

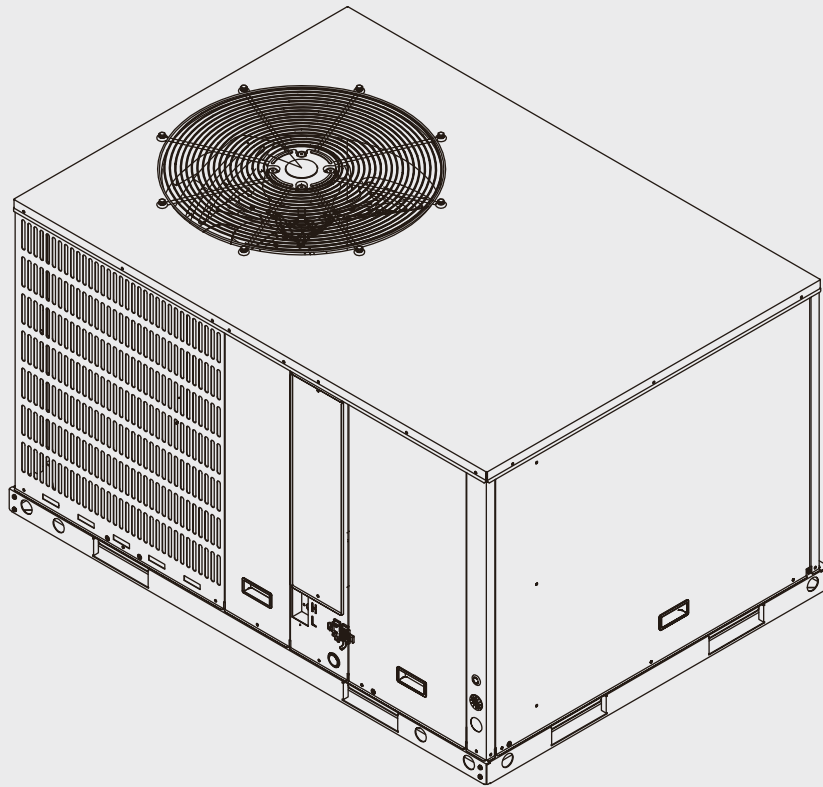


BOSCH

Product Specifications

Inverter Ducted Packaged Heat Pump **Bosch IDP Plus**

15 SEER2 Series | 3 & 5 Ton Capacity | R410A



BTC 761701321 E / 04.2023



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1 Product Features

1.1 Features and Benefits

- ▶ Superior efficiency
 - IDP 3T rated at 15.2 SEER2, 9.5 EER2, 7.8 HSPF2
 - IDP 5T rated at 15.2 SEER2, 9 EER2, 7.8 HSPF2
- ▶ Fully modulating Inverter Drive precisely matches the heating/cooling load
- ▶ Inverter Compressor (33%-110% speed), modulation in 1% increments
- ▶ Provides up to 4-stage indoor fan control
- ▶ Easy to install – compatible with most standard 24 VAC heat pump thermostats

1.2 Standard Features

- ▶ R-410A Chlorine-Free Refrigerant
- ▶ Intelligent Oil Return Technology
- ▶ Inverter Driven Rotary Compressor
- ▶ Crankcase Heater Standard
- ▶ Multiple System Protection:
 - High pressure switch and low pressure transducer
 - Compressor liquid return protection
 - Compressor high or low compression ratio protection
 - Compressor high temperature protection
 - High / low voltage protection and over current protection
 - IPM and electronic control board high temperature protection
- ▶ Outdoor coil is capable of withstanding 1000 hour salt spray test according to ASTM B117 standard
- ▶ AHRI certified; ETL listed

1.3 Cabinet Features

- ▶ Baked-on powder paint finish
- ▶ Wire fan discharge grille
- ▶ Steel louver coil guard

1.4 Limited Warranty

For Products installed in a one or two family residential dwelling BTC warrants that all compressors and internal components incorporated into the Product at the time of shipment by BTC shall remain free from defects in workmanship and materials for ten (10) years* from the Commencement Date. If the Warranty Registration process has been completed and BTC determines that the Product or any part of the Product has a defect in workmanship or materials, BTC shall pay labor charges associated with the repair or replacement of the part in accordance with the Warranty Labor Allowance Schedule** for the period of ninety (90) days from the Commencement Date.

For Products installed in a building other than a one or two family residential dwelling, BTC warrants that all compressors incorporated into the Product at the time of shipment by BTC shall remain free from defects in workmanship and materials for three (3) years* and other internal components incorporated into the Product components for one (1) year* from the Commencement Date

* Please refer to www.bosch-climate.us for full warranty terms and conditions.

** Warranty Labor Allowance Schedule details are available on www.boschprohvac.com

2 Nomenclature

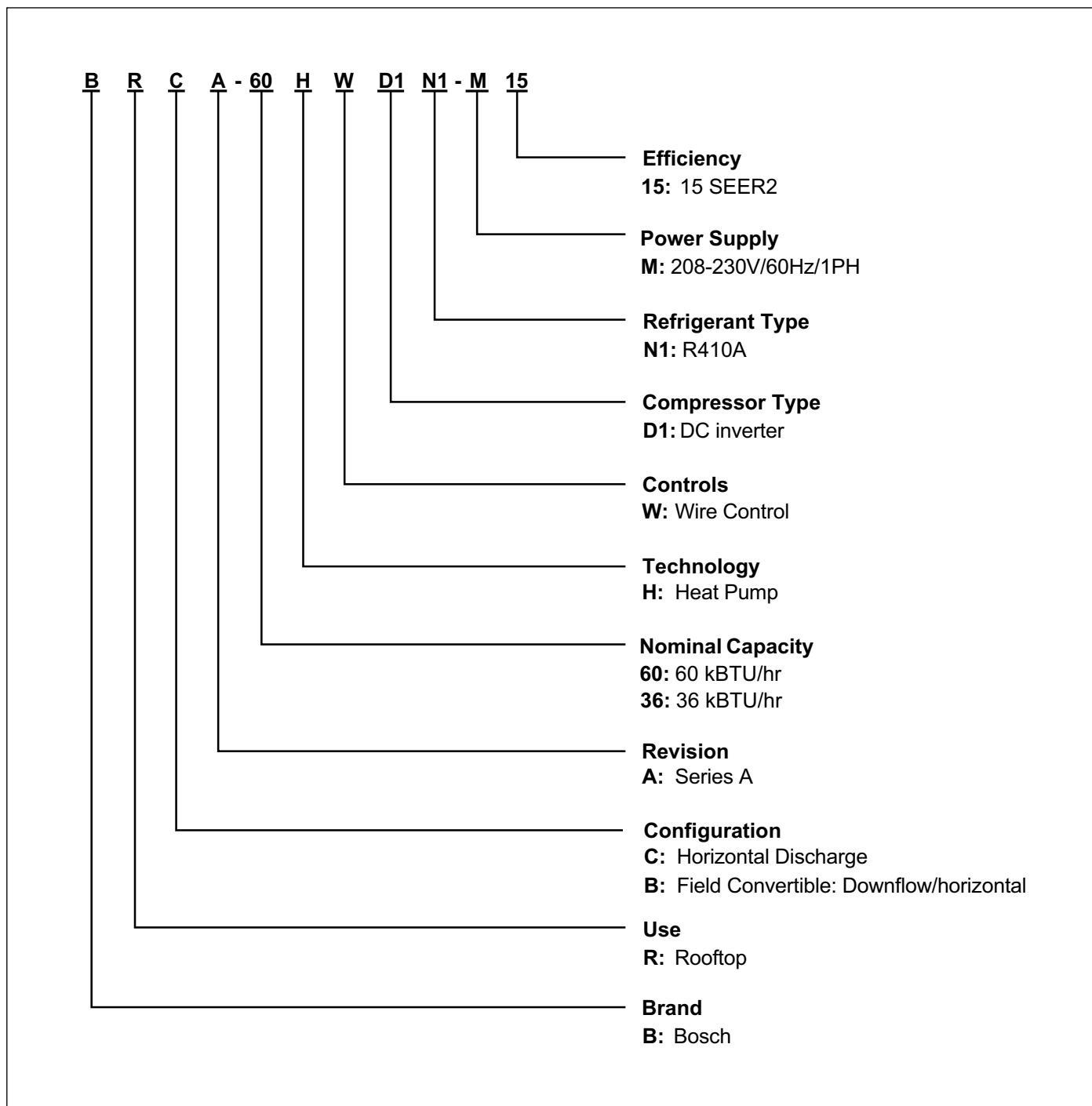


Figure 1

3 Product Specifications

	BRCA-36HWD1N1-M15	BRCA-60HWD1N1-M15
Electrical Data		
Rated Volts/PH/Hz	208-230/1/60	208-230/1/60
Min / Max Volts	173 / 269	173 / 269
Performance Cooling		
	40°F - 120 °F	40°F - 120 °F
BTUH (High)	34200	57000
Indoor Airflow (CFM)	1250	1750
Power Input (KW)	3.6	6.1
SEER2/ EER2-HI	15.2/9.5	15.2/9
Performance Heating		
	5°F - 86°F	5°F - 86°F
(High Temp.) BTUH / COP (High)	34600/3.4	57000/3.4
Power Input (KW)	2.90	4.85
HSPF2 (BTU / Watt-Hr.)	7.8	7.8
Power Conn. - V/Ph/Hz		
	208-230/1/60	208-230/1/60
Min. Brch. Cir. Ampacity ¹	25.1	41.8
Max. Overcurrent Protection ²	40.00	60.00
Min. / Max. Volts	173 / 269	173 / 269
Fuse Size - Max. / Recmd. (amps)	40	60
Compressor		
	Rotary	Rotary
Volts/Ph/Hz	208-230/1/60	208-230/1/60
R.L. Amps	15.0	27.0
Outdoor Coil - Type		
	Finned Tube Exchanger	Finned Tube Exchanger
Rows/F.P.I.	2 / 20	2/20
Face Area (sq.ft.)	9.80	15.20
Tube Size (in.)	9/32	9/32
Circuitry Type	Interlaced	Interlaced
Refrigerant Control	EEV	EEV
Indoor Coil - Type		
	Finned Tube Exchanger	Finned Tube Exchanger
Rows/F.p.i.	4 / 17	4 / 17
Face Area (Sq.ft.)	3.63	6.43
Tube Size (In.)	9/32	9/32
Circuitry Type	Interlaced	Interlaced
Drain Conn. Size (In.)	3/4 NPTI	3/4 NPTI
Outdoor Fan - Type		
	Propeller	Propeller
Dia. (in.)	22	23-5/8"
Drive/No. Speeds	Direct / 10	Direct / 10
CFM @0.0 in. w.g.	2750	3400
Motor - HP/R.P.M.	1/3 / 200~950	1/3 / 200~980
Volts/Ph/Hz	208-230/1/60	208-230/1/60
F.L. Amps/L.R. Amps	2.0	2.0

Table 1

¹ Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes.

² Must use time-delay fuses or HACR-type circuit breakers of the same size as noted.



Always check the rating plate for electrical data on the unit being installed.

	BRCA-36HWD1N1-M15	BRCA-60HWD1N1-M15
Indoor Fan - Type	Centrifugal	Centrifugal
Dia x Width (in.)	10 X 9	11 X 10-5/8"
Drive/No. Speeds	Direct / 5	Direct / 5
CFM @0.0 in. w.g.	See Airflow Performance Table	See Airflow Performance Table
Motor - HP/R.P.M.	1/2 / 1050	3/4 / 1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60
F.L. Amps/L.R. Amps	4.3	6.0
Filter / Furnished	No	No
Type Recommended	Throwaway	Throwaway
Recmd. Face Area (L x W x D)	20" x 20" x 1"	24" x 36" x 1"
Refrigerant / Charge (lbs. - oz.)	R410a / 4-6	R410a / 6-10
Dimensions		
Unit only L x W x H (in.)	52" x 37-3/4" x 24-13/16"	58-1/2" x 42-1/16" x 33-1/16"
Weight³		
Net lb. (kg)	316 (143)	427 (194)
Gross lb. (kg)	322 (146)	436 (198)

Table 2

³ Weight values are estimated.


Always check the rating plate for electrical data on the unit being installed.

4 AHRI 210/240 Performance Data

Nominal HP System Tonnage	Heat Pump Model	Cooling Capacity (BTU/h)			Heating Capacity			CFM
		Total	EER ²	SEER ¹	Hi	HSPF ² ³	Low ⁴	
5	BRCA-60HWD1N1-M15	57000	9.0	15.2	57000	7.8	43000	1700
3	BRCA-36HWD1N1-M15	34200	9.5	15.2	34600	7.8	23000	1250

Table 3

¹ Seasonal Energy Efficiency Ratio²; Certified per AHRI 210/240 -2023

² Energy Efficiency Ratio²; Certified per AHRI 210/240 -2023

³ HSPF² = Heating Seasonal Performance Factor²; Certified per AHRI 210/240 -2023

⁴ Jumper cut or dip switch off

5 Extended Performance Data

5.1 BRCA-60HWD1N1-M15 For Cooling

BRCA-60HWD1N1-M15 For Cooling																		
Indoor Airflow (SCFM)	Outdoor DB	IWB (°F)	59				63				67				71			
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1550	65	TC	48.7	49.2	50.2	50.7	51.3	51.8	52.5	53.0	54.6	55.0	55.7	55.9	/	61.5	62.1	62.5
		S/T	0.84	0.95	0.98	1.00	0.63	0.82	0.97	0.98	0.43	0.61	0.77	0.91	/	0.39	0.57	0.72
		kW	4.42	4.44	4.47	4.47	4.59	4.62	4.66	4.68	4.68	4.71	4.75	4.78	/	4.73	4.77	4.81
	75	TC	48.1	48.7	49.8	50.3	51.1	51.7	52.2	52.8	54.4	54.9	55.5	55.7	/	60.9	61.3	61.7
		S/T	0.84	0.95	0.98	1.00	0.63	0.82	0.97	0.98	0.43	0.61	0.77	0.91	/	0.39	0.57	0.72
		kW	4.76	4.79	4.84	4.84	4.83	4.86	4.9	4.93	4.95	4.98	5.00	5.02	/	5.06	5.09	5.14
	85	TC	47.8	48.3	49.3	49.8	50.5	51.0	51.5	52.0	53.5	54.1	54.9	55.1	/	59.9	60.4	60.8
		S/T	0.84	0.95	0.98	1.00	0.63	0.82	0.97	0.98	0.43	0.61	0.77	0.91	/	0.39	0.57	0.72
		kW	5.26	5.28	5.31	5.33	5.33	5.37	5.41	5.44	5.52	5.56	5.58	5.61	/	5.62	5.67	5.69
	95	TC	46.5	47.3	48.2	48.9	50.0	50.6	51.1	51.6	53.1	53.7	54.6	55.0	/	58.3	58.8	59.2
		S/T	0.84	0.95	0.98	1.00	0.63	0.82	0.97	0.98	0.43	0.61	0.77	0.91	/	0.39	0.57	0.72
		kW	5.68	5.73	5.79	5.79	5.8	5.82	5.83	5.85	5.96	5.98	6	6.03	/	6.14	6.17	6.2
	105	TC	40.8	41.3	42.3	42.8	42.7	43.3	43.9	44.4	45.2	45.5	45.9	46.2	/	50.1	50.3	50.3
		S/T	0.86	0.96	0.99	1.00	0.65	0.84	0.98	0.99	0.45	0.62	0.78	0.93	/	0.40	0.59	0.74
		kW	5.26	5.31	5.36	5.36	5.36	5.41	5.46	5.5	5.52	5.57	5.61	5.64	/	6.1	6.12	6.12
	115	TC	29.4	29.8	30.4	30.8	30.7	31.1	31.4	31.8	32.7	33.1	33.5	33.7	/	34.4	34.6	34.8
		S/T	0.87	0.97	1.00	1.00	0.66	0.86	0.99	1.00	0.46	0.63	0.80	0.98	/	0.42	0.61	0.76
		kW	5.04	5.09	5.13	5.16	5.24	5.26	5.3	5.36	5.49	5.51	5.53	5.53	/	5.58	5.59	5.61
1720	65	TC	50.7	51.5	52.7	53.3	54.0	54.6	55.2	55.8	56.8	57.0	57.4	57.8	/	63.2	63.5	63.8
		S/T	0.85	0.96	0.99	1.00	0.64	0.83	0.98	0.99	0.44	0.62	0.78	0.92	/	0.41	0.59	0.74
		kW	4.54	4.58	4.6	4.61	4.62	4.66	4.69	4.72	4.78	4.82	4.85	4.88	/	5.08	5.12	5.16
	75	TC	50.5	51.0	52.2	52.8	53.8	54.3	54.9	55.6	56.6	56.8	57.2	57.6	/	62.6	63.0	63.3
		S/T	0.85	0.96	0.99	1.00	0.64	0.83	0.98	0.99	0.44	0.62	0.78	0.92	/	0.41	0.59	0.74
		kW	4.86	4.9	4.95	4.95	4.94	4.98	5.01	5.06	5.08	5.11	5.12	5.16	/	5.23	5.27	5.28
	85	TC	50.3	50.9	52.0	52.6	53.7	54.2	54.8	55.5	56.4	56.8	57.1	57.6	/	62.0	62.4	62.7
		S/T	0.85	0.96	0.99	1.00	0.64	0.83	0.98	0.99	0.44	0.62	0.78	0.92	/	0.41	0.59	0.74
		kW	5.42	5.44	5.48	5.5	5.61	5.66	5.71	5.74	5.76	5.79	5.83	5.87	/	5.8	5.84	5.87
	95	TC	49.9	50.5	51.3	52.2	53.6	54.2	54.7	55.2	56.4	56.8	57.0	57.5	/	61.3	61.7	62.1
		S/T	0.85	0.96	0.99	1.00	0.64	0.83	0.98	0.99	0.44	0.62	0.78	0.92	/	0.41	0.59	0.74
		kW	5.88	5.93	5.98	6.01	5.98	6.04	6.08	6.13	6.26	6.31	6.33	6.37	/	6.45	6.49	6.52
	105	TC	41.6	42.1	43.2	43.7	45.3	45.8	46.3	46.9	48.8	49.2	49.5	49.8	/	51.5	51.8	52.1
		S/T	0.87	0.97	1.00	1.00	0.66	0.85	0.99	1.00	0.46	0.63	0.79	0.94	/	0.42	0.61	0.76
		kW	5.53	5.59	5.65	5.65	5.75	5.81	5.86	5.91	5.94	5.99	6.02	6.05	/	6.22	6.23	6.24
	115	TC	30.6	30.9	31.7	32.0	32.1	32.4	32.8	33.3	34.3	34.6	34.7	35.0	/	35.9	36.0	36.2
		S/T	0.88	0.98	1.00	1.00	0.67	0.87	1.00	1.00	0.47	0.64	0.81	0.99	/	0.44	0.63	0.78
		kW	5.12	5.17	5.19	5.22	5.27	5.32	5.37	5.42	5.53	5.55	5.58	5.59	/	5.71	5.72	5.73
2000	65	TC	53.2	53.8	54.5	55.3	55.5	56.0	56.6	57.2	58.8	59.1	59.5	59.9	/	65.5	65.9	66.3
		S/T	0.86	0.97	1.00	1.00	0.65	0.84	0.99	1.00	0.45	0.63	0.79	0.93	/	0.42	0.60	0.75
		kW	4.79	4.83	4.86	4.86	4.86	4.91	4.94	4.99	4.99	5.02	5.06	5.1	/	5.37	5.4	5.43
	75	TC	52.7	53.5	54.4	55.0	55.1	55.8	56.4	57.0	58.9	59.3	59.7	60.1	/	65.0	65.4	65.9
		S/T	0.86	0.97	1.00	1.00	0.65	0.84	0.99	1.00	0.45	0.63	0.79	0.93	/	0.42	0.60	0.75
		kW	5.12	5.17	5.22	5.22	5.2	5.25	5.28	5.33	5.36	5.39	5.41	5.44	/	5.63	5.67	5.7
	85	TC	51.8	52.5	53.5	54.1	54.3	54.8	55.4	56.1	57.7	58.1	58.5	59.1	/	63.9	64.3	64.6
		S/T	0.86	0.97	1.00	1.00	0.65	0.84	0.99	1.00	0.45	0.63	0.79	0.93	/	0.42	0.60	0.75
		kW	5.65	5.69	5.74	5.74	5.76	5.79	5.83	5.88	5.9	5.93	5.97	6	/	6.13	6.16	6.19
	95	TC	50.8	51.3	52.6	53.1	54.1	54.6	55.2	55.9	57.5	57.9	58.2	58.5	/	62.5	62.9	63.2
		S/T	0.86	0.97	1.00	1.00	0.65	0.84	0.99	1.00	0.45	0.63	0.79	0.93	/	0.42	0.60	0.75
		kW	5.97	6.03	6.06	6.08	6.04	6.09	6.15	6.2	6.33	6.37	6.4	6.44	/	6.52	6.56	6.6
	105	TC	43.0	43.5	44.6	45.1	47.5	48.0	48.6	49.1	51.2	51.5	51.8	52.2	/	52.7	52.9	53.2
		S/T	0.88	0.97	1.00	1.00	0.67	0.86	1.00	1.00	0.47	0.64	0.80	0.95	/	0.43	0.62	0.77
		kW	5.68	5.73	5.78	5.8	5.91	5.96	6.03	6.08	6.12	6.15	6.2	6.23	/	6.26	6.27	6.29
	115	TC	31.4	31.7	32.2	32.6	32.7	33.0	33.3	33.8	35.0	35.4	35.5	35.7	/	36.6	36.7	36.8
		S/T	0.89	0.98	1.00	1.00	0.68	0.88	1.00	1.00	0.48	0.65	0.82	1.00	/	0.45	0.64	0.79
		kW	5.27	5.3	5.33	5.36	5.4	5.47	5.52	5.58	5.65	5.66	5.68	5.69	/	5.8	5.81	5.83

Table 4

TC refers to total capacity S/T: refers to the ratio of sensible heat and total capacity kW: refers to total input power

5.2 BRCA-60HWD1N1-M15 For Heating

BRCA-60HWD1N1-M15 For Heating																		
Airflow (SCFM)	ID (°F)	OD (°F)	86	72	67	62	57	52	47	42	37	32	27	22	17	12	7	5
1550	60	TC	64.9	64.9	64.6	64.4	64	63.5	63	59.1	56.1	52.8	49.1	48.2	44.8	41.2	37.9	36.5
		kW	3.77	4.43	4.72	4.94	5.3	5.37	5.38	5.33	5.33	5.28	5.35	5.44	5.65	5.34	5.33	5.16
	70	TC	53.5	53.4	53.4	53.2	53.3	53.6	53.7	52.3	51.5	51.1	48.3	46.2	42.7	39.4	37.8	35.8
		kW	3.26	3.56	3.73	3.96	4.2	4.33	4.56	4.9	5.2	5.27	5.05	5.24	5.66	5.41	5.33	5.21
	75	TC	44.4	44.4	44.4	44.3	44.3	44.3	44.2	43.3	43	42.4	42	43.1	42	37.9	36.2	35
		kW	2.6	3	3.11	3.27	3.44	3.64	3.89	4.12	4.39	4.65	4.66	5.01	5.71	5.77	5.56	5.4
	80	TC	35.3	35.3	35.3	35.3	35.2	35.2	35.2	34.4	34.4	34.4	34	34.6	34.2	32.2	31.7	31.4
		kW	2.47	2.67	2.76	2.88	3.03	3.16	3.33	3.47	3.73	3.94	3.82	4.03	4.71	4.92	4.89	4.84
	1720	TC	69.6	69.3	69.2	68.7	68.5	67.6	65.8	61.3	57.9	54.2	50.8	48.6	45.3	41.8	40.1	37.5
		kW	3.89	4.5	4.74	5.09	5.31	5.35	5.28	5.23	5.25	5.16	5.3	5.47	5.85	5.56	5.48	5.28
		TC	58	57.9	57.7	57.6	57.4	57.2	57	55.2	54.4	52.5	49	47	43	39.7	38.7	36.7
		kW	3.3	3.67	3.88	4.17	4.43	4.55	4.75	4.92	5.18	5.3	5.14	5.28	5.6	5.51	5.42	5.31
		TC	49.1	49.1	49.1	49	48.9	48.9	48.8	47.3	46.9	46.3	44.2	45.3	42.3	38.5	36.7	35.7
		kW	2.83	3.27	3.41	3.6	3.81	4.04	4.28	4.38	4.52	4.73	4.78	5.22	5.85	5.71	5.48	5.41
2000	60	TC	39.3	39.3	39.2	39.1	39	39	38.9	38	37.9	37.7	37	38.2	37.9	35.8	34.6	34
		kW	2.62	2.8	2.91	3.04	3.3	3.44	3.62	3.82	4.13	4.34	4.15	4.36	4.98	5.24	5.15	5.04
	70	TC	75.3	74.8	74.8	74.3	72.8	69.2	67.2	62.8	58.2	54.4	53.4	53.3	49.7	44.7	40.6	38.6
		kW	4.05	4.82	5.07	5.43	5.39	5.3	5.29	5.19	5.12	5.07	5.29	5.4	5.82	5.53	5.38	5.23
	75	TC	59	58.9	58.6	58.5	58.3	58.2	58.2	56.9	56.2	54.1	50.7	48.4	44.9	40.7	39.6	38.3
		kW	3.44	3.88	4.08	4.34	4.69	4.67	5	5.42	5.37	5.3	5.09	5.28	5.6	5.46	5.37	5.25
	80	TC	52	51.8	51.3	51.1	50.8	50.6	50.5	49.1	48.6	47.2	45.2	45.9	43.2	39.6	37.2	36.2
		kW	3.39	3.67	3.89	3.97	4.25	4.38	4.49	4.51	4.85	5.23	5.37	5.65	6.21	6.12	5.82	5.79
		TC	42.2	42.2	42.1	42.1	41.9	41.7	41.5	40.4	39.8	39.6	38.7	40.1	40.6	37.1	36.6	35.2
		kW	3.01	3.13	3.24	3.53	3.55	3.76	3.82	4.07	4.28	4.4	4.35	4.69	5.22	5.4	5.69	5.6

Table 5

TC refers to total capacity S/T: refers to the ratio of sensible heat and total capacity kW: refers to total input power

5.3 BRCA-36HWD1N1-M15 For Cooling

BRCA-36HWD1N1-M15 For Cooling																		
Indoor Airflow (SCFM)	Outdoor DB	IWB (°F)	59				63				67				71			
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
950	65	TC	28.1	28.4	29.0	29.4	29.3	29.6	29.9	30.1	31.2	31.5	31.9	32.1	/	34.9	35.2	35.4
		S/T	0.90	0.95	0.98	1.00	0.63	0.86	0.95	1.00	0.39	0.57	0.76	0.97	/	0.39	0.54	0.70
		kW	2.27	2.29	2.30	2.30	2.30	2.33	2.34	2.36	2.36	2.37	2.40	2.42	/	2.56	2.58	2.61
	75	TC	28.0	28.4	29.0	29.3	29.1	29.4	29.8	30.0	31.1	31.4	31.8	31.9	/	34.5	34.8	35.1
		S/T	0.90	0.95	0.98	1.00	0.63	0.86	0.95	1.00	0.39	0.57	0.76	0.97	/	0.39	0.54	0.70
		kW	2.72	2.75	2.77	2.78	2.77	2.79	2.82	2.83	2.83	2.85	2.88	2.90	/	2.74	2.75	2.76
	85	TC	27.7	28.0	28.6	29.0	28.8	29.2	29.5	29.8	30.9	31.2	31.6	31.7	/	34.4	34.7	34.9
		S/T	0.90	0.95	0.98	1.00	0.63	0.86	0.95	1.00	0.39	0.57	0.76	0.97	/	0.39	0.54	0.70
		kW	2.71	2.74	2.76	2.76	2.76	2.78	2.80	2.82	2.82	2.85	2.87	2.89	/	3.01	3.05	3.07
	95	TC	27.3	27.6	28.1	28.5	28.3	28.7	29.0	29.3	30.4	30.7	31.0	31.2	/	34.1	34.4	34.6
		S/T	0.90	0.95	0.98	1.00	0.63	0.86	0.95	1.00	0.39	0.57	0.76	0.97	/	0.39	0.54	0.70
		kW	3.20	3.23	3.26	3.27	3.26	3.29	3.32	3.34	3.37	3.38	3.40	3.44	/	3.55	3.56	3.57
	105	TC	25.6	26.1	26.7	27.1	26.6	26.9	27.3	27.6	28.3	28.7	29.0	29.4	/	32.6	32.7	32.9
		S/T	0.91	0.96	0.99	1.00	0.64	0.87	0.96	1.00	0.40	0.58	0.77	0.98	/	0.40	0.55	0.71
		kW	3.84	3.86	3.88	3.91	4.09	4.10	4.13	4.15	4.35	4.37	4.38	4.40	/	4.16	4.17	4.18
	115	TC	21.1	21.5	21.8	22.1	23.5	23.9	24.1	24.3	25.1	25.5	25.7	26.0	/	26.0	26.3	26.5
		S/T	0.92	0.97	1.00	1.00	0.65	0.88	0.97	1.00	0.41	0.59	0.78	0.99	/	0.41	0.56	0.72
		kW	3.46	3.48	3.51	3.53	3.72	3.73	3.75	3.78	3.98	4.00	4.01	4.02	/	3.72	3.74	3.76
1200	65	TC	31.1	31.6	32.4	32.7	32.2	32.6	33.0	33.4	34.5	34.5	34.8	35.1	/	39.0	39.2	39.5
		S/T	0.90	0.96	0.99	1.00	0.64	0.87	0.96	1.00	0.39	0.58	0.77	0.98	/	0.39	0.55	0.71
		kW	2.53	2.55	2.57	2.58	2.57	2.60	2.62	2.64	2.70	2.74	2.76	2.78	/	2.85	2.86	2.89
	75	TC	31.1	31.6	32.2	32.5	32.2	32.6	33.0	33.4	34.3	34.5	34.5	34.8	/	38.7	39.0	39.2
		S/T	0.91	0.96	0.99	1.00	0.64	0.87	0.96	1.00	0.39	0.58	0.77	0.98	/	0.39	0.55	0.71
		kW	2.82	2.84	2.86	2.88	2.86	2.89	2.91	2.93	2.95	2.96	2.99	3.02	/	2.99	3.01	3.02
	85	TC	30.6	31.0	31.8	32.1	31.8	32.1	32.4	32.8	34.0	34.1	34.2	34.7	/	37.6	37.9	38.2
		S/T	0.91	0.96	0.99	1.00	0.64	0.87	0.96	1.00	0.39	0.58	0.77	0.98	/	0.39	0.55	0.71
		kW	2.96	2.98	3.02	3.03	3.02	3.05	3.06	3.10	3.23	3.25	3.27	3.30	/	3.37	3.37	3.39
	95	TC	30.2	30.7	31.5	31.8	31.7	32.0	32.3	32.7	33.6	33.9	34.2	34.4	/	36.7	37.1	37.2
		S/T	0.91	0.96	0.99	1.00	0.64	0.87	0.96	1.00	0.39	0.58	0.77	0.98	/	0.39	0.55	0.71
		kW	3.44	3.47	3.51	3.52	3.51	3.54	3.57	3.60	3.74	3.76	3.80	3.81	/	3.90	3.91	3.92
	105	TC	28.2	28.6	29.0	29.3	30.2	30.5	30.8	31.2	32.2	32.6	32.8	33.1	/	33.9	34.2	34.4
		S/T	0.92	0.97	1.00	1.00	0.64	0.88	0.96	1.00	0.40	0.60	0.78	0.99	/	0.40	0.56	0.72
		kW	3.99	4.02	4.03	4.06	4.14	4.19	4.22	4.26	4.40	4.42	4.45	4.48	/	4.26	4.27	4.28
	115	TC	19.9	20.3	20.6	20.8	22.0	22.3	22.6	22.9	23.7	24.0	24.3	24.6	/	26.8	27.0	27.1
		S/T	0.93	0.98	1.00	1.00	0.65	0.90	0.98	1.00	0.41	0.64	0.80	1.00	/	0.41	0.57	0.76
		kW	3.58	3.60	3.62	3.65	3.79	3.81	3.84	3.85	4.09	4.12	4.13	4.14	/	3.82	3.83	3.84
1350	65	TC	32.7	33.2	34.0	34.4	33.8	34.3	34.7	35.2	36.1	36.6	37.0	37.4	/	41.2	41.5	41.8
		S/T	0.93	0.98	1.00	1.00	0.66	0.89	0.98	1.00	0.41	0.60	0.79	1.00	/	0.41	0.57	0.73
		kW	2.86	2.89	2.91	2.92	2.91	2.95	2.97	2.99	3.00	3.03	3.05	3.08	/	3.17	3.19	3.22
	75	TC	32.6	33.0	33.8	34.1	33.8	34.1	34.5	34.9	36.0	36.5	36.8	37.1	/	40.9	41.0	41.1
		S/T	0.93	0.98	1.00	1.00	0.66	0.89	0.98	1.00	0.41	0.60	0.79	1.00	/	0.41	0.57	0.73
		kW	2.93	2.96	2.99	3.00	2.99	3.00	3.03	3.06	3.08	3.10	3.12	3.16	/	3.45	3.47	3.48
	85	TC	32.1	32.6	33.4	33.8	33.2	33.7	34.0	34.5	35.5	35.9	36.3	36.7	/	39.8	40.1	40.5
		S/T	0.93	0.98	1.00	1.00	0.66	0.89	0.98	1.00	0.41	0.60	0.79	1.00	/	0.41	0.57	0.73
		kW	3.26	3.29	3.32	3.33	3.32	3.36	3.38	3.41	3.44	3.46	3.47	3.50	/	3.68	3.70	3.73
	95	TC	31.3	31.7	32.5	32.9	32.3	32.8	33.2	33.6	34.6	35.0	35.3	35.8	/	37.8	38.1	38.3
		S/T	0.93	0.98	1.00	1.00	0.66	0.89	0.98	1.00	0.41	0.60	0.79	1.00	/	0.41	0.57	0.73
		kW	3.76	3.80	3.84	3.85	3.84	3.87	3.91	3.94	3.98	4.00	4.01	4.03	/	4.10	4.11	4.12
	105	TC	28.3	29.0	29.4	29.7	31.2	31.6	31.9	32.1	32.9	33.3	33.5	33.8	/	34.0	34.5	34.7
		S/T	0.93	0.98	1.00	1.00	0.66	0.90	0.98	1.00	0.41	0.61	0.80	1.00	/	0.41	0.59	0.76
		kW	4.09	4.12	4.14	4.16	4.35	4.36	4.38	4.41	4.61	4.63	4.64	4.65	/	4.59	4.61	4.63
	115	TC	20.1	20.6	20.9	21.2	22.7	23.1	23.3	23.5	24.2	24.6	24.7	25.0	/	27.3	27.4	27.5
		S/T	0.95	1.00	1.00	1.00	0.68	0.92	1.00	1.00	0.43	0.66	0.89	1.00	/	0.43	0.65	0.84
		kW	3.60	3.62	3.65	3.67	3.81	3.84	3.88	3.92	4.12	4.14	4.15	4.16	/	3.84	3.86	3.87

Table 6

TC refers to total capacity S/T: refers to the ratio of sensible heat and total capacity kW: refers to total input power

5.4 BRCA-36HWD1N1-M15 For Heating

BRCA-36HWD1N1-M15 For Heating																		
Airflow (SCFM)	ID (°F)	OD (°F)	86	72	67	62	57	52	47	42	37	32	27	22	17	12	7	5
950	60	TC	39	38.8	38.3	38.2	38.2	38.1	36.6	32.4	30.5	29.1	28.8	27.3	26	24.3	22.2	19.2
		kW	2.41	2.59	2.73	2.93	3.13	3.34	3.36	3.26	3.21	3.13	3.25	3.17	3.12	3.08	3.07	2.99
	70	TC	30.6	30.6	30.6	30.5	30.4	30.2	30.1	28.5	28.5	28	27.8	25.8	24	23.3	21.5	19.8
		kW	1.93	2.2	2.29	2.45	2.53	2.63	2.76	2.8	3.02	3.23	3.34	3.29	3.16	3.06	2.99	2.9
	75	TC	25.3	25.3	25.2	25.2	25.2	25.2	25.2	24.5	24.3	24.3	24.8	24.7	24.4	23.8	21	18.8
		kW	1.7	1.99	2.09	2.12	2.14	2.28	2.33	2.36	2.55	2.71	2.78	2.99	3.19	3.09	3.05	2.97
	80	TC	21.1	21.1	21	21	21	20.9	20.9	20.8	20.8	20.8	21.6	21.6	21.6	21.6	20.6	18.5
		kW	1.41	1.53	1.59	1.69	1.8	1.89	1.97	2.09	2.27	2.39	2.36	2.52	2.71	2.71	3.04	3.03
1200	60	TC	44.2	44	43.7	43.5	42.3	39.9	37.8	35.2	33.1	31.8	31.8	29.8	28.7	26.8	24	21.5
		kW	2.87	3.36	3.41	3.62	3.6	3.53	3.5	3.31	3.23	3.17	3.07	2.99	3.02	2.96	2.89	2.82
	70	TC	34.8	34.8	34.6	34.5	34.5	34.5	34.6	32.5	30.2	27.8	26.9	24.9	23	24.8	22.3	20.3
		kW	2.28	2.5	2.58	2.7	2.77	2.87	2.85	3.19	3.24	3.3	3.46	3.43	3.19	3.19	3.18	3.09
	75	TC	28.9	28.9	28.8	28.7	28.8	28.7	28.4	26.8	26.6	26.6	27.1	26.1	24.2	23.5	20.8	18.3
		kW	1.92	2.26	2.36	2.38	2.46	2.55	2.61	2.7	2.9	3	3.1	3.2	3.1	3	2.9	2.8
	80	TC	24.1	24.1	24	24	24	24	23.9	23.28	23.09	23.09	25.49	25.49	25.38	25.38	22.71	19.63
		kW	1.52	1.7	1.78	1.89	2	2.12	2.24	2.4	2.5	2.6	2.6	2.8	3	3	3	3
1350	60	TC	38.6	38.4	37.9	37.8	37.8	37.7	36.2	32	30.2	28.8	28.5	27	25.7	24	21.9	19
		kW	2.33	2.5	2.64	2.83	3.02	3.23	3.25	3.15	3.1	3.02	3.14	3.06	3.01	2.98	2.97	2.89
	70	TC	30.3	30.3	30.3	30.2	30.1	29.9	29.8	28.2	28.2	27.7	27.5	25.5	23.7	23	21.3	19.6
		kW	1.86	2.13	2.21	2.37	2.44	2.54	2.67	2.71	2.92	3.12	3.23	3.18	3.05	2.96	2.89	2.8
	75	TC	25	25	24.9	24.9	24.9	24.9	24.9	24.2	24	24	24.5	24.4	24.1	23.5	20.8	18.6
		kW	1.64	1.92	2.02	2.05	2.07	2.2	2.25	2.28	2.46	2.62	2.69	2.89	3.08	2.99	2.95	2.87
	80	TC	20.9	20.9	20.8	20.8	20.8	20.7	20.7	20.6	20.6	20.6	21.4	21.4	21.4	21.4	20.4	18.3
		kW	1.36	1.48	1.54	1.63	1.74	1.83	1.9	2.02	2.19	2.31	2.28	2.43	2.62	2.62	2.94	2.93

Table 7

TC refers to total capacity S/T: refers to the ratio of sensible heat and total capacity kW: refers to total input power


6 Airflow Performance

Airflow performance data is based on cooling performance with a coil and no filter in place. Check the performance table for appropriate unit size selection.

External static pressure should stay within the minimum and maximum limits shown in the table below in order to ensure proper operation of both cooling, heating, and electric heating operation.

Model Number	Motor Speed		SCFM								
			External Static Pressure-Inches W.C. [kPa]								
			0[0]	0.1[.02]	0.2[.05]	0.3[.07]	0.4[.10]	0.5[.12]	0.6[.15]	0.7[.17]	0.8[.20]
36	Tap (1)	SCFM	1046	951	890	876	841	/	/	/	/
		Watts	110	120	131	135	143	/	/	/	/
		Amps	1.26	1.33	1.49	1.43	1.33	/	/	/	/
	Tap (2)	SCFM	1122	1075	1023	1009	976	931	/	/	/
		Watts	148	158	170	174	183	196	/	/	/
		Amps	1.52	1.6	1.68	1.71	1.77	1.87	/	/	/
	Tap (3)	SCFM	1327	1287	1243	1229	1199	1158	1118	/	/
		Watts	234	247	260	265	275	290	306	/	/
		Amps	2.15	2.25	2.34	2.38	2.45	2.57	2.69	/	/
	Tap (4)	SCFM	1411	1372	1330	1316	1285	1245	1206	1131	/
		Watts	275	288	302	307	316	333	349	380	/
		Amps	2.45	2.55	2.66	2.69	2.77	2.89	3.01	3.24	/
	Tap (5)	SCFM	1572	1538	1500	1487	1458	1419	1382	1353	1314
		Watts	380	396	411	416	427	444	463	476	497
		Amps	3.2	3.36	3.47	3.51	3.59	3.72	3.86	3.96	4.12
60	Tap (1)	SCFM	1398	1338	1282	1231	1175	/	/	/	/
		Watts	166	176	187	198	208	/	/	/	/
		Amps	1.7	1.7	1.8	1.9	1.9	/	/	/	/
	Tap (2)	SCFM	1476	1420	1367	1316	1265	1213	/	/	/
		Watts	194	205	217	228	239	250	/	/	/
		Amps	1.9	2	2	2.1	2.2	2.3	/	/	/
	Tap (3)	SCFM	1777	1728	1680	1635	1592	1549	/	/	/
		Watts	323	338	352	365	378	391	/	/	/
		Amps	2.8	2.9	3	3.1	3.2	3.3	/	/	/
	Tap (4)	SCFM	1937	1889	1842	1792	1758	1720	1670	1636	/
		Watts	412	428	444	457	471	486	499	513	/
		Amps	3.5	3.6	3.7	3.8	3.9	4	4.1	4.2	/
	Tap (5)	SCFM	2235	2191	2144	2091	2050	2010	1971	1936	1892
		Watts	623	642	660	673	689	704	719	734	744
		Amps	4.5	5.1	5.3	5.4	5.5	5.6	5.7	5.8	5.8

Table 8

 Bold outlined areas represent airflow outside of the required 300-450 cfm/ton range.

NOTES:

1. This table is only used to select the **highest blower speed**. The high stage airflow must be used as the rated airflow for the full load operation of machine.
2. The rated airflow of systems without electric heater kits requires between 300 and 450 cubic feet of air per minute (CFM). The rated airflow of systems with electric heater kits requires between 350 and 450 cubic feet of air per minute (CFM).
3. The air distribution system has the greatest effect on airflow. Therefore, the contractor should use only industry-recognized procedures.
4. Duct design and construction should be carefully done. System performance can be lowered dramatically through poor design or workmanship.
5. Air supplier ducts should be located along the perimeter of the conditioned space and properly sized. Improper location or insufficient air flow may cause drafts or noise in the ductwork.
6. Installers should balance the air distribution system to ensure proper quiet airflow to all rooms in the home. An air velocity meter or airflow hood can be used to balance and verify branch and system airflow (CFM).
7. 4 Speed Fan default is Tap (1), Tap (2), Tap (3), Tap (4).



For instructions on how to select fan speeds, refer to the Installation Manual.

7 Sound Data

Size (Tons)	Mode	Sound Power Level [dB(A)]	Full Octave Linear Sound Power Level dB -Center Frequency -Hz						
			125	250	500	1000	2000	4000	8000
36 (3)	Cooling	65.4 (Low)	58.8	58.3	59.9	51.8	51.1	50.5	43.3
		77.9 (Rated)	72.7	72.3	70.7	66.4	63.0	60.7	53.0
		78.9 (High)	73.5	67.3	70.7	67.3	65.1	64.0	55.9
	Heating	64.5 (Low)	58.5	57.4	58.7	51.1	48.9	51.2	43.1
		78 (Rated)	70.3	72.4	71.9	67.8	62.7	58.5	52.5
		79.2 (High)	71.4	73.7	72.3	68.1	64.2	61.8	57.2
60 (5)	Cooling	66.1 (Low)	63.2	61.4	60.1	54.0	51.6	49.5	44.8
		76.6 (Rated)	70.5	69.7	67.9	64.5	63.7	62.4	56.0
		78.6 (High)	73.5	71.4	69.2	66.9	65.4	66.3	59.0
	Heating	65.4 (Low)	61.7	59.5	58.5	52.6	51.7	51.8	45.7
		76.7 (Rated)	70.9	69.7	67.9	64.2	63.4	62.6	56.5
		78.7 (High)	71.7	72.0	69.9	66.8	67.1	64.5	61.4

Table 9 IDP Plus Sound power level

8 Electrical Data

Size (Tons)	Voltage - Phase - Frequency	Compressors (each)	OD Fan Motors (each)	Supply Blower Motor	Unit Circuit	
		RLA	FLA	FLA	MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
36 (3)	208/230-1-60	15 A	2.0 A	4.3 A	25.1	40
60 (5)	208/230-1-60	27 A	2.0 A	6.0 A	41.8	60

Table 10 Electrical Data Without Electric Heat

Size (Tons)	Dual Point Heater Circuit (without units)					
	Model	(kW) 208/240V	Stages	FLA (Amps) 204/240V	MCA ¹ (Amps) 208/240V	Max Fuse ² / Breaker ³ Size (Amps)* 208/240V
36 (3)	EHK-05J	3.8/5	1	18.1/20.8	23/26	25/30
	EHK-08J	5.6/7.5	1	27.1/31.3	34/40	35/40
	EHK-10J	7.5/10	1	36.1/41.7	46/53	50/60
	EHK-15J	11.3/15	2	54.2/62.5	68/79	70/80
60 (5)	EHK-05J	3.8/5	1	18.1/20.8	23/26	25/30
	EHK-08J	5.6/7.5	1	27.1/31.3	34/40	35/40
	EHK-10J	7.5/10	1	36.1/41.7	46/53	50/60
	EHK-15J	11.3/15	2	54.2/62.5	68/79	70/80
	EHK-20J	15/20	2	72.2/83.3	91/105	100/110

Table 11 Electrical Data With Electric Heat

¹ Minimum Circuit Ampacity.

² Maximum Over Current Protection per Standard UL 1995.

³ Fuse or HACR circuit breaker size field installed.

* Max Fuse/Breaker Sizes are for electric heater ONLY (dual point electric heat). DOES NOT include breaker size for the unit.

** Max Fuse/Breaker Sizes include breaker size for the unit AND electric heat (single point electric heat).



Refer to Electric Heat Kit Installation Manual, some heater kits include fuses from the manufacturer.

9 Dimensions

9.1 BRCA-36HWD1N1-M15 Unit Dimensions

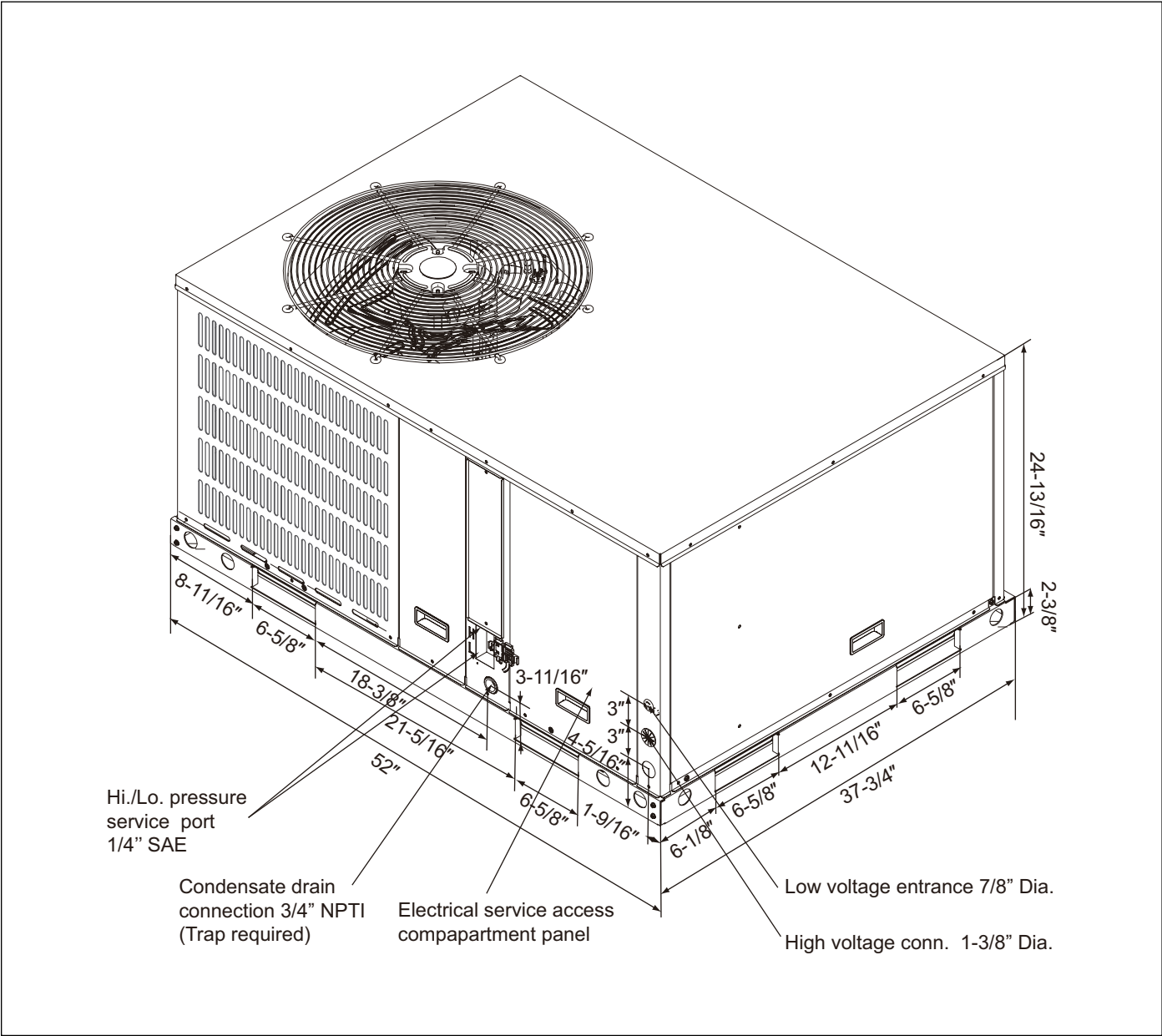


Figure 2

Heat Pump Model	L	W	H
BRCA-36HWD1N1-M15	52"	37-3/4"	24-13/16"

Table 12 3 Ton Unit Dimensions

Heat Pump Model	Net Weight	Gross Weight
BRCA-36HWD1N1-M15	316 lb (143 kg)	322 lb (146 kg)

Table 13 3 Ton Unit Weights

9.2 BRCA-36HWD1N1-M15 Dimensions - Back and Bottom

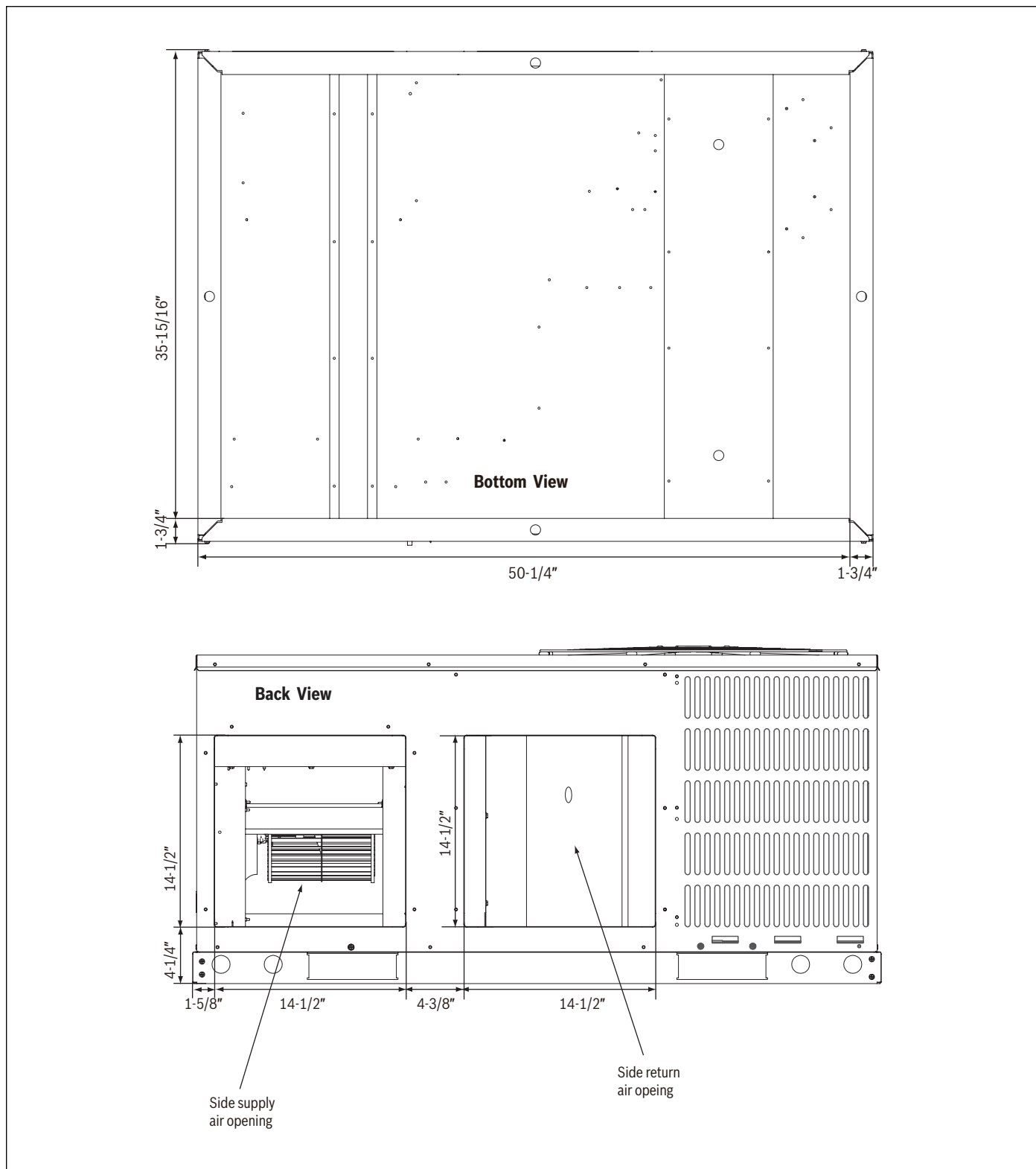


Figure 3

9.3 BRCA-36HWD1N1-M15 Dimensions - Right and Top

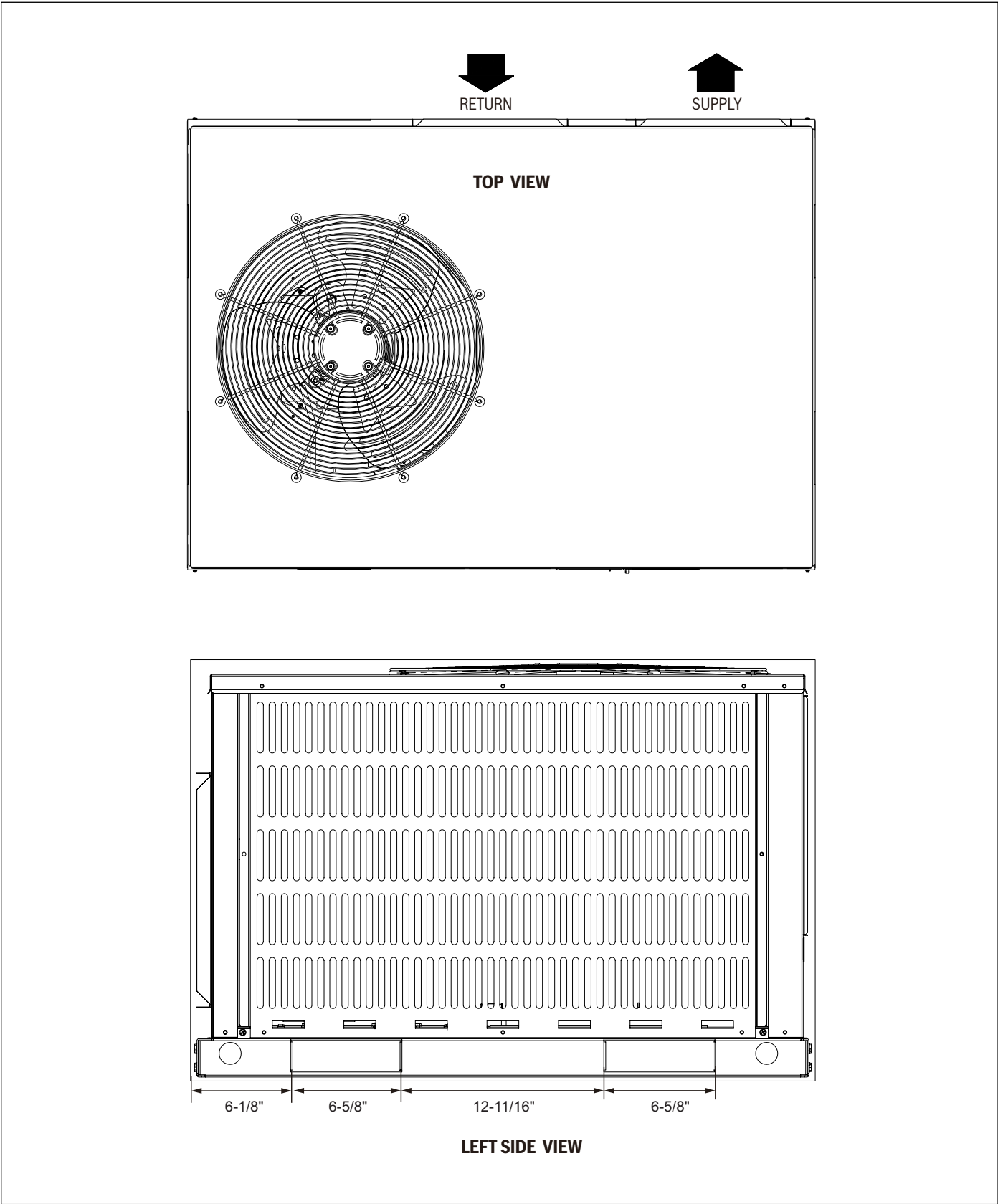


Figure 4

9.4 BRCA-60HWD1N1-M15 Unit Dimensions

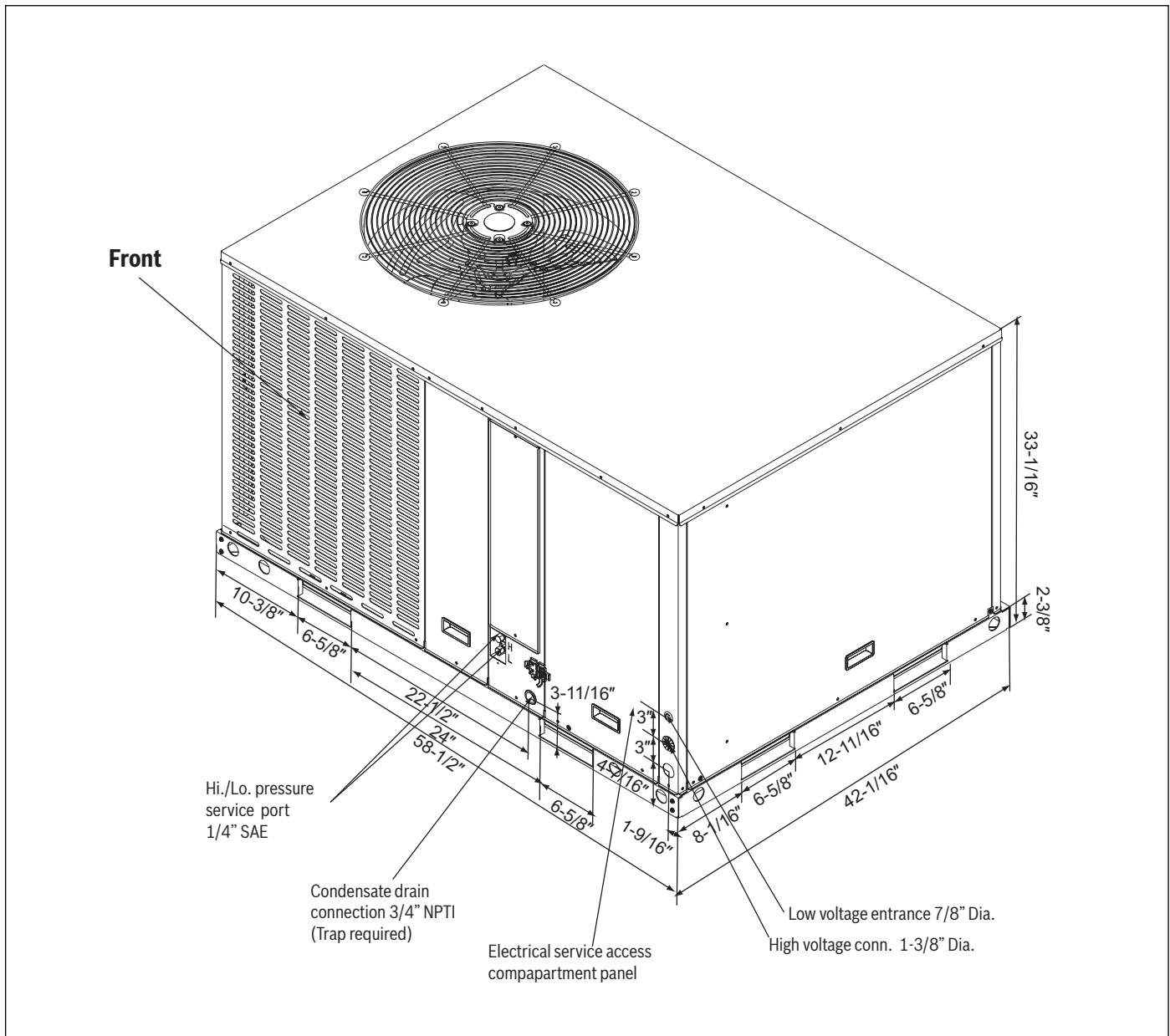


Figure 5

Heat Pump Model	L	W	H
BRCA-60HWD1N1-M15	58-1/2"	42-1/16"	33-1/16"

Table 14 5 Ton Unit Dimensions

Heat Pump Model	Net Weight	Gross Weight
BRCA-60HWD1N1-M15	427 lb (194 kg)	436 lb (198 kg)

Table 15 5 Ton Unit Weights

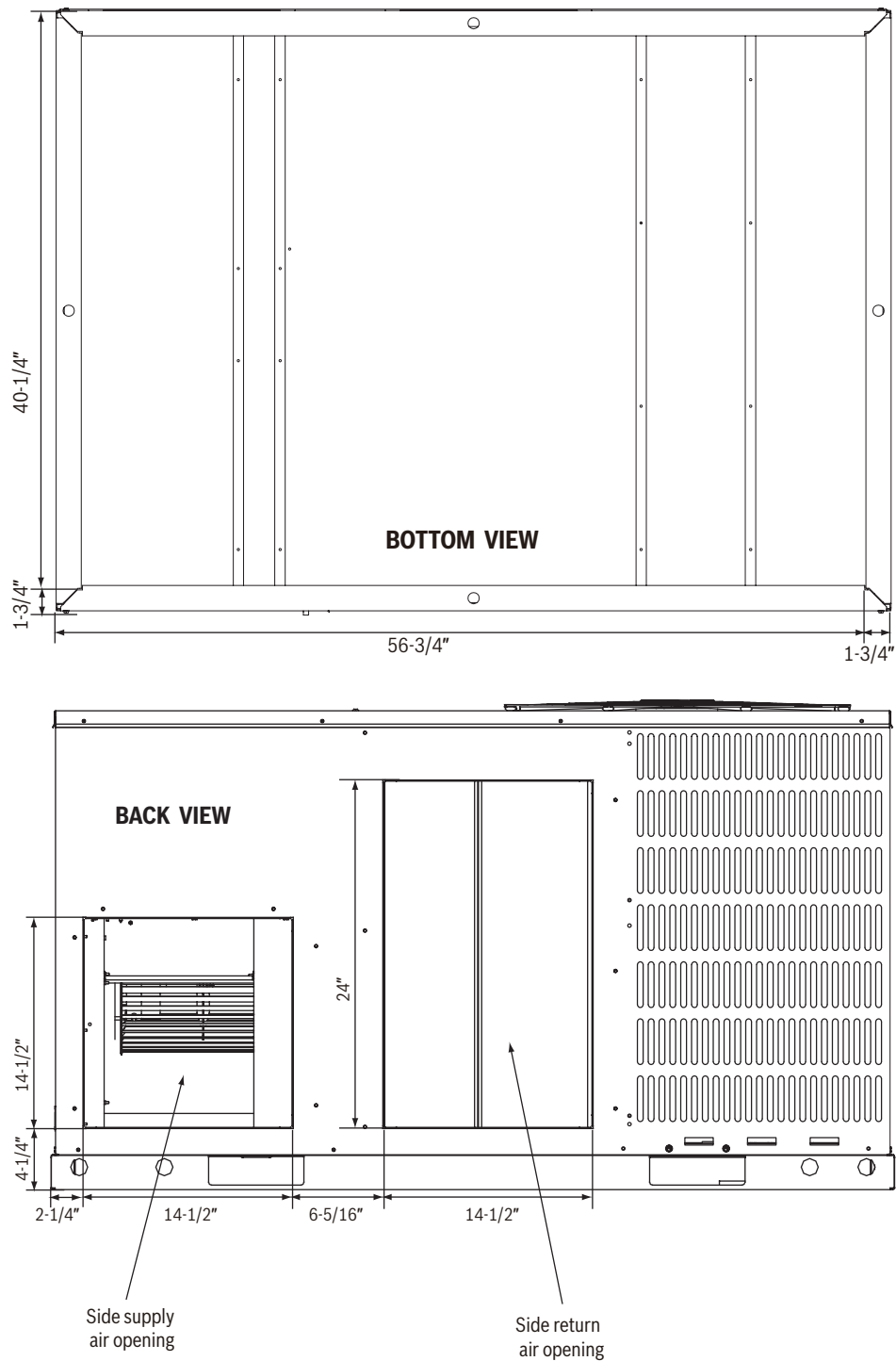
9.5 BRCA-60HWD1N1-M15 Dimensions - Back and Bottom

Figure 6

9.6 BRCA-60HWD1N1-M15 Dimensions - Right and Top

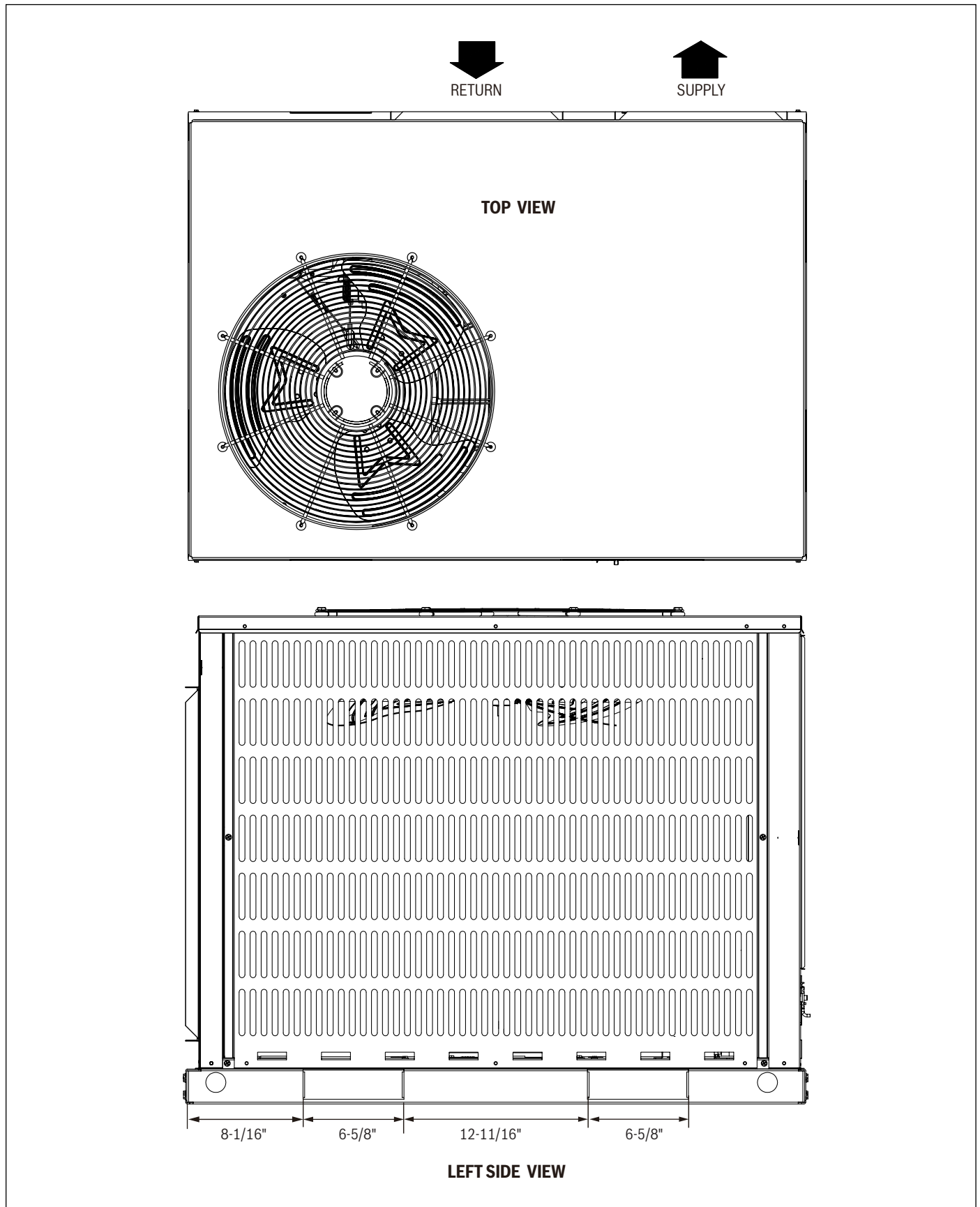


Figure 7

10 Wiring Diagram

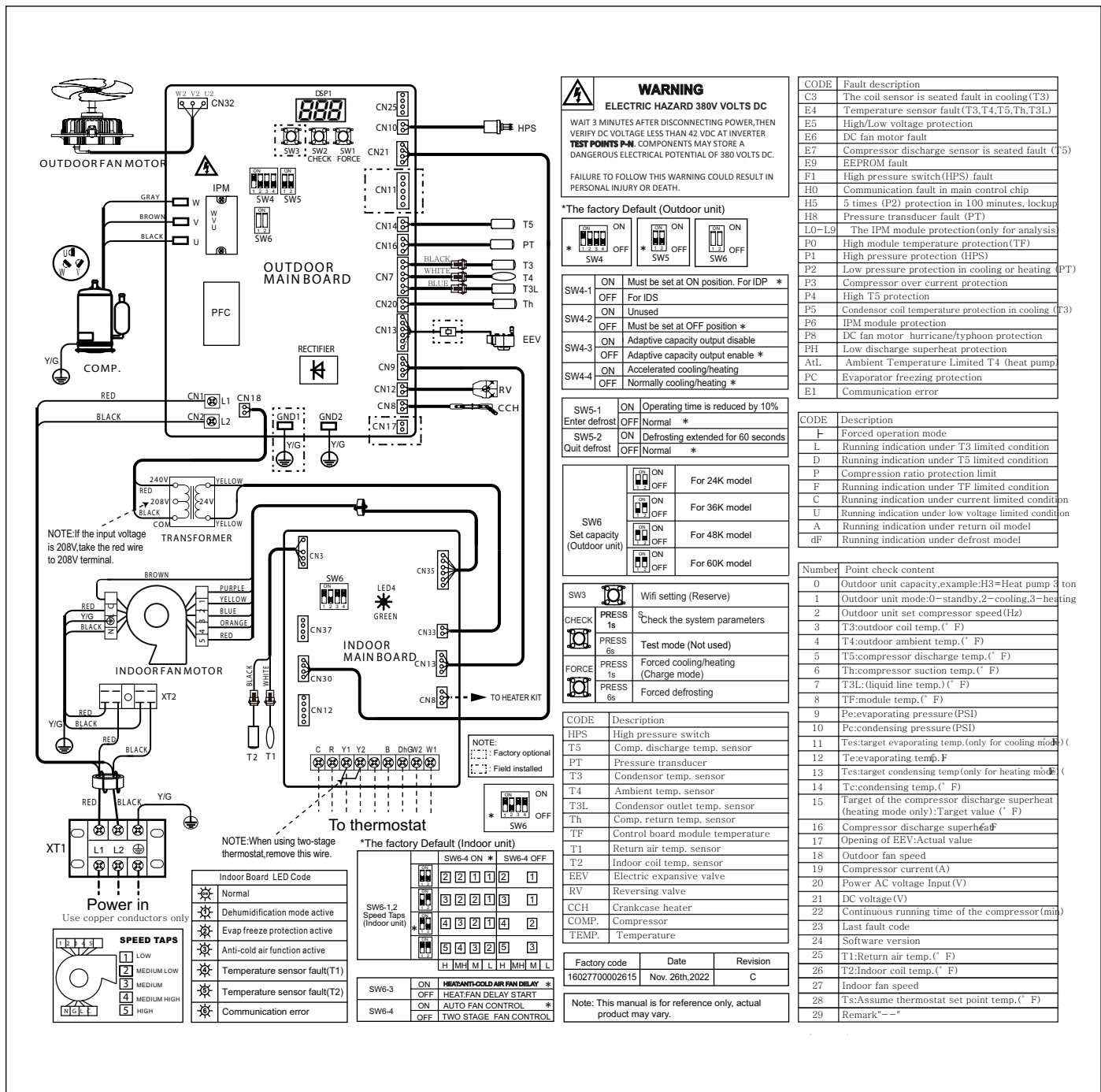


Figure 8

Outdoor Board LED Code		
*	ON	Compressor running.
*	flashing	2s ON then 2s OFF, Compressor is standby.
*	flashing	Flashing then 3s OFF. Compressor error will show on digital display tube.
*	flashing	Flashing quickly 400ms/cycle. Compressor chip communication error.

Table 16

NOTES:

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engineering and technological advances.**