

Chillers heat pump

The ultimate in
reliability and flexibility



Air cooled scroll inverter heat pump

- Inverter chiller
- High part load efficiency for low running cost
- Minimal starting currents
- No buffertank required for standard applications
- Daikin scroll compressor
- Wide operation range
- Integrated hydronic module on request
- Dedicated controller extension (EKRSCIOH) for Heating applications



Scroll compressor

EWYT-CZ_R

Heating & Cooling				EWYT	016CZN-A1	021CZN-A1	025CZN-A1	032CZN-A1	040CZN-A1	040CZN-A2	050CZN-A2	064CZN-A2	090CZN-A2	
Space cooling	A Condition Pdc 35°C			kW	15.9	20.9	25.6	32.4	39.6	41.4	50.8	64.0	88.3	
	ηs,c			%	197		200	205	201	213	210	205	198	
SEER					5.00		5.06	5.21	5.09	5.41	5.33	5.21	5.03	
Space heating	Average climate water outlet 35°C	General	SCOP	Seasonal space heating eff. class	3.89	4.00	4.07	4.06	4.07	4.02	4.00	3.98	4.00	
					A++									
Cooling capacity	Nom.			kW	15.9	20.9	25.6	32.4	39.6	41.4	50.8	64.0	88.3	
Heating capacity	Nom.			kW	15.9	20.2	24.8	32.4	39.4	40.3	49.8	619	85.8	
Power input	Cooling	Nom.		kW	5.50	6.60	8.50	10.3	13.4	13.2	170	218	310	
	Heating	Nom.		kW	4.70	5.80	7.50	9.40	118	119	15.4	19.1	27.2	
Capacity control	Method				Inverter controlled									
	Minimum capacity			%	18	14	12	19	15	14	12	15	14	
EER					2.90	3.16	3.00	3.13	2.95	3.12	2.98	2.93	2.84	
COP					3.41	3.46	3.33	3.45	3.33	3.38	3.24	3.23	3.16	
IPLV					5.83	6.29	6.05	6.25	5.87	6.37	5.92	5.88	5.61	
Dimensions	Unit	Height		mm	1,878									
		Width		mm	1,152				1,752		2,306		2,906	3,506
		Depth		mm	802					814				
Weight	Unit			kg	227	252		350	349	494		588	693	
	Operation weight			kg	228	254		353	352	500		594	701	
Water heat exchanger	Type				Braze plate heat exchanger									
	Water volume			l	1	2					5			8
	Water flow rate	Cooling	Nom.	l/s	0.8	10	12	16	19	2.0	2.4	3.1	4.2	
		Heating	Nom.	l/s	0.8	10	12	15	19		2.4	3.0	4.1	
	Water pressure drop	Cooling	Nom.	kPa	20	11	16	19	28	10	14	22	20	
		Heating	Nom.	kPa	19.6	10.6	15.4	19.1	27.1	9.4	13.8	20.4	19.1	
Air heat exchanger	Type				High efficiency fin and tube type – Copper Aluminum									
Compressor	Type				Scroll compressor									
	Quantity				1					2				
Fan	Type				Axial									
	Quantity				1				2				3	4
	Speed			rpm	800		900	700	900	700	900	800	900	
Sound power level	Cooling	Nom.		dBA	76.0		78.0	79.0	80.0		810	83.0	85.0	
Sound pressure level	Cooling	Nom.		dBA	59.7		617	62.2	63.2	62.8	63.8	65.4	670	
Refrigerant	Type/GWP				R-32/675									
	Charge			kg	3.00	5.50		7.00	8.00	12.0		13.0	16.0	
	Circuits				1					2				
Piping connections	Evaporator water inlet/outlet (OD)				1"1/4					2"				

Cooling: EW 12°C; LW 7°C; ambient conditions: 35°CDB | Cooling: EW 23°C; LW 18°C; ambient conditions: 35°CDB | Condition: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) | Condition: Ta DB/WB 7°C/6°C - LWC 45°C (DT=5°C) | According to EN14825 | Depends on operation mode, refer to installation manual. | For more details, see operation range drawing

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Space cooling	A Condition Pdc 35°C			kW	16.0	210	25.7	32.6	39.8	416	510	64.3	88.6	
	ηs,c			%	209	213		225	211	228	216	211	204	
SEER					5.30	5.41		5.70	5.36	5.76	5.48	5.34	5.18	
Space heating	 Average climate water outlet 35°C	General	SCOP Seasonal space heating eff. class		4.03	4.19		4.18		4.19	4.12	4.01	4.04	
				A++										
Cooling capacity	Nom.			kW	16.1	21.1	25.9	32.7	39.9	417	511	64.4	88.8	
Heating capacity	Nom.			kW	15.6	19.9	24.6	32.1	39.0	40.0	49.5	61.4	85.3	
Power input	Cooling	Nom.		kW	5.45	6.56	8.48	10.3	13.3	13.2	16.9	219	311	
	Heating		Nom.	kW	4.63	5.81	7.42	9.32	11.7	11.8	15.3	19.2	27.3	
Capacity control	Method				Inverter controlled									
	Minimum capacity			%	18	14	12	19	15	14	12	15	14	
EER					2.96	3.22	3.05	3.18	3.00	3.17	3.03	2.95	2.85	
COP					3.37	3.43	3.31	3.44	3.33	3.38	3.23	3.20	3.13	
IPLV					5.83	6.29	6.05	6.25	5.87	6.37	5.92	5.88	5.61	
Dimensions	Unit	Height	mm	1,878										
		Width	mm	1,152					1,752		2,306		2,906	3,506
		Depth	mm	802							814			
Weight	Unit			kg	261	286		393	392	546		644	749	
	Operation weight			kg	262	288		396	395	551		650	757	
Water heat exchanger	Type			Braze plate heat exchanger										
	Water volume			l	1	2					5			8
	Water flow rate	Cooling	Nom.	l/s	0.8	10	12	16	19	2.0	2.4	3.1	4.2	
		Heating	Nom.	l/s	0.8	10	12	15	19			2.4	3.0	4.1
	Water pressure drop	Cooling	Nom.	kPa	20	11	16	19	28	10	14	22	20	
		Heating	Nom.	kPa	19.6	10.6	15.4	19.1	27.1	9.4	13.8	20.4	19.1	
Air heat exchanger	Type			High efficiency fin and tube type – Copper Aluminum										
Compressor	Type			Scroll compressor										
	Quantity			1							2			
Fan	Type			Axial										
	Quantity			1					2			3	4	
	Speed			rpm	800	900		700	900	700	900	800	900	
Sound power level	Cooling	Nom.		dBA	76.0	78.0		79.0	80.0		81.0	83.0	85.0	
Sound pressure level	Cooling	Nom.		dBA	59.7	61.7		62.2	63.2	62.8	63.8	65.4	67.0	
Refrigerant	Type/GWP			R-32/675										
	Charge			kg	3.00	5.50		7.00	8.00	12.0		13.0	16.0	
	Circuits			Quantity	1								2	
Piping connections				Evaporator water inlet/outlet (OD)	1"1/4							2"		

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Inverter technology



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Space cooling	A Condition Pdc 35°C			kW	16.1	21.1	25.8	32.7	39.9	41.7	51.1	64.3	88.7
	ηs,c			%	205	210	211	224	210	227	213	208	202
SEER					5.20	5.32	5.34	5.67	5.34	5.76	5.40	5.27	5.12
Space heating	Average climate water outlet 35°C		General	SCOP	3.88	4.06	4.08	4.11	4.13	4.14	4.09	3.94	4.00
				Seasonal space heating eff. class	A++								
Cooling capacity	Nom.			kW	16.2	21.2	25.9	32.8	40.1	418	513	64.5	88.9
Heating capacity	Nom.			kW	15.5	19.8	24.5	32.0	38.9	39.9	49.4	61.3	85.2
Power input	Cooling		Nom.	kW	5.60	6.70	8.70	10.4	13.5	13.3	17.0	22.0	31.2
	Heating		Nom.	kW	4.80	6.00	7.60	9.50	11.9	12.0	15.4	19.3	27.4
Capacity control	Method				Inverter controlled								
	Minimum capacity			%	18	14	12	19	15	14	12	15	14
EER					2.89	3.15	2.98	3.14	2.97	3.15	3.02	2.93	2.85
COP					3.24	3.31	3.22	3.37	3.28	3.33	3.20	3.17	3.12
IPLV					5.83	6.29	6.05	6.25	5.87	6.37	5.92	5.88	5.61
Dimensions	Unit	Height		mm	1,878								
		Width		mm	1,152			1,752		2,306		2,906	3,506
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Water heat exchanger	Type				Braze plate heat exchanger								
	Water volume			l	1	2					5		8
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		Heating	Nom.	l/s	0.8	10	12	15	19		2.4	3.0	4.1
	Water pressure drop	Cooling	Nom.	kPa	20	11	16	19	28	10	14	22	20
		Heating	Nom.	kPa	19.6	10.6	15.4	19.1	27.1	9.4	13.8	20.4	19.1
Air heat exchanger	Type				High efficiency fin and tube type – Copper Aluminum								
Compressor	Type				Scroll compressor								
	Quantity				1					2			
Fan	Type				Axial								
	Quantity				1			2			3		4
	Speed			rpm	800	900	700	900	700	900	800	900	
Sound power level	Cooling	Nom.		dBA	76.0	78.0	79.0	80.0		810	83.0	85.0	
Sound pressure level	Cooling	Nom.		dBA	59.7	61.7	62.2	63.2	62.8	63.8	65.4	67.0	
Refrigerant	Type/GWP				R-32/675								
	Charge			kg	3.00	5.50	7.00	8.00	12.0		13.0	16.0	
	Circuits			Quantity	1					2			
Piping connections	Evaporator water inlet/outlet (OD)				1"1/4					2"			

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