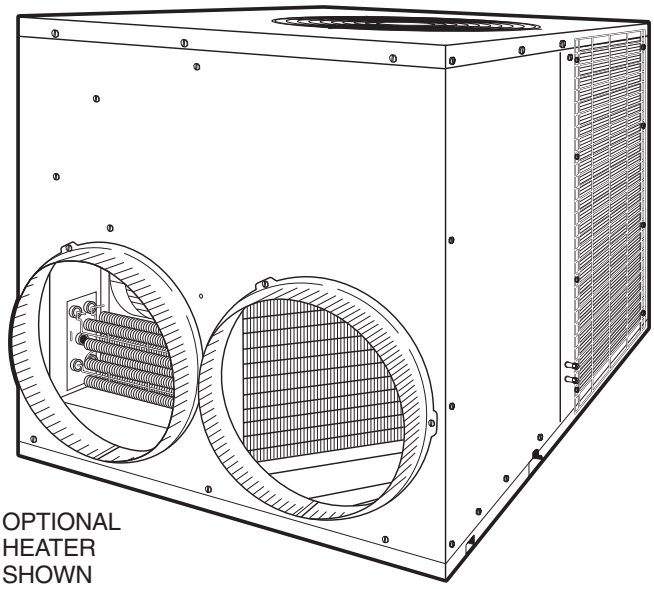
TRANE®

13 SEER Packaged Heat Pump Product & Performance Data

Horizontal Models
WCK024-042B1

2, 2½, 3, 3½ Ton



OPTIONAL HEATER SHOWN

22-1756-02-0706 (EN)

General Features

It's Hard To Stop A Trane.®

Horizontal Packaged Heat Pumps

Trane's 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 demand defrost, rugged compressor, filter drier, and thermal expansion devices are the backbone of Trane heat pump reliability. And the quick and easy installation comes from standardized cabinet design through the entire product line. These points all add up to making Trane simply the best value.

The Best Heat Pump in the Industry Just Got Better

Better Installability
These heat pump units have a side by side horizontal round duct configuration which provides efficient airflow delivery. The units are shipped with 14" diameter duct collars for quick installation. This dedicated design eliminates the need for any unit conversion, saving field labor and installation cost.

These models have a standardized cabinet that allows common use of accessories for simplified installation and assures that the right accessories are being applied.

Better Serviceability
Accessibility, is a standard feature in Trane heat pump units. With a standardized cabinet, 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 simplified control panel that features colored and numbered wiring is standard on all products. This reduces troubleshooting time when wire tracing is required. Easy access to all major components is accomplished by removing quick service access panels.

Better Performance
Our heat pump units offer class leading cooling and heating efficiencies, to provide you with a superior product.

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 for added reliability.

Features and Benefits

- Climatuff® compressor, designed and manufactured to provide reliable, economical operation
- Internal pressure relief and internal overload protection
- Two-speed indoor fan motor
- 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 guards

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

Contents

Features and Benefits

Optional Equipment

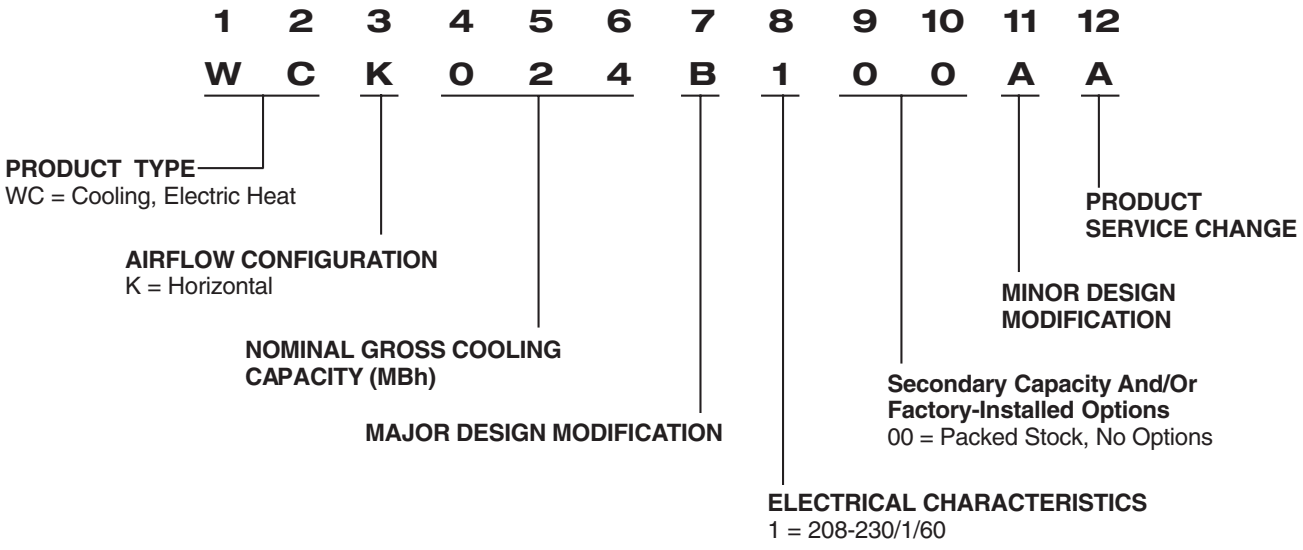
OPTIONAL EQUIPMENT FOR PACKAGE UNITS. (Check mark [✓] indicates accessories included.)

Indoor Thermostats —	Prog. 7-Day, 3 Htg/2 Clg, Auto/Manual	ASYSTAT500C	[ ]
	Electronic, 3 Htg/2 Clg, (Non Programmable)	ASYSTAT575	[ ]
	Outdoor Temperature Sensor (use with ASYSTAT500C,575)	TAYSENS200A	[ ]
	Prog. 5/2-Day, 2 Htg/1 Clg	ASYSTAT540	[ ]
	Electronic, 2 Htg/1 Clg (Non Programmable)	ASYSTAT570	[ ]
	Deluxe Auto Changeover, 2 Htg/1 Clg	ASYSTAT650	[ ]
	Manual 2 Htg/1 Clg	ASYSTAT655A	[ ]
	Auto/Manual, 3 Htg/2 Clg (w econ)	ASYSTAT653A	[ ]
Outdoor Thermostat		BAYSTAT033A	[ ]
Locking Thermostat Cover (Non-Programmable Thermostats)		BAY28X190	[ ]
Humidistat		BAYSTAT253	[ ]
Evaporator Defrost Control (Low Ambient Cooling) Kit		BAYLOAM011A	[ ]
Anti-short Cycle Timer ①		BAYASCT001	[ ]
Outdoor Thermostat Kit		BAYSTAT033A	[ ]
Supplementary Heaters (Single Phase)			
3.74/4.98 KW Heater WCK024-036B1 (208/240v)		BAYHTRK105A	[ ]
7.48/9.96 KW Heater **WCK024B1 ONLY** (208/240v)		**BAYHTRK111A**	[ ]
7.48/9.96 KW Heater WC30-42B1 (208/240v)		BAYHTRK110A	[ ]
11.22/14.94 KW Heater WCK036-042B1 (208/240v)		BAYHTRK116A	[ ]

NOTE:
① *Do not use with programmable thermostats.*

Selection Procedure

Model Number Nomenclature



General Data

MODEL	WCK024B100A	WCK030B100A	WCK036B100A	WCK042B100A
RATED VOLTS/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
ARI RATINGS (COOLING) ①				
BTUH	26000	30600	36000	40000
Indoor Air Flow (CFM)	800	1000	1200	1400
Power Input (KW)	2.15	2.40	3.02	3.50
EER/SEER (BTU/Watt-Hr.) ⑥	12.20 / 13.00	12.75 / 13.00	11.85 / 13.00	11.45 / 13.00
Noise Rating No. (Decibels) ②	78	74	75	75
Ratings (Heating) ①				
(High Temp.) BTUH	23400	26600	31600	36000
Power Input (KW)	1.97	2.15	2.66	3.07
(Low Temp.) BTUH	12200	14800	18400	21500
Power Input (KW)	1.69	2.17	2.41	2.84
HSPF (BTU/Watt-Hr.) ⑥	7.70	7.70	7.70	7.70
POWER CONNS. — V/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity ③	14.0	20.0	23.0	28.0
Br. Cir. — Max. (Amps)	20	30	35	40
Prot. Rtg. — Recmd. (Amps)	20	30	35	40
COMPRESSOR				
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	8.9 - 62.0	10.5 - 67.0	12.6 - 83.0	15.2 - 104.0
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.)	8.75	11.20	12.50	12.50
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 / 16	4 / 16	4 / 16	4 / 16
Face Area (Sq. Ft.)	3.90	3.90	3.90	3.90
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 FEMALE 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	2300	2500	2600	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 9	10 x 9	10 x 9
No. Used	1	1	1	1
Drive / Speeds (No.)	DIRECT / 2	DIRECT / 2	DIRECT / 2	DIRECT / 2
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 - 0.33	1 - 0.50	1 - 0.50	1 - 0.75
Motor Speed R.P.M.	1050	1050	1050	1050
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 - 1.8	4.1 - 4.1	4.1 - 4.1	6.0 - 6.0
FILTER — FURNISHED?	NO	NO	NO	NO
Type Recommended	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY
Min. Face Area ⑦	2.67	3.33	4.00	4.67
REFRIGERANT				
Charge (lbs. of R-22)	8 lbs., 0 oz.	7 lbs., 10 oz.	8 lbs., 0 oz.	8 lbs., 3 oz.
DIMENSIONS	H x W x D	H x W x D	H x W x D	H x W x D
Crated (in.)	36 x 33.75 x 48	36 x 33.75 x 48	36 x 33.75 x 48	36 x 33.75 x 48
Uncrated	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
WEIGHT				
Shipping (lbs.) / Net (lbs.)	345 / 298	345 / 298	355 / 308	360 / 313

① Rated in accordance with ARI Standard 210/240.
② Calculated in accordance with ARI 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

WCK024B 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	75	78	80	COMPR. KW
85	59	23.7	19.4	21.7	23.9*	24.5*	1.56
	63	25.5	16.3	18.7	21.0	22.6	1.58
	67	27.5	13.0	15.3	17.7	19.2	1.61
95	59	22.5	18.9	21.2	22.9*	23.5*	1.73
	63	24.2	15.8	18.1	20.5	22.1	1.75
	67	26.0	12.4	14.8	17.1	18.7	1.77
105	63	22.8	15.2	17.6	19.9	21.5	1.92
	67	24.4	11.8	14.2	16.5	18.1	1.93
	71	26.1	8.4	10.7	13.1	14.6	1.94
115	63	21.4	14.6	17.0	19.4	20.9	2.10
	67	22.9	11.2	13.6	15.9	17.5	2.10
	71	24.4	7.8	10.1	12.5	14.1	2.09

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

	AIRFLOW	TOTAL CAPACITY	SENSIBLE CAPACITY
LOW	700	X0.98	X0.94
HIGH	800	X1.00	X1.00

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 26000 BTUH
AIRFLOW = 800 CFM
APP. DEW PT. = 55.2 DEG. F
COMPRESSOR POWER = 1770 WATTS
I.D. FAN POWER = 130 WATTS
O.D. FAN POWER = 250 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 12.25 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.

WCK030B 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	27.8	22.7	24.6	26.5	28.1*	28.7*	1.73	46.5
	63	29.8	19.0	20.9	22.8	24.7	26.6	1.74	50.4
	67	32.0	14.9	16.8	18.7	20.6	22.5	1.75	54.6
	71	34.2	10.8	12.6	14.5	16.4	18.3	1.76	59.0
90	59	27.2	22.5	24.4	26.3	27.6*	28.2*	1.85	46.8
	63	29.2	18.7	20.6	22.5	24.4	26.3	1.86	50.7
	67	31.3	14.7	16.6	18.5	20.3	22.2	1.87	54.9
	71	33.5	10.5	12.4	14.3	16.2	18.1	1.88	59.2
95	59	26.6	22.2	24.1	26.0	27.1*	27.7*	1.97	47.0
	63	28.6	18.5	20.4	22.3	24.2	26.1	1.97	51.0
	67	30.6	14.4	16.3	18.2	20.1	22.0	1.98	55.2
	71	32.8	10.3	12.2	14.0	15.9	17.8	1.99	59.5
100	59	25.9	21.9	23.8	25.7	26.5*	27.1*	2.12	47.4
	63	27.8	18.2	20.1	22.0	23.9	25.8	2.12	51.3
	67	29.9	14.1	16.0	17.9	19.8	21.7	2.12	55.5
	71	32.0	10.0	11.9	13.8	15.7	17.6	2.13	59.8
105	59	25.2	21.6	23.5	25.3*	25.9*	26.6*	2.27	47.7
	63	27.1	17.9	19.8	21.7	23.6	25.5	2.27	51.6
	67	29.1	13.8	15.7	17.6	19.5	21.4	2.27	55.8
	71	31.2	9.7	11.6	13.5	15.4	17.3	2.27	60.1
115	59	23.8	21.1	23.0	24.2*	24.8*	25.4*	2.59	48.3
	63	25.6	17.4	19.2	21.1	23.0	24.9	2.57	52.2
	67	27.6	13.3	15.2	17.1	19.0	20.9	2.56	56.5
	71	29.5	9.1	11.0	12.9	14.8	16.7	2.54	60.8

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

AIRFLOW	1000	1000
TOTAL CAP.	X1.00	X1.00
SENS. CAP.	X1.00	X1.00
COMPR. KW	X1.00	X1.00
A.D.P.	0.0	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 30700 BTUH
AIRFLOW = 1000 CFM
APP. DEW PT. = 55.2 DEG. F
COMPRESSOR POWER = 1980 WATTS
I.D. FAN POWER = 185 WATTS
O.D. FAN POWER = 240 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 12.80 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.

WCK036B 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	32.8	27.3	29.6	31.9	33.4*	34.1*	2.09	47.0
	63	35.2	22.8	25.1	27.4	29.7	32.0	2.11	50.9
	67	37.6	17.8	20.1	22.4	24.7	27.0	2.14	55.2
	71	40.2	12.7	15.0	17.3	19.6	21.9	2.16	59.6
90	59	32.1	27.0	29.3	31.6	32.8*	33.5*	2.22	47.2
	63	34.4	22.5	24.8	27.1	29.4	31.6	2.25	51.2
	67	36.8	17.5	19.8	22.1	24.4	26.6	2.27	55.5
	71	39.3	12.4	14.7	17.0	19.3	21.6	2.30	59.9
95	59	31.4	26.8	29.0	31.3	32.2*	32.9*	2.35	47.5
	63	33.7	22.2	24.5	26.8	29.1	31.3	2.38	51.5
	67	36.0	17.2	19.5	21.7	24.0	26.3	2.41	55.8
	71	38.4	12.1	14.4	16.7	18.9	21.2	2.44	60.2
100	59	30.7	26.4	28.7	30.8*	31.6*	32.3*	2.50	47.8
	63	32.8	21.8	24.1	26.4	28.7	31.0	2.53	51.8
	67	35.1	16.8	19.1	21.4	23.7	26.0	2.56	56.1
	71	37.4	11.7	14.0	16.3	18.6	20.9	2.59	60.5
105	59	29.9	26.1	28.4	30.2*	30.9*	31.6*	2.65	48.1
	63	32.0	21.5	23.8	26.1	28.4	30.7	2.68	52.1
	67	34.2	16.5	18.8	21.1	23.4	25.6	2.72	56.4
	71	36.4	11.4	13.7	16.0	18.3	20.5	2.75	60.8
115	59	28.4	25.4	27.7	28.9*	29.6*	30.2*	2.94	48.7
	63	30.3	20.8	23.1	25.4	27.7	30.0	2.98	52.8
	67	32.4	15.8	18.1	20.4	22.7	25.0	3.03	57.1
	71	34.5	10.7	13.0	15.3	17.6	19.9	3.08	61.5

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	X0.99	X1.00
A.D.P.	-1.4	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 36000 BTUH
AIRFLOW = 1200 CFM
APP. DEW PT. = 55.8 DEG. F
COMPRESSOR POWER = 2405 WATTS
I.D. FAN POWER = 340 WATTS
O.D. FAN POWER = 250 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 11.80 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

WCK042B 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	36.4	30.6	33.2	35.8	37.2*	38.0*	2.43	47.2
	63	39.1	25.4	28.0	30.6	33.2	35.9	2.46	51.2
	67	41.8	19.7	22.3	24.9	27.5	30.1	2.49	55.4
	71	44.6	13.9	16.5	19.1	21.7	24.3	2.52	59.8
90	59	35.7	30.3	32.9	35.5	36.6*	37.4*	2.58	47.5
	63	38.2	25.1	27.7	30.3	32.9	35.5	2.61	51.4
	67	40.9	19.3	22.0	24.6	27.2	29.8	2.65	55.7
	71	43.6	13.5	16.1	18.8	21.4	24.0	2.68	60.1
95	59	34.9	30.0	32.6	35.1*	35.9*	36.7*	2.72	47.7
	63	37.4	24.7	27.4	30.0	32.6	35.2	2.76	51.7
	67	40.0	19.0	21.6	24.2	26.9	29.5	2.80	56.0
	71	42.7	13.2	15.8	18.4	21.0	23.6	2.84	60.4
100	59	34.1	29.6	32.2	34.4*	35.2*	36.0*	2.90	48.0
	63	36.5	24.4	27.0	29.6	32.2	34.8	2.94	52.0
	67	39.0	18.6	21.2	23.9	26.5	29.1	2.98	56.3
	71	41.5	12.8	15.4	18.0	20.6	23.3	3.03	60.7
105	59	33.2	29.2	31.8	33.7*	34.4*	35.2*	3.07	48.3
	63	35.5	24.0	26.6	29.2	31.8	34.4	3.12	52.3
	67	37.9	18.2	20.9	23.5	26.1	28.7	3.17	56.6
	71	40.4	12.4	15.0	17.6	20.3	22.9	3.22	61.0
115	59	31.5	28.5	31.1	32.2*	32.9*	33.7*	3.41	48.9
	63	33.6	23.2	25.8	28.5	31.1	33.7*	3.47	52.9
	67	35.9	17.5	20.1	22.7	25.3	27.9	3.53	57.3
	71	38.2	11.7	14.3	16.9	19.5	22.1	3.59	61.6

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.	-1.3	0.0

VALUES AT ARI RATING CONDITIONS

TOTAL NET CAPACITY = 40000 BTUH
AIRFLOW = 1400 CFM
APP. DEW PT. = 56.0 DEG. F
COMPRESSOR POWER = 2800 WATTS
I.D. FAN POWER = 430 WATTS
O.D. FAN POWER = 250 WATTS
S.E.E.R. = 13.00 BTUH/WATT
E.E.R. = 11.50 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

WCK024B 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
2	6.80	6.60	6.50	6.40	1.46	1.56	1.60	1.65
7	8.72	8.47	8.34	8.21	1.51	1.60	1.65	1.70
12	10.60	10.30	10.20	10.00	1.55	1.65	1.70	1.75
17	12.60	12.20	12.00	11.80	1.59	1.70	1.75	1.80
22	13.80	13.40	13.20	13.00	1.62	1.72	1.77	1.82
27	15.10	14.60	14.40	14.20	1.64	1.75	1.80	1.85
32	16.40	15.90	15.60	15.40	1.67	1.77	1.83	1.88
37	17.60	17.10	16.80	16.60	1.69	1.80	1.85	1.91
42	18.90	18.30	18.00	17.70	1.72	1.83	1.88	1.94
47	24.10	23.40	23.00	22.70	1.85	1.97	2.03	2.09
52	26.10	25.30	24.90	24.50	1.89	2.02	2.08	2.14
57	28.00	27.10	26.70	26.30	1.94	2.06	2.12	2.19
62	29.90	29.00	28.50	28.10	1.98	2.11	2.17	2.24
67	31.80	30.90	30.40	29.90	2.02	2.15	2.22	2.28
72	33.80	32.70	32.20	31.70	2.06	2.20	2.27	2.33

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	X1.02	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.) = 23400 BTUH
HEATING CAP. (LOW TEMP.) = 12200 BTUH
COMPR. POWER (HIGH TEMP.) = 1590 WATTS
COMPR. POWER (LOW TEMP.) = 1315 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.53
COEFF. OF PERF. (LOW TEMP.) = 2.12
OUTDOOR FAN POWER = 250 WATTS
INDOOR FAN POWER = 130 WATTS

Performance Data
Heating

WCK030B 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
2	9.14	9.03	8.97	8.91	1.76	1.93	2.02	2.10
7	11.10	11.00	10.90	10.80	1.79	1.96	2.04	2.13
12	13.10	12.90	12.80	12.70	1.81	1.98	2.07	2.16
17	15.00	14.90	14.80	14.70	1.83	2.01	2.10	2.18
22	16.10	15.90	15.80	15.70	1.84	2.01	2.10	2.19
27	17.20	17.00	16.90	16.80	1.84	2.02	2.11	2.20
32	18.40	18.10	18.00	17.90	1.85	2.02	2.11	2.20
37	19.50	19.20	19.10	19.00	1.85	2.03	2.12	2.21
42	20.60	20.30	20.20	20.00	1.86	2.04	2.13	2.21
47	26.80	26.50	26.30	26.20	1.97	2.16	2.26	2.35
52	28.80	28.40	28.30	28.10	1.99	2.19	2.28	2.38
57	30.80	30.40	30.20	30.00	2.01	2.21	2.31	2.41
62	32.70	32.30	32.10	31.90	2.04	2.24	2.34	2.43
67	34.70	34.30	34.00	33.80	2.06	2.26	2.36	2.46
72	36.70	36.20	36.00	35.70	2.08	2.29	2.39	2.49

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

AIRFLOW	1000	1000
HEATING CAP.	X1.00	X1.00
COMPR. KW	X1.00	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.) = 26500 BTUH
HEATING CAP. (LOW TEMP.) = 14850 BTUH
COMPR. POWER (HIGH TEMP.) = 1735 WATTS
COMPR. POWER (LOW TEMP.) = 1583 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.64
COEFF. OF PERF. (LOW TEMP.) = 2.17
OUTDOOR FAN POWER = 240 WATTS
INDOOR FAN POWER = 185 WATTS

WCK036B 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
-3	10.10	9.83	9.69	9.56	2.09	2.26	2.34	2.43
2	12.30	12.00	11.80	11.70	2.12	2.30	2.38	2.47
7	14.60	14.20	14.00	13.70	2.16	2.34	2.42	2.51
12	16.80	16.30	16.10	15.80	2.19	2.37	2.46	2.55
17	19.10	18.50	18.20	17.90	2.23	2.41	2.50	2.59
22	19.80	19.20	18.90	18.60	2.23	2.42	2.51	2.60
27	20.50	19.90	19.60	19.30	2.24	2.42	2.51	2.60
32	21.20	20.60	20.30	20.00	2.24	2.43	2.52	2.61
37	21.90	21.30	21.00	20.60	2.25	2.43	2.52	2.62
42	22.60	22.00	21.60	21.30	2.25	2.44	2.53	2.62
47	32.50	31.50	31.00	30.50	2.43	2.64	2.74	2.84
52	34.70	33.70	33.10	32.60	2.47	2.67	2.78	2.88
57	36.90	35.80	35.30	34.70	2.50	2.71	2.81	2.92
62	39.20	38.00	37.40	36.80	2.53	2.75	2.85	2.96
67	41.40	40.20	39.50	38.90	2.57	2.79	2.89	3.00
72	43.70	42.30	41.70	41.00	2.60	2.82	2.93	3.04

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.) = 31500 BTUH
HEATING CAP. (LOW TEMP.) = 18500 BTUH
COMPR. POWER (HIGH TEMP.) = 2045 WATTS
COMPR. POWER (LOW TEMP.) = 1820 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.54
COEFF. OF PERF. (LOW TEMP.) = 2.26
OUTDOOR FAN POWER = 250 WATTS
INDOOR FAN POWER = 340 WATTS

WCK042B 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
-3	11.80	11.50	11.30	11.20	2.48	2.68	2.77	2.87
2	14.40	14.00	13.80	13.60	2.51	2.71	2.81	2.91
7	17.00	16.50	16.30	16.00	2.54	2.75	2.85	2.95
12	19.50	19.00	18.70	18.50	2.58	2.78	2.88	2.98
17	22.10	21.50	21.20	20.90	2.61	2.82	2.92	3.02
22	23.20	22.60	22.30	21.90	2.62	2.83	2.93	3.04
27	24.40	23.70	23.30	23.00	2.63	2.84	2.94	3.05
32	25.50	24.80	24.40	24.00	2.64	2.85	2.96	3.06
37	26.60	25.80	25.50	25.10	2.65	2.87	2.97	3.08
42	27.70	26.90	26.50	26.10	2.67	2.88	2.98	3.09
47	37.60	36.50	36.00	35.40	2.80	3.03	3.14	3.25
52	40.20	39.00	38.40	37.80	2.83	3.06	3.17	3.29
57	42.70	41.50	40.90	40.30	2.86	3.10	3.21	3.33
62	45.30	44.00	43.30	42.70	2.90	3.13	3.25	3.36
67	47.90	46.50	45.80	45.10	2.93	3.17	3.28	3.40
72	50.50	49.00	48.30	47.50	2.96	3.20	3.32	3.44

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.) = 36500 BTUH
HEATING CAP. (LOW TEMP.) = 21500 BTUH
COMPR. POWER (HIGH TEMP.) = 2345 WATTS
COMPR. POWER (LOW TEMP.) = 2135 WATTS
HSPF (MIN DHR) = 7.70
COEFF. OF PERF. (HIGH TEMP.) = 3.55
COEFF. OF PERF. (LOW TEMP.) = 2.26
OUTDOOR FAN POWER = 250 WATTS
INDOOR FAN POWER = 430 WATTS

Fan Performance Data

INDOOR BLOWER
WCK024B

MOTOR SPEED		EXTERNAL STATIC PRESSURE (IN. WG)			
		0.2	0.3	0.4	0.5
② LOW	WATTS	128	140	145	167
	CFM	820	784	742	668
HIGH	WATTS	170	182	195	200
	CFM	942	891	860	800

① - WET COIL, NO FILTERS ② - FACTORY SETTING

INDOOR BLOWER
WCK030B

MOTOR SPEED		EXTERNAL STATIC PRESSURE (IN. WG)			
		0.2	0.3	0.4	0.5
② LOW	WATTS	178	190	197	209
	CFM	1015	994	930	893
HIGH	WATTS	224	226	239	249
	CFM	1100	1075	1038	991

① - WET COIL, NO FILTERS ② - FACTORY SETTING

INDOOR BLOWER
WCK036B

MOTOR SPEED		EXTERNAL STATIC PRESSURE (IN. WG)			
		0.2	0.3	0.4	0.5
② LOW	WATTS	295	308	323	335
	CFM	1242	1193	1153	1108
HIGH	WATTS	335	355	370	385
	CFM	1314	1274	1229	1183

① - WET COIL, NO FILTERS ② - FACTORY SETTING

INDOOR BLOWER
WCK042B

MOTOR SPEED		EXTERNAL STATIC PRESSURE (IN. WG)				
		0.2	0.3	0.4	0.5	0.6
② LOW	WATTS	412	433	450	456	473
	CFM	1451	1415	1385	1352	1330
HIGH	WATTS	559	589	614	578	-- --
	CFM	1655	1615	1578	1505	-- --

① - WET COIL, NO FILTERS ② - FACTORY SETTING

Electric Heater Data

TABLE 1				USING SINGLE SUPPLY CIRCUIT						HEATER ONLY SUPPLY CIRCUIT		
				TCK COOLING / HTG			WCK HEAT PUMP					
UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLTAGE	HEATER KW 208/240	MCA (2)	MAX FUSE OR HACR CKT BKR SIZE	CANADA ONLY MAXIMUM CKT BKR SIZE (5)	MCA (9)	MAX FUSE OR HACR CKT BKR SIZE	CANADA ONLY MAXIMUM CKT BKR SIZE (5)	MCA (8)	MAX FUSE OR HACR CKT BKR SIZE	CANADA ONLY MAXIMUM CKT BKR SIZE (5)
WCK024B (6)	BAYHTRK105A	208 / 240	3.74 / 4.98	25 / 29	25 / 30	30 / 30	36 / 40	40 / 40	40 / 40	23 / 26	25 / 30	30 / 30
	BAYHTRK110A	208 / 240	7.48 / 9.96	47 / 55	50 / 60	50 / 60	NOT USED WITH WCK024B			45 / 52	45 / 60	50 / 60
	BAYHTRK111A	208 / 240	7.48 / 9.96	NOT USED WITH TCK024B			59 / 66	60 / 70	60 / 70	45 / 52	45 / 60	50 / 60
WCK030B	BAYHTRK105A	208 / 240	3.74 / 4.98	28 / 31	30 / 35	30 / 40	43 / 47	50 / 50	50 / 50	23 / 26	25 / 30	30 / 30
	BAYHTRK110A	208 / 240	7.48 / 9.96	50 / 57	50 / 60	50 / 60	65 / 72	70 / 80	70 / 100	45 / 52	45 / 60	50 / 60
WCK036B	BAYHTRK105A	208 / 240	3.74 / 4.98	28 / 31	30 / 35	30 / 40	46 / 50	50 / 50	50 / 50	23 / 26	25 / 30	30 / 30
	BAYHTRK110A	208 / 240	7.48 / 9.96	50 / 57	50 / 60	50 / 60	68 / 75	70 / 80	70 / 100	45 / 52	45 / 60	50 / 60
	BAYHTRK116A	208 / 240	11.22 / 14.94	73 / 83	80 / 90	100 / 100	91 / 101	100 / 110	100 / 110	68 / 78	70 / 80	70 / 100
WCK042B	BAYHTRK105A	208 / 240	3.74 / 4.98	30 / 34	30 / 35	30 / 40	50 / 54	60 / 60	60 / 60	23 / 26	25 / 30	30 / 30
	BAYHTRK110A	208 / 240	7.48 / 9.96	53 / 59	60 / 60	60 / 60	73 / 80	80 / 80	100 / 100	45 / 52	45 / 60	50 / 60
	BAYHTRK116A	208 / 240	11.22 / 14.94	75 / 85	80 / 90	100 / 100	95 / 106	100 / 110	100 / 110	68 / 78	70 / 80	70 / 100

NOTES:
1. Any power supply and circuits must be wired and protected in accordance with local electrical codes.
2. The MCA values listed are for electric heater and cooling unit.
3. Field wire must be rated at least 75°C.
4. The HACR circuit breaker is for U.S.A. installations only.
5. For Canada installation reference only
6. **BAYHTRK111A only approved for WCK024A1/WCK024B1**
7. **BAYHTRK106A only approved for TCK048A1**
8. The MCA values listed are for electric heater only.
9. The MCA values listed are for electric heater and heat pump.

Field Installed Control Options

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

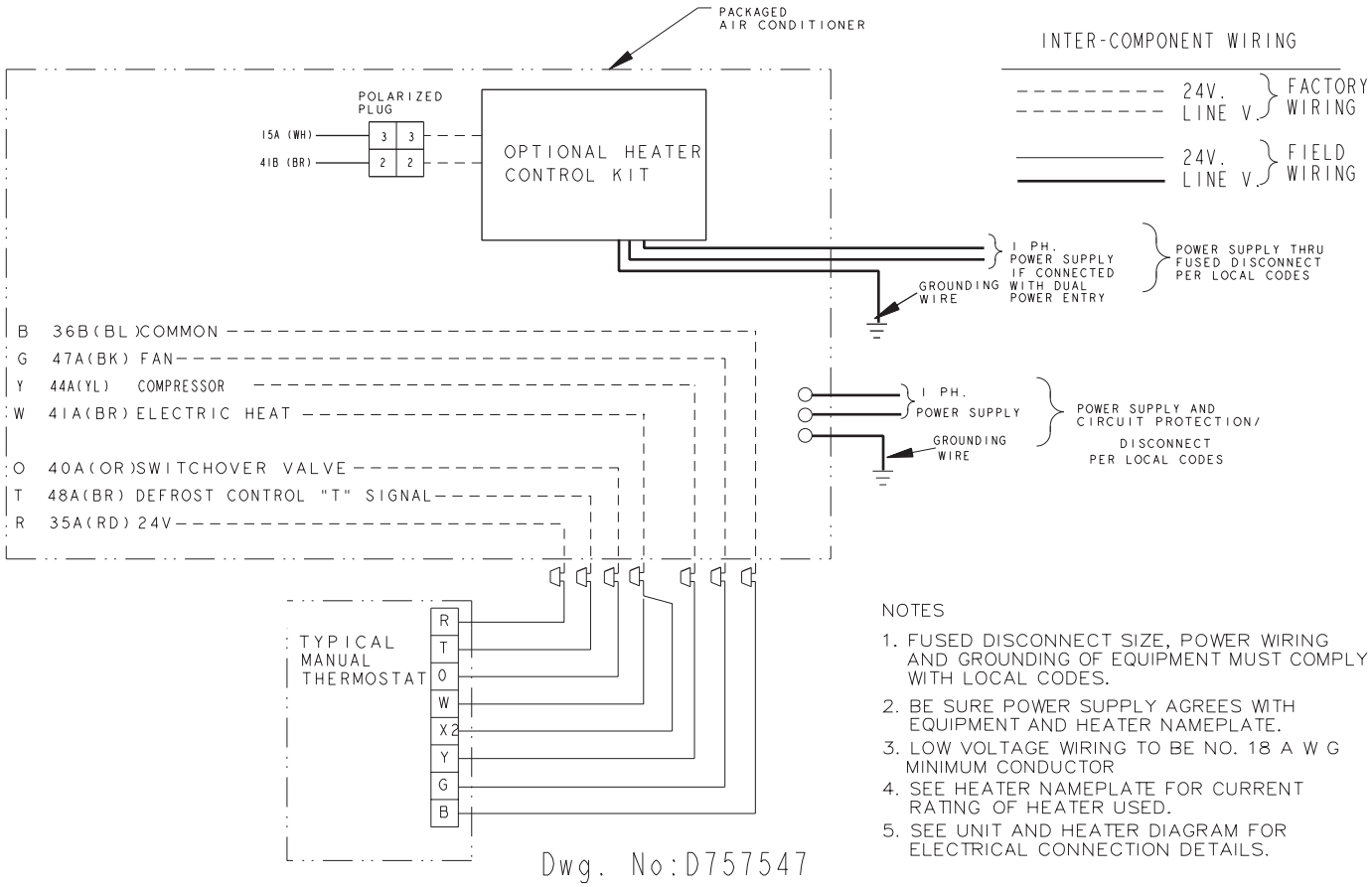
Programmable Electronic Night Setback Thermostat
Heating setback and cooling setup with 7-day, 5-1-1 programming capability. Available in two heating/cooling or one heating/cooling versions with automatic changeover.

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.

Field Wiring

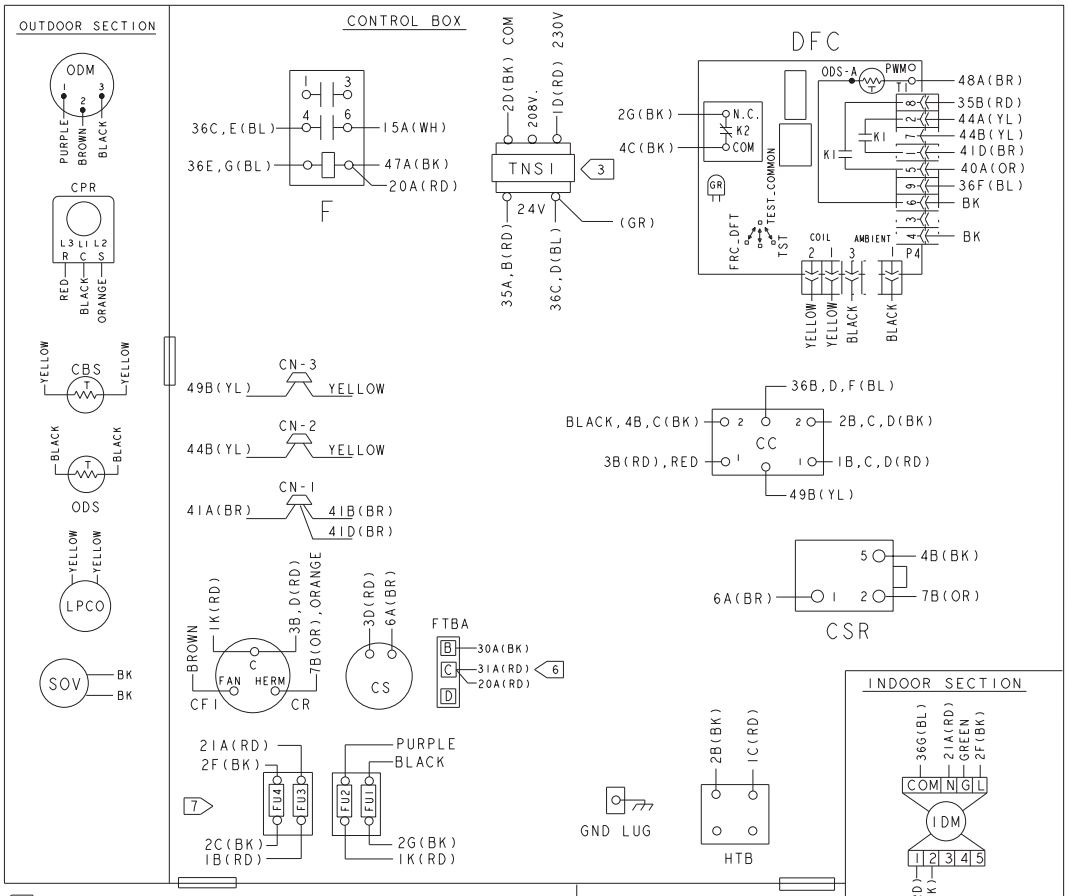
WCK024, 030, 036, 042B Units (With Supplementary Heaters)



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 MINIMUM CONDUCTOR
4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED.
5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.

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 MINIMUM 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:
   A: 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. AS FACTORY SHIPPED, ALL MODELS SHOULD HAVE THE 31A(RD) WIRE PLACED ON THE FTBA-C (LOW SPEED) TERMINAL FOR FIELD CONVERSION TO HI-SPEED, MOVE THE 20A(RD) WIRE FROM FTB-C TERMINAL TO FTBA-B TERMINAL.
7. REPLACEMENT FUSES:
   FU1, FU2: BUSSMANN FHQ-3, CLASS CC, 3 AMP , 500 V.
   FU3, FU4: BUSSMANN FHQ-6, CLASS CC, 6 AMP , 500 V.
8. SEE OPTIONAL HEATER ACCESSORY DIAGRAM FOR DETAILS OF HEATER WIRING.
9. DASHED LINES INDICATE RECOMMENDED FIELD WIRING.

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		

DEVICE	DESCRIPTION	LINE
AHI	ELECTRIC HEAT CONTACTOR COIL	48
CBS	COIL BOTTOM SENSOR	35
CC	COMPRESSOR CONTACTOR COIL	51-52
CFI	OUTDOOR FAN CAPACITOR	19
CS	CAPACITOR START	14
CN	CONNECTOR OR WIRE NUT	
CPR	COMPRESSOR	17-20
CR	COMPRESSOR RUN CAPACITOR	18
DFC	DEFROST CONTROL BOARD	32-42
F	FAN RELAY	45
FTBA	FAN TERMINAL BLOCK	43-45
FU	FUSE	
HTB	HIGH VOLTAGE TERMINAL BOARD	11
IDM	INDOOR FAN MOTOR	24-25
IOL	INTERNAL OVERLOAD	
LPCO	LOW PRESSURE CUTOUT	51-52
ODM	OUTDOOR FAN MOTOR	20-22
ODS	OUTDOOR AMBIENT SENSOR	38
PP	POLARIZED PLUG	48-49
TNSI	CONTROL POWER TRANSFORMER	28-30
CSR	CAPACITOR START RELAY	14

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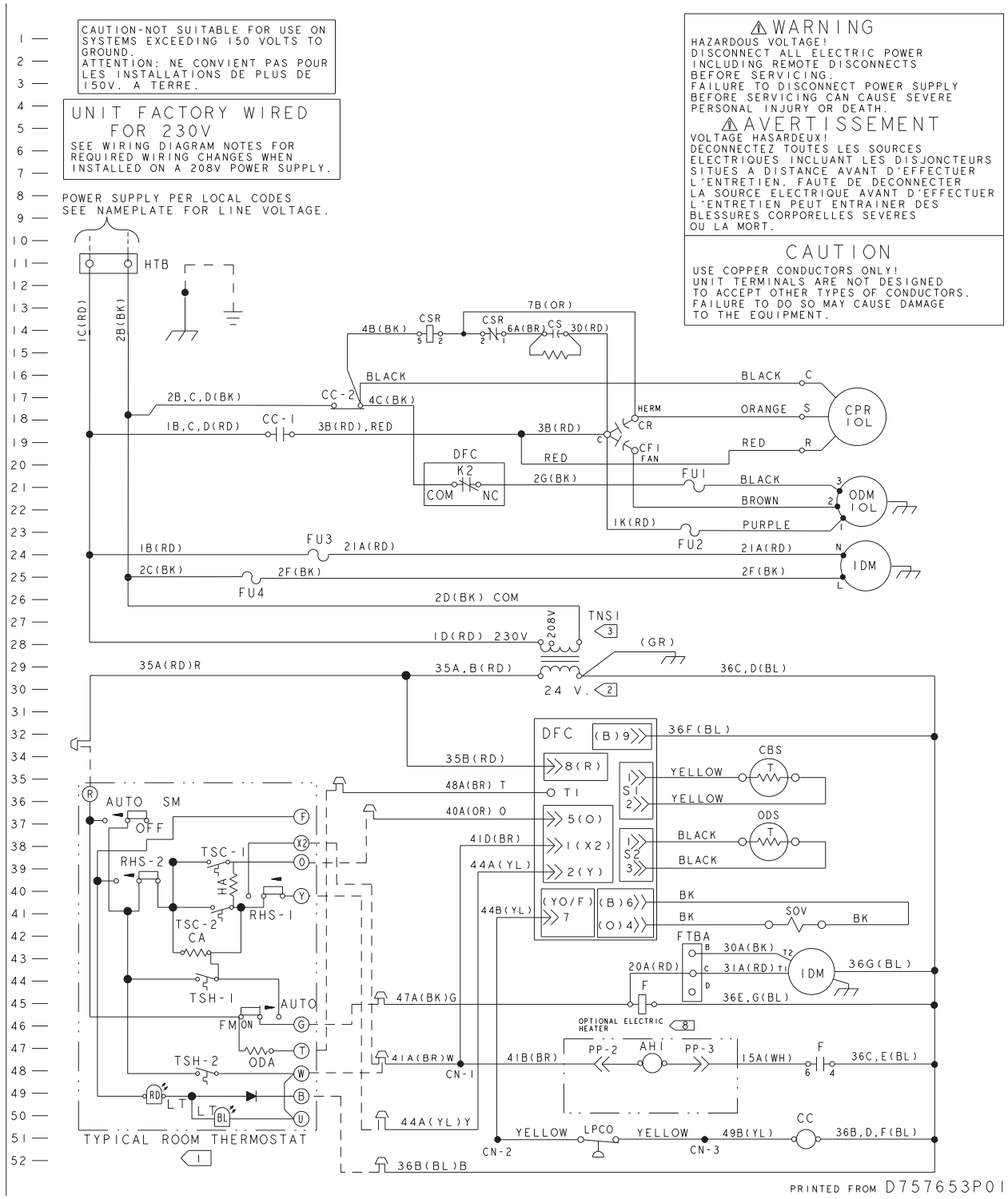
Typical Wiring Diagram For Specific Wiring see individual Service Facts

(continued on next page)

Typical Wiring



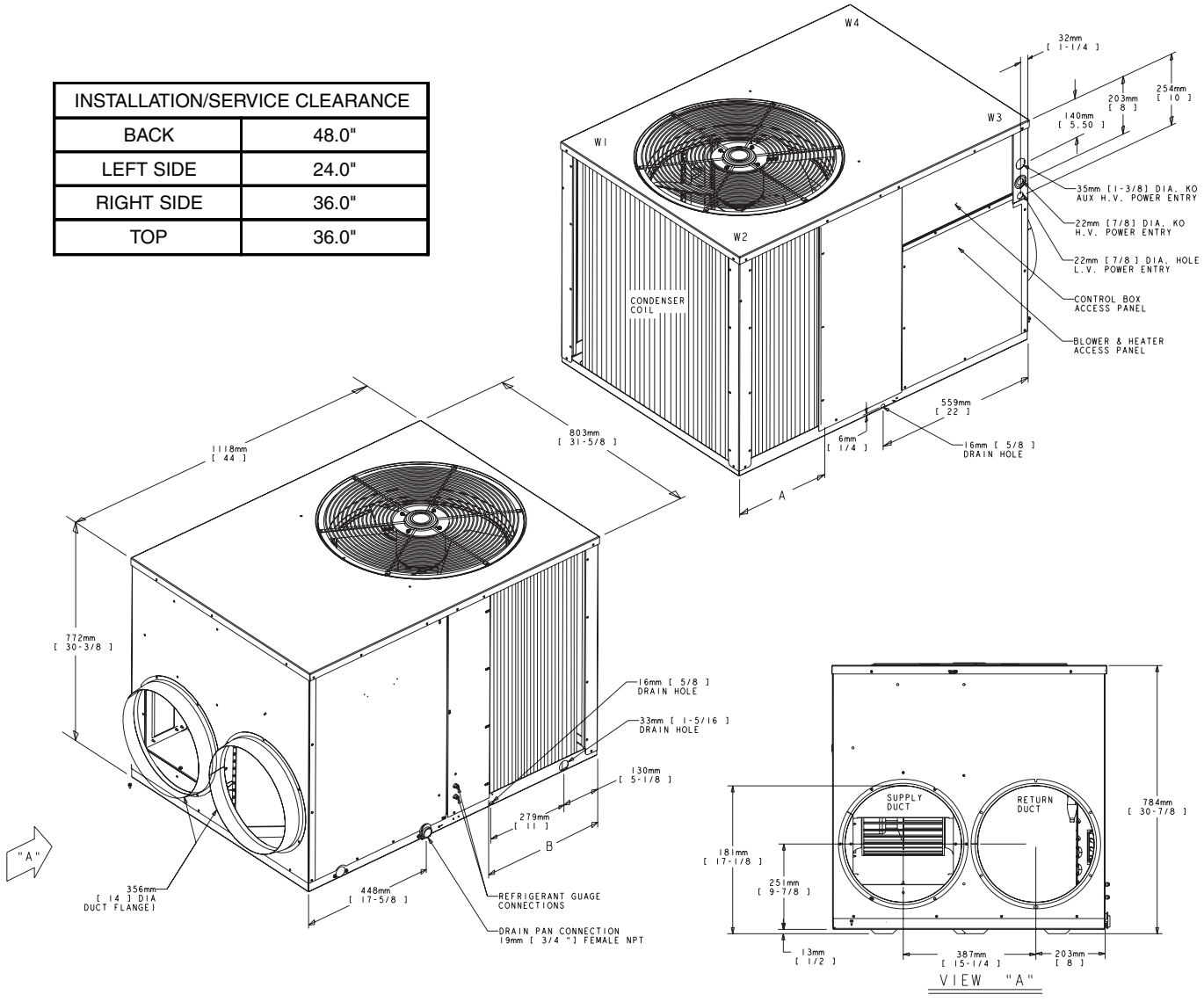
Typical Wiring Diagram For Specific Wiring see individual Service Facts

Dimensions

WCK024-042B 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 WEIGHT - KG/LBS				TOTAL WEIGHT KG/LBS	COIL DIMENSION	
	W1	W2	W3	W4		A	B
WCK042B1	36.30 (80)	41.30 (91)	34.00 (75)	30.40 (67)	141.90 (313)	441 (17-3/8)	413 (16-1/8)
WCK036B1	37.20 (82)	37.20 (82)	32.70 (72)	32.70 (72)	139.70 (308)	441 (17-3/8)	413 (16-1/8)
WCK030B1	33.60 (74)	37.20 (82)	33.60 (74)	30.40 (67)	135.20 (298)	302 (11-7/8)	413 (16-1/8)
WCK024B1	36.60 (85)	34.98 (77)	29.00 (64)	32.20 (71)	135.20 (298)	0	413 (16-1/8)

From Dwg. 21D673815 Rev. 0

Mechanical Specification 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 are 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 ground level or rooftop 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. The indoor air section is completely insulated with fireproof, permanent, foil faced odorless glass fiber material and waterproof closed-cell foam base insulation. 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 heating operation and either thermostatic expansion valve refrigerant control for 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.

ARI Standard
210/240 UHP

P.I.

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