

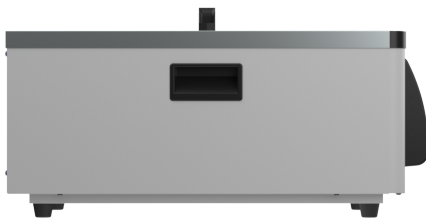
1. Unstirred water Baths



Unstirred water baths (USB Series) are high-quality water baths which offer a temperature stability of $\pm 0.2\text{ }^{\circ}\text{C}$. The working temperature range of $\text{RT}+ 5^{\circ}\text{C}$ to $95\text{ }^{\circ}\text{C}$ allows a wide range of applications, such as routine laboratory work, temperature applications for samples, incubation, material testing, corrosion testing, temperature control applications of cultures as well as temperature tests of food and beverages and in the dental field.

Features

- Microprocessor based PID Controller.
- Four Pre-set temperature settings.
- Easy operation.
- Bright dual display.
- Integrated protection against running dry.
- Integrated drain.
- No distracting elements in the bath.
- Platform included as standard.
- Integrated timer.
- Non-slip rubber feet.
- Ergonomic recessed grips.
- Available with the option of 3 different lids:
 1. Gable cover
 2. Flat lids
 3. Concentric rings



Models	Temperature Range $^{\circ}\text{C}$	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ $20\text{ }^{\circ}\text{C}$ (watts)	Top gable cover	Top Cover (Flat)	Top Concentric Rings	Low Level Alarm	Over Temp Cut Off
U05FL0595A	RT+5 to 95	5	400	4	○	●	○	●	●
U13FL0595A	RT+5 to 95	13	700	4	○	●	○	●	●
U20FL0595A	RT+5 to 95	20	1400	4	○	●	○	●	●
U28FL0595A	RT+5 to 95	28	1400	4	○	●	○	●	●

● = Standard

U20GC0955A - Gable cover
U20GR0595A - Concentric Rings

○ = Optional

2. Immersion Circulators

Immersion Circulators are used for Controlling Temperature in any bath or tank up to 55 litres . The circulator will be provided with a clamp which makes it easy to install the circulator on to an existing tank of 25 mm thickness. All parts immersed in the bath liquid are made of High Quality Stainless Steel or synthetic material.



Controller Series		Basic	PRIME (PS)	PRIME (PB)
Model Code	Units	I00BC0595A	I00PS0595A	I00PB0595A
Specifications				
Type Of Control		PID Stand Alone	PID Intregrated	PID Intregrated
Working Temperature Range	°C	Rt + 5 to 100	Rt + 5 to 100	Rt + 5 to 200
Temperature Stability		±0.03	±0.03	±0.03
Number of Set Points		1	4	4
Circulation Pressure	mbar	300	300	700
Circulation flow rate max *	L /min	8 /10	8 /10	8 /16
Heater Capacity	KW	1 or 2	1 or 2	2 or 3
Low level alarm		X	●	●
Over temperature Cut Off		X	●	●
RS485 Communication		X	●	●
External temperature control		X	○	○
Programable Ramp and Soak		X	○	○
Number of programs		0	10	10

X = Not Available

● = Standard

○ = Optional

3. Heating Circulators



Heating Circulators are Suitable for both internal and external temperature control applications. Depending on the required temperature and rate of heating and features one can select from the various models. Smaller objects can be inserted directly in to the bath at the same time.

Features

- Models for internal and external circulation applications.
- Easy operation.
- Microprocessor based PID Controller with dual Display.
- Compact and space saving.
- High quality baths tanks made of Stainless Steel with bath lids and drain tap.
- Integrated Pump Connection with nozzles.



Models	Temperature Range °C	Bath Volume (Litres)	Heater Capacity (KW)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points	Low Level Alarm	Over Temp Cut Off	Variable speed control	RS 485 Comm	External Temperature Control	Ramp and Soak
H05BC0510A	RT+5 to 100	5	1	300	10	1	X	X	X	X	X	X
H09BC0510A	RT+5 to 100	9	2	300	10	1	X	X	X	X	X	X
H13BC0510A	RT+5 to 100	13	2	300	10	1	X	X	X	X	X	X
H20BC0510A	RT+5 to 100	20	2	300	10	1	X	X	X	X	X	X
H05PS0510A	RT+5 to 100	5	1	300	10	4	●	●	X	○	○	○
H09PS0510A	RT+5 to 100	9	2	300	10	4	●	●	X	○	○	○
H13PS0510A	RT+5 to 100	13	2	300	10	4	●	●	X	○	○	○
H20PS0510A	RT+5 to 100	20	2	300	10	4	●	●	X	○	○	○
H05PB0510A	RT+5 to 200	5	3	700	16	4	●	●	●	○	○	○
H09PB0510A	RT+5 to 200	9	3	700	16	4	●	●	●	○	○	○
H13PB0510A	RT+5 to 200	13	3	700	16	4	●	●	●	○	○	○
H20PB0510A	RT+5 to 200	20	3	700	16	4	●	●	●	○	○	○
H28PB0510A	RT+5 to 200	28	3	700	16	4	●	●	●	○	○	○

X = Not Available

● = Standard

○ = Optional

Refrigerated Circulators are suitable for both internal and external temperature control applications. Depending on the required temperature and rate of heating / cooling and features one can select from the various models. Smaller objects can be inserted directly in to the bath at the same time.

Features

- Models for internal and external circulation applications
- Easy operation.
- Microprocessor based PID Controller with dual Display.
- Compact and space saving.
- High quality baths tanks made of Stainless Steel with bath lids and drain tap.
- Integrated Pump Connection with nozzles.
- Robust Cooling.

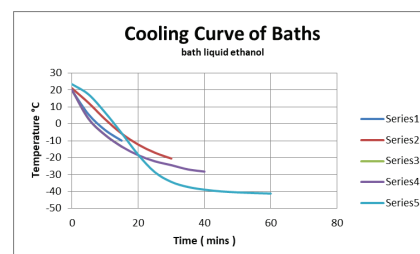


Models	Temperature Range °C	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ 20 °C (watts)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points
R05BC1010A	-10 to +100	5	1	300	300	12	1
R05BC2010A	-20 to +100	5	1	300	300	12	1
R05BC2510A	-25 to +100	5	1	600	300	12	1
R09BC1010A	-10 to +100	9	2	1000	300	12	1
R09BC2010A	-20 to +100	9	2	800	300	12	1
R09BC2510A	-25 to +100	9	2	800	300	12	1
R09BC3010A	-30 to +100	9	2	700	300	12	1
R13BC1010A	-10 to +100	13	2	1000	300	12	1
R13BC2010A	-20 to +100	13	2	800	300	12	1
R20BC1010	-10 to +100	20	2	800	300	12	1

X = Not Available

● = Standard

○ = Optional





Refrigerated Circulators with advance control features provide multiple set points and various safety features along with data logging options.

Features

- Models for internal and external circulation applications
- Compact and space saving and easy operation.
- Microprocessor based PID Controller with dual Display, Multiple Set Points and Advance Safety features viz Low level audiovisual Alarm , over temp cut Off.
- Optional features are Multiple Ramp and Soak , External Temperature Control and RS485 Communication port.
- High quality baths tanks made of Stainless Steel with bath lids and drain tap.
- Integrated Pump Connection with nozzles.

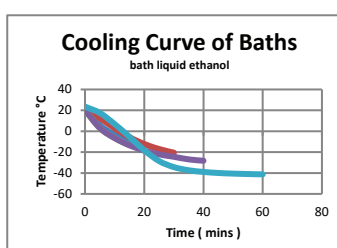


Models	Temperature Range °C	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ 20 °C (watts)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points	Low Level Alarm	Over Temp Cut Off	RS 485 Comm	External Temperature Control	Ramp and Soak
R05PS1010A	-10 to +100	5	1	300	300	12	1	●	●	○	○	○
R05PS2010A	-20 to +100	5	1	300	300	12	1	●	●	○	○	○
R05PS2510A	-25 to +100	5	1	600	300	12	1	●	●	○	○	○
R09PS1010A	-10 to +100	9	2	1000	300	12	1	●	●	○	○	○
R09PS2010A	-20 to +100	9	2	800	300	12	1	●	●	○	○	○
R09PS2510A	-25 to +100	9	2	800	300	12	1	●	●	○	○	○
R09PS3010A	-30 to +100	9	2	700	300	12	1	●	●	○	○	○
R13PS1010A	-10 to +100	13	2	1000	300	12	1	●	●	○	○	○
R13PS2010A	-20 to +100	13	2	800	300	12	1	●	●	○	○	○
R20PS1010	-10 to +100	20	2	800	300	12	1	●	●	○	○	○

X = Not Available

● = Standard

○ = Optional



Refrigerated Circulators are suitable for both internal and external temperature control applications. Depending on the required temperature and rate of heating / cooling and features one can select from the various models. Smaller objects can be inserted directly in to the bath at the same time. Prime Series (PB) models are provided with higher capacity pumps for high pressure and flow rate.



Features

- Models for internal and external circulation applications.
- Compact and space saving and easy operation , Robust Cooling.
- Microprocessor based PID Controller with dual Display, Multiple Set Points and Advance Safety features viz Low level audiovisual Alarm , over temp cut Off.
- Powerful pump with variable speed.
- Optional features are Multiple Ramp and Soak , External Temperature Control and RS485 Communication port.
- High quality baths tanks made of Stainless Steel with bath lids and drain tap Integrated Pump Connection with nozzles.

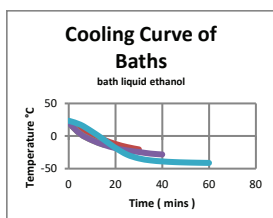


Models	Temperature Range °C	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ 20 °C (watts)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points	Low Level Alarm	Over Temp Cut Off	Variable speed control	RS 485 Comm	External Temperature Control	Ramp and Soak
R05PB1010A	-10 to +100	5	1	300	700	16	4	●	●	●	○	○	○
R05PB2010A	-20 to +100	5	1	300	700	16	4	●	●	●	○	○	○
R05PB2510A	-25 to +100	5	1	600	700	16	4	●	●	●	○	○	○
R09PB1010A	-10 to +100	9	2	1000	700	16	4	●	●	●	○	○	○
R09PB2010A	-20 to +100	9	2	800	700	16	4	●	●	●	○	○	○
R09PB2510A	-25 to +100	9	2	800	700	16	4	●	●	●	○	○	○
R09PB3010A	-30 to +100	9	2	700	700	16	4	●	●	●	○	○	○
R09PB4010A	-40 to +100	9	2	630	700	16	4	●	●	●	○	○	○
R13PB2010A	-20 to +100	13	2	800	700	16	4	●	●	●	○	○	○
R13PB6005A	-60 to +100	13	2	600	700	16	4	●	●	●	○	○	○
R13PB8005A	-80 to +100	13	2	600	700	16	4	●	●	●	○	○	○
R13PB1010A	-10 to +100	13	2	1000	700	16	4	●	●	●	○	○	○
R20PB1010A	-10 to +100	20	2	800	700	16	4	●	●	●	○	○	○

● = Standard

Temperatures upto 150°C and 200°C available on request

○ = Optional





Max Series are the most advanced model in refrigerator circulator providing wide data logging options with DFD coloured display and software.

Features

- Models for internal and external circulation applications.
- Compact and space saving and easy operation , Robust Cooling.
- Microprocessor based PID Controller with dual Display, Multiple Set Points and Advance Safety features viz Low level audiovisual Alarm , over temp cut Off.
- Selectable Display resolution of .1, .01, .001.
- Powerful pump with variable speed.
- High quality baths tanks made of Stainless Steel with bath lids and drain tap. Integrated Pump Connection with nozzles.



RS485
Communication
port



USB
Connection
port



RS232
Interface
Connection



Data
Logging



Printer
connectivity



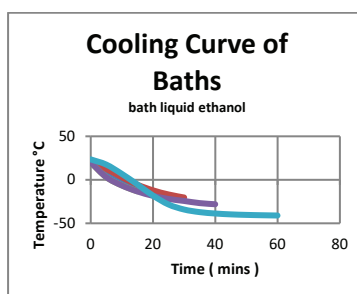
Alarm
alerts



Cell
phone



Emails



Models	Temperature Range °C	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ 20 °C (watts)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points	Low Level Alarm	Over Temp Cut Off	Variable speed control	RS 485 Comm	External Temperature Control	Ramp and Soak
R05MX1010A	-10 to +100	5	1	300	700	16	4	●	●	●	○	○	○
R05MX2010A	-20 to +100	5	1	300	700	16	4	●	●	●	○	○	○
R05MX2510A	-25 to +100	5	1	600	700	16	4	●	●	●	○	○	○
R09MX1010A	-10 to +100	9	2	1000	700	16	4	●	●	●	○	○	○
R09MX2010A	-20 to +100	9	2	800	700	16	4	●	●	●	○	○	○
R09MX2510A	-25 to +100	9	2	800	700	16	4	●	●	●	○	○	○
R09MX3010A	-30 to +100	9	2	700	700	16	4	●	●	●	○	○	○
R09MX4010A	-40 to +100	9	2	630	700	16	4	●	●	●	○	○	○
R13MX1010A	-10 to +100	13	2	1000	700	16	4	●	●	●	○	○	○
R13MX2010A	-20 to +100	13	2	800	700	16	4	●	●	●	○	○	○
R13MX6005A	-60 to +100	13	2	600	700	16	4	●	●	●	○	○	○
R13MX8005A	-80 to +100	13	2	600	700	16	4	●	●	●	○	○	○
R20MX1010A	-10 to +100	20	2	800	700	16	4	●	●	●	○	○	○

● = Standard

Temperatures upto 150°C and 200°C available on request

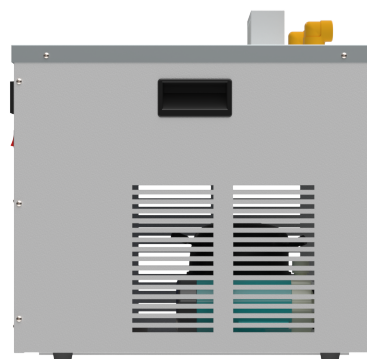
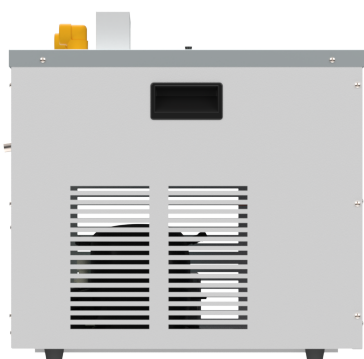
○ = Optional

Recirculating chillers have a wide range of applications viz rotary evaporators and other similar applications where temperature requirement is up to -20 °C.



Features

- Accurate temperature control.
- Robust , Powerful cooling.
- Stability ± 0.03 °C /0.5 °C.
- The Chillers have a small filling port.
- Magnetic pumps (max Pressure 600 mbar).
- Models with Fixed tank capacities (5, 9 litres) or Reservoir with BPHE technology.



Models	Temperature Range °C	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ 20 °C (watts)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points
M05BC2040A**	-20 to +40	5	1	0.6	0.35	15/20	1
M05BC2040A**	-20 to +40	5	1	1	0.35	15/20	1
M09BC2040A**	-20 to +40	9	2	1.2	0.60	15/20	1
M09BC2040A**	-20 to +40	9	2	1.5	0.60	15/20	1

X = Not Available

● = Standard

○ = Optional

**Temperatures upto 80°C available on request

Recirculating chillers with advance features of control and safety with intergrated controller.

Features

- Accurate temperature control.
- Robust , Powerful cooling.
- Stability $\pm 0.03\text{ }^{\circ}\text{C} / 0.5\text{ }^{\circ}\text{C}$.
- The Chillers have a small filling port.
- Safety features viz Low Level alarm , Over temp protection.
- External temperature Control and RS 485 are optional features.
- Can be supplied with Either Magnetic pumps (max Pressure 600 mbar) or models with positive displacement pumps with max pressure of 4 bar and flow rates of 6 , 12 or 25 LPM.
- Models with Fixed tank capacities (5, 9 litres) or Reservoir with BPHE technology.



Models	Temperature Range $^{\circ}\text{C}$	Bath Volume (Litres)	Heater Capacity (KW)	Cooling Capacity @ 20 $^{\circ}\text{C}$ (watts)	Pump Pressure (m bar)	Pump Flow rate Max (LPM)	Number Of Set Points	Low Level Alarm	Over Temp Cut Off	RS 485 Comm	External Temperature Control
M05PS2040A**	-20 to +40	5	1	0.6	0.35	15/20	1	●	●	○	○
M05PS2040A**	-20 to +40	5	1	1	0.35	15/20	1	●	●	○	○
M05PS2040A**	-20 to +40	9	2	1.2	0.60	15/20	1	●	●	○	○
M05PS2040A**	-20 to +40	9	2	1.5	0.60	15/20	1	●	●	○	○
C09PS0500A	+ 5 To RT	5	X	1	4	6/12	1	●	●	○	○
C09PS0500A	+ 5 To RT	9	X	1.5	4	6/12	1	●	●	○	○
C09PS0500A	+ 5 To RT	9	X	2	4	6/12	1	●	●	○	○
C09PS0500A	+ 5 To RT	9	X	2.8	4	6/12	1	●	●	○	○
C09PS0500A	+ 5 To RT	9	X	5	4	6/12	1	●	●	○	○
C09PS0500A	+ 5 To RT	9	X	7	4	6/12	4	●	●	○	○

X = Not Available

● = Standard

○ = Optional

**Temperatures upto 80 $^{\circ}\text{C}$ available on request

25
years of
excellence

ESCY



Temperature Engineered

A Thermolab Group Company

ESCY – manufacturer for precise temperature control instruments for research, science & industry. In line with our ideology 'Temperature Engineered' for more than 25 years our products have provided optimum temperature and a solution based approach contributing to a better future. With skilled consulting & innovative technology, we move ahead towards development in the precise temperature control industry.

ESCY Equipments Pvt Ltd, is a group company of the 55-year-old **Thermolab Group** with a global footprint of 75+ countries manufacturing sustainable temperature control equipment with service network.

ESCY Equipments Pvt Ltd

Thermolab Group Corporate Office, Delta Woods, F-01, 1st Floor, Mira Road MIDC Road, Near Western Express Highway, Mira Road, Maharashtra, 401107.

(T) : +91-7770054664 | (E) : info@escyequipments.com
www.escyequipments.com | www.thermolabgroup.com



Unit II



Unit I