PS1222CO

Cooling Unit

COOLING UNIT PS1222CO is designed for flashlamp-pumped lasers and provides effective heat removal and high stability of laser rod temperature. This enables long term operation of your laser at maximum efficiency. Unit is assembled in 19" case and may be used completing the powering group of laser systems. Also it can be easy mounted into the 19” rack.

Operation of cooling unit is based on water-to-water heat exchange. De-ionised or distilled water of 1–20 μS/cm conductivity is used in laser loop of cooling unit.

Temperature stability of coolant is maintained by electronic circuit. Stabilization temperature is set by 10-turn potentiometer within 17–35°C (another range is available according to customers requests).

Indication of coolant and set temperature, coolant level (low/high), overheat and pressure absence in laser loop is provided on front panel of cooling unit. Purity low LED indicate condition of deionisation cartrige

Blocking and protection circuitry in case of overheating, pressure absence or coolant level is out of high/low limits sends interrupt signal to interlock connector to which protection circuitry of laser powering might be connected. Coolant pump will be stopped in case of pressure absence or coolant level is out of limits.

Deionisation and filtration of coolant eliminates a build up on the flashlamp, reduces servicing need and allows laser operation at maximum efficiency in day-to-day use.

FEATURES

- Cooling capacity up to 6 kW (1, 2, 3, 4, 5 kW options available)
- Laser loop coolant flow up to 7 l/min
- Pressure up to 0.7 bar (3.5 bar optional)
- Coolant temperature indication
- 17–35°C temperature range
- Noiseless operation
- 19” x 4U case
- Water filtration and deionization

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SPECIFICATIONS

Model	PS1222CO-1	PS1222CO-2	PS1222CO-3	PS1222CO-4	PS1222CO-5
Cooling capacity, W	1000	2000	3000	4000	5000
Coolant temperature regulation, °C	± 0.2	± 0.2	± 0.3	± 0.3	± 0.5
Stabilization temperature range, °C	17–35				
Coolant reservoir capacity, dm^3	3.5				
Coolant	Distilled or deionised water with 1–20 µS/cm conductivity				
Mains	Single phase, 220 V ± 10 %, 50 Hz (60 Hz by order)				
Power consumption, W	130				
Water supply pressure, bar	1 to 8				
Size	19” x 7” front panel, 460 mm (D) x 440 mm (W) case				
Weight (without coolant), kg	20				
Max pressure of pump, bar	0.6 (3.5 optional)				

Specifications are subject to changes without advance notice.

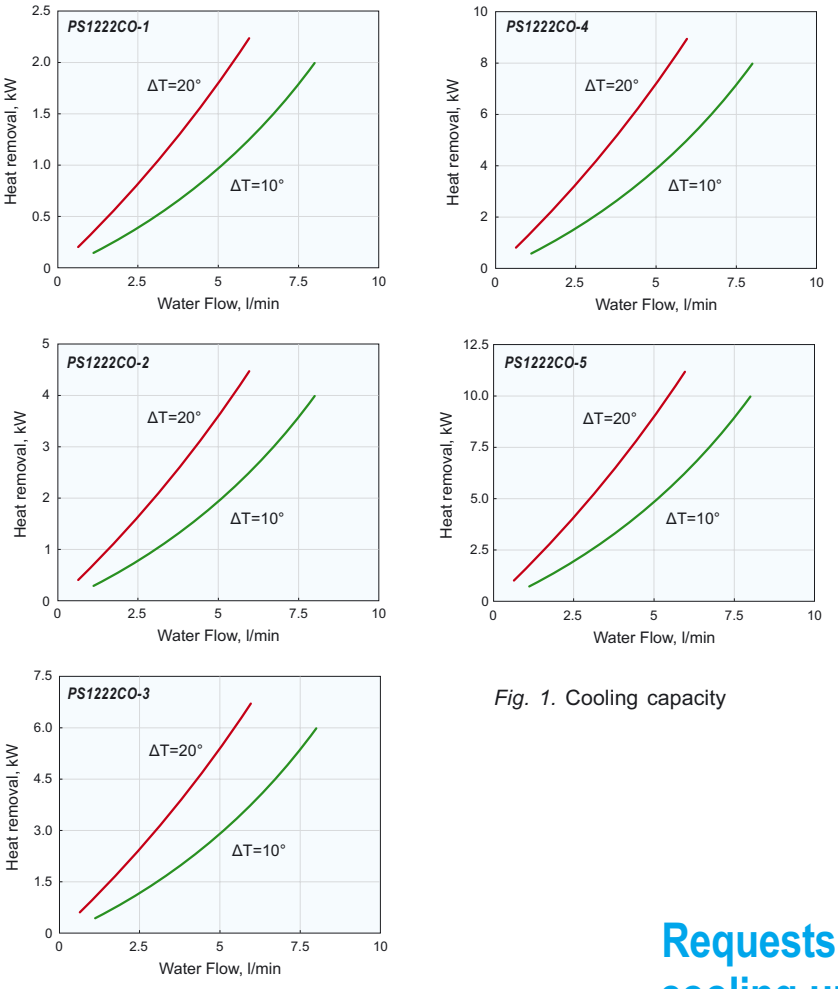

Fig. 1. Cooling capacity

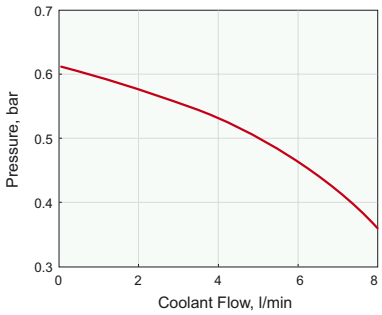

Fig. 2. Pumping capacity with standard pressure pump

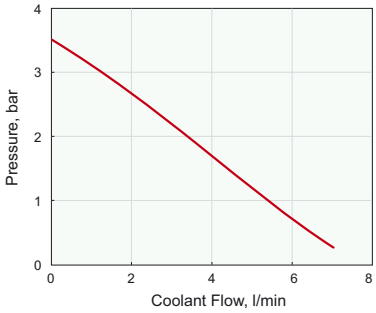

Fig 3. Pumping capacity with high pressure pump (optional)

Requests for custom made cooling units are welcome !

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