

Chiller (racire si
pompa de
caldura)

eComfort R32

- Chiller racit cu aer
- Incalzire: 35 - 210 KW
- Racire: 35 - 210 KW
- Refrigerant: R32



Chillere racite cu aer si pompa de caldura, de capacitati reduse tip eComfort R32

Tip

Chiller racit cu aer in pompa de caldura.

Utilizare

eComfort este dedicat unei largi varietati de aplicatii comerciale si industriale, de la hoteluri la spatii comerciale sau cladiri de birouri. Compact si discret, se va adapta arhitecturii fiecarei cladiri, furnizand temperaturi precise atat in incalzire cat si in racire.

Variante

VITEZA CONSTANTA - AIR SOURCE

- Capacitate de racire: 35 - 210 kW
- Capacitate de incalzire: 35 - 210 kW

ADVANCED - AIR SOURCE

- Capacitate de racire: 40 - 210 kW
- Capacitate de incalzire: 40 - 210 kW

Exemplu de comanda

G(A) A(B) H(C) 035(D) S(E) P(F) 1(G) M(H)

(A) G = eComfort

(B) A = Standard Air source unit - B = Advanced Air source unit

(C) C = Doar racire - H = Pompa de caldura

(D) 035 = Putere aproximativa in kW

(E) S = Un circuit - D = Dublu circuit

(F) P = Refrigerant R32

(G) 1 or 2 = Numar revizie

(H) M = 400V/3/50Hz

Configuratii standard & Optionale		
	eComfort R32/35 - 210 KW	
REFRIGERANT CIRCUIT	R32	Standard
	R1234ze	
	R513a	
	R134a	
	Winter cooling operation	Optional
SAFETY PACK	Low leaving water temperature down to -10°C	Optional
	Refrigerant leak detection + PRV + acoustic and visual alarms	na
COMPRESSOR	Multiscroll	Standard
	Screw	
	Inverter	Optional
	Low noise	Optional
EXPANSION VALVE	Super low noise	Optional
	Thermostatic	
FAN	Electronic	Standard
	AC fan	Standard
	Variable air flow control of condensation : HP floating	Standard
AIR COIL	EC Fan	Optional
	Fan static pressure	
	Standard copper tube/aluminium fin (1)	Standard
	Micro channel heat exchanger (2)	Standard
HEAT EXCHANGER	Heavy anti-corrosion coil treatment	Optional
	Coils protection guards	Optional
	Brazed plate heat exchanger	Standard
ELECTRICAL	Shell and Tube	
	Main disconnect switch	Standard
	Phase reversal protection	Optional
	Antifreeze protection	Optional
	Softstarter	Optional
	Water tank modulating electrical heater (Heat pump)	Optional
	Power factor correction	Optional
	Energy meter	Optional
	Paddle flow switch	Standard
	Electronic flow switch	na
HYDRAULIC MODULE	Water filter	Optional
	Flange connection	Optional
	Water tank	Optional
	Low-pressure single pump	Optional
	Low-pressure twin pump	Optional
	High-pressure single pump	Optional
	High-pressure twin pump	Optional
	eDrive high-pressure single pump (variable primary flow)	Optional
	eDrive high-pressure twin pump (variable primary flow)	Optional
	By-pass valve for Delta P control (eDrive)	Optional
CONTROL AND COMMUNICATION	Modbus RS485 communication interface	Optional
	BACnet MSTP communication interface	Optional
	Modbus/BACnet/Ethernet TCP/IP communication interface	Optional
	Basic display	na
	Advanced display	Standard
	Service display	Optional
	Remote confort display	Optional
	Extension board for additional input/output	Optional
	Distance Management System: RedgeCloud connectivity	Optional
	Distance Management System: RedgeOneWeb	Optional
ENERGY SAVING	Partial heat recovery	Optional
	Total heat recovery	na
MISCELLANEOUS	Free-cooling	na
	Rubber anti-vibration mounts	Optional
	Spring antivibrations mounts	na

Avantaje

- Instalare si comisionare facile datorita integrarii modulului hidraulic complet cu rezervor si rezistente incalzite imersate.
- Design compact si discret pentru integrare arhitecturala perfecta.
- Eficienta SCOP ridicate, depasind cerintele EcoDesign 2017 pentru aplicatii de incalzire.
- Eficiente SEPR excelente, care depasesc cerintele EcoDesign 2017 referitoare la procesele de racire la temperatura ridicata.
- Control precis al temperaturii apei in modul de incalzire si cel de racire multumita componentelor cu eficienta ridicata.

Sistemul termodinamic

- Gama de operare extinsa pentru a satisface majoritatea cerintelor pietei
- Schimbator de caldura nou si componente de ultima generatie pentru a oferi o eficienta ridicata si cel mai bun cost total de proprietate (TCO) de pe piata
- Agent frigorific R32 (GWP = 675) care permite o scadere a incarcaturii de agent frigorific (-30%) si a amprentei de carbon a unitatii (-75% TeqCO2)
- Desuperheater schimbator de caldura suplimentar cu placi pe fiecare circuit pentru a recupera caldura rejectata și a furniza apa calda gratuita in scopuri sanitare sau industriale

Compresor Inverter

- Design optimizat pentru amprenta compacta, inclusiv rezervor de apa (optional).
- Controlul temperaturii apei la iesire este perfect.
- Necesarul rezervorului tampon in cazul unui volum redus de apa sau a unei sarcini termice variabile rapide este redus.

Foto Inverter**Ventilatoare EC, Standard**

Management inteligent de reducere a zgomotului datorita:

- Izolarii acustice a compresorului
- Ventilatoarelor eficiente EC
- Cresteri insemnate ale eficientei energetice datorita eficientelor sezoniere
- Functionare de-a lungul anului la temperaturi externe de -20 °C in modul de racire
- Functionare de-a lungul anului la temperaturi externe de 30 °C in modul de incalzire (pompa de caldura)
- Management inteligent de atenuare a zgomotului, programabil zi si noapte, combinat cu folosirea panourilor acustice.

Variatie totala

Gama eCOMFORT beneficiaza de cele mai noi tehnologii pentru a obtine eficiente sezoniere foarte ridicate

- Agent frigorific: datorita unui compresor cu viteza variabila de foarte înalta eficienta, cu motor cu magnet permanent,
- Aer: cu ventilatoare EC de înalta eficienta, cu pale de tip „Owlet” si difuzoare integrate de înalta performanta pentru îmbunatatirea eficientei fluxului de aer,
- Apa: pompa de apa inverter cu viteza variabila.
- Managementul integrat al controlului (interfata de comunicare ModBus / BACnet / Ethernet TCP / IP / Redge Cloud ca optiune) ofera o solutie de control la cheie.

eDrive

Pompa cu viteza variabila, care moduleaza debitul de apa prin schimbatorul de caldura reduce costurile energiei consumate:

- Economiseste consumul de energie in special la sarcina partiala si in perioadele de repaus, ajungand la o reducere de pana la 75% a consumului pompei.
- Economii in sistemul initial, datorita unui numar mai mic de pompe si racorduri decat in cazul sistemelor primar-secundar.
- Flexibilitate si precizie a controlului functionarii pompei: pornire si oprire lina, schimbare graduala a vitezei, precizie si stabilitate a controlului.
- Reducerea solicitarii repetate asupra pompei si conductelor, rezultand o durata de viata mai lunga a echipamentului.
- Eliminarea curentului de pornire datorita actiunii cu frecventa variabila care controleaza alimentarea graduala a motorului pompei.

Control

- Controler electronic eClimatic si parametri de control inteligent care optimizeaza eficienta la sarcina partiala.
- Solutii de comunicare integrate care ofera flexibilitate (master/slave, Modbus).
- Afişaj DC Advanced, echipat cu un ecran grafic care ofera acces la principalii parametri ai utilizatorului, cu doua afişaje optionale:
 - -Afişaj la distanță
 - -Afişaj de service

eCLIMATIC**DC Advanced****Carcasa si aspect**

- Carcasa din otel galvanizat vopsit in alb.
- Design compact, perfect pentru integrare arhitecturala.
- Toate componentele termodinamice si hidraulice sunt instalate în interiorul carcasei.
- Unitate proiectata cu înalțime redusa pentru instalare discreta pe acoperiș sau pe sol (pana la 1,7 m), fara a fi nevoie de ecranare periferica.

Confort acustic

Trei configuratii diferite ale nivelului de zgomot disponibile:

- Funcționare silențioasa (standard), obtinuta prin design compact, compresoare si pompe silentioase si cu ventilatoare cu elice de inalta performanță, toate instalate într-o incinta închisa.
- Optiune de nivel redus de zgomot: izolatia acustica a compresorului de înalta performanta poate prelua zgomotul produs de unitate.
- Sistemul activ de atenuare acustica cu viteza variabilă a ventilatorului permite adaptarea progresiva a unitatii la sarcina cladirii respectand in acelasi timp constrangerile privind nivelul de zgomot si limitele de functionare (optional).

Nivel de zgomot ajustabil**Monitorizare la distanta**

- Conectivitate prin RedgeCloud
- BMS prin: e-savvy

e-savvy

Touch panel


Pompa de caldura - air source										
eCOMFORT - GAH				035S	040S	045S	050S	055S	060S	
Nominal thermal performances - Cooling mode										
Cooling capacity (1)				kW	37,7	41,2	46,9	50,5	56,1	63,2
Total absorbed power (1)				kW	13,2	14,2	16,5	17,7	19,0	22,0
EER (1)					2,9	2,9	2,9	2,9	3,0	2,9
Comfort Application	Standard Fans	Seasonal Energy Efficiency Ratio (2)			4.21	4.48	4.26	4.33	4.18	4.18
		SEER								
		Seasonal energy efficiency (3)			165	176	167	170	164	164
		s.c								
Process Application		Seasonal Energy Performance Ratio (4)			6.03	6.58	5.58	5.59	5.5	5.43
		SEPR - High temperature (7°C)								
	Seasonal Energy Performance Ratio (5)			3.41	3.52	3.55	3.5	3.56	3.52	
			SEPR - Medium temperature (-8°C)							
Nominal thermal performances - Heating mode										
Heating capacity (1)				kW	39,1	42,1	48,4	52,2	56,6	64,3
Total absorbed power (1)				kW	13,2	14,1	15,9	17,5	18,9	21,8
COP (1)					2,95	2,99	3,05	2,99	2,99	2,95
Comfort Application	Standard Fans	Seasonal Coefficient of Performance (6)			3,46	3,54	3,57	3,56	3,54	3,54
		SCOP								
		Seasonal energy efficiency (7)								
		s,h			%	136	139	140	140	139
Acoustic data										
Global sound power level - Standard unit				dB(A)	75,3	75,3	73,5	74,7	77,1	81,3
Electrical data										
Maximum power				kW	16.9	18.9	20.7	22.4	25.4	28.8
Maximum current				A	28.8	31.1	35.4	38.2	42.8	47.5
Starting current				A	98.8	108.5	146.7	157.7	162.4	164.4
Short circuit current				kA	10,0	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit										
Number of circuits					1	1	1	1	1	1
Number of compressors					2	2	2	2	2	2
Total refrigerant load - R32				kg	5,2	5,8	6,3	7,5	7,6	9,0
Evaporator										
Nominal water flow rate				m³/h	6,5	7,1	8,1	8,7	9,7	10,9
Nominal pressure drop				kPa	37,4	31,9	29,9	34,5	34,1	32,7
Hydraulic connection										
Type					Threaded male					
Diameter					1"1/2	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2

Pompa de caldura - air source											
eCOMFORT - GAH				065S	070S	080S	095S	110S	115S	125S	
Nominal thermal performances - Cooling mode											
Cooling capacity (1)				kW	64,3	69,6	84,7	94,1	105,3	118,0	126,4
Total absorbed power (1)				kW	20,8	23,1	27,7	30,9	36,4	39,4	42,7
EER (1)					3,09	3,02	3,06	3,05	2,90	2,99	2,96
Comfort	Standard Fans	Seasonal Energy Efficiency Ratio (2)			4,56	4,53	4,46	4,56	4,60	4,39	4,62
Application		SEER									
		Seasonal energy efficiency (3)			179	178	175	180	181	173	182
		s.c									
Process Application		Seasonal Energy Performance Ratio (4)			5,78	5,69	5,82	5,81	5,73	5,59	5,65
	SEPR - High temperature (7°C)										
	Seasonal Energy Performance Ratio (5)			3,56	3,54	3,70	3,64	3,66	3,66	3,69	
			SEPR - Medium temperature (-8°C)								
Nominal thermal performances - Heating mode											
Heating capacity (1)				kW	64,9	70,4	84,9	94,8	106,7	117,5	126,1
Total absorbed power (1)				kW	20,4	23,0	26,8	30,1	33,9	38,9	40,7
COP (1)					3,18	3,06	3,17	3,15	3,15	3,02	3,10
Comfort	Standard Fans	Seasonal Coefficient of Performance (6)			3,65	3,63	3,63	3,59	3,61	3,58	3,73
Application		SCOP									
		Seasonal energy efficiency (7)			143	142	142	141	141	140	146
		s,h									
Acoustic data											
Global sound power level - Standard unit				dB(A)	80,9	82,5	85,1	86,8	87,3	88,6	87,1
Electrical data											
Maximum power				kW	28,4	31	37,1	41,6	47,2	54,3	57,4
Maximum current				A	47,2	52,8	63,1	69,4	78,7	88,5	96,9
Starting current				A	164	209	219,3	273,5	320,5	330,4	253,1
Short circuit current				kA	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit											
Number of circuits				1	1	1	1	1	1	1	1
Number of compressors				2	2	2	2	2	2	3	3
Total refrigerant load - R32				kg	10,0	10,5	11,5	15,0	15,5	15,5	18,0
Evaporator											
Nominal water flow rate				m³/h	11,1	12,0	14,6	16,2	18,2	20,4	21,8
Nominal pressure drop				kPa	33,7	39,3	39,2	47,5	36,3	44,7	33,9
Hydraulic connection											
Type				Vitaallic							
Diameter				2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"

Pompa de caldura - air source										
eCOMFORT - GAH				035S	040S	045S	050S	055S	060S	
Nominal thermal performances - Cooling mode										
Cooling capacity (1)				kW	37,7	41,2	46,9	50,5	56,1	63,2
Total absorbed power (1)				kW	13,2	14,2	16,5	17,7	19,0	22,0
EER (1)					2,9	2,9	2,9	2,9	3,0	2,9
Comfort	Standard Fans	Seasonal Energy Efficiency Ratio (2)			4,21	4,48	4,26	4,33	4,18	4,18
Application		SEER								
		Seasonal energy efficiency (3)			165	176	167	170	164	164
		s.c								
Process Application		Seasonal Energy Performance Ratio (4)			6,03	6,58	5,58	5,59	5,5	5,43
		SEPR - High temperature (7°C)								
		Seasonal Energy Performance Ratio (5)			3,41	3,52	3,55	3,5	3,56	3,52
SEPR - Medium temperature (-8°C)										
Nominal thermal performances - Heating mode										
Heating capacity (1)				kW	39,1	42,1	48,4	52,2	56,6	64,3
Total absorbed power (1)				kW	13,2	14,1	15,9	17,5	18,9	21,8
COP (1)					2,95	2,99	3,05	2,99	2,99	2,95
Comfort	Standard Fans	Seasonal Coefficient of Performance (6)								
Application		SCOP			3,46	3,54	3,57	3,56	3,54	3,54
		Seasonal energy efficiency (7)								
		s,h			136	139	140	140	139	139
Acoustic data										
Global sound power level - Standard unit				dB(A)	75,3	75,3	73,5	74,7	77,1	81,3
Electrical data										
Maximum power				kW	16,9	18,9	20,7	22,4	25,4	28,8
Maximum current				A	28,8	31,1	35,4	38,2	42,8	47,5
Starting current				A	98,8	108,5	146,7	157,7	162,4	164,4
Short circuit current				kA	10,0	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit										
Number of circuits					1	1	1	1	1	1
Number of compressors					2	2	2	2	2	2
Total refrigerant load - R32				kg	5,2	5,8	6,3	7,5	7,6	9,0
Evaporator										
Nominal water flow rate				m³/h	6,5	7,1	8,1	8,7	9,7	10,9
Nominal pressure drop				kPa	37,4	31,9	29,9	34,5	34,1	32,7
Hydraulic connection										
Type					Threaded male					
Diameter					1"1/2	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2

Pompa de caldura Advanced									
eCOMFORT - GBH			040S	060S	070S	080S	110S	120S	
Nominal thermal performances - Cooling mode									
Cooling capacity (1)			kW	39,5	57,7	64,0	76,4	93,4	109,2
Total absorbed power (1)			kW	13,6	20,8	22,5	26,8	33,5	37,6
EER (1)				2,9	2,8	2,8	2,9	2,8	2,9
Comfort	EC Fans	Seasonal Energy Efficiency Ratio (2)		4.53	4.55	4.45	4.35	4.5	4.68
Application		SEER		178	179	175	171	177	184
		Seasonal energy efficiency (3)	%	6.23	5.95	5.78	5.65	5.62	5.51
		s.c							
Process Application		Seasonal Energy Performance Ratio (4)		3.52	3.54	3.36	3.24	3.21	3.14
		SEPR - High temperature (7°C)							
	Seasonal Energy Performance Ratio (5)								
	SEPR - Medium temperature (-8°C)								
Nominal thermal performances - Heating mode									
Heating capacity (1)			kW	40,4	60,0	68,3	83,4	100,4	121,5
Total absorbed power (1)			kW	13,6	20,6	23,0	28,8	32,5	41,6
COP (1)				3,0	2,9	3,0	2,9	3,1	2,9
Comfort	EC Fans	Seasonal Coefficient of Performance (6)		3.93	3.93	4	3.95	4.05	4.05
Application		SCOP							
		Seasonal energy efficiency (7)	%	154	154	157	155	159	159
		s,h							
Acoustic data									
Global sound power level - Standard unit			dB(A)	82,5	83,3	82,9	85,6	85,6	87,8
Electrical data									
Maximum power			kW	16,4	25,3	28,8	37,5	42,6	55,2
Maximum current			A	26,2	41	47,3	61,4	70,7	89,8
Starting current			A	26,2	41	166,8	217,6	226,9	331,7
Short circuit current			kA	10,0	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit									
Number of circuits			1	1	1	1	1	1	
Number of compressors			1	1	2	2	2	2	
Total refrigerant load - R32			kg	5,8	8,2	10,5	12,0	20,2	21,0
Evaporator									
Nominal water flow rate			m³/h	6,8	10,0	11,0	13,2	16,1	18,8
Nominal pressure drop			kPa	29,4	27,5	33,4	32,4	29,1	25,9
Hydraulic connection									
Type			Threaded male						
Diameter			1 1/2"	2"	2"	2"	2 1/2"	2 1/2"	

Pompa de caldura Advanced								
eCOMFORT - GBH			125D	140D	160D	185D	210D	
Nominal thermal performances - Cooling mode								
Cooling capacity (1)			kW	123,5	144,1	158,1	169,9	196,0
Total absorbed power (1)			kW	42,3	50,4	51,7	55,6	66,6
EER (1)				2,9	2,9	3,1	3,1	2,9
Comfort	EC Fans	Seasonal Energy Efficiency Ratio (2)		4.85	4.8	4.98	4.9	4.95
Application		SEER		191	189	196	193	195
		Seasonal energy efficiency (3)		%				
		s,c		5.59	5.34	5.93	5.69	5.46
Process Application		Seasonal Energy Performance Ratio (4)						
		SEPR - High temperature (7°C)						
		Seasonal Energy Performance Ratio (5)		3.66	3.67	3.78	3.76	3.69
		SEPR - Medium temperature (-8°C)						
Nominal thermal performances - Heating mode								
Heating capacity (1)			kW	126,8	146,9	161,1	171,3	199,9
Total absorbed power (1)			kW	40,4	48,2	49,9	53,6	65,3
COP (1)				3,1	3,1	3,2	3,2	3,1
Comfort	EC Fans	Seasonal Coefficient of Performance (6)		3.88	3.88	3.9	3.88	3.93
Application		SCOP						
		Seasonal energy efficiency (7)		%	152	152	153	152
		s,h						
Acoustic data								
Global sound power level - Standard unit			dB(A)	85,3	88,0	88,2	89,4	89,8
Electrical data								
Maximum power			kW	58	68,3	71,9	81,6	94,8
Maximum current			A	95,1	113,4	120,4	134,3	156,5
Starting current			A	211,9	269,6	276,7	338,5	398,3
Short circuit current			kA	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit								
Number of circuits				2	2	2	2	2
Number of compressors				2+2	2+2	2+2	2+2	2+2
Total refrigerant load - R32			kg	20,0	22,0	27,0	27,2	27,6
Evaporator								
Nominal water flow rate			m³/h	21,3	24,9	27,3	29,3	33,8
Nominal pressure drop			kPa	24,8	21,6	25,7	25,9	33,8
Hydraulic connection								
Type				Victaulic				
Diameter				2"1/2		3"		

Racire- air source									
eCOMFORT - GAC			035S	040S	045S	050S	055S	060S	
Nominal thermal performances - Cooling mode									
Cooling capacity (1)			kW	38,4	41,6	47,5	51,8	55,0	63,6
Total absorbed power (1)			kW	12,7	13,8	15,8	17,0	18,5	21,1
EER (1)				3,0	3,0	3,0	3,1	3,0	3,0
Comfort	Standard Fans	Seasonal Energy Efficiency Ratio (2)		4.36	4.6	4.3	4.46	4.35	4.38
Application		SEER							
		Seasonal energy efficiency (3)		%	171	181	169	175	171
		s.c							
Process Application		Seasonal Energy Performance Ratio (4)		6.15	6.63	5.61	5.68	5.59	5.53
		SEPR - High temperature (7°C)							
		Seasonal Energy Performance Ratio (5)		3.36	3.49	3.5	3.47	3.48	3.49
		SEPR - Medium temperature (-8°C)							
Nominal thermal performances - Heating mode									
Heating capacity (1)			kW	-	-	-	-	-	-
Total absorbed power (1)			kW	-	-	-	-	-	-
COP (1)				-	-	-	-	-	-
Comfort	Standard Fans	Seasonal Coefficient of Performance (6)		-	-	-	-	-	-
Application		SCOP		-	-	-	-	-	-
		Seasonal energy efficiency (7)		%	-	-	-	-	-
		s,h							
Acoustic data									
Global sound power level - Standard unit			dB(A)	76,9	76,9	75,0	76,3	77,3	82,9
Electrical data									
Maximum power			kW	16.9	18.9	20.7	22.4	24.1	28.8
Maximum current			A	28.8	31.1	35.4	38.2	41	47.5
Starting current			A	98.8	108.5	146.7	157.7	160.4	164.4
Short circuit current			kA	10,0	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit									
Number of circuits				1	1	1	1	1	1
Number of compressors				2	2	2	2	2	2
Total refrigerant load - R32			kg	3,0	3,4	3,8	4,4	4,3	5,0
Evaporator									
Nominal water flow rate			m³/h	6,6	7,2	8,2	8,9	9,5	11,0
Nominal pressure drop			kPa	38,7	32,4	41,7	36,1	40,5	43,3
Hydraulic connection									
Type			Threaded male						
Diameter				1"1/2	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2

Racire- air source										
eCOMFORT - GAC										
Nominal thermal performances - Cooling mode										
Cooling capacity (1)			kW	64,3	70,0	86,3	95,8	108,3	119,3	128,6
Total absorbed power (1)			kW	20,4	22,6	26,9	29,9	34,8	37,9	41,1
EER (1)				3,1	3,1	3,2	3,2	3,1	3,2	3,1
Comfort	Standard Fans	Seasonal Energy Efficiency Ratio (2)		4,6	4,58	4,61	4,67	4,73	4,6	4,73
Application		SEER		181	180	181	184	186	181	186
		Seasonal energy efficiency (3)		%						
		s.c		5,79	5,72	5,9	5,86	5,8	5,77	5,77
Process Application		Seasonal Energy Performance Ratio (4)								
		SEPR - High temperature (7°C)								
		Seasonal Energy Performance Ratio (5)		3,53	3,52	3,68	3,6	3,63	3,66	3,7
		SEPR - Medium temperature (-8°C)								
Nominal thermal performances - Heating mode										
Heating capacity (1)			kW	-	-	-	-	-	-	-
Total absorbed power (1)			kW	-	-	-	-	-	-	-
COP (1)				-	-	-	-	-	-	-
Comfort	Standard Fans	Seasonal Coefficient of Performance (6)		-	-	-	-	-	-	-
Application		SCOP		-	-	-	-	-	-	-
		Seasonal energy efficiency (7)		%						
		s.h		-	-	-	-	-	-	-
Acoustic data										
Global sound power level - Standard unit			dB(A)	82,5	84,2	86,7	88,4	87,3	90,2	88,7
Electrical data										
Maximum power			kW	28,4	31	37,1	41,6	47,2	54,3	57,4
Maximum current			A	47,2	52,8	63,1	69,4	78,7	88,5	96,9
Starting current			A	164	209	219,3	273,5	320,5	330,4	253,1
Short circuit current			kA	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Refrigeration circuit										
Number of circuits			1	1	1	1	1	1	1	1
Number of compressors			2	2	2	2	2	2	2	3
Total refrigerant load - R32			kg	5,8	5,8	7,4	7,5	8,0	8,6	9,2
Evaporator										
Nominal water flow rate			m³/h	11,1	12,1	14,9	16,5	18,7	20,6	22,2
Nominal pressure drop			kPa	33,7	39,6	40,5	49,1	38,1	45,6	35,0
Hydraulic connection										
Type			Victaulic or Welded							
Diameter			2"	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2

Racire- air source												
eCOMFORT - GAC				140S	110D	125D	140D	160D	185D	210D		
Nominal thermal performances - Cooling mode												
Cooling capacity (1)				kW	154,8	111,4	127,5	142,3	167,8	187,2	210,5	
Total absorbed power (1)				kW	51,1	36,9	41,9	46,6	53,6	60,7	69,9	
EER (1)					3,0	3,0	3,0	3,1	3,1	3,1	3,0	
Comfort	Standard Fans	Seasonal Energy Efficiency Ratio (2)			4,53	4,66	4,6	4,65	4,72	4,71	4,64	
Application		SEER										
		Seasonal energy efficiency (3)		%	178	183	181	183	186	185	183	
		s.c										
Process Application		Seasonal Energy Performance Ratio (4)			5,52	5,7	5,54	5,51	5,8	5,64	5,45	
		SEPR - High temperature (7°C)										
		Seasonal Energy Performance Ratio (5)			3,69	3,79	3,74	3,79	3,82	3,77	3,72	
		SEPR - Medium temperature (-8°C)										
Nominal thermal performances - Heating mode												
Heating capacity (1)				kW	-	-	-	-	-	-	-	
Total absorbed power (1)				kW	-	-	-	-	-	-	-	
COP (1)					-	-	-	-	-	-	-	
Comfort	Standard Fans	Seasonal Coefficient of Performance (6)			-	-	-	-	-	-	-	
Application		SCOP										
		Seasonal energy efficiency (7)		%	-	-	-	-	-	-	-	
		s,h										
Seasonal efficiency class (8)					-	-	-	-	-	-	-	
Acoustic data												
Global sound power level - Standard unit				dB(A)	91,7	80,3	85,9	88,4	89,7	91,7	92,1	
Electrical data												
Maximum power				kW	72,4	48,1	57,6	64,5	74,1	88,3	99,5	
Maximum current				A	117,5	81,8	95	108,6	126	145,8	164,5	
Starting current				A	321,7	201,3	211,8	264,8	282,2	350	406,3	
Short circuit current				kA	10,0	10,0	10,0	10,0	10,0	10,0	10,0	
Refrigeration circuit												
Number of circuits					1	2	2	2	2	2	2	
Number of compressors					3	2+2	2+2	2+2	2+2	2+2	2+2	
Total refrigerant load - R32				kg	9,4	10,8	11,4	12,8	14,4	15,0	15,2	
Evaporator												
Nominal water flow rate				m³/h	26,7	19,2	22,0	24,6	28,9	32,3	36,3	
Nominal pressure drop				kPa	49,3	20,5	26,2	21,1	28,6	31,0	38,6	
Hydraulic connection												
Type					Victaulic or Welded							
Diameter					2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	

Racire- Advanced													
eCOMFORT - GBC				040S	060S	070S	080S	110S	120S	125D	140D		
Nominal thermal performances - Cooling mode													
Cooling capacity (1)				kW	43,8	65,0	71,3	87,7	108,3	132,1	124,8	146,7	
Total absorbed power (1)				kW	15,1	22,8	24,4	28,6	36,4	44,4	40,9	48,6	
EER (1)					2,90	2,85	2,92	3,06	2,98	2,97	3,05	3,02	
Comfort	EC Fans	Seasonal Energy Efficiency Ratio (2)				4,75	4,88	4,73	4,80	4,98	4,88	5,0	5,0
Application		SEER											
		Seasonal energy efficiency (3)			%	187	192	186	189	196	192	195,4	197,5
		s.c											
		Seasonal Energy Performance Ratio (4)				6,32	6,01	6	6,16	6,29	5,97	5,5	5,7
Process Application		SEPR - High temperature (7°C)											
		Seasonal Energy Performance Ratio (5) SEPR - Medium temperature (-8°C)				3,41	3,53	3,42	3,53	3,60	3,56	3,68	3,74
Nominal thermal performances - Heating mode													
Heating capacity (1)				kW	-	-	-	-	-	-	-	-	-
Total absorbed power (1)				kW	-	-	-	-	-	-	-	-	-
COP (1)					-	-	-	-	-	-	-	-	-
Comfort	EC Fans	Seasonal Coefficient of Performance (6)				-	-	-	-	-	-	-	-
Application		SCOP											
		Seasonal energy efficiency (7)			%	-	-	-	-	-	-	-	-
		s,h											
Acoustic data													
Global sound power level - Standard unit				dB(A)	84,2	85,0	84,6	87,2	87,1	89,5	84,4	86,1	
Electrical data													
Maximum power				kW	16,4	25,3	28,8	37,5	42,6	55,2	58	68,3	
Maximum current				A	26,2	41	47,3	61,4	70,7	89,8	95,1	113,4	
Starting current				A	26,2	41	166,8	217,6	226,9	331,7	211,9	269,6	
Short circuit current				kA	10								
Refrigeration circuit													
Number of circuits					1	1	1	1	1	1	2	2	
Number of compressors					1	1	2	2	2	2	2+2	2+2	
Total refrigerant load - R32				kg	3,6	4,6	6,0	7,4	8,8	9,0	9,2	9,4	
Evaporator													
Nominal water flow rate				m³/h	7,6	11,2	12,3	15,1	18,7	22,8	21,53	25,31	
Nominal pressure drop				kPa	35,8	45,1	41,1	41,7	38,1	36,7	25	22	
Hydraulic connection													
Type					Threaded male				Victaulic or Welded				
Diameter					1"1/2	2			2"1/2				

Racire- Advanced						
eCOMFORT - GBC			160D 185D 210D			
Nominal thermal performances - Cooling mode						
Cooling capacity (1)			kW	159,5	170,0	196,6
Total absorbed power (1)			kW	50,6	54,1	64,2
EER (1)				3,15	3,14	3,06
Comfort	EC Fans	Seasonal Energy Efficiency Ratio (2)		5,05	5,03	5,08
Application		SEER		199	198	200
		Seasonal energy efficiency (3)				
		s.c				
		Seasonal Energy Performance Ratio (4)		6,01	5,95	5,64
		SEPR - High temperature (7°C)				
Process Application		Seasonal Energy Performance Ratio (5) SEPR - Medium temperature (-8°C)		3,77	3,75	3,7
Nominal thermal performances - Heating mode						
Heating capacity (1)			kW	-	-	-
Total absorbed power (1)			kW	-	-	-
COP (1)				-	-	-
Comfort	EC Fans	Seasonal Coefficient of Performance (6)		-	-	-
Application		SCOP		-	-	-
		Seasonal energy efficiency (7)		-	-	-
		s.h				
Acoustic data						
Global sound power level - Standard unit			dB(A)	85,2	87,3	87,5
Electrical data						
Maximum power			kW	71,7	81,6	94,8
Maximum current			A	120	135,1	157,1
Starting current			A	276,3	338,5	398,3
Short circuit current			kA		10	
Refrigeration circuit						
Number of circuits				2	2	2
Number of compressors				2+2	2+2	2+2
Total refrigerant load - R32			kg	14,6	15	15,2
Evaporator						
Nominal water flow rate			m³/h	27,52	29,32	33,91
Nominal pressure drop			kPa	26	26	34
Hydraulic connection						
Type				Victaulic or Welded		
Diameter				3"		

Pompe de caldura - air source										
eCOMFORT - GAH		035S	040S	045S	050S	055S	060S	065S	070S	080S
A			1125			1125			2250	
B	mm		1320			1320			1320	
C			1740			2109			1779	
Weight of standard units										
Basic unit	kg	350	369	385	416	424	448	614	608	649

Pompe de caldura - air source												
eCOMFORT - GAH		095S	110S	115S	125S	140S	110D	125D	140D	160D	185D	210D
A	mm		2250				2250				2250	
B			1320				1740				2650	
C			2071				2071				2071	
Weight of standard units												
Basic unit	kg	742	771	793	918	1006	975	1017	998	1388	1463	1463

Pompe de caldura - Advanced								
eCOMFORT - GBH		040S	060S	070S	080S	110S	120S	
A		1125	1125	2250	2250	2250	2250	
B	mm	1320	1320	1320	1320	1320	1320	
C		1740	2109	1779	1779	2071	2071	
Weight of standard units								
Basic unit	kg	351	401	609	705	746	789	

Pompe de caldura - Advanced						
eCOMFORT - GBH		125S	140S	160S	185S	210S
A		2250	2250	2250	2250	2250
B	mm	1740	1740	2650	2650	2650
C		2071	2071	2071	2071	2071
Weight of standard units						
Basic unit	kg	1001	1065	1360	1427	1427

Racire - air source										
eCOMFORT - GAC		035S	040S	045S	050S	055S	060S	065S	070S	080S
A			1125			1125			2250	
B	mm		1320			1320			1320	
C			1740			2109			1779	
Weight of standard units										
Basic unit	kg	325	339	350	379	385	405	565	559	605

Racire - air source												
eCOMFORT - GAC		095S	110S	115S	125S	140S	110D	125D	140D	160D	185D	210D
A	mm		2250				2250				2250	
B			1320				1740				2650	
C			2071				2071				2071	
Weight of standard units												
Basic unit	kg	679	701	730	846	932	893	932	911	1216	1340	1340

Racire - Advanced								
eCOMFORT - GBC		040S	060S	070S	080S	110S	120S	
A		1125		2250		2250		
B	mm	1320		1320		1320		
C		1740	2109	1779	1779	2071	2071	
Weight of standard units								
Basic unit	kg	332	367	547	640	682	721	

Chiller (racire si pompa de caldura)

Racire - Advanced						
eCOMFORT - GBC		125D	140D	160D	185D	210D
A		2250			2250	
B	mm	1740			2650	
C		2071			2071	
Weight of standard units						
Basic unit	kg	894	949	1201	1283	1283