

Air cooled chillers



EUWA*40-120KBX
Hydronic systems

Daikin cares for our environment



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and ozone-friendly 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.

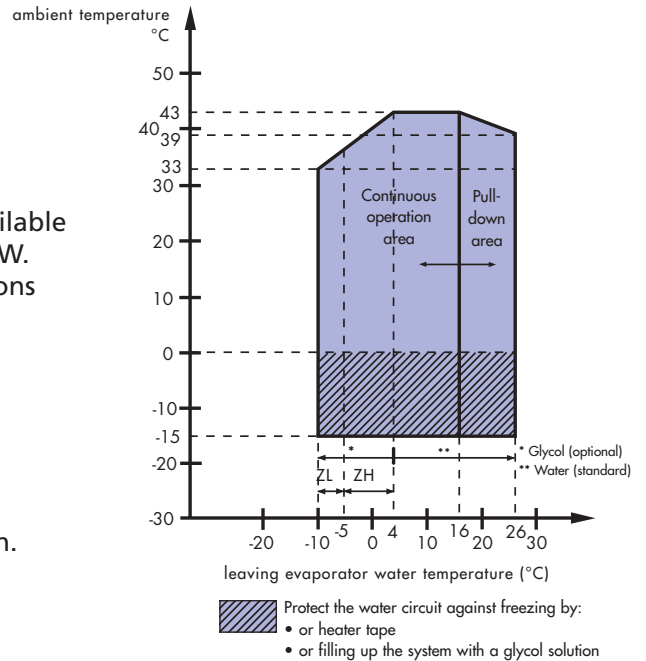


FLEXIBLE APPLICATION

6 models (double circuit units from 80hp on) are available with cooling capacities ranging from 111kW 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, some chillers tend to trip out on high pressure protection. Daikin chillers will stay on line and prevent this situation by adjusting the capacity control.



EASY INSTALLATION

- standard fitted with viciatic joints on evaporator and condenser pipes
- viciatic 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.

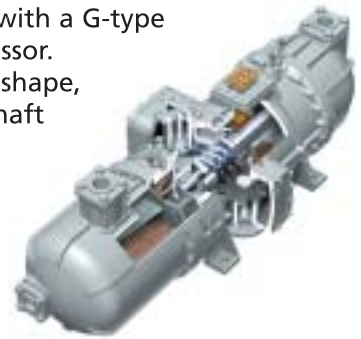


SINGLE SCREW COMPRESSOR

All chillers in this range are fitted with a G-type semi hermetic single screw compressor. NEW: high efficiency motor, screw shape, design of slide valves, gate rotor shaft

BENEFIT:

- overall COP increase of 5 to 10% compared to the previous series
- unequalled reliability for increased long life operation
- overhaul only necessary after 4.5 years of continuous operation



HEAT EXCHANGER

CONDENSER

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

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.

ELECTRONIC CONTROL

- detailed information on and accurate control of all functional parameters by easy menu scrolling.
- self diagnostic and can be set up in several languages.
- Lead lag function is standard as well as voltage free contacts for remote start/stop and double set point switch.
- standard equipped with night setback and peak load limitation
- DDC is removable and can be installed up to 1,000 m from the unit
- units can be equipped with DICN which allows simultaneous operation of up to 4 chillers. This function enables a Daikin 2MW chiller plant to be operated via a single controller.



EUWA-KBX

			EUWA*40KBX	EUWA*50KBX	EUWA*60KBX	EUWA*80KBX	EUWA*100KBX	EUWA*120KBX	
Nominal capacity	cooling	kW	111	140	166	211	276	316	
Nominal input	cooling	kW	391	53.7	64.0	79	110	130	
EER			2.84	2.61	2.59	2.67	2.51	2.43	
Capacity steps		%	100-75-55-0			100-88-76-63-50-38-25			
Water heat exchanger	type		2 pass, 1 circuit, shell & tube dry expansion						
Nominal pressure drop		kPa	13	20	11	14	13	16	
Refrigerant circuit	type		R-134a						
	charge	kg	30	45	50	2 x 36	2 x 47	2 x 48	
	control		thermostatic expansion valve						
	oil type		IDEMITSU FVC68D						
Compressor	oil charge	l	10	13	13	2 x 10	2 x 13	2 x 13	
	type		semi-hermetic single screw						
Air heat exchanger	No. of circuits/compressors		1/1	1/1	1/1	2/2	2/2	2/2	
	type		Cross fin coil / Hi-X tubes and chromate coated waffle louvre fins						
Dimensions (hwxwxw)	air flow rate	m ³ /min	1,065	1,200	1,200	2,130	2,400	2,400	
		mm	2,221x3,973x1,109			2,248x3,973x2,216			
Machine weight		kg	1,391	1,600	1,705	2,710	3,210	3,260	
Operation weight		kg	1,439	1,655	1,798	2,790	3,345	3,385	
Sound power		dBA	91	97	95	94	100	98	
Casing	material		polyester painted galvanised steel plate						
	colour		ivory white / Munsell code 5Y75/1						
Piping connections	evaporator inlet/outlet	mm	flexible joint ø14.3			flexible joint ø14.3			flexible joint ø168.3
	evaporator water drain		1/2" FPT						
	relief device outlet		compressor: 1" NPT						
Safety & functional devices		double PED approved high pressure switches / low pressure protection / pressure relief valve on compressor / compressor motor thermal protector / compressor motor overcurrent relay / discharge temperature controller / freeze-up protection / recycling and guard timer / DDC with electronic temperature control / reverse phase protector							
Operation range	air side	°C	-15°C ~ 43°C						
	water side	°C	4°C (-10 as option) ~ 26°C						
Power supply		Y1	3 ~ /400V/50Hz						

Measuring conditions : Nominal cooling capacities are based on: evaporator: 12°C/7°C • ambient: 35°C

Option Number	Option description	model-type				unit size						Availability	
		-	D	Q	S	40	50	60	80	100	120		
Not completely combinable options													
ZH	LWE till -5°C	0	0	0	0	0	0	0	0	0	0	0	Factory mounted
ZL	LWE till -10°C	0	0	0	0	0	0	0	0	0	0	0	Factory mounted
Completely combinable options													
op03	dual pressure relief valve on condenser	0	std	0	std	0	0	0	0	0	0	0	Factory mounted
op10	evaporator heater tape	std	std	std	std	0	0	0	0	0	0	0	Factory mounted
op12	suction stop valve	0	std	0	std	0	0	0	0	0	0	0	Factory mounted
op52	main isolator switch	0	0	0	0	0	0	0	0	0	0	0	Factory mounted
op57	a-meter / V-meter	2	0	0	0	0	0	0	0	0	0	0	Factory mounted
opln	low noise operation	0	0	0	0	0	0	0	0	0	0	0	Factory mounted
opcn	Daikin integrated chiller network	0	0	0	0	0	0	0	0	0	0	0	Factory mounted
opcg	condenser protection grilles	0	0	0	0	0	0	0	0	0	0	0	Factory mounted
Available kit													
EKAC60A	BMS card for single circuit	0	0	0	0	0	0	0	-	-	-	-	Kit
EKAC120A	BMS card for double circuit	0	0	0	0	-	-	-	0	0	0	0	Kit
EKBMSMBA	BMS gateway MODBUS protocol	0	0	0	0	0	0	0	0	0	0	0	Kit
EKBMSBNA	BMS gateway BACNET protocol	0	0	0	0	0	0	0	0	0	0	0	Kit
EKCLWS	leaving water controlsensor for DICN	0	0	0	0	0	0	0	0	0	0	0	Kit
EKCNSCSE	DICN card (single circuit)	0	0	0	0	0	0	0	-	-	-	-	Kit
EKCNSDCE	DICN card (double circuit)	0	0	0	0	-	-	-	0	0	0	0	Kit

Notes:
 Model type for PED approval (-)
 Model type for RLK approval (D)
 Model type for UDT approval (Q)
 Model type for SA approval (S)

To install EKBMSMBA, EKBMSBNA -> EKAC60A (single circuit) / EKAC120A (double circuit) needs to be installed on the unit
 - not available
 o available
 std standard

Daikin products are distributed by:



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. is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

Specifications are subject to change without prior notice.

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