

This year's forecast:
A relaxed and peaceful summer **Live Unruffled**



improve
buildings™

Presenting Ducted and Cassette R410a Series.
A result of path breaking innovation.



For more details please contact the following Carrier sales offices:-

CARRIER REGISTERED OFFICE: Carrier Airconditioning & Refrigeration Ltd., Carrier Complex, Vill. Narsingpur, Kherki Daula Post, Gurgaon-122004, Haryana; Phone No.: 0124-4825500. **CARRIER SALES OFFICES:** Gurgaon: 0124-4707333, Ghaziabad: 0120-4183260, Chandigarh: 0172-5007548-50, Jaipur: 0141-5113444, 5113999, Mumbai: 022-26528989, 26541755, Pune: 020-25468301, 25437741, Goa: 0832-2447028, 2447027, Ahmedabad: 079-40267777, Kolkata: 033-40201300, Chennai: 044-42228888, Bangalore: 080-41114747, Patna: 0612-2323517, Hyderabad: 040-40118106, 40118147-48, Cochin: 0484-4029001, 4029000, Lucknow: 0522-2202346, 2230598, Indore: 0731-4294700, Pondicherry: 0413-2226676, Coimbatore: 0422-4385403, Guwahati: 0361-2595003, Bhubaneswar: 0674-2587178, 2585893, Nagpur: 0712-6453790, Ranchi: 0651-6452488, 09835373982, Raipur: 0771-4013245.

www.carrierindia.com





ABOUT CARRIER



In 1915, Carrier was founded by Dr. Willis H. Carrier, the inventor of modern airconditioning. Headquartered in Farmington, U.S.A., Carrier is a leader in providing heating, ventilation, air conditioning and refrigeration (HVACR) systems, controls, service and sustainable building solution for residential, commercial, industrial, good service and transportation application.

Carrier has a manufacturing facility in India, which produces airconditioning and refrigeration equipment for the residential and commercial market. Products manufactured at Carrier India include WRAC, duct free splits, ducted splits, chillers, airside systems, freezers and bus air conditioners.

Carrier is a part of United Technologies Corporation (UTC), which provides high technology products and services to the building systems and aerospace industries worldwide.

MAKING YOU AND THE ENVIRONMENT SMILE!

At Carrier, we firmly believe in making a meaningful difference in people's life by protecting the environment with our environmentally sustainable and energy efficient products. No wonder, when our air conditioners make you smile, the environment smiles with you too!

We care for the environment and it shows...

- Adopted the Energy Efficiency Label issued by BEE, Bureau of Energy Efficiency
- Awarded the first prize for Energy Conservation in Consumer Goods Sector continuously from 2007 till 2011 by Ministry of Power, Govt. of India



| 2012 R410a Product Line Up | | | | | | | |
|----------------------------|-----------------|-------|-------|-------|-------|-------|-------|
| | INDOOR UNITS | | | | | | |
| | Capacity | 1.5TR | 2.0TR | 3.0TR | 4.0TR | 5.5TR | 8.5TR |
| R410A | CASSETTE | | | | | | |
| | FI | | | | | | |
| | DUCT | | | | | | |
| | OUTDOOR UNITS | | | | | | |
| | Capacity | 1.5TR | 2.0TR | 3.0TR | 4.0TR | 5.5TR | 8.5TR |
| | CASSETTE / DUCT | | | | | | |



Cassette

Compact Size

It is a compact unit with only 298 mm height and will occupy less space as it requires less height of rooms. As the four suspension brackets of the unit adopt the T shape opening, it can be installed up and fixed easily.

Super thin design of outdoor unit lightens the unit, which makes the installation more flexible and convenient.

Silent Operation

INDOOR UNIT

The use of anti-vibration pads of the motor makes the motor run quietly and smoothly. The special design of centrifugal fan ensures the quiet running of the indoor unit. All the throttle device is mounted in the outdoor unit. This thoroughly eliminates the bothering throttle noise inside the room. The four flow guide plates used in 40GKX048 further reduce the unit's noise.

OUTDOOR UNIT

Units with capacity >2.0 TR are equipped with hermetic scroll compressors. This can reduce the outdoor unit's noise effectively.



Indoor Unit



Outdoor Unit

Rotary Compressor

Rotary Compressor is designed to perform efficiently under extreme climatic conditions for 18K and 24K models



Rotary Compressor

Scroll Compressor

The Scroll technology in 36K and 48K models guarantees high volumetric efficiency and low friction losses.



Scroll Compressor

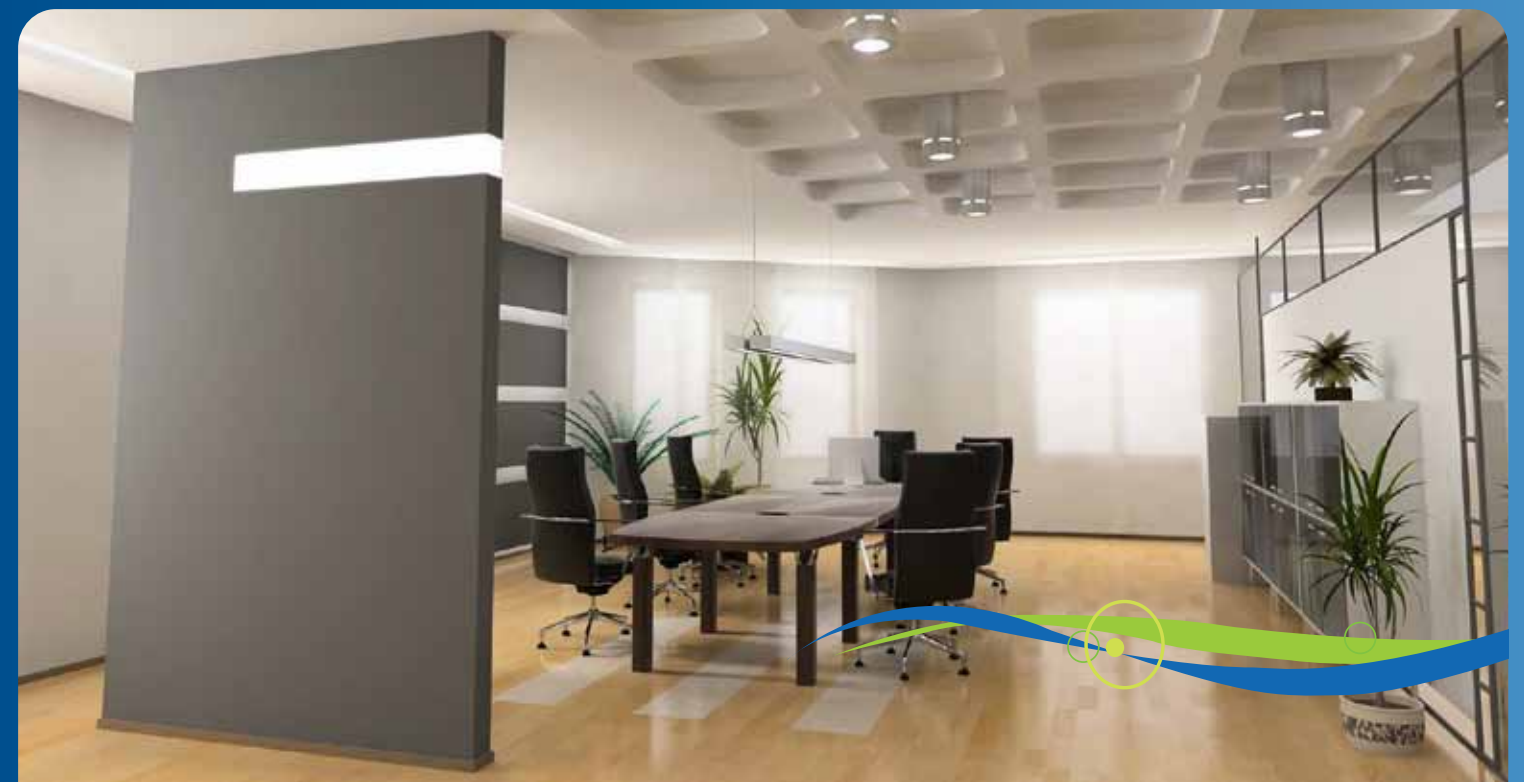
Reliable and Durable

Both impeller and motor of the unit are tested strictly in the factory. The outdoor unit uses the hermetic scroll compressor and rotary compressor. All the refrigerant pipes are inspected carefully of leakage to avoid any leak of the refrigerants. The case panel of the unit is a galvanized steel panel and is coated with static electrical powder, while all the screws are made of stainless steel so that the units can stand in a rigorous environment.

High efficiency and energy saving

Helps in saving power consumption, 18K & 24K models are launched with star labeling and are probably the first ones to enter star band for R410a refrigerant as compared to existing models in market.

| 18K Cassette | 24K Cassette |
|---------------|---------------|
| <p>4 star</p> | <p>4 star</p> |



Easy Operation and Maintenance

The air return grille and fan of the indoor unit is easy to be dismantled. There are service valves installed in the pipe of the outdoor unit to facilitate service operation.

Stylish Panel Design

The front panel and grille of the indoor unit are designed by Italian specialists. Stylish appearance makes it suitable to match various room decorations. Special design of air supply assures the fast mixture of supply air and room air.



Fresh Air Intake

Side knockouts allow connection of fresh air inlet ducts and ducts to deliver conditioned air to an adjacent room.

Voltage Scanner (3 Ph Compressor protection relay)

Voltage Scanner is a protection device added in 36K and 48K models to provide electrical safety to compressor from 3 Phase power issues in field. It provides protection against single phasing or Phase reversal, Phase to Phase Voltage imbalance, wrong Phase sequence or Phase reversal, under voltage and over voltage.



Drain Pump

High performance condensate drain pump can drain out the condensate water fast and quietly. By applying special anti-humidity processing technique, the control board can avoid failure caused by humidity when operating in a hot and wet environment. The front panel is insulated by special insulation. This can protect the panel against condensation.



Drain Pump

Heat Exchanger

The application of Lanced fin and inner grooved copper tubes largely enhance the coil's heat exchange efficiency. Hydrophilic aluminum fins can avoid cold bridge's generation between fins and decreases air resistance caused by condensation generated during cooling. All these designs, along with the use of high efficient scroll compressor and rotary compressor, ensure unit's energy saving and economic spending.

Three phase unit is equipped with special phase sequence protection device.



Heat Exchanger

Remote Controller

LCD Display – The remote control has LCD display with following listed functions

- Setting Current Time – The up and down button supports in setting the current time.
- Start/Stop Button – This allows switching the air conditioner ON/OFF.
- Operating Mode – With this button the operating mode of the air conditioner can be selected.
 - Cooling with dehumidification
 - Dehumidification only
 - Ventilation(Fan only)
 - Heating
 - Automatic changeover
- Temperature Setting – The up and down buttons will increase the temperature from the previously set value. The temperature can be set between 16°C and 30°C at one degree interval.
- Selecting direction of air flow louver – The air flow can be adjusted to optimize air distribution in the room.



Remote Controller



Fan Speed

This option is to set the fan speed of indoor unit as LOW, MEDIUM or HIGH or AUTOMATIC. In automatic mode fan speed will automatically switch the value required for optimum comfort).



ON/OFF Timer

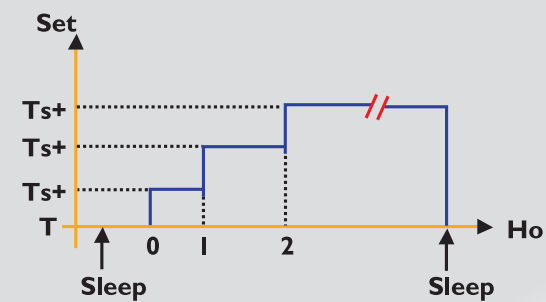
This will activate ON timer setting function, the current clock setting will increase one minute interval on each press.

This will activate OFF timer setting function, the current clock setting will increase one minute interval on each press.



Sleep Timer

This button will activate the sleep function. Set temperature will be increased or decreased with time. Cool mode sleep profile is as follows:-



| R-410a | | | | | |
|---|-------------|-------------------|-------------------|-------------------|-------------------|
| CASSETTE SPLIT AIR-CONDITIONERS : TECHNICAL SPECIFICATION | | | | | |
| PARAMETER \ CATEGORY | | 1.5TR | 2.0TR | 3.0TR | 4.0TR |
| MODEL No (INDOOR) | | 40GKX018V | 40GKX024V | 40GKX036GA | 40GKX048GA |
| MODEL NO (OUTDOOR) | | 51MSG-018GRA | 51MSG-024GRA | 51MSG-036GSA | 51MSG-048GSA |
| NOMINAL COOLING CAPACITY* | Btu/Hr | 18000 | 22100 | 36000 | 43500 |
| NOMINAL POWER INPUT* | Watts | 1566 | 1973 | 3632 | 4400 |
| BEE STAR RATING** | | 4 Star | 4 star | NA | NA |
| RATED POWER SUPPLY | V-Ph-Hz | 230 ±10% - 1 - 50 | 230 ±10% - 1 - 50 | 400 ±10% - 3 - 50 | 400 ±10% - 3 - 50 |
| Net WEIGHT – INDOOR/OUTDOOR/GRILLE | Kgs | 18/46/2.5 | 18/55/2.5 | 38 / 72 / 5 | 38 / 77 / 5 |
| AIR FLOW RATE | CFM | 412 | 500 | 741 | 974 |
| FAN MOTOR (INDOOR) | # of Speeds | 3 | 3 | 3 | 3 |
| FAN MOTOR (OUTDOOR) | # of Speeds | 1 | 1 | 1 | 1 |
| COMPRESSOR TYPE | | Rotary | Rotary | Scroll | Scroll |
| Flare Connection : Liquid Line | Inch | 1/4" | 1/4" | 3/8" | 3/8" |
| Flare Connection : Gas pipe | Inch | 1/2" | 5/8" | 3/4" | 3/4" |
| INDOOR UNIT (H x W x D) | mm | 298 x 575 x 575 | 298 x 575 x 575 | 298 x 825 x 825 | 298 x 825 x 825 |
| PROJECTED GRILLE UNIT (H x W x D) | mm | 30 x 720 x 720 | 30 x 720 x 720 | 30 x 960 x 960 | 30 x 960 x 960 |
| OUTDOOR UNIT (H x W x D) | mm | 692 x 904 x 325 | 820 x 904 x 325 | 820 x 904 x 325 | 695 x 1030 x 435 |
| SOUND DATA @ 50 Hz | HI/MED/LOW | 43.9/39.4/37 | 49.5/45.5/41.9 | 46.2/42.2/39.4 | 53.2/47.2/43.3 |
| PRE FILTER | | Yes | Yes | Yes | Yes |
| CONTROL TYPE | | LCD Remote | LCD Remote | LCD Remote | LCD Remote |
| AUTO OFF TIMER | | Yes | Yes | Yes | Yes |
| AUTO ON TIMER | | Yes | Yes | Yes | Yes |
| SLEEP MODE | | Yes | Yes | Yes | Yes |
| DRY MODE | | Yes | Yes | Yes | Yes |
| AUTO FAN SPEED | | Yes | Yes | Yes | Yes |
| NIGHT TIMER | | Yes | Yes | Yes | Yes |
| REAL TIME CLOCK | | Yes | Yes | Yes | Yes |
| BATTERIES EXHAUSTED INDICATOR | | Yes | Yes | Yes | Yes |
| DAILY TIMER ACTIVE | | Yes | Yes | Yes | Yes |

* All Specification as per IS 1391(Part 2) : 1992 Room air-conditioner Rounded off as per IS 2: 1960 rules for rounding off numerical values.
 **BEE (Bureau Of Energy Efficiency) an autonomous body under Ministry of Power, Government of India, started this initiative of Star rating basis EER ranging from 1 Star to 5 Star.
 # Number of Speed Selection (High, Medium, Low).

Ducted (Furred-In)

True to its name, the Furred-In multi-split air conditioner is extremely versatile. The Furred-In compact unit saves your valuable floor space and requires no space for plant room. Furred-In is available in capacity of 1.5 & 2.0 TR.

The Furred-In range is designed with high energy efficient compressors that can uniformly cool any area, corner to corner. All models in this range offer unmatched flexibility with a range of ductable and fan coil indoor units that blend beautifully with any interior.

Features of Furred-In Series

- **Saves Space:** Sleek, aesthetic indoor units matched to the beam. As a result, it fits unobtrusively above false ceiling. Ideal for architects, interior decorators and consultants.
- **Synthetic Woven Filters:** Easy to clean, provides highly effective filtration.
- **Powder Coated Units:** Gives durability to the air conditioner.
- **Dual Sine Wave Fin Pattern:** Higher performance.
- **Easy Servicing:** The outdoor unit design ensures easy servicing of compressor by making it easily accessible. In the indoor unit, both side panels and the bottom are removable for convenient adjustments or replacement of motor or housing.
- **Electronic Remote Control:** The system has microprocessor based remote control for precise temperature setting.
- **World-class Service:** An extensive and well-equipped network gives you trouble-free service operation.
- **Direct Driven DIDW Fan:** Provides powerful air throw for uniform distribution over large areas and operates silently.
- **Quick Lock Fittings:** Easy and quick Installation.



Synthetic Woven Filters



Pendent Controller

Display:

There is 2 digit 7 segment LED Display and 9 LED indicators (Power/Cool/Dry/Sleep/Timer/Auto/High/Med/Low) to display unwritten features:

- Room temperature from 18°C to 29°C
- On/Off Timer Setting 1 to 24 Hrs
- System Configuration

Keys:

- keys for different function

(TEMP UP/TEMP DN/ SLEEP/MODE/FAN/TIMER/ON/OFF) settings.

Features:

- On/Off
- Timer (On/Off)
- Mode Selection (Cool/Fan/Dry)
- Room temp setting 18°C to 29°C
- Room & Set Temperature display
- Time(Hrs) Display
- Indoor Fan speed Selection (Low/Med/High/Auto)
- Compressor On/Off delay (3min) for compressor protection
- Auto Restart (Selectable)
- Anti freeze cut protection
- Error indication (E1-Room sensor defective/E2-Coil sensor Defective/E3- Coil temperature<0C)



| R410a | | | | | | |
|-------------------------------------|--------------------------|-------------|--|------------------|--------------------------------|-----------------|
| FURRED-IN : Technical Specification | | | | | | |
| INDOOR UNITS | | | OUTDOOR UNITS | | | |
| PARAMETER/CATEGORY | | 1.5TR | 2.0TR | 1.5TR | 2.0TR | |
| GENERAL | Model No. | 42CM-006GA | 42CM-008GA | 51MSG-018GRB | 51MSG-024GRB | |
| | Nominal cooling Capacity | Btu/hr | 17300 | 21500 | 17300 | 21500 |
| | | Kcal/hr | 4325 | 5375 | 4325 | 5375 |
| | Nominal air quantity | CFM | 600 | 800 | - | - |
| | Power Supply | Volts/Hz/Ph | 230 +/-10% / 50 / 1 | | 230 +/-10% / 50 / 1 | |
| | Fan | Type | Direct driven DIDW forward curved centrifugal blower | | Centrifugal Fan | |
| | | Qty | 2 | | 1 | |
| | | Discharge | Horizontal | | Horizontal | |
| | Fan Motor | Type | Permanent Split Capacitor Type | | Permanent Split Capacitor Type | |
| | | Qty | 1 | | 1 | 1 |
| | | Power HP | 1 / 12 | | 1 / 11' | 1 / 7' |
| | Fan Speed | RPM | 940 | | 780 | 920 |
| | COMPRESSOR | Type | - | - | Rotary | |
| | | Qty | - | - | 1 | 1 |
| Net Weight | Kg | 20 | 25 | 42 | 47 | |
| Refrigerant | | R-410a | | | | |
| OVERALL SIZE | Overall Dimension mm | H x W x D | 280 x 1000 x 594 | 280 x 1290 x 594 | 692 x 325 x 904 | 820 x 325 x 904 |



Ducted (Furred-In)

The Compressor is the heart of any air conditioning system. So, we decided to bring you the 3TR, 4TR, 5.5 TR and 8.5 TR Scroll Compressors, the best technology that guarantees high volumetric efficiency and low friction losses. They also have low sound and vibration, compared to reciprocating and rotary compressors.

These technological marvels are manufactured in a world-class facility by using the latest machining, assembly, process control techniques and are tested and subjected to abusive test conditions so that they can match stringent quality standards you have set for yourself as a professional.



Indoor Unit

Compact Size - The indoors have Best in Class height of 345mm in 36K, 48K, 66K and 102K occupies less space, requires less height of rooms and has sleek aesthetics.

Air Filter - The Non-woven synthetic with 90% efficiency traps foreign particles and prevents the entry of dust loaded particles to the heat exchanger.

Expansion Valve - Expansion valve does not allow the liquid refrigerant to feed into the compressor, thereby increasing the life of the unit.



Compact Size



Air Filter



Outdoor Unit

The Outdoor Condensing unit houses the Scroll Compressor. It gives a wide range of comfort features, especially suited for Indian conditions like wide operating voltage, silent operation, economical running and unmatched reliability.



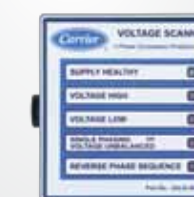
Scroll Compressor



Voltage Scanner (3 Ph Compressor protection relay)

Voltage Scanner is a protection device added in all models to provide electrical safety to compressor from 3 Phase power issues in field.

It provides protection against phasing or phase reversal, pPhase to phase voltage imbalance, wrong phase sequence or phase reversal, under voltage and over voltage.



Scanner



Pendent Controller (for 5.5 TR & 8.5 TR)

Display : Graphics LCD with back light, menu driven, user-friendly screen for different function settings.

Key : 8 keys for different functions and settings, 2 Multi function keys, Up and Down keys, Right and Left Shift Keys, On/Off key, Reset key.



Keys

- On/Off
- Built in Real Time Clock
- Auto Re-start
- Mode Selection (Cool/Fan)
- Room Temperature Setting (16° C to 30° C)
- Room Temperature Display
- Indoor Fan Speed Selection (Low/Medium/High)
- Compressor On/Off delay for Compressor Protection
- Fault Indication LP, HP, Sensor Fail
- System Set Up
- Probe Calibration (+-10° C)
- Holiday Exception (20 Holidays)
- Total Run Time Viewing
- Password Protected Menu and Parameter Setting
- 6 Prog. timer with 24 Hr Time Mode for Different Events Setting in a Day
- Weekly Off. (2 Days)
- Fault Logger for Viewing 100 Faults
- Filter Clean Time Setting



| | | R410a | | | | | | | | |
|---------------------|-----------------------------------|----------------------------------|--|-------------------------|-------------------------|-----------------|--------------------------------|----------------------|-------------------|--------|
| | | DUCTED : TECHNICAL SPECIFICATION | | | | | | | | |
| | | INDOOR UNITS | | | | OUTDOOR UNIT | | | | |
| | | 3 TR | 4 TR | 5.5 TR | 8.5 TR | 3 TR | 4 TR | 5.5 TR | 8.5 TR | |
| GENERAL | MODEL No. | 40LC004GA | 40LC005GA | 40LC007GA | 40LC010GA | 51MSG-036GSB | 51MSG-048GSB | 38LH-066GSA | 38LH-102GSA | |
| | Nominal cooling Capacity | Btu/hr | 36000 | 48000 | 66000 | 102000 | 36000 | 48000 | 66000 | 102000 |
| | | Kcal/hr | 9000 | 12000 | 16500 | 25500 | 9000 | 12000 | 16500 | 25500 |
| | Nominal air quantity | CFM | 1200 | 1600 | 2200 | 3400 | 2400 | 3000 | 4250 | 600 |
| | | CMH | 2040 | 2720 | 3740 | 5780 | 4080 | 5100 | 7225 | 10200 |
| | Power Supply | Volts/Hz/Ph | 230 +/-10% / 50 /1 | | | | 400 +/-10% / 50 /3 | | | |
| | Fan/Blower | Type | Direct driven DIDW forward curved centrifugal blower | | | | Centrifugal Fan | | | |
| | | Qty | 2 | | 3 | | 1 | | 2 | |
| | | Discharge | Horizontal | | | | Horizontal | | | |
| | Fan Motor | Type | Permanent Split Capacitor type | | | | Permanent Split Capacitor Type | | | |
| | | Qty | 1 | | 2 | | 1 | | 2 | |
| | | Power Watts | 125 | 300 | 450 | 450 | 107 | 124 | 370 | 107 |
| | Fan Speed | RPM | 1050 | 1380 | 1350 | 1350 | 920 | 1050 | 930 | 920 |
| | Control Type | | Micro processor-LCD display | | | | - | - | - | - |
| | Compressor | Type | - | - | - | - | Scroll | | | |
| Qty | | - | - | - | - | 1 | | | | |
| Net Weight | kg | 50 | 62 | 62 | 110 | 72 | 82 | 03/37/201203/27/2012 | 225 | |
| Refrigerant | | R-410a | | | | R-410a | | | | |
| Expansion Valve | | - | - | Thermal Expansion Valve | Thermal Expansion Valve | Capillary | Capillary | | | |
| OVERALL SIZE | Overall Dimensions mm (H x W X D) | 345 x 1205 x 725 | | | 345 x 1720 x 730 | 320 x 904 x 325 | 95 x 1030 x 435 | 875 x 1040 x 410 | 1055 x 1200 x 602 | |

