

Stability Chamber (Environment Test Chamber)



**Humid it, Warm it & Stabilize it
for Intensive Research**

- Drug and Drug Substance Testing
- Plant & Vegetable Testing
- Electronic Chips & Components Testing
- Paint Testing
- Cement testing
- Chemical Testing



EIE INSTRUMENTS PVT. LTD.

EIE - 106 (RP/RG) Humidity Chamber



Technical Specifications

- **Temp. Measurement** : By PID Controller.
- **Rh Measurement** : By capacitance type Rh sensor.
- **Temperature Range** : 10 °C to 70 °C,
- **Temperature Accuracy** : ±0.1 °C
- **Humidity Range** : 40 % RH to 95 % RH
- **Humidity Accuracy** : ± 3 % RH

Safety Features

- High temperature safety cut off
- Low water level boiler cut off
- Electrical overload cut off
- Time delay for compressor switch ON
- Electrical circuit breaker

Construction Details

- CE Certified.
- Double wall construction.
- Interior fabricated from high grade stainless steel (S.S.304/S.S. 316).
- Exterior body made of Mild steel/stainless steel (S.S.304/S.S. 316).
- Non condensing steam injection type humidity system.
- Water level circuit.
- Castor wheels for easy movement.

Heating & Cooling System

- Long lasting SS tubular heaters.
- Hermetically sealed compressor, CFC free refrigerant (134 A gas).
- Evaporation coil and condenser.

Optional Accessories

- 21-CFR compliance software with PC communication
- Password protected door access and monitoring
- 4/8/16 channels data logger with temp. & RH sensors
- Onsite validation for 24 hours on empty, half & full load conditions
- GSM alert through SIM card

Available Models : ■ EIE-106RP ■ EIE-106RG

R = Refrigerated P = Outer Powder Coated G = GMP

Selection of Humidity Chamber

WORKING CHAMBERS W X D X H (cm)	OVERALL DIMENSION W X D X H (cm)	CAPACITY (LITERS)	NOS. OF TRAYS	NET WEIGHTS IN KG	SHIPPING WEIGHT KG
45 X 45 X 45	66 X 74 X 119	92.00	2	115.00	190.00
50 X 50 X 70	71 X 76 X 145	175.00	2	135.00	205.00
60 X 60 X 60	81 X 84 X 135	216.00	3	150.00	225.00
60 X 60 X 90	81 X 84 X 165	312.00	3	157.00	232.00
60 X 60 X 125	81 X 84 X 201	450.00	4	175.00	250.00
80 X 80 X 125	101 X 104 X 201	800.00	4	220.00	295.00

EIE - 106 (RPT/RGT) Humidity Chamber

Construction Details

- Designed as per ICH guidelines to meet, WHO and USFDA requirement
- Fulfills storage conditions of 25° C - 60% RH, 40° C - 75% RH, 30° C - 65% RH, 25° C - 40% RH, 30° C - 35% RH
- Temperature Accuracy : ± 0.1° C
- Temperature resolution : 0.1° C
- Humidity Range : 40% RH to 95% RH,
- Humidity Fluctuation : Maximum 3% RH
- Chamber Illumination : With 2 or 4 LED lights for lesser power consumption
- Compressor Watts : 1.5 KW
- Dry Heater Watts : 2.0 KW
- Wet heater watts : 3.0 KW
- Overall Power consumption : 2.5 KW Per phase (For 3 - phase connection)
- Power consumption : 7.0 KW (For single phase connection)
- Capacitance type Humidity sensor enables direct display of RH and temperature
- (ASI - PLC) Application Specific Integrated Programmable Logic Controller with Touch screen HMI for precise control of temperature and humidity parameters - fully protected with password
- Colour graphic HMI System
- Auto change over to standby systems through PLC - Change over from Main set to Redundant Set and Vice Versa
- Multipurpose Temperature and Humidity logger with printout facility
- In-built data logger for selected number of channels (4, 8, 12, 16, 32) within the LCD colour Graphic controller
- ASIC system with HMI having capacity of inbuilt storage upto 2 GB - 38,00,000 Storage readings (Nearly unlimited storage) - this is the controller storage capacity
- 21 CFR compliance software - part 11 USFDA guidelines
- 10 - 20 different Humidity chambers can be connected to EIE - 21 CFR Compliance software
- Highly ergonomic door handle with unique key lock
- Built up with 80 mm Puff Insulation for maximum thermal protection.



Optional Accessories

- 21-CFR compliance software with PC communication
- Password protected door access and monitoring
- 4/8/16 channels data logger with temp. & RH sensors
- Onsite validation for 24 hours on empty, half & full load conditions
- GSM alert through SIM card
- Stand by refrigeration system
- Stand by humidity system

Selection of Humidity Chamber

Available Models : ■ EIE-106RPT ■ EIE-106RGT

R = Refrigerated P = Outer Powder Coated
G = GMP T = Touch Screen

WORKING CHAMBERS W X D X H (cm)	OVERALL DIMENSION W X D X H (cm)	CAPACITY (LITERS)	NOS. OF TRAYS	NET WEIGHTS IN KG	SHIPPING WEIGHT KG
45 X 45 X 45	98 X 74 X 110	92.00	2	115.00	190.00
50 X 50 X 70	103 X 76 X 135	175.00	2	135.00	205.00
60 X 60 X 60	113 X 88 X 126	216.00	3	150.00	225.00
60 X 60 X 90	113 X 88 X 156	3124.00	3	157.00	232.00
60 X 60 X 125	113 X 88 X 186	450.00	4	175.00	250.00
80 X 80 X 125	133 X 108 X 186	800.00	4	220.00	295.00

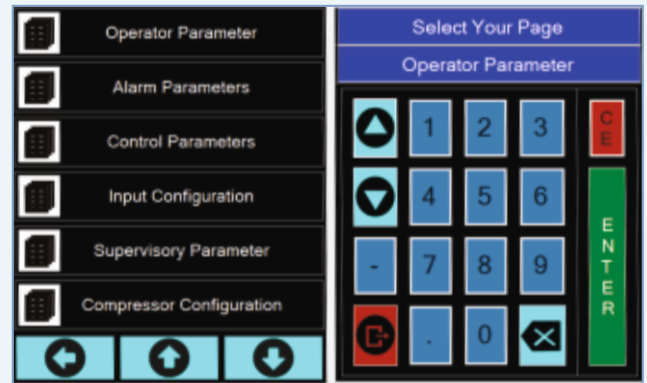
EIE - Dedicated HMI & PLC System



Salient Features of EIE - LCD Smart Graphic Programmable Logic Controller (ASI - PLC) with HMI

- Type : Multi channel Programmable Logic controller
- Enclosure : Open frame flush mount type
- Panel cut-out size : 140 x 80 x 100 mm (W x H x D)
- Display : 7" Graphics LCD display (HMI)
- LCD Type : Colour TFT Touch Screen (Colour HMI)
- Power consumption : 12 VDC / 15Watts
- Integrated 4/8/16/32 channels data logger Within PLC for thorough mapping of chamber

- Resistive Touch Panel for Scrolling Screens and Setting Parameter Values
- An operator can store and operate multi-user profile
- Software calibration with encrypted password
- Company Name & Logo on welcome screen
- User adjustable Date & Time settings
- Password protected entry levels for Operator, Supervisor etc.
- Two independent PID loops for Temperature and Humidity Control
- Generates Alarm if chamber Temperature and/or % RH value cross user defined High/Low Limits
- Cuts off system operation in case of gadget failures



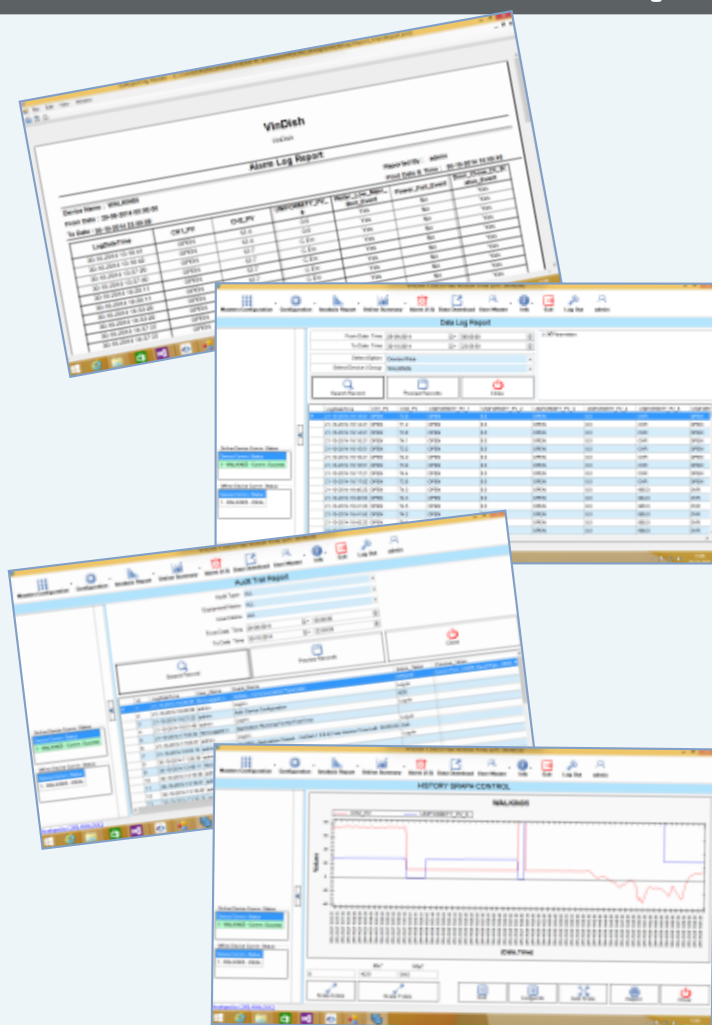
- Intelligent control for door opening detection
- Auto resume after power failure feature
- Monitor Low Water Level status for alerting user through Alarm
- Facilitates automatic water filling system
- Facilitates auto change over from main refrigeration system to standby refrigeration system and from main heating system to standby heating system
- Checks and displays gadget health for both the redundant sets on home screen, thereby eliminating the erroneous performance
- Generates Process Value & Event Status Records, duly date/time stamped, and store in non-volatile flash memory

- Soft touch on screen Help Menu
- In-built memory for Storing Process Data Records such as Temperature, Humidity, Time etc.
- RS - 485 / RS-232 Communication Port for Remote Data Access via Host PC
- Audio Buzzer for Alarm Annunciation
- Provide easy transfer of stored records, in CSV format, to Pen-Drive for direct reading and processing through Excel Sheet
- Improved reliability, accuracy and control for all processing applications
- Following Self-Diagnostics Messages will be displayed On-Screen

- 1) Sensor opens
- 2) Low water level
- 3) Door open
- 4) Main set active
- 5) Gadget Health OK
- 6) Temperature out of the range
- 7) Rh out of the range



EIE - 21 CFR Compliance Software



Salient Features

- Multi Chamber data - Acquisition Software
- Generates graphical analysis of DATA as per - 21 CFR Compliance guidelines
- File encryption Facility
- Secure login facility
- Password protected. System access is controlled by the system supervisor
- Limit system access
- Limit module access
- Password expiration
- Bilateral user ID and password identification
- Access failure lock out
- System access logs
- System audit trail report
- System Input / Output logs
- Mean kinetic temperature calculation
- Maintains log of user activities like users logged in, login/logout time, and changes made by the user in software settings Audit Trail Reports.
- Ensure Gap-free Records
- Schedule Reports via Email
- Meet Tough Standards
- View Environments in Real-Time
- Flexible Alarm Management
- Consistent Alarm Acknowledgements
- Highly Secure & Temper proof
- Protection From Data Loss

EIE - 106 (WG) Walk-in Stability Chamber



Available in following sizes

Working Chambers W X D X H (Meter)	Number of Trays	Capacity (Liters)	Product Code
2.00 X 1.00 X 2.00	8	4000	EIE-106WG40
2.00 X 1.50 X 2.00	12	6000	EIE-106WG60
2.00 X 2.00 X 2.00	24	8000	EIE-106WG80
2.00 X 2.50 X 2.50	28	12500	EIE-106WG125
2.50 X 3.00 X 2.50	36	18750	EIE-106WG187
3.10 X 3.00 X 2.50	40	23250	EIE-106WG232
3.70 X 3.50 X 2.50	66	32500	EIE-106WG325
3.90 X 3.90 X 3.00	84	45000	EIE-106WG450
3.85 X 5.20 X 2.50	100	50000	EIE-106WG500
6.40 X 5.00 X 2.50	200	80000	EIE-106WG800

Available Models : ■ EIE-106WP ■ EIE-106WG

W = Walk-in P = Outer Powder Coated G = GMP

Certificates

ISO 9001:2008 Certificate



CE Certificate



Ethernet	Alarm	IQ/OQ/PQ Documents	PC Connectivity	Eco Friendly	CFC Free
Safety	PLC Control	Touch Screen	Email Alert	Stand by Cooling	Stand by Heating



Mfg. by :

vindish
instruments pvt. ltd.

B-14, 15, 16, Zaveri Industrial Estate, Opp. Shyam Villa,
Singarva - Kathwada Road, Ahmedabad-382 430.
Ph. : (079) 6604 0619, 6604 0660 • Fax : (079) 6604 0600



Mktd. by :

EIE INSTRUMENTS PVT. LTD.
(An ISO 9001 : 2008 Certified Company)

1001-1002, Span Trade Centre, Opp. Kochrab Ashram,
Paldi, Ahmedabad-380 006. • Ph. : (079) 26211234, 9904301464
Fax : (079) 26584099 • Email : info@eieinstruments.com
Website : www.eieinstruments.com