FTS Systems Multi-Cool™

Low Temperature Bath

Multi-Cool™ MC480

Key Features

- Mechanically refrigerated.
- Built-in magnetic stirrer with variable speed control.
- Convenient benchtop design with low profile designed to save space and provide easy bath access.

Key Benefits

- Increases temperature uniformity and improves stability.
- Eliminates costs and hazards associated with dry ice and liquid nitrogen.

Technical Specifications

Item	MC480	MC880
Maximum Low Temperature (°C)	-80	-80
Operating Temperature Range (°C)	-80 to 100	-80 to 100
Temperature Control	Standard	Standard
Temperature Control Range (°C)	-80 to 100	-80 to 100
Temperature Control Tolerance (°C)	± 0.1	± 0.1
Compressor	2 at ¼ hp	2 at ¼ hp
Bath Volume (L)	4	8
Magnetic Stirrer	Yes	Yes

***Note**: Performance specifications are based on SP Scientific test data from units using methanol operating at an ambient room temperature of approximately 22 °C (72 °F). Higher ambient temperatures and/or different fluids may interfere in the system's ability to achieve its ultimate low temperature.*

Electrical Requirements*

Item	MC480	MC880
60 Hz Option	120 VAC 7 Amps	120 VAC 7 Amps
50 Hz Option*	220 VAC 4 Amps	220 VAC 4 Amps

Heat Removal (watts, Btu/hr)

20 °C	240 , 815	240 , 815
0 °C	220 , 750	220 , 750
-20 °C	170 , 580	170 , 580
-40 °C	150 , 510	150 , 510
-60 °C	110 , 375	110 , 375

Fluid Selection

For best pumping or stirring results, choose a fluid medium with kinematic viscosity of 20 centistokes or less over the full operating temperature range. Remember the heat exchanger in the recirculating cooler may be several degrees colder than your process.

Agency Approvals

UL #61010-1; CAN/CSA 22.2 #61010-1; CE (2006/42/EC), (2006/95/EC), (2006/108/EC)

Dimensional Data

Item	MC480	MC880
Width (in / cm)	19 / 48.3	19 / 48.3
Depth (in / cm)	24 / 61	24 / 61
Height (in / cm)	13 / 33	13 / 33
Weight (lbs / kg)	85 / 39	90 / 41
Chamber Diameter (in / cm)	6.5 / 16.5	7.75 / 19.7
Chamber Depth† (in / cm)	7.25 / 18.4	9 / 22.9

** 50Hz option decreases heat removal by 17%.*

† Stirrer assembly reduces chamber depth by 0.75 inches (1.9 cm) in cylindrical chambers.

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