



**Compact
Cooling**

P200 series chiller



P200 series | Water - Water chiller

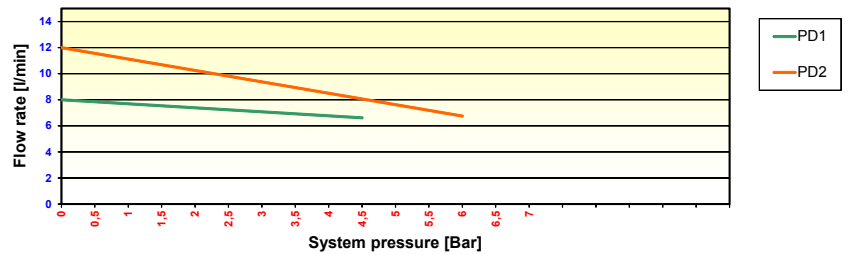
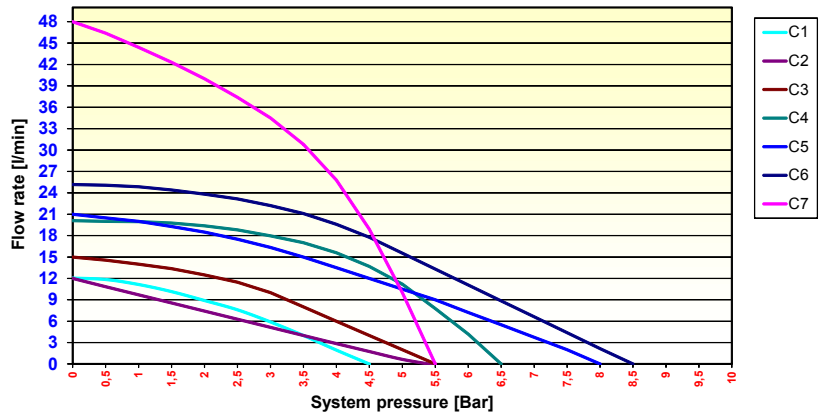
Compact 19" rack enclosure
 Very high component density
 High Temperature stability and power variability
 Process safe operation and low maintenance.

Cooling capacity: 1–20 kW (higher on demand)
 Flow rate: up to 30l/min @ 4 bar
 Height: 4-12 HU
 Alternative table top design

Chilling is performed by passing the laser water through a heat exchanger which is also attached to primary (house) water. Functional requirement: a Δt of at least 5 °C is necessary between the secondary circuit (laser water) and the primary circuit (house water).
 Temperature control via a proportional valve.

Using a stainless steel heat exchanger plate, the coolant water in the secondary circuit is cooled with tap water in the primary circuit. A servo driven proportional valve adjusts the primary water flow according to the tank temperature, thus optimising water usage. This control circuit enables a very constant coolant water temperature of $< \pm 0,2K$ to be maintained and prevents pressure surges in the system. Using proportional control, the cooling capacity automatically adjusts to the load requirements.

Flow rate P200 range



Standard equipment

Temperature stability
 Heater
 Water level display
 Flow sensor (turbine)
 Water Bypass valve
 Primary water sensor (PT100)
 Alarm dry contacts via 9-pole Sub-D
 RS232 interface
 Remote start via 24 DC Signal
 50Hz or 60HZ design

Optional Equipment

DI – Cartridge: Replaceable cartridge in water by-pass (0.35l or 0.5l)
 Conductivity measurement: Conductivity monitoring of the coolant water
 Conductivity control: Regulation of the conductivity range (1 – 30 μ S, +/- 1 μ S/cm)
 Cooling power measurement: Additional temperature sensor on return flow
 Pressure measurement: Pressure sensor on chiller outlet
 Second Flow sensor (turbine): Second flow sensor on the return flow or for an additional water circuit
 Special voltages: 100 / 115 / 208 / 230VAC selectable
 Power Cords: US or European plug, 2m long
 Other motors & pumps: Contact Termotek



P200 Series Model Overview (Standard Units – Water-Water)

		P201	P202	P203	P205	P208	P210	P215	P220	
Cooling Power	[kW]	1	2	3	5	8	10	15	20	
Primary Water Temperature	[°C]	15					10	5		
Primary Water	Flow Required [l/min]	Minimum 10l/min & a ΔT of at least 5°C				Minimum 15l/min & a ΔT of at least 10°C		Minimum 20l/min & a ΔT of at least 15°C		
	Quality required	According to Termotek specification for industrial water								
Temperature Stability	[K]	+/-0.1								
Enclosure	Size (W/D) [mm]	19" slide-in rack								
	Depth with external filter on the rear [mm]	approx. 640						approx. 786		
	Height HU (1HU = 44.5mm)	6	7			9	12			
	Noise [Db (A)]	< 60						< 65		
	Weight [kg]	38	42		45		50	75		
Application Range - Temperature										
	Coolant water outlet [°C]	10 - 35								
	Ambient [°C]	15 - 40								
	Transportation & Storage [°C]	5 - 65								
Water Circuit										
	Water Filter (externally mounted)	F20	F20 or 5"							
	Filter Grade	Various filters available								
Connections	Coolant water	2 x G ½" Internal Thread						2 x G ¾" Internal Thread		
	Primary water	2 x G ½" Internal Thread						2 x G ¾" Internal Thread		
	Tank Volume [l]	2		3		3.5	10			
	Water Level Indication	Optical water level display on front panel								
Alarm Interlocks		Alarm contacts (open in alarm state) connected to a 9-pin Sub-D (interlock) on rear panel								
		Alarms available individually or in a collective fault configuration.								
		Both configurations can be brought out to a PC via the RS232 port								
Water Circuit	Flow Sensor	Flow turbine, set point adjustable								
	Default point [l/min]	2	2.5				10			
	Water Level Monitoring	Two vertical float switches (warning, alarm)								
	Default High-Low temperature Alarm	15°C Low, 32°C High temperature alarm, (absolute) via Sub-D								
Power Supply		230VAC +/- 10%, others available								
	Voltage [VAC]	230VAC +/- 10%, others available								
	Current [A]	< 5A						< 8.5A		
	Line Frequency [Hz]	50 or 60								
	Power Connections	10A IEC								
Standard Pump		C1					C4	C7		

