

# R410A DC Inverter Split AC

It's so smart, it adjusts for you.

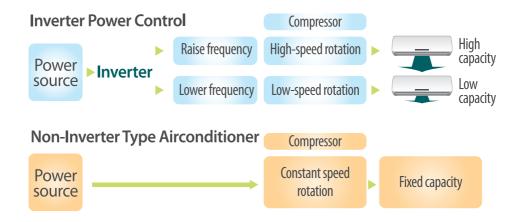
Here's an AC that thinks and adjusts according to your needs. Blue Star's Inverter AC. Its compressor changes frequency according to the ambient load. As the frequency changes, RPM of the compressor also changes. This eliminates any temperature fluctuations and helps maintain a comfortable temperature. For example, a 1.5 TR Inverter AC can decrease its capacity to 1 TR or increase its capacity to 1.75 TR, as per the requirement. As there is no cut in and cut off, the Inverter AC saves up to 30% more power.

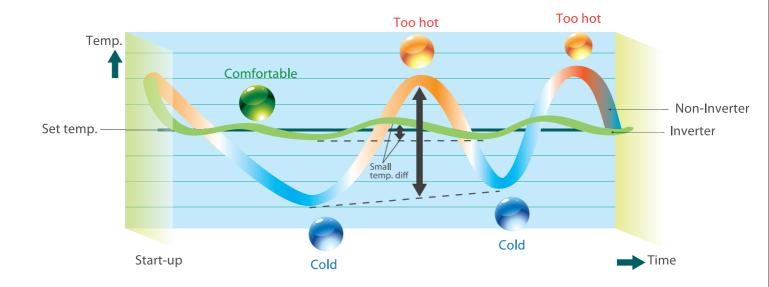
The Inverter AC comes with a special heat pump that's useful during severe winters. What's more, this AC uses the latest environment-friendly refrigerant, R410A, that has almost nil ozone depleting substances. So, the AC is healthy for the environment too.



#### VARIABLE CAPACITY OPERATION

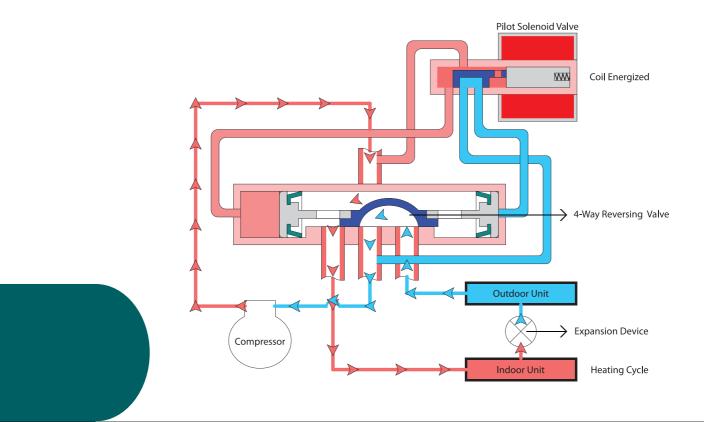
Inverter airconditioners are able to vary their operating capacity. Non-Inverter ACs can operate only at a fixed capacity.





# HEAT PUMP CYCLE

The Inverter AC doubles up as a heating unit with the heat pump. It is operational at ambient temperatures below 24°C. The Solenoid Valve energises the 4 Way Reverse Valve on switching to the Heat Mode on the remote. The 4 Way Valve reverses the circuit and the Indoor Unit functions as a condenser.





# R410A DC **Inverter-C**



R410A DC **Inverter-S** 



#### **Features**



l Feel



**Blow Button** 



Multi-Fan Speed



Long Distance Piping Flexibility





Sleep Mode



Hydrophilic Blue Fins Evaporator



Self Diagnosis



Powder-Coated **Outer Body** 



Dry Mode



Anti-Freeze Thermostat



Inverter Rotary Compressor



Wide Angle Airflow



Fixed and Swing Louvres



Air Flow Direction Control



Display Panel



Auto Mode



Anti-Corrosive Blue Fin Condenser



ON/OFF Timer



Metal Enclosure for PCB board



Auto Defrosting **Function** 



Heat Mode\*



Anti-Cool Wind Function



Turbo Operation



Cleanable Panel





Auto Restart with Eco-friendly Memory Backup R410A Refrigerant



Compressor Jacket



Elegant Remote Control

## **Filters**



Cold Plasma Filter



Active Carbon Filter Catechin Filter





Silver Ion Filter



Anti-Bacterial



Anti-Acarien Filter

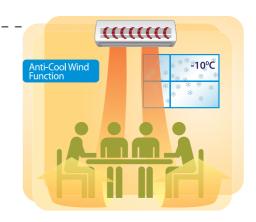


**Dust Filter** 

\*Heat Mode is not available in Inverter S

#### ANTI-COOL WIND FUNCTION - - -

When the Heat Mode is on and the Indoor Heat Exchanger doesn't arrive at set of temperature the indoor fan will not act, thereby preventing cool wind from blowing.



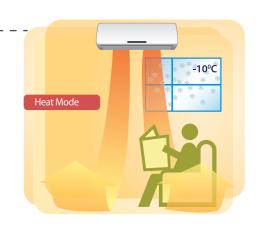


#### AUTO DEFROSTING FUNCTION IN HEATING MODE

When the ambient temperature becomes very low, frost formation takes place in the outdoor unit. This hampers the heating effect. The Auto Defrosting Function will stop the fan motors of the indoor and outdoor unit, thereby halting the Heating Mode to protect the AC.

# HEAT MODE ----

The Heat Pump in the Inverter AC has several advantages. Because of Inverter Technology, you will save on more than 30% of power consumed even in the Heat Mode. There is no heating filament here since the same airconditioning cycle is being used in the Heat Mode. There is no carbon residue, thereby eliminating any risks of low oxygen level or suffocation.





## SENSORS FOR PERFECT COOLING --

#### Condenser Coil Sensor

It prevents the temperature from rising, which can cause liquid flood back that can damage the coil.

#### Room Return Air Sensor

It senses the return air temperature, thereby signalling the compressor through the PCBs whether the desired room temperature has been achieved, or not and if the RPM has to be changed.

#### **Ambient Sensor**

It detects the ambient temperature and activates the heat pump cycle when the ambient temperature drops below 24°C.

#### **DLT Sensor**

It helps in ascertaining the discharge temperature and cuts off the compressor when the temperature is high.

# **Evaporator Coil Sensor**

If there is ice formation on the evaporator coil due to very low set temperature or a probable gas leak, it cuts off the compressor as a preventive measure.

#### PCB CIRCUIT - - - - - -

It works in coordination with the sensors, takes input and controls the compressor, indoor blower and outdoor fan motor. Thus delivering intelligent cooling.



#### ECO-FRIENDLY R410A REFRIGERANT

The Inverter AC uses the latest environment friendly refrigerant, R410A, that has almost nil Ozone Depleting Substance and Polyolester (POE) oil which has better oil return properties, better heat transfer characteristics, better lubrication ability and is also wax free.





## ACOUSTIC INSULATION COMPRESSOR JACKET - - - - -

An acoustic jacket is provided with the compressors of R410A DC Inverter, R410A DC Multi-Inverter and 5 Star Z Hi Wall Split ACs. This jacket eliminates noise and makes the ODU quieter.

Without jacket



# **Technical Specifications**

# **R410A DC INVERTER C**

MODEL NO		HNHW12CBF	HNHW18CBF	HNHW24CBF
	Nominal Capacity (Tr)	1 Tr	1.5 Tr	2 Tr
	(Rated) Voltage / Frequency / Phase	230 V / 50Hz / Single	230 V / 50Hz / Single	230 V / 50Hz / Sing <b>l</b> e
	Cooling Capacity(Min~Max) (Watt)	3530 ( 600 ~ 3960 )	5300 ( 900 ~ 6200 )	6450 (1500 ~ 7000)
	Heating Capacity (Min ~ Max ) ( Watt )	4100 (600 ~ 5130)	5700 ( 950 ~ 6800 )	7000 ( 1200 ~ 7800 )
	Cooling Power Input (Min ~ Max ) ( Watt )	1100 (220 ~1450)	1600 ( 330 ~ 2200 )	1985 ( 350 ~ 2500 )
	Heating Power Input (Min∼max) (Watt)	1135 ( 220 ~ 1550 )	1578 ( 320 ~ 2200 )	1930 ( 350 ~ 2700 )
Performance Parameters	EER (W/W) Cooling	3.21 ( 2.73 ~ 2.73)	3.31 ( 2.73 ~ 2.82 )	3.25 (4.29 ~2.8)
	EER (W / W) Heating	3.61 ( 2.73 ~ 3.31)	3.61 ( 2.97 ~ 3.09 )	3.63 ( 3.43 ~ 2.89 )
	Running Current (Cooling In Amps)	5.0 (1.0 ~ 6.6)	7.3 (1.5 ~ 10.1)	9.1 ( 1.6 ~ 11.2 )
	Running Current (Heating In Amps)	5.2 (1.0 ~ 7.1)	7.2 (1.5 ~ 10.1)	8.8 (1.6 ~ 12.4)
	Moisture Removal (Litres/Hour)	1.2	1.8	2
	Air Flow Volume (Wet CFM) (High / Medium / Low)	330 / 241 / 176	400 / 330 / 270	470 / 400 / 330
	Noise Level Indoor (High/ Medium/ Low) In dB	39 / 31 / 25	40 / 37 / 32	42 / 37 / 32
	Modes	(Auto / Cool / Heat / Fan / Dry)		
	Turbo Cooling	Yes	Yes	Yes
	Sleep Mode	Yes	Yes	Yes
	Timer On / Off	Yes	Yes	Yes
	Horizontal Louvre / Vertical Swing	Motorized	Motorized	Motorized
	Vertical Louvre / Horizontal Swing	Manual	Manual	Manual
	Air Flow Direction Control	Yes	Yes	Yes
	Auto Restart With Memory Function	Yes	Yes	Yes
	Fan Modes	163	(Auto / High / Medium / Low)	163
Footures	Fee	Yes	Yes	 Yes
Features	Blow		Yes	
		Yes		Yes
	Anti Freeze Thermostat	Yes	Yes	Yes
	Self Diagnosis	Yes	Yes	Yes
	LED Display In IDU	Yes	Yes	Yes
	Filter Configuration	Catechin / Silver Ion / Anti Bacterial / Anti - Acarien / Active Carbon / Vitamin C / Dust Filter		
	Special Health Filter	Cold Plasma		
	Evaporator Fins	Hydrophilic Blue Fins		
	Condensor Fins		Anti Corrosive Blue Fins	
	Expansion Device In ODU	Capillary	Capillary	Capi <b>ll</b> ary
Dimensions, Weight & Input Power Supply	IDU Dimension (W X H X D ) mm	770 X 283 X 201	865 X 305 X 215	1008 X 319 X 221
	Input Power Supply	Indoor Unit	Indoor Unit	Indoor Unit
	Net Weight IDU	9 Kg	12 Kg	15 Kg
	ODU Dimension (W X H X D ) mm	658 X 550 X 275	899 X 596 X 378	955 X 700 X 396
	Noise Level Outdoor In dBA	53	54	54
	Net Weight ODU	30 Kg	38 Kg	52 Kg
Compressor	Compressor Type	Inverter Rotary	Inverter Rotary	Inverter Rotary
	Compressor Warranty	3 Year	3 Year	3 Year
	Acoustic Jacket On Compressor	Yes	Yes	Yes
Refrigerant & Ambient Operations	Refrigerant	R410A	R410A	R410A
	Ambient Temp (Cooling)℃	10°C <b>∼</b> 46°C	10°C∼48°C	10°C <b>~</b> 48°C
	Ambient Temp (Heating)℃	-15°C <b>~</b> 24°C	-15°C <b>~</b> 24°C	-15°C <b>~</b> 24°C
	Defrosting Method	Automatic Defrosting		
Remote	Remote		LCD With Backlit	
	Night Glow Function On Remote Buttons	No	No	No
Tube Size & Piping Capability	Suction Tube Size Outer Diameter Inch ( mm)	3/8" (9.52 mm)	1/2" (12 mm)	1/2" (12 mm)
	Liquid Tube Size Outer Diameter Inch ( mm)	1/4" (6 mm)	1/4" (6 mm)	1/4" (6 mm)
	Max Piping Capability Total (Metre)	15	20	20
	Max Piping Capability Vertical (Metre)	7	10	10
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# **R410A DC INVERTER S**

MODEL NO		CNHW12SBF	CNHW18SBF		
	Nominal Capacity (Tr)	1 Tr	1.5 Tr		
	(Rated) Voltage / Frequency / Phase	230 V / 50Hz / Single	230 V / 50Hz / Single		
	Cooling Capacity(Min~Max) (Watt)	3500 (510 ~ 3900)	5275 (1260 ~ 6600)		
	Cooling Power Input (Min~Max) (Watt)	1080 (230 ~ 1300)	1600 (380 ~ 2650) Watt		
Performance Parameters	EER (W/W) Cooling	3.24 (2.22 ~ 3 )	3.3 (3.32 ~ 2.49)		
Teriormanee Farameters	Running Current (Cooling In Amps)	4.9 (1.1 ~ 5.9)	7.3 (1.7 ~ 12.1 )		
	Moisture Removal (Litres/Hour)	1.4	1.8		
	Air Flow Volume (Wet CFM) (High / Medium / Low)	294 / 235 / 177	460 / 382 / 324		
	Noise Level Indoor (High/ Medium/ Low) In dB	39/36/33	44 / 40 / 35		
	Modes	(Auto/ Cool / Fan / Dry)			
	Turbo Cooling	Yes	Yes		
	Sleep Mode	Yes	Yes		
	Timer On / Off	Yes	Yes		
	Horizontal Louvre / Vertical Swing	Motorized	Motorized		
	Vertical Louvre / Horizontal Swing	Manual	Manual		
	Air Flow Direction Control	Yes	Yes		
	Auto Restart With Memory Function	Yes	Yes		
	Fan Modes	(Auto / High / I			
Foatures	I Feel	Yes	Yes		
Features	Blow	Yes			
	Anti Freeze Thermostat	Yes	Yes		
	***************************************		Yes		
	Self Diagnosis	Yes	Yes		
	LED Display In IDU	Yes	Yes		
	Filter Configuration	Catechin / Silver Ion / Anti Bacterial / Anti - Acarien / Active Carbon / Vitamin C / Dust Filter  Cold Plasma			
	Special Health Filter				
	Evaporator Fins	Hydrophilic Blue Fins			
	Condensor Fins	Anti Corrosive Blue Fins			
	Expansion Device In ODU	Capillary	Capillary		
	IDU Dimension (W X H X D ) mm	845 X 275 X 180	940 X 298 X 200		
Dimensions, Weight	Input Power Supply	Indoor Unit	Outdoor Unit		
	Net Weight IDU	11 Kg	13 Kg		
& Input Power Supply	ODU Dimension (W X H X D ) mm	776 X 540 X 320	899 X 596 X 378		
	Noise Level Outdoor In dBA	52	54		
	Net Weight ODU	29 Kg	37 Kg		
	Compressor Type	Inverter Rotary	Inverter Rotary		
Compressor	Compressor Warranty	3 Year	3 Year		
	Acoustic Jacket On Compressor	Yes	Yes		
Refrigerant &	Refrigerant	R410A	R410A		
Ambient Operations	Ambient Temp (Cooling)℃	18°C∼43°C	18°C∼43°C		
	Defrosting Method	Automatic Defrosting			
Remote	Remote	LCD With Backlit			
	Night Glow Function On Remote Buttons	No	No		
Tube Size & Piping Capability	Suction Tube Size Outer Diameter Inch ( mm)	3/8" (9.52 mm)	1/2" (12 mm)		
	Liquid Tube Size Outer Diameter Inch ( mm)	1/4" (6 mm)	1/4" (6 mm)		
	Max Piping Capability Total (Metre)	15	20		
	Max Piping Capability Vertical (Metre)	7	10		
	Refrigerant Additional Charge Beyond 4m (g/m)	15	15		