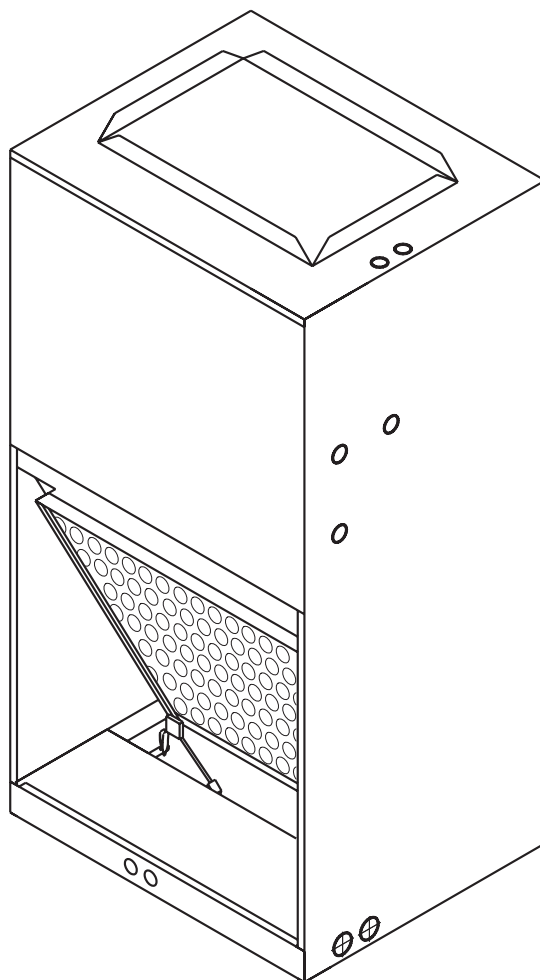


Product Specifications

Upflow Wall / Closet Fan Coils
2-Pipe Chilled Water / Hot Water

ACW

240 THROUGH 1,075 CFM



The **ACW** Series fan coil is designed as an upflow indoor air handler with a chilled water coil for cooling. The **ACW** can be installed on a closet platform, hung on a closet wall, or recessed in a wall between the studs. All models are 22" wide to allow standard stud spacing for all sizes. The cabinet is made of galvanized steel and is fully insulated. The condensate pan is sloped to ensure proper drainage. For installation flexibility, drain piping can come from the bottom, front, left, or right side of the cabinet.

The **ACW** is equipped with a control board that allows 24V *3-speed fan operation from a 3-speed wall mounted thermostat*. Three compatible 3-speed thermostats are available from First Co.: manual changeover (#T420), auto changeover (#T421), and the all new "**Autospeed 24V**" (#T200 and #T201). The **T200/T201 Autospeed 24V** provides maximum comfort and efficiency by *automatically varying the fan speed between High, Medium, and Low speeds*, depending on room temperature and desired thermostat setting. (see P.4 for additional information)

Standard Features:

- 120V motor, 24V 3-speed fan control
- **120/24V 3-speed control board** (see description below)
- **Electrical service pullout** (not on 277V models)
- Non-corrosive thermoplastic drain pan, sloped for positive drainage
- Separate compartment for drain connections (allows the use of PVC drain piping)
- Drain pan has female primary and secondary fittings
- Easily accessible 1" filter
- Various optional factory installed valve packages
- Coil connections stub out top of unit

Optional Accessories: (see Page 4)

Optional accessories include 3-speed Wall Thermostats, Wall Panels with Captive Screws (for recessed wall mounting), Condensate Overflow Switch, Closet Hanger Bracket Kit, Bottom Return Air Kit and various Chilled Water Valve Packages.

ACW models with other motor voltages may be available. (Contact factory)

The "**Autospeed 24V**"[™] " **Control Package**

All ACW/ACW-HW/ACWE fan coils are now available with the "**Autospeed 24V**"[™] " control package option.

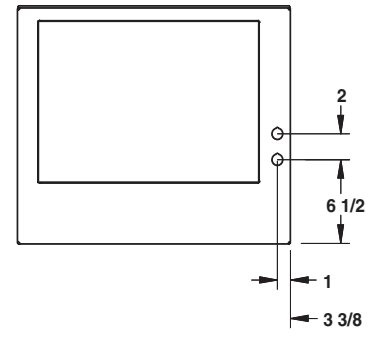
The new **Autospeed 24V**[™] thermostat (part #'s **T200** and **T201**) provides 24V AC single stage temperature control of 2 pipe and 4 pipe fan coil applications. The **T200/T201** thermostat offers maximum comfort and efficiency by automatically selecting the appropriate High, Medium, or Low fan speed, depending on room temperature and thermostat temperature setting. This automatic fan speed control not only brings the room temperature to the desired set point quickly, it maintains the room temperature with the most efficient fan speed selection. Once the desired room temperature is achieved the fan coil operates on low speed for extremely quiet operation.

The fan coil **control board** is a circuit board that provides control of a 3-speed line voltage (120, 208-240, or 277V), (50 or 60 cycle) fan motor. The control board allows the thermostat to control the fan motor even though, by itself, the thermostat does not have the current or voltage rating capability to control the fan motor.

With the "**Autospeed 24V**"[™] " option, a "Controller Enclosure" is factory installed on each fan coil, which includes the control board, transformer, and service switch. Controller enclosure for 120V line (supply) voltage applications is part # **943-1D**. Contact the factory for controllers for other line voltages.

COOLING CAPACITY																	
UNIT MODEL	NOMINAL CFM	45 DEGREE ENTERING WATER									42 DEGREE ENTERING WATER						
		GPM	P.D. (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.			GPM	P.D. (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
4ACW	400	1.5	4.3	9.7	8.8	13.0	7.8	7.8	10.4	1.5	4.3	10.6	9.1	14.1	8.6	8.6	11.4
		2.5	10.5	12.0	9.6	9.6	9.2	8.5	7.4	2.5	10.5	13.1	10.0	10.5	10.0	8.8	8.0
		3.5	19.0	13.1	10.0	7.5	10.0	8.8	5.7	3.5	19.0	14.2	10.5	8.1	10.9	9.2	6.2
6ACW	600	3.0	5.0	17.3	13.1	11.5	13.2	11.5	8.8	3.5	6.7	20.0	14.1	11.4	15.3	12.3	8.7
		4.0	8.6	19.2	13.8	9.6	14.7	12.1	7.3	4.5	10.7	21.7	14.8	9.6	16.6	12.8	7.4
		5.0	13.0	20.4	14.3	8.2	15.6	12.5	6.2	5.5	15.5	22.8	15.2	8.3	17.4	13.2	6.3
8ACW	800	6.5	11.4	23.2	17.1	7.1	17.7	15.0	5.4	6.0	9.8	24.6	17.6	8.2	18.8	15.4	6.3
		7.5	14.8	24.2	17.4	6.5	18.5	15.3	4.9	7.0	13.1	25.8	18.1	7.4	19.7	15.8	5.6
		8.5	18.7	25.0	17.7	5.9	19.1	15.5	4.5	8.0	16.7	26.8	18.4	6.7	20.5	16.1	5.1
10ACW	1000	6.5	5.7	29.0	21.6	8.9	22.2	19.0	6.8	6.0	4.6	30.7	22.2	10.2	23.5	19.4	7.8
		8.0	8.2	31.0	22.3	7.8	23.7	19.5	5.9	8.0	8.2	33.8	23.4	8.5	25.8	20.4	6.5
		9.5	11.0	32.5	22.9	6.8	24.8	20.0	5.2	10.0	12.1	35.8	24.1	7.2	27.3	20.9	5.5

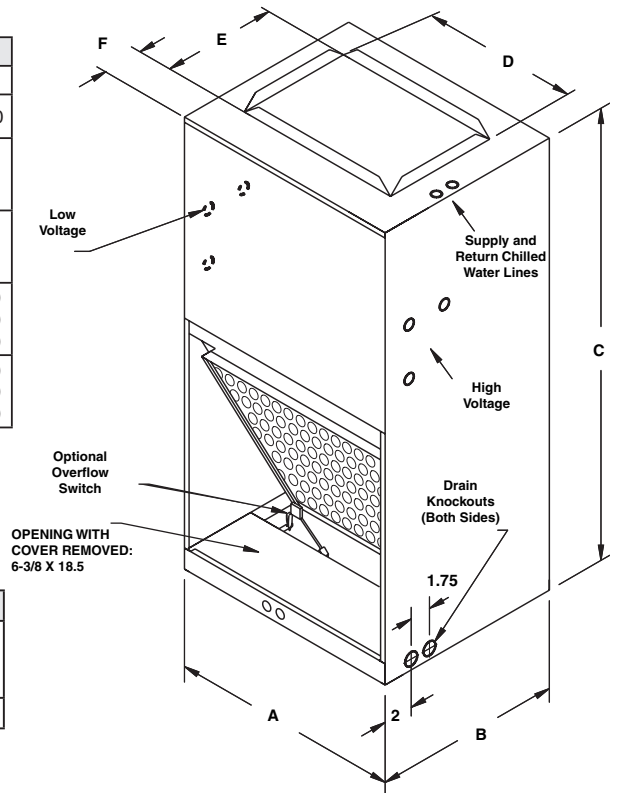
HEATING CAPACITY															
UNIT MODEL	NOMINAL CFM	GPM	P.D. (Ft. Wtr.)	HEATING DATA (70° ENTERING AIR)											
				BTUH @ 180 F		LVG AIR F		BTUH @ 160 F		LVG AIR F		BTUH @ 140 F		LVG AIR F	
				F	F	F	F	F	F	F	F	F	F	F	F
4ACW	400	1.0	2.1	26.0	130	21.3	119	16.6	108	11.8	97				
		2.0	7.1	30.2	140	24.7	127	19.2	114	13.7	102				
		3.0	14.5	31.8	144	26.1	130	20.3	117	14.5	104				
6ACW	600	1.0	0.7	35.7	125	29.2	115	22.7	105	16.2	95				
		2.0	2.4	44.7	139	36.5	126	28.4	114	20.3	101				
		3.0	5.0	48.4	145	39.6	131	30.8	118	22.0	104				
8ACW	800	3.5	3.6	56.8	136	46.5	124	36.1	112	25.8	100				
		5.0	7.0	60.2	140	49.3	127	38.3	114	27.4	102				
		6.5	11.4	62.6	142	51.2	129	39.8	116	28.5	103				
10ACW	1000	4.0	2.4	73.0	138	59.7	125	46.4	113	33.2	101				
		6.0	4.9	78.2	142	64.0	129	49.8	116	35.6	103				
		8.0	8.2	81.5	145	66.7	132	51.9	118	37.1	104				



NOTES:

1. Above capacities are at nominal CFM conditions. Maximum discharge air temperature must not exceed 145° at actual CFM.

BLOWER DATA											
UNIT MODEL	MOTOR H.P. (120V)	AMPS	MOTOR SPEED	CFM VS. EXTERNAL STATIC PRESSURE							
				0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
4ACW	1/6	2.1	MED. HIGH	520	500	485	470	450	430	415	---
			MED. LOW	380	370	360	350	340	330	310	---
			LOW	300	290	280	270	260	250	240	---
6ACW	1/6	2.1	HIGH	620	615	610	600	585	570	555	---
			MED. HIGH	410	400	390	380	370	360	350	---
			MED. LOW	300	290	280	270	260	250	240	---
8ACW	1/6	3.2	HIGH	855	840	820	800	775	750	730	710
			MEDIUM	710	700	685	670	655	640	625	610
			LOW	580	570	560	550	540	530	515	500
10ACW	1/4	4.6	HIGH	1075	1050	1025	1000	980	960	930	900
			MEDIUM	875	860	845	830	815	800	780	760
			LOW	705	700	690	680	670	660	645	630



PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	F	FILTER SIZE	CHILLED WATER COIL CONNECTIONS
4 - 10ACW	22-1/8	15-1/8	40	14	10-1/2	4-3/4	18 X 18	5/8 O.D.

NOTES:

1. Coil connections are sweat and stub out top of unit

OPTIONAL ACCESSORIES (FIELD INSTALLED)			
DESCRIPTION	PART #	DIMENSIONS	
WALL PANEL (1)	9PWUC01L	43-3/8 X 25-5/8 (Outside Frame)	40-3/8 X 22-5/8 (Inside Frame)
HANGER BRKT. SET	90PK3	1-1/2 X 22-1/8	---
RETURN AIR COVER	90PK4	21-5/8 X 22	---
CONDENSATE OVERFLOW SWITCH	SS3	---	---
WALL THERMOSTAT 3-SPD., MANUAL CHANGEOVER	T420 (120/240/277)	---	---
WALL THERMOSTAT 3-SPD., AUTO CHANGEOVER	T421 (120/240/277)	---	---
24V WALL THERMOSTAT 3-SPD., MANUAL CHANGEOVER (AUTOSPEED 24V)	T200 (24V)	---	---
24V WALL THERMOSTAT 3-SPD., AUTO CHANGEOVER (AUTOSPEED 24V)	T201 (24V)	---	---



T200/T201
"AUTOSPEED 24V™"
THERMOSTAT



Optional wall panel
(Recessed wall application)



T420/T421
THERMOSTAT

OPTIONAL VALVE CLUSTERS (Factory installed)	
PART #	DESCRIPTION
VALVE CLUSTER:	
9VCWNVM	No valves, stub kit only
9VCW2BVM	2 hand valves
9VCW22BM	2-way, valve body, 2 hand valves
9VCW23BM	3-way, valve body, 2 hand valves
POWER HEAD:	
911-111	24V

NOTES:

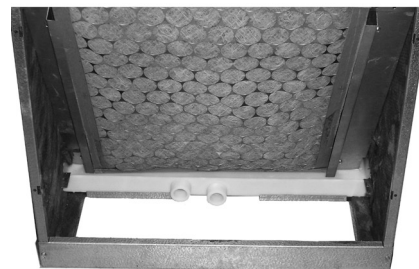
All models are available with or without factory installed valve clusters. Above are "standard" 2-way and 3-way valve clusters.. Contact the factory for other options such as circuit setters, strainers, auto-flow valves, etc.



Unit shown with an optional valve package



Unit shown with optional bottom return air kit (#90PK4)



Condensate drain connections
(With drain cover removed)
(Thermoplastic pan shown)

In keeping with its policy of continuous progress and product improvement, Applied Environmental Air reserves the right to make changes without notice. Maintenance for all AE-Air products is available under "Product Maintenance" at www.ae-air.com.

GUIDE SPECIFICATIONS

Contractor shall furnish and install high quality air handling units as indicated on plans. Sizes and capacities shall be shown in the Unit Schedule included on the drawings. All units shall be the products of Applied Environmental Air (AE-Air) series fan coils and listed by UL or ETLC (listed in accordance with UL 1995.) Units shall be designed, tested and manufactured in accordance with ARI-410, 430, 440 and 350.

Cabinets shall be fabricated of lock forming quality (min) steel. External and internal parts are to be made with heavy gauge galvanized steel. Large access panels shall be provided to permit full access to internal components. The structural integrity of the cabinets shall remain unaffected by the removal of any or all access panels.

Insulation shall be blanket-type made from glass fibers bonded with a thermosetting resin. Insulation shall be one and-one-half pound density providing effective acoustical and thermal control, fire safety, and resistance to air erosion. This insulation must meet the requirements of ASTM C 1071, ASTM G 21, ASTM G22, NFPA 90A and UL-181.

Coils shall be of the staggered tube type constructed with seamless copper tubes and headers, and deep corrugated aluminum fins with straight edges. Manufacturer shall supply full depth collars, drawn in the fin stock to provide accurate control of fin spacing and completely cover the copper tubes to lengthen coil life. The tubes are to be mechanically expanded into the fins for a permanent primary to secondary surface bond, assuring maximum heat transfer efficiency. The coils are to be tested at 350 PSI for operation at 300 PSI gauge. The coils provided shall be suitable for the application and comply with the required performance as described in the Unit Schedule.

Drain pans shall be positive drainage and shall be fabricated of heavy gauge galvanized steel or optional 304 stainless steel and coated for corrosion protection.

Fan Wheels shall be double width, double inlet, forward curved, centrifugal type. They shall be statically and dynamically balanced for smooth, quiet operation. The housing shall be constructed of heavy gauge steel with die-formed inlet cones.

Motors (Direct Drive)

Standard motors are PSC, permanently lubricated type with internal thermal overload protection and are mounted with rubber isolation bushings. Blower wheels are DWDI (double width, double inlet) centrifugal, forward curved, and dynamically balanced.

Filters are to be disposable type. They shall be center loading with an 85% arrestance efficiency. The filters shall be included in the units as an integral part of the cabinet with easy access provided by the manufacturer.

