

# **UCQB** Series

Wall / Closet Fan Coils

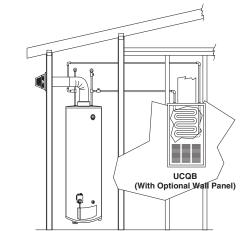
1.5 - 3.0 Tons DX Cooling Up to 43,900 BTUH Hydronic Heat

These upflow air handlers are designed for use with today's higher

efficiency split-system heat pump and condensing units.



(Closet application - Front Return Air)





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

(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 or contact the factory.

The **UCQB** 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 UCQB is the most innovative hydronic heat air handler available today and is the only hydronic air handler with the following features:

- · Multi-function micro-processor circuit board with these standard features.
  - Automatic pump timer (heating mode) pump purges the HW coil for 60 seconds every six hours.
  - Blower-on fan delay (heating mode) preheats the HW coil for 45 seconds.
  - · Blower-off fan delay (heating and cooling modes) blower continues to operate for 45 seconds after thermostat is satisfied for increased efficiency.

Note: State of MA. .248 CMR code of the state of MA requires a pump timer. (60 seconds every 6 hours)

### Standard Features:

- Multi-function micro-processor board
- 120V motor, 24V controls
- Cooper tube/aluminum fin heating and cooling coils
- Blower door shut-off switch
- Non-corrosive thermoplastic drain pan, sloped for positive
- 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 with piston-type metering devise (contact factory for correct indoor/outdoor match)
- Convenient equalizer connection for field or factory installed R410A TXV
- Circulating pump with unique, easy access anti-syphon check valve, and air purge valve
- 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 UCQB cabinet is notched for coil removal and the wall panel is 3" taller than the cabinet.

# **UCQB** Series

# Compatible with gas fired water heaters

Up to 43,900 BTUH Hydronic Heat

(See P. 3 for Model Numbers)

PERFORMANCE DATA								
UNIT MODEL	NOMINAL COOLING BTUH	GPM (HEATING)	HEATING BTUH (1000) AT ENTERING WATER TEMPERATURE (1)		TOTAL AMPS (MOTOR)	TOTAL AMPS (PUMP)	MIN. CIRCUIT AMPACITY	MAX. FUSE OR HACR BREAKER
			120°F	140°F	(120V)	(120V)	Allin AGITT	
18-20UCQB	18,000	3.5	18.5	25.9	5.4	0.57	8	15
24-26UCQB	24,000 / 18,000	3.5	22.1	31.0	5.4	0.57	8	15
30/31UCQB	30,000 / 24,000	3.5	25.0	35.1	8.1	0.57	11	15
32UCQB	30,000 / 24,000	3.5	27.0	37.7	8.1	0.57	11	15
36/37UCQB	36,000 / 30,000	3.5	29.6	41.3	8.1	0.57	11	15



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

### 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	MOTOR	MOTOR AMPS (120V)	FAN SPEED	CFM vs. EXTERNAL STATIC PRESSURE						
MODEL H.P. (120V)				0.10	0.15	0.20	0.25	0.30	0.40	0.50
18/19UCQB	1/3	5.4	MED-HIGH	790	775	760	745	730	700	670
			MED-LOW	710	695	680	665	650	630	610
			LOW	560	550	540	525	510	490	460
			MED-HIGH	770	750	730	710	690	650	610
20UCQB	1/3	5.4	MED-LOW	690	675	660	645	630	590	550
			LOW	540	525	510	495	480	450	420
	1/3	5.4	HIGH	840	820	800	780	760	710	660
24/25UCQB			MED-HIGH	770	750	730	710	690	650	610
			MED-LOW	690	665	660	645	630	590	550
26UCQB	1/3	5.4	HIGH	860	845	830	810	790	750	700
			MED-HIGH	780	765	750	735	720	680	640
			MED-LOW	700	685	670	655	640	600	560
			HIGH	1070	1045	1020	995	970	920	850
30/31UCQB	1/2	8.1	MED-HIGH	1020	1000	980	960	940	890	820
			MED-LOW	760	755	750	735	720	680	640
32UCQB	1/2		MED-HIGH	1140	1110	1080	1050	1020	960	900
		8.1	MED-LOW	900	885	870	855	840	790	740
			LOW	650	645	640	635	630	610	580
	1/2	8.1	HIGH	1160	1135	1110	1080	1050	990	930
36/37UCQB			MED-HIGH	1120	1095	1070	1045	1020	970	900
			MED-LOW	890	875	860	845	830	790	740

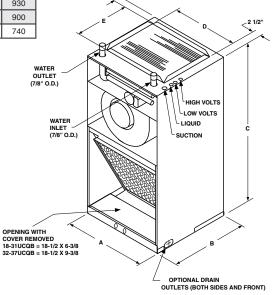
### NOTES:

- 1.Add nominal .05 static when optional wall panel is used.
- 2. Shaded areas are factory motor settings.

PHYSICAL DIMENSIONS								
UINT MODEL	Α	В	С	D	E	FILTER SIZE	LIQUID LINE	SUCTION LINE
18-25UCQB	22-1/8	18	43	18	12-1/2	18 X 18	3/8" O.D.	5/8" O.D.
26-31UCQB	22-1/8	18	43	18	12-1/2	18 X 20	3/8" O.D.	3/4" O.D.
32-37UCQB	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:**

		FACTORY INSTALLED TXV'S
MODEL SIZE (BTU)	MODEL (PISTON)	MODEL (R410A TXV)
18,000	18UCQB	18UCQB R410 TXV
18,000	19UCQB	19UCQB R410 TXV
18,000	20UCQB	20UCQB R410 TXV
24,000	24UCQB	24UCQB R410 TXV
24,000	25UCQB	25UCQB R410 TXV
24,000	26UCQB	26UCQB R410 TXV
30,000	30UCQB	30UCQB R410 TXV
30,000	31UCQB	31UCQB R410 TXV
30,000	32UCQB	32UCQB R410 TXV
36,000	36UCQB	36UCQB R410 TXV
36,000	37UCQB	37UCQB R410 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: <a href="https://www.firstco.com">www.firstco.com</a> or contact the factory for assistance.

(See P. 4 for Optional Accessories)

ALL UCQB OPTIONAL ACCESSORIES (FIELD INSTALLED)						
DESCRIPTION PART NO.		FOR	DIMENSIONS			
WALL PANEL (1)	9PWUC03L	ALL UCQB	49-3/8 X 25-5/8 (Outside Frame)	46-3/8 x 22-5/8 (Inside Frame)		
CLOSET BRKT.	90PK3	ALL UCQB	1-1/2 X 22-1/8			
BOTTOM RETURN AIR KIT	90PK5	ALL UCQB	21-5/8 X 22			
CONDENSATE OVERFLOW SWITCH	SS3	ALL UCQB				
FREEZE (2) PROTECTOR	941-1	ALL UCQB				

### NOTES:

- (1) Wall Panels are taller than the UCQB cabinet to allow access to hot water coil connections.
- (2) Energizes the pump if HW coil temperature falls below 40°.

EXPANSION VALVE KITS (Heat Pump or cooling only) (FIELD INSTALLED)					
PART NO. TYPE FOR					
<b>9EVR410-1</b> R410A <b>18 - 37UCQB</b> (1-1/2 - 3 TON)					

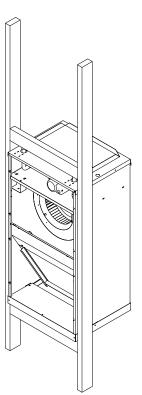
### NOTES:

1. Expansion valve kits are approved for both cooling only (non heat pump) or heat pump applications.

2. Valves are external equalizing, internal bleed.

> Condensate Overflow Switch #SS3

- 3. Valves mount inside unit cabinet



Typical recessed wall installation



Optional wall panel (Recessed wall application)



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



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



Unit shown with front panel removed