

WATER COOLED PACKAGED AND
DUCTED SPLIT AIR CONDITIONERS





Blue Star is India's leading central air conditioning company with over 7 decades of experience in providing expert cooling solutions. As pioneers in the industry, we are well acquainted with the air conditioning requirements of various applications, commercial spaces like malls, offices, hospitals and other business units.

Water cooled Systems are better suited to places where water is available in plenty. With water treatment plants, customers can take ample advantage of recycled water which enables use of Water cooled Systems. Water cooled air conditioners stand out due to their many advantages, such as power savings even at higher ambient temperatures and lack of deration due to high ambient air temperatures. With urban heat resulting in very high surrounding temperatures, Air cooled air conditioners de-rate and consume more power.

Blue Star proudly introduces its new mini series Water cooled units with a capacity range of 1TR to 2.5TR apart from the existing range of 3TR to 16.5TR units.

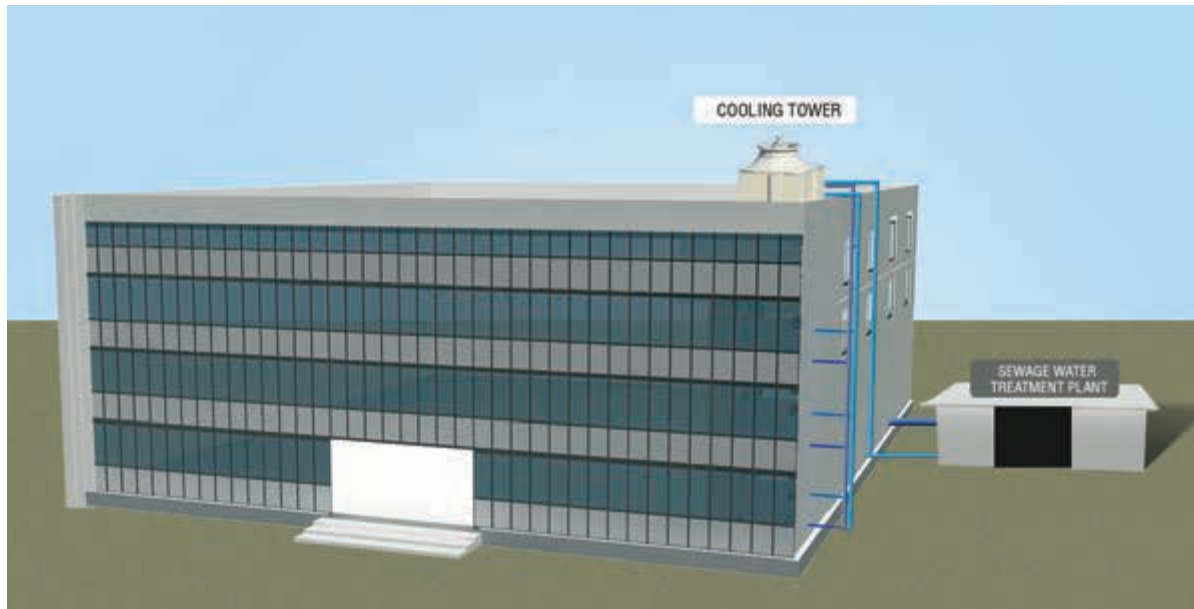
With these mini units, we can cater to the air conditioning needs of even smaller spaces like mini shops in malls, cabins in offices and hospital rooms with dedicated units. With this arrangement, there is no need to provide metering systems for each occupant in case of a multi-tenant building unlike a centralised air conditioning system.

Phasewise investment also becomes a more feasible option.

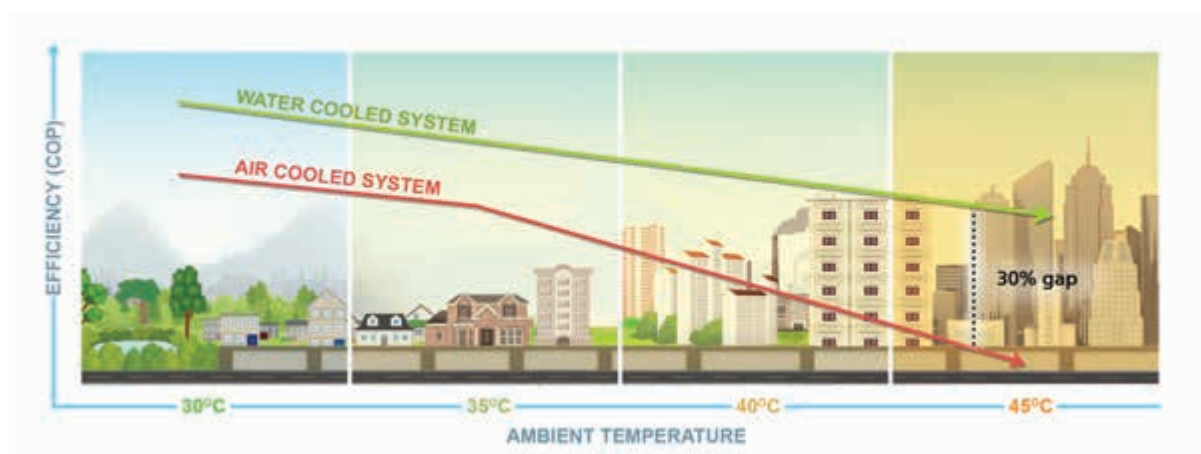
The new mini series also comes with added features such as Hi-Wall and Cassette type indoor units in addition to the existing concealed type indoor units.

ADVANTAGES OF A WATER COOLED SYSTEM

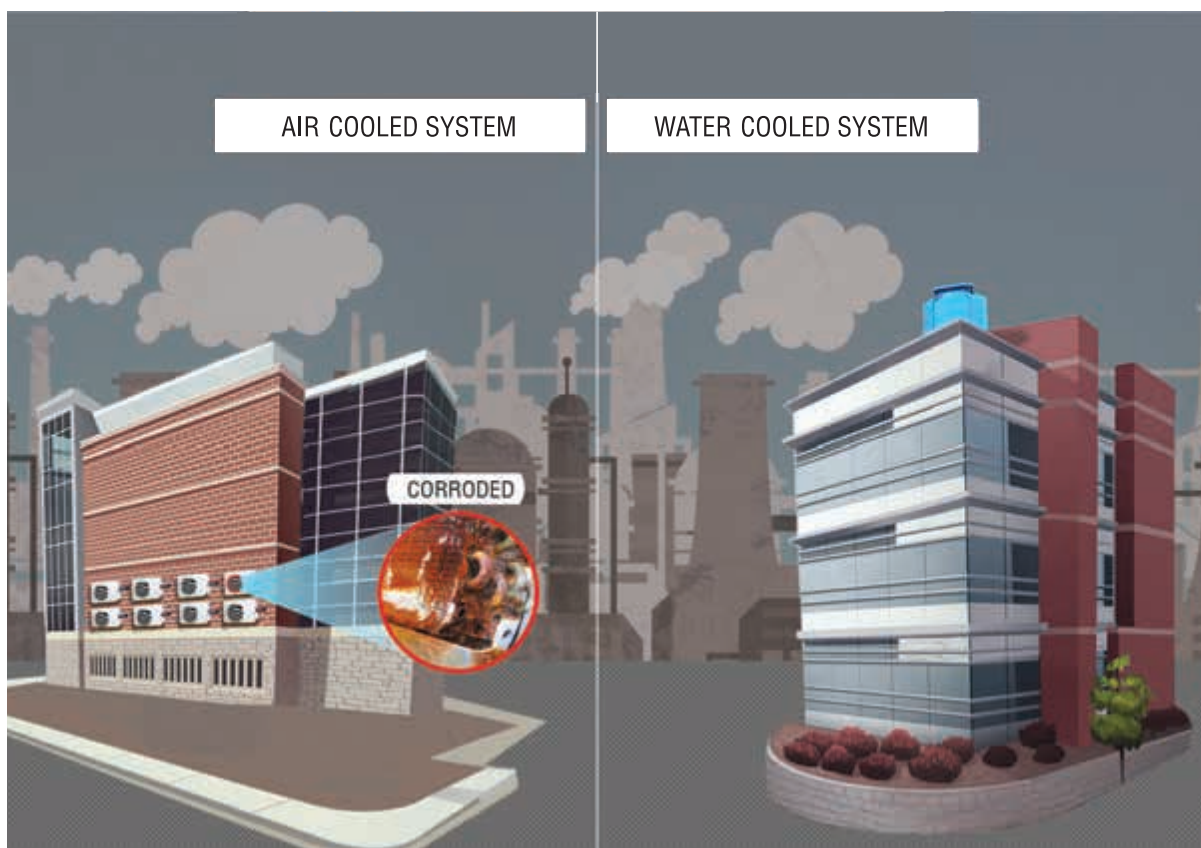
Water cooled Systems always thrive in places where water is available in plenty. With STPI (Sewage Water Treatment Plants) becoming mandatory/common, the superior performance capabilities of Water cooled Systems are making them the preferred choice for many applications. Recycled water is an effective substitute when condenser water is not readily available.



- Water cooled air conditioning systems surpass traditional Air cooled Systems in terms of energy efficiency due to better operating conditions. Though they are marginally costlier, additional investment can be recovered in a very short span of time.
- Urban heat results in further increase in ambient temperature conditions. A Water cooled System does not de-rate much even at higher ambient temperatures, unlike Air cooled Systems. It also results in optimal selection of capacity and less input power requirements.

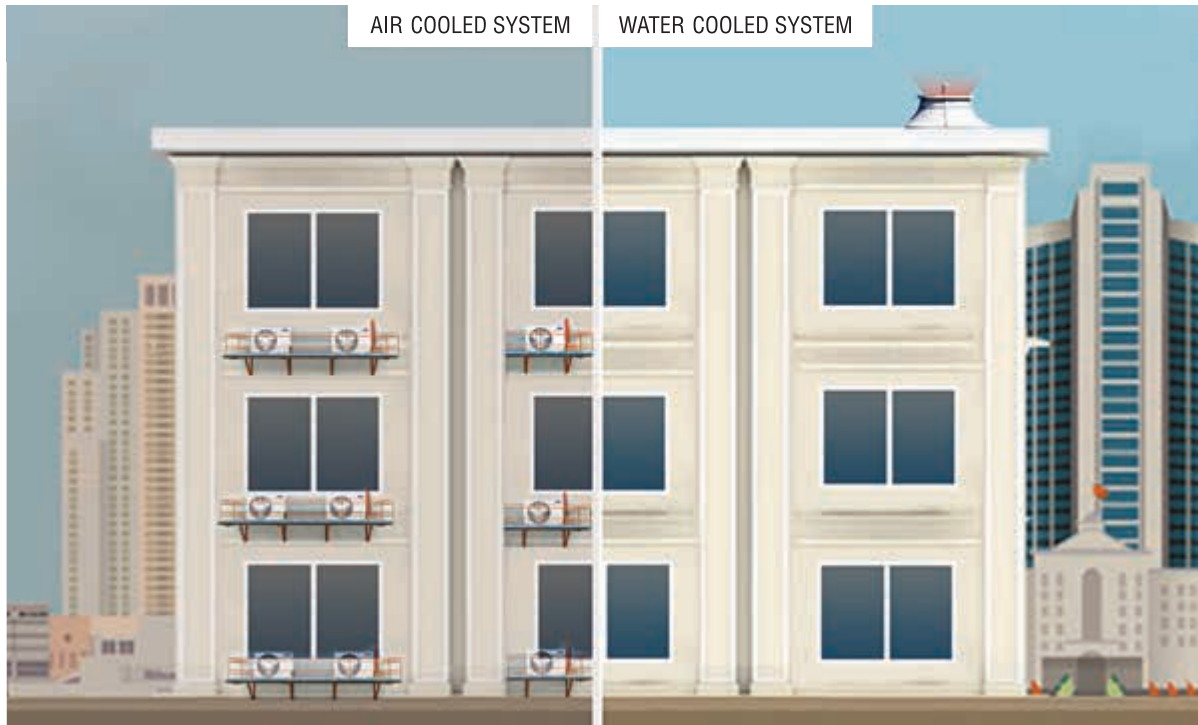


- As Water cooled units are always kept inside and work in less harsh conditions, the life of the equipment is relatively longer.
- Due to lower power consumption, Water cooled Systems are a greener and more environment-friendly solution with a lower carbon footprint.
- Water cooled Systems are preferred in chemically polluted environments as heat exchangers are not exposed to polluted external ambient air.



ENHANCED AESTHETICS

- Water cooled Systems improve the aesthetics of the buildings as the condensing units need not be kept in an open space. Cooling towers can be mounted in a remote location at the rear side of the building without compromising on aesthetics.



- As no hot air is ejected, the surrounding temperatures are relatively better.

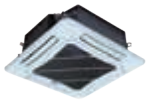


BLUE STAR WATER COOLED DUCTED AND PACKAGED AIR CONDITIONERS

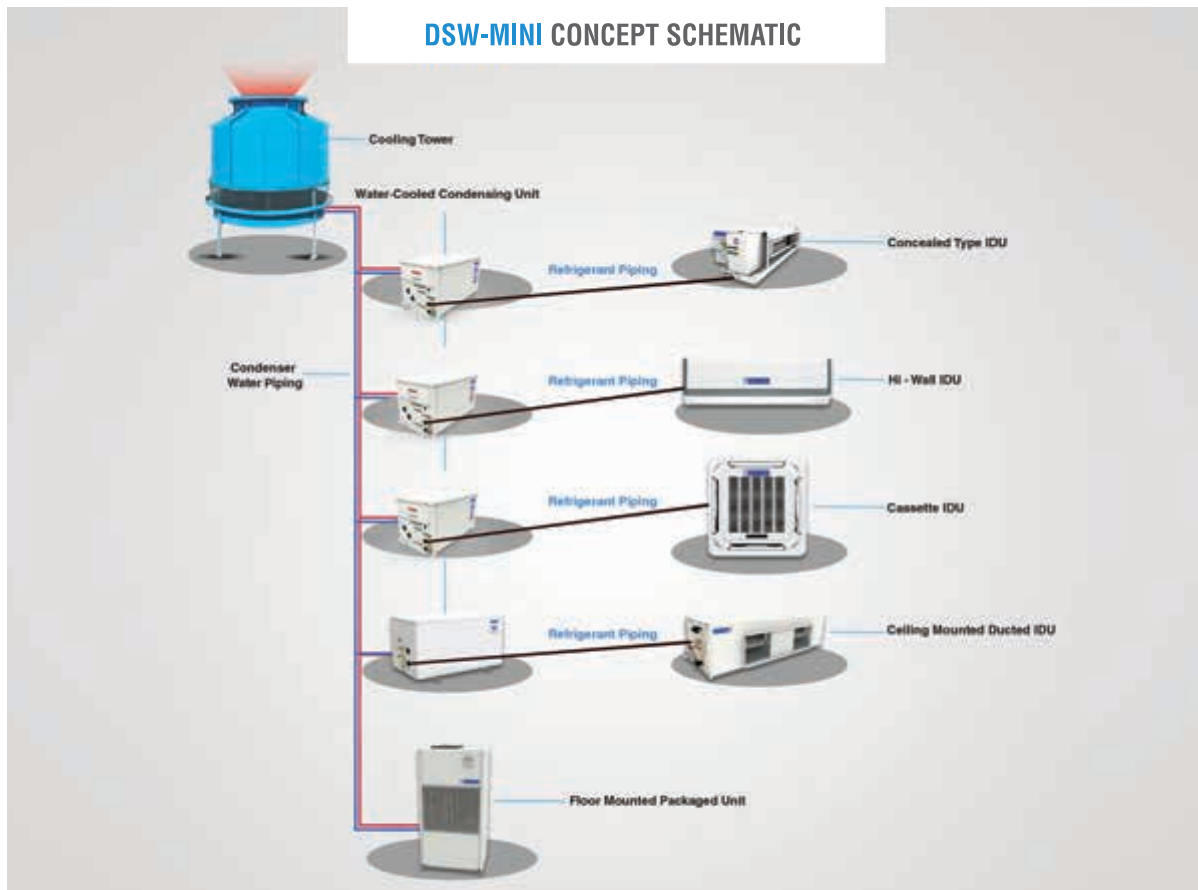
Wide Range

Blue Star offers a wide range of Water cooled Ducted Air Conditioners starting from 1TR to 16.5TR.

PRODUCT LINE UP

Appearance	Type	1TR	1.5 TR	2 TR	2.5 TR	3TR	5.5 TR	8.75 TR	11 TR	16.5 TR
	DSW - Mini Series Condensing Unit	●	●	●	●					
DSW - Mini series - Indoor Units										
	Hi-Wall	●	●	●						
	Cassette		●	●	●					
	Concealed	●	●	●	●					
	Ducted Split Air Conditioner					●	●	●	●	
	Packaged Air Conditioners						●		●	●

BLUE STAR WATER COOLED SYSTEM CONCEPT



IDEAL ALTERNATIVE TO CENTRALISED AIR CONDITIONING SYSTEMS

Blue Star's Water cooled System is an ideal choice for applications utilising multiple spaces that require different capacities of air conditioning. 5 varieties of indoor units are available to choose from.

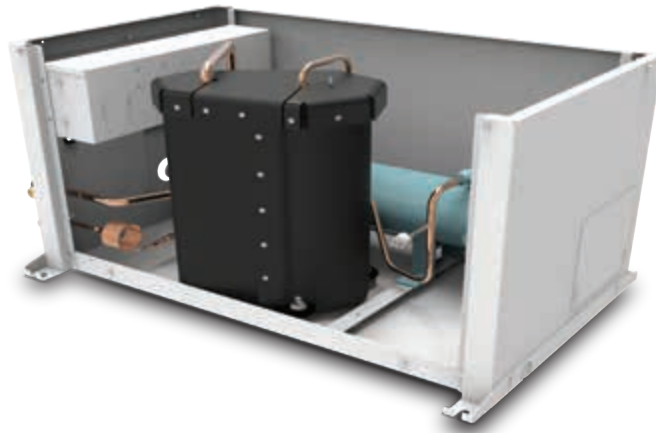


WATER COOLED MINI SYSTEM

Water cooled Mini System ranges from 1TR to 2.5 TR. These mini units can even cater to air conditioning needs of smaller spaces like mini shops in malls, cabins in offices, hospitals rooms with dedicated units.

Energy-Efficient Design : Innovative energy-efficient design results in COP values as high as 4.

Quieter In Operation: All compressors are provided with noise reducing acoustic jackets resulting in quieter operation. Moreover, condensing units can be located outside the conditioned space which completely eliminates noise.



Suitable for multi-tenant applications

In case of multi-tenant buildings, independent units or a set of units can be offered to each tenant. This makes power billing simple. Each tenant can have a separate energy meter and operate the units as and when required. Common cooling tower motor power cost is very less. Maintenance can also be carried out independently. There is no dispute regarding sharing of operating and maintenance costs.



CENTRAL AC SYSTEM



BLUE STAR WATER COOLED
DX SYSTEM WITH INDEPENDENT METERS

Phasewise Investment

For projects which are required to be completed in different phases, investments for the air conditioning system can happen phasewise with a wide range of available units. There is no need to block investments on a centralised system when the client opts for Blue Star's Water cooled Ducted System. And there are added advantages like savings on interest and maintenance costs which are incurred only for the units in operation.



Shell and tube condensers used in Blue Star Water cooled units are easily serviceable. Special copper tubes grooved on both ends enhance the efficiency of condenser.

COMPACT DESIGN

Condensing units are very compact with a height of 430mm. Hence, less clearance is required between the true and false ceilings. This makes condensing units more suitable even for installation inside the conditioned spaces. The units are safe within the owner's premises and a complete set of units can be located inside.

ENHANCED AESTHETICS

When the condensing unit is located outside the conditioned space, the need for access doors is ruled out in case of wall-mounted and cassette indoor units. The size of the access door is kept to a minimum in the case of concealed units. This enhances interior aesthetics.

OTHER IMPORTANT FEATURES



Microprocessor-based controller



Powder coated finishing



Service-friendly design



Auto-restart after power is resumed



Eco-friendly R410A refrigerant



Precise temperature control



All necessary fire and secondary safety protection

INDEPENDENT SERVICE CAPABILITY



Technical Specifications

Water Cooled Mini Series Condensing Units



Description	Units	DSW121R3-O	DSW181R3-O	DSW241R3-O	DSW301R3-O
Capacity	TR	1	1.5	2	2.5
	Btu/Hr	12000	18000	24000	30000
External Finish		Pure Polyester Powder Coated GI Steel			
Refrigerant		R410A			
Dimensions W x H x D	mm	750 X 425 X 430	750 X 425 X 430	750 X 425 X 430	750 X 425 X 430
Net Weight	kg	59	67	68	70
Sound Level	dB (A)	52	52	54	55
Electrical Power Supply		230V, Single Phase, 50Hz, AC Power Supply			
Condenser Type		Shell & Tube			
(Water In) Pipe Size	mm/inch	25/1" BSP			
(Water Out) Pipe Size	mm/inch	25/1" BSP			
Cooling Water Flow Required at 32°C	US GPM	3	4.5	6	7.5
Suction	mm(inch)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	15.9 (5/8)
Liquid	mm(inch)	6.35 (1/4)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
Quantity	No.	1	1	1	1
Type		Hermetically Sealed Rotary			



Mini Series Indoor Unit - Concealed

Description	Units	DSW121R3-I	DSW181R3-I	DSW241R3-I	DSW301R3-I
Capacity	TR	1	1.5	2	2.5
	Btu/Hr	12000	18000	24000	30000
Dimensions W X H X D	mm	1115 X 270 X 515	1115 X 270 X 515	1115 X 270 X 515	1055 X 310 X 705
Net Weight	kg	29.00	30.00	30.00	31.00
Sound Level	dBA	44	44	45	46
Type of Blower		DIDW Centrifugal Type			
Airflow	CFM	350	550	700	875
External Static Pressure	mm/Pa	10	15	20	25
Refrigerant Pipe Connections					
Liquid- Dia	mm	6.35 (1/4)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
Suction - Dia	mm	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	15.9 (5/8)
Electrical Power Supply	V	230V, Single Phase, 50Hz, AC Power Supply			
Rated Current	A	0.33	0.33	0.64	0.64
Fan Motor Output Power	Watts	62	62	150	150
Quantity		1	1	1	1
Air Filter		Non-woven Polyester Media enclosed by HDPE Mesh			
Controller		Microprocessor Based with LCD Display			

Mini Series
Indoor Unit - Hi-Wall



Description	Units	B1-3HW12LBTU	B1-3HW18LBTU	B1-3HW24LBTU
Capacity	TR	1	1.5	2
	Btu/Hr	12000	18000	24000
Dimensions W x H x D	mm	845 X 290 X 210	970 X 300 X 225	1080 X 325 X 250
Net Weight	kg	10.00	13.50	17.00
Airflow	CFM	370	530	650
Sound Level	dBa	33	37	38
Refrigerant Pipe Connections				
Liquid- Dia	mm (Inch)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
Suction - Dia	mm (Inch)	12.7 (1/2)	12.7 (1/2)	15.9 (5/8)
Electrical Power Supply		230V, Single Phase, 50Hz, AC Power Supply		
Fan Motor Input Power	Watts	55	70	95
Rated Current	A	0.4	0.5	0.55

* Recommended Model. Actual model no. may be different due to regular product upgradation

Mini Series

Indoor Unit - Cassette



Description	Units	BS-3SD18YATU	BS-15D24YATU	BS-SD36SAU
Capacity	TR	1.5	2	2.5
	Btu/Hr	18000	24000	30000
Dimensions - Body	mm	840 X 840 X 240	840 X 840 X 240	840 X 840 X 290
Dimensions - Panel	mm	952 X 952 X 60		
Net Weight - Body	kg	28.00	29.00	33.00
Net Weight - Panel	kg	7.00	7.00	7.00
Airflow	CFM	700	780	1020
Sound Level	dBA	34	41	48
Refrigerant Pipe Connections				
Liquid- Dia	mm (Inch)	6.35 (1/4)	9.5 (3/8)	9.5 (3/8)
Suction - Dia	mm (Inch)	12.7 (1/2)	15.9 (5/8)	15.9 (5/8)
Electrical Power Supply		230V, Single Phase, 50Hz, AC Power Supply		
Fan Motor Input Power	Watts	58	74	74
Rated Current	A	0.4	0.6	0.6
Drain Pump Motor Power	Watts	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)

* Recommended Model. Actual model no. may be different due to regular product upgradation.

Sound Level values are based on the measurement taken in a semi anechoic chamber. Actual values may vary depending on the external noise disturbances.

Water Cooled Ducted Split Air Conditioners



Description	Units	DSW361R1/R2	DSW661R1/R2	DSW1052R1/R2	DSW1322R1/R2
Nominal Cooling Capacity	TR	3.0	5.5	8.75	11.0
	Btu/Hr	36,000	66,000	1,05,000	1,32,000
	Kcal/Hr	9,072	16,632	26,460	33,264
Refrigerant		R1 Series: R22; R2 Series: R407C			
Power Supply		380/420V, 3PH, 50HZ, AC Power Supply			
External Finish		Pure Polyester Powder Coated GI Steel Housing			
Indoor Unit					
Dimensions	WxDxH (mm)	950 X 575 X 380	1175 X 635 X 460	1500 X 635 X 460	1860 X 635 X 460
Type of Blower		Centrifugal Forward Curved, Double Inlet, Double Width			
Nominal Airflow	CMH	2040	3740	5950	7480
	CFM	1200	2200	3500	4400
Power Supply		230V, 1 Ph, 50Hz, AC Power Supply			
Capacity Control		0,100%	0,100%	0,50%,100%	0,50%,100%
Air filter		Non-woven Polyester Media Enclosed by HDPE Mesh			
Controller		Microprocessor Based with LCD Display			
Condensing Unit					
No of cds. units / unit		1	1	1	1
Compressor type		Recip	Hermetically Sealed Scroll		
No of compressors/ unit		1	1	2	2
Dimensions	W X D X H (mm)	800 X655 X 545	800 X 655 X 545	1170 X 640 X 630	1170 X 640 X 630
Power Supply		415V, Three Phase, 50Hz, AC Power Supply			
Condenser Type		Shell & Tube Type			
Cooling water required at 32°C	usgpm	11	20	31	40
	CMH	2.5	4.5	7	9.1
Indoor Unit Weight	kg.	50	55	85	105
Out Door Unit weight	kg/ODU	130	156	215	215

Water Cooled Packaged Air Conditioners



Description	Units	DPW661R1/R2	DPW1322R1/R2	DPW1983R1/R2
Nominal Cooling Capacity	TR	5.5	11.00	16.5
	Btu/Hr	66,000	1,32,000	1,98,000
	Kcal/Hr	16,632	33,264	49,896
Refrigerant		R1 Series: R22; R2 Series: R407C		
Dimensions	W X D X H (mm)	900 X 660 X 1700	1160 X 660 X 1700	1500 X 750 X 1800
Type of Blower		Centrifugal Forward Curved, Double Inlet, Double Width		
Nominal Airflow	CMH	3740	7475	11210
	CFM	2200	4400	6600
Cooling Coil		Inner Grooved Copper Tubes with Al Slit Fins		
Power Supply		380/420V, Three Phase, 50 Hz, AC Supply		
External Finish		Pure Polyester Powder Coated GI Steel Housing		
Capacity Control		0,100%	0,50%,100%	0,33%,66%,100%
Air Filter		Non-woven Polyester Media Enclosed by HDPE Mesh		
Controller		Microprocessor Based with LCD Display		
Compressor type		Hermetically Sealed Scroll		
No of Compressors/Unit		1	2	3
Condenser	Type	Shell & Tube Type		
Cooling Water Required at 32°C	usgpm	20	40	60
	CMH	4.5	9.1	13.6
Unit Weight	kg.	240	405	605

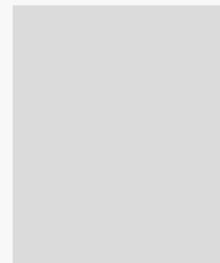
WIDEST RANGE OF PRODUCTS



VRF V Plus 100% Inverter



VRF Sprint - Pre-piped VRF System



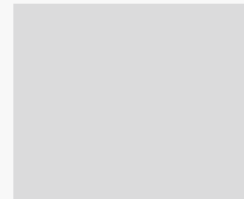
VRF IV S - Side Discharge
VRF System



Inverter Ducted System



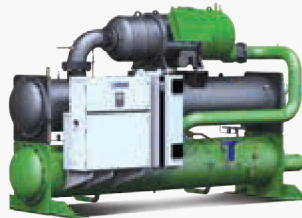
Water cooled Centrifugal Chillers



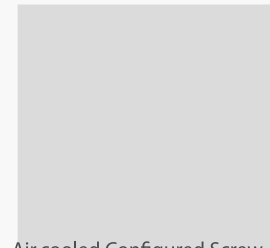
Configured Oil-free Chillers



Water cooled Screw Chillers
Configured Series



Water cooled Screw Chillers with VFD



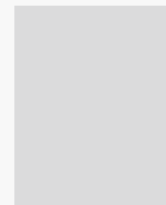
Air cooled Configured Screw
Chiller - High Efficiency Series



Air cooled and
Water cooled Scroll Chillers



Air cooled & Water cooled
Condensing Units



Process Chillers



Authorized Dealer



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