

# **Cooling Incubators**



REMI Cooling Incubators are designed for applications in pharmaceutical, microbiology, biotechnology, chemical & research labs. These chambers are used for BOD test culture of bacteria, microorganism, tissue culture, incubation, immunological work & storage of vaccines etc.

These incubators are available in standard & GMP versions.



#### Salient Features:

- Temperature range 5°C to 60°C
- Unique design of thermal barrier for better energy efficiency
- Machine filled CFC free PUF insulation to eliminate void pockets
- Powerful fan motor for forced air circulation to maintain uniform conditions inside chamber
- Heating by long life SS tubular heaters
- Chamber calibration port on side
- Adjustable trays
- Hermetically sealed Compressor with CFC free refrigerant
- High temperature safety cut off & alarms for high / low set parameters
- Sensor failure alarm
- · Electrical circuit breaker
- Time delay for compressor switch on
- Overload cut off relay for compressor
- Rounded inner chamber for easy cleaning
- Attractive door profile
- Microprocessor controller with LED display of Temperature with set, process value & audio visual alarm (standard)
- Weight carrying capacity of each tray: 30 Kg Uniformly distributed
- Auto door closer
- Smart Handle with LED door closure indication

#### **Optional**

- (i) 4" LCD display with additional features (Details overleaf)
- (ii) Touch screen display (TFT) with additional features(Details overleaf)
- (iii) Validation protocol with IQ, OQ, PQ Documentation
- (iv) Port for calibration probes / safety back up

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### **LCD** Display

#### **Features**

- 4 Inch attractive LCD display
- Intelligent Controller helps maintain temperature in case of sensor failure
- Battery Backup for Temperature Controller
- Auto tuning of controller
- Self-Diagnosis for errors
- Histogram format of 24 hours temperature recording
- Settable High / low alarm points
- Memory for storage of upto 1000 records
- Centronic interface to record Temperature, Date, & Time by attaching Dot Matrix printer with adjustable print interval
- Alarm on equipment / output for remote alarm
- Cyclic Transfer (Optional)

### **Touch Screen Display**

#### **Features**

- 7 inch big colour touch screen
- PLC (Programable logic controller)
- Memory of 1500 records
- Centronic interface to record Temperature, Date & Time by attaching Dot Matrix printer with adjustable print interval
- Ethernet port
- Battery backup in case of power failure for display, alarms & off-line data logging (optional)
- Programmable cyclic timer for controlling illumination conditions
- Remi 'Datasoft' Data acquisition software complying to 21 CFR part 11 as per USFDA Guidelines (optional)

#### REMI 'Data Soft'

#### **Features**

- Multiple level alpha numerical password with password ageing
- Secured audit trail report
- Alarm report with mention of alarm condition
- Mean Kinetic Temperature able to be calculated for any days & alarm deviation report
- Reports in graphical and tabular form
- Data Stored in PC server with RS-485 connectivity and can be monitored on PC with password authentication
- Multi chamber data acquisition on single software
- Communication through RS 485 / TCP IP
- Power failure and resumption recorded with date and time

### **Optional Accessories**

#### To be Ordered separately

- Chamber illumination with the help of 2 Nos. fluorescent tubes
- Chamber illumination with 2 Nos. ultra violet lights
- 24 hours Cyclic Timer for regulating illumination conditions
- Data logger for 8 Point temperature recording with sensor printer interface and software
- Software as per 21 CFR Part 11 requirements
- PLC Based Control System with HMI Touch Screen
- Biometrics Magnetic Door Access for Secured Door opening with software to maintain log
- Validation (mapping) consist of one cycle for temperature at any one set point for 24 hours on empty and loaded condition
- Standby Refrigeration System
- GSM alert through SIM card

Technical Data								
	CI-6 Plus	CI-10 Plus	CI-12 Plus	CI-16 Plus	CI-19 Plus	CI-28 Plus	CI-35 Plus	
Internal Volume (Litres)	200	280	370	450	540	800	1000	
Number of tray	2	3	4	5	6	6	7	
Internal Dimensions W x D x H (mm)	660 x 655 x 450	660 x 655 x 650	660 x 655 x 850	660 x 655 x 1050	660 x 655 x 1250	800 x 800 x 1250	800 x 800 x 1580	
External Dimensions W x D x H (mm)	800 x 1095 x 1020	800 x 1095 x 1220	800 x 1095 x 1420	800 x 1095 x 1620	800 x 1095 x 1820	960 x 1370 x 1950	960 x 1370 x 2270	
Temperature Range & Accuracy	5°C to 60°C, ± 0.5°C							
Temperature control	Microprocessor with PT-100 sensor							
Display	1" - 7 Segment, Big Size LED							
Power Failure Alarm	Visual Alarm							
Door Open Alarm	Audio Visual Alarm in case door open for over one minute							
Temperature Variation Alarm	Set Temperature ± 2°C, Audio Visual Alarm							
Illumination	8 Watts Fluorescent Tube							
Internal Body Material	Stainless Steel - 304 grade (Standard Models), Stainless Steel - 316 grade (GMP Models)							
External Body Material	Powder Coated CRCA Steel (Standard Models), Stainless Steel - 304 grade (GMP Models)							
Insulation	70 mm minimum for Body & 80 mm for Door, CFC free polyurethane foam							
Noise Level	Less Than 65 db(A)							
Recommended Voltage Stabilizer	VS-02	VS-02	VS-02	VS-03	VS-03	VS-06	VS-06	

Supply: 220-240 Volts, 50 Hz Single Phase.



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Cooling Incubators find applications in Pharmaceuticals, Biotechnology and Research institutions for storage and incubation studies. They are mainly used for B.O.D. test, storage of sensitive cultures, vaccines etc. culture of bacteria microorganism and plant life, serum incubation studies and Immunological work etc.

These Chambers are constructed of double walls, the exterior is made of sheet steel while the inner chamber is made of stainless steel.

### Salient Features:

- Safety thermostat to prevent over heating
- Audio visual alarm warning of Temperature variation
- High voltage safety cutoff for unit protection
- Plexi glass inner door to inspect specimens

## **Optional**

- Chamber illumination with fluorescent or ultra violet lights
- Cyclic timer for regulating illumination conditions

Technical Data							
	CI-3S	CI-6S	CI-10S				
Internal Volume	85 LTRS	170 LTRS	285 LTRS				
No. of Shelves	2	2	3				
Temperature Range	5°C to 60°C ± 0.5°C						
Temperature Control	Digital						
Int. Dimensions W X D X H(mm)	420 X 380 X 560	500 X 410 X 840	580 X 490 X 990				
Ext. Dimensions W X D X H(mm)	540 X 590 X 1050	620 X 670 X 1380	700 X 750 X 1530				
Inner Chamber Material	Stainless steel 304 (AISI Grade, Non Corrosive, Non Magnetic)						
Outer Body Material	Powder coated CRCA steel						
Recommended Voltage Stabilizer	VS-01	VS-02	VS-02				

Supply: 220-240 Volts, 50 Hz Single Phase.