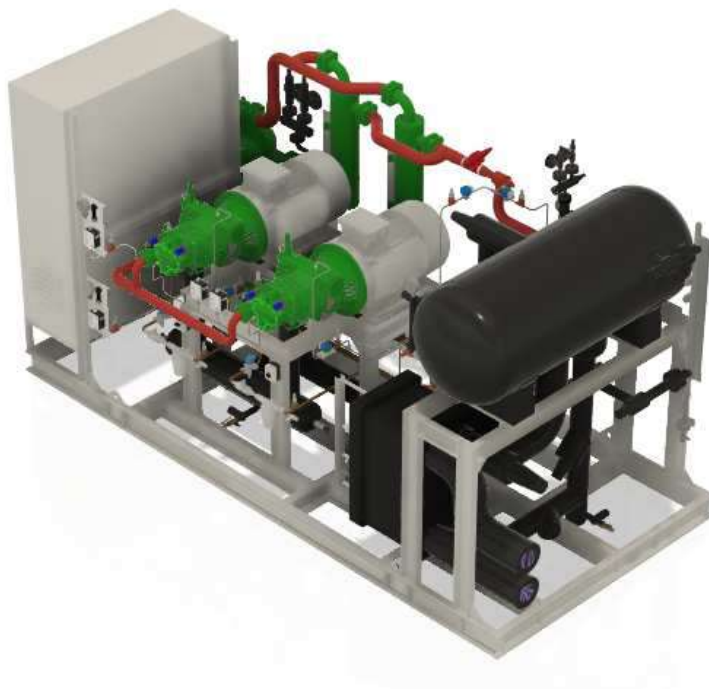


DC7R range

Liquid chillers for use with remote condenser, for medium and high temperature applications



Summary:

Chillers for high temperature applications (465...778 kW with 7/12 °C cooled water)	
Chillers with mechanical capacity regulation.....	2
Chillers for VSD operation.....	3
Chillers for medium temperature applications (257...462 kW with -8/-2 °C brine)	
Chillers with mechanical capacity regulation.....	4
Chillers for VSD operation.....	5
Notes.....	6

Chillers for high temperature applications

Chillers with mechanical capacity regulation (465...564 kW with 7/12 °C cooled water)

Model		DC7R-K5-H	DC7R-K6-H	DC7R-K7-H
Refrigerant		R717	R717	R717
System type		Flooded	Flooded	Flooded
Number of compressors		2	2	2
Compressor manufacturer		Bitzer	Bitzer	Bitzer
Capacity regulation method		Mechanical 25...100%	Mechanical 25...100%	Mechanical 25...100%
Compressor speed		2900 1/min	2900 1/min	2900 1/min
Total swept volume		384 m ³ /h	440 m ³ /h	500 m ³ /h
Rated motor power per compressor		55 kW	75 kW	75 kW
Motors efficiency class		IE3	IE3	IE3
Power supply voltage		380...415 V	380...415 V	380...415 V
Power grid frequency		50 Hz	50 Hz	50 Hz
Number of primary oil separators		1	1	1
Primary oil separator manufacturer		Bitzer	Bitzer	Bitzer
Number of coalescent oil separators		2	2	2
Coalescent oil separator manufacturer		Bitzer	Bitzer	Bitzer
Oil cooling method		remote oil cooler	remote oil cooler	remote oil cooler
Compressor oil type		Arctic SHC226E	Arctic SHC226E	Arctic SHC226E
Evaporator manufacturer		AlfaLaval	AlfaLaval	AlfaLaval
Design pressure LP / HP		19 bar / 25 bar	19 bar / 25 bar	19 bar / 25 bar
Dimensions (Length [mm] x Width [mm] x Height [mm]) ⁽¹⁾		4870 x 2270 x 2800	4870 x 2270 x 2850	4870 x 2270 x 2850
Empty weight ⁽¹⁾		4900 kg	5300 kg	5400 kg
Performance with 7 / 12 °C cooled water, 35 °C condensation temperature ^{(1),(3)}	Total cooling capacity	465 kW	527 kW	564 kW
	Total shaft power	86 kW	97 kW	104 kW
	Compressor COP (cooling capacity / shaft power)	5,37	5,42	5,45
	SEER ⁽²⁾	5,43	5,48	5,52
	Condenser capacity	526 kW	597 kW	639 kW
Oil cooling capacity		25 kW	27 kW	28 kW

(1) - Tentative data

(2) - SEER is calculated according to EN 14825 as a benchmark value, and it is only valid for the standard criteria

(3) - Cooled water outlet temperatures between 0,5...15 °C and condensation temperatures between 25...50 °C are possible according to individual requests

Chillers for VSD operation (641...778 kW with 7/12 °C cooled water)

Model		DC7R-K5-HF	DC7R-K6-HF	DC7R-K7-HF
Refrigerant		R717	R717	R717
System type		Flooded	Flooded	Flooded
Number of compressors		2	2	2
Compressor manufacturer		Bitzer	Bitzer	Bitzer
Capacity regulation method		VSD	VSD	VSD
Compressor speed		1450...4000 1/min	1450...4000 1/min	1450...4000 1/min
Total swept volume at maximum speed		530 m ³ /h	607 m ³ /h	690 m ³ /h
Rated motor power per compressor		75 kW	75 kW	90 kW
Motors efficiency class		IE3	IE3	IE3
Power supply voltage		380...415 V	380...415 V	380...415 V
Power grid frequency		50 Hz	50 Hz	50 Hz
Number of primary oil separators		1	1	1
Primary oil separator manufacturer		Bitzer	Bitzer	Bitzer
Number of coalescent oil separators		3	3	3
Coalescent oil separator manufacturer		Bitzer	Bitzer	Bitzer
Oil cooling method		remote oil cooler	remote oil cooler	remote oil cooler
Compressor oil type		Arctic SHC226E	Arctic SHC226E	Arctic SHC226E
Evaporator manufacturer		AlfaLaval	AlfaLaval / Thermowave	AlfaLaval / Thermowave
Design pressure LP / HP		19 bar / 25 bar	19 bar / 25 bar	19 bar / 25 bar
Dimensions (Length [mm] x Width [mm] x Height [mm]) ⁽¹⁾		4870 x 2270 x 2850	5220 x 2270 x 2850	5220 x 2270 x 2850
Empty weight ⁽¹⁾		5350 kg	5500 kg	5700 kg
Performance with 7 / 12 °C cooled water, 35 °C condensation temperature ^{(1),(3)}	Total cooling capacity at maximum speed	641 kW	727 kW	778 kW
	Total shaft power at maximum speed	119 kW	134 kW	143 kW
	Compressor COP (cooling capacity / shaft power)	5,37	5,42	5,45
	SEER ⁽²⁾	5,67	5,72	5,76
	Condenser capacity	726 kW	823 kW	881 kW
Oil cooling capacity		34 kW	37 kW	39 kW

(1) - Tentative data

(2) - SEER is calculated according to EN 14825 as a benchmark value, and it is only valid for the standard criteria

(3) - Cooled water outlet temperatures between 0,5...15 °C and condensation temperatures between 25...50 °C are possible according to individual requests

Chillers for medium temperature applications

Chillers with mechanical capacity regulation (257...335 kW with -8/-2 °C brine)

Model		DC7R-K5-M	DC7R-K6-M	DC7R-K7-M
Refrigerant		R717	R717	R717
System type		Flooded	Flooded	Flooded
Number of compressors		2	2	2
Compressor manufacturer		Bitzer	Bitzer	Bitzer
Capacity regulation method		Mechanical 25...100%	Mechanical 25...100%	Mechanical 25...100%
Compressor speed		2900 1/min	2900 1/min	2900 1/min
Total swept volume		384 m³/h	440 m³/h	500 m³/h
Rated motor power per compressor		55 kW	55 kW	75 kW
Motors efficiency class		IE3	IE3	IE3
Power supply voltage		380...415 V	380...415 V	380...415 V
Power grid frequency		50 Hz	50 Hz	50 Hz
Number of primary oil separators		1	1	1
Primary oil separator manufacturer		Bitzer	Bitzer	Bitzer
Number of coalescent oil separators		1	2	2
Coalescent oil separator manufacturer		Bitzer	Bitzer	Bitzer
Oil cooling method		remote oil cooler	remote oil cooler	remote oil cooler
Compressor oil type		Arctic SHC226E	Arctic SHC226E	Arctic SHC226E
Evaporator manufacturer		AlfaLaval	AlfaLaval	AlfaLaval
Design pressure LP / HP		19 bar / 25 bar	19 bar / 25 bar	19 bar / 25 bar
Dimensions (Length [mm] x Width [mm] x Height [mm]) ⁽¹⁾		4870 x 2270 x 2800	4870 x 2270 x 2800	4870 x 2270 x 2850
Empty weight ⁽¹⁾		4700 kg	4950 kg	5300 kg
Performance with -8 / -2 °C 35% ethylene glycol, 35 °C condensation temperature ^{(1),(3)}	Total cooling capacity	257 kW	305 kW	335 kW
	Total shaft power	79 kW	90 kW	97 kW
	Compressor COP (cooling capacity / shaft power)	3,28	3,4	3,47
	SEPR ⁽²⁾	4,28	4,38	4,45
	Condenser capacity	296 kW	351 kW	386 kW
	Oil cooling capacity	40 kW	44 kW	46 kW

(1) - Tentative data

(2) - SEPR is calculated according to EN 14825 as a benchmark value, and it is only valid for the standard criteria

(3) - Brine outlet temperatures between -15...-2 °C and condensation temperatures between 20...50 °C are possible according to individual requests

Chillers for VSD operation (354...462 kW with -8/-2 °C brine)

Model		DC7R-K5-MF	DC7R-K6-MF	DC7R-K7-MF
Refrigerant		R717	R717	R717
System type		Flooded	Flooded	Flooded
Number of compressors		2	2	2
Compressor manufacturer		Bitzer	Bitzer	Bitzer
Capacity regulation method		VSD	VSD	VSD
Compressor speed		1450...4000 1/min	1450...4000 1/min	1450...4000 1/min
Total swept volume at maximum speed		530 m ³ /h	607 m ³ /h	690 m ³ /h
Rated motor power per compressor		75 kW	75 kW	90 kW
Motors efficiency class		IE3	IE3	IE3
Power supply voltage		380...415 V	380...415 V	380...415 V
Power grid frequency		50 Hz	50 Hz	50 Hz
Number of primary oil separators		1	1	1
Primary oil separator manufacturer		Bitzer	Bitzer	Bitzer
Number of coalescent oil separators		2	2	2
Coalescent oil separator manufacturer		Bitzer	Bitzer	Bitzer
Oil cooling method		remote oil cooler	remote oil cooler	remote oil cooler
Compressor oil type		Arctic SHC226E	Arctic SHC226E	Arctic SHC226E
Evaporator manufacturer		AlfaLaval	AlfaLaval	AlfaLaval
Design pressure LP / HP		19 bar / 25 bar	19 bar / 25 bar	19 bar / 25 bar
Dimensions (Length [mm] x Width [mm] x Height [mm]) ⁽¹⁾		4870 x 2270 x 2850	4870 x 2270 x 2850	4870 x 2270 x 2850
Empty weight ⁽¹⁾		5200 kg	5350 kg	5550 kg
Performance with -8 / -2 °C 35% ethylene glycol, 35 °C condensation temperature ^{(1),(3)}	Total cooling capacity at maximum speed	354 kW	421 kW	462 kW
	Total shaft power at maximum speed	109 kW	124 kW	134 kW
	Compressor COP (cooling capacity / shaft power)	3,28	3,4	3,47
	SEPR ⁽²⁾	4,37	4,47	4,53
	Condenser capacity	408 kW	484 kW	532 kW
Oil cooling capacity		55 kW	61 kW	63 kW

(1) - Tentative data

(2) - SEPR is calculated according to EN 14825 as a benchmark value, and it is only valid for the standard criteria

(3) - Brine outlet temperatures between -15...2 °C and condensation temperatures between 20...50 °C are possible according to individual requests

Notes:

Specification shown in this document is subject to change without notification

For further details please contact us.

Customized solutions for different temperatures, configurations are possible, please contact us with your request.

