

Cool Pipe 250DF

Usability is the same as 80LF/150LF, while these can enable Ultra Low temperatures. Coolability for 250DF is to -45°C .

•Unit water bath "Thermominder" in combination --> P.135

Features

- Unitary refrigeration to -45°C
- Other features are same as 80LF/150LF

Applications

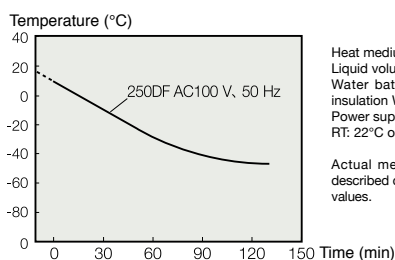
- Combined with the Constant temperature Water bath
- Cooling for trapping vessels and Reaction container
- Cooling for Samples



250DF

Cooling curve and Cooling capacity curve

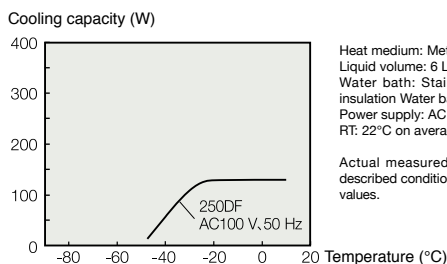
Cooling curve



Heat medium: Methanol 100%
Liquid volume: 6 L
Water bath: Stainless steel Thermal insulation Water bath
Power supply: AC 100 V, 50 Hz
RT: 22°C on average

Actual measured values under each described condition and not Guaranteed values.

Cooling capacity curve



Heat medium: Methanol 100%
Liquid volume: 6 L
Water bath: Stainless steel Thermal insulation Water bath
Power supply: AC 100 V, 50 Hz
RT: 22°C on average

Actual measured values under each described condition and not Guaranteed values.

Methanol was used for this experiment purpose, but is not recommended for actual use.

Optional accessories/Related products

Model	Description
Heat medium for Low temp. Showbrine Blue	For below 7°C . Note: This cannot be used at Min temp. for 250DF due to its freezing point (Concentration 80% at around -40°C).

Model	250DF
Temperature range (*1)	-45°C to $+30^{\circ}\text{C}$
Cooling capacity	Approx. 130 W (*2)
Condenser (Air-cooled) output	250 W
Cooling Pipe structure	Stainless steel Flexible tube
Pipe Immersing part dim.	$\phi 16 \text{ mm} \times 330 \text{ mm}$
Pipe Thermal insulation length	1 m
Unit Dimensions (WxDxH)/weight	310 x 410 x 320 mm, Approx. 30 kg
Power supply	AC100V/6A (Need a step-down transformer)

(*1) Not equipped with a Temperature control function. Use together with Thermominder, etc. if necessary. The Min. temp. may not be reached depending on the ambient temperature

(*2) The value under the conditions of ambient temp. 25°C and liquid temp. 10°C at 50 Hz.

•When using a temperature controller, the temp controller that controls the heater is recommended to protect the refrigerator.

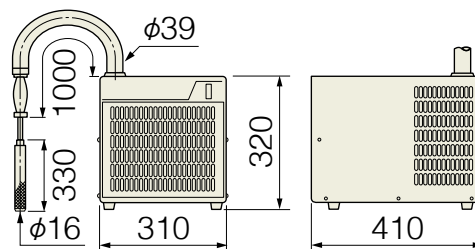
•Use a heater with a capacity larger than the cooling capacity of this product when using together with Thermominder, etc.

•Use an antifreeze that does not corrode Stainless steel, and is Chemically and Thermally stable with a viscosity of below $30 \text{ mm}^2/\text{s}$ (specific gravity 1.0) within operational temp. range. Our antifreeze (Showbrine Blue) cannot be used at Min. temp. for 250DF. Ask us for details.

•Do not bend the Cooling pipe too much (Min bending radius is 50 mm for fixed bending). *It may crack and cause gas leakage if bent forcibly. Do not immerse the heat insulation part of the Cooling pipe (the part where the black insulation material is wound) in liquid.

•Cannot be used with Seawater.

Dimensions



NEW

Constant temperature incubator/shaker
OD Monitor

For cell culture related products

Shaker

Mixer
Rotator
StirrerBead beater
homogenizer
Ultrasonic homogenizerAluminum block Bath
Mini-size BathWater bath
Shaking Water bath
Immersion coolerHybridization incubator
Constant temperature ChambersCentrifugal Concentrators
Cold Trap

Freeze dryers

Submarine Electrophoresis apparatus
Blotting device for hybridization

Constant-temperature water circulating system [Chillier]

Appendix