

LABORATORY RANGE TECHNICAL SPECIFICATIONS

STANDARD FEATURES

Test space	Made of polished stainless steel, Maximum floor load 25 kg/m ² , Point load max. 10 kg
Shelf	Made of Stainless steel
Door	Hinged on left hand side, one hand operation, lockable, with window Double silicon seals ensuring perfect airtightness
Test Space illumination	Bulb 12 V/20 W
Entry port	1 port hole, diameter 50 mm on the right hand side
Refrigerating equipment	Low noise fully hermetic refrigerating unit, air cooled, using chloride free refrigerant R404A. Ozone depletion potential = 0.
Humidity device	Steamer with psychrometric measuring system Demineralized water (pH 6-7, 1-3 µS/cm) Integrated water tank (approximately 10 Liters), with low level warning
Painting	Epoxy powder coating, Color RAL 9002,
Control Terminal	MINCONTROL Display with back lighting Clear text display Password protection Input constant values, stored programmes can be called Software temperature limiter for Min/ Max test space temperatures Error notification in text form
Control	Micro processor control and monitoring system MINCON/32 <ul style="list-style-type: none"> ● 32 bit technology ● Integrated program generator ● Fault diagnostic system ● Program storage for 100 programs with total 1000 sections, 250 loops and 9999 cycles
Interface RS232	For communication with customer's computer Networking of up to 32 chambers optionally possible via RS 485
Test specimen protection	<ul style="list-style-type: none"> ● Independent adjustable temperature limiter Tmin/Tmax, Movable sensor in test space, Individually adjustable fixed values ● Adjustable software temperature limiter Min/Max , individually adjustable fixed values
Switch off of test specimens	Potential-free contact especially for heat emitting test specimens, lead onto socket, max load 0,5 A 24 V
Test cabinet protection	Safety temperature limiter for protection of the test cabinet against over heating

MODELS	TMH 30	TMH 31	TMH 32	TMH 60	TMH 61	TMH 62	TMH 100	TMH 101	TMH 102	TMH 150	TMH 151	TMH 152
CONSTRUCTION FEATURES												
Volume of Test (liters)	34			60			100			150		
Test Space dimensions w x d x h (mm)	350 x 300 x 340			400 x 350 x 400			490 x 380 x 540			490 x 570 x 540		
Overall Dimensions W xD x H (mm)	630 x 960 x 980			670 x 850 x 1065			775 x 945 x 1185			775 x 1135 x 1185		
With Trolley W xD x H (mm)	630 x 790 x 1740			670 x 1030 x 1790			775 x 765 x 1915			775 x 750 x 1915		
Weight (kg)	110	110	140	140	140	162	170	170	186	197	197	215
Number of Shelf (Std/Max)	1 / 5			1/5			1 / 9			1 / 9		
Max load/shelf (kg)	5			5			10			10		
Max Total load (kg)	25			25			50			50		

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TEMPERATURE FEATURES

Temp. Max	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C	+150°C
Temp. Min	+10°C	-40°C	-60°C	+10°C	-40°C	-60°C	+10°C	-40°C	-60°C	+10°C	-40°C	-60°C
Cooling Rate	1,5°C/min to 2°C/min											
Heating Rate	1,5°C/min to 2°C/min											
Regulation accuracy	< ± 0,3°C											
Fluctuation (Time)	± 0,3°C to ± 0,5°C											
Deviation (Space)	± 1°C to ± 2,5°C											
Calibrated Values	+23°C and +80 °C											

CLIMATIC FEATURES

With Humidity												
Temp. Max	+95°C											
Temp. Min	+10°C											
Relative Humidity Range	10% to 98%											
Dew point Range	+6°C to +94°C											
Regulation accuracy	< ± 0,3°C											
Temperature Fluctuation	± 0,3°C to ± 0,5°C											
Relative Humidity Fluctuation	± 1% to ± 3%											
Calibrated Values	+23°C/50% RH and +95°C/50% RH											

GENERAL FEATURES

Sound Pressure dB(A)	58		59	58		59	58		59	58		59
Heat Compensation (W) (at +20°C)	-	800	550	-	800	550	-	1100	700	-	1100	700
Nominal Voltage	1/N/PE AC 230 V ±10 % 50 Hz											
Nominal Power (kW)	1,8	1,8	2,7	1,8	1,8	2,7	2,7	2,7	3,2	2,7	2,7	3,2
Nominal Current (Amps)	8	8	12	8	8	12	12	12	14	12	12	14

AVAILABLE OPTIONAL EQUIPMENT

- Additional port hole with silicone bung : 50 mm, 80mm and 125 mm
- Additional stainless steel shelf
- Cart on casters (trolley)
- Door with one glove entry
- Door with two gloves entry

- Automatic water supply
- Demineralization unit for connection to city water (with automatic water supply)
- Replacement cartridge
- Air Dryer
- Dehumidification during heating
- Capacitive humidity sensor

- Analogical card for 4 PT 100 for samples, and additional PT100 sensor
- Emergency stop
- Timer
- Color Touch Panel
- **Spirale2 supervisor**
- Water cooled refrigeration