

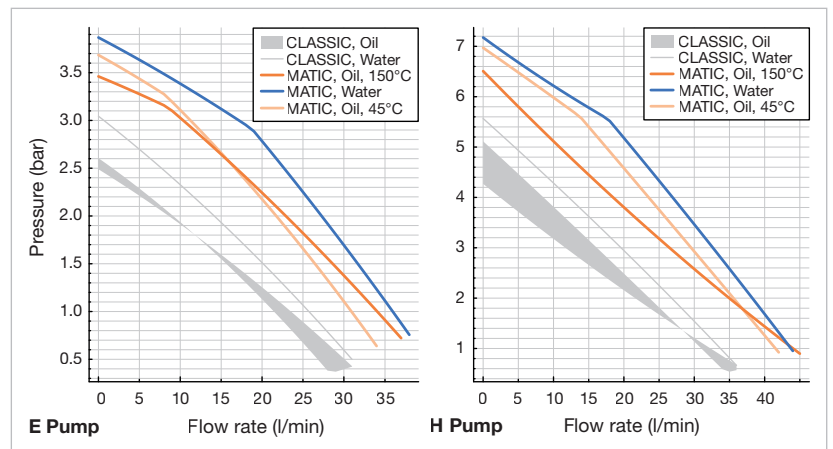


# MATIC Water

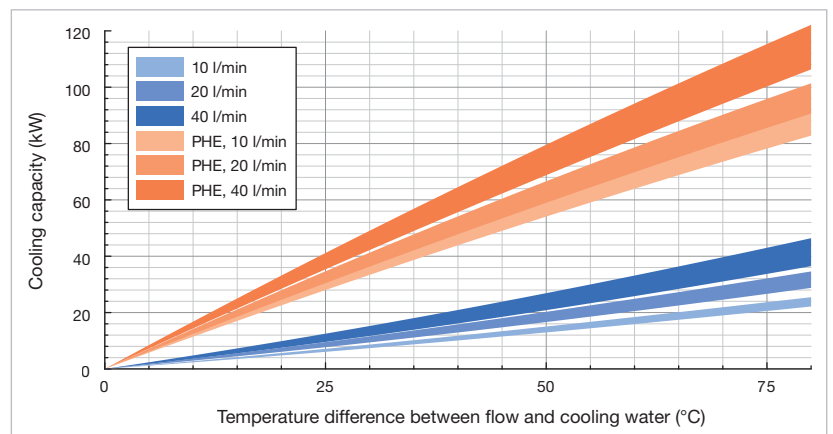
90 18 E  
90 18 H

- Energy-efficient and ecological
- Modular and easy to expand
- Predefined actions
- Configurable recipes
- Intelligent connectivity
- Predictive maintenance

## Pump characteristic curve



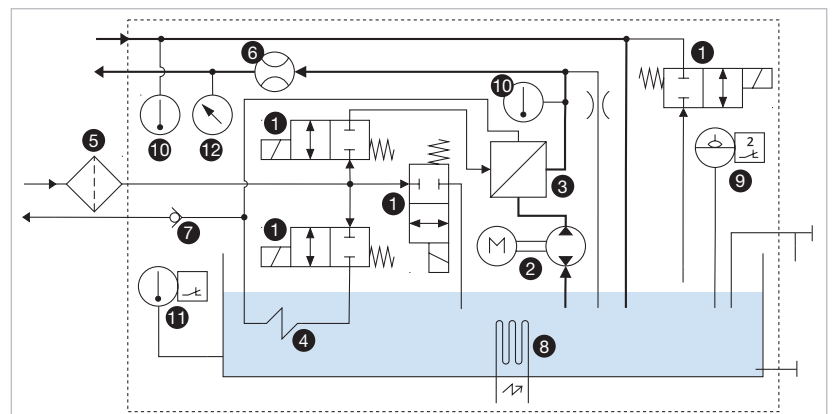
## Cooling capacity



Performance data min. at 16 l/min @ 1.5 bar; max. at 38 l/min @ 8 bar cooling water

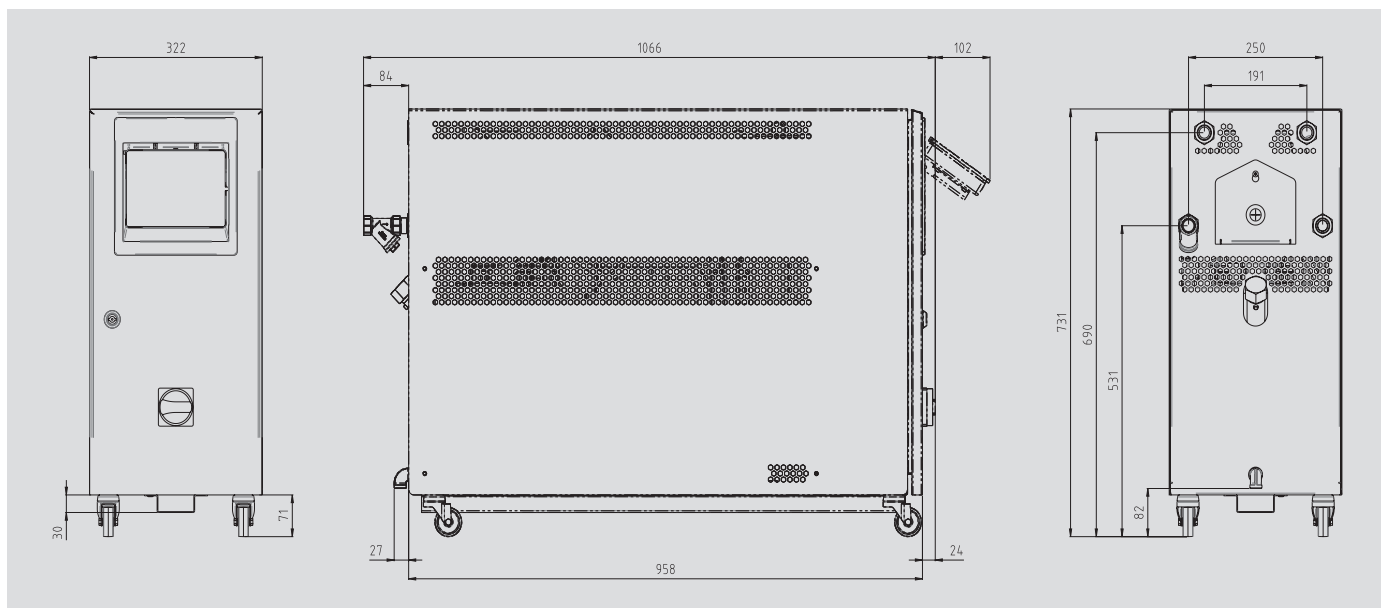


## Fluidic diagram



1 2-2 way valve (normally closed), 2 Circulation pump with reversible pump direction, 3 Plates Heat exchanger, 4 Cooling coil, 5 Filter, 6 Flow sensor, 7 Non-return valve, 8 Heating element, 9 Level sensor, 10 Temperature sensor, 11 Safety temperature limiter, 12 Pressure sensor

# Technical data



	Water	
<b>Maximum temperature</b>	<b>90 °C</b>	
<b>Heat output</b>	<b>18 kW</b>	
<b>Cooling capacity</b>	See diagram	
<b>Filling volume (heat transfer fluid)</b>	Minimum 16 liters, maximum 20 liters	
<b>Pumps</b>	<b>Type E or H</b>	
Pressure and flow rate	See diagram	
Rated power of the motor	<b>Type E: 0.75 kW, Type H: 1.5 kW</b>	
<b>Control system</b>	IRIS	
Temperature measurement	3-wire Pt100 (F0.15 to IEC 60751), flow and return	
Pump pressure measurement	Piezoresistive pressure transmitter	
Flow measurement (heat transfer medium)	Vane wheel sensor with inductive pick-up	
Languages	DE, EN, ES, FR, IT, NL (expandable)	
<b>Interfaces</b>	Module IO1: RS232, RS485, CL 20 mA, CAN (accessories)	
OPC-UA (Standard)	Module IO2: Profibus, Profinet, EtherNet/IP (accessories)	
	Module IO3: 0-10 V, 0/4-20 mA, external measurement (accessory)	
<b>Number of extension module slots</b>	1	
<b>Connections</b>		
Heat transfer medium (flow and return)	¾" BS (or G ¾) internal thread	
Cooling water, inlet	¾" BS (or G ¾) internal thread, with and without water filter	
Cooling water, outlet	¾" BS (or G ¾) internal thread	
<b>Empty weight</b>	90 kg	
<b>Color</b>	RAL 7035 light gray	
<b>Surroundings</b>		
Temperature range	5-40 °C	
Relative humidity	40-80 % RH (non-condensing, no ice formation)	
<b>Installation</b>	Inside, ventilation openings must be at least 10 cm clear	
<b>Continuous sound pressure level</b>	< 70 dB (A)	
<b>Power supply</b>	380-480 V, 50/60 Hz or alternatively 200-240 V, 50/60 Hz	
	<b>Pump type E</b>	<b>Pump type H</b>
<b>Connected load</b>	19.1 kW	20.0 kW
<b>Conductor cross-section of connection cable</b>		
200-240 V	10 mm <sup>2</sup>	10 mm <sup>2</sup>
380-480 V	6 mm <sup>2</sup>	6 mm <sup>2</sup>
<b>Protection class device</b>	IP44, IP54 optional	
<b>Labeling</b>	CE, UL-ready	