



**BEST-IN-CLASS COOLING** 

# PERF°RMANCE

WITH RHEEM'S NEW DUCTED INVERTER SERIES



#### PRESENTING RHEEM'S ALL NEW INVERTER TECHNOLOGY

Rheem's Inverter air conditioners come with a smart intelligent controls which automatically identify a room's cooling requirement and adjust the compressor speed accordingly. Thus, delivering the required cooling based on the space to be air conditioned.



#### RHEEM INVERTER VS NON-INVERTER COMPRESSOR

A conventional air conditioner or the so called ON/OFF or non-inverter unit operates at a fixed speed. It delivers a fix amount of cooling or heating capacity based on the fixed speed of the compressor.

Alternatively, Rheem uses a DC inverter compressor. DC inverter is an advanced air-conditioning technology used to achieve higher degree of user comfort and enhanced energy savings. DC Inverter compressors can increase or decrease the compressor speed and hence efficiently deliver the required cooling.



#### ADVANTAGES OF RHEEM INVERTER



Saves



Quiet operation



Longer life



Faster Cooling



Precise temperature control



Better humidity control



#### WHY IS RHEEM INVERTER SPECIAL?

Rheem Inverter units use a special refrigerant PCB cooling technology.

Refrigerant cooled electronic boards ensure **steady operation even at high ambient condition, longer life and less maintenance.** It also ensures that the frequency limit of the inverter compressors is relaxed so the **output capacity of the unit will be higher than conventional inverter units during high ambient conditions.** 

Additional system protection and pressure temperature sensors help the smart controller to adjust compressor speed and maintain a comfortable room temperature. They also increase the compressor's reliability.

#### **SPECIAL FEATURES**

- High Discharge temperature protection
- High Condensing temp protection
- Over current protection
- Structural designn validation
- Finite elements analysis
- Compressor oil management
- Wide operating range



"Refrigerant Cooled" Drive for better cooling at high ambient and reliability



# WHAT'S MORE?

#### **High Efficiency Units**

The system has an Energy efficiency ratio of 12, which means it is very efficient, and provides power savings and lowers energy bills.



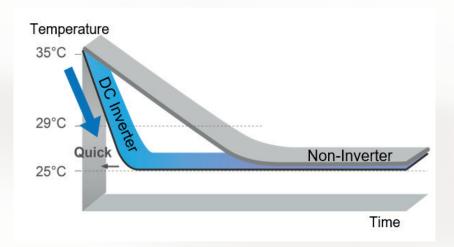
#### Operating up to 54 °C ambient

Designed specifically for gulf climate, the system provides uninterrupted cooling even during extreme weather conditions.



#### **Faster cooling**

The simultaneous control of the DC inverter compressor speed along with electronic expansion valve opening provides faster cooling and precise control over the room temperature.



#### Antifreeze protection for coil

### Enjoy complete peace-of-mind.

Antifreeze temperature sensor is provided on coil against unexpected freezing during abnormal operating conditions.



#### Reliable pressure cut-outs

High-pressure & low pressure protection is standard on the system and **provides** enhanced system protection.



## INDOOR UNITS

#### **Durable indoor cabinet**

The indoor unit cabinet is polyester based Powder coated and made from hot dip galvanized steel sheet metal. This provides **high corrosion resistance and increases durability.** (Tested at 1008 hrs. salt spray test as per ASTM-B117 std.)



#### Sturdy mounting arrangement

Specially designed mounting arrangement to have center alignment of motor & fan blower assembly with housing, provides absolute sturdiness against vibrations for a quiet cooling experience.



#### **Blower & Blower housing**

Blower is made from galvanized steel sheet metal for the ultimate durability. Blower housing is also made from galvanized steel sheet metal and structurally made to offer benefits of **low-noise**, **high-efficiency and uniform air flow.** 



## Highly corrosion resistance evaporator coils (Blue fin technology)

These coated and corrosion resistant coils are constructed with inner helical grooved copper tubes (IGT) & aluminum fins and offered as a standard feature in the system. Specifically designed louvered indoor fins increase heat transfer capability for better cooling performance.



#### Easy service access

Removable panels at the bottom of the unit are provided for service access to blower, blower housing, motors & expansion device. This ensures **lower maintenance time and costs** as it provide complete access to components without opening the ducting & refrigerant connections.



#### **Electronic expansion valve**

The units are designed with electronic expansion valve for a **smart and** accurate control cooling based on cooling demand.





#### **Ultra high-efficiency motors**

Multi speed, internally protected & Ultra high-efficiency motors with Class-B insulation are mounted on resilient rubber mountings to reduce noise level and that peaceful sleep.



#### **Silent operation**

The motor & fans are designed to deliver performance even when running at lower RPM to reduce tip speeds for **extremely silent operation.** 



The fans are also designed to operate for **quiet & highly efficient operation.** 

#### **Best-in-class Insulation**

Irradiated grade EPE, fire retardant, odor free material for thermal, hygiene and acoustic application.



#### **Healthy filters**

**Enjoy better indoor air quality** with 5mm thick woven synthetic, permanent washable filters. Offered as standard on all units.



#### Specially designed drain pan

Insulated & powder coated galvanized steel drain pan is **easily removable** from the bottom and can be cleaned or serviced easily for better hygiene. It is specially designed to provide adequate slope for proper condensate drain.



## OUTDOOR UNITS

#### **Tropical Inverter Rotary Compressor**

These compressors come with internal high-temperature motor overload protection, and durable insulation on the motor winding. Also, **optimized for performance & reliability during high-temperature weather conditions.** 



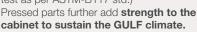
#### High quality condenser fan motor

Internally protected, totally enclosed and permanently lubricated type motors are **tested for high-ambient operation adding to the durability of the** system.



#### **Durable outdoor cabinet**

The indoor unit cabinet is polyester based Powder coated and made from hot dip galvanized steel sheet metal. This provides high corrosion resistance and increases durability. (Tested at 1008 hrs. salt spray test as per ASTM-B117 std.)





#### Filter drier

This standard accessory prevents unwanted moisture in the system and helps in enhancing system life.



### Inner grooved Copper Tubes & Aluminum Fins

These inner grooved copper tubes (IGT) & aluminum fins are offered as a standard feature in the system. Specifically designed louvered outdoor fins increase heat transfer capability for better cooling performance.





#### Durable metallic fan and fan guard

Metallic Condenser fan blades ensure safety & high durability. Suitable for operation in high ambient temperature and heavy wind pressure. Metallic wire guard confirms to IEC safety standard & high durability.



#### **Convenient Service valves**

These valves are provided outside the outdoor unit with service ports for connecting gauges for **easy installation**, additional refrigerant charging and monitoring of system. (Standard on all models.)



#### Pre-charged unit

Every unit is factory charged and run tested before shipment.



#### Easy service capability

The compressor & the electrical box are located in separate compartments of the cabinet providing for easy access through the service panel reducing maintenance time and cost.



#### **Controller Features**

- Microprocessor based unit
- High pressure and low-pressure protection
- **Antifreeze protection**

- Built in time delay for compressor
- Quick connector on cable for easy installation
- Precise control of room temperature (sensor in display)

#### **Controller Modes**

- **Cool Mode**
- Fan Mode
- **Auto Mode**
- **Dry Mode**
- Sleep Mode
- **Performance Mood**
- **Off Timer**

- Multi Fan Mode
- **Auto Restart with memory Backup**
- **LCD Display**
- Scheduling (Weekly, Monthly, Yearly)
- **Filter Clean Alarm**
- **Room and set Temperature display**
- **Compressor ON status**



Donald Rheem Richard Rheem



Founded in 1925, Rheem® is nearly a 100 year old North American manufacturer delivering innovative, energy efficient air conditioning and water heating solutions under one roof to homes and businesses in more than 70 countries worldwide. From its Atlanta, Headquarters, three U.S. manufacturing facilities, Ga. state-of-the-art distribution center and Advanced Technology Integration (ATI) Lab, Rheem® designs, builds and supplies some of the most reliable, environmentally responsible and technologically advanced products in the industry. Under the "One Rheem Quality" promise, every Rheem® built everywhere in the world is held to the same high standard of excellence.



