HCX SERIES

HCX • HCX 120V • HCXX • HCXX 120V • HCXQ • HCXR • HCXW
Multi-Position Fan Coils

Compatible with R410A
For Servicing Existing Equipment Only

Upflow / Horizontal

Heat Pump or DX

Electric Heat, Hot Water Coils, Standard or Hi Flow Pump

1-1/2 – 5 Tons Cooling

0 – 25 kW Electric Heat

AHRI CERTIFIED® www.ahridirectory.org
Unitary Small AC
AHRI Standard 210/240
Certification applies only when the complete system is listed with AHRI.

AHRI CERTIFIED® www.ahridirectory.org
Unitary Small HP
AHRI Standard 210/240
Certification applies only when the complete system is listed with AHRI.

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NOMENCLATURE

FULL SERIES NOMENCLATURE

24 HCX 05 0 2 0 A V 0 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
00 - 0 KW No Heat
03 - 3 KW
05 - 5 KW
08 - 8 KW
10 - 10 KW
15 - 15 KW
20 - 20 KW
Q3 - 3 Row Std Pump HW
Q4 - 4 Row Std Pump HW
R3 - 3 Row Hiflow Pump HW
R4 - 4 Row Hiflow Pump HW
W2 - 2 Row HW
W3 - 3 Row HW
W4 - 3 Row HW

MOTOR TYPE
0 - PSC
X - ECM Multispeed
V - Var Speed/Constant Airflow

VOLTAGE
1 - 120/1/60
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

Model specific NOMENCLATURE presented at each respective section of document.

HCX SERIES

MULTI-POSITION FAN COILS

HCX • HCX 120V • HCXX • HCXX 120V • HCXQ • HCXQX • HCXQV • HCXR • HCXRX • HCXW • HCXWX • HCXWV

APPLICATION

The HCX series air handler is designed to offer the industry an air handler that includes every available feature as well as up to 15 SEER2 when matched with today's higher efficiency condensing units and heat pumps.

The HCX is completely factory assembled with a cooling coil, electric heat (except 0kW models), 240V motor, 24V transformer, horizontal drain pan, and throw away filter. All components are installed within a fully insulated, galvanized steel cabinet with an attractive powder coated finish with 2% or less leak loss.

STANDARD FEATURES

- 3-way airflow (except 60/61HCX)
- Factory installed horizontal drain pan
- Completely prewired with 0-25kW electric heat (except 0kW models)
- Compatible with major brands of split condensing units and heat pumps (Contact factory for correct match with outdoor unit)
- Piston-type metering device or factory or field installed TXV (non-bleed type) on cooling coil
- Factory installed filter
- Attractive baked on finish
- Copper tube cooling coils
- Primary and secondary drain connections on cooling coil
- Fully insulated and painted galvanized steel cabinet
- Factory installed disconnect switch (over 10kW models)

EFFICIENCY

The HCX series air handler is the latest state-of-the-art air handler for heat pump or straight cool (DX) operation. Depending on the condensing unit or heat pump used, cooling efficiency is up to 15 SEER2 depending on the outdoor unit. Cooling coils have factory installed TXVs and are circuited for cooling or heat pump operation.

COMPONENTS

Each air handler includes a high efficiency cooling coil, pre-wired electric heat (except 0kW), service switch (over 10kW), 240V fan motor, 24V transformer, horizontal drain pan, and throw away filter.

CABINETS

Cabinets are fully insulated and painted with an attractive, baked-on powder coating (light gray).

Cabinet air leakage is no more than 2% when tested in accordance with ASHRAE 193.

INSTALLATION

No modification is required for vertical or horizontal (right-to-left) airflow. A horizontal drain pan is factory installed for right-to-left airflow and can be re-positioned within the cabinet to offer left-to-right airflow.

HCX SERIES

MULTI-POSITION FAN COILS

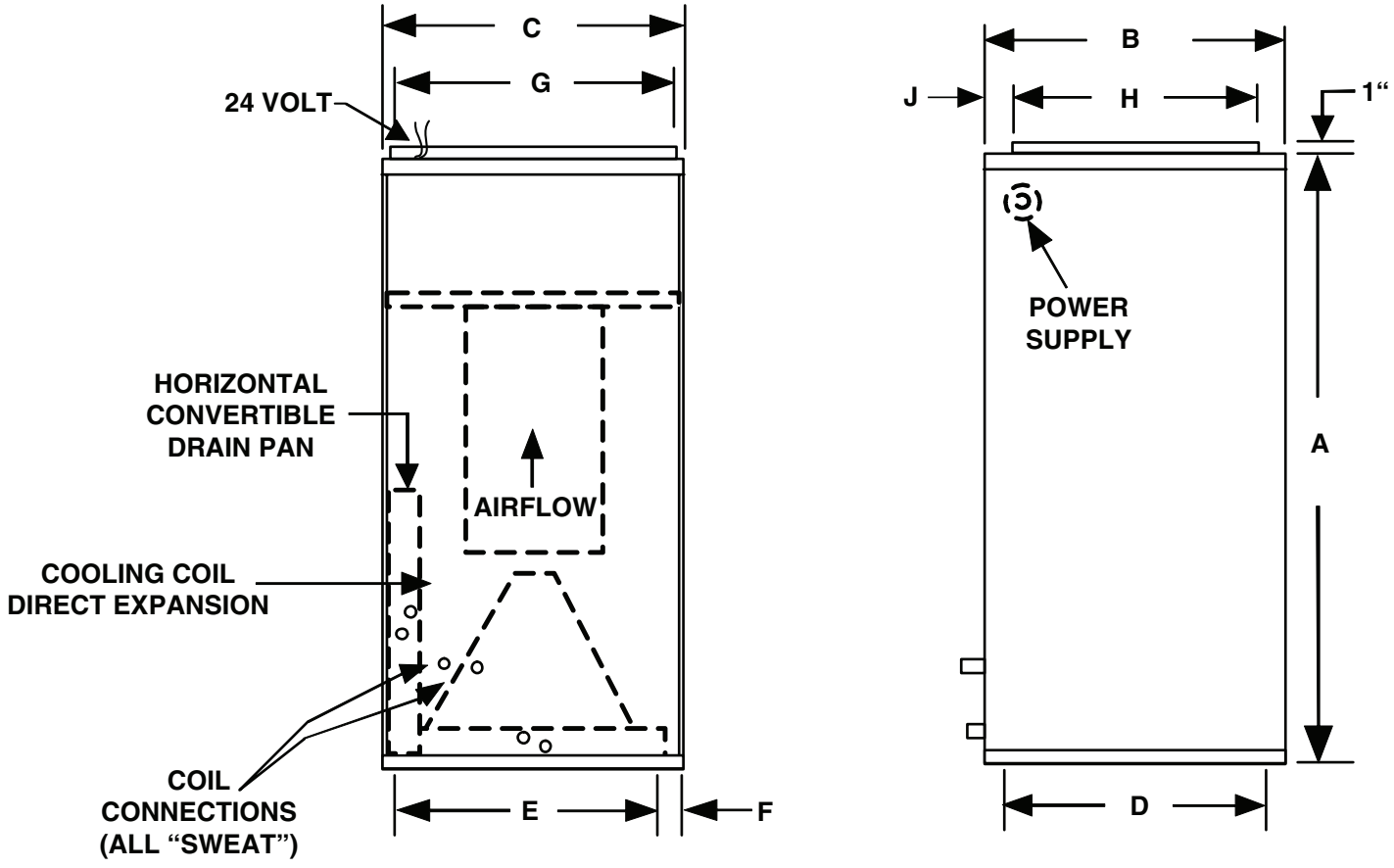
HCX • HCX 120V • HCXX • HCXX 120V • HCXQ • HCXQX • HCXQV • HCXR • HCXRX • HCXW • HCXWX • HCXWV

ACCESSORIES & DIMENSIONS

EXPANSION VALVE KITS (HEAT PUMP OR COOLING ONLY)	
PART NUMBER	**DESCRIPTION**
9EVR410-3	18/24 HCX (For servicing existing 410A equipment only)
9EVR410-4	30/36 HCX (For servicing existing 410A equipment only)
9EVR410-5	40/60/61 HCX (For servicing existing 410A equipment only)

NOTES:
1. Above expansion valve kits are approved for both cooling only (non heat pump) or heat pumps applications.
2. Valves are non-bleed type. Field added. Hard start kit may be required.
3. Valves have screw-on connections.

PHYSICAL DIMENSIONS												
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**J**	**LIQ. (SWEAT)**	**SUCT. (SWEAT)**	**FILTER**
18/24HCX0**	40	20	20	18-1/2	16	2	18	16	3	3/8	5/8	18 X 20 X 1
30/36HCX0**	42	23	20	21-1/2	16	2	18	17	5	3/8	3/4	20 X 22 X 1
48/60HCX0**	48	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1
61HCX0**	54	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1



HCX SERIES

HEAT PUMP OR DX W/ELECTRIC HEAT

24 HCX 05 0 2 0 A V 0 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
00 - 0 KW No Heat
03 - 3 KW
05 - 5 KW
08 - 8 KW
10 - 10 KW
15 - 15 KW
20 - 20 KW

MOTOR TYPE
0 - PSC

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

ELECTRICAL DATA															
UNIT MODEL			NOM. CFM	(1) NOM. COOL BTUH	ELECTRIC HEAT CAPACITY				TOTAL AMPS		MIN. CIR. AMPACITY		MAX. FUSE OR HACR BREAKER	
					kW		BTUH							
					240V	208V	240V	208V	240V	208V	240V	208V	240V	208V
18HCX**0 & 24HCX**0		-0	600	18,000	0	0	0	0	1.6	1.6	2	2	15	15
		-3			3	2.3	10,200	7,700	14	13	18	16	20	20
		-4			4	3	13,600	10,200	19	16	23	20	25	20
		-5			5	3.8	17,000	13,000	23	20	28	25	30	25
		-6	800	24,000	6	4.5	20,500	15,400	27	24	36	29	40	30
		-8			8	6	27,300	20,500	35	31	46	38	50	40
		-10			10	7.5	34,100	25,600	44	38	54	47	60	50
30HCX**0 & 36HCX**0		-0	1,000	30,000	0	0	0	0	2.5	2.5	3	3	15	15
		-5			5	3.8	17,000	13,000	24	21	30	26	30	30
		-8			8	6	27,300	20,500	36	32	46	40	50	40
		-10	1,200	36,000	10	7.5	34,100	25,600	45	39	56	49	60	50
	(2)	-15			15	11.3	51,100	38,500	45 21	39 18	56 26	49 23	60 30	50 25
48HCX**0		-0	1,600	48,000	0	0	0	0	3.5	3.5	5	5	15	15
		-5			5	3.8	17,000	13,000	25	22	30	27	30	30
		-8			8	6	27,300	20,500	37	33	47	40	50	40
		-10			10	7.5	34,100	25,600	46	40	57	50	60	50
	(2)	-15			15	11.3	51,100	38,500	46 21	40 18	57 27	50 23	60 30	50 25
	(2)	-20			20	15	68,200	51,100	46 42	40 36	57 53	50 46	60 60	50 50
	(2)	-25			25	18.75	85,250	63,900	46 42 21	40 36 18	57 53 27	50 46 23	60 60 30	50 50 25
60HCX**0 & 61HCX**0		-0	2,000	60,000	0	0	0	0	6.0	6.0	8	8	15	15
		-5			5	3.8	17,000	13,000	27	24	34	30	35	30
		-8			8	6	27,300	20,500	40	353	49	44	50	45
		-10			10	7.5	34,100	25,600	48	42	60	53	60	60
	(2)	-15			15	11.3	51,100	38,500	48 21	42 18	60 27	53 23	60 30	60 25
	(2)	-20			20	15	68,200	51,100	48 42	42 36	60 53	53 46	60 60	60 50
	(2)	-25			25	18.75	85,200	63,900	48 42 21	42 36 18	60 53 27	53 46 23	60 60 30	60 50 25

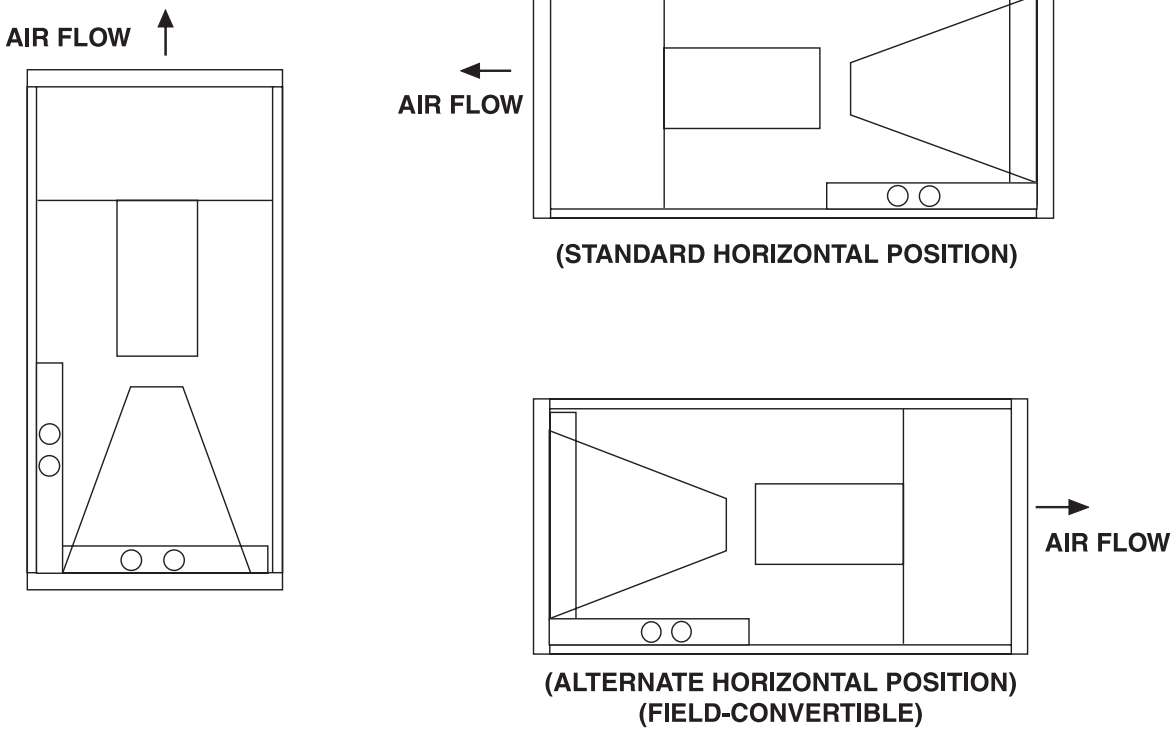
NOTES:
1. Nom. cooling at 45°F suction temp. 80°F DB / 67°F WB air on.
2. 15kW and 20kW models require 2 supply circuits. 25k models require 3 supply circuits.
3. Units suitable for installation with 0" clearance to combustible material.

Data is subject to change. Please verify current information at www.firstco.com.

BLOWER DATA										
UNIT MODEL	FAN SPEED	DUTY	MOTOR HP (240V)	CFM vs. EXTERNAL STATIC PRESSURE						
				0.10	0.15	0.20	0.25	0.30	0.40	0.50
18HCX0**	LOW LOW	COOL HEAT	1/6	780 780	750 750	720 720	700 700	660 660	600 600	510 510
24HCX0**	HIGH LOW	COOL HEAT	1/6	900 740	880 710	860 690	830 660	790 630	700 570	600 490
30HCX0**	LOW LOW	COOL HEAT	1/3	1210 1210	1190 1190	1160 1160	1140 1140	1110 1110	1050 1050	990 990
36HCX0**	HIGH LOW	COOL HEAT	1/3	1410 1170	1380 1150	1340 1130	1310 1100	1270 1080	1190 1030	1060 970
48HCX0**	HIGH MWD. LOW	COOL COOL HEAT	1/2	1760 1490 1280	1730 1460 1260	1680 1430 1230	1640 1400 1210	1580 1370 1190	1480 1300 1130	1360 1210 1080
60HCX0**	HIGH LOW	COOL HEAT	3/4	2130 1690	2110 1680	2090 1660	2060 1640	2025 1620	1930 1580	1820 1540
61HCX0**	HIGH LOW	COOL HEAT	3/4	2175 1725	2150 1715	2130 1695	2100 1675	2065 1650	1970 1610	1855 1570

NOTE:
Use 48HCX**0 for 3.5 ton applications and field convert to medium speed for cooling.

3-WAY AIRFLOW



HCX SERIES

HEAT PUMP OR DX W/ELECTRIC HEAT 120V

HCX 120V

24 HCX 00 0 1 0 A V 0 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
00 - 0 KW No Heat
03 - 3 KW
05 - 5 KW
08 - 8 KW
10 - 10 KW
15 - 15 KW
20 - 20 KW

MOTOR TYPE
0 - PSC

VOLTAGE
1 - 120/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

The **HCX (120V)** series air handler is designed to offer the industry an air handler that includes every available feature as well as up to **15 SEER2** when matched with today's higher efficiency condensing units and heat pumps.

The **HCX (120V)** is completely factory assembled with a cooling coil, 120V motor, 24V transformer, horizontal drain pan, and throw away filter.

The **HCX (120V)** series air handler is the latest state-of-the-art air handler for heat pump or straight cool (DX) operation. Depending on the condensing unit or heat pump used, cooling efficiency is up to 15 SEER2 depending on the outdoor unit. Cooling coils have factory installed R545B TXVs and are circuited for cooling or heat pump operation. Field installed TXVs are available for R32 refrigerant and for servicing existing R410A equipment.

PHYSICAL DIMENSIONS

UNIT MODEL	A	B	C	D	E	F	G	H	J	LIQ. (SWEAT)	SUCT. (SWEAT)	FILTER
18/24HCX01**	40	20	20	18-1/2	16	2	18	16	3	3/8	5/8	18 X 20 X 1
30/36HCX01**	42	23	20	21-1/2	16	2	18	17	5	3/8	3/4	20 X 22 X 1
48/60HCX01**	48	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1
61HCX01**	54	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1

BLOWER DATA PSC MOTOR

UNIT MODEL	Nom. Cooling Tonnage	MOTOR HP (120V)	FLA	MCA	Max. Overload Protection	Motor Speed	CFM vs. EXTERNAL STATIC PRESSURE				
							0.1	0.2	0.3	0.4	0.5
18HCX01**	1.5	1/3	4.1	6.0	15	High M. High M. Low Low	900 855 800 690	840 805 755 655	785 755 710 610	735 695 650 545	655 605 560 485
24HCX01**	1.5-2.0	1/3	4.1	6.0	15	High Med-HI Med-Low Low	920 870 795 670	855 805 725 620	785 740 665 570	715 665 605 510	635 585 530 430
30HCX01**	2.0-2.5	1/2	7.5	10	20	High Medium Low	1485 1405 1270	1425 1345 1230	1360 1285 1180	1300 1220 1120	1225 1160 1040
36HCX01**	2.5-3.0	1/2	7.5	10	20	High Med-HI Low	1420 1340 1225	1360 1280 1180	1300 1230 1140	1240 1175 1080	1180 1110 1025
48HCX01**	4-3.5	1	10.4	13	20	High Medium Low	1820 1460 1180	1790 1440 1170	1750 1405 1155	1685 1375 1125	1620 1330 1095
60HCX01**	4-5	1	10.4	13	20	High Medium Low	1805 1460 1165	1760 1440 1140	1715 1395 1125	1650 1355 1105	1590 1330 1065
61HCX01**	4-5	1	10.4	13	20	High Medium Low	1860 1505 1200	1815 1485 1175	1765 1435 1160	1700 1395 1140	1640 1370 1095

NOTE: Use 48HCX**01 for 3.5 ton applications and field convert to medium speed for cooling.

HCX SERIES

HEAT PUMP OR DX W/ELECTRIC HEAT & ECM MOTOR

HCXX

24 HCX 05 X 2 0 A V 0 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
00 - 0 KW No Heat
03 - 3 KW
05 - 5 KW
08 - 8 KW
10 - 10 KW
15 - 15 KW
20 - 20 KW

MOTOR TYPE
X - ECM Multispeed

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

The **HCXX** air handler is designed for use with today's highn efficiency split-system condensing units and heat pumps. All **HCXX** air handlers include a standard **ECM motor**. These motors offer the efficiency of variable speed type **ECM motors**, but at a considerably lower cost.

Cooling efficiencies are up to **16 SEER2** depending on the outdoor unit.

Standard configuration from the factory is upflow and horizontal (right-to-left airflow). All sizes can be easily re-configured in the field for horizontal (left-to-right) airflow.

PHYSICAL DIMENSIONS

UNIT MODEL	A	B	C	D	E	F	G	H	J	LIQ. (SWEAT)	SUCT. (SWEAT)	FILTER
18/24HCXX**	40	20	20	18-1/2	16	2	18	16	3	3/8	5/8	18 X 20 X 1
30/36HCXX**	42	23	20	21-1/2	16	2	18	17	5	3/8	3/4	20 X 22 X 1
42/48/60HCXX**	48	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1
61HCX01**	54	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1

BLOWER DATA

UNIT MODEL	MOTOR HP	SPEED TAP	MOTOR BHP	NOM. AMPS	CFM vs. EXTERNAL STATIC PRESSURE				
					0.10	0.20	0.30	0.40	0.50
18HCXX**	1/3	3	0.21	1.5	910	870	830	790	730
		2	0.14	0.9	750	710	670	620	570
		1	0.14	0.9	750	710	670	620	570
24HCXX**	1/3	4	0.33	2.0	1030	960	890	810	730
		3	0.21	1.5	880	840	800	760	700
		2	0.14	0.9	710	670	630	580	530
30HCXX**	1/2	3	0.38	2.4	1360	1330	1300	1270	1230
		2	0.29	1.6	1180	1140	1100	1060	1020
		1	0.29	1.6	1180	1140	1100	1060	1020
36HCXX**	1/2	4	0.47	3.2	1500	1450	1390	1330	1270
		3	0.38	2.4	1330	1300	1270	1230	1190
		2	0.29	1.6	1150	1110	1070	1030	990
42HCXX** **48HCX**X**	1	4	0.72	4.1	1790	1740	1700	1670	1640
		3	0.68	3.8	1730	1690	1650	1610	1570
		2	0.51	2.6	1470	1430	1390	1350	1300
		1	0.36	1.6	1200	1160	1110	1050	970
60HCXX**	1	3	0.98	6.5	2100	2060	2020	1980	1940
		2	0.85	5.1	1930	1890	1850	1810	1770
		1	0.68	3.7	1700	1660	1620	1580	1540
61HCXX**	1	3	0.99	6.6	2120	2080	2040	2000	1960
		2	0.86	5.2	1950	1910	1870	1830	1790
		1	0.69	3.8	1715	1675	1635	1595	1555

NOTES:
Use 48HCX**X for 3.5 ton applications and field convert to medium speed for cooling.
Shaded speed taps are factory settings (higher speed is cooling).
Data is subject to change. Please verify current information at www.firstco.com.

PERFORMANCE DATA															
UNIT MODEL			NOM. CFM	(1) NOM. COOL BTUH	ELECTRIC HEAT CAPACITY				TOTAL AMPS		MIN. CIR. AMPACITY		MAX. FUSE OR HACR BREAKER	
					kW		BTUH							
					240V	208V	240V	208V	240V	208V	240V	208V	240V	208V
18HCX**X & 24HCX**X		-0	600	18,000	0	0	0	0	2.8	2.8	-	-	15	15
		-3			3	2.3	10,200	7,700	15.3	13.6	20	17	20	20
		-4			4	3	13,600	10,200	19.5	17.2	25	22	25	25
		-5			5	3.8	17,000	13,000	23.6	20.8	30	26	30	30
		-6	800	24,000	6	4.5	20,500	15,400	27.8	24.4	35	31	35	35
		-8			8	6	27,300	20,500	36.1	31.6	46	40	50	40
		-10			10	7.5	34,100	25,600	44.5	38.9	56	49	60	50
30HCX**X & 36HCX**X		-0	1,000	30,000	0	0	0	0	4.1	4.1	-	-	15	15
		-5			5	3.8	17,000	13,000	24.9	22.1	32	28	35	30
		-8			8	6	27,300	20,500	37.4	32.9	47	42	50	45
		-10	1,200	36,000	10	7.5	34,100	25,600	45.8	40.2	58	51	60	60
	(2)	-15			15	11.3	51,100	38,500	45.8 20.8	40.2 18	58 26	51 23	60 30	60 25
42HCX**X & 48HCX**X		-0	1,600	48,000	0	0	0	0	7.6	7.6	-	-	15	15
		-5			5	3.8	17,000	13,000	28.4	25.6	36	32	40	35
		-8			8	6	27,300	20,500	40.9	36.4	52	46	60	50
		-10			9.5	7.1	34,100	25,600	47.2	41.9	59	53	60	60
	(2)	-15			14.5	10.9	51,100	38,500	47.2 20.8	41.9 18	59 26	53 23	60 30	60 25
		-20			19.5	14.6	68,200	51,100	47.2 41.6	41.9 36	59 52	53 45	60 60	60 45
60HCX**X & 61HCX**X		-0	2,000	60,000	0	0	0	0	7.6	7.6	-	-	15	15
		-5			5	3.8	17,000	13,000	28.4	25.6	36	32	40	35
		-8			8	6	27,300	20,500	40.9	36.4	52	46	60	50
		-10			9.5	7.1	34,100	25,600	47.2	41.9	59	53	60	60
	(2)	-15			14.5	10.9	51,100	38,500	47.2 20.8	41.9 18	59 26	53 23	60 30	60 25
	(2)	-20			19.5	14.6	68,200	51,100	47.2 41.6	41.9 36	59 52	53 45	60 60	60 45

NOTES:

1. Nom. cooling at 45°F suction temp. 80°F DB / 67°F WB air on.
2. 15kW and 20kW models require 2 supply circuits.
3. Units suitable for installation with 0" clearance to combustible material.

Data is subject to change. Please verify current information at www.firstco.com.

HCX SERIES

HCXX (120V)

HEAT PUMP OR DX W/ELECTRIC HEAT & ECM MOTOR 120V

24	HCX	00	X	1	0	A	V	0	0	0	F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
00 - 0 KW No Heat
03 - 3 KW
05 - 5 KW
08 - 8 KW
10 - 10 KW
15 - 15 KW
20 - 20 KW

MOTOR TYPE
X - ECM Multispeed

VOLTAGE
1 - 120/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

PHYSICAL DIMENSIONS												
UNIT MODEL	A	B	C	D	E	F	G	H	J	LIQ. (SWEAT)	SUCT. (SWEAT)	FILTER
18/24HCX**X	40	20	20	18-1/2	16	2	18	16	3	3/8	5/8	18 X 20 X 1
30/36HCX**X	42	23	20	21-1/2	16	2	18	17	5	3/8	3/4	20 X 22 X 1
48/60HCX**X	48	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1
61HCX**X	54	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	1/2	7/8	20 X 25 X 1

All TXVs are approved for cooling only or heat pump operation (non-bleed type).
(X) = ECM motor

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

BLOWER DATA ECM MOTOR											
UNIT MODEL	MOTOR HP	SPEED TAP	MOTOR BHP	FLA	MCA	Max. Overload Protection	CFM vs. EXTERNAL STATIC PRESSURE				
							0.10	0.20	0.30	0.40	0.50
18HCX**X	1/3	3	0.16	4.8	6.0	15	835	805	775	735	685
		1 & 2	0.10				655	630	590	545	505
24HCX**X	1/3	4	0.19				945	875	800	730	640
		3	0.16				790	755	715	680	620
		1 & 2	0.11				625	575	540	485	450
30HCX**X	1/2	3	0.22	6.8	9.0	15	1320	1285	1250	1220	1180
		1 & 2	0.17				1135	1100	1055	1030	995
36HCX**X	1/2	4	0.30				1375	1350	1330	1300	1275
		3	0.23				1230	1205	1175	1145	1120
		1 & 2	0.17				1075	1040	1010	975	945
48HCX**X	1	4	0.52	10.9	14.0	20	1730	1700	1665	1630	1585
		3	0.49				1685	1645	1600	1570	1525
		2	0.35				1440	1385	1345	1305	1255
		1	0.23				1170	1115	1060	1025	965
60HCX**X	1	3	0.77				2015	1970	1935	1900	1865
		2	0.63				1870	1835	1790	1760	1715
		1	0.48				1655	1615	1575	1540	1495
61HCX**X	1	3	0.78	10.9	14.0	20	2045	2000	1965	1930	1895
		2	0.63				1900	1865	1815	1785	1740
		1	0.49				1680	1640	1600	1565	1515

NOTE: Use 48HCX**X for 3.5 ton applications and field convert to medium speed for cooling.

HCX SERIES

HEAT PUMP OR DX W/STANDARD PUMP & PSC MOTOR

HCXQ

24 HCX Q3 0 2 0 A V B 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
Q3 - 3 Row Std Pump HW

MOTOR TYPE
0 - PSC

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXQ

The "Combo" air handler converts a properly sized gas or oil-fired water heater into a highly efficient space heating appliance that can heat your home as well as provide hot water. Compared to other heating systems, combo heaters offer high efficiency, greater installation flexibility, cost less to install, and are much easier to service.

The HCXQ Series incorporates a multi-function micro-processor that not only reduces the number of components but adds a number of standard system functions that would not normally be available, such as an automatic pump timer, and blower delay, just to name a few. The HCXQ air handler is the only product available with these high quality features! Cooling efficiencies up to 15 SEER2, depending on the outdoor unit.

Proper water heater sizing is required to ensure adequate hot water supply for both domestic use and space heating. Contact the factory for sizing information.

STANDARD FEATURES
HEATING CYCLE

- Automatic pump timer: The pump operatesfor sixty seconds every six hours in order to purge the water from the hot water coil and piping (the pump timer cycle is skipped while the compressor is operating). These fan coils are compatible with any source of hot water that does not exceed 180o and is NSF/ANSI certified for use with domestic water.
- Blower-on delay: On a call for heat, the hot water coil is preheated for 45 seconds before blower energizes.
- Blower-off delay: Blower continues to operate for 20 seconds after thermostat is satisfied, extracting more heat from the heating coil and increasing heating performance.

COOLING CYCLE

- Blower-off delay: Blower continues to operate for 45 seconds after thermostat is satisfied, extracting more cooling from the cooling coil and maximizing cooling efficiency.

ADDITIONAL FEATURES

Logic for the following options is built into the micro-processor circuit board but each option requires an optional field installed switch. Contact factory.

- Freeze protection: circuit board has terminals for optional freeze protector switch. Freeze protector energizes the circulating pump if water coil temperature falls below 40 degrees.
- Factory or field installed TXVs (non-bleed type)
- Built-in circulating pump, air purge valve, and easy access hot water check valve
- Blower door safety switch (except 60HCXQ)
- Compatible with all major brands of split condensing units and heat pumps
- Slide out hot water coil assembly for easier service
- Fully insulated galvanized steel cabinet
- High efficiency copper tube/aluminum fin heating and cooling coils
- Primary and secondary drain connections on cooling coil
- Factory installed filter

EFFICIENCY

The HCXQ series air handler is the latest state-of-the-art air handler for hot water heating. Depending on the water heater efficiency and the condensing unit used, heating efficiency can exceed 90% and cooling efficiency can exceed 14.3 SEER2 (depending on the selected outdoor unit). Cooling coils have either piston type metering devices or TXVs and are circuited for cooling or heat pump operation.

COMPONENTS

Each air handler includes a high efficiency cooling coil, a separate hot water coil, circulating pump, air purge valve, anti-thermosyphon check valve, blower door safety switch (except 60HCXQ), 120V blower motor, throw away filter, and 24V transformer.

CABINETS

Cabinets are fully insulated and painted with an attractive, baked-on powder coating (light gray).

INSTALLATION

No modification is required for vertical or horizontal (right-to-left) airflow. A horizontal drain pan is factory installed for right-to-left airflow and can be re-positioned within the cabinet to offer left-to-right airflow.

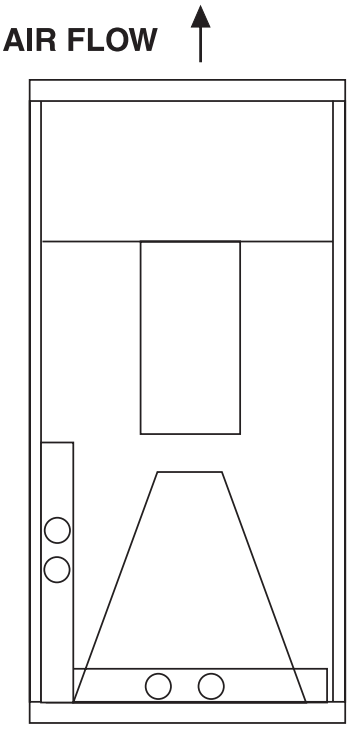
ADDITIONAL FEATURES (CONT'D)

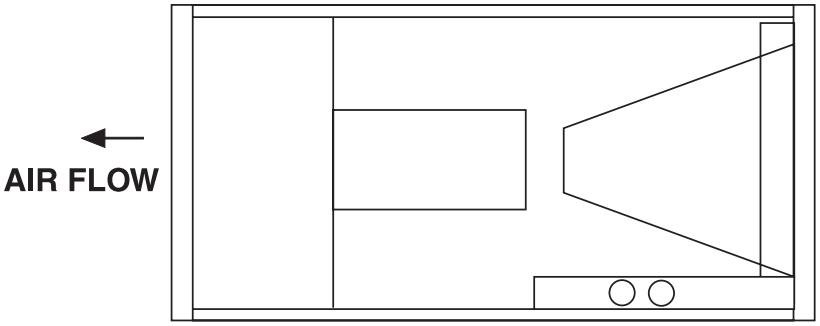
OPERATION

When space heating is needed, the wall thermostat energizes the circulating pump which circulates hot water from the water heater to the hot water coil in the air handler. As the blower motor forces cool return air from the home over the hot water coil, the air absorbs heat from the hot water. This warm air (105 to 110 degrees) is then circulated throughout the duct system and into the home. The water loses only about 15 degrees of temperature while it circulates through the coil and is then returned to the water heater to be reheated.

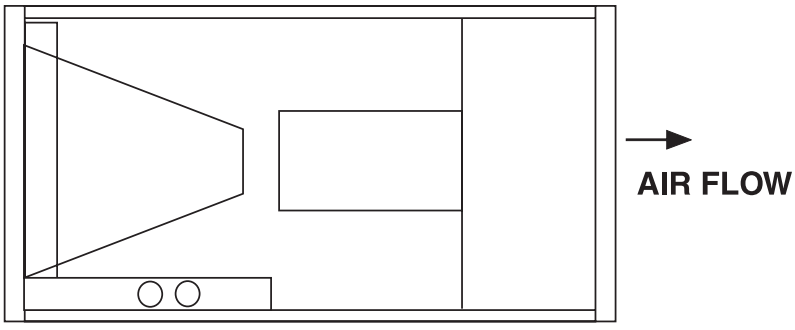
ACCESSORIES

Accessories include TXV expansion valve kits, and freeze protector.





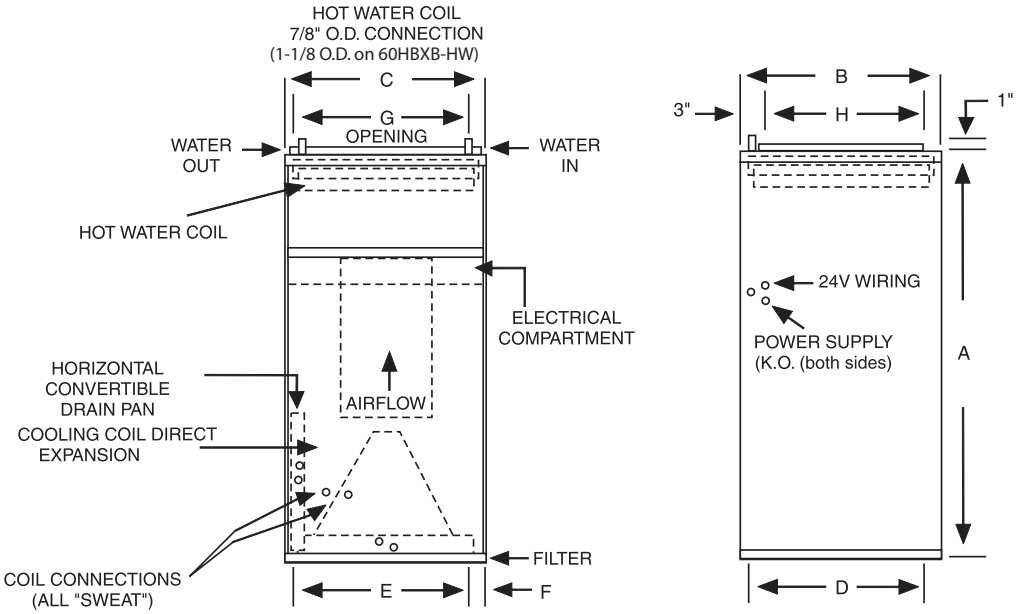
(STANDARD HORIZONTAL POSITION)



(ALTERNATE HORIZONTAL POSITION)
(FIELD-CONVERTIBLE)

COOLING OR HEAT PUMP HOT WATER HEATING WITH PSC MOTOR

PHYSICAL DIMENSIONS									
UNIT MODEL	A	B	C	D	E	F	G	H	FILTER SIZE
18HCXQ*0 24HCXQ*0	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
30HCXQ*0 36HCXQ*0	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
48HCXQ*0	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
60HCXQ*0	52	28	25-1/4	26-1/2	21-1/4	2	22	24	14 X 24 X 1 (2 required)



COIL CONNECTIONS		
UNIT SIZE	LIQUID	SUCTION
18/24	3/8	5/8
30/36	3/8	3/4
48/60	1/2	7/8

ELECTRICAL DATA					
UNIT MODEL	MOTOR HP (120V)	AMPS		MIN. CIR. AMPACITY	MAX. HACR BREAKER
		MOTOR	PUMP		
18HCXQ*0	1/5	2.8	0.57	5	15
24HCXQ*0	1/5	5.1	0.57	7	15
30HCXQ*0	1/5	5.1	0.57	7	15
36HCXQ*0	1/2	8.5	0.57	12	15
48HCXQ*0	3/4	10.7	0.57	14	15
60HCXQ*0	1	11.5	0.75	16	20

COOLING OR HEAT PUMP HOT WATER HEATING WITH PSC MOTOR

PERFORMANCE DATA												
UNIT MODEL	NOMINAL COOLING BTUH	COIL # (2)	P.D. (FT. WTR.)	BTUH (1000) AT ENTERING WATER TEMPATURE Delta-T 20°F & GPM							
				120°F	GPM	140°F	GPM	160°F	GPM	180°F	GPM
18HCXQ*0	18,000	USM318AP	4.3	23.8	2.4	33.4	3.3	42.9	4.3	52.5	5.3
24HCXQ*0	24,000	USM424AP	4.3	25.5	2.6	35.8	3.6	46.0	4.6	56.2	5.6
30HCXQ*0	30,000	USM330AP	5.0	30.7	3.1	43.0	4.3	55.3	5.5	67.6	6.8
36HCXQ*0	36,000	USM436A	5.0	35.0	3.5	49.0	4.9	63.0	6.3	76.9	7.7
48HCXQ*0	42,000/ 48,000	USM348AP	3.4	45.9 48.6	4.6 4.9	64.3 68.1	6.4 6.8	82.6 87.5	8.3 8.8	101.0 107.0	10.1 10.7
60HCXQ*0	60,000	USM460BP	8.8	64.4	6.4	90.2	9.0	116.0	11.6	141.8	14.2

(1) Use 48HCXQ*0 for 3.5 ton applications and field-convert fan motor to low speed.
(2) See "USM" data sheet for additional coil information.

NOTES:
1. Heating output of fan coil will not exceed net output of water heater.
2. Approved for installation with 0" clearance to combustible materials.
3. Heat BTUH is at 65°F entering air temperature.
4. Based on 20ºF Delta-T. Velocity not to exceed 4ft./sec.

Data is subject to change. Please verify most current information on www.firstco.com.

BLOWER DATA			UPFLOW / HORIZONTAL ONLY					
UNIT MODEL	MOTOR HP-AMP (120V)	MOTOR SPEED CONN.	CFM vs. EXTERNAL STATIC PRESSURE					
			0.05	0.10	0.20	0.30	0.40	0.50
18HCXQ*0	1/5-2.8	HIGH MED. HIGH MED. LOW LOW	810 680 530 350	780 655 505 325	715 600 460 325	650 545 415 220	580 490 360 160	500 420 295 - - -
24HCXQ*0	1/5-5.1	HIGH MED LOW	950 860 780	920 835 755	855 785 705	790 720 650	720 650 590	645 580 510
30HCXQ*0	1/5-5.1	HIGH MED LOW	1120 850 680	1095 840 670	1045 810 655	995 780 625	940 740 585	880 590 510
36HCXQ*0	1/2-8.5	HIGH MED LOW	1340 1290 1200	1310 1260 1170	1250 1200 1120	1190 1140 1070	1120 1080 1010	1050 1000 940
48HCXQ*0	3/4-10.7	HIGH MED LOW	1810 1570 1280	1780 1550 1260	1720 1510 1220	1660 1460 1180	1590 1400 1130	1530 1340 1050
60HCXQ*0	1-11.5	HIGH MED LOW	2160 1865 1560	2125 1840 1540	2055 1785 1490	1980 1710 1435	1895 1620 1365	1810 1525 1260

HCX SERIES

HEAT PUMP OR DX W/STANDARD PUMP & ECM MOTOR

HCXQX

24 HCX Q3 X 2 0 A V B 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
Q3 - 3 Row Std Pump HW
Q4 - 4 Row Std Pump HW

MOTOR TYPE
X - ECM Multispeed

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

COOLING OR HEAT PUMP HOT WATER HEATING WITH ECM MOTOR

COIL CONNECTIONS		
UNIT SIZE	**LIQUID**	**SUCTION**
18/24	3/8	5/8
30/36	3/8	3/4
48/60	1/2	7/8

PHYSICAL DIMENSIONS									
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE**
18HCXQ*X 24HCXQ*X	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
30HCXQ*X 36HCXQ*X	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
48HCXQ*X	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
60HCXQ*X	52	28	25-1/4	26-1/2	21-1/4	2	22	24	14 X 24 X 1 (2 required)

ELECTRICAL DATA					
UNIT MODEL	**MOTOR HP (120V)**	**AMPS**		**MIN. CIR. AMPACITY**	**MAX. HACR BREAKER**
		MOTOR	**PUMP**		
18HCXQ*X	1/3	4.8	0.57	7	15
24HCXQ*X	1/3	4.8	0.57	7	15
30HCXQ*X	1/2	6.8	0.57	10	15
36HCXQ*X	1/2	6.8	0.57	10	15
48HCXQ*X	1	10.9	0.57	15	15
60HCXQ*X	1	10.9	0.75	15	15

PERFORMANCE DATA												
UNIT MODEL	**NOMINAL COOLING BTUH**	**COIL # (2)**	**P.D. (FT. WTR.)**	**BTUH (1000) AT ENTERING WATER TEMPATURE Delta-T 20°F & GPM**							
				120°F	**GPM**	**140°F**	**GPM**	**160°F**	**GPM**	**180°F**	**GPM**
18HCXQ*X	18,000	USM318AP	4.3	23.8	2.4	33.4	3.3	42.9	4.3	52.5	5.3
24HCXQ*X	24,000	USM424AP	4.3	25.5	2.6	35.8	3.6	46.0	4.6	56.2	5.6
30HCXQ*X	30,000	USM330AP	5.0	30.7	3.1	43.0	4.3	55.3	5.5	67.6	6.8
36HCXQ*X	36,000	USM436A	5.0	35.0	3.5	49.0	4.9	63.0	6.3	76.9	7.7
48HCXQ*X	42,000/ 48,000	USM348AP	3.4	45.9 48.6	4.6 4.9	64.3 68.1	6.4 6.8	82.6 87.5	8.3 8.8	101.0 107.0	10.1 10.7
60HCXQ*X	60,000	USM460BP	8.8	64.4	6.4	90.2	9.0	116.0	11.6	141.8	14.2

(1) Use 48HCXQ*X for 3.5 ton applications and field-convert fan motor to low speed.
(2) See "USM" data sheet for additional coil information.

NOTES:
1. Heating output of fan coil will not exceed net output of water heater.
2. Approved for installation with 0" clearance to combustible materials.
3. Heat BTUH is at 65°F entering air temperature.
4. Based on 20ºF Delta-T. Velocity not to exceed 4ft./sec.

COOLING OR HEAT PUMP HOT WATER HEATING WITH ECM MOTOR

BLOWER DATA					UPFLOW / HORIZONTAL ONLY					
UNIT MODEL	MOTOR HP-AMP (120V)	BHP	NOMINAL AMPS	SPEED TAPS	CFM vs. EXTERNAL STATIC PRESSURE					
					0.05	0.10	0.20	0.30	0.40	0.50
18HCXQ*X	1/3-4.8	0.33 0.18 0.13	3.2 2.1 1.4	3 2 1	970 770 640	940 750 620	870 700 580	800 660 530	730 620 480	630 580 430
24HCXQ*X	1/3-4.8	0.33 0.18 0.13	3.2 2.1 14	3 2 1	930 740 620	900 720 600	830 690 560	760 650 520	690 610 480	600 560 430
30HCXQ*X	1/2-6.8	0.50 0.34 0.27	4.8 3.5 2.5	3 2 1	1250 1090 960	1230 1070 940	1170 1040 900	1110 1010 860	1050 980 820	990 950 780
36HCXQ*X	1/2-6.8	0.50 0.34 0.27	4.8 3.5 2.5	3 2 1	1280 1110 970	1250 1090 950	1190 1050 900	1130 1010 850	1070 970 800	1010 930 760
48HCXQ*X	1-10.9	1.00 0.66 0.47	8.5 6.8 4.1	3 2 1	1900 1560 1300	1870 1540 1270	1800 1500 1220	1730 1460 1170	1660 1420 1120	1590 1380 1070
60HCXQ*X	1-10.9	1.00 0.67 0.52	8.7 6.7 4.7	3 2 1	--- --- ---	2190 1780 1550	2130 1740 1490	2070 1700 1430	2010 1650 1370	1950 1590 1310

ACCESSORIES
FIELD INSTALLED

MISCELLANEOUS		
COMPONENT	DESCRIPTION	PART NUMBER
Freeze Protector	Energizes pump when coil temperature falls below 38°F	941-1

NOTES:
1. Freeze protector attaches to hot water coil and wires to low voltage (24V) circuit.

HCX SERIES

HCXQV

HEAT PUMP OR DX W/STANDARD PUMP & VARIABLE SPEED MOTOR

24 HCX Q3 V 2 0 A V B 0 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
Q3 - 3 Row Std Pump HW
Q4 - 4 Row Std Pump HW

MOTOR TYPE
V - Var Speed/Constant Airflow

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXQV

The HCXQV motor automatically adjusts its torque and speed to maintain a preprogrammed level of constant airflow over a wide range of external static pressures. This variable speed technology offers better indoor air quality, more precise humidity control, quieter operation, consistent indoor air temperature, and lower utility bills.

High Efficiency - At full load conditions the **HCXQV** motor is 20% more efficient than an induction motor and at constant fan speed it consumes only **60-80 watts** of power compared to 400 watts for a standard induction motor. In addition, the **HCXQV** includes a high efficiency "A" coil with factory installed TXV for precise refrigerant control.

These fan coils are compatible with any source of hot water that doesn't exceed 180°F and is NSF/ANSI certified for use with domestic water.

STANDARD FEATURES

QUIET OPERATION

The versatile HCXQV motor quietly "ramps up" when the unit is turned on and "ramps down" when the thermostat is satisfied, eliminating the annoying sounds of changing airflow.

SELF-REGULATING CONSTANT AIRFLOW

The HCXQV motor is factory programmed to maintain a predetermined level of airflow over a wide range of external static pressures, ensuring optimum system performance and whole-house comfort. The benefits of constant fan operation are:

- Consistent air distribution (and temperature) throughout the home.
- Better indoor air quality (further improved with the addition of a high efficiency filter) - This allows the air to be filtered without excessive drafts and without sacrificing efficiency.
- Better humidity control - The HCXQV is designed to extract much more moisture from the air than a conventional system by slowing the airflow over the cooling coil. The result is an improved summer comfort level at higher indoor temperature.

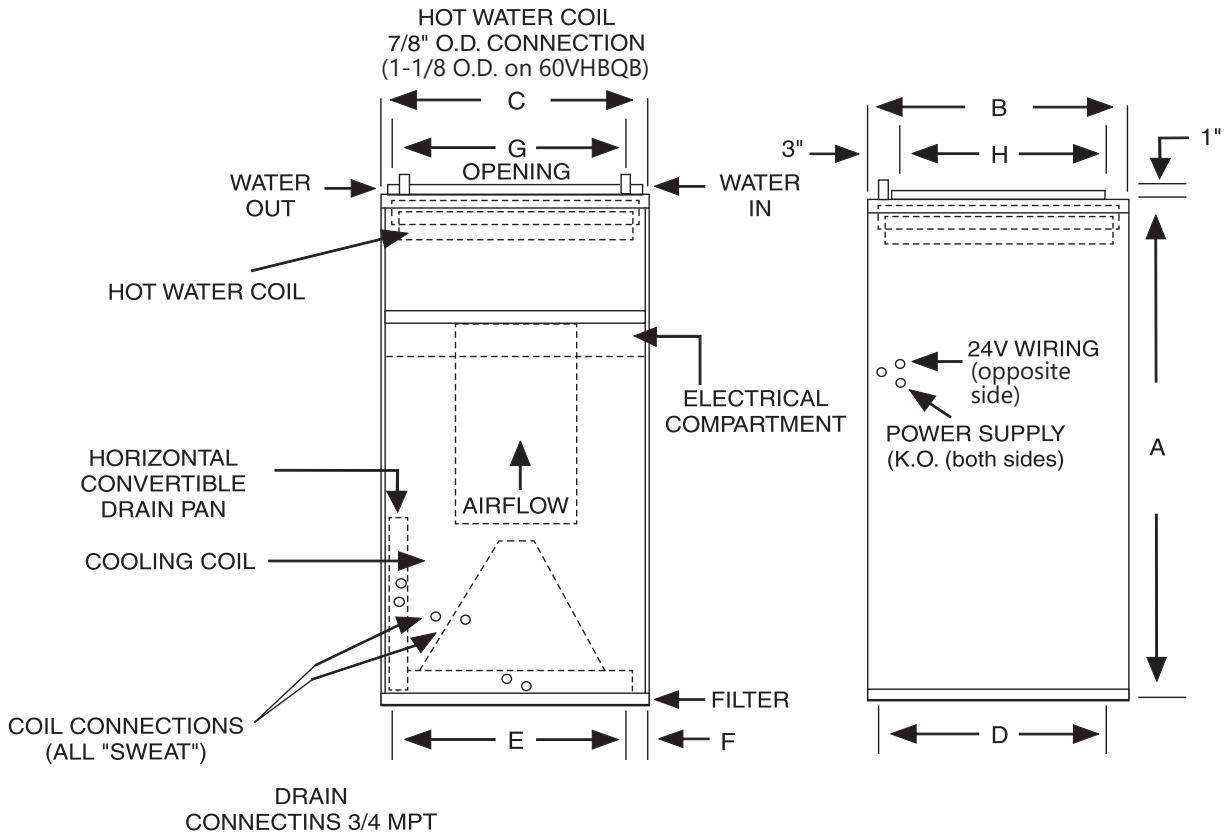
ADDITIONAL FEATURES

- Hot water coil with circulating pump, air purge valve, and easy access check valve (all required with water heater applications)
- Factory installed TXV
- Blower door safety switch (except 48/60HCXQV)
- Hot water coil assembly slides out for easier service
- Attractive baked-on powder coat finish
- Fully insulated cabinet
- Primary and secondary drain connections on cooling coil
- Optional hot water coil freeze protector, Upflow / Horizontal drain pans
- Higher efficiency pleated filter
- Compatible with most properly sized and installed zone control systems. Contact the zone control manufacturer

COOLING OR HEAT PUMP HOT WATER HEATING WITH VARIABLE SPEED MOTOR

PHYSICAL DIMENSIONS									
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE**
24HCXQV	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
36HCXQV	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
48HCXQV	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
60HCXQV	52	28	25-1/4	26-1/4	21-1/4	2	22	24	14 X 24 X 1 (2 required)

For additional sales and technical information on variable speed motors, visit www.thedealertoolbox.com
Digital thermostats for these units must have a "C" terminal.



COIL CONNECTIONS		
UNIT SIZE	**LIQUID**	**SUCTION**
24	3/8	5/8
36	3/8	3/4
46/60	1/2	7/8

COOLING OR HEAT PUMP HOT WATER HEATING WITH VARIABLE SPEED MOTOR

ELECTRICAL DATA					
UNIT MODEL	**MOTOR HP (120V)**	**MOTOR AMPS**	**PUMP AMPS**	**MIN. CIR. AMPACITY**	**MAX. HACR BREAKER**
24HCXQV	1/3	4.8	0.57	7	15
36HCXQV	1/2	7.3	0.57	10	15
48HCXQV	1	10.5	0.57	14	15
60HCXQV	1	11.5	0.75	15	20

HEATING PERFORMANCE DATA													
UNIT MODEL	**NOMI-NAL COOLING BTUH**	**HEAT CFM**	**GPM (HTG.)**	**P.D. (FT. WTR)**	**BTUH (1000) AT ENTERING WATER TEMPATURE Delta-T 20°F & GPM**							
					120°F	**GPM**	**130°F**	**GPM**	**140°F**	**GPM**	**180°F (4)**	**GPM**
24HCXQV	18,000/ 24,000	800 700 600 500	3.5	4.3	24.9 22.9 20.7 18.5	2.5 2.3 2.1 1.9	29.9 27.4 24.9 22.1	3.0 2.7 2.5 2.2	34.9 32.0 29.0 25.8	3.5 3.2 2.9 2.6	54.8 50.3 45.6 40.6	5.5 5.0 4.6 4.1
36HCXQV	30,000/ 36,000	1200 1050 900 750	3.5	5.0	33.4 30.8 28.1 25.0	3.3 3.1 2.8 2.5	40.0 36.9 33.8 30.1	4.0 3.7 3.4 3.0	46.7 43.1 39.4 35.1	4.7 4.3 3.9 3.5	73.4 67.7 61.9 55.1	7.3 6.8 6.2 5.5
48HCXQV	42,000/ 48,000	1600 1400 1200 1000	3.5	3.4	47.0 43.4 39.2 34.7	4.7 4.3 3.9 3.5	56.4 52.1 47.1 41.6	5.6 5.2 4.7 4.2	65.8 60.8 54.9 48.6	6.6 6.1 5.5 4.9	103.4 95.5 86.3 76.3	10.3 9.6 8.6 7.6
60HCXQV	48,000/ 60,000	2000 1800 1600 1400	7	8.8	64.8 59.5 53.5 47.1	6.5 6.0 5.4 4.7	77.8 71.3 64.2 56.6	7.8 7.1 6.4 5.7	90.7 83.2 74.9 66.0	9.1 8.3 7.5 6.6	142.6 130.8 117.7 103.7	14.3 13.1 11.8 10.4

NOTES:
1. Heating output of fan coil will not exceed net output of water heater.
2. Approved for installation with 0" clearance to combustible materials.
3. Heat BTUH is at 70°F entering air temperature.
4. Based on 20ºF Delta-T. velocity not to exceed 4ft./sec.

ACCESSORIES

FREEZE PROTECTOR	
KIT NUMBER	**FOR**
941-1	18 - H

HCX SERIES
HEAT PUMP OR DX W/STANDARD PUMP & VARIABLE SPEED MOTOR

HCXQV
DATA TABLES

AIRFLOW DATA

MODEL	OPERATING MODE	THERMOSTAT TERMINALS "X" ENERGIZED TERMINAL						CONTROL BOARD SELECT TAPS							
								COOL TAP				HEAT TAP			
		Y1	Y2	HUM	G	O	W1	A	B	C	D	A	B	C	D
24HCXQV (1.5 / 2 TON)	**COOLING**														
	SINGLE STAGE		X		X	X		800	720	600	525				
	TWO STAGE	X	X		X	X		560/800	500/720	420/600	370/525				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		640	575	480	420				
	TWO STAGE	X	X	X	X	X		450/640	400/575	335/480	295/420				
	CONTINUOUS BLOWER				X			400	360	300	260				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			800	720	600	525				
	TWO STAGE	X	X		X			560/800	500/720	420/600	370/525				
	HEATING (NON-HT. PUMP)														
	HEATING						X					750	680	580	500
36HCXQV (1.5 / 3 TON)	**COOLING**														
	SINGLE STAGE		X		X	X		1200	1050	950	850				
	TWO STAGE	X	X		X	X		840/1200	735/1050	665/950	595/850				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		960	840	760	680				
	TWO STAGE	X	X	X	X	X		67 /960	590/840	530/760	475/680				
	CONTINUOUS BLOWER				X			600	525	475	425				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			1200	1050	950	850				
	TWO STAGE	X	X		X			840/1200	735/1050	665/950	595/850				
	HEATING (NON-HT. PUMP)														
	HEATING						X					1150	1000	900	800
48HCXQV	**COOLING**														
	SINGLE STAGE		X		X	X		1600	1400	1250	1100				
	TWO STAGE	X	X		X	X		1120/1600	980/1400	875/1250	770/1100				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		1280	1120	1000	880				
	TWO STAGE	X	X	X	X	X		895/1280	785/1120	700/1000	615/880				
	CONTINUOUS BLOWER				X			800	700	625	550				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			1600	1400	1250	1100				
	TWO STAGE	X	X		X			1120/1600	980/1400	875/1250	770/1100				
	HEATING (NON-HT. PUMP)														
	HEATING						X					1500	1300	1150	1000
60HCXQV	**COOLING**														
	SINGLE STAGE		X		X	X		2000	1800	1600	1400				
	TWO STAGE	X	X		X	X		1400/2000	1260/1800	1120/1600	980/1440				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		1600	1440	1280	1120				
	TWO STAGE	X	X	X	X	X		1120/1600	1010/1440	895/1280	785/1120				
	CONTINUOUS BLOWER				X			1000	900	800	700				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			2000	1800	1600	1400				
	TWO STAGE	X	X		X			1400/2000	1260/1800	1120/1600	980/1440				
	HEATING (NON-HT. PUMP)														
	HEATING						X					1850	1650	1500	1300

Airflow shown are at standard air conditions, dry coil at 120 volts. Max. ext. static pressure is 0.50" wtr

NOTES:

The cooling and heating speed taps are factory set on "A".
The delay profile is factory set on "A" (Arid setting).
The adjust profile is factory set on "Normal:"
Adjust profile (+) will increase airflow by 10%, while tap (-) will decrease airflow by 10%

HCX SERIES

HCXR

HEAT PUMP OR DX W/HI FLOW PUMP & PSC MOTOR

24	HCX	R3	X	2	0	A	V	B	1	0	F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
R3 - 3 Row Hi Flow Pump HW
R4 - 4 Row Hi Flow Pump HW

MOTOR TYPE
0 - PSC

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXR

Compared to other heating systems, combo heaters offer high efficiency, greater installation flexibility, cost less to install, and are much easier to service.

The **HCXR** Series incorporates a **Multi-function Micro-processor** that not only reduces the number of components but adds a number of standard system funstions that would not normally be available, such as an **automatic pump timer**, and **blower delay**, just to name a few.

The **HCXR Air Handler** is the only product available with these high quality features. Cooling efficiencies up to **15 SEER2, depending onthe outdoor unit selected**.

STANDARD FEATURES

HEATING CYCLE

- Automatic pump timer: The pump operatesfor sixty seconds every six hours in order to purge the water from the hot water coil and piping (the pump timer cycle is skipped while the compressor is operating). These fan coils are compatible with any source of hot water that doesn't exceed 180°F and is NSF/ANSI certified for use with domestic water.
- Blower-on delay: On a call for heat, the hot water coil is preheated for 45 seconds before the blower energizes.
- Blower-off delay: Blower continues to operate for 20 seconds after thermostat is satisfied, extracting more heat from the heating coil and increasing heating performance.

COOLING CYCLE

- Blower-off delay: Blower continues to operate for 45 seconds after thermostat is satisfied, extracting more cooling from the cooling coiland maximizing cooling efficiency.

ADDITIONAL FEATURES

- Built-in circulating pump, air purge valve, and easy access hot water check valve
- Blower door safety switch
- Compatible with all major brands of split condensing units
- Slide out hot water coil assembly for easier service
- Fully insulated galvanized steel cabinet
- High efficiency copper tube/aluminum fin heating and cooling coils
- Primary and secondary drain connections on cooling coil
- Factory installed filter

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

HI FLOW PUMP WITH PSC MOTOR

PHYSICAL DIMENSIONS									
UNIT MODEL	A	B	C	D	E	F	G	H	FILTER SIZE
18HCXR*0 24HCXR*0	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
30HCXR*0 36HCXR*0	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
48HCXR*0	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 x 25 x 1

ELECTRICAL DATA					
UNIT MODEL	MOTOR HP (120V)	AMPS		MIN. CIR. AMPACITY	MAX. HACR BREAKER
		MOTOR	PUMP		
18HCXR*0	1/5	2.8	0.84	5	15
24HCXR*0	1/5	5.1	0.84	8	15
30HCXR*0	1/5	5.1	0.84	8	15
36HCXR*0	1/2	8.5	0.84	12	15
48HCXR*0	3/4	10.7	0.84	15	15

COIL CONNECTIONS		
UNIT MODEL	LIQUID	SUCTION
18/24	3/8	5/8
30/36	3/8	3/4
48	1/2	7/8

PERFORMANCE DATA												
UNIT MODEL	NOMINAL COOLING BTUH	COIL # (2)	P.D. (FT. WTR.)	CFM	BTUH (1000) AT ENTERING WATER TEMPATURE Delta -T 20°F & GPM							
					120°F	GPM	140°F	GPM	160°F	GPM	180°F	GPM
18HCXR*0	18,000	USM318AP	4.0	650	19.7	2.0	27.6	2.8	35.5	3.6	43.4	4.3
24HCXR*0	24,000	USM424AP	4.0	800	22.2	2.2	31.1	3.1	40.0	4.0	48.9	4.9
30HCXR*0	30,000	USM330AP	4.6	1000	26.4	2.6	37.0	3.7	47.6	4.8	58.1	5.8
36HCXR*0	36,000	USM436A	4.6	1200	28.9	2.9	40.5	4.1	52.0	5.2	63.6	6.4
48HCXR*0	42,000/ 48,000	USM348AP	4.1	1400 1600	36.1 38.7	3.6 3.9	50.6 54.3	5.1 5.4	65.0 69.8	6.5 7.0	79.5 85.3	8.0 8.5

NOTES:
1. Heating output of fan coil will not exceed net output of water heater.
2. Approved for installation with 0" clearance to combustible materials.
3. Heat BTUH is at 70°F entering air temperature.
4. Based on 20°F Delta-T. Velocity not to exceed 4ft./sec.

HI FLOW PUMP WITH PSC MOTOR

BLOWER DATA			UPFLOW / HORIZONTAL ONLY						DOWNFLOW ONLY				
UNIT MODEL	MOTOR HP-AMP (120V)	MOTOR SPEED CONN.	CFM vs. EXTERNAL STATIC PRESSURE										
			0.05	0.10	0.20	0.30	0.40	0.50	0.05	0.10	0.20	0.30	0.35
18HCXR*0	1/5-2.8	HIGH	810	780	715	650	580	500	710	690	630	570	540
		MED. HIGH	680	655	600	545	490	420	640	620	575	520	490
		MED. LOW	530	505	460	415	360	295	480	460	420	380	350
		LOW	350	325	325	220	160	- - -	330	310	260	220	200
24HCXR*0	1/5-5.1	HIGH	950	920	855	790	720	645	760	730	680	620	590
		MED	860	835	785	720	650	580	720	690	640	590	550
		LOW	780	755	705	650	590	510	680	655	600	550	525
30HCXR*0	1/5-5.1	HIGH	1120	1095	1045	995	940	880	1080	1060	1010	950	920
		MED	850	840	810	780	740	590	885	860	830	800	770
		LOW	680	670	655	625	585	510	730	720	690	660	640
36HCXR*0	1/2-8.5	HIGH	1340	1310	1250	1190	1120	1050	1090	1070	1010	950	925
		MED	1290	1260	1200	1140	1080	1000	1060	1030	980	920	890
		LOW	1200	1170	1120	1070	1010	940	1020	990	940	890	860
48HCXR*0	3/4-10.7	HIGH	1810	1780	1720	1660	1590	1530	1510	1480	1430	1380	1350
		MED	1570	1550	1510	1460	1400	1340	1270	1240	1190	1150	1120
		LOW	1280	1260	1220	1180	1130	1050	1005	980	930	890	860

ACCESSORIES

MISCELLANEOUS		
COMPONENT	DESCRIPTION	PART NUMBER
Freeze Protector	Energizes pump when coil temperature falls below 38°F	941-1
Thermostat	24V Heat/Cool	T334

NOTES:

1. Freeze protector attaches to hot water coil and wires to low voltage (24V) circuit.

HCX SERIES

HCXRX

HEAT PUMP OR DX W/HI FLOW PUMP & ECM MOTOR

24 HCX R3 X 2 0 A V B 1 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
R3 - 3 Row Hi Flow Pump HW
R4 - 4 Row Hi Flow Pump HW

MOTOR TYPE
X - ECM Multispeed

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXRX

HI FLOW PUMP WITH ECM MOTOR

The HCXRX air handler is designed for use with today's high efficiency split-system condensing units and heat pumps. All HCXRX air handlers include a standard ECM motor. These motors offer the efficiency of variable speed type ECM motors, but at a considerably lower cost.

The HCXRX is a "Combo" air handler that converts a properly sized Tankless Water heater into a highly efficient space heating appliance that can heat your home in addition to providing domestic hot water. Compared to other heating systems, the HCXRX offers greater installation flexibility, costs less to install, and is less complicated and easier to service.

The HCXRX incorporates a multi-function micro-processor that not only reduces the number of components, but includes several system functions not found in other products, such as an automatic pump timer.

Cooling efficiencies are up to 16 SEER2 depending on the outdoor unit.

These fan coils are compatible with any source of hot water that does not exceed 180°F and is NSF/ANSI certified for use with domestic water.

STANDARD FEATURES

Multi-function micro-processor circuit board with these standard features:

- Automatic pump timer - The pump operates for sixty seconds every six hours in order to purge the water from the hot water coil and piping (the pump timer cycle is skipped while the compressor is operating).

SPECIAL FEATURES

- High efficiency standard ECM motor
- 120V motor, 24V controls
- Factory or field installed TXV (cooling or heat pump operation) (non-bleed type)
- Blower door shut-off switch
- Hot water coil assembly includes a circulating pump, easy access anti-siphon check valve, and air purge valve
- Easily accessible 1" throwaway filter
- Optional Freeze Protector - Reduces the possibility of the water coil freezing by switching the unit to the heating mode if the water temperature is nearing a freezing condition

EFFICIENCY

The HCXRX series air handler is the latest state-of-the-art air handler for hot water heating. Depending on the tankless water heater efficiency and the condensing unit used, heating efficiency can exceed 90% and cooling efficiency can be up to 16 SEER2 (depending on the selected outdoor unit). Cooling coils have either piston type metering devices or TXVs and are circuited for cooling or heat pump operation.

COMPONENTS

Each air handler includes a high efficiency cooling coil, a separate hot water coil, circulating pump, air purge valve, anti-thermosyphon check valve, blower door safety switch, 120V ECM blower motor, throw away filter, and 24V transformer.

CABINETS

Cabinets are fully insulated and painted with an attractive, baked-on powder coating (light gray).

INSTALLATION
No modification is required for vertical or horizontal (right-to-left) airflow. A horizontal drain pan is factory installed for right-to-left airflow and can be re-positioned within the cabinet to offer left-to-right airflow.

OPERATION
When space heating is needed, the wall thermostat energizes the circulating pump which circulates hot water from the water heater to the hot water coil in the air handler. As the blower motor forces cool return air from the home over the hot water coil, the air absorbs heat from the hot water. This warm air (105°F to 110°F) is then circulated throughout the duct system and into the home. The water loses only about 15°F of temperature while it circulates through the coil and is then returned to the water heater to be reheated.

ACCESSORIES
FIELD INSTALLED

MISCELLANEOUS		
COMPONENT	**DESCRIPTION**	**PART NUMBER**
Freeze Protector	Energizes pump when coil temperature falls below 38°F	941-1
Thermostat	24V Heat/Cool	T334

NOTES:
1. Freeze protector attaches to hot water coil and wires to low voltage (24V) circuit.

PHYSICAL DIMENSIONS									
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE**
18HCXR*X 24HCXR*X	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
30HCXR*X 36HCXR*X	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
48HCXR*X	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 x 25 x 1

COIL CONNECTIONS		
UNIT MODEL	**LIQUID**	**SUCTION**
18/24	3/8	5/8
30/36	3/8	3/
48	1/2	7/8

ELECTRICAL DATA					
UNIT MODEL	**MOTOR HP (120V)**	**AMPS**		**MIN. CIR. AMPACITY**	**MAX. HACR BREAKER**
		MOTOR	**PUMP**		
18HCXR*X	1/3	4.8	0.84	5	15
24HCXR*X	1/3	4.8	0.84	5	15
30HCXR*X	1/2	6.8	0.84	10	15
36HCXR*X	1/2	6.8	0.84	10	15
48HCXR*X	1	10.9	0.84	15	15

HI FLOW PUMP WITH ECM MOTOR

PERFORMANCE DATA											
UNIT MODEL	NOMINAL COOLING BTUH	COIL # (2)	P.D. (FT. WTR.)	CFM	BTUH (1000) AT ENTERING WATER TEMPATURE Delta-T 20°F & GPM					
					120°F	GPM	130°F	GPM	140°F	GPM
18HCXR*X	18,000	USM318AP	4.0	700	21.0	2.1	24.6	2.4	28.8	2.9
24HCXR*X	24,000	USM424AP	4.0	830	22.7	2.3	27.3	2.7	31.8	3.2
30HCXR*X	30,000	USM330AP	4.6	1040	27.0	2.7	32.4	3.2	37.8	3.8
36HCXR*X	36,000	USM436A	4.6	1190	28.8	2.9	34.6	3.5	40.4	4.0
48HCXR*X	42,000/ 48,000	USM348AP	4.1	1120 1500	33.5 37.5	3.4 3.8	40.2 45.0	4.0 4.5	46.9 52.5	4.7 5.3

(1) See "USM" data sheet for additional coil information.

NOTES:

1. Heating output of fan coil will not exceed net output of water heater.
2. Approved for installation with 0" clearance to combustible materials.
3. Heat BTUH is at 70°F entering air temperature.
4. Based on 20ºF Delta-T. Velocity not to exceed 4ft./sec.

BLOWER DATA					UPFLOW / HORIZONTAL ONLY					
UNIT MODEL	MOTOR HP-AMP (120V)	BHP	NOMINAL AMPS	SPEED TAPS	CFM vs. EXTERNAL STATIC PRESSURE					
					0.05	0.10	0.20	0.30	0.40	0.50
18HCXR*X	1/3-4.8	0.33 0.18 0.13	3.2 2.1 1.4	3 2 1	970 770 640	940 750 620	870 700 580	800 660 530	730 620 480	630 580 430
24HCXR*X	1/3-4.8	0.33 0.18 0.13	3.2 2.1 14	3 2 1	930 740 620	900 720 600	830 690 560	760 650 520	690 610 480	600 560 430
30HCXR*X	1/2-6.8	0.50 0.34 0.27	4.8 3.5 2.5	3 2 1	1250 1090 960	1230 1070 940	1170 1040 900	1110 1010 860	1050 980 820	990 950 780
36HCXR*X	1/2-6.8	0.50 0.34 0.27	4.8 3.5 2.5	3 2 1	1280 1110 970	1250 1090 950	1190 1050 900	1130 1010 850	1070 970 800	1010 930 760
48HCXR*X	1-10.9	1.00 0.66 0.47	8.5 6.8 4.1	3 2 1	1900 1560 1300	1870 1540 1270	1800 1500 1220	1730 1460 1170	1660 1420 1120	1590 1380 1070

Data is subject to change. Please verify current information at www.firstco.com.

HCX SERIES

HCXW

HEAT PUMP OR DX W/HOT WATER COIL & PSC MOTOR

24 HCX W3 0 2 0 A V B 1 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
W2 - 2 Row HW
W3 - 3 Row HW
W4 - 3 Row HW

MOTOR TYPE
0 - PSC

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXW

The **HCXW** air handler is designed for use with today's high efficiency split-system condensing units, heat pumps, hot water boilers, and tankless water heaters.

Boiler Applications: The **HCXW** can be directly wired to a boiler without adding additional relays or related controls. Multiple air handlers can be connected to a single boiler to provide comfortable, efficient, whole house hydronic space heating.

Tankless Water Heater Applications: : For tankless water heater applications, install the appropriate pump for the pressure drop.

Cooling efficiencies are up to **15 SEER2**, depending on the outdoor condensing unit or heat pump model.

These fan coils are compatible with any source of hot water that does not exceed 180ºF and is NSF/ANSI certified for use with domestic water.

STANDARD FEATURES

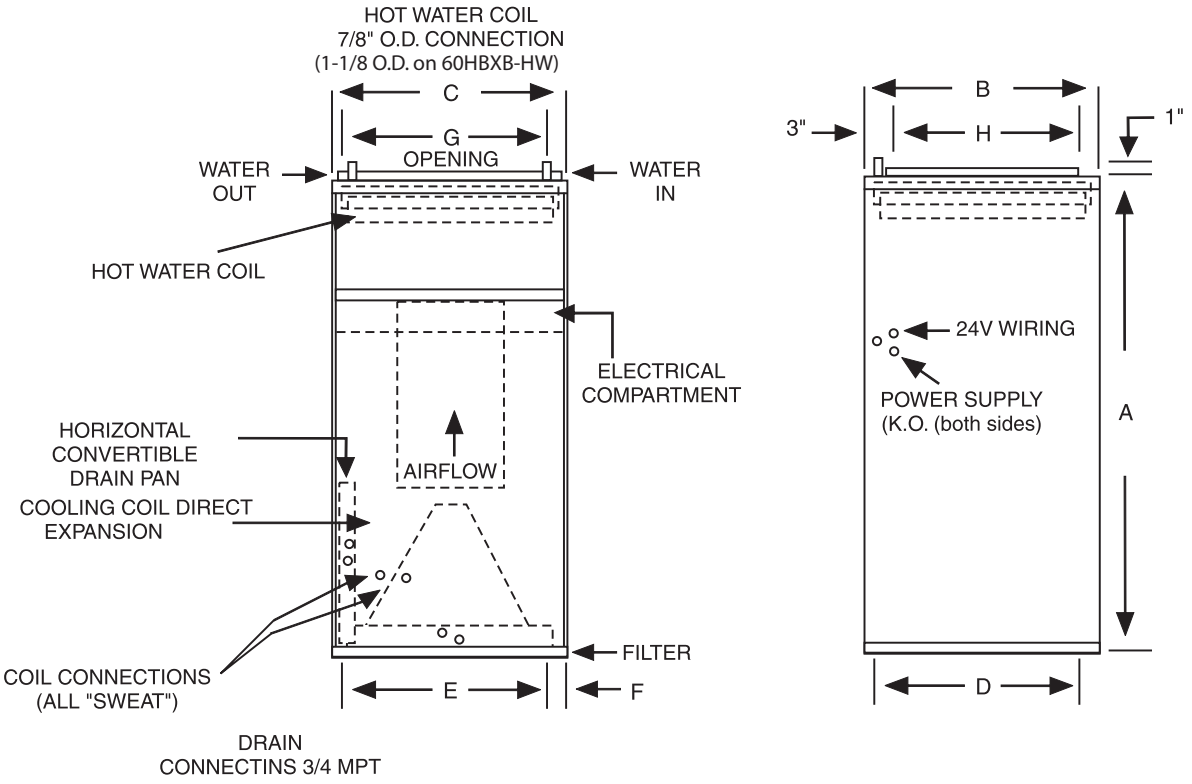
- Multi-function micro-processor circuit board with these standard features:
  - Blower start relay - Eliminates field installed boiler relay allowing direct wiring from the boiler to the air handler
  - Blower-on fan delay (heating mode) - preheats the HW coil for 45 seconds.
  - Blower-off fan delay (heating and cooling models) - blower continues to operate for 45 seconds after thermostat is satisfied, for increased efficiency.
  - 120V or 24V zone valve control - The micro-processor powers either 120V or 24V field supplied motorized zone valves.
- Factory or field installed TXV (cooling or heat pump operation) (non-bleed type)
- High efficiency standard ECM motor
- Manual Air Vent on hot water coil
- Blower door shut-off switch [except 60HCXW (ECM)]
- Slide out hot water coil for easier service
- Copper tube heating and cooling coils
- Compatible with all major brands of split condensing units and heat pumps
- Attractive baked-on powder coated cabinet
- Primary and secondary condensate drain connections
- Easily accessible 1" filter

OPTIONAL ACCESSORIES

- Freeze Protector - Reduces the possibility of the water coil freezing by switching the unit to the heating mode if the water temperature is nearing freezing conditions.
- High Capacity Flow Control Module for Tankless Water Heater applications (#940-2CV)

DX COOLING / HW HEATING WITH PSC MOTOR

PHYSICAL DIMENSIONS									
UNIT MODEL	A	B	C	D	E	F	G	H	FILTER SIZE
18HCXW*0 24HCXW*0	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
30HCXW*0 36HCXW*0	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
42HCXW*0 48HCXW*0	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
60HCXW*0	52	28	25-1/4	26-1/2	21-1/4	2	22	24	14 X 24 X 1 (2 required)
61HCXW*0	58	28	25-1/4	26-1/2	21-1/4	2	22	24	14 X 24 X 1 (2 required)



COIL CONNECTIONS		
UNIT SIZE	LIQUID	SUCTION
18/24	3/8	5/8
30/36	3/8	3/4
48/60	1/2	7/8

DX COOLING / HW HEATING WITH PSC MOTOR

BLOWER DATA					UPFLOW / HORIZONTAL ONLY					
UNIT MODEL	MOTOR HP-AMPS (120V)	MIN. CKT. AMPACITY	MAX. CKT. PROTECTION	MOTOR SPEED CONN.	CFM vs. EXTERNAL STATIC PRESSURE					
					0.05	0.10	0.20	0.30	0.40	0.50
18HCXW*0	1/5 - 2.8	3.5	15	HIGH MED. MED. LOW LOW	810 680 530 350	780 655 505 325	715 600 460 270	650 545 415 220	580 490 360 160	500 420 295 ---
24HCXW*0	1/5 - 5.1	6.38	15	HIGH MED. LOW	950 860 780	920 835 755	855 785 705	790 720 650	720 650 590	645 580 510
30HCXW*0	1/5 - 5.1	6.38	15	HIGH MED. LOW	1120 850 680	1095 840 670	1045 810 655	995 780 625	940 740 585	880 690 510
36HCXW*0	1/2 - 8.5	10.63	15	HIGH MED. LOW	1340 1290 1200	1310 1260 1170	1250 1200 1120	1190 1140 1070	1120 1080 1010	1050 1000 940
42HCXW*0 **48HCXW*0**	3/4 - 10.7	13.38	15	HIGH MED. LOW	1810 1570 1280	1780 1550 1260	1720 1510 1220	1660 1460 1180	1590 1400 1130	1530 1340 1050
60HCXW*0	1 - 11.5	14.38	15	HIGH MED. LOW	2160 1865 1560	2125 1840 1540	2055 1785 1490	1980 1710 1435	1895 1620 1365	1810 1525 1260
61HCXW*0	1-11.5	14.38	15	HIGH MED. LOW	2180 1885 1575	2145 1860 1555	2075 1805 1505	2000 1725 1450	1915 1635 1380	1830 1540 1275

NOTES:
1. All models are approved for installation with 0" clearance to combustible materials.
2. Use 48HCXW*X for 3.5 ton applications and field-convert fan motor to medium speed.

ACCESSORIES

FLOW CONTROL MODULE	
PART NUMBER	**FOR**
940-2CV	18-60HCXW*0

NOTE:
Flow Control Module is required when connecting to individual Tankless Water Heaters. Contact factory for assistance.

FREEZE PROTECTOR	
KIT NUMBER	**FOR**
941-1	18 - 60HCXW*0

DX COOLING / HW HEATING

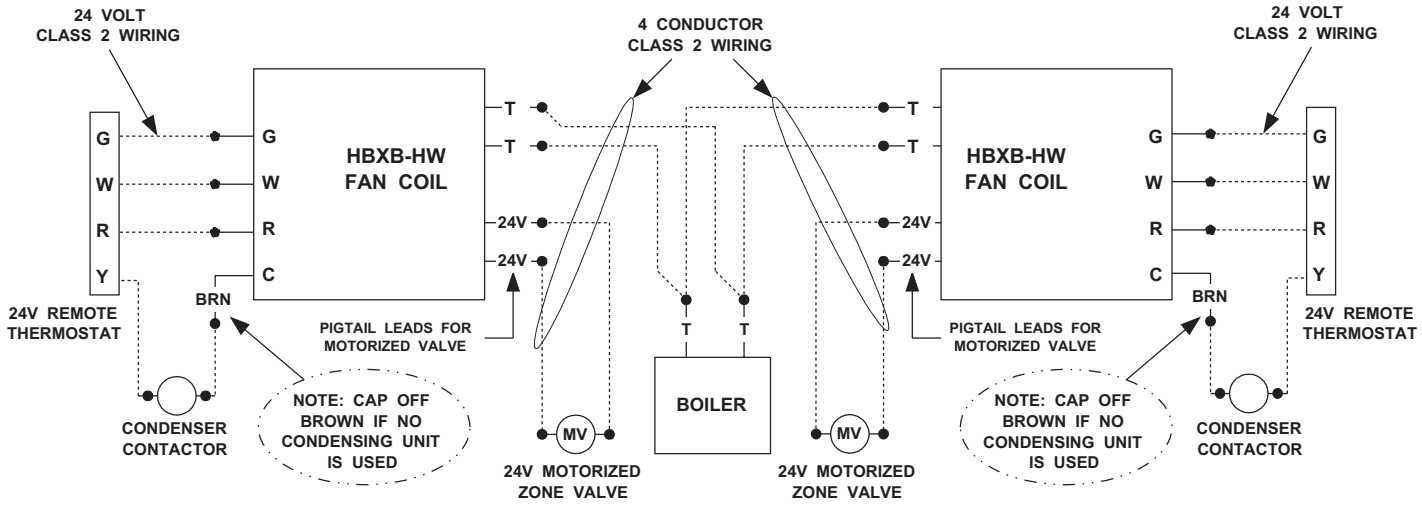
PERFORMANCE DATA												
UNIT MODEL	NOM. COOLING BTUH	MOTOR SPEED CONN.	CFM @ .3 ESP	P.D. (FT. WTR.)	BTUH (1000) AT ENTERING WATER TEMPERATURE							
					120°F	GPM	140°F	GPM	160°F	GPM	180°F	GPM
18HCXW*0	18,000	HIGH	650	2.0 1.1 0.5	18.0 17.2 15.9	1.8 1.7 1.6	25.2 24.1 22.3	2.5 2.4 2.2	32.4 31.0 28.7	3.2 3.1 2.9	39.6 37.9 35.1	4.0 3.8 3.5
		MED.	550	2.0 1.1 0.5	16.3 15.7 14.6	1.6 1.6 1.5	22.9 22.0 20.5	2.3 2.2 2.1	29.4 28.2 26.3	2.9 2.8 2.6	35.9 34.5 32.2	3.6 3.5 3.2
		MED. LOW	420	2.0 1.1 0.5	14.0 13.5 12.7	1.4 1.4 1.3	19.6 18.9 17.8	2.0 1.9 1.8	25.2 24.3 22.9	2.5 2.4 2.3	30.8 29.7 27.9	3.1 3.0 2.8
24HCXW*0	24,000	HIGH	800	2.0 1.1 0.5	20.3 19.4 17.9	2.0 1.9 1.8	28.5 27.1 25.0	2.9 2.7 2.5	36.6 34.9 32.2	3.7 3.5 3.2	44.7 42.7 39.3	4.5 4.3 3.9
		MED.	725	2.0 1.1 0.5	19.2 18.4 17.0	1.9 1.8 1.7	26.9 25.7 23.8	2.7 2.6 2.4	34.6 33.1 30.6	3.5 3.3 3.1	42.3 40.4 37.4	4.2 4.0 3.7
		LOW	650	2.0 1.1 0.5	18.0 17.2 15.9	1.8 1.7 1.6	25.2 24.1 22.3	2.5 2.4 2.2	32.4 31.0 28.7	3.2 3.1 2.9	39.6 37.9 35.1	4.0 3.8 3.5
30HCXW*0	30,000	HIGH	1000	7.5 3.6 1.0	25.9 24.4 21.1	2.6 2.4 2.1	36.3 34.2 29.6	3.6 3.4 3.0	46.7 44.0 38.0	4.7 4.4 3.8	57.0 53.8 46.5	5.7 5.4 4.7
		MED.	780	7.5 3.6 1.0	22.4 21.2 18.5	2.2 2.1 1.9	31.3 29.7 26.0	3.1 3.0 2.6	40.3 38.2 33.4	4.0 3.8 3.3	49.2 46.6 40.8	4.9 4.7 4.1
		LOW	625	7.5 3.6 1.0	19.6 18.7 16.6	2.0 1.9 1.7	27.5 26.2 23.3	2.8 2.6 2.3	35.3 33.7 29.9	3.5 3.4 3.0	43.1 41.1 36.5	4.3 4.1 3.7
36HCXW*0	36,000	HIGH	1200	7.5 3.6 1.0	28.8 27.0 23.2	2.9 2.7 2.3	40.3 37.9 32.4	4.0 3.8 3.2	51.8 48.7 41.7	5.2 4.9 4.2	63.3 59.5 50.9	6.3 6.0 5.1
		MED.	1140	7.5 3.6 1.0	28.0 26.3 22.6	2.8 2.6 2.3	39.2 36.9 31.7	3.9 3.7 3.2	50.4 47.4 40.8	5.0 4.7 4.1	61.5 57.9 49.8	6.2 5.8 5.0
		LOW	1070	7.5 3.6 1.0	27.0 25.5 22.0	2.7 2.6 2.2	37.8 35.7 30.8	3.8 3.6 3.1	48.6 45.8 39.6	4.9 4.6 4.0	59.4 56.0 48.4	5.9 5.6 4.8
48HCXW*0	48,000	HIGH	1660	3.8 2.1 0.8	48.2 45.5 40.7	4.8 4.6 4.1	67.5 63.7 57.1	6.8 6.4 5.7	86.8 81.9 73.4	8.7 8.2 7.3	106.1 100.1 89.7	10.6 10.0 9.0
		MED.	1460	3.8 2.1 0.8	44.7 42.3 38.0	4.5 4.2 3.8	62.6 59.2 59.3	6.3 5.9 5.9	80.5 76.1 68.5	8.1 7.6 6.9	98.3 93.0 83.7	9.8 9.3 8.4
		LOW	1180	3.8 2.1 0.8	39.1 37.1 33.7	3.9 3.7 3.4	54.8 52.0 47.2	5.5 5.2 4.7	70.4 66.9 60.7	7.0 6.7 6.1	86.1 81.7 74.2	8.6 8.2 7.4
60HCXW*0 **61HCXW*0**	60,000	HIGH	1980	5.1 3.3 1.9	58.5 56.1 52.5	5.9 5.6 5.3	81.9 78.5 73.5	8.2 7.9 7.4	105.3 100.9 94.5	10.5 10.1 9.5	128.6 123.4 115.5	12.9 12.3 11.6
		MED.	1710	5.1 3.3 1.9	53.6 51.6 48.5	5.4 5.1 4.9	75.1 72.2 68.0	7.5 7.2 6.8	96.5 92.8 87.4	9.7 9.3 7.4	117.9 113.5 106.8	11.8 11.4 10.7
		LOW	1430	5.1 3.3 1.9	47.9 46.1 43.6	4.8 4.6 4.4	67.0 64.6 61.0	6.7 6.5 6.1	86.2 83.1 78.5	8.6 8.3 7.9	105.3 101.5 95.9	10.5 10.2 9.6

NOTES:
(1) Heat BTU is at 65° Entering Air Temperature.
(2) Based on 20ºF Delta-T. Velocity not to exceed 4ft./sec.
(3) Units are shipped with motors connected to high speed for cooling and medium speed for heating.
Data is subject to change. Please verify current information at www.firstco.com

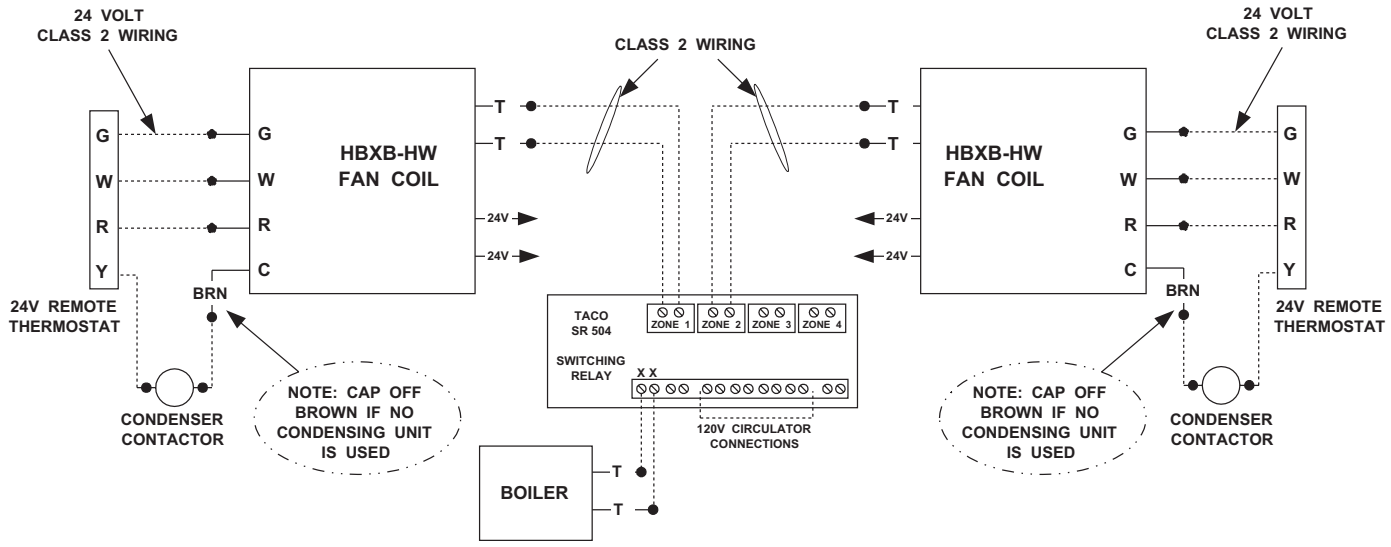
APPLICATION GUIDELINES
FOR BOILERS

ZONE VALVES

Install a motorized valve with each air handler to control flow to that zone as required.



Typical Wiring Schematic
For Multiple Zone Connections with Zone Valves



Typical Wiring Schematic
For Multiple Zone Connections to TACO SR-504/506 Switching Relay

HCX SERIES

HCXWX

HEAT PUMP OR DX W/HOT WATER COIL & ECM MOTOR

24	HCX	W3	X	2	0	A	V	B	1	0	F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
W2 - 2 Row HW
W3 - 3 Row HW
W4 - 3 Row HW

MOTOR TYPE
X - ECM Multispeed

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXWX

The **HCXWX** air handler is designed for use with today's high efficiency split-system condensing units, heat pumps, hot water boilers, and Tankless Water Heaters.

All **HCXWX** air handlers include a standard **ECM** motor. These motors offer the efficiency of variable speed type **ECM** motors, but at a considerably lower cost.

Boiler Applications: The **HCXWX** can be directly wired to a boiler without adding additional relays or related controls. Multiple air handlers can be connected to a single boiler to provide comfortable, efficient, whole house hydronic space heating.

Tankless Water Heater Applications: : For Tankless Water Heater applications, install the optional high capacity flow control module (**#940-2CV**) in the piping between the Tankless Water Heater and the **HCXWX** air handler.

Cooling efficiencies are up to **16 SEER2**, depending on the outdoor condensing unit or heat pump model.

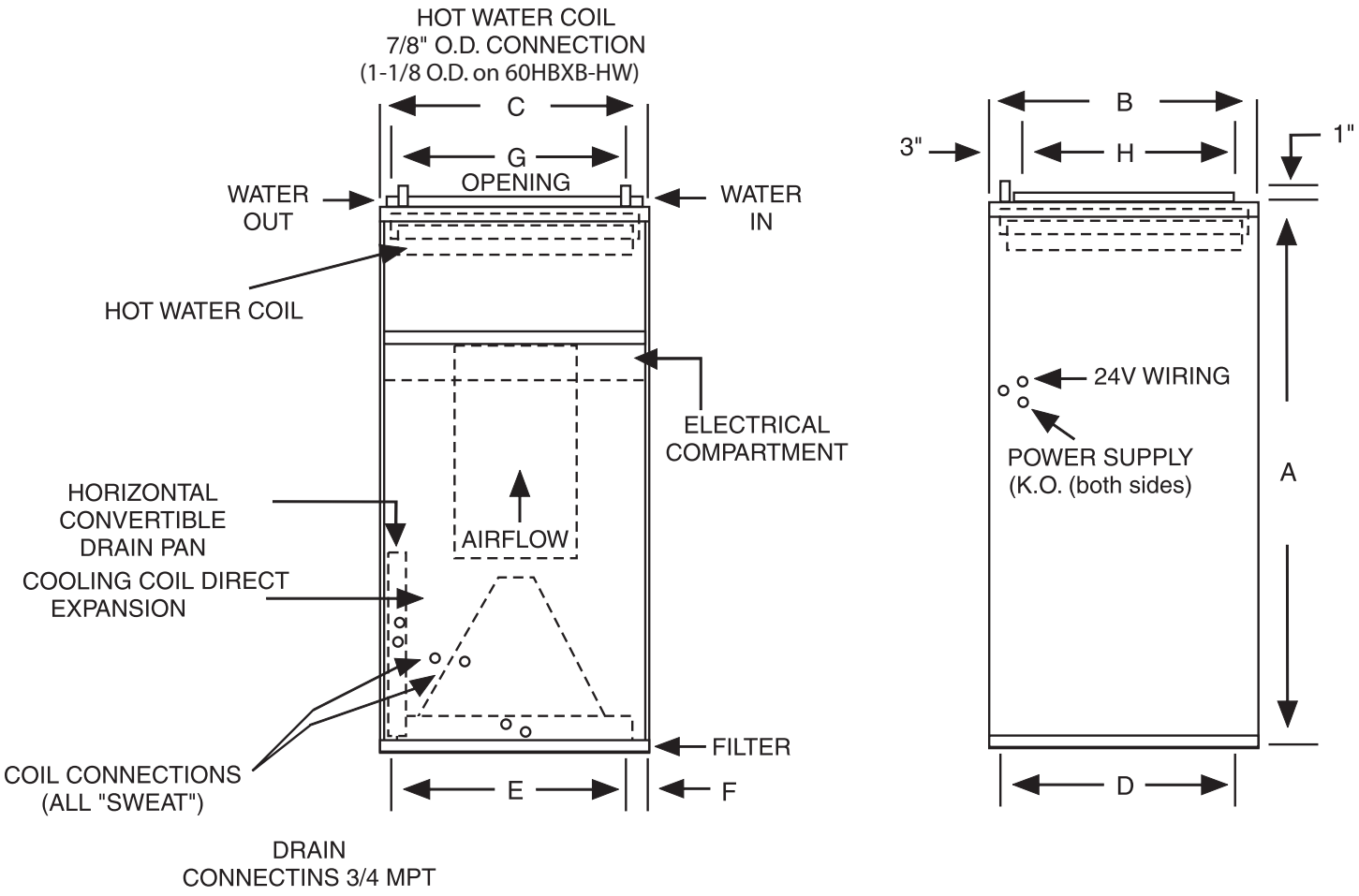
These fan coils are compatible with any source of hot water that does not exceed 180º and is NSF/ANSI certified for use with domestic water.

STANDARD FEATURES

- Multi-function micro-processor circuit board with these standard features:
  - Blower start relay - Eliminates field installed boiler relay allowing direct wiring from the boiler to the air handler
  - Blower-on fan delay (heating mode) - preheats the HW coil for 45 seconds.
  - Blower-off fan delay (heating and cooling models) - blower continues to operate for 45 seconds after thermostat is satisfied, for increased efficiency.
  - 120V or 24V zone valve control - The micro-processor powers either 120V or 24V field supplied motorized zone valves.
- Factory or field installed TXV (cooling or heat pump operation) (non-bleed type)
- High efficiency standard ECM motor
- Manual Air Vent on hot water coil
- Blower door shut-off switch [except 60HCXW (ECM)]
- Slide out hot water coil for easier service
- Copper tube heating and cooling coils
- Compatible with all major brands of split condensing units and heat pumps
- Attractive baked-on powder coated cabinet
- Primary and secondary condensate drain connections
- Easily accessible 1" filter

DX COOLING / HW HEATING WITH ECM MOTOR

PHYSICAL DIMENSIONS									
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE**
18HCXW*X 24HCXW*X	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
30HCXW*X 36HCXW*X	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
42HCXW*X 48HCXW*X	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
60HCXW*X	52	28	25-1/4	26-1/2	21-1/4	2	22	24	14 X 24 X 1 (2 required)
61HCXW*X	58	28	25-1/4	26-1/2	21-1/4	2	22	24	14 X 24 X 1 (2 required)



DX COOLING / HW HEATING WITH ECM MOTOR

COIL CONNECTIONS		
UNIT SIZE	**LIQUID**	**SUCTION**
18/24	3/8	5/8
30/36	3/8	3/4
48/60	1/2	7/8

BLOWER DATA							UPFLOW/HORIZONTAL ONLY					
							CFM vs. EXTERNAL STATIC PRESSURE					
UNIT MODEL	**MOTOR HP-AMPS (120V)**	**BHP**	**NOMINAL AMPS**	**MIN. CKT. AMPACITY**	**MAX. CKT. PROTECTION**	**SPEED TAPS**	**0.05**	**0.10**	**0.20**	**0.30**	**0.40**	**0.50**
18HCXW*X	1/3 - 4.8	0.33 0.18 0.13	3.2 2.1 1.4	5	15	3 2 1	970 770 640	940 750 620	870 700 580	800 660 530	730 620 480	630 580 430
24HCXW*X	1/3 - 4.8	0.33 0.18 0.13	3.2 2.1 1.4	5	15	3 2 1	930 740 620	900 720 600	830 690 560	760 650 520	690 610 480	600 560 430
30HCXW*X	1/2 - 6.8	0.50 0.34 0.27	4.8 3.5 2.5	10	15	3 2 1	1250 1090 960	1230 1070 940	1170 1040 900	1110 1010 860	1050 980 820	990 950 780
36HCXW*X	1/2 - 6.8	0.50 0.34 0.27	4.8 3.5 2.5	10	15	3 2 1	1280 1110 970	1250 1090 950	1190 1050 900	1130 1010 850	1070 970 800	1010 930 760
42HCXW*X **48HCXW*X**	1 - 10.9	1.00 0.66 0.47	8.5 6.8 4.1	15	15	3 2 1	1900 1560 1300	1870 1540 1270	1800 1500 1220	1730 1460 1170	1660 1420 1120	1590 1380 1070
60HCXW*X **61HCXW*X**	1 - 10.9	1.00 0.67 0.52	8.7 6.7 4.7	15	15	3 2 1	--- --- ---	2190 1780 1550	2130 1740 1490	2070 1700 1430	2010 1650 1370	1950 1590 1310

NOTES:
1. All models are approved for installation with 0" clearance to combustible materials.
2. Use 48HCXW*X for 3.5 ton applications and field-convert fan motor to medium speed.

ACCESSORIES

FLOW CONTROL MODULE	
PART NUMBER	**FOR**
940-2CV	18-60HCXW*X

NOTE:
Flow Control Module is required when connecting to individual Tankless Water Heaters. Contact factory for assistance.

FREEZE PROTECTOR	
KIT NUMBER	**FOR**
941-1	18 - 60HCXW*X

HCX SERIES

HCXWV

HEAT PUMP OR DX W/HOT WATER COIL & VARIABLE SPEED MOTOR

24 HCX W3 V 2 0 A V 0 1 0 F

UNIT SIZE
18 - 18,000 BTUH
24 - 24,000 BTUH
30 - 30,000 BTUH
36 - 36,000 BTUH
48 - 48,000 BTUH
60 - 60,000 BTUH
61 - 61,000 BTUH

SERIES
HCX

HEAT OPTION
W2 - 2 Row HW
W3 - 3 Row HW
W4 - 3 Row HW

MOTOR TYPE
V - Var Speed/Constant Airflow

VOLTAGE
2 - 208-230/1/60

CABINET OPTIONS
0 - Standard Multi Position

REFRIGERANT
A – R410A

METERING DEVICE
V - Non Bleed TXV w/Check

OPTIONS: CONTROL
0 - Standard
T - Time Delay
B - Standard Pump Control

OPTIONS: SENSORS/SWITCHES
0 - None
1 - Freeze Stat
2 - Float Switch
3 - Freeze Stat + Float Switch
4 - DX Coil Sensor

OPTIONS: GENERAL
0 - Standard

BRAND
F - First Co.

HCXWV

The HCXWV motor automatically adjusts its torque and speed to maintain a preprogrammed level of constant airflow over a wide range of external static pressures. This variable speed technology offers better indoor air quality, more precise humidity control, quieter operation, consistent indoor air temperature, and lower utility bills.

High Efficiency - At full load conditions the **HCXWV** motor is 20% more efficient than an induction motor and at constant fan speed it consumes only **60-80 watts** of power compared to 400 watts for a standard induction motor. In addition, the **HCXWV** includes a high efficiency "A" coil with factory installed TXV for precise refrigerant control.

These fan coils are compatible with any source of hot water that doesn't exceed 180°F and is NSF/ANSI certified for use with domestic water.

STANDARD FEATURES

QUIET OPERATION

The versatile **HCXWV** motor quietly "ramps up" when the unit is turned on and "ramps down" when the thermostat is satisfied, eliminating the annoying sounds of changing airflow.

SELF-REGULATING CONSTANT AIRFLOW

The **HCXWV** motor is factory programmed to maintain a predetermined level of airflow over a wide range of external static pressures, ensuring optimum system performance and whole-house comfort. The benefits of constant fan operation are:

- Consistent air distribution (and temperature) throughout the home.
- Better indoor air quality (further improved with the addition of a high efficiency filter) - This allows the air to be filtered without excessive drafts and without sacrificing efficiency.
- Better humidity control - The HCXQV is designed to extract much more moisture from the air than a conventional system by slowing the airflow over the cooling coil. The result is an improved summer comfort level at higher indoor temperature.

ADDITIONAL FEATURES

- Factory or field installed TXV (non-bleed type)
- Blower door safety switch (except 48/60HCXWV)
- Convenient connections for boiler or switching relay
- Hot water coil assembly slides out for easier service
- Manual air vent on hot water coil
- Attractive baked-on powder coat finish
- Fully insulated cabinet
- Primary and secondary drain connections on cooling coil
- Optional hot water coil freeze protector
- Upflow / Horizontal drain pans
- Higher efficiency pleated filter
- Compatible with most properly sized and installed zone control systems. Contact the zone control manufacturer.
- Cabinet air leakage is no more than 2% when tested in accordance with ASHRAE 193.

DX COOLING / HW HEATING WITH VARIABLE SPEED MOTOR

PHYSICAL DIMENSIONS									
UNIT MODEL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**FILTER SIZE**
24HCXWV	40	20	20	18-1/2	16	2	18	16	18 X 20 X 1
36HCXWV	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
48HCXWV	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
60HCXWV	52	28	25-1/4	26-1/4	21-1/4	2	22	24	14 X 24 X 1 (2 required)

For additional sales and technical information on variable speed motors, visit www.thedealertoolbox.com
Digital thermostats for these units must have a "C" terminal.

COIL CONNECTIONS		
UNIT SIZE	**LIQUID**	**SUCTION**
24	3/8	5/8
36	3/8	3/4
46/60	1/2	7/8

ELECTRICAL DATA				
UNIT MODEL	**MOTOR HP (120V)**	**MOTOR AMPS**	**MIN. CIR. AMPACITY**	**MAX. HACR BREAKER**
24HCXWV	1/3	4.8	6.0	15
36HCXWV	1/2	7.3	9.1	15
48HCXWV	1	10.5	13.1	15
60HCXWV	1	11.5	14.4	15

For additional sales and technical information on variable speed motors, visit www.thedealertoolbox.com
Digital thermostats for these units must have a "C" terminal.

ACCESSORIES
FIELD INSTALLED

FREEZE PROTECTOR	
KIT NUMBER	**FOR**
941-1	18 - H

FLOW CONTROL MODULES	
PART NUMBER	**FOR**
940-3CV	18 - 48HCXWV
940-2CV	60HCXWV

NOTE:
Flow Control Module is required when connecting to individual Tankless Water Heaters. Contact factory for assistance.

DX COOLING / HW HEATING WITH VARIABLE SPEED MOTOR

HEATING PERFORMANCE DATA

UNIT MODEL	NOM. COOLING BTUH	HEAT CFM	P.D. (FT. WATER)	BTUH (1000) AT ENTERING WATER TEMPERATURE Delta -T 20°F and GPM							
				120°F	GPM	140°F	GPM	160°F	GPM	180°F	GPM
24HCXWV	18,000/ 24,000	800	1.13 0.51 0.13	20.3 19.4 17.9	2.0 1.9 1.8	28.5 27.1 25.0	28.5 27.1 25.0	36.6 34.9 32.2	3.7 3.5 3.2	44.7 42.7 39.3	4.5 4.3 3.9
		700	1.13 0.51 0.13	18.8 18.0 16.7	1.9 1.8 1.7	26.4 25.2 23.4	26.4 25.2 23.4	33.9 32.4 30.1	3.4 3.2 3.0	41.5 39.6 36.8	4.2 4.0 3.7
		600	1.13 0.51 0.13	17.2 16.5 15.3	1.7 1.7 1.5	24.1 23.0 21.4	24.1 23.0 21.4	30.9 29.6 27.6	3.1 3.0 2.8	37.8 36.2 33.7	3.8 3.6 3.4
		500	1.13 0.51 0.13	15.5 14.9 13.9	1.6 1.5 1.4	21.6 20.8 19.5	21.6 20.8 19.5	27.8 26.8 25.1	2.8 2.7 2.5	34.0 32.7 30.6	3.4 3.3 3.1
36HCXWV	30,000/ 36,000	1200	7.55 3.64 1.04	28.8 27.0 23.2	2.9 2.7 2.3	40.3 37.9 32.4	40.3 37.9 32.4	51.8 48.7 41.7	5.2 4.9 4.2	63.3 59.5 50.9	6.3 6.0 5.1
		1050	7.55 3.64 1.04	26.6 25.1 21.6	2.7 2.5 2.2	37.3 35.1 30.2	37.3 35.1 30.2	48.0 45.2 38.9	4.8 4.5 3.9	58.6 55.2 47.5	5.9 5.5 4.8
		900	7.55 3.64 1.04	24.4 23.1 20.1	2.4 2.3 2.0	34.1 32.3 28.2	34.1 32.3 28.2	43.9 41.5 36.2	4.4 4.2 3.6	53.6 50.8 44.2	5.4 5.1 4.4
		750	7.55 3.64 1.04	21.9 20.7 18.2	2.2 2.1 1.8	30.6 29.0 25.5	30.6 29.0 25.5	39.3 37.3 32.7	3.9 3.7 3.3	48.1 45.6 40.0	4.8 4.6 4.0
48HCXWV	42,000/ 48,000	1600	2.90 1.40 0.41	47.2 44.5 39.8	4.7 4.5 4.0	66.0 62.3 55.7	66.0 62.3 55.7	84.9 80.0 71.7	8.5 8.0 7.2	103.7 97.8 87.6	10.4 9.8 8.8
		1400	2.90 1.40 0.41	43.6 41.3 37.2	4.4 4.1 3.7	61.0 57.8 52.1	61.0 57.8 52.1	78.5 74.3 67.0	7.9 7.4 6.7	95.9 90.8 81.9	9.6 9.1 8.2
		1200	2.90 1.40 0.41	39.5 37.5 34.0	4.0 3.8 3.4	55.4 52.5 47.6	55.4 52.5 47.6	71.2 67.5 61.3	7.1 6.8 6.1	87.0 82.6 74.9	8.7 8.3 7.5
		1000	2.90 1.40 0.41	35.1 33.4 30.4	3.5 3.3 3.0	49.2 46.8 42.6	49.2 46.8 42.6	63.2 60.2 54.8	6.3 6.0 5.5	77.3 73.5 67.0	7.7 7.4 6.8
60HCXWV	48,000/ 60,000	2000	5.15 3.33 1.86	58.8 56.4 52.8	5.9 5.6 5.3	82.3 78.9 73.9	82.3 78.9 73.9	105.9 101.5 95.0	106 10.2 9.5	129.4 124.1 116.1	12.9 12.4 11.6
		1750	5.15 3.33 1.86	54.4 52.3 49.2	5.4 5.2 4.9	76.1 73.2 68.8	76.1 73.2 68.8	97.9 94.1 88.5	9.8 9.4 8.9	119.6 115.0 108.2	12.0 11.5 10.8
		1500	5.15 3.33 1.86	49.3 47.5 44.8	4.9 4.8 4.5	69.1 66.5 62.7	69.1 66.5 62.7	88.8 85.5 80.7	8.9 8.6 8.1	108.5 104.5 98.6	10.9 10.5 9.9
		1250	5.15 3.33 1.86	43.8 42.3 40.0	4.4 4.2 4.0	61.4 59.2 56.0	61.4 59.2 56.0	78.9 76.1 72.0	7.9 7.6 7.2	96.4 93.0 88.0	9.6 9.3 8.8

NOTES:
1. Heat BTU is at 65° Entering Air Temperature.
2. Based on 20ºF Delta -T Velosity not to exceed 4ft./ sec.

Data is subject to change. Please verify most current information on www.firstco.com.

AIRFLOW DATA

MODEL	OPERATING MODE	THERMOSTAT TERMINALS "X" ENERGIZED TERMINAL						CONTROL BOARD SELECT TAPS							
								COOL TAP				HEAT TAP			
		Y1	Y2	HUM	G	O	W1	A	B	C	D	A	B	C	D
24HCXWV (1.5 / 2 TON)	**COOLING**														
	SINGLE STAGE		X		X	X		800	720	600	525				
	TWO STAGE	X	X		X	X		560/800	500/720	420/600	370/525				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		640	575	480	420				
	TWO STAGE	X	X	X	X	X		450/640	400/575	335/480	295/420				
	CONTINUOUS BLOWER				X			400	360	300	260				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			800	720	600	525				
	TWO STAGE	X	X		X			560/800	500/720	420/600	370/525				
	HEATING (NON-HT. PUMP)														
	HEATING						X					750	680	580	500
36HCXWV (1.5 / 3 TON)	**COOLING**														
	SINGLE STAGE		X		X	X		1200	1050	950	850				
	TWO STAGE	X	X		X	X		840/1200	735/1050	665/950	595/850				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		960	840	760	680				
	TWO STAGE	X	X	X	X	X		67 /960	590/840	530/760	475/680				
	CONTINUOUS BLOWER				X			600	525	475	425				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			1200	1050	950	850				
	TWO STAGE	X	X		X			840/1200	735/1050	665/950	595/850				
	HEATING (NON-HT. PUMP)														
	HEATING						X					1150	1000	900	800
48HCXWV	**COOLING**														
	SINGLE STAGE		X		X	X		1600	1400	1250	1100				
	TWO STAGE	X	X		X	X		1120/1600	980/1400	875/1250	770/1100				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		1280	1120	1000	880				
	TWO STAGE	X	X	X	X	X		895/1280	785/1120	700/1000	615/880				
	CONTINUOUS BLOWER				X			800	700	625	550				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			1600	1400	1250	1100				
	TWO STAGE	X	X		X			1120/1600	980/1400	875/1250	770/1100				
	HEATING (NON-HT. PUMP)														
	HEATING						X					1500	1300	1150	1000
60HCXWV	**COOLING**														
	SINGLE STAGE		X		X	X		2000	1800	1600	1400				
	TWO STAGE	X	X		X	X		1400/2000	1260/1800	1120/1600	980/1440				
	COOL & DEHUMIDIFY														
	SINGLE STAGE		X	X	X	X		1600	1440	1280	1120				
	TWO STAGE	X	X	X	X	X		1120/1600	1010/1440	895/1280	785/1120				
	CONTINUOUS BLOWER				X			1000	900	800	700				
	HEAT PUMP HEATING														
	SINGLE STAGE		X		X			2000	1800	1600	1400				
	TWO STAGE	X	X		X			1400/2000	1260/1800	1120/1600	980/1440				
	HEATING (NON-HT. PUMP)														
	HEATING						X					1850	1650	1500	1300

Airflow shown are at standard air conditions, dry coil at 120 volts. Max. ext. static pressure is 0.50" wtr

NOTES:
The cooling and heating speed taps are factory set on "A".
The delay profile is factory set on "A" (Arid setting).
The adjust profile is factory set on "Normal:"
Adjust profile (+) will increase airflow by 10%, while tap (-) will decrease airflow by 10%

AMERICAN-MADE. FAMILY OWNED.

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