

HYBRID CITY MULTI selected for a Metropolitan Fire Brigade station in Melbourne's west eliminates need for refrigerant leak detection equipment.



Project Info

Application

Laverton Fire Station

Location

Laverton, VIC

The Challenge

A requirement for the new building was to have the most up-to-date air conditioning system that would serve and provide comfort to all areas while maintaining efficiency and providing flexibility. The system was also required to be networked to enable monitoring of air conditioning by a centralized controller integrated to a building management system (BMS), and to satisfy building standards.

The design would need to meet the refrigerant volume concentration requirements as set out in AS/NZS 5149 for the room areas.

The Solution

The project combined Mitsubishi Electric HYBRID CITY MULTI and standard CITY MULTI VRF systems. Both systems integrated seamlessly with the BMS and controls systems.

The Team

Client

Metropolitan Fire Brigade

HVAC Contractor

Auscool Airconditioning & Mechanical Services Pty Ltd

As the overnight accommodation rooms are small, they would be subject to AS/NZS 5149 for refrigerant volume concentration. To eliminate the need for refrigerant leak detection equipment and ongoing monitoring, the HYBRID CITY MULTI system was chosen for the accommodation rooms.

The system uses refrigerant only between the outdoor unit and the Hydro BC Controller (HBC), and water between the HBC Controller and the indoor units.

Both the HYBRID CITY MULTI and standard CITY MULTI VRF systems in the project provide simultaneous heating and cooling and uses heat recovery between the heating and cooling units to increase system efficiency by reducing the input energy of the system.

Commissioned: 2019

UNIT INFORMATION



Outdoor Units

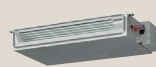
PURY-P550YSLM-A x1
PURY-P450YSLM-A x1
PURY-P300YLM-A x5
PURY-P250YLM-A x40
PURY-P200YLM-A x10

PUHZ-RP200YKA2R1-A x 1
PUHY-P200YKB-A x 2

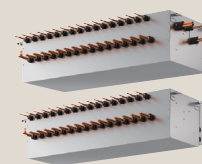


Indoor Units

PEFY-P80VMA-E.TH x6
PEFY-P71VMA-E.TH x41
PEFY-P63VMS1-E x12
PEFY-P63VMA-E.TH x34
PEFY-P50VMA-E.TH x22



PEFY-P40VMS1-E x18
PEFY-P40VMA-E.TH x37
PEFY-P140VMA-E.TH x1
PEFY-P125VMA-E.TH x4
PEFY-P100VMA-E.TH x56
PEA-RP200WJA x1



BNC

CMB-P105V-G1 x9
CMB-P104V-G1 x42
CMB-P1010V-GA1 x2



Controllers

AE-200E x2
PAR-32MAA-J x219
PAC-YG60MCA x3