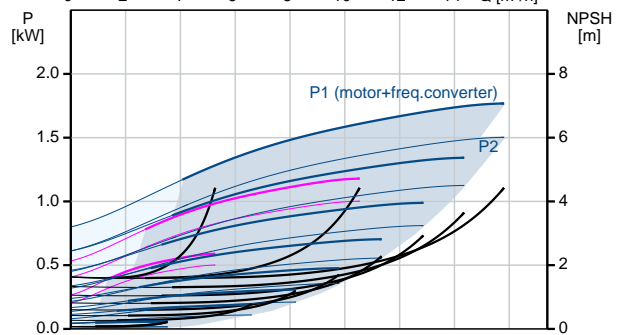
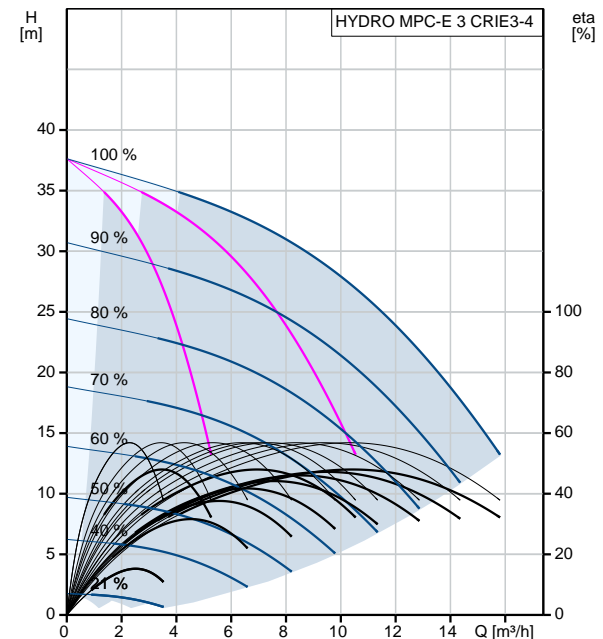
Skystis:	Vanduo
Leidžiama skysio temp.:	5 °C .. 60 °C
Maks. sistemos slėgis:	16 bar
Debitas (sistemos):	16 m <sup>3</sup> /h
Maitinimas tampa:	380-415 V
Nom. sistemos srov.:	3,1A-400V
Nominali galia:	0.55 kW
Neto masė:	122 kg

Maximum head: 37 m  
Maximum flow: 16 m<sup>3</sup>/h

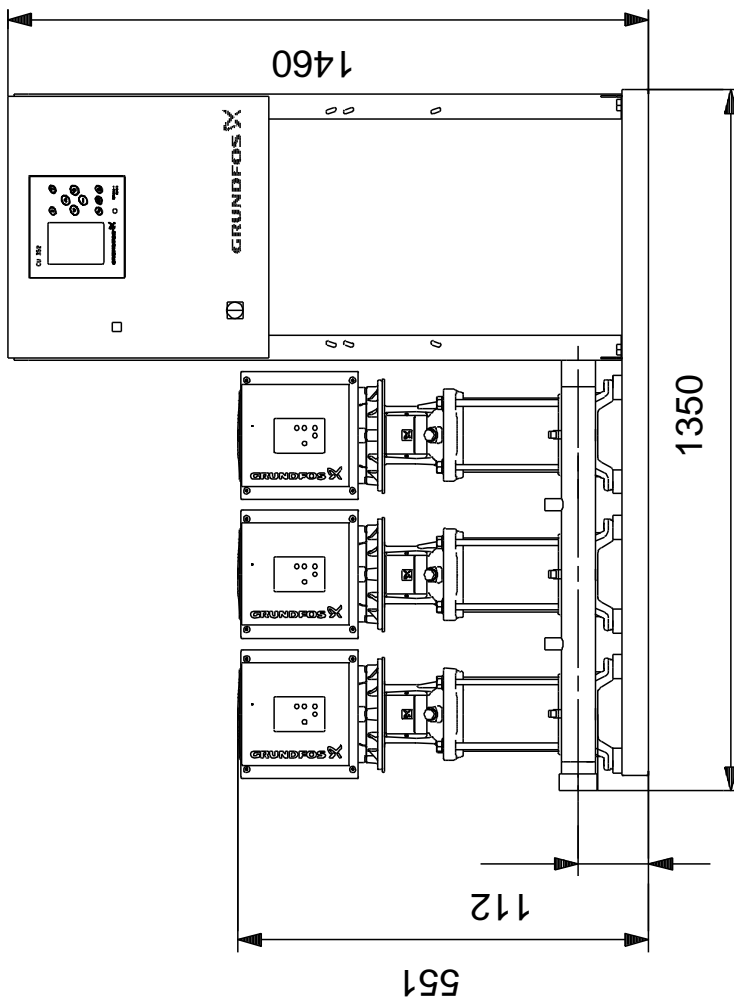
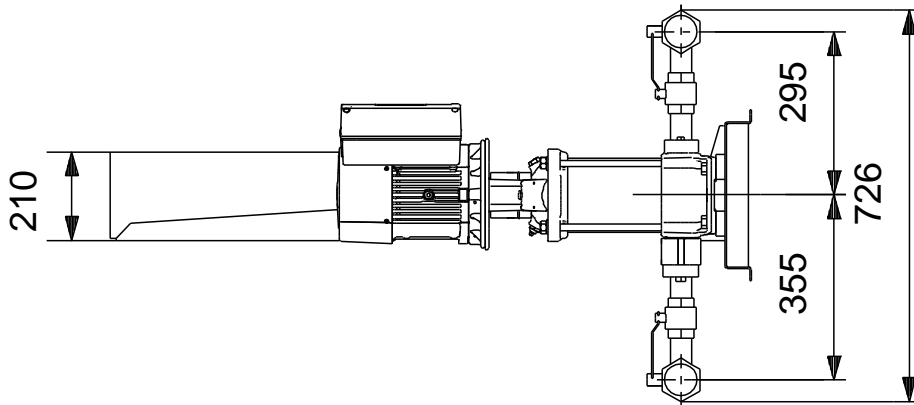
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Aprašymas	Vert
<b>Bendra informacija:</b>	
Produkto pavadinimas:	HYDRO MPC-E 3 CRIE3-4
Produkto Nr.:	98389607
EAN numeris:	5710629915726
	5710629915726
<b>Techniniai duomenys:</b>	
Nominalus debitas:	12 m <sup>3</sup> /h
Maks. debitas:	16 m <sup>3</sup> /h
Nominalus slgio aukštis:	26.7 m
Maks. slgio aukštis:	37 m
Pagrindinio siurblio pavadinimas:	CRIE3-4
Pagrindinio siurblio Nr.:	98389727
Siurbli skaiius:	3
Atbulinis vožtuvas:	išvado pus je
<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
Maksimalus leistinas slgis vade:	12.3 bar
Vamzdyno vadas:	R 2"
Vamzdyno išvadas:	R 2"
Slgis:	PN16
žeminimas:	N, PE
Sistemos projektas:	A
<b>Skystis:</b>	
Siurbiamas skystis:	Vanduo
Skysio temperat ros diapazonas:	5 .. 60 °C
Skysio temperat ra eksploatavimo metu:	20 °C
Tankis:	998.2 kg/m <sup>3</sup>
<b>Elektrotechniniai duomenys:</b>	
Pagrindinio siurblio galia (P2):	0.55 kW
Elektros tinklo dažnis:	50 / 60 Hz
Nominali tampa:	3 x 380-415 V
Nominali sistemos srov :	3,1A-400V
Paleidimo b das:	elektroninis
Korpuso klas (IEC 34-5):	IP54
Radio trikdži slopinimas:	EMC DIRECTIVE(2014/30/EU)
Pagrindinio siurblio fazi skaiius:	1
<b>Valdikliai:</b>	
Control type:	E
Apsauga nuo sausos eigos, mechanin :	NONE
<b>Bakas:</b>	
Diafragminis bakas:	Ne
<b>Kita:</b>	
Neto mas :	122 kg
Bendra mas :	163 kg
Produkto serija:	Tarptautinis
Konfig racijos failo Nr.:	98272355
Control MPC konfig. failas:	98271947
Hydro MPC konfig. failas:	98272018
Country of origin:	DE
Custom tariff no.:	84137075

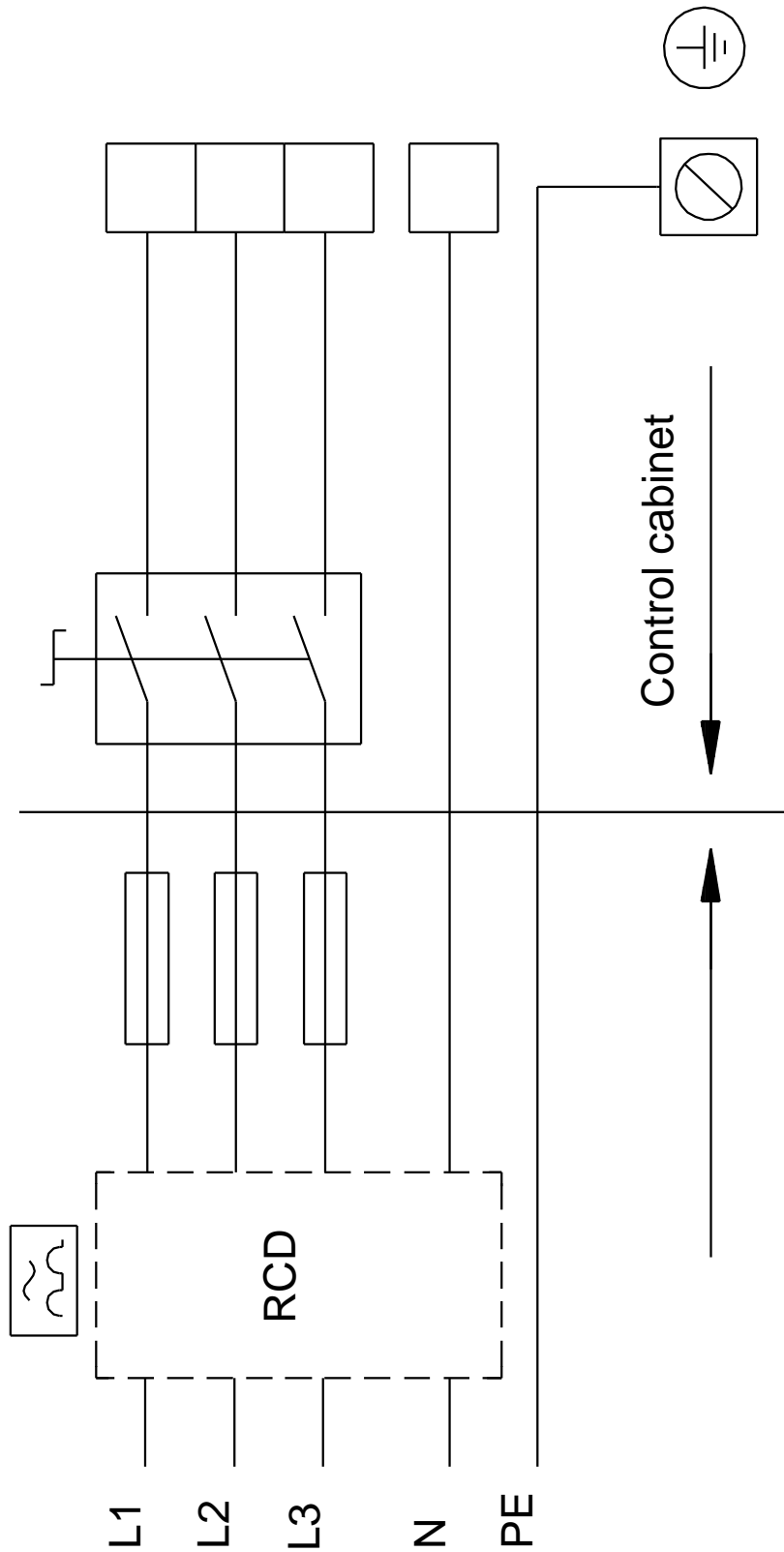


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Atkreipkite dėmesį! Visi matmenys, jei nenurodyta kitaip, pateikti milimetrais.  
Atsakomybės apribojimas: šiame supaprastintame matmenų brėžinyje neparodytos visos detalės.

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Atkreipkite d mes! Visi matmenys, jei nenurodyta kitaip, pateikti milimetrtais.