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You can read the recommendations in the user guide, the technical guide or the installation guide for SANYO MPR-1410. You'll find the answers to all your questions on the SANYO MPR-1410 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

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For Life and the Earth

SANYO

Large Capacity Laboratory Refrigerators

MPR-1410
MPR-1410R
MPR-721
MPR-721R



Stable and reliable refrigerated environment for exacting laboratory requirements. Stable temperature environment for clinical research, pharmaceutical and industrial use. Adjustable shelves and wide range setpoint for varying laboratory applications including chromatography and pharmaceutical storage.

Model: MPR-1410

SANYO is committed to developing green technologies that provide energy efficiency, resulting in lower operational costs with less impact on the environment.



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Manual abstract:

@@Adjustable shelves and wide range setpoint for varying laboratory applications including chromatography and pharmaceutical storage. Model: MPR-1410 SANYO is committed to developing green technologies that provide energy efficiency resulting in lower operational costs with less impact on the environment. GREEN product Large Capacity Laboratory Refrigerators: MPR Series Temperature Stability SANYO's temperature control system, with thermistor temperature monitor and microprocessor control reliably maintains cabinet temperature at the set level and is unaffected by outside ambient temperature. Forced air circulation ensures that the cabinet temperature returns to the set point quickly after door openings and remains uniform throughout the cabinet. Easy-to-Manage Layout The interior layout flexibility of the MPR Series refrigerators makes them ideal for running experiments that require stable, cool conditions, as well as general cold storage. Standard Alarm and Safety Features SANYO's MPR Series refrigerators are fitted with alarms and flashing indicator LED to warn of high and low temperature conditions. @@Door locks are standard to safeguard valuable contents. Wide Temperature Range With a temperature range of 2°C to 23°C, SANYO's MPR Series refrigerators are ideally suited for many tests that require a stable, cool temperature or general cold storage. Relationship between chamber temperature and ambient temperature (Comparison with standard domestic refrigerators) MPR-1410: Set at 5C 100mm (3.9 inches) inside of shelves MPR-1410R: Set at 5C 100mm (3.

9 inches) inside of drawers Standard domestic refrigerator Domestic Highest Highest 6 4 Lowest 2 0 Domestic Lowest 0 5 10 15 20 25 30 35 14 12 HFC Refrigerant & CFC-Free Insulation SANYO biomedical equipment is designed for low environmental impact. The MPR-721 and 1410 series use HFC refrigerant R-134A, and foamed-in-place insulation is CFC free. Chamber temperature (C) 10 8 Large Capacity With a modular width of 30.3 inches (770mm) the MPR-721 offers capacity of 24.1 cu.

ft (684 liters) [MPR-721R: 23.7 cu.ft. (671 liters)], while the 56.7 inches (1440 mm)-wide MPR-1410 offers capacity of 48.4 cu.ft. (1370 liters) [MPR-1410R: 48.2 cu.ft. (1365 liters)]. The interior is spacious enough to accommodate column chromatography apparatus or large volumes of reagents, test samples and biologicals. Ambient temperature (C) Easy Access Front Control Panel Large Fans The 4.7"-diameter fan ensures an even temperature throughout the cabinet (MPR1410R models have a double flow system with two fans). Heat spots from powered test apparatus are minimized and pull-up characteristics after door openings are outstanding.

Speedy and Powerful Refrigeration For frequent door openings, SANYO's MPR Series refrigerators are equipped with powerful, hermetically sealed compressors. These purpose-built compressors ensure superior pull-down characteristics and precise temperature control. Stable & Reliable Refrigerator Environment MPR-1410 Performance Data Performance data (Reference Data) MPR-1410 Pull-down characteristics (no-load) 40 Temp. in chamber (°C) 30 20 10 0 10 0 60 120 Time (min.) 180 240 Air temp. at center of chamber Ambient temp. 35°C MPR-1410 Pull-up characteristics (no-load) 35 30 Temp. (°C) 25 20 15 10 5 0 0 50 Air temp. at center of chamber Ambient temp. 35°C Initial conditions: chamber stable at 2°C MPR-1410 Test of permissible inside thermal load 500 450 400 350 300 250 200 150 100 50 0 Inside thermal load (W) 100 150 200 Time (min.)

) 250 300 0 5 10 15 20 25 Ambient temp. (C) 23C 10C 5C 2C 3C Adjustable Shelves (MPR-721 & MPR-1410) The shelves can be arranged to accommodate tall apparatus such as fraction collectors. These shelves are deep enough [24.4 inches (620mm) front to back] and strong enough (110lbs load for the MPR-721, 88lbs for the MPR-1410) to hold most apparatus. SANYO has incorporated solutions for all these problems into its biomedical refrigerators, which have been well received in hospitals and research facilities around the world.

MAIN FEATURES 1. Stable, uniform and controlled cabinet temperature is unaffected by outside temperature. 2. Cycle defrost allows defrosting without rises in cabinet temperature. 3.

Standard alarm & safety features prevent irregular temperature fluctuations in cabinet. User Friendly Design & Double Door Function Easy to read and operate control panel features a full array of alarm and safety functions. Through wall access ports are standard to allow access for power cords. Aesthetically attractive exterior color blends in most lab color schemes. The "catch-free" rounded corners are safe and attractive. Doors open smoothly and close automatically. Some laboratory refrigerators have solid doors for temperature stability, while others have glass doors for easy viewing. SANYO MPR Series refrigerators give you the best of both versions. The broad, solid frames with effective gaskets ensure excellent temperature stability, and the double-pane glass windows offer an excellent view of the interior without compromising temperature stability. Optional panels are available to block out light.

Drawer Type (MPR-721R & MPR-1410R) The "R" models are fitted with pull-out drawers. @@@@Features It is common knowledge that product should be stored in stable conditions below ambient temperature. @@Temperature varies each time the door is opened. 2. Temperature rises during defrost cycle. 3. @@4. Temperature setting by dial is inaccurate (no digital temperature indication). Cycle Defrost In the 4°C range, frost buildup on the evaporator is inevitable. This can affect the performance of the heat exchanger.

@@@Temperature rise during defrost is minimal. The evaporation heater also doubles as protection against drops in cabinet temperature caused by a low ambient temperature. MPR-721 Performance Data Performance data (Reference Data) MPR-721 Pull-down characteristics (no-load) 40 Temp. @@at center of chamber Ambient temp. 35°C Temp.

(°C) MPR-721 Pull-up characteristics (no-load) 35 30 25 20 15 10 5 0 0 50 Air temp. at center of chamber Ambient temp. 35°C Initial conditions: chamber stable at 2°C MPR-721 Test of permissible inside thermal load Inside thermal load (W) 600 700 500 400 300 200 100 0 0 5 10 15 20 25 Ambient temp. (C) 23C 10C 5C 2C 100 150 200 Time (min.) 250 300 30 MPR Series Model MPR-1410 MPR-1410R MPR-721 MPR-721R Shelves Drawers 8 Wire Shelves 10 Drawers 4 Wire Shelves 5 Drawers New concept features have been added to the MPR-721 and MPR-721R.

A filterless condenser cuts down on cleaning maintenance. Also, all glass doors now include a protective film to prevent shattering in the event of accidental collisions. MPR-1410 Effective capacity 48.4 cu.ft. MPR-1410R Effective capacity 48.2 cu.ft. MPR-721 Effective capacity 24.2 cu.

ft. MPR-721R Effective capacity 23.7 cu.ft. Dimensional Data MPR-1410 MPR-721 MPR-1410R MPR-721R Alarm & Safety Features Features Trigger Type of alarm/response Flashing LED & audible alarm after 15 minutes High temperature alarm 1410R: 5°C or more above setpoint 721R: 2°C to 14°C (selectable) above setpoint Flashing LED & audible alarm Low temperature alarm 1410R: 5°C more below setpoint; 0°C or lower 721R: 2°C to 14°C (selectable) below setpoint; 0°C or lower Over heating protection Interior temperature rises to 40°C Temperature lock Memory backup Door ajar Self diagnostics Remote terminal Temperature recorder Lock ON Power failure Door not closed Sensor open or short Optional, Model # MTR-C954 Fan motor & heater OFF Set temperature cannot be altered Memory of settings Door ajar lamp ON Error code shown (E1, E2) Operation can be checked from office or control room away from the lab Specifications MPR-1410/1410R/721/721R MPR-1410, 1410R, 721 and 721R Specifications Model No.



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@@ (1370 liters) 48.2 cu.ft. @@ (671 liters) 24.2 cu.

ft. (684 liters) Acrylic finish baked on zinc galvanized steel Acrylic finish baked on zinc galvanized steel 1 x double pane glass doors, self closing 2 x double pane glass doors, self closing CFC-free rigid foamed-in-place polyurethane 8 x polyethylene-coated wire shelves. Max. load: 40kg/shelf 10 x coated steel drawers. Handles with card holder.

Max. load: 40kg/drawer 4 x polyethylene-coated wire shelves. Max. load: 50kg/shelf 5 x coated steel drawers. Handles with card holder.

Max. load: 40kg/drawer Access ports Locks Casters Cooling method Compressor Evaporator Condenser Refrigerant Defrost method Defrost heater Power source Voltage Hz Phase Amps Max. heat release Temperature control Temperature display Safety features High temp. alarm Low temp. alarm Door ajar alarm Interior lamp Net weight 509.3 lbs (231kg) 257W 115 60 1φ 3.7 Fin tube type 2 x cylinder type 3 x 30mmφ (2 in sides, 1 in cabinet top) 1 x cylinder type 4 Forced air circulation with double fan 300W hermetic rotary Fin tube type Wire tube type, Filterless design R-134a (HFC) Forced type (cycle defrost system), fully automatic hot pipe for automatical evaporation for drain water 153W 115 60 1φ 2.4 Forced air circulation with single fan 220W hermetic rotary 1440btu 1565btu Microprocessor controlled on/off type. Thermistor sensor Temp. control range: 2°C to 14°C (ambient temp.

5°C~0°C no-load) 2°C to 23°C (ambient temp. 0°C~35°C no-load) (1°C step) Digital type (1C step) High temp. protection circuit, low temp. protection circuit, temperature lock, self diagnostics, memory backup (nonvolatile memory). When temp. 5°C or more above set level, flashing LED & buzzer after 15-minute delay Flashing lamp when temp. @@ drops to 0C or lower, flashing LED & buzzer Flashing lamp, buzzer after 2-minute delay 40W x 1, fluorescent lamp 588.63 lbs (267kg) 20W x 1, fluorescent lamp 368.2 lbs (167kg) 410 lbs (186kg) *Appearance are subject to change change without notice. *Appearance and specifications and specifications are subject to without notice.

SANYO offers a wide range of high quality validation services for all of our equipment. @@ Choosing SANYO as an equipment supplier and validation consultant can greatly reduce the time and cost involved with setting up and operating new equipment. SANYO North America Corporation Biomedical and Environmental Solutions 1300 Michael Drive, Wood Dale, IL 60191 USA Toll Free USA 800-858-8442 · Fax 630-238-0074 www.sanyobiomedical.com SANYO Canada, Inc.

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