

**High ambient models included**



**CS Series**  
COMPACT SLIMLINE CONDENSING UNITS

BITZER Quality Packaged Equipment



Quality  
Endorsed  
Company  
ISO 9001 LIC5976  
Standards Australia

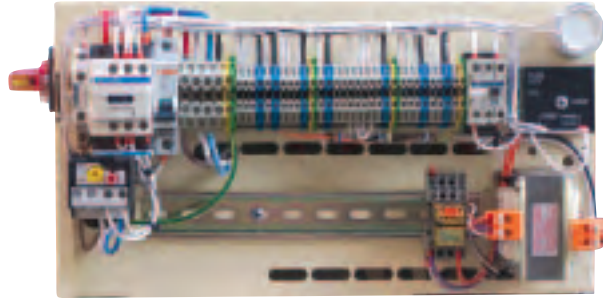


# Air Cooled Condensing Units

Complete With

## Octagon Accessible Hermetic Compressors For Outdoor Application

The new **CS Series Outdoor Condensing Units** are now available ranging from – 0.7kW - 6.7kW, (Nominal motor power) incorporating the latest **Octagon Compressors**. Standard power requirement is 415V/3Ph/50Hz.

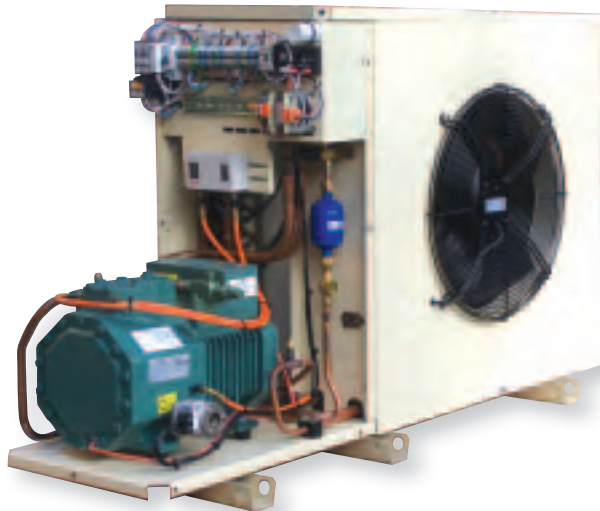


### Standard Inclusions for all CS Series Condensing Units

- Bitzer Octagon Semi Hermetic Compressor.
- Fully wired Electrical Panel. Includes ample space for additional electrical equipment
- Internal Float Oil Separator fitted
- Three Phase Isolator
- Condenser fitted with dedicated Sub-Cooling Circuit
- Liquid Receiver, Drier, Sight glass & Line Valve
- Dual Pressure Control, Sump Heater
- Electrical Motor Protection monitoring – SE-B1
- Oil Charge - BSE 32 as standard (B5 Oil on request)
- Powder Coated Weatherproof Design for exposed locations

### Optional Components – Available on Request

- Gold Epoxy Finned Condenser
- Oil Level Monitoring Device
- Suction Accumulator fitted
- Capacity Control Head – 4 cylinders compressors only
- Liquid line Solenoid Valve
- Fan Speed Controller
- Head Cooling Fan
- MP 15 Phase Failure Control



Shown with Top Panel and Compressor Housing Cover removed. Optional liquid line Solenoid Valve fitted



#### MODEL NOMENCLATURE

**2DC-3.2Y-CS2-6P**

Number of Cylinders  
Displacement Code  
Compact (Octagon) Compressor  
Nominal Horespower  
Compressor Series Code  
Polyol Ester Oil Charge

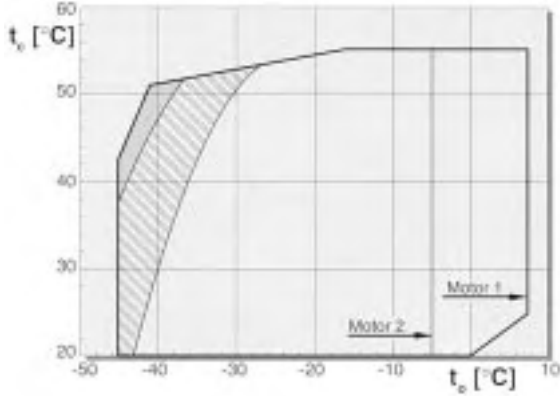
**4EC-6.2Y-CS4-6P**

Compact Slimline Design  
Condenser / Unit Size  
Condenser Fan Motor

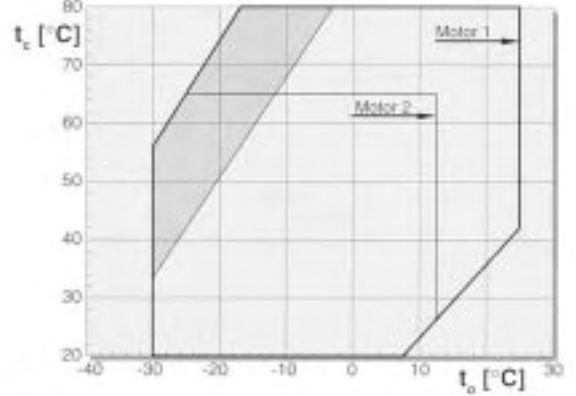
# Application Limits Octagon Accessible Hermetic Compressors

Data Based on 20°C Suction Gas Temperature

## R404A – 507A



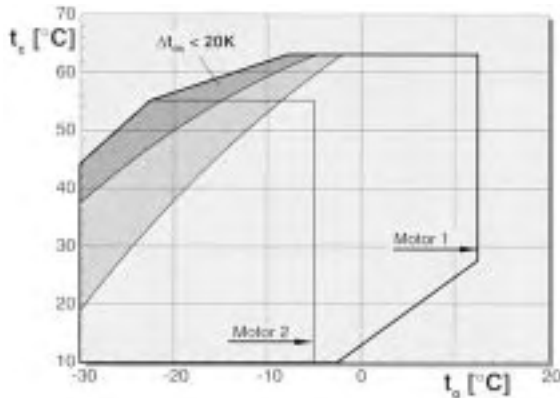
## R134a



Note: For 134a Condensing Temperatures  $\geq 55^\circ\text{C}$  requires the use of BSE-55 oil

## VARICOOL OPERATION (R22)

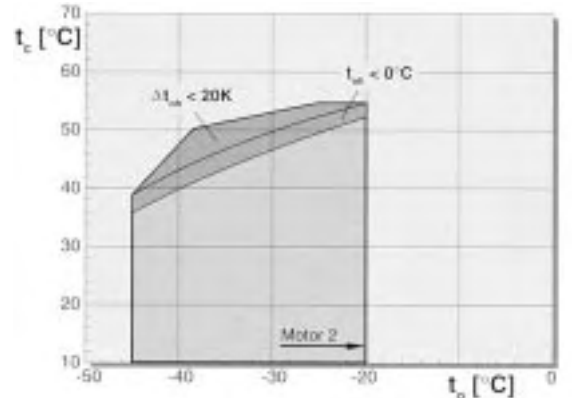
### R22 Suction Gas Cooled "SL(A)"



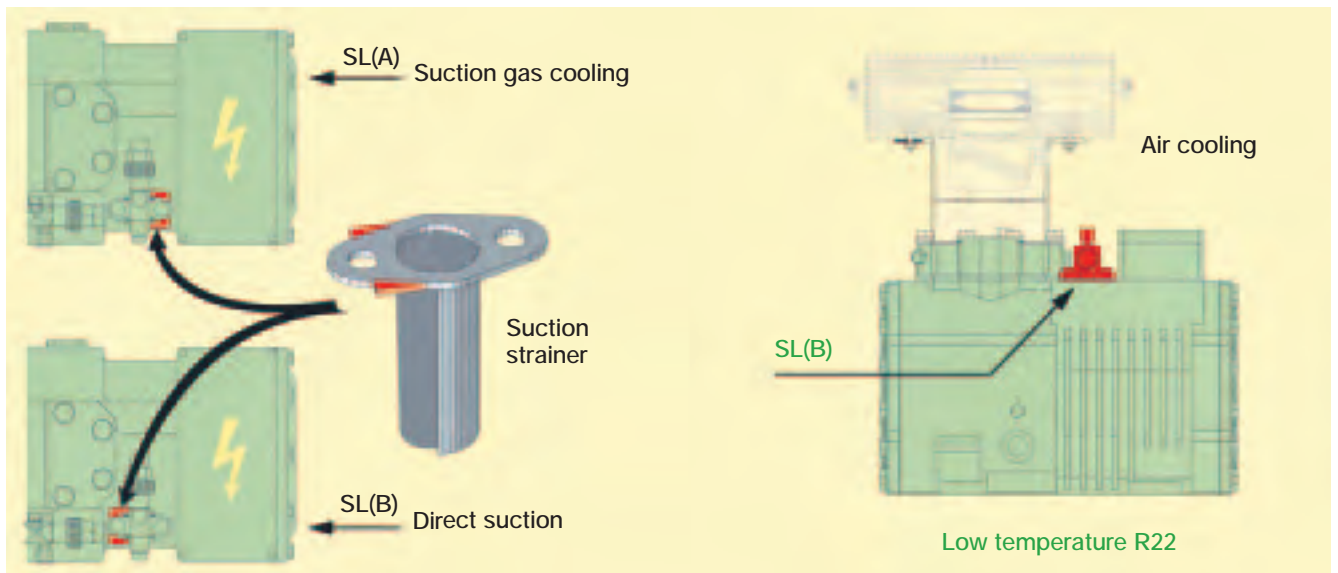
Note: Application limits for 4CC-6.2 available on request

- $t_o$  Evaporating temperature ( $^\circ\text{C}$ )
- $t_{oh}$  Suction gas temperature ( $^\circ\text{C}$ )
- $\Delta t_{oh}$  Suction superheat (K)
- $t_c$  Condensing temperature ( $^\circ\text{C}$ )

### R22 Air Cooled – Direct Suction "SL(B)"



- Additional cooling or max.  $0^\circ\text{C}$  suction gas temperature
- Additional cooling
- Additional cooling + suction gas temperature limit





# Bitzer CS Series Condensing Units

Performance data, based on 20°C suction gas temperature; 5K liquid subcooling; 50Hz

R404A / R507A	Ambient Temp. °C	Capacity in Watts										
		Evaporation temperature °C										
		7.5	5	0	-5	-10	-15	-20	-25	-30	-35	-40
2HC-1.2Y-CS1-4P	35				3940	3350	2750	2390	1780	1360	1000	700
	38				3720	3110	2560	2070	1630	1250	901	620
	40				3580	2990	2460	1990	1560	1190	860	580
	43				3370	2810	2300	1850	1450	1090	780	510
2HC-2.2Y-CS1-4P	35	5860	5560	4710	3940	3350	2750	2390	1780	1360		
	38	5650	5250	4500	3810	3190	2620	2120	1670	1280		
	40	5540	5060	4330	3670	3070	2520	2030	1590	1210		
	43			4090	3460	2890	2360	1900	1480	1110		
2GC-2.2Y-CS1-4P	35	6520	6120	5330	4650	3760	3190	2600	2070	1600	1190	840
	38	6210	5780	5000	4260	3590	2970	2430	1940	1500	1130	800
	40		5580	4820	4100	3450	2860	2330	1860	1440	1070	750
2GC-2.2Y-CS2-6P	40	6520	6050	5170	4380	3650	3010	Data On Request				
	43	6170	5720	4890	4140	3450	2830	Data On Request				
2FC-2.2Y-CS1-4P	35				5170	4410	3720	3050	2440	1910	1430	1100
	38				5000	4250	3550	2930	2360	1850	1400	1010
	40				4820	4080	3410	2810	2260	1770	1330	950
	43					3840	3210	2640	2110	1640	1230	870
2FC-3.2Y-CS2-6P	35	8470	7630	6600	5800	4750	3940	3210	2570	2020		
	38	8050	7510	6460	5500	4620	3830	3120	2490	1940		
	40	7760	7230	6230	5300	4450	3680	2990	2390	1850		
2FC-3.2Y-CS3-6P	40	8340	7730	6610	5570	4660	3830	Data On Request				
	43	7880	7310	6240	5270	4400	3610	Data On Request				
2EC-2.2Y-CS2-6P	35				6610	5590	4680	3820	3070	2400	1810	1300
	38				6430	5430	4530	3710	2980	2330	1760	1270
	40				6200	5240	4360	3570	2860	2230	1680	1200
	43				5860	4950	4120	3370	2680	2080	1560	1100
2EC-3.2Y-CS2-6P	35	9900	9320	8050	6900	5830	4860	3990	3210	2520		
	38	9490	8850	7660	6550	5530	4610	3760	3020	2360		
	40			7380	6320	5330	4440	3620	2900	2260		
2EC-3.2Y-CS3-4P	40	1030	9570	8180	6910	5770	4760	Data On Request				
	43	9790	9080	7760	6540	5460	4490	Data On Request				
2DC-2.2Y-CS2-6P	35				7610	6460	5440	4450	3590	2830	2150	1570
	38				7210	6120	5100	4190	3370	2640	2000	1440
	40				6940	5880	4910	4020	3230	2520	1890	1350
	43					5540	4620	3780	3020	2340	1750	1230
2DC-3.2Y-CS2-4P	35	11790	10940	9460	8070	6810	5670	4650	3730	2920		
	38	11140	10400	8980	7660	6470	5370	4390	3510	2740		
	40		10030	8660	7380	6210	5170	4210	3360	2610		
2DC-3.2Y-CS3-4P	40	11640	10810	9250	7830	6560	5410	Data On Request				
	43	11020	10220	8760	7410	6190	5100	Data On Request				
2CC-3.2Y-CS2-4P	35				9440	8020	6730	5550	4490	3540	2710	1990
	38				8940	7610	6380	5250	4240	3300	2540	1840
	40				8610	7330	6130	5050	4080	3200	2420	1750
	43					6990	5800	4760	3830	3000	2260	1610
2CC-4.2Y-CS3-4P	35	14780	13760	11850	10120	8530	7100	5810	4670	3660		
	38	14040	13110	11300	9620	8100	6730	5500	4410	3450		
	40	13550	12630	10900	9280	7820	6480	5290	4240	3310		
2CC-4.2Y-CS4.3-4P	40	14380	13360	11430	9690	8120	6700	Data On Request				
	43	13640	12660	10830	9170	7680	6340	Data On Request				
4FC-3.2Y-CS3-6P	35				10420	8850	7420	6120	4930	3890	2980	2180
	38				9880	8390	7030	5770	4650	3660	2780	2010
	40				9510	8100	6760	5550	4460	3490	2640	1900
	43					7630	6370	5220	4190	3260	2450	1740
4FC-5.2Y-CS3-4P	35	15940	14870	12840	10960	9270	7720	6320	5090	3990		
	38	15140	14130	12190	10410	8790	7310	5980	4790	3750		
	40		13630	11770	10030	8460	7020	5740	4590	3580		
4FC-5.2Y-CS4.3-4P	40	15620	14490	12410	10540	8840	7310	Data On Request				
	43	14750	13720	11770	9970	8340	6890	Data On Request				
4EC-4.2Y-CS3-4P	35				12860	10950	9180	7570	6120	4820	3680	2690
	38				12190	10360	8690	7140	5750	4520	3430	2480
	40				11730	9970	8350	6860	5520	4320	3260	2340
	43					9390	7850	6440	5170	4020	3020	2140
4EC-6.2Y-CS4.3-4P	35	20400	18990	16360	13960	11770	9780	8000	6420	5020		
	38	19330	18000	15520	13220	11140	9260	7540	6030	4700		
	40	18630	17360	14980	12760	10730	8910	7250	5790	4480		

Indicates return gas temperature limitations and or additional cooling, refer application limits  
 Indicates out of application range  
 High Ambient Models



# Bitzer CS Series Condensing Units

Performance data, based on 20°C suction gas temperature; 5K liquid subcooling; 50Hz

R404A /R507A CONTINUED	Ambient Temp. °C	Capacity in Watts										
		Evaporation temperature °C										
		7.5	5	0	-5	-10	-15	-20	-25	-30	-35	-40
<b>4EC-6.2Y-CS5-4P</b>	40 43	19700 18630	18350 17320	15740 14850	13300 12570	11140 10530	9200 8660	Data On Request				
<b>4DC-5.2Y-CS5-6P</b>	35 38 40 43				15880 15030 14480	13490 12770 12290	11310 10690 10290	9330 8800 8460	7530 7090 6810	5930 5570 5340	4540 4230 4040	3320 3070 2900
<b>4DC-7.2Y-CS5-4P</b>	35 38 40	24600 23400 22600	22900 21800 21000	19730 18700	16790 15920 15340	14110 13380 12890	11690 11070 10640	9540 9010 8640	7610 7170 6870	5930 5550 5300		
<b>*4DC-7.2Y-LCS1-LS</b>	40 43	23800 22600	22100 20900	18890 17860	15980 15120	13350 12620	11000 10370	Data On Request				
<b>4CC-6.2Y-CS5-4P</b>	35 38 40 43				19590 18610 17970 16960	16620 15760 15190 14350	13900 13170 12690 11960	11460 10830 10410 9820	9270 8740 8390 7880	7330 6900 6600 6170	5640 5280 5030 4670	4170 3860 3660 3370
<b>4CC-9.2Y-CS5-4P</b>	35 38 40		26300 25000	22900 21700	19590 18610 17970	16620 15760 15190	13900 13170 12690	11460 10830 10410	9270 8740 8390	7330 6900 6600		
<b>*4CC-9.2Y-LCS1-HS</b>	40 43	28400 26900	26400 25100	22700 21500	19300 18300	16240 15380	13480 12760	Data On Request				

- Indicates return gas temperature limitations and or additional cooling, refer application limits
- Indicates out of application range
- \*** Refer to LCS Air Cooled Unit brochure for unit specifications
- High Ambient Models

Performance data, based on 20°C suction gas temperature; 5K liquid subcooling; 50Hz

R22	Ambient Temp. °C	Capacity in Watts								
		Evaporation temperature °C SST								
		10	5	0	-5	-10	-15	-20	-25	-30
<b>2HC-1.2-CS1-4P</b>	35				3740	3090	2500	1980	1710	1290
<b>2HC-2.2-CS1-4P</b>	35	6140	5270	4480	3750	3100	2500	1980	1710	1290
<b>2GC-2.2-CS1-4P</b>	35	6980	6070	5140	4320	3580	2920	2590	2040	1560
<b>2FC-2.2-CS1-4P</b>	35				5040	4210	3460	2790	2440	1900
<b>2FC-3.2-CS2-6P</b>	35	8760	7520	6390	5360	4450	3630	2910	2530	1760
<b>2EC-2.2-CS2-6P</b>	35				6180	5090	4260	3290	2980	2310
<b>2EC-3.2-CS2-6P</b>	35	10110	8710	7380	6190	5100	4150	3300	2980	2310
<b>2DC-2.2-CS2-6P</b>	35				7140	5910	4810	3830	3320	2580
<b>2DC-3.2-CS2-4P</b>	35	12200	10480	8910	7450	6150	4990	3970	3410	2640
<b>2CC-3.2-CS2-4P</b>	35				8790	7320	5990	4810	4110	3180
<b>2CC-4.2-CS3-4P</b>	35	15370	13140	11160	9440	7760	6330	5040	4270	3290
<b>4FC-3.2-CS3-6P</b>	35				10110	8350	6760	5350	4590	3480
<b>4FC-5.2-CS3-4P</b>	35	17320	14860	12600	10530	8660	7000	5530	4720	3650
<b>4EC-4.2-CS3-4P</b>	35				12430	10300	8400	6670	5760	4490
<b>4EC-6.2-CS4.3-4P</b>	35	21600	18460	15650	13110	10800	8760	7530	5970	4630
<b>4DC-5.2-CS5-6P</b>	35				15290	12650	10240	8540	6820	5300
<b>4DC-7.2-CS5-4P</b>	35	26500	22700	19220	16070	13230	10720	8890	7060	5480
<b>4CC-6.2-CS5-4P</b>	35				18800	15560	12680	10110	7860	5910
<b>4CC-9.2-CS5-4P</b>	35	30500	26300	22400	18800	15560	12680	10110	7860	5910

- Indicates return gas temperature limitations and or additional cooling, refer application limits
- Indicates out of application range

**Correction Factors for R22 only**

38° C ambient multiply above figures by correction factor 0.97  
 32° C ambient multiply above figures by correction factor 1.03



# Bitzer CS Series Condensing Units

Performance data, based on 20°C suction gas temperature; 5K liquid subcooling; 50Hz

R134a MODEL No.	Ambient Temp. C°	Capacity in Watts										
		Evaporation temperature °C										
		12.5	10	7.5	5	0	-5	-10	-15	-20	-25	-30
2HC-1.2YCS1-4P	35			4130	3770	3130	2530	2030	1590	1220	920	630
	38			3980	3630	3000	2440	1950	1520	1160	850	580
	40	Data on Request		3880	3540	2920	2370	1890	1470	1120	810	540
	43			3730	3410	2800	2270	1810	1400	1090	790	500
2GC-2.2Y-CS1-4P	35			4720	4320	3580	2930	2350	1870	1440	1070	760
	38			4560	4170	3460	2830	2280	1800	1380	1020	720
	40	Data on Request		4450	4070	3380	2760	2220	1750	1340	980	690
	43			4290	3920	3250	2650	2120	1670	1270	920	640
2FC-2.2Y-CS1-4P	35			5650	5110	4250	3570	2890	1190	1770	1320	940
	38			5420	4980	4160	3420	2760	2180	1680	1250	880
	40	Data on Request		5270	4840	4040	3320	2680	2120	1620	1200	830
	43			5050	4630	3860	3170	2550	2010	1530	1180	790
2EC-2.2Y-CS1-4P	35			6360	5810	4890	3980	3310	2640	2060	1550	1120
	38			6110	5630	4720	3920	3180	2530	1960	1480	1060
	40	Data on Request		5960	5480	4600	3800	3090	2450	1900	1420	1010
	43			5710	5260	4410	3640	2950	2340	1800	1350	950
2DC-2.2Y-CS2-6P	35			7810	7270	6000	4970	4010	3190	2480	1970	1350
	38			7560	6940	5800	4770	3860	3060	2370	1770	1260
	40	Data on Request		7370	6760	5650	4640	3750	2970	2280	1700	1210
	43			7080	6490	5410	4450	3590	2830	2170	1610	1130
2CC-3.2Y-CS2-6P	35			9510	8780	7390	6120	4990	4000	3120	2370	1730
	38			9150	8440	7100	5880	4790	3820	2970	2250	1620
	40	Data on Request		8920	8220	6910	5710	4650	3710	2880	2160	1560
	43			8570	7890	6630	5480	4450	3540	2740	2050	1460
4FC-3.2Y-CS3-6P	35			10800	9830	8200	6730	5430	4290	3300	2450	1720
	38			10400	9530	7920	6490	5220	4110	3140	2320	1610
	40	Data on Request		10130	9290	7710	6320	5070	3990	3040	2230	1540
	43			9730	8920	7410	6050	4850	3800	2890	2100	1440
4EC-4.2Y-CS3-6P	35			13140	11990	10080	8340	6790	5420	4230	3210	2350
	38			12620	11620	9740	8040	6520	5180	4030	3030	2200
	40	Data on Request		12280	11310	9480	7810	6330	5020	3880	2910	2090
	43			11770	10830	9070	7470	6040	4770	3670	2720	1930
4DC-5.2Y-CS3-4P	35			15900	14680	12460	10150	8280	6770	2480	3880	2800
	38			15300	14090	11810	9750	7920	6300	4890	3660	2610
	40	Data on Request		14910	13710	11490	9490	7700	6110	4730	3520	2500
	43			14320	13170	11020	9090	7360	5830	4490	3330	2340
4CC-6.2Y-CS4.3-4P	35			19530	17970	15050	12440	10120	8080	6300	4770	3480
	38			18780	17280	14470	11940	9700	7730	6000	4520	3270
	40	Data on Request		18310	16820	14090	11620	9430	7500	5810	4360	3130
	43			17570	16150	13530	11140	9030	7150	5530	4130	2930

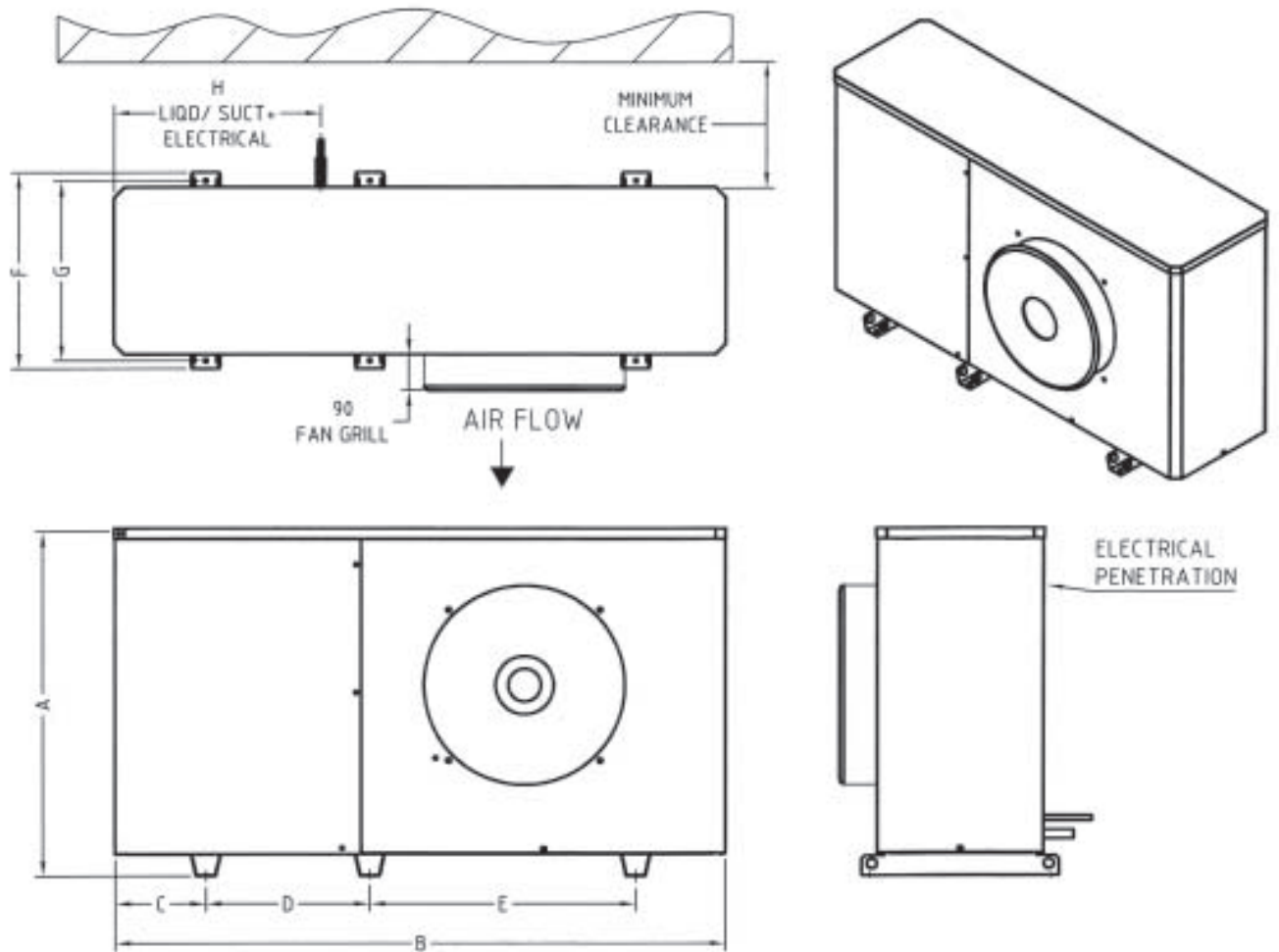
Indicates return gas temperature limitations and or additional cooling, refer application limits

Compressor Model	Nominal Motor HP / kW	Max Current Amps	Max Power Consumption kW	Heater Watts 240/1/50	Compressor Model	Nominal Motor HP / kW	Max Current Amps	Max Power Consumption kW	Heater Watts 240/1/50
2HC-1.2	1 / 0.7	3.5	2.0	85	2CC-3.2	3 / 2.2	8.5	5	165
2HC-2.2	1.5 / 1.1	4.3	2.4	85	2CC-4.2	4 / 3	9.4	5.6	165
2GC-2.2	1.5 / 1.1	4.7	2.7	85	4FC-3.2	3 / 2.2	9.2	5.4	165
2FC-2.2	1.5 / 1.1	4.9	2.8	85	4FC-5.2	5.5 / 4	10.8	6.2	165
2FC-3.2	1.8 / 1.3	5.8	3.4	85	4EC-4.2	4 / 3	10.7	6.4	165
2EC-2.2	2 / 1.5	5.7	3.3	165	4EC-6.2	5.5 / 4	13.2	7.9	165
2EC-3.2	3 / 2.2	6.9	4.0	165	4DC-5.2	5.5 / 4	13.5	8	165
2DC-2.2	2 / 1.5	6.9	3.9	165	4DC-7.2	7.5 / 5.5	15.9	9	165
2DC-3.2	3 / 2.2	7.8	4.5	165	4CC-6.2	7.5 / 5.5	15.9	9.1	165
					4CC-9.2	9 / 6.7	20	10.5	165
Condenser Model	Fan Voltage	Fan Total Amps	Fan Total kW	Air Flow L / S	Number of Fans	Liquid Line Size	Suction Line Size	Unit Weight kg	Receiver Pump Down R404A (KG)
CS 1 - 4P	240 / 1 / 50	0.6	0.14	760	1 x 350mm	3 / 8	5 / 8	104	3.8
CS 2 - 6P	240 / 1 / 50	0.79	0.16	870	1 x 450mm	3 / 8	7 / 8	127	3.8
CS 2 - 4P	240 / 1 / 50	1.1	0.25	1170	1 x 450mm	3 / 8	7 / 8	127	3.8
CS 3 - 6P	240 / 1 / 50	0.79	0.16	1000	1 x 450mm	1 / 2	1 - 1 / 8	160	7.0
CS 3 - 4P	240 / 1 / 50	1.1	0.25	1330	1 x 450mm	1 / 2	1 - 1 / 8	160	7.0
CS 4.3 - 6P	240 / 1 / 50	1.58	0.32	2350	2 x 450mm	5/8	1 - 1/8	178	7.0
CS 4.3 - 4P	240 / 1 / 50	2.2	0.49	3100	2 x 450mm	5/8	1 - 1/8	178	7.0
CS 5 - 6P	240 / 1 / 50	1.58	0.32	2100	2 x 450mm	5/8	1 - 1/8	182	7.0
CS 5 - 4P	240 / 1 / 50	2.2	0.49	2900	2 x 450mm	5/8	1 - 1/8	182	7.0

Electrical Data Based on DOL starting for 380-420 V/3/50Hz. Other voltages on request

Note: For total unit power consumption, add compressor and condenser fan values together

## Drawings and Dimensions



<i>Dimensions</i>										Sound Data *dB(A)	
<b>MODEL</b>	A	B	C	D	E	F	G	H	Minimum Clearance	Speed Controlled	High speed
<b>CS1 4P</b>	700	1335	180	470	470	482	442	443	150	50.8	56.2
<b>CS2 6P</b>	700	1335	180	470	470	482	442	443	150	52.7	53.7
<b>CS2 4P</b>	700	1335	180	470	470	482	442	443	200	55.6	58.6
<b>CS3 6P</b>	850	1490	220	400	650	482	442	500	150	52.7	53.7
<b>CS3 4P</b>	850	1490	220	400	650	482	442	500	200	55.6	58.6
<b>CS4.3 6P</b>	850	1890	220	400	1050	482	442	500	200	50.0	54.2
<b>CS4.3 4P</b>	850	1890	220	400	1050	482	442	500	250	59.2	62.2
<b>CS5 6P</b>	860	1890	220	400	1050	482	442	500	200	50.0	54.2
<b>CS5 4P</b>	860	1890	220	400	1050	482	442	500	250	59.2	62.2

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## Other Products Available



### PS Series Evaporator

Crisp white powder coated evaporator panels  
Innovative design in Coil Geometry  
Venturi-Effect Technology incorporated in distributor  
Stainless steel fastenings



### BR Series Evaporator

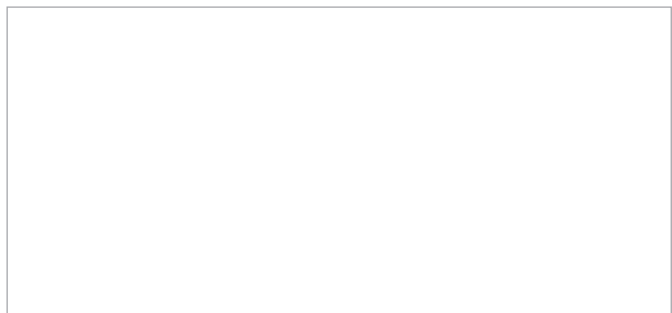
Internal Rippled Finned tube for improved heat transfer  
Hinged Access Doors  
Hinged reversible drain tray  
Sickle blade fan technology



### LCS Large Outdoor Condensing Unit

V-shape condenser set  
Bitzer Octagon and B5-Compressor Series  
Standard version features fully wired electrical panel

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