



BOSCH GUIDE SPECIFICATIONS

CE Split Series Two Stage R-410A

GENERAL

Units shall be performance certified to ISO standard 13256-1 for Water Loop Heat Pump, Ground Water Heat Pump and Ground Loop Heat Pump applications. Units shall be Underwriter Laboratories (UL and ULc) listed for safety on all models. Each unit shall be run tested at the factory. Each unit shall be pallet mounted, stretch wrapped, and covered with cardboard. The units shall be manufactured in an ISO9001 certified facility. Refer to Bosch limited product warranty for details on warranty coverage.

The units shall be designed to operate with entering fluid temperatures between 50°F (10°C) and 110°F (43.3°C) in cooling and temperatures between 25°F (-3.9°C) and 80°F (26.6°C) in heating as manufactured by Bosch Manufacturing in Fort Lauderdale, Florida.

CASING & CABINET

The cabinet shall be fabricated from heavy-gauge steel finished with Galvalume® plus, an aluminum-zinc alloy with a clear acrylic coating for additional corrosion protection.

Air Handler: The interior shall be insulated with 1/2" (12.7 mm) thick foil faced glass fiber, with 1" (25.4 mm) foil faced glass fiber insulation in the air handler. Two blower compartment access panels shall be removable with supply and return ductwork in place. A duct collar shall be provided on the supply air opening. A filter rack with a 2" (50.8 mm) thick disposable filters and a 1" (25.4 mm) return air duct collar shall be provided with each unit. Air filters shall be pleated, with a MERV 11 rating. Units shall have stainless steel condensate drain pans with a condensate overflow sensor.

Condensing Section: All unit installations shall allow sufficient service access to replace the compressor without unit removal. The compressor shall have a floating base pan to minimize noise transmissions. Each unit also comes standard with a heavy duty, multi-density compressor blanket for exceptional noise containment and as a thermal insulator for wires and components surrounding the compressor.

REFRIGERATION CIRCUITS

All units shall contain a sealed refrigerant circuit including a two stage scroll compressor, two internal checking thermal expansion valve metering devices in the air handler and one in the condensing section, finned tube air-to-refrigerant heat exchanger, refrigerant reversing valve, refrigerant service shut off valves, and service ports. Compressor shall be high efficiency two stage scroll type, designed for heat pump duty, quiet operation and mounted on rubber vibration isolators. Compressor motors shall be equipped with overload protection. Refrigerant reversing valves shall be pilot operated sliding piston type with replaceable encapsulated magnetic coils energized only during the cooling cycle. The finned tube coil shall be constructed of lanced aluminum fins not exceeding fourteen fins per inch bonded to rifled copper tubes in a staggered pattern not less than three rows deep and have a 600 PSIG (4140 kPa) working pressure. Coils shall have a baked polyester enamel coating for protection against most airborne chemicals. Coil end plates shall be aluminum. The coaxial water-to-refrigerant heat exchanger shall be constructed of a convoluted copper (optional cupronickel) inner tube and steel outer tube with a designed refrigerant working pressure of 600 PSIG (4140 kPa) and a designed water side working pressure of no less than 400 PSIG (2750 kPa). The water-to-refrigerant heat exchanger and all refrigerant piping shall be insulated with closed-cell polyvinyl chloride foam to prevent condensation at low fluid temperatures.

FAN MOTOR & ASSEMBLY

The fan shall be direct drive centrifugal forward curved type with a dynamically balanced wheel. The housing and wheel shall be designed for quiet low velocity operation. The fan housing shall be removable from the unit without disconnecting the supply air ductwork for servicing of the fan motor. The fan motor shall be an ECM-2.3 microprocessor controlled DC type motor with

internal programming factory set for the specific unit and featuring soft start/stop and a delay off feature for maximum efficiency and quiet operation. Air flow rates shall be varied according to the staging of the unit. There will further be provisions for adjusting the air delivery of the motor and blower by +/- 15% from rated air flow.

ELECTRICAL

Controls and safety devices will be factory wired and mounted within the unit. Controls shall include comfort alert module, compressor contactor, 24V transformer, reversing valve coil and solid state lock-out controller (UPM). The UPM controller shall include the following features: diagnostic LED's, low pressure bypass time delay (to prevent nuisance low pressure lock-outs during operation with low fluid temperatures), anti short cycle time delay, random start time delay and one time intelligent reset. When the safety controls are activated, the lock-out circuit shall reset itself the first time. If the safety controls are subsequently activated within one hour, then the lock-out circuit shall disable the compressor until it is reset at the thermostat or main circuit breaker to prevent compressor operation during fault conditions. A lock-out indicating terminal shall be provided in the low voltage circuit. Safety devices include a low pressure cutout set a 40 PSIG (280 kPa) for loss of charge protection (freezestat and/or high discharge gas temperature sensor is not acceptable) and a high pressure cutout control set at 600 PSIG (4100 Kpa).

The ECM motor interface board shall provide a screw type terminal block for thermostat connection, LEDs to indicate thermostat status and air delivery. It shall also provide a means of changing the motor program to any of up to four pre-programmed options. Direct wiring of the motor control harness to the thermostat is not acceptable.

A terminal block with screw terminals shall be provided for control wiring. A standard condensate overflow device shall be factory installed to stop compressor operation if drain pan overflow is imminent. An optional energy management relay to allow unit control by an external source shall be factory installed.

PIPING

Supply, return water and condensate drain connections shall be brass female pipe thread fittings and mounted flush to cabinet exterior.

INTERNAL ELECTRIC HEAT (Optional)

208/230-1-60 volt units shall be equipped with optional internal electric resistance heat for auxiliary and emergency heat. Electric heater must be Underwriter's Laboratories (UL and ULc) approved for safety when installed in the unit. External heater packages or heater packages not specifically listed for use with the unit are unacceptable. Electric heater packages shall include a heater collar mounted to the blower outlet, individual thermal overload protected heater elements no greater than 5kW each and magnetic contactors. An empty heater collar is standard in all units. Heating elements are available as an after sale product and can be added at any time if purchased without this option.

HEAT RECOVERY PACKAGE (Optional)

208/230 volt units shall be equipped with a optional factory installed internal heat recovery kit for domestic hot water production. This kit shall include an internally protected pump, double walled coaxial water-to-refrigerant heat exchanger, 140°F (60°C) hot water temperature limit switch and an on/off switch/circuit breaker.

Certified Performance Data

MODEL	Full/ Part Load	Fluid Flow rate GPM	ARI/ISO 13256-1 PERFORMANCE DATA											
			ENTERING FLUID TEMPERATURES											
			86°F	68°F	59°F	50°F	77°F	32°F						
			WATER LOOP				GROUND WATER				GROUND LOOP			
			CAPACITY AND EFFICIENCY DATA											
Cooling Capacity (WLHP)	EER (WLHP)	Heating Capacity (WLHP)	COP (WLHP)	Cooling Capacity (GWHP)	EER (GWHP)	Heating Capacity (GWHP)	COP (GWHP)	Cooling Capacity (GLHP)	EER (GLHP)	Heating Capacity (GLHP)	COP (GLHP)			
CE025	Full Load	6	25,000	15.7	29,400	4.9	28,400	23.5	24,500	4.5	26,900	18.3	18,600	3.7
	Part Load	6	18,400	17.1	20,100	5.0	20,600	29.4	17,600	4.5	19,600	24.0	15,200	3.9
CE035	Full Load	9	35,900	14.3	42,200	4.7	41,200	21.5	35,200	4.1	37,200	16.9	27,400	3.7
	Part Load	9	23,500	16.7	26,400	5.2	26,400	27.4	22,000	4.4	26,400	24.0	20,100	3.9
CE049	Full Load	12	47,000	12.4	57,000	4.7	53,000	18.6	47,000	4.1	48,000	15.2	37,000	3.5
	Part Load	12	33,000	15.7	38,000	5.3	37,000	23.5	31,000	4.5	35,000	21.4	28,000	3.9
CE061	Full Load	14	59,000	13.8	71,000	4.6	66,500	19.3	60,000	4.2	61,000	15.4	48,000	3.5
	Part Load	14	41,000	16.7	47,000	5.3	47,000	25.5	39,000	4.5	44,000	23.0	36,000	3.9
CE071	Full Load	18	70,500	14.2	78,500	4.4	75,500	19.2	66,500	4.1	72,500	16.0	52,000	3.4
	Part Load	18	50,000	15.5	54,000	4.3	56,000	24.7	46,000	3.9	55,000	21.4	41,000	3.5

Tabulated performance data is at noted entering water temperatures and entering air conditions of 80.6 0F DB/ 66.2 0F WB at ARI/ISO 13256-1 Rate CFM.

PHYSICAL DATA

Unit Size	CE025 Split	CE035 Split	CE049 Split	CE061 Split	CE071 Split
Compressor Type	Two Stage Scroll				
Quantity	1	1	1	1	1
Refrigerant Charge oz.*	79	83	93	99	127
Coil Face Area Ft ²	3.5	3.5	4.5	4.5	6.0
Rows	3	3	3	3	3
Filter Size HZ (Qty) ins.	20 x 30 x 2 (1)	20 x 30 x 2 (1)	20 X 34.5 x 2 (1)	20 x 34.5 x 2 (1)	20 x 24 x 2 (2)
Filter Size VT (Qty) ins.	24 x 24 x 2 (1)	24 x 24 x 2 (1)	24 x 30 x 2 (1)	24 x 30 x 2 (1)	16 x 30 x 2 (2)
Standard Filter Rating	MERV 11				
Blower Size ins.	9 x 7	9 x 7	10 x 8	11 x 9	12 x 9
Motor HP	1/3	1/2	3/4	3/4	3/4
Quantity	1	1	1	1	1
Water Connections ins. FPT	3/4	3/4	1	1	1
Condensate Connection ins. FPT	3/4	3/4	3/4	3/4	3/4
Suction Line Size Ins	3/4	3/4	3/4	7/8	7/8
Liquid Line Size Ins.	3/8	3/8	3/8	3/8	3/8
Condensing Unit Ship Weight Lbs.	189	189	215	249	261
Condensing Unit Operating Weight Lbs	172	172	195	226	237
Air Handling Unit Ship Weight Lbs.	152	175	220	253	279
Air Handling Unit Operating Weight Lbs	124	143	180	207	228

*Factory charge is based on 25 feet of equivalent length.



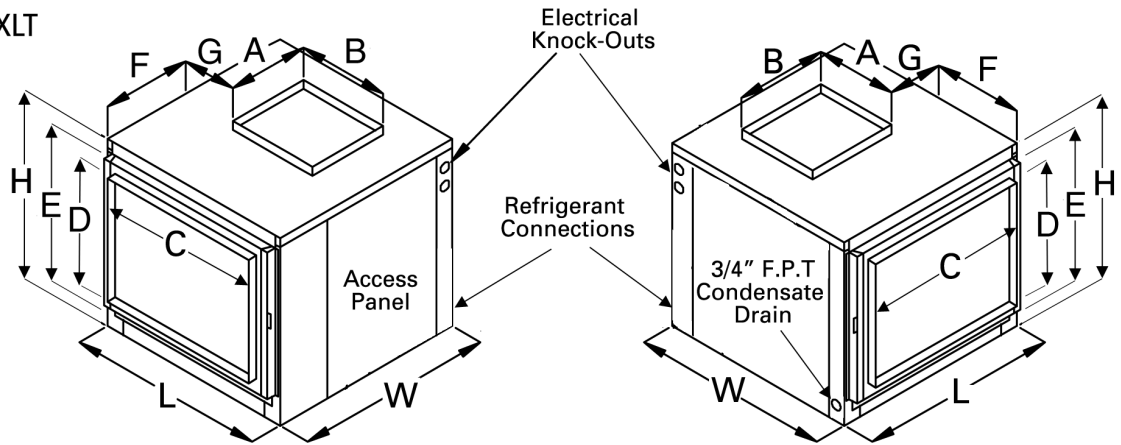
BOSCH

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CE Split Two Stage Unit Vertical Dimensions (inch)

Model	L	W	H	C	D	E	A	B	G	F	F	J	K	M	N	N
	Length	Width	Height	R/A Duct Flg Width	R/A Duct Flg Height	Filter Rack Height	Top Blow Units (XLT & XRT)				Bottom Blow Units (XLT & XRT)					
							S/A Duct Collar		XLT	XRT	Blower Opening			XLB	XRB	
CE025, 035	26.00	21.50	25.75	22.00	22.25	24.00	15.75	13.75	6.13	5.25	4.00	9.25	10.25	8.38	5.00	9.75
CE049	32.75	24.00	25.75	28.50	22.25	24.00	15.75	15.75	8.38	5.50	3.50	10.75	11.50	10.88	4.50	8.75
CE061	33.25	26.00	27.75	28.50	22.25	24.00	17.75	17.75	8.37	6.25	4.00	12.00	12.50	10.63	5.00	10.50
CE071	33.25	26.00	35.75	28.50	30.25	32.00	17.75	17.75	8.37	6.25	4.00	12.00	12.50	10.63	5.00	10.50

Left Hand Return
 Top Blow
 AU/ES__-AVX-XLT



Left Hand Return
 Bottom Blow
 AU/ES__-AVX-XLT



NOTES: All dimensions within +/- 0.125".

All condensate drain connections are 3/4" FPT.

Internal electric heat available on 208-230/1/60 top discharge units only

Specifications subject to change without notice.

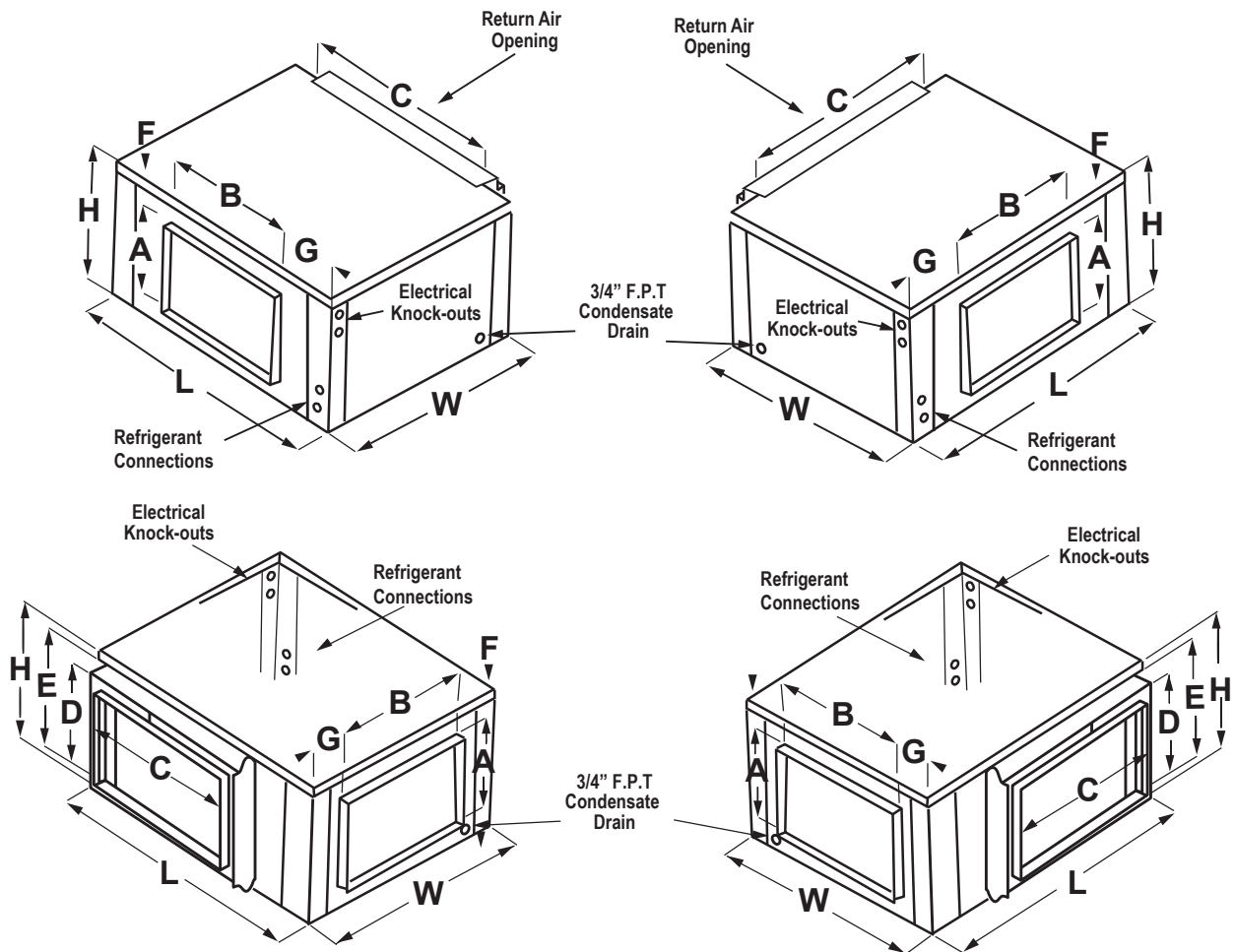


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CE Split Two Stage Unit Horizontal Dimensions (inch)

Model	L	W	H	A	B	C	D	E	F	G	F	G	F	G	F	G
	Length	Width	Height	S/A Duct Height	S/A Duct Width	R/A Duct Flg Width	R/A Duct Flg Height	Filter Rack Height	Left Return, End Blow (XLE)		Right Return, End Blow (XRE)		Left Return, Straight Through (XLS)		Right Return, Straight Through (XRS)	
CE025, 035	33.00	26.00	21.75	15.75	13.75	30.00	16.00	18.00	1.25	4.13	2.00	4.13	1.38	10.63	1.88	10.63
CE049	38.50	30.00	21.75	15.75	15.75	33.50	18.50	20.50	2.63	4.00	2.63	4.00	2.63	11.38	2.63	11.38
CE061	38.50	30.00	21.75	17.75	17.75	33.50	18.50	20.50	1.50	4.13	1.75	4.13	1.75	10.38	1.50	10.38
CE071	49.00	30.00	21.75	17.75	17.75	44.00	18.50	20.50	1.50	4.13	1.75	4.13	1.75	15.63	1.50	15.63



NOTES: All dimensions within +/- 0.125".

All condensate drain connections are 3/4" FPT.

Internal electric heat available on 208-230 volt units only

Units can be field converted between end blow and straight through supply air configurations.

Specifications subject to change without notice.

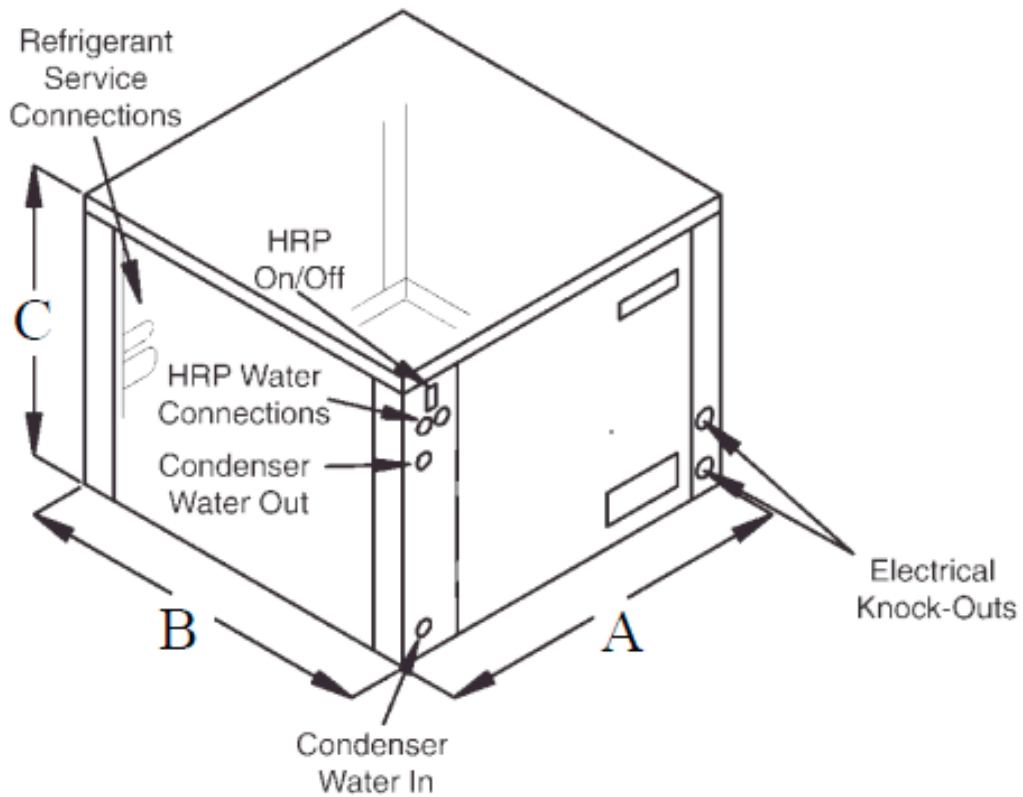


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CE Split Condensing Unit Dimensions (inch)

Model	A	B	C	Water Connection	Comments
	Width	Depth	Height		
CE025	21.50	21.50	21.75	3/4" FPT	
CE035	21.50	21.50	21.75	3/4" FPT	
CE049	24.00	32.75	21.75	1.0" FPT	
CE061	26.00	33.25	21.75	1.0" FPT	
CE071	26.00	33.25	21.75	1.0" FPT	



**BOSCH SPLIT UNITS**

SPECIFICATION DATA SHEET

CE025

CAPACITY DATA - PART LOAD

COOLING All performance at 500 CFM and 6.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db 61°wb	18.47	11.91	0.64	0.61	20.56	30.1
60°		17.80	11.57	0.65	0.74	20.32	24.1
70°		17.13	11.28	0.66	0.86	20.08	19.8
85°		16.13	10.90	0.68	1.05	19.72	15.3
100°		15.13	10.58	0.70	1.24	19.36	12.2
50°	75°db 63°wb	19.79	14.23	0.72	0.62	21.89	32.0
60°		19.07	13.83	0.73	0.74	21.61	25.7
70°		18.36	13.48	0.73	0.87	21.32	21.1
85°		17.28	13.03	0.75	1.06	20.89	16.3
100°		16.21	12.65	0.78	1.25	20.46	13.0
50°	80°db 67°wb	21.72	15.71	0.72	0.62	23.84	34.9
60°		20.93	15.27	0.73	0.75	23.49	28.0
70°		20.15	14.88	0.74	0.88	23.14	23.0
85°		18.97	14.39	0.76	1.07	22.61	17.8
100°		17.80	13.97	0.78	1.26	22.08	14.2
50°	85°db 71°wb	23.65	17.21	0.73	0.63	25.78	37.7
60°		22.79	16.73	0.73	0.75	25.37	30.2
70°		21.94	16.30	0.74	0.88	24.95	24.9
85°		20.66	15.76	0.76	1.07	24.33	19.2
100°		19.38	15.30	0.79	1.27	23.70	15.3

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	19.07	1.19	15.02	4.7
60°		20.53	1.21	16.41	5.0
70°		21.98	1.22	17.80	5.3
80°		23.43	1.24	19.20	5.5
50°	70°	18.04	1.21	13.91	4.4
60°		19.41	1.23	15.22	4.6
70°		20.78	1.25	16.53	4.9
80°		22.15	1.26	17.84	5.1
50°	80°	16.81	1.24	12.60	4.0
60°		18.09	1.25	13.81	4.2
70°		19.37	1.27	15.03	4.5
80°		20.65	1.29	16.24	4.7

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
5.0	3.1	1.3
7.0	5.7	2.5
9.0	8.9	3.8
11.0	12.8	5.6
12.0	15.0	6.5

LOW TEMP HEATING Antifreeze Required

25°	60°	15.14	1.14	11.24	3.9
30°		15.85	1.15	11.92	4.0
40°		17.28	1.17	13.28	4.3
25°	70°	14.32	1.16	10.34	3.6
30°		14.99	1.17	10.99	3.7
40°		16.34	1.19	12.27	4.0
25°	80°	13.35	1.19	9.29	3.3
30°		13.98	1.20	9.89	3.4
40°		15.23	1.22	11.08	3.7



CAPACITY DATA - FULL LOAD

COOLING All performance at 800 CFM and 6.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db 61°wb	25.58	16.95	0.66	1.10	29.35	23.2
60°		24.66	16.47	0.67	1.25	28.94	19.7
70°		23.74	16.06	0.68	1.40	28.52	17.0
85°		22.36	15.52	0.69	1.62	27.90	13.8
100°		20.98	15.07	0.72	1.85	27.28	11.4
50°	75°db 63°wb	27.40	20.24	0.74	1.11	31.19	24.7
60°		26.42	19.67	0.74	1.26	30.71	21.0
70°		25.43	19.18	0.75	1.41	30.24	18.1
85°		23.96	18.54	0.77	1.63	29.53	14.7
100°		22.48	18.00	0.80	1.86	28.82	12.1
50°	80°db 67°wb	30.06	22.33	0.74	1.12	33.88	26.9
60°		28.98	21.71	0.75	1.27	33.31	22.8
70°		27.91	21.16	0.76	1.42	32.75	19.7
85°		26.29	20.46	0.78	1.65	31.90	16.0
100°		24.67	19.86	0.81	1.87	31.05	13.2
50°	85°db 71°wb	32.73	24.44	0.75	1.13	36.57	29.1
60°		31.55	23.76	0.75	1.28	35.91	24.7
70°		30.38	23.16	0.76	1.43	35.26	21.2
85°		28.61	22.39	0.78	1.66	34.28	17.3
100°		26.85	21.75	0.81	1.89	33.29	14.2

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	26.03	1.63	20.48	4.7
60°		29.23	1.71	23.38	5.0
70°		32.42	1.80	26.27	5.3
80°		35.62	1.89	29.17	5.5
50°	70°	24.61	1.66	18.96	4.4
60°		27.63	1.75	21.67	4.6
70°		30.64	1.84	24.38	4.9
80°		33.66	1.92	27.09	5.1
50°	80°	22.94	1.69	17.16	4.0
60°		25.75	1.78	19.66	4.2
70°		28.56	1.88	22.15	4.5
80°		31.37	1.97	24.65	4.7

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
5.0	3.1	1.3
7.0	5.7	2.5
9.0	8.9	3.8
11.0	12.8	5.6
12.0	15.0	6.5

LOW TEMP HEATING Antifreeze Required

25°	60°	17.69	1.41	12.90	3.7
30°		19.26	1.45	14.31	3.9
40°		22.39	1.54	17.14	4.3
25°	70°	16.73	1.43	11.84	3.4
30°		18.21	1.48	13.17	3.6
40°		21.17	1.57	15.82	4.0
25°	80°	15.60	1.46	10.60	3.1
30°		16.97	1.51	11.82	3.3
40°		19.73	1.60	14.27	3.6

Units are complete packages containing compressor, reversing valve, expansion valve metering device, ECM fan motor and heat exchangers. Also included are safety controls: Overload protection for motors, high and low refrigerant pressure switches and solid state lock-out circuit. Optional UL approved internal electric heater, factory installed with primary thermal overload protection and magnetic contactors (208/230-1-60 only) optional UL approved internal Heat Recovery Package and/or Ground Loop Pump with purge connections available.

Performance based on ARI/ISO rated air flow, fluid flow and voltage. For conditions other than rated, consult the Bosch EAD selection software. Due to variations in installation actual performance may vary marginally from tabulated values.

As a result of continuing research and development, specifications are subject to change without notice.

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BOSCH SPLIT UNITS

SPECIFICATION DATA SHEET

CE035

CAPACITY DATA - PART LOAD

COOLING All performance at 800 CFM and 9.0 GPM

EFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db	23.89	15.37	0.64	0.88	26.90	27.0
60°		23.07	14.97	0.65	1.03	26.59	22.3
70°		22.25	14.62	0.66	1.18	26.28	18.8
85°		21.02	14.18	0.67	1.41	25.82	15.0
100°		19.80	13.82	0.70	1.63	25.35	12.2
50°	61°wb	25.60	18.39	0.72	0.89	28.63	28.8
60°		24.72	17.91	0.72	1.04	28.26	23.8
70°		23.85	17.49	0.73	1.19	27.90	20.1
85°		22.53	16.97	0.75	1.41	27.35	15.9
100°		21.22	16.54	0.78	1.64	26.81	13.0
50°	75°db	28.10	20.31	0.72	0.89	31.15	31.4
60°		27.14	19.78	0.73	1.05	30.71	26.0
70°		26.18	19.32	0.74	1.20	30.26	21.9
85°		24.74	18.74	0.76	1.42	29.60	17.4
100°		23.30	18.27	0.78	1.65	28.93	14.1
50°	63°wb	30.60	22.25	0.73	0.90	33.68	34.0
60°		29.56	21.67	0.73	1.05	33.15	28.1
70°		28.52	21.17	0.74	1.21	32.63	23.7
85°		26.95	20.53	0.76	1.43	31.84	18.8
100°		25.38	20.02	0.79	1.66	31.06	15.3
50°	80°db	27.14	19.78	0.73	1.05	30.71	26.0
60°		26.18	19.32	0.74	1.20	30.26	21.9
70°		25.22	18.86	0.75	1.37	29.81	18.2
85°		23.77	18.27	0.77	1.60	29.14	14.5
100°		22.32	17.68	0.79	1.83	28.47	11.1
50°	67°wb	32.90	23.61	0.72	0.90	36.34	36.0
60°		31.72	22.94	0.73	1.07	35.71	29.3
70°		30.45	22.18	0.74	1.24	35.08	23.7
85°		28.81	21.33	0.75	1.48	34.21	18.7
100°		27.16	20.39	0.76	1.71	33.34	14.2
50°	85°db	29.56	21.67	0.73	1.05	33.15	28.1
60°		28.52	21.17	0.74	1.21	32.63	23.7
70°		27.47	20.60	0.75	1.38	32.10	19.3
85°		25.72	19.67	0.76	1.62	31.23	14.8
100°		24.07	18.74	0.77	1.85	30.36	11.3

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	24.80	1.56	19.48	4.7
60°		26.69	1.57	21.35	5.0
70°		28.58	1.57	23.22	5.3
80°		30.47	1.58	25.09	5.7
50°	70°	23.46	1.59	18.04	4.3
60°		25.24	1.59	19.80	4.6
70°		27.02	1.60	21.57	5.0
80°		28.81	1.60	23.33	5.3
50°	80°	21.87	1.62	16.34	4.0
60°		23.53	1.63	17.98	4.2
70°		25.20	1.63	19.62	4.5
80°		26.86	1.64	21.26	4.8

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
5.0	3.1	1.32
7.0	5.6	2.42
9.0	8.8	3.81
11.0	12.6	5.74
13.0	17.1	7.38

LOW TEMP HEATING Antifreeze Required

25°	30°	35°	40°	45°	50°
19.69	1.55	14.42	3.7	60°	20.62
20.62	1.55	15.33	3.9		
22.47	1.55	17.16	4.2		
24.32	1.57	19.00	4.5		
18.63	1.57	13.26	3.5	70°	19.50
19.50	1.58	14.12	3.6		
21.25	1.58	15.85	3.9		
17.37	1.61	11.89	3.2	80°	18.19
18.19	1.61	12.69	3.3		
19.02	1.62	13.50	3.4		
19.82	1.62	14.30	3.6		



CAPACITY DATA - FULL LOAD

COOLING All performance at 1200 CFM and 9.0 GPM

EFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db	37.18	24.24	0.65	1.86	43.53	20.0
60°		35.27	23.18	0.66	2.04	42.23	17.3
70°		33.36	22.20	0.67	2.22	40.94	15.0
85°		30.50	20.82	0.68	2.49	39.00	12.2
100°		27.63	19.52	0.71	2.76	37.06	10.0
50°	61°wb	39.84	28.99	0.73	1.87	46.22	21.3
60°		37.80	27.73	0.73	2.05	44.80	18.4
70°		35.75	26.56	0.74	2.23	43.38	16.0
85°		32.69	24.92	0.76	2.51	41.24	13.0
100°		29.62	23.37	0.79	2.78	39.11	10.7
50°	75°db	43.73	32.01	0.73	1.88	50.17	23.2
60°		41.49	30.63	0.74	2.07	48.55	20.1
70°		39.25	29.33	0.75	2.25	46.94	17.4
85°		35.89	27.53	0.77	2.53	44.51	14.2
100°		32.53	25.82	0.79	2.80	42.09	11.6
50°	63°wb	47.63	35.07	0.74	1.90	54.11	25.1
60°		45.19	33.55	0.74	2.08	52.30	21.7
70°		42.75	32.14	0.75	2.27	50.50	18.9
85°		39.10	30.16	0.77	2.54	47.79	15.4
100°		35.44	28.30	0.80	2.82	45.08	12.6
50°	80°db	41.49	30.63	0.74	2.07	48.55	20.1
60°		39.25	29.33	0.75	2.25	46.94	17.4
70°		37.01	28.03	0.76	2.43	45.33	14.7
85°		33.36	26.18	0.78	2.70	42.70	11.9
100°		30.12	24.52	0.81	2.97	40.07	9.5
50°	67°wb	49.49	36.31	0.73	1.92	56.13	26.2
60°		46.81	34.52	0.74	2.10	54.21	22.5
70°		44.13	32.63	0.75	2.28	52.29	19.1
85°		39.97	30.49	0.77	2.56	49.45	15.8
100°		35.81	28.35	0.79	2.84	46.61	12.7
50°	85°db	45.19	33.55	0.74	2.08	52.30	21.7
60°		42.75	32.14	0.75	2.27	50.50	18.9
70°		40.31	30.73	0.76	2.45	48.69	16.1
85°		36.15	28.59	0.78	2.73	45.85	12.9
100°		32.00	26.45	0.81	3.00	43.01	10.2

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	37.90	2.42	29.63	4.6
60°		42.26	2.55	33.56	4.9
70°		46.61	2.67	37.49	5.1
80°		50.97	2.80	41.42	5.3
50°	70°	35.84	2.47	27.42	4.3
60°		39.96	2.59	31.11	4.5
70°		44.07	2.72	34.79	4.7
80°		48.19	2.85	38.47	5.0
50°	80°	33.42	2.52	24.82	3.9
60°		37.26	2.65	28.21	4.1
70°		41.09	2.78	31.60	4.3
80°		44.92	2.91	34.99	4.5

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
5.0	3.1	1.32
7.0	5.6	2.42
9.0	8.8	3.81
11.0	12.6	5.74
13.0	17.1	7.38

LOW TEMP HEATING Antifreeze Required

25°	30°	35°	40°	45°	50°
26.48	2.11	19.27	3.7	60°	28.62
28.62	2.18	21.20	3.9		
32.89	2.30	25.04	4.2		
25.05	2.15	17.72	3.4	70°	27.07
27.07	2.21	19.52	3.6		
31.11	2.34	23.12	3.9		
23.38	2.20	15.88	3.1	80°	25.25
25.25	2.26	17.54	3.3		
29.01	2.39	20.85	3.6		

Units are complete packages containing compressor, reversing valve, expansion valve metering device, ECM fan motor and heat exchangers. Also included are safety controls: Overload protection for motors, high and low refrigerant pressure switches and solid state lock-out circuit. Optional UL approved internal electric heater, factory installed with primary thermal overload protection and magnetic contactors (208/230-1-60 only) optional UL approved internal Heat Recovery Package and/or Ground Loop Pump with purge connections available. Performance based on ARI/ISO rated air flow, fluid flow and voltage. For conditions other than rated, consult the Bosch EAD selection software. Due to variations in installation actual performance may vary marginally from tabulated values.

As a result of continuing research and development, specifications are subject to change without notice.

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**BOSCH SPLIT UNITS**

SPECIFICATION DATA SHEET

CE049

CAPACITY DATA - PART LOAD

COOLING All performance at 1000 CFM and 12.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db	33.66	22.07	0.66	1.32	38.17	25.5
60°		32.44	21.44	0.66	1.49	37.54	21.7
70°		31.21	20.89	0.67	1.67	36.90	18.7
85°		29.37	20.17	0.69	1.92	35.94	15.3
100°	61°wb	27.53	19.56	0.71	2.18	34.98	12.6
50°		36.05	26.33	0.73	1.33	40.59	27.1
60°		34.74	25.58	0.74	1.50	39.86	23.1
70°		33.42	24.92	0.75	1.68	39.14	19.9
85°	63°wb	31.45	24.07	0.77	1.94	38.06	16.2
100°		29.48	23.34	0.79	2.20	36.98	13.4
50°		39.54	29.04	0.73	1.34	44.11	29.5
60°		38.10	28.21	0.74	1.51	43.27	25.2
70°	80°db	36.66	27.49	0.75	1.69	42.42	21.7
85°		34.50	26.55	0.77	1.95	41.16	17.7
100°		32.34	25.75	0.80	2.21	39.89	14.6
50°		43.03	31.77	0.74	1.35	47.64	31.9
60°	85°db	41.46	30.87	0.74	1.53	46.67	27.2
70°		39.90	30.08	0.75	1.70	45.71	23.4
85°		37.55	29.05	0.77	1.97	44.26	19.1
100°		35.20	28.18	0.80	2.23	42.81	15.8

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	34.88	2.02	27.98	5.1
60°		37.93	2.04	30.97	5.4
70°		40.98	2.06	33.95	5.8
80°		44.02	2.08	36.94	6.2
50°	70°	32.96	2.06	25.94	4.7
60°		35.84	2.08	28.75	5.1
70°		38.72	2.10	31.57	5.4
80°		41.60	2.12	34.38	5.8
50°	80°	30.71	2.10	23.53	4.3
60°		33.40	2.12	26.15	4.6
70°		36.08	2.14	28.76	4.9
80°		38.76	2.16	31.38	5.2

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
6.0	2.9	1.27
7.0	3.9	1.67
9.5	6.7	2.90
12.0	10.2	4.42
16.0	17.1	7.41

LOW TEMP HEATING

Antifreeze Required

25°	60°	26.72	1.97	19.99	4.0
30°		28.22	1.98	21.45	4.2
40°		31.20	2.00	24.37	4.6
25°	70°	25.26	2.01	18.40	3.7
30°		26.67	2.02	19.78	3.9
40°		29.49	2.04	22.53	4.2
25°	80°	23.53	2.06	16.52	3.4
30°		24.85	2.07	17.80	3.5
40°		27.48	2.08	20.36	3.9



CAPACITY DATA - FULL LOAD

COOLING All performance at 1600 CFM and 12.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db	47.65	31.22	0.66	2.56	56.38	18.6
60°		45.68	30.18	0.66	2.80	55.24	16.3
70°		43.70	29.23	0.67	3.05	54.09	14.3
85°		40.73	27.96	0.69	3.41	52.37	11.9
100°	61°wb	37.77	26.83	0.71	3.78	50.66	10.0
50°		51.03	37.26	0.73	2.57	59.81	19.8
60°		48.92	36.01	0.74	2.82	58.53	17.4
70°		46.80	34.88	0.75	3.06	57.25	15.3
85°	63°wb	43.62	33.37	0.77	3.43	55.33	12.7
100°		40.45	32.02	0.79	3.80	53.41	10.6
50°		55.97	41.10	0.73	2.59	64.83	21.6
60°		53.65	39.72	0.74	2.84	63.35	18.9
70°	80°db	51.33	38.48	0.75	3.09	61.87	16.6
85°		47.86	36.82	0.77	3.46	59.66	13.8
100°		44.38	35.32	0.80	3.83	57.44	11.6
50°		60.92	44.97	0.74	2.61	69.84	23.3
60°	85°db	58.39	43.47	0.74	2.86	68.17	20.4
70°		55.87	42.11	0.75	3.11	66.50	17.9
85°		52.09	40.29	0.77	3.49	63.99	14.9
100°		48.30	38.66	0.80	3.86	61.48	12.5

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	50.51	3.28	39.32	4.5
60°		56.32	3.42	44.65	4.8
70°		62.12	3.56	49.99	5.1
80°		67.93	3.70	55.32	5.4
50°	70°	47.74	3.34	36.34	4.2
60°		53.22	3.48	41.34	4.5
70°		58.71	3.62	46.35	4.7
80°		64.20	3.76	51.35	5.0
50°	80°	44.48	3.41	32.82	3.8
60°		49.59	3.56	37.44	4.1
70°		54.70	3.70	42.05	4.3
80°		59.81	3.85	46.67	4.6

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
6.0	2.9	1.27
7.0	3.9	1.67
9.5	6.7	2.90
12.0	10.2	4.42
16.0	17.1	7.41

LOW TEMP HEATING

Antifreeze Required

25°	60°	35.28	2.93	25.28	3.5
30°		38.13	3.00	27.89	3.7
40°		43.82	3.14	33.11	4.1
25°	70°	33.35	2.99	23.16	3.3
30°		36.04	3.06	25.61	3.5
40°		41.42	3.20	30.51	3.8
25°	80°	31.08	3.05	20.67	3.0
30°		33.59	3.12	22.92	3.1
40°		38.60	3.27	27.44	3.5

Units are complete packages containing compressor, reversing valve, expansion valve metering device, ECM fan motor and heat exchangers. Also included are safety controls: Overload protection for motors, high and low refrigerant pressure switches and solid state lock-out circuit. Optional UL approved internal electric heater, factory installed with primary thermal overload protection and magnetic contactors (208/230-1-60 only) optional UL approved internal Heat Recovery Package and/or Ground Loop Pump with purge connections available.

Performance based on ARI/ISO rated air flow, fluid flow and voltage. For conditions other than rated, consult the Bosch EAD selection software. Due to variations in installation actual performance may vary marginally from tabulated values.

As a result of continuing research and development, specifications are subject to change without notice.

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**BOSCH SPLIT UNITS**

SPECIFICATION DATA SHEET

CE061

CAPACITY DATA - PART LOAD

COOLING All performance at 1400 CFM and 14.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db	42.78	27.69	0.65	1.56	48.12	27.4
60°		40.94	26.72	0.65	1.76	46.95	23.3
70°		39.10	25.84	0.66	1.96	45.79	20.0
85°		36.34	24.64	0.68	2.26	44.04	16.1
100°		33.58	23.56	0.70	2.55	42.29	13.2
50°	61°wb	45.82	33.04	0.72	1.57	51.18	29.2
60°		43.85	31.89	0.73	1.77	49.89	24.8
70°		41.88	30.83	0.74	1.97	48.60	21.3
85°		38.92	29.41	0.76	2.27	46.67	17.2
100°		35.97	28.12	0.78	2.57	44.73	14.0
50°	75°db	50.26	36.45	0.73	1.58	55.66	31.7
60°		48.10	35.17	0.73	1.79	54.19	26.9
70°		45.94	34.01	0.74	1.99	52.71	23.1
85°		42.70	32.44	0.76	2.29	50.50	18.7
100°		39.46	31.02	0.79	2.59	48.29	15.2
50°	63°wb	54.69	39.88	0.73	1.60	60.14	34.3
60°		52.34	38.49	0.74	1.80	58.48	29.1
70°		49.99	37.22	0.74	2.00	56.83	25.0
85°		46.47	35.51	0.76	2.31	54.34	20.2
100°		42.95	33.95	0.79	2.61	51.85	16.5
50°	80°db	48.10	35.17	0.73	1.79	54.19	26.9
60°		45.94	34.01	0.74	1.99	52.71	23.1
70°		42.70	32.44	0.76	2.29	50.50	18.7
85°		39.46	31.02	0.79	2.59	48.29	15.2
100°		35.97	28.12	0.78	2.57	44.73	14.0
50°	67°wb	54.69	39.88	0.73	1.60	60.14	34.3
60°		52.34	38.49	0.74	1.80	58.48	29.1
70°		49.99	37.22	0.74	2.00	56.83	25.0
85°		46.47	35.51	0.76	2.31	54.34	20.2
100°		42.95	33.95	0.79	2.61	51.85	16.5
50°	85°db	48.10	35.17	0.73	1.79	54.19	26.9
60°		45.94	34.01	0.74	1.99	52.71	23.1
70°		42.70	32.44	0.76	2.29	50.50	18.7
85°		39.46	31.02	0.79	2.59	48.29	15.2
100°		35.97	28.12	0.78	2.57	44.73	14.0
50°	71°wb	54.69	39.88	0.73	1.60	60.14	34.3
60°		52.34	38.49	0.74	1.80	58.48	29.1
70°		49.99	37.22	0.74	2.00	56.83	25.0
85°		46.47	35.51	0.76	2.31	54.34	20.2
100°		42.95	33.95	0.79	2.61	51.85	16.5

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	43.50	2.54	34.82	5.0
60°		46.98	2.55	38.29	5.4
70°		50.47	2.55	41.75	5.8
80°		53.95	2.56	45.22	6.2
50°		70°	41.11	2.59	32.27
60°	44.40		2.60	35.55	5.0
70°	47.69		2.60	38.82	5.4
80°	50.99		2.61	42.09	5.7
50°	80°		38.31	2.65	29.27
60°		41.37	2.65	32.32	4.6
70°		44.44	2.66	35.36	4.9
80°		47.50	2.66	38.41	5.2

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
8	3.5	1.51
12	7.2	3.13
16	12.1	5.25
18	15.0	6.49
22	21.5	9.32

LOW TEMP HEATING Antifreeze Required

25°	60°	34.10	2.53	25.47	4.0
30°		35.81	2.53	27.17	4.1
40°		39.23	2.54	30.57	4.5
25°		70°	32.24	2.58	23.44
30°	33.85		2.58	25.05	3.8
40°	37.08		2.58	28.26	4.2
25°	80°		30.04	2.63	21.05
30°		31.54	2.64	22.54	3.5
40°		34.55	2.64	25.53	3.8



CAPACITY DATA - FULL LOAD

COOLING All performance at 2000 CFM and 14.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db	60.21	38.97	0.65	3.15	70.96	19.1
60°		57.62	37.60	0.65	3.44	69.37	16.7
70°		55.03	36.36	0.66	3.74	67.78	14.7
85°		51.14	34.68	0.68	4.18	65.40	12.2
100°		47.26	33.15	0.70	4.62	63.02	10.2
50°	61°wb	64.48	46.50	0.72	3.17	75.29	20.4
60°		61.71	44.87	0.73	3.46	73.52	17.8
70°		58.93	43.39	0.74	3.76	71.76	15.7
85°		54.77	41.39	0.76	4.20	69.11	13.0
100°		50.61	39.57	0.78	4.65	66.47	10.9
50°	75°db	70.72	51.29	0.73	3.19	81.62	22.2
60°		67.68	49.49	0.73	3.49	79.60	19.4
70°		64.64	47.86	0.74	3.79	77.58	17.1
85°		60.08	45.65	0.76	4.24	74.54	14.2
100°		55.52	43.66	0.79	4.68	71.51	11.9
50°	63°wb	76.97	56.12	0.73	3.22	87.95	23.9
60°		73.66	54.16	0.74	3.52	85.67	20.9
70°		70.36	52.38	0.74	3.82	83.39	18.4
85°		65.40	49.97	0.76	4.27	79.97	15.3
100°		60.44	47.78	0.79	4.72	76.55	12.8
50°	80°db	70.72	51.29	0.73	3.19	81.62	22.2
60°		67.68	49.49	0.73	3.49	79.60	19.4
70°		64.64	47.86	0.74	3.79	77.58	17.1
85°		60.08	45.65	0.76	4.24	74.54	14.2
100°		55.52	43.66	0.79	4.68	71.51	11.9
50°	67°wb	76.97	56.12	0.73	3.22	87.95	23.9
60°		73.66	54.16	0.74	3.52	85.67	20.9
70°		70.36	52.38	0.74	3.82	83.39	18.4
85°		65.40	49.97	0.76	4.27	79.97	15.3
100°		60.44	47.78	0.79	4.72	76.55	12.8
50°	85°db	70.72	51.29	0.73	3.19	81.62	22.2
60°		67.68	49.49	0.73	3.49	79.60	19.4
70°		64.64	47.86	0.74	3.79	77.58	17.1
85°		60.08	45.65	0.76	4.24	74.54	14.2
100°		55.52	43.66	0.79	4.68	71.51	11.9

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	63.83	4.16	49.63	4.5
60°		70.51	4.32	55.77	4.8
70°		77.19	4.48	61.91	5.1
80°		83.87	4.64	68.05	5.3
50°		70°	60.33	4.24	45.86
60°	66.64		4.40	51.62	4.4
70°	72.95		4.56	57.38	4.7
80°	79.26		4.72	63.14	4.9
50°	80°		56.21	4.33	41.42
60°		62.09	4.50	46.73	4.0
70°		67.97	4.66	52.05	4.3
80°		73.84	4.83	57.36	4.5

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
8	3.5	1.51
12	7.2	3.13
16	12.1	5.25
18	15.0	6.49
22	21.5	9.32

LOW TEMP HEATING Antifreeze Required

25°	60°	46.21	3.76	33.36	3.6
30°		49.48	3.84	36.37	3.8
40°		56.03	4.00	42.37	4.1
25°		70°	43.68	3.83	30.59
30°	46.77		3.92	33.41	3.5
40°	52.96		4.08	39.04	3.8
25°	80°		40.71	3.92	27.32
30°		43.59	4.00	29.92	3.2
40°		49.35	4.17	35.12	3.5

Units are complete packages containing compressor, reversing valve, expansion valve metering device, ECM fan motor and heat exchangers. Also included are safety controls: Overload protection for motors, high and low refrigerant pressure switches and solid state lock-out circuit. Optional UL approved internal electric heater, factory installed with primary thermal overload protection and magnetic contactors (208/230-1-60 only) optional UL approved internal Heat Recovery Package and/or Ground Loop Pump with purge connections available.

Performance based on AHRI/ISO rated air flow, fluid flow and voltage. For conditions other than rated, consult the Bosch EAD selection software. Due to variations in installation actual performance may vary marginally from tabulated values.

As a result of continuing research and development, specifications are subject to change without notice.

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**BOSCH SPLIT UNITS**

SPECIFICATION DATA SHEET

CE071

CAPACITY DATA - PART LOAD

COOLING All performance at 1400 CFM and 18.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db 61°wb	50.33	32.44	0.64	1.90	56.82	26.5
60°		48.62	31.60	0.65	2.22	56.22	21.9
70°		46.92	30.88	0.66	2.55	55.61	18.4
85°		44.36	29.97	0.68	3.03	54.71	14.6
100°	75°db 63°wb	41.81	29.23	0.70	3.52	53.80	11.9
50°		53.92	38.78	0.72	1.91	60.45	28.2
60°		52.10	37.78	0.73	2.24	59.73	23.3
70°		50.27	36.92	0.73	2.56	59.02	19.6
85°	47.54	35.83	0.75	3.05	57.94	15.6	
100°	44.80	34.95	0.78	3.53	56.87	12.7	
50°	80°db 67°wb	59.18	42.81	0.72	1.93	65.76	30.7
60°		57.18	41.71	0.73	2.25	64.88	25.4
70°		55.18	40.76	0.74	2.58	63.99	21.4
85°		52.18	39.56	0.76	3.07	62.67	17.0
100°	49.18	38.59	0.78	3.56	61.34	13.8	
50°	85°db 71°wb	64.44	46.89	0.73	1.94	71.07	33.2
60°		62.27	45.69	0.73	2.27	70.02	27.4
70°		60.09	44.64	0.74	2.60	68.97	23.1
85°		56.83	43.33	0.76	3.10	67.39	18.4
100°	53.56	42.27	0.79	3.59	65.82	14.9	

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	50.90	3.48	39.03	4.3
60°		54.67	3.56	42.51	4.5
70°		58.45	3.65	46.00	4.7
80°		62.22	3.73	49.48	4.9
50°	70°	48.13	3.54	36.04	4.0
60°		51.69	3.63	39.31	4.2
70°		55.26	3.71	42.58	4.4
80°		58.83	3.80	45.85	4.5
50°	80°	44.87	3.62	32.52	3.6
60°		48.19	3.71	35.54	3.8
70°		51.51	3.80	38.56	4.0
80°		54.83	3.88	41.58	4.1

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
8	3.5	1.5
12	7.2	3.1
16	12.1	5.3
18	15.0	6.5
22	21.5	9.3

LOW TEMP HEATING Antifreeze Required

25°	60°	40.65	3.26	29.51	3.6
30°		42.50	3.31	31.21	3.8
40°		46.20	3.39	34.62	4.0
25°	70°	38.44	3.32	27.10	3.4
30°		40.19	3.37	28.70	3.5
40°		43.69	3.45	31.90	3.7
25°	80°	35.85	3.40	24.26	3.1
30°		37.48	3.44	25.74	3.2
40°		40.73	3.53	28.69	3.4



CAPACITY DATA - FULL LOAD

COOLING All performance at 2200 CFM and 18.0 GPMEFT Range (Standard)
50°F to 100°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	Sensible to Total Ratio	Power Input (kW)	Heat of Reject (MBtuH)	EER
50°	70°db 61°wb	66.48	42.79	0.64	3.67	79.02	18.1
60°		64.92	42.13	0.65	4.04	78.70	16.1
70°		63.35	41.63	0.66	4.41	78.38	14.4
85°		61.00	41.15	0.67	4.95	77.90	12.3
100°	58.64	40.96	0.70	5.50	77.42	10.7	
50°	75°db 63°wb	71.25	51.19	0.72	3.69	83.85	19.3
60°		69.57	50.41	0.72	4.06	83.43	17.1
70°		67.89	49.81	0.73	4.43	83.01	15.3
85°		65.37	49.24	0.75	4.98	82.37	13.1
100°	62.85	49.01	0.78	5.53	81.74	11.4	
50°	80°db 67°wb	78.21	56.53	0.72	3.72	90.92	21.0
60°		76.37	55.67	0.73	4.09	90.34	18.7
70°		74.53	55.01	0.74	4.46	89.77	16.7
85°		71.77	54.38	0.76	5.02	88.91	14.3
100°	69.01	54.13	0.78	5.58	88.04	12.4	
50°	85°db 71°wb	85.18	61.93	0.73	3.75	97.98	22.7
60°		83.18	60.98	0.73	4.12	97.25	20.2
70°		81.17	60.27	0.74	4.50	96.53	18.0
85°		78.17	59.58	0.76	5.06	95.44	15.5
100°	75.17	59.30	0.79	5.62	94.35	13.4	

HEATING EFT Range (Standard) 25°F to 80°F

Entering Fluid Temp. (°F)	Entering Air Temp. (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Abs. (MBtuH)	COP
50°	60°	71.17	4.78	54.85	4.4
60°		79.01	5.08	61.67	4.6
70°		86.86	5.38	68.48	4.7
80°		94.70	5.68	75.30	4.9
50°	70°	67.30	4.87	50.69	4.0
60°		74.71	5.17	57.05	4.2
70°		82.12	5.48	63.42	4.4
80°		89.53	5.79	69.78	4.5
50°	80°	62.76	4.98	45.78	3.7
60°		69.66	5.29	51.61	3.9
70°		76.56	5.60	57.44	4.0
80°		83.45	5.91	63.28	4.1

FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure Drop	
	(FOH)	(PSIG)
8	3.5	1.5
12	7.2	3.1
16	12.1	5.3
18	15.0	6.5
22	21.5	9.3

LOW TEMP HEATING Antifreeze Required

25°	60°	50.56	4.04	36.79	3.7
30°		54.41	4.19	40.12	3.8
40°		62.09	4.48	46.79	4.1
25°	70°	47.83	4.11	33.81	3.4
30°		51.46	4.26	36.92	3.5
40°		58.72	4.56	43.14	3.8
25°	80°	44.62	4.19	30.30	3.1
30°		48.00	4.35	33.15	3.2
40°		54.77	4.66	38.85	3.4

Units are complete packages containing compressor, reversing valve, expansion valve metering device, ECM fan motor and heat exchangers. Also included are safety controls: Overload protection for motors, high and low refrigerant pressure switches and solid state lock-out circuit. Optional UL approved internal electric heater, factory installed with primary thermal overload protection and magnetic contactors (208/230-1-60 only) optional UL approved internal Heat Recovery Package and/or Ground Loop Pump with purge connections available.

Performance based on AHRI/ISO rated air flow, fluid flow and voltage. For conditions other than rated, consult the Bosch EAD selection software. Due to variations in installation actual performance may vary marginally from tabulated values.

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BLOWER PERFORMANCE CFM

Model	Available External Static Pressure (ins., Gauge. Wet coil and filter included)												
	Motor Speed	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20
CE025													
Full	High	-	-	-	-	-	920	-	-	-	-	-	-
	Medium	-	-	-	-	-	800	-	-	-	-	-	-
	Low	-	-	-	-	-	680	-	-	-	-	-	-
Partial	High	-	-	-	575	-	-	-	-	-	-	-	-
	Medium	-	-	-	500	-	-	-	-	-	-	-	-
	Low	-	-	-	425	-	-	-	-	-	-	-	-
CE035													
Full	High	-	-	-	-	-	1380	-	-	-	-	-	-
	Medium	-	-	-	-	-	1200	-	-	-	-	-	-
	Low	-	-	-	-	-	1020	-	-	-	-	-	-
Partial	High	-	-	-	-	900	-	-	-	-	-	-	-
	Medium	-	-	-	-	800	-	-	-	-	-	-	-
	Low	-	-	-	-	-	-	-	-	-	-	-	-
CE049													
Full	High	-	-	-	-	-	1840	-	-	-	-	-	-
	Medium	-	-	-	-	-	1600	-	-	-	-	-	-
	Low	-	-	-	-	-	1360	-	-	-	-	-	-
Partial	High	-	-	-	-	-	1150	-	-	-	-	-	-
	Medium	-	-	-	-	-	1000	-	-	-	-	-	-
	Low	-	-	-	-	-	850	-	-	-	-	-	-
CE061													
Full	High	-	-	-	-	-	2200	-	-	-	-	-	-
	Medium	-	-	-	-	-	2000	-	-	-	-	-	-
	Low	-	-	-	-	-	1700	-	-	-	-	-	-
Partial	High	-	-	-	-	-	1600	-	-	-	-	-	-
	Medium	-	-	-	-	-	1400	-	-	-	-	-	-
	Low	-	-	-	-	-	1200	-	-	-	-	-	-
CE071													
Full	High	-	-	-	-	-	2300	-	-	-	-	-	-
	Medium	-	-	-	-	-	2200	-	-	-	-	-	-
	Low	-	-	-	-	-	1900	-	-	-	-	-	-
Partial	High	-	-	-	-	-	1600	-	-	-	-	-	-
	Medium	-	-	-	-	-	1400	-	-	-	-	-	-
	Low	-	-	-	-	-	1200	-	-	-	-	-	-

ELECTRICAL DATA

Condensing Section								
Model	Electrical Symbol	Voltage*/Phase/Hz	Compressor		Blower Motor		Min. Circuit Amps	Max Fuse/HARC
			RLA	LRA	FLA	HP		
CE025-1CS	-1	208/230-1-60	10.3	52			12.9	20
CE035-1CS	-1	208/230-1-60	16.7	82			20.9	35
CE049-1CS	-1	208/230-1-60	21.2	96			26.5	45
CE061-1CS	-1	208/230-1-60	25.6	118			32.0	50
CE071-1CS	-1	208/230-1-60	27.2	150			34.0	60

AIR HANDLER SECTION

Condensing Section								
Model	Electrical Symbol	Voltage*/Phase/Hz	Compressor		Blower Motor		Min. Circuit Amps	Max Fuse/HARC
			RLA	LRA	FLA	HP		
CE025-1AV/AH	-1	208/230-1-60			2.8	0.33	3.5	15
CE035-1AV/AH	-1	208/230-1-60			4.3	0.5	5.4	15
CE049-1AV/AH	-1	208/230-1-60			6.8	0.75	8.5	15
CE061-1AV/AH	-1	208/230-1-60			6.8	0.75	8.5	15
CE071-1AV/AH	-1	208/230-1-60			6.8	0.75	8.5	15



BOSCH

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