

First Co.

UCX-HW

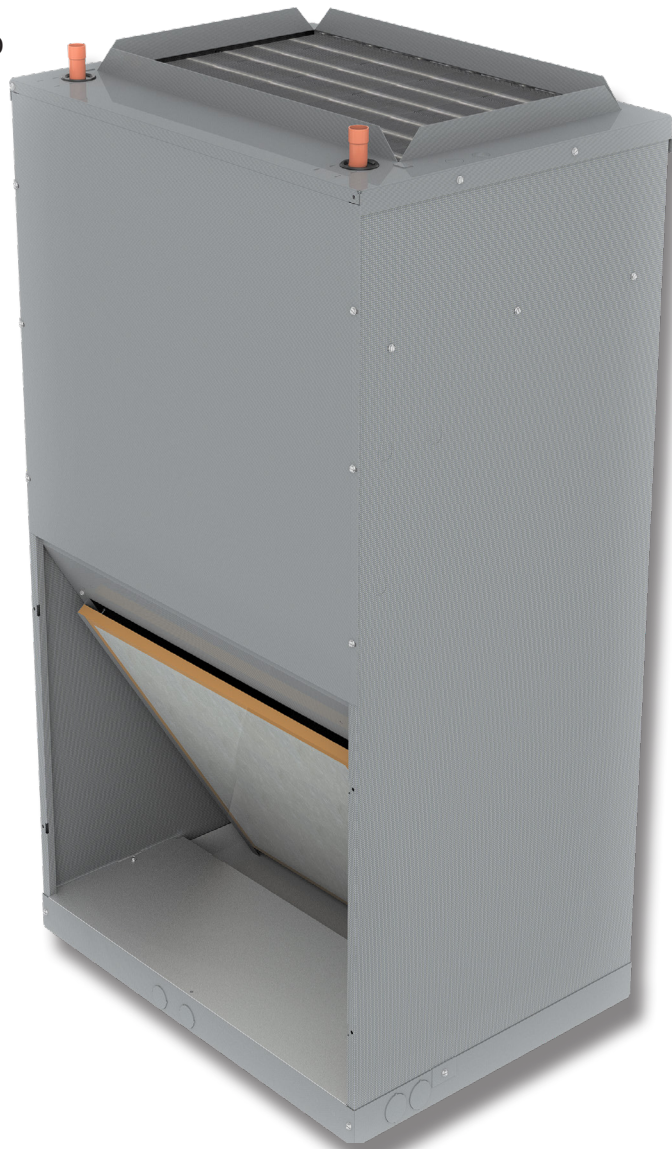
Air-Handlers



Wall / Closet

1.0 - 3.0 Tons Cooling or Heat Pump

Up to 71,100 BTUH Hydronic Heat



APPLICATION

These upflow air handlers are designed for use with today's higher efficiency split-system condensing units and heat pumps. All **UCX-HW** fan coils include a standard ECM motor. These motors offer the efficiency of a variable speed type ECM motor, but at a considerably lower cost.

The **UCX-HW** can be installed on a closet platform, hung on a closet wall, or recessed in a wall between the studs. These fan coils are compatible with any source of hot water that doesn't exceed 180^o and is NSF/ANSI certified for use with domestic water.

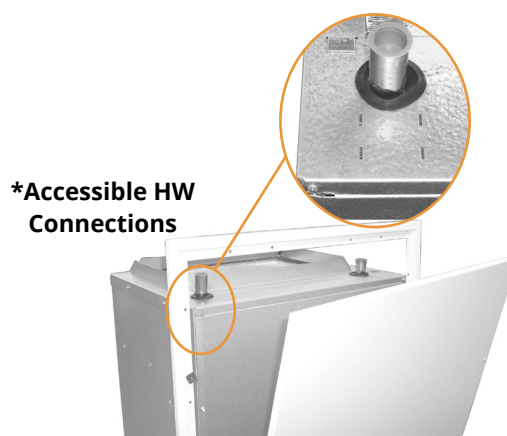
STANDARD FEATURES

- High efficiency standard ECM motor
- 120V motor, 24V controls
- Factory or field installed R-410A TXV (cooling or heat pump operation) (non-bleed type)
- Blower door shut-off switch
- Separate compartment for drain connections
- Hot water coil
- Easily accessible 1" throwaway filter

OPTIONAL FEATURES

Optional features include wall panels with captive screws, condensate overflow switch, closet hanger bracket kit, and bottom return air kit.

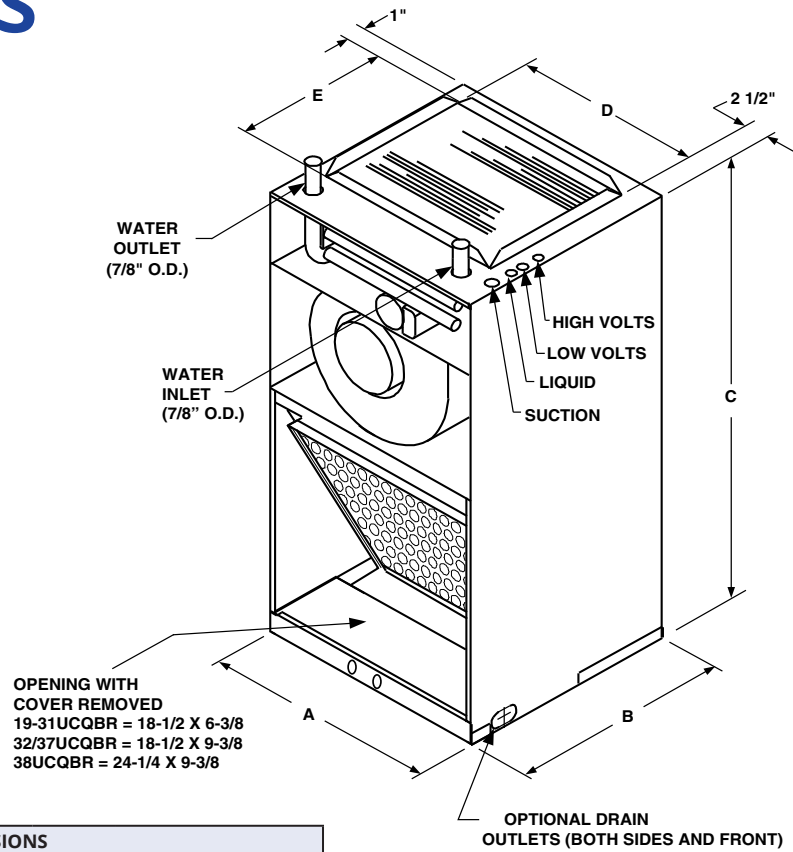
Unique Feature - In recessed wall applications utilizing the optional wall panel, the hot water coil can be removed without modifications to the drywall. To allow this feature, the top of the **UCX-HW** cabinet is notched for coil removal and the wall panel is 3" taller than the cabinet.



Unit shown with optional louvered wall panel
Recessed wall application

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 certified indoor/outdoor combinations, go to www.ahridirectory.org or www.firstco.com.

DIMENSIONS



PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	FILTER SIZE	LIQUID LINE	SUCTION LINE
12-25UCX-HW	22-1/8	18	43	18	12-1/2	18 X 18	3/8" O.D.	5/8" O.D.
26/31UCX-HW	22-1/8	18	43	18	12-1/2	18 X 20	3/8" O.D.	3/4" O.D.
32/37UCX-HW	22-1/8	21	43	18	15-1/2	18 X 24	3/8" O.D.	3/4" O.D.
38UCX-HW	28-1/8	21	46	24-1/8	15-3/4	24 X 24	3/8" O.D.	7/8" O.D.

NOTES:
 1. All coil connections are sweat

MODEL NUMBERS:

MODEL SIZE (BTU COOLING)	MODEL (PISTON)	MODEL (R410 TXV)
12,000	12UCX-HW	12UCX-HW R410 TXV
18,000	19UCX-HW	19UCX-HW R410 TXV
18,000	20UCX-HW	20UCX-HW R410 TXV
24,000	25UCX-HW	25UCX-HW R410 TXV
24,000	26UCX-HW	26UCX-HW R410 TXV
30,000	31UCX-HW	31UCX-HW R410 TXV
30,000	32UCX-HW	32UCX-HW R410 TXV
36,000	37UCX-HW	37UCX-HW R410 TXV
36,000	38UCX-HW	38UCX-HW R410 TXV

All TXV's are approved for cooling only or heat pump operation (non-bleed type).

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

UCX-HW

PERFORMANCE DATA								
UNIT MODEL	NOMINAL COOLING BTUH	P.D. FT. WTR. COIL ONLY	HEATING BTUH (1000) AT ENTERING WATER TEMPERATURE Delta-T 20°F & GPM					
			120°F	GPM	140°F	GPM	180°F	GPM
12UCX-HW	12,000	3.3	11.4	1.1	16.0	1.6	25.1	2.5
		2.1	11.1	1.1	15.6	1.6	24.5	2.5
		1.2	10.8	1.1	15.1	1.5	23.7	2.4
19/20UCX-HW	18,000	3.3	19.1	1.9	26.8	2.7	42.1	4.2
		2.1	18.5	1.9	25.9	2.6	40.7	4.1
		1.2	17.6	1.8	24.9	2.5	38.7	3.9
25/26UCX-HW	24,000 / 18,000	3.3	22.9	2.3	32.1	3.2	50.4	5.0
		2.1	22.1	2.2	31.0	3.1	48.7	4.9
		1.2	20.8	2.1	29.2	2.9	45.9	4.6
31UCX-HW	30,000 / 24,000	3.3	26.1	2.6	36.5	3.7	57.3	5.7
		2.1	25.0	2.5	35.1	3.5	55.1	5.5
		1.2	23.5	2.4	32.9	3.3	51.7	5.2
32UCX-HW	30,000 / 24,000	3.6	28.1	2.8	39.3	3.9	61.7	6.2
		2.4	26.9	2.7	37.7	3.8	59.2	5.9
		1.3	25.2	2.5	35.3	3.5	55.4	5.5
37UCX-HW	36,000 / 30,000	3.6	30.9	3.1	43.2	4.3	67.9	6.8
		2.4	29.6	3.0	41.3	4.1	64.9	6.5
		1.3	27.5	2.8	38.5	3.9	60.5	6.1
38UCX-HW	36,000 / 30,000	3.1	33.8	3.4	47.4	4.7	74.4	7.4
		1.7	32.3	3.2	45.3	4.5	71.1	7.1
		0.8	30.0	3.0	42.1	4.2	66.1	6.6

MOTOR SPEED TAP CONNECTION			
UNIT MODEL	NOM. COOLING BTUH	HIGH SPD (VIO LEAD)	LOW SPD (GRY LEAD)
12UCX-HW	12,000	GRY	VIO
19/20UCX-HW	18,000	2	1
25/26UCX-HW	18,000	2	1
	24,000	3	2
31/32UCX-HW	24,000	2	1
	30,000	3	2
37/38UCX-HW	30,000	2	1
	36,000	3	2

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. Based on 20°F Delta-T. Velocity not to exceed 4ft./sec.
Based on 20°F Delta-T. Velocity not to exceed 4ft./sec.

BLOWER DATA														
UNIT MODEL	MOTOR H.P. (120V)	MOTOR AMPS (120V)	BHP	RUNNING AMPS	SPEED TAP	MCA	MOP	CFM vs. EXTERNAL STATIC PRESSURE						
								0.10	0.15	0.20	0.25	0.30	0.40	0.50
12UCX-HW	1/4	3.5	.11	1.6	WHT	5	15	575	555	540	525	505	465	425
			.09	1.3	GRY			525	505	490	470	450	405	360
			.04	0.5	VIO			300	275	250	225	200	155	---
19/20UCX-HW	1/3	4.8	.24	3.0	3	6	15	690	675	660	645	630	600	570
			.21	2.6	2			650	630	610	590	570	540	510
			.16	1.7	1			530	510	490	470	450	420	390
25/26UCX-HW	1/2	6.8	.36	4.1	3	9	15	880	865	850	835	820	790	760
			.23	2.4	2			670	655	640	625	610	580	550
			.17	1.7	1			570	550	530	515	500	470	440
31UCX-HW	1/2	6.8	.50	5.1	3	9	15	930	910	890	870	850	810	760
			.34	3.6	2			800	785	770	750	730	700	690
			.22	2.1	1			610	595	580	565	550	510	480
32UCX-HW	3/4	8.4	.37	4.2	3	11	15	1010	1000	990	975	960	930	900
			.24	2.6	2			790	775	760	745	730	700	670
			.20	2.0	1			700	685	670	650	630	600	560
37UCX-HW	3/4	8.4	.75	6.7	3	11	15	1250	1230	1210	1190	1170	1120	1070
			.49	5.5	2			1110	1095	1080	1065	1050	1020	990
			.37	4.0	1			940	925	910	895	880	850	820
38UCX-HW	3/4	8.4	.47	5.6	3	11	15	1240	1230	1220	1205	1190	1160	1130
			.38	5.2	2			1100	1090	1080	1065	1050	1020	990
			.25	2.3	1			860	845	830	815	800	760	730

NOTES:

1. Add nominal .05 static when optional wall panel is used.
2. Shaded rows are factory preset speeds.
3. Add .05 static if wall panel is used.



ACCESSORIES

ALL UCXQB OPTIONAL ACCESSORIES (FIELD INSTALLED)				
DESCRIPTION	PART NO.	FOR	DIMENSIONS	
WALL PANEL (1)	9PWUC03L	12-37UCX-HW	49-3/8 X 25-5/8	46-3/8 x 22-5/8
	9PWUC04L	38UCX-HW	52-1/2 X 31-5/8 (Outside Frame)	49-1/2 X 28-5/8 (Inside Frame)
CLOSET BRKT.	90PK3	12-37UCX-HW	1-3/4 X 22-1/8	---
	90PK31	38UCX-HW	1-3/4 X 27-15/16	---
BOTTOM RETURN AIR KIT	90PK5	12-37UCX-HW	20-7/16 X 22	---
	90PK51	38UCX-HW	20-5/8 X 28	---
CONDENSATE OVERFLOW SWITCH	SS3	ALL UCX-HW	---	---
FREEZE (2) PROTECTOR	941-1	ALL UCX-HW	---	---

NOTES:

- (1) Wall panels are taller than the **UCX-HW** cabinet to allow access to hot water coil connections.
- (2) Energizes the pump if HW coil temperature falls below 40^o.

EXPANSION VALVE KITS (Heat Pump or Cooling Only) (FIELD INSTALLED)		
PART NO.	TYPE	FOR
9EVR410-1	R-410A	12 - 38UCX-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 non-bleed type.
- 3. Valves mount inside unit cabinet



Optional wall panel
Recessed wall application



Condensate Overflow Switch #SS3



Unit shown with front panel removed



Unit shown with optional bottom return air kit



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



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