Lam Research 2080 Chiller

The dual channel temperature control unit (TCU Model 2080) is a compact, mobile, liquid heating/cooling system capable of operating over a wide temperature range. The TCU provides temperature control for both the upper and lower electrodes on Lam systems. It features a closed-loop design with no back pressure and features continuous deionization of the heating/cooling liquid (coolant). Reliable service for long periods is assured through the use of hermetically sealed refrigeration compressors and heat exchangers.

The TCU's upper and lower channels each contain three separate cooling circuits. The first is the primary or main circuit. This circuit runs continuously to remove heat from the coolant reservoir. It is also used to introduce heat into the coolant (in addition to the electrical heater) when required. The secondary and tertiary circuits energize as the coolant temperature increases, extending the life of the polishing cartridges and preventing the loss of coolant.

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Description	Specification
Dimensions	Height: 55.25 in. (140.34 cm) Width: 23.75 in. (60.33 cm) Depth: 37.75 in. (95.89 cm)
Weight	616 lbs. (279.42 kg) w/reservoirs empty 690 lbs. (312.98 kg) w/ reservoirs full
Operating Temperature Range	-15 to + 80 degrees Celsius (upper channel) -20 to + 80 degrees Celsius (lower channel)
Temperature Regulation	±1 degrees Celsius (±0.3 degrees Celsius typical) at rated static load
Setpoint Resolution	±0.1 degrees Celsius
Power Dissipation Capability	Cooling: lower channel 1000 W at -20 degrees Celsius (3415 BTU/hr) upper channel 750 W at -15 degrees Celsius (2561 BTU/hr) Heating: upper/lower channel 1600 W(5464 BTU/hr)
Reservoir Capacity	4.23 gallons (16 liters) per reservoir
Ambient Operating Temperature	+10 degrees Celsius to +40 degrees Celsius
Coolant Composition	50/50 mixture by volume of DI water and ethylene glycol. This equates to a specific gravity of 1.065 ± 0.005 as measured with a hydrometer. Ethylene glycol should be laboratory grade or better.
Power Requirements	3-phase 208/230VAC at 50-60 Hz, 30 A with10 kA Icu
Fuses	28V EMO Circuit = (2) 1A, 250V SLO BLO Power Supply = (1) 0.75A, 250V SLO BLO
Sound Pressure Level	<75 dBA

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