Check Of Density Limit - Sanyo SPW-XR254EH56 Installation And Operation Manual

Dc inverter air conditioner

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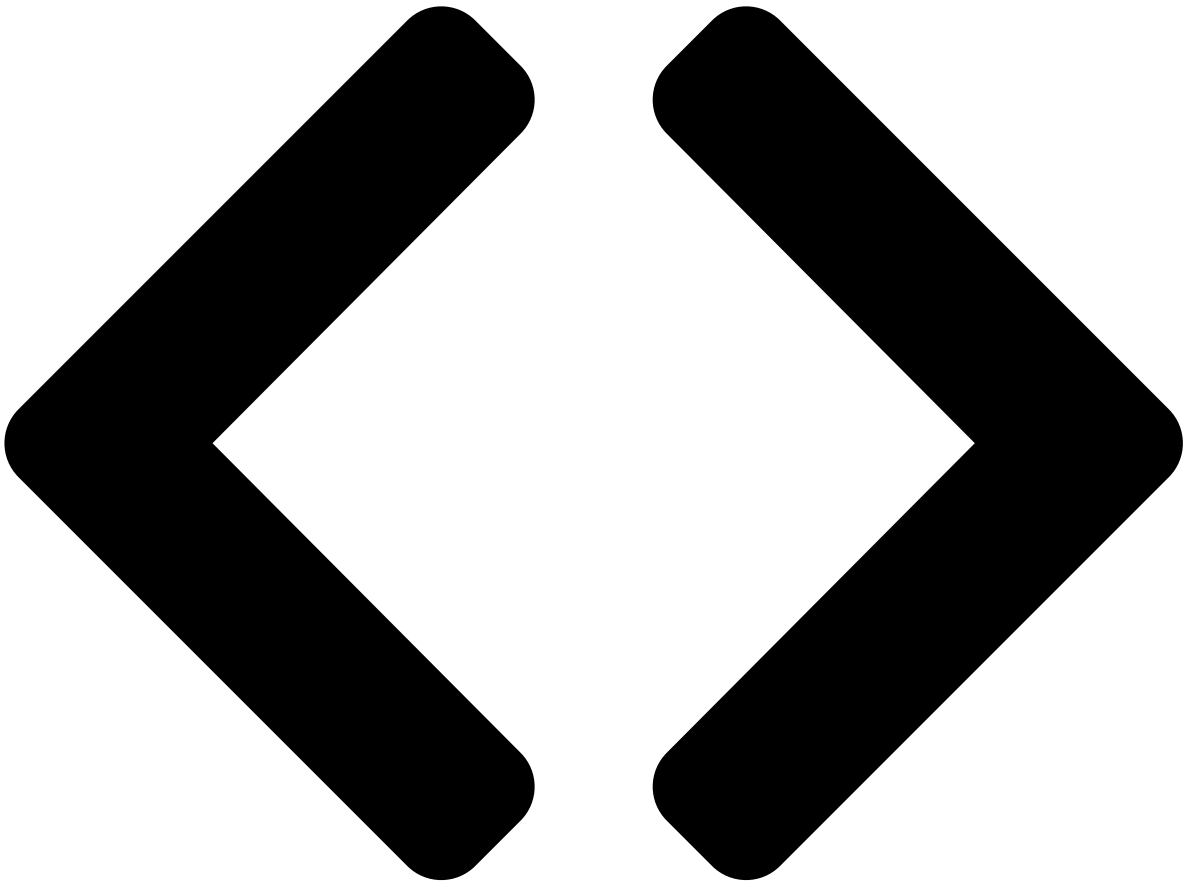
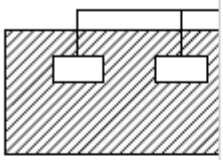
Bookmarks



Check of Density Limit

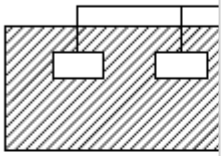
The room in which the air conditioner is to be installed requires a design that in the event of refrigerant gas leaking out, its density will not exceed a set limit.



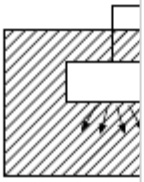
The refrigerant (R410A), which is used in the air conditioner, is safe, without the toxicity or combustibility of ammonia, and is not restricted by laws imposed to protect the ozone layer. However, since it contains more than air, it poses the risk of suffocation if its density should rise excessively. Suffocation from leakage of refrigerant is almost non-existent. With the recent

increase in the number of high density buildings, however, the installation of multi air conditioner systems is on the increase because of the need for effective use of floor space, individual control, energy conservation by curtailing heat and carrying power, etc.

Most importantly, the multi air conditioner system is able to replenish a large amount of refrigerant compared to conventional individual air conditioners. If a single unit of the multi air conditioner system is to be installed in a small room, select a suitable model and installation procedure so that if the refrigerant accidentally leaks out, its density does not reach the limit (and in the event of an emergency, measures can be made before injury can occur).



In a room where the density may exceed the limit, create an opening with adjacent rooms, or install mechanical ventilation combined with a gas leak detection device. The density is as given below.



Total amount of refrigerant (kg)

Min. volume of the indoor unit installed room (m

≤ Density limit (kg/m

The density limit of refrigerant which is used in multi air con-

3

ditioners is 0.3 kg/m

(ISO 5149).

1. If there are 2 or more refrigerating systems in a single refrigerating device, the amount of refrigerant should be as charged in each independent device.

For the amount of charge in this example:

e.g., charged

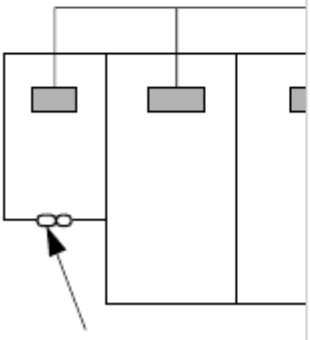
amount (10 kg)

Indoor unit

Room A Room B Room C Room D Room E Room F

The possible amount of leaked refrigerant gas in rooms A, B and C is 10 kg.

The possible amount of leaked refrigerant gas in rooms D, E and F is 15 kg.



3

)

3

)

Outdoor unit

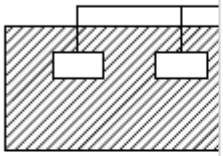
e.g., charged

amount (15 kg)

3

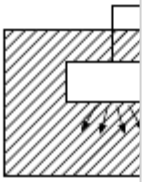
2. The standards for minimum room volume are as

follows.
(1) No partition (shaded portion)
(2) When there is an effective opening with the adjacent room for ventilation of leaking refrigerant gas (opening without a door, or an opening 0.15% or larger than the respective floor spaces at the top or bottom of the door).



(3) If an indoor unit is installed in each partitioned room and the refrigerant tubing is interconnected, the smallest room of course becomes the object. But when mechanical ventilation is installed interlocked with a gas leakage detector in the smallest room where the density limit is exceeded, the volume of the next smallest room becomes the object.

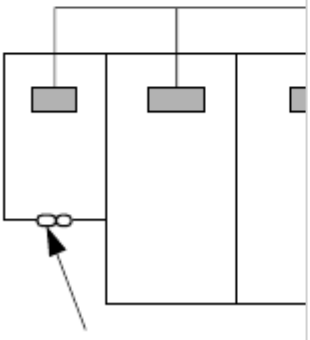
Very
small
room
Small
Medium
room
room



Mechanical ventilation device – Gas leak detector

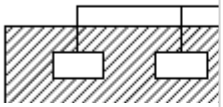
3. The minimum indoor floor space compared with the amount of refrigerant is roughly as follows: (When the ceiling is 2.7 m high)

40
Range below the
35
m
2
density limit
3
of 0.3 kg/m
30
(countermeasures
not needed)
25
20
15
10
5
0
10



Total amount of refrigerant
Outdoor unit
Refrigerant tubing
Indoor unit
Refrigerant tubing
Outdoor unit
Indoor unit

Large room
Range above
the density limit
^{3}
of 0.3 kg/m
(countermeasures
needed)
20
30
kg



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Split system (105 pages)

Air Conditioner Sanyo SPW-X483GH56 Installation Instruction

Eco multi system air conditioner (91 pages)

Air Conditioner Sanyo SPW-C256VH Technical Data & Service Manual

4-way air discharge semi-concealed wall-mounted ceiling-mounted concealed-duct (517 pages)

Air Conditioner Sanyo Big PACi 18 Series Technical Data & Service Manual

Big pack i dc inverter (275 pages)

Air Conditioner Sanyo SPW-X253G56 Service Manual

Split system (72 pages)

Air Conditioner Sanyo SPW-XR253GH56 Technical Data & Service Manual

(223 pages)

Air Conditioner Sanyo 2-WAY ECO-i SPW-C0705DXHN8 Service Manual

Multi system (143 pages)

Air Conditioner Sanyo Mini ECO-i SPW-ASR74GXH56(A/B) Installation Instructions Manual

System air conditioner (49 pages)

Air Conditioner Sanyo SPW-K075XH Specification Sheet

M series gas heat pump air conditioner (76 pages)

Air Conditioner Sanyo ECO G SGP-EGW190M2G2W Brochure & Specs

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Air Conditioner Sanyo SPW-C1155DXHN8 Technical Data & Service Manual

2-way eco-i multi system (242 pages)

Air Conditioner Sanyo MINI ECO-i SPW-CR365GXH56B Service Manual

(252 pages)

Air Conditioner Sanyo SPW-CR365GXH56 Technical Data Manual

Mini eco-i system (346 pages)

Air Conditioner Sanyo SPW-T253GH56 Service Manual

Split system (106 pages)

Air Conditioner Sanyo SPW-CR1503GDYH8 Technical Data & Service Manual

W-eco multi system series (377 pages)

Air Conditioner Sanyo SPW-CR363GVH8 Service Manual

(262 pages)

Related Content for Sanyo SPW-XR254EH56

SPW-CR365GXH56 Check Of Density Limit

Sanyo SPW-CR365GXH56
R410A Check Of Density Limit
Sanyo R410A
SPW-FTR124EH56 Check Of Density Limit
Sanyo SPW-FTR124EH56
W-3WAY ECO-i 85464369098000 Check Of Density Limit
Sanyo W-3WAY ECO-i 85464369098000
Mini ECO-i 85464359981002 Check Of Density Limit
Sanyo Mini ECO-i 85464359981002
PW-UMR184EXH56 Check Of Density Limit
Sanyo PW-UMR184EXH56
ECO R410A Check Of Density Limit
Sanyo ECO R410A
C4272R S/C Check Of Density Limit
Sanyo C4272R S/C

This manual is also suitable for:

Spw-xr364eh56Spw-xr484eh56