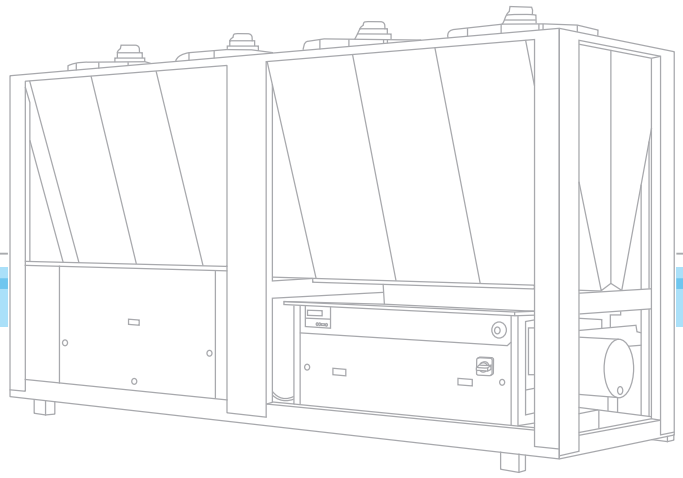
DAIKIN

AIR CONDITIONING



Air-cooled chillers

NEW

EWAD120-340MBY

Applied systems

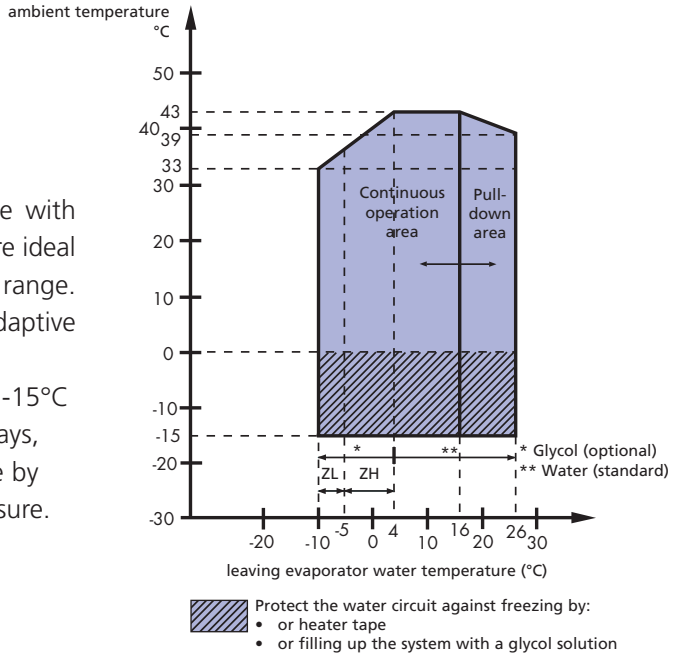
R-134a

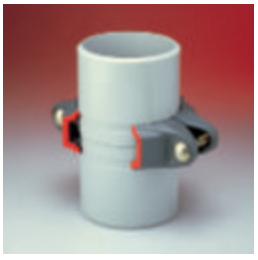
Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of environmental friendly products. This challenge demands 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*

6 models (double circuit units from 240kW on) are available with cooling capacities ranging from 120kW to 316kW. The units are ideal for use in severe weather conditions and over a wide operation range. This major benefit results from the incorporation of an auto adaptive control system with built-in functions that include:

- head pressure control: fan control for low ambient down to -15°C
- head pressure setback for high ambient operation: on hot days, when cooling is most needed. Daikin chillers will stay on line by modulating the capacity control in function of the high pressure.



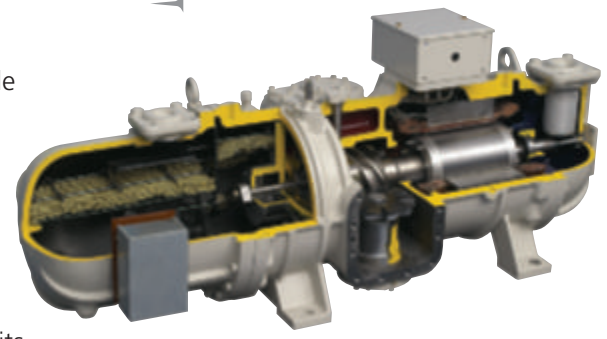


Easy *installation*

- flow switch standard supplied with the unit
- 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.

Single screw *compressor*

NEW



The new large Daikin chillers are fitted with a G-type single screw compressor with stepless capacity control. The G-type stepless single screw compressor enables capacity requirements to be closely matched by modulating the sliding valve position according to the chilled water control condition. Main advantages of continuous modulation are better part load efficiency and more stable chilled water temperatures with closer control tolerance. Capacity control is infinitely variable between 30% and 100% on single circuit units and between 15% and 100% on dual circuit units.

Heat *exchanger*

CONDENSER

- constructed from specially designed header distribution pipes, combined with internally grooved Hi-X tubing and PE coated waffle louvre pressed fins
- standard anti-corrosion treated to better withstand the effects of the external environment
- condenser protection grilles are available throughout the whole range

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.
- fitted standard with evaporator heater tape

Electronic *control*

- advanced pco^2 control
- detailed information on and accurate control of all functional parameters by easy menu scrolling: schedule timer, floating set point, free cooling, double evaporator pump, manual pump on, date and time information, daily pump on
- chilled water and brine temperatures down to -10°C on standard unit. (Parameter in the service menu of the DDC controller must be set by the installer)
- changeable digital input/output such as remote on/off, remote cooling/heating, dual setpoint and limit capacity.
- self diagnostic and can be set up in several languages.
- Lead lag function is standard
- standard equipped with night setback and peak load limitation
- Remote DDC (EKRUPC) can be installed up to 1,000m from the unit
- thanks to the standard DICN, simultaneous operation of up to 4 chillers is allowed. This function enables a Daikin 2MW chiller plant to be operated via a single controller.

DICN
Daikin Integrated Chiller Network

EWAD-MBY			EWAD120MBYNN	EWAD150MBYNN	EWAD170MBYNN	EWAD240MBYNN	EWAD300MBYNN	EWAD340MBYNN
Nominal capacity	Cooling	kW	121	149	171	226	286	330
Nominal input	Power input	kW	41.1	54.1	64.9	83.7	105	136
Nominal EER			2.94	2.75	2.63	2.70	2.72	2.43
Capacity steps		%	30%-100% stepless			15%-100% stepless		
Water heat exchanger	Type		Shell and tube heat exchanger					
Nominal water pressure drop		kPa	31.7	18.6	24.8	41.0	36.6	49.1
Refrigerant circuit	Type		R-134a					
	charge	kg	26	37	42	60	82	88
	control		Thermostatic expansion valve					
	oil type		IDEMITSU FVC68D					
	oil charge	l	7.5	7.5	10	2x7.5	2x7.5	2x10
Compressor	Type		Semi-hermetic single screw compressor					
	No. Of circuits/compressors		1/1	1/1	1/1	2/2	2/2	2/2
Air heat exchanger	Type		Cross fin coil / Hi-X tubes and Polyethylene coated waffle louvre fins					
	Air flow rate	m^3/min	960	960	960	1,920	1,920	1,920
Dimensions (HxWxD)		mm	2,221x3,973x1,109	2,221x3,973x1,109	2,221x3,973x1,109	2,250x4,280x2,238	2,250x4,280x2,238	2,250x4,280x2,238
Machine weight		kg	1,391	1,600	1,705	2,710	3,210	3,260
Operation weight		kg	1,441	1,663	1,768	2,790	3,340	3,390
Sound power level (standard / low noise option)		dBa	89/86	96/90	94/88	92/89	99/93	97/91
Casing	Material		Polyester painted galvanised steel plate					
	Colour		ivory white / Munsell code 5Y7.5/1					
Piping connections	evaporator in/outlet		3" victaulic coupling	4" victaulic coupling			5" victaulic coupling	
	evaporator water drain		1/2" G-F UNI-ISO 228/1					
	relief device outlet		compressor: 1"NPT					
Safety and functional devices	Fan speed		double PED approved high pressure switches / low pressure protection / pressure relief valve / compressor motor thermal protector / compressor motor overcurrent relay / discharge temperature controller / freeze-up protection / recycling and guard timer / reverse phase protector / flow switch					
Operation range	air side	°CDB	-15°C ~ 43°C					
	water side	°CDB	4°C (-10°C as option) ~ 26°C					
Power supply		Y1	400V/3~/50Hz					

NOTES : 1. Nominal cooling capacity at Eurvent conditions: evaporator: 12°C/7°C; ambient: 35°
2. Nominal cooling power input at Eurvent conditions: evaporator; 12°C/7°C; ambient: 35°C
3. The sound power level is an absolute value indicating the "power" which a sound source generates.

Option Number	Option description	unit size						Availability
		120	150	170	240	300	340	
Not completely combinable options								
OPHF	high esp fans	o	o	o	o	o	o	factory mounted
Completely combinable options								
op03	dual pressure relief valve	o	o	o	o	o	o	factory mounted
op12	suction stop valve	o (S)	o (S)	o (S)	o (S)	o (S)	o (S)	factory mounted
op52	main isolator switch	o	o	o	o	o	o	factory mounted
op57	a-meter / V-meter	o	o	o	o	o	o	factory mounted
OPLN	Low noise operation	o	o	o	o	o	o	factory mounted
OPCG	Condenser protection grilles	o	o	o	o	o	o	factory mounted
Available kits								
EKCLWS	Leaving water controlsensor for DICN	o	o	o	o	o	o	kit
EKAC200A	BMS card	o	o	o	o	o	o	kit
EKBMSMBA	BMS gateway modbus/j-bus protocol	o	o	o	o	o	o	kit
EKBMSBNA	BMS gateway bacnet protocol	o	o	o	o	o	o	kit
EKRUPC	Remote user interface	o	o	o	o	o	o	kit

o available
o (S) Option required for Swedish national law SNFS 1992:16
To install EKBMSMBA, EKBMSBNA --> EKAC200A needs to be installed on the unit

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.

Daikin products are distributed by:

DAIKIN EUROPE N.V.

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