

MEETS 2006  
DOE REQUIREMENTS (1)



## UC-HW Series

Wall / Closet Fan Coils  
1.5 - 3.0 Tons DX Cooling  
Up to 72,400 BTUH Hydronic Heat  
(Without Pump)



Unit shown without wall panel  
(Closet application - Front Return Air)



Unit shown with bottom return air cover  
(Closet application - Bottom Return Air)

### \* Accessible HW Connections



Unit shown with optional louvered wall panel  
(Recessed wall application)

These upflow air handlers are designed for use with today's higher efficiency split-system heat pump and condensing units.

All **UC-HW's** include high efficiency cooling coils and separate hot water coils.

**(1) First Co's customer is ultimately responsible for confirming which fan coil models are compatible with selected outdoor unit(s) and which expansion valves (if any) are required. to determine approved indoor/outdoor matches, go to: [www.firstco.com](http://www.firstco.com) or contact the factory.**

The **UC-HW** 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 non-corrosive thermoplastic condensate pan is sloped to ensure proper drainage. Drain piping can enter from the bottom, front, left, or right side of the cabinet.

#### Standard Features:

- 120V motor, 24V controls
- Cooper tube/aluminum fin heating and cooling coils
- Blower door shut-off switch
- Drain pan is coated to reduce corrosion and sloped for positive drainage
- Separate compartment for drain connections allows the field use of PVC drain piping
- Drain pan has 3/4" female primary and secondary fittings
- Higher efficiency cooling coil
- Convenient equalizer connection for field or factory installed R22 or R410a TXV's
- Easily accessible 1" filter

#### Optional Features: (see Page 4)

- Optional features include Wall Panels with Captive Screws Factory or Field installed TXV's, Condensate Overflow Switch, Closet Hanger Bracket Kit, and Bottom Return Air Kit.

**\* Unique New Feature** - In recessed wall applications utilizing the optional wall panel (#9PWUC03L), the hot water coil can be removed without modifications to the drywall. To allow this feature, the top of the **UC-HW** cabinet is notched for coil removal and the wall panel is 3" taller than the cabinet.

# UC-HW Series

Up to 72,400 BTUH Hydronic Heat

(See P. 3 for Model Numbers)



PERFORMANCE DATA						
UNIT MODEL	NOMINAL COOLING BTUH	GPM (HEATING)	P.D. (FT. WATER) (COIL ONLY)	HEATING BTUH (1000) AT ENTERING WATER TEMPERATURE (1)		
				120°F	140°F	180°F
18UC-HW 19UC-HW	18,000	4.5	3.3	20.1	28.2	44.3
		3.5	2.1	19.4	27.1	42.6
		2.5	1.2	18.3	25.6	40.2
24UC-HW 25UC-HW	24,000	4.5	3.3	24.1	33.8	53.1
		3.5	2.1	23.1	32.4	50.9
		2.5	1.2	21.7	30.4	47.8
30UC-HW 31UC-HW	30,000	4.5	3.3	27.6	38.6	60.7
		3.5	2.1	26.4	36.9	58.0
		2.5	1.2	24.6	34.4	54.1
36UC-HW 37UC-HW	36,000	4.5	3.6	32.9	46.1	72.4
		3.5	2.4	31.4	43.9	69.0
		2.5	1.3	29.0	40.6	63.8

**NOTES:**

1. Heating output will not exceed output of hot water source.
  2. Approved for installation with 0" clearance to combustible materials.
  3. Contact factory for correct matches with outdoor unit.
- (1) Heat BTUH is at 70°F entering air temperature.

BLOWER DATA														
UNIT MODEL	MOTOR HP (120V)	MOTOR AMPS (120V)	MIN. CKT. AMPACITY	MAX. CKT. PROTECTION	FAN SPEED	FACTORY SETTINGS	CFM vs. EXTERNAL STATIC PRESSURE							
							0.10	0.15	0.20	0.25	0.30	0.40	0.50	
18UC-HW 19UC-HW	1/3	5.4	7	15	HIGH		920	900	880	865	850	820	780	
					MED. HIGH		840	825	810	795	780	755	725	
					MED. LOW	COOLING	690	680	670	660	650	630	615	
					LOW	HEATING	580	575	570	560	550	540	520	
24UC-HW 25UC-HW	1/3	5.4	7	15	HIGH	COOLING	910	895	880	860	840	800	770	
					MED. HIGH	HEATING	830	815	800	785	770	740	710	
					MED. LOW		680	670	660	655	650	620	600	
					LOW		570	560	550	545	540	530	510	
30UC-HW 31UC-HW	1/2	8.1	10	15	HIGH	COOLING	1070	1045	1020	995	970	920	850	
					MED.	HEATING	1020	1000	980	960	940	890	820	
					LOW		760	755	750	735	720	680	640	
					HIGH	COOLING	1230	1205	1180	1155	1130	1070	1020	
36UC-HW 37UC-HW	1/2	8.1	10	15	MED.	HEATING	1140	1125	1110	1085	1060	1010	960	
					LOW		850	845	840	830	820	800	770	

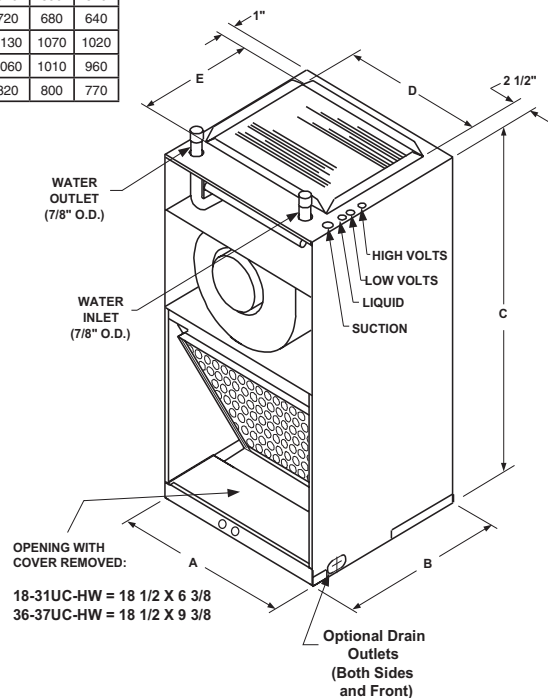
**NOTES:**

1. Add nominal .05 static when optional wall panel is used.

PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	FILTER SIZE	LIQUID LINE	SUCTION LINE
18-25UC-HW	22-1/8"	18"	43"	18"	12-1/2"	18 X 18"	3/8" O.D.	5/8" O.D.
30-31UC-HW	22-1/8"	18"	43"	18"	12-1/2"	18 X 20"	3/8" O.D.	3/4" O.D.
36-37UC-HW	22-1/8"	21"	43"	18"	15-1/2"	18 X 24"	3/8" O.D.	3/4" O.D.

**NOTES:**

1. All coil connections are sweat



# UC-HW Series

Up to 72,400 BTUH Hydronic Heat

## MODEL NUMBERS:

MODEL SIZE (BTU)	MODEL (PISTON)	FACTORY INSTALLED TXV'S	
		MODEL (R22 TXV)	MODEL (R410a TXV)
18,000	18UC-HW	18UC-HW W/R22 TXV	18UC-HW W/R410a TXV
18,000	19UC-HW	19UC-HW W/R22 TXV	19UC-HW W/R410a TXV
24,000	24UC-HW	24UC-HW W/R22 TXV	24UC-HW W/R410a TXV
24,000	25UC-HW	25UC-HW W/R22 TXV	25UC-HW W/R410a TXV
30,000	30UC-HW	30UC-HW W/R22 TXV	30UC-HW W/R410a TXV
30,000	31UC-HW	31UC-HW W/R22 TXV	31UC-HW W/R410a TXV
36,000	36UC-HW	36UC-HW W/R22 TXV	36UC-HW W/R410a TXV
36,000	37UC-HW	37UC-HW W/R22 TXV	37UC-HW W/R410a TXV

**All TXV's are approved for cooling only or heat pump operation.**

**NOTE:**

Expansion valve requirement depends on the selected outdoor unit.

Go to: [www.firstco.com](http://www.firstco.com) or contact the factory for assistance.

**(See P. 4 for Optional Accessories)**

OPTIONAL ACCESSORIES (FIELD INSTALLED)				
DESCRIPTION	PART #	FOR	DIMENSIONS	
WALL PANEL (1)	9PWUCO3L	ALL UC-HW	49-3/8 X 25-5/8 (Outside Frame)	46-3/8 X 22-5/8 (Inside Frame)
CLOSET BRKT.	90PK3	ALL UC-HW	1-1/2 X 22-1/8	---
BOTTOM RETURN AIR KIT	90PK5	ALL UC-HW	21-5/8 X 22	---
CONDENSATE (1) OVERFLOW SWITCH	SS3	ALL UC-HW	---	---

**NOTES:**

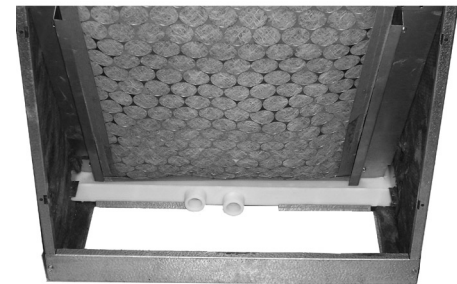
(1) Wall Panels are taller than the UC-HW cabinet to allow access to hot water coil connections.



Optional wall panel  
(Recessed wall application)



Condensate Overflow Switch  
#SS3



Condensate drain connections  
(With drain cover removed)  
(Male connections shown)



Unit shown with front panel  
removed



Unit shown with optional  
bottom return air kit (# 90PK5)

EXPANSION VALVE KITS (Heat Pump or cooling only) (FIELD INSTALLED)		
PART NO.	TYPE	FOR
9EVR22-2	R22	18 - 37UC-HW (1-1/2 - 3 TON)
9EVR410-1	R410a	18 - 37UC-HW (1-1/2 - 3 TON)

**NOTES:**

- Above expansion valve kits are approved for both cooling only (non heat pump) or heat pump applications.
- Valves are external equalizing, internal bleed.
- Hot water valves must be installed externally.

In keeping with its policy of continuous progress and product improvement, First Operations reserves the right to make changes without notice. Maintenance for all First Co. products is available under "Product Maintenance" at [www.firstco.com](http://www.firstco.com).