5006182-YTG

Inspections Division
Date: 08/18/16

TECHNICAL GUIDE

SINGLE PIECE STANDARD ECM AIR HANDLERS

FOR USE WITH SPLIT-SYSTEM COOLING & HEAT PUMPS

MODELS: AE SERIES

ISO 9001
Certified Quality
Management System

Due to continuous product improvement,
specifications are subject to change without notice.

Visit us on the web at:

www.upgnet.com and www.york.com

Additional rating information can be found at:

www.ahridirectory.org

WARRANTY SUMMARY

Standard 5-year limited parts warranty.

Extended 10-year limited parts warranty when product is registered online within 90 days of purchase for replacement or closing for new home construction.

DESCRIPTION

This fan coil line offers the ultimate in application flexibility. This unit may be used for upflow, downflow, horizontal right, or horizontal left applications.

All JCI Unitary Products air handlers and coils can use a TXV to provide our customers with the optimum performance and refrigerant control. Air handlers are shipped with “Flex-coils” without a factory installed metering device. For added flexibility, an R-22 or R-410A piston or TXV must be field installed to meet the requirement of the desired refrigerant.

FEATURES

RC^2 - Rigid Case Construction interior endoskeleton for structural support, flush side, and locks in insulation.

Powder-painted - G30 galvanized steel case provide a coated edge that resists corrosion and rust creep.

MaxAlloy^{TM} Coil - Long life aluminum coils built to deliver lasting performance, efficiency and reliability.

Quality Construction - Structural components are made of Aluminum or G90 galvanized steel to prevent corrosion.

Improved Insulation Design - Single piece with no external screws to reduce thermal transmission paths to prevent sweating. Foil faced insulation for ease of cleaning.

Thermostatic Expansion Valve - The accessory bolt-on TXV provides easy installation to convert the indoor coil to the required refrigerant that does not require brazing to replace or install. Some models are available with factory installed TXV.

Case Depth - These models have 20.5” casing which provide ease of attic access and tight applications.

Thermoset Drain Pan - Positive slope for drainage to reduce cause for potential mold or contaminants.

Factory Sealed - Achieves 2% or less total airflow leakage rate at duct leakage test conditions in positive and negative pressure for system airflow verification.

Enhanced Filter Rack - All models have integrated internal filter racks provided for use with 1” thick standard size filters.

Electric Heat Kits - 6HK series of field installed electric heat kits are available for installation-friendly and easy service applications.

Blowers - All models use direct-drive, standard ECM motors.

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NOMENCLATURE

PRODUCT TYPE	**A**	**A** = Single Piece Air Handler
POSITION MOTOR TYPE	**E**	**P** = Multi PSC **E** = Multi Std ECM **V** = Multi VS ECM **Z** = Compact Up Std ECM
OPTIONS	**-**	**C** = Communications Ready **-** = Standard (No Options)
NOMINAL UNIT CAPACITY	**36**	**18** = 1.5 Ton **24** = 2 Ton **30** = 2.5 Ton **36** = 3 Ton **42** = 3.5 Ton **48** = 4-Ton **60** = 5-Ton
CABINET WIDTH	**B**	**A** = 14.5" **B** = 17.5" **C** = 21.0" **D** = 24.5"
TXV INDICATOR	**X**	**BA-BF** = Valve Size **X** = no valve
VOLTAGE (Voltage-Phase-Hertz)	**2**	**1** = 115-1-60 **2** = 208/230-1-60 **3** = 208/230-3-60 **4** = 460-3-60
GENERATION (MAJOR REVISION)	**1**	**1** = 1st Gen **2** = 2nd Gen **etc.**
STYLE LETTER (MINOR REVISION) NOT USED FOR ORDERING	**A**	**A** = Style A **B** = Style B **etc.**

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DIMENSIONS & DUCT CONNECTION DIMENSIONS

DIMENSIONS

Models	Dimensions[1]					Wiring Knockouts[2]		Refrigerant Connections Line Size	
	A	B	C	D	E	F	G		
	Height	Width				Power	Control	Liquid	Vapor
AE18BX21	41	17-1/2	12-7/8	14-1/4	16-1/2	7/8" (1/2") 1-3/8"(1") 1-23/32" (1-1/4")	7/8" (1/2")	3/8"	3/4"
AE24BX21	41	17-1/2	12-7/8	14-1/4	16-1/2				
AE30BX21	47-1/2	17-1/2	19-1/2	14-1/4	16-1/2				
AE36BX21	47-1/2	17-1/2	19-1/2	14-1/4	16-1/2				
AE36CX21	51-1/2	21	22-5/8	17-3/4	20				
AE42CX21	51-1/2	21	22-5/8	17-3/4	20				7/8"
AE48CX21	51-1/2	21	22-5/8	17-3/4	20				
AE48DX21	55-1/2	24-1/2	26-5/8	21-1/4	23-1/2				
AE60CX21	55-3/4	21	26-7/8	17-3/4	20				
AE60DX21	55-1/2	24-1/2	26-5/8	21-1/4	23-1/2				

1. All dimensions are in inches.
2. Actual size (Conduit size in parenthesis.).

COIL TECHNICAL DATA

Models	Application	Refrig. Conn. Types	Face Area (Sq. Ft.)	Rows Deep	Fins Per In.	Coil Size	Tube Geometry	Tube Diameter	Fin Type
18B	Cooling / Heat Pump	Sweat	4.3	2	14	(3) 12 x 17.1	1 x 0.866	3/8	Sine Wave
24B			5.0	2		(3) 14 x 17.1			
30B			6.4	2		(3) 18 x 17.1			
36B			7.1	2		(3) 20 x 17.1			
36C			7.1	2		(3) 20 x 17.1			
42C			8.6	2		(3) 24 x 17.1			
48C			8.6	2		(3) 24 x 17.1			
48D			8.6	2		(3) 24 x 17.1			
60C			10.0	2		(3) 28 x 17.1			
60D			10.0	3		(3) 28 x 17.1			

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COOLING CAPACITY[1]

Models	Rated CFM[2]	Entering Air Dry/Wet Bulb (°F)	MBH@ Evap. Temp. and Corresponding R-410A Pressure (°F/PSIG)			
			35/107.9	40/118.9	45/130.7	50/143.3
18B	600	85/72	45.7	41.6	36.8	30.5
		80/67	38.5	33.9	28.5	22.3
		75/62	31.5	26.5	20.5	15.9
		70/57	24.4	19.5	15.2	11.5
24B	800	85/72	52.2	47.5	41.8	35.0
		80/67	43.6	38.3	31.9	24.5
		75/62	35.2	29.5	22.7	16.2
		70/57	27.1	20.7	15.5	11.4
30B	1000	85/72	75.3	67.8	56.8	47.1
		80/67	62.6	54.6	44.2	34.5
		75/62	50.2	41.3	32.0	22.9
		70/57	37.8	30.1	21.5	16.2
36B	1200	85/72	91.6	82.4	71.3	59.4
		80/67	76.5	65.4	54.6	42.8
		75/62	61.3	51.2	40.0	30.5
		70/57	47.5	38.1	28.7	22.3
36C	1200	85/72	91.6	82.4	71.3	59.4
		80/67	76.5	65.4	54.6	42.8
		75/62	61.3	51.2	40.0	30.5
		70/57	47.5	38.1	28.7	22.3
42C	1400	85/72	108.0	98.4	88.1	73.8
		80/67	93.3	82.1	69.7	57.0
		75/62	75.9	64.4	53.1	41.9
		70/57	60.7	49.9	39.4	32.4
48C	1600	85/72	115.2	105.0	93.9	79.0
		80/67	88.3	78.2	65.5	52.6
		75/62	72.7	60.8	50.1	37.6
		70/57	57.7	46.9	36.6	29.7
48D	1600	85/72	115.2	105.0	93.9	79.0
		80/67	88.3	78.2	65.5	52.6
		75/62	72.7	60.8	50.1	37.6
		70/57	57.7	46.9	36.6	29.7
60C	1800	85/72	115.1	103.0	91.7	78.6
		80/67	96.8	85.9	73.7	60.5
		75/62	80.7	69.4	57.5	43.5
		70/57	58.7	48.9	37.7	32.7
60D	1800	85/72	133.6	118.5	103.2	86.6
		80/67	111.4	96.2	80.3	62.8
		75/62	90.7	75.1	60.0	43.5
		70/57	70.6	56.9	42.5	32.8

1. Actual capacity varies with the outdoor A/C or H/P that is used with the system.
2. Airflow is calculated for each system tonnage.

APPLICATION FACTORS - RATED CFM VS. ACTUAL CFM

% Of Rated Airflow (CFM)	80%	90%	100%	110%	120%
Capacity Factor	0.96	0.98	1.00	1.02	1.03

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PHYSICAL & ELECTRICAL DATA - COOLING ONLY

Models		18B	24B	30B	36B	36C
Blower - Diameter x Width		10 x 8	10 x 8	10 x 8	10 x 8	11 x 10
Motor	HP	1/3 HP	1/3 HP	1/3 HP	1/2 HP	1/2 HP
	Nominal RPM	1050	1050	1050	1050	1050
Voltage		208/230	208/230	208/230	208/230	208/230
Full Load Amps @230V		2.6	2.6	2.6	3.8	3.8
Filter[1]	Type	DISPOSABLE OR PERMANENT				
	Size	16 x 20 x 1	16 x 20 x 1	16 x 20 x 1	16 x 20 x 1	20 x 20 x 1
	Permanent Type Kit	1PF0601	1PF0601	1PF0601	1PF0601	1PF0602
Shipping Operating Weight (lbs.)		91/85	93/87	119/113	119/113	120/114

Models		42C	48C	48D	60C	60D
Blower - Diameter x Width		11 x 10	11 x 10	11 x 10	11 x 10	11 x 10
Motor	HP	1/2 HP	3/4 HP	3/4 HP	3/4 HP	3/4 HP
	Nominal RPM	1050	1050	1050	1050	1050
Voltage		208/230	208/230	208/230	208/230	208/230
Full Load Amps @230V		3.8	5.4	5.4	5.4	5.4
Filter[1]	Type	DISPOSABLE OR PERMANENT				
	Size	20 x 20 x 1	20 x 20 x 1	22 x 20 x 1	20 x 20 x 1	22 x 20 x 1
	Permanent Type Kit	1PF0602	1PF0602	1PF0603	1PF0602	1PF0603
Shipping Operating Weight (lbs.)		144/136	158/150	163/153	156/146	180/170

1. Field supplied.

kW & MBH CONVERSIONS - FOR TOTAL POWER INPUT REQUIREMENT

For a power distribution voltage that is different than the provided nominal voltage, multiply the kW and MBH data from the table by the conversion factor in the following table.

DISTRIBUTION POWER	NOMINAL VOLTAGE	CONVERSION FACTOR
208V	240V	0.75
220V	240V	0.84
230V	240V	0.92

ELECTRICAL DATA - COOLING ONLY

Models	Motor FLA[1]	Minimum Circuit Ampacity	MOP[2]
18B / 24B / 30B	2.6	3.3	15
36B / 36C / 42C	3.8	4.8	15
48C / 48D / 60C / 60D	5.4	6.8	15

1. FLA = Full Load Amps
2. MOP = Maximum Overcurrent Protection device; must be HACR type circuit breaker or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

ELECTRICAL HEAT - MINIMUM FAN SPEED

Heater Kit Models[1,2]	Nom. kW @240V	Air Handler Models									
		18B	24B	30B	36B	36C	42C	48C	48D	60C	60D
6HK(0,1)6500206	2.4	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)
6HK(0,1)6500506	4.8	Med Lo (#2)	Med (#3)	Med (#3)	Med Lo (#2)	Med (#3)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)
6HK(0,1)6500806	7.7	Med (#3)	Med Hi (#4)	Med Hi (#4)	Med Lo (#2)	Med Hi (#4)	Med (#3)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)
6HK(0,1)6501006	9.6	Med (#3)	Med Hi (#4)	Med Hi (#4)	Med Lo (#2)	Med Hi (#4)	Med (#3)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)
6HK(1,2)6501306	12.5	-	Med Hi (#4)	Med Hi (#4)	Med (#3)	Med Hi (#4)	Med (#3)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)	Med Lo (#2)
6HK(1,2)6501506	14.4	-	-	Med Hi (#4)	Med Hi (#4)	Med Hi (#4)	Hi (#5)	Med (#3)	Med (#3)	Med Lo (#2)	Med Lo (#2)
6HK(1,2)6501806	17.3	-	-	-	Med Hi (#4)	Med Hi (#4)	Hi (#5)	Med (#3)	Med Hi (#4)	Med (#3)	Med (#3)
6HK(1,2)6502006	19.2	-	-	-	Med Hi (#4)	Hi (#5)	Hi (#5)	Med Hi (#4)	Hi (#5)	Med Hi (#4)	Med Hi (#4)
6HK(1,2)6502506	24	-	-	-	-	-	-	-	Hi (#5)	-	Med Hi (#4)

1. (0,1) - 0 = no service disconnect OR 1 = with service disconnect.
2. (1,2) - 1 = with service disconnect, no breaker jumper bar OR 2 = with service disconnect & breaker jumper bar.

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ELECTRIC HEAT PERFORMANCE DATA: 208/230-1-60

Heater Models[1,2]		Nominal kW @240V	Total Heat[3]				kW Staging			
			kW		MBH		W1 Only		W1 + W2	
			208V	230V	208V	230V	208V	230V	208V	230V
1PH	6HK(0,1)6500206	2.4	1.8	2.2	6.2	7.5	1.8	2.2	1.8	2.2
	6HK(0,1)6500506	4.8	3.6	4.4	12.3	15	3.6	4.4	3.6	4.4
	6HK(0,1)6500806	7.7	5.8	7.1	19.7	24.1	5.8	7.1	5.8	7.1
	6HK(0,1)6501006	9.6	7.2	8.8	24.6	30.1	7.2	8.8	7.2	8.8
	6HK(1,2)6501306	12.5	9.4	11.5	32	39.2	3.1	3.8	9.4	11.5
	6HK(1,2)6501506	14.4	10.8	13.2	36.9	45.1	3.6	4.4	10.8	13.2
	6HK(1,2)6501806	17.3	13	15.9	44.3	54.2	6.5	7.9	13	15.9
	6HK(1,2)6502006	19.2	14.4	17.6	49.2	60.2	7.2	8.8	14.4	17.6
	6HK(1,2)6502506	24	18	22	61.5	75.2	7.2	8.8	18	22

1. (0,1) - 0 = no circuit breaker OR 1 = with circuit breaker.
2. (1,2) - 1 = with circuit breaker, no breaker jumper bar OR 2 = with circuit breaker & breaker jumper bar.
3. For different power distributions, see conversion table on Page 4.

ELECTRICAL DATA FOR SINGLE SOURCE POWER SUPPLY: 208/230-1-60

Air Handler Models	Heater Models[1,2]	Heater Amps @240V	Field Wiring			
			Min. Circuit Ampacity		MOP.[3]	
			208V	230V	208V	230V
18B	6HK(0,1)6500206	10	14.9	16.1	15	20
	6HK(0,1)6500506	20	25.8	28.0	30	30
	6HK(0,1)6500806	32	39.0	42.7	40	45
	6HK(0,1)6501006	40	47.4	52.0	50	60
24B	6HK(0,1)6500206	10	14.9	16.1	15	20
	6HK(0,1)6500506	20	25.8	28.0	30	30
	6HK(0,1)6500806	32	39.0	42.7	40	45
	6HK(0,1)6501006	40	47.4	52.0	50	60
	6HK(1,2)6501306	52	60.6	66.6	70	70
30B	6HK(0,1)6500206	10	14.9	16.1	15	20
	6HK(0,1)6500506	20	25.8	28.0	30	30
	6HK(0,1)6500806	32	39.0	42.7	40	45
	6HK(0,1)6501006	40	47.4	52.0	50	60
	6HK(1,2)6501306	52	60.6	66.6	70	70
	6HK(1,2)6501506	60	69.0	75.9	70	80
36B	6HK(0,1)6500206	10	16.8	18.0	20	20
	6HK(0,1)6500506	20	27.6	29.9	30	30
	6HK(0,1)6500806	32	40.9	44.6	45	45
	6HK(0,1)6501006	40	49.3	53.8	50	60
	6HK(1,2)6501306	52	62.5	68.5	70	70
	6HK(1,2)6501506	60	70.9	77.7	80	80
	6HK(1,2)6501806	72	84.1	92.4	90	100
	6HK(1,2)6502006	80	92.5	101.7	100	110
36C	6HK(0,1)6500206	10	16.8	18.0	20	20
	6HK(0,1)6500506	20	27.6	29.9	30	30
	6HK(0,1)6500806	32	40.9	44.6	45	45
	6HK(0,1)6501006	40	49.3	53.8	50	60
	6HK(1,2)6501306	52	62.5	68.5	70	70
	6HK(1,2)6501506	60	70.9	77.7	80	80
	6HK(1,2)6501806	72	84.1	92.4	90	100
	6HK(1,2)6502006	80	92.5	101.7	100	110

For notes, see Page 7.

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ELECTRICAL DATA FOR SINGLE SOURCE POWER SUPPLY: 208/230-1-60 (Continued)

Air Handler Models	Heater Models[1,2]	Heater Amps @240V	Field Wiring			
			Min. Circuit Ampacity		MOP.[3]	
			208V	230V	208V	230V
42C	6HK(0,1)6500206	10	16.8	18.0	20	20
	6HK(0,1)6500506	20	27.6	29.9	30	30
	6HK(0,1)6500806	32	40.9	44.6	45	45
	6HK(0,1)6501006	40	49.3	53.8	50	60
	6HK(1,2)6501306	52	62.5	68.5	70	70
	6HK(1,2)6501506	60	70.9	77.7	80	80
	6HK(1,2)6501806	72	84.1	92.4	90	100
	6HK(1,2)6502006	80	92.5	101.7	100	110
48C	6HK(0,1)6500206	10	19.3	20.5	20	25
	6HK(0,1)6500506	20	30.1	32.4	35	35
	6HK(0,1)6500806	32	43.4	47.1	45	50
	6HK(0,1)6501006	40	51.8	56.3	60	60
	6HK(1,2)6501306	52	65.0	71.0	70	80
	6HK(1,2)6501506	60	73.4	80.2	80	90
	6HK(1,2)6501806	72	86.6	94.9	90	100
	6HK(1,2)6502006	80	95.0	104.2	100	110
48D	6HK(0,1)6500206	10	19.3	20.5	20	25
	6HK(0,1)6500506	20	30.1	32.4	35	35
	6HK(0,1)6500806	32	43.4	47.1	45	50
	6HK(0,1)6501006	40	51.8	56.3	60	60
	6HK(1,2)6501306	52	65.0	71.0	70	80
	6HK(1,2)6501506	60	73.4	80.2	80	90
	6HK(1,2)6501806	72	86.6	94.9	90	100
	6HK(1,2)6502006	80	95.0	104.2	100	110
	6HK(1,2)6502506	100	116.7	128.1	125	150
60C	6HK(0,1)6500206	10	19.3	20.5	20	25
	6HK(0,1)6500506	20	30.1	32.4	35	35
	6HK(0,1)6500806	32	43.4	47.1	45	50
	6HK(0,1)6501006	40	51.8	56.3	60	60
	6HK(1,2)6501306	52	65.0	71.0	70	80
	6HK(1,2)6501506	60	73.4	80.2	80	90
	6HK(1,2)6501806	72	86.6	94.9	90	100
	6HK(1,2)6502006	80	95.0	104.2	100	110
60D	6HK(0,1)6500206	10	19.3	20.5	20	25
	6HK(0,1)6500506	20	30.1	32.4	35	35
	6HK(0,1)6500806	32	43.4	47.1	45	50
	6HK(0,1)6501006	40	51.8	56.3	60	60
	6HK(1,2)6501306	52	65.0	71.0	70	80
	6HK(1,2)6501506	60	73.4	80.2	80	90
	6HK(1,2)6501806	72	86.6	94.9	90	100
	6HK(1,2)6502006	80	95.0	104.2	100	110
	6HK(1,2)6502506	100	116.7	128.1	125	150

1. (0,1) - maybe 0 (no circuit breaker) or 1 (with circuit breaker).
2. (1,2) maybe 1 (with circuit breaker, no breaker jumper bar) or 2 (with circuit breaker & breaker jumper bar).
3. MOP = Maximum Overcurrent Protection device; must be HACR type circuit breaker or time delay fuse. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

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ELECTRICAL DATA FOR MULTI-SOURCE POWER SUPPLY: 208/230-1-60

Air Handlers Models	Heater Models[1,2]	Heater Amps @240V	Min. Circuit Ampacity						MOP[3]					
			208V			230V			208V			230V		
			Circuit						Circuit					
			1st[3]	2nd	3rd	1st[3]	2nd	3rd	1st[3]	2nd	3rd	1st[3]	2nd	3rd
24B	6HK16501306	52	22.9	37.6	-	24.9	41.5	-	25	40	-	25	45	-
30B	6HK16501306	52	22.9	37.6	-	24.9	41.5	-	25	40	-	25	45	-
	6HK16501506	60	25.8	43.3	-	28.1	47.9	-	25	45	-	30	50	-
36B	6HK16501306	52	24.8	37.6	–	26.8	41.5	–	25	40	–	30	45	–
	6HK16501506	60	27.7	43.3	–	30.0	47.9	–	30	45	–	30	50	–
	6HK16501806	72	45.0	39.0	–	49.1	43.1	–	45	40	–	50	45	–
	6HK16502006	80	49.3	43.3	–	53.9	47.9	–	50	45	–	60	50	–
36C	6HK16501306	52	24.8	37.6	–	26.8	41.5	–	25	40	–	30	45	–
	6HK16501506	60	27.7	43.3	–	30.0	47.9	–	30	45	–	30	50	–
	6HK16501806	72	45.0	39.0	–	49.1	43.1	–	45	40	–	50	45	–
	6HK16502006	80	49.3	43.3	–	53.9	47.9	–	50	45	–	60	50	–
42C	6HK16501306	52	24.8	37.6	–	26.8	41.5	–	25	40	–	30	45	–
	6HK16501506	60	27.7	43.3	–	30.0	47.9	–	30	45	–	30	50	–
	6HK16501806	72	45.0	39.0	–	49.1	43.1	–	45	40	–	50	45	–
	6HK16502006	80	49.3	43.3	–	53.9	47.9	–	50	45	–	60	50	–
48C	6HK16501306	52	27.3	37.6	–	29.3	41.5	–	30	40	–	30	45	–
	6HK16501506	60	30.2	43.3	–	32.5	47.9	–	35	45	–	35	50	–
	6HK16501806	72	47.5	39.0	–	51.6	43.1	–	50	40	–	60	45	–
	6HK16502006	80	51.8	43.3	–	56.4	47.9	–	50	45	–	60	50	–
48D	6HK16501306	52	27.3	37.6	–	29.3	41.5	–	30	40	–	30	45	–
	6HK16501506	60	30.2	43.3	–	32.5	47.9	–	35	45	–	35	50	–
	6HK16501806	72	47.5	39.0	–	51.6	43.1	–	50	40	–	60	45	–
	6HK16502006	80	51.8	43.3	–	56.4	47.9	–	50	45	–	60	50	–
	6HK16502506	100	51.8	43.3	21.7	56.4	47.9	24.0	60	45	25	60	50	25
60C	6HK16501306	52	27.3	37.6	–	29.3	41.5	–	30	40	–	30	45	–
	6HK16501506	60	30.2	43.3	–	32.5	47.9	–	35	45	–	35	50	–
	6HK16501806	72	47.5	39.0	–	51.6	43.1	–	50	40	–	60	45	–
	6HK16502006	80	51.8	43.3	–	56.4	47.9	–	60	45	–	60	50	–
60D	6HK16501306	52	27.3	37.6	–	29.3	41.5	–	30	40	–	30	45	–
	6HK16501506	60	30.2	43.3	–	32.5	47.9	–	35	45	–	35	50	–
	6HK16501806	72	47.5	39.0	–	51.6	43.1	–	50	40	–	60	45	–
	6HK16502006	80	51.8	43.3	–	56.4	47.9	–	60	45	–	60	50	–
	6HK16502506	100	51.8	43.3	21.7	56.4	47.9	24.0	60	45	25	60	50	25

1. (0,1) - 0 = no service disconnect OR 1 = with service disconnect.
2. (1,2) - 1 = with service disconnect, no breaker jumper bar OR 2 = with service disconnect & breaker jumper bar.
3. MOP = Maximum Overcurrent Protection device; must be HACR type circuit breaker or time delay fuse. The 1st circuit includes blower motor amps. Refer to the latest edition of the National Electric Code or in Canada the Canadian electrical Code and local codes to determine correct wire sizing.

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POWER WIRING - LINE CONNECTIONS

BLOWER SPEED CONNECTIONS

ACCESSORIES

Refer to Price Manual for specific model numbers where not shown.

TXV Kits - Air handlers are shipped with “Flex-coils” without a factory installed metering device. For added flexibility, an R-22 or R-410A TXV or piston can be field installed to meet your refrigerant choice. All TXV kits are bolt-on and require no brazing to install. Some models are available with a factory installed TXV.

Electric Heaters - 6HK models shown under electrical data include sequential operation and temperature dual limit switches for safe, efficient operation. Service disconnects are provided where shown.

Combustible Floor Base Accessory - If an electric heat accessory which is rated for greater than zero clearance to combustible surfaces is installed in these air handlers in the downflow operating positions on a combustible floor, one of the following combustible floor base accessory models is required: S1-1FB1917, S1-1FB1921, S1-1FB1924.

Breaker Moisture Seal Accessory - A clear circuit breaker moisture barrier seals the breakers from humidity and dust. The flexibility of the clear cover allows circuit breakers to be turned ON or OFF without removing the cover. The cover firmly attaches to the access panel around the circuit breakers with the use of double backed adhesive tape. To ensure that moisture or dust does not contaminate circuit breakers, an S1-02435672000, Circuit Breaker, Cover Seal may be ordered.

COMBUSTIBLE FLOOR BASE ACCESSORY

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Floor Base Models	Used with	Dimensions		
		A	B	C
1FB1917	18B, 24B, 30B, 36B	17.5	14.0	16.0
1FB1921	36C, 42C, 48C, 60C	21.0	17.5	19.5
1FB1924	48D, 60D	24.5	21.0	23.0

LIMITATIONS

These units must be wired and installed in accordance with all national and local safety codes.

Voltage limits are as follows:

Air Handler Voltage	Voltage code	Normal Operating Voltage Range[1]
208/230-1-60	06	187-253

1. Rated in accordance with ARI Standard 110, utilization range "A".

Airflow must be within the minimum and maximum limits approved for electric heat, evaporator coils and outdoor units.

TYPICAL APPLICATIONS

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TYPICAL THERMOSTAT CONNECTION

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AIR FLOW DATA (CFM)[1]

Models	Blower Motor Speed	External Static Pressure (in. wc.)						
		0.10	0.20	0.30	0.40	0.50	0.60	0.70
18B	#5 HI	1132	1107	1074	1053	1023	990	955
	#4 MED-HI	1025	994	971	943	912	878	803
	#3 MED	821	798	764	727	657	599	536
	#2 MED-LO	661	632	572	491	414	335	279
	#1 LO	510	435	365	291	181	147	23
24B	#5 HI	1117	1078	1061	1034	1007	985	955
	#4 MED-HI	1032	1001	975	946	928	898	872
	#3 MED	838	799	768	742	698	634	582
	#2 MED-LO	644	620	582	521	440	378	284
	#1 LO	474	421	336	279	187	144	70
30B	#5 HI	1113	1083	1057	1034	1007	977	941
	#4 MED-HI	1057	1021	1000	977	947	914	881
	#3 MED	857	821	794	768	728	653	601
	#2 MED-LO	675	641	607	533	460	408	345
	#1 LO	489	457	386	324	261	209	158
36B	#5 HI	1323	1287	1264	1238	1210	1177	1149
	#4 MED-HI	1255	1222	1193	1170	1140	1113	1081
	#3 MED	1052	1025	992	967	927	857	811
	#2 MED-LO	855	823	799	739	691	637	572
	#1 LO	653	622	574	507	463	411	353
36C	#5 HI	1562	1531	1496	1453	1416	1381	1348
	#4 MED-HI	1277	1240	1206	1165	1133	1083	1025
	#3 MED	1078	1043	996	957	899	819	770
	#2 MED-LO	881	836	810	749	658	578	537
	#1 LO	707	677	595	524	451	405	346
42C	#5 HI	1594	1564	1530	1497	1459	1424	1382
	#4 MED-HI	1442	1408	1374	1338	1298	1251	1199
	#3 MED	1249	1215	1179	1135	1082	1016	956
	#2 MED-LO	1048	1008	962	905	840	761	683
	#1 LO	881	833	786	708	623	540	481
48C	#5 HI	1759	1719	1685	1644	1611	1578	1540
	#4 MED-HI	1684	1639	1606	1569	1536	1489	1452
	#3 MED	1511	1460	1427	1388	1347	1308	1262
	#2 MED-LO	1305	1260	1212	1178	1121	1076	1027
	#1 LO	1123	1068	1029	985	909	793	769
48D	#5 HI	1774	1726	1684	1651	1614	1574	1529
	#4 MED-HI	1709	1668	1619	1580	1548	1499	1459
	#3 MED	1484	1436	1410	1372	1321	1284	1237
	#2 MED-LO	1295	1254	1218	1167	1114	1069	1005
	#1 LO	1102	1051	1011	962	890	831	766
60C	#5 HI	1964	1930	1897	1858	1823	1789	1752
	#4 MED-HI	1889	1855	1818	1791	1747	1716	1668
	#3 MED	1693	1652	1627	1584	1551	1510	1462
	#2 MED-LO	1486	1450	1411	1375	1335	1291	1252
	#1 LO	1292	1247	1207	1172	1123	1055	990
60D	#5 HI	1907	1871	1835	1796	1762	1723	1681
	#4 MED-HI	1851	1816	1774	1742	1699	1659	1616
	#3 MED	1648	1608	1569	1530	1492	1445	1404
	#2 MED-LO	1456	1416	1371	1333	1289	1227	1163
	#1 LO	1261	1221	1172	1120	1055	998	949

1. Air handler units have been tested to UL 1995 / CSA 22.2 standards up to 0.50" wc. external static pressure.
Dry coil conditions only, tested without filters.
For optimal performance, external static pressures of 0.2" to 0.5" are recommended. Applications above 0.5" are not recommended.
Airflow data shown is from testing performed at 230V. AE units use a standard ECM constant torque motor, and there is minimal variation of airflow at other distribution voltage values. The above data can be used for airflow at other distribution voltages.

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WIRING DIAGRAM

WHEN INSTALLING HEATER KIT, BE SURE THE BLOWER SPEED IS SET TO THE SPEED SPECIFIED FOR THE AIR HANDLER/HEATER KIT COMBINATION ON THIS UNIT'S INSTALLATION INSTRUCTIONS.

SEE INSTALLATION INSTRUCTIONS FOR PROPER LOW VOLTAGE FIELD WIRING CONNECTIONS.

LEGEND
LS - LIMIT SWITCH
SEQ - SEQUENCER
HE - HEATING ELEMENT
FL - FUSIBLE LINK
H - SEQUENCER HEATER
RLY - RELAY

USE COPPER CONDUCTORS ONLY.
IF ALUMINUM CONDUCTORS ARE PRESENT, ALL APPLICABLE LOCAL AND NATIONAL CODES MUST BE FOLLOWED.

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NOTES

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York International Corp.
5005 York Drive
Norman, OK 73069