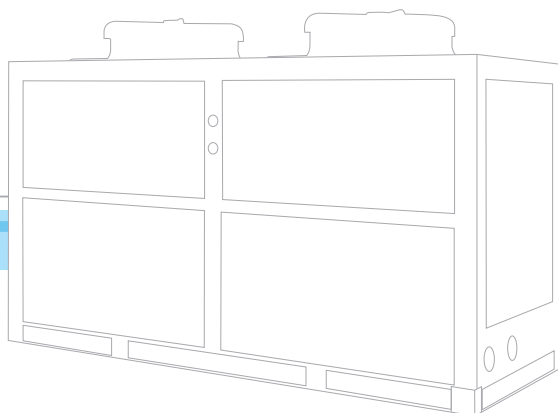


Air-cooled chillers

EWAP060-260CAYN - EWYP060-250CAYN
Applied systems



R-407C



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 (62 - 262kW) and heat pump (cooling 61 - 247kW and heating 60 - 247kW) models are available.
3 different modular design options:

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

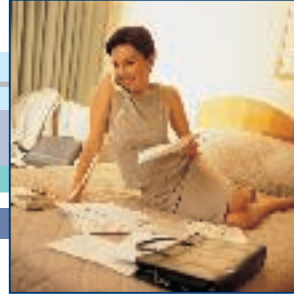
The integrated hydraulic module features all necessary components: pump, expansion vessel, valves, electronic flow switch, pressure gauge, relief valve, strainer. Thanks to these built-in components, installation is easy and you will make considerable savings using any available space on the ground or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

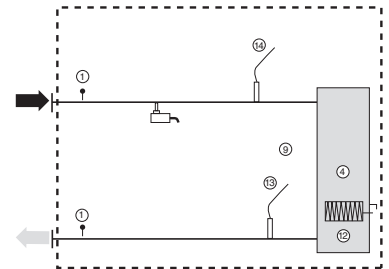
- compressors are insulated and separated from air flow in order to avoid airborne noise
- condenser coil heat exchange surface has been optimised
- fan especially designed to improve air flow
- strict design requirements of piping, chassis and panels
- piping has been designed as to minimise vibration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



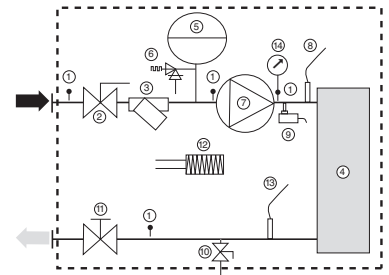


Possible configurations

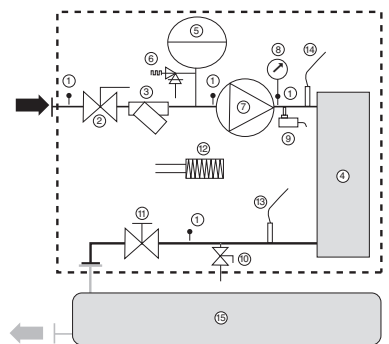
Standard unit



Unit with hydraulic module (single or twin pump)



Unit with hydraulic module & buffer tank



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

EWAP-CAYN			060	080	100	120	125	130
Nominal capacity	cooling	kW	62.5	76.2	101.9	121.8	129.7	128.9
Nominal input	cooling	kW	24.4	28.8	36.4	43.6	50.5	49.1
EER			2.56	2.65	2.80	2.79	2.57	2.63
Dimensions	HxWxD	mm	1,897x2,800x1,100	1,897x3,200x1,100	2,092x3,200x1,100			1,897x3,400x2,300
Operation weight		kg	842	968	1,143	1,267	1,292	1,623
Nominal air flow rate		m³/h	19,100	26,300	37,300	37,100	37,100	38,300
Fan speed		rpm	700	700	680	680	680	700
Sound power level (standard/low noise)		dBA	85/80	86/81	86/85	90/88	91/88	88/83
Compressor	type		Hermetic scroll compressor					
	qty		2	2	3	2	2	4
	capacity steps		40-60	50	37-63	44-56	50	20-30
Refrigerant circuit	type		R-407C					
	charge	kg	18	21	26	28	28	38
	no. of circuits		1					
	oil charge	l	10	12.4	16.2	10.6	11.8	20
Air heat exchanger			Aluminium fins with black epoxy coating					
Water heat exchanger			Brazed plate heat exchanger					
Operation range	water side	°C	-12°C ~ +12°C					
	air side	°C	-10°C (-18°C with option OPIF) ~ 42°C					
Power supply		YN	400V/3 ~ /50Hz					
HYDRAULIC								
Nominal water flow rate		l/min	178.8	217.8	295.2	333	369	368.4
Nominal static height - single pump		kPa	180	174	139	201	186	207
Nominal static height - double pump		kPa	166	158	121	187	171	191
Nominal pressure drop		kPa	33	38	46	43	44	30
Min. water volume in the system		l	360	360	610	640	620	370
Expansion vessel		l	25	25	25	25	25	35
Hydraulic module	weight	kg	103	108	108	108	108	110
	volume	l	370	410	410	410	410	570
Buffer tank	weight	kg	396	437	437	437	437	644
	height	mm	400					
	evaporator in/outlet	"	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Piping connections			evaporator water drain Hose tube 15x21					

EWAP-CAYN			160	180	210	240	260
Nominal capacity	cooling	kW	157.1	182.8	214.2	241.3	261.8
Nominal input	cooling	kW	57.9	68.4	77.9	88.3	102.4
EER			2.71	2.67	2.75	2.73	2.56
Dimensions	HxWxD	mm	1,897x3,400x2,300	2,100x3,400x2,300			
Operation weight		kg	1,818	2,087	2,245	2,423	2,456
Nominal air flow rate		m³/h	52,700	55,400	86,300	83,000	79,300
Fan speed		rpm	700	700	680	680	680
Sound power level (standard/low noise)		dBA	89/84	89/85	95/89	95/89	95/91
Compressor	type		Hermetic scroll compressor				
	qty		4	6	6	6	4
	capacity steps		25	22-29	19-32	17-33	25
Refrigerant circuit	type		R-407C				
	charge	kg	44	54	54	68	62
	no. of circuits		2				
	oil charge	l	24.8	27.6	32.4	37.2	23.6
Air heat exchanger			Aluminium fins with black epoxy coating				
Water heat exchanger			Brazed plate heat exchanger				
Operation range	water side	°C	-12°C ~ +12°C				
	air side	°C	-10°C (-18°C with option OPIF) ~ 42°C				
Power supply		YN	400V/3 ~ /50Hz				
HYDRAULIC							
Nominal water flow rate		l/min	449.4	522.6	615	693	764.4
Nominal static height - single pump		kPa	186	197	174	137	125
Nominal static height - double pump		kPa	168	176	148	137	124
Nominal pressure drop		kPa	36	30	35	38	41
Min. water volume in the system		l	370	500	650	760	630
Expansion vessel		l	35	35	35	35	35
Hydraulic module	weight	kg	110	114	114	189	189
	volume	l	570	570	570	570	570
Buffer tank	weight	kg	644	644	644	644	644
	height	mm	400				
	evaporator in/outlet	"	2 1/2	3	3	3	3
Piping connections			evaporator water drain Hose tube 15x21				

EWYP-CAYN

			060	075	095	110	120	130
Nominal capacity	cooling / heating	kW	60.8 / 59.6	73.6 / 72.7	93.6 / 99.2	116 / 112	122 / 120	126 / 119
Nominal input	cooling / heating	kW	25.4 / 24.9	30.1 / 30.4	37.6 / 43	42.8 / 45.7	49.7 / 48.6	51.1 / 49.5
EER			2.39	2.45	2.49	2.71	2.45	2.47
COP			2.39	2.39	2.31	2.45	2.47	2.40
Dimensions	HxWxD	mm	1,897x2,800x1,100	1,897x3,200x1,100	2,092x3,200x1,100			1,897x3,400x2,300
Operation weight		kg	870	996	1,182	1,302	1,331	1,677
Nomimal air flow rate		m³/h	19,100	26,300	37,300	37,100	37,100	38,300
Fan speed		rpm	700	700	680	680	680	700
Sound power level (standard/low noise)		dBA	85/80	86/81	86/85	90/88	91/88	88/83
Compressor	type		Hermetic scroll compressor					
	qty		2	2	3	2	2	4
	capacity steps		40-60	50	37-63	44-56	50	20-30
Refrigerant circuit	type		R-407C					
	charge	kg	18	21	26	40	40	2 x 21
	no. of circuits		1					
	oil charge	l	10.4	13.2	17.0	10.6	11.8	2 x 10.4
Air heat exchanger			Aluminium fins with black epoxy coating					
Water heat exchanger			Brazen plate heat exchanger					
Operation range - water side	cooling / heating	°C	-12°C ~ +12°C / 25°C ~ 50°C					
Operation range - air side	cooling / heating	°C	-10°C ~ 42°C / -10°C ~ +20°C					
Power supply		YN	400V/3 ~/50Hz					
HYDRAULIC								
Nominal water flow rate		l/min	178.8	2178	295.2	333	369	368.4
Nominal static height - single pump	cooling / heating	kPa	180/180	174/174	139/139	201/201	186/186	207/207
Nominal static height - double pump	cooling / heating	kPa	166/166	158/158	121/121	187/187	171/171	191/191
Nominal pressure drop	cooling / heating	kPa	31/31	35/35	39/39	40/40	39/39	28/28
Min. water volume in the system		l	360	360	610	640	620	370
Expansion vessel		l	25	25	25	25	25	35
Hydraulic module	weight	kg	103	108	108	108	108	110
	volume	l	370	410	410	410	410	570
Buffer tank	weight	kg	396	437	437	437	437	644
	height	mm	400					
	evaporator in/outlet	"	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Piping connections			Hose tube 15x21					
			evaporator water drain					

EWYP-CAYN

			150	170	200	220	250
Nominal capacity	cooling / heating	kW	153 / 145	167 / 172	195 / 198	229 / 228	247 / 247
Nominal input	cooling / heating	kW	60.7 / 60.4	69.8 / 69.6	78.2 / 84.5	91.6 / 86.5	102 / 101
EER			2.52	2.39	2.49	2.50	2.42
COP			2.40	2.47	2.34	2.64	2.45
Dimensions	HxWxD	mm	1,897x3,400x2,300	2,100x3,400x2,300			
Operation weight		kg	1,872	2,166	2,324	2,502	2,535
Nomimal air flow rate		m³/h	52,700	55,400	86,300	83,000	79,300
Fan speed		rpm	700	700	680	680	680
Sound power level (standard/low noise)		dBA	89/84	89/85	95/89	95/89	95/91
Compressor	type		Hermetic scroll compressor				
	qty		4	6	6	6	4
	capacity steps		25	22-29	19-32	17-33	25
Refrigerant circuit	type		R-407C				
	charge	kg	2 x 24	2 x 29	2 x 30	2 x 34	2 x 41
	no. of circuits		2				
	oil charge	l	2 x 13.2	2 x 14.2	2 x 17.0	2 x 19.8	2 x 11.8
Air heat exchanger			Aluminium fins with black epoxy coating				
Water heat exchanger			Brazen plate heat exchanger				
Operation range - water side	cooling / heating	°C	-12°C ~ +12°C / 25°C ~ 50°C				
Operation range - air side	cooling / heating	°C	-10°C ~ 42°C / -10°C ~ +20°C				
Power supply		YN	400V/3 ~/50Hz				
HYDRAULIC							
Nominal water flow rate		l/min	449.4	522.6	615	693	764.4
Nominal static height - single pump	cooling / heating	kPa	186/186	197/197	174/174	133/133	125/125
Nominal static height - double pump	cooling / heating	kPa	168/168	176/176	148/148	134/134	124/124
Nominal pressure drop	cooling / heating	kPa	35/35	25/25	29/29	32/32	36/36
Min. water volume in the system		l	370	500	650	760	630
Expansion vessel		l	35	35	35	35	35
Hydraulic module	weight	kg	110	114	114	189	189
	volume	l	570	570	570	570	570
Buffer tank	weight	kg	644	644	644	644	644
	height	mm	400				
	evaporator in/outlet	"	2 1/2	3	3	3	3
Piping connections			Hose tube 15x21				
			evaporator water drain				

Option Number	Option description		Unit size										
			060/060	080/075	100/095	120/110	125/120	130/130	160/150	180/170	210/200	240/220	260/250
OPLN	Low noise		0	0	0	0	0	0	0	0	0	0	0
OPIF	Inverter fans		0 / -	0 / -	0 / -	0 / -	0 / -	0 / -	0 / -	0 / -	0 / -	0 / -	0 / -
OPHF	High Esp fans		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
OPZL		-4 to -12°C	0	0	0	0	0	0	0	0	0	0	0
OPCU	Condenser fins	Copper / Copper	0	0	0	0	0	0	0	0	0	0	0
OPBE	Condenser fins	Black epoxy	std	std	std	std	std	std	std	std	std	std	std
OPAL	Condenser fins	Untreated aluminium	0	0	0	0	0	0	0	0	0	0	0
OPSC	Hydraulic options	Single pump contactor	0	0	0	0	0	0	0	0	0	0	0
OPTC		Twin pump contactor	0	0	0	0	0	0	0	0	0	0	0
OPSP		Single pump	0	0	0	0	0	0	0	0	0	0	0
OPTP		Twin pump	0	0	0	0	0	0	0	0	0	0	0
OPBT	Hydraulic options	Tank	0	0	0	0	0	0	0	0	0	0	0
OPAC	Address card		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
OPCG	Coil guards		0	0	0	0	0	0	0	0	0	0	0
OPSS	Soft starter		0	0	-	-	-	-	-	-	-	-	-

Note : All options are factory mounted
0 : available
- : not available
std: standard

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:

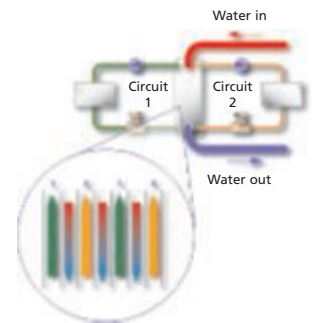
- fewer moving parts (64% less than reciprocating compressors)
- optimised suction, discharge and oil distribution
- decreased pressure losses
- high volumetric efficiencies
- excellent lubrication



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 start/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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