

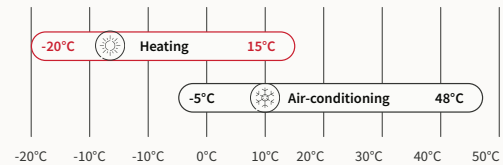
Heat pump Set free Mini

Reversible system / Energy recovery 4 - 12 hp (R410A)



+ SERVICES

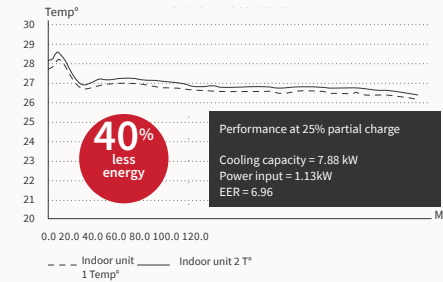
• Wide outdoor operating ranges.



• 2-pipe / 3-pipe on the 8-12 hp units (energy recovery).

+ APPRAISAL

Smooth Control Drive 1.0 regulation

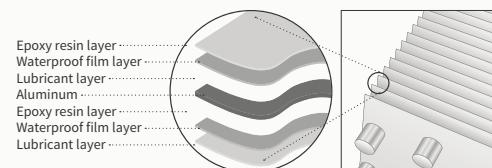


+ COMFORT

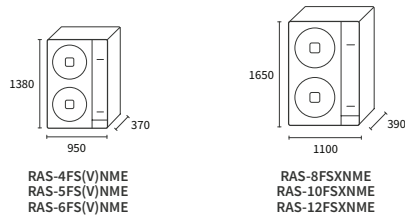
Smart Defrost for maintaining warmth and comfort

- The intelligent defrost mode ensures a longer heating period without defrosting..
- This period automatically adjusts based on the defrost time of previous cycles and can extend up to 4 hours..

Heat exchanger with reinforced protection



Outdoor units



Compatible controls and accessories

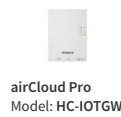
Installation of accessories



CSNET Manager



Remote access



| Model | Unit | RAS-4FS(V)NME | RAS-5FS(V)NME | RAS-6FS(V)NME | RAS-8FSXNME | RAS-10FSXNME | RAS-12FSXNME | |
|---|----------------------------|------------------|---|----------------|-------------------|-----------------------------------|--------------|-----------|
| Performance, cooling | | | | | | | | |
| Capacity Cooling | kW | 12.10 | 14.00 | 16.00 | 22.40 | 28.00 | 33.50 | |
| Absorbed capacity cooling | kW | 2.97 | 3.26 | 4.35 | 6.25 | 7.27 | 9.36 | |
| EER | - | 4.07 | 4.29 | 3.68 | 3.60 | 3.85 | 3.58 | |
| SEER | - | 6.67(V) - 6.61 | 6.64(V) - 6.61 | 6.40(V) - 6.37 | 7.59 | 8.31 | 8.26 | |
| Seasonal energy efficiency rating cooling η_s, c | % | 264(V) - 261 | 262.6(V) - 261 | 253(V) - 251.8 | 300.6 | 329.4 | 327.4 | |
| Operating ranges Cooling | - | -5°C/48°C (DB) | | | | | | |
| Performance, heating | | | | | | | | |
| Maximum Heating Power | kW | 12.82 | 16.42 | 18.50 | 25.20 | 32.32 | 38.47 | |
| Capacity Heating | kW | 12.10 | 14.00 | 16.00 | 22.40 | 28.00 | 33.50 | |
| Absorbed capacity heating | kW | 2.89 | 3.57 | 4.30 | 5.32 | 6.89 | 9.15 | |
| Capacity at -7°C | kW | 8.60 | 10.80 | 12.00 | 18.60 | 21.50 | 25.50 | |
| Capacity at -15°C | kW | 7.30 | 8.70 | 10.00 | 16.20 | 17.70 | 21.10 | |
| COP | - | 4.33 | 4.48 | 4.19 | 4.70 | 4.57 | 4.10 | |
| SCOP | - | 4.15 | 4.40 | 4.25 | 5.62 | 4.72 | 4.66 | |
| Seasonal energy efficiency rating heating η_s, h | % | 163.0 | 173.0 | 167.0 | 221.8 | 185.8 | 183.4 | |
| Operating ranges heating | - | -20°C/15°C (WB) | | | | | | |
| Technical characteristics | | | | | | | | |
| Airflow | m ³ /h | 8,700 | | 9,900 | | 11,100 | | |
| Adjustable static pressure | Pa | 30 | | | | | | |
| Number of fans | - | 2 | | | | | | |
| Sound pressure in Cooling mode | dB(A) | 69 | 72 | 74 | 76 | 77 | | |
| Sound pressure in Heating mode | dB(A) | 52 | | 53 | 55 | 59 | 60 | |
| Dimensions (HxLxD) | mm | 1380 x 950 x 370 | | | 1650 x 1100 x 390 | | | |
| Net weight | kg | 114(V) - 115 | | 118(V) - 119 | 188 | 194 | 196 | |
| Type of compressor | - | Scroll Inverter | | | | | | |
| Compressor number | - | 1 | | | | | | |
| Max. number of connectible units | - | 13 | 16 | 18 | 26 | 32 | 39 | |
| Connection rate | % | 50-130 | | | | | | |
| Cooling properties | | | | | | | | |
| Refrigerant | - | R410A | | | | | | |
| Refrigerant load | kg | 3.7 | 4.1 | | 4.2 | 5.5 | | |
| Dimension of cooler connections | Liquid | mm (inches) | 9.52 (3/8) | | | | 12.70 (1/2) | |
| | Low pressure gas | mm (inches) | - | | | 19.05 (3/4) | 22.20 (7/8) | 25.40 (1) |
| | High/low pressure gas | mm (inches) | 15.88 (5/8) | | 15.88 (5/8) | 19.05 (3/4) | 22.20 (7/8) | |
| Electrical features | | | | | | | | |
| Power supply | Three-phase (Single-phase) | - | 3N ~400V 50 Hz + Neutral + Ground (1 ~230V 50 Hz + Neutral + Ground) | | | 3N ~400V 50 Hz + Neutral + Ground | | |
| Maximum current | Three-phase (Single-phase) | A | 16 (28.5) | | 18 | 19 | 23 | |
| Indoor/outdoor connection (shielded) | mm ² | 2 x 0.75 | | | | | | |

(V) Single-phase version.

Benefits

Heat pump SET FREE Mini (4-12 hp)

A single unit for operation in 2-pipe or 3-pipe systems (heat recovery from 8 to 12 hp): in the same building, depending on its north or south orientation, one room can be heated and another cooled at the same time thanks to the **heat recovery on the CH box**. This means that air conditioning and heating can be used simultaneously for greater occupant comfort.

1 Choice of 2-pipe / 3-pipe (8 to 12 hp)

CH heat recovery unit

EXCLUSIVE TO HITACHI

- Reversible SET FREE Mini range from 4 to 12 hp,
- Compatibility with 2-pipe/3-pipe 8 to 12 hp "exclusive,"
- The essential solution for personalized comfort when outdoor space is limited.

2 The most compact 3-pipe mini VRF in the world

-37% FOOT-PRINT

-18% HEIGHT

765mm

390mm

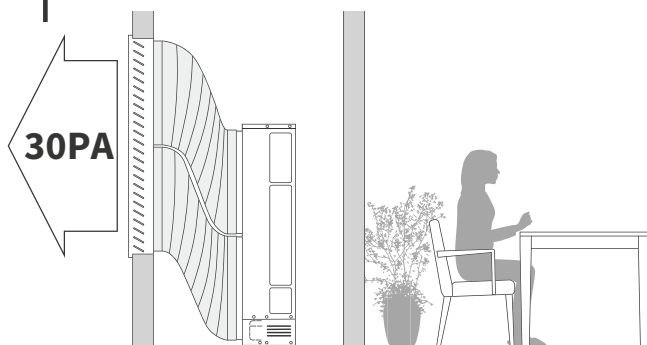
With its low footprint, the SET FREE Mini can be installed discreetly for maximum comfort.

3 High number of indoor units that can be connected

| Outdoor group (hp) | Number of indoor units that can be connected |
|--------------------|--|
| 4 | 13 |
| 5 | 16 |
| 6 | 18 |
| 8 | 26 |
| 10 | 32 |
| 12 | 39 |

The new SET FREE Mini offers the possibility of connecting up to 39 indoor units (refer to the TC). **Exclusive:** Even greater flexibility with a wide range of units starting at 0.4 hp (wall-mounted, cassette, and ducted).

4 Static pressure available



With 30 Pa, the unit can be hidden. This solution recirculates the air to force it through the grid at speed, therefore avoiding recycling.



The OU can be ducted to preserve the appearance of the building.

5 Compatibility with all Set Free indoor units with regulated blowing temperature function for greater comfort "Gentle Cool"



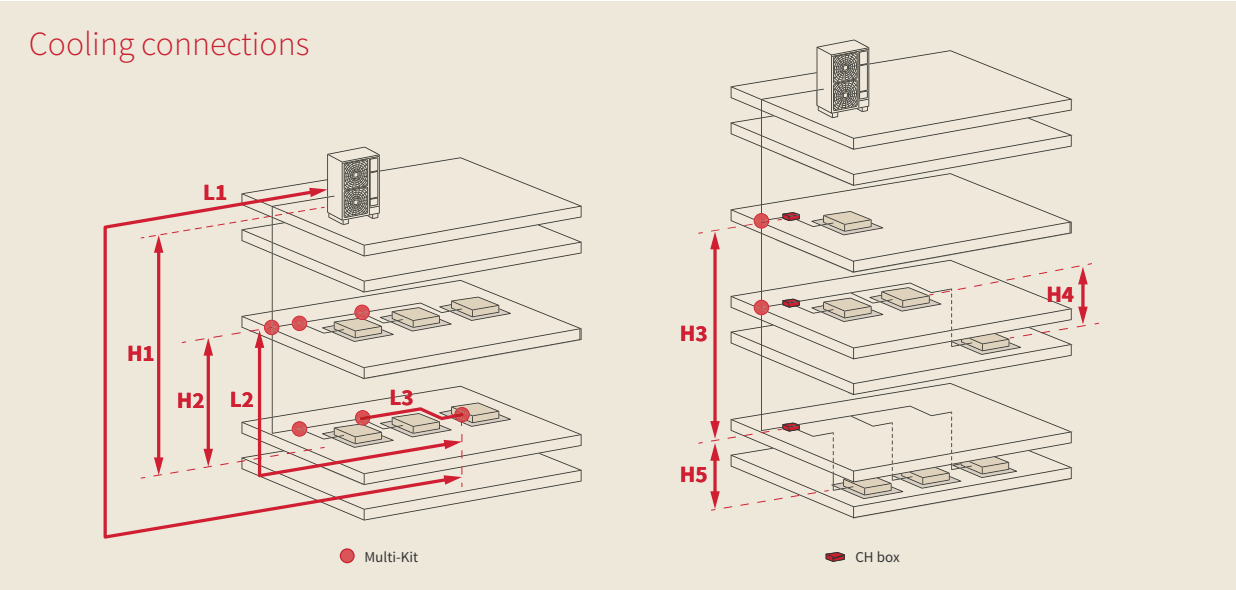
The 'GENTLE COOL' regulated airflow temperature function, accessible via the PC-ARFG2(3)-E(B) wired remote control, makes it possible:

- To set the minimum airflow temperature for greater comfort.
- In summer, cooling air currents are avoided as you can set the fan blower temperature to the minimum setting.



Cooling connections

VRF SET FREE Mini



| | | | 4 to 6 hp | 8 to 12 hp | 8 to 12 hp (energy recovery) | |
|-----------------------|--|------------------------------------|-----------|------------|------------------------------|----|
| Max. length of piping | Total | - | 180 | 500 | 500 | |
| | Between outdoor unit and the furthest indoor unit | L1 | 85 | 125 | 125 | |
| | Between the first multikit branch and the furthest indoor unit | L2 | 40 | 90* | 90* | |
| | Between the multikit and the indoor unit | L3 | 15 | 40 | 40 | |
| | Between the CH box and the indoor unit | - | - | - | 40 | |
| Max. drop | Between the outdoor unit and the indoor unit | Outdoor unit above the indoor unit | H1 | 30 | 50 | 50 |
| | | Indoor unit above the outdoor unit | - | 30 | 40 | 40 |
| | Between indoor units | | H2 | 15 | 15 | 15 |
| | Between CH boxes | | H3 | - | - | 15 |
| | Between indoor units connected to a CH box (same branch) | | H4 | - | - | 4 |
| | Between the CH box and the indoor unit | | H5 | - | - | 15 |

(*) 60 m over the recommended number of indoor units.

Part numbers of cooler accessories

Multi-Kit

| 2-pipe | 3-pipe |
|----------|----------|
| E-102SN4 | E-102XN3 |
| E-162SN4 | E-162XN3 |

Collector

| 2-pipe | 3-pipe |
|----------|----------|
| MH-84AN1 | MH-108XN |
| MH-108AN | - |