

Carrier

turn to the experts 

# DIGITAL DUCTED

EVER INNOVATING ■ EVER EVOLVING ■ FOREVER EXCELLING

DIGITAL DUCTED SCROLL SERIES  
With Digital Scroll Compressor



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:** 044-42222888, **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.

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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, services and sustainable building solutions for residential, commercial, industrial, food service and transportation applications.

Carrier has a manufacturing facility in India, which produces airconditioning and refrigeration equipment for the domestic market. Products manufactured at Carrier India include WRAC, duct free splits, ducted splits, chillers, airside systems and truck refrigeration.

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 lives 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 in 2007, 2008 & 2009 by Ministry of Power, Govt. of India.
- Carrier has also won the first prize in [Manufacturers of BEE Star Labeled Appliances [Air Conditioner]Sector] in 2009 and second prize in 2010.



The next generation Variable Capacity Compression Technology is here.

Carrier presents Digital Ducted Series, the first of its kind R410a ducted product ever to be sold in India. These aesthetically designed, feature-packed products are the result of years of research undertaken by Carrier.

Cutting-edge innovation and state-of-the-art technology of the Digital Ducted Series make them amazingly energy efficient and also easy to use. With the Digital Scroll Compressor, Electronic Expansion Valve [EXV] and Cordless Remote [optional] this premium series product is miles ahead of existing ducted systems.

It's time to embrace a technology that protects the environment and saves energy at the same time.

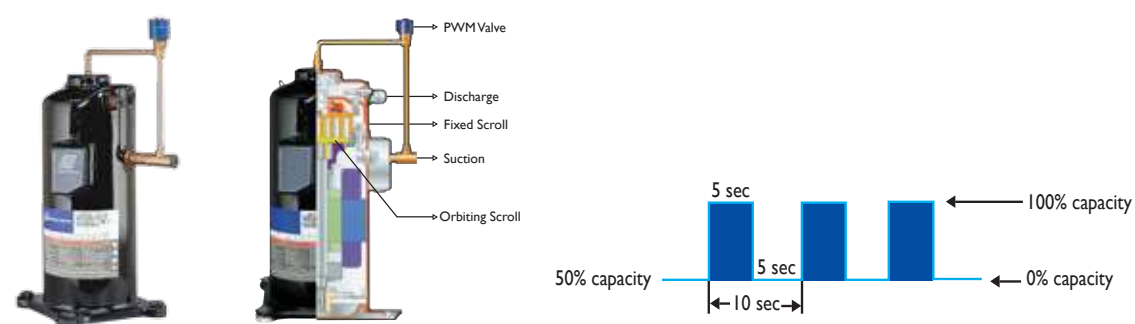




## KEY COMPONENTS

### DIGITAL Digital Scroll Compressor

Digital Scroll is the next generation of variable capacity compression technology. Digital Scroll compressor can operate under wide capacity range from 30%-100% which means a reduced number of start stops and better efficiency at part loads. The Digital Scroll compressor provides real step-less energy adjustment and has a long life span as the PWM solenoid valve can be used 40 billion times on an average, equivalent to 30 years of lifespan.



Digital Scroll System applies the axial compliant sealing technology which ensures high efficiency and stability of the refrigerant compressed.

Digital Ducted system causes no electromagnetic interference since the loading and unloading of compressor are merely mechanical movements. This special feature makes Digital Ducted system suitable for any comfort application.



### Heat Exchanger

Carrier® Digital Ducted has Heat Exchanger which has thicker tubes that are internally grooved to deliver high efficiency and ensures safe operation of the system during high ambient conditions.



### Electronic Expansion Valve

The Digital Ducted indoor unit uses the Electronic Expansion Valve, which helps in maintaining faster and accurate temperature control inside the room for better comfort. It also does not allow the liquid refrigerant to feed into the compressor, which improves reliability and thus increases life of the unit.



### Accumulator

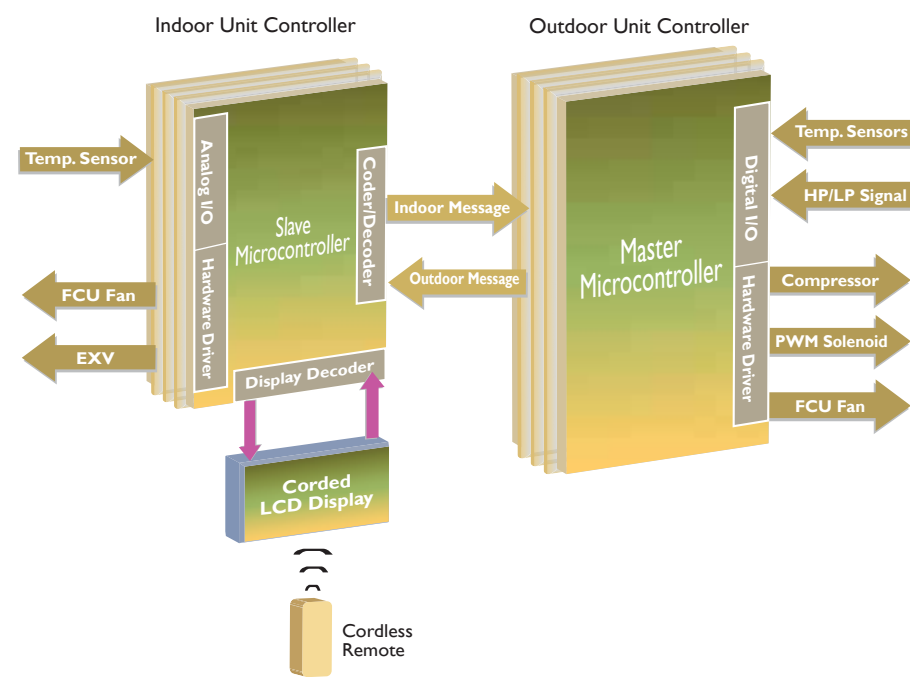
Accumulator is used to prevent liquid refrigerant from entering into the compressor in low load conditions which ensures high system reliability.





### Controller

The indoor and outdoor unit controllers form a master-slave control system. The indoor and outdoor controllers exchange the system status and user inputs to control compressor capacity with help of modulation.



### R410a

### R410a Refrigerant

Digital Ducted uses the environmentally sustainable R410a refrigerant.

R410a refrigerant operates in the same temperature ranges as R-22 refrigerant.



## KEY BENEFITS

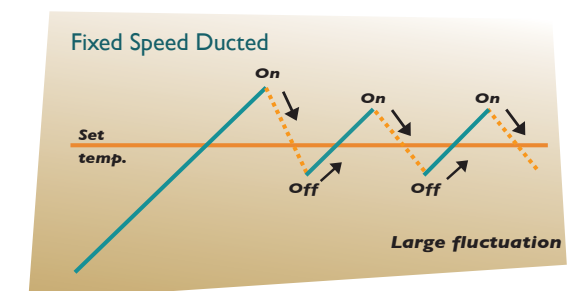
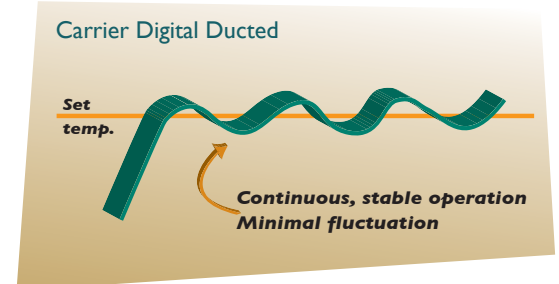


### Precise temperature control and improved comfort

Carrier Digital Ducted maintains precise control of room temperature  $\pm 0.5^\circ\text{C}$  and creates a comfortable environment.

In fixed units the compressor switches off once the set temperature is reached and switches on again after the temperature drops. The time it takes for the compressor to switch on and off causes the room temperature to greatly fluctuate.

Carrier Digital Ducted, reduces the compressor power once the desired temperature has reached, but continues operating at reduced state to maintain a stable room temperature with minimal fluctuations.

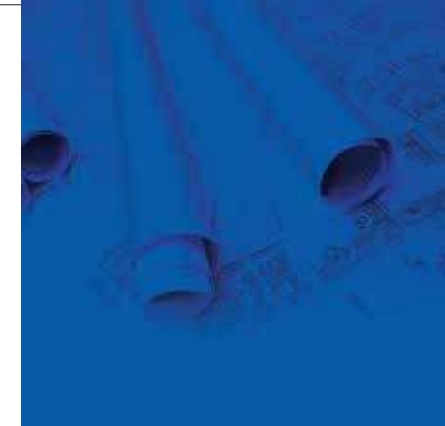




### Power savings

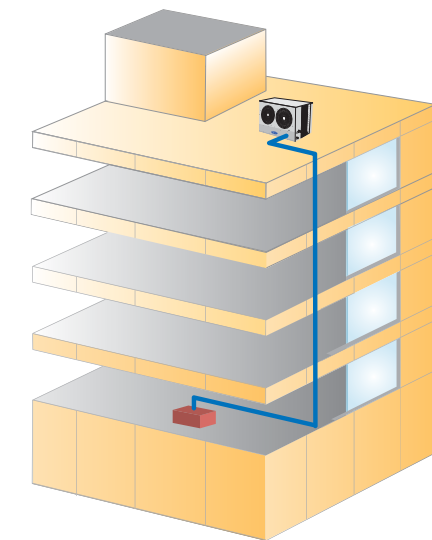
In any standard fixed capacity AC equipment, the output from the machine is either full capacity or no capacity. This is a function of the compressor switching on when there is full capacity output and switching off when there is zero capacity output. Digital Scroll technology operates on the principle of loading and unloading of scrolls. The motor runs at a constant speed but the scrolls are engaged and disengaged periodically to get duration of full capacity and no capacity. Time averaging of the loading and unloading state results in variable capacity output.

Carrier Digital Ducted delivers high efficiency which provides efficient cooling while lowering the power consumption. Most of the air conditioning equipment operates at less than full load during major part of its operation. And at part load operation, Carrier Digital Ducted with its wide operating capacity range can help achieve significant energy savings through out the year.



### Layout Flexibility

Carrier Digital Ducted system can use a maximum piping length of 50 mtrs. This makes it much easier to design for floors with many small rooms, or for tenants who often rearrange their floor layouts.



### Compact IDU

Carrier Digital Ducted has compact indoor unit with height of just 345mm. The indoor unit also houses the distributor and microprocessor based controls, which increases the cooling efficiency and ensures trouble free functioning of the unit.





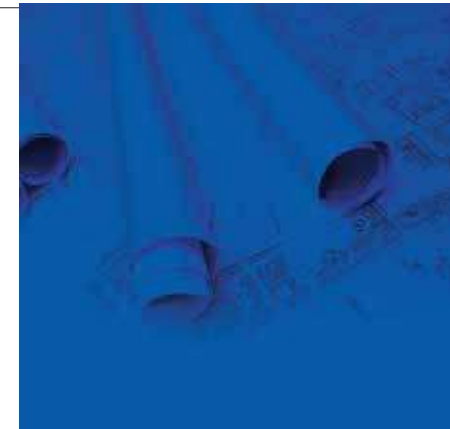
### Controller

Carrier Digital Ducted corded controller comes with backlit LCD display. It also has a menu driven display and user friendly screen for different function settings.

There are 6 keys for different functions and settings, Temp. Up/Down, Fan Mode ON/OFF and Menu Key.



### Cordless Remote Optional



		INDOOR UNIT	OUTDOOR UNIT
<b>Model</b>		40LC-006DS-7	38LH-066DS-7
<b>Nominal Cooling Capacity*</b>		5.5TR	
	<b>Btu/hr</b>	66000	
	<b>Kcal/hr</b>	16500	
<b>No. Of Units</b>		1	1
<b>Nominal Air Quantity</b>	<b>CFM</b>	2200	-
	<b>CMH</b>	3740	-
<b>Power Supply (V-ph-Hz)</b>		230+/-10%-1-50	400 +/-10%-3-50
<b>Fan</b>	<b>Type</b>	Direct Driven DIDW Forward Curved Centrifugal Fan	Propeller
	<b>Qty.</b>	2	2
	<b>Discharge</b>	Horizontal	Horizontal
<b>Fan Motor</b>	<b>Type</b>	Permanent Split Capacitor Type	
	<b>Qty.</b>	1	2
	<b>Power Hp. (watt)</b>	(450)	1/7 (107)
<b>Speed RPM</b>	<b>Hi</b>	1350	920
	<b>Med</b>	1300	-
	<b>Lo</b>	1250	-
<b>Control Type</b>		Microprocessor with Digital Display	
<b>Overall Dimensions (mm)</b>	<b>Width</b>	1250	1250
	<b>Height</b>	345	845
	<b>Depth</b>	750	600
<b>Cabinet</b>	<b>Depth</b>	725	600
	<b>Width</b>	1203	1200
<b>Compressor</b>	<b>Type</b>	-	Digital Scroll
	<b>Make</b>	-	Emerson
	<b>Qty.</b>	-	1
	<b>Model</b>	-	ZPD72KCE-TFD-532
<b>Net Weight (Kg)</b>		62	160
<b>Refrigerant</b>		-	R410a
<b>Expansion Device</b>		Electronic Expansion Device	-

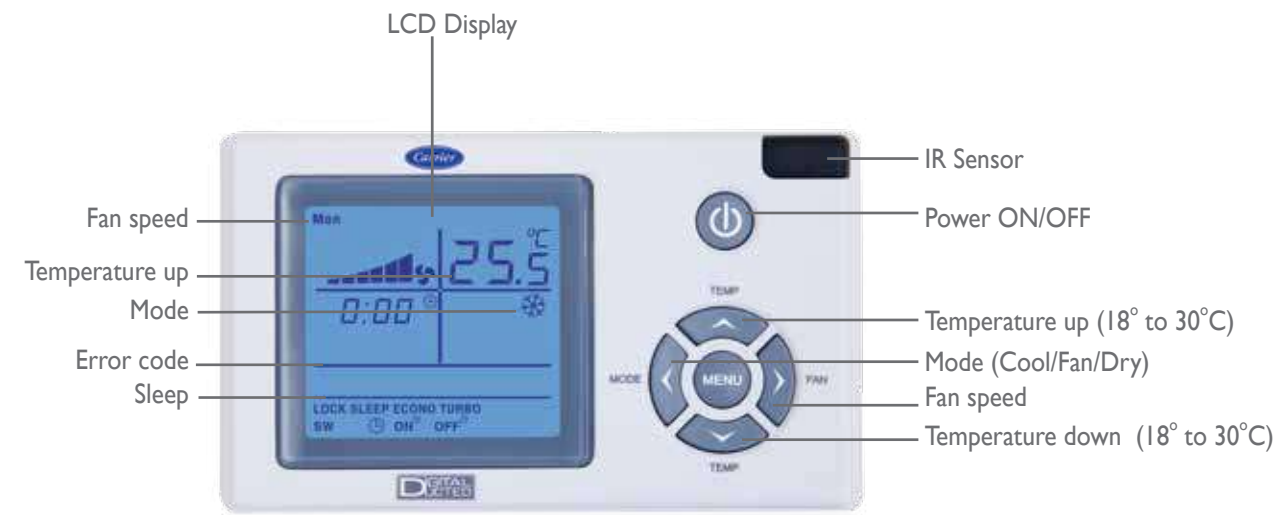
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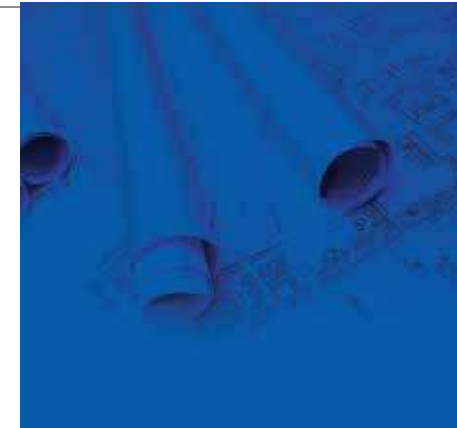
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