

DWVA Chilled Water Double-Wall Air Handling Unit 7,700 – 18,000 CFM 50 Hz



Presenting the DWVA Series, the compact air handlers... A high performance system engineered with your costs in mind, DW Series of compact air handlers offer

Easy and versaile installaion	<ul> <li>Small footprint to save space</li> <li>Fully factory packaged to quicken installation (filters, drives, motors)</li> </ul>
Built to last	Attractive double-wall panel with baked polyester powder painted steel sheet on exterior wall and ganvalized steel sheet on the innner surface.
Wide capacity range	Meets most application's needs with a range of 6,000-20,000 CFM covering 5 modules
Flexible fan arrangement	<ul> <li>DWVA offers added flexibility of fan arrangement for horizontal or vertical discharge.</li> <li>Flush mounted to walls save expensive floorspace.</li> </ul>

### **Unit Casing**

The unit framework casing shall be constructed of 25 mm double-wall panels injected with polyurethane foam to provide a rigid, sturdy and easily cleaned enclosure. This double-wall construction keeps the insulation out of the air stream and contributes to improved indoor air quality.

The panels shall be constructed of baked polyester powder painted steel sheet on exterior wall and galvanized sheet on the inner surface that contacted with the air stream.

# Footprint

To save building space all models shall be placed against wall with return air from the front and general service from the sides.

# **Cooling Coil**

The cooling coil shall be internally grooved, seamless copper tubes mechanically expanded into aluminium corrugated fins for DWVA. Coils shall be leak tested at 380 psig. The drain pan shall be fabricated of galvanized steel, insulated to prevent any condensation, and baked polyester powder paint to prevent corrosion.

### **Filters**

1-inch, washable aluminium filter shall be provided with side loading filter for duct return.

### Fan

Supply fans shall be double width double inlet forward curved centrifugal fans statically and dynamically balanced. The drive compenents shall include fixed pitch drives and multiple V-belts. The drive shall be factory run tested and balanced. The supply fan motor shall be totally enclosed fan cooled. Fan and motor bearings shall be permanently lubricated.

### **Optional Accessories:**

#### AHU Starters

Unit mounted DOL fan motor starters are available as an optional feature.

# **Hi-static Motor**

Optional factory mounted oversized fan motor for high external static pressure application.

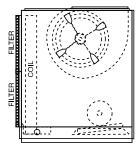
# Stainless Steel Drain Pan

Stainless steel drain pan shall be available as an optional feature for DWVA.

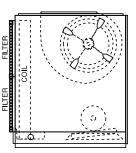
# **DISCHARGE PLENUM & GRILLES**

Discharge plenum shall be available for vertical free-blow discharge applications. It shall be constructed of galvanized steel, finished with baked polyester powder paint to match the unit casing. Grilles shall be satin finished aluminium and have double - Fan motor hp output will be specially selected to properly match with Free Blow application deflection adjustable louvers. (This option is available for DWVA075&DWVA090 only)

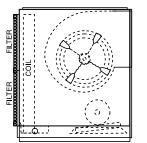
DWVA-Flexible Fan Arrangement



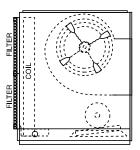
Arrangement 1



Arrangement 2



Arrangement 3



Arrangement 4





# **Features and Benefits**

Features	Benefits
Compact Air Handler	Small equipment room space requirements.
	Greater flexibility in positioning the unit.
	More usable (rental/leasing) space.
Corrugated Fin Cooling Coil	Higher heat transfer efficiency.
Blue Fin Cooling Coil (Optional)	• To further enhance protection against moisture carry-over
	and corrosion.
Broad filter selection	DWVA075-180 provided with 1 inch with side loading
	filter for ducted return.
	Broad filter selection for application flexibility and
	improved indoor air quality.
<ul> <li>Powder paint in attractive color</li> </ul>	Uniform coverage-no liquid runs.
Baked polyester powder paint is applied on treated	Highly corrosion resistant gloss finish.
galvanized steel.	
Hi-static motors and drives from factory (Optional)	<ul> <li>Eliminates need for field modification.</li> </ul>
	Assures proper airflow.
	Increased application flexibility.
High CFM/Ton	Better comfort, better air quality.
<ul> <li>Permanently lubricated ball bearings</li> </ul>	Longer lasting.
	No maintenance.

	<b>Product Specifications</b>	ons						
Id DataPower SuppySup 415350380415350ance DataNomal Antforwcfm7/509.24012.12015.130ance DataStandard Cooling CapacityMBH238230530570I ColiLoadF123334ActiTube and Header MaterialrrcooperrActiTube and Header MaterialrrrcooperMotoTube and Header Materialr3334ColiTube and Header MaterialrrrrMotoTube and Header MaterialrrrrMotoWater Flow RateF1111Mater Flow RaterrrrrMotoMater Flow RaterrrrMater Flow Rate Intel/outtel Connectionin1111Mater Flow Rate Intel/outtel Connectionin1111Mater Flow Rate Intel/outtel Connection Sizein1111Mater Flow Rate Intel/outtel Connection Sizein	Model	Indoor Unit		DWVA075	DWVA090	DWVA120	DWVA150	DWVA180
ance Data ance DataNomial Airflowcfm7,7609,24012,12015,130LotTube and Hader MateriaMBH238280380570ColiTube and Header Materia334d ColiTube and Header Materia3334Mater Flow RateFP1212121212RowFin Per Inclein1111Nater Flow Ratein11111Diain Connectionin11111Mater Pressure Dropin11111Mater Pressure Dropin11111Diain Connection Sizein11111Mater Pressure Dropin11111Mater Pressure Dropin11111Mater Pressure Dropin11111Mater Pressure Dropin11111Mater Pressure Dropin11111Mater Dropin111111Mater Dropin500700010000910010000Mater Dropin500700010015010000100150Mater Dropinin1111 </td <td>Electrical Data</td> <td>Power Supply</td> <td>V/Ph/Hz</td> <td></td> <td></td> <td>380 - 415/3/50</td> <td></td> <td></td>	Electrical Data	Power Supply	V/Ph/Hz			380 - 415/3/50		
I cold         Xandard Cooling Capacity         MBH         238         280         570           A Coll         Tube and Header Material         N         -	Performance Data	Nomial Airflow	cfm	7,760	9,240	12,120	15,130	18,080
I dol Row Fin per Inche         FPI         3         3         4           Row Fin per Inche         FPI         12         12         12         12           Row Fin per Inche         FPI         12         12         12         12           Water Flow Rate         FPI         12         12         12         12           Water Flow Rate         FPI         1         1         1         1         1           Water Flow Rate         in         11/12         11/12         11/12         20         20           Water Flow Rate         in         1         1         1         1         1         1         1           Mater Flow Rate Flow Rate Flow Rate         in         1         1         1         1         1         1         1           Mater Flow Rate Flow Ra		Standard Cooling Capacity	MBH	238	280	380	570	660
d Coll         Tube and Header Matrial         i	Cooling Coil							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Standard Coil	Tube and Header Material				Copper		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Row		3	3	3	4	4
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Fin per Inche	FPI	12	12	12	12	12
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Water Flow Rate		47.5	56.0	76.0	113.8	131.9
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Water Pressure Drop		9.3	9.1	15.8	8.1	8.9
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Water intel/outtel Connection	in	1-1/2	1-1/2	1-1/2	2.0	2.0
I Motor         Centrifugal FC           Type         Centrifugal FC           Fixed Drive Type         n         Centrifugal FC           Balt and Pulley         Balt and Pulley         Balt and Pulley           Ouantity         cfm         8,900         10,600         13,800         18,310           Maximum Airflow         cfm         8,900         10,600         13,800         18,310           Minimum Airflow         cfm         5,900         7,000         9,100         12,060           Type         I         1         1         1         1         1           Motor Output HP         STD         5,5         7,5         10,0         15,0500           Motor Output HP         STD         5,5         7,5         10,0         15,0200           Motor Output HP         STD         5,5         7,5         15,000         15,0200           Motor Output HP         STD         5,5         7,5         10,0         10,0           Motor Output HP         STD         5,5         7,5         10,0         10,0           Motor Output HP         STD         5,5         7,5         15,0         15,0           RIA         Number of Speed<		Drain Connection Size	in	L	1	1	1	1
	Fan and Motor							
Fixed Drive Type         i	Fan	Type				Centrifugal FC		
$ \begin{array}{l c c c c c c c c c c c c c c c c c c c$		Fixed Drive Type				Belt and Pulley		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Quantity		1	1	2	2	2
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Maximum Airflow	cfm	8,900	10,600	13,800	18,310	21,800
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Minimum Airflow	cfm	5,900	7,000	9,100	12,060	14,400
$ \begin{array}{l lllllllllllllllllllllllllllllllllll$	Motor	Type				TEFC		
Motor Output HP         5TD         5.5         7.5         7.5         10.0           Motor Output HP         Option         7.5/10.0         10.0/15.0         15.0/20.0           Number of Speed         0         1         1         1         1           Number of Speed         x         x         x         x         x         x           RLA         x         x         x         x         x         x         x         x           In the set         x         x         x         x         x         x         x         x         x           In the set         x		Quantity		L	1	1	-	<b>,</b>
Addition         Option         7.5/10.0         10.0/15.0         15.0/20.0           Number of Speed         v         1         1         1         1           Number of Speed         v         8.56         12.0         12.0         15.0           RLA         A         8.56         12.0         12.0         15.2           Interval         Monto         1.542x2,128x1,350         1,830x2,408x1,350         1,963x2,916x1,585           Interval         Number Net         Number Net         Number Net         Number Net         1,200         1,663x2,616x1,585           Intervaled - Net (H x W x D)         mm         1,542x2,128x1,350         1,830x2,408x1,350         1,963x2,616x1,585           Intervaled - Net (H x W x D)         mm         1,242x1,828x1,050         1,395x1,828x1,050         1,563x2,616x1,585           Intervaled - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Intervaled - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Intervaled - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285		Motor Output HP	STD	5.5	7.5	7.5	10.0	15.0
Number of Speed         1         1         1         1           RLA         A         8.56         12.0         15.0         15.2           mension and Weight         A         8.56         12.0         15.0         15.2           ion         Crated (H x W x D)         mm         1,542x2,128x1,350         1,695x2,128x1,350         1,830x2,408x1,350         1,963x2,916x1,585           ion         Uncrated - Net (H x W x D)         mm         1,242x1,828x1,050         1,395x1,828x1,050         1,663x2,616x1,585           crated         kg         440         520         600         840           Uncrated - Net         kg         400         520         600         840			Option	7.5/10.0	10.0/15.0	10.0/15.0	15.0/20.0	20.0
RLA         A         8.56         12.0         12.0         15.2           mension and Weight                15.2           ion         Crated (H × W × D)         mm         1,542x2,128x1,350         1,695x2,128x1,350         1,830x2,408x1,350         1,963x2,916x1,585           ion         Uncrated - Net (H × W × D)         mm         1,242x1,828x1,050         1,395x1,828x1,050         1,633x2,616x1,585           crated         Norcrated - Net (H × W × D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,585           crated         Norcrated - Net         kg         440         520         600         840           Uncrated - Net         kg         400         520         600         840         760		Number of Speed		1	1	1	1	-
mension and Weight           cond Crated (H x W x D)         mm         1,542x2,128x1,350         1,830x2,408x1,350         1,963x2,916x1,585           ion         Crated (H x W x D)         mm         1,542x2,128x1,350         1,830x2,408x1,350         1,963x2,916x1,585           ion         Uncrated - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,963x2,616x1,285           Crated - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Crated - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Crated - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Crated - Net (H x W x D)         mm         1,242x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Crated - Net (H x W x D)         R         440         540         540         7		RLA	A	8.56	12.0	12.0	15.2	22.0
ion         Crated (H × W × D)         mm         1,542x2,128x1,350         1,695x2,128x1,350         1,830x2,408x1,350         1,963x2,916x1,585           Uncrated - Net (H × W × D)         mm         1,242x1,828x1,050         1,395x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Crated         kg         440         520         600         840           Uncrated - Net         kg         400         470         540         760	<b>Unit Dimension and</b>	d Weight	•					
Uncrated - Net (H x W x D)         mm         1,242x1,828x1,050         1,395x1,828x1,050         1,530x2,108x1,050         1,663x2,616x1,285           Crated         kg         440         520         600         840           Uncrated - Net         kg         400         470         540         760	Dimension	Crated (H x W x D)	mm	1,542x2,128x1,350	1,695x2,128x1,350	1,830x2,408x1,350		2,082x2,916x1,585
Crated         kg         440         520         600         840           Uncrated - Net         kg         400         470         540         760		Uncrated - Net (H x W x D)	mm	1,242x1,828x1,050	1,395x1,828x1,050		1,663x2,616x1,285	1,782x2,616x1,285
kg 400 470 540 760	Weight	Crated	kg	440	520	600	840	920
		Uncrated - Net	kg	400	470	540	760	830

 Cooling capacity is rated at 80 °FWD at nominal airflow listed, entering water temperature at 45 °F and water temperature rise of 10°F.
 Product design and specification are subjected to change without notice. Note:



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