

A e r o S y s

I n c o r p o r a t e d



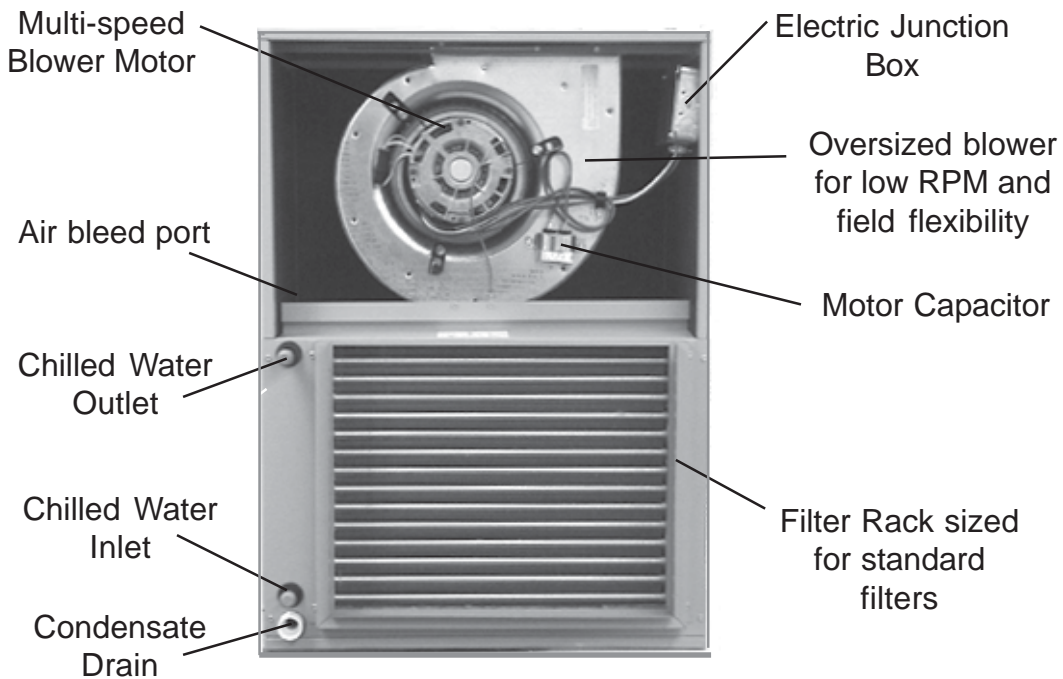
Water Fluid Fan Coil Units

AeroCool DCW Series



AeroSys, Inc.
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System View



Guide Specifications

General:

The chilled water air handler shall be factory tested prior to shipment. The system shall be tested by a nationally recognized laboratory, listed and labeled in compliance with UL Std. 1995 for Heating and Cooling Equipment.

Cabinet Construction:

The cabinet and access panels shall be constructed from heavy gauge steel and powder-coated with neutral color attractiveness for corrosion protection. The panels shall be insulated with enhanced surface, heavy duty, two(2) lb high density thermal and acoustic insulation suitable for high velocity airstreams.

Coil:

The coil shall be constructed of copper tubes and aluminum fins and cased with heavy duty galvanized steel header plates.

Motor:

The motor shall be a permanent split-capacitor (PSC), continuous duty air-over design with internal thermal protection and flexible mounts.

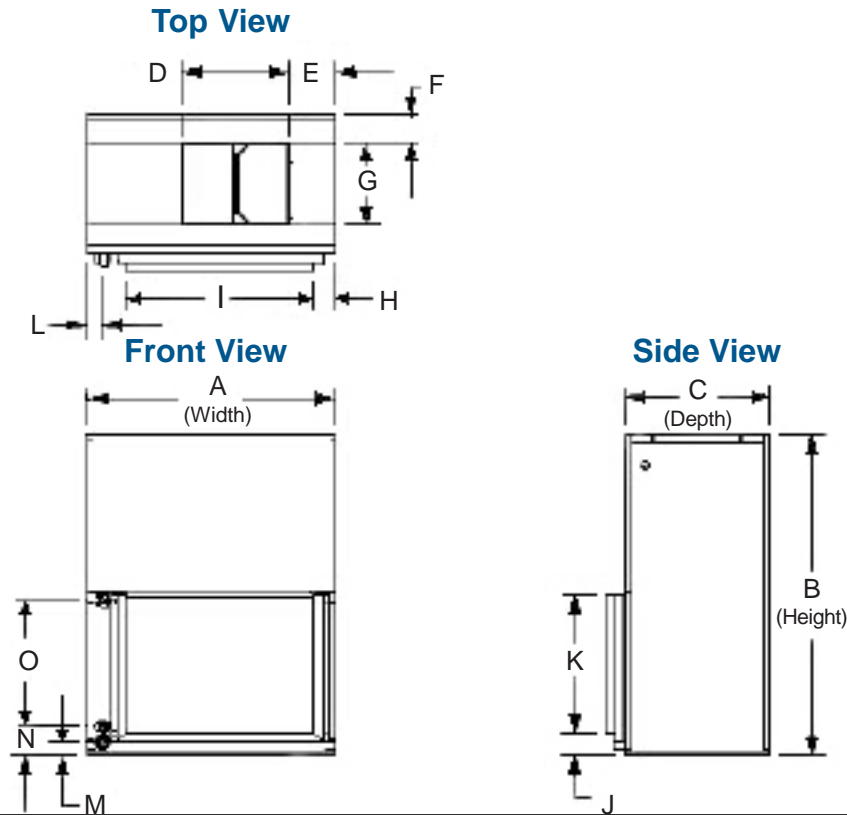
Blower:

The blower shall be galvanized treated for corrosion protection and shall be statically and dynamically balanced to minimize vibration and noise. Blowers shall be selected for low rpm and low sound characteristics.



Listing # E112295

Complies with
UL 1995
Heating and Cooling
Equipment



Physical Data

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
DCW-20	24.0	29.00	14.0	10.50	4.5	2.75	8.5	2.25	18.0	2.38	10.38	1.5	1.38	3.0	9.0
DCW-26	24.0	33.00	14.0	10.50	4.5	2.75	8.5	2.25	18.0	2.25	14.38	1.5	1.38	3.0	13.0
DCW-32	29.0	34.75	15.0	11.75	5.5	3.75	8.5	2.25	23.0	2.38	14.38	1.5	1.38	3.0	13.0

Model	DCW-20	DCW-26	DCW-32
Coil Connection	5/8"ODS	5/8"ODS	3/4"ODS
Condensate drain connection	1" ID PVC	1" ID PVC	1" ID PVC
Weight, lbs. (net/shipping)	70 lbs/75 lbs	79 lbs/85 lbs	91 lbs/102 lbs
Filter size, 1" thick(nominal)	12x20	16x20	16x25

Electrical Data

Motor Data	DCW-20	DCW-26	DCW-32
Number of Speeds	3	3	3
Hp @ Hi/Med/Low speeds	1/4-1/6-1/8	1/4-1/6-1/8	1/4-1/6-1/8
Motor Amps			
Volts/Ph/Hz 115/1/60	4.3/2.8/2.6	4.3/2.8/2.6	4.3/2.8/2.6
Volts/Ph/Hz 208-230/1/60	1.6/1.0/0.8	1.6/1.0/0.8	1.6/1.0/0.8

Airflow Data

Model		DCW-20			DCW-26			DCW-32		
External Static Pressure		Low	Med	High	Low	Med	High	Low	Med	High
	0.1	575	730	840	645	890	1,040	815	1,115	1,305
	0.2	555	700	795	640	855	985	810	1,070	1,235
	0.3	530	665	750	635	820	935	805	1,030	1,170
	0.4	515	625	710	620	780	880	775	980	1,100
	0.5	495	580	660	585	740	825	735	930	1,030

Cooling Mode

DCW-20		GPM	Total Capacity	Sensible Capacity	CFM	Unit Pressure	Leaving Air Temp	Leaving Air Temp	Leaving Water
			(BTU/H)	(BTU/H)		Drop (ft)	DB °F	WB °F	Temp °F
Dry Bulb 80°F/ Wet Bulb 67 °F, 50 % RH Entering Air Conditions	42 °F Entering Water Temperature	2.5	17,100	12,800	500	5.3	56.8	56.2	55.9
		2.5	18,200	14,200	600	5.3	58.5	57.5	56.8
		2.5	19,200	15,500	700	5.3	60.0	58.5	57.5
		4.0	20,700	14,300	500	12.7	54.0	53.5	52.5
		4.0	22,300	16,000	600	12.7	55.8	55.1	53.3
		4.0	23,600	17,500	700	12.7	57.3	56.3	54.0
		5.0	22,200	15,000	500	19.2	52.8	52.4	51.0
		5.0	24,100	16,800	600	19.2	54.7	54.0	51.8
		5.0	25,600	18,400	700	19.2	56.2	55.3	52.4
	45 °F Entering Water Temperature	2.5	15,500	12,100	500	5.3	58.0	57.3	57.3
		2.5	16,600	13,500	600	5.3	59.6	58.5	58.5
		2.5	17,500	14,700	700	5.3	60.9	59.4	59.4
		4.0	18,600	13,500	500	12.6	55.6	55.1	55.1
		4.0	20,100	15,100	600	12.6	57.2	56.4	56.4
		4.0	21,300	16,600	700	12.6	58.5	57.5	57.5
		5.0	19,800	14,000	500	19.1	54.6	54.2	54.2
		5.0	21,600	15,700	600	19.1	56.2	55.6	55.6
		5.0	23,000	17,300	700	19.1	57.6	56.7	56.7
	48 °F Entering Water Temperature	2.5	13,900	11,500	500	5.3	59.2	58.4	59.3
		2.5	14,900	12,800	600	5.3	60.6	59.4	60.1
		2.5	15,800	14,000	700	5.3	61.9	60.1	60.8
		4.0	16,400	12,600	500	12.6	57.2	56.6	56.3
		4.0	17,800	14,200	600	12.6	58.6	57.7	57.0
		4.0	19,000	15,600	700	12.6	59.8	58.6	57.6
5.0		17,500	13,000	500	19.1	56.4	55.9	55.1	
5.0		19,000	14,700	600	19.1	57.8	57.1	55.7	
5.0		20,300	16,200	700	19.1	59.0	58.0	56.2	
Dry Bulb 75°F/ Wet Bulb 62.5 °F, 50 % RH Entering Air Conditions	42 °F Entering Water Temperature	2.5	14,000	11,800	500	5.3	53.5	52.7	53.3
		2.5	15,000	13,200	600	5.3	55.1	53.8	54.2
		2.5	15,900	14,400	700	5.3	56.4	54.7	54.9
		4.0	16,500	13,100	500	12.7	51.3	50.7	50.4
		4.0	17,900	14,700	600	12.7	52.8	52.0	51.1
		4.0	19,100	16,100	700	12.7	54.1	52.9	51.7
		5.0	17,600	13,600	500	19.2	50.4	49.9	49.1
		5.0	19,200	15,300	600	19.2	51.9	51.1	49.8
		5.0	20,600	16,800	700	19.2	53.2	52.2	50.3
	45 °F Entering Water Temperature	2.5	12,500	11,100	500	5.3	54.8	53.8	55.1
		2.5	13,500	12,400	600	5.3	56.2	54.7	56.0
		2.5	14,400	13,500	700	5.3	57.5	55.4	56.7
		4.0	14,500	12,200	500	12.6	52.9	52.3	52.4
		4.0	15,600	13,800	600	12.6	54.2	53.3	53.1
		4.0	17,000	15,200	700	12.6	55.4	54.1	53.6
		5.0	15,400	12,600	500	19.1	52.2	51.6	51.2
		5.0	16,900	14,300	600	19.1	53.5	52.6	51.8
		5.0	18,100	15,700	700	19.1	54.6	53.5	52.4
	48 °F Entering Water Temperature	2.5	11,100	10,400	500	5.3	56.1	54.9	57.0
		2.5	12,100	11,600	600	5.3	57.4	55.6	57.8
		2.5	12,400	12,400	700	5.3	58.7	56.5	58.1
		4.0	12,600	11,300	500	12.6	54.4	53.7	54.4
		4.0	13,900	12,900	600	12.6	55.6	54.5	55.0
		4.0	15,000	14,200	700	12.6	56.6	55.1	55.6
5.0		13,200	11,600	500	19.1	53.9	53.3	53.4	
5.0		14,600	13,200	600	19.1	55.0	54.1	53.9	
5.0		15,800	14,700	700	19.1	56.0	54.7	54.4	

Cooling Mode

DCW-26		GPM	Total Capacity	Sensible Capacity	CFM	Unit Press.	Leaving Air Temp	Leaving Air Temp	Leaving Water Temp
			(BTU/H)	(BTU/H)		Drop (ft)	DB °F	WB °F	Temp °F
Dry Bulb 80°F/ Wet Bulb 67 °F, 50 % RH Entering Air Conditions	42 °F Entering Water Temperature	3.5	23,800	17,800	700	5.9	56.9	56.2	55.8
		3.5	25,000	19,200	800	5.9	58.2	57.2	56.5
		3.5	26,000	20,500	900	5.9	59.3	58.0	57.1
		4.5	26,500	19,000	700	9.4	55.4	54.8	54.0
		4.5	27,900	20,500	800	9.4	56.7	55.9	54.6
		4.5	29,100	22,000	900	9.4	57.9	56.8	55.1
		5.5	28,600	19,900	700	13.6	54.3	53.7	52.5
		5.5	30,200	21,500	800	13.6	55.6	54.9	53.2
		5.5	31,600	23,100	900	13.6	56.8	55.8	53.7
	45 °F Entering Water Temperature	3.5	21,600	16,900	700	13.6	57.4	57.4	57.5
		3.5	22,700	18,300	800	5.9	58.2	58.2	58.1
		3.5	23,600	19,500	900	5.9	58.9	58.9	58.7
		4.5	23,900	17,900	700	5.9	56.2	56.2	55.8
		4.5	25,200	19,400	800	9.3	57.1	57.1	56.3
		4.5	26,300	20,800	900	9.3	57.9	57.9	56.9
		5.5	25,700	18,700	700	13.5	55.3	55.3	54.5
		5.5	27,200	20,300	800	13.5	56.2	56.2	55.0
		5.5	28,500	21,800	900	13.5	58.1	57.1	55.5
	48 °F Entering Water Temperature	3.5	19,300	16,000	700	5.8	59.3	58.5	59.2
		3.5	20,400	17,300	800	5.8	60.4	59.2	59.8
		3.5	21,300	18,600	900	5.8	61.3	59.8	60.4
		4.5	21,300	16,800	700	9.3	58.2	57.5	57.6
		4.5	22,500	18,300	800	9.3	59.2	58.3	58.2
		4.5	23,600	19,700	900	9.3	60.2	58.9	58.6
5.5		22,700	17,400	700	13.4	57.4	56.8	56.4	
5.5		24,100	19,000	800	13.4	58.4	57.6	56.9	
5.5		25,300	20,500	900	13.4	59.3	58.3	57.3	
Dry Bulb 75°F/ Wet Bulb 62.5 °F, 50 % RH Entering Air Conditions	42 °F Entering Water Temperature	3.5	19,400	16,500	700	5.9	53.6	52.8	53.3
		3.5	20,500	17,900	800	5.9	54.8	53.6	53.9
		3.5	21,500	19,100	900	5.9	55.8	54.2	54.4
		4.5	21,300	17,400	700	9.4	52.4	51.7	51.6
		4.5	22,600	18,900	800	9.4	53.5	52.6	52.2
		4.5	23,700	20,300	900	9.4	54.5	53.3	52.7
		5.5	22,800	18,100	700	13.6	51.5	50.9	50.4
		5.5	24,200	19,700	800	13.6	52.6	51.8	50.9
		5.5	25,500	21,200	900	13.6	53.6	52.6	51.4
	45 °F Entering Water Temperature	3.5	17,400	15,500	700	5.9	54.9	53.9	55.1
		3.5	18,400	16,800	800	5.9	55.9	54.5	55.7
		3.5	19,400	18,000	900	5.9	56.9	55.1	56.2
		4.5	18,900	16,300	700	9.3	53.8	53.0	53.5
		4.5	20,100	17,800	800	9.3	54.8	53.8	54.1
		4.5	21,200	19,100	900	9.3	55.7	54.4	54.5
		5.5	20,100	16,900	700	13.5	53.1	52.4	52.4
		5.5	21,500	18,500	800	13.5	54.0	53.1	52.9
		5.5	22,600	19,900	900	13.5	54.9	53.8	53.4
	48 °F Entering Water Temperature	3.5	15,400	14,500	700	5.8	56.2	54.9	56.9
		3.5	16,500	15,700	800	5.8	57.1	55.4	57.6
		3.5	17,400	16,800	900	5.8	58.1	55.9	58.1
		4.5	16,600	15,300	700	9.3	55.2	54.3	55.5
		4.5	17,700	16,600	800	9.3	56.1	54.9	56.0
		4.5	18,800	17,900	900	9.3	57.0	55.3	56.5
5.5		17,500	15,700	700	13.4	54.6	53.8	54.4	
5.5		18,700	17,200	800	13.4	55.5	54.4	54.9	
5.5		19,800	18,600	900	13.4	56.3	54.9	55.3	

Cooling Mode

DCW-32		GPM	Total Capacity	Sensible Capacity	CFM	Unit Pressure	Leaving Air Temp	Leaving Air Temp	Leaving Water Temp
			(BTU/H)	(BTU/H)		Drop (ft)	DB °F	WB °F	Temp °F
Dry Bulb 80°F/ Wet Bulb 67 °F, 50 % RH Entering Air Conditions	42 °F Entering Water Temperature	3.5	26,000	20,500	900	5.9	59.3	58.0	57.1
		3.5	26,800	21,700	1,000	5.9	60.3	58.7	57.6
		3.5	27,600	22,800	1,100	5.9	61.2	59.3	58.0
		4.5	29,100	22,000	900	9.4	57.9	56.8	55.1
		4.5	30,100	23,300	1,000	9.4	58.9	57.6	55.6
		4.5	31,100	24,500	1,100	9.4	59.8	58.2	56.0
		5.5	31,600	23,100	900	13.6	56.8	55.8	53.7
		5.5	32,700	24,500	1,000	13.6	57.8	56.6	54.1
		5.5	33,900	25,800	1,100	13.6	58.7	57.4	54.5
	45 °F Entering Water Temperature	3.5	23,600	19,500	900	13.6	60.3	58.9	58.7
		3.5	24,500	20,700	1,000	5.9	61.2	59.5	59.2
		3.5	25,200	21,800	1,100	5.9	62.1	60.0	59.6
		4.5	26,300	20,800	900	5.9	59.0	57.9	56.9
		4.5	27,300	22,100	1,000	9.3	59.9	58.6	57.3
		4.5	28,200	23,300	1,100	9.3	60.8	59.1	57.7
		5.5	28,500	21,800	900	13.5	58.1	57.1	55.5
		5.5	29,600	23,200	1,000	13.5	59.0	57.8	55.9
		5.5	30,600	24,500	1,100	13.5	59.8	58.4	56.3
	48 °F Entering Water Temperature	3.5	21,300	18,600	900	5.8	61.3	59.8	60.4
		3.5	22,100	19,700	1,000	5.8	62.2	60.3	60.8
		3.5	22,900	20,600	1,100	5.8	63.0	60.7	61.3
		4.5	23,600	19,700	900	9.3	60.2	58.9	58.6
		4.5	24,500	21,000	1,000	9.3	61.0	59.5	59.1
		4.5	25,400	22,100	1,100	9.3	61.8	60.0	59.4
5.5		25,300	20,500	900	13.4	59.3	58.3	57.3	
5.5		26,400	21,800	1,000	13.4	60.2	58.9	57.7	
5.5		27,300	23,100	1,100	13.4	61.0	59.4	58.1	
Dry Bulb 75°F/ Wet Bulb 62.5 °F, 50 % RH Entering Air Conditions	42 °F Entering Water Temperature	3.5	21,500	19,100	900	5.9	55.8	54.2	54.4
		3.5	22,300	20,200	1,000	5.9	56.7	54.8	54.9
		3.5	23,100	21,200	1,100	5.9	57.5	55.3	55.4
		4.5	23,700	20,300	900	9.4	54.5	53.3	52.7
		4.5	24,700	21,600	1,000	9.4	55.4	53.9	53.1
		4.5	25,600	22,800	1,100	9.4	56.2	54.5	53.5
		5.5	25,500	21,200	900	13.6	53.6	52.6	51.4
		5.5	26,600	22,600	1,000	13.6	54.5	53.2	51.8
		5.5	27,600	23,900	1,100	13.6	55.3	53.8	52.2
	45 °F Entering Water Temperature	3.5	19,400	18,000	900	5.9	56.9	55.1	56.2
		3.5	20,200	19,000	1,000	5.9	57.8	55.6	56.7
		3.5	21,000	19,900	1,100	5.9	58.6	56.0	57.2
		4.5	21,200	19,100	900	9.3	55.7	54.4	54.5
		4.5	22,100	20,300	1,000	9.3	56.6	54.9	55.0
		4.5	23,000	21,400	1,100	9.3	57.3	55.3	55.4
		5.5	22,600	19,900	900	13.5	54.9	53.8	53.4
		5.5	23,700	21,200	1,000	13.5	55.7	54.3	53.7
		5.5	24,600	22,500	1,100	13.5	56.5	54.8	54.1
	48 °F Entering Water Temperature	3.5	17,400	16,800	900	5.8	58.1	55.9	58.1
		3.5	17,400	17,400	1,000	5.8	59.0	56.6	58.1
		3.5	18,100	18,100	1,100	5.8	59.8	56.9	58.5
		4.5	18,800	17,900	900	9.3	57.0	55.3	56.5
		4.5	19,800	19,000	1,000	9.3	57.8	55.7	56.9
		4.5	20,700	20,000	1,100	9.3	58.5	56.1	57.3
5.5		19,800	18,600	900	13.4	56.3	54.9	55.3	
5.5		20,900	19,800	1,000	13.4	57.0	55.3	55.7	
5.5		21,900	21,000	1,100	13.4	57.7	55.7	56.1	

Heating Mode

		GPM		CFM	Heating Capacity BTU/H	Leaving Air Temperature DB °F	Leaving Water Temperature °F	Unit Pressure Drop (ft)
DCW-20	120 °F Entering Water Temperature	1.8	500		22,700	101.4	94.3	2.1
		1.8	600		24,600	97.5	92.0	2.1
		1.8	700		26,200	94.2	90.2	2.1
		2.3	500		24,400	104.5	98.4	3.3
		2.3	600		26,800	100.7	96.2	3.3
		2.3	700		28,800	97.5	94.5	3.3
		3.6	500		26,700	108.8	104.9	7.4
		3.6	600		29,900	105.5	103.1	7.4
		3.6	700		32,600	102.5	101.5	7.4
	150 °F Entering Water Temperature	1.8	500		34,400	122.7	110.8	2.0
		1.8	600		37,400	116.9	107.4	2.0
		1.8	700		39,800	111.9	104.6	2.0
		2.3	500		36,900	127.3	117.1	3.1
		2.3	600		40,600	121.7	113.8	3.1
		2.3	700		43,600	116.9	111.1	3.1
		3.6	500		40,400	133.7	127.0	7.0
		3.6	600		45,200	128.8	124.3	7.0
		3.6	700		49,300	124.3	121.9	7.0
	180 °F Entering Water Temperature	1.8	500		46,200	144.3	127.1	1.9
		1.8	600		50,300	136.4	122.4	1.9
		1.8	700		53,600	129.8	118.6	1.9
		2.3	500		49,500	150.4	135.6	3.0
		2.3	600		54,500	142.9	131.1	3.0
		2.3	700		58,700	136.5	127.4	3.0
3.6		500		54,100	158.7	149.1	6.7	
3.6		600		60,700	152.2	145.3	6.7	
3.6		700		66,200	146.3	142.1	6.7	
DCW-26	120 °F Entering Water Temperature	2.0	700		29,000	97.8	90.4	1.5
		2.0	800		30,600	94.9	88.7	1.5
		2.0	900		32,000	92.4	87.4	1.5
		3.6	700		34,800	105.4	100.3	4.4
		3.6	800		37,400	102.7	98.8	4.4
		3.6	900		39,700	100.3	97.5	4.4
		4.8	700		36,800	108.0	104.3	7.4
		4.8	800		39,900	105.6	103.0	7.4
		4.8	900		42,700	103.3	101.9	7.4
	150 °F Entering Water Temperature	2.0	700		44,000	117.4	104.8	1.5
		2.0	800		46,500	113.0	102.3	1.5
		2.0	900		48,500	109.2	100.2	1.5
		3.6	700		52,700	128.7	120.0	4.2
		3.6	800		56,700	124.7	117.7	4.2
		3.6	900		60,300	121.1	115.7	4.2
		4.8	700		55,700	132.6	126.2	7.0
		4.8	800		60,400	128.9	124.2	7.0
		4.8	900		64,600	125.5	122.4	7.0
	180 °F Entering Water Temperature	2.0	700		59,200	137.1	119.0	1.4
		2.0	800		62,500	131.2	115.6	1.4
		2.0	900		65,200	126.1	112.7	1.4
		3.6	700		70,700	152.2	139.5	4.0
		3.6	800		76,200	146.9	136.4	4.0
		3.6	900		81,000	142.1	133.7	4.0
4.8		700		74,700	157.3	148.0	6.7	
4.8		800		81,100	152.5	145.2	6.7	
4.8		900		86,800	147.9	142.8	6.7	

Heating Mode

				Heating	Leaving	Leaving	Unit
		GPM	CFM	Capacity BTU/H	Air Temperature DB °F	Water Temperature °F	Pressure Drop (ft)
DCW-32	120 °F Entering Water Temperature	3.0	900	40,300	100.9	92.6	3.7
		3.0	1,000	42,300	98.6	91.2	3.7
		3.0	1,100	44,000	96.5	90.0	3.7
		4.0	900	43,900	104.5	97.6	6.1
		4.0	1,000	46,400	102.3	96.3	6.1
		4.0	1,100	48,600	100.3	95.2	6.1
		4.5	900	45,100	105.8	99.5	7.6
		4.5	1,000	47,900	103.7	98.3	7.6
		4.5	1,100	50,300	101.7	97.2	7.6
	150 °F Entering Water Temperature	3.0	900	61,000	121.8	108.3	3.5
		3.0	1,000	64,000	118.4	106.2	3.5
		3.0	1,100	66,700	115.3	104.4	3.5
		4.0	900	66,400	127.3	116.0	5.8
		4.0	1,000	70,200	124.0	114.0	5.8
		4.0	1,100	73,600	121.1	112.3	5.8
		4.5	900	68,200	129.2	118.9	7.2
		4.5	1,000	72,400	126.0	117.0	7.2
		4.5	1,100	76,100	123.1	115.3	7.2
	180 °F Entering Water Temperature	3.0	900	81,800	143.0	123.8	3.3
		3.0	1,000	85,900	138.4	120.9	3.3
		3.0	1,100	89,500	134.2	118.5	3.3
		4.0	900	89,000	150.2	134.2	5.5
		4.0	1,000	94,200	145.9	131.5	5.5
		4.0	1,100	98,800	141.9	129.1	5.5
		4.5	900	91,400	152.7	138.2	6.8
		4.5	1,000	97,100	148.5	135.6	6.8
		4.5	1,100	102,100	144.7	133.3	6.8

Other AeroSys Products

AeroCon

THDC Series remote air cooled condensing units sizes from 1-1/2 ton to 2-1/2 ton capacities.



AeroCool

DDX Series direct expansion air handlers for use with remote condensing units from 1-1/2 to 2-1/2 ton capacities.



AeroPure

Refrigerants, certified to ARI 700.



Listing # E112295

Complies with
UL 1995
Heating and Cooling
Equipment

Accepted for
Use
City of NY
Dept. of Bldgs
MEA-77-04-E

Represented by: