

WATER-COOLED CHILLERS

APPLIED SYSTEMS

R-134a



EER 50% up to 9



www.daikin.eu

EWWD380-C11BJYNN

A

COOLING 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.

LARGER OPERATION RANGE

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- › 8 models available with cooling capacities ranging from 360kW to 1,1MW
- › High efficiency Frame 4 single screw compressor optimized for R-134a
- › Single circuit design for high part load EER50% up to 9
- › Flooded evaporator for high full load EER > 5.8
- › Maximum condenser leaving water temperature of 50°C
- › Leaving water temperatures down to -8°C on request
- › Intelligent adaptive control

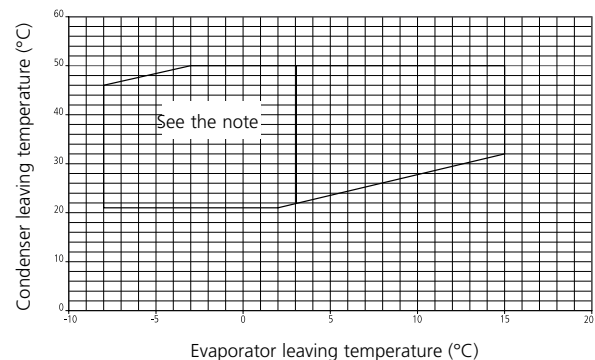
	Application	Sizes	Capacity range	EERavg	Sound level
Std	Standard efficiency	8	369-1050kW	5.7	78-83dBA

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Note: The use of glycol is necessary for evaporator leaving water temperature below +3°C



LARGE FLEXIBILITY

All models qualify for Eurovent "Class A".
The design of the new EWWD high efficiency watercooled chiller is aimed at making substantial energy savings:



- › Stepless capacity control of the screw compressor provides better part load efficiency and closer control tolerance on the chilled water temperature.
- › The flooded shell & tube evaporator ensures an A-class Eurovent rating and achieves performances 30% higher than a direct expansion chiller.



SINGLE SCREW COMPRESSOR

The Daikin stepless compressor is optimized for use with R-134a to minimize over compression at discharge. The unique single screw design is symmetrically balanced to prevent axial loads on the bearings during compression, reducing wear and tear. The double walled casing and the use of polymer gate rotors ensure its low vibration and noise level. Capacity control is infinitely variable between 25 and 100% on single circuit units and 12.5 and 100% on dual circuit units enabling capacity requirements to be closely matched by modulating the sliding valve position according to the chilled water control condition.

HEAT EXCHANGER

Attention to design of the heat exchanger ensures optimum refrigerant volume at given fluid flow rates to achieve superior performance, yet compact design.

Flooded shell & tube evaporator

- › Flooded evaporator optimized for R-134a
- › High efficiency copper tubing – internally & externally enhanced
- › Floating cylinder expansion valve for stable control of chilled water temperature

Shell & tube evaporator

- › Special header distribution system
- › High efficiency copper tubing – internally & externally enhanced
- › Integral subcooler section

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 dual setpoint and capacity limit
- › Lead lag function is standard
- › Standard equipped with night setback and peak load limitation
- › Remote DDC (EKRUPCJ) can be installed up to 1,000m from the unit

Open Network Integration

Daikin has released a gateway for connection to 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 5MW chiller plant to be operated via a single controller.



SPECIFICATIONS

			380	460	550	750	850	900	C10	C11	
Capacity (Eurovent)	cooling	kw	369	445	521	734	816	895	976	1050	
Nominal input (Eurovent)	cooling	kw	65	77.9	90	129	142	155	167	180	
Capacity Steps			Stepless 25-100			Stepless 12.5-100					
EER			5.68	5.71	5.79	5.69	5.75	5.77	5.84	5.83	
ESEER			6.38	6.41	6.42	7.09	7.16	7.25	7.37	7.40	
Dimensions	height x width x depth	mm	2,250x3,625x1,551	2,250x3,860x1,551		2,300x4,145x1,743	2,300x4,145x1,808	2,300x4,145x1,910			
Weight	machine weight	kg	3,089	3,370	3,603	5,546	5,636	6,007	6,448	6,598	
	operating weight	kg	3,250	3,588	3,870	5,911	6,045	6,460	6,972	7,163	
Water Heat Exchanger Evaporator	type	Flooded shell and tube									
	water volume	l	78	107	134	184	210	281	302		
	water flow rate	min	l/min	565	615	776	932	1,216	1,209	1,382	1,632
		nominal	l/min	1,058	1,276	1,494	2,104	2,339	2,566	2,798	3,010
		max	l/min	1,788	1,945	2,455	2,946	3,846	3,825	4,370	5,162
nominal water pressure drop	cooling	kpa	35	43	37	51	37	45	41	34	
Water Heat Exchanger Condenser	water volume	l	83	111	133	181	199	243	263		
	water flow rate	min	l/min	665	948	1,086	1,478	1,703	1,904	1,924	2,146
		nominal	l/min	1,244	1,499	1,752	2,474	2,746	3,010	3,277	3,526
		max	l/min	2,103	2,998	3,435	4,675	5,386	6,020	6,085	6,786
	nominal water pressure drop	heating	kpa	35	25	26	28	26	25	29	27
Compressor	type	Semi-hermetic single screw compressor									
	model	quantity	1			2					
Sound Pressure	cooling	dba	78	79	80	81	81.5	82	82.5	83	
Operation Range	evaporator	min ~ max	-8 ~ 15								
	condenser	min ~ max	21 ~ 50								
Refrigerant circuit	refrigerant type	R-134a									
	refrigerant charge	kg	130	165	180	200	215	230	274	290	
	no of circuits	1									
	refrigerant control	Electronic expansion valve									
Power Supply	3~/400V/50Hz										
Piping connections	evaporator water drain	1/2" gas									

* cells in grey contain preliminary info

OPTIONS & ACCESSORIES

Reference	Products	OPTIONS										
		LWE	Electrical					Refrigerant				Condenser
		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	
EWWD-BJYNN	380-460-550-750-850-900-C10-C11	•	STD	•	•	•	STD	•(s)	•(s)	STD	•	

(s) OP12 & OP03 needs to be added to meet Swedish national law 1992: 16

Reference	ACCESSORIES													
	Communication cards		Modbus gate-way Bacnet gateway	Remote user interface	Buffer tanks				Sequencing Panel	Plant Visor	Modem		Converter RS485 to RS232	Converter RS485 to USB
	EKAC200I	EKACLON	EKBMSBU	EKRUPCK	EKBTS00N	EKBTC10N	EKBTS00C	EKBTC10C	EKSCII	EKPVZJ	EKM0DEM	EKGSMOD	EKCON	EKCONUSB
EWWD380-C11BJYNN	•	•	•	•	•	•	•	•	•	•	•	•	•	•



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 (FC); 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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