

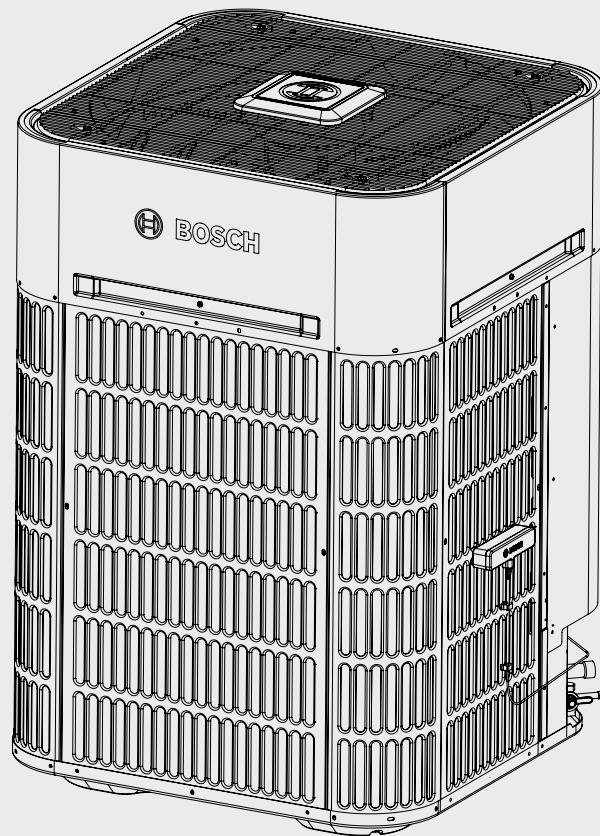


# BOSCH

Product Specifications

## Bosch IDS Heat Pump Ultra Series Condensing Unit

4 & 5 Ton Capacity | R454B



BTC 762008303 A / 08.2024





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## 1 Product Features

### 1.1 Features and Benefits

- Premium efficiency- Up to 19 SEER2 and 10 HSPF2 (Region IV), 8.5 HSPF2 (Region V)
- Operation down to -13 °F
- Capable of providing 100% heating capacity at 5°F outdoor temperature
- Choice between communication mode (only with an IDS Ultra indoor unit) and non-communication mode
- Outdoor coil – copper tube with hydrophilic aluminum fins
- 10 speed ECM outdoor motor for quiet and efficient operation
- EVI Inverter Drive Compressor (33%-187% speed), modulation in 1% increments
- Whisper Quiet operation – as low as 59.9 dB(A)
- Small footprint – 29-1/8" (W) x 29-1/8" (D)
- Easy to install – compatible with most standard 24 VAC heat pump thermostats
- Compatible with Bosch BCC 100 Wi-Fi thermostat for optimized temperature control

### 1.2 Standard Features

- R-454B LGWP Refrigerant
- Vapor Injection Technology
- Intelligent Oil Return Technology
- Inverter Driven Rotary Compressor
- Comes with Built-in Crankcase Heater and Base Pan Heater
- Compressor Sound Blanket
- 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
- Wind Load compliant per Florida Building Code - 2010
- 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.

\* Please refer to [www.bosch-climate.us](http://www.bosch-climate.us) for full warranty terms and conditions.

\*\* Warranty Labor Allowance Schedule details are available on <https://claims.boschhomecomfort.us>

## 2 Nomenclature



Figure 1

### 3 Product Specifications

	BOVA19-60
<b>Cooling Capacity</b>	
Nominal Cooling (BTU/h)	53,500
Nominal Heating (BTU/h)	55,000
<b>Decibels([dB(A)])</b>	
Max @ 100% load	79
Min @ min load	60
<b>Compressor</b>	
RLA	29.2
<b>Condenser Fan Motor</b>	
Horsepower (HP)	1/3
FLA	3.0
<b>Refrigeration System</b>	
Refrigerant Line Size <sup>1</sup>	
Liquid Line Size (OD)	3/8"
Suction Line Size (OD)	7/8"
Refrigerant Connection Size	
Liquid Valve Size (OD)	3/8"
Suction Valve Size (OD)	7/8"
Refrigerant Charge (R454B, oz)	10 lbs. 8 oz.
Expansion Device	EEV
Maximum Line Length	150 FT
Maximum Elevation Difference	50 FT
<b>Operating Range</b>	
Cooling	15 - 125 F
Heating	-13 - 86 F
<b>Electrical Data</b>	
Voltage-Phase-Hz	208/230-1-60
Minimum Circuit Ampacity <sup>2</sup>	39.5
Max. Overcurrent Protection <sup>3</sup>	68.7
Max Fuse Size	50
Min/Max Volts	187V/253V
<b>Weight</b>	
Net Weight (without packaging)	246
Gross Weight (including packaging) <sup>4</sup>	280
<b>Dimensions</b>	
Unit L x W x H (in.)	29-1/8 x 29-1/8 x 43-5/16
<b>Outdoor Coil</b>	
Net face area - sq.ft. Outer Coil	18.4
Tube diameter-in.	9/32" (7mm)
No.of rows	3
Fins per inch	19.5

Table 1

<sup>1</sup> Tested and rated in accordance with AHRI Standard 210/240.

<sup>2</sup> Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes.

<sup>3</sup> Must use time-delay fuses or HACR-type circuit breakers of the same size as noted.

<sup>4</sup> Weight values are estimated.



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

Unit is factory charged with refrigerant for 15' of 3/8" liquid line.

System charge must be adjusted per Installation Instructions Final Charge Procedure.

TXV is required at indoor unit to match our outdoor unit.

## 4 Extended Performance Data

### 4.1 4 Ton IDS Ultra Series – Cooling Mode

BOVA19-60 + BIVA19- 48 For Cooling																		
Indoor Airflow (CFM)	Outdoor DB (°F)	IWB (°F) IDB (°F)	59				63				67				71			
			70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1200	15	TC	35.44	35.91	36.67	37.05	36.67	37.05	37.43	37.91	39.24	39.52	39.90	40.28	/	47.03	47.41	48.26
		S/T	0.68	0.73	0.81	0.99	0.61	0.80	0.84	0.90	0.42	0.56	0.72	0.87	/	0.40	0.53	0.64
		kW	1.57	1.59	1.60	1.60	1.60	1.62	1.64	1.65	1.64	1.68	1.70	1.72	/	2.29	2.32	2.32
	65	TC	35.53	35.91	36.77	37.15	36.77	37.15	37.53	37.91	39.33	39.62	40.00	40.38	/	47.12	47.50	48.36
		S/T	0.80	0.85	0.94	0.99	0.61	0.80	0.92	0.96	0.42	0.56	0.72	0.87	/	0.40	0.53	0.64
		kW	1.95	1.98	2.00	2.00	2.00	2.02	2.04	2.06	2.05	2.08	2.10	2.12	/	2.70	2.73	2.73
	75	TC	35.34	35.72	36.58	36.96	36.58	36.96	37.34	37.72	39.05	39.33	39.71	40.09	/	47.41	47.79	48.26
		S/T	0.80	0.85	0.94	0.99	0.61	0.80	0.93	0.97	0.42	0.56	0.73	0.87	/	0.40	0.53	0.64
		kW	2.10	2.12	2.14	2.14	2.14	2.17	2.19	2.21	2.21	2.22	2.25	2.28	/	2.54	2.57	2.59
	85	TC	34.96	35.34	36.20	36.58	36.20	36.58	36.96	37.34	38.67	39.05	39.33	39.71	/	46.65	47.03	47.41
		S/T	0.80	0.85	0.94	0.99	0.61	0.80	0.93	0.97	0.42	0.56	0.73	0.87	/	0.40	0.53	0.65
		kW	2.22	2.24	2.27	2.27	2.27	2.29	2.32	2.34	2.35	2.37	2.39	2.42	/	2.90	2.93	2.95
	95	TC	34.31	34.59	35.44	35.81	35.44	35.81	36.28	36.66	37.88	38.26	38.54	38.92	/	45.50	45.78	46.15
		S/T	0.81	0.86	0.94	0.99	0.61	0.80	0.93	0.97	0.41	0.56	0.73	0.89	/	0.40	0.53	0.65
		kW	2.69	2.72	2.74	2.74	2.74	2.77	2.80	2.83	2.83	2.86	2.89	2.91	/	3.29	3.32	3.35
	105	TC	31.45	31.83	32.57	32.85	32.57	32.85	33.22	33.59	34.80	35.08	35.36	35.64	/	41.60	41.97	42.16
		S/T	0.81	0.86	0.94	0.99	0.61	0.81	0.93	0.97	0.41	0.57	0.75	0.88	/	0.40	0.53	0.66
		kW	3.13	3.16	3.20	3.20	3.20	3.22	3.26	3.29	3.31	3.34	3.37	3.39	/	3.90	3.93	3.96
	115	TC	30.99	31.36	32.11	32.48	32.11	32.48	32.76	33.13	34.25	34.53	34.90	35.18	/	35.72	35.90	36.16
		S/T	0.81	0.86	0.94	0.99	0.61	0.81	0.96	0.99	0.41	0.57	0.73	0.89	/	0.41	0.54	0.69
		kW	3.93	3.97	4.01	4.01	4.01	4.06	4.10	4.14	4.15	4.19	4.23	4.26	/	4.32	4.33	4.33
	125	TC	24.38	24.57	25.22	25.50	25.22	25.50	25.78	26.06	27.36	27.45	27.45	27.55	/	29.13	29.13	29.22
		S/T	0.82	0.88	0.95	0.99	0.62	0.84	0.96	0.99	0.42	0.61	0.80	0.99	/	0.41	0.61	0.79
		kW	3.11	3.14	3.17	3.17	3.17	3.21	3.24	3.27	3.33	3.33	3.33	3.33	/	3.36	3.36	3.36
1350	15	TC	37.72	38.19	39.05	39.43	39.05	39.43	39.81	40.28	41.61	41.99	42.37	42.75	/	50.73	51.21	51.59
		S/T	0.72	0.76	0.85	0.99	0.61	0.82	0.84	0.90	0.41	0.58	0.75	0.90	/	0.40	0.53	0.66
		kW	1.68	1.70	1.71	1.71	1.71	1.73	1.75	1.77	1.76	1.78	1.81	1.84	/	2.33	2.36	2.37
	65	TC	37.91	38.38	39.24	39.62	39.24	39.62	40.09	40.57	41.80	42.18	42.56	42.94	/	50.92	51.40	51.78
		S/T	0.84	0.90	0.97	0.99	0.61	0.82	0.94	0.99	0.41	0.58	0.75	0.90	/	0.40	0.53	0.66
		kW	2.15	2.18	2.20	2.20	2.20	2.22	2.24	2.27	2.26	2.28	2.31	2.34	/	2.73	2.76	2.79
	75	TC	38.00	38.48	39.33	39.71	39.33	39.71	40.19	40.66	41.90	42.28	42.66	43.04	/	50.54	51.02	51.40
		S/T	0.83	0.89	0.96	0.99	0.61	0.82	0.94	0.99	0.41	0.58	0.75	0.90	/	0.40	0.53	0.66
		kW	2.29	2.31	2.34	2.34	2.34	2.36	2.39	2.41	2.41	2.43	2.46	2.49	/	2.91	2.94	2.97
	85	TC	37.53	38.00	38.86	39.33	38.86	39.33	39.71	40.09	41.52	41.80	42.18	42.47	/	49.88	50.26	50.54
		S/T	0.83	0.89	0.96	0.99	0.61	0.82	0.94	0.99	0.41	0.58	0.75	0.91	/	0.40	0.53	0.66
		kW	2.53	2.56	2.59	2.59	2.59	2.61	2.64	2.67	2.68	2.70	2.72	2.75	/	3.27	3.30	3.33
	95	TC	36.66	37.13	37.98	38.35	38.38	38.76	39.24	39.62	41.47	41.66	42.27	42.34	/	48.32	48.69	49.07
		S/T	0.83	0.89	0.96	0.99	0.61	0.82	0.94	0.99	0.41	0.58	0.75	0.91	/	0.40	0.54	0.68
		kW	3.07	3.10	3.14	3.14	3.14	3.17	3.20	3.24	3.24	3.27	3.30	3.33	/	3.69	3.73	3.76
	105	TC	33.59	34.06	34.71	35.08	34.71	35.08	35.55	35.83	37.22	37.50	37.69	37.97	/	44.11	44.30	44.58
		S/T	0.83	0.89	0.96	0.99	0.62	0.83	0.94	0.99	0.41	0.58	0.75	0.91	/	0.40	0.54	0.69
		kW	3.41	3.45	3.49	3.49	3.49	3.53	3.56	3.60	3.61	3.65	3.68	3.70	/	4.24	4.28	4.31
	115	TC	32.01	32.38	33.04	33.41	33.04	33.41	33.87	34.15	35.64	35.83	35.92	35.74	/	36.73	36.91	37.09
		S/T	0.84	0.90	0.97	0.99	0.62	0.83	0.94	0.99	0.41	0.58	0.74	0.94	/	0.41	0.56	0.73
		kW	4.03	4.07	4.12	4.12	4.12	4.16	4.21	4.25	4.33	4.34	4.34	4.33	/	4.38	4.38	4.38
	125	TC	24.57	24.94	25.50	25.87	25.50	25.87	26.06	26.24	27.64	27.64	27.73	27.73	/	29.31	29.41	29.41
		S/T	0.86	0.92	0.99	0.99	0.64	0.90	0.94	0.99	0.42	0.63	0.85	0.99	/	0.42	0.63	0.84
		kW	3.16	3.19	3.23	3.23	3.23	3.26	3.29	3.32	3.39	3.39	3.39	3.39	/	3.41	3.41	3.41
1550	15	TC	42.6	43.0	44.0	44.5	44.0	44.5	45.0	45.5	47.1	47.5	47.9	48.2	/	56.3	56.7	57.0
		S/T	0.74	0.80	0.89	0.99	0.62	0.84	0.90	0.94	0.41	0.58	0.75	0.92	/	0.40	0.54	0.68
		kW	1.95	1.97	1.99	1.99	1.99	2.01	2.03	2.05	2.02	2.06	2.11	2.15	/	2.54	2.57	2.59
	65	TC	44.6	45.0	46.1	46.5	46.1	46.5	47.1	47.5	49.4	49.7	50.1	50.3	/	58.4	58.8	59.1
		S/T	0.89	0.94	0.99	0.99	0.62	0.83	0.96	0.99	0.41	0.58	0.75	0.90	/	0.40	0.53	0.66
		kW	2.66	2.68	2.71	2.71	2.71	2.74	2.77	2.79	2.79	2.82	2.86	2.89	/	3.26	3.30	3.33
	75	TC	44.2	44.8	45.7	46.3	45.7	46.3	46.7	47.1	49.0	49.5	49.7	50.0	/	57.8	58.2	58.6
		S/T	0.89	0.94	0.99	0.99	0.62	0.83	0.96	0.99	0.41	0.58	0.75	0.91	/	0.40	0.54	0.68
		kW	2.78	2.81	2.84	2.84	2.84	2.87	2.90	2.93	2.94	2.96	2.99	3.02	/	3.47	3.50	3.54
	85	TC	43.4	43.9	44.9	45.4	44.9	45.4	45.9	46.4	48.1	48.5	48.9	49.2	/	56.4	56.9	57.2
		S/T	0.89	0.94	0.99	0.99	0.62	0.83	0.96	0.99	0.41	0.58	0.75	0.92	/	0.40	0.54	0.68
		kW	3.13	3.16	3.19	3.19	3.19	3.23	3.26	3.29	3.31	3.34	3.36	3.39	/	3.99	4.03	4.06
	95	TC	42.1	42.6	43.6	44.1	44.0	44.6	45.0	45.5	47.6	48.0	48.7	48.6	/	54.4	54.8	55.2
		S/T	0.89	0.94	0.99	0.99	0.62	0.84	0.96	0.99	0.41	0.58	0.76	0.92	/	0.40	0.54	0.69
		kW	3.72	3.76	3.80	3.80	3.80	3.85	3.89	3.93	3.94	3.97	4.00	4.03	/	4.42	4.45	4.52
	105	TC	38.7	39.1	40.1	40.5	40.1	40.5	40.9	41.4	43.0	43.3	43.6	43.8	/	48.8	49.4	50.0
		S/T	0.89	0.94	0.99	0.99	0.62	0.84	0.96	0.99	0.41	0.58	0.76	0.93	/	0.40	0.55	0.70
		kW	4.21	4.26	4.30	4.30	4.30	4.35	4.40	4.44	4.46	4.50	4.54	4.57	/	5.16	5.18	5.18
	115	TC	33.2	33.6	34.3	34.8	34.3	34.8	35.2	35.5	37.0	37.2	37.3	37.3	/	38.6	38.7	38.8
		S/T	0.89	0.94	0.99	0.99	0.63	0.85	0.96	0.99	0.41	0.61	0.80	0.99	/	0.41	0.61	0.79
		kW	4.39	4.44	4.48	4.48	4.48	4.53	4.57	4.62	4.68	4.70	4.72	4.60	/	4.75	4.77	4.78
	125	TC	25.7	26.0	26.7	26.9	26.7	26.9	27.2	27.5	28.8	28.8	28.9	28.8	/	30.6	30.7	30.8
		S/T	0.90	0.94	0.99	0.99	0.68	0.95	0.96									

BOVA19-60 + BIVA19- 48 For Cooling																		
Indoor Airflow (CFM)	Outdoor DB (°F)	IWB (°F)	59				63				67				71			
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1700	15	TC	45.2	45.8	46.8	47.2	46.8	47.2	47.8	48.3	50.1	50.4	50.9	51.2	/	59.5	59.9	60.3
		S/T	0.76	0.82	1.00	1.00	0.64	0.87	0.93	0.97	0.41	0.60	0.78	0.96	/	0.40	0.56	0.71
		kW	2.37	2.40	2.43	2.43	2.43	2.46	2.48	2.51	2.46	2.51	2.56	2.61	/	3.10	3.13	3.15
	65	TC	47.3	47.9	49.0	49.5	49.0	49.5	50.1	50.5	52.5	52.9	53.3	53.5	/	61.6	62.0	62.4
		S/T	0.91	0.95	1.00	1.00	0.63	0.86	0.98	1.00	0.41	0.59	0.77	0.94	/	0.40	0.55	0.70
		kW	3.00	3.03	3.07	3.07	3.07	3.11	3.14	3.17	3.17	3.20	3.23	3.26	/	3.66	3.69	3.74
	75	TC	47.3	47.7	48.8	49.3	48.8	49.3	49.8	50.4	52.3	52.6	53.0	53.3	/	61.1	61.5	62.3
		S/T	0.90	0.95	1.00	1.00	0.63	0.86	0.98	1.00	0.41	0.60	0.77	0.95	/	0.40	0.55	0.70
		kW	3.10	3.13	3.17	3.17	3.17	3.20	3.23	3.27	3.28	3.31	3.33	3.36	/	3.84	3.88	3.89
	85	TC	46.3	46.9	47.9	48.3	47.9	48.3	48.9	49.5	51.3	51.7	52.1	52.3	/	59.7	60.1	60.4
		S/T	0.91	0.95	1.00	1.00	0.64	0.86	0.98	1.00	0.41	0.60	0.78	0.96	/	0.40	0.56	0.71
		kW	3.44	3.48	3.51	3.51	3.51	3.55	3.59	3.62	3.64	3.66	3.70	3.73	/	4.36	4.40	4.43
	95	TC	44.7	45.2	46.3	46.9	46.3	46.9	47.3	47.7	49.6	49.9	50.4	50.4	/	57.4	57.8	58.1
		S/T	0.91	0.95	1.00	1.00	0.64	0.87	0.98	1.00	0.41	0.60	0.78	0.96	/	0.40	0.56	0.72
		kW	4.04	4.09	4.13	4.13	4.13	4.18	4.22	4.26	4.28	4.32	4.35	4.38	/	4.83	4.87	4.90
	105	TC	40.8	41.2	42.2	42.6	42.2	42.6	43.1	43.6	45.2	45.6	45.9	46.0	/	50.5	50.8	51.7
		S/T	0.90	0.95	1.00	1.00	0.64	0.87	0.98	1.00	0.41	0.60	0.81	0.96	/	0.40	0.57	0.74
		kW	4.57	4.62	4.68	4.68	4.68	4.73	4.77	4.82	4.85	4.89	4.92	4.95	/	5.26	5.30	5.26
	115	TC	34.2	34.6	35.4	35.6	35.4	35.6	36.1	36.5	38.2	38.3	38.5	38.5	/	39.4	39.5	39.7
		S/T	0.91	0.95	1.00	1.00	0.65	0.90	0.98	1.00	0.41	0.63	0.84	1.00	/	0.41	0.64	0.84
		kW	4.48	4.52	4.57	4.57	4.57	4.62	4.66	4.71	4.77	4.79	4.81	4.82	/	4.95	4.96	4.97
	125	TC	25.8	26.1	26.8	27.0	26.8	27.0	27.3	27.6	28.9	28.9	29.0	29.0	/	30.8	30.9	30.9
		S/T	0.92	0.96	1.00	1.00	0.72	1.00	1.00	1.00	0.42	0.72	0.99	1.00	/	0.42	0.72	1.00
		kW	3.45	3.49	3.53	3.53	3.53	3.57	3.60	3.64	3.71	3.71	3.71	3.71	/	3.73	3.73	3.73
1850	15	TC	48.0	48.6	49.8	50.2	49.8	50.2	50.8	51.4	53.4	53.7	54.1	54.6	/	62.7	63.1	63.5
		S/T	0.79	0.84	1.00	1.00	0.64	0.89	0.95	1.00	0.41	0.61	0.81	0.97	/	0.40	0.56	0.73
		kW	2.80	2.83	2.87	2.87	2.87	2.90	2.93	2.96	2.91	2.97	3.02	3.07	/	3.66	3.69	3.72
	65	TC	50.2	50.7	51.9	52.4	51.9	52.4	52.9	53.5	55.6	55.9	56.3	56.7	/	65.1	65.5	65.9
		S/T	0.92	0.96	1.00	1.00	0.64	0.87	1.00	1.00	0.41	0.60	0.78	0.96	/	0.40	0.56	0.72
		kW	3.31	3.34	3.38	3.38	3.38	3.42	3.45	3.49	3.49	3.52	3.55	3.59	/	4.02	4.05	4.08
	75	TC	50.5	50.9	52.1	52.7	52.1	52.7	53.2	53.8	55.9	56.3	56.7	57.1	/	65.3	65.7	66.1
		S/T	0.92	0.96	1.00	1.00	0.64	0.87	1.00	1.00	0.41	0.60	0.78	0.96	/	0.40	0.56	0.72
		kW	3.29	3.33	3.36	3.36	3.36	3.40	3.43	3.47	3.49	3.51	3.54	3.58	/	4.09	4.12	4.15
	85	TC	49.1	49.7	50.8	51.4	50.8	51.4	51.9	52.5	54.6	54.9	55.3	55.6	/	63.2	63.6	63.9
		S/T	0.92	0.96	1.00	1.00	0.64	0.89	1.00	1.00	0.41	0.61	0.79	0.97	/	0.40	0.57	0.73
		kW	3.76	3.80	3.84	3.84	3.84	3.88	3.92	3.96	3.98	4.01	4.05	4.08	/	4.75	4.78	4.81
	95	TC	47.4	47.8	49.0	49.5	49.0	49.5	50.1	50.6	52.5	52.9	53.2	53.5	/	60.4	60.8	61.1
		S/T	0.92	0.96	1.00	1.00	0.65	0.89	1.00	1.00	0.41	0.61	0.81	0.98	/	0.40	0.57	0.74
		kW	4.40	4.45	4.49	4.49	4.49	4.55	4.60	4.64	4.67	4.70	4.74	4.77	/	5.23	5.25	5.29
	105	TC	42.8	43.3	44.3	44.8	44.3	44.8	45.3	45.8	47.5	47.8	48.1	48.4	/	51.3	53.0	53.3
		S/T	0.92	0.96	1.00	1.00	0.65	0.90	1.00	1.00	0.41	0.61	0.82	1.00	/	0.40	0.60	0.76
		kW	4.91	4.96	5.01	5.01	5.01	5.06	5.12	5.17	5.21	5.24	5.28	5.31	/	5.36	5.38	5.40
	115	TC	35.6	35.9	36.7	37.1	36.7	37.1	37.4	37.8	39.5	39.7	39.9	40.1	/	40.8	40.9	41.0
		S/T	0.92	0.96	1.00	1.00	0.66	0.93	1.00	1.00	0.41	0.65	0.88	1.00	/	0.41	0.65	0.89
		kW	4.73	4.78	4.84	4.84	4.84	4.89	4.94	4.99	5.06	5.07	5.10	5.11	/	5.21	5.20	5.22
	125	TC	26.3	26.6	27.3	27.5	27.3	27.5	27.8	28.1	29.4	29.4	29.5	29.5	/	31.4	31.5	31.6
		S/T	0.93	0.97	1.00	1.00	0.74	1.00	1.00	1.00	0.42	0.74	0.99	1.00	/	0.43	0.75	1.00
		kW	3.60	3.64	3.67	3.67	3.67	3.71	3.75	3.79	3.87	3.87	3.87	3.87	/	3.89	3.89	3.89

Table 3

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



## 4.2 5 Ton IDS Ultra Series – Cooling Mode

BOVA19-60 + BIVA19-60 For Cooling																		
Indoor Airflow (CFM)	Outdoor DB (°F)	IWB (°F) IDB (°F)	59				63				67				71			
			70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1200	15	TC	37.30	37.80	38.60	39.00	38.60	39.00	39.40	39.90	41.30	41.60	42.00	42.40	/	49.50	49.90	50.80
		S/T	0.68	0.73	0.81	0.99	0.61	0.80	0.84	0.90	0.42	0.55	0.71	0.86	/	0.40	0.52	0.64
		kW	1.66	1.68	1.69	1.69	1.69	1.71	1.73	1.74	1.73	1.76	1.78	1.81	/	2.41	2.44	2.44
	65	TC	37.40	37.80	38.70	39.10	38.70	39.10	39.50	39.90	41.40	41.70	42.10	42.50	/	49.60	50.00	50.90
		S/T	0.80	0.85	0.94	0.99	0.61	0.80	0.92	0.96	0.42	0.55	0.71	0.86	/	0.40	0.52	0.64
		kW	2.05	2.09	2.11	2.11	2.11	2.13	2.15	2.17	2.16	2.19	2.22	2.24	/	2.84	2.87	2.87
	75	TC	37.20	37.60	38.50	38.90	38.50	38.90	39.30	39.70	41.10	41.40	41.80	42.20	/	49.90	50.30	50.80
		S/T	0.80	0.85	0.94	0.99	0.61	0.80	0.93	0.97	0.42	0.55	0.72	0.86	/	0.40	0.52	0.64
		kW	2.21	2.23	2.25	2.25	2.25	2.28	2.30	2.32	2.32	2.34	2.37	2.40	/	2.68	2.71	2.73
	85	TC	36.80	37.20	38.10	38.50	38.10	38.50	38.90	39.30	40.70	41.10	41.40	41.80	/	49.10	49.50	49.90
		S/T	0.80	0.85	0.94	0.99	0.61	0.80	0.93	0.97	0.42	0.55	0.72	0.86	/	0.40	0.52	0.65
		kW	2.34	2.36	2.39	2.39	2.39	2.41	2.44	2.46	2.47	2.49	2.51	2.54	/	3.05	3.08	3.10
	95	TC	36.50	36.80	37.70	38.10	37.70	38.10	38.60	39.00	40.30	40.70	41.00	41.40	/	48.40	48.70	49.10
		S/T	0.81	0.86	0.94	0.99	0.61	0.80	0.93	0.97	0.41	0.55	0.72	0.88	/	0.40	0.52	0.65
		kW	2.83	2.86	2.89	2.89	2.89	2.92	2.95	2.98	2.98	3.01	3.04	3.06	/	3.66	3.69	3.72
	105	TC	33.46	33.86	34.65	34.95	34.65	34.95	35.34	35.74	37.03	37.32	37.62	37.92	/	44.25	44.65	44.85
		S/T	0.81	0.86	0.94	0.99	0.61	0.81	0.93	0.97	0.41	0.57	0.74	0.88	/	0.40	0.52	0.66
		kW	3.48	3.51	3.55	3.55	3.55	3.58	3.62	3.66	3.68	3.71	3.74	3.77	/	4.48	4.51	4.55
	115	TC	32.97	33.36	34.16	34.55	34.16	34.55	34.85	35.24	36.43	36.73	37.13	37.42	/	38.00	38.19	38.47
		S/T	0.81	0.86	0.94	0.99	0.61	0.81	0.96	0.99	0.41	0.57	0.73	0.89	/	0.41	0.53	0.69
		kW	4.14	4.18	4.22	4.22	4.22	4.27	4.31	4.36	4.37	4.41	4.45	4.48	/	4.54	4.55	4.55
	125	TC	25.94	26.14	26.83	27.13	26.83	27.13	27.42	27.72	29.11	29.21	29.21	29.30	/	30.99	30.99	31.09
		S/T	0.82	0.88	0.95	0.99	0.62	0.84	0.96	0.99	0.42	0.61	0.80	0.99	/	0.41	0.60	0.79
		kW	3.27	3.30	3.33	3.33	3.33	3.37	3.41	3.45	3.51	3.51	3.51	3.51	/	3.54	3.54	3.54
1350	15	TC	39.70	40.20	41.10	41.50	41.10	41.50	41.90	42.40	43.80	44.20	44.60	45.00	/	53.40	53.90	54.30
		S/T	0.72	0.76	0.85	0.99	0.61	0.82	0.84	0.90	0.41	0.57	0.74	0.89	/	0.40	0.52	0.66
		kW	1.77	1.79	1.80	1.80	1.80	1.82	1.85	1.87	1.86	1.88	1.91	1.94	/	2.45	2.48	2.49
	65	TC	39.90	40.40	41.30	41.70	41.30	41.70	42.20	42.70	44.00	44.40	44.80	45.20	/	53.60	54.10	54.50
		S/T	0.84	0.90	0.97	0.99	0.61	0.82	0.94	0.99	0.41	0.57	0.74	0.89	/	0.40	0.52	0.66
		kW	2.27	2.30	2.32	2.32	2.32	2.34	2.36	2.39	2.38	2.40	2.44	2.47	/	2.87	2.90	2.93
	75	TC	40.00	40.50	41.40	41.80	41.40	41.80	42.30	42.80	44.10	44.50	44.90	45.30	/	53.20	53.70	54.10
		S/T	0.83	0.89	0.96	0.99	0.61	0.82	0.94	0.99	0.41	0.57	0.74	0.89	/	0.40	0.52	0.66
		kW	2.41	2.43	2.47	2.47	2.47	2.49	2.52	2.54	2.54	2.56	2.59	2.62	/	3.06	3.09	3.12
	85	TC	39.50	40.00	40.90	41.40	40.90	41.40	41.80	42.20	43.70	44.00	44.40	44.70	/	52.50	52.90	53.20
		S/T	0.83	0.89	0.96	0.99	0.61	0.82	0.94	0.99	0.41	0.57	0.74	0.90	/	0.40	0.52	0.66
		kW	2.66	2.69	2.73	2.73	2.73	2.75	2.78	2.81	2.82	2.84	2.86	2.89	/	3.45	3.48	3.51
	95	TC	39.00	39.50	40.40	40.80	40.40	40.80	41.30	41.70	43.20	43.40	43.80	44.10	/	51.40	51.80	52.20
		S/T	0.83	0.89	0.96	0.99	0.61	0.82	0.94	0.99	0.41	0.57	0.74	0.90	/	0.40	0.53	0.68
		kW	3.20	3.23	3.27	3.27	3.27	3.30	3.33	3.37	3.37	3.41	3.44	3.47	/	4.11	4.15	4.18
	105	TC	35.74	36.23	36.93	37.32	36.93	37.32	37.82	38.12	39.60	39.90	40.10	40.39	/	46.93	47.12	47.42
		S/T	0.83	0.89	0.96	0.99	0.62	0.83	0.94	0.99	0.41	0.58	0.74	0.91	/	0.40	0.53	0.69
		kW	3.79	3.83	3.88	3.88	3.88	3.92	3.96	4.00	4.01	4.05	4.08	4.12	/	4.88	4.92	4.95
	115	TC	34.06	34.45	35.15	35.54	35.15	35.54	36.04	36.33	37.92	38.12	38.21	38.02	/	39.08	39.27	39.46
		S/T	0.84	0.90	0.97	0.99	0.62	0.83	0.94	0.99	0.41	0.58	0.74	0.94	/	0.41	0.55	0.73
		kW	4.24	4.28	4.34	4.34	4.34	4.38	4.43	4.47	4.55	4.57	4.57	4.55	/	4.61	4.61	4.61
	125	TC	26.14	26.53	27.13	27.52	27.13	27.52	27.72	27.92	29.40	29.40	29.50	29.50	/	31.19	31.28	31.28
		S/T	0.86	0.92	0.99	0.99	0.64	0.90	0.94	0.99	0.42	0.63	0.85	0.99	/	0.42	0.62	0.84
		kW	3.32	3.35	3.40	3.40	3.40	3.43	3.47	3.50	3.57	3.57	3.57	3.57	/	3.59	3.59	3.59
1550	15	TC	44.79	45.31	46.33	46.84	46.33	46.84	47.36	47.87	49.61	50.02	50.43	50.74	/	59.23	59.64	60.05
		S/T	0.74	0.80	0.89	0.99	0.62	0.84	0.90	0.94	0.41	0.57	0.74	0.91	/	0.40	0.53	0.68
		kW	2.05	2.07	2.10	2.10	2.10	2.12	2.14	2.16	2.13	2.17	2.22	2.26	/	2.68	2.71	2.73
	65	TC	46.95	47.36	48.48	49.00	48.48	49.00	49.61	50.02	51.97	52.28	52.69	52.99	/	61.48	61.89	62.20
		S/T	0.89	0.94	0.99	0.99	0.62	0.83	0.96	0.99	0.41	0.57	0.74	0.89	/	0.40	0.52	0.66
		kW	2.80	2.82	2.85	2.85	2.85	2.89	2.92	2.94	2.94	2.97	3.01	3.04	/	3.43	3.48	3.51
	75	TC	46.54	47.15	48.07	48.69	48.07	48.69	49.20	49.61	51.56	52.07	52.28	52.58	/	60.87	61.28	61.69
		S/T	0.89	0.94	0.99	0.99	0.62	0.83	0.96	0.99	0.41	0.57	0.74	0.90	/	0.40	0.53	0.68
		kW	2.93	2.96	2.99	2.99	2.99	3.02	3.06	3.09	3.10	3.12	3.15	3.17	/	3.65	3.68	3.73
	85	TC	45.72	46.23	47.25	47.77	47.25	47.77	48.28	48.79	50.64	51.05	51.46	51.76	/	59.33	59.85	60.25
		S/T	0.89	0.94	0.99	0.99	0.62	0.83	0.96	0.99	0.41	0.57	0.74	0.91	/	0.40	0.53	0.68
		kW	3.29	3.32	3.35	3.35	3.35	3.40	3.43	3.46	3.48	3.51	3.54	3.57	/	4.20	4.24	4.27
	95	TC	44.79	45.31	46.33	46.95	46.33	46.95	47.36	47.87	49.61	50.02	50.43	50.64	/	57.90	58.31	58.72
		S/T	0.89	0.94	0.99	0.99	0.62	0.84	0.96	0.99	0.41	0.57	0.75	0.91	/	0.40	0.53	0.69
		kW	3.90	3.94	3.98	3.98	3.98	4.03	4.07	4.11	4.12	4.15	4.19	4.22	/	4.96	4.99	5.03
	105	TC	41.21	41.62	42.64	43.05	42.64	43.05	43.56	44.08	45.72	46.02	46.33	46.55	/	51.94	52.56	53.20
		S/T	0.89	0.94	0.99	0.99	0.62	0.84	0.96	0.99	0.41	0.58	0.75	0.93	/	0.40	0.54	0.70
		kW	4.68	4.74	4.78	4.78	4.78	4.83	4.89	4.93	4.95	5.00	5.04	5.07	/	5.93	5.95	5.95
	115	TC	35.36	35.77	36.49	37.00	36.49	37.00	37.41	37.72	39.36	39.57	39.67	39.69	/	41.02	41.12	41.33
		S/T	0.89	0.94	0.99	0.99	0.63	0.85	0.96	0.99	0.41	0.61	0.80	0.99	/	0.41	0.60	0.79
		kW	4.62	4.67	4.72	4.72	4.72	4.77	4.81	4.87	4.92	4.94	4.97	4.85	/	5.00	5.02	5.03
	125	TC	27.37	27.68	28.39	28.60	28.39	28.60	28.91	29.21								

BOVA19-60 + BIVA19-60 For Cooling																		
Indoor Airflow (CFM)	Outdoor DB (°F)	IWB (°F)	59				63				67				71			
		IDB (°F)	70	75	80	85	70	75	80	85	70	75	80	85	70	75	80	85
1700	15	TC	47.56	48.18	49.30	49.71	49.30	49.71	50.33	50.84	52.69	53.10	53.61	53.91	/	62.61	63.02	63.43
		S/T	0.76	0.82	1.00	1.00	0.64	0.87	0.93	0.97	0.41	0.59	0.77	0.95	/	0.40	0.55	0.71
		kW	2.50	2.53	2.55	2.55	2.55	2.59	2.61	2.64	2.59	2.64	2.69	2.75	/	3.26	3.29	3.31
	65	TC	49.82	50.43	51.56	52.07	51.56	52.07	52.69	53.20	55.25	55.66	56.07	56.37	/	64.86	65.27	65.68
		S/T	0.91	0.95	1.00	1.00	0.63	0.86	0.98	1.00	0.41	0.58	0.76	0.93	/	0.40	0.54	0.70
		kW	3.16	3.19	3.23	3.23	3.23	3.27	3.30	3.34	3.34	3.37	3.40	3.43	/	3.86	3.89	3.93
	75	TC	49.76	50.17	51.40	51.92	51.40	51.92	52.43	53.05	55.01	55.42	55.83	56.14	/	64.36	64.77	65.59
		S/T	0.90	0.95	1.00	1.00	0.63	0.86	0.98	1.00	0.41	0.59	0.76	0.94	/	0.40	0.54	0.70
		kW	3.26	3.29	3.33	3.33	3.33	3.36	3.40	3.44	3.45	3.48	3.50	3.53	/	4.04	4.08	4.08
	85	TC	48.72	49.34	50.37	50.89	50.37	50.89	51.51	52.12	53.98	54.39	54.80	55.00	/	62.82	63.23	63.54
		S/T	0.91	0.95	1.00	1.00	0.64	0.86	0.98	1.00	0.41	0.59	0.77	0.95	/	0.40	0.55	0.71
		kW	3.62	3.66	3.69	3.69	3.69	3.73	3.78	3.81	3.83	3.85	3.89	3.92	/	4.59	4.63	4.66
	95	TC	47.59	48.11	49.24	49.86	49.24	49.86	50.27	50.79	52.74	53.05	53.57	53.67	/	61.07	61.48	61.79
		S/T	0.91	0.95	1.00	1.00	0.64	0.87	0.98	1.00	0.41	0.59	0.77	0.95	/	0.40	0.55	0.72
		kW	4.25	4.30	4.35	4.35	4.35	4.40	4.44	4.48	4.50	4.55	4.58	4.61	/	5.37	5.41	5.44
	105	TC	43.36	43.87	44.90	45.31	44.90	45.31	45.82	46.33	48.07	48.48	48.79	48.90	/	53.71	54.01	55.00
		S/T	0.90	0.95	1.00	1.00	0.64	0.87	0.98	1.00	0.41	0.60	0.80	0.96	/	0.40	0.56	0.74
		kW	5.08	5.13	5.20	5.20	5.20	5.25	5.30	5.36	5.39	5.43	5.47	5.50	/	6.05	6.09	6.09
	115	TC	36.39	36.80	37.62	37.93	37.62	37.93	38.44	38.85	40.59	40.80	41.00	40.92	/	41.94	42.05	42.25
		S/T	0.91	0.95	1.00	1.00	0.65	0.90	0.98	1.00	0.41	0.63	0.84	1.00	/	0.41	0.63	0.84
		kW	4.71	4.76	4.81	4.81	4.81	4.86	4.91	4.96	5.02	5.05	5.07	5.08	/	5.21	5.22	5.23
	125	TC	27.47	27.78	28.50	28.70	28.50	28.70	29.01	29.32	30.75	30.75	30.85	30.89	/	32.74	32.84	32.84
		S/T	0.92	0.96	1.00	1.00	0.72	1.00	1.00	1.00	0.42	0.72	0.99	1.00	/	0.42	0.71	1.00
		kW	3.64	3.67	3.71	3.71	3.71	3.76	3.79	3.83	3.91	3.91	3.91	3.91	/	3.93	3.93	3.93
1850	15	TC	50.54	51.17	52.42	52.83	52.42	52.83	53.46	54.08	56.16	56.58	56.99	57.51	/	66.04	66.46	66.87
		S/T	0.79	0.84	1.00	1.00	0.64	0.89	0.95	1.00	0.41	0.60	0.80	0.96	/	0.40	0.55	0.73
		kW	2.95	2.98	3.02	3.02	3.02	3.05	3.08	3.11	3.06	3.13	3.18	3.24	/	3.85	3.88	3.92
	65	TC	52.83	53.35	54.60	55.12	54.60	55.12	55.64	56.26	58.55	58.86	59.28	59.70	/	68.54	68.95	69.37
		S/T	0.92	0.96	1.00	1.00	0.64	0.87	1.00	1.00	0.41	0.59	0.77	0.95	/	0.40	0.55	0.72
		kW	3.49	3.52	3.55	3.55	3.55	3.60	3.63	3.67	3.67	3.71	3.74	3.78	/	4.23	4.27	4.30
	75	TC	53.15	53.57	54.83	55.46	54.83	55.46	55.99	56.62	58.82	59.24	59.66	60.08	/	68.70	69.12	69.54
		S/T	0.92	0.96	1.00	1.00	0.64	0.87	1.00	1.00	0.41	0.59	0.77	0.95	/	0.40	0.55	0.72
		kW	3.46	3.51	3.54	3.54	3.54	3.58	3.61	3.66	3.68	3.70	3.73	3.76	/	4.30	4.33	4.37
	85	TC	51.68	52.31	53.47	54.10	53.47	54.10	54.62	55.25	57.46	57.77	58.19	58.51	/	66.49	66.91	67.23
		S/T	0.92	0.96	1.00	1.00	0.64	0.89	1.00	1.00	0.41	0.60	0.78	0.96	/	0.40	0.56	0.73
		kW	3.96	4.00	4.04	4.04	4.04	4.09	4.13	4.17	4.19	4.23	4.26	4.29	/	5.00	5.03	5.06
	95	TC	50.42	50.84	52.10	52.63	52.10	52.63	53.26	53.78	55.88	56.30	56.62	56.93	/	64.28	64.70	65.02
		S/T	0.92	0.96	1.00	1.00	0.65	0.89	1.00	1.00	0.41	0.60	0.80	0.97	/	0.40	0.56	0.74
		kW	4.63	4.69	4.73	4.73	4.73	4.78	4.84	4.88	4.91	4.95	4.99	5.02	/	5.81	5.84	5.88
	105	TC	45.55	46.07	47.11	47.63	47.11	47.63	48.15	48.67	50.54	50.86	51.17	51.48	/	54.53	56.36	56.68
		S/T	0.92	0.96	1.00	1.00	0.65	0.90	1.00	1.00	0.41	0.61	0.81	1.00	/	0.40	0.59	0.76
		kW	5.45	5.51	5.57	5.57	5.57	5.63	5.69	5.74	5.79	5.82	5.86	5.90	/	6.17	6.18	6.21
	115	TC	37.86	38.17	39.00	39.52	39.00	39.52	39.83	40.25	42.02	42.22	42.43	42.64	/	43.37	43.47	43.58
		S/T	0.92	0.96	1.00	1.00	0.66	0.93	1.00	1.00	0.41	0.65	0.88	1.00	/	0.41	0.64	0.89
		kW	4.98	5.03	5.09	5.09	5.09	5.14	5.20	5.25	5.33	5.34	5.36	5.37	/	5.48	5.49	5.49
	125	TC	27.98	28.29	29.02	29.22	29.02	29.22	29.54	29.85	31.30	31.30	31.41	31.41	/	33.38	33.49	33.59
		S/T	0.93	0.97	1.00	1.00	0.74	1.00	1.00	1.00	0.42	0.74	0.99	1.00	/	0.43	0.74	1.00
		kW	3.78	3.83	3.86	3.86	3.86	3.90	3.95	3.99	4.07	4.07	4.07	4.07	/	4.09	4.09	4.09

Table 5

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

### 4.3 4 Ton IDS Ultra Series – Heating Mode

BOVA19-60 + BIVA19-48 For Heating																				
Airflow (CFM)	ID (°F)	OD (°F)	86	72	67	62	57	52	47	42	37	32	27	22	17	12	7	2	-4	-10
1200	60	TC	42.4	43.2	44.2	42.9	42.2	41.2	44.4	44.9	44.8	44.7	45.9	44.8	43.5	41.6	39.9	36.8	33.3	30.6
		kW	2.1	2.5	2.7	2.9	3.2	3.4	3.7	4.2	4.5	4.3	4.5	5.2	5.0	5.2	5.0	4.9	4.4	4.4
	70	TC	33.9	34.6	35.4	34.4	35.1	35.9	35.0	35.3	36.4	36.2	37.2	37.2	36.6	35.3	34.1	33.1	30.3	27.8
		kW	1.8	1.9	2.0	2.1	2.3	2.5	2.7	3.0	3.3	3.5	3.6	3.8	3.8	4.2	4.1	4.1	3.5	3.5
	75	TC	28.0	28.6	29.3	28.4	29.1	29.7	29.0	29.3	30.2	30.2	32.5	34.5	32.7	34.3	32.4	30.3	28.3	26.0
		kW	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.5	2.7	2.9	3.2	3.4	3.7	4.2	3.9	3.9	3.3	3.3
	80	TC	22.5	23.0	23.6	22.9	23.4	23.9	23.3	23.6	24.2	24.2	26.6	27.9	26.4	29.0	28.6	28.3	27.3	25.1
		kW	1.3	1.4	1.5	1.5	1.6	1.7	1.9	2.0	2.2	2.3	2.5	2.8	3.0	3.5	3.8	4.2	4.0	4.0
1350	60	TC	45.9	46.9	48.1	47.1	46.3	45.8	48.3	49.9	47.9	46.6	47.8	45.6	45.6	45.9	44.1	41.0	37.7	31.4
		kW	2.2	2.8	3.1	3.3	3.6	3.9	4.2	4.6	4.4	4.3	4.6	4.9	4.6	5.0	5.0	5.1	4.5	4.5
	70	TC	36.7	37.5	38.5	37.7	38.6	39.8	38.8	38.8	39.8	39.8	41.4	40.2	41.8	40.5	40.4	38.1	35.3	29.4
		kW	1.7	2.1	2.2	2.4	2.6	2.9	3.1	3.4	3.6	3.9	4.3	4.7	4.7	5.2	5.5	5.5	4.8	4.8
	75	TC	30.4	31.1	31.8	31.2	31.9	32.9	32.1	32.3	33.3	33.3	35.8	36.1	36.3	38.4	38.7	36.6	33.6	28.8
		kW	1.5	1.8	1.9	2.0	2.2	2.4	2.5	2.8	3.0	3.2	3.5	3.8	4.7	5.2	5.4	5.4	4.8	4.8
	80	TC	24.4	24.9	25.6	25.1	25.7	26.4	25.9	26.0	26.7	26.7	28.8	31.1	29.2	33.2	33.9	32.5	32.0	26.7
		kW	1.5	1.7	1.8	1.9	2.1	2.2	2.4	2.6	2.9	3.1	3.3	3.5	4.0	4.7	4.8	4.6	4.5	4.5
1550	60	TC	54.1	54.7	54.8	54.7	54.5	53.1	53.9	53.7	51.7	50.9	50.8	49.0	47.2	47.6	47.5	44.9	41.2	34.7
		kW	2.4	3.2	3.4	3.8	3.7	3.7	4.0	4.3	4.2	4.1	4.3	4.7	5.1	4.8	4.9	4.9	4.3	4.3
	70	TC	43.3	43.7	43.8	43.7	45.4	46.1	46.9	46.1	45.5	45.0	45.1	43.3	44.2	45.2	44.3	41.3	36.2	32.3
		kW	1.5	2.1	2.3	2.6	2.8	3.1	3.4	3.7	4.0	4.2	4.3	4.5	5.1	6.1	6.0	5.7	5.1	5.1
	75	TC	34.7	35.1	35.1	34.9	36.6	37.4	37.8	36.9	39.4	41.3	39.1	39.1	38.9	39.9	41.1	39.2	35.3	31.5
		kW	1.2	1.6	1.8	2.0	2.2	2.4	2.7	2.9	3.5	4.2	4.6	5.1	5.5	6.2	6.0	5.8	5.1	5.1
	80	TC	26.4	26.7	26.7	26.7	27.9	28.4	30.1	28.8	30.8	31.9	32.7	33.5	33.9	38.0	39.4	37.5	34.0	30.5
		kW	1.1	1.5	1.7	1.9	2.1	2.3	2.5	2.7	3.3	3.9	4.4	4.8	5.6	6.0	5.9	5.7	5.0	5.0
1700	60	TC	58.6	59.2	59.3	60.3	57.4	55.8	55.8	55.1	52.9	52.1	52.1	50.1	52.0	52.7	51.3	47.9	42.8	35.7
		kW	2.6	3.4	3.7	4.1	4.1	3.9	3.9	3.8	3.8	4.4	4.5	4.7	5.1	5.9	5.8	5.6	5.2	5.2
	70	TC	46.9	47.3	47.4	48.3	47.8	48.5	49.1	48.1	48.7	49.1	48.7	48.6	48.8	49.4	50.2	46.5	41.4	34.8
		kW	1.8	2.4	2.6	2.8	3.1	3.3	3.6	4.0	4.2	4.8	4.8	4.9	5.6	6.6	6.8	6.7	6.1	6.0
	75	TC	38.4	38.8	38.8	39.3	39.3	40.1	40.4	41.2	42.7	45.3	47.1	47.2	46.0	47.6	46.9	44.3	39.4	33.1
		kW	1.5	1.9	2.1	2.3	2.5	2.7	3.0	3.2	3.7	4.9	4.9	5.0	5.7	6.7	6.8	6.6	6.0	5.9
	80	TC	30.2	30.5	30.5	31.1	31.0	31.5	31.8	32.9	34.2	36.0	36.8	40.4	41.6	43.9	44.9	43.6	37.9	31.9
		kW	1.3	1.6	1.7	1.8	2.0	2.7	2.9	3.2	3.6	5.0	5.0	5.1	5.8	6.8	6.7	6.5	6.0	6.0
1850	60	TC	64.2	64.9	65.0	64.9	61.7	58.9	57.7	55.7	54.7	53.5	54.7	56.6	55.5	55.4	52.8	49.9	44.5	38.7
		kW	3.0	3.8	4.0	4.3	4.3	4.2	4.1	4.1	4.1	4.2	4.6	4.8	5.2	5.8	5.9	5.6	5.3	5.3
	70	TC	51.4	51.9	52.0	51.9	51.4	51.2	51.3	51.7	52.8	52.1	50.9	51.5	51.3	52.2	52.0	49.1	42.9	36.1
		kW	2.1	2.7	2.9	3.1	3.3	3.6	3.9	4.4	4.4	4.5	4.9	5.0	5.7	6.4	6.6	6.5	5.9	5.9
	75	TC	42.8	43.2	43.2	43.1	43.1	43.1	43.0	44.0	46.8	48.4	49.6	50.5	49.2	50.4	47.9	45.1	42.0	35.3
		kW	1.8	2.2	2.4	2.5	2.8	3.0	3.2	3.5	4.0	4.6	4.9	5.1	5.9	6.6	6.7	6.3	6.0	6.0
	80	TC	34.5	34.9	34.9	34.9	34.8	34.7	34.7	35.9	38.3	39.3	40.2	43.5	43.2	47.0	46.3	44.4	40.5	34.1
		kW	1.6	1.9	2.0	2.1	2.2	2.9	3.1	3.5	3.9	4.7	5.0	5.2	6.0	6.7	6.6	6.5	6.1	6.1

Table 6

TC refers to total capacity in kBTU/hr kW: refer to total input power

#### 4.4 5 Ton IDS Ultra Series – Heating Mode

BOVA19-60 + BIVA19-60 For Heating																				
Airflow (CFM)	ID (°F)	OD (°F)	86	72	67	62	57	52	47	42	37	32	27	22	17	12	7	2	-4	-10
1200	60	TC	44.1	45.0	46.1	45.2	44.4	43.4	46.7	47.2	47.2	47.0	48.4	47.1	45.8	43.8	42.5	39.6	35.8	33.2
		kW	2.2	2.6	2.9	3.1	3.4	3.6	3.9	4.4	4.8	4.5	4.8	5.6	5.4	5.6	5.5	5.4	4.8	4.7
	70	TC	35.3	36.0	36.9	36.2	37.0	37.8	36.8	37.2	38.3	38.1	39.2	39.2	38.5	37.1	36.3	35.6	32.6	30.2
		kW	1.8	2.0	2.1	2.3	2.5	2.7	2.9	3.2	3.5	3.8	3.8	4.1	4.1	4.6	4.5	4.4	3.8	3.8
	75	TC	29.2	29.8	30.5	29.9	30.6	31.2	30.5	30.8	31.7	31.7	34.2	36.3	34.4	36.1	34.5	32.5	30.4	28.2
		kW	1.6	1.7	1.8	1.9	2.1	2.2	2.4	2.6	2.9	3.1	3.4	3.7	3.9	4.5	4.3	4.2	3.6	3.6
	80	TC	23.4	23.9	24.5	24.1	24.7	25.1	24.6	24.8	25.5	25.5	28.0	29.4	27.8	30.5	30.4	30.4	29.3	27.2
		kW	1.4	1.4	1.5	1.6	1.7	1.8	2.0	2.2	2.3	2.5	2.7	2.9	3.1	3.8	4.2	4.5	4.3	4.3
	60	TC	48.3	49.3	50.6	49.6	48.7	48.2	50.8	52.5	50.4	49.0	50.3	48.0	48.0	48.3	46.9	44.0	40.5	34.1
		kW	2.4	3.0	3.2	3.5	3.8	4.2	4.4	4.9	4.7	4.5	4.9	5.2	4.9	5.4	5.5	5.5	4.8	4.8
1350	70	TC	38.7	39.5	40.5	39.7	40.6	41.9	40.9	40.8	41.8	41.8	43.6	42.3	44.0	42.6	43.0	41.0	37.9	31.9
		kW	1.8	2.2	2.3	2.5	2.8	3.1	3.3	3.6	3.9	4.2	4.6	5.0	5.0	5.7	6.0	5.9	5.2	5.2
	75	TC	32.0	32.7	33.5	32.9	33.6	34.7	33.8	34.0	35.0	35.0	37.7	38.0	38.2	40.4	41.2	39.3	36.1	31.2
		kW	1.6	1.9	2.0	2.1	2.3	2.5	2.6	3.0	3.2	3.4	3.7	4.0	5.0	5.6	5.9	5.9	5.2	5.2
	80	TC	25.7	26.3	26.9	26.4	27.1	27.8	27.3	27.4	28.1	28.1	30.4	32.8	30.8	34.9	36.1	34.9	34.4	28.9
		kW	1.5	1.8	1.9	2.0	2.2	2.4	2.5	2.8	3.0	3.3	3.5	3.8	4.2	5.1	5.3	5.0	4.9	4.9
	60	TC	57.6	58.2	58.3	58.2	58.0	56.4	57.4	57.6	55.1	54.4	54.6	51.6	49.7	50.1	50.5	47.7	44.3	37.6
		kW	2.5	3.4	3.6	4.0	4.0	3.9	4.2	4.6	4.4	4.3	4.6	5.0	5.5	5.2	5.4	5.3	4.7	4.7
	70	TC	46.1	46.5	46.6	46.5	48.3	49.1	49.9	48.6	47.9	47.3	47.5	45.6	46.6	47.6	47.1	43.9	38.9	35.1
		kW	1.6	2.3	2.4	2.7	2.9	3.2	3.6	3.9	4.3	4.5	4.6	4.8	5.5	6.7	6.6	6.2	5.5	5.5
1550	75	TC	36.9	37.3	37.3	37.1	39.0	39.8	40.2	38.9	41.5	43.5	41.1	41.1	40.9	42.0	43.7	41.7	37.9	34.2
		kW	1.3	1.7	1.9	2.1	2.3	2.6	2.8	3.0	3.7	4.4	4.9	5.4	5.9	6.7	6.6	6.3	5.6	5.6
	80	TC	28.1	28.4	28.4	28.4	29.7	30.2	31.9	30.3	32.4	33.6	34.4	35.3	35.7	40.0	41.9	39.9	36.5	33.1
		kW	1.2	1.6	1.8	2.0	2.2	2.5	2.7	2.9	3.5	4.2	4.6	5.1	6.0	6.6	6.5	6.2	5.5	5.5
	60	TC	63.0	63.6	63.7	64.9	61.7	60.0	60.0	58.6	56.3	55.4	55.4	53.3	55.3	56.1	53.4	49.9	46.5	38.8
		kW	2.8	3.7	3.9	4.4	4.4	4.2	4.2	4.0	4.1	4.6	4.8	5.0	5.4	6.4	6.3	6.0	5.6	5.6
	70	TC	50.4	50.9	51.0	51.9	51.4	52.2	52.8	51.2	51.8	52.2	51.8	51.6	51.9	52.5	52.2	48.4	44.9	37.8
		kW	2.0	2.6	2.8	3.1	3.3	3.6	3.9	4.3	4.5	5.1	5.1	5.2	6.0	7.1	7.4	7.2	6.7	6.5
	75	TC	41.3	41.7	41.7	42.3	42.3	43.1	43.5	43.8	45.5	48.2	50.1	50.2	48.9	50.6	48.9	46.2	42.7	36.0
		kW	1.6	2.1	2.2	2.4	2.7	2.9	3.2	3.4	3.9	5.2	5.2	5.3	6.1	7.3	7.4	7.1	6.5	6.4
1700	80	TC	32.4	32.8	32.8	33.4	33.3	33.9	34.2	35.0	36.4	38.3	39.1	42.9	44.2	46.7	46.8	45.4	41.1	34.6
		kW	1.3	1.7	1.8	2.0	2.1	2.9	3.1	3.4	3.9	5.3	5.3	5.4	6.2	7.4	7.3	7.0	6.5	6.5
	60	TC	69.1	69.8	69.9	69.8	66.4	63.4	62.1	59.9	58.8	57.5	58.8	60.9	59.7	59.6	57.4	54.8	48.8	42.5
		kW	3.2	4.0	4.3	4.7	4.6	4.5	4.4	4.4	4.4	4.5	5.0	5.1	5.6	6.3	6.5	6.1	5.8	5.8
	70	TC	55.2	55.8	55.9	55.8	55.3	55.1	55.2	55.6	56.8	56.0	54.7	55.4	55.1	56.1	56.5	53.9	47.1	39.6
		kW	2.3	2.9	3.1	3.4	3.6	3.8	4.2	4.7	4.8	4.8	5.2	5.4	6.2	7.0	7.3	7.1	6.4	6.4
	75	TC	46.0	46.5	46.5	46.3	46.3	46.3	46.2	47.3	50.3	52.1	53.3	54.3	50.9	54.2	52.0	49.5	46.1	38.8
		kW	2.0	2.4	2.6	2.7	3.0	3.2	3.4	3.8	4.3	4.9	5.3	5.5	6.3	7.2	7.4	6.9	6.6	6.6
	80	TC	37.1	37.5	37.5	37.5	37.4	37.3	37.3	38.6	41.2	42.3	43.3	46.8	46.4	50.5	50.3	48.7	44.5	37.4
		kW	1.7	2.0	2.1	2.3	2.4	3.1	3.4	3.7	4.2	5.0	5.4	5.6	6.4	7.3	7.3	7.1	6.7	6.7

Table 7

TC refers to total capacity in kBTU/hr kW: refer to total input power

## 5 AHRI 210/240 Performance Data

### 5.1 SEER2 Data

System Configuration	Outdoor Unit Model	Indoor Unit Model	Furnace Model	Cooling Capacity (BTU/h)			Cooling CFM (High/Low)	Heating Capacity			Heating CFM (High/Low)	
		Coils/Air Handlers		Total	EER <sup>2</sup>	SEER <sup>2</sup>		Hi	HSPF <sup>3</sup>	Low <sup>4</sup>		
IDS Ultra Condenser and Air Handler	BOVA-60MTB-M19E	BIVA-48MCB-M19X	/	48500	12.00	19.00	1560/1240	48500	10.00	48500	1600/1240	✱
	BOVA-60MTB-M19E	BIVA-60MCB-M19X	/	53500	11.70	19.00	1760/1270	55000	10.00	55000	1820/1270	✱
IDS Ultra with BMAC Cased Coil	BOVA-60MTB-M19E	BMAC4248BBTA	/	42500	11.20	15.20	1150/1150	45500	8.50	45500	1150/1150	✱
	BOVA-60MTB-M19E	BMAC4248CBTA	/	43500	11.70	15.20	1300/1300	46000	8.50	46000	1300/1300	✱
	BOVA-60MTB-M19E	BMAC4248DBTA	/	43500	11.70	15.20	1300/1300	46000	8.50	46000	1300/1300	✱
	BOVA-60MTB-M19E	BMAC4860CBTA	/	52000	11.20	15.20	1350/1350	55000	8.50	52000	1350/1350	✱
	BOVA-60MTB-M19E	BMAC4860DBTA	/	52000	11.20	15.20	1350/1350	55000	8.50	52000	1350/1350	✱
	BOVA-60MTB-M19E	BMAC4860CBTA	BGH96M080B3C	43000	11.70	16.00	1300/900	46000	9.50	46000	1300/900	✱
IDS Ultra with 96% Gas Furnace	BOVA-60MTB-M19E	BMAC4248CBTA	BGH96M080C4C	43500	11.70	16.00	1300/900	46000	9.50	46000	1300/900	✱
	BOVA-60MTB-M19E	BMAC4248CBTA	BGH96M100C5C	44000	11.70	16.50	1350/1150	47000	9.50	47000	1350/1150	✱
	BOVA-60MTB-M19E	BMAC4248DBTA	BGH96M100D5C	44500	11.70	16.50	1500/1150	47000	9.50	47000	1500/1150	✱
	BOVA-60MTB-M19E	BMAC4248DBTA	BGH96M120D5C	44500	11.70	17.00	1500/1150	47500	9.50	47500	1500/1150	✱
	BOVA-60MTB-M19E	BMAC4860DBTA	BGH96M100D5C	52000	11.70	18.00	1500/1150	55000	9.50	53000	1500/1150	✱
	BOVA-60MTB-M19E	BMAC4860DBTA	BGH96M120D5C	52500	11.70	18.00	1500/1150	55000	9.50	53000	1500/1150	✱
	BOVA-60MTB-M19E	BMAC4860CBTA	BGH96M100C5C	52000	11.70	18.00	1350/1150	55000	9.50	52000	1350/1150	✱
	BOVA-60MTB-M19E	BMAC4860CBTA	BGH96M100C5C	52000	11.70	18.00	1350/1150	55000	9.50	52000	1350/1150	✱

Table 8

<sup>1</sup> Seasonal Energy Efficiency Ratio; Certified per AHRI 210/240

<sup>2</sup> Energy Efficiency Ratio; Certified per AHRI 210/240

<sup>3</sup> HSPF = Heating Seasonal Performance Factor; Certified per AHRI 210/240

<sup>4</sup> Jumper cut or dip switch off

☐ Items in **bold** boxes meet the requirements for ENERGY STAR v6.1

✱ Denotes combinations that meet ENERGY STAR v6.1 Cold Climate

6 Sound Data

Model		Unit Frequency	SoundPower Level[dB(A)]	Full Octave Linear Sound Power Level Db-Center Frequency-Hz						
				125	250	500	1000	2000	4000	8000
5 Ton	cooling	max	73.3	56.8	62.1	67.8	69.3	64.6	61.6	57.3
		rated	73.0	56.7	62.8	68.9	68.2	63.7	59.4	55.1
		min	59.9	43.4	48.3	54.6	53.4	50.0	52.0	50.8
	heating	max	76.6	56.7	64.8	69.7	71.0	67.0	69.0	68.9
		rated	69.0	53.1	58.7	65.2	63.1	59.5	57.5	53.7
		min	64.8	48.8	56.1	60.4	59.4	55.7	52.3	47.1

Table 9 IDS Sound power level

7 Dimensions

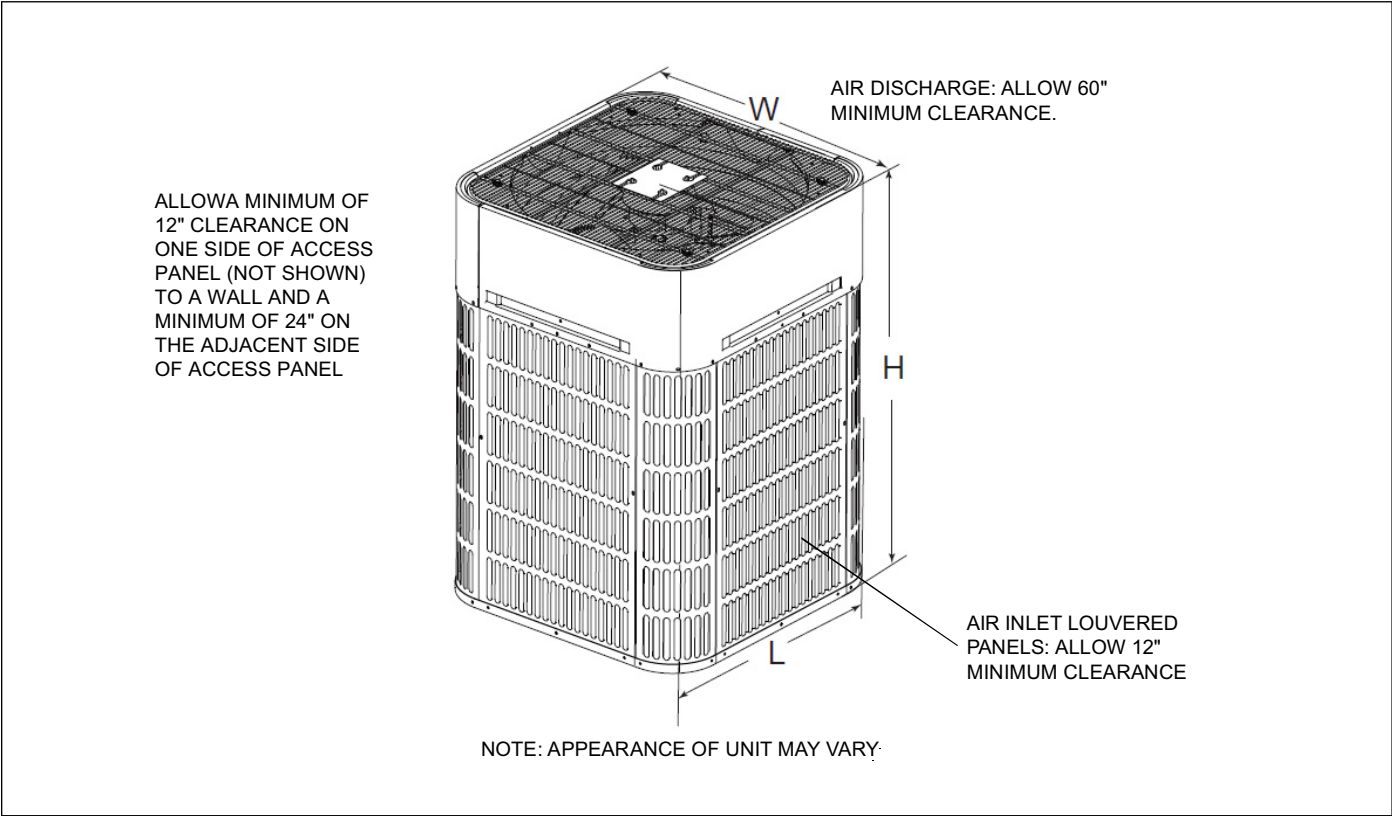


Figure 2

Model Size	Dimensions (Inches)		
	"H" in. [mm]	"W" in. [mm]	"L" in. [mm]
BOVA19-60	43-5/16 [1100]	29-1/8 [740]	29-1/8 [740]

Table 10

### Online Help Resources

Alternatively, please visit our Service & Support webpage to find FAQs, videos, service bulletins, and more; [www.boschheatingcooling.com/service](http://www.boschheatingcooling.com/service) or use your cellphone to scan the code below.

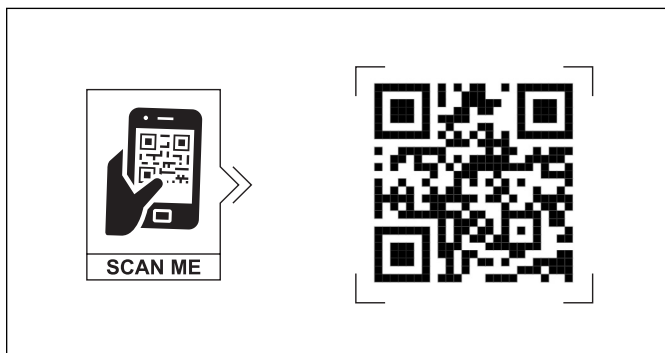


Figure 3

**United States and Canada  
Bosch Thermotechnology Corp.  
65 Grove St.  
Watertown, MA 02472**

**Tel: 800-283-3787  
[www.bosch-homecomfort.us](http://www.bosch-homecomfort.us)**

**BTC 762008303 A / 08.2024**

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engineering and technological advances.**