

Precision Cooling for
Business-Critical Continuity

Liebert HPC

A complete range of chillers respecting the environment through efficiency



- 40-350 kW Air-cooled scroll chiller
- 40-350 kW Air-cooled ductable scroll chiller
- 340-1600 kW Air-cooled screw chiller
- 280-1200kW Water-cooled screw chiller

 **Liebert**


EMERSON
Network Power

Emerson Network Power, a Division of Emerson, is a global company matching technology and design to supply innovative solutions for its customers' benefit. Emerson Network Power is the leader in the **Business-Critical Continuity™** field thanks to its products and services.

Nowadays chilled water demand is required to satisfy many different needs, in many different applications: from residential uses to industry, from commercial and leisure to technological sites.

In order to cover all types of requirements, a flexible kind of chiller is neces-

sary, which case by case, could be used to meet any kind of request and supply what is really needed: this is the Liebert HPC series, the chiller family from Emerson Network Power's Liebert brand, covering a range from 40 to 1600kW.





HPC series is available in different versions:

- Water-cooled: Liebert HPC-W (280-1200kW) with semi-hermetic screw compressors
- Air-cooled ductable: Liebert HPC-R (40-350kW) for indoor installations, with scroll compressors and radial fans, providing available ESP up to 450Pa
- Air-cooled: Liebert HPC-S/M/L (40-1600kW) for outdoor installations with axial fans and scroll (40-350kW) or screw (340-1600kW) compressors.

All the air-cooled series are available in Free-cooling configuration which, exploiting cold outdoor air temperatures, lets HPC save up to 40% of energy consumption.

Availability

Enabling Business-Critical Continuity™

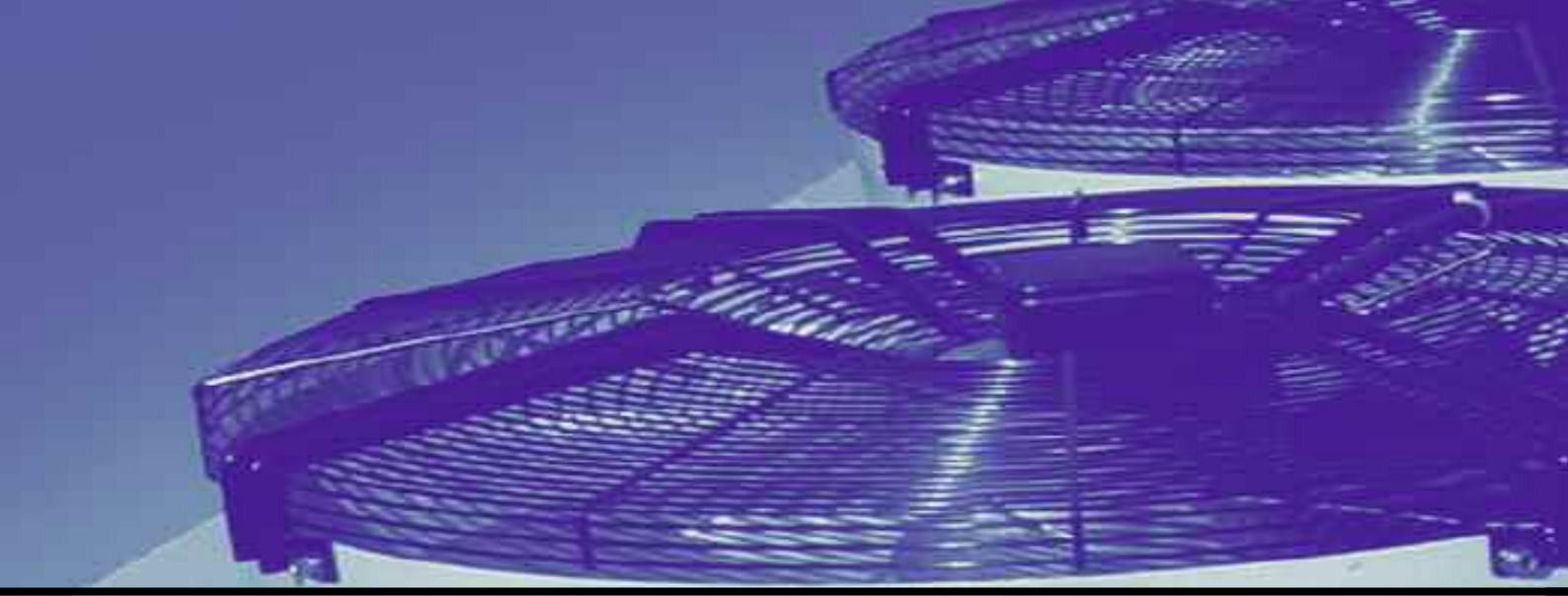
It is the first priority in Emerson Network Power Research & Development while designing Mission Critical chillers. In fact, in all the cooling range, Liebert chillers are available with 2 independent refrigerant circuits and with highly reliable components, accurately managed by the microprocessor. Moreover, before shipment, each of them is fully tested for some hours in a specifically devoted climatic room.

Particular attention has been paid to the integration of multiple Liebert HPC units working together. In order to protect and increase the lifetime of the components, in a group of chillers

connected together, such functions as rotation, stand-by and cascade are automatically managed and monitored by the microprocessor.







Flexibility

To always provide the answer

On unit choice,

to always select the right unit for the different needs:

- Three different versions in terms of Sound emissions (Base, Low Noise, Quiet)
- One specific version for high Availability product (A range)
- More than 300 different models
- A complete list of options and accessories

the whole range of Liebert HPC can offer a wide range of solutions to match the wide variety of demands in the chiller market.

On function /installation:

as standard on the semi-hermetic screw range (both air-cooled and water-cooled) each **compressor** is automatically partialised in a **continuous** way, in order to provide just the requested cooling capacity in every working condition: this allows the heat load to be followed

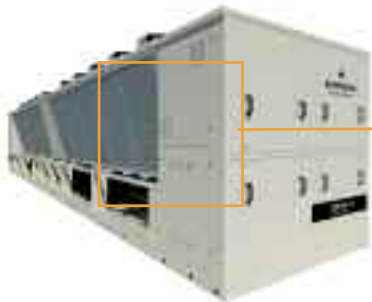
exactly at every moment, bringing not only a large energy savings but also **precision** on the control of the supply water temperature which other systems with step capacity control cannot reach. The use of the **Economiser** brings further efficiency and more capacity steps to the range. In all air-cooled ranges the **condenser fans** are managed in a stepless mode in order to adapt the fan speed to the working conditions and ensure stable operation; moreover, it is possible to select different functions, to favour a low speed behaviour for reducing the sound emissions or a high speed mode for enhancing the unit efficiency. Furthermore, in the air-cooled range, the condenser section can be equipped with **Electronically Commutated Fans** (EC-Fans) for further energy saving (30% less power consumption) but above all for unrivalled sound level emissions.



Radial Fan



- High efficiency and noise reduction, with automatic fan speed adjustment based on outdoor air temperature
- ESP adjustable from 50 to 450Pa simply through a parameter
- Air discharge from the top of the unit, to the condenser side or opposite the coil, by simply changing two panels



Inverter Pump



- Making the chiller always run with constant water flow, it avoids any risk of evaporator freezing
- In installations with variable pressure drop, it provides interesting energy savings, automatically adapting its speed to the circuit



Controller



- Dedicated algorithm for low noise and quiet version to keep the fan speed always to the minimum
- Ambient compensation for set-point rising in warm period
- Network up to 16 HPC chillers: teamwork mode, stand-by and cascade operation, even in free-cooling mode.



Compressor



- Screw compressors automatically partialised in a continuous way, following the thermal load variation
- Supply water temperature tolerance +/- 0,2°C



Total cost of ownership is mainly due to operating cost

■ Energy efficiency

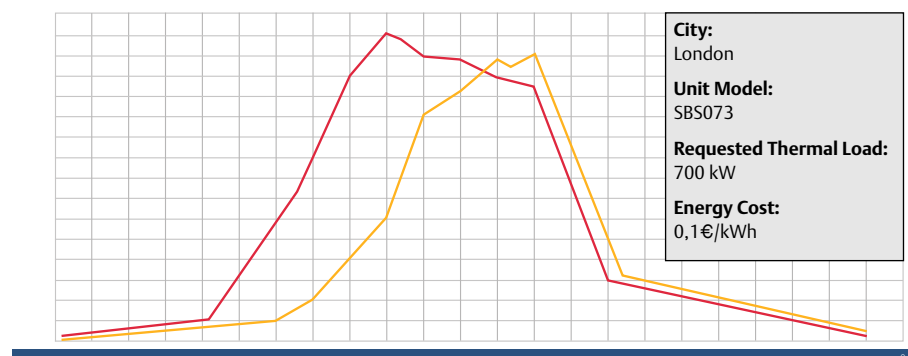
Thanks to the high quality of its components and to its design with oversized heat exchangers, the Liebert HPC family is characterized by EER and ESEER/IPLV values at the top of the market. The higher the cooling demand, the more visible is the effect of the unit efficiency when evaluating the system operating costs: a slightly increase of the chiller efficiency, being the heart of the entire cooling solution created with the room air conditioners, makes energy savings grow dramatically.

In a 700kW chiller installed in Rome, working just during the summer, 20% better efficiency brings 8,000 €/year of cost saving!

■ Free-cooling

In those cases where chilled water is required all year long and not just in the hottest period, a high efficiency chiller is not enough: to get real energy savings free-cooling is necessary! Thanks to almost 40 years of experience in free-cooling development, Emerson Network Power with HPC series, reaches results which are really astonishing: up to 40-45% energy saving!

A 700kW chiller with free-cooling working in London can save 40,000 €/year!

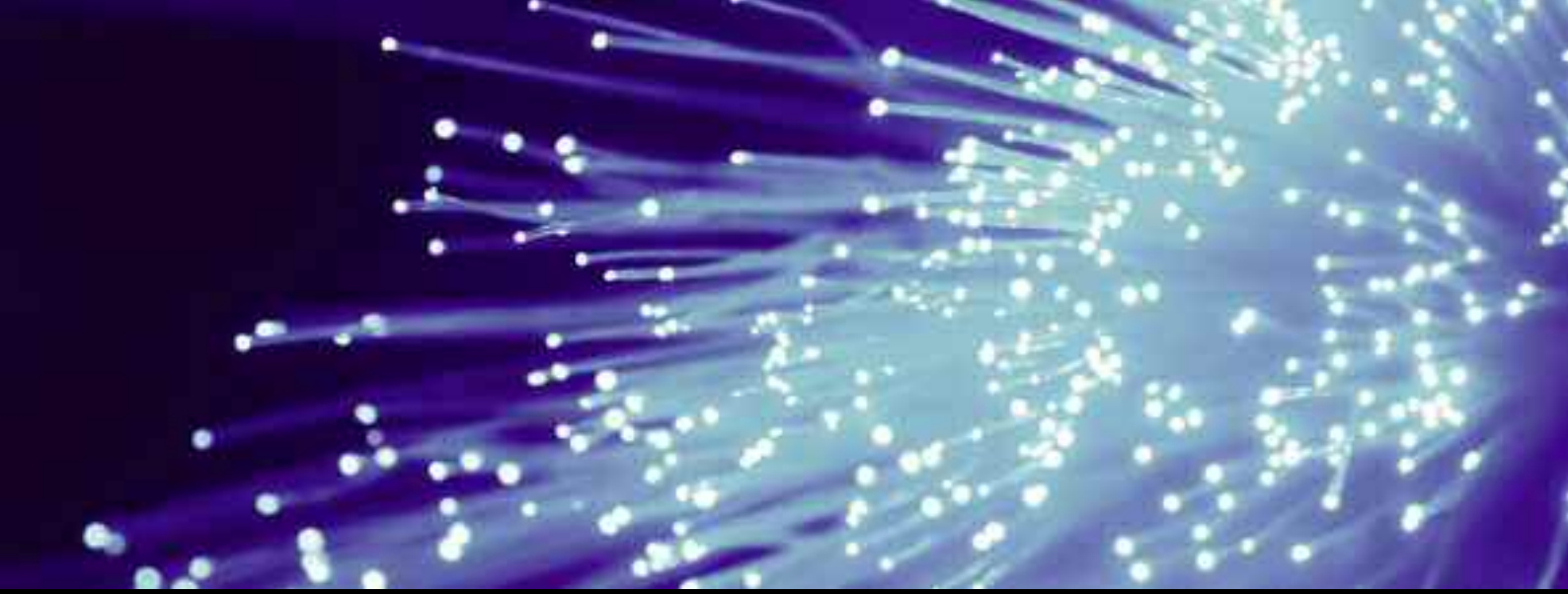




- **Free-cooling, with No Glycol solution**

For specific applications and requirements, where a glycol mixture can't be used and circulated inside the building, Emerson Network Power has developed a dedicated Freecooling version, defined as No Glycol Freecooling, that confines the glycol fluid inside the external unit only. The specific thermal protection of the chiller parts in contact with the water flow and exposed to the external environment, as well as the generous design of the additional heat exchanger, the high efficiency of the pumps and the optimization of the control logic assure the highest reliability and raise the energy saving to the desired level.



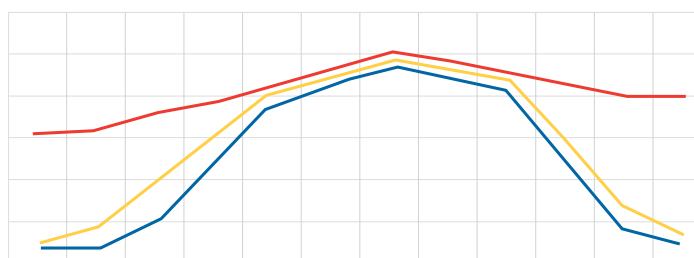


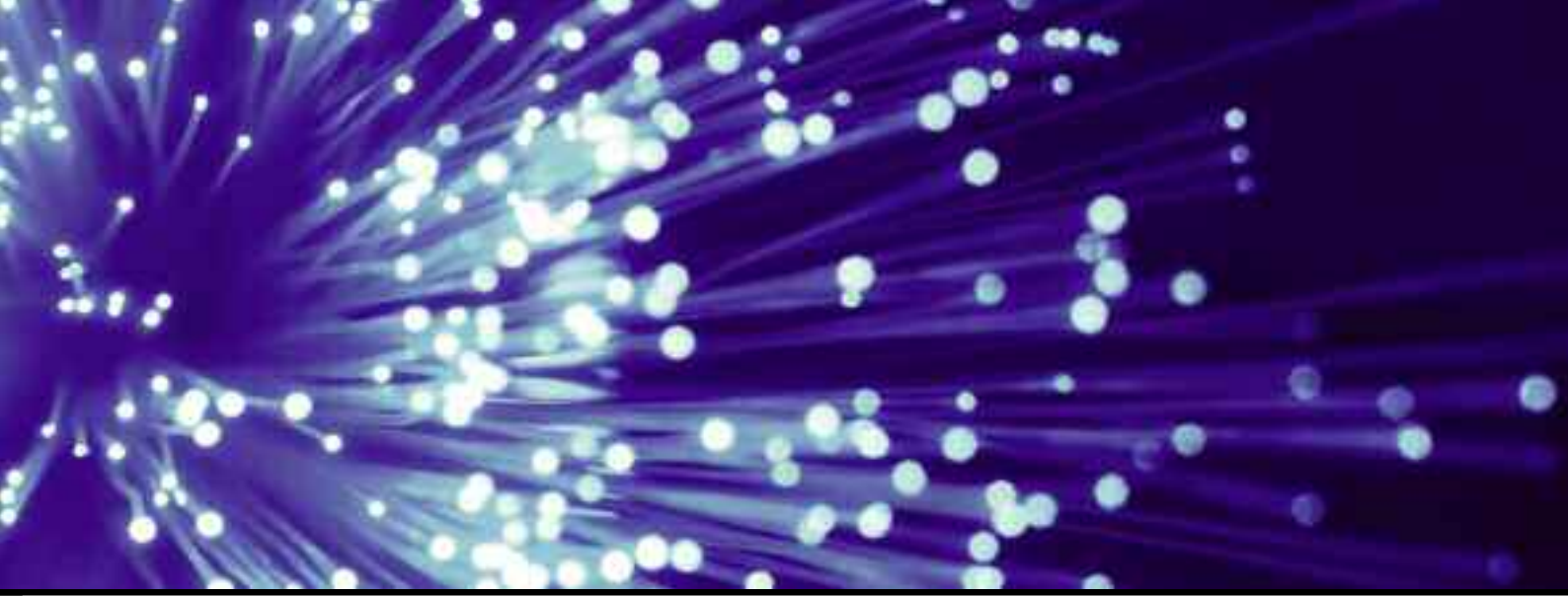
The importance of being a system: @-connectivity

When the Liebert HPC family is used for technological applications, together with the Liebert indoor chilled-water cooling units, its features can be further enhanced through the dedicated software **@-connectivity**.

Its role is to let all of the units talk with each other, allowing the setting of different operating modes to best suit the site needs, such as being efficient during the day, becoming quiet during the night, always maximizing the energy saving.

@-connectivity allows access either from any PC on the local area network or via Internet, to browse, set and manage the rules of the system, deciding which chillers must start, which ones and how many have to stay in stand-by, the compressors starting sequence as well as the extension of the freecooling contribution from all the chillers available in the system.





One of the most important features offered by the @-connectivity, when looking at energy saving, is the capability to detect and follow the site heat load variation with the automatic change of its temperature settings: in case of heat load reduction, Liebert HPC increases its set point providing the chilled water at a higher temperature than the nominal condition, thus increasing its efficiency and reducing the energy consumption by 15%.

Two 400kW HPC units with free-cooling, running in Frankfurt in a data centre with varying thermal load during the year, can save 27,000 €/year thanks to the combined effect of free-cooling and @-connectivity!





HPC W Range

Watercooled Screw Chiller

Dimensions

Model	WS1027	WS1031	WS1035	WS1040	WS1047	WS1052	WS1060	WS2033	WS2039	WS2043	WS2048	
Performances¹												
Cooling capacity	kW	283	319	362	419	480	541	602	341	402	445	485
Compressor power input	kW	58	66	72	85	97	113	124	73	83	96	101
Unit EER	---	4,88	4,84	5,04	4,91	4,94	4,78	4,87	4,67	4,83	4,62	4,80
Performances² with ECO												
Cooling capacity	kW	301	345	382	456	511	581	638	361	434	471	528
Compressor power input	kW	59	69	73	89	99	118	127	74	87	98	106
Unit EER	---	5,11	5,03	5,24	5,13	5,18	4,94	5,04	4,86	4,98	4,81	4,96
Number of refrig circuits	#	1	1	1	1	1	1	1	2	2	2	2
Base version SPL ³	dB(A)	76,5	77,0	77,5	76,5	76,0	77,0	77,0	73,0	74,0	74,0	77,0
Base version PWL ⁴	dB(A)	94,0	94,5	95,0	94,5	94,0	95,0	95,0	91,0	92,0	92,0	95,5
Low-Noise version SPL ³	dB(A)	68,0	69,0	69,0	69,0	68,0	69,0	69,0	65,0	65,0	66,0	68,0
Low-Noise version PWL ⁴	dB(A)	86,0	87,0	87,0	87,0	86,0	87,0	87,0	83,0	83,0	84,0	86,5
Diameter (evaporator side)	DN-inch	DN125-5"-141,3 VICT.			DN150-6"-168,3 VICT.			DN125-5"-141,3 VICT.	DN150-6"-168,3 VICT.			
Diameter (condenser side)	DN-inch	DN80-3"GAS F	DN100-4"GAS F		DN125-5"GAS F			DN80-3"GAS F				
Operating weight	kg	2.403	2.509	2.570	3.530	3.557	3.741	3.761	3.238	3.463	3.601	4.311

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
WS1027	4.350	890	2.000
WS1031	4.350	890	2.000
WS1035	4.350	890	2.000
WS1040	4.650	890	2.040
WS1047	4.650	890	2.040
WS1052	4.650	890	2.040
WS1060	4.650	890	2.040
WS2033	4.100	1.750	2.000
WS2039	4.100	1.750	2.000
WS2043	4.100	1.750	2.000
WS2048	4.350	1.750	2.000

HPC W Range

Watercooled Screw Chiller

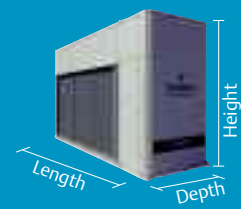
Dimensions

Model	WS2054	WS2061	WS2065	WS2070	WS2080	WS2087	WS2093	WS2099	WS2105	WS2111	WS2119	
Performances¹												
Cooling capacity	kW	560	635	675	724	839	893	963	1024	1081	1143	1203
Compressor power input	kW	115	132	138	144	171	184	195	213	227	236	247
Unit EER	---	4,85	4,82	4,89	5,04	4,92	4,86	4,95	4,82	4,77	4,85	4,87
Performances² with ECO												
Cooling capacity	kW	596	685	721	765	908	958	1022	1096	1162	1220	1275
Compressor power input	kW	118	137	142	146	178	190	197	219	235	243	253
Unit EER	---	5,07	4,99	5,07	5,25	5,10	5,05	5,19	5,01	4,94	5,03	5,04
Number of refrig circuits	#	2	2	2	2	2	2	2	2	2	2	2
Base version SPL ³	dB(A)	77,0	78,0	78,0	79,0	78,0	77,5	77,0	77,5	78,0	78,5	78,5
Base version PWL ⁴	dB(A)	95,5	96,5	96,5	97,5	96,5	96,0	95,5	96,0	96,5	97,0	97,0
Low-Noise version SPL ³	dB(A)	69,0	70,0	70,0	70,0	70,0	70,0	69,0	70,0	70,0	70,5	70,5
Low-Noise version PWL ⁴	dB(A)	87,5	88,5	88,5	88,5	88,5	88,5	87,5	88,5	88,5	89,0	89,0
Diameter (evaporator side)	DN-inch	DN150-6"-168,3 VICT.			DN200-8"-219,1 VICT.							
Diameter (condenser side)	DN-inch	DN80-3"GAS F		DN100-4"GAS F		DN125-5"GAS F						
Operating weight	kg	4.483	4.816	4.829	5.048	6.793	6.802	6.921	7.114	7.237	7.257	7.277

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
WS2054	4.350	1.750	2.000
WS2061	4.350	1.750	2.000
WS2065	4.350	1.750	2.000
WS2070	4.350	1.750	2.000
WS2080	4.650	1.750	2.040
WS2087	4.650	1.750	2.040
WS2093	4.650	1.750	2.040
WS2099	4.650	1.750	2.130
WS2105	4.650	1.750	2.130
WS2111	4.650	1.750	2.130
WS2119	4.650	1.750	2.130

For Heat Pump and Heat Recovery performances, please refer to Product Documentation

- At the following standard conditions: power supply 400V/3ph/50Hz; refrigerant R134a; evaporator water inlet/outlet 12/7 °C; condenser water inlet/outlet 30/35 °C;
- At the following standard conditions: power supply 400V/3ph/50Hz; refrigerant R134a; with Economiser evaporator water inlet/outlet 12/7 °C; condenser water inlet/outlet 30/35 °C;
- Measured at 1mt from the unit; free field conditions; according to ISO 3744; nominal working conditions
- Calculated according to ISO 3744; nominal working conditions



HPC R Range

Aircooled Ductable Scroll Chiller

Model		CRH004	CRH204	CRH006	CRH206	CRH007	CRH207	CRH008	CRH011	CRH014
Performances¹										
Cooling capacity	kW	39,5	39,5	51,6	50,7	63,4	64,4	78,2	101,9	132,6
Compressors power input	kW	13,2	13,2	19,2	19,0	24,1	24,6	26,3	28,6	43,6
Number of compr. / refriger. circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2
Compressors COP	-	3,00	3,00	2,67	2,67	2,62	2,62	2,97	2,6	43,04
Unit EER	-	2,46	2,46	2,28	2,27	2,33	2,32	2,44	2,2	52,47
flow rate	m ³ /h	12.000	12.000	14.000	14.000	15.000	15.000	24.000	28.000	42.000
SPL (Sound Pressure Level) ⁴	dB(A)	70	70	73	73	74	74	71,5	74,5	75,5
PWL (Sound Power Level) ⁵	dB(A)	87	87	91	91	93	93	87	91	91
SPL (Sound Pressure Level) ⁶	dB(A)	67	67	70	70	71	71	68,5	71,5	72,5
PWL (Sound Power Level) ⁷	dB(A)	84	84	88	88	90	90	84	88	88
Operating weight	kg	778	874	840	891	1040	1113	1224	1357	1642

Model		CRH016	CRH017	CRH020	CRH023	CRH025	CRH028	CRH030	CRH032
Performances¹									
Cooling capacity	kW	162,7	156,4	169,7	207,2	222,7	257,0	294,5	320,6
Compressors power input	kW	59,4	57,3	64,9	77,7	90,1	94,5	111,7	124,8
Number of compr. / refriger. circuits	#	2/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP	-	2,74	2,73	2,62	2,67	2,47	2,72	2,64	2,57
Unit EER	-	2,34	2,34	2,28	2,28	2,16	2,32	2,30	2,24
Air flow rate	m ³ /h	42.000	39.750	39.750	53.000	53.000	66.250	66.250	72.500
SPL (Sound Pressure Level) ⁴	dB(A)	75,5	74,5	74,5	75	75	76	76	78
PWL (Sound Power Level) ⁵	dB(A)	91	90	90	90	90	90	90	92
SPL (Sound Pressure Level) ⁶	dB(A)	72,5	71,5	71,5	72	72	73	73	75
PWL (Sound Power Level) ⁷	dB(A)	88	87	87	87	87	87	87	89
Operating weight	kg	1724	2000	2128	2612	2612	2964	3068	3128

HPC R Range

Freecooling Aircooled Ductable Scroll Chiller

Model		SRH004	SRH204	SRH006	SRH206	SRH007	SRH207	SRH008	SRH011	SRH014
Performances²										
Cooling capacity	kW	41,6	41,6	54,3	53,4	66,9	67,2	82,0	107,0	139,3
Freecooling capacity ³	kW	28,6	28,6	34,0	33,8	40,1	40,1	56,7	67,4	94,3
Compressors power input	kW	13,4	13,4	19,8	19,4	24,8	25,0	26,7	39,6	44,5
Number of compr. / Refriger. circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2
Compressors COP	-	3,10	3,10	2,75	2,75	2,69	2,69	3,07	2,70	3,13
Unit EER	-	2,50	2,50	2,30	2,31	2,38	2,37	2,47	2,27	2,49
Air flow rate	m ³ /h	12.000	12.000	14.000	14.000	15.000	15.000	24.000	28.000	42.000
SPL (Sound Pressure Level) ⁴	dB(A)	70	70	73	73	74	74	71,5	74,5	75,5
PWL (Sound Power Level) ⁵	dB(A)	88	88	92	92	93	93	88	92	92
SPL (Sound Pressure Level) ⁶	dB(A)	67	67	70	70	71	71	68,5	71,5	72,5
PWL (Sound Power Level) ⁷	dB(A)	85	85	89	89	90	90	85	89	89
Operating weight	kg	870	967	933	984	1215	1288	1425	1558	1932

Model		SRH016	SRH017	SRH020	SRH023	SRH025	SRH028	SRH030	SRH032
Performances²									
Cooling Capacity	kW	169,8	164,5	178,1	218,5	234,0	270,8	310,1	336,5
Freecooling Capacity ³	kW	100,8	109,2	111,2	145,5	147,8	176,1	182,4	197,1
Compressors Power Input	kW	60,8	58,5	66,5	79,7	92,5	96,9	114,8	128,1
Number of Compr. / Refriger. Circuits	#	2/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP	---	2,79	2,81	2,68	2,74	2,53	2,79	2,70	2,63
Unit EER	---	2,35	2,37	2,30	2,32	2,19	2,35	2,33	2,27
Air Flow Rate	m ³ /h	42.000	39.750	39.750	53.000	53.000	66.250	66.250	72.500
SPL (Sound Pressure Level) ⁴	dB(A)	75,5	74,5	74,5	75	75	76	76	78
PWL (Sound Power Level) ⁵	dB(A)	92	91	91	91	91	91	91	93
SPL (Sound Pressure Level) ⁶	dB(A)	72,5	71,5	71,5	72	72	73	73	75
PWL (Sound Power Level) ⁷	dB(A)	89	88	88	88	88	88	88	90
Operating weight	kg	2016	2312	2440	2996	2996	3414	3520	3580

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CRH004	2046	1231	2272
CRH204	2046	1231	2272
CRH006	2046	1231	2272
CRH206	2046	1231	2272
CRH007	3046	1231	2272
CRH207	3046	1231	2272
CRH008	3046	1231	2272
CRH011	3046	1231	2272
CRH014	4046	1231	2272
CRH016	4046	1231	2272
CRH017	3750	1330	2270
CRH020	3750	1330	2270
CRH023	4750	1330	2270
CRH025	4750	1330	2270
CRH028	5750	1330	2270
CRH030	5750	1330	2270
CRH032	5750	1330	2270

1- At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; refrigerant R407C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ °C/W evaporator fouling factor; rated in accordance with EN12055; 50Pa ESP

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
SRH004	2046	1231	2272
SRH204	2046	1231	2272
SRH006	2046	1231	2272
SRH206	2046	1231	2272
SRH007	3046	1231	2272
SRH207	3046	1231	2272
SRH008	3046	1231	2272
SRH011	3046	1231	2272
SRH014	4046	1231	2272
SRH016	4046	1231	2272
SRH017	3750	1330	2270
SRH020	3750	1330	2270
SRH023	4750	1330	2270
SRH025	4750	1330	2270
SRH028	5750	1330	2270
SRH030	5750	1330	2270
SRH032	5750	1330	2270

2- At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; refrigerant R407C; water inlet/outlet 15/10°C; ethylene glycol 30%; 0m a.s.l.; 0,43x10⁻⁴ °C/W evaporator fouling factor; rated in accordance with EN12055; 50Pa ESP

3- At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 5°C; coolant inlet temperature 15°C; ethylene glycol 30%; 50Pa ESP

4- Base version, measured with outdoor temperature 35 °C; 1m from the unit, coil side; free field conditions; ducted air discharge; 50Pa ESP

5- Base version, for each fan, measured with outdoor temperature 35 °C; ducted air discharge; 50Pa ESP

6- Low Noise version, measured with outdoor temperature 35 °C; 1m from the unit, coil side; free field conditions; ducted air discharge; 50Pa ESP

7- Low Noise version, for each fan, measured with outdoor temperature 35 °C; ducted air discharge; 50Pa ESP



HPC S Range

Aircooled Scroll Chiller

Base

Model		CBH004	CBH204	CBH006	CBH206	CBH007	CBH207	CBH008	CBH011	CBH014	CBH016
Performances¹											
Cooling Capacity	kW	39,7	39,7	54,8	53,9	66,0	67,0	77,6	106,9	129,0	164,8
Compressors power input	kW	13,8	13,8	18,6	18,3	23,5	23,8	27,3	36,7	46,5	56,8
Number of Compr. / Refrig. Circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2	2/2
Compressors COP		2,88	2,88	2,95	2,95	2,81	2,81	2,84	2,91	2,78	2,90
Unit EER		2,55	2,55	2,69	2,69	2,61	2,61	2,51	2,65	2,58	2,65
Air flow rate	m ³ /h	21.400	21.400	19.400	19.400	18.000	18.000	42.800	38.800	36.000	58.200
SPL (Sound Pressure Level) ²	dB(A)	70	70	70	70	70	70	72	72	72	73
SPL (Sound Pressure Level) ³	dB(A)	55	55	55	55	55	55	58	58	58	60
PWL (Sound Power Level) ⁴	dB(A)	86	86	86	86	86	86	89	89	89	91
Length	mm	2046	2046	2046	2046	2046	2046	3046	3046	3046	4046
Depth	mm	1201	1201	1201	1201	1201	1201	1201	1201	1201	1201
Height	mm	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Operating Weight	kg	584	658	663	692	688	734	946	1119	1167	1421

Low Noise

Model		CLH004	CLH204	CLH006	CLH206	CLH007	CLH207	CLH008	CLH011	CLH014	CLH016
Performances¹											
Cooling Capacity	kW	38,7	38,7	54,2	53,3	67,9	68,9	75,3	105,8	133,1	158,2
Compressors power input	kW	14,3	14,3	18,9	18,6	22,5	22,8	28,5	37,5	44,2	60,5
Number of Compr. / Refrig. Circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2	2/2
Compressors COP		2,70	2,70	2,87	2,87	3,02	3,02	2,65	2,82	3,01	2,62
Unit EER		2,53	2,53	2,73	2,73	2,78	2,78	2,48	2,68	2,83	2,50
Air flow rate	m ³ /h	17.000	17.000	14.200	14.200	34.000	34.000	34.000	28.400	45.900	45.900
SPL (Sound Pressure Level) ²	dB(A)	63	63	63	63	64	64	65	65	66	66
SPL (Sound Pressure Level) ³	dB(A)	48	48	48	48	50	50	51	51	52	52
PWL (Sound Power Level) ⁴	dB(A)	79	79	79	79	81	81	82	82	84	84
Length	mm	2046	2046	2046	2046	3046	3046	3046	3046	4046	4046
Depth	mm	1201	1201	1201	1201	1201	1201	1201	1201	1201	1201
Height	mm	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Operating Weight	kg	591	672	691	728	839	892	960	1165	1352	1435

Quiet

Model		CQH004	CQH204	CQH006	CQH206	CQH007	CQH207	CQH008	CQH011	CQH014	CQH016
Performances¹											
Cooling Capacity	kW	40,0	40,0	56,1	55,2	66,3	67,3	78,2	108,9	128,9	159,0
Compressors power input	kW	13,6	13,6	17,9	17,6	23,3	23,6	27,0	35,6	46,6	60,0
Number of Compr. / Refrig. Circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2	2/2
Compressors COP		2,94	2,94	3,14	3,14	2,84	2,84	2,90	3,06	2,77	2,65
Unit EER		2,79	2,79	2,91	2,91	2,68	2,68	2,76	2,89	2,65	2,56
Air flow rate	m ³ /h	12.000	12.000	27.500	27.500	27.500	27.500	24.000	36.000	36.000	41.700
SPL (Sound Pressure Level) ²	dB(A)	58	58	59	59	59	59	60	61	61	61
SPL (Sound Pressure Level) ³	dB(A)	43	43	45	45	45	45	46	47	47	47
PWL (Sound Power Level) ⁴	dB(A)	74	74	76	76	76	76	77	79	79	79
Length	mm	2046	2046	3046	3046	3046	3046	3046	4046	4046	4046
Depth	mm	1201	1201	1201	1201	1201	1201	1201	1201	1201	1201
Height	mm	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Operating Weight	kg	608	690	835	872	839	892	1000	1338	1352	1468



HPC S Range

Aircooled Scroll Chiller

Base

Model		CBH017	CBH020	CBH023	CBH025	CBH028	CBH030	CBH032
Performances¹								
Cooling Capacity	kW	156,3	169,9	213,7	230,0	260,8	309,1	331,3
Compressors power input	kW	54,5	63,6	74,2	85,7	92,5	101,0	116,0
Number of Compr. / Refrig. Circuits	#	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP		2,87	2,67	2,88	2,69	2,82	3,06	2,86
Unit EER		2,61	2,46	2,63	2,48	2,62	2,81	2,65
Air flow rate	m ³ /h	59.100	59.100	78.800	78.800	74.000	92.500	92.500
SPL (Sound Pressure Level) ²	dB(A)	73	73	74	74	74	75	75
SPL (Sound Pressure Level) ³	dB(A)	60	60	61	61	61	62	62
PWL (Sound Power Level) ⁴	dB(A)	91	91	92	92	92	94	94
Length	mm	3750	3750	4750	4750	4750	5750	5750
Depth	mm	1300	1300	1300	1300	1300	1300	1300
Height	mm	2502	2502	2502	2502	2502	2502	2502
Operating Weight	kg	1788	1915	2331	2331	2431	2808	2868

Low Noise

Model		CLH017	CLH020	CLH023	CLH025	CLH028	CLH030	CLH032
Performances¹								
Cooling Capacity	kW	156,5	170,4	214,0	230,7	264,4	298,3	324,2
Compressors power input	kW	54,4	63,3	74,0	85,3	90,2	107,8	119,9
Number of Compr. / Refrig. Circuits	#	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP		2,88	2,69	2,89	2,70	2,93	2,79	2,70
Unit EER		2,73	2,58	2,75	2,59	2,79	2,67	2,60
Air flow rate	m ³ /h	44.100	44.100	58.800	58.800	73.500	73.500	72.750
SPL (Sound Pressure Level) ²	dB(A)	67	67	68	68	69	69	69
SPL (Sound Pressure Level) ³	dB(A)	54	54	55	55	56,5	56,5	56,5
PWL (Sound Power Level) ⁴	dB(A)	85	85	86	86	88	88	88
Length	mm	3750	3750	4750	4750	5750	5750	5750
Depth	mm	1300	1300	1300	1300	1300	1300	1300
Height	mm	2502	2502	2502	2502	2502	2502	2502
Operating Weight	kg	1872	1999	2428	2428	2728	2836	2896

Quiet

Model		CQH017	CQH020	CQH023	CQH025	CQH028	CQH030
Performances¹							
Cooling Capacity	kW	157,0	170,9	211,5	227,9	253,9	287,5
Compressors power input	kW	54,1	62,9	75,5	86,8	96,5	113,1
Number of Compr. / Refrig. Circuits	#	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP		2,90	2,72	2,80	2,63	2,63	2,54
Unit EER		2,76	2,60	2,68	2,52	2,54	2,47
Air flow rate	m ³ /h	50.000	50.000	62.500	62.500	57.500	57.000
SPL (Sound Pressure Level) ²	dB(A)	63	63	64	64	64	64
SPL (Sound Pressure Level) ³	dB(A)	50	50	51,5	51,5	51,5	51,5
PWL (Sound Power Level) ⁴	dB(A)	81	81	83	83	83	83
Length	mm	4750	4750	5750	5750	5750	5750
Depth	mm	1300	1300	1300	1300	1300	1300
Height	mm	2502	2502	2502	2502	2502	2502
Operating Weight	kg	2075	2202	2611	2611	2728	2878

¹ At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; refrigerant R407C; water inlet/outlet temperature 12/7 °C; ethylene glycol 0%; 0m a.s.l.; 0,43 x 10⁻⁴ m²°C/W evaporator fouling factor; rated in accordance with EN12055

² Measured with outdoor temperature 35 °C; 1m from the unit; free field conditions; according to ISO 3744

³ Measured with outdoor temperature 35 °C; 10m from the unit; free field conditions; according to ISO 3744

⁴ With outdoor temperature 35°C; calculated according to ISO 3744



HPC S Range

Freecooling Aircooled Scroll Chiller

Base

Model		SBH004	SBH204	SBH006	SBH206	SBH007	SBH207	SBH008	SBH011	SBH014	SBH016
Performances¹											
Cooling Capacity	kW	42,1	42,1	57,8	56,9	70,6	71,6	83,5	114,7	139,9	178,2
Freecooling Capacity ²	kW	25,8	25,8	33,6	33,6	43,0	43,0	51,5	67,0	85,1	104,2
Compressors Power Input	kW	14,5	14,5	19,7	19,4	24,4	24,8	28,9	39,2	48,6	59,0
Number of Compr. / Refrig. Circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2	2/2
Compressors COP	---	2,90	2,90	2,93	2,93	2,89	2,89	2,89	2,92	2,88	3,02
Unit EER	---	2,56	2,56	2,67	2,67	2,69	2,69	2,55	2,66	2,67	2,75
Unit EER at Z.E.T.	---	22,16	22,16	30,42	29,95	38,84	39,42	21,97	30,18	36,82	31,26
Air Flow Rate	m ³ /h	21.000	21.000	19.000	19.000	21.800	21.800	42.000	38.000	43.600	57.000
SPL (Sound Pressure Level) ³	dB(A)	70	70	70	70	70	70	72	72	72	73
SPL (Sound Pressure Level) ⁴	dB(A)	55	55	55	55	55	55	58	58	58	60
PWL (Sound Power Level) ⁵	dB(A)	86	86	86	86	86	86	89	89	89	91
Length	mm	2046	2046	2046	2046	2046	2046	3046	3046	3046	4046
Depth	mm	1201	1201	1201	1201	1201	1201	1201	1201	1201	1201
Height	mm	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Operating Weight	Kg	654	728	750	780	774	822	1101	1310	1364	1699

Low Noise

Model		SLH004	SLH204	SLH006	SLH206	SLH007	SLH207	SLH008	SLH011	SLH014	SLH016
Performances¹											
Cooling Capacity	kW	40,7	40,7	58,2	57,3	71,9	73,0	80,5	115,4	142,9	170,8
Freecooling Capacity ²	kW	23,1	23,1	36,1	36,1	45,0	45,0	46,1	72,1	87,1	91,2
Compressors Power Input	kW	15,3	15,3	19,6	19,3	23,7	24,1	30,4	38,9	47,0	63,0
Number of Compr. / Refrig. Circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2	2/2
Compressors COP	---	2,67	2,67	2,98	2,98	3,04	3,04	2,65	2,97	3,04	2,71
Unit EER	---	2,50	2,50	2,83	2,83	2,80	2,80	2,49	2,82	2,86	2,59
Unit EER at Z.E.T.	---	40,70	40,70	58,20	57,30	35,95	36,50	40,25	57,70	47,63	56,93
Air Flow Rate	m ³ /h	16.600	16.600	17.200	17.200	33.200	33.200	33.200	34..400	45.300	45.300
SPL (Sound Pressure Level) ³	dB(A)	63	63	63	63	64	64	65	65	66	66
SPL (Sound Pressure Level) ⁴	dB(A)	48	48	48	48	50	50	51	51	52	52
PWL (Sound Power Level) ⁵	dB(A)	79	79	79	79	81	81	82	82	84	84
Length	mm	2046	2046	2046	2046	3046	3046	3046	3046	4046	4046
Depth	mm	1201	1201	1201	1201	1201	1201	1201	1201	1201	1201
Height	mm	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Operating Weight	Kg	661	742	777	814	969	1022	1115	1362	1628	1713

Quiet

Model		SQH004	SQH204	SQH006	SQH206	SQH007	SQH207	SQH008	SQH011	SQH014	SQH016
Performances¹											
Cooling Capacity	kW	42,2	42,2	59,6	58,6	69,8	70,8	83,9	117,5	137,2	172,1
Freecooling Capacity ²	kW	24,6	24,6	39,0	39,0	40,5	40,5	49,3	73,5	75,9	94,5
Compressors Power Input	kW	14,4	14,4	18,8	18,5	24,8	25,2	28,7	37,8	49,9	62,3
Number of Compr. / Refrig. Circuits	#	1/1	2/2	1/1	2/2	1/1	2/2	2/2	2/2	2/2	2/2
Compressors COP	---	2,92	2,92	3,17	3,17	2,82	2,82	2,92	3,11	2,75	2,76
Unit EER	---	2,78	2,78	2,94	2,94	2,66	2,66	2,78	2,94	2,63	2,67
Unit EER at Z.E.T.	---	52,75	52,75	39,73	39,07	46,53	47,20	55,93	52,22	60,98	76,49
Air Flow Rate	m ³ /h	11.800	11.800	26.800	26.800	26.800	26.800	23.600	35.400	35.400	41.400
SPL (Sound Pressure Level) ³	dB(A)	58	58	59	59	59	59	60	61	61	61
SPL (Sound Pressure Level) ⁴	dB(A)	43	43	45	45	45	45	46	47	47	47
PWL (Sound Power Level) ⁵	dB(A)	74	74	76	76	76	76	77	79	79	79
Length	mm	2046	2046	3046	3046	3046	3046	3046	4046	4046	4046
Depth	mm	1201	1201	1201	1201	1201	1201	1201	1201	1201	1201
Height	mm	1904	1904	1904	1904	1904	1904	1904	1904	1904	1904
Operating Weight	Kg	695	776	965	1004	969	1022	1190	1614	1628	1835

¹ At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; refrigerant R407C; water inlet/outlet temperature 15/10 °C; ethylene glycol 30%; 0m a.s.l.; 0,43 x 10⁻⁴ m²°C/W evaporator fouling factor; rated in accordance with EN12055

² At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 5°C; coolant inlet temperature 15°C; ethylene glycol 30%



HPC S Range

Freecooling Aircooled Scroll Chiller

Base

Model		SBH017	SBH020	SBH023	SBH025	SBH028	SBH030	SBH032
Performances¹								
Cooling Capacity	kW	169,9	183,8	232,5	249,1	271,9	331,3	352,2
Freecooling Capacity ²	kW	110,8	112,0	147,8	150,1	152,3	193,3	196,4
Compressors Power Input	kW	57,1	66,3	78,5	90,2	103,8	111,5	128,6
Number of Compr. / Refrig. Circuits	#	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP		2,98	2,77	2,96	2,76	2,62	2,97	2,74
Unit EER		2,71	2,55	2,70	2,55	2,44	2,74	2,55
Unit EER at Z.E.T.		29,81	32,25	30,60	32,78	35,77	34,87	37,07
Air Flow Rate	m ³ /h	51.600	51.600	68.800	68.800	68.800	86.000	86.000
SPL (Sound Pressure Level) ³	dB(A)	73	73	74	74	74	75	75
SPL (Sound Pressure Level) ⁴	dB(A)	60	60	61	61	61	62	62
PWL (Sound Power Level) ⁵	dB(A)	91	91	92	92	92	94	94
Length	mm	3750	3750	4750	4750	4750	5750	5750
Depth	mm	1300	1300	1300	1300	1300	1300	1300
Height	mm	2502	2502	2502	2502	2502	2502	2502
Operating Weight	kg	2120	2247	2742	2742	2773	3206	3266

Low Noise

Model		SLH017	SLH020	SLH023	SLH025	SLH028	SLH030	SLH032
Performances¹								
Cooling Capacity	kW	163,6	176,5	224,6	240,0	278,1	328,9	350,6
Freecooling Capacity ²	kW	97,0	98,2	129,9	131,0	163,5	131,6	133,2
Compressors Power Input	kW	60,3	70,4	82,7	95,6	100,4	112,7	129,4
Number of Compr. / Refrig. Circuits	#	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP		2,71	2,51	2,72	2,51	2,77	2,92	2,71
Unit EER		2,58	2,40	2,59	2,41	2,64	2,79	2,61
Unit EER at Z.E.T.		54,52	58,83	56,15	59,99	55,62	65,78	70,12
Air Flow Rate	m ³ /h	40.800	40.800	54.400	54.400	68.000	70.500	70.500
SPL (Sound Pressure Level) ³	dB(A)	67	67	68	68	69	69	69
SPL (Sound Pressure Level) ⁴	dB(A)	54	54	55	55	56,5	56,5	56,5
PWL (Sound Power Level) ⁵	dB(A)	85	85	86	86	88	88	88
Length	mm	3750	3750	4750	4750	5750	5750	5750
Depth	mm	1300	1300	1300	1300	1300	1300	1300
Height	mm	2502	2502	2502	2502	2502	2502	2502
Operating Weight	kg	2148	2275	2770	2770	3126	3121	3181

Quiet

Model		SQH017	SQH020	SQH023	SQH025	SQH028	SQH030
Performances¹							
Cooling Capacity	kW	168,2	182,2	226,5	242,9	272,7	305,9
Freecooling Capacity ²	kW	107,3	108,3	136,6	137,8	112,1	113,9
Compressors Power Input	kW	57,9	67,3	81,8	94,2	102,5	121,9
Number of Compr. / Refrig. Circuits	#	4/2	4/2	4/2	4/2	4/2	4/2
Compressors COP		2,91	2,71	2,77	2,58	2,66	2,51
Unit EER		2,76	2,59	2,65	2,48	2,57	2,43
Unit EER at Z.E.T.		56,06	60,73	60,39	64,76	72,72	81,57
Air Flow Rate	m ³ /h	42.000	42.000	52.500	52.500	55.000	55.000
SPL (Sound Pressure Level) ³	dB(A)	63	63	64	64	64	64
SPL (Sound Pressure Level) ⁴	dB(A)	50	50	51,5	51,5	51,5	51,5
PWL (Sound Power Level) ⁵	dB(A)	81	81	83	83	83	83
Length	mm	4750	4750	5750	5750	5750	5750
Depth	mm	1300	1300	1300	1300	1300	1300
Height	mm	2502	2502	2502	2502	2502	2502
Operating Weight	Kg	2486	2613	3095	3095	3055	3163

³ Measured with outdoor temperature 35 °C; 1m from the unit; free field conditions; according to ISO 3744

⁴ Measured with outdoor temperature 35 °C; 10m from the unit; free field conditions; according to ISO 3744

⁵ With outdoor temperature 35°C; calculated according to ISO 3744



HPC M Range

Aircooled Screw Chiller

Base Model		CBS037	CBS042	CBS042_B	CBS051	CBS059	CBS069	
R134a refrigerant							Performances¹	
Cooling Capacity	kW	334	378	402	469	534	619	
Compressors power input	kW	101	116	124	148	158	175	
Compressors COP	---	3,29	3,25	3,23	3,16	3,38	3,53	
Unit EER	---	2,98	2,89	2,90	2,88	3,03	3,15	
R407C refrigerant							Performances¹	
Cooling capacity	kW	361	421	---	517	598	702	
Compressors power input	kW	126	142	---	167	192	217	
Compressors COP	---	2,87	2,96	---	3,10	3,11	3,24	
Unit EER	---	2,65	2,69	---	2,85	2,85	2,95	
Air flow rate	m ³ /h	122.800	160.800	160.800	156.800	196.000	235.200	
SPL (Sound Pressure Level) ⁴	dB(A)	77	77	77	77	78	79	
PWL (Sound Power Level) ⁵	dB(A)	97	97	97	97	98	99	
Capacity Control		25 --> 100 % stepless						
Operating Weight	kg	4.205	4.492	5.092	5.357	5.950	6.651	

Low Noise Model		CLS037	CLS042	CLS042_B	CLS051	CLS059	CLS069	
R134a refrigerant							Performances¹	
Cooling Capacity	kW	334	375	399	471	534	595	
Compressors power input	kW	101	117	125	147	159	185	
Compressors COP	---	3,29	3,20	3,18	3,20	3,36	3,21	
Unit EER	---	3,06	3,01	3,00	3,01	3,14	3,03	
R407C refrigerant							Performances¹	
Cooling capacity	kW	361	418	---	522	596	670	
Compressors power input	kW	126	143	---	165	192	229	
Compressors COP	---	2,87	2,92	---	3,16	3,10	2,93	
Unit EER ²	---	2,71	2,77	---	2,98	2,92	2,79	
Air flow rate	m ³ /h	123.200	119.000	119.000	148.750	178.500	178.500	
SPL (Sound Pressure Level) ⁴	dB(A)	70	70	70	70	71	71	
PWL (Sound Power Level) ⁵	dB(A)	90	90	90	90	91	91	
Capacity control		25 --> 100 % stepless						
Operating weight	kg	4.329	4.712	5.312	5.952	6.533	6.717	

Quiet Model		CQS037	CQS042	CQS042_B	CQS051	CQS059	CQS069	
R134a refrigerant							Performances¹	
Cooling capacity	kW	322	359	381	453	512	569	
Compressors power input	kW	106	124	132	156	167	198	
Compressors COP	---	3,05	2,90	2,88	2,91	3,07	2,88	
Unit EER	---	2,89	2,78	2,76	2,79	2,92	2,76	
R407C refrigerant							Performances¹	
Cooling capacity	kW	346	399	---	496	569	637	
Compressors power input	kW	131	152	---	175	203	245	
Compressors COP	---	2,64	2,63	---	2,83	2,80	2,60	
Unit EER ²	---	2,52	2,52	---	2,73	2,69	2,52	
Air flow rate	m ³ /h	101.600	98.000	98.000	122.500	147.000	147.000	
SPL (Sound Pressure Level) ⁴	dB(A)	65	65	65	65	66	66	
PWL (Sound Power Level) ⁵	dB(A)	85	85	85	85	86	86	
Capacity control		25 --> 100 % stepless						
Operating weight	kg	4.329	4.712	5.312	5.952	6.533	6.717	

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CCBS037	5220	2260	2517
CBS042	5220	2260	2517
CBS042_B	5220	2260	2517
CBS051	5220	2260	2517
CBS059	6320	2260	2517
CBS069	7420	2260	2517

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CLS037	5220	2260	2517
CLS042	5220	2260	2517
CLS042_B	5220	2260	2517
CLS051	6320	2260	2517
CLS059	7420	2260	2517
CLS069	7420	2260	2517

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CCQS037	5220	2260	2517
CQS042	5220	2260	2517
CQS042_B	5220	2260	2517
CQS051	6320	2260	2517
CQS059	7420	2260	2517
CQS069	7420	2260	2517

1 At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ 2°C/W evaporator fouling factor; rated in accordance with EN12055
2 At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; water inlet/outlet 15/10°C; ethylene glycol 30%; 0m a.s.l.; 0,43x10⁻⁴ 2°C/W evaporator fouling factor; rated in accordance with EN12055
3 At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 5°C; coolant inlet temperature 15°C; ethylene glycol 30%
4 Measured with outdoor temperature 35 °C; 1meter from the unit; free field conditions; according to ISO3744
5 Measured with outdoor temperature 35 °C; according to ISO3744



HPC M Range

Freecooling Aircooled Screw Chiller

Base Model		SBS040	SBS045	SBS045_B	SBS054	SBS063	SBS073
R134a refrigerant		Performances²					
Cooling capacity	kW	350	406	439	479	547	639
Freecooling capacity ³	kW	250	287	296	298	372	451
Compressors power input	kW	106	122	139	164	174	193
Compressors COP	---	3,29	3,33	3,16	2,92	3,15	3,32
Unit EER	---	2,97	2,96	2,85	2,67	2,84	2,97
Unit EER at Z.E.T.	---	21,9	18,9	19,5	19,6	19,6	19,8
R407C refrigerant		Performances²					
Cooling capacity	kW	389	452	---	528	613	725
Freecooling capacity ³	kW	261	299	---	308	385	466
Compressors power input	kW	131	149	---	185	211	239
Compressors COP	---	2,97	3,03	---	2,85	2,91	3,03
Unit EER ²	---	2,72	2,75	---	2,64	2,66	2,77
Unit EER at Z.E.T.	---	34,1	29,7	---	34,7	32,3	31,8
Air flow rate	m ³ /h	118.800	146.400	146.400	146.400	183.000	219.600
SPL (Sound Pressure Level) ⁴	dB(A)	77	77	77	77	78	79
PWL (Sound Power Level) ⁵	dB(A)	97	97	97	97	98	99
Capacity control		25 --> 100 % stepless					
Operating weight	kg	4.953	5.240	5.840	5.970	6.694	7.522

Low Noise Model		SLS040	SLS045	SLS045_B	SLS054	SLS063	SLS073
R134a refrigerant		Performances²					
Cooling capacity	kW	347	384	416	482	551	610
Freecooling capacity ³	kW	242	249	256	317	381	388
Compressors power input	kW	108	130	148	162	175	207
Compressors COP	---	3,21	2,95	2,80	2,97	3,15	2,95
Unit EER	---	2,99	2,78	2,66	2,80	2,95	2,79
Unit EER at Z.E.T.	---	30,3	31,1	32,0	31,7	31,8	32,3
R407C refrigerant		Performances²					
Cooling capacity	kW	386	428	---	534	615	687
Freecooling capacity ³	kW	253	258	---	326	392	399
Compressors power input	kW	133	159	---	183	211	256
Compressors COP	---	2,90	2,69	---	2,92	2,91	2,68
Unit EER	---	2,74	2,57	---	2,77	2,76	2,57
Unit EER at Z.E.T.	---	48,2	53,5	---	53,4	51,2	57,2
Air flow rate	m ³ /h	112.800	112.800	112.800	141.000	169.200	169.200
SPL (Sound Pressure Level) ⁴	dB(A)	70	70	70	70	71	71
PWL (Sound Power Level) ⁵	dB(A)	90	90	90	90	91	91
Capacity control		25 --> 100 % stepless					
Operating weight	kg	5.077	5.300	5.900	6.696	7.404	7.588

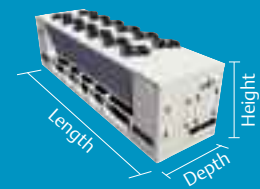
Quiet Model		SQS040	SQS045	SQS045_B	SQS054	SQS063	SQS073
R134a refrigerant		Performances²					
Cooling capacity	kW	329	363	392	457	522	574
freecooling capacity ³	kW	212	216	222	276	331	336
compressors power input	kW	115	139	157	173	184	222
compressors COP	---	2,86	2,61	2,49	2,65	2,83	2,58
unit EER	---	2,72	2,51	2,40	2,54	2,70	2,48
Unit EER at Z.E.T.	---	35,3	36,0	37,0	36,8	36,8	37,3
R407C refrigerant		Performances²					
Cooling capacity	kW	365	403	---	501	580	643
freecooling capacity	kW	221	224	---	282	340	344
compressors power input	kW	140	170	---	194	224	275
compressors COP	---	2,61	2,37	---	2,58	2,59	2,34
unit EER	---	2,49	2,28	---	2,49	2,49	2,26
Unit EER at Z.E.T.	---	60,8	67,1	---	66,8	64,4	71,5
Air flow rate	m ³ /h	91.000	91.000	91.000	113.750	136.500	136.500
SPL (Sound Pressure Level) ⁴	dB(A)	65	65	65	65	66	66
PWL (Sound Power Level) ⁵	dB(A)	85	85	85	85	86	86
capacity control		25 --> 100 % stepless					
operating weight	kg	5.077	5.300	5.900	6.696	7.404	7.588

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
SBS040	5220	2260	2517
SBS045	5220	2260	2517
SBS045_B	5220	2260	2517
SBS054	5220	2260	2517
SBS063	6320	2260	2517
SBS073	7420	2260	2517

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
SLS040	5220	2260	2517
SLS045	5220	2260	2517
SLS045_B	5220	2260	2517
SLS054	6320	2260	2517
SLS063	7420	2260	2517
SLS073	7420	2260	2517

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
SQS040	5220	2260	2517
SQS045	5220	2260	2517
SQS045_B	5220	2260	2517
SQS054	6320	2260	2517
SQS063	7420	2260	2517
SQS073	7420	2260	2517



HPC L Range

Aircooled Screw Chiller

High Availability Model		CA4069	CA4075	CA4081	CA4087	CA4093	CA4100	CA4107	
R134a refrigerant								Performances¹	
Cooling capacity	kW	745	790	846	881	926	972	1063	
compressors power input	kW	195	215	238	256	269	288	295	
compressors COP	---	3,82	3,67	3,55	3,44	3,44	3,38	3,60	
unit EER	---	3,31	3,22	3,16	3,08	3,04	3,00	3,15	
cooling capacity with ECO ²	kW	836	882	937	981	1033	1079	1158	
compressors power input ²	kW	222	243	265	290	308	327	325	
compressors COP ²	---	3,77	3,63	3,54	3,38	3,35	3,30	3,56	
unit EER ²	---	3,32	3,23	3,18	3,07	3,00	2,97	3,16	
SPL (Sound Pressure Level) ³	dB(A)	83,5	83,5	83,5	83,5	84	84	84,5	
PWL (Sound Power Level) ⁴	dB(A)	104,5	104,5	104,5	104,5	105	105	105,5	
air flow rate	m ³ /h	250.000	250.000	250.000	250.000	270.000	270.000	315.000	
operating weight	kg	9100	9108	9.187	9.264	9.446	9.477	10.282	

Base Model		CB4069	CB4075	CB4081	CB4087	CB4093	CB4100	CB4107	
R134a refrigerant								Performances¹	
Cooling capacity	kW	732	776	829	862	905	950	1041	
Compressors power input	kW	200	221	245	264	277	297	304	
Compressors COP	---	3,66	3,51	3,38	3,27	3,27	3,20	3,42	
Unit EER	---	3,28	3,18	3,09	3,00	2,97	2,93	3,10	
Cooling capacity with ECO ²	kW	824	869	923	963	1013	1056	1138	
Compressors power input ²	kW	230	252	277	303	321	342	339	
Compressors COP ²	---	3,58	3,45	3,33	3,18	3,16	3,09	3,36	
Unit EER ²	---	3,26	3,16	3,08	2,95	2,91	2,86	3,07	
SPL (Sound Pressure Level) ³	dB(A)	79,5	79,5	79,5	79,5	80	80	80,5	
PWL (Sound Power Level) ⁴	dB(A)	100,5	100,5	100,5	100,5	101	101	101,5	
Air flow rate	m ³ /h	230.000	230.000	230.000	230.000	247.200	247.200	288.400	
Operating weight	kg	9100	9108	9.187	9.264	9.446	9.477	10.282	

Low Noise Model		CL4068	CL4074	CL4080	CL4086	CL4092	CL4099	CL4106	
R134a refrigerant								Performances¹	
Cooling capacity	kW	728	772	851	886	947	995	1054	
compressors power input	kW	201	223	236	254	261	278	298	
compressors COP	---	3,62	3,46	3,61	3,49	3,63	3,58	3,54	
unit EER	---	3,29	3,17	3,28	3,19	3,29	3,26	3,24	
cooling capacity with ECO ²	kW	819	863	939	983	1051	1096	1147	
compressors power input ²	kW	234	257	264	288	297	314	333	
compressors COP ²	---	3,50	3,36	3,56	3,41	3,54	3,49	3,44	
unit EER ²	---	3,22	3,11	3,26	3,15	3,24	3,21	3,18	
SPL (Sound Pressure Level) ³	dB(A)	73	73	73,5	73,5	74	74	74	
PWL (Sound Power Level) ⁴	dB(A)	94	94	94,5	94,5	95,5	95,5	95,5	
Air flow rate	m ³ /h	218.400	218.400	254.800	254.800	291.200	291.200	291.200	
Operating weight	kg	9086	9098	9.674	9.746	10.632	10.660	10.920	

Quiet Model		CQ4068	CQ4074	CQ4080	CQ4086	CQ4092	CQ4099	CQ4106	
R134a refrigerant								Performances¹	
Cooling capacity	kW	693	732	812	842	903	948	1001	
compressors power input	kW	214	240	253	272	277	298	322	
compressors COP	---	3,24	3,05	3,21	3,10	3,26	3,18	3,11	
unit EER	---	3,05	2,89	3,03	2,93	3,07	3,00	2,95	
cooling capacity with ECO ²	kW	784	825	905	941	1008	1052	1097	
compressors power input ²	kW	257	285	292	319	324	346	370	
compressors COP ²	---	3,05	2,89	3,10	2,95	3,11	3,04	2,96	
unit EER ²	---	2,90	2,77	2,94	2,81	2,95	2,89	2,83	
SPL (Sound Pressure Level) ³	dB(A)	65	65	65,5	65,5	66	66	66	
PWL (Sound Power Level) ⁴	dB(A)	86	86	86,5	86,5	87,5	87,5	87,5	
air flow rate	m ³ /h	168.000	168.000	196.000	196.000	224.000	224.000	224.000	
operating weight	kg	9086	9098	9.674	9.746	10.632	10.660	10.920	

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CA4069	8.590	2308	2563
CA4075	8.590	2308	2563
CA4081	8.590	2308	2563
CA4087	8.590	2308	2563
CA4093	8.590	2308	2563
CA4100	8.590	2308	2563
CA4107	9.586	2308	2563

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CB4069	8.590	2308	2563
CB4075	8.590	2308	2563
CB4081	8.590	2308	2563
CB4087	8.590	2308	2563
CB4093	8.590	2308	2563
CB4100	8.590	2308	2563
CB4107	9.586	2308	2563

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CL4068	8.590	2308	2563
CL4074	8.590	2308	2563
CL4080	9.586	2308	2563
CL4086	9.586	2308	2563
CL4092	11.578	2308	2563
CL4099	11.578	2308	2563
CL4106	11.578	2308	2563

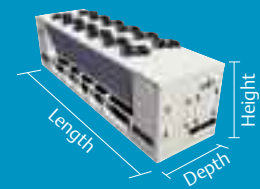
Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CQ4068	8.590	2308	2563
CQ4074	8.590	2308	2563
CQ4080	9.586	2308	2563
CQ4086	9.586	2308	2563
CQ4092	11.578	2308	2563
CQ4099	11.578	2308	2563
CQ4106	11.578	2308	2563

¹ At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ 2°C/W evaporator fouling factor; rated in accordance with EN12055

² At the following standard conditions: power supply 400V/3ph/50Hz; with Economiser; outdoor temperature 35°C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ 2°C/W evaporator fouling factor; rated in accordance with EN12055

³ Measured with outdoor temperature 35 °C; 1 meter from the unit; free field conditions; according to ISO3744

⁴ Measured with outdoor temperature 35 °C; according to ISO3744



HPC L Range

Aircooled Screw Chiller

High Availability Model		CA7081	CA7087	CA7093	CA7100	CA7107	CA7115	CA7122	CA7131	CA7140
R407C refrigerant										Performances¹
Cooling capacity	kW	885	928	996	1045	1157	1211	1322	1462	1529
Compressors power input	kW	301	328	351	384	399	434	447	453	490
Compressors COP	---	2,94	2,83	2,84	2,72	2,90	2,79	2,96	3,23	3,12
Unit EER	---	2,67	2,59	2,57	2,49	2,62	2,54	2,67	2,85	2,78
Cooling capacity with ECO ²	kW	980	1016	1080	1126	1238	1297	1415	1550	1613
Compressors power input ²	kW	372	402	422	455	458	507	524	511	545
Compressors COP ²	---	2,63	2,53	2,56	2,47	2,70	2,56	2,70	3,03	2,96
Unit EER ²	---	2,44	2,35	2,36	2,29	2,48	2,36	2,47	2,71	2,67
SPL (Sound Pressure Level) ³	dB(A)	83,5	83,5	84	84	84,5	84,5	85	86	86
PWL (Sound Power Level) ⁴	dB(A)	104,5	104,5	105	105	105,5	105,5	106,5	108	108
Air flow rate	m3/h	250.000	250.000	270.000	270.000	315.000	315.000	360.000	450.000	450.000
Operating weight	kg	9.134	9.156	9.316	9.336	10.143	10.204	11.176	12.230	12.255

Base Model		CB7081	CB7087	CB7093	CB7100	CB7107	CB7115	CB7122	CB7131	CB7140
R407C refrigerant										Performances¹
Cooling capacity	kW	854	893	957	1001	1115	1164	1276	1422	1486
compressors power input	kW	313	342	365	401	418	454	465	470	509
compressors COP	---	2,73	2,61	2,62	2,50	2,67	2,56	2,74	3,03	2,92
unit EER	---	2,54	2,45	2,44	2,34	2,48	2,39	2,54	2,76	2,68
cooling capacity with ECO ²	kW	950	981	1041	1084	1199	1252	1370	---	---
compressors power input ²	kW	393	424	445	481	485	537	552	---	---
compressors COP ²	---	2,42	2,31	2,34	2,25	2,47	2,33	2,48	---	---
unit EER ²	---	2,28	2,19	2,20	2,13	2,32	2,20	2,33	---	---
SPL (Sound Pressure Level) ³	dB(A)	79,5	79,5	80	80	80,5	80,5	81	82	82
PWL (Sound Power Level) ⁴	dB(A)	100,5	100,5	101	101	101,5	101,5	102,5	104	104
Air flow rate	m3/h	230.000	230.000	247.200	247.200	288.400	288.400	329.600	412.000	412.000
Operating weight	kg	9.134	9.156	9.316	9.336	10.143	10.204	11.176	12.230	12.255

Low Noise Model		CL7080	CL7086	CL7092	CL7099	CL7106	CL7114	CL7121	CL7130	CL7139
R407C refrigerant										Performances¹
Cooling capacity	kW	886	929	1019	1069	1130	1181	1328	1391	1452
compressors power input	kW	300	328	343	374	411	446	444	484	525
compressors COP	---	2,95	2,83	2,97	2,86	2,75	2,65	2,99	2,87	2,77
unit EER	---	2,74	2,64	2,75	2,66	2,58	2,50	2,78	2,69	2,60
Cooling capacity with ECO ²	kW	983	1019	1105	1153	1213	1268	1419	---	---
Compressors power input ²	kW	372	402	409	440	476	527	518	---	---
Compressors COP ²	---	2,64	2,53	2,70	2,62	2,55	2,41	2,74	---	---
Unit EER ²	---	2,48	2,39	2,53	2,47	2,41	2,29	2,57	---	---
SPL (Sound Pressure Level) ³	dB(A)	73,5	73,5	74	74	74	74	75	75	75
PWL (Sound Power Level) ⁴	dB(A)	94,5	94,5	95,5	95,5	95,5	95,5	97	97	97
Air flow rate	m3/h	254.800	254.800	291.200	291.200	291.200	291.200	364.000	364.000	364.000
Operating weight	kg	9.618	9.638	10.492	10.508	10.776	10.840	11.895	11.910	11.935

Quiet Model		CQ7080	CQ7086	CQ7092	CQ7099	CQ7106	CQ7114	CQ7121
R407C refrigerant								
Performances¹								
Cooling capacity	kW	825	860	949	992	1043	1084	1239
compressors power input	kW	325	355	368	405	452	489	480
compressors COP	---	2,54	2,42	2,58	2,45	2,31	2,22	2,58
unit EER	---	2,42	2,32	2,46	2,35	2,22	2,14	2,47
SPL (Sound Pressure Level) ³	dB(A)	66,5	66,5	67	67	67	67	68
PWL (Sound Power Level) ⁴	dB(A)	87,5	87,5	88,5	88,5	88,5	88,5	90
air flow rate	m3/h	196.000	196.000	224.000	224.000	224.000	224.000	280.000
operating weight	kg	9.618	9.638	10.492	10.508	10.776	10.840	11.895

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CA7081	8.590	2308	2563
CA7087	8.590	2308	2563
CA7093	8.590	2308	2563
CA7100	8.590	2308	2563
CA7107	9.586	2308	2563
CA7115	9.586	2308	2563
CA7122	11.578	2308	2563
CA7131	13.570	2308	2563
CA7140	13.570	2308	2563

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CB7081	8.590	2308	2563
CB7087	8.590	2308	2563
CB7093	8.590	2308	2563
CB7100	8.590	2308	2563
CB7107	9.586	2308	2563
CB7115	9.586	2308	2563
CB7122	11.578	2308	2563
CB7131	13.570	2308	2563
CB7140	13.570	2308	2563

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CL7080	9.586	2308	2563
CL7086	9.586	2308	2563
CL7092	11.578	2308	2563
CL7099	11.578	2308	2563
CL7106	11.578	2308	2563
CL7114	11.578	2308	2563
CL7121	13.570	2308	2563
CL7130	13.570	2308	2563
CL7139	13.570	2308	2563

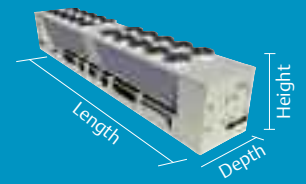
Model	Length	Depth	Height
	[mm]	[mm]	[mm]
CQ7080	9.586	2308	2563
CQ7086	9.586	2308	2563
CQ7092	11.578	2308	2563
CQ7099	11.578	2308	2563
CQ7106	11.578	2308	2563
CQ7114	11.578	2308	2563
CQ7121	13.570	2308	2563

¹ At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ 2°C/W evaporator fouling factor; rated in accordance with EN12055

² At the following standard conditions: power supply 400V/3ph/50Hz; with Economiser; outdoor temperature 35°C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ 2°C/W evaporator fouling factor; rated in accordance with EN12055

³ Measured with outdoor temperature 35 °C; 1 meter from the unit; free field conditions; according to ISO3744

⁴ Measured with outdoor temperature 35 °C; according to ISO3744



HPC L Range

Freecooling Aircooled Screw Chiller

Dimensions

High Availability Model		FA4069	FA4075	FA4081	FA4087	FA4093	FA4100	FA4107	
R134a refrigerant								Performances¹	
Cooling capacity	kW	766	810	867	899	929	1046	1107	
Freecooling Capacity ²	kW	506	511	515	519	521	689	696	
Compressors power input	kW	210	233	259	279	299	291	313	
Compressors COP	---	3,65	3,48	3,35	3,22	3,11	3,59	3,54	
Unit EER	---	3,08	2,98	2,92	2,83	2,75	3,06	3,04	
Cooling capacity with ECO ³	kW	784	827	881	918	952	1052	1106	
Compressors power input ³	kW	229	251	277	301	326	307	326	
Compressors COP ³	---	3,42	3,29	3,18	3,05	3,05	3,43	3,39	
unit EER ³	---	2,93	2,86	2,79	2,70	2,61	2,94	2,93	
SPL (Sound Pressure Level) ⁴	dB(A)	84	84	84	84	84	85	85	
PWL (Sound Power Level) ⁵	dB(A)	105	105	105	105	105	106,5	106,5	
Air flow rate	m ³ /h	252.000	252.000	252.000	252.000	252.000	336.000	336.000	
Operating weight	kg	11.627	11.693	11.718	11.790	11.991	13.544	13.808	

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FA4069	9.586	2308	2563
FA4075	9.586	2308	2563
FA4081	9.586	2308	2563
FA4087	9.586	2308	2563
FA4093	9.586	2308	2563
FA4100	11.578	2308	2563
FA4107	11.578	2308	2563

Base Model		FB4069	FB4075	FB4081	FB4087	FB4093	FB4100	FB4107	
R134a refrigerant								Performances¹	
Cooling capacity	kW	752	795	849	880	908	1028	1089	
Freecooling Capacity ²	kW	486	490	494	497	499	661	668	
Compressors power input	kW	236	260	287	312	338	316	337	
Compressors COP	---	3,28	3,14	3,03	2,89	2,76	3,28	3,24	
Unit EER	---	2,93	2,83	2,76	2,65	2,55	2,94	2,92	
Cooling capacity with ECO ³	kW	774	816	869	903	934	1038	1092	
Compressors power input ³	kW	236	260	287	312	338	316	337	
Compressors COP ³	---	3,28	3,14	3,03	2,89	2,76	3,28	3,24	
Unit EER ³	---	2,93	2,83	2,76	2,65	2,55	2,94	2,92	
SPL (Sound Pressure Level) ⁴	dB(A)	80	80	80	80	80	81	81	
PWL (Sound Power Level) ⁵	dB(A)	101	101	101	101	101	102,5	102,5	
Air flow rate	m ³ /h	235.200	235.200	235.200	235.200	235.200	313.600	313.600	
Operating weight	kg	11627	11639	11718	11790	11991	13544	13808	

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FB4069	9.586	2308	2571
FB4075	9.586	2308	2571
FB4081	9.586	2308	2571
FB4087	9.586	2308	2571
FB4093	9.586	2308	2571
FB4100	11.578	2308	2571
FB4107	11.578	2308	2571

Low Noise Model		FL4068	FL4074	FL4080	FL4086	FL4092	FL4099	FL4106	
R134a refrigerant								Performances¹	
Cooling capacity	kW	737	778	830	929	963	1008	1067	
Freecooling Capacity ²	kW	460	464	469	611	614	619	624	
Compressors power input	kW	221	247	276	267	286	307	333	
Compressors COP	---	3,33	3,15	3,01	3,48	3,37	3,28	3,20	
Unit EER	---	3,04	2,90	2,79	3,14	3,06	3,00	2,95	
Cooling capacity with ECO ³	kW	762	803	854	941	979	1023	1077	
Compressors power input ³	kW	244	270	299	284	307	327	350	
Compressors COP ³	---	3,12	2,97	2,86	3,31	3,19	3,13	3,08	
Unit EER ³	---	2,87	2,75	2,66	3,01	2,92	2,88	2,84	
SPL (Sound Pressure Level) ⁴	dB(A)	73	73	73	74	74	74	74	
PWL (Sound Power Level) ⁵	dB(A)	94	94	94	95,5	95,5	95,5	95,5	
Air flow rate	m ³ /h	208.800	208.800	208.800	278.400	278.400	278.400	278.400	
Operating weight	kg	11508	11517	11595	13104	13300	13328	13588	

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FL4068	9.586	2308	2571
FL4074	9.586	2308	2571
FL4080	9.586	2308	2571
FL4086	11.578	2308	2571
FL4092	11.578	2308	2571
FL4099	11.578	2308	2571
FL4106	11.578	2308	2571

Quiet Model		FQ4068	FQ4074	FQ4080	FQ4086	FQ4092	FQ4099	FQ4106	
R134a refrigerant								Performances¹	
Cooling capacity	kW	695	731	776	882	910	951	1003	
Freecooling Capacity ²	kW	389	391	394	518	519	522	525	
Compressors power input	kW	237	268	303	287	307	333	365	
Compressors COP	---	2,93	2,73	2,56	3,07	2,96	2,86	2,75	
Unit EER	---	2,77	2,59	2,45	2,89	2,80	2,71	2,62	
Cooling capacity with ECO ³	kW	727	764	-	904	936	975	1024	
Compressors power input ³	kW	270	301	-	311	337	362	392	
Compressors COP ³	---	2,69	2,54	-	2,91	2,78	2,69	2,61	
Unit EER ³	---	2,56	2,43	-	2,74	2,74	2,56	2,50	
SPL (Sound Pressure Level) ⁴	dB(A)	65,5	65,5	65,5	66	66	66	66	
PWL (Sound Power Level) ⁵	dB(A)	86,5	86,5	86,5	87,5	87,5	87,5	87,5	
Air flow rate	m ³ /h	160.800	160.800	160.800	214.400	214.400	214.400	214.400	
Operating weight	kg	11508	11517	11595	13104	13300	13328	13588	

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FQ4068	9.586	2308	2571
FQ4074	9.586	2308	2571
FQ4080	9.586	2308	2571
FQ4086	11.578	2308	2571
FQ4092	11.578	2308	2571
FQ4099	11.578	2308	2571
FQ4106	11.578	2308	2571

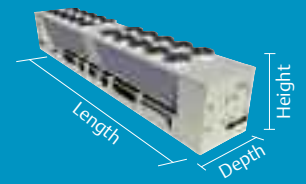
1 At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; water inlet/outlet 15/10°C; ethylene glycol 30%; 0m a.s.l.; 0,43x10⁻⁴ °C/W evaporator fouling factor; rated in accordance with EN12055

2 At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 5°C; coolant inlet temperature 15°C; ethylene glycol 30%

3 At the following standard conditions: power supply 400V/3ph/50Hz; outdoor temperature 35°C; water inlet/outlet 12/7°C; ethylene glycol 0%; 0m a.s.l.; 0,43x10⁻⁴ °C/W evaporator fouling factor; rated in accordance with EN12055

4 Measured with outdoor temperature 35 °C; 1 meter from the unit; free field conditions; according to ISO3744

5 Measured with outdoor temperature 35 °C; according to ISO3744



HPC L Range

Freecooling Aircooled Screw Chiller

High Availability Model		FA7081	FA7087	FA7093	FA7100	FA7107	FA7115	FA7122
R407C refrigerant		Performances¹						
Cooling capacity	kW	904	943	993	1140	1215	1271	1328
Freecooling Capacity ²	kW	520	524	529	702	710	713	716
Compressors power input	kW	320	350	382	379	417	453	490
Compressors COP	---	2,83	2,69	2,60	3,01	2,91	2,81	2,71
Unit EER	---	2,52	2,43	2,36	2,65	2,60	2,52	2,45
Cooling capacity with ECO ³	kW	910	944	989	1117	1191	1247	1303
Compressors power input ³	kW	373	402	435	412	445	492	540
Compressors COP ³	---	2,44	2,35	2,27	2,71	2,68	2,53	2,41
Unit EER ²	---	2,21	2,14	2,09	2,41	2,40	2,30	2,20
SPL (Sound Pressure Level) ⁴	dB(A)	84	84	84	85	85	85	85
PWL (Sound Power Level) ⁴	dB(A)	105	105	105	106,5	106,5	106,5	106,5
Air flow rate	m ³ /h	252.000	252.000	252.000	336.000	336.000	336.000	336.000
Operating weight	kg	11.648	11.665	11.884	13.376	13.644	13.712	13.840

Base Model		FB7081	FB7087	FB7093	FB7100	FB7107	FB7115	FB7122
R407C refrigerant		Performances¹						
Cooling capacity	kW	876	912	957	1109	1180	1232	1285
Freecooling Capacity ²	kW	496	499	503	671	678	680	682
Compressors power input	kW	332	362	395	392	433	470	508
Compressors COP	---	2,64	2,52	2,42	2,83	2,73	2,62	2,52
Unit EER	---	2,43	2,34	2,26	2,58	2,51	2,43	2,36
Cooling capacity with ECO ³	kW	886	916	957	1093	1164	1215	1268
Compressors power input ³	kW	390	420	454	428	465	514	562
Compressors COP ³	---	2,27	2,18	2,11	2,55	2,5	2,36	2,26
Unit EER ²	---	2,12	2,04	1,98	2,35	2,32	2,20	2,10
SPL (Sound Pressure Level) ⁴	dB(A)	80	80	80	81	81	81	81
PWL (Sound Power Level) ⁵	dB(A)	101	101	101	102,5	102,5	102,5	102,5
Air flow rate	m ³ /h	235.200	235.200	235.200	313.600	313.600	313.600	313.600
Operating weight	kg	11.648	11.665	11.844	13.376	13.644	13.712	13.840

Low Noise Model		FL7080	FL7086	FL7092	FL7099	FL7106	FL7114	FL7121
R407C refrigerant		Performances¹						
Cooling capacity	kW	848	976	1031	1078	1145	1289	1348
Freecooling Capacity ²	kW	471	617	622	626	632	767	773
Compressors power input	kW	341	337	368	404	446	446	482
Compressors COP	---	2,49	2,90	2,80	2,67	2,57	2,89	2,80
Unit EER	---	2,34	2,67	2,60	2,49	2,41	2,67	2,60
Cooling capacity with ECO ³	kW	859	972	1022	1067	1132	1261	1320
Compressors power input ³	kW	405	383	414	447	485	482	529
Compressors COP ³	---	2,12	2,54	2,47	2,39	2,33	2,62	2,5
Unit EER ³	---	2,01	2,36	2,31	2,24	2,2	2,43	2,34
SPL (Sound Pressure Level) ⁴	dB(A)	73	74	74	74	74	75	75
PWL (Sound Power Level) ⁵	dB(A)	94	95,5	95,5	95,5	95,5	97	97
Air flow rate	m ³ /h	208.800	278.400	278.400	278.400	278.400	348.000	348.000
Operating weight	kg	11.125	12.968	13.140	13.160	13.432	14.480	14.960

Quiet Model		FQ7080	FQ7086	FQ7092	FQ7099	FQ7106	FQ7114	FQ7121
R407C refrigerant		Performances¹						
Cooling capacity	kW	768	908	952	990	1046	1199	1239
Freecooling Capacity ²	kW	393	519	522	524	527	645	649
Compressors power input	kW	376	364	397	441	494	485	523
Compressors COP	---	2,04	2,49	2,40	2,24	2,12	2,47	2,38
Unit EER	---	1,97	2,37	2,29	2,15	2,04	2,36	2,28
Cooling capacity with ECO ³	kW	-	-	-	-	-	-	-
Compressors power input ³	kW	-	-	-	-	-	-	-
Compressors COP ³	---	-	-	-	-	-	-	-
Unit EER ³	---	-	-	-	-	-	-	-
SPL (Sound Pressure Level) ⁴	dB(A)	65,5	66	66	66	66	67	6
PWL (Sound Power Level) ⁵	dB(A)	86,5	87,5	87,5	87,5	87,5	89	89
Air flow rate	m ³ /h	160.800	214.400	214.400	214.400	214.400	268.000	268.000
Operating weight	kg	11.525	12.968	13.140	13.160	13.432	14.480	14.960

Dimensions

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FA7081	9.586	2308	2563
FA7087	9.586	2308	2563
FA7093	9.586	2308	2563
FA7100	11578	2308	2563
FA7107	11578	2308	2563
FA7115	11578	2308	2563
FA7122	11578	2308	2563

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FB7081	9586	2308	2571
FB7087	9586	2308	2571
FB7093	9586	2308	2571
FB7100	11758	2308	2571
FB7107	11758	2308	2571
FB7115	11758	2308	2571
FB7122	11758	2308	2571

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FL7080	9.586	2308	2571
FL7086	11.578	2308	2571
FL7092	11.578	2308	2571
FL7099	11.578	2308	2571
FL7106	11.578	2308	2571
FL7114	13.570	2308	2571
FL7121	13.570	2308	2571

Model	Length	Depth	Height
	[mm]	[mm]	[mm]
FQ7080	9.586	2308	2571
FQ7086	11.578	2308	2571
FQ7092	11.578	2308	2571
FQ7099	11.578	2308	2571
FQ7106	11.578	2308	2571
FQ7114	11.578	2308	2571
FQ7121	11.578	2308	2571

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