DAIKIN

EEDEN09-403

technical data

Applied Systems

R-407C

Air-cooled
EUWA*5-24KAZW

Air-cooled

EUWA*5-24KAZW

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.

ISO14001 assures an effective environmental management system in order to help protect human health and the environment from potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.

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.

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.

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EUWA*5-24KAZW

Cooling only

Heating only

Heat pump

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EUWA-KAZW

1 Features

- Optimised for use with R-407C
- Daikin scroll compressor
- Reduced installation time thanks to integrated pump and/or buffer tank
- Possibility for a 200 l buffer tank (KAZ-series)
- Low operating sound level
- Improved serviceability
- Main switch
- Water flow switch
- 3 different design options available
- EUWAB chiller with integrated hydraulic module (buffer tank, pump, expansion vessel, hydraulic components)
- EUWAN chiller without integrated hydraulic module
- EUWAP chiller with integrated hydraulic module (pump, expansion vessel, hydraulic components)

2 Specification text

Unit construction:
Air cooled chiller with compact, modular and weatherproof design for outdoor application IP 24 that meets ISO 9001 standards.
The unit is ready for connection and has been designed for air conditioning as well as process cooling applications. The use of state-of-the-art technologies and high quality materials ensures efficiency, reliability and extended service life.
Each DAIKIN chiller is subjected to a factory-side test run under standard conditions lasting several hours.

Casing / Colour:
Powder coated, galvanised steel plate. Fully factory assembled on a base frame. Ivory white / Munsell code 5Y7.5/1

Number of refrigeration cycles:
Size 5-12 single cycle, 16-24 double cycle.

Compressor:
Each refrigeration cycle has a R407C-optimised fully hermetically sealed DAIKIN scroll type compressor. Due to its design this compressor has the following advantages: Very smooth operation as well as high efficiency and operation reliability. The bearing of each compressor is realized in a way that vibration is absorbed. They are equipped with an oil sump heater and a thermal overload switch (Klixon).

Condenser:
Each refrigeration cycle has a high-performance Cu/AL heat exchanger. Consisting of internally drawn Cu pipe (Hi -X) guaranteeing excellent heat transmission and optimal oil transportation. Integrated subcooler for increased performance. Increased heat transmission surface with continuously laminated wafer fins results in reduced sound levels and compact dimensions. An polyacryl coating permanently protects the fins from corrosion thereby extending the field of application of this device.

Fans:
Direct driven noise-reduced axial fans with discharge grille. Statically and dynamically balanced drive motors for outdoor use with sevice-free bearings. Engine protection class IP 54.

Evaporator:
R407C optimised DX counter flow plate heat exchanger made of stainless steel, plates brazed gastight with copper, for water and glycol mixtures. As from unit size 16 twin cycle design (two refrigeration cycles/ one water cycle). For optimum capacity of the complete heat transmission surface a special refrigerant distribution system has been incorporated into each plate duct. This further increases the efficiency and provides a stable control behavior in the heat exchanger. In order to prevent loss of heat the plate heat exchanger has a diffusion-proof heat insulation.

Piping:
Consists of Cu tube with all necessary cooling fittings such as:
service valves, filter-dryer, TEV with external pressure equalisation. The refrigeration cycle is subject to factory pressure and leak testing, is cleaned, dried, evacuated and supplied with the R407C safety refrigerant and oil charged ready for operation. The plate heat exchanger tubes are made of corrosion-resistant brass and the heat exchanger is equipped with a strainer (KIT) and an electromechanical flow controller.

Hydraulic Module:
In order to extend the application range the EUWA 5-24 KAZW series is available with or without an integrated hydraulic component. EUWAN units (basic models) are always shipped with the mandatory flow control and a water filter. The EUWAP units also come with all components needed for operation. This includes a circulation pump, expansion vessel, manometer, shut-off valves, safety valve, purge, charge and drainage valve, maintenance connections and compensation valve. The EUWAB units add a 55 l (14,53 gal) buffer tank.

Safety & control devices:
Each refrigeration cycle is fitted with the following safety equipment:

2 Specification text

High/low pressure switches, hot gas temperature control, thermal protection for compressor and fan motor, overcurrent relay, freeze-up protection and evaporator heater.
Each refrigeration cycle is provided with the following control components:
Electronic temperature monitoring, phase-sequence relay, timing safety device and switch frequency limiter.

Switching and control device:
The control cabinet complies with applicable EC directives (CE) and fulfills the safety class IP 54. It contains a fully automatic DDC control and all necessary switching and control devices such as:
Power switch, load, auxiliary and control cut-outs, transformers, control fuses, relay and auxiliary relay, sensors, and DDC controller.

The electronics have an automatic restart after power failure and provide the following digital inputs and outputs hard-wired to terminals for incorporating the GLT:

Digital inputs:
- Flow controller
- Pump contactor
- REMOTE ON/OFF

Digital outputs:
- Collective malfunction message
- Gen. operating message
- Operating message per compressor
- Cold water control

DDC control:
The EUWA_KAZW units are supplied with a digital controller that allows for a user friendly set-up, operation and maintenance of the unit. The controller consists of a numerical display, 4 control keys and 4 LEDs.

The electronics support for example the following functions:

- 3-step evaporator pressure control (winter control down to 5,00 °F ambient temperature)
- Allocation of the target value and the switching hysteresis
- Cold water return flow control
- Setting pump lead and lag times
- Setting maintenance intervalls
- Display of current operation parameters such as flow and return flow temperatures
- Recording of operating hours (compressor / pump)
- Error code retrieval
- Password protection

Optional This chiller can be fitted with an interface for integration into a Building Management System (BMS), which either supports the MODbus / J-bus or BACnet protocol.

3 Specifications

3-1 TECHNICAL SPECIFICATIONS				EUWAN5KAZW1	EUWAP5KAZW1	EUWAB5KAZW1	EUWAN8KAZW1	EUWAP8KAZW1	EUWAB8KAZW1
Capacity (Eurovent)	Cooling	Nominal	kW	11.30	11.30	11.30	17.90	17.90	17.90
Capacity Steps			%	0-100					
Nominal input (Eurovent)	Cooling		kW	4.52	4.64	4.64	7.38	7.39	7.39
Casing	Colour			Ivory white/Munsell code 5Y7.5/1					
	Material			Polyester coated galvanised steel					
Dimensions	Unit	Height	mm	1230	1230	1230	1230	1230	1230
		Width	mm	1290	1290	1290	1290	1290	1290
		Depth	mm	734	734	734	734	734	734
Weight	Unit		kg	150	168	180	215	229	241
	Operating Weight		kg	152	171	239	218	232	300
Air heat exchanger	Type			Cross fin coil/Hi-X tubes and PE coated waffle louvre fins					
	Rows			2	2	2	2	2	2
	Stages			40	40	40	40	40	40
	Fin Pitch		mm	2.00	2.00	2.00	2.00	2.00	2.00
	Face Area		m²	1.57	1.57	1.57	1.57	1.57	1.57
Water Heat Exchanger Evaporator	Type			Brased plate					
	Minimum water volume in the system		l	54	54	54	85	85	85
	Water flow rate	Min	l/min	16	16	16	26	26	26
		Nominal	l/min	32	32	32	51	51	51
		Max	l/min	65	65	65	102	102	102
	Insulation material			Climaflex					
	Model	Quantity		1	1	1	1	1	1
		Model		AC50-24HX	AC50-24HX	AC50-24HX	AC50-34HX	AC50-34HX	AC50-34HX
Pump	Type			-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction	-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction
	Quantity				1	1		1	1
	Model				CH4-30	CH4-30		CH4-30	CH4-30
	Nominal static height pump	Heating	kPa		238	238		216	216
	Nominal static height unit	Heating	kPa		205	205		154	154
Hydraulic components	Buffer tank volume		l	-		55	-		55
	Unit water volume		l	2	3	59	3	3	59
	Safety valve		bar	-	3	3	-	3	3
Fan	Drive			Direct drive					
	Nominal air flow		m³/min	160.00	160.00	160.00	170.00	170.00	170.00
	Model	Quantity		2	2	2	1	1	1
		Motor Output	W	140	140	140	190	190	190
		Discharge direction		Vertical					
		Quantity		-			1	1	1
		Motor Output	W				230	230	230
		Discharge direction					Vertical	Vertical	Vertical
Compressor	Type			Hermetically sealed scroll compressor					
	Refrigerant oil type			Daphne FVC68D					
	Refrigerant oil charge		l	1.5	1.5	1.5	2.7	2.7	2.7
	Model	Quantity		1	1	1	1	1	1
		Model		JT140BF-YE	JT140BF-YE	JT140BF-YE	JT212DA-YE	JT212DA-YE	JT212DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900
Sound level	Sound Power	Cooling	dBA	67	67	67	76	76	76
Refrigerant circuit	Refrigerant type			R-407C					
	Refrigerant charge		kg	3.9	3.9	3.9	4.6	4.6	4.6
	No of circuits			1	1	1	1	1	1
	Refrigerant control			Thermostatic expansion valve					

3 Specifications

3-1 TECHNICAL SPECIFICATIONS		EUWAN5KAZW1	EUWAP5KAZW1	EUWAB5KAZW1	EUWAN8KAZW1	EUWAP8KAZW1	EUWAB8KAZW1
Piping connections	Evaporator water inlet/outlet	1-1/4"					
	Evaporator water drain	15 mm					
Safety Devices		High pressure switch					
		Low pressure switch					
		Discharge temperature protector					
		Outlet water temperature protection					
		Compressor motor overcurrent relay					
		Fan thermal protector					
		Anti-recycling and guard timer					
		Digital display controller with electronic temperature control					
		Reverse phase protector					
		Pump motor overcurrent					
		Flowswitch					
Notes		Nominal capacities are based on the following conditions: Entering/leaving chilled water temperature: 12°C/7°C Ambient temperature: 35°C					
		The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.					

3-1 TECHNICAL SPECIFICATIONS				EUWAN10KAZW1	EUWAP10KAZW1	EUWAB10KAZW1	EUWAN12KAZW1	EUWAP12KAZW1	EUWAB12KAZW1
Capacity (Eurovent)	Cooling	Nominal	kW	22.50	22.50	22.50	26.50	26.50	26.50
Capacity Steps			%	0-100					
Nominal input (Eurovent)	Cooling		kW	8.79	8.74	8.74	11.50	11.50	11.50
Casing	Colour			Ivory white/Munsell code 5Y7.5/1					
	Material			Polyester coated galvanised steel					
Dimensions	Unit	Height	mm	1450	1450	1450	1450	1450	1450
		Width	mm	1290	1290	1290	1290	1290	1290
		Depth	mm	734	734	734	734	734	734
Weight	Unit		kg	245	259	271	248	262	274
	Operating Weight		kg	248	262	330	251	265	335
Air heat exchanger	Type			Cross fin coil/Hi-X tubes and PE coated waffle louvre fins					
	Rows			2	2	2	2	2	2
	Stages			50	50	50	50	50	50
	Fin Pitch		mm	2.00	2.00	2.00	2.00	2.00	2.00
	Face Area		m²	1.97	1.97	1.97	1.97	1.97	1.97
Water Heat Exchanger Evaporator	Type			Brased plate					
	Minimum water volume in the system		l	108	108	108	126	126	126
	Water flow rate	Min	l/min	32	32	32	38	38	38
		Nominal	l/min	64	64	64	76	76	76
		Max	l/min	129	129	129	152	152	152
	Insulation material			Climaflex					
	Model	Quantity		1	1	1	1	1	1
		Model		AC50-40HX	AC50-40HX	AC50-40HX	AC50-50HX	AC50-50HX	AC50-50HX
Pump	Type			-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction	-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction
	Quantity				1	1		1	1
	Model				CH4-30	CH4-30		CH4-30	CH4-30
	Nominal static height pump	Heating	kPa		199	199		182	182
	Nominal static height unit	Heating	kPa		123	123		105	105
Hydraulic components	Buffer tank volume		l	-		55	-		55
	Unit water volume		l	3	3	59	3	4	60
	Safety valve		bar	-	3	3	-	3	3

3 Specifications

3-1 TECHNICAL SPECIFICATIONS				EUWAN10KAZW1	EUWAP10KAZW1	EUWAB10KAZW1	EUWAN12KAZW1	EUWAP12KAZW1	EUWAB12KAZW1
Fan	Drive			Direct drive					
	Nominal air flow		m³/min	170.00	170.00	170.00	170.00	170.00	170.00
	Model	Quantity		1	1	1	1	1	1
		Motor Output	W	190	190	190	190	190	190
		Discharge direction		Vertical					
		Quantity		1	1	1	1	1	1
		Motor Output	W	230	230	230	230	230	230
		Discharge direction		Vertical					
Compressor	Type			Hermetically sealed scroll compressor					
	Refrigerant oil type			Daphne FVC68D					
	Refrigerant oil charge		l	2.7	2.7	2.7	2.7	2.7	2.7
	Model	Quantity		1	1	1	1	1	1
		Model		JT265DA-YE	JT265DA-YE	JT265DA-YE	JT335DA-YE	JT335DA-YE	JT335DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900
Sound level	Sound Power	Cooling	dBA	78	78	78	78	78	78
Refrigerant circuit	Refrigerant type			R-407C					
	Refrigerant charge		kg	4.6	4.6	4.6	6.0	6.0	6.0
	No of circuits			1	1	1	1	1	1
	Refrigerant control			Thermostatic expansion valve					
Piping connections	Evaporator water inlet/outlet			1-1/4"					
	Evaporator water drain			15 mm					
Safety Devices				High pressure switch					
				Low pressure switch					
				Discharge temperature protector					
				Outlet water temperature protection					
				Compressor motor overcurrent relay					
				Fan thermal protector					
				Anti-recycling and guard timer					
				Digital display controller with electronic temperature control					
				Reverse phase protector					
				Pump motor overcurrent					
				Flowswitch					
Notes				Nominal capacities are based on the following conditions: Entering/leaving chilled water temperature: 12°C/7°C Ambient temperature: 35°C					
				The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.					

3-1 TECHNICAL SPECIFICATIONS				EUWAN16KAZW1	EUWAP16KAZW1	EUWAB16KAZW1	EUWAN20KAZW1	EUWAP20KAZW1	EUWAB20KAZW1
Capacity (Eurovent)	Cooling	Nominal	kW	37.00	37.00	37.00	46.60	46.60	46.60
Capacity Steps			%	0-50-100					
Nominal input (Eurovent)	Cooling		kW	15.20	15.00	15.00	18.10	17.90	17.90
Casing	Colour			Ivory white/Munsell code 5Y7.5/1					
	Material			Polyester coated galvanised steel					
Dimensions	Unit	Height	mm	1321	1321	1321	1541	1541	1541
		Width	mm	2580	2580	2580	2580	2580	2580
		Depth	mm	734	734	734	734	734	734
Weight	Unit		kg	430	448	460	490	508	520
	Operating Weight		kg	436	457	525	496	518	586
Air heat exchanger	Type			Cross fin coil/Hi-X tubes and PE coated waffle louvre fins					
	Rows			2	2	2	2	2	2
	Stages			40	40	40	50	50	50
	Fin Pitch		mm	2.00	2.00	2.00	2.00	2.00	2.00
	Face Area		m²	1.57	1.57	1.57	1.97	1.97	1.97
			m²	1.57	1.57	1.57	1.97	1.97	1.97

3 Specifications

3-1 TECHNICAL SPECIFICATIONS				EUWAN16KAZW1	EUWAP16KAZW1	EUWAB16KAZW1	EUWAN20KAZW1	EUWAP20KAZW1	EUWAB20KAZW1
Water Heat Exchanger Evaporator	Type			Brased plate					
	Minimum water volume in the system		l	88	88	88	111	111	111
	Water flow rate	Min	l/min	53	53	53	67	67	67
		Nominal	l/min	106	106	106	134	134	134
		Max	l/min	212	212	212	267	267	267
	Insulation material			Climaflex					
	Model	Quantity		1	1	1	1	1	1
		Model		AC130-38DQ	AC130-38DQ	AC130-38DQ	AC130-50DQ	AC130-50DQ	AC130-50DQ
Pump	Type			-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction	-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction
	Quantity				1	1		1	1
	Model				CH8-30	CH8-30		CH8-30	CH8-30
	Nominal static height pump	Heating	kPa		243	243		210	210
	Nominal static height unit	Heating	kPa		187	187		137	137
Hydraulic components	Buffer tank volume		l	-		55	-		55
	Unit water volume		l	6	9	65	6	10	66
	Safety valve		bar		3	3		3	3
Fan	Drive			Direct drive					
	Nominal air flow		m³/min	170.00	170.00	170.00	170.00	170.00	170.00
			m³/min	170.00	170.00	170.00	170.00	170.00	170.00
	Model	Quantity		2	2	2	2	2	2
		Motor Output	W	190	190	190	190	190	190
		Discharge direction		Vertical					
		Quantity		2	2	2	2	2	2
		Motor Output	W	230	230	230	230	230	230
		Discharge direction		Vertical					
Compressor	Type			Hermetically sealed scroll compressor					
	Refrigerant oil type			Daphne FVC68D					
	Refrigerant oil charge		l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
	Model	Quantity		2	2	2	2	2	2
		Model		JT212DA-YE	JT212DA-YE	JT212DA-YE	JT265DA-YE	JT265DA-YE	JT265DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900
Sound level	Sound Power	Cooling	dBA	79	79	79	81	81	81
Refrigerant circuit	Refrigerant type			R-407C					
	Refrigerant charge		kg	4.6	4.6	4.6	5.9	5.9	5.9
			kg	4.6	4.6	4.6	5.9	5.9	5.9
	No of circuits			2	2	2	2	2	2
	Refrigerant control			Thermostatic expansion valve					
Piping connections	Evaporator water inlet/outlet			2"					
	Evaporator water drain			15 mm					

3 Specifications

3-1 TECHNICAL SPECIFICATIONS	EUWAN16KAZW1	EUWAP16KAZW1	EUWAB16KAZW1	EUWAN20KAZW1	EUWAP20KAZW1	EUWAB20KAZW1
Safety Devices	High pressure switch					
	Low pressure switch					
	Discharge temperature protector					
	Outlet water temperature protection					
	Compressor motor overcurrent relay					
	Fan thermal protector					
	Anti-recycling and guard timer					
	Digital display controller with electronic temperature control					
	Reverse phase protector					
	Pump motor overcurrent					
	Flowswitch					
Notes	Nominal capacities are based on the following conditions: Entering/leaving chilled water temperature: 12°C/7°C Ambient temperature: 35°C					
	The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.					

3-1 TECHNICAL SPECIFICATIONS				EUWAN24KAZW1	EUWAP24KAZW1	EUWAB24KAZW1
Capacity (Eurovent)	Cooling	Nominal	kW	55.30	55.30	55.30
Capacity Steps			%	0-50-100		
Nominal input (Eurovent)	Cooling		kW	24.00	24.00	24.00
Casing	Colour			Ivory white/Munsell code 5Y7.5/1		
	Material			Polyester coated galvanised steel		
Dimensions	Unit	Height	mm	1541	1541	1541
		Width	mm	2580	2580	2580
		Depth	mm	734	734	734
Weight	Unit		kg	496	514	526
	Operating Weight		kg	503	524	592
Air heat exchanger	Type			Cross fin coil/Hi-X tubes and PE coated waffle louvre fins		
	Rows			2	2	2
	Stages			50	50	50
	Fin Pitch		mm	2.00	2.00	2.00
	Face Area		m²	1.97	1.97	1.97
			m²	1.97	1.97	1.97
Water Heat Exchanger Evaporator	Type			Brased plate		
	Minimum water volume in the system		l	132	132	132
	Water flow rate	Min	l/min	79	79	79
		Nominal	l/min	158	158	158
		Max	l/min	317	317	317
	Insulation material			Climaflex		
	Model	Quantity		1	1	1
		Model		AC130-58DQ		
Pump	Type			-	Horizontal multi-stage end-suction	Horizontal multi-stage end-suction
	Quantity				1	1
	Model				CH8-40	CH8-40
	Nominal static height pump	Heating	kPa		191	191
	Nominal static height unit	Heating	kPa		100	100
Hydraulic components	Buffer tank volume		l	-		55
	Unit water volume		l	7	10	66
	Safety valve		bar		3	3

3 Specifications

3-1 TECHNICAL SPECIFICATIONS				EUWAN24KAZW1	EUWAP24KAZW1	EUWAB24KAZW1
Fan	Drive			Direct drive		
	Nominal air flow		m³/min	170.00	170.00	170.00
			m³/min	170.00	170.00	170.00
	Model	Quantity		2	2	2
		Motor Output	W	190	190	190
		Discharge direction		Vertical		
		Quantity		2	2	2
		Motor Output	W	230	230	230
		Discharge direction		Vertical		
Compressor	Type			Hermetically sealed scroll compressor		
	Refrigerant oil type			Daphne FVC68D		
	Refrigerant oil charge		l	2.7	2.7	2.7
			l	2.7	2.7	2.7
	Model	Quantity		2	2	2
		Model		JT335DA-YE		
		Speed	rpm	2900	2900	2900
Sound level	Sound Power	Cooling	dBA	81	81	81
Refrigerant circuit	Refrigerant type			R-407C		
	Refrigerant charge		kg	6.0	6.0	6.0
			kg	6.0	6.0	6.0
	N2 holding charge			No		
	No of circuits			2	2	2
	Refrigerant control			Thermostatic expansion valve		
Piping connections	Evaporator water inlet/outlet			2''		
	Evaporator water drain			15 mm		
Safety Devices				High pressure switch		
				Low pressure switch		
				Discharge temperature protector		
				Outlet water temperature protection		
				Compressor motor overcurrent relay		
				Fan thermal protector		
				Anti-recycling and guard timer		
				Digital display controller with electronic temperature control		
				Reverse phase protector		
				Pump motor overcurrent		
				Flowswitch		
Notes				Nominal capacities are based on the following conditions: Entering/leaving chilled water temperature: 12°C/7°C Ambient temperature: 35°C		
				The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.		

3-2 ELECTRICAL SPECIFICATIONS				EUWAN5KAZW1	EUWAP5KAZW1	EUWAB5KAZW1	EUWAN8KAZW1	EUWAP8KAZW1	EUWAB8KAZW1
Power Supply	Name			W1					
	Phase			3N~					
	Frequency		Hz	50	50	50	50	50	50
	Voltage		V	40	400	400	400	400	400
	Voltage Tolerance	Minimum	%	-10%					
		Maximum	%	+10%					
Unit	Starting Current		A	62.2	63.5	63.5	97.9	99.2	99.2
	Zmax	text		0,17+j0,11	0,17+j0,11	0,17+j0,11	0,08+j0,05	0,08+j0,05	0,08+j0,05
	Nominal Running Current Cooling		A	7.70	9.00	9.00	13.60	14.90	14.90
	Maximum Running Current		A	11.20	12.50	12.50	16.90	18.20	18.20
	Recommended fuses according to IEC standard 269-2			3x20gL/gG	3x20gL/gG	3x20gL/gG	3x25gL/gG	3x25gL/gG	3x25gL/gG
Fan	Quantity			2	2	2			
	Maximum Running Current		A	2.20	2.20	2.20	2.90	2.90	2.90

3 Specifications

3-2 ELECTRICAL SPECIFICATIONS			EUWAN5KAZW1	EUWAP5KAZW1	EUWAB5KAZW1	EUWAN8KAZW1	EUWAP8KAZW1	EUWAB8KAZW1
Pump	Phase		-	3~	3~	-	3~	3~
	Voltage	V		400	400		400	400
	Maximum Running Current	A		1.3	1.3		1.3	1.3
Compressor	Phase		3~					
	Voltage	V	400	400	400	400	400	400
	Starting current	A	60.0	60.0	60.0	95.0	95.0	95.0
	Nominal running current (RLA)	A	5.50	5.50	5.50	10.70	10.70	10.70
	Maximum Running Current	A	9.00	9.00	9.00	14.00	14.00	14.00
	Starting Method		Direct on line					
Control Circuit	Phase		1~					
	Voltage	V	230	230	230	230	230	230
	Recommended fuses		Factory installed					

3-2 ELECTRICAL SPECIFICATIONS			EUWAN10KAZW1	EUWAP10KAZW1	EUWAB10KAZW1	EUWAN12KAZW1	EUWAP12KAZW1	EUWAB12KAZW1
Power Supply	Name		W1					
	Phase		3N~					
	Frequency	Hz	50	50	50	50	50	50
	Voltage	V	400	400	400	400	400	400
	Voltage Tolerance Minimum	%	-10%					
	Voltage Tolerance Maximum	%	+10%					
Unit	Starting Current	A	113	114	114	139	140	140
	Nominal Running Current Cooling	A	15.90	17.20	17.20	20.50	21.80	21.80
	Maximum Running Current	A	19.90	21.20	21.20	26.90	28.20	28.20
	Recommended fuses according to IEC standard 269-2		3x25gL/gG	3x32gL/gG	3x32gL/gG	3x32gL/gG	3x40gL/gG	3x40gL/gG
Fan	Maximum Running Current	A	2.90	2.90	2.90	2.90	2.90	2.90
Pump	Phase		-	3~	3~	-	3~	3~
	Voltage	V		400	400		400	400
	Maximum Running Current	A		1.3	1.3		1.3	1.3
Compressor	Phase		3~					
	Voltage	V	400	400	400	400	400	400
	Starting current	A	110.0	110.0	110.0	136.0	136.0	136.0
	Nominal running current (RLA)	A	13.00	13.00	13.00	17.60	17.60	17.60
	Maximum Running Current	A	17.00	17.00	17.00	24.00	24.00	24.00
	Starting Method		Direct on line					
Control Circuit	Phase		1~					
	Voltage	V	230	230	230	230	230	230
	Recommended fuses		Factory installed					

3-2 ELECTRICAL SPECIFICATIONS			EUWAN16KAZW1	EUWAP16KAZW1	EUWAB16KAZW1	EUWAN20KAZW1	EUWAP20KAZW1	EUWAB20KAZW1
Power Supply	Name		W1					
	Phase		3N~					
	Frequency	Hz	50	50	50	50	50	50
	Voltage	V	400	400	400	400	400	400
	Voltage Tolerance Minimum	%	-10%					
	Voltage Tolerance Maximum	%	+10%					
Unit	Starting Current	A	97.9	99.9	99.9	113	115	115
	Nominal Running Current Cooling	A	27.20	29.20	29.20	31.80	33.80	33.80
	Maximum Running Current	A	33.80	35.80	35.80	39.80	41.80	41.80
	Recommended fuses according to IEC standard 269-2		3x40gL/gG	3x50gL/gG	3x50gL/gG	3x50gL/gG	3x50gL/gG	3x50gL/gG
Fan	Maximum Running Current	A	5.80	5.80	5.80	5.80	5.80	5.80
Pump	Phase		-	3~	3~	-	3~	3~
	Voltage	V		400	400		400	400
	Maximum Running Current	A		2.0	2.0		2.0	2.0

3 Specifications

3-2 ELECTRICAL SPECIFICATIONS			EUWAN16KAZW1	EUWAP16KAZW1	EUWAB16KAZW1	EUWAN20KAZW1	EUWAP20KAZW1	EUWAB20KAZW1
Compressor	Phase		3~					
	Voltage	V	400	400	400	400	400	400
	Starting current	A	95.0	95.0	95.0	110.0	110.0	110.0
	Nominal running current (RLA)	A	10.70	10.70	10.70	13.00	13.00	13.00
	Maximum Running Current	A	14.00	14.00	14.00	17.00	17.00	17.00
	Starting Method		Direct on line					
Control Circuit	Phase		1~					
	Voltage	V	230	230	230	230	230	230
	Recommended fuses		Factory installed					

3-2 ELECTRICAL SPECIFICATIONS				EUWAN24KAZW1	EUWAP24KAZW1	EUWAB24KAZW1
Power Supply	Name			W1		
	Phase			3N~		
	Frequency		Hz	50	50	50
	Voltage		V	400	400	400
	Voltage Tolerance	Minimum	%	-10%		
		Maximum	%	+10%		
Unit	Starting Current		A	139	142	142
	Nominal Running Current Cooling		A	41.00	43.70	43.70
	Maximum Running Current		A	53.80	56.50	56.50
	Recommended fuses according to IEC standard 269-2			3x63gL/gG		
Fan	Maximum Running Current		A	5.80	5.80	5.80
Pump	Phase				3~	3~
	Voltage		V		400	400
	Maximum Running Current		A		2.7	2.7
Compressor	Phase			3~		
	Voltage		V	400	400	400
	Starting current		A	136.0	136.0	136.0
	Nominal running current (RLA)		A	17.60	17.60	17.60
	Maximum Running Current		A	24.00	24.00	24.00
	Starting Method			Direct on line		
Control Circuit	Phase			1~		
	Voltage		V	230	230	230
	Recommended fuses			Factory installed		

Number	Description	Decimal code	(On)	Unit size																				Availability
				5KAZW			8KAZW			10KAZW			12KAZW			16KAZW			20KAZW			24KAZW			
				N	P	B	N	P	B	N	P	B	N	P	B	N	P	B	N	P	B	N	P	B	
	Standard unit			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Not completely combinable options	1st digit																						
ZH	chilled water temp down to -5°C	12	C--	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
ZL	chilled water temp down to -10°C	24	O--	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
	Completely combinable options	2nd/3rd digit																						
ESP	Fan motor size up (high esp 5mmH_2O)	4	--4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
Option pump high	Pump size up	8	--8	-	○	○	-	○	○	-	○	○	-	○	○	-	○	○	-	○	○	-	○	○	Factory mounted
OP10	Evaporator heatertape	16	--G	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
	Available kit																							
EKGAU5/8KA	gauges kit 5/8 Hp-units			○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kit
EKGAU10/12KA	gauges kit 10/12Hp-units			-	-	-	-	-	-	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	Kit
EKGAU16KA	gauges kit 16 Hp-units			-	-	-	-	-	-	-	-	-	-	-	-	○	○	○	-	-	-	-	-	-	Kit
EKGAU20/24KA	gauges kit 20/24 Hp-units			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	○	○	○	○	○	Kit
EKSS	Softstarter kit			○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	Kit
EKAC10B (See notes 2)	Address card			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
EKBMSMBA (See notes 2)	gateway for BMS - Modbus			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
EKBMSBNA (See notes 2)	gateway for BMS - Bacnet			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
EKRUMC (See notes 2)	Remote installed user interface			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
EKBT	Buffertank 200l			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
	Example of possible option combinations																							
ESP + Option pump high		12	--C																					
ESP + OP10		20	--K																					
ESP + OP10 + Option pump high		28	--S																					
OP10 + Option pump high		24	--O																					

3TW55629-5

NOTES 1

○ Available

\- Not available

○ - Available and a quantity is necessary / unit

Impossible option combinations:
ZH+ZL

NOTES 2

To install EKBMSMBA, EKBMSBNA and EKRUMC=> EKAC10B needs to be installed on the unit.

5 Control systems

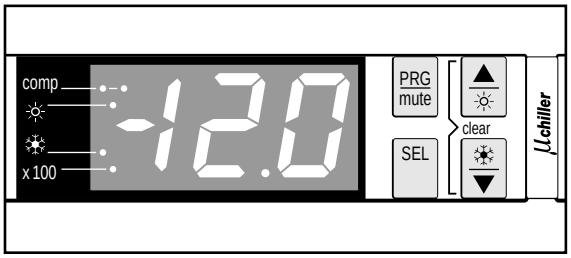
Direct and user parameters

The digital controller provides direct and user parameters. The direct parameters are important for the everyday usage of the unit, e.g. to adjust the temperature setpoint or to consult actual operational information. The user parameters on the contrary provide advanced features such as adjusting time delays or disabling the buzzer. Each parameter is defined by a code and a value. For example, the parameter used to select local or remote on/off control has code h7 and value 1 or 0.

User interface EUWA5-24KAZW

The digital controller consists of a numeric display, four labelled keys which you can press an four LEDs providing extra user information.

Digital controller



Keys provided on the controller.

Each key, except for the lower left key, combines two functions: PRG / mute, ▲ / ☼ and ❄ / ▼. The function carried out when the user presses one of these keys depends on the status of the controller and the unit at that specific moment.

PRG — Key, to enter the scroll list of user parameters, to confirm a parameter modification and to return to normal operation.

mute — Key, to de-activate the buzzer in the case of an alarm.

▲ — Key, to scroll through the list of direct or user parameters or to raise a setting.

☼ — Key, to start the unit in heating mode or to switch the unit off when heating mode is active. (only heatpump models)

SEL — Key, to enter the scroll list of direct parameters or to switch between a parameter's code and its value.

❄ — Key, to start the unit in cooling mode or to switch the unit off when cooling mode is active.

▼ — Key, to scroll through the list of direct or user parameters or to lower a setting.

LEDs provided on the controller:

The controller provides five LEDs one of which, the left comp LED, is not used.

comp — LED, indicates the status of the compressor. The LED does not light up when the compressor is not active, blinks when the compressor cannot start up although extra load is requested (e.g. timer active) and lights up permanently when the compressor is active.

☼ — LED, indicates that heating mode is active. (only heatpump models)

❄ — LED, indicates that cooling mode is active.

x100 — LED, indicates that the value on the numeric display should be multiplied by 100.

Note:

- Temperature readout tolerance: ±1°C.
- Legibility of the numeric display may decrease in direct sunlight.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*5KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	5.23	6.21	7.18	8.16	9.14	10.1	11.1	12.1	13.5	15.0	17.9	19.9
25	4.81	5.75	6.69	7.63	8.57	9.51	10.5	11.4	12.8	14.2	17.0	18.9
30	4.39	5.29	6.20	7.10	8.00	8.91	9.81	10.7	12.1	13.4	16.1	17.9
35	3.97	4.84	5.70	6.57	7.44	8.30	9.17	10.0	11.3	12.6	15.2	17.0
40				6.04	6.87	7.70	8.53	9.35	10.6	11.8	14.3	16.0
43						7.33	8.14	8.95	10.2	11.4	13.8	

PI EUWA*5KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	3.02	3.07	3.11	3.16	3.21	3.25	3.30	3.34	3.41	3.48	3.62	3.71
25	3.32	3.37	3.42	3.46	3.51	3.55	3.60	3.65	3.71	3.78	3.92	4.01
30	3.68	3.72	3.77	3.82	3.86	3.91	3.95	4.00	4.07	4.14	4.27	4.37
35	4.09	4.13	4.18	4.22	4.27	4.31	4.36	4.41	4.48	4.54	4.68	4.77
40				4.68	4.73	4.77	4.82	4.87	4.93	5.00	5.14	5.23
43						5.07	5.12	5.17	5.24	5.30	5.44	

4TW54752-1A

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*8KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	7.43	9.02	10.6	12.2	13.8	15.4	17.0	18.6	21.0	23.3	28.1	31.3
25	7.18	8.68	10.2	11.7	13.2	14.7	16.2	17.7	19.9	22.2	26.7	29.7
30	6.93	8.34	9.75	11.2	12.6	14.0	15.4	16.8	18.9	21.0	25.3	28.1
35	6.67	7.99	9.31	10.6	12.0	13.3	14.6	15.9	17.9	19.9	23.8	26.5
40				10.1	11.3	12.6	13.8	15.0	16.9	18.7	22.4	24.9
43						12.1	13.3	14.5	16.3	18.0	21.5	

PI EUWA*8KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	4.22	4.36	4.49	4.63	4.77	4.91	5.05	5.18	5.39	5.60	6.01	6.29
25	4.76	4.89	5.03	5.17	5.31	5.45	5.58	5.72	5.93	6.14	6.55	6.83
30	5.38	5.52	5.66	5.80	5.94	6.07	6.21	6.35	6.56	6.76	7.18	7.45
35	6.10	6.24	6.38	6.51	6.65	6.79	6.93	7.07	7.27	7.48	7.89	8.17
40				7.32	7.46	7.60	7.73	7.87	8.08	8.29	8.70	8.98
43						8.12	8.26	8.40	8.61	8.81	9.23	

4TW54762-1A

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*10KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	11.8	13.6	15.4	17.2	19.1	20.9	22.7	24.5	27.3	30.0	35.4	39.1
25	10.6	12.4	14.2	15.9	17.7	19.5	21.2	23.0	25.7	28.3	33.6	37.2
30	9.49	11.2	12.9	14.6	16.4	18.1	19.8	21.5	24.1	26.7	31.8	35.2
35	8.34	10.0	11.7	13.3	15.0	16.7	18.3	20.0	22.5	25.0	30.0	33.3
40				12.0	13.7	15.3	16.9	18.5	20.9	23.3	28.2	31.4
43						14.4	16.0	17.6	20.0	22.3	27.1	

PI EUWA*10KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	5.21	5.35	5.49	5.63	5.77	5.91	6.05	6.19	6.40	6.61	7.04	7.32
25	5.91	6.05	6.19	6.33	6.47	6.62	6.76	6.90	7.11	7.32	7.74	8.02
30	6.66	6.80	6.94	7.08	7.22	7.36	7.50	7.64	7.85	8.07	8.49	8.77
35	7.45	7.59	7.73	7.87	8.01	8.15	8.29	8.43	8.64	8.85	9.28	9.6
40				8.70	8.84	8.98	9.12	9.26	9.47	9.69	10.1	10.4
43						9.50	9.64	9.78	10.0	10.2	10.6	

4TW54772-1A

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*12KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	16.1	18.0	19.9	21.9	23.8	25.7	27.6	29.5	32.4	35.3	41.0	44.9
25	14.2	16.1	18.1	20.0	21.9	23.8	25.7	27.6	30.4	33.3	39.0	42.8
30	12.4	14.3	16.2	18.0	19.9	21.8	23.7	25.6	28.4	31.3	36.9	40.7
35	10.5	12.4	14.3	16.1	18.0	19.9	21.8	23.6	26.5	29.3	34.9	38.7
40				14.2	16.1	18.0	19.8	21.7	24.5	27.3	32.9	36.6
43						16.8	18.6	20.5	23.3	26.1	31.6	

PI EUWA*12KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	6.79	7.00	7.21	7.42	7.63	7.84	8.05	8.27	8.58	8.90	9.5	9.9
25	7.59	7.80	8.01	8.23	8.44	8.65	8.86	9.07	9.38	9.7	10.3	10.8
30	8.58	8.79	9.00	9.21	9.42	9.63	9.84	10.1	10.4	10.7	11.3	11.7
35	9.75	9.96	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.9	12.5	12.9
40				11.7	11.9	12.2	12.4	12.6	12.9	13.2	13.8	14.3
43						13.1	13.3	13.5	13.8	14.1	14.7	

4TW54782-1B

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*16KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	13.4	17.4	21.4	25.2	28.3	31.4	34.5	37.6	42.1	46.7	55.8	61.9
25	13.1	17.0	21.0	24.7	27.6	30.4	33.3	36.2	40.4	44.6	53.1	58.7
30	12.7	16.6	20.6	24.2	26.9	29.5	32.1	34.8	38.7	42.6	50.4	55.5
35	12.3	16.2	20.2	23.8	26.2	28.6	31.0	33.4	37.0	40.5	47.6	52.4
40				23.5	25.6	27.8	29.9	32.0	35.3	38.5	44.9	49.2
43						27.3	29.3	31.2	34.2	37.2	43.3	

PI EUWA*16KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	8.87	9.16	9.45	9.73	10.0	10.3	10.6	10.9	11.3	11.7	12.6	13.2
25	10.1	10.4	10.7	11.0	11.3	11.5	11.8	12.1	12.5	13.0	13.8	14.4
30	11.4	11.7	12.0	12.2	12.5	12.8	13.1	13.4	13.8	14.2	15.1	15.7
35	12.7	13.0	13.3	13.5	13.8	14.1	14.4	14.7	15.1	15.5	16.4	17.0
40				14.9	15.2	15.4	15.7	16.0	16.4	16.9	17.7	18.3
43						16.3	16.5	16.8	17.3	17.7	18.5	

4TW54792-1A

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*20KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	25.6	29.1	32.6	36.1	39.5	43.0	46.4	49.8	55.0	60.1	70.4	77.2
25	24.1	27.4	30.8	34.1	37.4	40.7	44.0	47.3	52.2	57.1	66.9	73.4
30	22.5	25.8	29.0	32.1	35.3	38.5	41.6	44.7	49.4	54.1	63.4	69.6
35	21.1	24.2	27.2	30.2	33.2	36.2	39.2	42.2	46.6	51.1	60.0	65.9
40				28.3	31.2	34.0	36.8	39.6	43.9	48.1	56.5	62.1
43						32.7	35.4	38.1	42.2	46.3	54.4	

PI EUWA*20KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	11.0	11.2	11.5	11.8	12.1	12.4	12.7	13.0	13.4	13.9	14.7	15.3
25	12.6	12.9	13.2	13.4	13.7	14.0	14.3	14.6	15.0	15.5	16.3	16.9
30	14.1	14.4	14.7	15.0	15.2	15.5	15.8	16.1	16.6	17.0	17.9	18.4
35	15.5	15.8	16.1	16.4	16.7	16.9	17.2	17.5	17.9	18.4	19.3	19.9
40				17.7	18.0	18.3	18.6	18.8	19.3	19.7	20.6	21.2
43						19.0	19.3	19.6	20.0	20.5	21.4	

4TW54802-1A

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 1 Cooling capacity tables

CC EUWA*24KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	35.0	38.6	42.2	45.7	49.3	52.9	56.4	60.0	65.4	70.7	81.4	88.6
25	32.2	35.7	39.2	42.7	46.2	49.7	53.1	56.6	61.9	67.1	77.5	84.5
30	29.4	32.8	36.2	39.6	43.0	46.4	49.8	53.2	58.3	63.4	73.7	80.5
35	26.8	30.2	33.5	36.9	40.2	43.6	46.9	50.3	55.3	60.3	70.4	77.1
40				33.5	36.7	40.0	43.2	46.4	51.3	56.2	65.9	72.4
43						38.0	41.2	44.4	49.2	54.0	63.6	

PI EUWA*24KZ

Ta/LWE	-10	-8	-6	-4	-2	0	2	4	7	10	16	20
20	14.3	14.7	15.2	15.6	16.0	16.5	16.9	17.3	18.0	18.6	20.0	20.8
25	16.2	16.6	17.0	17.5	17.9	18.3	18.8	19.2	19.9	20.5	21.8	22.7
30	18.2	18.6	19.0	19.5	19.9	20.3	20.8	21.2	21.9	22.5	23.8	24.7
35	20.3	20.7	21.2	21.6	22.0	22.5	22.9	23.3	23.8	24.6	25.9	26.8
40				23.8	24.3	24.7	25.2	25.6	26.2	26.9	28.2	29.1
43						26.1	26.6	27.0	27.7	28.3	29.6	

4TW54812-1A

SYMBOLS

CC : Cooling capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
Ta : Ambient temperature (°C)

NOTES

1 **Cooling capacity (CAP)**
Capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3 - 8°C.

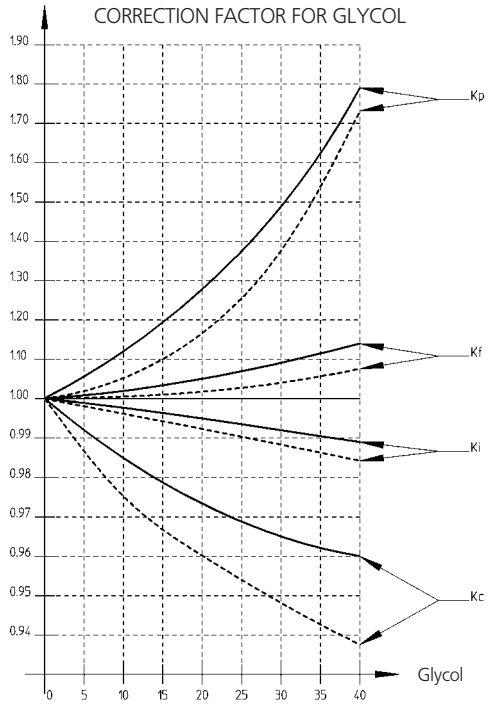
2 **Power input (kW)**
Power input is total input according to Eurovent rating standard 6/C/003-2003: Compressor + fans + control circuit.

6 Capacity tables

6 - 2 Capacity correction factor

Required glycol concentration

Type	Concentration (wt%)	0	10	20	30	40
Ethylene glycol	Freezing point °C	0	-4	-9	-16	-23
	Minimum LWE °C	5	2	0	-5	-11
Propylene glycol	Freezing point °C	0	-3	-7	-13	-22
	Minimum LWE °C	5	3	-2	-4	-10



Legend:
Ethylene glycol
Propylene glycol

Kc Correction on cooling capacity
Ki Correction on power input
Kf Correction on flow rate
Kp Correction on pressure drop

4TW54179-1

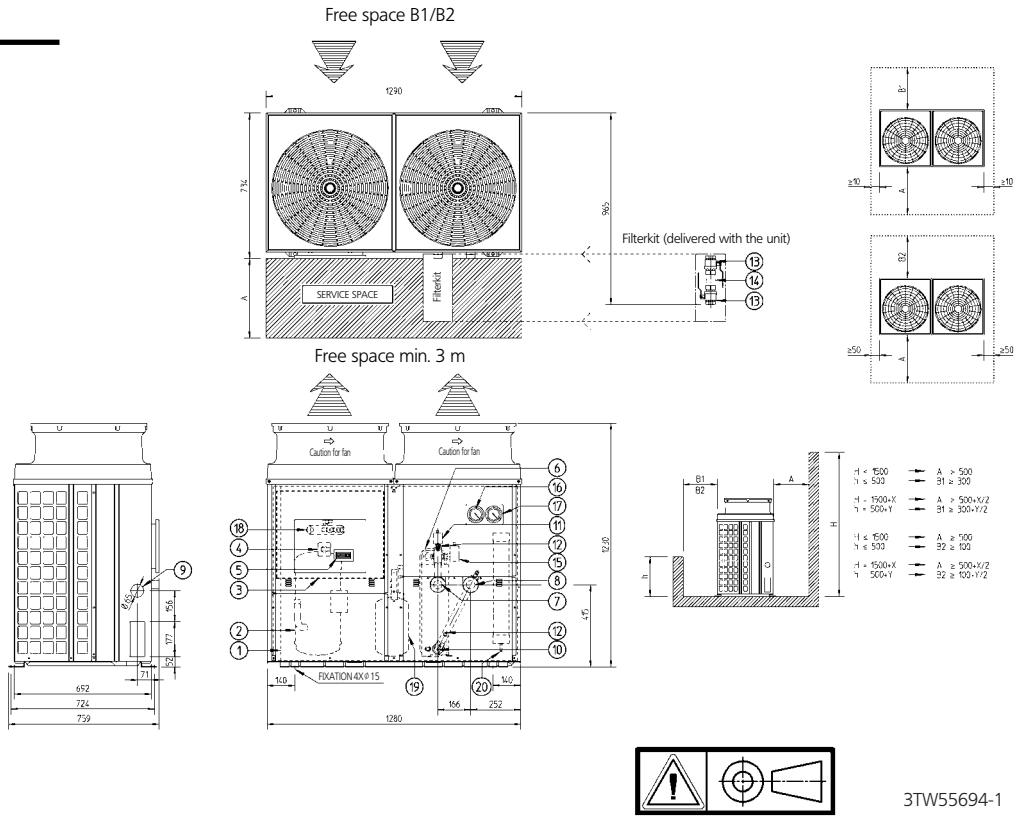
7 Dimensional drawing & centre of gravity

7 - 1 Dimensional drawing

EUWAN5-8KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Digital display controller
6 Water heat exchanger
7 Water IN connection: 1 1/4" M BSP
8 Water OUT connection: 1 1/4" M BSP
9 Power supply intake
10 Drain
11 Air purge
12 Pressure port
13 Ball valve: 1-1/4" BSP
14 Water filter: 1-1/4" BSP
15 Flow switch
16 High pressure gauge (optional)
17 Low pressure gauge (optional)
18 4 way valve *
19 Accumulator *
20 Liquid receiver *

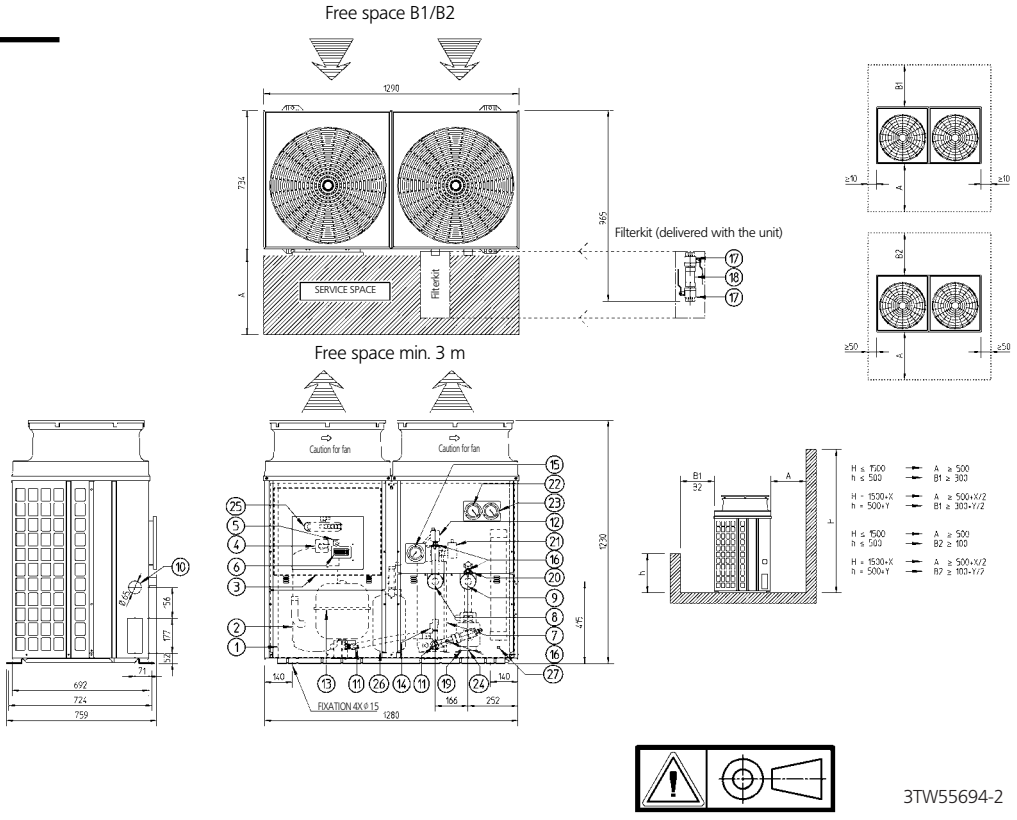
* Only for H/P models



EUWAP5-8KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 1 1/4" M BSP
9 Water OUT connection: 1 1/4" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Manometer (water)
16 Pressure port
17 Ball valve: 1-1/4" BSP
18 Water filter: 1-1/4" BSP
19 Pump
20 Regulation valve
21 Flow switch
22 High pressure gauge (optional)
23 Low pressure gauge (optional)
24 Pump drain
25 4 way valve *
26 Accumulator *
27 Liquid receiver *

* Only for H/P models

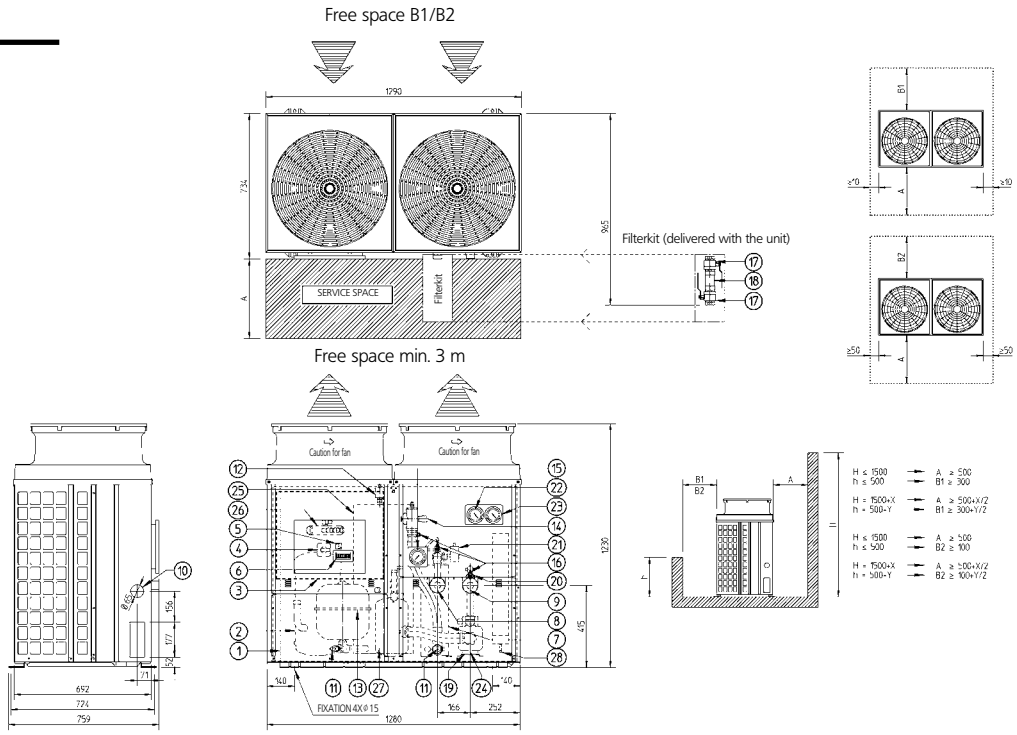


7 Dimensional drawing & centre of gravity

7 - 1 Dimensional drawing

EUWAB5-8KAZW

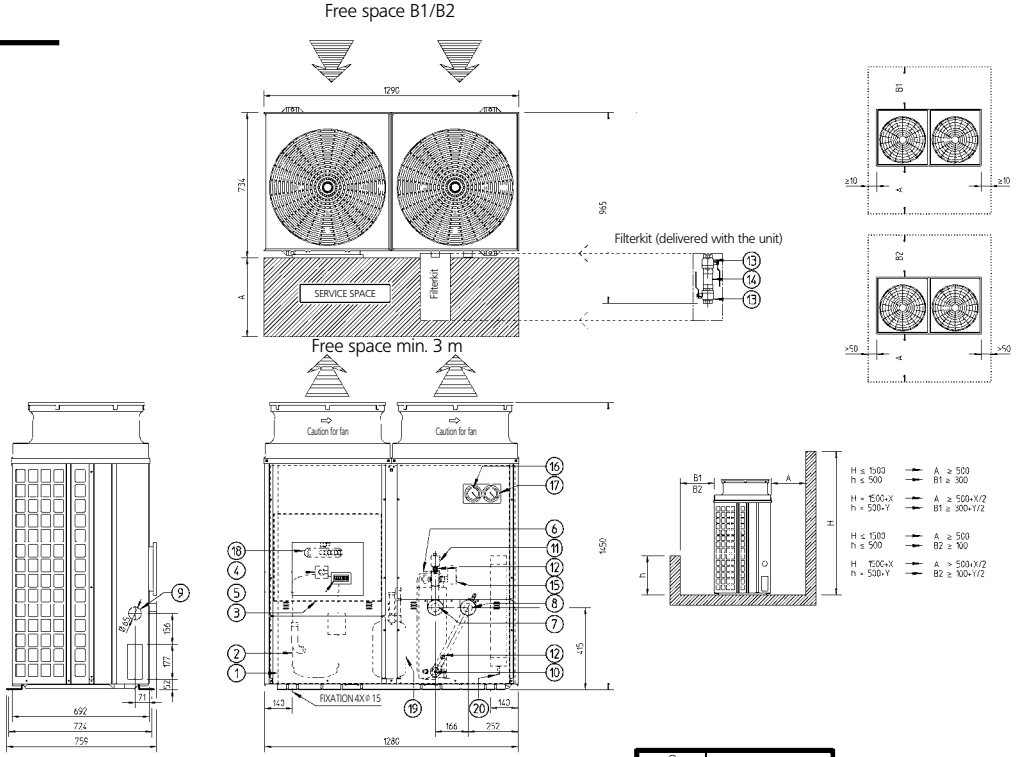
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 1 1/4" M BSP
9 Water OUT connection: 1 1/4" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Manometer (water)
16 Pressure port
17 Ball valve: 1-1/4" BSP
18 Water filter: 1-1/4" BSP
19 Pump
20 Regulation valve
21 Flow switch
22 High pressure gauge (optional)
23 Low pressure gauge (optional)
24 Pump drain
25 Buffer tank
26 4 way valve *
27 Accumulator *
28 Liquid receiver *
* Only for H/P models



3TW55694-3

EUWAN10-12KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Digital display controller
6 Water heat exchanger
7 Water IN connection: 1 1/4" M BSP
8 Water OUT connection: 1 1/4" M BSP
9 Power supply intake
10 Drain
11 Air purge
12 Pressure port
13 Ball valve: 1-1/4" BSP
14 Water filter: 1-1/4" BSP
15 Flow switch
16 High pressure gauge (optional)
17 Low pressure gauge (optional)
18 4 way valve *
19 Accumulator *
20 Liquid receiver *
* Only for H/P models



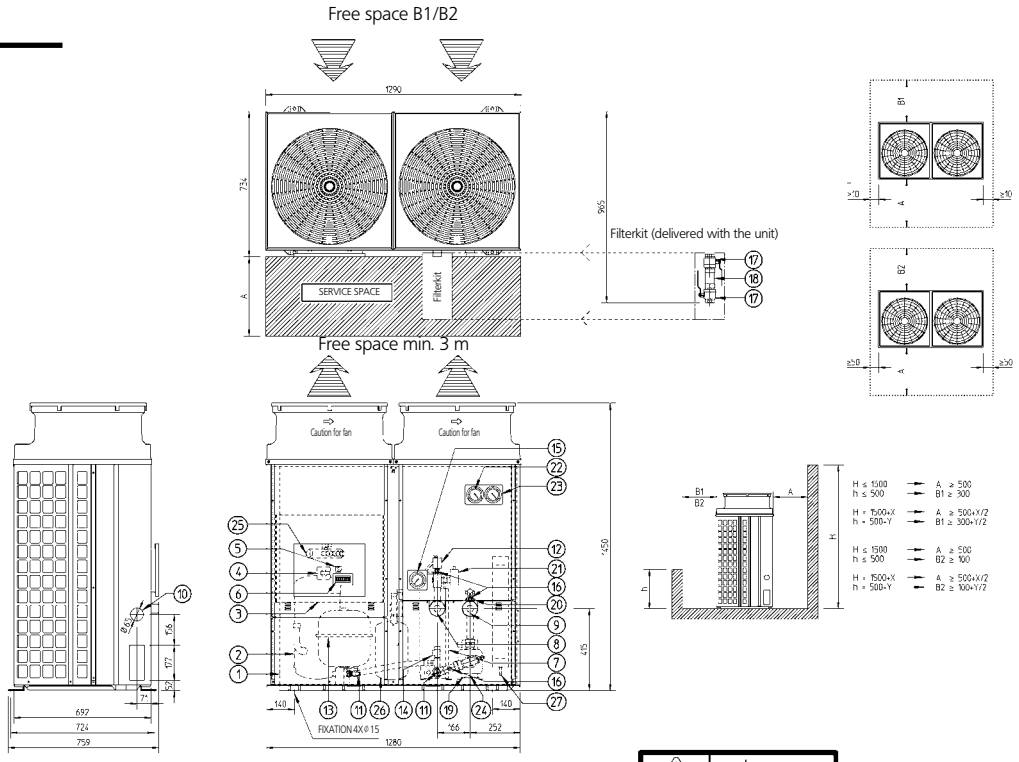
3TW55714-1

7 Dimensional drawing & centre of gravity

7 - 1 Dimensional drawing

EUWAP10-12KAZW

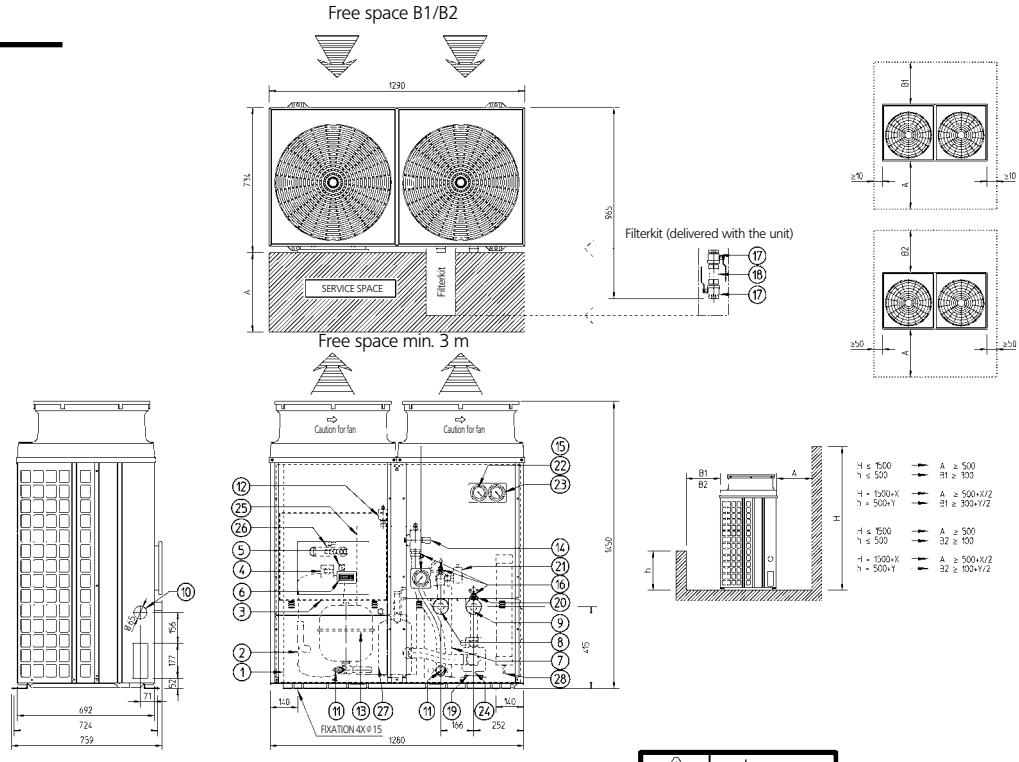
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 1 1/4" M BSP
9 Water OUT connection: 1 1/4" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Manometer (water)
16 Pressure port
17 Ball valve: 1-1/4" BSP
18 Water filter: 1-1/4" BSP
19 Pump
20 Regulation valve
21 Flow switch
22 High pressure gauge (optional)
23 Low pressure gauge (optional)
24 Pump drain
25 4 way valve *
26 Accumulator *
27 Liquid receiver *
* Only for H/P models



3TW55714-2

EUWAB10-12KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 1 1/4" M BSP
9 Water OUT connection: 1 1/4" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Manometer (water)
16 Pressure port
17 Ball valve: 1-1/4" BSP
18 Water filter: 1-1/4" BSP
19 Pump
20 Regulation valve
21 Flow switch
22 High pressure gauge (optional)
23 Low pressure gauge (optional)
24 Pump drain
25 Buffer tank
26 4 way valve *
27 Accumulator *
28 Liquid receiver *
* Only for H/P models



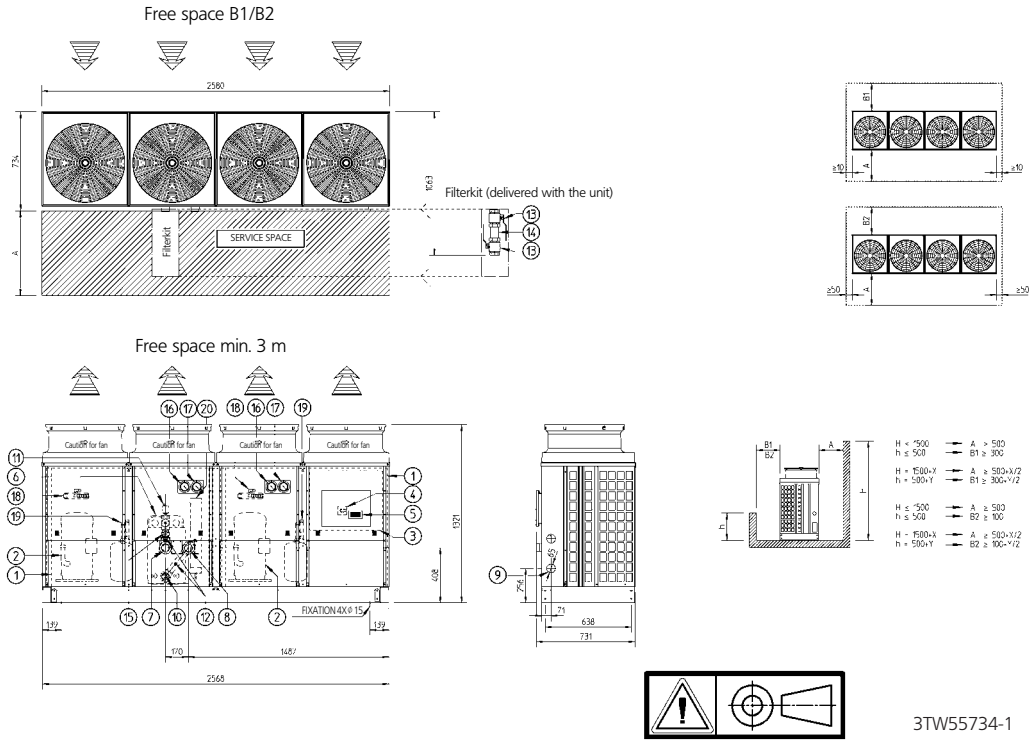
3TW55714-3

7 Dimensional drawing & centre of gravity

7 - 1 Dimensional drawing

EUWAN16KAZW

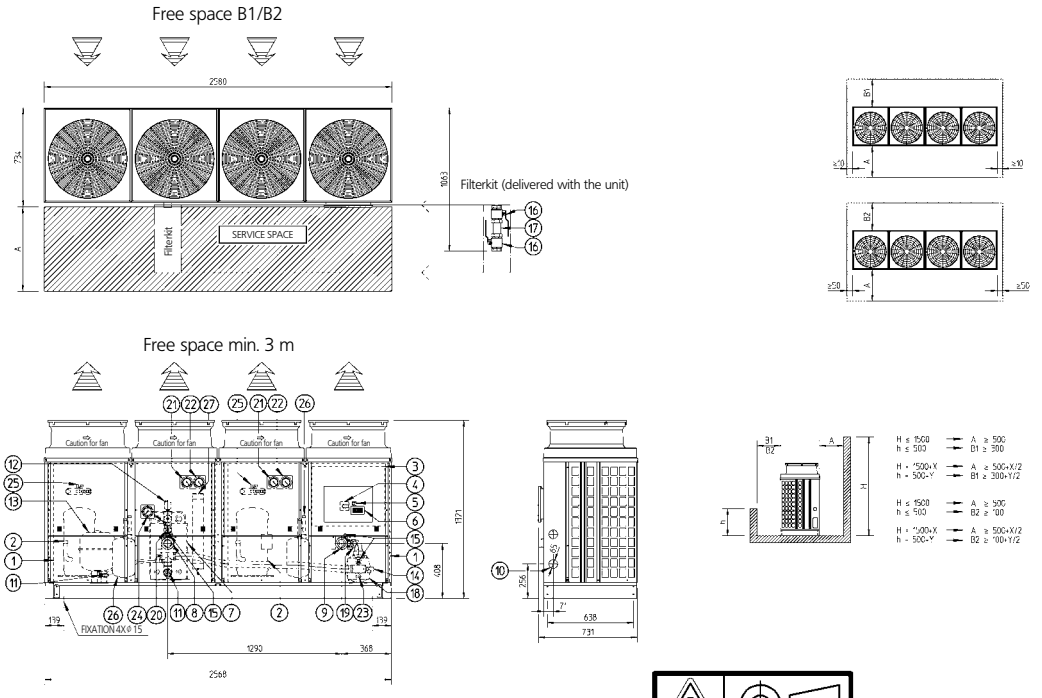
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Digital display controller
6 Water heat exchanger
7 Water IN connection: 2" M BSP
8 Water OUT connection: 2" M BSP
9 Power supply intake
10 Drain
11 Air purge
12 Pressure port
13 Ball valve
14 Water filter
15 Flow switch
16 High pressure gauge (optional)
17 Low pressure gauge (optional)
18 4 way valve *
19 Accumulator *
20 Liquid receiver *
* Only for H/P models



3TW55734-1

EUWAP16KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
17 Water filter
18 Pump
19 Regulation valve
20 Flow switch
21 High pressure gauge (optional)
22 Low pressure gauge (optional)
23 Pump drain
24 Water pressure gauge
25 4 way valve *
26 Accumulator *
27 Liquid receiver *
* Only for H/P models



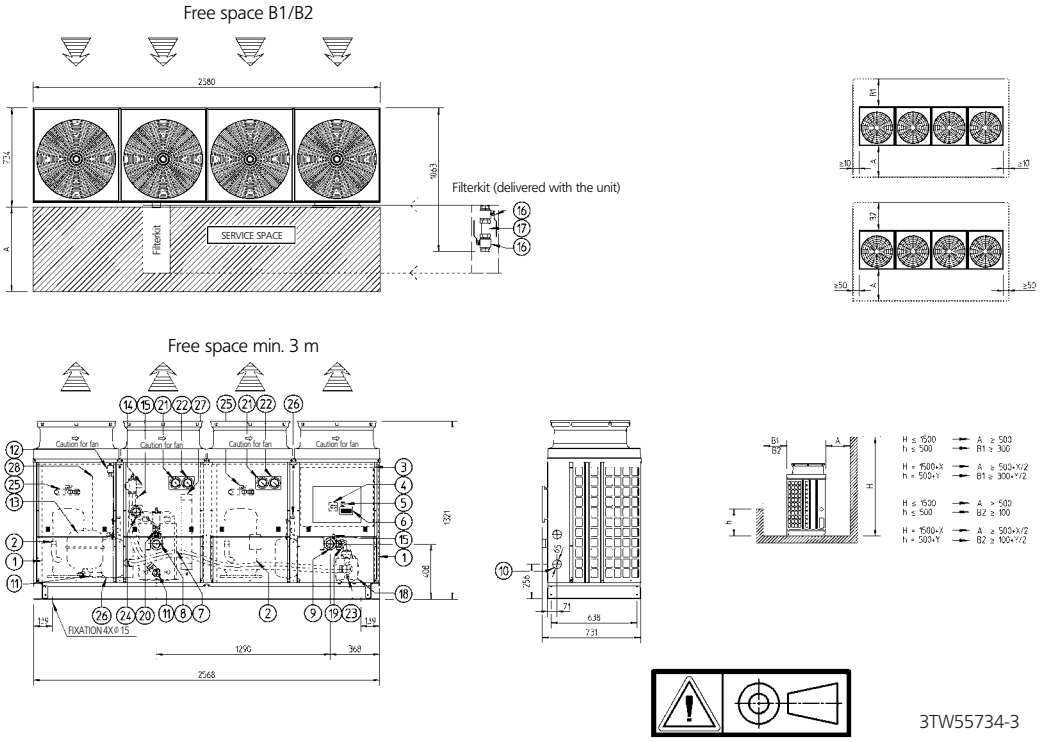
3TW55734-2

7 Dimensional drawing & centre of gravity

7 - 1 Dimensional drawing

EUWAB16KAZW

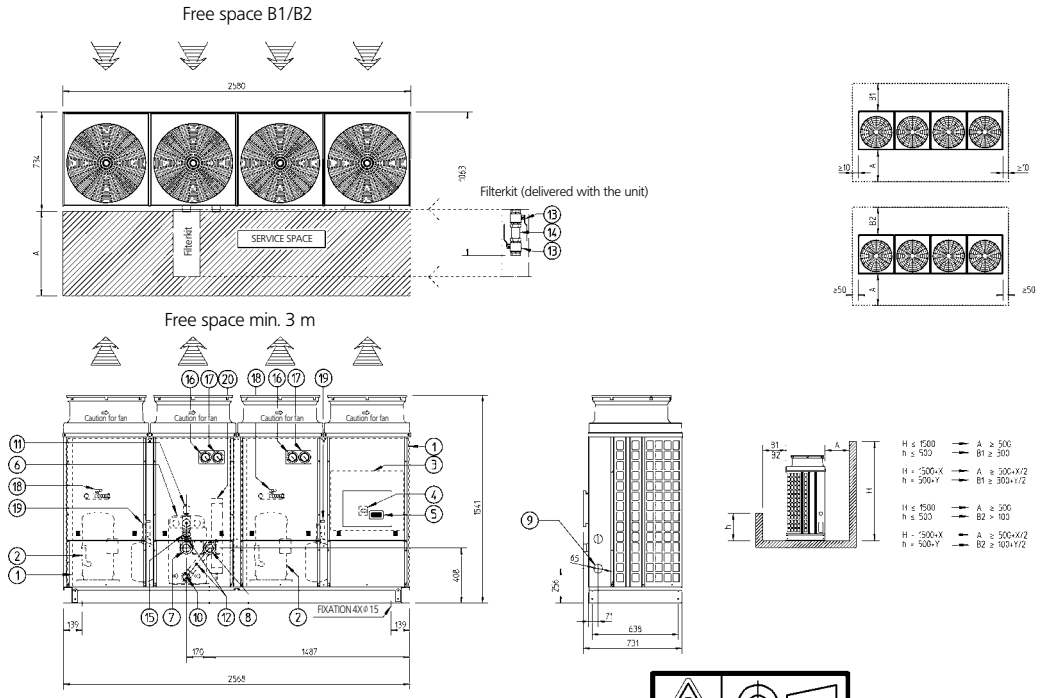
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
17 Water filter
18 Pump
19 Regulation valve
20 Flow switch
21 High pressure gauge (optional)
22 Low pressure gauge (optional)
23 Pump drain
24 Water pressure gauge
25 4 way valve *
26 Accumulator *
27 Liquid receiver *
28 Buffer tank
* Only for H/P models



3TW55734-3

EUWAN20-24KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Digital display controller
6 Water heat exchanger
7 Water IN connection: 2" M BSP
8 Water OUT connection: 2" M BSP
9 Power supply intake
10 Drain
11 Air purge
12 Pressure port
13 Ball valve
14 Water filter
15 Flow switch
16 High pressure gauge (optional)
17 Low pressure gauge (optional)
18 4 way valve *
19 Accumulator *
20 Liquid receiver *
* Only for H/P models



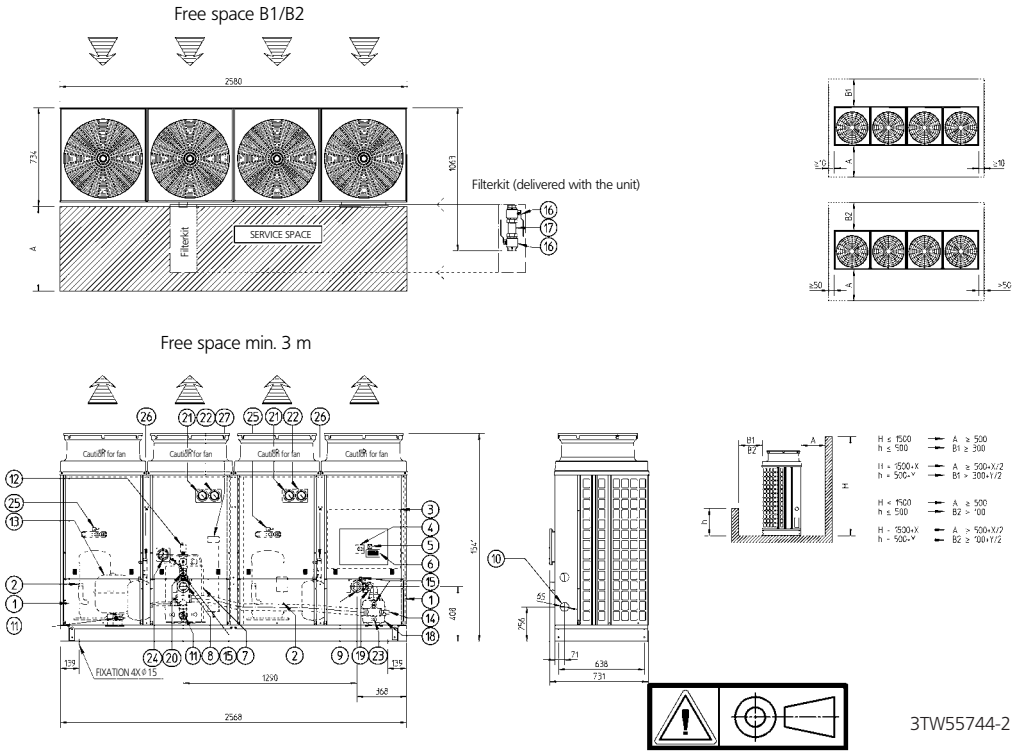
3TW55744-1

7 Dimensional drawing & centre of gravity

7 - 1 Dimensional drawing

EUWAP20-24KAZW

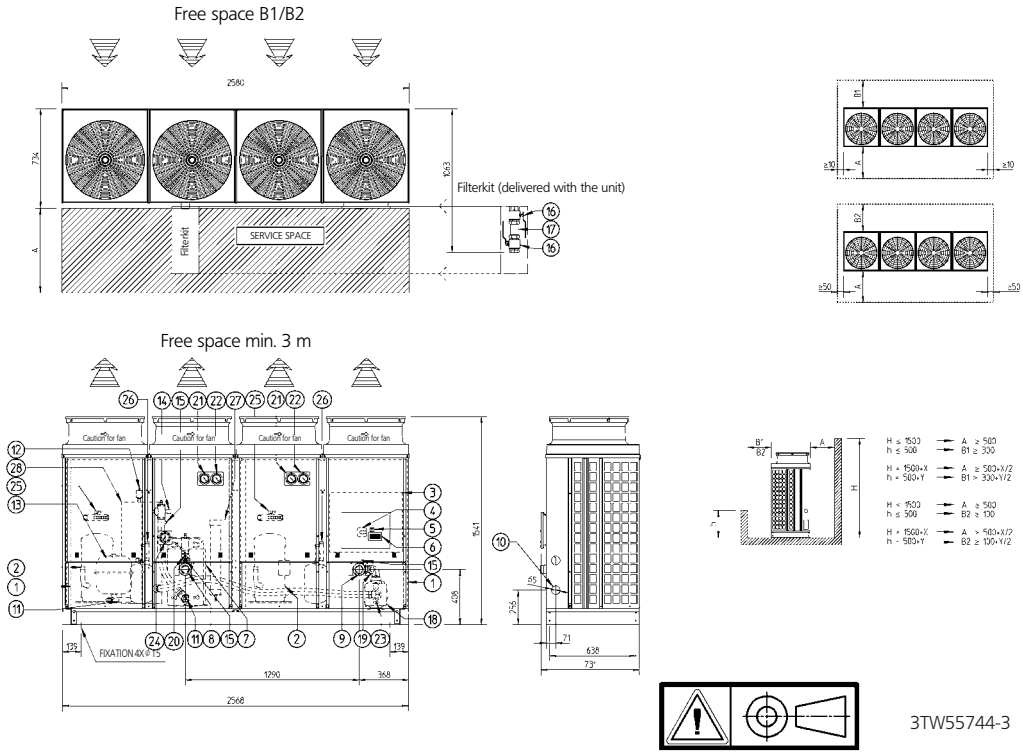
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
17 Water filter
18 Pump
19 Regulation valve
20 Flow switch
21 High pressure gauge (optional)
22 Low pressure gauge (optional)
23 Pump drain
24 Water pressure gauge
25 4 way valve *
26 Accumulator *
27 Liquid receiver *
* Only for H/P models



3TW55744-2

EUWAB20-24KAZW

1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
17 Water filter
18 Pump
19 Regulation valve
20 Flow switch
21 High pressure gauge (optional)
22 Low pressure gauge (optional)
23 Pump drain
24 Water pressure gauge
25 4 way valve *
26 Accumulator *
27 Liquid receiver *
28 Buffer tank
* Only for H/P models

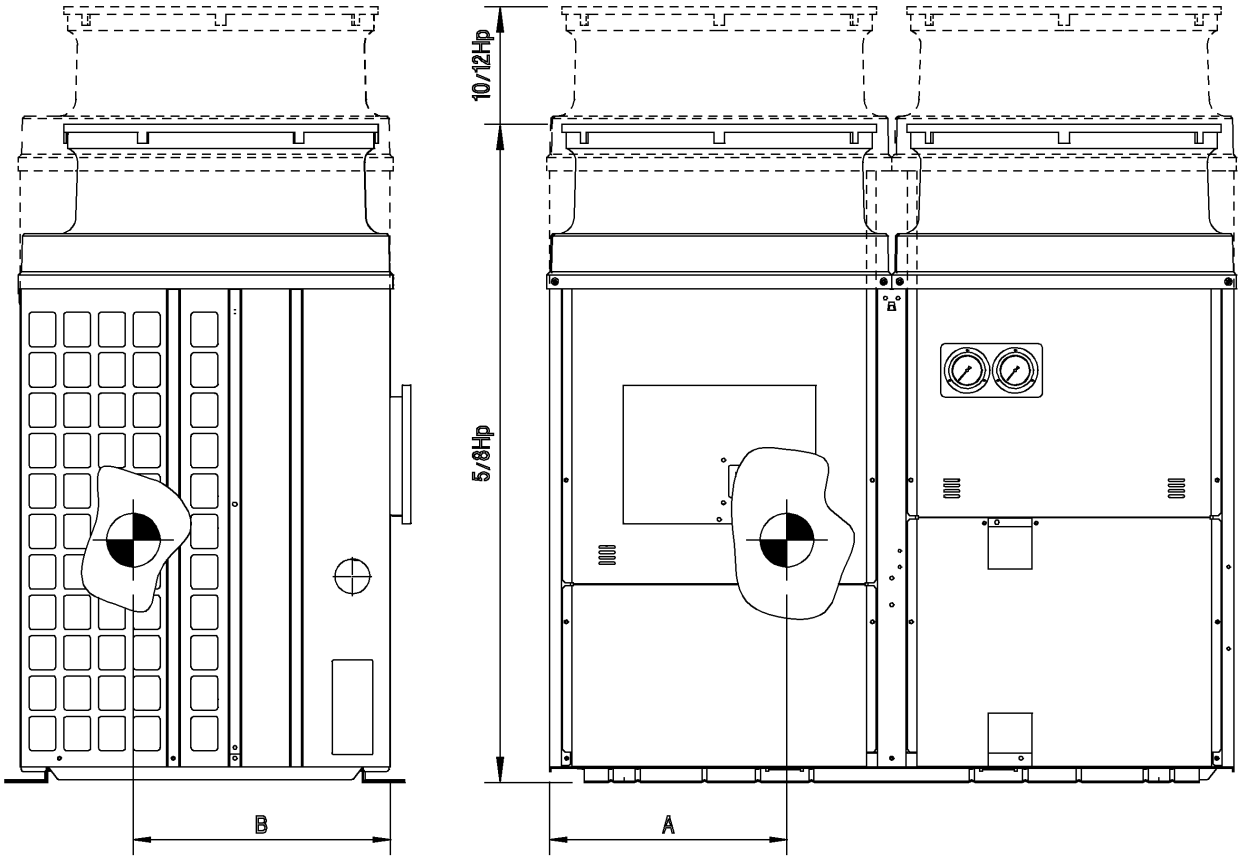


3TW55744-3

7 Dimensional drawing & centre of gravity

7 - 2 Centre of gravity

EUWA*5-12KAZW



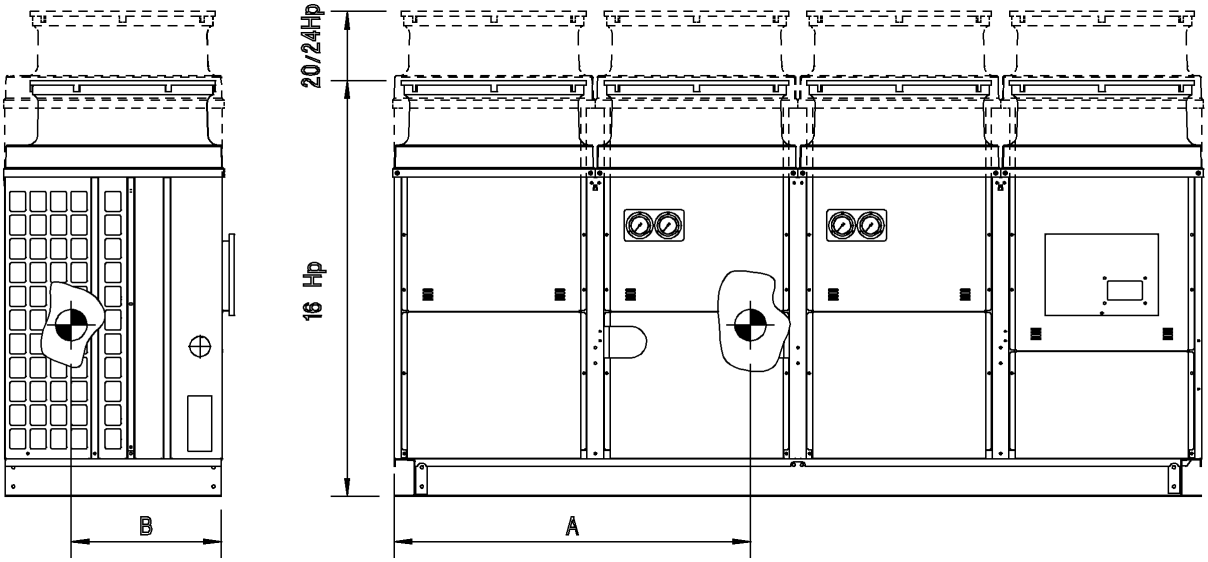
	5Hp		8Hp		10Hp		12Hp	
	A	B	A	B	A	B	A	B
B-Models	520	420	480	420	490	430	490	430
P-Models	510	420	470	420	480	430	490	430
N-Models	480	420	440	430	450	430	460	430

4TW54759-2

7 Dimensional drawing & centre of gravity

7 - 2 Centre of gravity

EUWA*16-24KAZW



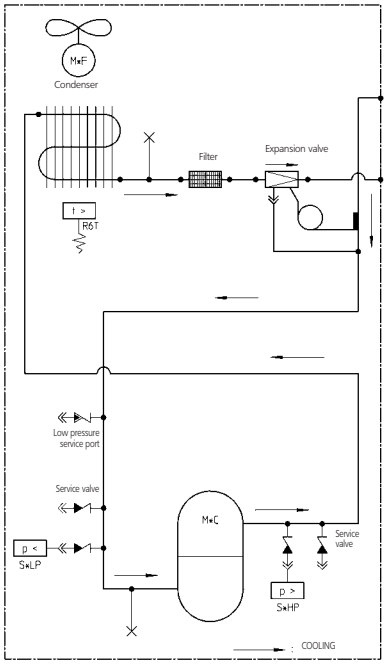
	16Hp		20Hp		24Hp	
	A	B	A	B	A	B
B-Models	1115	435	1120	435	1115	435
P-Models	1145	435	1140	435	1135	435
N-Models	1110	430	1115	435	1110	435

4TW54799-2

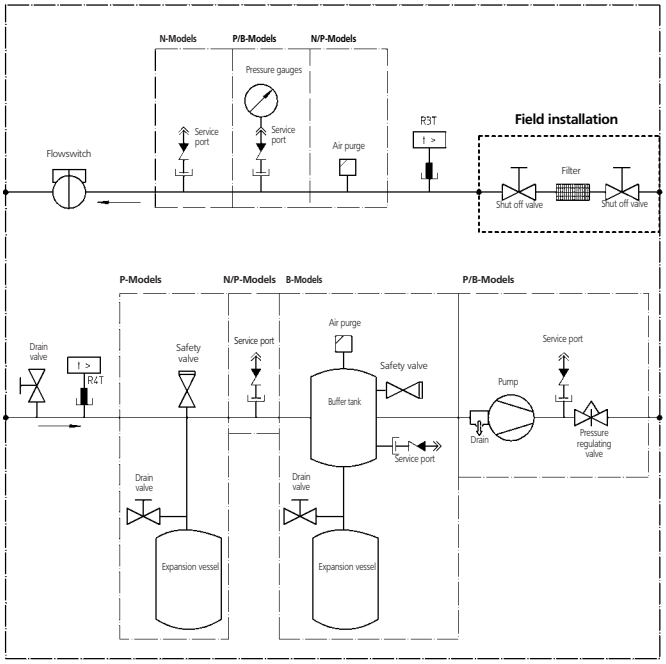
8 Piping diagram

EUWA*5-24KAZW

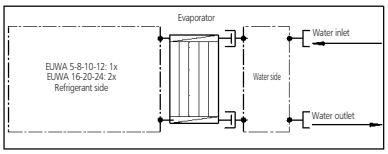
Refrigerant side



Water side



Overview



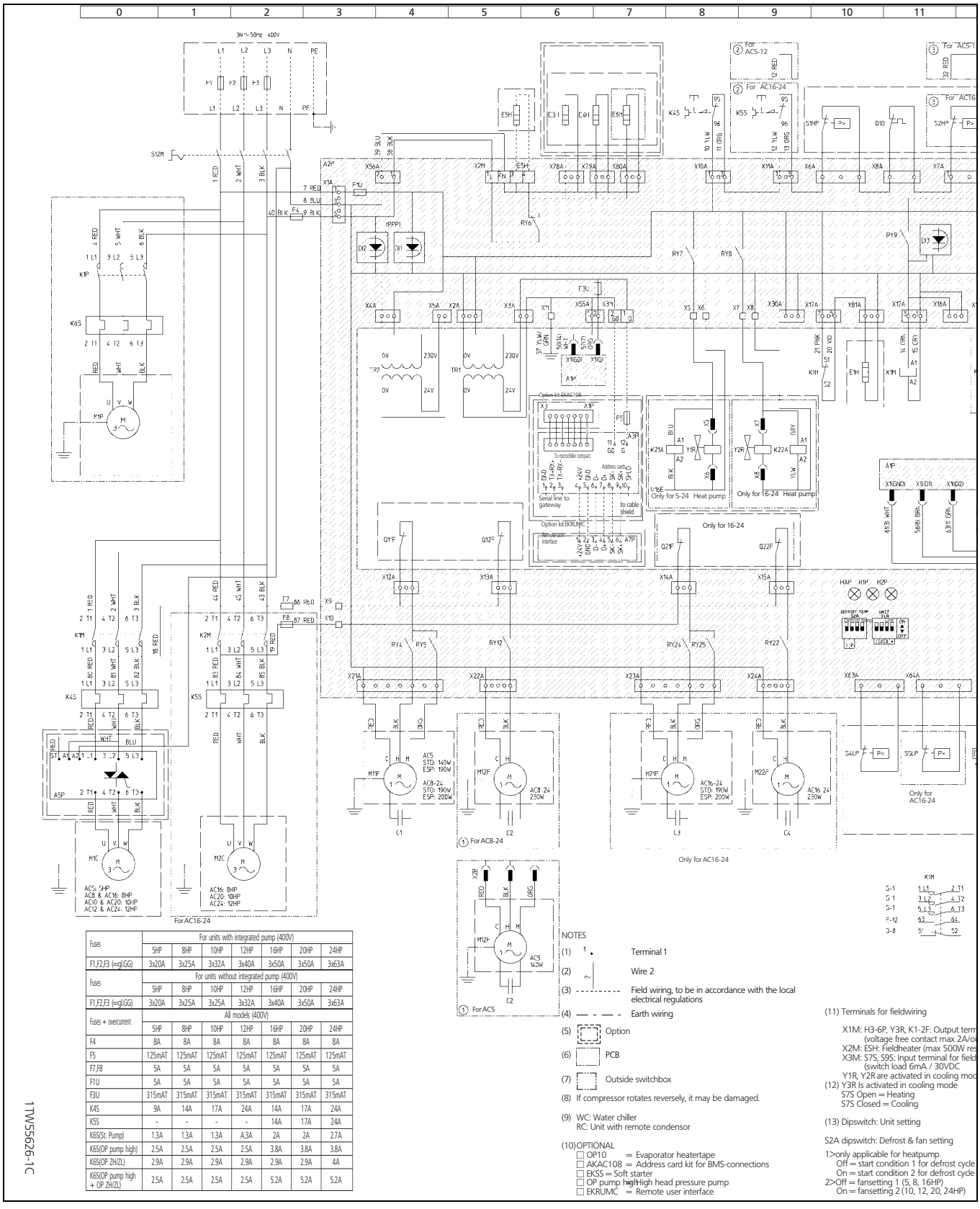
R3T	Inlet water temperature sensor
R4T	Outlet water temperature sensor
R5T	Ambient temperature sensor
S*HP	High pressure switch
S*LP	Low pressure switch
M*F	Condenser fan
M*C	Compressor

Check valve — Flare connection — Screw connection — Flange connection — Pinched pipe — Spinned pipe

3TW55625-1

9 Wiring diagram

9 - 1 Wiring diagram



Fuses	For units with integrated pump (400V)						
	5HP	8HP	10HP	12HP	16HP	20HP	24HP
F1,F2,F3 (=gLGG)	3x20A	3x25A	3x32A	3x40A	3x50A	3x50A	3x63A
Fuses	For units without integrated pump (400V)						
	5HP	8HP	10HP	12HP	16HP	20HP	24HP
F1,F2,F3 (=gLGG)	3x20A	3x25A	3x25A	3x32A	3x40A	3x50A	3x63A
Fuses + overcurrent	All models (400V)						
	5HP	8HP	10HP	12HP	16HP	20HP	24HP
F4	8A	8A	8A	8A	8A	8A	8A
F5	125mAT	125mAT	125mAT	125mAT	125mAT	125mAT	125mAT
F7,F8	5A	5A	5A	5A	5A	5A	5A
F1U	5A	5A	5A	5A	5A	5A	5A
F3U	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT
K4S	9A	14A	17A	24A	14A	17A	24A
K5S	-	-	-	-	14A	17A	24A
K6S(St. Pump)	1.3A	1.3A	1.3A	A.3A	2A	2A	2.7A
K6S(OP pump high)	2.5A	2.5A	2.5A	2.5A	3.8A	3.8A	3.8A
K6S(OP ZH/ZL)	2.9A	2.9A	2.9A	2.9A	2.9A	2.9A	4A
K6S(OP pump high + OP ZH/ZL)	2.5A	2.5A	2.5A	2.5A	5.2A	5.2A	5.2A

NOTES

(1) Terminal 1

(2) Wire 2

(3) Field wiring, to be in accordance with the local electrical regulations

(4) Earth wiring

(5) Option

(6) PCB

(7) Outside switchbox

(8) If compressor rotates reversely, it may be damaged.

(9) WC: Water chiller
RC: Unit with remote condensor

(10) OPTIONAL
- ☐ OP10 = Evaporator heatertape
- ☐ AKAC108 = Address card kit for BMS-connections
- ☐ EKSS = Soft starter
- ☐ OP pump high = High head pressure pump
- ☐ EKRUMC = Remote user interface

(11) Terminals for fieldwiring

X1M: H3-6P, Y3R, K1-2F: Output term
(voltage free contact max 2A/o
X2M: ESH: Fieldheater (max 500W re
X3M: S7S, S9S: Input terminal for field
(switch load 6mA / 30VDC
Y1R, Y2R are activated in cooling mo
(12) Y3R Is activated in cooling mode
S7S Open = Heating
S7S Closed = Cooling

(13) Dipswitch: Unit setting

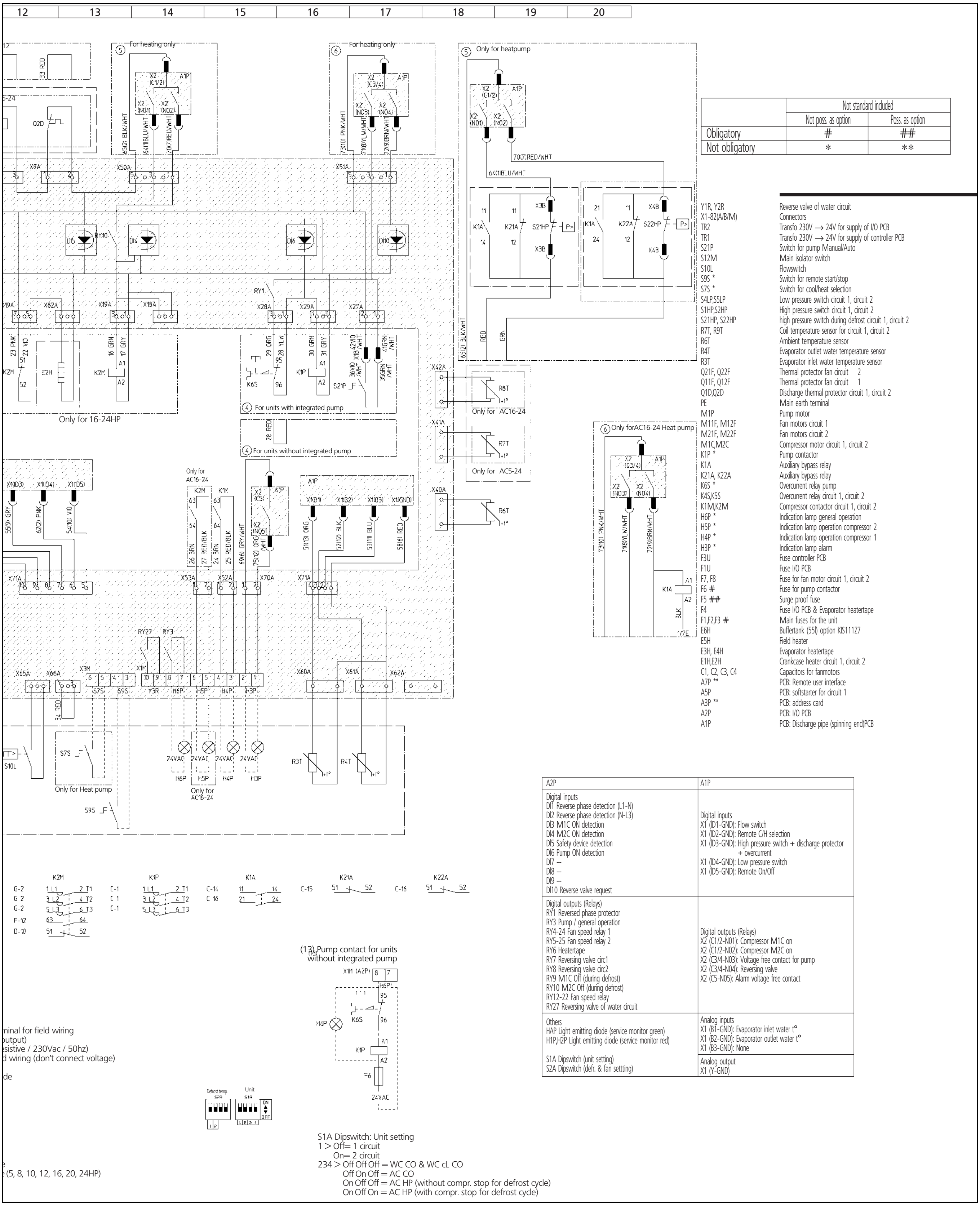
S2A dipswitch: Defrost & fan setting

1>only applicable for heatpump
Off = start condition 1 for defrost cycle
On = start condition 2 for defrost cycle
2>Off = fansetting 1 (5, 8, 16HP)
On = fansetting 2 (10, 12, 20, 24HP)

11W55626-1C

9 Wiring diagram

9 - 1 Wiring diagram



	Not standard included	
	Not poss. as option	Poss. as option
Obligatory	#	##
Not obligatory	*	**

Y1R, Y2R	Reverse valve of water circuit
X1-82(A/B/M)	Connectors
TR2	Transfo 230V ⟶ 24V for supply of I/O PCB
TR1	Transfo 230V ⟶ 24V for supply of controller PCB
S21P	Switch for pump Manual/Auto
S12M	Main isolator switch
S10L	Flowswitch
S9S *	Switch for remote start/stop
S7S *	Switch for cool/heat selection
S4LP,S5LP	Low pressure switch circuit 1, circuit 2
S1HP,S2HP	High pressure switch circuit 1, circuit 2
S21HP, S22HP	high pressure switch during defrost circuit 1, circuit 2
R7T, R9T	Coil temperature sensor for circuit 1, circuit 2
R6T	Ambient temperature sensor
R4T	Evaporator outlet water temperature sensor
R3T	Evaporator inlet water temperature sensor
Q21F, Q22F	Thermal protector fan circuit 2
Q11F, Q12F	Thermal protector fan circuit 1
Q1D,Q2D	Discharge thermal protector circuit 1, circuit 2
PE	Main earth terminal
M1P	Pump motor
M11F, M12F	Fan motors circuit 1
M21F, M22F	Fan motors circuit 2
M1C,M2C	Compressor motor circuit 1, circuit 2
K1P *	Pump contactor
K1A	Auxiliary bypass relay
K21A, K22A	Auxiliary bypass relay
K6S *	Overcurrent relay pump
K4S,K5S	Overcurrent relay circuit 1, circuit 2
K1M,K2M	Compressor contactor circuit 1, circuit 2
H6P *	Indication lamp general operation
H5P *	Indication lamp operation compressor 2
H4P *	Indication lamp operation compressor 1
H3P *	Indication lamp alarm
F3U	Fuse controller PCB
F1U	Fuse I/O PCB
F7, F8	Fuse for fan motor circuit 1, circuit 2
F6 #	Fuse for pump contactor
F5 ##	Surge proof fuse
F4	Fuse I/O PCB & Evaporator heatertape
F1,F2,F3 #	Main fuses for the unit
E6H	Buffertank (55l) option KIS111Z7
E5H	Field heater
E3H, E4H	Evaporator heatertape
E1H,E2H	Crankcase heater circuit 1, circuit 2
C1, C2, C3, C4	Capacitors for fanmotors
A7P **	PCB: Remote user interface
A5P	PCB: softstarter for circuit 1
A3P **	PCB: address card
A2P	PCB: I/O PCB
A1P	PCB: Discharge pipe (spinning end)PCB

A2P	A1P
Digital inputs DI1 Reverse phase detection (L1-N) DI2 Reverse phase detection (N-L3) DI3 M1C ON detection DI4 M2C ON detection DI5 Safety device detection DI6 Pump ON detection DI7 -- DI8 -- DI9 -- DI10 Reverse valve request	Digital inputs X1 (ID1-GND): Flow switch X1 (ID2-GND): Remote C/H selection X1 (ID3-GND): High pressure switch + discharge protector + overcurrent X1 (ID4-GND): Low pressure switch X1 (ID5-GND): Remote On/Off
Digital outputs (Relays) RY1 Reversed phase protector RY3 Pump / general operation RY4-24 Fan speed relay 1 RY5-25 Fan speed relay 2 RY6 Heatertape RY7 Reversing valve circ1 RY8 Reversing valve circ2 RY9 M1C Off (during defrost) RY10 M2C Off (during defrost) RY12-22 Fan speed relay RY27 Reversing valve of water circuit	Digital outputs (Relays) X2 (C1/2-N01): Compressor M1C on X2 (C1/2-N02): Compressor M2C on X2 (C3/4-N03): Voltage free contact for pump X2 (C3/4-N04): Reversing valve X2 (C5-N05): Alarm voltage free contact
Others HAP Light emitting diode (service monitor green) H1P,H2P Light emitting diode (service monitor red) S1A Dipswitch (unit setting) S2A Dipswitch (defr. & fan settting)	Analog inputs X1 (B1-GND): Evaporator inlet water t° X1 (B2-GND): Evaporator outlet water t° X1 (B3-GND): None Analog output X1 (Y-GND)

10 Sound data

10 - 1 Sound power spectrum

	Sound power Lw per Octave band (dB)								Total (dBA)
	63	125	250	500	1000	2000	4000	8000	LwA
EUWA/Y(*)5K(A)ZW1	70	71	67	64	61	59	53	46	67
EUWA/Y(*)8K(A)ZW1	78	76	72	77	68	64	58	52	76
EUWA/Y(*)10K(A)ZW1	82	91	77	77	71	67	63	57	78
EUWA/Y(*)12K(A)ZW1	82	91	77	77	71	67	63	57	78
EUWA/Y(*)16K(A)ZW1	81	79	75	80	71	67	61	55	79
EUWA/Y(*)20K(A)ZW1	85	94	80	80	74	70	66	60	81
EUWA/Y(*)24K(A)ZW1	85	94	80	80	74	70	66	60	81

4TW54757-1D

NOTES

1. Data valid at nominal operation condition
2. Measured according ISO3744

11 Installation

11 - 1 Water charge, flow and quality

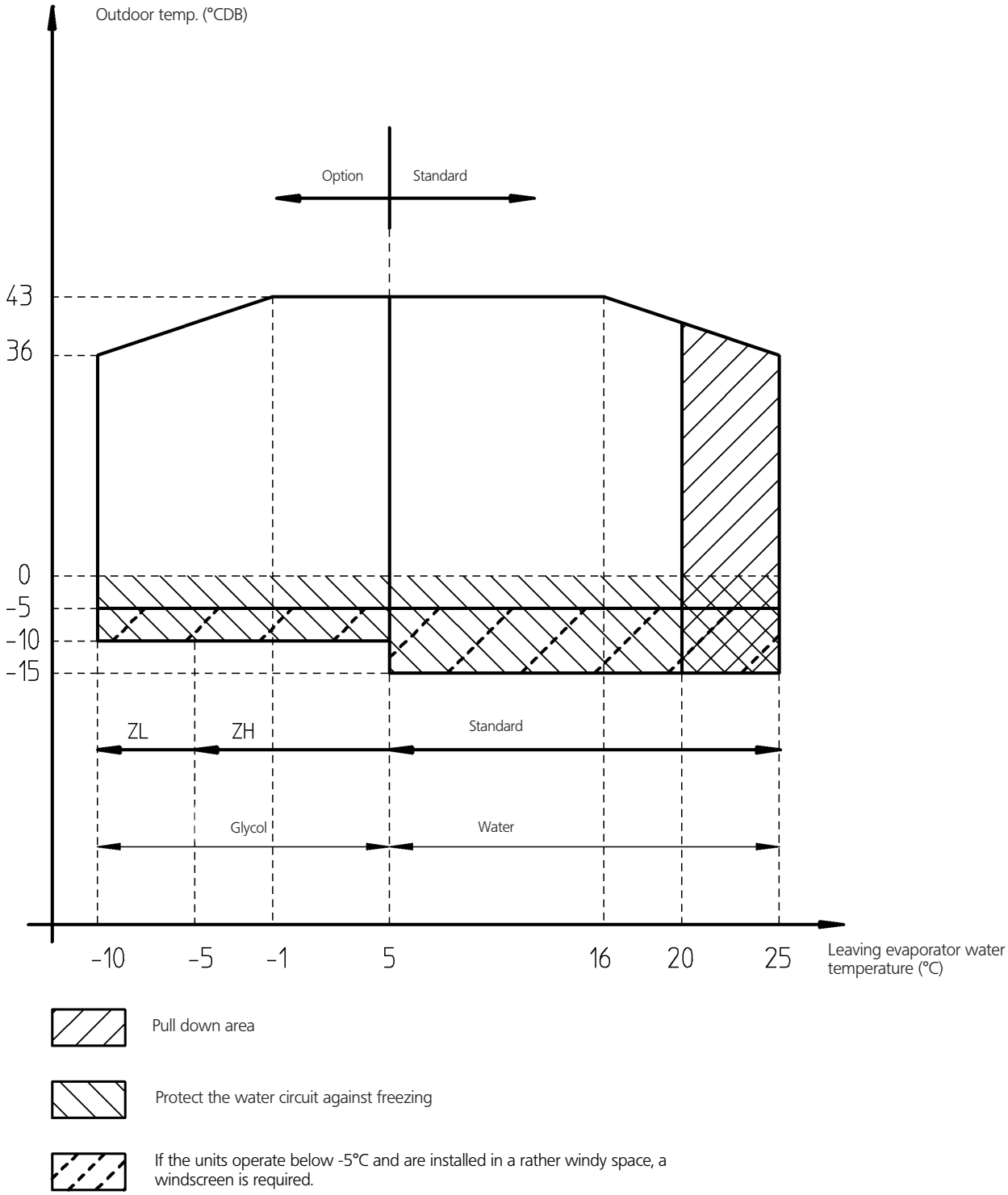
Be sure the water quality is in accordance with the specifications below:

ITEMS	Cooled water		Tendency if out of criteria
	Circulating water (below 20°C)	Water supply	
Items to be controlled:			
- pH at 25°C	6.8 - 8.0	6.8 - 8.0	Corrosion + scale
- Electrical conduct			
(mS/m) at 25°C	Below 40	Below 30	Corrosion + scale
(μS/cm) at 25°C	—	—	Corrosion + scale
- Chloride ion (mg Cl^-/l)	Below 50	Below 50	Corrosion
- Sulfate ion (mg SO_4^{2-}/l)	Below 50	Below 50	Corrosion
- M-alkalinity (pH 4.8) (mg SO_3/l)	Below 50	Below 50	Scale
- Total hardness (mg $CaCO_3$/l)	Below 70	Below 70	Scale
- Calcium hardness (mg $CaCO_3$/l)	Below 50	Below 50	Scale
- Silica ion (mg SiO_2/l)	Below 30	Below 30	Scale
Items to be referred to:			
- Iron (mg Fe/l)	Below 1.0	Below 0.3	Corrosion + scale
- Copper (mg Cu/l)	Below 1.0	Below 0.1	Corrosion
- Sulfite ion (mg S^{2-}/l)	Not detectable	Not detectable	Corrosion
- ammonium ion (mg NH_4^+/l)	Below 1.0	Below 0.1	Corrosion
- Remaining chloride (mg Cl/l)	Below 0.3	Below 0.3	Corrosion
- Free carbide (mg SO_2/l)	Below 4.0	Below 4.0	Corrosion
- Stability index	—	—	Corrosion + scale

Names, definitions and units are according to JIS K 0101. Units and figures between brackets are old units published as reference only.

12 Operation range

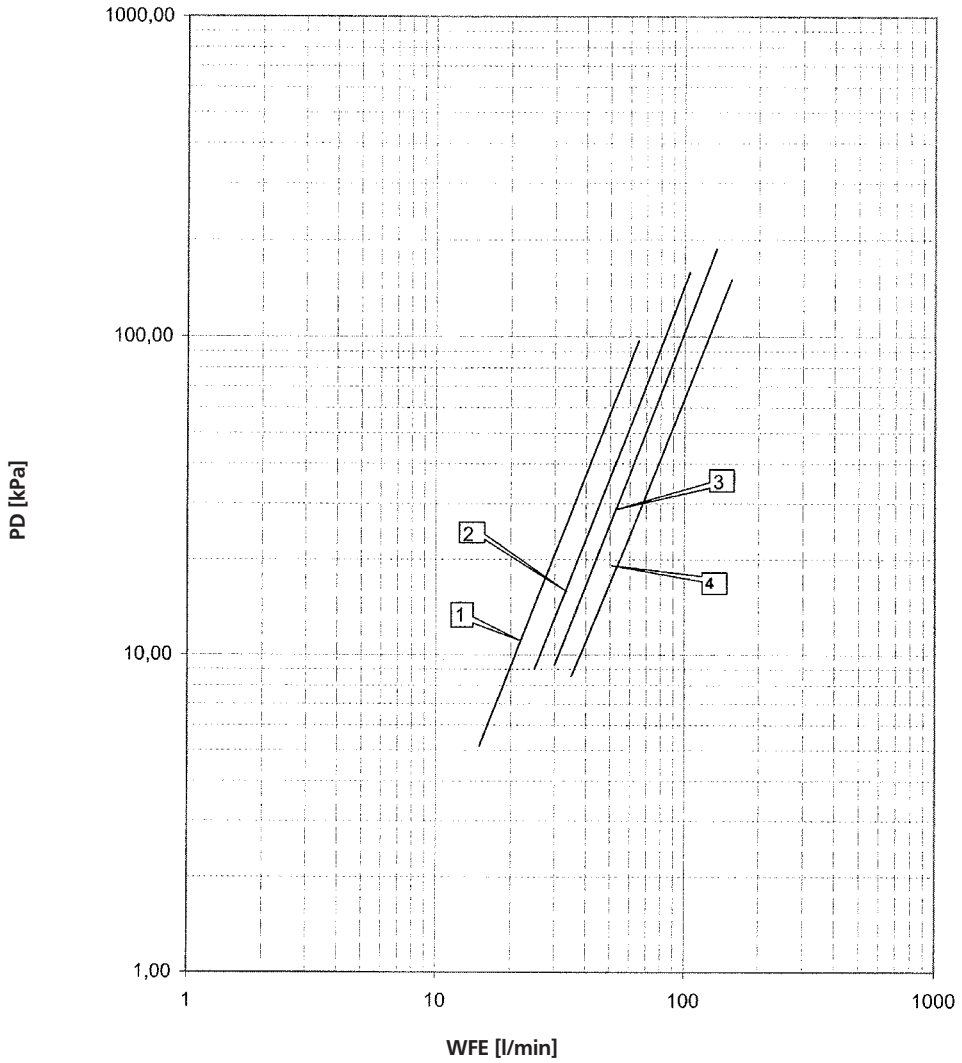
EUWA*5-24KAZW



13 Hydraulic performance

13 - 1 Water pressure drop curve evaporator

EUWA*5-12KAZW



PD: Pressure drop evaporator
WF: Evaporator waterflow rate
① EUWA(*)5K(A)ZW1
② EUWA(*)8K(A)ZW1
③ EUWA(*)10K(A)ZW1
④ EUWA(*)12K(A)ZW1

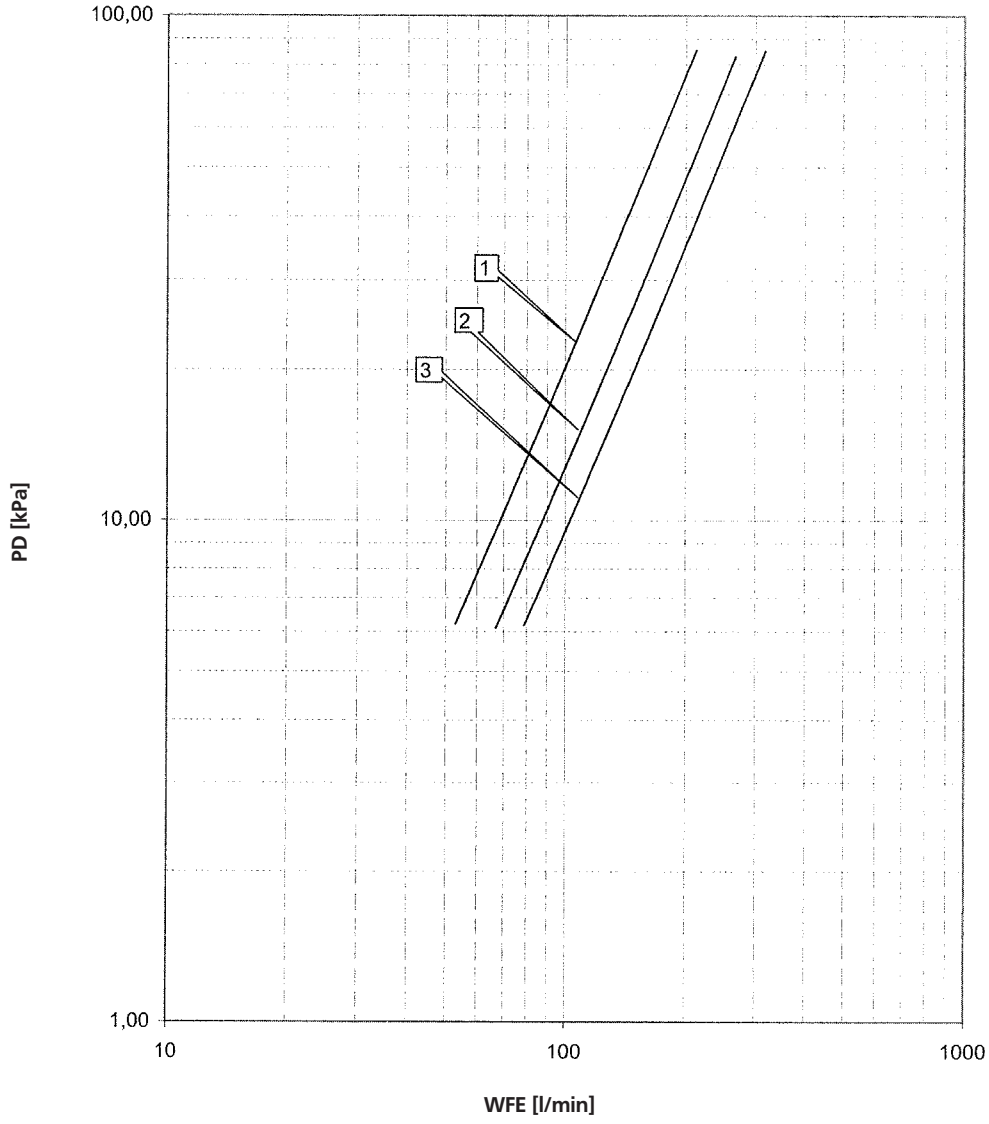
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW54759-1A

13 Hydraulic performance

13 - 1 Water pressure drop curve evaporator

EUWA*16-24KAZW



PD: Pressure drop evaporator
WF: Evaporator waterflow rate
① EUWA(*)16K(A)ZW1
② EUWA(*)20K(A)ZW1
③ EUWA(*)24K(A)ZW1

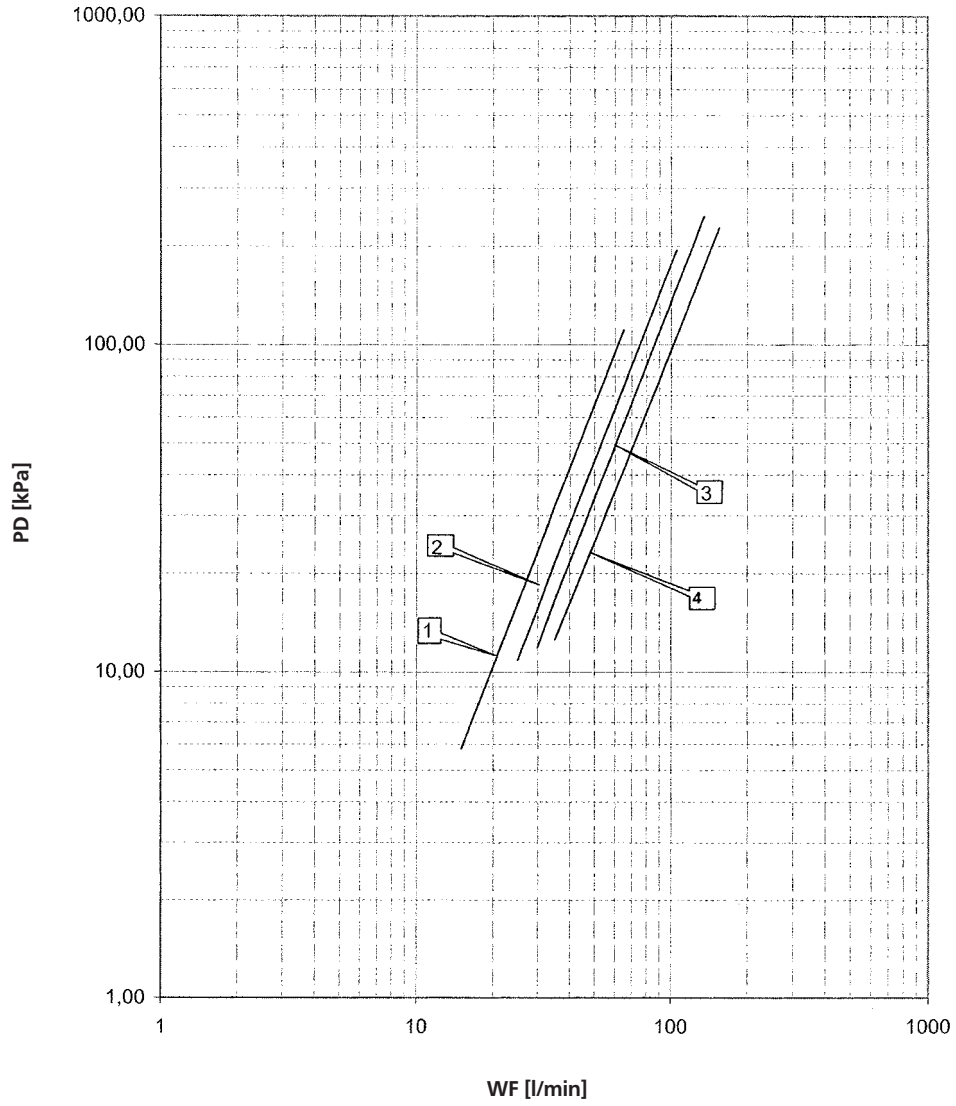
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW54799-1B

13 Hydraulic performance

13 - 2 Water pressure drop curve unit

EUWAN5-12KAZW



PD: Pressure drop through the unit
WF: Evaporator waterflow rate
① EUWAN5KAZW1
② EUWAN8KAZW1
③ EUWAN10KAZW1
④ EUWAN12KAZW1

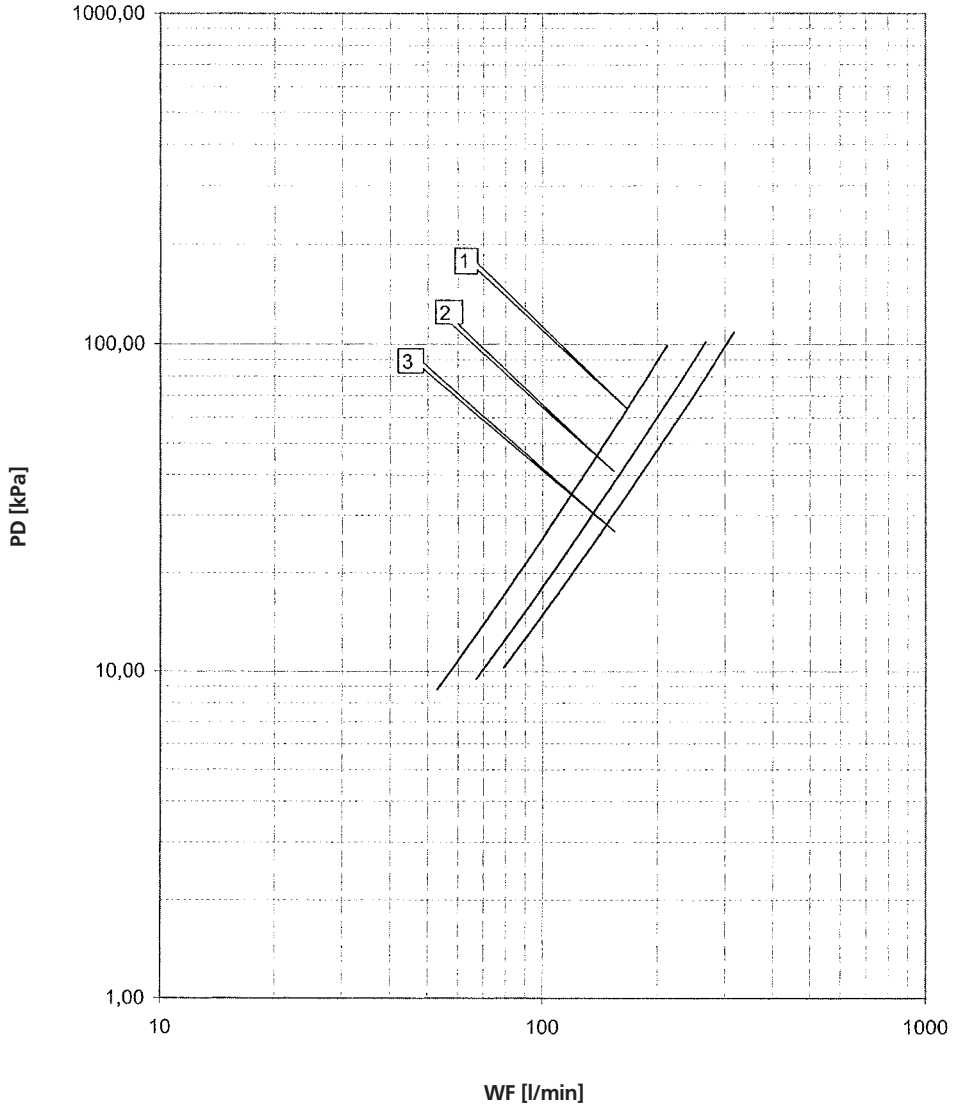
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW55629-6

13 Hydraulic performance

13 - 2 Water pressure drop curve unit

EUWAN16-24KAZW



PD: Pressure drop through the unit
WF: Evaporator waterflow rate
① EUWAN16KAZW1
② EUWAN20KAZW1
③ EUWAN24KAZW1

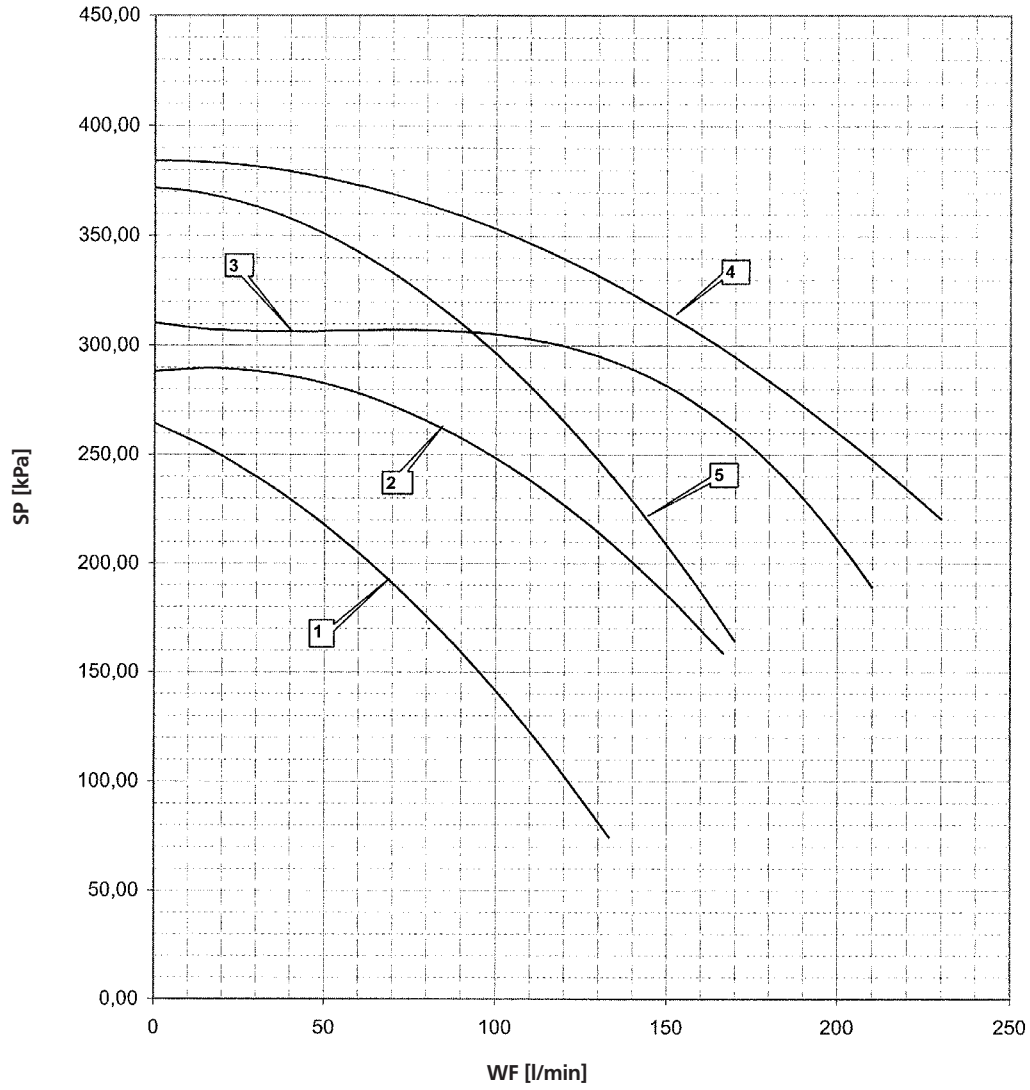
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW55669-6

13 Hydraulic performance

13 - 3 Static pressure pump

EUWA(*)5-24KAZW



SP: Static pressure of pump
WF: Waterflow rate
① CH4-30 (Standard pumpEUWA/Y(P,B)5-12K(A)Z)
② CH8-30 (Standard pumpEUWA/Y(P,B)16-20K(A)Z)
③ CH12-30 (Optional pumpEUWA/Y(P,B)5-12K(A)Z)
④ CH12-40 (Optional pumpEUWA/Y(P,B)16-24K(A)Z)
⑤ CH8-40 (Standard pumpEUWA/Y(P,B)24K(A)Z)

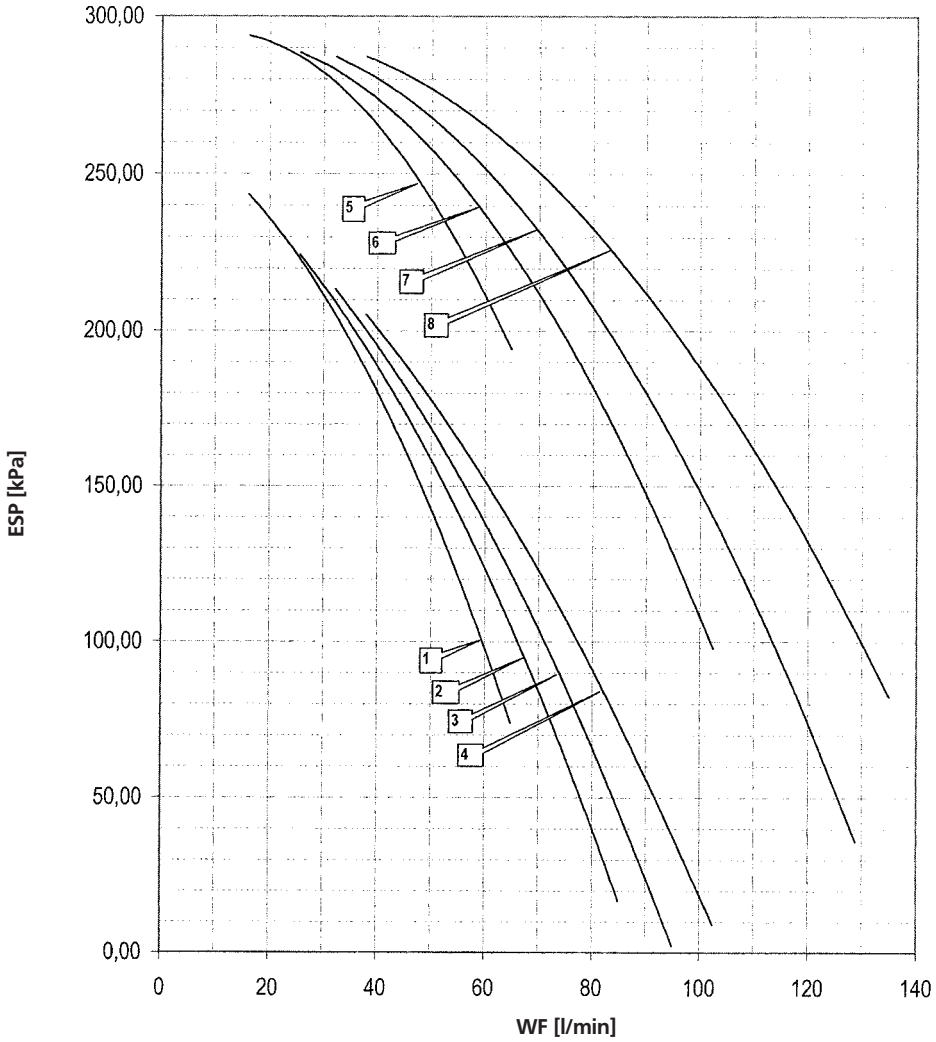
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW54759-3E

13 Hydraulic performance

13 - 4 Static pressure unit

EUWA*5-12KAZW



ESP: External static pressure of unit
WF: Waterflow rate
① Standard pump = EUWA(P,B)5K(A)ZW1
② Standard pump = EUWA(P,B)8K(A)ZW1
③ Standard pump = EUWA(P,B)10K(A)ZW1
④ Standard pump = EUWA(P,B)12K(A)ZW1
⑤ OP pump high = EUWA(P,B)5K(A)ZW1
⑥ OP pump high = EUWA(P,B)8K(A)ZW1
⑦ OP pump high = EUWA(P,B)10K(A)ZW1
⑧ OP pump high = EUWA(P,B)12K(A)ZW1

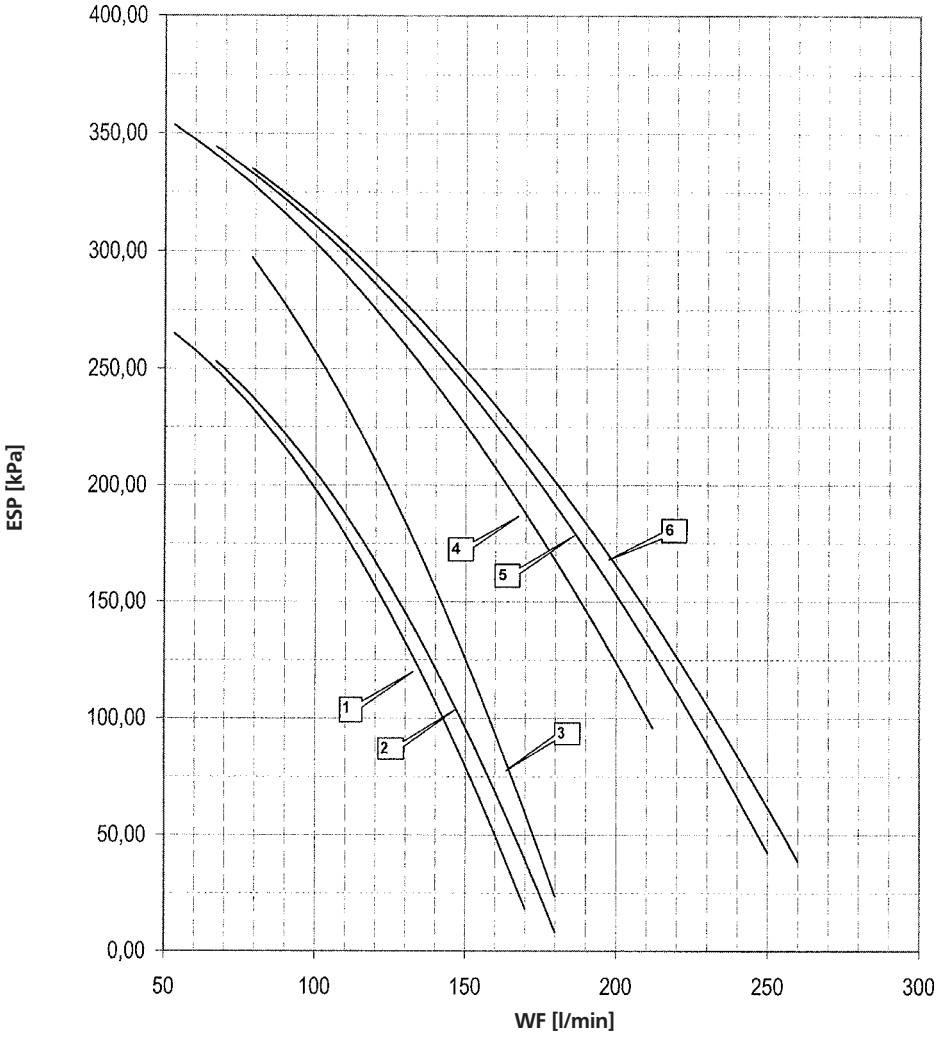
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW54759-4D

13 Hydraulic performance

13 - 4 Static pressure unit

EUWA*16-24KAZW



ESP: External static pressure of unit
WF: Waterflow rate
① Standard pump = EUWA(P,B)16K(A)ZW1
② Standard pump = EUWA(P,B)20K(A)ZW1
③ Standard pump = EUWA(P,B)24K(A)ZW1
④ OP pump high = EUWA(P,B)16K(A)ZW1
⑤ OP pump high = EUWA(P,B)20K(A)ZW1
⑥ OP pump high = EUWA(P,B)24K(A)ZW1

Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW54799-4F