ECOAIRE

R410A
ZERO OZONE DEPLETION POTENTIAL

# LARGE DUCTED SPLIT

# Large Ducted Split

## 1. Introduction

**a. ECO AIRE PTY (Ltd)**
ECO AIRE is an HVAC supplier of reverse cycle split air conditioners. The company has been supplying units to the commercial and industrial markets for over 15 years. ECO AIRE's mission is to provide the most competitively priced, reliable and efficient air conditioning equipment available on the market.

**b. ECO AIRE's LARGE DUCTED SPLIT SERIES**
Our units are single Split units which are factory assembled, tested and shipped complete with compressor, evaporator and condenser coils, fans and controls. They may be used for cooling only or heat pump applications. The units are ideal for residential, commercial and industrial applications and are available in nominal cooling capacity from 25 to 88 kW. Quality design and construction (with easy installation and maintenance) make ECO AIRE Air-cooled Split Units (with hermetic scroll compressors) the preferred option for applications.

**c. ECO AIRE Large Ducted Split Units: Applications**
The Split systems are unobtrusive, quiet and designed to provide year round comfort – warming in winter and cooling in summer. ECO AIRE's wide pro-duct range offers a unit to suit small to large split air conditioner applications, e.g. offices, shops, hotels, fast food outlets, restaurants, petrol stations, open plan office and work spaces, supermarkets, shopping malls and auditoriums. Units are suited to high static pressure applications where large volume spaces are to be air conditioned. Long duct runs are possible enabling greater installation flexibility. This range of units has been developed to meet the needs of typical applications.

**Should you have special requirements, such as higher air flows or greater sensible duty units, please contact your nearest ECO AIRE representative. ECO AIRE engineers have extensive experience in designing air conditioning equipment for specific applications.**

## 2. Typical Installation

## 3. Descriptions

**a. Casing**
ECO AIRE's LARGE DUCTED SPLIT package units come in 2 main casing designs for the evaporator section:

i) Single skin high grade sheet steel casing with a 25mm closed cell fan insulation.
The compressor section is a high grade sheet steel casing and frame with a weather proof electrostatic, polyester epoxy powder paint oven baked external finishing, designed for outdoor installation..
ii) 25 - 25mm Double skin with polyurethane foam injected panel insulation.

**b. Evaporator and Condenser Coils**
The evaporator and condenser coils are designed to deliver their respective duties at optimum performance at all design conditions. Coils are manufactured from seamless copper tubes mechanically expanded into aluminium fins. All coils are tested (under water to avoid leakage) at 30kg/cm$^2$ (450 Psi) air pressure. They also undergo cleaning after manufacturing for optimum system cleanness.

**c. Filters**
All models are provided with 50mm thick primary filters (as standard features).

**d. Drain Pan**
The drain pan is stainless steel and insulated on the underside to prevent condensation. All units are provided with a drain pan having the drain connection from one side only.

**e. Compressor**
ECO AIRE uses R-410A refrigerant gas-cooled scroll compressors with internal thermal protection. Soft start is standard with high efficiency, low sound, in order to match all other ECO AIRE products' reliability and efficiency.

**f. Direct Driven Condenser Axial Fans**
All condenser fan blades are of the axial type, which are directly mounted on the motor shaft. All fans are selected for optimum efficiency and for maximum sound power reduction. Fan blades are made for maximum corrosion resistance, and are statically and dynamically balanced before installation. All condenser fans are equipped with wire guards . All fan motors are air-cooled with internal thermalprotection, with class "IP56" electrical insulation.

**g. Belt Driven Evaporator Fan**
Fans are of the centrifugal DWDI FCC type that is designed for maximum efficiency for uniform air distribution. Fans are V-belt driven with a fixed pitch pulley. All fans are statically and dynamically balanced to ensure quiet operation and smooth performance with a flexible connection at the fan/casing interface **(DWDI BCC fans are available as optional for extra high static applications)**.

**h. Evaporator Fan Motors**
Motors are induction type, with fan motor assembly placed on a floating base.

## 4. Standard Features

a. Heat pump Split unit with 4-way reverse valve, suction accumulator, oil seperator (for Inverter only), liquid receiver are standard features in heat pump option.

b. Easily accessible system components.

c. Ample space for easy access to power and control panels.

d. Heavy duty mounting chassis for the whole unit with lifting holes.

e. Anti-vibration mounted compressor.

f. Weather-proof, polyester epoxy powder electrostatic paint oven-baked finish for sheet metal and base frame. Aluminium mesh on condenser section.

g. All units are shipped from the factory, tested and the protecting devices are set.

h. 50mm primary filter as standard for returning air inlet.

i. Quick release fasteners are provided on electrical and compressor apartment cabinet.

## 5. Electrical Features

a. Control and power panels include the direct-on-line starting contactors for the compressors and condenser fan motor.

b. Internal thermal motor protector for condenser fan motors

c. Compressor internal thermal protection and discharge temperature.

d. Anti-recycling protection (time delay) for compressors through microprocessor.

e. Compressor motor protector

f. Microprocessor controller with the following main functions:

   i) External remote ON/OFF button for remote operation of the unit using external ON/OFF switch or connection to building management system.

g. High and low pressure transducers as well as safety switches (capsule type, factory pre-set) for all models.

h. Voltage monitor controller (phase sequence relay) for monitoring the main incoming power supply for the unit which provides protection from single-phasing, under-voltage, phase-voltage imbalance and phase-non-sequence of the supply power.

i. Low ambient control (Optional):
The refrigeration systems in all units are inherently designed to operate efficiently, without extra controls or modifications. To permit the unit to operate in low ambient conditions an inverter fan speed head pressure control come standard

## 6. Refrigeration Features

a. High efficient hermetic scroll compressor

b. Filter drier

c. Charging points pin valve

d. Expansion valve

e. Suction Accumulator

f. Liquid receiver

## 7. Optional Features

### 7.1 CONSTRUCTION OPTIONS

a. Evaporator with treated anti-corrosion protection for coils (blue fins) for copper/aluminium coils only.

b. High static condenser fan option.

c. Upgraded evaporator fan motor drives.

### 7.2 ELECTRICAL OPTIONS

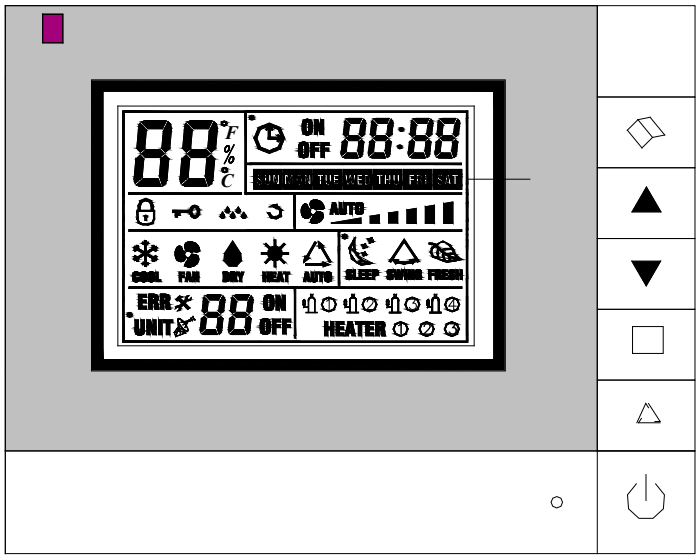
a. Building automation system interface. Interfacing with other building management systems.

b. Dual power supply input.

c. Remote control panel.

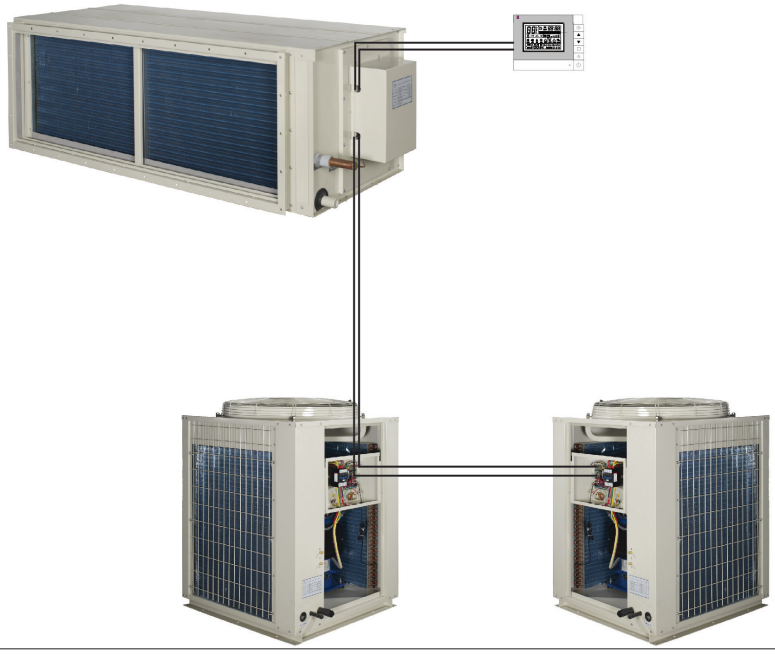
# FOR ALL YOUR
# COMMERCIAL APPLICATIONS:

> Shopping Centers > Restaurants > Warehouses




## SINGLE CONDENSING UNIT SYSTEM

## TWIN CONDENSING UNIT SYSTEM



R410A
ZERO OZONE DEPLETION POTENTIAL

# SPECIFICATIONS

ECOAIRE

## LARGE DUCTED SPLIT R410A
## SINGLE CONDENSING UNITS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Evaporator Data | Evaporator Model No. | | | **LDE20** | **LDE25** | **LDE30** | **LDE35** | **LDE44** |
| | Total Cooling Capacity | | kW | 18.9 | 25.7 | 29.5 | 32.6 | 44.7 |
| | | | Btu/h | 64487 | 87688 | 100654 | 111231 | 152516 |
| | Sensible Cooling Capacity | | kW | 14.9 | 19.7 | 23.3 | 27.2 | 34.8 |
| | | | Btu/h | 50839 | 67216 | 79500 | 93024 | 118738 |
| | Total Heating Capacity | | kW | 20.3 | 28.1 | 31.4 | 34.1 | 47.2 |
| | | | Btu/h | 69264 | 95877 | 107137 | 116349 | 161046 |
| | Fan Type | | | **3 Speed Direct Drive** | | | | **Belt Drive Motor** |
| | Fan Model No. | | | KDF 2.2B / 250 | KDF2.25RD | KDF2.5IIRD | KDF2.5IIIRD | SYT12-9L2 |
| | Power Supply | | | **220 V / 1 PH / 50 Hz** | | | | **380 V / 3 PH / 50 Hz** |
| | Fan Motor Model No. | | | YSK-550w-4P | YSK-370w-4P | YSK-550w-4P | YSK-550w-4P | Y100L1-4 (2.2kW-4) |
| | Fan Motor Quantity | | | 1 | 2 | 2 | 2 | 1 |
| | Fan Motor Starting Current | | A | 18 | 12 | 18 | 18 | 21.4 |
| | Fan Motor Running Current | | A | 4.5 | 3 | 4.5 | 4.5 | 4.3 |
| | Fan Motor Output Power / Pole | | kW / Pole | 0.55kW-4P | 0.75kW-4P x 2 | 1.1kW-4P x 2 | 1.1kW-4P x 2 | 2.2kW-4P |
| | Airflow | | l/s | 1111 | 1305 | 1600 | 2000 | 2300 |
| | External Static Pressure | | Pa | 150 | 200 | 200 | 250 | 250 |
| | Drain Connection | | inch | **3/4"** | | | | |
| | Unit Dimension | H x W x D | mm | 400 x 1600 x 670 | 485 x 1650 x 720 | 485 x 1900 x 720 | 485 x 2100 x 720 | 720 x 1700 x 1050 |
| | Supply Air Dimension | H x W | mm | 200 x 950 | 221 x 882 | 262 x 1000 | 262 x 1000 | 341 x 862 |
| | Return Air Dimension | H x W | mm | 320 x 1350 | 373.1 x 1450 | 373.1 x 1700 | 373.1 x 1900 | 588.1 x 1500 |
| | Nett Weight | | kg | 90 | 160 | 180 | 200 | 210 |
| Condenser Data | Condenser Model No. | | | **LDC20** | **LDC25** | **LDC30** | **LDC35** | **LDC44** |
| | Quantity | | | 1 | 1 | 1 | 1 | 1 |
| | Power Supply | | | **380 V / 3 PH / 50 Hz** | | | | |
| | Pipe Size | | Liquid - inch | 1/2" | 5/8" | 7/8" | 7/8" | 7/8" |
| | | | Gas - inch | 3/4" | 7/8" | 1 1/8" | 1 1/8" | 1 1/8" |
| | Refrigerant Charge | | kg | 4.8 | 7.2 | 9.8 | 9.8 | 14.5 |
| | Refrigerant Control Type | | | **Capillary** | **Expansion Valve** | | | |
| | Fan Type | | | **Axial - Direct Drive** | | | | |
| | Fan Model No. | | | Ø450 | ODS610D-175B4.6D.V-01 | ODS660D-165B4.6D.V-01 | ODS660D-165B4.6D.V-01 | TFE760J-105B7.6D.V-01 |
| | Fan Quantity | | | 2 | 1 | 1 | 1 | 1 |
| | Fan Diameter | | | 2 x Ø450 | Ø610 | Ø660 | Ø660 | Ø760 |
| | Fan Motor Model No. | | | KDHK-0.060kW | YFK80X-6-0.37kW | YFK80X-6-0.55kW | YFK80X-6-0.55kW | YFK112X-6-1.8kW |
| | Fan Motor Quantity | | | 2 | 1 | 1 | 1 | 1 |
| | Fan Motor Starting Current | | A | 2.1 | 8.4 | 11.9 | 11.9 | 31.5 |
| | Fan Motor Running Current | | A | 0.3 | 1.2 | 1.7 | 1.7 | 4.5 |
| | Fan Motor Output Power | | kW | 0.060 x 2 | 0.37 | 0.55 | 0.55 | 1.8 |
| | Compressor Type | | | **Scroll Compressor** | | | | |
| | Compressor Make | | | SANYO | SANYO | SANYO | SANYO | COPELAND |
| | Compressor Model No. | | | C-SBN523H8D | C-SCP315H38A | C-SCP360H38A | C-SCP400H38A | VP182KSE-TFP |
| | Compressor Starting Current | | A | 63 | 96 | 96 | 96 | 174 |
| | Compressor Running Current | | A | 11.6 | 14.9 | 16.9 | 18.3 | 25.7 |
| | Compressor Output Power | | kW | 6.75 | 8.6 | 9.9 | 10.9 | 13.3 |
| | Unit Dimension | H x W x D | mm | 1230 x 950 x 340 | 1070 x 770 x 770 | 1144 x 870 x 870 | 1144 x 870 x 870 | 1180 x 900 x 900 |
| | Nett Weight | | kg | 122 | 210 | 270 | 270 | 320 |

E&OE

# SPECIFICATIONS

## LARGE DUCTED SPLIT R410A
## TWIN CONDENSING UNITS

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Evaporator Data | Evaporator Model No. | | | LDE502 | | LDE602 | | LDE702 | | LDE882 |
| | Total Cooling Capacity | | kW | 51.8 | | 59.5 | | 65 | | 87.7 |
| | | | Btu/h | 176742 | | 203014 | | 221780 | | 299232 |
| | Sensible Cooling Capacity | | kW | 40.4 | | 47.8 | | 53.6 | | 66 |
| | | | Btu/h | 137845 | | 163094 | | 182883 | | 225192 |
| | Total Heating Capacity | | kW | 56.2 | | 62.8 | | 68.2 | | 94.4 |
| | | | Btu/h | 191754 | | 214274 | | 232698 | | 322093 |
| | Fan Type | | | Belt Drive Motor | | | | | | |
| | Fan Model No. | | | SYT12-9L2 | | SYT12-12L2 | | SYT12-12L2 | | SYT15-11L2 |
| | Power Supply | | | 380 V / 3 PH / 50 Hz | | | | | | |
| | Fan Motor Model No. | | | Y100L1-4(2.2kW-4) | | Y100L2-4(3kW-4) | | Y112M-4(4kW-4) | | Y112M-4(4kW-4) |
| | Fan Motor Quantity | | | 1 | | 1 | | 1 | | 1 |
| | Fan Motor Starting Current | | A | 21.4 | | 29.2 | | 39 | | 39 |
| | Fan Motor Running Current | | A | 4.3 | | 5.8 | | 7.8 | | 7.8 |
| | Fan Motor Output Power / Pole | | kW / Pole | 2.2kW-4P | | 3kW-4P | | 4kW-4P | | 4kW-4P |
| | Airflow | | l/s | 2700 | | 3300 | | 3800 | | 4200 |
| | External Static Pressure | | Pa | 250 | | 250 | | 250 | | 250 |
| | Drain Connection | | inch | 3/4" | | | | | | |
| | Unit Dimension | H x W x D | mm | 800 x 1700 x 1050 | | 800 x 1950 x 1050 | | 850 x 2050 x 1050 | | 1000 x 2050x 1050 |
| | Supply Air Dimension | H x W | mm | 341 x 862 | | 341 x 1114 | | 341 x 1114 | | 404 x 1040 |
| | Return Air Dimension | H x W | mm | 668.1 x 1500 | | 668.1 x 1750 | | 718.1 x 1850 | | 718.1 x 1850 |
| | Nett Weight | | kg | 230 | | 250 | | 260 | | 300 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Condenser Data | Condenser Model No. | | | LDC25 | LDC25 | LDC30 | LDC30 | LDC35 | LDC35 | LDC44 | LDC44 |
| | Quantity | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Power Supply | | | 380 V / 3 PH / 50 Hz | | | | | | | |
| | Pipe Size | | Liquid - inch | 5/8" | 5/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" |
| | | | Gas - inch | 7/8" | 7/8" | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" |
| | Refrigerant Charge | | kg | 7.2 | 7.2 | 9.8 | 9.8 | 9.8 | 9.8 | 14.5 | 14.5 |
| | Refrigerant Control Type | | | Expansion Valve | | | | | | | |
| | Fan Type | | | Axial - Direct Drive | | | | | | | |
| | Fan Model No. | | | ODS610D-175B4.6D.V-01 | | ODS660D-165B4.6D.V-01 | | ODS660D-165B4.6D.V-01 | | TFE760J-105B7.6D.V-01 | |
| | Fan Quantity | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Fan Diameter | | | Ø610 | Ø610 | Ø660 | Ø660 | Ø660 | Ø660 | Ø760 | Ø760 |
| | Fan Motor Model No. | | | YFK80X-6-0.37kW | | YFK80X-6-0.55kW | | YFK80X-6-0.55kW | | YFK112X-6-1.8kW | |
| | Fan Motor Quantity | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Fan Motor Starting Current | | A | 8.4 | 8.4 | 11.9 | 11.9 | 11.9 | 11.9 | 31.5 | 31.5 |
| | Fan Motor Running Current | | A | 1.2 | 1.2 | 1.7 | 1.7 | 1.7 | 1.7 | 4.5 | 4.5 |
| | Fan Motor Output Power | | kW | 0.37 | 0.37 | 0.55 | 0.55 | 0.55 | 0.55 | 1.8 | 1.8 |
| | Compressor Type | | | Scroll Compressor | | | | | | | |
| | Compressor Make | | | SANYO | | SANYO | | SANYO | | SANYO | |
| | Compressor Model No. | | | C-SCP315H38A | C-SCP315H38A | C-SCP360H38A | C-SCP360H38A | C-SCP400H38A | C-SCP400H38A | C-SCP360H38A | C-SCP360H38A |
| | Compressor Starting Current | | A | 96 | 96 | 96 | 96 | 96 | 96 | 174 | 174 |
| | Compressor Running Current | | A | 14.9 | 14.9 | 16.9 | 16.9 | 18.3 | 18.3 | 25.7 | 25.7 |
| | Compressor Output Power | | kW | 8.6 | 8.6 | 9.9 | 9.9 | 10.9 | 10.9 | 13.3 | 13.3 |
| | Unit Dimension | H x W x D | mm | 1070 x 770 x 770 | | 1144 x 870 x 870 | | 1144 x 870 x 870 | | 1180 x 900 x 900 | |
| | Nett Weight | | kg | 210 | 210 | 270 | 270 | 270 | 270 | 320 | 320 |

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# LARGE DUCTED SPLIT
# LDE20 / LDC20

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 18.9 | Number of Compressors | 1 |
| Sensible Cooling Capacity (kW)* | 14.9 | Power Requirements (Volt / Phase ) | 380 / 3 |
| Heating Capacity (kW)** | 20.3 | Normal Max. Current (Amps) | 20.99 |
| Nominal Evaporator Air Flow (l/s) | 1111 | Power Input (kW) | 17.98 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 1111 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.02 | 1.03 |
| Sensible Cooling | 0.89 | 0.95 | 1.00 | 1.05 | 1.09 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 17.4 | 19.2 | 21.7 | 22.7 | 25.4 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.96 | 15 | 1.03 | 0 | 0.85 |
| 90 | 0.98 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.98 | 7 | 1 |
| 120 | 1.02 | 27 | 0.97 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 1 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 11.1 / 3 |
| Locked Rotor Current (Amps / Phase) | 55.5 / 3 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 0.48 |
| Air Quantity (l/s) | 1111 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Direct |
| Motor Voltage / Phase / Hertz | 380 V / 3 Phase / 50 Hz |
| Motor Power (kW) | 0.55 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.05 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 0.12 / 940 |
| Motor Voltage / Phase / Hertz | 380 V / 3 Phase / 50 Hz |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 5.67 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

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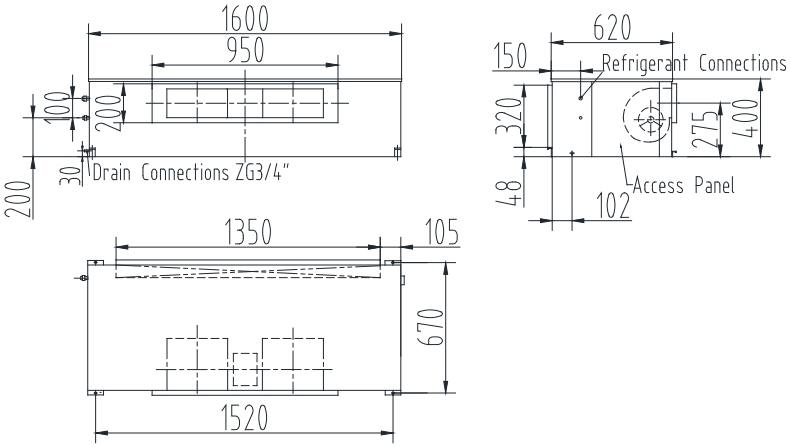
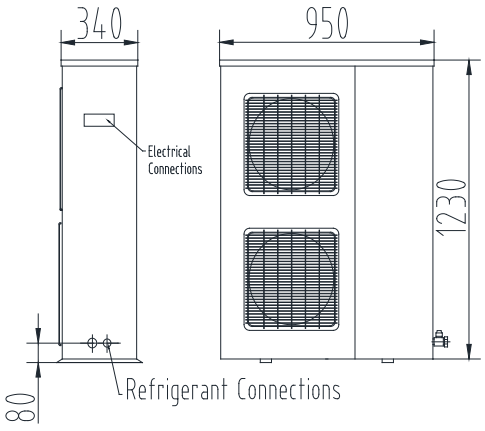
| PERFORMANCE DATA LDC20 / LDE20 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 19.0 | 11.5 | 11.7 | 18.0 | 11.0 | 12.0 | 16.9 | 10.6 | 12.4 | 16.4 | 10.4 | 12.5 |
| | 18 | 19.6 | 10.4 | 12.8 | 18.5 | 9.9 | 13.1 | 17.3 | 9.5 | 13.4 | 16.9 | 9.3 | 13.6 |
| | 19 | 20.1 | 9.3 | 13.8 | 19.0 | 8.9 | 14.2 | 17.8 | 8.4 | 14.5 | 17.3 | 8.2 | 14.6 |
| | 20 | 20.6 | 8.2 | 14.9 | 19.5 | 7.7 | 15.2 | 18.3 | 7.3 | 15.5 | 17.8 | 7.1 | 15.7 |
| 23 | 17 | 19.0 | 13.5 | 11.7 | 17.9 | 13.0 | 12.0 | 16.8 | 12.6 | 12.3 | 16.4 | 12.4 | 12.4 |
| | 18 | 19.5 | 12.4 | 12.7 | 18.4 | 12.0 | 13.0 | 17.3 | 11.5 | 13.4 | 16.8 | 11.3 | 13.5 |
| | 19 | 20.1 | 11.3 | 13.8 | 18.9 | 10.9 | 14.1 | 17.8 | 10.4 | 14.4 | 17.3 | 10.2 | 14.6 |
| | 20 | 20.6 | 10.2 | 14.9 | 19.5 | 9.8 | 15.2 | 18.3 | 9.3 | 15.5 | 17.8 | 9.1 | 15.6 |
| 25 | 17 | 19.0 | 15.5 | 11.6 | 17.9 | 15.0 | 11.9 | 16.8 | 14.6 | 12.3 | 16.4 | 14.4 | 12.4 |
| | 18 | 19.5 | 14.4 | 12.7 | 18.4 | 14.0 | 13.0 | 17.3 | 13.5 | 13.3 | 16.8 | 13.3 | 13.5 |
| | 19 | 20.0 | 13.3 | 13.7 | 18.9 | 12.9 | 14.1 | 17.7 | 12.4 | 14.4 | 17.3 | 12.2 | 14.5 |
| | 20 | 20.6 | 12.2 | 14.8 | 19.4 | 11.8 | 15.1 | 18.2 | 11.3 | 15.5 | 17.8 | 11.1 | 15.6 |
| 27 | 17 | 18.9 | 17.5 | 11.6 | 17.9 | 17.0 | 11.9 | 16.8 | 16.5 | 12.2 | 16.3 | 16.3 | 12.4 |
| | 18 | 19.5 | 16.4 | 12.6 | 18.4 | 15.9 | 12.9 | 17.2 | 15.5 | 13.3 | 16.8 | 15.3 | 13.4 |
| | 19 | 20.0 | 15.3 | 13.7 | 18.9 | 14.9 | 14.0 | 17.7 | 14.4 | 14.3 | 17.2 | 14.2 | 14.5 |
| | 20 | 20.5 | 14.2 | 14.8 | 19.4 | 13.8 | 15.1 | 18.2 | 13.3 | 15.4 | 17.7 | 13.1 | 15.5 |
| 29 | 17 | 18.9 | 18.9 | 11.5 | 17.9 | 17.9 | 11.8 | 16.8 | 16.8 | 12.2 | 16.3 | 16.3 | 12.3 |
| | 18 | 19.4 | 18.3 | 12.6 | 18.4 | 17.9 | 12.9 | 17.2 | 17.2 | 13.2 | 16.8 | 16.8 | 13.4 |
| | 19 | 20.0 | 17.3 | 13.6 | 18.8 | 16.8 | 14.0 | 17.7 | 16.3 | 14.3 | 17.2 | 16.2 | 14.4 |
| | 20 | 20.5 | 16.2 | 14.7 | 19.4 | 15.7 | 15.0 | 18.2 | 15.3 | 15.4 | 17.7 | 15.1 | 15.5 |
| 31 | 17 | 18.9 | 18.9 | 11.5 | 17.8 | 17.8 | 11.8 | 16.7 | 16.7 | 12.2 | 16.3 | 16.3 | 12.3 |
| | 18 | 19.4 | 19.4 | 12.5 | 18.3 | 18.3 | 12.9 | 17.2 | 17.2 | 13.2 | 16.7 | 16.7 | 13.3 |
| | 19 | 19.9 | 19.2 | 13.6 | 18.8 | 18.7 | 13.9 | 17.7 | 17.7 | 14.3 | 17.2 | 17.2 | 14.4 |
| | 20 | 20.5 | 18.1 | 14.7 | 19.3 | 17.7 | 15.0 | 18.2 | 17.2 | 15.3 | 17.7 | 17.0 | 15.5 |

# LDE 20




# LDC 20




E&OE

# LARGE DUCTED SPLIT
# LDE25 / LDC25

## TECHNICAL SPECIFICATION

### Unit Capacity

| | |
|---|---|
| Total Cooling Capacity (kW)* | 25.7 |
| Sensible Cooling Capacity (kW)* | 19.7 |
| Heating Capacity (kW)** | 28.1 |
| Nominal Evaporator Air Flow (l/s) | 1305 |

*Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C

### Power Requirements

| | |
|---|---|
| Number of Compressors | 1 |
| Power Requirements (Volt / Phase) | 380 / 3 |
| Normal Max. Current (Amps) | 23.00 |
| Power Input (kW) | 27.81 |

**Entering air @ 21˚C (DB) and 7 ˚C ambient

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 1305 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.02 | 1.03 |
| Sensible Cooling | 0.90 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 24.4 | 26.5 | 28.7 | 31.1 | 35 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.02 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.99 | 7 | 1 |
| 120 | 1.02 | 27 | 0.98 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 1 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 14 / 3 |
| Locked Rotor Current (Amps / Phase) | 70 / 3 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 0.59 |
| Air Quantity (l/s) | 1305 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Direct |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 0.37 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.65 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 1 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 0.37 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 7.71 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

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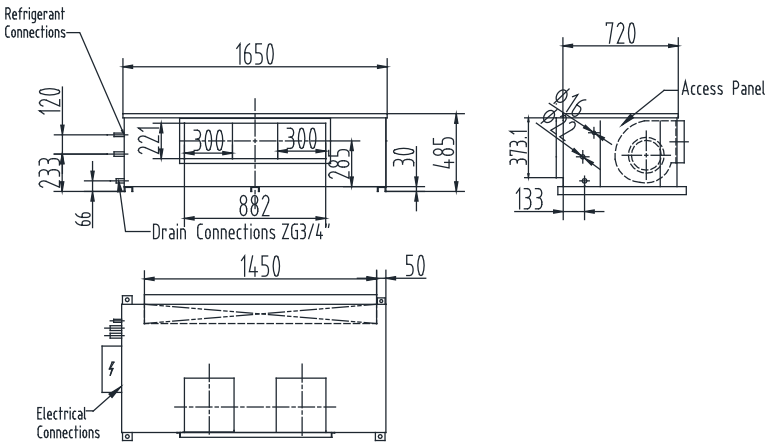
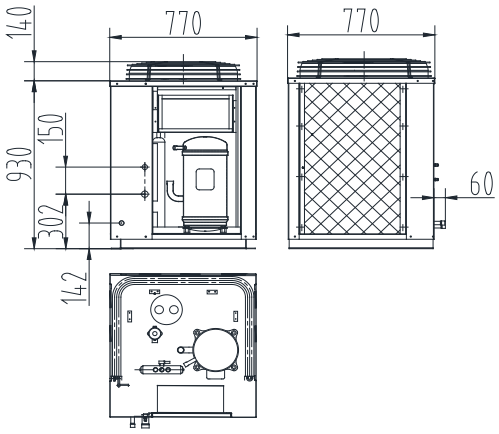
R410A
ZERO OZONE DEPLETION POTENTIAL

| PERFORMANCE DATA LDC25 / LDE25 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 25.6 | 15.3 | 10.8 | 24.5 | 14.9 | 11.1 | 23.4 | 14.3 | 11.4 | 22.9 | 14.1 | 11.6 |
| | 18 | 26.3 | 13.9 | 11.9 | 25.2 | 13.4 | 12.2 | 24.0 | 12.9 | 12.5 | 23.5 | 12.7 | 12.6 |
| | 19 | 27.0 | 12.5 | 13.0 | 25.8 | 12.0 | 13.3 | 24.6 | 11.5 | 13.6 | 24.1 | 11.3 | 13.7 |
| | 20 | 27.7 | 11.0 | 14.1 | 26.5 | 10.5 | 14.4 | 25.2 | 10.0 | 14.7 | 24.7 | 9.8 | 14.8 |
| 23 | 17 | 25.6 | 17.9 | 10.8 | 24.5 | 17.5 | 11.1 | 23.4 | 16.9 | 11.4 | 22.9 | 16.7 | 11.5 |
| | 18 | 26.3 | 16.5 | 11.9 | 25.1 | 16.0 | 12.2 | 24.0 | 15.5 | 12.5 | 23.5 | 15.3 | 12.6 |
| | 19 | 27.0 | 15.1 | 13.0 | 25.8 | 14.6 | 13.3 | 24.6 | 14.1 | 13.6 | 24.1 | 13.9 | 13.7 |
| | 20 | 27.7 | 13.6 | 14.1 | 26.5 | 13.2 | 14.3 | 25.2 | 12.7 | 14.6 | 24.7 | 12.5 | 14.8 |
| 25 | 17 | 25.6 | 20.5 | 10.7 | 24.5 | 20.0 | 11.0 | 23.3 | 19.5 | 11.3 | 22.9 | 19.3 | 11.5 |
| | 18 | 26.2 | 19.1 | 11.8 | 25.1 | 18.6 | 12.1 | 23.9 | 18.7 | 12.4 | 23.4 | 17.9 | 12.5 |
| | 19 | 26.9 | 17.7 | 12.9 | 25.7 | 17.2 | 13.2 | 24.5 | 16.7 | 13.5 | 24.0 | 16.5 | 13.6 |
| | 20 | 27.6 | 16.2 | 14.0 | 26.4 | 15.8 | 14.3 | 25.2 | 15.3 | 14.6 | 24.6 | 15.1 | 14.7 |
| 27 | 17 | 25.5 | 23.0 | 10.7 | 24.4 | 22.5 | 11.0 | 23.3 | 22.0 | 11.3 | 22.8 | 21.8 | 11.4 |
| | 18 | 26.2 | 21.6 | 11.7 | 25.1 | 21.2 | 12.0 | 23.9 | 20.6 | 12.4 | 23.4 | 20.4 | 12.5 |
| | 19 | 26.9 | 20.2 | 12.8 | 25.7 | 19.7 | 13.1 | 24.5 | 19.2 | 13.4 | 24.0 | 19.0 | 13.6 |
| | 20 | 27.6 | 18.8 | 13.9 | 26.4 | 18.3 | 14.2 | 25.1 | 17.8 | 14.5 | 24.6 | 17.6 | 14.7 |
| 29 | 17 | 25.5 | 25.5 | 10.6 | 24.4 | 24.4 | 10.9 | 23.3 | 23.3 | 11.2 | 22.8 | 22.8 | 11.4 |
| | 18 | 26.2 | 24.2 | 11.7 | 25.0 | 23.7 | 12.0 | 23.9 | 23.2 | 12.3 | 23.4 | 23.0 | 12.4 |
| | 19 | 26.9 | 22.8 | 12.8 | 25.7 | 22.3 | 13.1 | 24.5 | 21.8 | 13.4 | 24.0 | 21.6 | 13.5 |
| | 20 | 27.5 | 21.3 | 13.9 | 26.3 | 20.9 | 14.2 | 25.1 | 20.4 | 14.5 | 24.6 | 20.2 | 14.6 |
| 31 | 17 | 25.4 | 25.4 | 10.6 | 24.3 | 24.3 | 10.9 | 23.2 | 23.2 | 11.2 | 22.8 | 22.8 | 11.3 |
| | 18 | 26.1 | 26.1 | 11.6 | 25.0 | 25.0 | 11.9 | 23.8 | 23.8 | 12.3 | 23.3 | 23.3 | 12.4 |
| | 19 | 26.8 | 25.3 | 12.7 | 25.6 | 24.8 | 13.0 | 24.4 | 24.3 | 13.3 | 23.9 | 23.9 | 13.5 |
| | 20 | 27.5 | 23.9 | 13.8 | 26.3 | 23.4 | 14.1 | 25.1 | 22.9 | 14.4 | 24.5 | 22.7 | 14.6 |

# LDE 25




# LDC 25

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# LARGE DUCTED SPLIT
# LDE30 / LDC30

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 29.5 | Number of Compressors | 1 |
| Sensible Cooling Capacity (kW)* | 23.3 | Power Requirements (Volt / Phase) | 380 / 3 |
| Heating Capacity (kW)** | 31.4 | Normal Max. Current (Amps) | 32.35 |
| Nominal Evaporator Air Flow (l/s) | 1600 | Power Input (kW) | 28.4 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 1600 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.01 | 1.03 |
| Sensible Cooling | 0.89 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 26 | 27.7 | 32.6 | 34.1 | 38.8 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.02 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.99 | 7 | 1 |
| 120 | 1.02 | 27 | 0.98 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 1 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 16.3 / 3 |
| Locked Rotor Current (Amps / Phase) | 81.5 / 3 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 0.59 |
| Air Quantity (l/s) | 1600 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Direct |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 0.55 x 2 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.65 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 1 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 0.55 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 8.85 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

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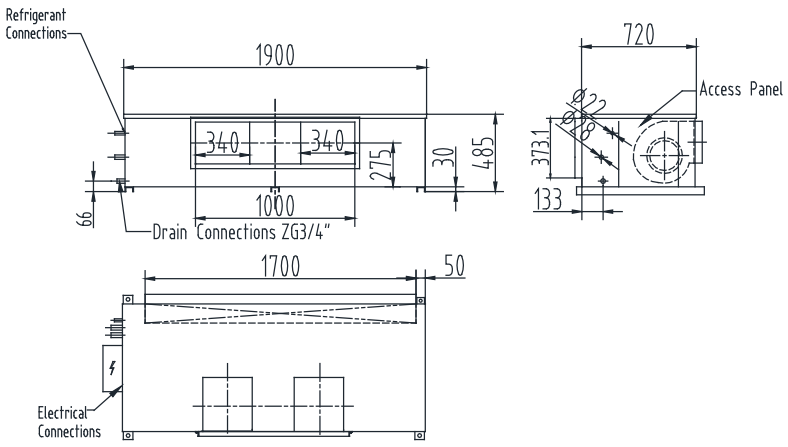
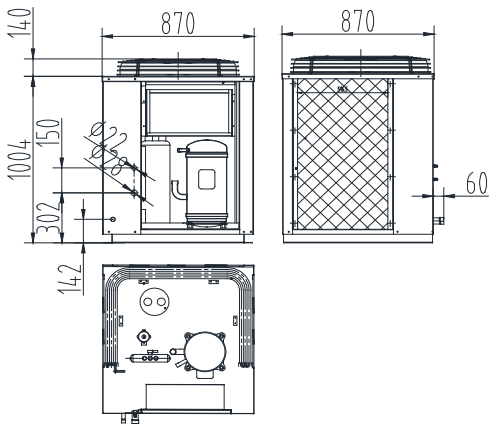
R410A
ZERO OZONE DEPLETION POTENTIAL

| PERFORMANCE DATA LDC30 / LDE30 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 29.4 | 17.9 | 11.3 | 28.1 | 17.3 | 11.5 | 26.8 | 16.7 | 11.8 | 26.2 | 16.5 | 12.0 |
| | 18 | 30.2 | 16.2 | 12.4 | 28.9 | 15.6 | 12.6 | 27.4 | 15.0 | 12.9 | 26.9 | 14.8 | 13.0 |
| | 19 | 31.0 | 14.4 | 13.4 | 29.6 | 13.8 | 13.7 | 28.2 | 13.2 | 14.0 | 27.6 | 13.0 | 14.1 |
| | 20 | 31.8 | 12.6 | 14.5 | 30.4 | 12.1 | 14.8 | 28.9 | 11.5 | 15.1 | 28.2 | 11.2 | 15.2 |
| 23 | 17 | 29.4 | 21.1 | 11.2 | 28.1 | 20.5 | 11.5 | 26.7 | 19.9 | 11.8 | 26.2 | 19.7 | 11.9 |
| | 18 | 30.2 | 19.3 | 12.3 | 28.8 | 18.8 | 12.6 | 27.4 | 18.2 | 12.9 | 26.8 | 17.9 | 13.0 |
| | 19 | 31.0 | 17.6 | 13.4 | 29.6 | 17.0 | 13.7 | 28.1 | 16.4 | 13.9 | 27.5 | 16.2 | 14.1 |
| | 20 | 31.8 | 15.8 | 14.5 | 30.3 | 15.3 | 14.8 | 28.8 | 14.7 | 15.0 | 28.2 | 14.5 | 15.2 |
| 25 | 17 | 29.4 | 24.2 | 11.2 | 28.1 | 23.6 | 11.4 | 26.7 | 23.0 | 11.7 | 26.2 | 22.8 | 11.9 |
| | 18 | 30.1 | 22.5 | 12.2 | 28.8 | 21.9 | 12.5 | 27.4 | 21.3 | 12.8 | 26.8 | 21.1 | 12.9 |
| | 19 | 30.9 | 20.8 | 13.3 | 29.5 | 20.2 | 13.6 | 28.1 | 19.6 | 13.9 | 27.5 | 19.4 | 14.0 |
| | 20 | 31.7 | 19.0 | 14.4 | 30.3 | 18.4 | 14.7 | 28.8 | 17.9 | 15.0 | 28.2 | 17.6 | 15.1 |
| 27 | 17 | 29.3 | 27.3 | 11.1 | 28.0 | 26.7 | 11.4 | 26.7 | 26.1 | 11.7 | 26.1 | 25.9 | 11.8 |
| | 18 | 30.1 | 25.6 | 12.2 | 28.7 | 25.0 | 12.5 | 27.3 | 24.4 | 12.8 | 26.8 | 24.2 | 12.9 |
| | 19 | 30.9 | 23.9 | 13.3 | 29.5 | 23.3 | 13.6 | 28.0 | 22.7 | 13.8 | 27.4 | 22.5 | 14.0 |
| | 20 | 31.7 | 22.1 | 14.4 | 30.2 | 21.6 | 14.6 | 28.7 | 21.0 | 14.9 | 28.1 | 20.8 | 15.1 |
| 29 | 17 | 29.3 | 29.3 | 11.1 | 28.0 | 28.0 | 11.3 | 26.6 | 26.6 | 11.6 | 26.1 | 26.1 | 11.8 |
| | 18 | 30.0 | 28.7 | 12.1 | 28.7 | 28.1 | 12.4 | 27.3 | 27.3 | 12.7 | 26.7 | 26.7 | 12.8 |
| | 19 | 30.8 | 27.0 | 13.2 | 29.4 | 26.4 | 13.5 | 28.0 | 25.8 | 13.8 | 27.4 | 25.6 | 13.9 |
| | 20 | 31.6 | 25.2 | 14.3 | 30.2 | 24.7 | 14.6 | 28.7 | 24.1 | 14.9 | 28.1 | 23.9 | 15.0 |
| 31 | 17 | 29.2 | 29.2 | 11.0 | 27.9 | 27.9 | 11.3 | 26.6 | 26.6 | 11.6 | 26.0 | 26.0 | 11.7 |
| | 18 | 30.0 | 30.0 | 12.1 | 28.7 | 28.7 | 12.4 | 27.3 | 27.3 | 12.7 | 26.7 | 26.7 | 12.8 |
| | 19 | 30.8 | 30.0 | 13.2 | 29.4 | 29.4 | 13.5 | 28.0 | 28.0 | 13.8 | 27.4 | 27.4 | 13.9 |
| | 20 | 31.6 | 28.3 | 14.3 | 30.1 | 27.7 | 14.5 | 28.7 | 27.2 | 14.8 | 28.1 | 26.9 | 15.0 |

# LDE 30




# LDC 30




E&OE

# LARGE DUCTED SPLIT
# LDE35 / LDC35

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 32.6 | Number of Compressors | 1 |
| Sensible Cooling Capacity (kW)* | 27.2 | Power Requirements (Volt / Phase) | 380 / 3 |
| Heating Capacity (kW)** | 34.1 | Normal Max. Current (Amps) | 34.45 |
| Nominal Evaporator Air Flow (l/s) | 2000 | Power Input (kW) | 30.2 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 2000 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.01 | 1.02 |
| Sensible Cooling | 0.89 | 0.95 | 1.00 | 1.06 | 1.11 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 28.8 | 30.9 | 34.9 | 37.8 | 42.5 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.02 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.99 | 7 | 1 |
| 120 | 1.02 | 27 | 0.98 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 1 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 18.1 / 3 |
| Locked Rotor Current (Amps / Phase) | 90.5 / 3 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 0.78 |
| Air Quantity (l/s) | 2000 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Direct |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 0.55 x 1 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.65 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 1 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 0.55 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 9.78 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

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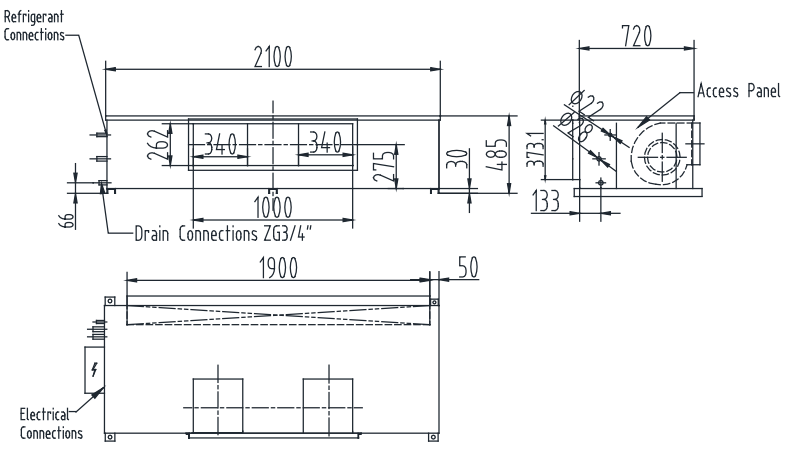
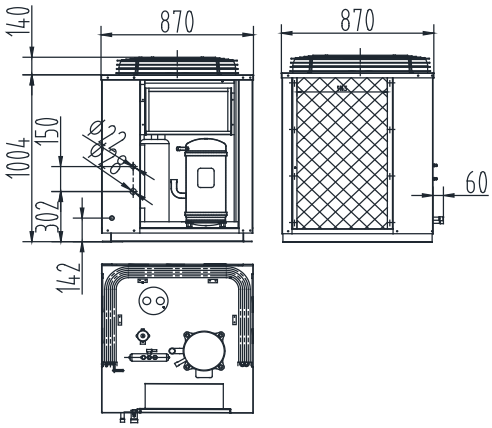
R410A
ZERO OZONE DEPLETION POTENTIAL

| PERFORMANCE DATA LDC35 - LDE35 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 32.7 | 20.5 | 12.0 | 31.1 | 19.8 | 12.2 | 29.5 | 19.2 | 12.5 | 29.1 | 19.0 | 12.6 |
| | 18 | 33.5 | 18.3 | 13.1 | 31.9 | 17.7 | 13.3 | 30.3 | 17.0 | 13.6 | 29.9 | 16.9 | 13.6 |
| | 19 | 34.3 | 16.2 | 14.1 | 32.7 | 15.5 | 14.4 | 31.0 | 14.9 | 14.6 | 30.8 | 14.8 | 14.7 |
| | 20 | 35.2 | 14.0 | 15.2 | 33.5 | 13.4 | 15.5 | 31.8 | 12..7 | 15.7 | 31.7 | 12.7 | 15.7 |
| 23 | 17 | 32.6 | 24.4 | 11.9 | 31.1 | 23.7 | 12.2 | 29.5 | 23.1 | 12.4 | 29.0 | 22.9 | 12.5 |
| | 18 | 33.4 | 22.3 | 13.0 | 31.9 | 21.6 | 13.3 | 30.2 | 20.9 | 13.5 | 29.9 | 20.8 | 13.6 |
| | 19 | 34.3 | 20.1 | 14.1 | 32.7 | 19.5 | 14.3 | 31.0 | 18.8 | 14.6 | 30.8 | 18.7 | 14.6 |
| | 20 | 35.2 | 18.0 | 15.2 | 33.5 | 17.3 | 15.4 | 31.7 | 16.7 | 15.7 | 31.6 | 16.6 | 15.7 |
| 25 | 17 | 32.6 | 28.3 | 11.9 | 31.0 | 27.6 | 12.1 | 29.5 | 26.9 | 12.4 | 29.0 | 26.7 | 12.5 |
| | 18 | 33.4 | 26.1 | 13.0 | 31.8 | 25.5 | 13.2 | 30.2 | 24.8 | 13.5 | 29.8 | 24.7 | 13.5 |
| | 19 | 34.3 | 24.0 | 14.0 | 32.6 | 23.4 | 14.3 | 30.9 | 22.7 | 14.5 | 30.7 | 22.6 | 14.6 |
| | 20 | 35.1 | 21.9 | 15.1 | 33.4 | 21.2 | 15.4 | 31.7 | 20.6 | 15.6 | 31.6 | 20.5 | 15.6 |
| 27 | 17 | 32.5 | 32.1 | 11.8 | 31.0 | 31.0 | 12.1 | 29.4 | 29.4 | 12.4 | 28.9 | 28.9 | 12.4 |
| | 18 | 33.3 | 30.0 | 12.9 | 31.8 | 29.3 | 13.2 | 30.2 | 28.7 | 13.4 | 29.8 | 28.5 | 13.5 |
| | 19 | 34.2 | 27.9 | 14.0 | 32.6 | 27.2 | 14.2 | 30.9 | 26.6 | 14.5 | 30.7 | 26.5 | 14.5 |
| | 20 | 35.1 | 25.8 | 15.1 | 33.4 | 25.1 | 15.3 | 31.6 | 24.4 | 15.6 | 31.5 | 24.4 | 15.6 |
| 29 | 17 | 32.5 | 32.5 | 11.8 | 31.0 | 31.0 | 12.1 | 29.4 | 29.4 | 12.3 | 28.9 | 28.9 | 12.4 |
| | 18 | 33.3 | 33.3 | 12.9 | 31.7 | 31.7 | 13.1 | 30.1 | 30.1 | 13.4 | 29.8 | 29.8 | 13.4 |
| | 19 | 34.2 | 31.7 | 13.9 | 32.5 | 31.0 | 14.2 | 30.9 | 30.4 | 14.5 | 30.6 | 30.3 | 14.5 |
| | 20 | 35.0 | 29.6 | 15.0 | 33.3 | 28.9 | 15.3 | 31.6 | 28.3 | 15.5 | 31.5 | 28.2 | 15.6 |
| 31 | 17 | 32.4 | 32.4 | 11.8 | 29.7 | 29.7 | 12.2 | 29.2 | 29.2 | 12.3 | 28.8 | 28.8 | 12.4 |
| | 18 | 33.3 | 33.3 | 12.8 | 31.7 | 31.7 | 13.1 | 30.1 | 30.1 | 13.4 | 29.7 | 29.7 | 13.4 |
| | 19 | 34.1 | 34.1 | 13.9 | 32.5 | 32.5 | 14.2 | 30.8 | 30.8 | 14.4 | 30.6 | 30.6 | 14.5 |
| | 20 | 35.0 | 33.4 | 15.0 | 33.3 | 32.7 | 15.2 | 31.6 | 31.6 | 15.5 | 31.4 | 31.4 | 15.5 |

# LDE 35




# LDC 35




E&OE

# LARGE DUCTED SPLIT
# LDE44 / LDC44

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 44.7 | Number of Compressors | 1 |
| Sensible Cooling Capacity (kW)* | 34.8 | Power Requirements (Volt / Phase) | 380 / 3 |
| Heating Capacity (kW)** | 47.2 | Normal Max. Current (Amps) | 50.47 |
| Nominal Evaporator Air Flow (l/s) | 2300 | Power Input (kW) | 31.8 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 2300 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.02 | 1.03 |
| Sensible Cooling | 0.90 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 40.9 | 43.7 | 48.2 | 52 | 58 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.05 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.03 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.98 | 7 | 1 |
| 120 | 1.03 | 27 | 0.96 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 1 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 22.5 / 3 |
| Locked Rotor Current (Amps / Phase) | 112.5 / 3 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 0.95 |
| Air Quantity (l/s) | 2300 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Pulley Driven |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 2.2 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.86 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 1 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 1.8 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 13.40 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

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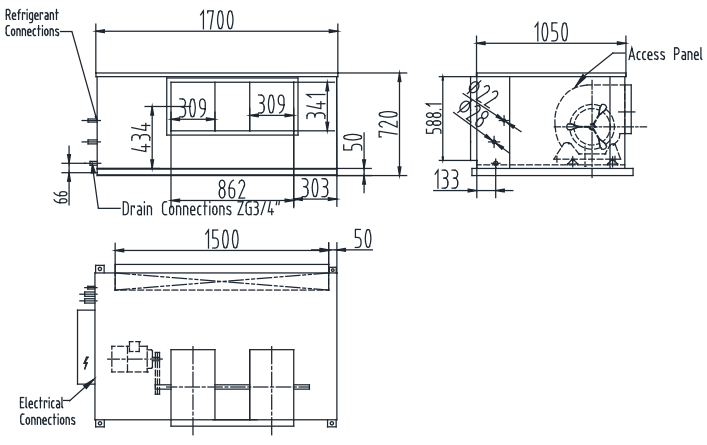
R410A
ZERO OZONE DEPLETION POTENTIAL

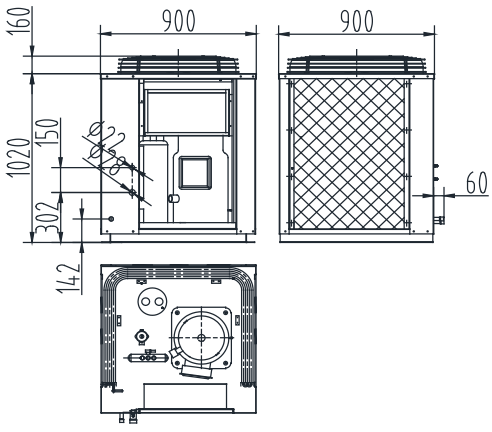
## PERFORMANCE DATA LDC44 - LDE44

| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 45.4 | 27.3 | 10.8 | 42.7 | 26.1 | 11.2 | 39.9 | 24.8 | 11.6 | 38.8 | 24.4 | 11.8 |
| | 18 | 46.6 | 24.7 | 11.9 | 43.8 | 23.5 | 12.3 | 41.0 | 22.3 | 12.7 | 39.8 | 21.8 | 12.9 |
| | 19 | 47.8 | 22.1 | 13.0 | 44.9 | 20.9 | 13.4 | 42.0 | 19.7 | 13.8 | 40.9 | 19.3 | 13.9 |
| | 20 | 49.0 | 19.5 | 14.1 | 46.1 | 18.3 | 14.5 | 43.1 | 17.1 | 14.9 | 41.9 | 16.7 | 15.0 |
| 23 | 17 | 45.3 | 31.9 | 10.7 | 42.6 | 30.7 | 11.2 | 39.9 | 29.5 | 11.6 | 38.8 | 29.0 | 11.7 |
| | 18 | 46.5 | 29.4 | 11.8 | 43.8 | 28.2 | 12.2 | 40.9 | 27.0 | 12.7 | 39.8 | 26.5 | 12.8 |
| | 19 | 47.7 | 26.8 | 12.9 | 44.9 | 25.6 | 13.3 | 42.0 | 24.4 | 13.7 | 40.8 | 24.0 | 13.9 |
| | 20 | 48.9 | 24.2 | 14.0 | 46.0 | 23.0 | 14.4 | 43.0 | 21.9 | 14.8 | 41.8 | 21.4 | 15.0 |
| 25 | 17 | 45.3 | 36.5 | 10.7 | 42.6 | 35.5 | 11.1 | 39.8 | 34.1 | 11.5 | 38.7 | 33.6 | 11.7 |
| | 18 | 46.5 | 34.0 | 11.8 | 43.7 | 32.8 | 12.2 | 40.9 | 31.6 | 12.6 | 39.7 | 31.1 | 12.8 |
| | 19 | 47.7 | 31.4 | 12.9 | 44.8 | 30.2 | 13.3 | 41.9 | 29.1 | 13.7 | 40.7 | 28.6 | 13.8 |
| | 20 | 48.9 | 28.8 | 14.0 | 46.0 | 27.7 | 14.4 | 43.0 | 26.5 | 14.8 | 41.8 | 26.0 | 14.9 |
| 27 | 17 | 45.2 | 41.0 | 10.6 | 42.5 | 39.8 | 11.0 | 39.8 | 38.6 | 11.5 | 38.6 | 38.1 | 11.6 |
| | 18 | 46.4 | 38.5 | 11.7 | 43.6 | 37.3 | 12.1 | 40.8 | 36.1 | 12.5 | 39.6 | 35.7 | 12.7 |
| | 19 | 47.6 | 36.0 | 12.8 | 44.7 | 34.8 | 13.2 | 41.9 | 33.6 | 13.6 | 40.7 | 33.2 | 13.8 |
| | 20 | 48.8 | 33.4 | 13.9 | 45.9 | 32.3 | 14.3 | 42.9 | 31.1 | 14.7 | 41.7 | 30.7 | 14.9 |
| 29 | 17 | 45.1 | 45.1 | 10.6 | 42.5 | 42.5 | 11.0 | 39.7 | 39.7 | 11.4 | 38.6 | 38.6 | 11.6 |
| | 18 | 46.3 | 43.0 | 11.7 | 43.6 | 41.8 | 12.1 | 40.7 | 40.6 | 12.5 | 39.6 | 39.6 | 12.7 |
| | 19 | 47.5 | 40.5 | 12.8 | 44.7 | 39.3 | 13.2 | 41.8 | 38.2 | 13.6 | 40.6 | 37.7 | 13.7 |
| | 20 | 48.7 | 38.0 | 13.9 | 45.8 | 36.8 | 14.3 | 42.9 | 35.7 | 14.7 | 41.7 | 35.2 | 14.8 |
| 31 | 17 | 45.1 | 45.1 | 10.5 | 42.4 | 42.4 | 11.0 | 39.7 | 39.7 | 11.4 | 38.5 | 38.5 | 11.6 |
| | 18 | 46.2 | 46.2 | 11.6 | 43.5 | 43.5 | 12.0 | 40.7 | 40.7 | 12.5 | 39.5 | 39.5 | 12.6 |
| | 19 | 47.4 | 45.0 | 12.7 | 44.6 | 43.8 | 13.1 | 41.7 | 41.7 | 13.5 | 40.6 | 40.6 | 13.7 |
| | 20 | 48.6 | 42.5 | 13.8 | 45.8 | 41.3 | 14.2 | 42.8 | 40.2 | 14.6 | 41.6 | 39.7 | 14.8 |

# LDE 44




# LDC 44




E&OE

# LARGE DUCTED SPLIT
# LDE502 / LDC25-25

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 51.8 | Number of Compressors | 2 |
| Sensible Cooling Capacity (kW)* | 40.4 | Power Requirements (Volt / Phase) | 380 / 3 |
| Heating Capacity (kW)** | 56.2 | Normal Max. Current (Amps) | 56.34 |
| Nominal Evaporator Air Flow (l/s) | 2700 | Power Input (kW) | 35.2 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 2700 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.02 | 1.03 |
| Sensible Cooling | 0.90 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 48.8 | 53.0 | 57.4 | 62.2 | 70.0 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.02 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.99 | 7 | 1 |
| 120 | 1.02 | 27 | 0.98 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 2 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 14 / 3 x 1 |
| Locked Rotor Current (Amps / Phase) | 70 / 3 x 1 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.07 |
| Air Quantity (l/s) | 2700 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Pulley Driven |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 2.2 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 3.29 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 0.37 x 1 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 15.53 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

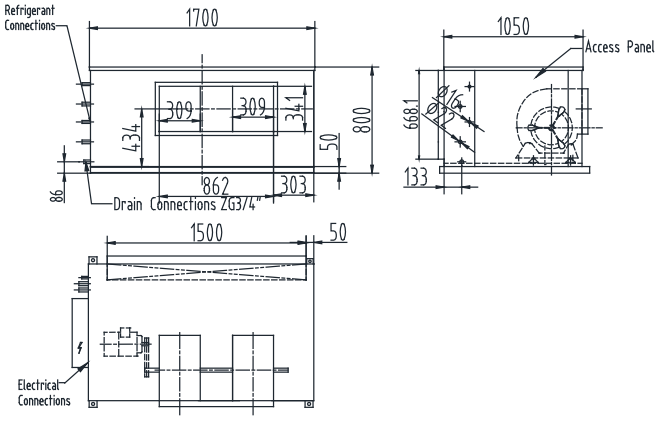
| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

ECOAIRE

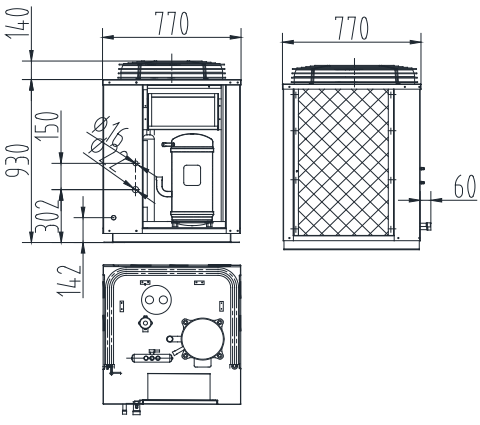
R410A
ZERO OZONE DEPLETION POTENTIAL

| PERFORMANCE DATA LDC25&LDC25 / LDE502 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 51.6 | 31.2 | 11.0 | 49.4 | 30.2 | 11.3 | 47.1 | 29.2 | 11.6 | 46.1 | 28.8 | 11.7 |
| | 18 | 53.0 | 28.2 | 12.1 | 50.7 | 27.2 | 12.4 | 48.3 | 26.2 | 12.7 | 47.3 | 25.8 | 12.8 |
| | 19 | 54.4 | 25.2 | 13.2 | 52.0 | 24.2 | 13.5 | 49.5 | 23.2 | 13.8 | 48.5 | 22.8 | 13.9 |
| | 20 | 55.8 | 22.2 | 14.3 | 53.4 | 21.2 | 14.6 | 50.8 | 20.2 | 14.9 | 49.7 | 19.8 | 15.0 |
| 23 | 17 | 51.5 | 36.6 | 11.0 | 49.3 | 35.6 | 11.3 | 47.0 | 34.6 | 11.5 | 46.0 | 34.2 | 11.7 |
| | 18 | 52.9 | 33.7 | 12.0 | 50.6 | 32.7 | 12.3 | 48.2 | 31.7 | 12.6 | 47.2 | 31.2 | 12.8 |
| | 19 | 54.3 | 30.7 | 13.1 | 51.9 | 29.7 | 13.4 | 49.4 | 28.7 | 13.7 | 48.4 | 28.3 | 13.8 |
| | 20 | 55.8 | 27.7 | 14.2 | 53.3 | 26.7 | 14.5 | 50.7 | 25.7 | 14.8 | 49.7 | 25.3 | 14.9 |
| 25 | 17 | 51.5 | 42.0 | 10.9 | 49.2 | 41.0 | 11.2 | 46.9 | 40.0 | 11.5 | 46.0 | 39.6 | 11.6 |
| | 18 | 52.9 | 39.1 | 12.0 | 50.5 | 38.1 | 12.3 | 48.1 | 37.0 | 12.6 | 47.1 | 36.6 | 12.7 |
| | 19 | 54.2 | 36.1 | 13.1 | 51.8 | 35.1 | 13.4 | 49.4 | 34.1 | 13.7 | 48.4 | 33.7 | 13.8 |
| | 20 | 55.7 | 33.1 | 14.2 | 53.2 | 32.1 | 14.5 | 50.7 | 31.1 | 14.7 | 49.6 | 30.7 | 14.9 |
| 27 | 17 | 51.4 | 47.3 | 10.9 | 49.2 | 46.3 | 11.1 | 46.9 | 45.3 | 11.4 | 45.9 | 44.9 | 11.6 |
| | 18 | 52.8 | 44.4 | 11.9 | 50.5 | 43.4 | 12.2 | 48.1 | 42.4 | 12.5 | 47.1 | 42.0 | 12.6 |
| | 19 | 54.2 | 41.4 | 13.0 | 51.8 | 40.4 | 13.3 | 49.3 | 39.4 | 13.6 | 48.3 | 39.0 | 13.7 |
| | 20 | 55.6 | 38.5 | 14.1 | 53.1 | 37.5 | 14.4 | 50.6 | 36.5 | 14.7 | 49.5 | 36.1 | 14.8 |
| 29 | 17 | 51.3 | 51.3 | 10.8 | 49.1 | 49.1 | 11.1 | 46.8 | 46.8 | 11.4 | 45.9 | 45.9 | 11.5 |
| | 18 | 52.7 | 49.6 | 11.9 | 50.4 | 48.6 | 12.2 | 48.0 | 47.6 | 12.5 | 47.0 | 47.0 | 12.6 |
| | 19 | 54.1 | 46.7 | 13.0 | 51.7 | 45.7 | 13.3 | 49.2 | 44.7 | 13.6 | 48.2 | 44.3 | 13.7 |
| | 20 | 55.5 | 43.8 | 14.1 | 53.0 | 42.8 | 14.3 | 50.5 | 41.8 | 14.6 | 49.5 | 41.4 | 14.8 |
| 31 | 17 | 51.2 | 51.2 | 10.8 | 49.0 | 49.0 | 11.1 | 46.7 | 46.7 | 11.4 | 45.8 | 45.8 | 11.5 |
| | 18 | 52.6 | 52.6 | 11.8 | 50.3 | 50.3 | 12.1 | 47.9 | 47.9 | 12.4 | 47.0 | 47.0 | 12.6 |
| | 19 | 54.0 | 51.9 | 12.9 | 51.6 | 50.9 | 13.2 | 49.2 | 49.2 | 13.5 | 48.2 | 48.2 | 13.6 |
| | 20 | 55.4 | 49.0 | 14.0 | 53.0 | 48.0 | 14.3 | 50.4 | 47.1 | 14.6 | 49.4 | 46.7 | 14.7 |

# LDE 502




# LDC 25-25




**Please note: This Indoor Unit uses 2 Condesers**

E&OE

# LARGE DUCTED SPLIT
# LDE602 / LDC30-30

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 59.5 | Number of Compressors | 2 |
| Sensible Cooling Capacity (kW)* | 47.8 | Power Requirements (Volt / Phase) | 380 / 3 |
| Heating Capacity (kW)** | 62.8 | Normal Max. Current (Amps) | 65.5 |
| Nominal Evaporator Air Flow (l/s) | 3300 | Power Input (kW) | 42.8 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 3300 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.02 | 1.03 |
| Sensible Cooling | 0.89 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 52.0 | 55.4 | 65.2 | 68.2 | 77.6 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.02 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.99 | 7 | 1 |
| 120 | 1.02 | 27 | 0.98 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 2 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 16.3 / 3 x 1 |
| Locked Rotor Current (Amps / Phase) | 81.5 / 3 x 1 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.246 |
| Air Quantity (l/s) | 3300 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 1 |
| Type | Centrifugal |
| Drive | Pulley Driven |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 3 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 3.294 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 055 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 17.84 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

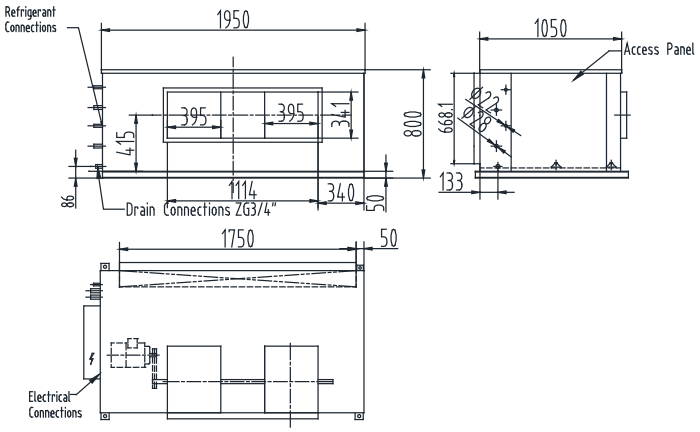
| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

ECOAIRE

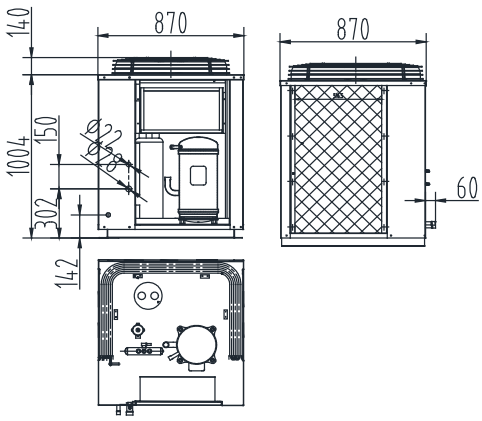
R410A
ZERO OZONE DEPLETION POTENTIAL

| PERFORMANCE DATA LDC30&LDC30 / LDE602 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 59.5 | 36.5 | 11.4 | 56.8 | 35.3 | 11.7 | 54.1 | 34.1 | 12.0 | 52.9 | 33.6 | 12.1 |
| | 18 | 61.1 | 32.9 | 12.5 | 58.3 | 31.7 | 12.8 | 55.4 | 30.5 | 13.0 | 54.3 | 30.0 | 13.1 |
| | 19 | 62.6 | 29.2 | 13.6 | 59.8 | 28.1 | 13.8 | 56.8 | 26.9 | 14.1 | 55.6 | 26.4 | 14.2 |
| | 20 | 64.3 | 25.6 | 14.6 | 61.3 | 24.4 | 14.9 | 58.3 | 23.2 | 15.2 | 57.0 | 22.7 | 15.3 |
| 23 | 17 | 59.4 | 43.1 | 11.3 | 56.8 | 41.9 | 11.6 | 54.0 | 40.7 | 11.9 | 52.9 | 40.2 | 12.0 |
| | 18 | 61.0 | 39.5 | 12.4 | 58.2 | 38.3 | 12.7 | 55.3 | 37.1 | 13.0 | 54.2 | 36.7 | 13.1 |
| | 19 | 62.5 | 35.9 | 13.5 | 59.7 | 34.7 | 13.8 | 56.8 | 33.5 | 14.1 | 55.6 | 33.1 | 14.2 |
| | 20 | 64.2 | 32.2 | 14.6 | 61.3 | 31.1 | 14.9 | 58.2 | 29.9 | 15.2 | 56.9 | 29.4 | 15.3 |
| 25 | 17 | 59.3 | 49.6 | 11.3 | 56.7 | 48.4 | 11.6 | 53.9 | 47.3 | 11.9 | 52.8 | 46.8 | 12.0 |
| | 18 | 60.9 | 46.0 | 12.4 | 58.1 | 44.9 | 12.6 | 55.3 | 43.7 | 12.9 | 54.1 | 43.2 | 13.0 |
| | 19 | 62.5 | 42.4 | 13.5 | 59.6 | 41.3 | 13.7 | 56.7 | 40.1 | 14.0 | 55.5 | 39.6 | 14.1 |
| | 20 | 64.1 | 38.8 | 14.5 | 61.2 | 37.7 | 14.8 | 58.1 | 36.5 | 15.1 | 56.9 | 36.0 | 15.2 |
| 27 | 17 | 59.2 | 56.0 | 11.2 | 56.6 | 54.9 | 11.5 | 53.8 | 53.7 | 11.8 | 52.7 | 52.7 | 11.9 |
| | 18 | 60.8 | 52.5 | 12.3 | 58.0 | 51.3 | 12.6 | 55.2 | 50.2 | 12.9 | 54.0 | 49.7 | 13.0 |
| | 19 | 62.4 | 48.9 | 13.4 | 59.5 | 47.8 | 13.7 | 56.6 | 46.6 | 14.0 | 55.4 | 46.1 | 14.1 |
| | 20 | 64.0 | 45.4 | 14.5 | 61.1 | 44.2 | 14.8 | 58.0 | 43.0 | 15.0 | 56.8 | 42.6 | 15.2 |
| 29 | 17 | 59.2 | 59.2 | 11.2 | 56.5 | 56.5 | 11.5 | 53.8 | 53.8 | 11.8 | 52.6 | 52.6 | 11.9 |
| | 18 | 60.7 | 58.9 | 12.3 | 58.0 | 57.7 | 12.5 | 55.1 | 55.1 | 12.8 | 54.0 | 54.0 | 13.0 |
| | 19 | 62.3 | 55.4 | 13.3 | 59.5 | 54.2 | 13.6 | 56.5 | 53.0 | 13.9 | 55.3 | 52.6 | 14.0 |
| | 20 | 63.9 | 51.8 | 14.4 | 61.0 | 50.7 | 14.7 | 58.0 | 49.5 | 15.0 | 58.0 | 49.5 | 15.0 |
| 31 | 17 | 59.1 | 59.1 | 11.1 | 56.4 | 56.4 | 11.4 | 54.1 | 54.1 | 11.7 | 53.1 | 53.1 | 11.9 |
| | 18 | 60.6 | 60.6 | 12.2 | 57.9 | 57.9 | 12.5 | 55.0 | 55.0 | 12.8 | 53.9 | 53.9 | 12.9 |
| | 19 | 62.2 | 61.7 | 13.3 | 59.4 | 59.4 | 13.6 | 56.5 | 56.5 | 13.9 | 55.3 | 55.3 | 14.0 |
| | 20 | 63.8 | 58.2 | 14.4 | 60.9 | 57.0 | 14.7 | 57.9 | 55.9 | 14.9 | 56.6 | 55.4 | 15.1 |

# LDE 602




# LDC 30-30




**Please note: This Indoor Unit uses 2 Condesers**

E&OE

# LARGE DUCTED SPLIT
# LDE702 / LDC35-35

## TECHNICAL SPECIFICATION

| Unit Capacity | | Power Requirements | |
|---|---|---|---|
| Total Cooling Capacity (kW)* | 65 | Number of Compressors | 2 |
| Sensible Cooling Capacity (kW)* | 53.6 | Power Requirements (Volt / Phase) | 380 / 3 |
| Heating Capacity (kW)** | 68.2 | Normal Max. Current (Amps) | 36.1 |
| Nominal Evaporator Air Flow (l/s) | 3800 | Power Input (kW) | 24.5 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | | **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 3800 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.01 | 1.03 |
| Sensible Cooling | 0.89 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 57.6 | 61.8 | 69.8 | 75.6 | 85 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.02 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.01 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.99 | 7 | 1 |
| 120 | 1.02 | 27 | 0.98 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 2 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 18.1 / 3 x 1 |
| Locked Rotor Current (Amps / Phase) | 90.5 / 3 x 1 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area ($m^2$) | 1.41 |
| Air Quantity (l/s) | 3800 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Pulley Driven |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 2.2 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area ($m^2$) | 3.29 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 1 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 0.55 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 19.49 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

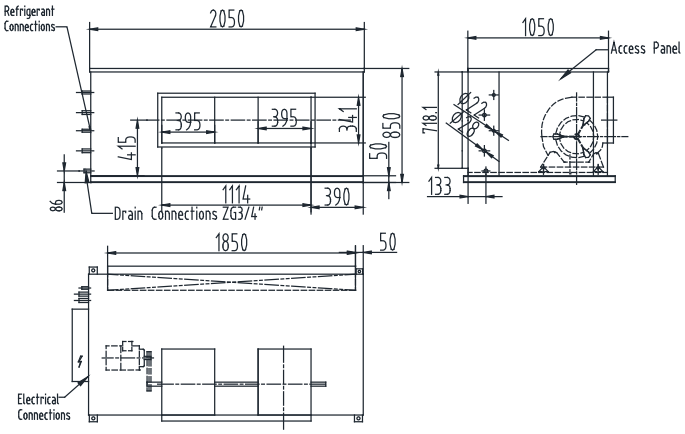
ECOAIRE

R410A
ZERO OZONE DEPLETION POTENTIAL

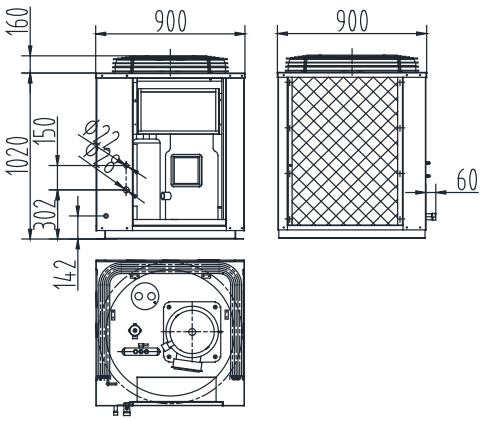
# PERFORMANCE DATA LDC35&LDC35 / LDE702

| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 65.1 | 40.5 | 11.7 | 62.1 | 39.2 | 12.0 | 58.9 | 37.9 | 12.3 | 58.4 | 37.6 | 12.3 |
| | 18 | 66.8 | 36.3 | 12.8 | 63.6 | 35.0 | 13.1 | 60.4 | 33.7 | 13.3 | 59.9 | 33.5 | 13.4 |
| | 19 | 68.5 | 32.2 | 13.9 | 65.2 | 30.9 | 14.1 | 61.9 | 29.5 | 14.4 | 61.5 | 29.4 | 14.4 |
| | 20 | 70.2 | 27.9 | 15.0 | 66.9 | 26.6 | 15.2 | 63.4 | 25.3 | 15.5 | 63.2 | 25.3 | 15.5 |
| 23 | 17 | 65.0 | 48.1 | 11.7 | 62.0 | 46.8 | 11.9 | 58.8 | 45.4 | 12.2 | 58.3 | 45.2 | 12.2 |
| | 18 | 66.7 | 44.0 | 12.7 | 63.5 | 42.7 | 13.0 | 60.3 | 41.3 | 13.3 | 59.8 | 41.1 | 13.3 |
| | 19 | 68.4 | 39.8 | 13.8 | 65.2 | 38.5 | 14.1 | 61.8 | 37.2 | 14.4 | 61.4 | 37.0 | 14.4 |
| | 20 | 70.1 | 35.6 | 14.9 | 66.8 | 34.3 | 15.2 | 63.3 | 33.0 | 15.4 | 63.1 | 32.9 | 15.5 |
| 25 | 17 | 64.9 | 55.6 | 11.6 | 61.9 | 54.3 | 11.9 | 58.7 | 53.0 | 12.2 | 58.2 | 52.7 | 12.2 |
| | 18 | 66.6 | 51.5 | 12.7 | 63.4 | 50.2 | 13.0 | 60.2 | 48.9 | 13.2 | 59.7 | 48.7 | 13.3 |
| | 19 | 68.3 | 47.4 | 13.8 | 65.1 | 46.1 | 14.0 | 61.7 | 44.8 | 14.3 | 61.3 | 44.6 | 14.3 |
| | 20 | 70.0 | 43.2 | 14.8 | 66.7 | 41.9 | 15.1 | 63.2 | 40.6 | 15.4 | 63.0 | 40.5 | 15.4 |
| 27 | 17 | 64.8 | 63.0 | 11.5 | 61.8 | 61.7 | 11.8 | 58.7 | 58.7 | 12.1 | 58.2 | 58.2 | 12.2 |
| | 18 | 66.5 | 58.9 | 12.6 | 63.3 | 57.6 | 12.9 | 60.1 | 56.3 | 13.2 | 59.6 | 56.1 | 13.2 |
| | 19 | 68.2 | 54.8 | 13.7 | 65.0 | 53.6 | 14.0 | 61.6 | 52.2 | 14.3 | 61.2 | 52.1 | 14.3 |
| | 20 | 69.9 | 50.7 | 14.8 | 66.6 | 49.4 | 15.1 | 63.1 | 48.1 | 15.3 | 62.9 | 48.1 | 15.4 |
| 29 | 17 | 64.7 | 64.7 | 11.5 | 61.7 | 61.7 | 11.8 | 58.6 | 58.6 | 12.1 | 58.1 | 58.1 | 12.1 |
| | 18 | 66.4 | 66.3 | 12.6 | 63.3 | 63.3 | 12.9 | 60.1 | 60.1 | 13.1 | 59.6 | 59.6 | 13.2 |
| | 19 | 68.1 | 62.2 | 13.7 | 64.9 | 60.9 | 13.9 | 61.6 | 59.6 | 14.2 | 61.1 | 59.4 | 14.2 |
| | 20 | 69.8 | 58.1 | 14.7 | 66.5 | 56.9 | 15.0 | 63.0 | 55.5 | 15.3 | 62.8 | 55.5 | 15.3 |
| 31 | 17 | 64.7 | 64.7 | 11.5 | 61.6 | 61.6 | 11.8 | 58.2 | 58.2 | 12.1 | 57.7 | 57.7 | 12.1 |
| | 18 | 66.3 | 66.3 | 12.5 | 63.2 | 63.2 | 12.8 | 60.0 | 60.0 | 13.1 | 59.5 | 59.5 | 13.2 |
| | 19 | 68.0 | 68.0 | 13.6 | 64.8 | 64.8 | 13.9 | 61.5 | 61.5 | 14.2 | 61.0 | 61.0 | 14.2 |
| | 20 | 69.7 | 65.5 | 14.7 | 66.4 | 64.2 | 15.0 | 63.0 | 62.9 | 15.2 | 62.8 | 62.8 | 15.3 |

# LDE 702




# LDC 35-35




**Please note: This Indoor Unit uses 2 Condesers**

E&OE

# LARGE DUCTED SPLIT
# LDE882 / LDC44-44

## TECHNICAL SPECIFICATION

| Unit Capacity | |
|---|---|
| Total Cooling Capacity (kW)* | 87.7 |
| Sensible Cooling Capacity (kW)* | 66.0 |
| Heating Capacity (kW)** | 94.4 |
| Nominal Evaporator Air Flow (l/s) | 4200 |
| *Entering air @ 27/19 ˚C (DB/WB) and ambient 35˚C | |

| Power Requirements | |
|---|---|
| Number of Compressors | 2 |
| Power Requirements (Volt / Phase) | 380 / 3 |
| Normal Max. Current (Amps) | 100.54 |
| Power Input (kW) | 62.1 |
| **Entering air @ 21˚C (DB) and 7 ˚C ambient | |

### Cooling Performance Correction

| Capacity | % Rated Air Quantity - Nominal 4200 l/s | | | | |
|---|---|---|---|---|---|
| | 80 | 90 | 100 | 110 | 120 |
| Total Cooling | 0.96 | 0.98 | 1.00 | 1.02 | 1.03 |
| Sensible Cooling | 0.90 | 0.95 | 1.00 | 1.05 | 1.10 |

### Heating Performance Data

| Outdoor Coil Entering DB temperature ˚C | | | | | |
|---|---|---|---|---|---|
| | 0 | 4 | 8 | 12 | 18 |
| Heating Capacity (kW) | 81.8 | 87.4 | 96.4 | 104 | 116 |

### Heating Performance Correction

| % Rated Air quantity | Multiplier | Return Air Temp ˚C | Multiplier | Outdoor Air Temp ˚C | Approx Defrost Factor |
|---|---|---|---|---|---|
| 80 | 0.98 | 15 | 1.05 | 0 | 0.85 |
| 90 | 0.99 | 18 | 1.03 | 2 | 0.9 |
| 100 | 1.00 | 21 | 1.00 | 4 - 6 | 1 |
| 110 | 1.01 | 24 | 0.98 | 7 | 1 |
| 120 | 1.03 | 27 | 0.96 | 8 | 1 |

### Compressor

| | |
|---|---|
| Number Per Unit | 2 |
| Type | Scroll |
| Normal Max Current (Amps / Phase) | 22.5 / 3 x 1 |
| Locked Rotor Current (Amps / Phase) | 112.5 / 3 x 1 |

### Electrical Controls and Safeties

| | | | |
|---|---|---|---|
| High Pressure Switch (Setting kPa) | 4000 | Defrost | |
| Low Pressure Switch (Setting kPa) | 3200 | Initiation Temperature ˚C | 7 |
| Indoor Fan Overload | Internal | Termination Temperature ˚C | Pressure Based |
| Outdoor Fan Overload | Internal | Min. Period between De-Ice (min) | 30 |
| Compressor Delay Timer (s) | 300 | Max De-Ice Period (min) | 5 |

### Standard Features

| | |
|---|---|
| Auto reset high pressure and auto reset low pressure cutouts | |
| Thermal Overload Protection On All Motors | Suction Line Accumulator |
| Compressor Crank Case Heater | Automatic De-ice System |
| Limit Start Timer (Anti Short Cycling) | Thermal Insulation Indoor Unit |

### Evaporator Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 1.6909 |
| Air Quantity (l/s) | 4200 |

### Evaporator Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Centrifugal |
| Drive | Pulley Driven |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |
| Motor Power (kW) | 4 |
| Maximum Fan Speed (rpm) | 1200 |

### Condenser Coil

| | |
|---|---|
| Type | Copper Tube/ Aluminium Fins |
| Face Area (m²) | 3.294 |

### Condenser Fan

| | |
|---|---|
| Number of Fans | 2 |
| Type | Axial |
| Drive | Direct |
| Motor kW / rpm | 1.8 / 940 |
| Motor Voltage / Phase / Hertz | 380 / 3 / 50 |

### Refrigeration System

| | |
|---|---|
| Refrigerant type | R410A |
| Charge (kg) | 26.30 |
| Expansion Control - In / Outdoor unit | TX Valve |
| | Electronic Expansion Valve (Optional) |

### Optional Features

| |
|---|
| Fire Alarm Cut-Off Switch |
| Electronic Expansion Valve |
| Highly Flexible Control Ability |
| Supply Air Variable Speed Drive |

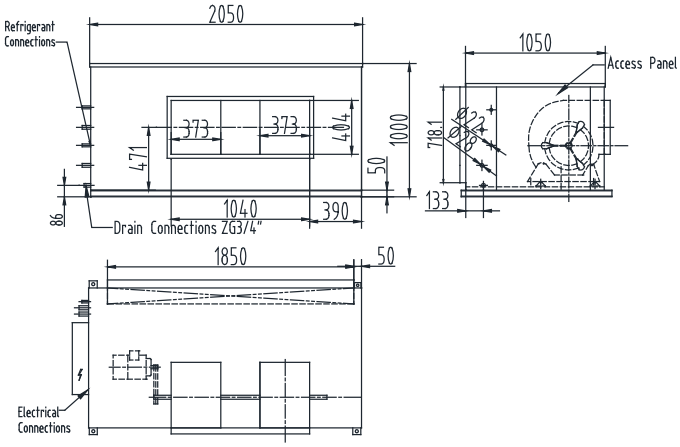
ECOAIRE

R410A
ZERO OZONE DEPLETION POTENTIAL

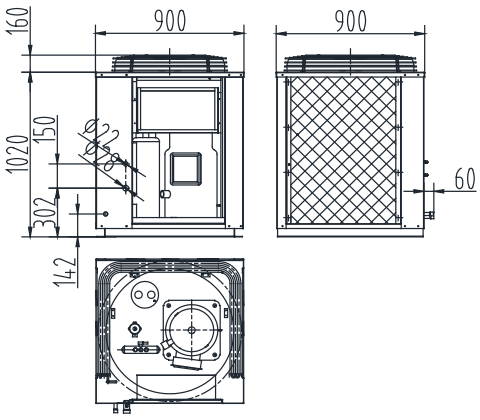
# PERFORMANCE DATA LDC44&LDC44 / LDE882

| INDOOR COIL ENTERING AIR TEMP ˚C | | OUTDOOR COIL ENTERING TEMPERATURE ˚C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 30 ˚C | | | 35 ˚C | | | 40 ˚C | | | 42 ˚C | | |
| DB ˚C | WB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C | Tot. Cap kW | Sens. Cap kW | LWB ˚C |
| 21 | 17 | 88.9 | 52.5 | 10.3 | 83.6 | 50.1 | 10.7 | 78.3 | 47.7 | 11.2 | 76.1 | 46.7 | 11.4 |
| | 18 | 91.2 | 47.7 | 11.4 | 85.9 | 45.4 | 11.8 | 80.4 | 43.0 | 12.3 | 78.1 | 42.1 | 12.4 |
| | 19 | 93.6 | 43.0 | 12.5 | 88.1 | 40.7 | 12.9 | 82.4 | 38.3 | 13.4 | 80.1 | 37.4 | 13.5 |
| | 20 | 95.9 | 38.1 | 13.6 | 90.3 | 35.9 | 14.0 | 84.6 | 33.6 | 14.5 | 82.2 | 32.7 | 14.6 |
| 23 | 17 | 88.8 | 60.9 | 10.2 | 83.5 | 58.5 | 10.7 | 78.2 | 56.1 | 11.1 | 76.0 | 55.2 | 11.3 |
| | 18 | 91.0 | 56.2 | 11.3 | 85.7 | 53.9 | 11.8 | 80.2 | 51.5 | 12.2 | 78.0 | 50.6 | 12.4 |
| | 19 | 93.4 | 51.5 | 12.4 | 87.9 | 49.2 | 12.9 | 82.3 | 46.9 | 13.3 | 80.0 | 45.9 | 13.5 |
| | 20 | 95.8 | 46.8 | 13.5 | 90.2 | 44.5 | 14.0 | 84.4 | 42.2 | 14.4 | 82.1 | 41.3 | 14.6 |
| 25 | 17 | 88.6 | 69.3 | 10.2 | 83.4 | 66.9 | 10.6 | 78.1 | 64.5 | 11.1 | 75.9 | 63.5 | 11.3 |
| | 18 | 90.9 | 64.6 | 11.3 | 85.6 | 62.3 | 11.7 | 80.1 | 59.9 | 12.2 | 77.9 | 59.0 | 12.3 |
| | 19 | 93.3 | 59.9 | 12.4 | 87.8 | 57.6 | 12.8 | 82.2 | 55.3 | 13.2 | 79.9 | 54.4 | 13.4 |
| | 20 | 95.7 | 55.2 | 13.5 | 90.0 | 52.9 | 13.9 | 84.3 | 50.6 | 14.3 | 82.0 | 49.7 | 14.5 |
| 27 | 17 | 88.5 | 77.5 | 10.1 | 83.2 | 75.1 | 10.6 | 77.9 | 72.8 | 11.0 | 75.8 | 71.8 | 11.2 |
| | 18 | 90.7 | 72.9 | 11.2 | 85.5 | 70.6 | 11.7 | 80.0 | 68.2 | 12.1 | 77.8 | 67.3 | 12.3 |
| | 19 | 93.1 | 68.3 | 12.3 | 87.7 | 66.0 | 12.8 | 82.1 | 63.6 | 13.2 | 79.8 | 62.7 | 13.4 |
| | 20 | 95.5 | 63.6 | 13.4 | 89.9 | 61.3 | 13.9 | 84.2 | 59.0 | 14.3 | 81.9 | 58.1 | 14.5 |
| 29 | 17 | 88.3 | 85.7 | 10.1 | 83.1 | 83.1 | 10.5 | 77.8 | 77.8 | 11.0 | 75.7 | 75.7 | 11.2 |
| | 18 | 90.6 | 81.1 | 11.2 | 85.3 | 78.8 | 11.6 | 79.9 | 76.4 | 12.0 | 77.7 | 75.5 | 12.2 |
| | 19 | 93.0 | 76.5 | 12.3 | 87.5 | 74.2 | 12.7 | 81.9 | 71.9 | 13.1 | 79.7 | 70.9 | 13.3 |
| | 20 | 95.4 | 71.9 | 13.4 | 89.8 | 69.6 | 13.8 | 84.1 | 67.3 | 14.2 | 81.7 | 66.4 | 14.4 |
| 31 | 17 | 88.2 | 88.2 | 10.0 | 83.0 | 83.0 | 10.5 | 77.7 | 77.7 | 10.9 | 75.6 | 75.6 | 11.1 |
| | 18 | 90.5 | 89.2 | 11.1 | 85.2 | 85.2 | 11.5 | 79.8 | 79.8 | 12.0 | 77.6 | 77.6 | 12.2 |
| | 19 | 92.8 | 84.6 | 12.2 | 87.4 | 82.3 | 12.6 | 81.8 | 80.0 | 13.1 | 79.6 | 79.1 | 13.3 |
| | 20 | 95.2 | 80.0 | 13.3 | 89.6 | 77.7 | 13.7 | 83.9 | 75.5 | 14.2 | 81.6 | 74.5 | 14.4 |

# LDE 882



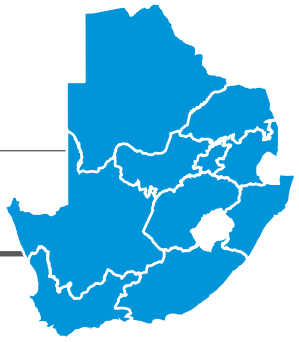

# LDC 44-44




**Please note: This Indoor Unit uses 2 Condesers**

E&OE

# **ECOAIRE** REFERENCES



## SHOPPING MALLS

V & A Marina Waterfront
Mall of the North
Soshanguve Crossing
The Grove
Mall @ Middelburg
Northgate Mall
Cradlestone
Mall of the South
Watercrest Mall
Thaba Mall
Canary Walk – Nelspruit
Waterstone – Cape Town
Zevenwacht Mall

## HOTELS & ENTERTAINMENT

Westcliff
– Johannesburg
Gold Reef City Casino
– Johannesburg
Grand West Casino
- Cape Town
Emperor's Palace
One & Only
– Cape Town
Tusk Casino
– Empangeni
Radisson Hotel
– Port Elizabeth

## EDUCATIONAL

Westville University
UNISA Florida
University of Pretoria
Engineering Department -
Thuto Building -
Mangosuthu Technikon
University of Johannesburg:
Bunting Road

## HOSPITALS

3 Military Hospital
Panorama Mediclinic
Civitas Pretoria
Natalspruit Hospital
Netcare Pinehaven
Highveld Eye Hospital
Military Health Base
Mokopane Hopital
Albert Luthuli Academic
Hospital
Addington Hospital
Vryburg Hospital
N1 City Hospital

## PUBLIC BUILDINGS

Alice Lane Offices
Choose Life Church
FNB van der Bijl Park
Toyota Midrand
CTM & Italtile
Porche Head Office
– Pretoria
CSIR
BMW
Anglo American

## SPECIAL PHARMACEUTICAL SITES

Middelburg Pharmacy
Plascon Test Laboratory
Lea Glen Pharmacy
Phokeng Pathology
Covidien Pharmaceuticals

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