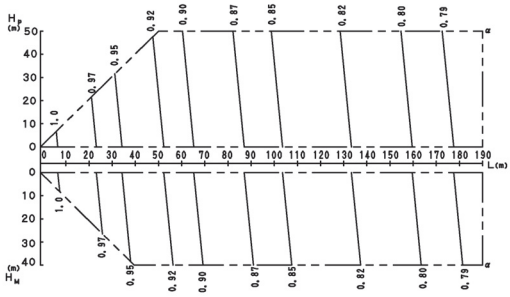
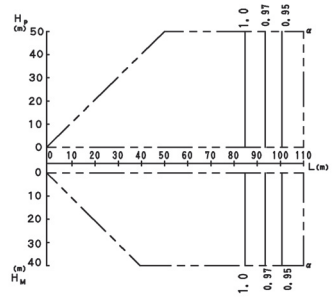
# RXYQ16PY1K

- Rate of change in cooling capacity




- Rate of change in heating capacity

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## NOTES

1 These figures illustrate the rate of change in capacity of a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions.
Moreover, under partial load conditions there is only a minor deviation from the rate of change in capacity shown in the above figures.

2 With this outdoor unit, evaporating pressure constant control when cooling, and condensing pressure constant control when heating is carried out.

3 Method of calculating A/C (cooling / heating) capacity:
The maximum A/C of the system will be either the total A/C capacity of the indoor units obtained from capacity characteristic table or the maximum A/C capacity of outdoor units as mentioned below, whichever smaller.
Calculating A/C capacity of outdoor units

- Condition: Indoor unit combination ratio does not exceed 100%
  Maximum A./C capacity of outdoor units = A/C capacity of outdoor units obtained from performance characteristics table at the 100% combination x capacity change rate due to piping length to the farthest indoor unit
  Condition: Indoor unit combination ratio exceeds 100%
  Maximum A./C capacity of outdoor units = A/C capacity of outdoor units obtained from capacity characteristics table at the combination x capacity change rate due to piping length to the farthest indoor unit

4 When overall equivalent pipe length is 90m or more, the diameter of the main gas and liquid pipes (outdoor unit-branch sections) must be increased.
When level difference is 50m or more, the diameter of the main gas and liquid pipes (outdoor unit-brach sections) must be increased.

[Diameter of above case]

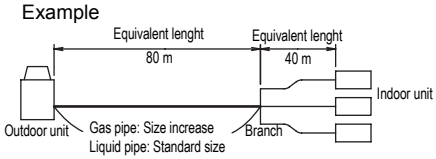
| Model | gas | liquid |
|---|---|---|
| RXYQ16PY1K | ø31.8* | ø15.9 |

*If available on the site, use this size. Otherwise, not increased.

5 Read cooling / heating capacity rate of change in the above figures based on the following equivalent length.
Overall equivalent length = (Equivalent length to main pipe) x Correction factor + (Equivalent length after branching)
Choose a correction factor from the following table.
When cooling capacity is calculated: gas pipe size
When heating capacity is calculated: liquid pipe size.

| Rate of change (object piping) | Correction factor | |
|---|---|---|
| | Standard size | Size increase |
| Cooling (gas pipe) | 1.0 | 0.5 |
| Heating (liquid pipe) | 1.0 | 0.3 |

6 Example




In the above case
(Cooling) Overall equivalent length = 80m x 0.5 + 40m = 80m
(Heating) Overall equivalent length = 80m x 0.3 + 40m = 64m
The rate of change in cooling capacity when Hp=0m is thus approximately 0.88
heating capacity when Hp=0m is thus approximately 1.0

## EXPLANATION OF SYMBOLS

$H_p$ : Level difference (m) between indoor and outdoor units where indoor unit in inferior position
$H_M$ : Level difference (m) between indoor and outdoor units where indoor unit in superior position
L : Equivalent pipe length (m)
$\alpha$ : Rate of change in cooling / heating capacity

[Diameter of the main pipes (standard size)]

| Model | gas | liquid |
|---|---|---|
| RXYQ16PY1K | ø28.6 | ø12.7 |

[Temper grade and thickness]

| Temper grade | 0 Type | | 1/2Type | |
|---|---|---|---|---|
| Outer diameter | ø 12.7 | ø 15.9 | ø28.6 | ø31.8 |
| Minimum Wall Thickness | 0.80 | 0.99 | 0.99 | 1.10 |