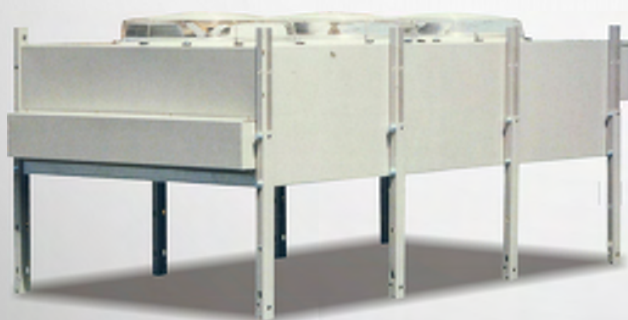




DB-Aire II Systems 50/60Hz

Precision Environmental Control Unit
Cooling Capacity: 2 to 26 TR (7 to 91 kW)



DB-Aire II (Outdoor Unit)



DB-Aire II (Indoor Unit)

R_{407C}

DUNHAM-BUSH

Products that perform...By people who care



DB-AIRE II

Precision Environmental Control Systems For Technological Room Applications

DB-AIRE II AIR-COOLED DX & CHILLED WATER SYSTEMS

Today's technology rooms require precise, stable environments and design in order for sensitive electronics to operate optimally. Precision air conditioning is designed for close temperature and humidity control. It provides high reliability operation with the ease of service, system flexibility and redundancy necessary to keep the electronic equipments up and running 24 hours a day, 365 days a year.

DB-AIRE II another milestone series offers a wide range of capacities in superior compact, stylish black themed attractive furniture grade cabinets in Upflow/ Downflow configuration to provide room-based cooling, control of perfect humidification and air filtration.

GENERAL INFORMATION

DB-Aire II units are precision environmental control systems that bring a new standard of compact, flexibility and reliable performance to the computer room. Because room requirements differ, DB-Aire II offers a wide range of sizes and styles.

DB-AIRE II SYSTEMS

DBAIRE II comes in 2 systems under Air cooled DX and Chilled water system. The nominal capacity range is 2 to 26TR (7 to 91kW) of cooling.

COMPUTER COMFORT

Computer rooms require air which is clean and properly distributed with precisely controlled temperatures and humidity. Building HVAC systems simply are not designed to meet these demands. But, DB-Aire II units easily accomplish these goals with top-rated efficiency, 24 hours per day 7 days a week! DB-Aire II units have been designed to meet the demanding requirements of the most advanced computer room.

Although building HVAC systems cool your staff, they fall short of your computer's comfort need. And they are unable to provide the close humidity control required in a modern data processing centre.

DESIGN FEATURES

- Compact cabinet with anodized aluminum frame, stylish black powder coated panels of 25mm thickness with fiberglass insulation.
- High efficiency single (DBA 02-13) and dual (DBA 14-26) scroll compressors with rotalock connection for ease of service (for Air Cooled DX Systems).

- High-low pressure cutout to protect compressor (for Air Cooled DX Systems).
- Specially built with non screw fixed panels where no special tools required, front access for easier service and maintenance
- TEFC motor with low speed belt driven DIDW centrifugal fan.
- Large faced area evaporator coil with hydrophilic fins.
- Deep pleated disposable filter of MERV8 (Ashrae 52.2). Stainless steel finned tabular type electric heater.
- 3-way modulating valve provides accurate temperature control and dehumidification (for Chilled Water Systems).
- Integrated control system within the unit with panel mounting 4.3" graphical color touch screen for temperature/ humidity/alarm control and monitoring.
- Vision 2020i connectivity to BMS for telemonitoring.
- Electronic Expansion Valve (EEV) for efficient capacity modulation and improve performance (optional).
- Hot gas reheat for Air Cooled DX systems (optional).
- Supply air plenum box for upflow model (optional).
- Steam generator humidifier (optional).
- Floor water detection alarm (optional).
- VFD applied to regulate airflow thus reducing fan input power for energy saving (optional).

HIGH PERFORMANCE LOW COST

DB-Aire II's high-tech, furniture look is clue to its high performance but belies its more than competitive price. Every DB-Aire II unit comes with a commitment to excellence as standard equipment.

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NOMENCLATURE

INDOOR UNIT

String	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	D	B	A	D	0	2	P	A	U	D	B	H	G	S	K	P	S	E	V	N	1	Q
1 & 2 DB-AIRE II																						
3 SYSTEM A = Air-Cooled (DX) C = Chilled Water (CW) D = Dual Coils (DX+CW)* R = Air-Cooled DX with Hot Gas Reheat <i>*Model 26 Dual Coils not available</i>																						
4 CONFIGURATION U = Upflow D = Downflow																						
5 & 6 MODEL # Std Airflow, ESP Motor hp(kW) CFM(m ³ /h) (in WG) DX or CW / Dual Coils System																						
02 1,500 (2,548) 0.3 1.0 (0.75)/1.0 (0.75)																						
03 1,500 (2,548) 0.3 1.0 (0.75)/1.0 (0.75)																						
04 2,000 (3,398) 0.3 1.0 (0.75)/ 1.5 (1.1)																						
05 2,500 (4,247) 0.3 2.0 (1.5)/ 2.0 (1.5)																						
07 4,000 (6,796) 0.5 2.0 (1.5)/ 2.0 (1.5)																						
09 5,000 (8,495) 0.5 3.0 (2.2)/ 4.0 (3.0)																						
11 6,000 (10,194) 0.5 4.0 (3.0)/ 5.5 (4.1)																						
13 6,500 (11,043) 0.5 5.5 (4.1)/ 5.5 (4.1)																						
14 8,000 (13,592) 0.5 4.0 (3.0)/ 4.0 (3.0)																						
16 10,000 (16,989) 0.5 5.5 (4.1)/ 7.5 (5.6)																						
19 11,000 (18,688) 0.5 7.5 (5.6)/ 7.5 (5.6)																						
22 11,000 (18,688) 0.5 7.5 (5.6)/ 10.0 (7.5)																						
26 13,000 (22,086) 0.5 10.0 (7.5)/ Not Applicable																						
7 REFRIGERANT P = R407C / Dual Coils System / DX with Hot Gas Reheat N = R22 for DX, Dual Coils(DX+CW) & DX with Hot Gas Reheat/ Chilled Water Unit																						
8 & 9 VOLTAGE OPTIONS AU = 380~415V/3ph/50Hz AR = 460V/3ph/60Hz CD = 208V/3ph/60Hz** AN = 230V/3ph/60Hz** EF = 380V/3ph/60Hz** <i>Model 02 and 03 Air-Cooled Units 60Hz option not available. **Please consult factory for these special voltages. It requires additional cost and longer lead time.</i>																						
10 DRAIN PAN OPTIONS D = Standard GI Painted T = Stainless Steel																						
11 DISCHARGE PLENUM OPTION (for Upflow model only) B = Discharge Plenum N = Not Selected																						
12 HUMIDIFIER OPTION H = Humidifier (water conductivity 75 to 350µS/cm)*** N = Not Selected <i>***Please consult factory for other water conductivity.</i>																						
13 HOT GAS BYPASS OPTION G = Hot Gas Bypass N = Not Selected																						
14 EVAPORATOR CONTROL OPTIONS N = Standard Thermal Expansion Valve (TXV) S = Standard Thermal Expansion Valve (TXV) & Liquid Line Solenoid Valve X = Electronic Expansion Valve (EEV)																						
15 PANEL INSULATION OPTIONS K = Double Skin Panel F = Insulflex Insulation Single Skin Panel N = Not Selected. Standard Fiberglass Insulation Panel																						
16 UNDER FLOOR WATER DETECTOR OPTION P = Pinhole Probe N = Not selected																						
17 SMOKE DETECTOR OPTION S = Smoke Detector N = Not selected																						
18 HEATER OPTION E = Standard Electric Heater N = Hot Gas Reheat (Electric Heater Not Furnished)																						
19 VFD OPTION V = VFD N = Not Selected																						
20 FUTURE OPTION N = Not Selected																						
21 BMS COMMUNICATION OPTIONS 1 = ModBus RTU RS485**** 2 = ModBus TCP/IP 3 = BACnet TCP/IP 4 = BACnet MSTP 5 = BACnet PTP 6 = LONworks 7 = GSM Modem 8 = SNMP N = Not Selected <i>**** Standard unit comes with one ModBus RTU RS485 Communication port.</i>																						
22 OTHER SPECIAL OPTION Q = Special Option N = Not Selected																						

Outdoor Unit Nomenclature (for Air Cooled DX-System/ Dual Coils System/ DX-System with Hot Gas Reheat)

String	1	2	3	4	5	6	7	8	9	10	11	12	13
	D	B	R	C	0	4	P	A	U	A	L	1	Q
1,2,3 & 4 AIR COOLED CONDENSER													
5 & 6 MODEL 04 *with 220~240V/1ph/50,60Hz 06 08 10 11 13 17 20 26 30 34 40 44													
7 REFRIGERANT P = R22 / R407C													
8 & 9 VOLTAGE OPTIONS AU = 380~415V/3ph/50Hz AR = 460V/3ph/60Hz CD = 208V/3ph/60Hz** AN = 230V/3ph/60Hz** EF = 380V/3ph/60Hz** <i>**Please consult factory for these special voltages. It requires additional cost and longer lead time.</i>													
10 CONDENSER FIN OPTIONS A = Standard Aluminium H = Hydrophilic C = Copper Fin													
11 BLACK PAINT (EXTERNAL) OPTION L = Black Paint on Unit External N = Not selected													
12 REFRIGERATION CIRCUIT(S) 1 = 1-Circuit (for standard indoor model 02-13) 2 = 2-Circuits (for standard indoor model 14-26)													
13 OTHER SPECIAL OPTION Q = Special Option N = Not selected													

DB-AIRE II MONITORING/ CONTROL



VISION 2020i CONTROLLER

The heart of the Environmental Control System is the microprocessor based DB5 controller, a member of Vision 2020i family. The DB5 controller was developed in compliance with the European RoHS directives. The DB5 controller is designed with 32 bit, 44 MHz CPU, 2+2MB built-in flash memory, and built-in clock with battery as standard. The program and the parameters are saved to FLASH-MEMORY and E²PROM, meaning all data is retained even in the event of power failures (without requiring a backup battery). DB5 controller offers various add-on cards which allow supervisory communication to be so easy by just inserting an add-on card into DB5 controller.

DBG5 TOUCH SCREEN DISPLAY

The new DB-AIRE II is equipped with a 4.3" DBG5 color touch screen display as standard display panel. The color touch screen display has graphical resolution of 480 x 272 pixels, 65k colors with LED backlight. This means the display panel will perform high quality images and advanced functions are available for a superior appearance. DBG5 display panel not only monitors your data center's temperature, humidity, airflow, and cleanliness, but also provides component run times, alarm history and an automatic self-test of the microprocessor on system start-up. Multiple messages will be displayed by automatically scrolling from each message to the next. All of these messages are spelled out in English language on the touch screen color display. Multiple alarms will be displayed sequentially in order of occurrence.

OPERATION

DBG5 touch screen panel makes interaction between the user and the unit much easier by simplifying navigation between the various screens. Touch keypad on the DBG5 panel allows unit on/off operation, menu selection, operational information, diagnostics, historical data and trend graph. Multi-level authorization password feature prevents unauthorized access. Another feature is that all menu programmed information for basic system operation and alarm parameters is stored in a non-volatile EEPROM and FLASH-MEMORY where backup battery is not required.

PROGRAMMABLE FUNCTIONS/ MONITORING

The user friendly touch screen color display permits step-by-step programming and display of the following functions:

- Temperature Set Point 10 to 50°C (50°F- 122°F)
- Temperature Sensitivity 0.5 to 2.7°C (1°F- 5 °F)
- Humidity Set Point (40% - 70% RH)
- Humidity Sensitivity (1% - 10% RH)
- Temperature Alarm Set points
- Humidity Alarm Set points
- Unit Start Time Delay

Normal functions are monitored and displayed on the display panel and include, in addition to the above set points, the following:

- Current Temperature (deg C or deg F)
- Current Humidity (%RH)
- Cooling Stages 1, 2 as applicable
- Heating Stages 1, 2, 3
- Humidification
- Dehumidification

ALARMS

Alarm conditions are also monitored on the display panel and are enunciated by an audible alarm. The alarm silence button will quiet the audible alarm but the display will continue to indicate the alarm condition until the problem is corrected.

The following alarms are standard:

- Compressor High/Low Pressure
- High and Low Temperature
- High And Low Humidity
- No Airflow
- Filters Blocked
- Humidifier Failure
- Power Failure Restart
- Compressor Short Cycle
- Temperature Sensor Error
- Humidity Sensor Error
- Local Alarm Customer Input Alarm
- Maintenance Due

With add-on optional sensors, the following alarm status can be monitored:

- Under the floor water detection
- No water flow
- Smoke alarm and etc.

In addition, incomparable control settings will be identified on the display panel.

HISTORICAL DATA

In order to facilitate maintenance and service, component run times for fan motor, compressor operation, reheat stages, humidification and dehumidification can be recalled and displayed on the DBG5 display panel. The current temperature and humidity, with the minimum and maximum readings for the last 24 hours of operation, can be recalled and displayed. The last ten alarms and hours since occurrence can also be recalled and displayed. The historical data base is stored in FLASH-MEMORY which does not require backup battery in the event of power failure.

DIAGNOSTICS

Automatic and manual diagnostic sequences simplify troubleshooting.

DB-AIRE II MONITORING/ CONTROL

PROGRAMMING KEY

The programming keys for the Vision 2020i controllers provide easy software updates during both end-of production testing and maintenance procedures.



VISION 2020i COMMUNICATION INTERFACES (Optional)

Below are the available communication interface features of the DB5 controller:

1.) BMS interface

MODBUS RS485 Serial Card

Optional Modbus RS485 add-on card allows Vision 2020i Controller to interface to Modbus Slave, RTU mode, RS485 network. The maximum baud rate is 19200 and it is set via software.



DB1 LONWORKS FTT10 Card

The optional Lonworks serial card allows Vision 2020i controller to interface to LonWorks® network FTT-10A 78 kbs (TP/FT-10).



2.) BACnet Gateway

BACnet Gateway allows Vision 2020i controllers (maximum number: 8) to interface with BACnet. This is a frequently used protocol and a property of many BMS manufacturers. This device makes automatically the translation of the Vision 2020i controller transmission protocol into the communication protocol BACnet.

The connections available on the Gateway are:

- serial 232 (protocol PTP) towards the BACnet;
- serial 422 or 485 towards Vision 2020i peripherals;
- serial 232 for the Gateway configuration



3.) WebGate

WebGate is an electronic device to interface all Vision 2020i controllers (maximum 16 units) on a RS485 network to any local 10 Mbps Ethernet network.

Contact the network administrator or other responsible person to arrange a network connection to the WebGate.

The following functions are therefore possible:

- Access information (such as network variables and parameters) from each controller using a



standard web browser, such as Internet Explorer™ (version 5 or higher) or NetScape Communicator™ (version 6 or higher) on any PC connected to the WebGate in a local network or WAN. For the better results use a browser supporting CSS style sheets.

- Pass data to a supervising PC connected to the network using the SNMP standard protocol.

Standard Internetworking Protocols: SNMP v1, HTTP, FTP Memory: 128KB RAM, 1MB Flash (400KB available for web pages and user data).

Interfaces: Serial RS485, Serial RS232 DTE interface and Ethernet interface RJ-45 connector.

4.) DB-Web

The optional DB-Web board is used to interface all of the Vision 2020i series controllers to a 10 Mbps Ethernet network and consequently perform the following functions:

- access the information on the controller (network variables and parameters) using an Internet browser, such as Internet Explorer™ installed on a PC and connected to the DB-Web via TCP/IP.
- connection to a supervisory network that uses one of the following standard protocols:
 - SNMP v1 & v2c
 - BACnet Ethernet ISO8802-2/8802-3
 - BACnet/IP

DB-Web is supplied with the DHCP function already active. Therefore, in a network served by a DHCP server, DB-Web will automatically acquire the necessary parameters without requiring configuration, while, in the case of a network without DHCP, the parameters need to be configured manually.

Ethernet interface: RJ45 connector for Ethernet 10BaseT; use a class 5 shielded cable, max 100 meters. Protocols managed: HTTP, FTP, SNMP v1, v2c, DHCP, DNS, BACnet Ethernet ISO8802-2/8802-3, BACnet/IP.

There are two types of interfaces for DB-Web:

ETHERNET interface for:

- BACnet Ethernet
- BACnet over IP
- SNMP v1, v2.c, v3
- HTTP (web server)
- FTP, DHCP,DNS
- Modbus TCP/IP

EIA 485 interface for:

- BACnet MS/TP



5.) SNMP

SNMP (Simple Network Management Protocol) is a protocol for the management of TCP/IP networks (the Internet protocol), established in 1988 based on the specifications of the IAB (Internet Administration Board), the body that supervises the internet protocol.

All Vision 2020i controllers can be connected Web Gate or DB-Web to a 10 Mbps Ethernet™ network via gateway or DB-web, and communicate with systems that use the SNMP Protocol.

DB-AIRE II MONITORING/ CONTROL

6.) SMS, short message service (with GSM Modem)

Dunham-Bush has pay great attention to fitting the Vision 2020i controllers with the ability to communicate important information directly by SMS message.

In fact, this is the best communication system for sending data wherever and promptly.

By simply connecting a GSM modem, the DB5 controllers not limited to send alarms and information only, but also receive commands via

SMS that service personnel can use to reset any alarm or perform the necessary operations, without having to travel to the installation.

7.) TREND



Trend is a building Automation System verywidespread in the Anglo-Saxon countries and in general in Europe.

The DB5 controller is TREND compatible, through the proper serial card. TREND deals with the configuration and the supply of the interface card.

NETWORK REMOTE MONITORING (OPTIONAL)

NETWATCH PRO

For smaller systems with the same management and control requirements as larger installations, NetWatchPRO offers the complete and integrated solution for all monitoring and remote management needs.

Complete network and alarm configuration, simple navigation and an attractive design are some of the features that make NetWatchPRO the

cutting edge product in its category. A color LCD touch screen, and the use of practical menus, guide the user simply and intuitively, without the use of a PC (however a PC can be connected if necessary), thus providing a practical solution for all those environments that do not have room for a computer.

Other innovative features of NetWatchPRO include:

- Possibility to connect and control up to 100 units DB-AIRE II on RS485 bus;
- Record up to a maximum of 100 variables;
- Log data for up to one year (with 15 min sampling).
- 3 output relays, for alarm signals;
- Possibility to export data (alarms, events, system and model configurations and variable reports) using a USB memory key (the data are downloaded in a format that is compatible with Microsoft® Excel and Microsoft® Word);
- Display graphs;
- Complete alarm configuration;
- Phone book for SMS contacts, fax numbers, e-mail addresses (with optional accessories);
- Possibility for multiple users to access the system, with different privileges (administrator, normal user, user with privileges);



- Instrument suitable for technical environments, no moving parts.

NETVISOR PRO

NetVisor is the Dunham-Bush web-server based monitoring and tele-maintenance system server that features flexibility of use and easy access to information and alarm management functions.

Dunham-Bush has responded to the requirements for local monitoring and remote management by supplying solutions at all levels: from controllers in the field to supervisory systems.

In this way, the user can be constantly kept up-to-date on the status of the installation. Tailor-made tele-maintenance solutions!

The solutions proposed by Dunham-Bush differ according to the type of installation:

- NetVisor PRO Basic, a pc-based solution for local and remote monitoring system. it can monitor up to 90 units of instruments and log 1400 variables. this solution includes a computer system unit but excludes keyboard, mouse and monitor.
- NetVisor PRO Touch Hyper is a complete solution for local and remote monitoring system that can monitor up to 300 units of instruments and log up to 3500 variables. This solution includes a computer system unit with touch screen.
 - 1.) NetVisor PRO can be accessed within a LAN Network, the information from the NetVisor PRO computer can be accessed by other PCs on the same network via Internet Explorer. NetVisor PRO can also be published on the web if a permanent internet connection and static IP is available.
 - 2.) NetVisor PRO has equipped with 2 digital inputs (5V max) and 3 relay (24V max) outputs, the relay contacts can be scheduled to provide control over equipments or in response to alarm or events.

DB-AIRE II DESIGN FEATURES

FRAME AND CABINET

The cabinet comprises an anodized aluminium frame of epoxy powder coated black color paint with nylon corners and removable steel sheet panels. All panels shall be externally installed onto the cabinet by using special stopper system without using screws. The stopper system shall also facilitate the removable of panels for additional ease of field installation, service and maintenance on the system. All panels and access doors shall be fabricated from sturdy heavy gauge of 1.0mm steel sheets with epoxy powder coated oven baked black color paint to provide a durable finish. All panels shall be of 25mm (1 inch) thick single skin and lined with minimum 2lbs/ft³ density thermal and acoustical fiberglass insulation with fire resistant of Class O (BS 476 Part 6, 7). The system shall be designed for front access only with hinged and lock type full height doors.



COOLING COIL

Computer selected coil design, using interwoven coil surface increases unit efficiency at low loads. Air is drawn through the coil at low velocity providing effective surface exposure with minimum turbulence. This provides greater efficiency in the cooling and dehumidification process.

FAN SECTION

Blowers shall be belt driven double-inlet-double-width (DIDW), statically and dynamically balanced with multiple forward curved blades mounted on a solid steel keyed shaft. Heavy-duty V-belt fan drive (sized for 200% safety factor) with cast iron pulleys keyed and secured to the blower shaft shall be provided.



FILTERS

The system shall be provided with 2 inches (50mm) deep (for model 02-05) or 4 inches (100mm) deep (for model 07-26) extended surface pleated disposable type filters rated for MERV8 efficiency to ASHRAE 52.2 standard (equivalent to EU4). Filters shall be withdrawable from the front of the unit.

ELECTRICAL REHEAT

The three stage stainless steel finned tubular reheat coils provide ample capacity to maintain room dry bulb conditions during a system call for dehumidification. Three equal stages give a more accurate controlled response to the requirements of the computer room. The heating elements are protected by thermal safety switches. The three stages of reheat create a noticeable lowering of energy use.

HOT GAS REHEAT (OPTIONAL)

The unit shall incorporate a hot gas reheat coil located downstream of the evaporator coil with modulating valve which is completely integrated to the unit's microprocessor control. For units with two refrigerant circuits, each circuit shall operate independently with its own modulating valve.

HUMIDIFICATION (OPTIONAL)

The disposable cartridge electric steam generator humidifier provides humidification down stream of the cooling coil. The humidifier is designed to allow all units at any voltage to produce full rated steam output at an optimum low water level.

ELECTRONIC EXPANSION VALVE (EEV) (OPTIONAL)

The refrigerant circuit(s) shall be provided with an Electronic Expansion Valve (EEV) for evaporator in lieu of standard Thermal Expansion Valve (TXV) to allow an efficient modulation control of refrigeration and consistent energy saving performances.

DB-AIRE II HUMID INTERFACE

The DB-Aire II Humid interface allows the control of humidifiers directly from the DB-Aire II microprocessor controller.

COMPRESSORIZED SYSTEMS

The refrigeration system uses highly efficient and quiet scroll compressors. The scroll compressor has a high EER, low sound power level and is highly reliable. The high efficiency is due to the controlled orbit with floating seals and advanced scroll geometry design. There is no contact of the mechanical parts in the scroll design which eliminates mechanical wear and tear. The motor is 100% cooled by suction gas. A check valve is located directly above the fixed scroll discharge port. This prevents the compressor from running backwards after the power has been switched off (i.e. no rattling and no shut-down noise). The motor is fitted with a thermostat which protects the compressor if a malfunction occurs. The refrigeration circuit includes built in compressor overload protection, filter drier, sight glass, adjustable expansion valve, low pressure override timer, manual reset high pressure control, short-cycle timer and rotalock service valves.



AIR COOLED SYSTEMS

A wide range of sizes of remote mounted air cooled condensers are available from DB-Aire II in vertical discharge.

Condensers are manufactured by DB-Aire II and include circuits sized to match the heat rejection of the corresponding compressors. The industrial duty design includes galvanised corrosion resistant housings, high efficiency aluminium finned (optional copper fins available), copper tube coils; coated fan guards, energy efficient thermally protected motors; and integral factory wired and tested control panel.



PERFORMANCE AND TECHNICAL DATA

AIR COOLED DX SYSTEM @ 35°C (95°F) AMBIENT TEMPERATURE - WITH OR WITHOUT HOT GAS REHEAT

Model			DBAD/U 02 DBRD/U 02	DBAD/U 03 DBRD/U 03	DBAD/U 04 DBRD/U 04	DBAD/U 05 DBRD/U 05	DBAD/U 07 DBRD/U 07	DBAD/U 09 DBRD/U 09
Return Air 80°F/67°F/50% RH (27°C/19°C/50% RH)	Total Cooling Capacity	MBH (kW)	41.0 (12.0)	42.9 (12.6)	51.3 (15.0)	63.8 (18.7)	89.6 (26.3)	131.7 (38.6)
	Sensible Cooling Capacity	MBH (kW)	32.2 (9.4)	35.7 (10.5)	44.3 (13.0)	54.7 (16.0)	77.9 (22.8)	111.7 (32.7)
	Sensible Heat Ratio (SHR)		0.79	0.83	0.86	0.86	0.87	0.85
Return Air 75°F/62.5°F/50% RH (24°C/17°C/50% RH)	Total Cooling Capacity	MBH (kW)	34.7 (10.2)	38.8 (11.4)	49.7 (14.6)	58.2 (17.1)	80.9 (23.7)	119.3 (35.0)
	Sensible Cooling Capacity	MBH (kW)	30.7 (9.0)	35.1 (10.3)	44.8 (13.1)	53.8 (15.8)	75.6 (22.1)	109.8 (32.2)
	Sensible Heat Ratio (SHR)		0.90	0.90	0.90	0.93	0.93	0.92
Return Air 72°F/60°F/50% RH (22°C/16°C/50% RH)	Total Cooling Capacity	MBH (kW)	32.7 (9.6)	36.3 (10.6)	46.5 (13.6)	54.6 (16.0)	80.2 (23.5)	118.3 (34.7)
	Sensible Cooling Capacity	MBH (kW)	30.0 (8.8)	33.7 (9.9)	43.8 (12.8)	52.6 (15.4)	75.3 (22.1)	108.8 (31.9)
	Sensible Heat Ratio (SHR)		0.92	0.93	0.94	0.96	0.94	0.92
Compressor	Number of Compressor(s)		1	1	1	1	1	1
	Total Power Input (50Hz)	kW	3.4	3.4	4.7	5.2	6.5	10.2
	Total Power Input (60Hz)	kW	N/A	N/A	4.4	5.4	6.6	11.2
	Hot Gas; Liquid Lines, 50Hz	Inch	5/8 ; 1/2	5/8 ; 1/2	5/8 ; 1/2	5/8 ; 1/2	7/8 ; 1/2	7/8 ; 5/8
	Hot Gas; Liquid Lines, 60Hz	Inch	N/A	N/A	5/8 ; 1/2	5/8 ; 1/2	7/8 ; 1/2	7/8 ; 1/2
Fan & Motor (Indoor)	Fan Size		10/8	10/8	10/8	10/8	15/15	15/15
	Air Volume	CFM (m³/h)	1,500 (2,548)	1,500 (2,548)	2,000 (3,398)	2,500 (4,247)	4,000 (6,796)	5,000 (8,495)
	External Static Pressure (ESP)	in H ₂ O (Pa)	0.3 (75)	0.3 (75)	0.3 (75)	0.3 (75)	0.5 (125)	0.5 (125)
	Motor (Standard Single Coil)	Hp (kW)	1.0 (0.75)	1.0 (0.75)	1.0 (0.75)	2.0 (1.5)	2.0 (1.5)	3.0 (2.2)
Coil (DX)	Face Area	ft² (m²)	5.6 (0.5)	5.6 (0.5)	5.6 (0.5)	5.6 (0.5)	12.2 (1.1)	12.2 (1.1)
	Face Velocity	FPM (m/s)	270 (1.4)	270 (1.4)	360 (1.8)	450 (2.3)	327 (1.7)	409 (2.1)
	Condensate Drain O.D	Inch	7/8	7/8	7/8	7/8	7/8	7/8
Filters (ASHRAE 52.5 MERV 8)	20" x 20" x 2"	Qty	2	2	2	2	N/A	N/A
	20" x 20" x 4"	Qty	N/A	N/A	N/A	N/A	4	4
	20" x 25" x 4"	Qty	N/A	N/A	N/A	N/A	N/A	N/A
Reheat (Electric) N/A for DBRD/U Models	3-Stages (rated at 415V)	MBH (kW)	20.5 (6.0)	20.5 (6.0)	20.5 (6.0)	20.5 (6.0)	41.0 (12.0)	41.0 (12.0)
Steam Humidifier (Optional)	Capacity (max.)	lbs/hr (kg/hr)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)
	Power Input (max.)	kW	6.0	6.0	6.0	6.0	6.0	6.0
Sound Pressure Level (at 2m distance, free field, downflow)		dBA	56	56	57	57	62	63

PHYSICAL DATA

Height	H	mm	1944	1944	1944	1944	1944	1944
		(inch)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)
Width	W	mm	749	749	749	749	1464	1464
		(inch)	(29.5)	(29.5)	(29.5)	(29.5)	(57.6)	(57.6)
Depth	D	mm	874	874	874	874	874	874
		(inch)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)
Weight	DBAD/U	kg	251	259	260	272	420	450
		(lbs)	(552)	(570)	(572)	(598)	(924)	(990)
	DBRD/U	kg	265	273	274	286	442	472
		(lbs)	(583)	(601)	(603)	(629)	(972)	(1038)

Notes: 1.) Add 457mm (18inch) to height of unit for Discharge Plenum (optional) – Upflow Models only
2.) Add 32kg (71lbs)- Model 02 to 05; 51kg(112 lbs)-Model 07 to 13; 80kg(176 lbs)- Model 14 to 26 to weight of unit for Discharge Plenum (optional)- Upflow Model only



PERFORMANCE AND TECHNICAL DATA

AIR COOLED DX SYSTEM @ 35°C (95°F) AMBIENT TEMPERATURE - WITH OR WITHOUT HOT GAS REHEAT

Model			DBAD/U 11 DBRD/U 11	DBAD/U 13 DBRD/U 13	DBAD/U 14 DBRD/U 14	DBAD/U 16 DBRD/U 16	DBAD/U 19 DBRD/U 19	DBAD/U 22 DBRD/U 22	DBAD/U 26 DBRD/U 26
Return Air 80°F/67°F/50% RH (27°C/19°C/50% RH)	Total Cooling Capacity	MBH (kW)	145.7 (42.7)	170.4 (49.9)	190.1 (55.7)	224.3 (65.7)	260.7 (76.4)	288.5 (84.5)	337.3 (98.8)
	Sensible Cooling Capacity	MBH (kW)	128.7 (37.7)	145.9 (42.8)	158.3 (46.4)	190.9 (55.9)	226.1 (66.2)	244.3 (71.6)	286.0 (83.8)
	Sensible Heat Ratio (SHR)		0.88	0.86	0.83	0.85	0.87	0.85	0.85
Return Air 75°F/62.5°F/50% RH (24°C/17°C/50% RH)	Total Cooling Capacity	MBH (kW)	132.5 (38.8)	154.8 (45.4)	182.0 (53.3)	203.1 (59.5)	236.1 (69.2)	262.2 (76.8)	307.4 (90.1)
	Sensible Cooling Capacity	MBH (kW)	124.7 (36.5)	143.3 (42.0)	161.2 (47.2)	185.2 (54.3)	222.7 (65.3)	240.0 (70.3)	276.8 (81.1)
	Sensible Heat Ratio (SHR)		0.94	0.93	0.90	0.91	0.94	0.92	0.90
Return Air 72°F/60°F/50% RH (22°C/16°C/50% RH)	Total Cooling Capacity	MBH (kW)	131.5 (38.5)	145.2 (42.5)	170.2 (49.9)	201.2 (59.0)	234.7 (68.8)	260.1 (76.2)	304.4 (89.2)
	Sensible Cooling Capacity	MBH (kW)	125.5 (36.8)	140.0 (41.0)	155.2 (45.5)	184.5 (54.1)	221.2 (64.8)	237.9 (69.7)	278.6 (81.6)
	Sensible Heat Ratio (SHR)		0.95	0.96	0.91	0.92	0.94	0.91	0.92
Compressor	Number of Compressor(s)		1	1	2	2	2	2	2
	Total Power Input (50Hz)	kW	11.1	12.7	14.7	17.1	20.3	21.8	26.1
	Total Power Input (60Hz)	kW	12.3	13.0	16.3	17.9	22.2	24.2	26.9
	Hot Gas; Liquid Lines, 50Hz	Inch	7/8; 5/8	7/8; 5/8	7/8(2); 1/2(2)	7/8(2); 1/2(2)	7/8(2); 5/8(2)	7/8(2); 5/8(2)	7/8(2); 5/8(2)
	Hot Gas; Liquid Lines, 60Hz	Inch	7/8; 5/8	7/8; 5/8	7/8(2); 1/2(2)	7/8(2); 1/2(2)	7/8(2); 5/8(2)	7/8(2); 5/8(2)	
Fan & Motor (Indoor)	Fan Size		15/15	15/15	15/15 (Twin)	15/15 (Twin)	15/15 (Twin)	15/15 (Twin)	15/15 (Twin)
	Air Volume	CFM (m ³ /h)	6,000 (10,194)	6,500 (11,043)	8,000 (13,592)	10,000 (16,989)	11,000 (18,688)	11,000 (18,688)	13,000 (22,086)
	External Static Pressure (ESP)	in H ₂ O (Pa)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)
	Motor (Standard Single Coil)	Hp (kW)	4.0 (3.0)	5.5 (4.0)	4.0 (3.0)	5.5 (4.0)	7.5 (5.5)	7.5 (5.5)	10.0 (7.5)
Coil (DX)	Face Area	ft ² (m ²)	12.2 (1.1)	12.2 (1.1)	23.9 (2.2)	23.9 (2.2)	23.9 (2.2)	23.9 (2.2)	23.9 (2.2)
	Face Velocity	FPM (m/s)	491 (2.5)	532 (2.7)	335 (1.7)	419 (2.1)	461 (2.3)	461 (2.3)	544 (2.8)
	Condensate Drain O.D	Inch	7/8	7/8	7/8	7/8	7/8	7/8	7/8
Filters (ASHRAE 52.5 MERV 8)	20" x 20" x 2"	Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	20" x 20" x 4"	Qty	4	4	6	6	6	6	6
	20" x 25" x 4"	Qty	N/A	N/A	2	2	2	2	2
Reheat (Electric) N/A for DBRD/U Models	3-Stages (rated at 415V)	MBH (kW)	41.0 (12.0)	41.0 (12.0)	61.4 (18.0)	61.4 (18.0)	61.4 (18.0)	61.4 (18.0)	61.4 (18.0)
Steam Humidifier (Optional)	Capacity (max.)	lbs/hr (kg/hr)	17 (8.0)	17 (8.0)	33 (15.0)	33 (15.0)	33 (15.0)	33 (15.0)	33 (15.0)
	Power Input (max.)	kW	6.0	6.0	11.3	11.3	11.3	11.3	11.3
Sound Pressure Level (at 2m distance, free field, downflow)		dBA	66	70	65	65	66	69	73

PHYSICAL DATA

Height	H	mm (inch)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)
Width	W	mm (inch)	1464 (57.6)	1464 (57.6)	2554 (100.6)	2554 (100.6)	2554 (100.6)	2554 (100.6)	2554 (100.6)
Depth	D	mm (inch)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)
Weight	DBAD/U	kg (lbs)	460 (1,012)	474 (1,043)	735 (1,617)	754 (1,659)	802 (1,764)	823 (1,811)	835 (1,837)
	DBRD/U	kg (lbs)	482 (1,060)	496 (1,091)	776 (1,707)	795 (1,659)	843 (1,765)	864 (1,901)	876 (1,927)

Notes: 1.) Add 457mm (18inch) to height of unit for Discharge Plenum (optional) – Upflow Models only
2.) Add 32kg (71lbs)- Model 02 to 05; 51kg(112 lbs)-Model 07 to 13; 80kg(176 lbs)- Model 14 to 26 to weight of unit for Discharge Plenum (optional)- Upflow Model only



PERFORMANCE AND TECHNICAL DATA

CHILLED WATER SYSTEM @ WATER SUPPLY/ RETURN 7°C/ 12°C (44.6°F/ 53.6°F)

Model			DBCD/U 02	DBCD/U 03	DBCD/U 04	DBCD/U 05	DBCD/U 07	DBCD/U 09
Return Air 80°F/67°F/50% RH (27°C/19°C/50% RH)	Total Cooling Capacity	MBH (kW)	45.7 (13.4)	62.2 (18.2)	81.4 (23.8)	95.8 (28.1)	147.2 (43.1)	186.5 (54.6)
	Sensible Cooling Capacity	MBH (kW)	34.9 (10.2)	44.2 (12.9)	59.3 (17.4)	71.1 (20.8)	109.3 (32.0)	138.6 (40.6)
	Sensible Heat Ratio (SHR)		0.76	0.71	0.73	0.74	0.74	0.74
	Water Flow Rate	GPM (m ³ /hr)	10.5 (2.4)	14.3 (3.2)	18.7 (4.2)	22.0 (5.0)	33.8 (7.7)	41.9 (9.5)
	Water Pressure Drop	PSI (kPa)	4.2 (29.3)	10.4 (71.4)	3.7 (25.7)	4.9 (34.1)	5.0 (34.7)	18.3 (125.8)
Return Air 75°F/62.5°F/50% RH (24°C/17°C/50% RH)	Total Cooling Capacity	MBH (kW)	31.8 (9.3)	43.0 (12.6)	57.5 (16.9)	67.9 (19.9)	103.8 (30.4)	132.3 (38.8)
	Sensible Cooling Capacity	MBH (kW)	29.9 (8.8)	37.1 (10.9)	50.5 (14.8)	61.0 (17.9)	93.2 (27.3)	118.6 (34.8)
	Sensible Heat Ratio (SHR)		0.94	0.86	0.88	0.90	0.90	0.90
	Water Flow Rate	GPM (m ³ /hr)	7.3 (1.7)	9.9 (2.2)	13.2 (3.0)	15.6 (3.5)	23.8 (5.4)	29.7 (6.7)
	Water Pressure Drop	PSI (kPa)	2.3 (15.8)	5.5 (38.0)	2.1 (14.3)	2.7 (18.8)	2.7 (18.8)	10.1 (69.6)
Return Air 72°F/60°F/50% RH (22°C/16°C/50% RH)	Total Cooling Capacity	MBH (kW)	26.8 (7.9)	35.9 (10.5)	48.1 (14.1)	57.0 (16.7)	86.9 (25.5)	108.9 (31.9)
	Sensible Cooling Capacity	MBH (kW)	26.4 (7.7)	32.5 (9.5)	44.4 (13.0)	53.8 (15.8)	82.0 (24.0)	107.8 (31.6)
	Sensible Heat Ratio (SHR)		0.99	0.91	0.92	0.94	0.94	0.99
	Water Flow Rate	GPM (m ³ /hr)	6.0 (1.4)	8.0 (1.8)	10.7 (2.4)	12.7 (2.9)	19.3 (4.4)	24.2 (5.5)
	Water Pressure Drop	PSI (kPa)	1.6 (11.1)	3.9 (26.6)	1.4 (9.9)	1.9 (13.2)	1.9 (13.2)	7.1 (49.0)
Fan & Motor (Indoor)	Fan Size		10/8	10/8	10/8	10/8	15/15	15/15
	Air Volume	CFM (m ³ /h)	1,500 (2,548)	1,500 (2,548)	2,000 (3,398)	2,500 (4,247)	4,000 (6,796)	5,000 (8,495)
	External Static Pressure (ESP)	in H ₂ O (Pa)	0.3 (75)	0.3 (75)	0.3 (75)	0.3 (75)	0.5 (125)	0.5 (125)
	Motor	Hp (kW)	1.0 (0.75)	1.0 (0.75)	1.0 (0.75)	2.0 (1.5)	2.0 (1.5)	3.0 (2.2)
Coil (Chilled Water)	Face Area	ft ² (m ²)	5.6 (0.5)	5.6 (0.5)	5.6 (0.5)	5.6 (0.5)	12.2 (1.1)	12.2 (1.1)
	Face Velocity	FPM (m/s)	270 (1.4)	270 (1.4)	360 (1.8)	450 (2.3)	327 (1.7)	409 (2.1)
	Condensate Drain O.D	Inch	7/8	7/8	7/8	7/8	7/8	7/8
Chilled Water Control	3-Way Modulating Valve, Size	DN, mm	25	25	25	25	25	25
		Kv, m ³ /h	10	10	10	10	10	10
Filters (ASHRAE 52.5 MERV 8)	20" x 20" x 2"	Qty	2	2	2	2	N/A	N/A
	20" x 20" x 4"	Qty	N/A	N/A	N/A	N/A	4	4
	20" x 25" x 4"	Qty	N/A	N/A	N/A	N/A	N/A	N/A
Reheat (Electric)	3-Stages (rated at 415V)	MBH (kW)	20.5 (6.0)	20.5 (6.0)	20.5 (6.0)	20.5 (6.0)	41.0 (12.0)	41.0 (12.0)
Steam Humidifier (Optional)	Capacity (max.)	lbs/hr (kg/hr)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)
	Power Input (max.)	kW	6.0	6.0	6.0	6.0	6.0	6.0
Sound Pressure Level (at 2m distance, free field, downflow)		dBA	48	50	52	55	52	53

PHYSICAL DATA

Height	H	mm (inch)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)
Width	W	mm (inch)	749 (29.5)	749 (29.5)	749 (29.5)	749 (29.5)	1464 (57.6)	1464 (57.6)
Depth	D	mm (inch)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)
Weight		kg (lbs)	205 (451)	212 (466)	219 (482)	229 (504)	365 (803)	374 (823)

Note: 1.) Add 457mm (18 inch) to height of unit for Discharge Plenum (optional) – Upflow Models only
 2.) Add 32kg (71lbs)- Model 02 to 05; 51kg(112 lbs)- Model 07 to 13; 80kg(176 lbs)- Model 14 to 26 to weight of unit for Discharge Plenum (optional)- Upflow Model only



PERFORMANCE AND TECHNICAL DATA

CHILLED WATER SYSTEM @ WATER SUPPLY/ RETURN 7°C/ 12°C (44.6°F/ 53.6°F)

Model			DBCD/U 11	DBCD/U 13	DBCD/U 14	DBCD/U 16	DBCD/U 19	DBCD/U 22	DBCD/U 26
Return Air 80°F/67°F/50% RH (27°C/19°C/50% RH)	Total Cooling Capacity	MBH (kW)	228.1 (66.8)	252.1 (73.9)	291.5 (85.4)	340.7 (99.8)	396.9 (116.3)	447.5 (131.1)	505.1 (148.0)
	Sensible Cooling Capacity	MBH (kW)	169.6 (49.7)	185.3 (54.3)	216.8 (63.5)	258.8 (75.8)	297.9 (87.3)	324.0 (94.9)	370.8 (108.6)
	Sensible Heat Ratio (SHR)		0.74	0.74	0.74	0.76	0.75	0.72	0.73
	Water Flow Rate	GPM (m³/hr)	52.3 (11.9)	57.8 (13.1)	66.8 (15.2)	78.1 (17.7)	91.0 (20.7)	102.6 (23.3)	115.8 (26.3)
	Water Pressure Drop	PSI (kPa)	7.5 (51.7)	15.0 (103.4)	4.2 (28.7)	5.5 (37.7)	4.9 (34.1)	11.7 (81.0)	14.5 (99.8)
Return Air 75°F/62.5°F/50% RH (24°C/17°C/50% RH)	Total Cooling Capacity	MBH (kW)	162.0 (47.5)	179.7 (52.7)	205.3 (60.2)	240.5 (70.5)	280.9 (82.3)	319.0 (93.5)	360.4 (105.6)
	Sensible Cooling Capacity	MBH (kW)	145.3 (42.6)	158.9 (46.6)	184.9 (54.2)	221.9 (65.0)	255.5 (74.9)	277.1 (81.2)	318.1 (93.2)
	Sensible Heat Ratio (SHR)		0.90	0.88	0.90	0.92	0.91	0.87	0.88
	Water Flow Rate	GPM (m³/hr)	37.2 (8.4)	41.2 (9.4)	47.1 (10.7)	55.1 (12.5)	64.4 (14.6)	73.2 (16.6)	82.7 (18.8)
	Water Pressure Drop	PSI (kPa)	4.1 (28.4)	8.4 (57.7)	2.3 (15.5)	3.0 (20.6)	2.7 (18.5)	6.5 (45.1)	8.1 (55.6)
Return Air 72°F/60°F/50% RH (22°C/16°C/50% RH)	Total Cooling Capacity	MBH (kW)	136.1 (39.9)	151.1 (44.3)	172.2 (50.5)	202.5 (59.3)	236.4 (69.3)	267.6 (78.4)	303.1 (88.8)
	Sensible Cooling Capacity	MBH (kW)	128.4 (37.6)	140.2 (41.1)	163.4 (47.9)	196.3 (57.5)	225.8 (66.2)	243.6 (71.4)	280.0 (82.0)
	Sensible Heat Ratio (SHR)		0.94	0.93	0.95	0.97	0.96	0.91	0.92
	Water Flow Rate	GPM (m³/hr)	30.3 (6.9)	33.6 (7.6)	38.3 (8.7)	45.1 (10.2)	52.6 (11.9)	59.5 (13.5)	67.4 (15.3)
	Water Pressure Drop	PSI (kPa)	2.9 (19.7)	5.9 (40.7)	1.6 (11.1)	2.1 (14.3)	1.9 (12.9)	4.6 (31.7)	5.7 (39.2)
Fan & Motor (Indoor)	Fan Size		15/15	15/15	15/15 (Twin)	15/15 (Twin)	15/15 (Twin)	15/15 (Twin)	15/15 (Twin)
	Air Volume	CFM (m³/h)	6,000 (10,194)	6,500 (11,043)	8,000 (13,592)	10,000 (16,989)	11,000 (18,688)	11,000 (18,688)	13,000 (22,086)
	External Static Pressure (ESP)	in H ₂ O (Pa)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)
	Motor	Hp (kW)	4.0 (3.0)	5.5 (4.0)	4.0 (3.0)	5.5 (4.0)	7.5 (5.5)	7.5 (5.5)	10.0 (7.5)
Coil (Chilled Water)	Face Area	ft² (m²)	12.2 (1.1)	12.2 (1.1)	23.9 (2.2)	23.9 (2.2)	23.9 (2.2)	23.9 (2.2)	23.9 (2.2)
	Face Velocity	FPM (m/s)	491 (2.5)	532 (2.7)	335 (1.7)	419 (2.1)	461 (2.3)	461 (2.3)	544 (2.8)
	Condensate Drain O.D	Inch	7/8	7/8	7/8	7/8	7/8	7/8	7/8
Chilled Water Control	3-Way Modulating Valve, Size	DN, mm	40	40	40	40	40	50	50
		Kv, m³/h	16	16	16	16	16	25	25
Filters (ASHRAE 52.5 MERV 8)	20" x 20" x 2"	Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	20" x 20" x 4"	Qty	4	4	6	6	6	6	6
	20" x 25" x 4"	Qty	N/A	N/A	2	2	2	2	2
Reheat (Electric)	3-Stages (rated at 415V)	MBH (kW)	41.0 (12.0)	41.0 (12.0)	61.4 (18.0)	61.4 (18.0)	61.4 (18.0)	61.4 (18.0)	61.4 (18.0)
Steam Humidifier (Optional)	Capacity (max.)	lbs/hr (kg/hr)	17 (8.0)	17 (8.0)	33 (15.0)	33 (15.0)	33 (15.0)	33 (15.0)	33 (15.0)
	Power Input (max.)	kW	6.0	6.0	11.3	11.3	11.3	11.3	11.3
Sound Pressure Level (at 2m distance, free field, downflow)		dBA	57	58	52	58	59	60	64

PHYSICAL DATA

Height	H	mm (inch)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)
Width	W	mm (inch)	1464 (57.6)	1464 (57.6)	2554 (100.6)	2554 (100.6)	2554 (100.6)	2554 (100.6)	2554 (100.6)
Depth	D	mm (inch)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)
Weight		kg (lbs)	398 (876)	410 (902)	602 (1,324)	615 (1,353)	665 (1,463)	678 (1,492)	688 (1,514)

Note: 1.) Add 457mm (18 inch) to height of unit for Discharge Plenum (optional) – Upflow Models only

2.) Add 32kg (71lbs)- Model 02 to 05; 51kg(112 lbs)- Model 07 to 13; 80kg(176 lbs)- Model 14 to 26 to weight of unit for Discharge Plenum (optional)- Upflow Model only



DUAL COILS OPTION

AIR COOLED DX & CHILLED WATER SYSTEMS

This system is a combination of the both Direct Expansion (DX) and Chilled Water (CW) system with 2 cooling coil. Cooling capacity and other parameters for DX and CW System are as per stated on respective tables; except for the following.

Model		DBDD/U 02	DBDD/U 03	DBDD/U 04	DBDD/U 05	DBDD/U 07	DBDD/U 09
Fan Motor (Indoor)	hp (kW)	1.0 (0.75)	1.0 (0.75)	1.5 (1.1)	2.0 (1.5)	2.0 (1.5)	4.0 (3.0)
Sound Pressure Level (at 2m distance, free field, downflow)	dBA	56	56	57	57	62	63
Weight	kg (lbs)	270 (594)	284 (625)	292 (642)	304 (669)	467 (1,027)	497 (1,093)

Model		DBDD/U 11	DBDD/U 13	DBDD/U 14	DBDD/U 16	DBDD/U 19	DBDD/U 22	DBDD/U 26
Fan Motor (Indoor)	hp (kW)	5.5 (4.0)	5.5 (4.0)	4.0 (3.0)	7.5 (5.5)	7.5 (5.5)	10.0 (7.5)	N/A
Sound Pressure Level (at 2m distance, free field, downflow)	dBA	66	70	65	65	66	69	
Weight	kg (lbs)	523 (1,151)	537 (1,181)	823 (1,811)	842 (1,852)	909 (2,000)	941 (2,070)	

Notes: 1.) Add 457mm (18inch) to height of unit for Discharge Plenum (optional) – Upflow Models only
 2.) Add 32kg (71 lbs)- Model 02 to 05; 51kg(112 lbs)-Model 07 to 13; 80kg(176 lbs)- Model 14 to 22 to weight of unit for Discharge Plenum (optional)- Upflow Model only

CONDENSER SELECTION

Selections are to be based on standard airflow rate and return air temperature of 24°C / 17°C (75°F / 62.5°F) or lesser at sea level.

Model	DX-System	DBAD/U 02	DBAD/U 03	DBAD/U 04	DBAD/U 05	DBAD/U 07	DBAD/U 09
	Dual Coils System	DBDD/U 02	DBDD/U 03	DBDD/U 04	DBDD/U 05	DBDD/U 07	DBDD/U 09
	DX-System with Hot Gas Reheat	DBRD/U 02	DBRD/U 03	DBRD/U 04	DBRD/U 05	DBRD/U 07	DBRD/U 09
Total Heat Rejection (Nominal)	MBH (kW)	46 (14)	51 (15)	60 (18)	73 (21)	101 (30)	151 (44)
35°C (95°F) Ambient	-	DBRC04	DBRC04	DBRC04	DBRC06	DBRC08	DBRC10
37.8°C (100°F) Ambient	-	DBRC04	DBRC04	DBRC06	DBRC06	DBRC08	DBRC13
40.6°C (105°F) Ambient	-	DBRC04	DBRC06	DBRC06	DBRC08	DBRC11	DBRC17
43°C (110°F) Ambient	See Note 1	DBRC06	DBRC06	DBRC08	DBRC11	DBRC17	DBRC20
46°C (115°F) Ambient	See Note 1	DBRC08	DBRC11	DBRC17	DBRC17	DBRC26	DBRC34
49°C (120°F) Ambient	See Note 2	DBRC11	DBRC11	DBRC17	DBRC20	DBRC26	DBRC34
52°C (125°F) Ambient	See Note 3	DBRC13	DBRC13	DBRC20	DBRC26	DBRC30	DBRC40

Model	DX-System	DBAD/U 11	DBAD/U 13	DBAD/U 14	DBAD/U 16	DBAD/U 19	DBAD/U 22	DBAD/U 26
	Dual Coils System	DBDD/U 11	DBDD/U 13	DBDD/U 14	DBDD/U 16	DBDD/U 19	DBDD/U 22	N/A
	DX-System with Hot Gas Reheat	DBRD/U 11	DBRD/U 13	DBRD/U 14	DBRD/U 16	DBRD/U 19	DBRD/U 22	DBRD/U 26
Total Heat Rejection (Nominal)	MBH (kW)	171 (50)	193 (57)	220 (64)	262 (77)	293 (86)	332 (97)	388 (114)
35°C (95°F) Ambient	-	DBRC13	DBRC17	DBRC17	DBRC20	DBRC20	DBRC26	DBRC30
37.8°C (100°F) Ambient	-	DBRC17	DBRC17	DBRC20	DBRC26	DBRC26	DBRC30	DBRC30
40.6°C (105°F) Ambient	-	DBRC20	DBRC26	DBRC26	DBRC26	DBRC34	DBRC34	DBRC34
43°C (110°F) Ambient	See Note 1	DBRC26	DBRC30	DBRC34	DBRC40	DBRC44	DBRC44	DBRC44
46°C (115°F) Ambient	See Note 1	DBRC40	DBRC44	DBRC44	DBRC30 x 2	DBRC30 x 2	DBRC40 x 2	DBRC40 x 2
49°C (120°F) Ambient	See Note 2	DBRC40	DBRC44	DBRC44	DBRC30 x 2	DBRC34 x 2	DBRC40 x 2	DBRC44 x 2
52°C (125°F) Ambient	See Note 3	DBRC44	DBRC44	DBRC26 x 2	DBRC30 x 2	DBRC34 x 2	DBRC44 x 2	DBRC44 x 2

Notes: 1.) Multiply Total Compressor Power Input by 1.05
 2.) Multiply Cooling Capacity by 0.9. Multiply Total Compressor Power Input by 1.1
 3.) Multiply Cooling Capacity by 0.9. Multiply Total Compressor Power Input by 1.2



ELECTRICAL DATA

AIR COOLED DX & CHILLED WATER SYSTEMS

1.) STANDARD - COOLING & ELECTRIC HEATERS

At 35°C (95°F) ambient; Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/50 %RH)

Model	DBAD/U 02			DBAD/U 03			DBAD/U 04			DBAD/U 05			DBAD/U 07			DBAD/U 09		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	15.6	18	20	15.7	18	20	17.6	20	25	20.1	22	32	32.7	37	50	39.1	44	60
400V/ 3Ph/ 50Hz	16.0	18	20	16.2	18	20	18.0	20	25	20.5	23	32	33.6	38	50	39.7	44	63
415V/ 3Ph/ 50Hz	16.4	19	20	16.6	19	20	18.4	21	25	21.0	23	32	34.5	39	50	40.3	45	63
460V/ 3Ph/ 60Hz	N/A			N/A			15.3	17	20	18.0	20	25	28.5	32	40	35.7	40	50

Model	DBAD/U 11			DBAD/U 13			DBAD/U 14			DBAD/U 16			DBAD/U 19			DBAD/U 22			DBAD/U 26		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	43.5	49	63	51.6	58	75	58.0	64	75	65.7	71	100	72.1	78	100	77.5	83	100	93.4	100	125
400V/ 3Ph/ 50Hz	44.2	50	63	53.0	60	75	59.1	65	75	66.9	73	100	72.9	79	100	78.5	85	100	96.0	103	125
415V/ 3Ph/ 50Hz	45.3	51	63	55.6	63	80	60.6	67	75	68.7	75	100	73.8	80	100	80.6	87	100	101.0	109	125
460V/ 3Ph/ 60Hz	38.3	43	60	41.4	46	63	53.2	59	63	56.5	62	75	64.5	70	100	67.3	73	100	75.8	81	100

Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/50 %RH)

Model	DBCD/U 02			DBCD/U 03			DBCD/U 04			DBCD/U 05			DBCD/U 07			DBCD/U 09		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	9.7	12	16	9.7	12	16	9.7	12	16	11.3	13	16	18.9	23	25	20.3	24	30
400V/ 3Ph/ 50Hz	10.0	12	16	10.0	12	16	10.0	12	16	11.5	14	16	19.6	24	25	20.8	25	30
415V/ 3Ph/ 50Hz	10.2	12	16	10.2	12	16	10.2	12	16	11.7	14	16	20.0	24	25	21.2	25	30
460V/ 3Ph/ 60Hz	6.6	8	10	7.9	9	16	9.1	11	16	10.5	12	16	18.1	22	25	19.2	23	25

Model	DBCD/U 11			DBCD/U 13			DBCD/U 14			DBCD/U 16			DBCD/U 19			DBCD/U 22			DBCD/U 26		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	22.0	26	30	23.9	28	32	29.6	35	40	31.5	37	40	34.5	40	50	34.5	40	50	38.0	44	50
400V/ 3Ph/ 50Hz	22.5	26	30	24.2	28	32	30.5	37	40	32.3	38	40	35.1	41	50	35.1	41	50	38.4	44	50
415V/ 3Ph/ 50Hz	22.8	27	30	24.5	29	32	31.2	37	40	32.9	39	40	35.6	42	50	35.6	42	50	38.8	45	50
460V/ 3Ph/ 60Hz	20.5	24	30	22.0	26	30	28.0	34	40	29.5	35	40	31.9	38	50	31.9	38	50	35.8	41	50

2.) STANDARD WITH OPTIONAL HUMIDIFIER

At 35°C (95°F) ambient; Return Air at 24°C/ 17°C/50 %RH (75°F/62.5°F/50 %RH)

Model	DBAD/U 02			DBAD/U 03			DBAD/U 04			DBAD/U 05			DBAD/U 07			DBAD/U 09		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	24.7	27	32	24.8	27	32	26.7	29	32	29.2	31	40	41.8	46	60	48.2	53	63
400V/ 3Ph/ 50Hz	24.7	27	32	24.9	27	32	26.7	29	32	29.2	31	40	42.2	46	50	48.4	53	63
415V/ 3Ph/ 50Hz	24.8	27	32	25.0	27	32	26.8	29	32	29.3	31	40	42.9	47	50	48.7	53	63
460V/ 3Ph/ 60Hz	N/A			N/A			22.9	25	30	25.5	27	30	36.0	40	50	43.2	47	63

Model	DBAD/U 11			DBAD/U 13			DBAD/U 14			DBAD/U 16			DBAD/U 19			DBAD/U 22			DBAD/U 26		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	52.6	58	75	60.7	68	80	75.1	81	100	82.8	89	100	89.2	95	100	94.6	100	125	110.5	117	150
400V/ 3Ph/ 50Hz	52.8	58	75	61.7	69	80	75.3	81	100	83.1	89	100	89.2	95	100	94.8	101	125	112.3	119	150
415V/ 3Ph/ 50Hz	53.7	59	80	64.0	72	100	76.2	82	100	84.3	91	100	89.5	96	100	96.3	103	125	116.7	124	150
460V/ 3Ph/ 60Hz	45.8	50	63	48.9	54	63	67.3	73	100	70.6	76	100	78.6	84	100	81.4	87	100	89.9	96	100

Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/50 %RH)

Model	DBCD/U 02			DBCD/U 03			DBCD/U 04			DBCD/U 05			DBCD/U 07			DBCD/U 09		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	18.8	21	25	18.8	21	25	18.8	21	25	20.4	22	25	28.0	32	40	29.4	33	40
400V/ 3Ph/ 50Hz	18.7	21	25	18.7	21	25	18.7	21	25	20.2	22	25	28.2	32	40	29.5	33	40
415V/ 3Ph/ 50Hz	18.6	21	25	18.6	21	25	18.6	21	25	20.0	22	25	28.4	33	40	29.6	34	40
460V/ 3Ph/ 60Hz	14.2	15	20	15.4	17	20	16.7	19	20	18.1	20	25	25.6	29	40	26.7	30	40

Model	DBCD/U 11			DBCD/U 13			DBCD/U 14			DBCD/U 16			DBCD/U 19			DBCD/U 22			DBCD/U 26		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	31.1	35	40	33.0	37	40	46.7	52	60	48.6	54	60	51.6	57	63	51.6	57	63	55.1	61	70
400V/ 3Ph/ 50Hz	31.1	35	40	32.9	37	40	46.7	53	60	48.5	55	60	51.4	57	63	51.4	57	63	54.7	61	70
415V/ 3Ph/ 50Hz	31.2	35	40	32.9	37	40	46.8	53	60	48.5	55	60	51.3	58	63	51.3	58	63	54.5	61	70
460V/ 3Ph/ 60Hz	28.0	32	40	29.5	33	40	42.1	48	50	43.6	49	60	46.0	52	60	46.0	52	60	49.9	56	70

Note : RLA - Rated Load Amps

MCA - Minimum Circuit Amps

MFS - Maximum Fuse Size



ELECTRICAL DATA

AIR COOLED DUAL COILS (DX + CW) & DX WITH HOT GAS REHEAT SYSTEMS

1.) STANDARD - COOLING & ELECTRIC HEATERS

At 35°C (95°F) ambient; Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/ 50 %RH)

Model	DBDD/U 02				DBDD/U 03				DBDD/U 04				DBDD/U 05				DBDD/U 07				DBDD/U 09			
	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS
380V/ 3Ph/ 50Hz	15.6	9.7	18	20	15.7	9.7	18	20	18.3	10.4	20	25	20.1	11.3	22	30	32.7	18.9	37	40	40.8	22.0	45	60
400V/ 3Ph/ 50Hz	16.0	10.0	18	20	16.2	10.0	18	20	18.6	10.6	21	25	20.5	11.5	23	30	33.6	19.6	38	40	41.4	22.5	46	60
415V/ 3Ph/ 50Hz	16.4	10.2	19	20	16.6	10.2	19	20	19.0	10.8	21	25	21.0	11.7	23	30	34.5	20.0	39	40	41.9	22.8	47	60
460V/ 3Ph/ 60Hz	N/A				N/A				16.0	9.8	18	20	18.0	10.5	20	25	28.5	18.1	32	40	37.0	20.5	41	50

Model	DBDD/U 11				DBDD/U 13				DBDD/U 14				DBDD/U 16				DBDD/U 19				DBDD/U 22			
	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS
380V/ 3Ph/ 50Hz	45.4	23.9	51	63	51.6	23.9	58	75	58.0	29.6	64	75	68.7	34.5	74	100	72.1	34.5	78	100	81.0	38.0	87	100
400V/ 3Ph/ 50Hz	45.9	24.2	51	63	53.0	24.2	60	75	59.1	30.5	65	75	69.7	35.1	76	100	72.9	35.1	79	100	81.8	38.4	88	100
415V/ 3Ph/ 50Hz	47.0	24.5	53	63	55.6	24.5	63	75	60.6	31.2	67	75	71.4	35.6	78	100	73.8	35.6	80	100	83.8	38.8	90	100
460V/ 3Ph/ 60Hz	39.8	22.0	44	60	41.4	22.0	46	63	53.2	28.0	59	63	58.9	31.9	65	75	64.5	31.9	70	100	71.2	35.8	77	100

2.) STANDARD WITH OPTIONAL HUMIDIFIER

At 35°C (95°F) ambient; Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/ 50 %RH)

Model	DBDD/U 02				DBDD/U 03				DBDD/U 04				DBDD/U 05				DBDD/U 07				DBDD/U 09			
	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS
380V/ 3Ph/ 50Hz	24.7	18.8	27	32	24.8	18.8	27	32	27.4	19.5	29	32	29.2	20.4	31	40	41.8	28.0	46	50	49.9	31.1	55	63
400V/ 3Ph/ 50Hz	24.7	18.7	27	32	24.9	18.7	27	32	27.3	19.3	29	32	29.2	20.2	31	40	42.2	28.2	46	50	50.0	31.1	55	63
415V/ 3Ph/ 50Hz	24.8	18.6	27	32	25.0	18.6	27	32	27.4	19.2	29	32	29.3	20.0	31	40	42.9	28.4	47	50	50.3	31.2	55	63
460V/ 3Ph/ 60Hz	N/A				N/A				23.6	17.4	25	30	25.5	18.1	27	30	36.0	25.6	40	50	44.5	28.0	49	63

Model	DBDD/U 11				DBDD/U 13				DBDD/U 14				DBDD/U 16				DBDD/U 19				DBDD/U 22			
	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS	RLA (DX)	RLA (CHW)	MCA	MFS
380V/ 3Ph/ 50Hz	54.5	33.0	60	75	60.7	33.0	68	80	75.1	46.7	81	100	85.8	51.6	92	100	89.2	51.6	95	100	98.1	55.1	104	125
400V/ 3Ph/ 50Hz	54.6	32.9	60	75	61.7	32.9	68	80	75.3	46.7	81	100	86.0	51.4	92	100	89.2	51.4	95	100	98.1	54.7	104	125
415V/ 3Ph/ 50Hz	55.4	32.9	61	75	64.0	32.9	72	80	76.2	46.8	82	100	87.1	51.3	93	100	89.5	51.3	96	100	99.5	54.5	106	125
460V/ 3Ph/ 60Hz	47.3	29.5	52	63	48.9	29.5	54	63	67.3	42.1	73	100	73.0	46.0	79	100	78.6	46.0	84	100	85.3	49.9	91	100

3.) COOLING & HOT GAS REHEAT

At 35°C (95°F) ambient; Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/ 50 %RH)

Model	DBRD/U 02			DBRD/U 03			DBRD/U 04			DBRD/U 05			DBRD/U 07			DBRD/U 09		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	8.0	9	16	8.1	10	16	10.0	12	20	12.4	15	20	17.4	21	32	23.8	28	40
400V/ 3Ph/ 50Hz	8.0	9	16	8.2	10	16	10.0	12	20	12.5	15	20	17.5	21	32	23.6	28	40
415V/ 3Ph/ 50Hz	8.1	10	16	8.3	10	16	10.1	12	20	12.6	15	20	17.8	21	32	23.7	28	40
460V/ 3Ph/ 60Hz	N/A			N/A			7.8	9	16	10.5	12	20	13.4	16	25	20.6	25	40

Model	DBRD/U 11			DBRD/U 13			DBRD/U 14			DBRD/U 16			DBRD/U 19			DBRD/U 22			DBRD/U 26		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	28.2	34	50	36.3	43	63	35.1	39	50	42.8	47	63	49.2	54	75	54.6	60	75	70.5	77	100
400V/ 3Ph/ 50Hz	28.1	33	50	37.0	44	63	35.0	39	50	42.8	47	63	48.8	54	63	54.4	60	75	71.9	79	100
415V/ 3Ph/ 50Hz	28.6	34	50	39.0	47	75	35.5	39	50	43.7	48	63	48.8	54	63	55.6	61	75	76.0	84	100
460V/ 3Ph/ 60Hz	23.2	28	40	26.3	31	50	30.6	34	40	33.9	37	50	41.9	46	60	44.7	49	63	53.2	58	75

4.) COOLING & HOT GAS REHEAT WITH OPTIONAL HUMIDIFIER

At 35°C (95°F) ambient; Return Air at 24°C/17°C/50 %RH (75°F/62.5°F/ 50 %RH)

Model	DBRD/U 02			DBRD/U 03			DBRD/U 04			DBRD/U 05			DBRD/U 07			DBRD/U 09		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	17.1	19	25	17.2	19	25	19.1	21	25	21.6	24	32	26.6	30	40	32.9	38	50
400V/ 3Ph/ 50Hz	16.6	19	25	16.8	19	25	18.6	21	25	21.1	23	32	26.1	30	40	32.3	37	50
415V/ 3Ph/ 50Hz	16.4	19	25	16.6	19	25	18.4	21	25	21.0	23	32	26.2	30	40	32.0	37	50
460V/ 3Ph/ 60Hz	N/A			N/A			15.3	17	20	18.0	20	25	20.9	24	32	28.1	32	40

Model	DBRD/U 11			DBRD/U 13			DBRD/U 14			DBRD/U 16			DBRD/U 19			DBRD/U 22			DBRD/U 26		
	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS	RLA	MCA	MFS
380V/ 3Ph/ 50Hz	37.3	43	63	45.4	52	80	52.2	56	75	59.9	64	80	66.3	71	80	71.7	77	100	87.6	95	125
400V/ 3Ph/ 50Hz	36.7	42	63	45.6	53	80	51.2	55	63	59.0	63	80	65.0	70	80	70.6	76	100	88.1	95	125
415V/ 3Ph/ 50Hz	37.0	43	63	47.3	55	80	51.2	55	63	59.3	64	80	64.5	69	80	71.3	77	100	91.7	99	125
460V/ 3Ph/ 60Hz	30.7	35	50	33.8	39	50	44.7	48	60	48.0	51	63	56.0	60	75	58.8	63	80	67.3	72	100

Note : RLA - Rated Load Amps

MCA - Minimum Circuit Amps

MFS - Maximum Fuse Size

DIMENSIONAL DATA

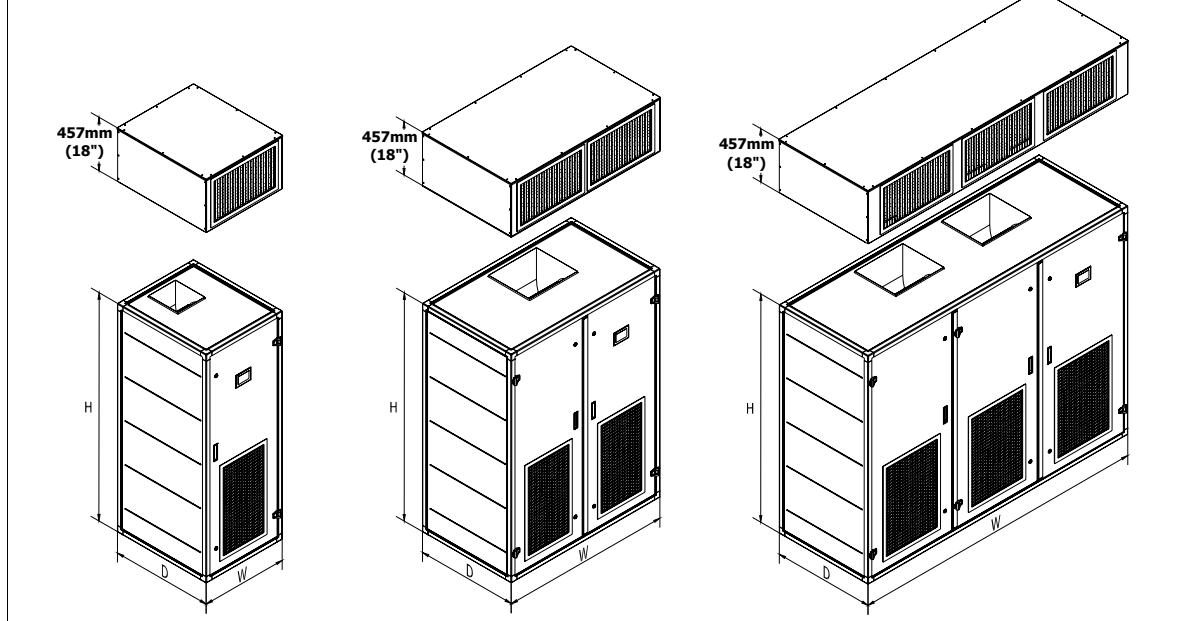
AIR COOLED DX & CHILLED WATER SYSTEMS

UP FLOW (Optional Discharge Plenum)			Model		Model													
					DX System	DBAU 02	DBAU 03	DBAU 04	DBAU 05	DBAU 07	DBAU 09	DBAU 11	DBAU 13	DBAU 14	DBAU 16	DBAU 19	DBAU 22	DBAU 26
			CW System	DBCW 02	DBCW 03	DBCW 04	DBCW 05	DBCW 07	DBCW 09	DBCW 11	DBCW 13	DBCW 14	DBCW 16	DBCW 19	DBCW 22	DBCW 26		
			Dual Coils System	DBDU 02	DBDU 03	DBDU 04	DBDU 05	DBDU 07	DBDU 09	DBDU 11	DBDU 13	DBDU 14	DBDU 16	DBDU 19	DBDU 22	-		
			DX-System with Hot Gas Reheat		DBRU 02	DBRU 03	DBRU 04	DBRU 05	DBRU 07	DBRU 09	DBRU 11	DBRU 13	DBRU 14	DBRU 16	DBRU 19	DBRU 22	DBRU 26	
Height	H	mm	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	
		(inch)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)
Width	W	mm	749	749	749	749	1464	1464	1464	1464	2554	2554	2554	2554	2554	2554	2554	
		(inch)	(29.5)	(29.5)	(29.5)	(29.5)	(57.6)	(57.6)	(57.6)	(57.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)
Depth	D	mm	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	
		(inch)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)

DB-AIRE II 02-05 tons

DB-AIRE II 07-13 tons

DB-AIRE II 14-26 tons

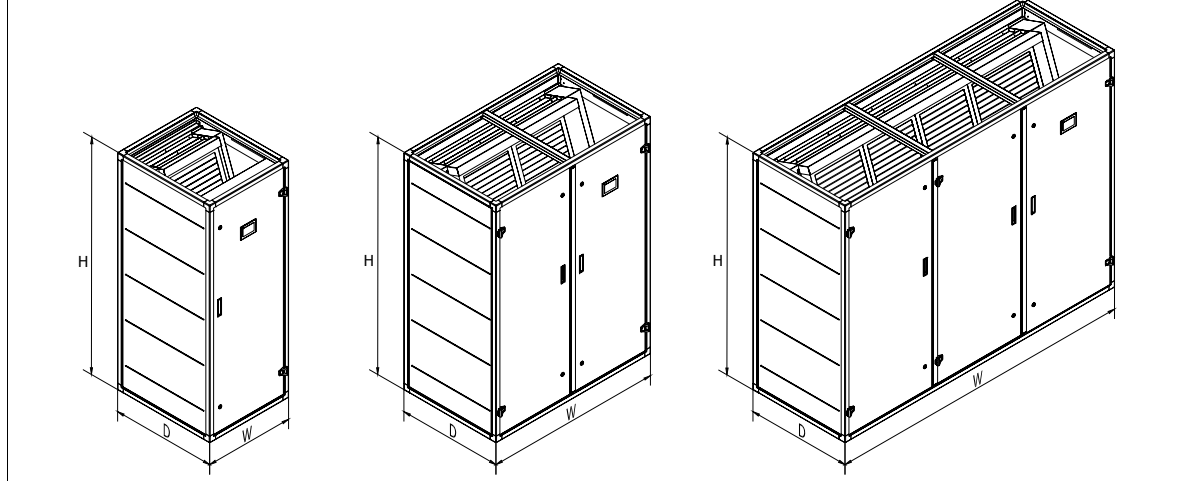


DOWN FLOW			Model		Model													
					DX System	DBAD 02	DBAD 03	DBAD 04	DBAD 05	DBAD 07	DBAD 09	DBAD 11	DBAD 13	DBAD 14	DBAD 16	DBAD 19	DBAD 22	DBAD 26
			CW System	DBCW 02	DBCW 03	DBCW 04	DBCW 05	DBCW 07	DBCW 09	DBCW 11	DBCW 13	DBCW 14	DBCW 16	DBCW 19	DBCW 22	DBCW 26		
			Dual Coils System	DBDD 02	DBDD 03	DBDD 04	DBDD 05	DBDD 07	DBDD 09	DBDD 11	DBDD 13	DBDD 14	DBDD 16	DBDD 19	DBDD 22	-		
			DX-System with Hot Gas Reheat		DBRD 02	DBRD 03	DBRD 04	DBRD 05	DBRD 07	DBRD 09	DBRD 11	DBRD 13	DBRD 14	DBRD 16	DBRD 19	DBRD 22	DBRD 26	
Height	H	mm	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	
		(inch)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)	(76.5)
Width	W	mm	749	749	749	749	1464	1464	1464	1464	2554	2554	2554	2554	2554	2554	2554	
		(inch)	(29.5)	(29.5)	(29.5)	(29.5)	(57.6)	(57.6)	(57.6)	(57.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)	(100.6)
Depth	D	mm	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	
		(inch)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)	(34.4)

DB-AIRE II 02-05 tons

DB-AIRE II 07-13 tons

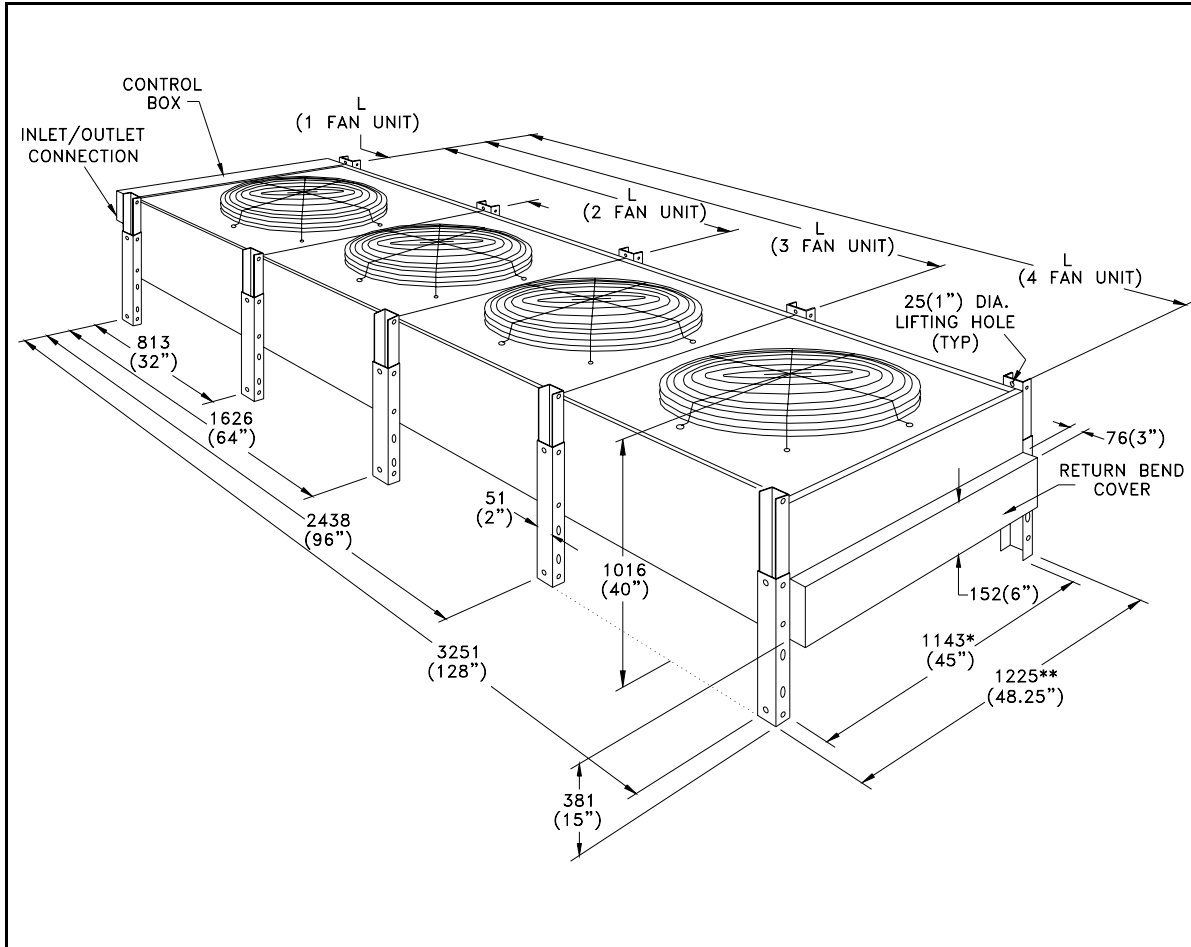
DB-AIRE II 14-26 tons



Note: DBDD/U26 Dual Coils option not available.

REMOTE AIR-COOLED CONDENSERS

TECHNICAL DATA



Model	Physical Data				Electrical Data							
	Length 'L'	Fans		Approx. Weight	Motor Qty	RPM		Motor FLA (3-Phase)				
		mm (ins)	Qty			Total L/S (CFM)	kg (lbs)	50Hz	60Hz	380V (50Hz)	400V (50Hz)	415V (50Hz)
DBRC 04	870 (34¼)	1	2030 (4300)	100 (220)	1	900	1075	220~240Vac, 1Ph, 50/60Hz. FLA @ 240V/50Hz = 1.4A; FLA @ 240V/60Hz = 1.5A				
DBRC 06	870 (34¼)	1	3210 (6800)	111 (244)	1	925	1110	2.0	1.9	1.8	1.7	
DBRC 08	870 (34¼)	1	3210 (6800)	122 (268)	1	925	1110	2.0	1.9	1.8	1.7	
DBRC 10	870 (34¼)	1	3210 (6800)	134 (295)	1	925	1110	2.0	1.9	1.8	1.7	
DBRC 11	870 (34¼)	1	3210 (6800)	180 (400)	1	925	1110	2.0	1.9	1.8	1.7	
DBRC 13	1683 (66¼)	2	6420 (13600)	190 (420)	2	925	1110	4.0	3.8	3.6	3.4	
DBRC 17	1683 (66¼)	2	6420 (13600)	204 (450)	2	925	1110	4.0	3.8	3.6	3.4	
DBRC 20	1683 (66¼)	2	6420 (13600)	265 (583)	2	925	1110	4.0	3.8	3.6	3.4	
DBRC 26	2500 (98¼)	3	9630 (20400)	288 (634)	3	925	1110	6.0	5.7	5.4	5.1	
DBRC 30	2500 (98¼)	3	9630 (20400)	320 (700)	3	925	1110	6.0	5.7	5.4	5.1	
DBRC 34	2500 (98¼)	3	9630 (20400)	355 (780)	3	925	1110	6.0	5.7	5.4	5.1	
DBRC 40	3308 (130¼)	4	12838 (27200)	380 (835)	4	925	1110	8.0	7.6	7.2	6.8	
DBRC 44	3308 (130¼)	4	12838 (27200)	410 (900)	4	925	1110	8.0	7.6	7.2	6.8	

Notes: 1.) All dimensions are in mm (inches).
2.) * = 889(35"), ** = 972(38.25") for DBRC-04