



**47 Hedges Avenue,  
Mermaid Beach, QLD**

**Project Address**

47 Hedges Avenue, Mermaid Beach, QLD

**Builder**

Lindsay Sinclair

**Installer**

Bradshaw  
Airconditioning

**Equipment**

Braemar VRF - Various Indoor, Outdoor and Control Units

**Luxury coastal living with durable high performance comfort with Braemar VRF Solution**

**Project Overview**

Located on the prestigious beachfront strip of Hedges Avenue in Mermaid Beach, Queensland, this project involved the design and installation of a high-performance HVAC system for an architecturally designed, upmarket coastal residence. The home spans three levels on a long, narrow block, typical of high-value beachfront properties, requiring a system that could deliver both exceptional comfort and aesthetic integration.

The residence's premium design and coastal exposure demanded a solution that balanced efficiency, reliability, and visual discretion while accommodating complex installation constraints.

The project required a premium VRF solution capable of meeting several key criteria

**1. Aesthetic Integration**

The home's interior design demanded minimal visual impact. Indoor units needed to be compact, quiet, and easily concealed, particularly important given the limited ceiling space and the need to install units within wardrobes and tight bulkhead areas.

**2. Centralised, User-Friendly Control**

The homeowner required a centrally controlled system but with multiple control points were needed throughout the large residence to ensure intuitive operation and zoning flexibility.

**3. High Efficiency & Performance**

Given the size and layout of the home, the system needed to deliver consistent comfort across multiple levels while maintaining high energy efficiency.

**4. Coastal Durability**

Beachfront locations expose HVAC equipment to salt, moisture, and corrosive airborne contaminants. Standard outdoor units typically experience accelerated deterioration in such environments, often leading to premature failure.

**5. Long Piping Capability**

The elongated site and three-story design required extended refrigerant piping runs, distances beyond the capability of standard multi-split systems. A VRF solution was essential to meet these engineering demands.

**CUSTOMER PROFILE**

A design-driven, high-end coastal residence required a quiet, efficient, and centrally controlled air-conditioning system. The project demanded a discreet and reliable solution that could meet strict aesthetic expectations while overcoming complex installation constraints and enduring constant exposure to salt and moisture.

**INDUSTRY**

- Coastal Luxury Residence
- Townhouse

**APPLICATION**

- Stand-alone Cooling & Heating
- Controlled Comfort Levels
- Centralised Zone Control

## Project Challenges

### Coastal Corrosion Risk

The proximity to the ocean posed a significant risk of coil corrosion. Without enhanced protection, outdoor units would likely suffer reduced efficiency and shortened lifespan.

### Restricted Ceiling Space

Limited ceiling voids meant traditional ducted units were not feasible. Compact bulkhead units were required to fit within wardrobes and tight architectural spaces.

### Complex Layout & Long Pipe Runs

The home's long, narrow footprint and vertical height required a system capable of supporting extended piping lengths while maintaining performance and refrigerant balance.



## Key Features of the Proposed System

**Black Fin Coil Protection:** The outdoor units were equipped with Black Fin coil protection, a specialised anti-corrosion coating designed for marine environments. This feature significantly increases resistance to salt and moisture, extending equipment life and reducing maintenance costs. This was a decisive factor for the builder and installer, providing confidence in long-term performance.

**Compact Low-Static Bulkhead Indoor Units:** Twelve low-static VRF bulkhead units (MDHXDBC) were selected for their compact size, quiet operation, and ability to be concealed within wardrobes and cabinetry, ideal for premium residential applications.

**Smart Control Integration:** The use of twelve ME31-33/EH1(M) gateway interfaces enabled seamless integration with multiple AirTouch 5 controllers throughout the home. This provided a centralised, intuitive control platform suitable for a large, multi-zone residence.



## Equipment Supplied

### Outdoor Units:

- 2 × MCHX280D316B (total 56 kW capacity)

### Indoor Units:

- 12 × MDHXDBC Low Static VRF Bulkhead Units

### Controls:

- 12 × ME31-33/EH1(M) Gateway Interfaces
- 12 × XE70 Wall Controllers

This configuration ensured optimal zoning, efficient load distribution, and reliable performance across all levels of the home.



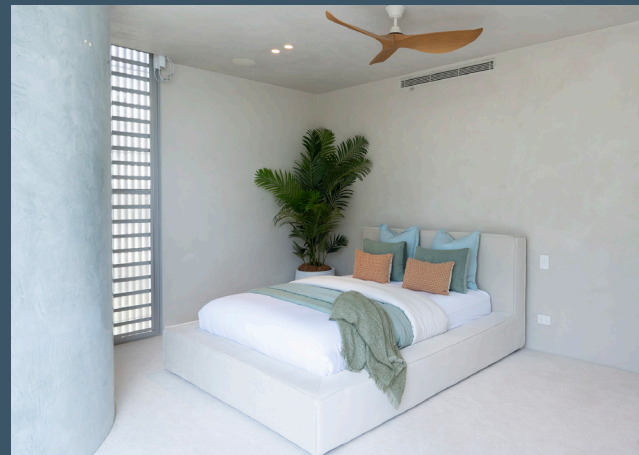
## Outcome

**Seamless Centralised Control:** The ME31 gateway interfaces allowed the installer to integrate multiple AirTouch 5 controllers, giving the homeowner a sophisticated central control system. This was particularly beneficial for a large, multi-level residence where ease of use and zoning flexibility are essential.

**Accommodation of Long Pipe Runs:** The VRF system's extended piping capabilities enabled the installer to navigate the long, narrow site and three-story layout without compromising performance, a criteria which many standard multi-split systems struggle don't offer.

**Enhanced Durability in Coastal Conditions:** The Black Fin coil protection significantly improved corrosion resistance, ensuring the outdoor units are better equipped to withstand the harsh beachfront environment. This feature will help prolong system life and reduce long-term maintenance costs.

**Aesthetic and Acoustic Comfort:** The compact bulkhead indoor units allowed for discreet installation within wardrobes and cabinetry, maintaining the home's premium aesthetic while delivering quiet, efficient comfort.



We provide full technical support to ensure optimal design for each application.