FROM 12,0 TO 45,0 kW COMBINABLES UNITS





CE
CONFORMITY

DC INVERTER
COMPRESSOR
AND FAN

REFRIGERANT
GAS

MULTIPLE
INSTALLATION
POSSIBILITIES

STARTUP
INCLUDED

AUTOMATIC
ADDRESSING

15 INDOOR
UNITS
CONNECTABLES

## Flexible indoor units connection

Mini VRF with intelligent control gives you independent zoning control with maximum flexibility. A single outdoor unit can support from 6 to 15 indoor units, freeing up considerable space outside. Use your backyard more wisely with much more space avaliable created by less number of outdoor units.

## Flexible piping design

The unit provides a total piping lenght possibility possibility between 100 and 250 meters (according to model), a maximum height differnce between outdoor and indoor units of 30m. The height difference between indoors unit can be up to 8m. These generous allowances facilitate an extensive array of system designs.

## Intelligent soft start technology

Compressor soft start complete low frequency and low current start by DC Inverter compressor, and to reduce strike to electric network. When start Dc Inverter compressor, system runs in large volume and offer more heating capacity. And use the start rapidly advantage of fixed frequency compressor to quickly up to output air.

## Wide operation range

The unit operates stably at extreme temperature ranging from -15°C to 48°C.

## Low sound pressure level

Optimally designed fan shape and air discharge grille increases air volume and reduces running noise.

## Climate-resistant units

Due to the stable source of water as the cold/heat source of the system, the air conditioning capacity is not affected by environmental temperature. When heating in winter, the unit does not implement the frost/defrosting process, which stabilizes and strenghthens the heating effect.

## Automatic adressing

Outdoor unit can distribute addresses for indoor units automatically. Wireless and wired controllers can query and modify each indoor unit's adress.

## Multiple installation possibilities

Offering four direction space for installation to connect pipes and wirings for meet a variety installation request. To suit the variety of rooms found in small offices and shops, the Mini VRF system offers wide range of indoor and outdoor units are almost as easy to install as residential air conditioning systems, making them ideal for small offices and shops.

## High efficiency DC Inverter compressor and fan

- High efficiency DC Inverter compressor reduced power consumption by 30%
- Powerful magnets provide high torque and efficiency and achieve 70% reduction in volume.
- More compact, weight reduced by 50%.

Advanced permanent magnet DC motor improves low-frequency band performance.

# Outdoor units **Mini VRF**

FROM12,0 TO 45,0 kW COMBINABLES UNITS

| MODELS | | | HTW V120 WDN1 | HTW V120 WDRN1 | HTW V140 WDN1 | HTW V140 WDRN1 | HTW V160 WDRN1 | HTW V180 WDRN1 | HTW V200 WDRN18R0 | HTW V260 WDRN18R0 | HTW V400 WDRN1 | HTW V450 WDRN1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum connectable indoor units | | | 6 | 6 | 6 | 6 | 7 | 9 | 10 | 12 | 14 | 15 |
| Power supply | | V,P,HZ | 220-240V 1 Ph ~ 50Hz | 380-415V 3 Ph ~ 50Hz | 220-240V 1 Ph ~ 50Hz | 380-415V 3 Ph ~ 50Hz | 380-415V 3 Ph ~50Hz | | | | | |
| **PERFORMANCE** | | | | | | | | | | | | |
| Cooling capacity | | kW | 12 | 12,3 | 14 | 14 | 15,5 | 17,5 | 20 | 26 | 40 | 45 |
| | Capacity | Frig/h | 10578 | 10578 | 12040 | 12040 | 13330 | 15050 | 17200 | 22360 | 34400 | 38700 |
| | | Btu/h | 41969 | 41969 | 47769 | 47769 | 52888 | 59712 | 68242 | 88715 | 136485 | 153546 |
| | Input | W | 3250 | 3250 | 3950 | 3950 | 4520 | 5300 | 6100 | 7600 | 11900 | 13600 |
| | EER | - | 3,78 | 3,78 | 3,21 | 3,54 | 3,43 | 3,3 | 3,28 | 3,42 | 3,35 | 3,32 |
| Heating capacity | | kW | 13,2 | 13,2 | 15,4 | 15,4 | 17 | 19 | 22 | 28,5 | 45 | 50 |
| | Capacity | Kcal/h | 11352 | 11352 | 12900 | 13244 | 14620 | 16340 | 18920 | 24510 | 38700 | 43000 |
| | | Btu/h | 45040 | 45040 | 51182 | 52546 | 58006 | 64830 | 75067 | 88715 | 153546 | 170607 |
| | Input | W | 3470 | 3470 | 4160 | 4160 | 4770 | 5000 | 6100 | 6800 | 11100 | 12700 |
| | COP | - | 3,8 | 3,8 | 3,71 | 3,7 | 3,56 | 3,8 | 3,61 | 4,19 | 4,05 | 3,93 |
| **FEATURES** | | | | | | | | | | | | |
| Air flow | | $m^3/h$ | 6000 | 6000 | 6000 | 6000 | 6000 | 6800 | 10999 | 10494 | 16575 | 16575 |
| Sound pressure level | | dB(A) | 54 / 57 | 57 | 54 / 57 | 57 | 57 | 59 | 59 | 60 | 62 | 62 |
| Max. design pressure | | Mpa | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 | 4,4/2,6 |
| Ambient temperature | Cooling | °C | -15~48 | -15~43 | -15~48 | -15~43 | -15~43 | -15~43 | -15~46 | -15~46 | -5~48 | -5~48 |
| | Heating | °C | -15~27 | -15~27 | -15~27 | -15~27 | -15~27 | -15~27 | -15~24 | -15~24 | -15~24 | -15~24 |
| Refrigerant | Type | - | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A |
| | Charge | Kg | 3,3 | 3,3 | 3,3 | 3,9 | 3,9 | 4,5 | 4,8 | 6,2 | 9 | 12 |
| | Additional charge | gr/m | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 110 | 110 |
| **DIMENSIONS & WEIGHT** | | | | | | | | | | | | |
| Net dimensions (WxHxD) | | mm | 900x 1327x320 | 900x 1327x400 | 900x 1327x320 | 900x1327x400 | | | 1120x1558x528 | | 1360x 1650x540 | 1460x 1650x540 |
| Gross dimensions (WxHxD) | | mm | 1030x1456x435 | | | | | | 1270x1720x565 | | 1450x 1785x560 | 1550x 1785x560 |
| Weight net/gross | | Kg | 95/106 | 95/106 | 95/106 | 95/106 | 102/113 | 107/118 | 137/153 | 147/163 | 240/260 | 275/290 |
| **CONNECTIONS** | | | | | | | | | | | | |
| Electrical wiring | Power supply | $mm^2$ | 5 x 4,0 | 5 x 2,5 | 5 x 4,0 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 | 5 x 2,5 |
| | Communication | $mm^2$ | 3 x 0,5 | 3 x 0,75 | 3 x 0,5 | 3 x 0,75 | 3 x 0,75 | 3 x 0,75 | 3 x 0,75 | 3 x 0,75 | 3 x 0,75 | 3 x 0,75 |
| Refrigerant pipe | Liquid side | inch. | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" |
| | Gas side | inch. | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" | 3/4" | 3/4" | 7/8" | 7/8" | 1" |
| Pipe lenght | Vertical | m | 8 | 8 | 8 | 8 | 8 | 8 | 30 | 30 | 30 | 30 |
| | Total | m | 100 | 100 | 100 | 100 | 100 | 100 | 120 | 120 | 120 | 120 |

**NOTES:**

1. The data are based on the following conditions:
   Cooling: Indoor temperature 27°C DB / 19°C WB; Outdoor temperature 35°C DB/24°C WB.
   Heating: Indoor temperature 20°C DB / 15°C WB; Outdoor temperature 7°C DB/6°C WB.
   The length of the interconnection pipe is 7,5 m, with a level difference of 0
   The sound pressure levels Are measured in a semi-anechoic room, Positioned 1m in front of the unit and 1,3 m above the ground.
2. The above data may be changed without notice for future improvements in quality and performance.