TRANE®

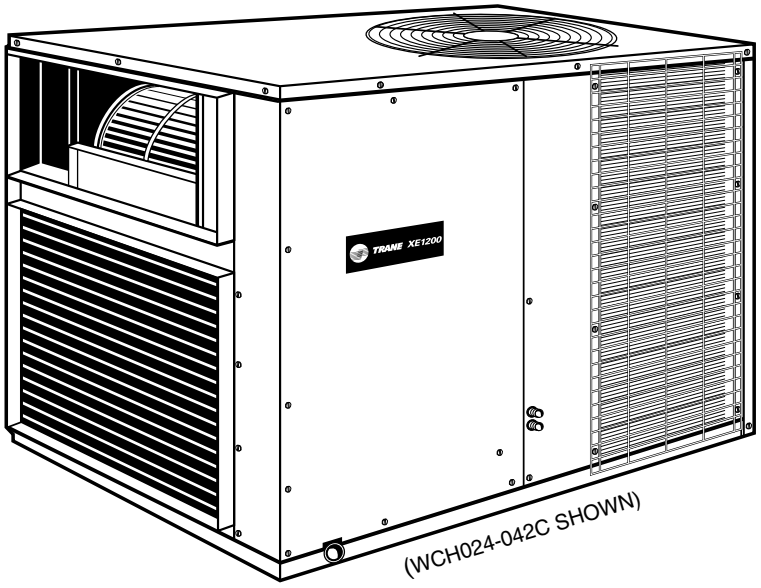
22-1334-11

Packaged Heat Pump Units

Horizontal Over/Under Models

WCH024-042C,048-060F

2, 2½, 3, 3½,4, 5 Ton



(WCH024-042C SHOWN)

General Features

It's Hard To Stop A Trane.®

Horizontal Packaged Heat Pumps

Trane's 2-5 ton packaged heat pumps are designed for efficiency, reliability and easy installation. Although our cooling efficiencies are among the highest in the industry, it is during heating operation that the major benefits of a heat pump materialize. Depending on the outdoor temperature, the Trane heat pump will produce up to 2 to 3 times more heat per unit of power consumed than resistance heating units.

Reliable electronic Demand Defrost, rugged compressor with crank case heater (as required), filter drier and thermal expansion devices are the backbone of Trane heat pump. We have also made installation easier and less costly by standardizing the cabinet and accessories. Two standardized cabinet designs (one cabinet design for the 2-3-1/2 ton models and one cabinet design for the 4-5 ton models).

The Best Heat Pump in the Industry Just Got Better

Better Installability
These heat pump units have an over/under horizontal configuration which provides an efficient airflow delivery. This dedicated design eliminates the need for any unit conversion, saving field labor and installed cost.

Better Serviceability
Accessibility, already a standard feature in Trane heat pump units, has been greatly enhanced. With standardized cabinet designs, all components were designed to be located in the same location, regardless of unit size. Our timesaving rotolock compressor fittings provide easy removal if service on the compressor is required.

A redesigned and simplified control panel that features colored and numbered wire is standard on all products. This aids in reducing troubleshooting time when wire tracing is required. And easy access to all major components can be accomplished by removing quick service access panels.

Unmatched Quality and Reliability
All major components on these products, including the compressor, have been designed and manufactured for maximum service. Every Climatuff® compressor is designed and manufactured to exacting specifications. Each design is life tested in extreme environments to ensure reliable and long lasting operation in normal applications. Each compressor has internal motor protection and crankcase heat for added reliability.

Features and Benefits

The WCH024-042C , 048-060F packaged heat pumps feature:

Design Features
- Climatuff® compressor, designed and manufactured to provide reliable, economical operation
- Internal pressure relief and internal overload protection
- Multi-speed indoor fan motor on WCH024-036C models, and variable speed Dirct Drive blower motor on WCH042C, 048-060F models.
- External pressure taps for refrigerant check
- Thermal expansion valve refrigerant control
- Demand defrost control system
- Reliable, solenoid-operated reversing valve
- Copper tube, aluminum plate fin coils
- Polarized plug for easy field connection of low voltage to supplementary heater
- Low ambient cooling to 45° F. as manufactured; to 0° F. with accessory
- Duct flanges
- UL and ARI certified
- Outdoor coil guard

Accessories
- Supplemental Electric Heater
- Thermostats
- Low ambient cooling to 0° F.

Contents

Features and Benefits

Optional Equipment

OPTIONAL EQUIPMENT FOR PACKAGE UNITS. (Check mark [✓] indicates accessories included.)

Evaporator Defrost Control (Low Ambient Cooling) Kit		BAYLOAM011A [ ]
Anti-short Cycle Timer①		BAYASCT001 [ ]
Outdoor Thermostat Kit		BAYSTAT033A [ ]
Supplementary Heaters —	4.33/5.76 KW Heater WCH024-042C1,048-060F1 (208/240v)	BAYHTRC106A [ ]
	6.12/8.16 KW Heater WCH036-042C1, 048-060F1 (208/240v)	BAYHTRC109A [ ]
	7.93/10.56 KW Heater **WCH048F1 ONLY** (208/240v)	**BAYHTRC110A** [ ]
	7.93/10.56 KW Heater WCH024-42C1, 060F1 (208/240v)	BAYHTRC111A [ ]
	12.98/17.28 KW Heater WCH030-042C1, 048-060F1 (208/240v)②	BAYHTRC117A [ ]

NOTES:
① *Do not use with programmable thermostats.*
② This model has a fuse box factory provided.

Selection Procedure

Model Number Nomenclature

1	2	3	4	5	6	7	8	9	10	11	12
W	C	H	0	3	0	C	1	0	0	A	A

PRODUCT TYPE
WC = Heat Pump, Packaged

AIRFLOW CONFIGURATION
H = Horizontal

NOMINAL GROSS COOLING CAPACITY (MBh)
024 = 24 MBh = 2 Tons
030 = 30 MBh = 2½ Tons
036 = 36 MBh = 3 Tons
042 = 42 MBh = 3½ Tons
048 = 48 MBh = 4 Tons
060 = 60 MBh = 5 Tons

MAJOR DESIGN MODIFICATION

ELECTRICAL CHARACTERISTICS
1 = 208-230/1/60

Secondary Capacity And/Or Factory-Installed Options
00 = Packed Stock, No Options

MINOR DESIGN MODIFICATION

PRODUCT SERVICE CHANGE

General Data

MODEL	WCH024C100A	WCH030C100A	WCH036C100B	WCH042C100A
RATED VOLTS/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
PERFORMANCE (COOLING)①				
BTUH	25000	29400	35000	40500
Indoor Air Flow (CFM)	800	1000	1200	1400
Power Input (KW)	2.1	2.43	3.08	3.58
EER/SEER (BTU/Watt-Hr.)⑥	11.88 / 13.0	12.45 / 13.5	11.39/ 13.0	10.66 / 13.0
Noise Rating No.(Decibels)②	78	75	75	77
PERFORMANCE (HEATING)①				
(High Temp.) BTUH & C.O.P.	24000 - 3.48	27000 - 3.53	32600 - 3.59	37500 - 3.68
Power Input (KW)	2.03	2.26	2.67	3.02
(Low Temp.) BTUH & C.O.P.	14000 - 2.18	16000 - 2.30	19000 - 2.28	22400 - 2.40
Power Input (KW)	1.93	2.12	2.47	2.8
HSPF (BTU/Watt-Hr.)⑥	7.7	7.7	7.7	7.7
POWER CONNS. — V/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity③	16	21	23	28
Br. Cir. — Max. (Amps)	25	30	35	40
Prot. Rtg. — Recmd. (Amps)	25	30	35	40
COMPRESSOR	CLIMATUFF®	CLIMATUFF®	CLIMATUFF®	CLIMATUFF®
No. Used — No. Speeds	1 - 1	1 - 1	1 - 1	1 - 1
Volts/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
R.L. Amps — L.R. Amps	10.3 - 56	12.7 - 67	14.7- 83	16.5 - 95
OUTDOOR COIL — TYPE	PLATE FIN	PLATE FIN	PLATE FIN	PLATE FIN
Rows / F.P.I.	2 / 22	2 / 22	2 / 22	2 / 22
Face Area (Sq. Ft.)	11.2	11.2	11.2	12.3
Tube Size (in.)	0.375	0.375	0.375	0.375
Refrgerant Control	TXV-NB	TXV-NB	TXV-NB	TXV-NB
INDOOR COIL — TYPE	PLATE FIN	PLATE FIN	PLATE FIN	PLATE FIN
Rows / F.P.I.	4 / 15	4 / 15	4 / 15	5 / 15
Face Area (Sq. Ft.)	3.44	3.44	3.44	3.44
Tube Size (in.)	0.375	0.375	0.375	0.375
Refrigerant Control	TXV-NB	TXV-NB	TXV-NB	TXV-NB
Drain Conn. Size (in.)	3/4 FPT - PVC	3/4 FEMALE PVC	3/4 FEMALE PVC	3/4 FEMALE PVC
Duct Connections	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
OUTDOOR FAN — TYPE	PROPELLER	PROPELLER	PROPELLER	PROPELLER
No. Used / Dia. (in.)	1 / 20	1 / 20	1 / 20	1 / 20
Type Drive / No. Speeds	DIRECT / 1	DIRECT / 1	DIRECT / 1	DIRECT / 1
CFM @a 0.0 In. W.G.④	2500	2500	2500	2600
No. Motors — HP	1 - 1/5	1 - 1/5	1 - 1/5	1 - 1/5
Motor Speed R.P.M.	850	850	850	850
Volts/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps — L.R. Amps	1.0 - 2.2	1.0 - 2.2	1.0 - 2.2	1.0 - 2.2
INDOOR FAN — TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
Dia. x Width (in.)	9 X 9	10 X 10	10 X 10	10 X 10
No. Used	1	1	1	1
Drive / Speeds (No.)	DIRECT / 2	DIRECT / 2	DIRECT / 2	DIRECT / VAR
CFM vs. in. W.G.⑤	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE
No. Motors — HP	1 - 0.25	1 - .50	1 - 0.50	1 - .75
Motor Speed R.P.M.	1075	1050	1050	VARIABLE
Volts/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps — L.R. Amps	1.8 - 6.8	4.0	4.1	6.8
FILTER — FURNISHED?	NO	NO	NO	NO
Type Recommended	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY
Min. Face Area⑦				
Low Vel. (Sq. Ft.)	2.67	3.33	4.00	4.67
REFRIGERANT				
Charge (lbs. of R-22)	7 lbs., 8 oz.	7 lbs., 4 oz.	7 lbs.	8 lbs., 8 oz.
DIMENSIONS	H X W X D	H X W X D	H X W X D	H X W X D
Crated (in.)	34 X 33.8 X 48	34 X 33.8 X 48	34 X 33.8 X 48	34 X 33.8 X 48
Uncrated	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
WEIGHT				
Shipping (lbs.) / Net (lbs.)	329 / 282	330 / 283	338 / 291	359 / 312

① Rated in accordance with A.R.I. Standard 210/240.

② Calculated in accordance with A.R.I. Standard 270.

③ Calculated in accordance with currently prevailing Nat'l. Electric Code.

④ Standard Air — Dry Coil — Outdoor.

⑤ Standard Air — Wet Coil — Indoor.

⑥ Rated in accordance with D.O.E. test procedure. HSPF is at the minimum design requirement of Region IV.

⑦ Filters must be installed in return air system. Square footages listed above are based on 300 F.P.M. face velocity. If permanent filters are used size per manufacturer's recommendations with clean resistance of 0.05" W.C.

General Data

MODEL	WCH048F100A	WCH060F100A
RATED VOLTS/PH/HZ	208-230/1/60	208-230/1/60
PERFORMANCE (COOLING)①		
BTUH	49000	60000
Indoor Air Flow (CFM)	1600	1950
Power Input (KW)	4.05	5.41
EER/SEER (BTU/Watt-Hr.)⑥	12.00 / 13.50	11.30 / 13.00
Noise Rating No.(Decibels)②	84	84
PERFORMANCE (HEATING)①		
(High Temp.) BTUH & C.O.P.	47500 - 3.54	56000 - 3.55
Power Input (KW)	3.96	4.68
(Low Temp.) BTUH & C.O.P.	29000 - 2.40	35000 - 2.39
Power Input (KW)	3.53	4.30
HSPF (BTU/Watt-Hr.)⑥	8.0	8.2
POWER CONNS. — V/PH/HZ	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity③	37	48.0
Br. Cir. — Max. (Amps)	50	60
Prot. Rtg. — Recmd. (Amps)	50	60
COMPRESSOR	CLIMATUFF®	CLIMATUFF®
No. Used — No. Speeds	1 - 1	1 - 1
Volts/PH/HZ	208-230/1/60	208-230/1/60
R.L. Amps — L.R. Amps	21.2 - 137	28.8 - 148
OUTDOOR COIL — TYPE	PLATE FIN	PLATE FIN
Rows / F.P.I.	2 / 22	2 / 22
Face Area (Sq. Ft.)	14.31	14.31
Tube Size (in.)	3/8	3/8
Refrgerant Control	TXV-NB	TXV-NB
INDOOR COIL — TYPE	PLATE FIN	PLATE FIN
Rows / F.P.I.	3 / 16	4 / 16
Face Area (Sq. Ft.)	5.31	5.31
Tube Size (in.)	3/8	3/8
Refrigerant Control	TXV-NB	TXV-NB
Drain Conn. Size (in.)	3/4 FPT - PVC	3/4 FEMALE PVC
Duct Connections	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
OUTDOOR FAN — TYPE	PROPELLER	PROPELLER
No. Used / Dia. (in.)	1 / 22	1 / 22
Type Drive / No. Speeds	DIRECT / 1	DIRECT / 1
CFM @a 0.0 In. W.G.④	4100	4100
No. Motors — HP	1 - 1/2	1 - 1/2
Motor Speed R.P.M.	1080	1080
Volts/PH/HZ	208-230/1/60	208-230/1/60
F.L. Amps — L.R. Amps	3.4 - 7.7	2.8 - 6.6
INDOOR FAN — TYPE	CENTRIFUGAL	CENTRIFUGAL
Dia. x Width (in.)	11 X 11	11 X 11
No. Used	1	1
Drive / Speeds (No.)	DIRECT / VAR	DIRECT / VAR
CFM vs. in. W.G.⑤	SEE FAN PERFORMANCE TABLE	SEE FAN PERFORMANCE TABLE
No. Motors — HP	1 - .75	1 - 1
Motor Speed R.P.M.	VARIABLE	VARIABLE
Volts/PH/HZ	208-230/1/60	208-230/1/60
F.L. Amps — L.R. Amps	6.8	6.9
FILTER — FURNISHED?	NO	NO
Type Recommended	THROWAWAY	THROWAWAY
Min. Face Area⑦		
Low Vel. (Sq. Ft.)	4.17	5.31
REFRIGERANT		
Charge (lbs. of R-22)	11 lbs., 0 oz.	10 lbs., 11 oz.
DIMENSIONS	H X W X D	H X W X D
Crated (in.)	39-3/8 X 47X 66	39-3/8 X 47X 66
Uncrated	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
WEIGHT		
Shipping (lbs.) / Net (lbs.)	521 / 449	529 / 457

① Rated in accordance with A.R.I. Standard 210/240.

② Calculated in accordance with A.R.I. Standard 270.

③ Calculated in accordance with currently prevailing Nat'l. Electric Code.

④ Standard Air — Dry Coil — Outdoor.

⑤ Standard Air — Wet Coil — Indoor.

⑥ Rated in accordance with D.O.E. test procedure. HSPF is at the minimum design requirement of Region IV.

⑦ Filters must be installed in return air system. Square footages listed above are based on 300 F.P.M. face velocity. If permanent filters are used size per manufacturer's recommendations with clean resistance of 0.05" W.C.

Performance Data
Cooling

WCH024C1 AT 800 CFM (CAPACITIES ARE NET IN BTUH/1000-INDOOR FAN HEAT DEDUCTED)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP. 72	74	76	78	80	COMPR. KW	APP. DEW PT.
85	59	22.5	18.8	20.4	21.9	22.9*	23.5*	1.41	47.0
	63	24.3	15.7	17.3	18.8	20.4	22.0	1.42	50.9
	67	26.1	12.3	13.9	15.5	17.0	18.6	1.42	55.2
	71	27.9	8.8	10.4	12.0	13.6	15.2	1.42	59.5
90	59	22.0	18.6	20.1	21.7	22.5*	23.1*	1.51	47.3
	63	23.8	15.5	17.1	18.6	20.2	21.8	1.51	51.2
	67	25.5	12.1	13.7	15.2	16.8	18.4	1.51	55.4
	71	27.4	8.6	10.2	11.8	13.4	15.0	1.51	59.7
95	59	21.6	18.4	19.9	21.5	22.1*	22.7*	1.61	47.6
	63	23.2	15.3	16.9	18.4	20.0	21.6	1.61	51.5
	67	25.0	11.9	13.5	15.0	16.6	18.2	1.61	55.7
	71	26.8	8.4	10.0	11.6	13.2	14.8	1.60	60.0
100	59	21.0	18.1	19.7	21.2*	21.7*	22.2*	1.73	47.9
	63	22.7	15.0	16.6	18.2	19.8	21.3	1.73	51.8
	67	24.4	11.7	13.2	14.8	16.4	18.0	1.72	56.0
	71	26.2	8.2	9.8	11.4	12.9	14.5	1.72	60.3
105	59	20.5	17.9	19.5	20.7*	21.2*	21.8*	1.86	48.2
	63	22.1	14.8	16.4	18.0	19.5	21.1	1.85	52.1
	67	23.8	11.4	13.0	14.6	16.2	17.7	1.84	56.3
	71	25.5	8.0	9.6	11.1	12.7	14.3	1.83	60.6
115	59	19.4	17.4	19.0	19.8*	20.3*	20.9*	2.13	48.8
	63	21.0	14.3	15.9	17.5	19.1	20.7	2.10	52.7
	67	22.6	11.0	12.5	14.1	15.7	17.3	2.08	56.9
	71	24.2	7.5	9.1	10.7	12.3	13.8	2.05	61.2

CORRECTION FACTORS - OTHER AIRFLOWS
(MULTIPLY OR ADD AS INDICATED)

AIRFLOW	700	800
TOTAL CAP.	X0.98	X1.00
SENS. CAP.	X0.94	X1.00
COMPR. KW	X1.00	X1.00
A.D.P.	-1.3	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 25000 BTUH
AIRFLOW = 800 CFM
APP. DEW PT. = 55.7 DEG. F
COMPRESSOR POWER = 1600 WATTS
I.D. FAN POWER = 260 WATTS
O.D. FAN POWER = 255 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 11.88 BTUH/WATT
*** DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)**
TOTAL CAPACITY, COMP. KW AND APP. DEW PT. ARE VALID ONLY FOR WET COIL
ALL TEMPERATURES IN DEGREES F.

WCH030C1 AT 1000 CFM (CAPACITIES ARE NET IN BTUH/1000-INDOOR FAN HEAT DEDUCTED)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP. 72	74	76	78	80	COMPR. KW	APP. DEW PT.
85	59	27.1	22.5	24.4	26.2	27.5*	28.2*	1.69	46.8
	63	29.2	18.7	20.6	22.5	24.4	26.3	1.70	50.7
	67	31.3	14.7	16.6	18.4	20.3	22.2	1.71	54.9
	71	33.5	10.5	12.4	14.3	16.2	18.1	1.72	59.3
90	59	26.5	22.2	24.1	26.0	27.1*	27.7*	1.81	47.1
	63	28.6	18.5	20.4	22.3	24.2	26.0	1.82	51.0
	67	30.7	14.4	16.3	18.2	20.1	22.0	1.82	55.2
	71	32.8	10.3	12.2	14.1	15.9	17.8	1.83	59.5
95	59	25.9	21.9	23.8	25.7	26.6*	27.2*	1.92	47.4
	63	27.9	18.2	20.1	22.0	23.9	25.8	1.93	51.3
	67	30.0	14.2	16.1	18.0	19.8	21.7	1.94	55.5
	71	32.2	10.0	11.9	13.8	15.7	17.6	1.94	59.8
100	59	25.2	21.7	23.5	25.4*	26.0*	26.6*	2.07	47.7
	63	27.2	18.0	19.8	21.7	23.6	25.5	2.07	51.6
	67	29.3	13.9	15.8	17.7	19.6	21.5	2.08	55.8
	71	31.4	9.8	11.7	13.5	15.4	17.3	2.08	60.1
105	59	24.6	21.4	23.3	24.8*	25.5*	26.1*	2.22	48.0
	63	26.5	17.7	19.6	21.5	23.3	25.2	2.22	51.9
	67	28.5	13.6	15.5	17.4	19.3	21.2	2.22	56.1
	71	30.6	9.5	11.4	13.3	15.2	17.1	2.22	60.4
115	59	23.2	20.8	22.7	23.7*	24.3*	24.9*	2.53	48.6
	63	25.1	17.1	19.0	20.9	22.8	24.7	2.51	52.5
	67	27.0	13.1	15.0	16.9	18.7	20.6	2.50	56.7
	71	29.0	9.0	10.9	12.7	14.6	16.5	2.49	61.0

CORRECTION FACTORS - OTHER AIRFLOWS
(MULTIPLY OR ADD AS INDICATED)

AIRFLOW	875	1000
TOTAL CAP.	X0.98	X1.00
SENS. CAP.	X0.94	X1.00
COMPR. KW	X1.00	X1.00
A.D.P.	-1.3	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 39400 BTUH
AIRFLOW = 1000 CFM
APP. DEW PT. = 55.5 DEG. F
COMPRESSOR POWER = 1900 WATTS
I.D. FAN POWER = 220 WATTS
O.D. FAN POWER = 250 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 12.45 BTUH/WATT
*** DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)**
TOTAL CAPACITY,COMP. KW AND APP. DEW PT. ARE VALID ONLY FOR WET COIL
ALL TEMPERATURES IN DEGREES F.

WCH036C1 AT 1200 CFM (CAPACITIES ARE NET IN BTUH/1000-INDOOR FAN HEAT DEDUCTED)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP. 72	74	76	78	80	COMPR. KW	APP. DEW PT.
85	59	32.6	27.2	29.4	31.7	33.1*	33.9*	2.16	47.0
	63	35.0	22.7	25.0	27.2	29.5	31.8	2.18	50.9
	67	37.5	17.8	20.1	22.3	24.6	26.9	2.21	55.1
	71	40.2	12.8	15.1	17.3	19.6	21.9	2.23	59.5
90	59	31.9	26.9	29.2	31.4	32.6*	33.4*	2.29	47.2
	63	34.3	22.4	24.7	27.0	29.2	31.5	2.31	51.2
	67	36.8	17.5	19.8	22.0	24.3	26.6	2.34	55.4
	71	39.3	12.5	14.8	17.0	19.3	21.6	2.37	59.7
95	59	31.3	26.6	28.9	31.1	32.1*	32.8*	2.42	47.5
	63	33.6	22.1	24.4	26.7	28.9	31.2	2.45	51.4
	67	36.0	17.2	19.5	21.7	24.0	26.3	2.48	55.7
	71	38.5	12.2	14.5	16.7	19.0	21.3	2.51	60.0
100	59	30.5	26.3	28.6	30.7*	31.4*	32.2*	2.57	47.8
	63	32.8	21.8	24.1	26.3	28.6	30.9	2.61	51.8
	67	35.1	16.9	19.2	21.4	23.7	25.9	2.64	56.0
	71	37.5	11.9	14.1	16.4	18.7	20.9	2.68	60.4
105	59	29.8	26.0	28.2	30.1*	30.8*	31.5*	2.73	48.1
	63	32.0	21.5	23.7	26.0	28.3	30.5	2.77	52.1
	67	34.2	16.6	18.8	21.1	23.3	25.6	2.81	56.3
	71	36.6	11.5	13.8	16.1	18.3	20.6	2.85	60.7
115	59	28.2	25.3	27.6	28.8*	29.5*	30.2*	3.04	48.7
	63	30.3	20.8	23.1	25.3	27.6	29.9	3.08	52.7
	67	32.4	15.9	18.2	20.4	22.7	24.9	3.13	57.0
	71	34.6	10.9	13.1	15.4	17.7	19.9	3.18	61.3

CORRECTION FACTORS - OTHER AIRFLOWS
MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1050	1200
TOTAL CAP.	X0.98	X1.00
SENS. CAP.	X0.94	X1.00
COMPR. KW	X1.00	X1.00
A.D.P.	-1.3	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 35000 BTUH
AIRFLOW = 1200 CFM
APP. DEW PT. = 55.7 DEG. F
COMPRESSOR POWER = 2480 WATTS
I.D. FAN POWER = 280 WATTS
O.D. FAN POWER = 250 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 11.39 BTUH/WATT
*** DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)**
TOTAL CAPACITY,COMP. KW AND APP. DEW PT. ARE VALID ONLY FOR WET COIL
ALL TEMPERATURES IN DEGREES F.

Performance Data
Cooling

WCH042C1 AT 1400 CFM (CAPACITIES ARE NET IN BTUH/1000-INDOOR FAN HEAT DEDUCTED)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP. 72	74	76	78	80	COMPR. KW	APP. DEW PT.
85	59	38.4	33.1	35.9	38.5*	39.5*	40.4*	2.79	47.7
	63	41.1	27.5	30.3	33.1	35.9	38.8	2.83	51.7
	67	44.0	21.3	24.1	27.0	29.8	32.6	2.86	56.0
	71	46.9	15.0	17.9	20.7	23.5	26.3	2.90	60.4
90	59	37.6	32.7	35.6	37.8*	38.8*	39.7*	2.96	48.0
	63	40.2	27.1	29.9	32.7	35.6	38.4	3.00	52.0
	67	43.0	20.9	23.8	26.6	29.4	32.2	3.04	56.3
	71	45.9	14.7	17.5	20.3	23.1	25.9	3.08	60.7
95	59	36.7	32.4	35.2	37.2*	38.1*	38.9*	3.13	48.3
	63	39.3	26.7	29.5	32.4	35.2	38.0	3.17	52.3
	67	42.0	20.6	23.4	26.2	29.0	31.8	3.22	56.6
	71	44.8	14.3	17.1	19.9	22.7	25.6	3.27	61.0
100	59	35.8	32.0	34.8	36.4*	37.3*	38.1*	3.33	48.6
	63	38.3	26.3	29.1	31.9	34.8	37.6	3.38	52.6
	67	41.0	20.1	23.0	25.8	28.6	31.4	3.43	56.9
	71	43.7	13.9	16.7	19.5	22.3	25.1	3.48	61.3
105	59	34.9	31.5	34.4	35.6*	36.5*	37.3*	3.52	48.9
	63	37.3	25.9	28.7	31.5	34.3	37.2	3.58	52.9
	67	39.9	19.7	22.5	25.4	28.2	31.0	3.64	57.2
	71	42.5	13.4	16.3	19.1	21.9	24.7	3.70	61.6
115	59	33.0	30.7	33.1*	34.0*	34.8*	35.6*	3.91	49.5
	63	35.3	25.0	27.9	30.7	33.5	35.6*	3.98	53.5
	67	37.7	18.9	21.7	24.5	27.3	30.2	4.05	57.8
	71	40.2	12.6	15.4	18.3	21.1	23.9	4.13	62.2

CORRECTION FACTORS - OTHER AIRFLOWS
(MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1225	1400
TOTAL CAP.	X0.99	X1.00
SENS. CAP.	X0.94	X1.00
COMPR. KW	X1.00	X1.00
A.D.P.	-1.4	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 40500 BTUH
AIRFLOW = 1400 CFM
APP. DEW PT. = 56.6 DEG. F
COMPRESSOR POWER = 3218 WATTS
I.D. FAN POWER = 490 WATTS
O.D. FAN POWER = 250 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 11.37 BTUH/WATT
*** DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)**
TOTAL CAPACITY,COMP. KW AND APP. DEW PT. ARE VALID ONLY FOR WET COIL
ALL TEMPERATURES IN DEGREES F.

WCH048F AT 1600 CFM (CAPACITIES ARE NET IN BTUH/1000-INDOOR FAN HEAT DEDUCTED)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP. 72	74	76	78	80	COMPR. KW	APP.DEW PT.
85	59	44.4	36.1	38.9	41.7	44.5*	45.6*	3.63	46.1
	63	47.7	30.5	33.3	36.1	39.0	41.8	3.67	50.0
	67	51.0	24.3	27.1	29.9	32.8	35.6	3.70	54.2
	71	54.5	17.9	20.7	23.6	26.4	29.3	3.74	58.5
90	59	43.6	35.7	38.5	41.4	43.8*	44.9*	3.80	46.4
	63	46.7	30.1	32.9	35.7	38.6	41.4	3.84	50.4
	67	50.0	23.9	26.7	29.5	32.4	35.2	3.88	54.6
	71	53.4	17.5	20.3	23.2	26.0	28.9	3.92	58.9
95	59	42.7	35.3	38.2	41.0	43.1*	44.2*	3.96	46.7
	63	45.8	29.7	32.5	35.4	38.2	41.0	4.01	50.7
	67	49.0	23.5	26.3	29.1	32.0	34.8	4.06	54.9
	71	52.3	17.1	20.0	22.8	25.6	28.5	4.10	59.2
100	59	41.7	34.9	37.7	40.5	42.4*	43.4*	4.17	47.1
	63	44.7	29.2	32.1	34.9	37.7	40.6	4.22	51.0
	67	47.8	23.0	25.8	28.7	31.5	34.4	4.28	55.3
	71	51.0	16.7	19.5	22.3	25.2	28.0	4.33	59.6
105	59	40.8	34.4	37.3	40.1	41.6*	42.5*	4.37	47.4
	63	43.7	28.8	31.6	34.5	37.3	40.1	4.44	51.4
	67	46.7	22.6	25.4	28.2	31.1	33.9	4.50	55.6
	71	49.8	16.2	19.1	21.9	24.7	27.6	4.57	59.9
115	59	38.8	33.6	36.4	38.9*	39.9*	40.8*	4.77	48.1
	63	41.5	27.9	30.7	33.6	36.4	39.3	4.86	52.1
	67	44.3	21.7	24.5	27.3	30.2	33.0	4.95	56.3
	71	47.3	15.3	18.2	21.0	23.8	26.7	5.04	60.7

CORRECTION FACTORS - OTHER AIRFLOWS
(MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1400	1600
TOTAL CAP.	X0.98	X1.00
SENS. CAP.	X0.94	X1.00
COMPR. KW	X1.00	X1.00
A.D.P.	-1.5	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 49000 BTUH
AIRFLOW = 1600 CFM
APP. DEW PT. = 54.9 DEG. F
COMPRESSOR POWER = 3285 WATTS
I.D. FAN POWER = 270 WATTS
O.D. FAN POWER = 500 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 12.00 BTUH/WATT
*** DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)**
TOTAL CAPACITY,COMP. KW AND APP. DEW PT. ARE VALID ONLY FOR WET COIL
ALL TEMPERATURES IN DEGREES F.

WCH060F AT 2000 CFM (CAPACITIES ARE NET IN BTUH/1000-INDOOR FAN HEAT DEDUCTED)

O.D. D.B.	I.D. W.B.	TOTAL CAP.	SENS. CAP. AT ENTERING D.B. TEMP. 72	74	76	78	80	COMPR. KW	APP.DEW PT.
85	59	54.4	45.5	49.3	53.1	55.4*	56.6*	4.82	47.0
	63	58.4	38.0	41.8	45.6	49.4	53.1	4.86	51.0
	67	62.5	29.8	33.6	37.4	41.1	44.9	4.91	55.2
	71	66.8	21.4	25.2	29.0	32.8	36.5	4.95	59.6
90	59	53.4	45.1	48.8	52.6	54.5*	55.7*	5.05	47.3
	63	57.2	37.6	41.3	45.1	48.9	52.7	5.10	51.3
	67	61.3	29.3	33.1	36.9	40.7	44.4	5.15	55.5
	71	65.4	21.0	24.7	28.5	32.3	36.0	5.20	59.9
95	59	52.3	44.6	48.4	52.1	53.6*	54.8*	5.28	47.6
	63	56.1	37.1	40.9	44.6	48.4	52.2	5.34	51.5
	67	60.0	28.9	32.6	36.4	40.2	43.9	5.39	55.8
	71	64.1	20.5	24.2	28.0	31.8	35.6	5.45	60.1
100	59	51.1	44.1	47.9	51.3*	52.6*	53.8*	5.56	47.9
	63	54.8	36.6	40.3	44.1	47.9	51.7	5.62	51.8
	67	58.6	28.3	32.1	35.9	39.6	43.4	5.68	56.1
	71	62.5	19.9	23.7	27.5	31.3	35.0	5.74	60.5
105	59	49.9	43.6	47.3	50.4*	51.6*	52.8*	5.83	48.2
	63	53.5	36.0	39.8	43.6	47.4	51.1	5.90	52.1
	67	57.2	27.8	31.6	35.3	39.1	42.9	5.97	56.4
	71	61.0	19.4	23.2	26.9	30.7	34.5	6.04	60.8
115	59	47.6	42.5	46.3	48.4*	49.6*	50.7*	6.36	48.7
	63	50.9	35.0	38.8	42.5	46.3	50.1	6.45	52.7
	67	54.4	26.7	30.5	34.3	38.1	41.8	6.54	57.0
	71	58.0	18.3	22.1	25.9	29.7	33.4	6.64	61.4

CORRECTION FACTORS - OTHER AIRFLOWS
(MULTIPLY OR ADD AS INDICATED)

AIRFLOW	1750	2000
TOTAL CAP.	X0.98	X1.00
SENS. CAP.	X0.94	X1.00
COMPR.	KW X1.00	X1.00
A.D.P.	-1.4	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 60000 BTUH
AIRFLOW = 2000 CFM
APP. DEW PT. = 55.8 DEG. F
COMPRESSOR POWER = 4480 WATTS
I.D. FAN POWER = 500 WATTS
O.D. FAN POWER = 435 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 11.31 BTUH/WATT
*** DRY COIL CONDITION (TOTAL CAPACITY = SENSIBLE CAPACITY)**
TOTAL CAPACITY,COMP. KW AND APP. DEW PT. ARE VALID ONLY FOR WET COIL
ALL TEMPERATURES IN DEGREES F.

Performance Data
Heating

WCH024C1 AT 800 CFM

O.D. TEMP. F.	HEATING CAPACITY (BTUH/1000) AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80	TOTAL POWER IN KILOWATTS AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80
-3	7.43	7.33	7.28	7.23	1.72	1.87	1.95	2.02
2	9.13	9.00	8.94	8.87	1.74	1.89	1.96	2.04
7	10.8	10.7	10.6	10.5	1.75	1.90	1.98	2.06
12	12.5	12.3	12.2	12.2	1.77	1.92	2.00	2.07
17	14.2	14.0	13.9	13.8	1.78	1.94	2.01	2.09
22	15.0	14.8	14.7	14.6	1.79	1.95	2.03	2.10
27	15.8	15.5	15.4	15.3	1.80	1.96	2.04	2.12
32	16.5	16.3	16.2	16.1	1.81	1.97	2.05	2.13
37	17.3	17.1	16.9	16.8	1.83	1.99	2.06	2.14
42	18.1	17.8	17.7	17.6	1.84	2.00	2.08	2.16
47	24.4	24.0	23.8	23.6	1.87	2.03	2.11	2.19
52	26.0	25.7	25.5	25.3	1.88	2.05	2.13	2.21
57	27.7	27.3	27.1	26.9	1.90	2.06	2.14	2.23
62	29.4	29.0	28.8	28.6	1.91	2.08	2.16	2.25
67	31.1	30.7	30.4	30.2	1.92	2.09	2.18	2.26
72	32.8	32.3	32.1	31.9	1.94	2.11	2.19	2.28

CORRECTION FACTORS - OTHER AIRFLOWS
(VALUE AT 800 CFM TIMES CORR. FACTOR = VALUE AT NEW AIRFLOW)

AIRFLOW	700	800
HEATING CAP.	X0.99	X1.00
COMPR. KW	X1.03	X1.00

VALUES AT ARI RATING CONDITIONS OF:
70&47/43 (HIGH TEMP. POINT)
70&17/15 (LOW TEMP. POINT)
AIRFLOW = 800 CFM
HEATING CAP. (HIGH TEMP.) = 24000 BTUH
HEATING CAP. (LOW TEMP.) = 14000 BTUH
COMPR. POWER (HIGH TEMP.) = 1500 WATTS
COMPR. POWER (LOW TEMP.) = 1435 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.48
COEFF. OF PERF. (LOW TEMP.) = 2.18
OUTDOOR FAN POWER = 280 WATTS
INDOOR FAN POWER = 250 WATTS

WCH030C1 AT 1000 CFM

O.D. TEMP. F.	HEATING CAPACITY (BTUH/1000) AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80	TOTAL POWER IN KILOWATTS AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80
-3	8.79	8.67	8.61	8.55	1.82	1.98	2.06	2.14
2	10.6	10.5	10.4	10.4	1.84	2.01	2.09	2.17
7	12.5	12.3	12.2	12.2	1.86	2.03	2.11	2.20
12	14.4	14.2	14.1	14.0	1.88	2.06	2.14	2.23
17	16.2	16.0	15.9	15.8	1.91	2.08	2.17	2.25
22	17.4	17.1	17.0	16.9	1.92	2.09	2.18	2.27
27	18.5	18.2	18.1	18.0	1.93	2.10	2.19	2.28
32	19.6	19.3	19.2	19.0	1.94	2.11	2.20	2.29
37	20.7	20.4	20.3	20.1	1.95	2.12	2.21	2.30
42	21.9	21.6	21.4	21.2	1.96	2.14	2.23	2.31
47	27.4	27.0	26.8	26.6	2.04	2.23	2.32	2.42
52	29.3	28.8	28.6	28.4	2.06	2.26	2.35	2.45
57	31.1	30.7	30.4	30.2	2.09	2.28	2.38	2.47
62	33.0	32.5	32.3	32.0	2.11	2.31	2.40	2.50
67	34.8	34.3	34.1	33.8	2.13	2.33	2.43	2.53
72	36.7	36.2	35.9	35.6	2.16	2.36	2.45	2.55

CORRECTION FACTORS - OTHER AIRFLOWS
(VALUE AT 1000 CFM TIMES CORR. FACTOR = VALUE AT NEW AIRFLOW)

AIRFLOW	875	1000
HEATING CAP.	X0.99	X1.00
COMPR. KW	X1.03	X1.00

VALUES AT ARI RATING CONDITIONS OF:
70&47/43 (HIGH TEMP. POINT)
70&17/15 (LOW TEMP. POINT)
AIRFLOW = 1000 CFM
HEATING CAP. (HIGH TEMP.) = 27000 BTUH
HEATING CAP. (LOW TEMP.) = 16000 BTUH
COMPR. POWER (HIGH TEMP.) = 1760 WATTS
COMPR. POWER (LOW TEMP.) = 1610 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.53
COEFF. OF PERF. (LOW TEMP.) = 2.31
OUTDOOR FAN POWER = 250 WATTS
INDOOR FAN POWER = 220 WATTS

WCH036C1 AT 1200 CFM

O.D. TEMP. F.	HEATING CAPACITY (BTUH/1000) AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80	TOTAL POWER IN KILOWATTS AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80
-8	9.35	9.08	8.95	8.82	2.10	2.27	2.36	2.45
-3	11.5	11.2	11.0	10.8	2.14	2.31	2.40	2.48
2	13.6	13.3	13.1	12.9	2.17	2.34	2.43	2.52
7	15.8	15.3	15.1	14.9	2.20	2.38	2.47	2.56
12	18.0	17.4	17.1	16.9	2.23	2.41	2.51	2.60
17	20.1	19.5	19.2	18.9	2.26	2.45	2.54	2.64
22	20.8	20.2	19.9	19.6	2.30	2.49	2.58	2.68
27	21.5	20.9	20.6	20.2	2.33	2.53	2.62	2.72
32	22.3	21.6	21.2	20.9	2.37	2.57	2.66	2.76
37	23.0	22.3	21.9	21.6	2.41	2.61	2.71	2.81
42	23.7	23.0	22.6	22.3	2.44	2.64	2.75	2.85
47	33.0	32.0	31.5	31.0	2.46	2.66	2.76	2.87
52	35.2	34.1	33.5	33.0	2.49	2.70	2.80	2.90
57	37.3	36.2	35.6	35.0	2.52	2.73	2.84	2.94
62	39.5	38.3	37.6	37.0	2.55	2.77	2.87	2.98
67	41.6	40.3	39.7	39.1	2.59	2.80	2.91	3.02
72	43.8	42.4	41.7	41.1	2.62	2.84	2.95	3.06

CORRECTION FACTORS - OTHER AIRFLOWS
(VALUE AT 1200 CFM TIMES CORR. FACTOR = VALUE AT NEW AIRFLOW)

AIRFLOW	1050	1200
HEATING CAP.	X0.99	X1.00
COMPR. KW	X1.02	X1.00

VALUES AT ARI RATING CONDITIONS OF:
70&47/43 (HIGH TEMP. POINT)
70&17/15 (LOW TEMP. POINT)
AIRFLOW = 1200 CFM
HEATING CAP. (HIGH TEMP.) = 32600 BTUH
HEATING CAP. (LOW TEMP.) = 19000 BTUH
COMPR. POWER (HIGH TEMP.) = 2131 WATTS
COMPR. POWER (LOW TEMP.) = 1920 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.59
COEFF. OF PERF. (LOW TEMP.) = 2.34
OUTDOOR FAN POWER = 250 WATTS
INDOOR FAN POWER = 280 WATTS

Performance Data
Heating

WCH042C1 AT 1400 CFM

O.D. TEMP. F.	HEATING CAPACITY (BTUH/1000) AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80	TOTAL POWER IN KILOWATTS AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80
-8	10.3	10.0	9.87	9.74	2.42	2.61	2.70	2.79
-3	12.8	12.5	12.3	12.2	2.46	2.64	2.74	2.83
2	15.4	15.0	14.8	14.6	2.49	2.68	2.78	2.87
7	18.0	17.5	17.3	17.0	2.52	2.72	2.81	2.91
12	20.6	20.0	19.7	19.4	2.56	2.75	2.85	2.95
17	23.2	22.5	22.2	21.8	2.59	2.79	2.89	2.99
22	24.2	23.5	23.1	22.8	2.62	2.83	2.93	3.03
27	25.2	24.4	24.1	23.7	2.66	2.86	2.97	3.07
32	26.2	25.4	25.0	24.7	2.69	2.90	3.00	3.11
37	27.2	26.4	26.0	25.6	2.72	2.93	3.04	3.15
42	28.2	27.4	27.0	26.6	2.75	2.97	3.08	3.19
47	38.6	37.5	36.9	36.4	2.79	3.01	3.12	3.23
52	41.2	40.0	39.4	38.8	2.82	3.05	3.16	3.27
57	43.8	42.5	41.9	41.2	2.86	3.08	3.20	3.31
62	46.4	45.0	44.3	43.6	2.89	3.12	3.23	3.35
67	48.9	47.5	46.8	46.1	2.92	3.16	3.27	3.39
72	51.5	50.0	49.2	48.5	2.96	3.19	3.31	3.43

CORRECTION FACTORS - OTHER AIRFLOWS
(VALUE AT 1400 CFM TIMES CORR. FACTOR = VALUE AT NEW AIRFLOW)

AIRFLOW	1225	1400
HEATING CAP.	X0.99	X1.00
COMPR. KW	X1.02	X1.00

VALUES AT ARI RATING CONDITIONS OF:
70&47/43 (HIGH TEMP. POINT)
70&17/15 (LOW TEMP. POINT)
AIRFLOW = 1400 CFM
HEATING CAP. (HIGH TEMP.) = 37500 BTUH
HEATING CAP. (LOW TEMP.) = 22400 BTUH
COMPR. POWER (HIGH TEMP.) = 2259 WATTS
COMPR. POWER (LOW TEMP.) = 2040 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.68
COEFF. OF PERF. (LOW TEMP.) = 2.40
OUTDOOR FAN POWER = 250 WATTS
INDOOR FAN POWER = 500 WATTS

WCH048F AT 1600 CFM

O.D. TEMP. F.	HEATING CAPACITY (BTUH/1000) AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80	TOTAL POWER IN KILOWATTS AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80
-8	14.1	14.0	13.9	13.9	2.94	3.18	3.30	3.42
-3	17.2	17.0	16.9	16.8	3.01	3.25	3.37	3.49
2	20.2	20.0	19.9	19.8	3.07	3.32	3.45	3.57
7	23.2	23.0	22.9	22.8	3.14	3.39	3.52	3.65
12	26.2	26.0	25.9	25.8	3.20	3.46	3.59	3.72
17	29.3	29.0	28.9	28.7	3.27	3.54	3.67	3.80
22	31.1	30.8	30.7	30.5	3.30	3.57	3.70	3.84
27	32.9	32.6	32.5	32.3	3.33	3.60	3.74	3.88
32	34.7	34.4	34.3	34.1	3.36	3.64	3.78	3.91
37	36.6	36.2	36.0	35.9	3.40	3.67	3.81	3.95
42	38.4	38.0	37.8	37.7	3.43	3.71	3.85	3.99
47	47.5	47.0	46.8	46.5	3.66	3.96	4.11	4.26
52	50.5	50.0	49.8	49.5	3.72	4.03	4.18	4.34
57	53.5	53.0	52.7	52.5	3.79	4.10	4.26	4.41
62	56.5	56.0	55.7	55.5	3.85	4.17	4.33	4.49
67	59.6	59.0	58.7	58.4	3.92	4.24	4.41	4.57
72	62.6	62.0	61.7	61.4	3.98	4.31	4.48	4.64

CORRECTION FACTORS - OTHER AIRFLOWS
(VALUE AT 1600 CFM TIMES CORR. FACTOR = VALUE AT NEW AIRFLOW)

AIRFLOW	1400	1600
HEATING CAP.	X0.99	X1.00
COMPR. KW	X1.03	X1.00

VALUES AT ARI RATING CONDITIONS OF:
70&47/43 (HIGH TEMP. POINT)
70&17/15 (LOW TEMP. POINT)
AIRFLOW = 1600 CFM
HEATING CAP. (HIGH TEMP.) = 47500 BTUH
HEATING CAP. (LOW TEMP.) = 29000 BTUH
COMPR. POWER (HIGH TEMP.) = 3190 WATTS
COMPR. POWER (LOW TEMP.) = 2765 WATTS
HSPF (MIN DHR) = 8.00
COEFF. OF PERF. (HIGH TEMP.) = 3.54
COEFF. OF PERF. (LOW TEMP.) = 2.40
OUTDOOR FAN POWER = 500 WATTS
INDOOR FAN POWER = 270 WATTS

WCH060F AT 2000 CFM

O.D. TEMP. F.	HEATING CAPACITY (BTUH/1000) AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80	TOTAL POWER IN KILOWATTS AT INDICATED INDOOR DRY BULB TEMP. 60	70	75	80
-8	17.6	17.5	17.4	17.4	3.69	3.99	4.14	4.29
-3	21.1	21.0	20.9	20.9	3.75	4.06	4.21	4.36
2	24.7	24.5	24.4	24.3	3.81	4.12	4.28	4.43
7	28.2	28.0	27.9	27.8	3.87	4.18	4.34	4.50
12	31.7	31.5	31.4	31.3	3.92	4.25	4.41	4.57
17	35.2	35.0	34.9	34.8	3.98	4.31	4.47	4.64
22	36.4	36.1	36.0	35.9	4.04	4.37	4.53	4.70
27	37.5	37.2	37.1	37.0	4.09	4.43	4.60	4.76
32	38.6	38.3	38.2	38.1	4.14	4.49	4.66	4.83
37	39.7	39.4	39.3	39.2	4.20	4.54	4.72	4.89
42	40.8	40.6	40.4	40.3	4.25	4.60	4.78	4.95
47	56.4	56.0	55.8	55.6	4.33	4.69	4.87	5.05
52	59.9	59.5	59.3	59.1	4.39	4.75	4.94	5.12
57	63.4	63.0	62.8	62.6	4.45	4.82	5.00	5.19
62	67.0	66.5	66.3	66.0	4.50	4.88	5.07	5.26
67	70.5	70.0	69.8	69.5	4.56	4.94	5.13	5.32
72	74.0	73.5	73.2	73.0	4.62	5.01	5.20	5.39

CORRECTION FACTORS - OTHER AIRFLOWS
(VALUE AT 2000 CFM TIMES CORR. FACTOR = VALUE AT NEW AIRFLOW)

AIRFLOW	1750	2000
HEATING CAP.	X0.99	X1.00
COMPR. KW	X1.02	X1.00

VALUES AT ARI RATING CONDITIONS OF:
70&47/43 (HIGH TEMP. POINT)
70&17/15 (LOW TEMP. POINT)
AIRFLOW = 2000 CFM
HEATING CAP. (HIGH TEMP.) = 56000 BTUH
HEATING CAP. (LOW TEMP.) = 35000 BTUH
COMPR. POWER (HIGH TEMP.) = 3755 WATTS
COMPR. POWER (LOW TEMP.) = 3375 WATTS
HSPF (MIN DHR) = 8.20
COEFF. OF PERF. (HIGH TEMP.) = 3.55
COEFF. OF PERF. (LOW TEMP.) = 2.39
OUTDOOR FAN POWER = 435 WATTS
INDOOR FAN POWER = 500 WATTS

Fan Performance Data

INDOOR BLOWER PERFORMANCE

TCH, WCH024C

MOTOR SPEED		EXTERNAL STATIC PRESSURE-IN. W.G.				
		0.2	0.3	0.4	0.5	0.6
(2) LOW	WATTS	273	258	245	229	---
	CFM	875	811	761	697	---
HIGH	WATTS	354	338	325	312	293
	CFM	1047	994	928	864	767

D672418

(1) - WET COIL, NO FILTERS

(2) - FACTORY SETTING

INDOOR BLOWER PERFORMANCE

TCH, WCH030C

MOTOR SPEED		EXTERNAL STATIC PRESSURE-IN. W.G.			
		0.2	0.3	0.4	0.5
(2) LOW	WATTS	220	225	245	---
	CFM	1060	1005	965	---
HIGH	WATTS	260	270	280	285
	CFM	1135	1090	1055	1015

D672417

(1) - WET COIL, NO FILTERS

(2) - FACTORY SETTING

INDOOR BLOWER PERFORMANCE

TCH, WCH036C

MOTOR SPEED		EXTERNAL STATIC PRESSURE (IN. WG)			
		0.2	0.3	0.4	0.5
(2) LOW	WATTS	325	330	340	350
	CFM	1205	1160	1115	1075
HIGH	WATTS	410	415	410	395
	CFM	1325	1275	1215	1150

D674375

(1) - WET COIL, NO FILTERS

(2) - FACTORY SETTING

INDOOR BLOWER PERFORMANCE

TCH, WCH042C

AIRFLOW SETTING	DIPSWITCH SETTINGS				EXTERNAL STATIC PRESSURE - IN. W.G.											
					.20 (1)		.30 (1)		.40 (1)		.50 (1)		.60 (1)		.70 (1)	
	1	2	3	4	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS
350 CFM/TON	OFF	OFF	OFF	ON	1256	352	1265	392	1270	430	1265	465	1266	505	1266	530
400 CFM/TON	OFF	OFF	OFF	OFF	1386	480	1386	486	1395	535	1395	575	1389	594	1391	607
450 CFM/TON	OFF	OFF	ON	OFF	1557	530	1552	571	1551	604	1553	647	1555	690	1563	737

D672415 REV 0

(1) - WET COIL, NO FILTERS (2) - FACTORY SETTING

Fan Performance Data

INDOOR BLOWER PERFORMANCE

TCH, WCH048F

AIRFLOW SETTING	DIPSWITCH SETTINGS				EXTERNAL STATIC PRESSURE - IN. W.G.											
					.20 ①		.30 ①		.40 ①		.50 ①		.60 ①		.70 ①	
	1	2	3	4	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS	CFM	PWR WATTS
350 CFM/TON	OFF	OFF	OFF	ON	1380	160	1390	195	1390	225	1390	260	1390	290	1365	335
400 CFM/TON ②	OFF	OFF	OFF	OFF	1613	225	1625	260	1640	305	1640	340	1640	370	1625	405
450 CFM/TON	OFF	OFF	ON	OFF	1760	270	1770	310	1775	345	1785	390	1785	435	1785	480

① - WET COIL, NO FILTERS

② - FACTORY SETTINGS

INDOOR BLOWER PERFORMANCE

TCH, WCH060F

AIRFLOW SETTING	DIPSWITCH SETTINGS				EXTERNAL STATIC PRESSURE - IN. W.G.																	
					.20 ①			.30 ①			.50 ①			.70 ①			.90 ①			1.0 ①		
	1	2	3	4	CFM	PWR WATTS	BHP	CFM	PWR WATTS	BHP	CFM	PWR WATTS	BHP	CFM	PWR WATTS	BHP	CFM	PWR WATTS	BHP	CFM	PWR WATTS	BHP
350 CFM/TON	OFF	OFF	OFF	ON	1740	285	.26	1750	330	.31	1725	395	.37	1710	470	.43	1675	550	.51	1650	590	.55
400 CFM/TON ②	OFF	OFF	OFF	OFF	1990	385	.36	2010	440	.41	2020	520	.48	2005	590	.55	1990	690	.64	1895	740	.68
450 CFM/TON	OFF	OFF	ON	OFF	2165	665	.62	2170	725	.67	2150	820	.76	2150	830	.77	2150	855	.79	---	---	---

① - WET COIL, NO FILTERS

② - FACTORY SETTINGS

Static Pressure Drop Through Electric Heaters

	NUMBER OF RACKS		
	1	2	3
AIRFLOW CFM	AIR PRESSURE DROP inches of w.g.		
600	0.02	0.04	0.06
700	0.03	0.05	0.07
800	0.03	0.06	0.09
900	0.04	0.08	0.12
1000	0.05	0.10	0.15
1100	0.06	0.12	0.18
1200	0.07	0.14	0.21
1300	0.08	0.17	0.25
1400	0.10	0.20	0.30
1500	0.12	0.23	0.35

Electric Heater Racks

HEATER MODEL NO.	NO. OF RACKS
BAYHTRC106A	1
BAYHTRC109A	1
BAYHTRC110A	1
BAYHTRC111A	1
BAYHTRC117A	2

Electric Heater Data

Supplementary Heaters

Unit Model No.	Capacity at 208V Kw	Capacity at 208V Btuh	Capacity at 240V Kw	Capacity at 240V Btuh	Rated Voltage	No. of Circuits	Amps Per Circuit at 208V	Amps Per Circuit at 240V	Ordering Model Number
	4.33	14800	5.76	19600	208/240/1/60	1	20.8	24	BAYHTRC106A
WCH024C1	7.93	27000	10.56	36000	208/240/1/60	1	38.1	44	BAYHTRC111A
	4.33	14800	5.76	19600	208/240/1/60	1	21.0	24	BAYHTRC106A
WCH030C1,036C1,042C1	6.12	20900	8.16	27800	208/240/1/60	1	29.4	34.0	BAYHTRC109A ③
	7.93	27000	10.56	36000	208/240/1/60	1	38.1	44	BAYHTRC111
	12.98	44300	17.28	59000	208/240/1/60	1	62.4	72	BAYHTRC117A①
	4.33	14800	5.76	19600	208/240/1/60	1	21.0	24	BAYHTRC106A
WCH048F1②	6.12	20900	8.16	27800	208/240/1/60	1	29.4	34.0	BAYHTRC109A ③
	7.93	27000	10.56	36000	208/240/1/60	1	38.1	44	**BAYHTRC110A**②
	12.98	44300	17.28	59000	208/240/1/60	1	62.4	72	BAYHTRC117A①
	4.33	14800	5.76	19600	208/240/1/60	1	21.0	24	BAYHTRC106A
WCH060F1	6.12	20900	8.16	27800	208/240/1/60	1	29.4	34.0	BAYHTRC109A ③
	7.93	27000	10.56	36000	208/240/1/60	1	38.1	44	BAYHTRC111A
	12.98	44300	17.28	59000	208/240/1/60	1	62.4	72	BAYHTRC117A①

NOTE:
①Heater has a fuse box factory provided.
②BAYHTRC110A is used only in the WCH048F1.
③ BAYHTRC109A is used only in the WCH036-042C1 and WCH048-060F1 models.

Field Installed Control Options

Thermostats
Two stages heating/cooling or one stage heating/cooling thermostats are available in either manual or automatic changeover.

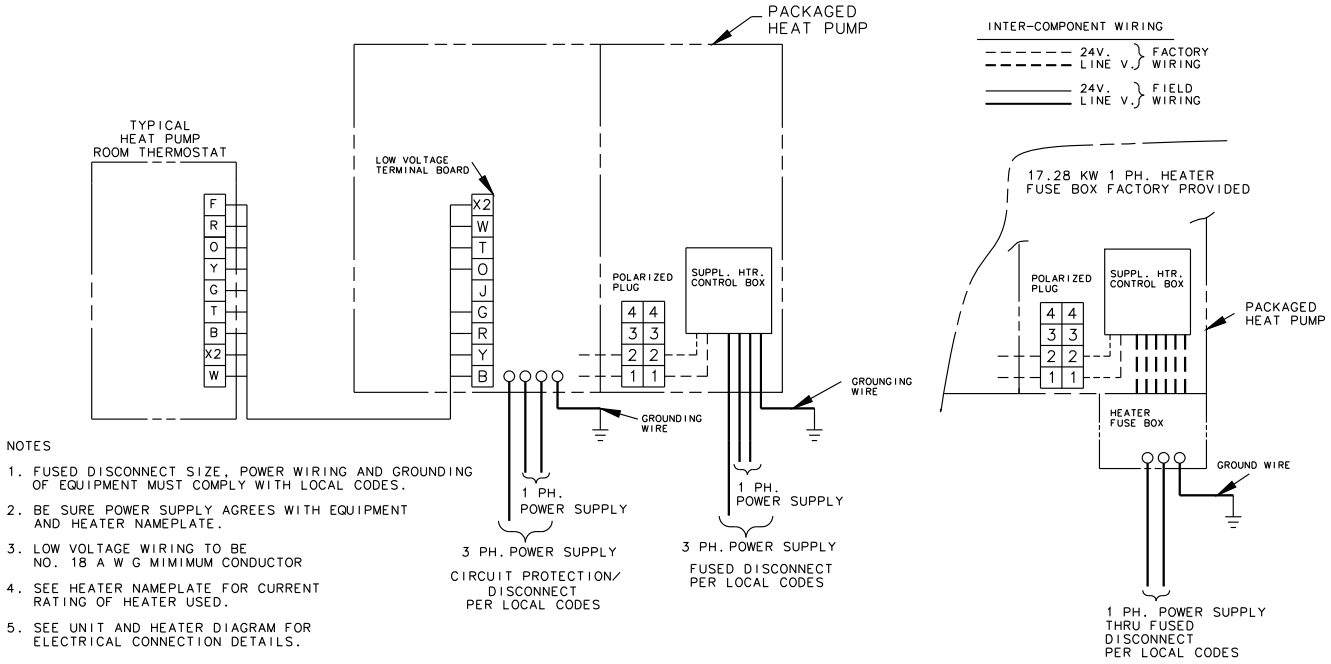
Programmable Electronic Night Setback Thermostat
Heating setback and cooling setup with 7-day, 5-1-1 programming capability. Available in two heating/cooling or one heating/cooling versions with automatic changeover.

Supplemental Electric Heater
Heater module mounts in unit discharge air passage. Each heater assembly includes automatically resetting heat limit switches for thermal protection. A polarized plug provides connection to unit low voltage control wiring.

Low Ambient Control Kit
Provides low ambient cooling operation to 0° F.

Hook Up Diagram

WCH024-060 Units (With Supplementary Heaters)

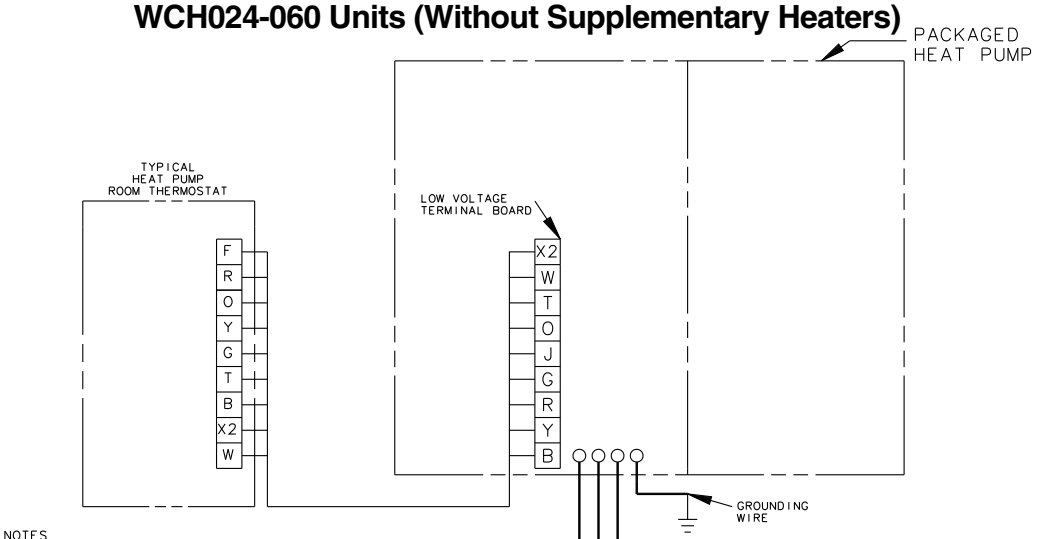


NOTES

1. FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE.
3. LOW VOLTAGE WIRING TO BE NO. 18 A W G MIMIMUM CONDUCTOR
4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED.
5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.

From Dwg. 21B756671 Rev. 2

WCH024-060 Units (Without Supplementary Heaters)

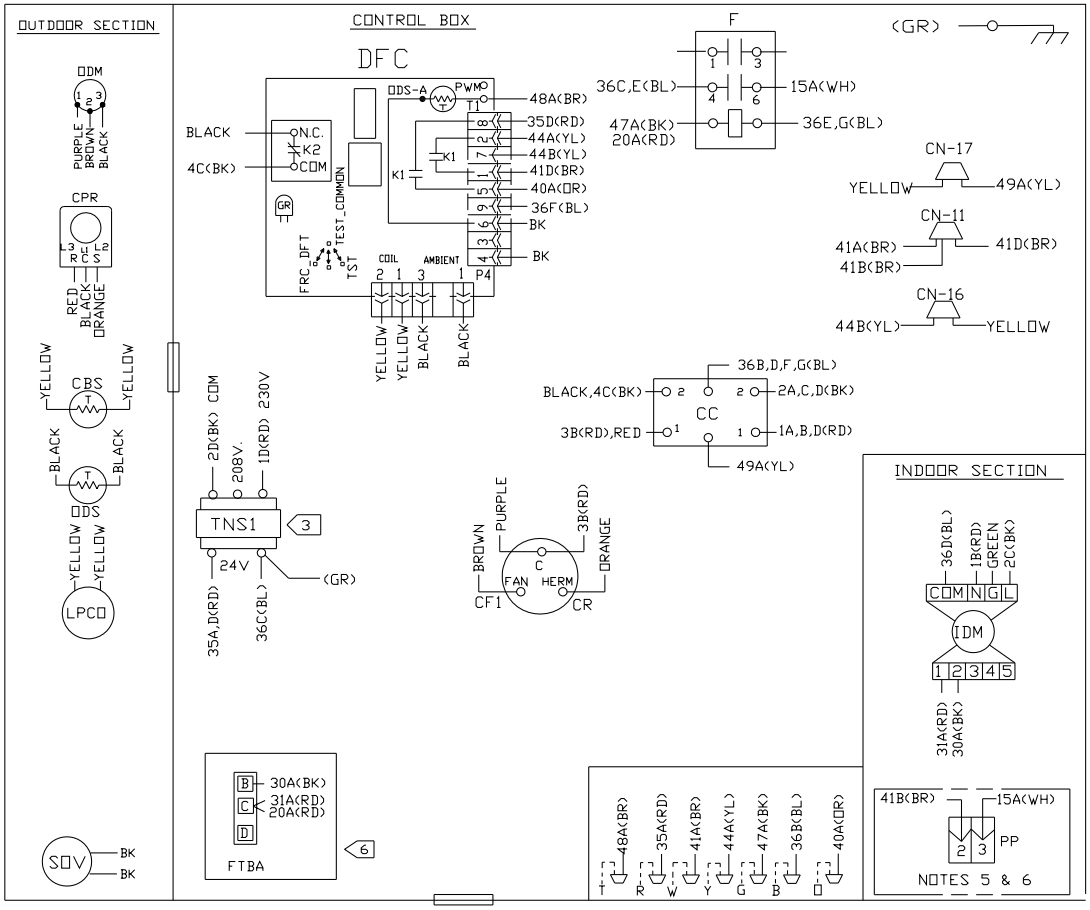


NOTES

1. FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE.
3. LOW VOLTAGE WIRING TO BE NO. 18 A W G MIMIMUM CONDUCTOR

From Dwg. 21B756743 Rev. 1

Typical Wiring



1. CONNECTIONS SHOWN ARE FOR A TYPICAL MECHANICAL THERMOSTAT. SEE SCHEMATIC SUPPLIED WITH THERMOSTAT FOR PROPER CONNECTIONS. LOW VOLTAGE WIRING TO UNIT MAY BE NEC CLASS 2 AND MUST BE A MIN. OF 18 A.W.G.
2. MAXIMUM ADDITIONAL EXTERNAL LOAD (PILOT DUTY) BETWEEN "B" AND "R" OF 0.5 AMPS, 24 VAC IS AVAILABLE WHEN A HEATER IS INSTALLED.
3. FOR 208 VOLT OPERATION, MAKE THE FOLLOWING WIRING CHANGES:
   AT THE TNSI REMOVE ID(RD) WIRE AND CONNECT TO THE 208V TERMINAL ON THE TRANSFORMER.
4. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED IN THIS UNIT MUST BE REPLACED, REPLACE IT WITH APPLIANCE WIRING MATERIAL RATED AT 105 C.
5. APPROVED SUPPLEMENTARY HEATERS FOR FIELD INSTALLATION IN UNIT.
6. SEE OPTIONAL HEATER ACCESSORY DIAGRAM FOR DETAILS OF HEATER WIRING.
7. DASHED LINES INDICATE RECOMMENDED FIELD WIRING.

MODELS
WCH030C1
WCH036C1

DEVICE	DESCRIPTION	LINE
AH	ELECTRIC HEAT CONTACTOR COIL	48
CBS	COIL BOTTOM SENSOR	37
CC	COMPRESSOR CONTACTOR COIL	50-51
CF1	OUTDOOR FAN CAPACITOR	17
CN	CONNECTOR OR WIRE NUT	
CPR	COMPRESSOR	14-17
CR	COMPRESSOR RUN CAPACITOR	16
DFC	DEFROST CONTROL BOARD	27-38
F	FAN RELAY	45
FTBA	FAN TERMINAL BLOCK	42,43
IDM	INDOOR FAN MOTOR	21-23
IOL	INTERNAL OVERLOAD	
LPCO	LOW PRESSURE CUTOUT	51
ODM	OUTDOOR FAN MOTOR	18-20
ODS	OUTDOOR AMBIENT SENSOR	34
PP	POLARIZED PLUG	48-49
TNS1	CONTROL POWER TRANSFORMER	26
TDL	DISCHARGE LINE THERMOSTAT	20

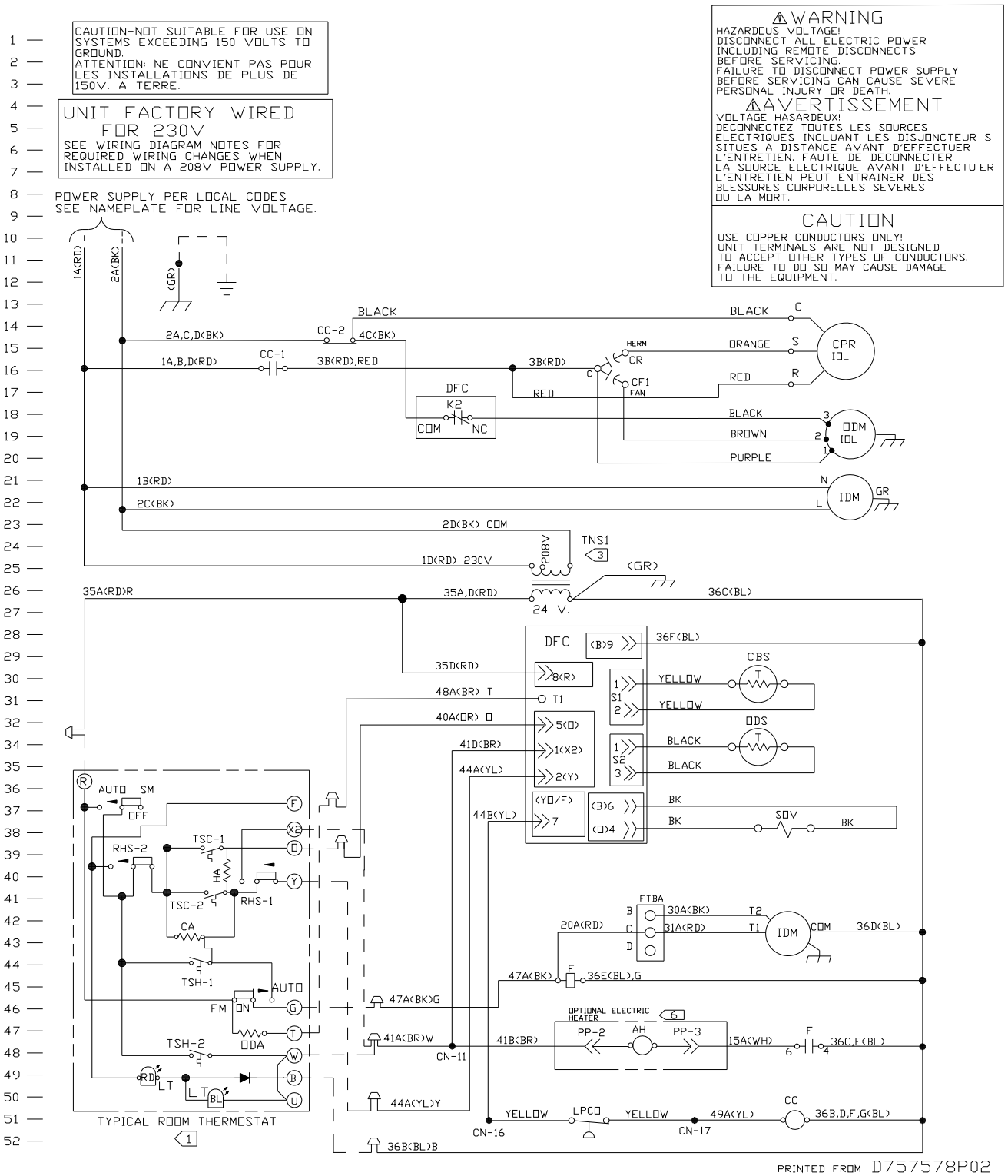
Typical Wiring Diagram
For Specific Wiring see individual Service Facts

WIRE COLOR DESIGNATION			
ABBR	COLOR	ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		

D757578P02

(continued on next page)

Typical Wiring

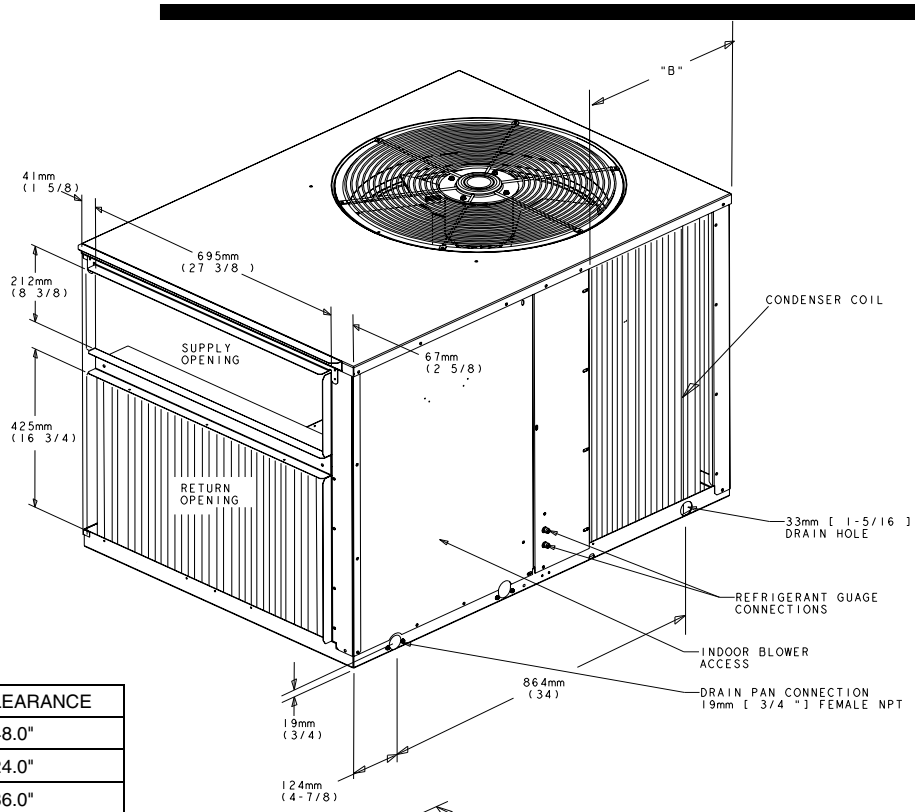


PRINTED FROM D757578P02

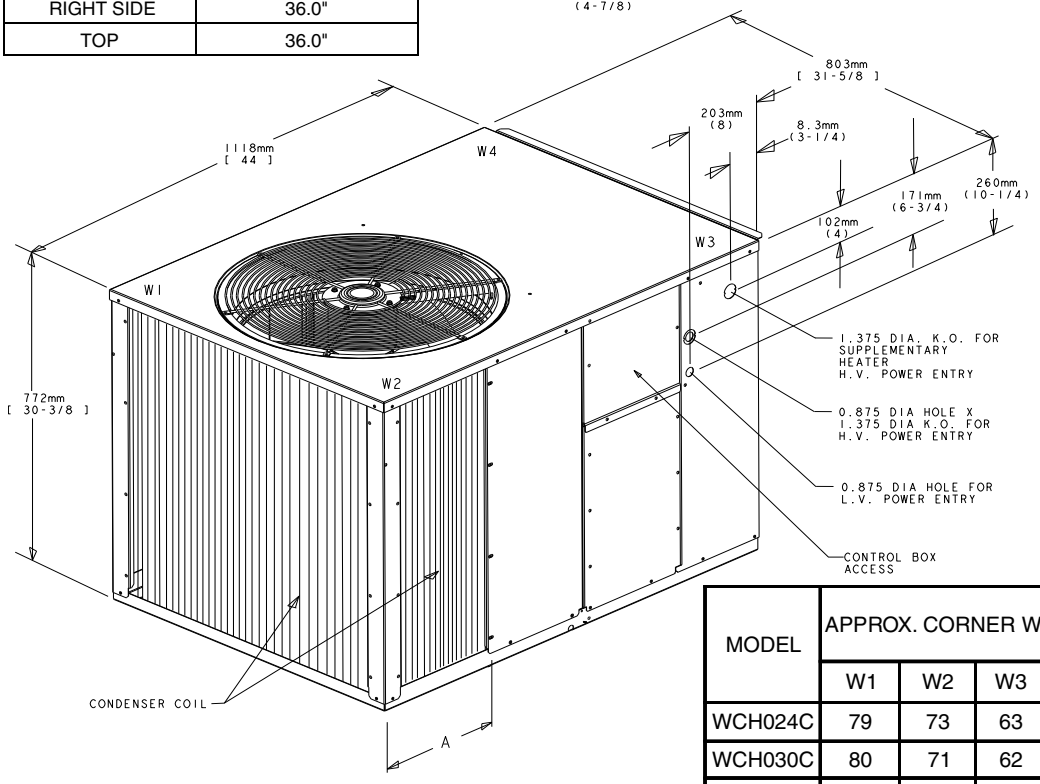
Dimensions

WCH024-042C OUTLINE DRAWING

NOTE: ALL DIMENSIONS ARE IN MM (INCHES)



INSTALLATION / SERVICE CLEARANCE	
BACK	48.0"
LEFT SIDE	24.0"
RIGHT SIDE	36.0"
TOP	36.0"

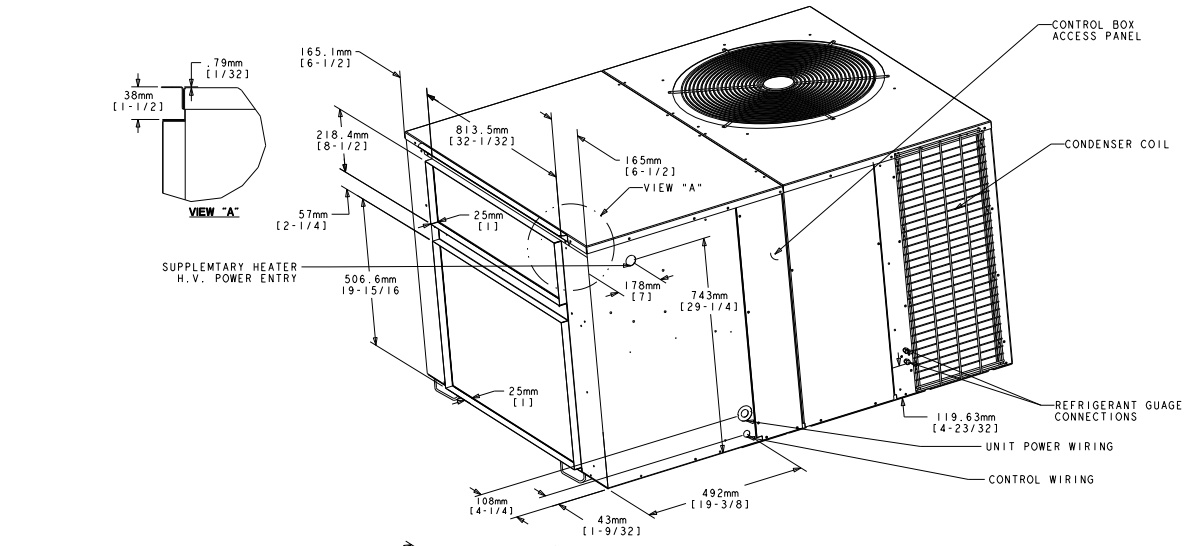


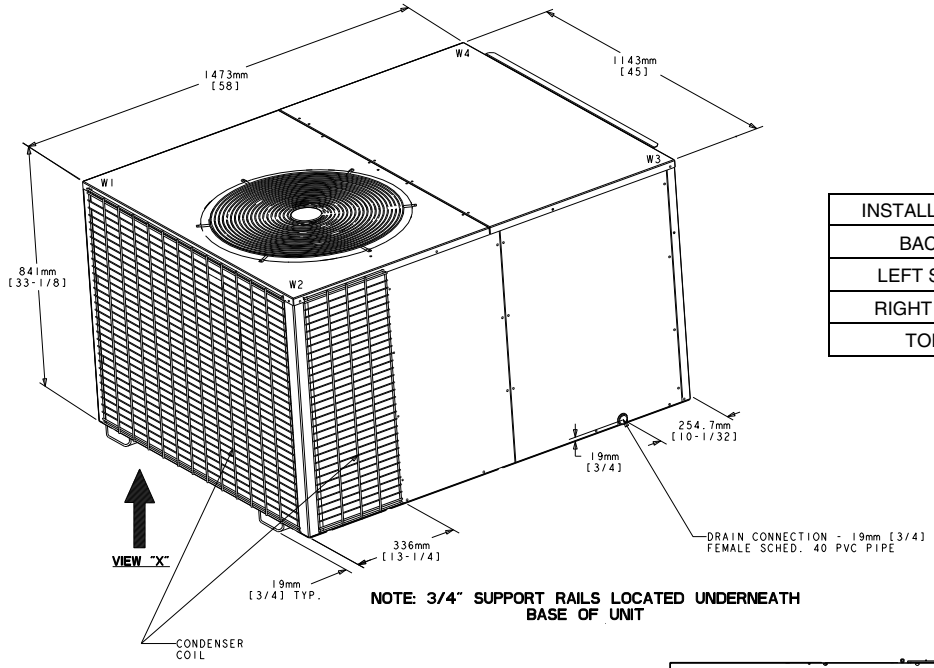
MODEL	APPROX. CORNER WTS / LBS.				TOTAL WEIGHT LBS.	COIL DIMENSION (in)	
	W1	W2	W3	W4		A	B
WCH024C	79	73	63	68	282	14	16
WCH030C	80	71	62	70	284	14	16
WCH036C	83	75	66	73	297	14	16
WCH042C	84	79	72	77	312	20	16

Dimensions

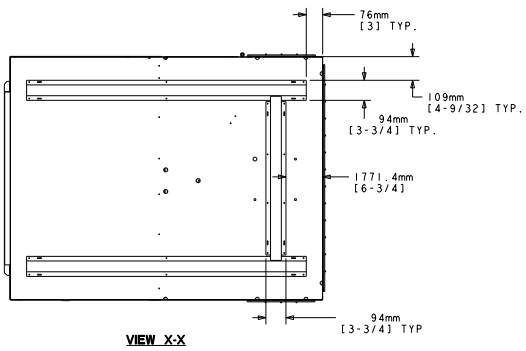
WCH048-060F OUTLINE DRAWING

NOTE: ALL DIMENSIONS ARE IN MM (INCHES)





NOTE: 3/4" SUPPORT RAILS LOCATED UNDERNEATH BASE OF UNIT



INSTALLATION / SERVICE CLEARANCE	
BACK	48.0"
LEFT SIDE	24.0"
RIGHT SIDE	36.0"
TOP	36.0"

MODEL	APPROX. CORNER WTS - LBS.				TOTAL WEIGHT LBS.
	W1	W2	W3	W4	
WCH048F	128	128	97	97	447
WCH060F	115	115	114	114	457

Mechanical Specifications/Options

General
All units are factory assembled, piped, internally wired and fully charged with R-22. Units are UL listed and carry a UL label. All units are factory run-tested to check cooling and heating operation, defrost operation, fan and blower rotation and control sequence. Units shall be designed to operate at ambient temperatures between 115° F. and 45° F. in cooling mode (as shipped) and between 75° F. and -20° F. in heating mode. Cooling and heating performances are rated in accordance with ARI standards. Units are designed for either rooftop or ground level installation.

Unit Casing
All components are mounted in a weather-resistant steel cabinet with a baked-on enamel finish. Access panels are provided for unit controls, indoor coil and supply air fan. Top cover (includes outdoor fan) shall be removable for access or installation of electric heaters and outdoor fan and compressor. Indoor air section is completely insulated with fireproof, permanent, odorless glass fiber material. Knockouts are provided for utility and control connections. Drain connections are provided to accommodate indoor coil water runoff. Coil guards are provided for the protection of the outdoor coil.

Compressor
Hermetically sealed, high efficiency Climatuff® compressor designed for heat pump duty. Internal line break over current and over temperature protection, high and low pressure protection.

Refrigerant Circuit
All units have thermostatic expansion valve refrigerant control for both heating and cooling operation. Service pressure tap ports, check valves, solenoid-operated reversing valve, and refrigerant line filter driers are standard.

Indoor and Outdoor Coil
Indoor and outdoor coils are constructed of aluminum plate fins mechanically bonded to seamless copper tubing.

Outdoor Fan
One, direct-drive, statically and dynamically balanced propeller fan is used in top discharge configuration. Permanently lubricated weatherproof motors have built-in thermal overload protection.

Indoor Fan
Forward-curved, centrifugal-type fan with multi-speed, direct-drive motor. Motor shall be permanently lubricated and has built-in overload protection.

Demand Defrost Control
The electronic demand defrost control measures outdoor ambient and outdoor coil conditions and eliminates unnecessary defrost cycles.

Accessories
Supplemental Electric Heater — Heater module shall mount in unit discharge air passage. Each heater assembly includes automatically resetting heat limit switches for thermal protection. A polarized plug provides connection to unit low voltage control wiring.

Indoor Thermostat — Two-stage heating, one-stage cooling thermostat is available in either manual or automatic changeover. Thermostat provides automatic or continuous fan operation and includes outdoor thermistor, emergency heat switch with indicator light, and auxiliary heat indicator light.

Low Ambient Control Kit — Provides low ambient cooling operation to 0° F.

Trane
6200 Troup Highway
Tyler, TX 75707