

COOLING CAPACITY: 22,800 - 52,500 BTU/H
 HEATING CAPACITY: 23,400 - 52,000 BTU/H

HIGH-EFFICIENCY,
 SPLIT SYSTEM HEAT PUMP
 UP TO 21 SEER



Contents

Nomenclature.....	2
Product Specifications.....	3
Expanded Cooling Data.....	4
Expanded Heating Data.....	12
Performance Data	
Standard Mode.....	13
Boost Mode.....	14
Sound Power Levels.....	15
Dimensions.....	16
Wiring Diagram.....	17
Accessories.....	19

Standard Features

- Variable-speed swing compressors
- High-density compressor sound blanket
- Integrated communicating ComfortBridge™ Technology
- Commissioning and diagnostics via indoor board Bluetooth with the CoolCloud™ phone and tablet application
- Amana control algorithmic logic
- In communicating mode, only two low-voltage wires to outdoor unit required
- Diagnostic indicator lights, seven-segment LED display, and fault code storage
- Field-selectable boost mode increases compressor speed during unusually high loads
- Quiet DC outdoor fan motor
- Fully charged for 15' of tubing length
- Field-installed bi-flow filter drier
- Coil and ambient temperature sensors
- Suction pressure transducer (in cooling mode)
- Sweat connection service valves with easy access to gauge ports
- AHRI Certified; ETL Listed

Cabinet Features

- Heavy-gauge galvanized-steel cabinet with grille-style sound control top design
- Custom two-tone gray powder-paint finish
- 500-hour salt-spray tested
- Wire fan discharge grille
- Steel louver coil guard
- Top and side maintenance access
- Single-panel access to controls with space provided for field-installed accessories
- When properly anchored, meets the 2017 Florida Building Code unit integrity requirements for hurricane-type winds (Anchor bracket kits available.)



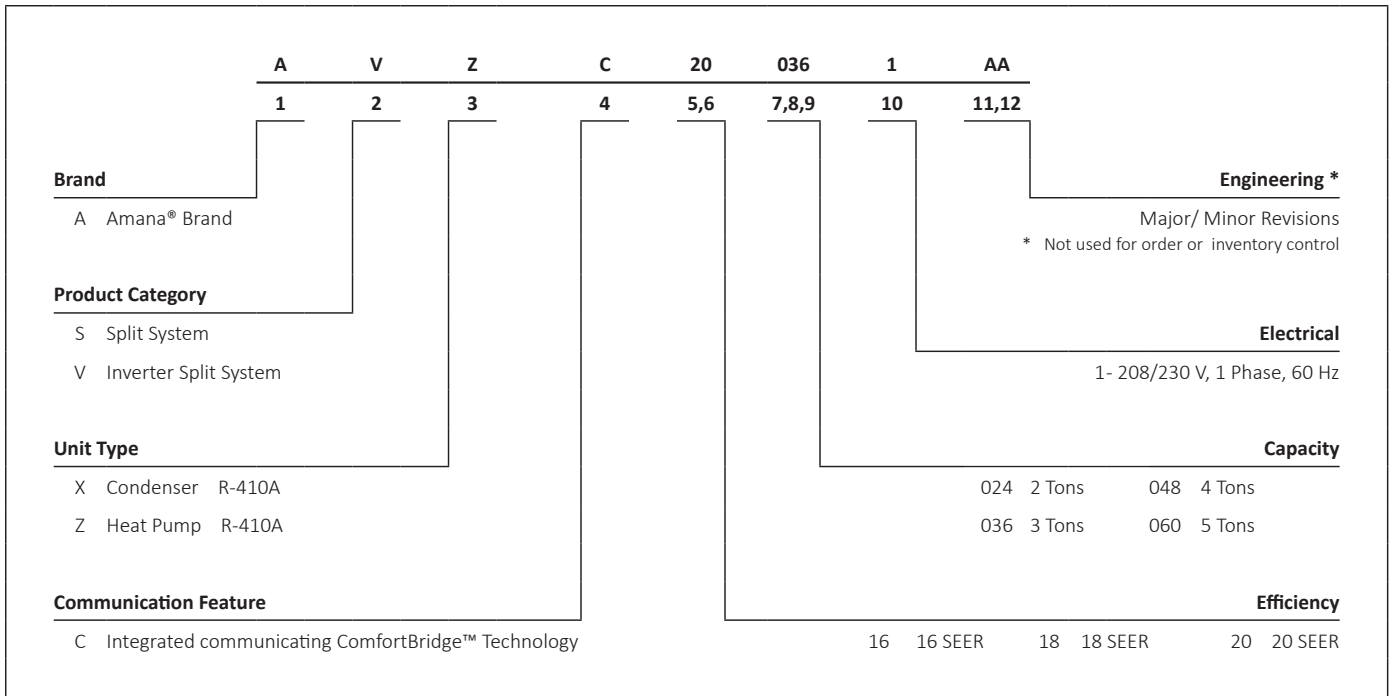
Proper sizing and installation of equipment is critical to achieving optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet ENERGY STAR® criteria. Ask your contractor for details or visit www.energystar.gov.






COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL
 ■ ISO 9001 ■

COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL
 ■ ISO 14001 ■

* Complete warranty details available from your local dealer or at www.amana-hac.com. To receive the Lifetime Unit Replacement Limited Warranty (good for as long as you own your home) and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Additional requirements for annual maintenance are required for the Unit Replacement Limited Warranty. Online registration and some of the additional requirements are not required in California or Quebec.



	AVZC20 0241A*	AVZC20 0361A*	AVZC20 0481A*	AVZC20 0601B*
CAPACITY AND RATINGS				
Max. Cooling (BTU/h)	23,800	35,800	46,500	52,500
Max. Heating (BTU/h)	23,800	35,400	46,000	52,000
COMPRESSOR				
Type	Swing	Swing	Swing	Swing
RLA	12.7	27.3	27.3	22.8
CONDENSER FAN MOTOR				
Horsepower	1/2	1/2	1/2	1/2
FLA	2.5	2.5	2.5	2.5
REFRIGERATION SYSTEM				
Refrigerant Line Size ¹				
Liquid Line Size ("O.D.)	3/8"	3/8"	3/8"	3/8"
Suction Line Size ("O.D.)	3/4"	7/8"	1 1/8"	1 1/8"
Refrigerant Connection Size				
Liquid Valve Size ("O.D.)	3/8"	3/8"	3/8"	3/8"
Suction Valve Size ("O.D.)	3/4"	7/8"	7/8"	7/8"
Valve Connection Type	Ball Valve	Ball Valve	Ball Valve	Ball Valve
Refrigerant Charge	165	272	272	272
Superheat at Service Valve	7-9°F	7-9°F	7-9°F	7-9°F
Subcooling at Service Valve	7-9°F	7-9°F	7-9°F	9-11°F
ELECTRICAL DATA				
Voltage/Phase (60 Hz)	208-230/1	208-230/1	208-230/1	208-230/1
Minimum Circuit Ampacity ²	15.2	29.8	29.8	30.6
Max. Overcurrent Protection ³	20	30	30	35
Min / Max Volts	197/253	197/253	197/253	197/253
Electrical Conduit Size	1/2" or 3/4"	1/2" or 3/4"	1/2" or 3/4"	1/2" or 3/4"
EQUIPMENT WEIGHT (LBS)	217	291	291	291
SHIP WEIGHT (LBS)	243	318	318	318
ENERGY STAR® CERTIFIED [^]				NO

^ ENERGY STAR NOTES

- Products that are recognized as the Most Efficient of ENERGY STAR® in 2020 prevent greenhouse gas emissions by meeting rigorous energy efficiency performance levels set by the U.S. Environmental Protection Agency.
- Proper sizing and installation of equipment is critical to achieving optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet ENERGY STAR® criteria. Ask your contractor for details or visit www.energystar.gov.
- The www.energystar.gov website provides up-to-date system combinations certified to meet ENERGY STAR® requirements.

¹ Tested and rated in accordance with AHRI Standard 210/240

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

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

NOTES

- Always check the S&R plate for electrical data on the unit being installed.
- Installer will need to supply 3/8" to 1 1/8" adapters for suction line connections.
- Unit is charged with refrigerant for 15' of 3/8" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure.

IDB*	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE															ENTERING INDOOR WET BULB TEMPERATURE																																																																																																																																																																																																																																																																																																																																																																																																																																		
		65°F					75°F					85°F					95°F					105°F					115°F																																																																																																																																																																																																																																																																																																																																																																																																																								
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75																																																																																																																																																																																																																																																																																																																																																																																																																				
70	MBh	20.5	21.3	23.3	-	20.1	20.8	22.8	-	19.6	20.3	22.2	-	19.1	19.8	21.7	-	18.2	18.8	20.6	-	16.8	17.4	19.1	-	0.68	0.57	0.39	-	0.71	0.59	0.41	-	0.72	0.60	0.42	-	0.75	0.62	0.43	-	0.78	0.65	0.45	-	1.33	1.36	1.40	-	1.44	1.47	1.52	-	1.54	1.57	1.63	-	1.62	1.66	1.72	-	1.70	1.74	1.80	-	1.76	1.80	1.87	-	5.5	5.6	5.8	-	5.9	6.1	6.3	-	6.5	6.6	6.9	-	6.9	7.1	7.4	-	7.4	7.6	7.8	-	7.8	8.0	8.3	-	215	232	245	-	242	260	275	-	275	296	312	-	313	337	356	-	352	379	400	-	389	419	442	-	101	108	118	-	107	114	125	-	111	119	129	-	117	125	136	-	123	130	142	-	127	135	147	-	22.3	23.1	25.3	-	21.7	22.5	24.7	-	21.2	22.0	24.1	-	20.7	21.5	23.5	-	19.7	20.4	22.3	-	18.2	18.9	20.7	-	0.71	0.59	0.41	-	0.73	0.61	0.42	-	0.75	0.63	0.43	-	0.77	0.65	0.45	-	0.80	0.67	0.47	-	0.81	0.68	0.47	-	1.36	1.39	1.44	-	1.48	1.51	1.56	-	1.58	1.62	1.67	-	1.67	1.71	1.77	-	1.74	1.79	1.85	-	1.81	1.85	1.92	-	5.6	5.8	6.0	-	6.1	6.3	6.5	-	6.7	6.8	7.1	-	7.1	7.3	7.6	-	7.6	7.8	8.1	-	8.1	8.3	8.6	-	222	239	252	-	249	268	283	-	283	305	322	-	323	347	367	-	363	391	412	-	401	432	456	-	105	111	122	-	111	118	128	-	115	122	133	-	121	128	140	-	126	135	147	-	131	139	152	-	22.9	23.8	26.0	-	22.4	23.2	25.4	-	21.9	22.7	24.8	-	21.3	22.1	24.2	-	20.3	21.0	23.0	-	18.8	19.5	21.3	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.79	0.66	0.46	-	0.81	0.68	0.47	-	0.84	0.70	0.49	-	0.85	0.71	0.49	-	1.37	1.41	1.45	-	1.49	1.53	1.58	-	1.59	1.63	1.69	-	1.68	1.72	1.78	-	1.76	1.80	1.87	-	1.83	1.87	1.94	-	5.7	5.8	6.0	-	6.2	6.3	6.5	-	6.5	6.7	7.1	-	7.2	7.4	7.6	-	7.7	7.9	8.1	-	8.2	8.4	8.6	-	224	241	255	-	252	271	286	-	286	308	325	-	326	351	370	-	367	394	417	-	405	436	460	-	106	112	123	-	112	119	130	-	116	123	135	-	122	130	142	-	128	136	148	-	132	141	153	-						
	75	MBh	20.9	21.5	23.3	25.0	20.4	21.0	22.7	24.4	19.9	20.5	22.2	23.8	19.4	20.0	21.7	23.3	18.5	19.0	20.6	22.1	17.1	17.6	19.1	20.5	0.77	0.69	0.52	0.34	0.80	0.72	0.54	0.35	0.82	0.74	0.56	0.36	0.85	0.76	0.57	0.37	0.88	0.79	0.60	0.38	0.89	0.79	0.60	0.39	1.34	1.37	1.42	1.47	1.45	1.49	1.54	1.59	1.55	1.59	1.64	1.70	1.64	1.68	1.74	1.80	1.71	1.75	1.82	1.88	1.78	1.82	1.88	1.95	5.5	5.7	5.9	6.1	6.0	6.2	6.4	6.6	6.5	6.7	6.9	7.2	7.0	7.2	7.4	7.7	7.5	7.7	7.9	8.2	8.2	7.9	8.1	8.4	8.7	218	234	247	258	244	263	277	289	278	299	315	329	316	340	359	375	356	383	404	422	393	423	447	466	103	109	119	127	108	115	126	134	113	120	131	139	118	126	137	146	124	132	144	153	128	136	149	159	22.6	23.3	25.2	27.1	22.1	22.8	24.6	26.4	21.6	22.2	24.1	25.8	21.1	21.7	23.5	25.2	20.0	20.6	22.3	23.9	18.5	19.1	20.7	22.2	0.80	0.72	0.54	0.35	0.83	0.74	0.56	0.36	0.85	0.76	0.58	0.37	0.88	0.79	0.60	0.38	0.91	0.82	0.62	0.40	0.92	0.82	0.62	0.40	1.37	1.41	1.46	1.51	1.49	1.53	1.58	1.63	1.59	1.63	1.69	1.75	1.68	1.72	1.78	1.85	1.76	1.80	1.87	1.93	1.83	1.87	1.94	2.01	5.7	5.8	6.0	6.3	6.2	6.3	6.5	6.8	6.7	6.9	7.1	7.4	7.2	7.4	7.6	7.9	7.7	7.9	8.1	8.5	8.2	8.4	8.6	9.0	224	241	255	266	252	271	286	298	286	308	325	339	326	351	370	386	367	395	417	435	405	436	460	480	106	112	123	131	112	119	130	138	116	123	135	144	122	130	142	151	128	136	148	158	132	141	153	163	23.3	24.0	26.0	27.9	22.8	23.5	25.4	27.2	22.2	22.9	24.8	26.6	21.7	22.3	24.2	25.9	20.6	21.2	23.0	24.6	19.1	19.7	21.3	22.8	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.89	0.80	0.61	0.39	0.92	0.83	0.62	0.40	0.96	0.86	0.65	0.42	0.97	0.86	0.65	0.42	1.39	1.42	1.47	1.52	1.50	1.54	1.59	1.65	1.61	1.64	1.70	1.76	1.70	1.74	1.80	1.86	1.78	1.82	1.88	1.95	1.84	1.89	1.95	2.02	5.8	5.9	6.1	6.3	6.2	6.4	6.6	6.9	6.8	7.0	7.2	7.5	7.3	7.5	7.7	8.0	7.8	8.0	8.2	8.5	8.2	8.4	8.7	9.1	226	244	257	268	254	273	289	301	289	311	328	343	329	354	374	390	370	399	421	439	409	440	465	485	107	114	124	132	113	120	131	139	117	125	136	145	123	131	143	152	129	137	150	160	133	142	155	165

IDB* - Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service valves.
 Airflow may vary depending on actual ambient conditions and system operation modes.

Shaded area reflects ACCA (TVA) conditions.

kW = Total system power
 Amps = outdoor unit amps

EXPANDED COOLING DATA — AVZC200481A* / CA*F4961*6D* + MBVC2000*-1A*+TXV (HIGH STAGE)

IDB*	OUTDOOR AMBIENT TEMPERATURE																								
	65°F				75°F				85°F				95°F				105°F				115°F				
	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
AIREFLOW																									
	MBh	45.1	46.1	49.2	52.6	44.1	45.0	48.1	51.4	43.0	43.9	46.9	50.2	42.0	42.9	45.8	49.0	39.9	40.7	43.5	46.5	36.9	37.7	40.3	43.1
	S/T	0.86	0.80	0.65	0.49	0.89	0.83	0.68	0.51	0.91	0.85	0.70	0.52	0.94	0.88	0.72	0.54	0.98	0.92	0.74	0.56	0.98	0.92	0.75	0.56
	ΔT	2.7	2.6	2.3	1.8	2.8	2.7	2.3	1.8	2.8	2.7	2.3	1.8	2.8	2.7	2.3	1.9	2.8	2.6	2.3	1.8	2.6	2.5	2.1	1.7
1300	KW	2.75	2.81	2.90	3.00	2.97	3.04	3.14	3.24	3.16	3.23	3.34	3.46	3.33	3.41	3.52	3.65	3.48	3.56	3.68	3.81	3.60	3.69	3.81	3.95
	Amps	11.1	11.4	11.8	12.2	12.0	12.3	12.8	13.2	13.1	13.4	13.9	14.4	14.0	14.4	14.9	15.4	14.9	15.3	15.8	16.4	15.8	16.2	16.8	17.4
	Hi-PR	223	240	254	265	251	270	285	297	285	307	324	338	325	350	369	385	365	393	415	433	404	434	459	479
	Lo-PR	105	112	122	130	111	118	129	138	116	123	134	143	121	129	141	150	127	135	148	157	132	140	153	163
	MBh	45.8	46.8	50.0	53.4	44.7	45.7	48.8	52.2	43.7	44.6	47.7	51.0	42.6	43.5	46.5	49.7	40.5	41.3	44.2	47.2	37.5	38.3	40.9	43.7
80	S/T	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.53	0.94	0.89	0.72	0.54	0.97	0.91	0.74	0.56	1.00	0.95	0.77	0.58	1.00	0.96	0.78	0.58
	ΔT	2.6	2.5	2.2	1.7	2.6	2.5	2.2	1.8	2.6	2.5	2.2	1.8	2.7	2.5	2.2	1.8	2.6	2.5	2.2	1.7	2.4	2.3	2.0	1.6
	KW	2.79	2.85	2.94	3.04	3.01	3.08	3.18	3.29	3.21	3.28	3.39	3.51	3.38	3.46	3.58	3.70	3.53	3.61	3.73	3.86	3.66	3.74	3.87	4.01
	Amps	11.3	11.6	12.0	12.4	12.2	12.5	13.0	13.5	13.3	13.6	14.1	14.6	14.2	14.6	15.1	15.7	15.2	15.6	16.1	16.7	16.1	16.5	17.1	17.7
	Hi-PR	227	245	258	269	255	275	290	302	290	312	330	344	330	356	376	392	372	400	422	441	411	442	467	487
Lo-PR	107	114	124	133	113	120	131	140	118	125	137	145	124	132	144	153	129	138	150	160	134	142	156	166	
1580	MBh	46.2	47.3	50.5	54.0	45.2	46.2	49.3	52.7	44.1	45.1	48.1	51.5	43.0	44.0	47.0	50.2	40.9	41.8	44.6	47.7	37.9	38.7	41.3	44.2
	S/T	0.91	0.85	0.69	0.52	0.94	0.88	0.72	0.54	0.96	0.90	0.74	0.55	1.00	0.93	0.76	0.57	1.00	0.97	0.79	0.59	1.00	0.98	0.79	0.59
	ΔT	2.4	2.3	2.0	1.6	2.5	2.4	2.1	1.6	2.5	2.4	2.1	1.6	2.5	2.4	2.1	1.7	2.4	2.4	2.0	1.6	2.2	2.2	1.9	1.5
	KW	2.80	2.86	2.95	3.05	3.02	3.09	3.19	3.30	3.22	3.29	3.40	3.52	3.39	3.47	3.59	3.71	3.54	3.62	3.74	3.87	3.67	3.75	3.88	4.02
	Amps	11.3	11.6	12.0	12.5	12.3	12.6	13.0	13.5	13.4	13.7	14.1	14.7	14.3	14.6	15.1	15.7	15.2	15.6	16.1	16.8	16.1	16.5	17.1	17.8
Hi-PR	228	245	259	270	256	275	291	303	291	313	331	345	331	357	377	393	373	401	424	442	412	443	468	488	
Lo-PR	107	114	125	133	114	121	132	140	118	126	137	146	124	132	144	153	130	138	151	161	134	143	156	166	

1300	MBh	45.9	46.8	49.0	52.3	44.8	45.7	47.9	51.1	43.8	44.6	46.7	49.8	42.7	43.5	45.6	48.6	40.6	41.3	43.3	46.2	37.6	38.3	40.1	42.8
	S/T	0.90	0.87	0.78	0.63	0.93	0.90	0.81	0.66	0.95	0.92	0.83	0.67	0.99	0.95	0.86	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.90	0.73
	ΔT	2.9	2.9	2.7	2.3	3.0	2.9	2.7	2.4	3.0	2.9	2.7	2.4	3.0	2.9	2.8	2.4	2.9	2.9	2.7	2.4	2.7	2.7	2.5	2.2
	KW	2.77	2.83	2.93	3.02	2.99	3.06	3.16	3.27	3.19	3.26	3.37	3.49	3.36	3.44	3.55	3.68	3.51	3.59	3.71	3.84	3.63	3.72	3.85	3.98
	Amps	11.2	11.5	11.9	12.3	12.2	12.5	12.9	13.4	13.2	13.6	14.0	14.5	14.2	14.5	15.0	15.6	15.1	15.5	16.0	16.6	16.0	16.4	17.0	17.6
85	Hi-PR	226	243	256	268	253	273	288	300	288	310	327	341	328	353	373	389	369	397	419	437	408	439	463	483
	Lo-PR	106	113	124	132	112	120	131	139	117	124	136	144	123	131	142	152	129	137	149	159	133	141	154	164
	MBh	46.6	47.5	49.7	53.1	45.5	46.4	48.6	51.8	44.4	45.3	47.4	50.6	43.3	44.2	46.3	49.4	41.2	42.0	44.0	46.9	38.1	38.9	40.7	43.4
	S/T	0.93	0.90	0.81	0.66	0.97	0.93	0.84	0.68	0.99	0.96	0.86	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.76
	ΔT	2.8	2.7	2.6	2.2	2.8	2.8	2.6	2.3	2.8	2.8	2.6	2.3	2.8	2.8	2.6	2.3	2.6	2.6	2.6	2.2	2.4	2.5	2.4	2.1
1440	KW	2.81	2.87	2.97	3.07	3.04	3.11	3.21	3.32	3.24	3.31	3.42	3.54	3.41	3.49	3.61	3.73	3.56	3.64	3.77	3.90	3.69	3.77	3.90	4.04
	Amps	11.4	11.7	12.1	12.5	12.4	12.7	13.1	13.6	13.4	13.8	14.2	14.8	14.4	14.7	15.2	15.8	15.3	15.7	16.2	16.9	16.3	16.7	17.2	17.9
	Hi-PR	230	247	261	272	258	277	293	305	293	315	333	347	334	359	379	396	375	404	427	445	415	446	471	492
	Lo-PR	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167
	MBh	47.1	48.0	50.2	53.6	46.0	46.8	49.1	52.3	44.9	45.7	47.9	51.1	43.8	44.6	46.7	49.9	41.6	42.4	44.4	47.4	38.5	39.3	41.1	43.9
1580	S/T	0.95	0.92	0.83	0.67	0.98	0.95	0.86	0.70	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.94	0.76	1.00	1.00	0.95	0.77
	ΔT	2.6	2.6	2.4	2.1	2.6	2.6	2.4	2.1	2.6	2.6	2.5	2.1	2.5	2.6	2.5	2.1	2.4	2.5	2.4	2.1	2.2	2.3	2.3	2.0
	KW	2.82	2.88	2.98	3.08	3.05	3.11	3.22	3.33	3.24	3.32	3.43	3.55	3.42	3.50	3.62	3.74	3.57	3.65	3.78	3.91	3.70	3.78	3.91	4.05
	Amps	11.4	11.7	12.1	12.6	12.4	12.7	13.1	13.6	13.5	13.8	14.3	14.8	14.4	14.8	15.3	15.9	15.4	15.7	16.3	16.9	16.3	16.7	17.3	17.9
	Hi-PR	230	248	262	273	258	278	294	306	294	316	334	348	335	360	380	397	377	405	428	446	416	448	473	493
Lo-PR	109	115	126	134	115	122	133	142	119	127	138	147	125	133	145	155	131	140	152	162	136	144	158	168	

kW = Total system power
Amps = outdoor unit amps

Shaded area reflects AHRI conditions

IDB*: Entering Indoor Dry Bulb Temperature
High and low pressures are measured at the liquid and suction valves.
Airflow may vary depending on actual ambient conditions and system operation modes.

Main data table with columns for Outdoor Ambient Temperature (65°F, 75°F, 85°F, 95°F, 105°F, 115°F) and Entering Indoor Wet Bulb Temperature (59, 63, 67, 71). Rows include air flow metrics (MBh, S/T, ΔT, kW, Amps) for units 1390, 1630, 1870, and 75.

kW = Total system power
Amps = outdoor unit amps

Shaded area reflects ACCA (TVA) conditions

IDB*: Entering Indoor Dry Bulb Temperature
High and low pressures are measured at the liquid and suction service valves.
Airflow may vary depending on actual ambient conditions and system operation modes.

IDB*	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																																									
		65°F							75°F							85°F							95°F							105°F							115°F						
		59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83
1390	MBh	53.6	54.4	56.0	58.4	53.1	53.9	55.5	57.9	51.7	52.5	54.1	56.5	49.3	50.1	51.7	54.1	46.4	47.2	48.8	51.2	43.7	44.5	46.1	48.5																		
	S/T	0.83	0.75	0.62	0.48	1.00	0.76	0.63	0.49	1.00	0.78	0.65	0.51	1.00	0.80	0.67	0.53	1.00	1.00	0.69	0.55	1.00	1.00	0.74	0.60																		
	ΔT	29	27	24	20	29	27	23	20	29	27	24	20	29	27	23	20	29	27	23	20	30	28	24	21																		
	kW	3.14	3.14	3.13	3.17	3.57	3.56	3.56	3.59	4.04	4.04	4.03	4.06	4.55	4.55	4.54	4.57	5.12	5.12	5.11	5.14	5.79	5.79	5.78	5.81																		
	Amps	12.2	12.2	12.2	12.3	14.1	14.0	14.0	14.2	16.1	16.1	16.1	16.2	18.3	18.3	18.3	18.4	20.8	20.8	20.8	20.9	23.7	23.7	23.7	23.8																		
	Hi PR	255	256	258	262	295	296	298	302	337	338	340	344	382	383	385	390	431	432	434	438	483	484	486	490																		
	Lo PR	120	122	125	130	127	129	132	137	134	135	138	144	139	141	144	149	145	146	149	154	151	153	156	161																		
	MBh	54.4	55.2	56.8	59.2	53.9	54.7	56.3	58.7	52.5	53.3	54.9	57.3	50.2	50.9	52.5	54.9	47.2	48.0	49.6	52.0	44.5	45.3	46.9	49.3																		
	S/T	0.90	0.82	0.69	0.55	1.00	0.83	0.70	0.56	1.00	0.85	0.72	0.58	1.00	0.87	0.74	0.60	1.00	1.00	0.76	0.62	1.00	1.00	0.81	0.67																		
	ΔT	28	26	22	19	28	26	22	18	28	26	22	19	27	26	22	18	27	25	22	18	28	27	23	19																		
kW	3.17	3.17	3.16	3.19	3.59	3.59	3.58	3.62	4.07	4.06	4.05	4.09	4.58	4.57	4.57	4.60	5.15	5.14	5.14	5.17	5.82	5.81	5.81	5.84																			
Amps	12.3	12.3	12.3	12.4	14.2	14.2	14.1	14.3	16.2	16.2	16.2	16.3	18.4	18.4	18.4	18.5	20.9	20.9	20.9	21.0	23.8	23.8	23.8	23.9																			
Hi PR	257	258	260	265	297	299	300	305	339	341	342	347	385	386	388	392	434	435	437	441	486	487	489	493																			
Lo PR	122	124	127	132	130	131	134	139	136	137	140	146	141	143	146	151	147	148	151	156	153	155	158	163																			
1870	MBh	55.4	56.2	57.8	60.2	55.0	55.7	57.3	59.7	53.6	54.3	55.9	58.3	51.2	51.9	53.5	55.9	48.2	49.0	50.6	53.0	45.5	46.3	47.9	50.3																		
	S/T	1.00	0.86	0.73	0.59	1.00	0.87	0.73	0.59	1.00	0.89	0.76	0.62	1.00	0.91	0.78	0.64	1.00	1.00	0.80	0.66	1.00	1.00	0.85	0.71																		
	ΔT	26	25	21	17	26	25	21	17	27	25	21	18	26	24	21	17	26	24	21	17	27	25	22	18																		
	kW	3.19	3.19	3.18	3.21	3.61	3.61	3.60	3.64	4.09	4.08	4.08	4.11	4.60	4.59	4.59	4.62	5.17	5.16	5.16	5.19	5.84	5.83	5.83	5.86																		
	Amps	12.4	12.4	12.4	12.5	14.3	14.2	14.2	14.4	16.3	16.3	16.3	16.4	18.5	18.5	18.5	18.6	21.0	21.0	21.0	21.1	23.9	23.9	23.9	24.0																		
	Hi PR	260	261	263	267	300	301	303	307	342	343	345	349	387	388	390	395	436	437	439	443	488	489	491	496																		
	Lo PR	125	126	129	134	132	133	136	142	138	140	143	148	144	145	148	153	149	150	153	159	156	157	160	165																		
	MBh	54.5	55.3	56.9	59.3	54.0	54.8	56.4	58.8	52.6	53.4	55.0	57.4	50.2	51.0	52.6	55.0	47.3	48.1	49.7	52.1	44.6	45.4	47.0	49.4																		
	S/T	1.00	0.85	0.72	0.58	1.00	0.86	0.72	0.59	1.00	1.00	0.75	0.61	1.00	1.00	0.77	0.63	1.00	1.00	0.79	0.65	1.00	1.00	0.84	0.70																		
	ΔT	33	31	27	24	33	31	27	24	33	31	27	24	33	31	27	24	32	30	27	23	33	32	28	24																		
kW	3.15	3.15	3.14	3.17	3.58	3.57	3.56	3.60	4.05	4.04	4.04	4.07	4.56	4.55	4.55	4.58	5.13	5.13	5.12	5.15	5.80	5.79	5.79	5.82																			
Amps	12.3	12.2	12.2	12.3	14.1	14.1	14.0	14.2	16.1	16.1	16.1	16.2	18.4	18.4	18.3	18.5	20.8	20.8	20.8	20.9	23.8	23.7	23.7	23.9																			
Hi PR	256	257	259	263	296	297	299	303	338	339	341	345	383	385	386	391	432	433	435	440	484	485	487	492																			
Lo PR	122	123	127	132	129	131	134	139	136	137	140	145	141	143	146	151	146	148	151	156	153	154	158	163																			
1630	MBh	55.3	56.1	57.7	60.1	54.8	55.6	57.2	59.6	53.4	54.2	55.8	58.2	51.1	51.8	53.4	55.8	48.1	48.9	50.5	52.9	45.4	46.2	47.8	50.2																		
	S/T	1.00	0.92	0.79	0.65	1.00	0.93	0.80	0.66	1.00	1.00	0.82	0.68	1.00	1.00	0.84	0.70	1.00	1.00	0.86	0.72	1.00	1.00	1.00	0.77																		
	ΔT	31	29	26	22	31	29	26	22	31	30	26	22	31	29	26	22	31	29	26	22	32	30	27	23																		
	kW	3.18	3.18	3.17	3.20	3.60	3.60	3.59	3.62	4.07	4.07	4.06	4.10	4.58	4.58	4.57	4.61	5.15	5.15	5.14	5.18	5.82	5.82	5.81	5.85																		
	Amps	12.4	12.4	12.3	12.5	14.2	14.2	14.2	14.3	16.3	16.2	16.2	16.4	18.5	18.5	18.4	18.6	21.0	20.9	20.9	21.1	23.9	23.9	23.8	24.0																		
	Hi PR	258	260	261	266	299	300	302	306	341	342	344	348	386	387	389	393	435	436	438	442	487	488	490	494																		
	Lo PR	124	126	129	134	131	133	136	141	138	139	142	147	143	145	148	153	148	150	153	158	155	157	160	165																		
	MBh	56.3	57.1	58.7	61.1	55.9	56.6	58.2	60.6	54.5	55.2	56.8	59.2	52.1	52.8	54.4	56.8	49.1	49.9	51.5	53.9	46.4	47.2	48.8	51.2																		
	S/T	1.00	0.96	0.83	0.69	1.00	0.97	0.83	0.69	1.00	1.00	0.86	0.72	1.00	1.00	0.88	0.74	1.00	1.00	0.90	0.76	1.00	1.00	1.00	0.81																		
	ΔT	30	28	25	21	30	28	25	21	30	28	25	21	30	28	25	21	30	28	24	21	31	29	26	22																		
kW	3.20	3.20	3.19	3.22	3.62	3.62	3.61	3.64	4.09	4.09	4.08	4.12	4.61	4.60	4.60	4.63	5.18	5.17	5.17	5.20	5.85	5.84	5.84	5.87																			
Amps	12.5	12.4	12.4	12.6	14.3	14.3	14.3	14.4	16.4	16.3	16.3	16.4	18.6	18.6	18.5	18.7	21.1	21.0	21.0	21.1	24.0	24.0	23.9	24.1																			
Hi PR	261	262	264	268	301	302	304	308	343	344	346	350	388	390	391	396	437	438	440	445	489	491	492	497																			
Lo PR	126	128	131	136	134	135	138	143	140	142	145	150	145	147	150	155	151	152	155	160	157	159	162	167																			

IDB*: Entering Indoor Dry Bulb Temperature

High and low pressures are measured at the liquid and suction service valves.

Airflow may vary depending on actual ambient conditions and system operation modes.

Shaded area reflects AHRI conditions

kW = Total system power

Amps = outdoor unit amps

EXPANDED HEATING DATA — HIGH STAGE

AVZC200241A* / CA*F3642*6D* + MBVC1200**-1A*+TXV

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	29.7	28.1	26.4	24.7	23.6	22.9	21.2	21.3	18.9	17.5	16.4	15.2	14.0	12.7	11.4	10.3	8.9	7.1
T/R	38	36	34	32	30	29	27	27	24	22	21	20	18	16	15	13	11	9
kW	2.03	1.96	1.97	1.92	1.87	1.86	1.79	2.01	1.91	1.86	1.85	1.82	1.74	1.65	1.60	1.56	1.51	1.39
Amps	8.5	8.1	8.2	8.0	7.7	7.7	7.4	8.4	7.9	7.7	7.7	7.5	7.2	6.8	6.6	6.4	6.2	5.7
COP	4.28	4.20	3.94	3.78	3.70	3.61	3.48	3.10	2.90	2.75	2.60	2.45	2.36	2.25	2.09	1.93	1.72	1.50
HI PR	486	467	452	439	427	421	410	323	312	304	296	292	288	281	274	268	262	256
LO PR	150	138	127	118	109	108	99	91	83	75	68	61	61	54	48	42	36	31

AVZC200361A* / CA*F3743*6D* + MBVC1600**-1A*+TXV

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	44.0	41.7	39.2	36.6	35.0	33.9	31.5	38.8	35.9	33.1	30.5	28.8	27.7	24.9	22.1	19.2	16.4	13.4
T/R	35	33	31	29	28	27	25	31	29	26	24	23	22	20	18	15	13	11
kW	2.66	2.61	2.56	2.51	2.48	2.46	2.41	4.06	3.97	3.87	3.77	3.72	3.68	3.58	3.48	3.39	3.29	3.19
Amps	10.8	10.5	10.3	10.1	10.0	9.9	9.7	16.9	16.4	16.0	15.6	15.3	15.2	14.7	14.3	13.9	13.5	13.1
COP	4.84	4.67	4.49	4.28	4.14	4.04	3.83	2.80	2.65	2.51	2.37	2.27	2.21	2.04	1.86	1.67	1.46	1.24
HI PR	389	373	358	343	335	328	316	303	290	277	266	260	255	245	236	226	218	210
LO PR	146	136	127	117	110	106	98	87	78	70	62	57	55	47	40	34	30	23

AVZC200481A* / CA*F4961*6D* + MBVC2000**-1A*+TXV

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	58.3	54.6	50.9	47.3	45.0	43.3	39.0	45.5	42.4	39.1	36.0	34.0	32.7	29.4	26.0	22.7	19.4	15.9
T/R	36	34	32	30	29	28	25	29	27	25	23	22	21	19	17	15	12	10
kW	3.80	3.73	3.66	3.59	3.55	3.52	3.45	4.57	4.46	4.34	4.22	4.15	4.11	3.99	3.87	3.75	3.63	3.52
Amps	14.2	13.9	13.6	13.3	13.1	13.0	12.7	18.7	18.2	17.7	17.2	16.9	16.7	16.2	15.7	15.2	14.6	14.1
COP	4.49	4.29	4.08	3.86	3.72	3.61	3.32	2.91	2.79	2.64	2.50	2.40	2.34	2.16	1.97	1.77	1.56	1.32
HI PR	378	366	354	341	334	329	317	302	289	276	265	259	254	245	235	226	218	210
LO PR	139	131	122	113	108	105	96	85	77	69	60	56	54	46	39	33	29	23

AVZC200601B* / CA*F4961*6D* + MBVC2000**-1A*+TXV

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	63.2	59.5	55.9	52.3	50.0	48.3	44.2	47.6	43.6	40.6	38.5	37.3	35.8	32.1	28.3	24.6	20.8	17.1
T/R	35	33	31	29	28	28	25	27	25	23	22	21	20	18	16	14	12	10
kW	4.29	4.20	4.12	4.03	3.98	3.95	3.86	4.96	4.83	4.69	4.56	4.48	4.42	4.29	4.15	4.02	3.89	3.75
Amps	16.1	15.7	15.3	14.9	14.7	14.6	14.2	19.0	18.4	17.8	17.2	16.9	16.6	16.0	15.5	14.9	14.3	13.7
COP	4.32	4.15	3.98	3.80	3.68	3.59	3.35	2.81	2.65	2.54	2.47	2.44	2.37	2.19	2.00	1.79	1.57	1.33
HI PR	381	369	356	344	337	332	319	331	318	305	291	283	278	264	251	238	224	211
LO PR	140	131	122	114	109	105	96	86	77	69	60	55	52	43	35	26	18	9

High pressure is measured at the suction service valve (the larger valve).

Low pressure is measured at the gauge port connection.

Amps = Outdoor unit amps (comp. +fan)

Calculations are based on 70 °F indoor dry bulb.

kW = Total system power

Shaded area is AHRI Rating Conditions at 47°F outdoor ambient temperature.

AVZC200241A* / CA*F3642*6D* + MBVC1200**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 7-9 °F AT THE SERV. VLV. - 100% DEMAND				
OUTDOOR TEMP °F	TOTAL BTU/H	SENSIBLE BTU/H	LATENT BTU/H	TOTAL WATTS
75°	24,600	17,200	7,400	1,590
80°	24,300	17,100	7,200	1,645
85°	24,000	17,000	7,000	1,700
90°	23,700	17,200	6,500	1,750
95°	23,400	17,300	6,100	1,800
100°	22,800	17,100	5,700	1,840
105°	22,200	16,900	5,300	1,880
110°	21,400	16,400	5,000	1,915
115°	20,600	15,900	4,700	1,950
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	21,700	17,100	4,600	1,720

AVZC200481A* / CA*F4961*6D* + MBVC2000**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 7-9 °F AT THE SERV. VLV. - 100% DEMAND				
Outdoor Temp °F	Total BTU/h	Sensible BTU/h	Latent BTU/h	Total Watts
75°	48,800	34,200	14,600	3,180
80°	48,300	34,300	14,000	3,285
85°	47,700	34,300	13,400	3,390
90°	47,100	34,400	12,700	3,485
95°	46,500	34,400	12,100	3,580
100°	45,400	34,200	11,200	3,655
105°	44,200	34,000	10,200	3,730
110°	42,600	33,000	9,600	3,800
115°	40,900	31,900	9,000	3,870
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	43,100	34,000	9,100	3,430

AVZC200361A* / CA*F3743*6D* + MBVC1600**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 7-9 °F AT THE SERV. VLV. - 100% DEMAND				
OUTDOOR TEMP °F	TOTAL BTU/H	SENSIBLE BTU/H	LATENT BTU/H	TOTAL WATTS
75°	37,200	26,800	10,400	2,250
80°	36,800	26,900	9,900	2,325
85°	36,300	26,900	9,400	2,400
90°	35,900	26,900	9,000	2,465
95°	35,400	26,900	8,500	2,530
100°	34,500	26,700	7,800	2,585
105°	33,600	26,500	7,100	2,640
110°	32,400	25,600	6,800	2,690
115°	31,200	24,600	6,600	2,740
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	32,800	26,600	6,200	2,420

AVZC200601B* / CA*F4961*6D* + MBVC2000**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 9-11 °F AT THE SERV. VLV. - 100% DEMAND				
Outdoor Temp °F	Total BTU/h	Sensible BTU/h	Latent BTU/h	Total Watts
75°	56,300	39,400	16,900	3,580
80°	55,600	39,500	16,100	3,815
85°	54,900	39,500	15,400	4,050
90°	53,700	39,200	14,500	4,310
95°	52,500	38,900	13,600	4,570
100°	51,100	38,300	12,800	4,855
105°	49,600	37,700	11,900	5,140
110°	48,300	37,900	10,400	5,475
115°	46,900	38,000	8,900	5,810
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	50,600	38,000	12,600	4,570

PERFORMANCE DATA FOR FIELD-SELECTABLE BOOST MODE

AVZC200241A* / CA*F3642*6D* + MBVC1200**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 7-9 °F @ THE SERV. Vlv. - BOOST MODE				
OUTDOOR TEMP °F	TOTAL BTU/H	SENSIBLE BTU/H	LATENT BTU/H	TOTAL WATTS
75°	27,200	19,700	7,400	1,800
80°	26,700	19,500	7,100	1,900
85°	26,100	19,300	6,900	1,900
90°	25,600	19,000	6,600	2,000
95°	25,000	18,700	6,300	2,100
100°	24,400	18,500	6,000	2,200
105°	23,900	18,200	5,700	2,300
110°	21,500	17,200	4,300	2,300
115°	21,700	16,500	5,200	2,100
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	23,400	18,100	5,300	2,100

AVZC200481A* / CA*F4961*6D* + MBVC2000**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 7-9 °F @ THE SERV. Vlv. - BOOST MODE				
OUTDOOR TEMP °F	TOTAL BTU/H	SENSIBLE BTU/H	LATENT BTU/H	TOTAL WATTS
75°	54,600	38,900	15,700	3,400
80°	53,300	38,300	15,000	3,600
85°	51,900	37,600	14,300	3,800
90°	50,500	37,000	13,500	4,000
95°	49,000	36,300	12,700	4,200
100°	47,600	35,600	11,900	4,400
105°	46,100	34,900	11,100	4,600
110°	44,500	34,200	10,300	4,800
115°	41,400	32,700	8,700	4,300
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	46,000	35,200	10,800	4,100

AVZC200361A* / CA*F3743*6D* + MBVC1600**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 7-9 °F @ THE SERV. Vlv. - BOOST MODE				
OUTDOOR TEMP °F	TOTAL BTU/H	SENSIBLE BTU/H	LATENT BTU/H	TOTAL WATTS
75°	40,100	29,400	10,700	2,100
80°	39,400	29,100	10,300	2,300
85°	38,700	28,800	9,900	2,400
90°	37,900	28,400	9,500	2,500
95°	37,000	28,000	9,000	2,700
100°	36,000	27,500	8,500	2,800
105°	34,800	27,000	7,900	3,000
110°	33,700	26,400	7,300	3,100
115°	32,100	25,100	7,100	3,100
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	34,600	27,000	7,600	2,700

AVZC200601B* / CA*F4961*6D* + MBVC2000**-1A* + TXV DESIGN SUBCOOLING @ AHRI 95 °F CONDITIONS, 9-11 °F @ THE SERV. Vlv. - BOOST MODE				
OUTDOOR TEMP °F	TOTAL BTU/H	SENSIBLE BTU/H	LATENT BTU/H	TOTAL WATTS
75°	62,200	42,200	20,000	4,300
80°	61,500	42,400	19,100	4,600
85°	60,700	42,600	18,100	4,900
90°	59,400	42,200	17,200	5,200
95°	58,000	41,800	16,200	5,500
100°	56,100	40,900	15,200	5,800
105°	54,100	40,000	14,100	6,000
110°	52,300	39,200	13,100	6,300
115°	50,400	38,400	12,000	6,600
TVA Conditions @ 95° OD DB, 75° ID, 63° ID WB				
95°	55,900	40,800	15,100	5,500

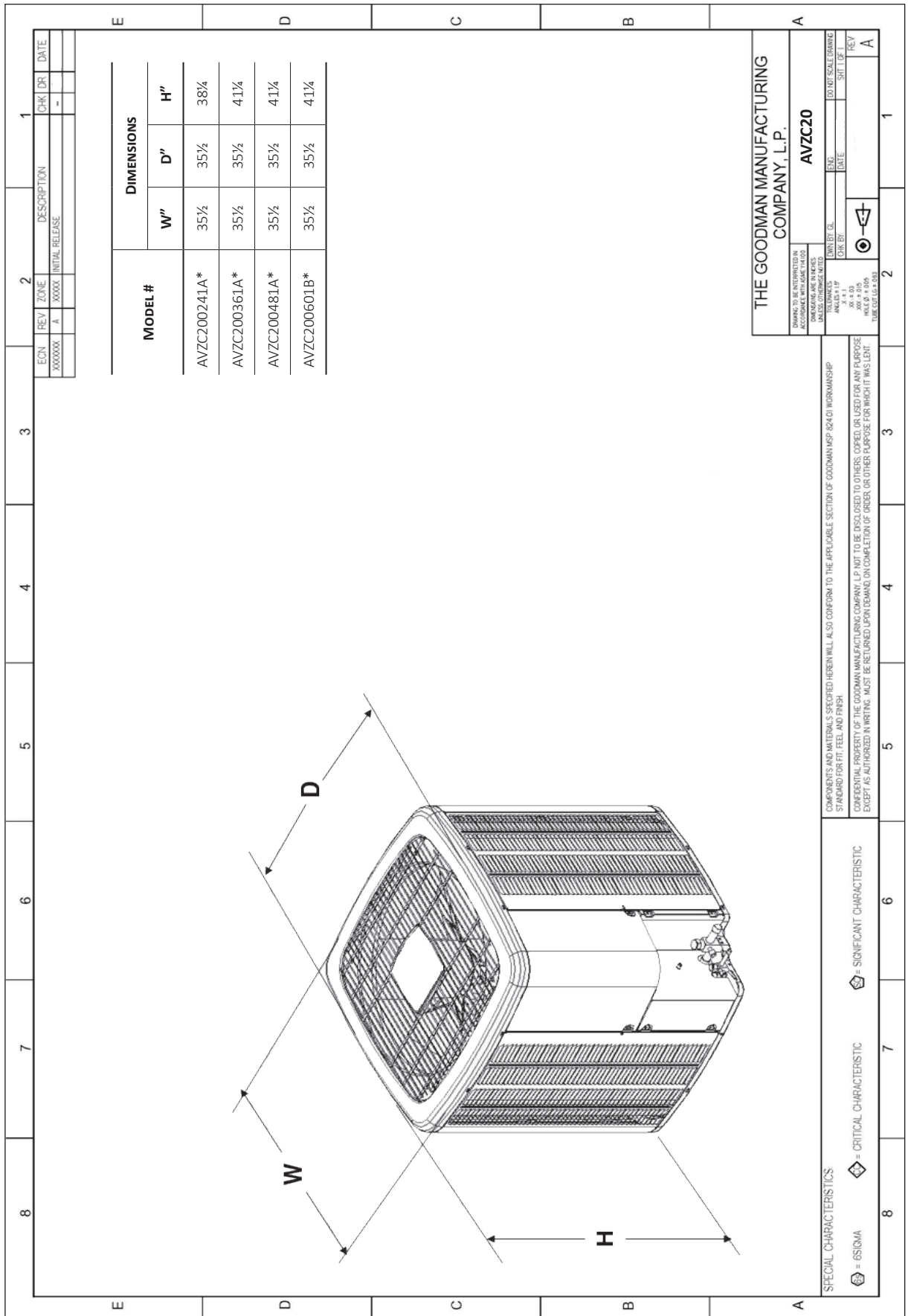
COOLING MODE

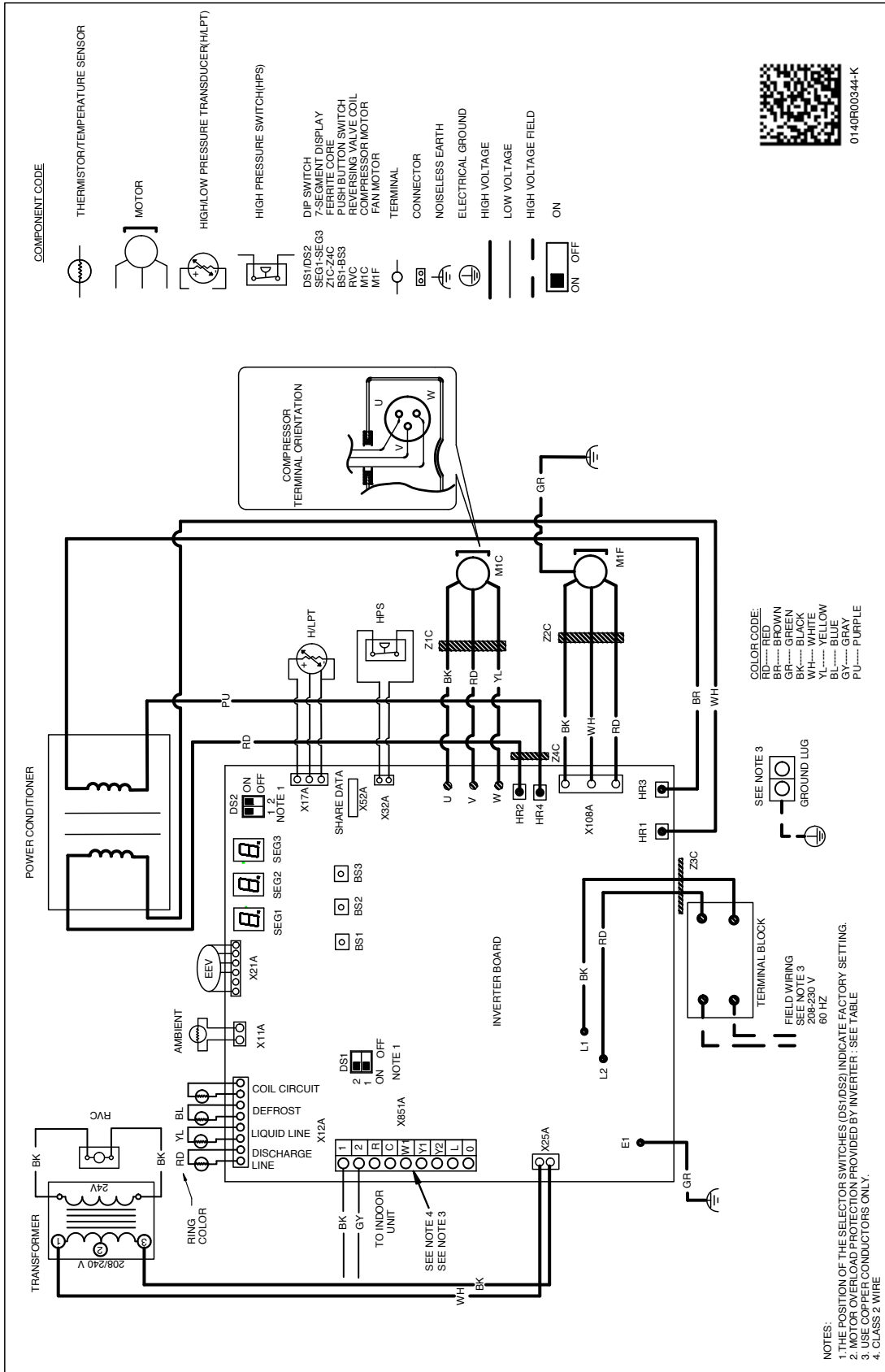
TONNAGE	SPEED	TOTAL UNIT SOUND RATING (dBA)	OCTAVE BAND SPECTRUM FREQUENCY (Hz) ANALYSIS (dB)						
			125	250	500	1000	2000	4000	8000
2-ton	Minimum	58.4	37.1	49.9	52.6	54.4	49.4	42.6	34.7
	Intermediate	60.9	38.6	50.9	56.7	56.2	51.2	45.1	36.6
	Maximum	67.7	45.6	53.6	62.5	62.2	62.0	57.5	50.9
3-ton	Minimum	56.0	45.9	47.2	51.0	50.5	47.9	37.1	31.3
	Intermediate	63.5	43.7	49.5	56.9	59.4	58.1	51.8	45.6
	Maximum	74.2	57.5	61.4	68.2	69.4	68.4	63.4	52.3
4-ton	Minimum	56.0	45.9	47.2	51.0	50.5	47.9	37.1	31.3
	Intermediate	63.5	43.7	49.5	56.9	59.4	58.1	51.8	45.6
	Maximum	74.2	57.5	61.4	68.2	69.4	68.4	63.4	52.3
5-ton	Minimum	59.7	47.0	54.2	53.3	54.3	49.7	45.4	42.8
	Intermediate	65.7	44.4	51.9	63.1	59.2	56.5	52.5	46.1
	Maximum	74.9	55.2	61.2	69.8	69.2	68.6	65.7	56.9

HEATING MODE

TONNAGE	SPEED	TOTAL UNIT SOUND RATING (dBA)	OCTAVE BAND SPECTRUM FREQUENCY (Hz) ANALYSIS (dB)						
			125	250	500	1000	2000	4000	8000
2-ton	Minimum	65.0	44.6	55.8	60.1	60.0	57.8	49.9	43.4
	Intermediate	65.3	44.3	54.3	60.8	60.5	58.3	50.3	41.1
	Maximum	76.3	54.1	67.2	73.7	68.5	66.5	62.2	51.2
3-ton	Minimum	69.4	49.7	63.3	62.5	63.0	62.9	53.2	47.5
	Intermediate	73.8	60.1	68.5	67.6	66.8	65.2	58.7	50.9
	Maximum	78.4	62.0	69.2	72.2	74.0	71.5	66.9	55.9
4-ton	Minimum	69.4	49.7	63.3	62.5	63.0	62.9	53.2	47.5
	Intermediate	73.8	60.1	68.5	67.6	66.8	65.2	58.7	50.9
	Maximum	78.4	62.0	69.2	72.2	74.0	71.5	66.9	55.9
5-ton	Minimum	65.0	48.3	55.2	59.9	60.0	58.0	49.3	47.1
	Intermediate	74.8	55.7	61.9	68.4	70.4	69.3	62.7	51.4
	Maximum	79.2	60.5	70.1	71.9	74.3	73.1	69.1	58.5

Note: Tested in accordance with AHRI Standard 270.





0140R00344-K

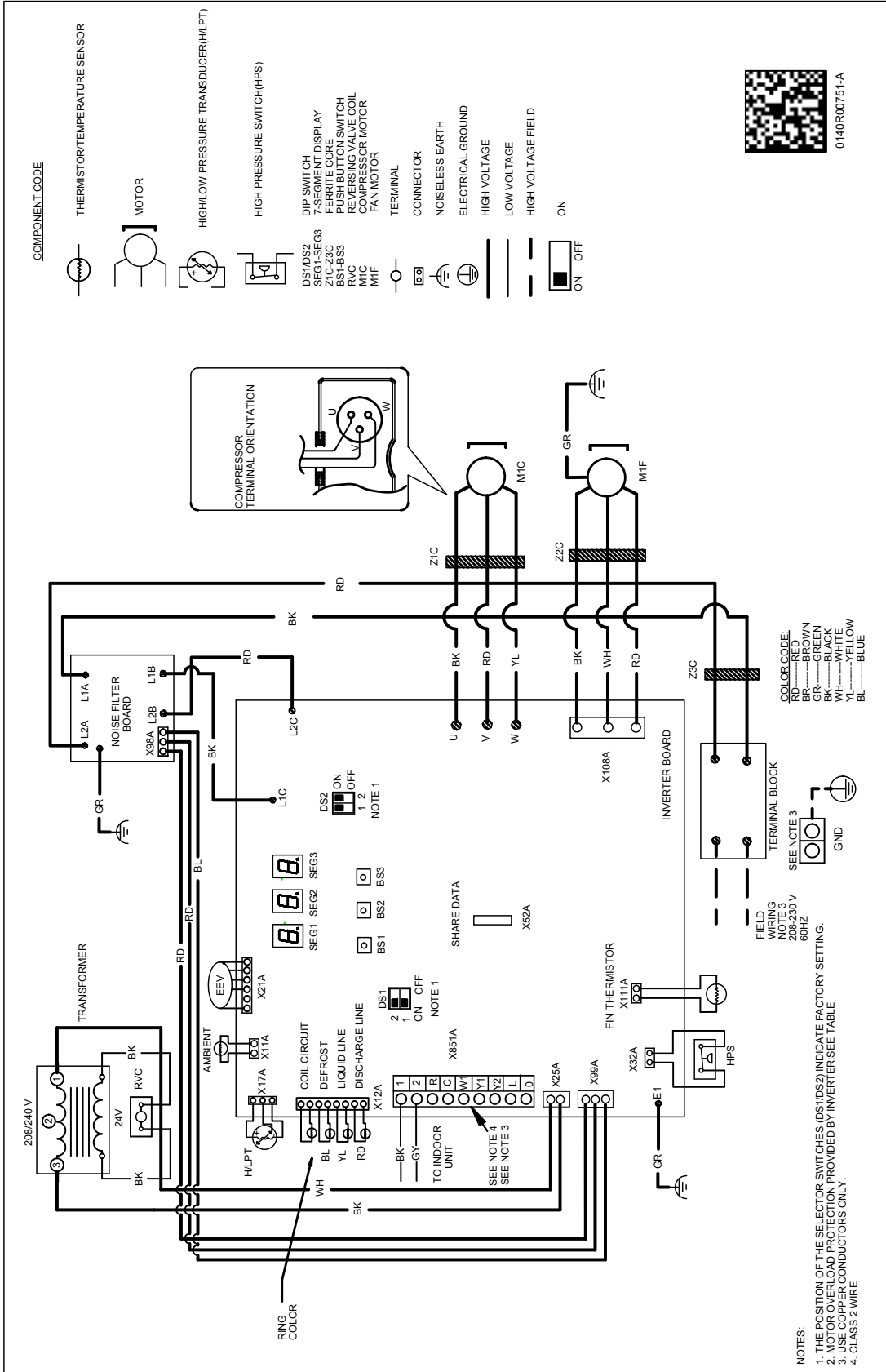


High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.



WARNING

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.



WARNING
 High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.
 Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

MODEL	DESCRIPTION	AVZC20 0241A*	AVZC20 0361A*	AVZC20 0481A*	AVZC20 0601B*
ABK-20	Anchor Bracket Kit [◇]	X	X	X	X
TXV-V24	TXV Kit	X			
TXV-V36	TXV Kit		X		
TXV-V48	TXV Kit			X	
TXV-V60	TXV Kit				X

[◇] Contains 20 brackets; four brackets needed to anchor unit to pad

All AHRI system ratings are accessible in the System Configurator tool via PartnerLink.

