

Compact Cooling

P300 series chiller



Air - Water / Water - Water chiller

Compact 19" rack enclosure. Good temperature stability. Reliable operation. Low noise and vibration levels. Low maintenance.

200 W - 2.4 KW cooling capacity. Flow rate: 0.5 - 17 l/min. 4 - 12 HU high. Alternative table top design.

Applications include laser cooling, medical and laboratory equipment.

The refrigerant compressor cools a stainless steel coil located in the coolant water tank or evaporator plate. A temperature controller monitors the coolant water temperature and controls the refrigerant circuit. The coolant water circuit is designed for use with de-ionised water. The pump, selected to suit the application, pumps the coolant water reliably to the load (e. g. laser). The fine filter in the flow circuit and the flow sensor in the return circuit ensure trouble-free operation in the cooling water circuit. The heat is expelled via a fan or transferred to an existing water supply via a heat exchanger.

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over 5000 systems in the field**



Model overview P300 Series (standard)							
Cooling power (Watt)	20°Tw / 25°Tu	P302	P307	P310	P312	P315	P320
	20°Tw / 30°Tu	210	720	1000	1300	1620	2400
	20°Tw / 35°Tu	190	700	950	1200	1500	2300
	20°Tw / 40°Tu	170	680	900	1100	1400	2200
	20°Tw / 40°Tu	150	620	820	1000	1200	1980
Temperature stability		"±0,1K"	"±0,1K"	"±0,1K"	"±0,1K"	"±0,1K"	"±0,1K"
	Control type	Hot gas bypass, PID					
Enclosure	Size (WxD) mm	19" Slide-in unit, 640mm deep with external filter					
	Height HU (1HU = 44,5)	4	6	6	7	7	9
	Noise (db (A))	< 60	< 65	< 65	< 65	< 65	< 70
	Weight (approx.)	32	40	42	50	55	65
Application range - temperature	Standard coolant water outlet	10 - 30°C					
	Ambient temperature	5 - 40°C					
	Storage	0 - 70°C					
	Air quantity	320 m3/h	550 m3/h	550 m3/h	1200 m3/h	1200 m3/h	1200 m3/h
	Air flow	suction via side panel; expulsion via rear panel					
Water circuit	Water filter (F20, 20 µm)	external					
	Water connections	2 x 3/8" internal thread V4A sleeve					2 x 1/2" internal thread
	Tank volume (liter)	1,8	2	2	2,5	2,5	2,5
	Level display	optical water level display on front panel					
Standard alarm interlocks		Alarm contacts (open circuit) at 9pin SUB D (Interlock)					
Water circuit	Flow sensor	Flow turbine, set point adjustable					
	Default switching point (l/min)*	2	2,5	2,5	2,5	2,5	2,5
	Level monitoring	Two vertical float switches (Warning, Alarm)					
	Default high-low temperature alarm	15°C Low, 32°C High temperature alarm, contact at SUB D					
Refrigerant circuit	High pressure	18.5 bar, reset					
Power supply	Voltage	230 V +/- 10%, other available					
	Current (A)	3,1	6,1	7,5	8	8,5	8,5
	Line frequency	50/60 Hz					
	Power connections	IEC 950 with line filter					
Pumping power (possible combination)	Model/ Type	See curves for choice of pump					
	PD1	X	X	X	X	X	X
	PD2		X	X	X	X	X
	Y 2051 (centrifugal)		X	X	X	X	X
	QY 1042 (centrifugal)		X	X	X	X	X
	CY 4081 (centrifugal)						X

*Thermal performance quoted with a centrifugal pump NPY 2051 4l/min at 4 bar

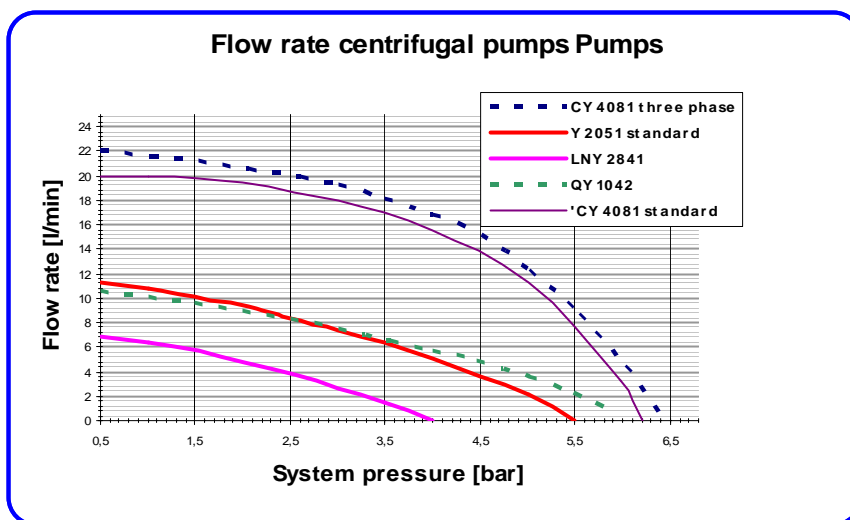
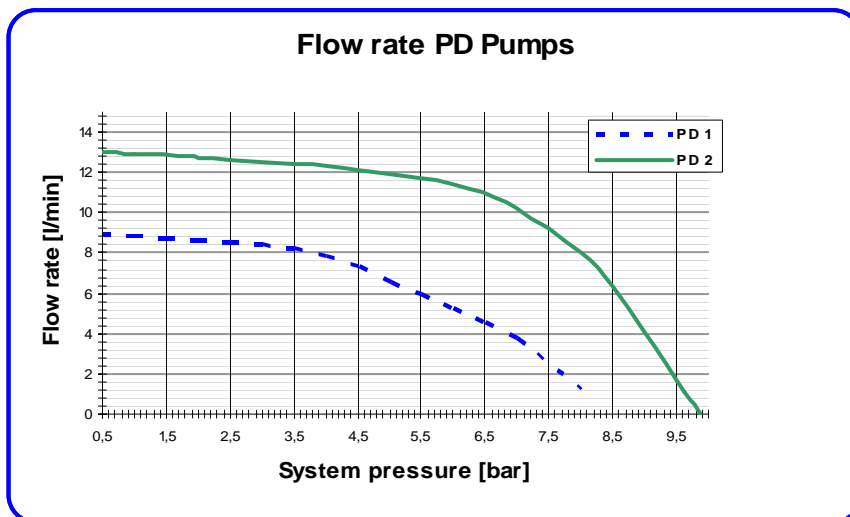
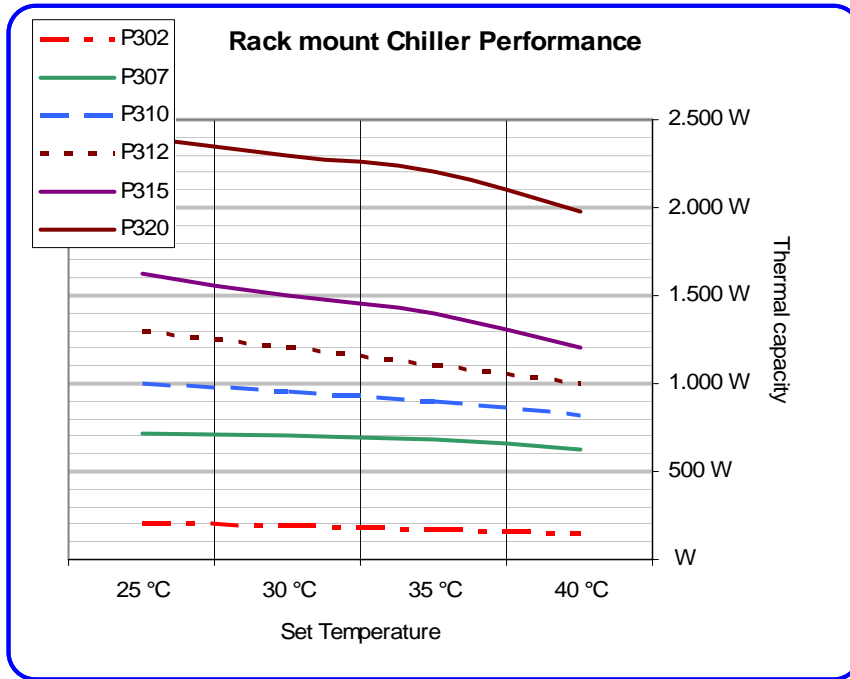
Standard equipment

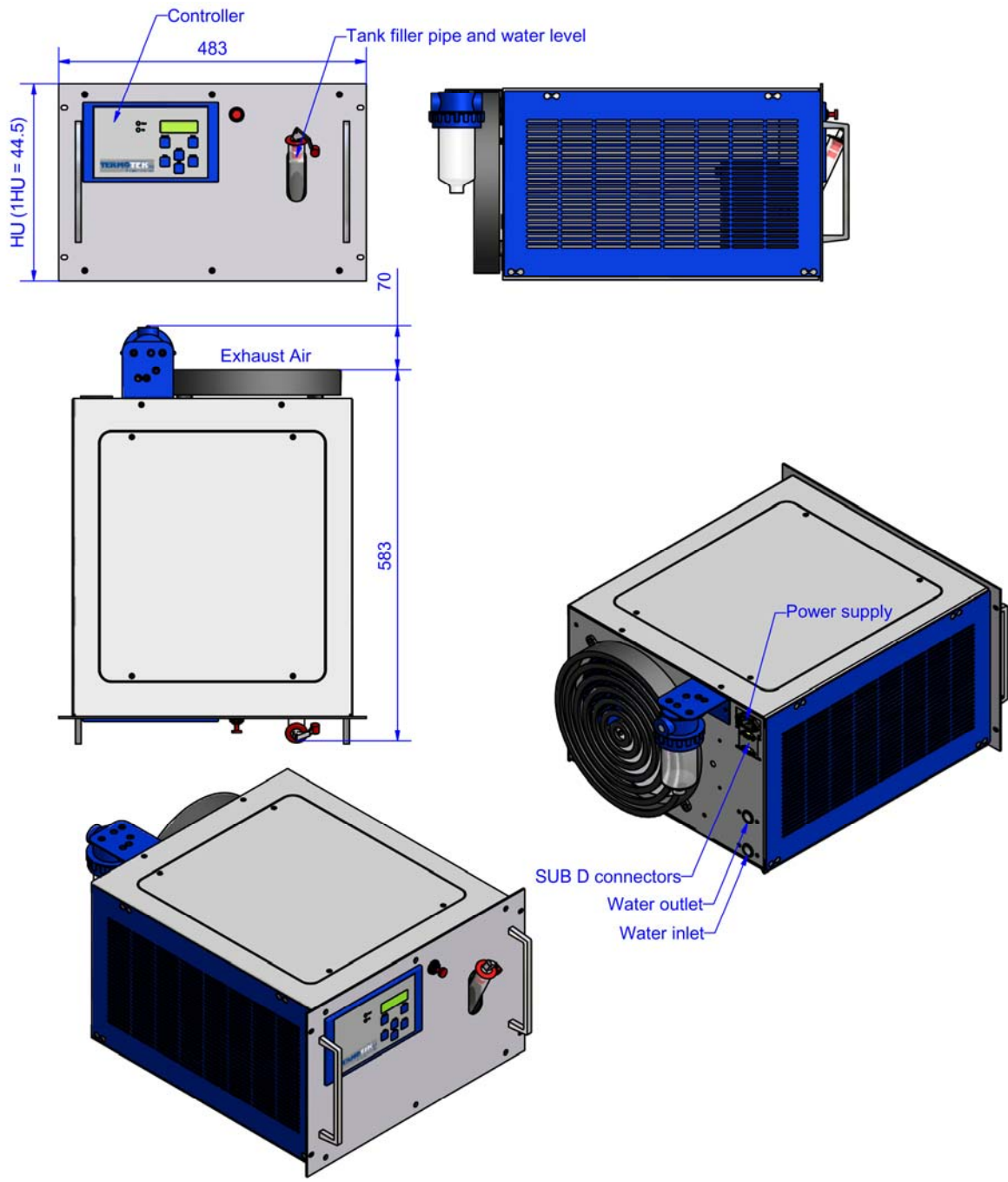
Designed for de-ionised water	Water level display
High temperature stability "± 0.1K"	Fan speed control
Customised alarm dry contacts via 9 pole SUB D on rear panel	RS 232 interface 24VDC external start signal
Water filter externally or internally mounted, various grades (on request)	Remote start
Flow rate measuring & monitoring	50Hz/60Hz usable

Additional technical extras/options to standard chiller series P300

Conductivity measurement & monitoring:	Conductivity monitoring of the coolant water
Conductivity control:	Regulating the conductivity by set point (+/-1µS/cm)
DI-Cartridge:	Replaceable cartridge in water bypass (0.35l or 0.5l)
Ambient temperature sensor:	Ambient temperature measurement via PT100
Cooling power measurement:	Additional temperature sensor on return flow
Heating:	Start-up heating of the coolant water at low ambient temperatures (< 15°C); 500 Watt
Pressure measurement & monitoring:	Pressure sensor on chiller outlet
Water bypass for flow adjustment:	Adjustment of max pressure for flow adjustment
Second flow sensor:	Second flow sensor for additional water circuit
Air filter:	Air filter in side panel 140µm
Special voltages (up to P310):	100 - 115 - 208 - 230 VAC switchable
Other pumps available:	please contact Termotek product management
Customised design:	please contact Termotek product management







TERMOTEK AG

LASERKÜHLUNG

Rappresentata in Italia da:

WeTec sas
Via G. Bruno, 1 21013 Gallarate (VA)
tel. 0331-778063 - fax. 0331-794801
e-mail: info@wetec.it
www.wetec.it

Hardbergstrasse 9
76437 Rastatt
Germany

+49 7222 5058-0
Fax: +49 7222 5058-290
e-Mail: info@termotek-ag.com
Internet: www.termotek-ag.com