



WATER-COOLED CHILLERS



APPLIED SYSTEMS

R-134a



www.daikin.eu

EWWD-DJYNN(A) COOLING ONLY HEATING ONLY

A



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.

LARGER OPERATION RANGE

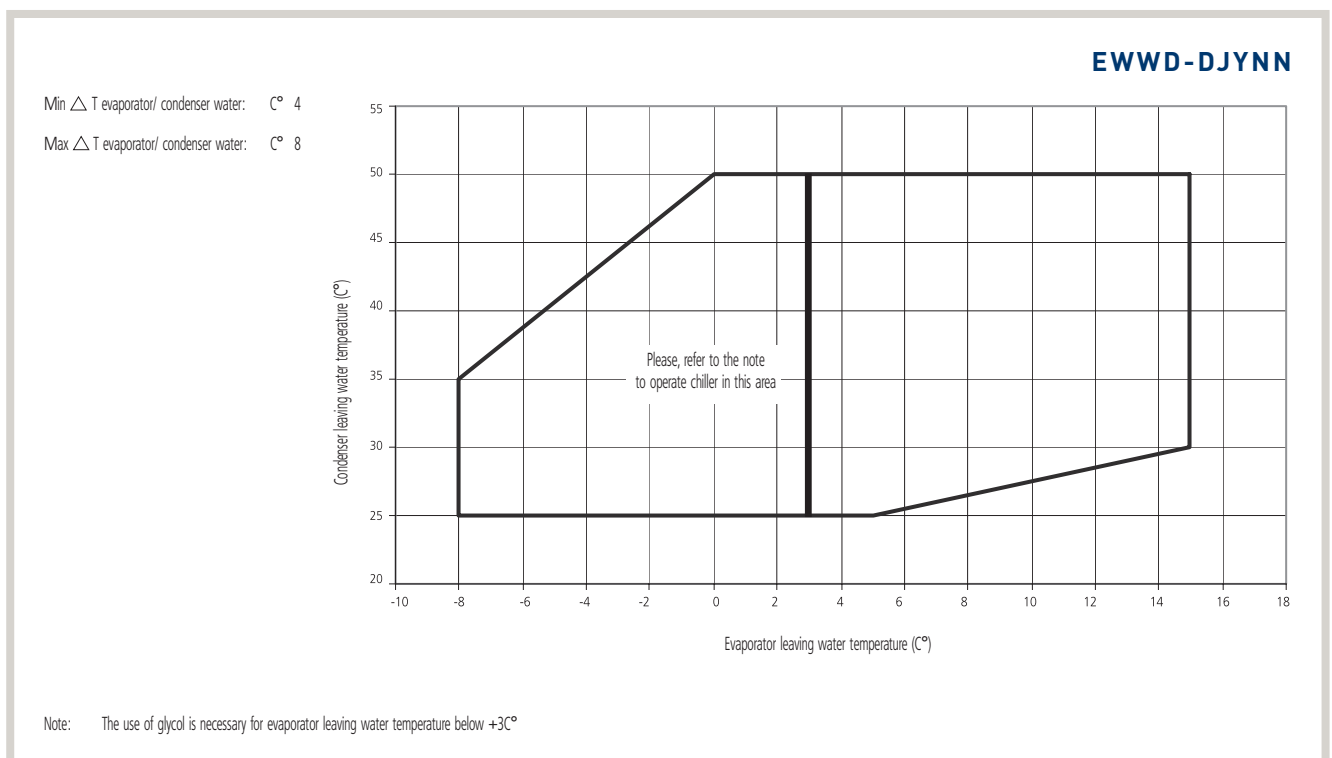
LARGER OPERATION RANGE

- › 10 models available with cooling capacities ranging from 165 to 604kW and heating 184 to 745 kW
 - › Ideal for use in severe weather conditions and over a wide operation range
 - › 2 independent circuits from 320kW onwards
 - › Remote condenser version available on request
 - › Compact, simple and robust construction
 - › Operation range in heating up to 50°
- Heat recovery options available on request:
- › OPPR – Partial recovery
 - › OPTR – Total recovery

02

	Application	Sizes	Capacity range	EERavg	Noise level
Std	Standard efficiency	10	165-555kW	3.9	70-71.5 dBA
/A	High efficiency	10	186-604kW	4.6	70-71.5 dBA

EWWD-DJYNN(A)





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-DJYNN(A) 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.

Flexibility

Standard fitted with victaulic joints on evaporator:

- > Victaulic 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.

Noise

Standard units and High efficiency units can be fitted with Option Low Noise. OPLN includes highly absorbent sound proof cabinets around the compressors.

Efficiency

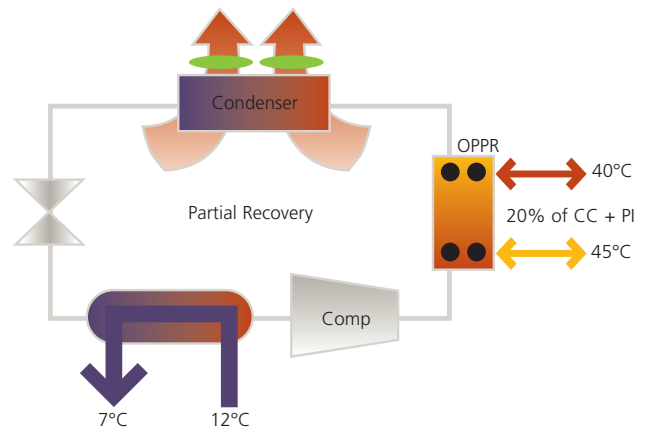
High efficiency units are equipped with oversized evaporators and condensers to achieve +/- 17% increased EER.

Heat recovery

Depending on the heating requirement either partial heat recovery (OPPR) or full heat recovery (OPTR) may be selected full heat recovery.

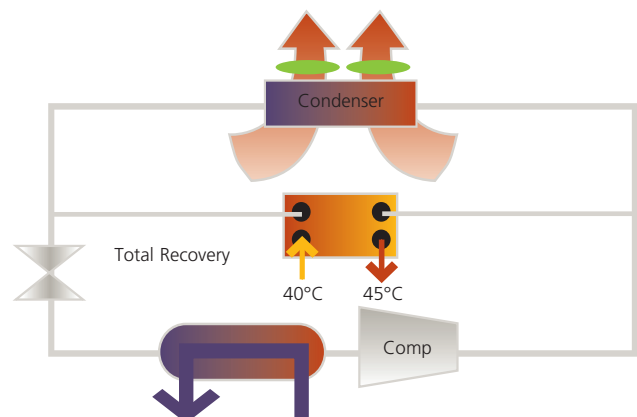
OPPR – Partial recovery

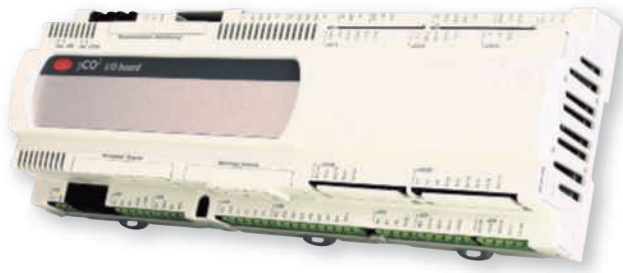
A stainless steel brazed plate heat exchanger is mounted in series between the compressor and air-cooled condenser as a desuperheater. The sensible heat from the hot discharge gas will be recovered, while the latent heat exchange will occur in the air-cooled condenser. The unit's efficiency is maintained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



OPTR – Total recovery

A shell & tube heat exchanger is mounted in parallel with the air-cooled condenser. For full heat recovery both sensible and latent heat. Hot water temperatures up to 50°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 cooling/heating, 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

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 3MW chiller plant to be operated via a single controller).



Frame3200

SINGLE SCREW COMPRESSOR

The new 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:

- › Better partload efficiency (ESEER)
- › More stable chilled water temperature
- › Closer control tolerance



HEAT EXCHANGER

Shell & tube condenser

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

SPECIFICATIONS

			EWWD170DJYNN	EWWD210DJYNN	EWWD260DJYNN	EWWD300DJYNN
Nominal capacity *	cooling	kW	165.5	201.2	252.8	280.4
Capacity steps *		%	Stepless 25-100			
Nominal input	cooling	kW	42.1	50.7	64.9	75.4
Eer			3,93	3,97	3,9	3,72
Eseer			5.00	5.04	4.95	4.72
Dimensions (HxWxD)		mm	1,860x3,435x920			
Machine weight		kg	1,393	1,410	1,503	1,503
Water heat exchanger evaporator	type		Shell and tube			
	minimum water volume in the system	l	125	120	110	110
Nominal water pressure drop	heat exchanger cooling	kPa	24.5	35	35	44
	model	quantity	1	1	1	1
Water heat exchanger condenser	type		Shell and tube			
	minimum water volume in the system	l	22	25	25	25
Nominal water pressure drop	heating	kPa	17	20	25	28
	model	quantity	1	1	1	1
Semi-hermetic single screw compressor		quantity	1	1	1	1
Sound pressure	cooling	dB(A)	69.7	69.7	69.7	69.7
Refrigerant circuit	refrigerant type		R-134a			
	refrigerant charge	kg	50	50	50	50
	no of circuits		1	1	1	1
	refrigerant control		Electronic expansion valve			
Power supply			400V/50Hz/3~			

			EWWD190DJYNN / A	EWWD230DJYNN / A	EWWD280DJYNN / A	EWWD320DJYNN / A
Nominal capacity *	cooling	kW	186.4	223.3	276.5	306.7
Capacity steps *		%	Stepless 25-100			
Nominal input	cooling	kW	39.7	48.1	59.3	71.4
Eer			4.70	4.64	4.66	4.30
ESEER			5,97	5,9	5,92	5,46
Dimensions (HxWxD)		mm	1,860x3,435x920			
Weight	unit	kg	1,650	1,665	1,680	1,680
Water heat exchanger evaporator	type		Shell and tube			
	minimum water volume in the system	l	125	120	110	110
Nominal water pressure drop	heat exchanger cooling	kPa	24.5	35	35	44
	model	quantity	1	1	1	1
Water heat exchanger condenser	type		Shell and tube			
	minimum water volume in the system	l	22	25	25	25
Nominal water pressure drop	heating	kPa	17	20	25	28
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Sound pressure	cooling	dB(A)	69.7	69.7	69.7	69.7
Refrigerant circuit	refrigerant type		R-134a			
	refrigerant charge	kg	50	50	50	50
	no of circuits		1	1	1	1
	refrigerant control		Electronic expansion valve			
Power supply			400V/50Hz/3~			

* Nominal cooling capacity and power input are based on 12/7 °C entering/leaving water temperature and 35 °C ambient temperature. Power input is for the whole unit.

OPTIONS & ACCESSORIES

Options

Reference	Products	Noise & HP Control	Heat Recovery		LWE	
		Low noise	Total Heat Recovery	Partial Heat Recovery	High Glycol	Low Glycol
		OPLN	OPTR	OPPR	OPZH	OPZL
EWWD-DJYNN	170-210-260-300-320-380-420-460-500-600	•	•	•	STD	STD
EWWD-DJYNN / A	190-230-280-320-380-400-460-500-550-650	•	•	•	STD	STD

Accessories

Reference	Communication cards		Modbus gateway Bacnet gateway	Remote user interface
	EKAC2001	EKACLON	EKBMSBU	EKRUPCK
EWWD170-600DJYNN	•	•	•	•
EWWD190-650DJYNN / A	•	•	•	•

ENVIRONMENTAL AWARENESS

Air Conditioning and the Environment

Air conditioning systems provide a significant level of indoor comfort, making possible optimum working and living conditions in the most extreme climates.

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 air conditioners.

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.



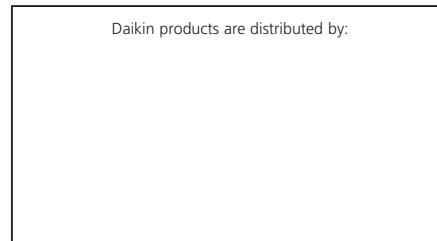
Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (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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