

# Air Conditioning

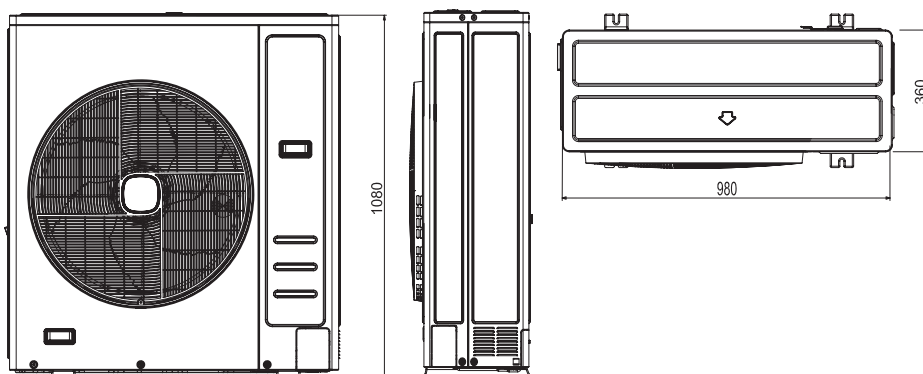
## Multi-Head Ultra 18.1kW



### Features

- VRF (Variable Refrigerant Flow) system for precise temperature control.
- Wide range of installation options: Connect 2 to 11 indoor units.
- Easy to install compact outdoor unit.
- Smart automatic temperature control.
- Wide temperature range to suit Australia's extreme climate zones.
- Sleep mode and quiet modes for a quiet and comfortable evenings.
- Eco mode - saves up to 30% of power consumption.
- Built-in drip tray.
- No welding or brazing needed - refrigerant piping with flared connections.

Designed by Emerald - proudly Australian-owned since 2006 - this Air Conditioning Multi-Head Ultra 18.1kW system features high speed DC dual-rotor technology for efficient and quiet operation, suitable for commercial and residential use. It operates effectively across a voltage range of 198V to 264V and diverse temperatures. Golden Fin technology enhances anti-corrosion properties, extending its lifespan and maintaining performance. It's design allows flexible installation with long refrigerant piping and includes a strong insect guard for cleaner internals.



## Specifications

| Outdoor unit         |                                       |        |                 |
|----------------------|---------------------------------------|--------|-----------------|
| Emerald model        |                                       |        | ACV180U         |
| Power supply         |                                       |        | 220-240V ~ 50Hz |
| Cooling operation    | Nominal capacity                      | kW     | 18.10           |
|                      | Power consumption                     | kW     | 5.14            |
|                      | Rated current                         | A      | 22.3            |
|                      | EER                                   | W/W    | 3.52            |
| Heating operation    | Nominal capacity                      | kW     | 20.40           |
|                      | Power consumption                     | kW     | 4.19            |
|                      | Rated current                         | A      | 18.2            |
|                      | COP                                   | W/W    | 4.87            |
| AEER                 |                                       |        | 3.30            |
| ACOP                 |                                       |        | 4.51            |
| HSPF res cold        |                                       |        | 3.883           |
| TCSPF res cold       |                                       |        | 5.278           |
| Sound pressure level | Normal mode                           | dB(A)  | 75              |
| Outer dimensions     | Height                                | mm     | 1080            |
|                      | Width                                 | mm     | 980             |
|                      | Depth                                 | mm     | 360             |
| Packing dimensions   | Height                                | mm     | 1230            |
|                      | Width                                 | mm     | 1100            |
|                      | Depth                                 | mm     | 505             |
| Net weight           |                                       | kg     | 97              |
| Piping design        | Total piping length                   | m      | 120             |
|                      | Height difference between ODU and IDU | m      | 30              |
| Operation range      | Cooling                               | DB(°C) | -5~55           |
|                      | Heating                               | DB(°C) | -20~23          |

| Indoor unit type                     |       | Wall Mounted Type   |                         |                         |                         |                            |                             |
|--------------------------------------|-------|---|-------------------------|-------------------------|-------------------------|----------------------------|-----------------------------|
| Emerald model                        |       | ACV28W  | ACV36W                  | ACV45W                  | ACV56W                  | ACV71W                     | ACV84W                      |
| Power supply                         |       | AC 1φ,220~240V/50Hz; AC 1φ,220V/60Hz  |                         |                         |                         |                            |                             |
| Nominal cooling capacity             | kW    | 2.8   | 3.6                     | 4.5                     | 5.6                     | 7.1                        | 8.4                         |
| Nominal heating capacity             | kW    | 3.6   | 4.0                     | 5.4                     | 6.7                     | 8.2                        | 8.4                         |
| Rated cooling power consumption      | W     | 30  | 40                      | 30                      | 40                      | 60                         | 80                          |
| Rated heating power consumption      | W     | 30  | 40                      | 40                      | 40                      | 90                         | 80                          |
| Sound pressure level (overall scale) | dB(A) | 36/35/33/32/30/28   | 38/35/33/32/30/28       | 38/37/36/32/31/29       | 40/38/36/35/33/31       | 45/42/41/38/35/31          | 50/48/45/41/36/33           |
| Refrigerant                          |       | R410A (Nitrogen charged in case of corrosion)                                     |                         |                         |                         |                            |                             |
| Dimension (H×W×D)                    | mm    | 270×845×203   |                         | 315×960×230             | 315×1120×230            |                            |                             |
| Net weight                           | kg    | 9.5   |                         | 13                      | 14.5                    |                            |                             |
| Gross weight                         | kg    | 13  |                         | 17.5                    | 19                      |                            |                             |
| Indoor fan air flow rate             | m³/h  | 590/550/520/490/450/420   | 620/550/520/490/450/420 | 690/660/620/540/520/480 | 970/900/850/800/730/690 | 1200/1080/1020/900/800/700 | 1400/1320/1200/1020/852/732 |
| Piping connection                    |       | Flare-nut connection (with flare nuts)  |                         |                         |                         |                            |                             |
| Liquid line                          | mm    | Ø6.35mm   |                         | Ø6.35m                  | Ø9.53mm                 |                            |                             |
| Gas line                             | mm    | Ø9.53mm   |                         | Ø12.7mm                 | Ø15.88mm                |                            |                             |
| Condensate drain                     |       | VP16  |                         |                         |                         |                            |                             |
| Packing dimension (H×W×D)            | mm    | 375×943×310   |                         | 430×1058×328            | 430×1223×328            |                            |                             |
| Packing volume                       | m³    | 0.11  |                         | 0.15                    | 0.17                    |                            |                             |
| Standard accessories                 |       | Wall mounting bracket and adaptors (compatible with Emerald 6-head branch header) |                         |                         |                         |                            |                             |

- Cooling operation conditions: Indoor air inlet temperature: 27°C DB/19.0°C WB, outdoor air inlet temperature: 35°C DB  
Heating operation conditions: Indoor air inlet temperature: 20°C DB, outdoor air inlet temperature: 27°C DB/19.0°C WB  
Piping length: 7.5 meters. Piping lift: 0 meter
- The above air flow rate and noise level are tested with AC 220V power supply and without filter.