Oasis Superchill Heat Pumps

New Features 2021

R-32 the next generation **refrigerant** that efficiently carries heat and has lower environmental impact.

The benefits of R32;

- Has a low Global Warming Potential (675)
- Has zero ozone depleting potential (ODP)
- Offers higher efficiency and longer pipe runs on split systems
- Requires less refrigerant volume per Kw
- Is affordable and readily available in the market

New Oasis 150 controller

- Modbus compatible
- Easily operated
- features Excellent
- screen readouts
- Can be fitted to chiller with waterproof cover or loose for remote fitting

New heat exchangers

- Injection moulded strong black Glass reinforced nylon cases
- Grade 1 enhanced surface titanium coils
- Easily opened for cleaning or internal inspection

Other Features

- Vertical condenser fan air discharge.
- Inverter variable speed controlled compressor which uses less energy than alternative types of compressor.
- Accurate EEV refrigerant controlled
- Condenser variable fan speed controlled tested to 52c ambient
- PLC board algorithm programmed to run and control system safely within manufactures equipmentenvelopes
- Heat exchange fin coils use inner grooved (rifled) tube for better heat transfer.
- The system also includes a temperature sensing head pressure control which enables the system to compensate for outdoor ambient temperatures below 20°C on cooling cycle.
- Fin coil fins are epoxy coated for extra protection in corrosive environments, e.g. salt laden sea air. Each outdoor unit's cabinet is constructed from high grade galvanised steel - polyester powder coated (grey) forall weather protection (IP 44). External fasteners are SKT® coated steel. Heat exchange coils comprise aluminium corrugated plate fins on mechanically expanded rifled copper tube.
- Each high efficiency variable capacity inverter compressor is hermetically sealed, quiet running and supported on rubber mounts to minimise vibration. Inverter compressors provide the economy of part loadperformance.
- EC motors and inverter compressors are soft starting therefore have none of the problems associated withhigh in rush current.
- The systems' UC8 controller is BMS compatible with multi-unit control possible – either via digital andanalogue signals or via Modbus.

Safety Features

- HP and loss of refrigerant protection.
- Anti-rapid cycle timer and internal overload for
- Compressor protection.
- Circuit breaker control circuits.
- Time-and-temperature controlled electronic de-ice switch prevents icing up of the outdoor coil duringheating cycle.
- Frost protection on cooling cycle.
- Sensor fault indication.
- Compressor minimum run time to ensure oil return.

- The Outdoor Unit Controller (UC8) has a LED display to indicate faults and running conditions.
- A non-specific fault indicator is included for interface to external systems via the optional relay board.

Wiring

The electrical supply required (including voltage fluctuation limits) is:

3 phase 380–415 V a.c. 50 Hz with neutral and earth.

1 phase 240v a.c. 50hz

A control panel, located in each outdoor unit, is fully wired ready to accept the main power supply.

Each system complies with the requirements of the Regulatory Compliance Mark (RCM) for electrical safety (AS/NZS 60335.2.40) and EMC (AS/NZS CISPR.14).

Provision has been made for compliance with DRED, ie demand response enabling device standard AS/NZS 4755.3.1.

A water flow of 300L/m is required for optimum performance for each water chiller.