



# FEATURES

## Casing

- ❖ Casing is constructed from heavy gauge galvanized steel.
- ❖ Epoxy painted finishing, offers excellent corrosion resistance for outdoor applications, which with stand up to 1000 hours salt spray test in accordance to ASTM B-117.
- ❖ Wide ample access doors are provided for easy service and maintenance of unit internal parts.

## FULLY LEAK TESTED REFRIGERANT CIRCUIT

- ❖ Pressure ports are provided on the discharge, liquid and suction line.
- ❖ Evacuated, dehydrated and pressurized with dry nitrogen for storage and shipping purpose.

## EVAPORATOR SECTION

The DX Air Handling Units from ODYNE, have an air volume range from 1000 to 56,000 cfm (1700 to 95,000 m<sup>3</sup>/hr), depends on the series. The product features an extruded aluminum frame profile that provides a high level of unit design and application flexibility necessary to meet the rising demands for improved Indoor Air Quality. The unit is constructed using rigid nylon corners and double skin polyurethane foam insulated panels. Internal joints are insulated with rigid PVC strip and PE foam to provide air-tight casing and minimize cold bridging.



The DX Air Handling Units range is available in several models in horizontal and vertical formats with a wide range of options and accessories that can be selected from the ODYNE Selection Program. Air Handling Units can be configured to meet the requirements of all standard and many specialised applications.

## Meeting IAQ Design Requirement

Double Skin "Sandwich" panel construction has smooth inner surfaces for easy and effective cleaning to reduce risk of dirt and bacteria accumulation. The sandwich panels are injected with Polyurethane

Foam of 40kg/m<sup>3</sup> density. Panel of nominal 25mm and 45mm for DKR3 & KR3, 50mm for AP.TDT3 thickness. The external surface of all panels with 0.5mm high strength pre-painted and 0.5mm galvanized steel (GI) as internal skin.

## Casing Mechanical Characteristics

Version	DKR3 / KR3	AP.TDT3
Insulation Material	Polyurethane Foam	Polyurethane Foam
Panel Thickness	25 / 45mm	50mm
Casing Strength	-	D1
Casing Air Leakage	L2 / L3	L1
Thermal Transmittance	T3	T2
Thermal Bridging Factor	TB3	TB2

## Your Choice of Filtration

Various options of filter type, filter media and filter efficiency are available to meet the different air quality requirement.



## Your Choice of Coils

DX cooling coils are manufactured from copper tubes with aluminum fins, copper fins, hydrophilic coated fins or other custom made coils. Heating can be hot water coil or electric heaters.

Three-way pitch drain pan design is charges condensate quickly and prevents microbial growth. Condensate pans of 304 stainless steel material are also available as an option.



# FEATURES

## Your Choice of Blower

Forward, Backward Inclined and Backward Airfoils  
Centrifugal fans which are AMCA certified are



Forward Curved Fan



Airfoil Fan



Direct Driven  
DIDW Fan



Direct Driven Plenum Fan

available. You can select class I, II or III fans to meet your required air flow, static pressure, performance and sound power. Blower shall be coupled with pulley and motors. Certified in accordance with AHRI standard 430 for Fan Performance (except plenum fan)

## OPTIONAL

A wide choice of accessory sections – diffuser sections, mixing box sections, face and bypass damper sections, humidifier sections, reheating sections and heat recovery sections are available to meet the required air conditions application needs. For outdoor installation, applications in corrosive or hazardous atmosphere, other material options are available. Special motor voltages and dual speed motors can be supplied. Frequency inverter drive for Variable Air Volume applications is also offered as an option.

# COMPUTER SELECTION SOFTWARE

## COMPUTER SELECTION

There is a powerful selection software program available to optimize the best arrangement and performance of any air handling unit for a specific job requirement with its computer selection programs. Standard components can be selected and be placed according to customer requirement. ODYNE software gives immediate feedback if there is no suitable choice for the units. The program provides us with fan curves data, coil performance data, dimension and shipment weight.



# COMPONENTS

## Condenser Fan

- High Efficiency & Low Noise
- TEFC Motor with IP55 Rating
- Corrosion Resistant Blade
- Fan Guard Protection

## Condenser Coil

- Inner Groove Copper Tubes
- Aluminum Fins

## Compressor

- High Efficiency Scroll
- CE & UL International Standards
- Low Noise and Vibration

## Control Panel

- Weather Resistance
- Electromechanical Controller

## Casing

- Acoustic Insulation (Fiberglass)
- Weather/Corrosion Resistance (With stand up to 1000 hours salt spray test)

# FEATURES

## GENERAL

- 29 models from 65 to 1754 MBH [20 to 514 kW].
- Multiple compressors units provide redundancy and part load operation by cycling off compressor operation to match building load.
- No total shut down when servicing compressor for units with dual refrigerant systems design.
- Unit design to allowed continuous operation up to 125 °F [52 °C].

## COMPRESSOR(S)

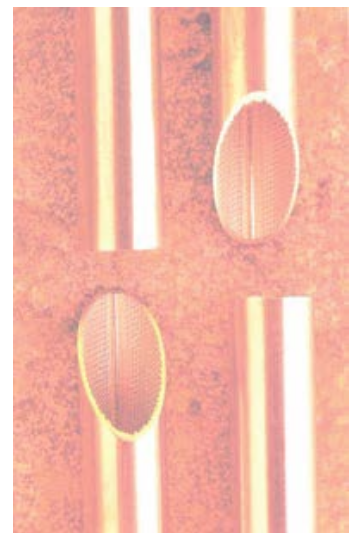
- Most reliable hermetic compact scroll
- No contact scroll design that minimizes friction, increases volumetric efficiency and reduces vibration, thus longer service life.
- Suction gas cooled motor.
- Compact and light with minimum wear and tear.
- Uniqu eability to handle liquid refrigerant.
- Built-in thermal protectors to prevent motor overheating, loss of phase and low refrigerant or oil charge.
- High EER.
- No crankcase heater required at common operating conditions



## CONDENSER SECTION

### Efficient Condenser Coil

- Condenser coils are manufactured of staggered row of 3/8"OD inner groove seamless cooper tube.
- 25 to 30% more surface areas which guarantee better heat transfer.
- Mechanically expanded into die-formed corrugated bonded to aluminum fins.
- Integral sub-cooling circuit to maximize efficiency.
- Factory leak and pressure tested at 650 psig [45bar] for R410A refrigerant.



### Condenser Fans

- IP55 enclosure.
- Motor with Class "F" In sulation permits higher operating ambient temperature conditions.
- Low motor speed at 950 rpm @ 50Hz delivers quiet condenser fan operation and superior sound level.