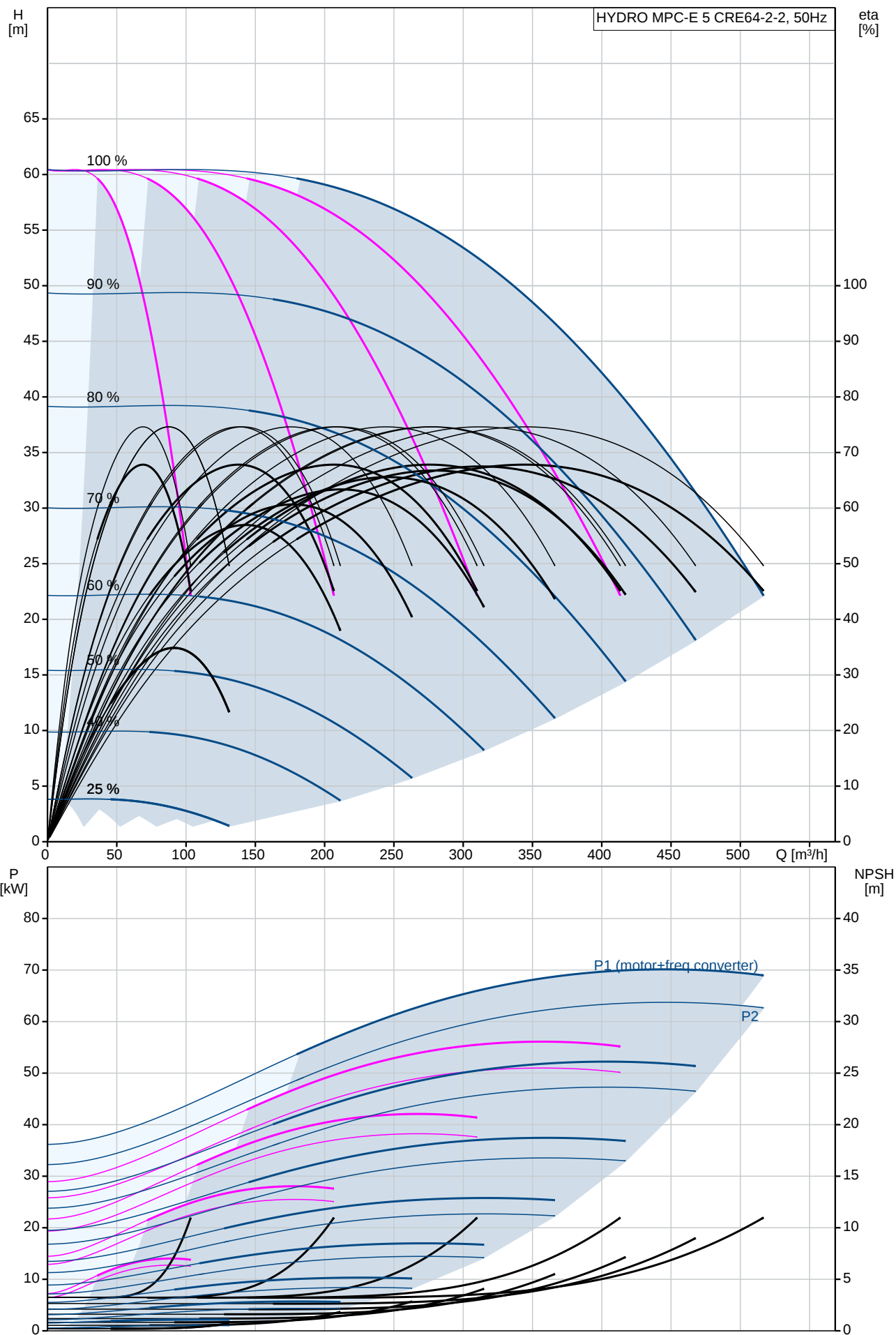


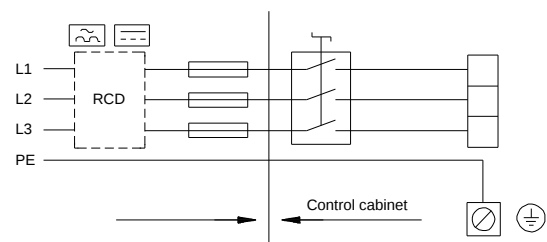
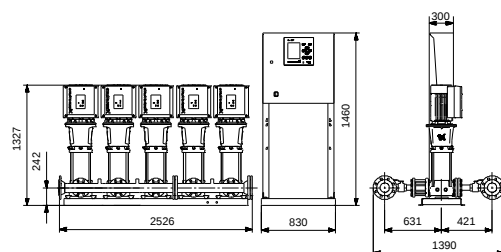
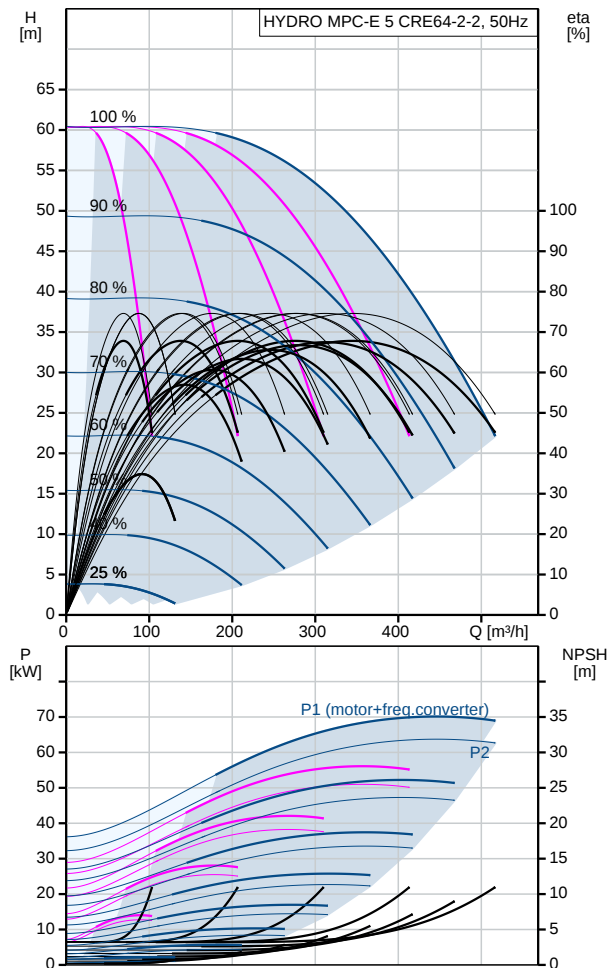
Kiekis	Aprašymas
1	HYDRO MPC-E 5 CRE64-2-2  Produkto Nr.: 96941398 Pressure booster system supplied as compact assembly according to DIN standard 1988/T5. All pumps are speed-controlled. From 0.37 to 11 kW, the booster system is equipped with CR, CRE, CRI, CRIE pumps with electronically commutated permanent-magnet 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 (Kp + Ti). - 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																
	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. <table> <tr> <td>Skystis:</td><td>Vanduo</td></tr> <tr> <td>Leidžiama skysčio 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>510 m³/h</td></tr> <tr> <td>Maitinimas įtampa:</td><td>380-415 V</td></tr> <tr> <td>Nom. sistemos srovė:</td><td>146,1A-400V</td></tr> <tr> <td>Nominali galia:</td><td>15 kW</td></tr> <tr> <td>Neto masė:</td><td>1400 kg</td></tr> </table> Maximum head: 59 m Maximum flow: 510 m³/h	Skystis:	Vanduo	Leidžiama skysčio temp.:	5 °C .. 60 °C	Maks. sistemos slėgis:	16 bar	Debitas (sistemos):	510 m³/h	Maitinimas įtampa:	380-415 V	Nom. sistemos srovė:	146,1A-400V	Nominali galia:	15 kW	Neto masė:	1400 kg
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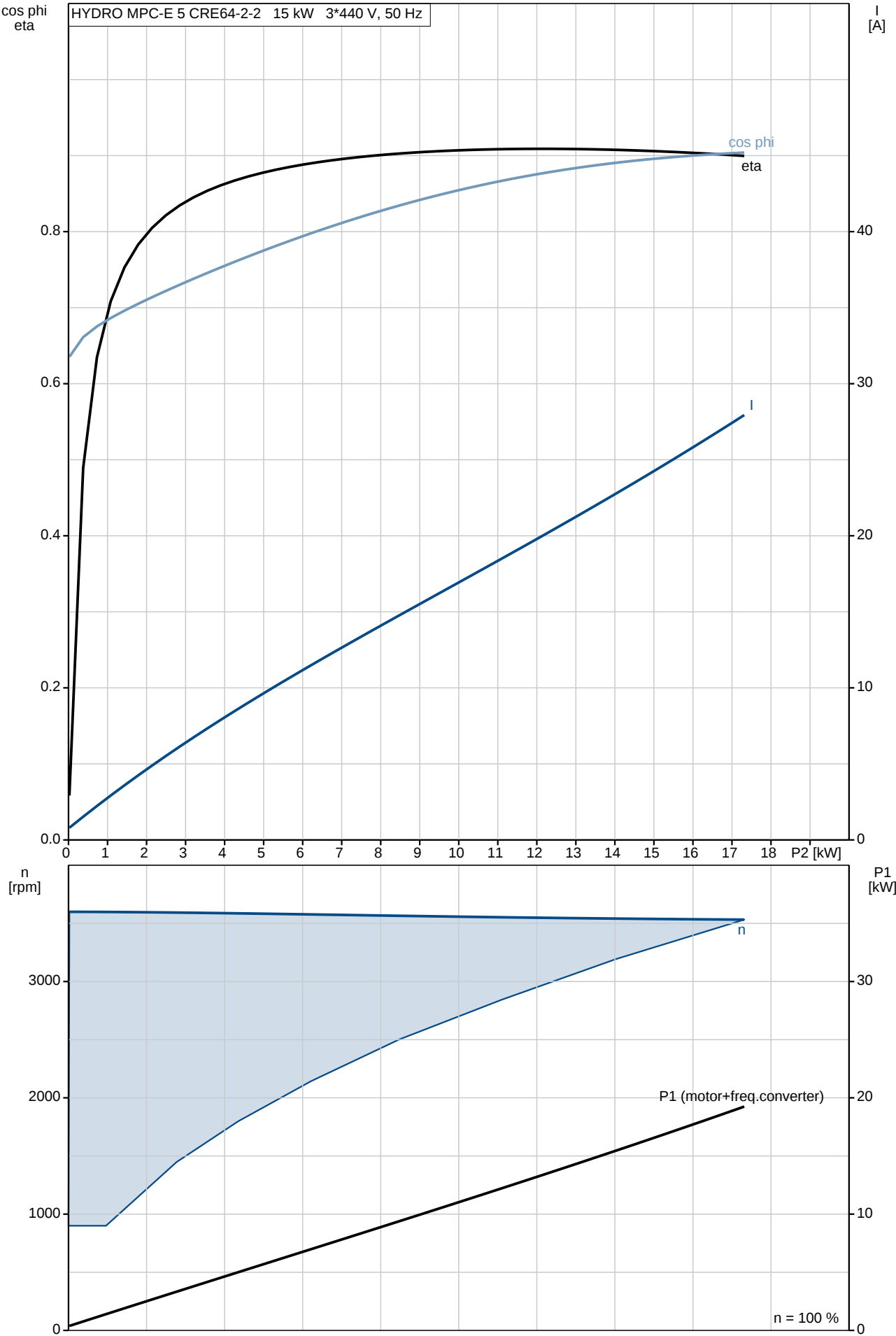
96941398 HYDRO MPC-E 5 CRE64-2-2



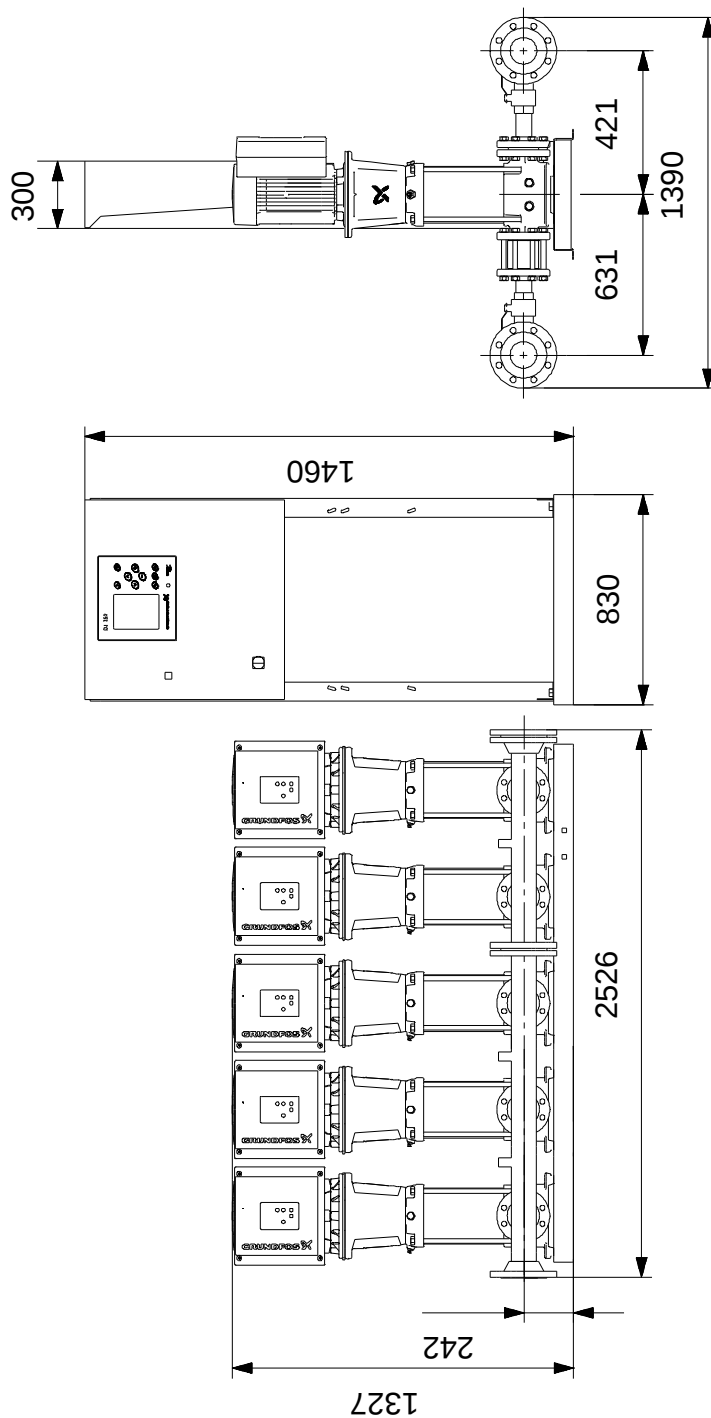
Aprašymas	Vertė
Bendra informacija:	
Produkto pavadinimas:	HYDRO MPC-E 5 CRE64-2-2
Produkto Nr.:	96941398
EAN numeris:	5700314239282
	5700314239282
Techniniai duomenys:	
Nominalus debitas:	385 m³/h
Maks. debitas:	510 m³/h
Nominalus slėgio aukštis:	43.1 m
Maks. slėgio aukštis:	59 m
Pagrindinio siurblio pavadinimas:	CRE64-2-2
Pagrindinio siurblio Nr.:	96123994
Siurblių skaičius:	5
Atbulinis vožtuvas:	išvado pusėje
Medžiagos:	
Kolektoriai:	EN/DIN 1.4571/ AISI 316 TI
Įrengimas:	
Aplinkos temperatūros intervalas:	5 .. 45 °C
Maksimalus darbinis slėgis:	16 bar
Maksimalus leistinas slėgis įvade:	10.1 bar
Vamzdyno įvadas:	DN200
Vamzdyno išvadas:	DN200
Slėgis:	PN16
Įžeminimas:	PE
Sistemos projektas:	D
Skystis:	
Siurbiamas skystis:	Vanduo
Skysčio temperatūros diapazonas:	5 .. 60 °C
Skysčio temperatūra eksploatavimo metu:	20 °C
Tankis:	998.2 kg/m³
Elektrotechniniai duomenys:	
Pagrindinio siurblio galia (P2):	15 kW
Elektros tinklo dažnis:	50 / 60 Hz
Nominali įtampa:	3 x 380-415 V
Nominali sistemos srovė:	146,1A-400V
Paleidimo būdas:	elektroninis
Korpuso klasė (IEC 34-5):	IP54
Radio trikdžių slopinimas:	EMC DIRECTIVE(2014/30/EU)
Pagrindinio siurblio fazių skaičius:	3
Valdikliai:	
Control type:	E
Apsauga nuo sausos eigos, mechaninė:	NONE
Bakas:	
Diafragminis bakas:	Ne
Kita:	
Neto masė:	1400 kg
Bendra masė:	1510 kg
Produkto serija:	Tarptautinis
Konfigūracijos failo Nr.:	98272462
Control MPC konfig. failas:	98271949
Hydro MPC konfig. failas:	98272018
Country of origin:	DE
Custom tariff no.:	84137075



96941398 HYDRO MPC-E 5 CRE64-2-2

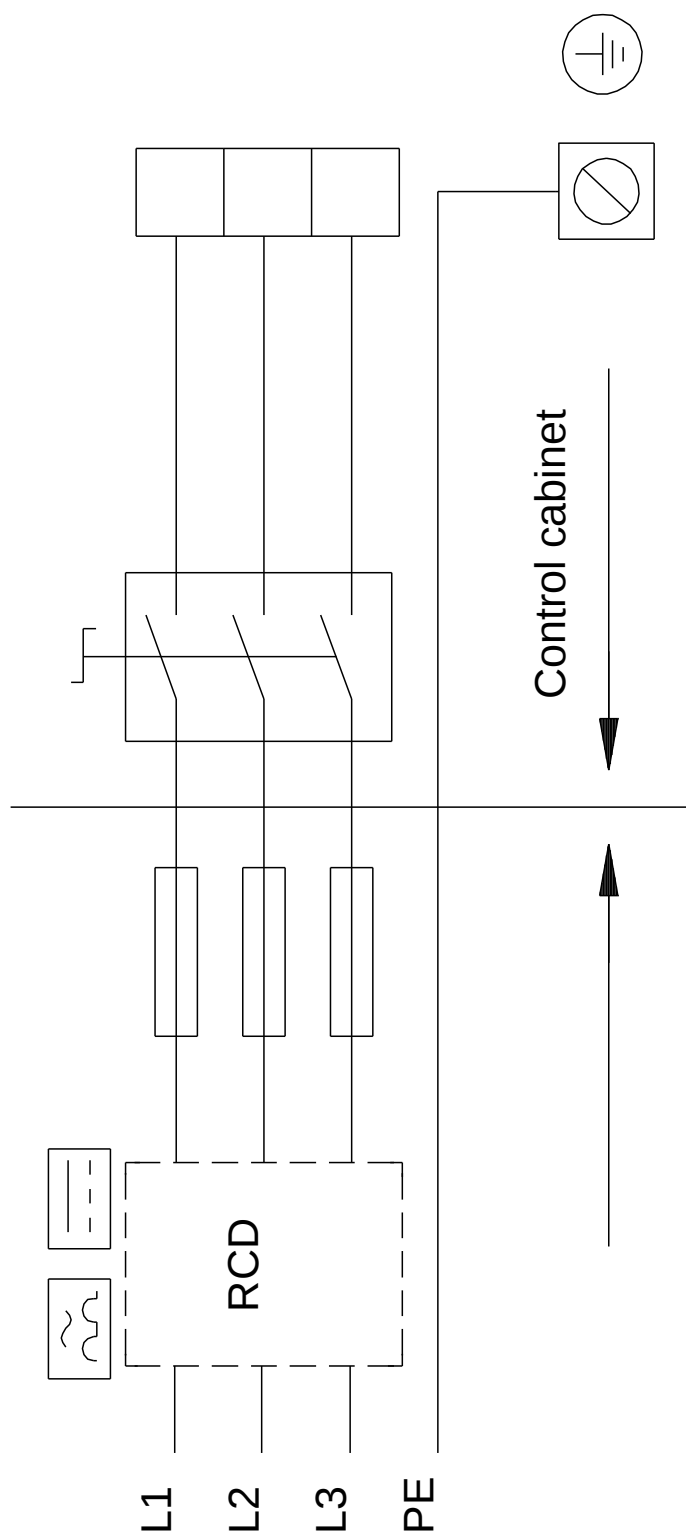


96941398 HYDRO MPC-E 5 CRE64-2-2



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

96941398 HYDRO MPC-E 5 CRE64-2-2



Atkreipkite dėmesį! Visi matmenys, jei nenurodyta kitaip, pateikti milimetrais.