

Peltier Chemical Liquid Temp. Controller

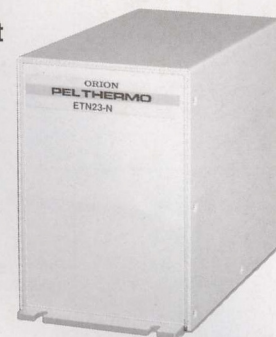
CHEMICAL PEL THERMO®

Direct electrothermal refrigeration and heating for chemical liquid.

- High accuracy temperature control and high water-pressure resistant heat exchanger.
±0.1°C control, 0.3MPa water-pressure resistant structure.
- Ion impurities concentration is a very small quantity with direct thermal control of chemical liquid.
- Compact and best light-weight in the industry.
Loaded exclusive switching power supply.

■ Cooling and Heating Unit
All Teflon type

■ Power supply unit
Built-in display unit



Standard Specification

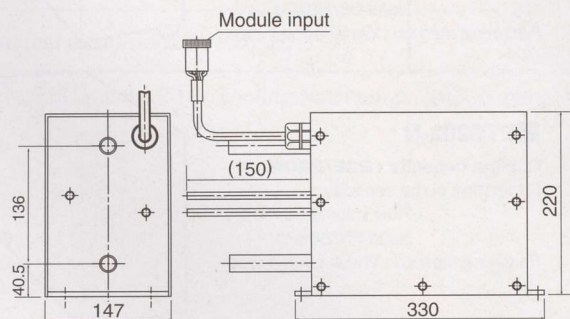
Item	Model	Cooling and Heating Unit (All Teflon Type)	
		ETN23-N	ETN45-N
Applicable Liquid		HF/BHF/DHF/SC1/SC2 ※1	
Performance	Temperature control range	15~50 °C (Please ask for the models above 50°C)	
	Control accuracy	±0.1°C (depends on conditions) ※2	
	Cooling capacity ※1	280 W	460 W
	Radiating method	Water-cooled	
	Temp. sensor for control (maker option)	Pt100Q (JIS 0.2 class), teflon mold	
	Inside pressure loss (chemical liquid side)	0.01 MPa less (flow volume:20L/min)	
	Inside withstanding water pressure (chemical liquid side)	0.3MPa	
Ambient temperature range		15~35°C	
Outlet·Inlet connecting area		3/4"×5/8"×L150 (NEW PFA)	
Cooling water	Volume	5~7L/min	
	Connecting port	3/8"×1/4"×L150 (PFA)	
Materials of cooler		PFA, PTFE	
Exterior material		Chloroethylene, ivory	
Mass		Approx. 10kg	Approx. 21 kg
External dimensions (W×D×H)		147×330×220mm	

Item	Model	Power Supply Unit	
		ETD232	ETD452
Maximum operating current		Approx. 4.5A	Approx. 9A
Power supply		Single-phase 208V, 50/60Hz	
Control method		PID control Auto-tuning	
Protective device		Alarm : 1. Thermomodule deterioration, wire cut 2. Pt100Q short, wire cut 3. Abnormal radiation (power supply, heat exchanger) 4. Abnormal temp. control	
Mass		Approx. 5.0kg	Approx. 10kg
External dimensions (W×D×H)		140×430×165mm	165×460×215mm

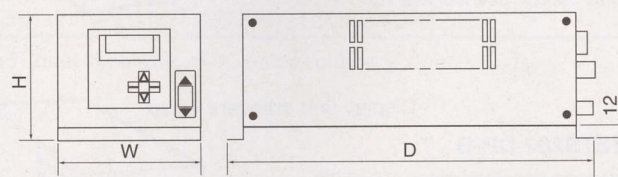
※1 Please ask about the concentration and undesignated liquid. ※2 Setting temp. 25°C, cooling water temp. 25°C. ※Please ask about CE, SEMI.

Dimensions

Cooling and heating unit Note) Chemical liquid circulating pump is not built-in.



Power supply unit (unit: mm)
Note) Connector is receptacle type.



Model	W	D	H
ETD232	140	430	165
ETD452	165	460	215