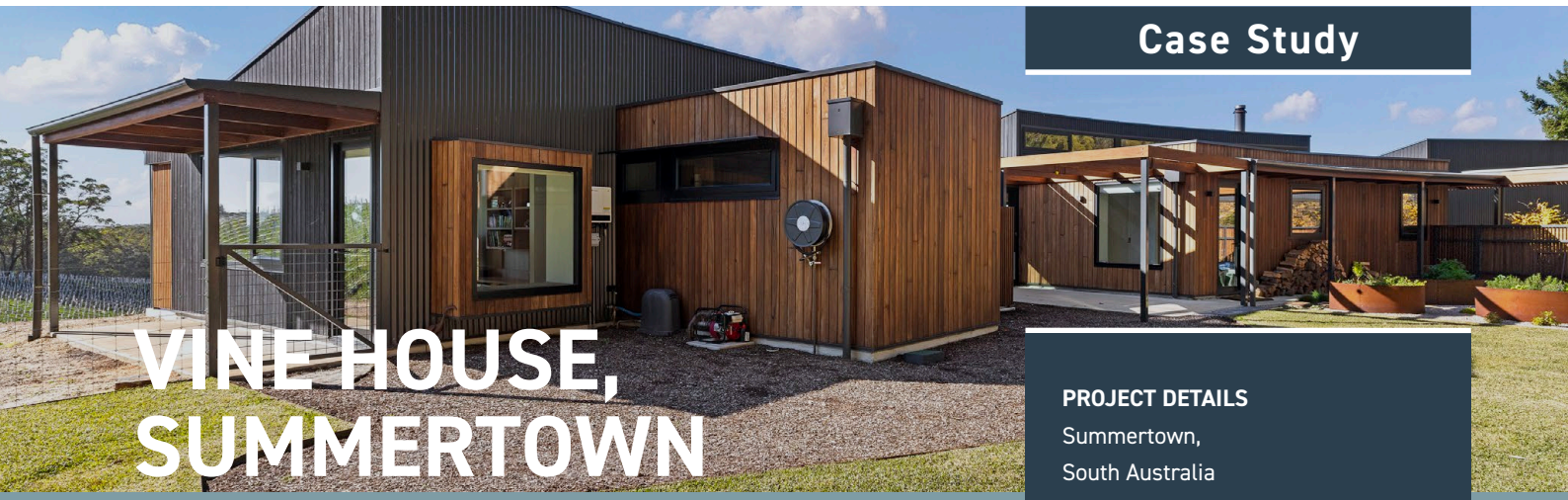
MITSUBISHI HEAVY INDUSTRIES

AIR CONDITIONING

COMMERCIAL



Case Study

VINE HOUSE, SUMMERTOWN

PROJECT DESCRIPTION

Located in the scenic Adelaide Hills, Vine House is an architecturally designed home that places sustainability and modern design at its core.

Designed by Mountford Williamson Architecture, built by Smith Builders Strathalbyn and sitting over it's own vineyard, the residence features a curved, single-storey layout spanning 300 sqm and incorporates raked and skillion ceilings that maximise natural light and thermal performance.

The design presented a unique set of challenges for mechanical services, particularly the integration of climate control systems without compromising the home's aesthetic and ecological integrity.

PROJECT DETAILS
Summertown,
South Australia

COMPLETION DATE
November 2024

CONTRACTOR
Strathalbyn Electrical &
Air Conditioning

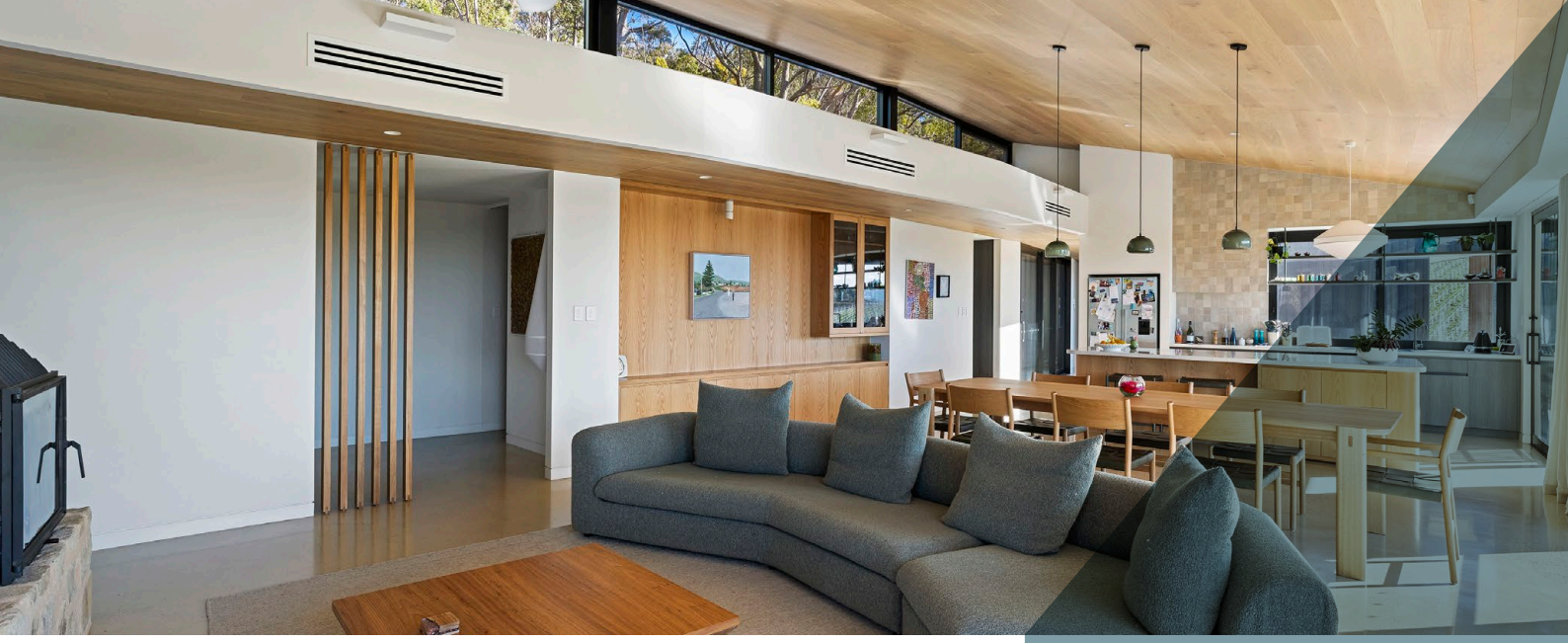
BUILDER
Smith Builders Strathalbyn

ARCHITECT
Mountford Williamson Architecture

INDOOR UNITS INSTALLED
3 x FDU**KX Ducted Systems

OUTDOOR UNITS INSTALLED
1 x FDC**KXZE2 VRF Condenser

MHIAA REPRESENTATIVE
Raymond Weir – 0472 810 392

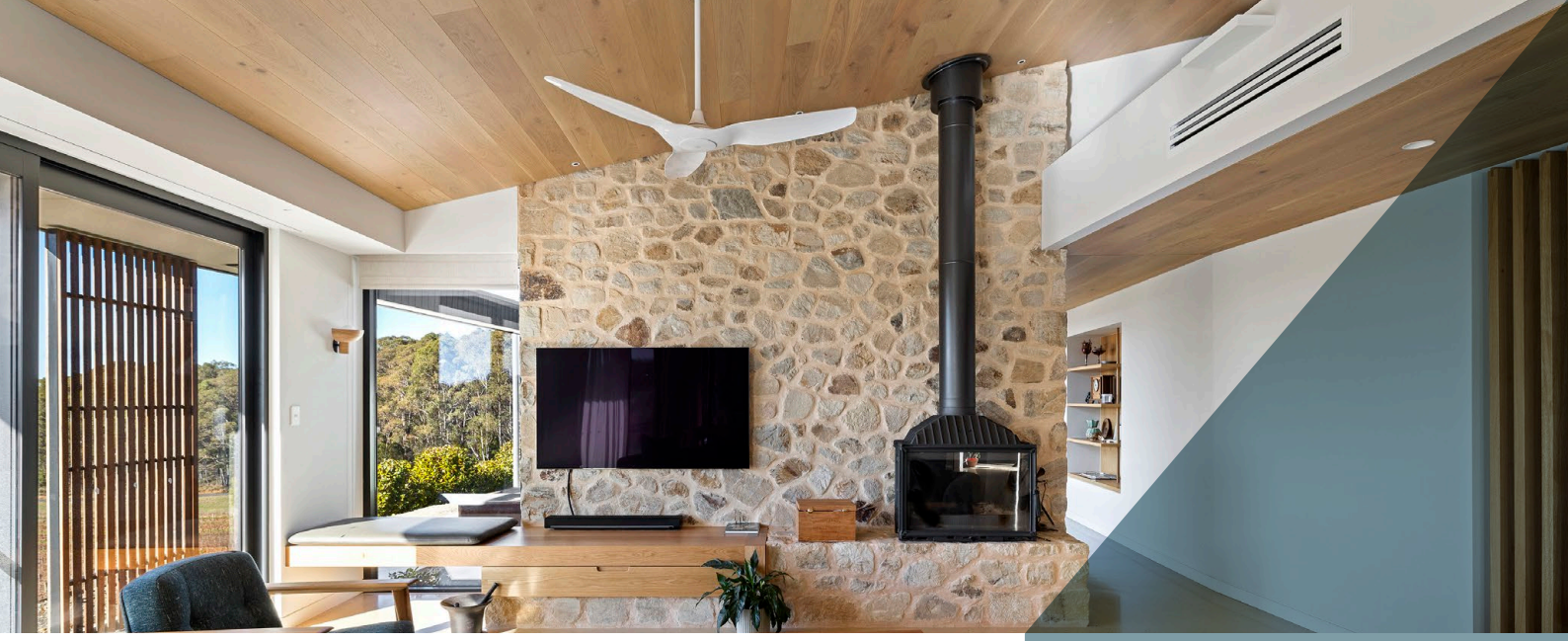


PROJECT REQUIREMENTS & CHALLENGES

The home required an energy-efficient, discreet heating and cooling solution capable of servicing six separate zones, including the kitchen, living area, three bedrooms, a retreat, and a formal lounge.

Due to the home' s architectural ceiling design, traditional ducted installations were not feasible in much of the living areas. Instead, a system was needed that could accommodate tight roof spaces, raked ceilings, and the use of side-wall registers and long linear grille which require greater airflow and static pressure than conventional outlets.

Additionally, the large open-plan kitchen, dining, and living space with sloped ceilings needed a system that could deliver sufficient airflow from side-mounted grilles without sacrificing efficiency or comfort. The solution also had to be quiet, easy to control, and blend into the home's minimalist aesthetic.



MHIAA'S SOLUTION

Following detailed consultation with Strathalbyn Electrical & Air Conditioning, a refined mix of ducted indoor systems and smart controllers was selected to meet the project's architectural demands and environmental goals.

To accommodate the home's complex raked and skillion ceilings, FDU series high-static ducted indoor units were installed. These units were ideal for overcoming the challenging roof void limitations, as they deliver powerful airflow through long duct runs and linear grilles while remaining quiet and unobtrusive - essential for preserving the clean, minimalist interior aesthetic. In particular, the use of long, slimline linear grilles allowed for even air distribution throughout each zone while seamlessly integrating with the home's premium finishes.

All indoor units were connected to a single high-capacity KXZE2 VRF outdoor unit, which provided consistent and energy-efficient operation across the home. This centralised unit offered the performance needed to manage the six-zoned layout of the home, while maintaining flexibility and control.

The climate control system was completed with a suite of RC-EXZ3A wall-mounted controllers paired with MH-RC-WIFI-1B Wi-Fi adaptors, giving the homeowners both intuitive local control and the convenience of remote access through smart devices connected to their home network.

This carefully engineered solution not only delivered zoned comfort tailored to each space, but also aligned with the home's architectural vision - ensuring sustainability, performance, and visual harmony throughout the residence.

THE
EXPERTS
IN AIR

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Mitsubishi Heavy Industries Air-conditioners Australia, Pty. Ltd.