

Air-cooled chillers

EUWA*030-095CZ6Y - EUWY*030-095CZ6Y
Applied systems





Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues.

For several years Daikin has had the intention to become a leader in the provision of environmental friendly products. This challenge demands the eco design and development of a wide range of products and an energy management system; which involves energy conservation and reduction of waste.



Flexible application *and easy installation*

11 cooling only (62kW - 265kW) and heat pump (cooling 60kW - 250kW and heating 58kW - 252kW) models are available.

3 different modular design options:

- with hydraulic module
- with hydraulic module and buffer tank
- without hydraulic components

The integrated hydraulic module features all necessary components: pump, expansion vessel, valves, electronic flow switch, pressure gauge, relief valve, strainer. Thanks to these built-in components, installation is easy and you will make considerable savings using any available space on the ground or rooftop, avoiding the use of a dedicated technical room.

Sound

Noise suppression - an important factor of everyday life - is afforded high priority by Daikin. The new scroll chillers come in 2 versions: standard and low noise (sound reduction of 5dBA). Particular attention has been given to any component that can generate noise or vibration:

- compressors are insulated and separated from air flow in order to avoid airborne noise.
- condenser coil heat exchange surface has been optimised
- fan especially designed to improve air flow
- strict design requirements of piping, chassis and panels
- piping has been designed as to minimise vibration transmission

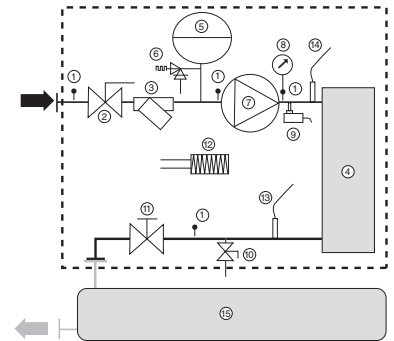




3 different *design options* EUWA*-CZ/EUWY*-CZ (B/P/N)

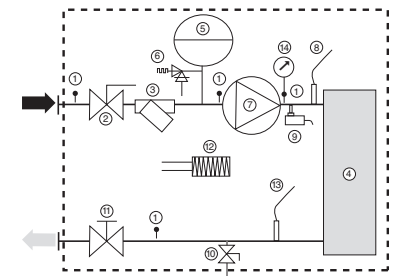
B

B-type: = EUWAB-CZ
EUWYB-CZ



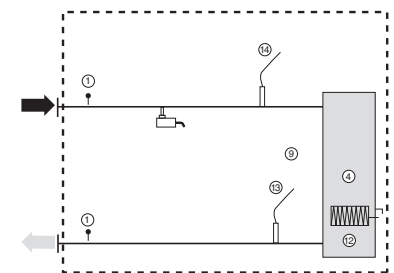
P

P-type: = EUWAP-CZ
EUWYP-CZ



N

N-type: = EUWAN-CZ
EUWYN-CZ



1. Pressure port for water gauge
2. Shut off ball valve
3. Water strainer
4. Evaporator
5. Expansion vessel
6. Relief valve
7. Pump (single or dual)
8. Removable water gauge
9. Electronic flow control
10. Filling and drain valve
11. Balancing valve
12. Freeze protection
13. Leaving water temperature sensor
14. Return water temperature sensor
15. Buffer tank

EUWA*-CZ6Y

			030	035	040	045	049	050
Nominal capacity	cooling	kW	62.2	75.5	102	120.8	131.3	128.1
Nominal input	cooling	kW	24.7	29.2	39.5	44.6	52.5	49.9
EER			2.52	2.59	2.58	2.71	2.51	2.57
Capacity steps			2	2	2	2	2	4
Water heat exchanger	type		Braze plate heat exchanger					
	qty		1	1	1	1	1	1
Refrigerant circuit	type		R-407C					
	charge	kg	18	21	24	28	28	19/19
	oil charge	l	10.4	13.2	17	10.6	11.8	10.4 x 2
Compressor	type		Hermetically sealed scroll					
	No. of circuits/compressors		1/2	1/2	1/3	1/2	1/2	2/4
Air flow rate		m ³ /h	19,100	26,300	37,300	37,100	37,100	38,300
Air heat exchanger	type		coated aluminium fins with black epoxy coating					
Pressure drop		kPa	32	36	49	47	53	37
Nominal static height (unit)	B / P-unit	kPa	179	172	137	180	170	199
Expansion tank		l	25	25	25	25	25	35
Buffer tank	volume	l	370	410	410	410	410	570
	height	mm	400	400	400	400	400	400
	additional shipping weight	kg	396	437	436	436	436	644
Dimensions	H (without buffer tank)	mm	1,897	1,897	2,074	2,074	2,074	1,897
	W	mm	2,800	3,200	3,200	3,200	3,200	3,400
	D	mm	1,100	1,100	1,100	1,100	1,100	2,300
Operation weight	without hydraulic module	kg	842	968	1,143	1,267	1,292	1,623
	with hydraulic module	kg	945	1,076	1,251	1,375	1,400	1,733
Sound power		dB(A)	85	86	87	87	87	88
Casing	material		powder painted galvanised steel plate					
	colour		RAL9002					
Piping connections			ISO R7 - 2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"
Operation range	air side	°C	-10 ~ 42°C (-18°C as option)					
	water side	°C	-12°C ~ 12°C					
Power supply		W1	3~ /400V/50Hz					

EUWA*-CZ6Y

			060	070	080	090	095
Nominal capacity	cooling	kW	156	181.7	212.7	239.6	265.3
Nominal input	cooling	kW	59	69.5	79.4	90	101.2
EER			2.64	2.61	2.68	2.66	2.62
Capacity steps			4	4	4	4	4
Water heat exchanger	type		Braze plate heat exchanger				
	qty x model		1	1	1	1	1
Refrigerant circuit	type		R-407C				
	charge	kg	22/22	27/27	27/27	34/34	31/31
	oil charge	l	13.2 x 2	14.2 x 2	17.2 x 2	19.8 x 2	11.8 x 2
Compressor	type		hermetically sealed scroll				
	No. of circuits/compressors		2/4	2/6	2/6	2/6	2/4
Air flow rate		m ³ /h	52,700	55,400	86,300	83,000	79,300
Air heat exchanger	type		coated aluminium fins with black epoxy coating				
Pressure drop		kPa	45	37	44	44	53
Nominal static height (unit)	B / P-unit	kPa	177	189	164	128	115
Expansion tank		l	35	35	35	35	35
Buffer tank	volume	l	570	570	570	570	570
	height	mm	400	400	400	400	400
	additional shipping weight	kg	644	644	644	644	644
Dimensions	H (without buffer tank)	mm	1,897	2,100	2,100	2,100	2,100
	W	mm	3,400	3,400	3,400	3,400	3,400
	D	mm	2,300	2,300	2,300	2,300	2,300
Operation weight	without hydraulic module	kg	1,818	2,087	2,245	2,423	2,456
	with hydraulic module	kg	1,928	2,201	2,359	2,612	2,645
Sound power		dB(A)	89	89	94	95	95
Casing	material		powder painted galvanised steel plate				
	colour		RAL9002				
Piping connections			ISO R7 - 2 1/2"	ISO R7 - 3"	ISO R7 - 3"	ISO R7 - 3"	ISO R7 - 3"
Operation range - air side		°C	-10 ~ 42°C (-18°C as option)				
Operation range - water side		°C	-12°C ~ 12°C				
Power supply			3~ /400V/50Hz				

EUWY*-CZ6Y

			030	035	040	045	049	050
Nominal capacity	cooling	kW	60.5	73.2	93.8	115.5	123.9	125.2
	heating	kW	57.8	70.5	96.3	115.5	123.9	115.6
Nominal input	cooling	kW	25.6	30.5	40.6	43.7	51.7	51.8
	heating	kW	23.1	27.9	38.1	42.5	45.9	46.4
EER			2.36	2.4	2.31	2.64	2.4	2.42
COP			2.5	2.53	2.53	2.72	2.7	2.49
Capacity steps			2	2	2	2	2	4
Water heat exchanger	type		Brased plate heat exchanger					
	qty		1	1	1	1	1	1
Refrigerant circuit	type		R-407C					
	charge	kg	18	21	24	28	28	19/19
	oil charge	l	10.4	13.2	17	10.6	11.8	10.4 x 2
Compressor	type		hermetically sealed scroll					
	No. of circuits/compressors		1/2	1/2	1/3	1/2	1/2	2/4
Air flow rate		m3/h	19,100	26,300	37,300	37,100	37,100	38,300
Air heat exchanger	type		coated aluminium fins with black epoxy coating					
Pressure drop	cooling/heating	kPa	32	36	49	47	53	37
Nominal static height (unit)	B / P-unit	kPa	179	172	137	180	170	199
Expansion tank		l	25	25	25	25	25	35
Buffer tank	volume	l	370	410	410	410	410	570
	height	mm	400	400	400	400	400	400
	additional shipping weight	kg	396	437	436	436	436	644
Dimensions	H (without buffer tank)	mm	1,897	1,897	2,074	2,074	2,074	1,897
	W	mm	2,800	3,200	3,200	3,200	3,200	3,400
	D	mm	1,100	1,100	1,100	1,100	1,100	2,300
Operation weight	without hydraulic module	kg	870	996	1,182	1,302	1,331	1,677
	with hydraulic module	kg	973	1,104	1,290	1,410	1,439	1,787
Sound power		dB(A)	85	86	87	87	87	88
Casing	material		powder painted galvanised steel plate					
	colour		RAL9002					
Piping connections			ISO R7 - 2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"	ISO R7 - 2 1/2"
Operation range - air side		°C	COOLING: -10 ~ 42°C (-18°C as option) - HEATING: -10°C ~ 20°C					
Operation range - water side		°C	COOLING: -12°C ~ 12°C - HEATING: 25°C ~ 50°C					
Power supply		W1	3 ~ /400V/50Hz					

EUWY*-CZ6Y

			060	070	080	090	095	
Nominal capacity	cooling	kW	152.1	166.5	194.0	219.4	250.0	
	heating	kW	141.1	166.8	192.7	213.5	251.6	
Nominal input	cooling	kW	61.7	70.6	79.3	91.4	105.9	
	heating	kW	56.3	65.2	78.1	86.2	93.8	
EER			2.47	2.36	2.45	2.4	2.36	
COP			2.51	2.56	2.47	2.48	2.68	
Capacity steps			4	4	4	4	4	
Water heat exchanger	type		Brased plate heat exchanger					
	qty x model		1	1	1	1	1	
Refrigerant circuit	type		R-407C					
	charge	kg	22/22	27/27	27/27	34/34	31/31	
	oil charge	l	13.2 x 2	14.2 x 2	17.2 x 2	19.8 x 2	11.8 x 2	
Compressor	type		hermetically sealed scroll					
	No. of circuits/compressors		2/4	2/6	2/6	2/6	2/4	
Air flow rate		m3/h	52,700	55,400	86,300	83,000	79,300	
Air heat exchanger	type		coated aluminium fins with black epoxy coating					
Pressure drop	cooling/heating	kPa	45	37	44	44	53	
Nominal static height (unit)	B / P-unit	kPa	177	189	164	128	115	
Expansion tank		l	35	35	35	35	35	
Buffer tank	volume	l	570	570	570	570	570	
	height	mm	400	400	400	400	400	
	additional shipping weight	kg	644	644	644	644	644	
Dimensions	H (without buffer tank)	mm	1,897	2,100	2,100	2,100	2,100	
	W	mm	3,400	3,400	3,400	3,400	3,400	
	D	mm	2,300	2,300	2,300	2,300	2,300	
Operation weight	without hydraulic module	kg	1,872	2,166	2,324	2,502	2,535	
	with hydraulic module	kg	1,982	2,280	2,438	2,691	2,724	
Sound power		dB(A)	89	89	94	95	95	
Casing	material		powder painted galvanised steel plate					
	colour		RAL9002					
Piping connections			ISO R7 - 2 1/2"	ISO R7 - 3"	ISO R7 - 3"	ISO R7 - 3"	ISO R7 - 3"	
Operation range - air side		°C	COOLING: -10 ~ 42°C (-18°C as option) - HEATING: -10°C ~ 20°C					
Operation range - water side		°C	COOLING: 0 ~ 12°C (-12°C as option)- HEATING: 25°C ~ 50°C					
Power supply			3 ~ /400V/50Hz					

Option Number	Option description		unit size											
			030	035	040	045	049	050	060	070	080	090	095	
OPSTEK	Approval	STEK												
OPLN	Low noise		0	0	0	0	0	0	0	0	0	0	0	0
OPHP	Low ambient	-18°C	0	0	0	0	0	0	0	0	0	0	0	0
OPZH	Glycol application	0 to -4°C	0	0	0	0	0	0	0	0	0	0	0	0
OPZL		-4 to -12°C	0	0	0	0	0	0	0	0	0	0	0	0
OPCu	Copper condenser fins		0	0	0	0	0	0	0	0	0	0	0	0
OPHF	Fan motor size up		0	0	0	0	0	0	0	0	0	0	0	0
OPSPC	Hydraulic Module	Single pump contactor (only N model)	0	0	0	0	0	0	0	0	0	0	0	0
OPTPC		Twin pump contactor (only N model)	0	0	0	0	0	0	0	0	0	0	0	0
OPTP		Twin pump (only B/P model)	0	0	0	0	0	0	0	0	0	0	0	0
OPAC	Communication Card		0	0	0	0	0	0	0	0	0	0	0	0
OPGA	Pressure Gauges		0	0	0	0	0	0	0	0	0	0	0	0
OPCG	Condenser protection grilles		0	0	0	0	0	0	0	0	0	0	0	0
OPSS	Soft Starter		0	0	0	0	0	0	0	0	0	0	0	0
			0	0	-	-	-	-	-	-	-	-	-	-

Note : All options are factory mounted
Following options can not be combined:
OPLN + OPHF
OPHP + OPSS

Measuring *conditions*

1. Nominal cooling capacities are based on: evaporator 12°C/7°C • ambient 35°C
2. Nominal heating capacities are based on: ambient: 7°CDB/6°CWB; condenser: 40°C/50°C
3. The sound power level is an absolute value indicating the "power" which a sound source generates.

A range to rely on.

Scroll *compressor*

The heart of the unit is a hermetic scroll compressor, optimised for use with R-407C refrigerant and designed to the very highest technical standards.

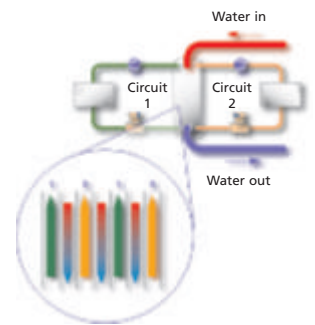
- fewer moving parts (64% less than reciprocating compressors)
- optimised suction, discharge and oil distribution
- decreased pressure losses
- high volumetric efficiencies
- excellent lubrication



Heat *exchanger*

The use of brased, stainless steel plate heat exchanger for the evaporator ensures maximum heat transfer between refrigerant & water circuits.

- only 1 evaporator for 2 refrigerant circuits
- counter flow design
- low water pressure drop
- more stable leaving water temperature
- better part load operation and less freezing risk at part load operation



The use of straight condenser coils results in an increased heat surface and thus higher ambient temperature limits. The straight coil has several advantages:

- interdependent fins for a better heat exchange
- constant fin spacing
- no air flow restriction
- easy to clean
- better resistance to corrosion
- better rigidity

Electronic *control*

- 6-key keypad along with liquid crystal display will allow the user to interact very simply with the system, and to quickly diagnose eventual problems
- weatherproof control panel, containing starters, power and control wiring, mounted on the chiller, and include primary and secondary fused control power transformer with 2 secondary control circuits
- power panel door locked by a main switch
- control of operating and safety parameters
- programmable features such as scheduled start/stop, water temperature reset
- remote starts/stop
- default signalling capabilities
- anti-freeze protection
- defrost control

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Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe NV participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

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