

# **BLUEVOLUTION**

# Inverter Chillers & Heat Pumps

EWA(Y)T-CZ series





## Why choose Daikin chiller & heat pump range?



### Low environmental impact

The new R-32 Small Inverter Chiller provides the lowest direct and indirect CO2 emissions levels. That makes it an environmentally friendly series, also thanks to the use of R-32, which is known for being a low GWP and sustainable refrigerant.



### Leadership in R-32 technology

Daikin can count on the highest number of R-32 installations around the world. That not only means being the most experienced, but also means being the most knowledgeable and reliable brand producing R-32 technology.



### Optimized system solutions

The management of multiple units in parallel as well as the advanced control logics for optimizing the heating and cooling production and fulfil domestic hot water needs provide this new Series a with a full set of invaluable features.



### Compact design

The new R-32 Small Inverter Chiller comes in three different layouts, all providing a very compact footprint despite the cooling/heating capacity they can deliver. That makes the series a great solution for projects dealing with space issues.



### Top class efficiency

This new series stands out for being able to provide the best efficiency levels in the market, both in cooling and heating mode, allowing substantial savings on energy bills.



### Infinite application possibilities

The R-32 Small Inverter Chiller series has been designed to meet the needs of the widest possible range of applications, from process cooling applications, to residential, commercial and data centers applications. All that to provide customers with an extremely flexible solution to their needs.



### Advanced connectivity

Complexity has been reduced by moving from hardware to software tools. Thanks to a newly designed Configuration App, it possible to let the units of this Series communicate with any external BMS.



### Widespread support network

Daikin customers, other than benefitting from the quality standards associated with the brand, they can benefit from Daikin's widespread network of installers and after sales support teams around the world.









# **BLUEVOLUTION**

- щ Capacity range from 16 to 90 kW
- щ Extended operating limits both in Heating and Cooling versions
- щ Full inverter technology
- щ DC-Inverter scroll compressors
- щ High Efficiency DC-Inverter Axial fans
- щ Inverter pump kit both Low and High Lift
- щ Optimized Cu-Al condensing coil



# Suitable for comfort & process applications



# Working conditions

Heating guaranteed all year round and hot water production up to 60°C and cooling from -20°C up to 52°C in order to respond to all countries need intallations.



# Capacity range and layout



16-25 kW 32-50 kW 64-90 kW



### Full inverter technology

### SEER up to 5.76 | SCOP up to 4.19 | SEPR up to 8.48

The most advanced technology with highest efficiency and quality levels.

Unrivaled and proven reliability thanks to testing of chillers and components in different locations even at extreme working conditions.

Daikin's Scroll compressors can benefit from Inverter technology that increases this Series' efficiency performance, both at full load and part load, which is very important, as chillers and heat pumps usually operate at part load conditions for most of their operating time.

Great energy efficiency levels are also granted by the Inverter Driven Fans, which, along with the Inverter Scroll Compressors, make this new R-32 Small Inverter Chiller a full Inverter Series.

The operating range of the unit can be extended up to the standard operating limit of the unit thanks to the HIGH AMBIENT TEMPERATURE KIT and a specific electrical design for high ambient temperatures (up to 52°C).





# Plant management & connectivity

Master/Slave or Modbus RTU are standard to ensure a perfect plant Connectivity.

Remote monitoring and system optimization with Daikin proprietary cloud platform Daikin on Site.

- щ Predictive maintenance to prevent breakdowns
- щ Visualize energy consumption to reduce energy costs
- щ Monitor and control your building no matter where you are via the Daikin On Site
- щ Remote diagnostic support to increase your system lifetime
- щ Manage Multiple sites



#### **Dashboards**



Diagnostics



Remote software upgrade



**SERVICE** 

# Cooling only EWAT-CZ series

Cooling only			EWAT-CZN	/CZP/CZH	016	021	025	032	40- MONO	40- DUAL	050	064	090		
Cooling capacity	Nom.					20.9 (1)/21.1	25.6 (1)/25.9	32.4 (1)/32.7	39.6 (1)/39.9	41.4 (1)/41.7	50.8 (1)/51.1	64 (1)/64.4	88.3 (1)/88.8		
				kW	(2)/16.2 (3)			(2)/32.8 (3)					(2)/88.9 (3)		
	Max.							38.6 (1)/38.9				72.7 (1)/ 73.3			
				kW	(2)/18.7 (3)			(2)/39.1 (3)							
Power input	Cooling	Nom.						10.3 (1)/10.3							
	3			kW	(2)/5.6 (3)	(2)/6.7 (3)	(2)/8.7 (3)		(2)/13.5 (3)			(2)/22 (3)	(2)/31.2 (3)		
Capacity control	Method				Inverter controlled										
	Minimum capacity			%	18	14	12	19	15	14	12	15	14		
EER	arreapacity			,-		3.16 (1)/3.22		3.13 (1)/3.18							
								(2)/3.14 (3)							
IPLV					5.83	6.29	6.05	6.25	5.87	6.37	5.92	5.88	5.61		
SEER						5 00 (1)/5 41		5.21 (1)/5.70							
522.1					(2)/5.20 (3)			(2)/5.67 (3)							
ης,ς								205 (1)/225							
1 5,0				%	(2)/205 (3)	(2)/210 (3)		(2)/224 (3)				(2)/208 (3)	(2)/202 (3)		
Dimensions	Unit		mm	(2)/205 (3)   (2)/210 (3)   (2)/211 (3)   (2)/224 (3)   (2)/210 (3)   (2)/227 (3)   (2)/213 (3) 1,878						(2), 200 (3)	(2), 202 (3)				
	Offic		mm	1,152 1,752 2,306					206	2,906	3,506				
				mm	802					814					
Weight	Unit	Бериі			222 (1)/256		002	340 (1)/393	339 (1)/382				672 (1)/727		
Weight	Offic		I		(2) (3)	245 (1)/278 (2) (3)		(2) (3)	(2) (3)	480 (1)/531 (2) (3)		(2) (3)	(2) (3)		
Water heat	Туре				(2) (3)   (2) (3)   (2) (3)   (2) (3)    Brazed plate HE								(2) (3)		
exchanger	Water flow rate	Cooling	Nom.	I/s	0.8	1	1.2	1.6	1.9	2	2.4	3.1	4.2		
	Waterpressuredro		Total	kPa	19.8	11.3	16.3	19.2	27.6	9.91	14.3	21.7	20.1		
	Water volume	p Cooling	iotai	Kra	19.0	11.5			27.0	9.91	5	21.7	8		
					1 2 5 8  Al Fins&Cu Tubes										
Air heat exchangerType															
Compressor	Type			Hermetically sealed scroll compressor											
	Quantity	1 2													
Fan	Type							1	Axial	2 3 4					
	Quantity	- "				1						_	4		
	Air flow rate	Cooling	Nom.	I/s	3227	3122	3524	5080	6701	5444	7048	8967	13402		
Sound power leve		Nom.		dBA	7	6	78	79		0	81	83	85		
Operation range		Cooling	Min.~Max.	°CDB	-20~52										
	Water side	Cooling	Min.~Max.	°CDB	-15~25										
Refrigerant	Туре			R32											
	Circuits	Quantity					1			2					
	Control							Electro	nic expansio	ic expansion valve					
	GWP				675										
Refrigerant charge	e Total			kg	3	5.5	5.5	7	8	12	12	13	16		
				kgCO2eq	2025	3713	3713	4725	5400	8100	8100	8775	10800		
Water circuit	Pipingconnection diameter	ns		inch		1-1/4" (female) 2" (female)									
Unit	Running current			17 (1)/21	21 (1)/25	23 (1)/27	34 (1)/38	38 (1)/42	41 (1)/45	46 (1)/50	61 (1)/66	83 (1)/88			
	manning current max			Α		(2)/25 (3)	(2)/27(3)	(2)/39 (3)	(2)/43 (3)	(2)/46 (3)	(2)/51 (3)	(2)/68 (3)	(2)/90 (3)		
Power supply	Phase/Frequency	4/			(2)/21 (3)	(2)/23 (3)	(2), 2, (3)	(2)/37 (3)		(2)/ 10 (3)	(2)/31(3)	(2)/00 (3)	(2)/ >0 (3)		
. c.rci suppiy	Voltage Hz/V					3N~/50/400									

(1) EWAT-CZN: version without pump. (2) EWAT-CZP: version with pump low lift. (3) EWAT-CZH: version with pump high lift. All the cooling performances (cooling capacity, unit power lift.) and the pump low lift. (3) EWAT-CZH: version with pump high lift. All the cooling performances (cooling capacity, unit power lift.) and the pump low lift. (3) EWAT-CZH: version with pump high lift. All the cooling performances (cooling capacity, unit power lift.) and the pump low lift. (3) EWAT-CZH: version with pump high lift. All the cooling performances (cooling capacity, unit power lift.) and the pump low lift. (3) EWAT-CZH: version with pump lift. (4) EWAT-CZH: version with pump $input in cooling and EER) are based on the following conditions: 12,0/7,0^{\circ}C; ambient 35,0^{\circ}C, unit at full load operation; operating fluid: water; fouling factor = 0. EN14511:2018. SEER$ is calculated in accordance with the regulation No. 2281/2016 and standard EN14825 for information only, unless the unit is a "cooling-only" type.

Performances according to CSS software 10.29

# Daikin License Manager

the mobile App to enable BMS communication protocols on the new Small Inverter Chiller







2 DOWNLOAD

the SIC unit controller



3 CONGRATULATIONS







# Heat pump EWYT-CZ series

Heating & cooling		EWYT-CZN/CZ	ZP/CZH	016	021	025	032	40 - MONO	40 - DUAL	050	064	090			
Cooling capacity	Nom.		kW	15.9 (1)/16.1	20.9 (1)/21.1	25.6 (1)/25.9	32.4 (1)/32.7	39.6 (1)/39.9	41.4 (1)/41.7	50.8 (1)/51.1	64 (1)/64.4	88.3 (1)/88.8			
			KVV	(2)/16.2 (3)	(2)/21.2 (3)	(2)/25.9 (3)	(2)/32.8 (3)	(2)/40.1 (3)	(2)/41.8 (3)	(2)/51.3 (3)	(2)/64.5 (3)	(2)/88.9 (3)			
	Max.			18.3 (1)/18.6	25 (1)/25.3	29.3 (1)/29.6	38.6 (1)/38.9	45.2 (1)/45.6	49.6 (1)/50	58.2 (1)/	72.7 (1)/ 73.3	98.3 (1)/ 98.8			
				(2)/18.7 (3)	(2)/25.4 (3)	(2)/29.6 (3)	(2)/39.1 (3)	(2)/45.7 (3)	(2)/50.1 (3)	58.6(2)/58.7 (3)		(2)/98.9 (3)			
Heating capacity	Nom.		kW	(2)/15.5 (3)	20.2 (1)/19.93 (2)/19.8 (3)	24.8 (1)/24.6 (2)/24.5 (3)	32.4 (1)/32.08 (2)/32 (3)	39.4 (1)/39 (2)/38.9 (3)	40.3 (1)/40.01 (2)/39.9 (3)	49.8 (1)/49.49 (2)/49.4 (3)	(2)/61.3 (3)	85.8 (1)/85.33 (2)/85.2 (3)			
	Max.			18.3 (1)/18	24.3 (1)/24	28.7 (1)/28.4	36.5 (1)/36.2	44.7 (1)/44.3	48.7 (1)/48.4		69.2 (1)/68.7	94.7 (1)/ 94.1			
	Max.		kW	(2)/18 (3)	(2)/23.9 (3)	(2)/28.3 (3)	(2)/36.1 (3)	(2)/44.2 (3)	(2)/48.3 (3)	(2)/56.7 (3)	(2)/68.6 (3)	(2)/94 (3)			
Power input	Cooling	Nom.		5.5 (1)/5.45	6.6 (1)/6.56	8.5 (1)/8.48	10.3 (1)/10.3	13.4 (1)/13.3	13.2 (1)/13.2		21.8 (1)/21.9	31 (1)/31.1			
			kW	(2)/5.6 (3)	(2)/6.7 (3)	(2)/8.7 (3)	(2)/10.4 (3)	(2)/13.5 (3)	(2)/13.3 (3)	(2)/17 (3)	(2)/22 (3)	(2)/31.2 (3)			
	Heating	Nom.	kW	4.7 (1)/4.63	5.8 (1)/5.81	7.5 (1)/7.42	9.4 (1)/9.32	11.8 (1)/11.7	11.9 (1)/11.8	15.4 (1)/15.3	19.1 (1)/19.2	27.2 (1)/27.3			
			KVV	(2)/4.8 (3)	(2)/6 (3)	(2)/7.6 (3)	(2)/9.5 (3)	(2)/11.9 (3)	(2)/12 (3)	(2)/15.4 (3)	(2)/19.3 (3)	(2)/27.4 (3)			
Capacity control	Method	thod			Inverter controlled										
	Minimumcapacit	/	%	18	14	12	19	15	14	12	15	14			
EER				2.9 (1)/2.96				2.95(1)/3(2)/2.97		2.98 (1)/3.03	2.93 (1)/2.95	2.84 (1)/2.85			
				(2)/2.89 (3)	(2)/3.15 (3)	(3)	(2)/3.14 (3)	(3)	(2)/3.15 (3)	(2)/3.02 (3)	(2)/2.93 (3)	(2)/2.85 (3)			
COP				3.41 (1)/3.37	3.46 (1)/3.43	3.33 (1)/3.31	3.45 (1)/3.44	3.33 (1)/3.33	3.38 (1)/3.38		3.23 (1)/3.2	3.16 (1)/3.13			
				(2)/3.24 (3)	(2)/3.31 (3)	(2)/3.22 (3)	(2)/3.37 (3)	(2)/3.28 (3)	(2)/3.33 (3)	(2)/3.2 (3)	(2)/3.17 (3)	(2)/3.12 (3)			
SEER				5(1)/5.3(2)/5.2(3)	5(1)/5.41(2)/5.32		5.21 (1)/5.7	5.09 (1)/5.36	5.41 (1)/5.76		5.21 (1)/5.34	5.03 (1)/5.18			
					(3)	(2)/5.34 (3)	(2)/5.67 (3)	(2)/5.34 (3)	(2)/5.76 (3)	(2)/5.4 (3)	(2)/5.27 (3)	(2)/5.12 (3)			
ης,ς			%	197 (1)/209 (2)/205 (3)	197 (1)/213	200 (1)/213 (2)/211 (3)	205 (1)/225	201 (1)/211	213 (1)/228	210 (1)/216	205 (1)/211	198 (1)/204			
Space heating	Average climate	eGeneral ns(Seasonalspace		153 (1)/158	(2)/210 (3) 157 (1)/165	160 (1)/165	(2)/224 (3) 159 (1)/164	(2)/210 (3) 160 (1)/164	(2)/227 (3) 158 (1)/165	(2)/213 (3) 157 (1)/162	(2)/208 (3) 156 (1)/157	(2)/202 (3) 157 (1)/159			
space neating	water outlet	heatingefficiency)	%	(2)/152 (3)	(2)/159 (3)	(2)/160 (3)	(2)/161 (3)	(2)/162 (3)	(2)/163 (3)	(2)/161 (3)	(2)/155 (3)	(2)/157 (3)			
	35°C	SCOPLowTemp.			4(1)/4.19(2)/4.06		4.06 (1)/4.18	4.07 (1)/4.18	4.02 (1)/4.19						
		Seor Lowrenipi		(2)/3.88 (3)	(3)	(2)/4.08 (3)	(2)/4.11 (3)	(2)/4.13 (3)	(2)/4.14 (3)	(3)	(2)/3.94 (3)	4(1)/4.04(2)/4(3			
		Seasonal space		A++	A++	A++	A++	A++	A++	A++	A++	A++			
		heatingeff.Class		****						1	11111	1			
Dimensions	Unit Height		mm	1,878											
		Width	mm		1,152		1,:	752	2,	306	2,906	3,506			
		Depth	mm			802				8					
Weight	Unit											693(1)/749(2)(3			
Water heat	Туре							Brazed plate HE							
exchanger	Water flow rate		l/s	0.8	1	1.2	1.6	1.9	2	2.4	3.1	4.2			
		Heating Nom.	l/s	0.8	1	1.2	1.6	1.9	2	2.4	3.1	4.2			
	Waterpressuredrop	CoolingTotal	kPa	19.8	11.3	16.3	19.2	27.6	9.91	14.3	21.7	20.1			
	Water volume			1			2			5		8			
				Al Fins&Cu Tubes											
Compressor	Туре			Hermetically sealed scroll compressor											
	Quantity					1		2							
Fan	Туре						I	Axial							
	Quantity	Clin-N	1/-	3227	1 2122	2524	5000	_	5444	7040	3	12402			
	Air flow rate	Cooling Nom.	I/s	322/	3122	3524	5080	6701	5444	7048	8967	13402			
C	Caaliaa	Heating Nom.	I/s dBA	-		78	79		0	01	02	0.5			
Sound power level Operation range	Cooling Air side	Nom. Cooling Min.~Max.	°CDB	/	'6	/8	/9	-20~52	U	81	83	85			
Operation range	All side		°CDB					-20~32							
	Waterside	Heating Min.~Max.													
	Water side Cooling Min.~Max. °CDB Heating Min.~Max. °CDB			-15~25											
Pofrigorant	T	Heating Min.~Max.	20~60 R32												
Refrigerant	Type	0						K32							
	Circuits Quantity			1 2											
	Control						Elect	ronic expansion	valve						
							_	675							
	GWP	, , , , , , , , , , , , , , , , , , , ,			5.5	5.5	7	8	12	12	13	16			
Refrigerant charge			kg	3											
	Total		kg gCO2eq	2025	3713	3713	4725	5400	8100	8100	8775	10800			
Refrigerant charge Water circuit	Total Pipingconnection						4725	5400	8100	8100 2" (fe		10800			
Water circuit	Total Pipingconnection diameter	s	gCO2eq inch	2025	3713	3713 1-1/4" (female)	4725			2" (fe	male)				
	Total Pipingconnection	s tMax	gCO2eq inch	2025	3713	3713 1-1/4" (female)	4725				male)				

(1) EWYT-CZN: version without pump. (2) EWYT-CZP: version with pump low lift. (3) EWYT-CZH: version with pump high lift.

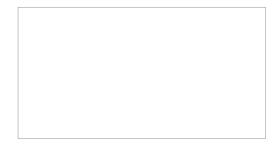
All the cooling performances (cooling capacity, unit at full load operation; operating fluid: water; fouling factor = 0. EN14511:2018

operating fluid: water; fouling factor = 0. EN14511:2018
All the heating performances (heating capacity, unit power input in heating and COP) are based on the following conditions: 40,0/45,0°C; ambient 7,0°C, unit at full load operation; operating fluid: water; fouling factor = 0. EN14511:2018
SEER is calculated in accordance with the regulation No. 2281/2016 and standard EN14825 for information only, unless the unit is a "cooling-only" type.
The values of Low Temperature SCOP and ηs are calculated in accordance with the Ecodesign regulation No. 813/2013 and the standard EN 14825-2018.

Performances according to CSS software 10.29



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