

MEETS 2006
DOE REQUIREMENTS ⁽¹⁾



UCS-HW Series

Upflow Closet Fan Coils

1.5 - 3.0 Tons DX Cooling

Up to 72,400 BTUH Hydronic Heat
(Without Pump)



(Closet application - Bottom Return Air)

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

All **UCS-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/EfficiencyRatings.aspx or contact the factory.

NEW FEATURES:

- Refrigerant and hot water lines are stubbed out the top.
- Thumb screws provided for easy filter replacement

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
- Copper tube/aluminum fin heating and cooling coils
- Blower door shut-off switch
- Non-Corrosive thermoplastic drain pan, *sloped* for positive drainage
- Drain pan has 3/4" male or female primary and secondary fittings
- Higher efficiency cooling coil
- Convenient equalizer connection for factory or field installed R22 or R410A TXV's
- Easily accessible 1" filter

Optional Features: (see Page 4)

- Optional features include Factory or Field installed TXV Kits, Condensate Overflow Switch, and Closet Hanger Bracket.

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(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
18UCS-HW 19UCS-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
24UCS-HW 25UCS-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
30UCS-HW 31UCS-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
36UCS-HW 37UCS-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 H.P. (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
18UCS-HW 19UCS-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
24UCS-HW 25UCS-HW	1/3	5.4	7	15	HIGH	Cooling	840	825	810	790	770	730	680
					MED. HIGH	Heating	750	740	730	710	690	650	610
					MED. LOW		620	610	600	590	580	550	520
					LOW		510	500	490	480	470	440	410
30UCS-HW 31UCS-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
36UCS-HW 37UCS-HW	1/2	8.1	10	15	HIGH	Cooling	1230	1205	1180	1155	1130	1070	1020
					MED	Heating	1140	1125	1110	1085	1060	1010	960
					LOW		850	845	840	830	820	800	770

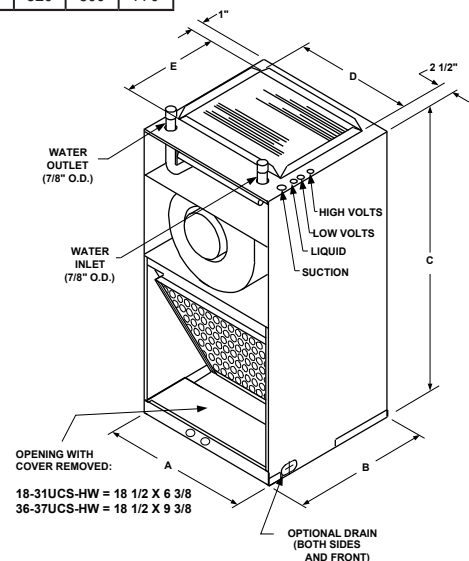
NOTES:

- 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
18-25UCS-HW	22-1/8	18	43	18	12-1/2	18 X 18	3/8" O.D.	5/8" O.D.
30-31UCS-HW	22-1/8	18	43	18	12-1/2	18 X 20	3/8" O.D.	3/4" O.D.
36-37UCS-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



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MODEL NUMBERS:

MODEL SIZE (BTU)	MODEL (PISTON)	FACTORY INSTALLED TXV'S	
		MODEL (R22 TXV)	MODEL (R410A TXV)
18,000	18UCS-HW	18UCS-HW W/R22 TXV	18UCS-HW W/R410A TXV
18,000	19UCS-HW	19UCS-HW W/R22 TXV	19UCS-HW W/R410A TXV
24,000	24UCS-HW	24UCS-HW W/R22 TXV	24UCS-HW W/R410A TXV
24,000	25UCS-HW	25UCS-HW W/R22 TXV	25UCS-HW W/R410A TXV
30,000	30UCS-HW	30UCS-HW W/R22 TXV	30UCS-HW W/R410A TXV
30,000	31UCS-HW	31UCS-HW W/R22 TXV	31UCS-HW W/R410A TXV
36,000	36UCS-HW	36UCS-HW W/R22 TXV	36UCS-HW W/R410A TXV
36,000	37UCS-HW	37UCS-HW W/R22 TXV	37UCS-HW W/R410A TXV

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

NOTE:

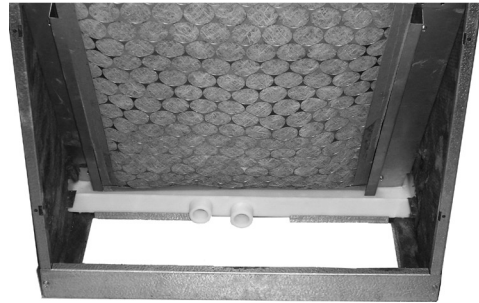
Expansion valve requirement depends on the selected outdoor unit.
Go to: www.firstco.com/efficiencyratings.aspx or contact the factory for assistance.

(See P. 4 for Optional Accessories)

OPTIONAL ACCESSORIES (FIELD INSTALLED)				
DESCRIPTION	PART #	FOR	DIMENSIONS	
CLOSET BRKT.	90PK3	ALL UCS-HW	1-1/2 X 22-1/8	---
CONDENSATE (1) OVERFLOW SWITCH	SS3	ALL UCS-HW	---	---



Condensate Overflow Switch
#SS3



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

EXPANSION VALVE KITS (Heat Pump or cooling only) (FIELD INSTALLED)		
PART NO.	TYPE	FOR
9EVR22-2	R22	18 - 37UCS-HW (1-1/2 - 3 TON)
9EVR410-1	R410A	18 - 37UCS-HW (1-1/2 - 3 TON)

NOTES:

1. Expansion valve kits are approved for both cooling only (non heat pump) or heat pump applications.
2. Valves are external equalizing, internal bleed.
3. Hot water control 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.