WATER-COOLED
CHILLERS
and condenserless chillers

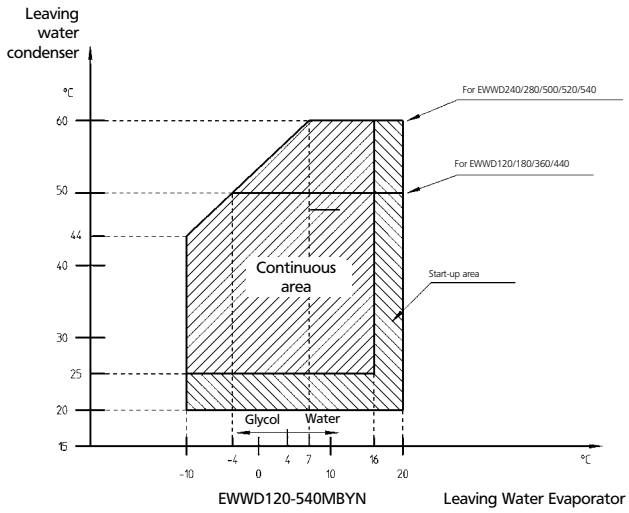
APPLIED SYSTEMS R-134a

www.daikin.eu

	COOLING ONLY	HEATING ONLY
EWWD120-540MBYN	❄	●
EWLD120-540MBYN	❄	-

FLEXIBLE APPLICATION

- 9 models are available with cooling capacities ranging from 123 to 546kW and heating capacities from 147 to 655kW
- ideal for use in severe weather conditions and over a wide operation range
- 2 independent circuits from 360kW onwards
- condenserless version available (EWLD120-540MBYN)
- compact, simple and robust construction
- extended operation range from 50°C to 60°C



EASY INSTALLATION

- flow switch standard supplied with the unit
- water filter with diameter perforations of 1mm supplied as standard accessory
- 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

screw

SINGLE SCREW COMPRESSOR

The 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

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

BPHE EVAPORATOR

- brazed plate heat exchanger made of stainless steel plate, brazed gas tight with copper
- optimised distribution benefits of R-134a
- the use of this plate heat exchanger results in a compact unit: single and double circuits have the same small footprint (2,681mm x 930mm)

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
- optional digital controller can be installed up to 600m from the unit
- 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)

EWWD-MBYN/EWLD-MBYN			120/120	180/170	240/240	280/260
Nominal capacity	cooling (EWWD)	kW	123	183	249	273
	cooling (EWLD)	kW	116	170	235	265
	heating (EWWD)	kW	147	216	290	327
Nominal input	cooling (EWWD)	kW	28.7	45.2	61.6	69.2
	cooling (EWLD)	kW	32.0	49.8	66.5	77.9
	heating (EWWD)	kW	34.5	54.0	72.8	83.4
EER (EWWD/EWLD)			4.29 / 3.63	4.05 / 3.41	4.04 / 3.53	3.95 / 3.40
COP			4.26	4	3.98	3.92
Capacity steps		%	30 ~ 100			
Refrigerant circuit	type		R-134a			
	charge (1)	kg	18	35	37	38
	control		Thermostatic expansion valve		Electronic expansion valve	
	oil type		FVC68D			
	oil charge	l	7.5	10	10	14
Compressor	type		Semi-hermetic single screw compressor			
No. of circuits/compressors			1/1			
Dimensions		mm	1,018 x 2,681 x 930			
Machine weight (EWWD/EWLD)		kg	1,000 / 891	1,273 / 1,110	1,527 / 1,342	1,623 / 1,428
Sound power level		dB(A)	87	93	94	93
Casing			Polyester painted galvanised steel plate / Ivory white - Munsell 5Y7.5/1			
Piping connections	evaporator water in/outlet		3"OD victaulic	3" victaulic		
	evaporator water drain		Field installation			
	condenser water in/outlet (EWWD)		2" 1/2 victaulic	3" victaulic		
	condenser water drain (EWWD)		M6			
	relief device outlet (EWWD)		1 x 1"		2 x 1"	
Operation range EWWD/EWLD	leaving water condenser	°C	20°C ~ 50°C / 25°C ~ 55°C	20°C ~ 50°C / 25°C ~ 55°C	20°C ~ 60°C / 25°C ~ 62°C	20°C ~ 60°C / 25°C ~ 62°C
	condensing temperature	°C	25°C ~ 55°C			
	leaving water evaporator	°C	-10°C ~ 20°C			
Power supply		YN	3~/50Hz/400V			

Note:
1. For refrigerant charge of EWLD-MBYN, please consult the databook

EWWD-MBYN/EWLD-MBYN			360/340	440/400	500/480	520/500	540/540
Nominal capacity	cooling (EWWD)	kW	366	432	498	522	546
	cooling (EWLD)	kW	340	405	470	500	530
	heating (EWWD)	kW	431	505	580	617	655
Nominal input	cooling (EWWD)	kW	90.5	107	123	131	138
	cooling (EWLD)	kW	99.6	116	133	144	156
	heating (EWWD)	kW	108	127	146	156	167
EER (EWWD/EWLD)			4.11 / 3.46	4.04 / 3.49	3.92 / 3.53	3.98 / 3.47	3.96 / 3.40
COP			4.02	3.98	3.97	3.96	3.92
Capacity steps		%	30 ~ 100			15 ~ 100	
Refrigerant circuit	type		R-134a				
	charge (1)	kg	70	72	74	75	76
	control		2 x thermostatic expansion valve	1x thermost. exp. valve + 1x electr. exp. valve	2 x electronic expansion valve		
	oil type		FVC68D				
	oil charge	l	10	2 x 10	2 x 10	10 + 14	2 x 14
Compressor	type		Semi-hermetic single screw compressor				
No. of circuits/compressors			2/2				
Dimensions		mm	2,000 x 2,681 x 930				
Machine weight (EWWD/EWLD)		kg	2,546 / 2,220	2,800 / 2,452	3,034 / 2,684	3,150 / 2,770	3,346 / 2,856
Sound power level		dB(A)	96	96	96	96	96
Casing			Polyester painted galvanised steel plate / Ivory white - Munsell 5Y7.5/1				
Piping connections	evaporator water in/outlet		3" victaulic				
	evaporator water drain		Field installation				
	condenser water in/outlet (EWWD)		3" victaulic				
	condenser water drain (EWWD)		M6				
	relief device outlet (EWWD)		2 x 1"	3 x 1"	4 x 1"		
Operation range EWWD/EWLD	leaving water condenser	°C	20°C ~ 50°C / 25°C ~ 55°C	20°C ~ 50°C / 25°C ~ 55°C	20°C ~ 60°C / 25°C ~ 62°C	20°C ~ 60°C	25°C ~ 62°C
	condensing temperature	°C	25°C ~ 55°C				
	leaving water evaporator	°C	-10°C ~ 20°C				
Power supply		YN	3~/50Hz/400V				

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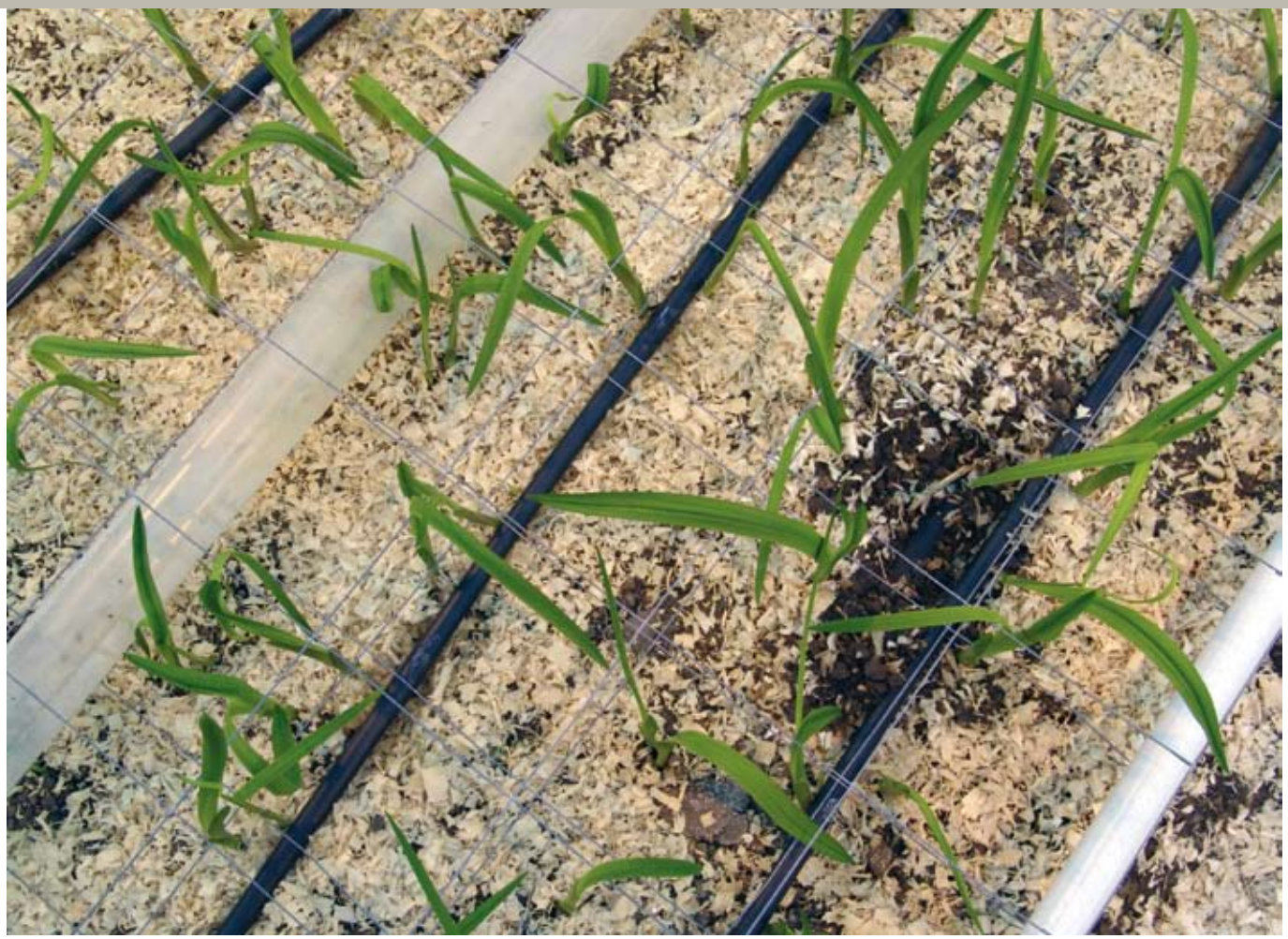

Example of ground cooling in the horticulture sector.

Option Number	Option description	Unit size									Availability
		120	180/170	240	280/260	360/340	440/400	500/480	520	540	
Completely combinable options											
OP03	Dual pressure relief valve (EWWD/EWLD)	o / o (S)	o / o (S)	o / o (S)	o / o (S)	o / o (S)	o / o (S)	o / o (S)	o / o (S)	o / o (S)	Factory mounted
OP12	Suction stop valve	o (S)	o (S)	o (S)	o (S)	o (S)	o (S)	o (S)	o (S)	o (S)	Factory mounted
OP52	Main isolator switch	o	o	o	o	o	o	o	o	o	Factory mounted
OP57	A-meter, V-meter	o	o	o	o	o	o	o	o	o	Factory mounted
OPLN	Low noise operation	o	o	o	o	o	o	o	o	o	Factory mounted
Available kits											
EKCLWS	Leaving water controlsensor for DICN	o	o	o	o	o	o	o	o	o	Kit
EKAC200A	BMS card	o	o	o	o	o	o	o	o	o	Kit
EKBMSMBA	BMS gateway modbus / j-bus protocol	o	o	o	o	o	o	o	o	o	Kit
EKBMSBNA	BMS gateway bacnet protocol	o	o	o	o	o	o	o	o	o	Kit
EKRUPC	Remote user interface	o	o	o	o	o	o	o	o	o	Kit

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

Measuring conditions
1. Nominal cooling capacities are based on: evaporator: 12°C/7°C - condenser: 30°C/35°C (EWWD); condensing temperature: 45°C (EWLD) - liquid temperature: 40°C (EWLD).
2. Nominal heating capacities are based on: evaporator: 12°C/7°C - condenser: 40°C/45°C.
3. The sound power level is an absolute value indicating the "power" which a sound source generates.

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.

In all of us, a green heart

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.

CE

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

EUROVENT CERTIFIED PERFORMANCE

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.

FSC

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