



WATER-COOLED

CHILLERS and condenserless chillers



APPLIED SYSTEMS

R-134a



www.daikin.eu

- EWWD340-C18EJYNN
- EWWD360-C12EJYNN/A
- EWLD320-C17EJYNN

COOLING ONLY HEATING ONLY





ABOUT DAIKIN

Daikin has a worldwide reputation based on over 80 years' experience in the successful manufacture of high quality air conditioning equipment for industrial, commercial and residential use.

Daikin Europe N.V.

2

LARGER OPERATION RANGE

- › 19 models available with cooling capacities ranging from 334 to 1,893kW
- › Ideal for use in severe weather conditions and over a wide operation range
- › 2 independent circuits from 360kW onwards
- › Condenserless version available
- › Compact, simple and robust construction
- › Operation range in heating up to 50°C
- › Standard fitted with victaulic joints on evaporator:
 - Victualic joints absorb vibrations, reduce operating sound and thermal deflection and simplify chiller piping and installation
 - They can accommodate 8° angles and guarantee stress free, leak tight water piping connection

	Application	Sizes	Capacity range	EERavg	Sound level
EWWD-EJYNN	Standard efficiency	18	333 - 1,510 kW	4.4	75 - 82 dBA
EWWD-EJYNN/A	High efficiency	11	362 - 1,134 kW	5	93.6 - 99.8 dBA
EWLD-EJYNN	Condenserless	19	328 - 1,422 kW	3.3	93.6 - 101.8 dBA

LARGE FLEXIBILITY

In many applications there often exists a simultaneous cooling and heating demand requirement alongside one another. To benefit from this Daikin offers the full range of R-134a EWWD-EJYNN and EWLD-EJYNN chillers with the option of heat recovery. This option further increases the application flexibility and extends possibilities in the hotel and leisure industry as well as the industrial and process sectors.

By energetically recovering useful heat from the cooling cycle that would otherwise be rejected to the outside, extremely high COPs can be realised in heat recovery mode. The heat recovery unit aims to achieve an optimum balance between cooling and heat recovery to maximize the unit efficiency and offer savings in hot water production.

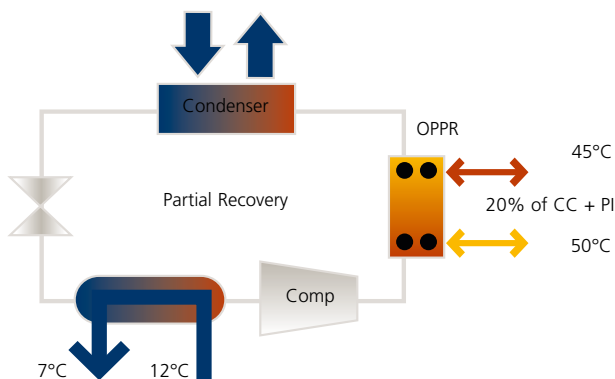


Heat recovery

Depending on the temperature requirement either partial heat recovery or full heat recovery may be selected.

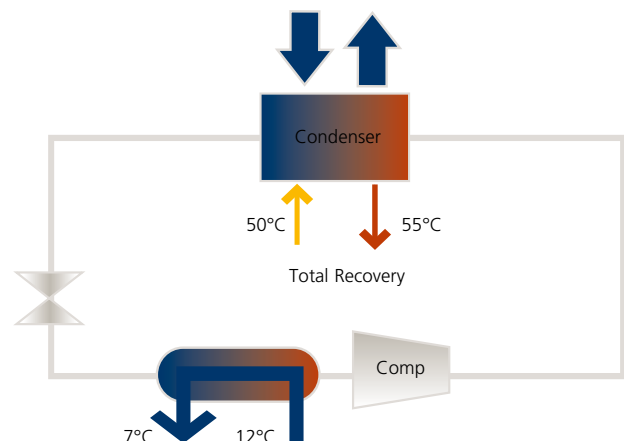
OPPR – Partial recovery

A stainless steel brazed plate heat exchanger is mounted in series between the compressor and water-cooled condenser as a desuperheater. The sensible heat from the hot discharge gas will be recovered, while the latent heat exchange will occur in the water-cooled condenser. The units' efficiency is maintained as condensing pressure can be reduced due to water-cooled condenser becoming oversized.



OPTR – Total recovery

A single, tailored Shell and Tube heat exchanger is mounted for full heat recovery of both sensible and latent heat. It is equipped with 2 independent water circuits with separate connections for condensate and heat recovery. Temperatures up to 55°C can be achieved.



ELECTRONIC CONTROL

- › Advanced pCO² control
- › Detailed information on and accurate control of all functional parameters by easy menu scrolling
- › Chilled water and brine temperatures down to -8°C on standard unit (to be set up by a certified engineer)
- › Changeable digital input/output such as remote on/off, remote cooling/capacity, dual setpoint and capacity limit
- › Lead lag function is standard
- › Standard equipped with night setback and peak load limitation
- › Remote DDC (EKRUPCK) can be installed up to 1,000m from the unit



SINGLE SCREW COMPRESSOR

The large Daikin chillers are fitted with a single screw compressor with stepless capacity control. The stepless capacity control enables the requirements to be closely matched by modulating the sliding valve position according to the chilled water control condition. Capacity control is infinitely variable between 25 and 100 % on single circuit units and between 12.5 and 100 % on dual circuit units. Main advantages of continuous modulation are better part load efficiency and more stable chilled water temperatures with closer control tolerance.



Open Network Integration

Daikin has released interfaces for use in BACnet, LonWorks and Modbus networks equipment and building control systems. BACnet, LonWorks and Modbus networks are recognised worldwide as the de facto standard within the building controls industry. BACnet, LonWorks and Modbus data communication protocols make it possible to control access, energy management, fire/life/safety, HVAC and lighting etc.

Simultaneous operation of up to 5 chillers is optional through EKCSII sequencing panel (this function enables a Daikin 9MW chiller plant to be operated via a single controller).



HEAT EXCHANGER

Shell & tube condenser*

- › Special header distribution system and design of water system result in high efficiency and reduced heat transfer surface
- › Compact dimensions and lower weight result in a smaller refrigerant volume

Shell & tube evaporator

- › Special high efficiency tubes with grooves on the insidel
- › Special header distribution system and design of water system results in high efficiency and reduced heat transfer surface
- › Compact dimensions and lower wight result in a smaller refrigerant volume

* not applicable for EWLD-EJYNN



EWWD-EJYNN

SPECIFICATIONS			340	400	460	550	650	700	800	850	900	950	C10	C12	C13	C14	C15	C16	C17	C18		
Capacity (Eurovent)	Cooling	kW	333	394	460	538	640	705	782	844	910	986	1,027	1,155	1,204	1,274	1,346	1,401	1,455	1,510		
Nominal input (Eurovent)	Cooling	kW	71.45	85.84	100.86	120.36	141.34	155.85	171.32	185.55	200.01	218.45	236.91	254.34	267.7	282.46	298.23	316.48	334.72	352.96		
EER			4.66	4.59	4.56	4.47	4.53	4.52	4.56	4.55	4.51	4.33	4.54	4.50	4.51	4.51	4.43	4.43	4.35	4.28		
Dimensions	(Height x Width x Depth)	mm	1,983x1,430x3,533				2,245x1,350x4,769						2,398x2,153x4,470									
Weight	Machine weight	kg	2,640	2,745	2,772	5,056	5,121	5,205	5,219	5,233	5,268	6,079	6,097	6,136	6,174	6,192	6,210	6,228	6,228	6,228	6,228	
	Operating Weight	kg	5,051	5,203	5,244	9,543	9,623	9,730	9,754	9,779	9,826	6,718	6,744	6,776	6,805	6,831	6,856	6,883	6,883	6,883	6,883	
Water Heat Exchanger Evaporator	Minimum water volume in the system		l	1,058	1,263	1,478	1,729	868	957	1,088	1,144	1,204	1,346	1,356	718	754	793	832	871	909	948	
	Water flow rate	Min	l/min	179.4	214.2	250.5	293.1	356.9	393.2	447.3	470.2	494.7	553.3	557.5	651.2	684	719.1	755.3	790.2	825.1	860	
		Nominal	l/min	954.1	1,128.7	1,318.1	1,542.6	1,834.6	2,019.8	2,242.3	2,420.6	2,609.2	2,827.4	2,943.9	3,312.1	3,451.6	3,652.1	3,892	4,015.7	4,172.2	4,328.8	
		Max	l/min	1,614.6	1,898.8	2,214.4	2,587.7	3,021.1	3,320.3	3,687.3	3,994	4,233.4	4,642.1	4,701.7	5,368.5	5,581.7	5,965.6	6,344.2	6,588.5	6,832.8	7,077.1	
Nominal water pressure drop	Cooling	kPa	37.02	50.09	53.74	61.91	55.15	44.15	58.38	53.42	53.15	66.29	51.25	51.73	55.72	44.69	57.68	61.96	66.37	70.92		
Water Heat Exchanger Condenser	Type			Shell and tube																		
	Minimum water volume in the system		l	1,871	2,199	2,568	2,864	1,538	1,676	1,855	1,977	2,102	2,257	2,278	1,237	1,303	1,372	1,440	1,486	1,533	1,579	
	Water flow rate	Min	l/min	317	372.3	435.8	484.8	632.2	688.9	762.6	812.6	864.1	927.9	936.4	1,122.5	1,182.3	1,244.5	1,306.2	1,348.5	1,390.7	1,433	
		Nominal	l/min	1,158.9	1,374.8	1,607.2	1,887.6	2,239.8	2,466.5	2,733.4	2,952.5	3,182.6	3,453.6	3,623	4,041.2	4,219	4,461.9	4,714.1	4,922.9	5,131.8	5,340.6	
Max		l/min	1,868.3	2,207	2,576.6	3,017.3	3,516.5	3,870.2	4,296.6	4,654.2	4,940.1	5,416.2	5,532.1	6,265.4	6,523.5	6,963.4	7,401.7	7,709.2	8,016.7	8,324.2		
Nominal water pressure drop	Cooling	kPa	26.35	27.95	29.76	25.65	24.78 + 24.78	25.41 + 26.37	27.65 + 27.65	28.04 + 29.97	26.45 + 26.45	22.66 + 24.04	23.82 + 23.82	24.08 + 24.08	24.08 + 24.08	24.55 + 22.95	23.86 + 23.86	23.86 + 23.86	23.86 + 23.09	23.09 + 23.09	23.09 + 23.09	
Compressor	Type		Screw compressor																			
	Model	Quantity	1				2															
Sound Power	Cooling	dB(A)	93.6	94.6	96.6	96.9	97.3	97.8	98.9	99.8	98.3	98.6	100.6	101.2						101.8		
Operation Range	Evaporator	Min ~ Max	°C										-8 (OPZL) ~ 15									
	Condenser	Min ~ Max	°C										15 ~ 55									
Refrigerant circuit	Refrigerant type		R-134a																			
	Refrigerant charge	kg	54	52			108	106	104					156								
	No of circuits		1				2															
Refrigerant control		Electronic expansion valve																				
Power Supply			3 ~ /400V/50Hz																			
Piping connections	Evaporator water inlet/outlet		168.30																			
	Condenser water inlet/outlet		5"																			

OPTIONS															
Reference	Products	Heat Recovery		LWE		Electrical				Refrigerant				Condenser	
		Total Heat Recovery	Partial Heat Recovery	High Glycol	Low Glycol	Main switch	Soft starter	Power factor 0,9	A/V meter	Electronic Expansion Valve	Pressure relief valve	Suction stop valve	Gauges	Cu/Ni heat exchanger	
		OPTR	OPPR	OPZH	OPZL	OP52	OP55	OPPF	OP57	OPEX	OP03	OP12	OPGA	OPNI	
EWWD-EJYNN	340-400-480-550-700-750-800-900-950-C10-C11-C12-C13-C14-C15-C16-C17-C18	•	•	STD	STD	STD	•	•	•	STD	•(s)	•(s)	STD	•	

ACCESSORIES															
Reference	Communication cards		Modbus interface Bacnet interface	Remote user interface	Buffer tanks				Sequencing Panel	Plant Visor	Modem		Converter RS485 to RS232	Converter RS485 to USB	
	EKAC200J	EKACLON	EKBMSBJU	EKRUPCK	EKBT500N	EKBT10N	EKBT500C	EKBT10C	EKCSCII	EKPV2J	EKMODEM	EKGSMOD	EKCON	EKCONUSB	
EWWD340-C18EJYNN	•	•	•	•	•	•	•	•	•(5)	•	•	•	•	•	

EWWD-EJYNN/A

SPECIFICATIONS			360	440	500	600	750	800	850	950	C10	C11	C12	
Capacity (Eurovent)	Cooling	kW	362	433	506	573	720	795	866	933	976	1,038	1,134	
Nominal input (Eurovent)	Cooling	kW	70.68	85.32	100.09	120.35	141.56	155.84	170.45	184.75	199.04	219.92	239.92	
EER			5.12	5.08	5.06	4.76	5.09	5.1	5.08	5.05	4.9	4.72	4.73	
Dimensions	(Height x Width x Depth)	mm	1,983x1,430x3,533					2,245x1,350x4,769						
Weight	Machine weight	kg	2,640	2,745	2,772		5,056	5,121	5,205	5,219	5,233	5,268		
	Operating Weight	kg	5,051	5,203	5,244		9,543	9,623	9,730	9,754	9,779	9,826		
Water Heat Exchanger Evaporator	Type		Shell and tube											
	Minimum water volume in the system	l	1,127	1,350	1,582	1,801	948	1,052	1,146	1,240	1,301	1,382	1,515	
	Water flow rate	Min	l/min	191.1	229	268.2	305.3	389.8	432.6	471	509.7	534.9	567.9	622.8
		Nominal	l/min	1,036.6	1,241.5	1,451.2	1,642.6	2,063.2	2,278.4	2,483.4	2,676	2,797.6	2,975.2	3,249.8
		Max	l/min	2,280.1	2,720.9	3,170.1	3,559.6	4,479.1	4,925.7	5,368.3	5,762.2	6,003.3	6,395.9	6,960.6
Nominal water pressure drop	Cooling	kPa	64	48	54	68	58	68	56	64	72	46	52	
Water Heat Exchanger Condenser	Type		Shell and tube											
	Minimum water volume in the system	l	1,923	2,262	2,653	2,938	1,604	1,758	1,901	2,060	2,187	2,295	2,457	
	Water flow rate	Min	l/min	326.1	384.2	450	497.7	659.3	722.5	781.4	846.9	898.8	943.5	1,010
		Nominal	l/min	1,239.2	1,486.1	1,738.1	1,987.6	1,234.8	1,498.8	1,485	1,708.8	1,684.2	1,987.2	1,969.2
		Max	l/min	2,034.8	2,432.7	2,836.1	3,206.3	3,996.8	4,396.3	4,797.9	5,150.9	5,384.9	5,766.7	6,270.7
Nominal water pressure drop	Cooling	kPa	47.67	47.19	51.37	66.03	48.07		46.92	49.83		64.97		
Compressor	Type		Screw compressor											
	Model	Quantity	1					2						
Sound Power	Cooling	dB(A)	93.6	94.6	96.6		96.9	97.3	97.8	98.9	99.8	98.3	98.6	
Operation Range	Evaporator	l/min ~ Max	°C					-8 (OPZL) ~ 15						
	Condenser	l/min ~ Max	°C					15 ~ 55						
Refrigerant circuit	Refrigerant type		R-134a											
	Refrigerant charge	kg	54	52			108	106	104					
	No of circuits		1					2						
	Refrigerant control		Electronic expansion valve											
Power Supply			3 ~ /400V/50Hz											
Piping connections	Evaporator water inlet/outlet		168.30					219.10						
	Condenser water inlet/outlet		4"											

OPTIONS

Reference	Products	LWE		Electrical				Refrigerant				Condenser
		High Glycol	Low Glycol	Main switch	Soft starter	Power factor 0,9	A/V meter	Electronic Expansion Valve	Pressure relief valve	Suction stop valve	Gauges	Cu / Ni heat exchanger
		OPZH	OPZL	OP52	OP55	OPPF	OP57	OPEX	OP03	OP12	OPGA	OPNI
EWWD-EJYNN	360-440-500-600-750-800-850-950-C10-C11-C12	STD	STD	STD	•	•	•	STD	•(s)	•(s)	STD	•

ACCESSORIES

Reference	Communication cards		Modbus interface Bacnet interface	Remote user interface	Buffer tanks				Sequencing Panel	Plant Visor	Modem		Converter RS485 to RS232	Converter RS485 to USB
	EKAC200J	EKACLON	EKBMSBNU	EKRUPCK	EKBT500N	EKBT10N	EKBT500C	EKBT10C	EKCS01	EKPV2J	EKMODEM	EKGSMOD	EKCON	EKCONUSB
EWWD360-C12EJYNN/A	•	•	•	•	•	•	•	•	•(5)	•	•	•	•	•



EWLD-EJYNN

SPECIFICATIONS			320	400	420	500	600	650	750	800	850	900	950	C10	C11	C12	C13	C14	C15	C16	C17	
Capacity (Eurovent)	Cooling	kW	328	391	428	504	596	657	730	788	850	919	966	1,003	1,078	1,125	1,188	1,267	1,319	1,370	1,422	
Nominal input (Eurovent)	Cooling	kW	83.8	100	116	137	165	181	198	214	231	252	271	279	296	312	329	347	366	386	405	
EER			3.91	3.69	3.68	3.61	3.63	3.69		3.68	3.65	3.56	3.59	3.64	3.60	3.61	3.65	3.60	3.55	3.51		
Dimensions	(Height x Width x Depth)	mm	1,921x1,461x3,338						2,113x1,350x4,332						2,398x2,153x4,470							
Weight	Machine weight	kg	1,861	1,869	1,884	3,331	3,339	3,347	3,356	3,364	3,412	5,146	5,167	5,188	5,208							
	Operating Weight	kg	2,054	2,052	2,056	3,602	3,603	3,604	3,605	3,605	3,645	5,667	5,671	5,677	5,680							
Water Heat Exchanger	Type		Shell and tube																			
Evaporator	Water flow rate	Nominal	l/min	939	1,119.8	1,227.6	1,445.6	1,709.6	1,884.1	2,093	2,258.3	2,436.5	2,634	2,768.2	2,874.6	3,090.3	3,223.9	3,407	3,631.7	3,780.2	3,928.8	4,077.4
	Nominal water pressure drop	Cooling	kPa	33.7	46.27	47.28	54.12	48.57	38.96	51.57	47.15	46.98	58.35	45.07	52.23	45.67	49.28	41.21	50.8	54.6	58.53	62.57
Compressor	Type		Screw compressor																			
	Model	Quantity	1						2						3							
Sound Power	Cooling	dB(A)	93.6	94.6	96.6	96.9	97.3	97.8	98.8	99.8	98.3	98.6	99.8	100.6	101.2	101.8						
Operation Range	Evaporator	Min ~ Max	°CDB		-8 (OPZL) ~ 15																	
	Condensing temperature	Min ~ Max	°CDB		-																	
Refrigerant circuit	Refrigerant type		R-134a																			
	Refrigerant charge	kg	5																			
	No of circuits		1						2						3							
	Refrigerant control		Electronic expansion valve																			
Power Supply		3 ~ /400V/50Hz																				
Piping connections	Evaporator water inlet/outlet		168.30																		219.10	

OPTIONS

Reference	Products	Heat Recovery		LWE		Electrical				Refrigerant			
		Total Heat Recovery	Partial Heat Recovery	High Glycol	Low Glycol	Main switch	Soft starter	Power factor 0,9	AVV meter	Electronic Expansion Valve	Pressure relief valve	Suction stop valve	Gauges
		OPTR	OPPR	OPZH	OPZL	OP52	OP55	OPPF	OP57	OPEX	OP03	OP12	OPGA
EWLD-EJYNN	320-400-420-500-600-650-750-800-850-900-950-C10-C11-C12-C13-C14-C15-C16-C17-C18	•	•	STD	STD	STD	•	•	•	STD	•(s)	•(s)	STD

ACCESSORIES

Reference	Communication cards		Modbus gateway	Bacnet gateway	Remote user interface	Buffer tanks				Sequencing Panel	Plant Visor	Modem		Converter RS485 to RS232	Converter RS485 to USB
	EKAC200J	EKACLON	EKBMSBJU	EKRUPCK	EKBT500N	EKBT10N	EKBT500C	EKBT10C	EKCSCII	EKPV2J	EKMODEM	EKGSMOD	EKCON	EKCONUSB	
ELWD320-C17EJYNN	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

ENVIRONMENTAL AWARENESS

Daikin and the Environment

In recent years, motivated by a global awareness of the need to reduce the burdens on the environment, some manufacturers including Daikin have invested enormous efforts in limiting the negative effects associated with the production and the operation of chillers. Hence, models with energy saving features and improved eco-production techniques have seen the light of day, making a significant contribution to limiting the impact on the environment.



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 products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



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 N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FCU); the certified data of certified models are listed in the Eurovent Directory. Certification is valid for air cooled models <600kW and water cooled models <1500kW.

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