DAIKIN

Applied Systems

Technical Data

Air cooled chiller

EEDEN13-403

EUWY-KBZW1

TABLE OF CONTENTS

EUWY-KBZW1

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 200l buffer tank
- Low operating sound level
- Easy maintenance
- Main switch
- Water flow switch
- 3 different design options available: EUWAN chiller without integrated hydraulic module; EUWAP chiller with integrated hydraulic module (pump, expansion vessel, hydraulic components); EUWAB chiller with integrated hydraulic module (buffer tank, pump, expansion vessel, hydraulic components)

2 Specifications

2-1 Technical Specifications					EUWYN5KBZW1	EUWYP5KBZW1	EUWYB5KBZW1	EUWYN8KBZW1	EUWYP8KBZW1	EUWYB8KBZW1	EUWYN10KBZW1
Cooling capacity	Nom.			kW	9.05 (1)	9.42 (1)		17.0 (1)	17.5 (1)		20.8 (1)
Heating capacity	Nom.			kW	12.0 (2)	11.4 (2)		18.6 (2)	17.9 (2)		24.2 (2)
Capacity steps				%	0-100						
Power input	Cooling	Nom.		kW	3.82 (1)	3.91 (1)		7.51 (1)	7.47 (1)		8.65 (1)
	Heating	Nom.		kW	4.62 (2)	4.52 (2)		7.14 (2)	6.88 (2)		9.14 (2)
EER					2.37 (1)	2.41 (1)		2.26 (1)	2.34 (1)		2.40 (1)
COP					2.60 (2)	2.52 (2)		2.61 (2)	2.60 (2)		2.65 (2)
Casing	Material				Polyester coated galvanised steel plate						
Dimensions	Unit	Height		mm	1,230						1,450
		Width		mm	1,290						
		Depth		mm	734						
	Packed unit	Height		mm	1,425						1,645
		Width		mm	1,380						
		Depth		mm	830						
Weight	Unit			kg	163	181	193	227	241	253	258
	Operation weight			kg	165	184	252	230	244	312	261
	Packed unit			kg	173	191	203	237	251	263	268
Packing	Material				Wood / Plastic foil						
	Weight			kg	10						
Water heat exchanger	Type				Brazed plate						
	Quantity				1						
	Water volume			l	1.14			1.615			1.9
	Water flow rate	Min.		l/min	21			31			38
		Max.		l/min	68			106			137
	Nominal water flow	Cooling		l/min	26 (1)			49 (1)			60 (1)
		Heating		l/min	34 (2)			53 (2)			69 (2)
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	10 (1)			25 (1)			24 (1)
		Heating	Heat exchanger	kPa	17 (2)			29 (2)			31 (2)
	Insulation material				Kaiflex						
	Model	Type			AC70X-34HX			AC70X-40HX			AC70X-50HX
Air heat exchanger	Type				Cross fin coil/Hi-X tubes and PE coated waffle louvre fins						
	Rows	Quantity			2						
	Stages	Quantity			40						50
	Fin pitch			mm	2						
	Face area			m²	1.570						1.970
Hydraulic components	Buffer tank	Volume		l	-		55	-		55	-
	Expansion vessel	Volume		l	-	12		-	12		-
		Pre pressure		bar	-	1.5		-	1.5		-
	Water filter	Material			Brass						
Fan	Quantity				2						
	Type				Axial						
	Discharge direction				Vertical						
Fan group	Air flow rate	Cooling	Nom.	m³/min	160 (per 2 fans)			170 (per 2 fans)			
Fan motor	Output			W	140			190			
	Quantity				1						
	Position				Vertical						
	Drive				Direct drive						
Fan motor 2	Output			W	140			230			
	Quantity				1						
Sound power level	Cooling	Nom.		dBA	67			76			78

2 Specifications

2-1 Technical Specifications					EUWYN5KBZW1	EUWYP5KBZW1	EUWYB5KBZW1	EUWYN8KBZW1	EUWYP8KBZW1	EUWYB8KBZW1	EUWYN10KBZW1
Compressor	Type				Hermetically sealed scroll compressor						
	Quantity				1						
	Model				JT140BF-YE			JT212DA-YE			JT265DA-YE
	Speed			rpm	2,900						
	Starting method				Direct						
	Crankcase heater			W	33			50			
Operation range	Water side	Cooling	Min.	°CDB	-10						
			Max.	°CDB	25						
		Heating	Min.	°CDB	35						
			Max.	°CDB	50						
	Air side	Cooling	Min.	°CDB	-15						
			Max.	°CDB	43						
		Heating	Min.	°CDB	-10						
			Max.	°CDB	21						
Refrigerant	Type				R-407C						
	Control				Thermostatic expansion valve						
	Circuits	Quantity			1						
Refrigerant circuit	Charge			kg	4.6			4.7			5.4
Water circuit	Piping connections diameter			inch	G 1"1/4 (male)						
	Piping			inch	1-1/4"						
	Safety valve			bar	-	3		-	3		-
	Manometer				Yes						
	Drain valve / fill valve				Yes, ø15						
	Shut off valve				Yes						
	Total water volume			l	2 (3)	3 (3)	59 (3)	3 (3)		59 (3)	3 (3)
	Minimum water volume in the system			l	43 (4.0)			82 (4.0)			100 (4.0)
	Air purge valve				Yes						
Refrigerant oil	Type				FVC68D						
	Charged volume			l	1.5			2.7			
Safety devices	Item	01			High pressure switch						
		02			Discharge temperature control						
		03			Compressor motor overcurrent relay						
		04			Pump motor overcurrent						
		05			Fan motor thermal protection						
		06			Anti-recycling and guard timer						
		07			Digital display controller with electronic temperature control						
		08			Reverse phase protector						
		09			Fuse						
Pump Standard	Nominal ESP pump	Cooling		kPa	-	249		-	203		-
	Manufacturer				-	Grundfos		-	Grundfos		-
	Model				-	CM3-3		-	CM3-3		-
	Quantity				-	1		-	1		-
	Type				-	Horizontal multi-stage end-suction		-	Horizontal multi-stage end-suction		-
Pump Optional	Efficiency			%	-	77.4		-	77.4		-
	Efficiency level				-	IE2		-	IE2		-
	Manufacturer				-	Grundfos		-	Grundfos		-
	Model				-	CM5-4		-	CM5-4		-
	Quantity				-	1		-	1		-
	Rated speed			rpm	-	2840-2870		-	2840-2870		-
	Type				-	Horizontal multi-stage end suction		-	Horizontal multi-stage end suction		-
Hydraulic performance	nominal ESP unit STANDARD			kPa	-	232 (1)		-	149 (1)		-
	Pressure drop unit			kPa	13 (1)	-		34 (1)	-		37 (1)

2 Specifications

2-2 Technical Specifications					EUWYP10KBZW1	EUWYB10KBZW1	EUWYN12KBZW1	EUWYP12KBZW1	EUWYB12KBZW1	EUWYN16KBZW1	EUWYP16KBZW1
Cooling capacity	Nom.			kW	21.5 (1)		24.8 (1)	25.4 (1)		34.1 (1)	35.0 (1)
Heating capacity	Nom.			kW	23.3 (2)		27.2 (2)	26.0 (2)		37.1 (2)	35.7 (2)
Capacity steps				%	0-100					0-50-100	
Power input	Cooling	Nom.		kW	8.69 (1)		11.5 (1)			14.9 (1)	15.2 (1)
	Heating	Nom.		kW	8.98 (2)		10.9 (2)	10.4 (2)		14.2 (2)	14.0 (2)
EER					2.47 (1)		2.16 (1)	2.21 (1)		2.29 (1)	2.30 (1)
COP					2.59 (2)		2.50 (2)			2.61 (2)	2.55 (2)
Casing	Material				Polyester coated galvanised steel plate						
Dimensions	Unit	Height		mm	1,450					1,321	
		Width		mm	1,290					2,580	
		Depth		mm	734						
	Packed unit	Height		mm	1,645					1,745	
		Width		mm	1,380					2,660	
		Depth		mm	830					910	
Weight	Unit			kg	272	284	258	272	284	455	473
	Operation weight			kg	275	343	261	275	343	461	482
	Packed unit			kg	282	294	268	282	294	480	498
Packing	Material				Wood / Plastic foil						
	Weight			kg	10					25	
Water heat exchanger	Type				Brazed plate						
	Quantity				1						
	Water volume			l	1.9		2.375			2.964	
	Water flow rate	Min.		l/min	38		45			61	
		Max.		l/min	137		155			212	
	Nominal water flow	Cooling		l/min	60 (1)		72 (1)			98 (1)	
		Heating		l/min	69 (2)		77 (2)			106 (2)	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	24 (1)		33 (1)			12 (1)	
		Heating	Heat exchanger	kPa	31 (2)		38 (2)			14 (2)	
	Insulation material				Kaiflex						
	Model	Type			AC70X-50HX					AC230X-38HX	
Air heat exchanger	Type				Cross fin coil/Hi-X tubes and PE coated waffle louvre fins						
	Rows	Quantity			2						
	Stages	Quantity			50					40	
	Fin pitch			mm	2						
	Face area			m²	1.970					1.570 + 1.570	
Hydraulic components	Buffer tank	Volume		l	-	55	-		55	-	
	Expansion vessel	Volume		l	12		-	12		-	12
		Pre pressure		bar	1.5		-	1.5		-	1.5
	Water filter	Material			Brass						
Fan	Quantity				2					4	
	Type				Axial						
	Discharge direction				Vertical						
Fan group	Air flow rate	Cooling	Nom.	m³/min	170 (per 2 fans)						
Fan motor	Output			W	190						
	Quantity				1					2	
	Position				Vertical						
	Drive				Direct drive						
Fan motor 2	Output			W	230						
	Quantity				1					2	
Sound power level	Cooling	Nom.		dBA	78					79	

2 Specifications

2-2 Technical Specifications					EUWYP10KBZW1	EUWYB10KBZW1	EUWYN12KBZW1	EUWYP12KBZW1	EUWYB12KBZW1	EUWYN16KBZW1	EUWYP16KBZW1
Compressor	Type				Hermetically sealed scroll compressor						
	Quantity				1					2	
	Model				JT265DA-YE		JT335DA-YE			JT212DA-YE	
	Speed			rpm	2,900						
	Starting method				Direct						
	Crankcase heater			W	50						
Operation range	Water side	Cooling	Min.	°CDB	-10						
			Max.	°CDB	25						
		Heating	Min.	°CDB	35						
			Max.	°CDB	50						
	Air side	Cooling	Min.	°CDB	-15						
			Max.	°CDB	43						
		Heating	Min.	°CDB	-10						
			Max.	°CDB	21						
Refrigerant	Type				R-407C						
	Control				Thermostatic expansion valve						
	Circuits	Quantity			1					2	
Refrigerant circuit	Charge			kg	5.4					5.1	
Water circuit	Piping connections diameter			inch	G 1"1/4 (male)					2" male	
	Piping			inch	1-1/4"					2"	
	Safety valve			bar	3		-	3		-	3
	Manometer				Yes						
	Drain valve / fill valve				Yes, ø15						
	Shut off valve				Yes						
	Total water volume			l	3 (3)	59 (3)	3 (3)	4 (3)	60 (3)	6 (3)	9 (3)
	Minimum water volume in the system			l	100 (4.0)		119 (4.0)			82 (4.0)	
	Air purge valve				Yes						
Refrigerant oil	Type				FVC68D						
	Charged volume			l	2.7						
Safety devices	Item	01			High pressure switch						
		02			Discharge temperature control						
		03			Compressor motor overcurrent relay						
		04			Pump motor overcurrent						
		05			Fan motor thermal protection						
		06			Anti-recycling and guard timer						
		07			Digital display controller with electronic temperature control						
		08			Reverse phase protector						
		09			Fuse						
Pump Standard	Nominal ESP pump	Cooling		kPa	237		-	223		-	302
	Manufacturer				Grundfos		-	Grundfos		-	Grundfos
	Model				CM5-3		-	CM5-3		-	CM10-2
	Quantity				1		-	1		-	1
	Type				Horizontal multi-stage end-suction		-	Horizontal multi-stage end-suction		-	Horizontal multi-stage end-suction
Pump Optional	Efficiency			%	77.4		-	83.2		-	83.2
	Efficiency level				IE2		-	IE2		-	IE2
	Manufacturer				Grundfos		-	Grundfos		-	Grundfos
	Model				CM5-4		-	CM10-3		-	CM10-3
	Quantity				1		-	1		-	1
	Rated speed			rpm	2840-2870		-	2900-2920		-	2900-2920
	Type				Horizontal multi-stage end suction		-	Horizontal multi-stage end suction		-	Horizontal multi-stage end suction
Hydraulic performance	nominal ESP unit STANDARD			kPa	167 (1)		-	123 (1)		-	249
	Pressure drop unit			kPa	-		52 (1)	-		12	-

2 Specifications

2-3 Technical Specifications					EUWYB16KB ZW1	EUWYN20KB ZW1	EUWYP20KB ZW1	EUWYB20KB ZW1	EUWYN24KB ZW1	EUWYP24KB ZW1	EUWYB24KB ZW1
Cooling capacity	Nom.			kW	35.0 (1)	39.8 (1)	40.9 (1)		49.8 (1)	50.9 (1)	
Heating capacity	Nom.			kW	35.7 (2)	46.2 (2)	44.5 (2)		54.2 (2)	52.5 (2)	
Capacity steps				%	0-50-100						
Power input	Cooling	Nom.		kW	15.2 (1)	16.4 (1)	16.6 (1)		22.8 (1)	22.9 (1)	
	Heating	Nom.		kW	14.0 (2)	17.5 (2)	17.1 (2)		21.6 (2)	21.1 (2)	
EER					2.30 (1)	2.43 (1)	2.46 (1)		2.18 (1)	2.22 (1)	
COP					2.55 (2)	2.64 (2)	2.60 (2)		2.51 (2)	2.49 (2)	
Casing	Material				Polyester coated galvanised steel plate						
Dimensions	Unit	Height		mm	1,321	1,541					
		Width		mm	2,580						
		Depth		mm	734						
	Packed unit	Height		mm	1,745						
		Width		mm	2,660						
		Depth		mm	910						
Weight	Unit			kg	485	516	534	546	516	534	546
	Operation weight			kg	550	522	544	612	522	544	612
	Packed unit			kg	510	541	559	571	541	559	571
Packing	Material				Wood / Plastic foil						
	Weight			kg	25						
Water heat exchanger	Type				Brazed plate						
	Quantity				1						
	Water volume			l	2.964	3.9			4.524		
	Water flow rate	Min.		l/min	61	72			89		
		Max.		l/min	212	263			309		
	Nominal water flow	Cooling		l/min	98 (1)	115 (1)			143 (1)		
		Heating		l/min	106 (2)	132 (2)			155 (2)		
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	12 (1)				19 (1)		
		Heating	Heat exchanger	kPa	14 (2)	16 (2)			22 (2)		
	Insulation material				Kaiflex						
	Model	Type			AC230X-38HX	AC230X-50HX			AC230X-58HX		
Air heat exchanger	Type				Cross fin coil/Hi-X tubes and PE coated waffle louvre fins						
	Rows	Quantity			2						
	Stages	Quantity			40	50					
	Fin pitch			mm	2						
	Face area			m²	1.570 + 1.570	1.970+1.970					
Hydraulic components	Buffer tank	Volume		l	55	-		55	-		55
	Expansion vessel	Volume		l	12	-	12		-	12	
		Pre pressure		bar	1.5	-	1.5		-	1.5	
	Water filter	Material			Brass						
Fan	Quantity				4						
	Type				Axial						
	Discharge direction				Vertical						
Fan group	Air flow rate	Cooling	Nom.	m³/min	170 (per 2 fans)						
Fan motor	Output			W	190						
	Quantity				2						
	Position				Vertical						
	Drive				Direct drive						
Fan motor 2	Output			W	230						
	Quantity				2						
Sound power level	Cooling	Nom.		dBA	79	81					

2 Specifications

2-3 Technical Specifications					EUWYB16KBZW1	EUWYN20KBZW1	EUWYP20KBZW1	EUWYB20KBZW1	EUWYN24KBZW1	EUWYP24KBZW1	EUWYB24KBZW1
Compressor	Type				Hermetically sealed scroll compressor						
	Quantity				2						
	Model				JT212DA-YE	JT265DA-YE			JT335DA-YE		
	Speed			rpm	2,900						
	Starting method				Direct						
	Crankcase heater			W	50						
Operation range	Water side	Cooling	Min.	ºCDB	-10						
			Max.	ºCDB	25						
		Heating	Min.	ºCDB	35						
			Max.	ºCDB	50						
	Air side	Cooling	Min.	ºCDB	-15						
			Max.	ºCDB	43						
		Heating	Min.	ºCDB	-10						
			Max.	ºCDB	21						
Refrigerant	Type				R-407C						
	Control				Thermostatic expansion valve						
	Circuits	Quantity			2						
Refrigerant circuit	Charge			kg	5.1	5.4			5.6		
Water circuit	Piping connections diameter			inch	2" male						
	Piping			inch	2"						
	Safety valve			bar	3	-	3		-	3	
	Manometer				Yes						
	Drain valve / fill valve				Yes, ø15						
	Shut off valve				Yes						
	Total water volume			l	65 (3)	6 (3)	10 (3)	66 (3)	6 (3)	10 (3)	66 (3)
	Minimum water volume in the system			l	82 (4.0)	96 (4.0)			119 (4.0)		
	Air purge valve				Yes						
Refrigerant oil	Type				FVC68D						
	Charged volume			l	2.7						
Safety devices	Item	01			High pressure switch						
		02			Discharge temperature control						
		03			Compressor motor overcurrent relay						
		04			Pump motor overcurrent						
		05			Fan motor thermal protection						
		06			Anti-recycling and guard timer						
		07			Digital display controller with electronic temperature control						
		08			Reverse phase protector						
		09			Fuse						
Pump Standard	Nominal ESP pump	Cooling		kPa	302	-	296		-	284	
	Manufacturer				Grundfos	-	Grundfos		-	Grundfos	
	Model				CM10-2	-	CM10-2		-	CM10-2	
	Quantity				1	-	1		-	1	
	Type				Horizontal multi-stage end-suction	-	Horizontal multi-stage end-suction		-	Horizontal multi-stage end-suction	
Pump Optional	Efficiency			%	83.2	-	83.2		-	83.2	
	Efficiency level				IE2	-	IE2		-	IE2	
	Manufacturer				Grundfos	-	Grundfos		-	Grundfos	
	Model				CM10-3	-	CM10-3		-	CM10-3	
	Quantity				1	-	1		-	1	
	Rated speed			rpm	2900-2920	-	2900-2920		-	2900-2920	
	Type				Horizontal multi-stage end suction	-	Horizontal multi-stage end suction		-	Horizontal multi-stage end suction	
Hydraulic performance	nominal ESP unit STANDARD			kPa	249	-	229		-	185	
	Pressure drop unit			kPa	-	19	-		27	-	

2 Specifications

2-4 Electrical Specifications				EUWYN5KBZW1	EUWYP5KBZW1	EUWYB5KBZW1	EUWYN8KBZW1	EUWYP8KBZW1	EUWYB8KBZW1	EUWYN10KBZW1
Compressor	Phase			3~						
	Frequency		Hz	50						
	Voltage		V	400						
	Starting current		A	60.0			95.5			110.0
	Nominal running current (RLA)		A	5.5			10.7			13.0
	Maximum running current		A	9.0			14.0			17.0
	Starting method			Direct on line						
	Crankcase heater		W	33			50			
Power supply	Name			W1						
	Phase			3N~						
	Frequency		Hz	50						
	Voltage		V	400						
	Voltage range	Min.	%	-10						
		Max.	%	10						
Unit	Starting current		A	62.2	63.5		97.9	99.2		113
	Current	Zmax	Text	0.26			0.22			
	Nominal running current (RLA)	Cooling	A	7.7	9.0		13.6	14.9		15.9
	Maximum running current		A	11.2	12.5		16.9	18.2		19.9
	Recommended fuses according to IEC standard 269-2			3 x 20gL/gG			3 x 25gL/gG			
Fans	Phase			1~						
	Voltage		V	230						
	Frequency		Hz	50						
	Maximum running current		A	2.2			2.9			
Control circuit	Phase			1~						
	Frequency		Hz	50						
	Voltage		V	230						
	Recommended fuses			Factory installed						
Wiring connections				See installation manual						
Pump Standard	Phase			-	3~		-	3~		-
	Frequency		Hz	-	50		-	50		-
	Voltage		V	-	400		-	400		-
	Maximum running current		A	-	1.2		-	1.2		-
Pump Optional	Power supply	Phase		-	3		-	3		-
		Frequency	Hz	-	50		-	50		-
		Voltage	V	-	400		-	400		-
	Current	Maximum running current	A	-	1.9		-	1.9		-
	Power output	Rated	kW	-	0.85		-	0.85		-

2-5 Electrical Specifications				EUWYP10KBZW1	EUWYB10KBZW1	EUWYN12KBZW1	EUWYP12KBZW1	EUWYB12KBZW1	EUWYN16KBZW1	EUWYP16KBZW1
Compressor	Phase			3~						
	Frequency		Hz	50						
	Voltage		V	400						
	Starting current		A	110.0		136.0			95.0	
	Nominal running current (RLA)		A	13.0		17.6			10.7	
	Maximum running current		A	17.0		24.0			14.0	
	Starting method			Direct on line						
	Crankcase heater		W	50						
Power supply	Name			W1						
	Phase			3N~						
	Frequency		Hz	50						
	Voltage		V	400						
	Voltage range	Min.	%	-10						
		Max.	%	10						

2 Specifications

2-5 Electrical Specifications				EUWYP10KBZW1	EUWYB10KBZW1	EUWYN12KBZW1	EUWYP12KBZW1	EUWYB12KBZW1	EUWYN16KBZW1	EUWYP16KBZW1
Unit	Starting current		A	114		139	140		97.9	99.9
	Current	Zmax	Text	0.22		0.21				
	Nominal running current (RLA)	Cooling	A	17.2		20.5	21.8		27.2	29.2
	Maximum running current		A	21.2		26.9	28.2		33.8	25.8
	Recommended fuses according to IEC standard 269-2			3 x 32gL/gG			3 x 40gL/gG			3 x 50gL/gG
Fans	Phase			1~						
	Voltage		V	230						
	Frequency		Hz	50						
	Maximum running current		A	2.9					5.8	
Control circuit	Phase			1~						
	Frequency		Hz	50						
	Voltage		V	230						
	Recommended fuses			Factory installed						
Wiring connections				See installation manual						
Pump Standard	Type			-						
	Phase			3~		-	3~		-	3~
	Frequency		Hz	50		-	50		-	50
	Voltage		V	400		-	400		-	400
	Maximum running current		A	1.8		-	1.8		-	3.0
Pump Optional	Power supply	Phase		3		-	3		-	3
		Frequency	Hz	50		-	50		-	50
		Voltage	V	400		-	400		-	400
	Current	Maximum running current	A	1.9		-	4.4		-	4.4
	Power output	Rated	kW	0.85		-	2.2		-	2.2

2-6 Electrical Specifications				EUWYB16KBZW1	EUWYN20KBZW1	EUWYP20KBZW1	EUWYB20KBZW1	EUWYN24KBZW1	EUWYP24KBZW1	EUWYB24KBZW1
Compressor	Phase			3~						
	Frequency		Hz	50						
	Voltage		V	400						
	Starting current		A	95.0	110.0			136.0		
	Nominal running current (RLA)		A	10.7	13.0			17.6		
	Maximum running current		A	14.0	17.0			24.0		
	Starting method			Direct on line						
	Crankcase heater		W	50						
Power supply	Name			W1						
	Phase			3N~						
	Frequency		Hz	50						
	Voltage		V	400						
	Voltage range	Min.	%	-10						
		Max.	%	10						
Unit	Starting current		A	99.9	113	115		139	142	
	Current	Zmax	Text	0.21				0.20		
	Nominal running current (RLA)	Cooling	A	29.2	31.8	33.8		41	43.7	
	Maximum running current		A	25.8	39.8	41.8		53.8	56.5	
	Recommended fuses according to IEC standard 269-2			3 x 50gL/gG				3 x 63gL/gG		
Fans	Phase			1~						
	Voltage		V	230						
	Frequency		Hz	50						
	Maximum running current		A	5.8						
Control circuit	Phase			1~						
	Frequency		Hz	50						
	Voltage		V	230						
	Recommended fuses			Factory installed						

2 Specifications

2-6 Electrical Specifications				EUWYB16KBZW1	EUWYN20KBZW1	EUWYP20KBZW1	EUWYB20KBZW1	EUWYN24KBZW1	EUWYP24KBZW1	EUWYB24KBZW1
Wiring connections				See installation manual						
Pump Standard	Type			-						
	Phase			3~	-	3~		-	3~	
	Frequency		Hz	50	-	50		-	50	
	Voltage		V	400	-	400		-	400	
	Maximum running current		A	3.0	-	3.0		-	3.0	
Pump Optional	Power supply	Phase		3	-	3		-	3	
		Frequency	Hz	50	-	50		-	50	
		Voltage	V	400	-	400		-	400	
	Current	Maximum running current	A	4.4	-	4.4		-	4.4	
	Power output	Rated	kW	2.2	-	2.2		-	2.2	

Notes

(1) Cooling: Ta 35°C - LWE 7°C (DT=5°C), data according EN 14511: 2011

(2) Heating: Ta DB/WB 7°C/6°C - LWC 45°C (DT=5°C), data according EN 14511: 2011

(3) Including piping + PHE + buffer tank (if present); excluding expansion vessel

(4) Including water volume in the unit. In most applications this minimum water volume will have a satisfying result. In critical processes or in rooms with high heat load, extra water volume might be required.

(5) Equipment complying with EN/IEC 61000-3-12

(6) EN/IEC 61000-3-12: European/international technical standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated currents ≤ 75A

3 Options

3 - 1 Options

EUWY-KBZW1

Optional equipment for EUWY-KBZ
Horse Power: 5~24

Modelnumber
EUWY(*)5KBZW1 (on)
EUWY(*)8KBZW1 (on)
EUWY(*)10KBZW1 (on)
EUWY(*)12KBZW1 (on)
EUWY(*)16KBZW1 (on)
EUWY(*)20KBZW1 (on)
EUWY(*)24KBZW1 (on)

Option number	Option description	Decimal code	(on)	Unit size																					Availability
				5KBZW1			8KBZW1			10KBZW1			12KBZW1			16KBZW1			20KBZW1			24KBZW1			
				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 5mmH20)	4	--4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Factory mounted
OP PUMP HIGH	Pump size up	8	--8	–	●	●	–	●	●	–	●	●	–	●	●	–	●	●	–	●	●	–	●	●	Factory mounted
OP10	Evaporator heatertape	16	--G	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Factory mounted
	Available kits																								
EKGAU5/8KA	Gauges kit 5/8 Hp-units			●	●	●	●	●	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Kit
EKGAU10/12KA	Gauges kit 10/12 Hp-units			–	–	–	–	–	–	●	●	●	●	●	●	–	–	–	–	–	–	–	–	–	Kit
EKGAU16KA	Gauges kit 16 Hp-units			–	–	–	–	–	–	–	–	–	–	–	–	●	●	●	–	–	–	–	–	–	Kit
EKGAU20/24KA	Gauges kit 20/24 Hp-units			–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	●	●	●	●	●	Kit
EKSS	Softstarter kit			●	●	●	●	●	●	●	●	●	●	●	●	–	–	–	–	–	–	–	–	–	Kit
EKAC10C (See notes 5 & 6)	Address card for connection to BMS or Remote user interface			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Kit
EKRUMCA (See notes 5 & 6)	Remote installed user interface			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Kit
EKBT	Buffertank 200 l			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Kit
	Example of possible option combinations																								
ESP + OP PUMP HIGH		12	--C																						
ESP + OP10		20	--K																						
ESP + OP10 + OP PUMP HIGH		28	--S																						
OP10 + OP PUMP HIGH		24	--O																						

NOTES

1. ● x = not available yet
   ● = available
   – = not available
   ●-<number> = available and a quantity <number> is necessary / unit
2. Impossible option combination : ZH + ZL
3. (*) = N or P or B
4. (on) = option number
   - 1st digit (on) = sum of 1st digit decimal code and this sommation transferred to a 36 character system
   - 2/3rd digit (on) = sum of 2/3rd digit decimal code and this sommation transferred to a 36 character system
5. To install EKRUMCA => EKAC10C needs to be installed on the unit.
6. EKAC10C : this address card allows direct connection to MODBUS BMS system

3TW60079-5

4 Capacity tables

4 - 1 Cooling Capacity Tables

EUWYN-KBZ

Cooling N-models											
Tamb (°C)		20		25		30		35		40	
LWE [°C]	Model	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
5	5 KZ	9,55	2,85	9,05	3,14	8,65	3,48	8,25	3,79	7,75	4,11
	8 KZ	19,5	5,77	18,2	6,18	16,9	6,75	15,7	7,41	14,4	8,16
	10 KZ	23,6	6,56	22,2	7,12	20,8	7,76	19,4	8,51	18,1	9,35
	12 KZ	28,5	8,53	26,8	9,36	25,0	10,2	23,2	11,2	21,5	12,2
	16 KZ	39,1	11,5	36,5	12,3	33,9	13,4	31,5	14,7	28,9	16,2
	20 KZ	45,2	12,4	42,5	13,5	39,8	14,7	37,2	16,1	34,7	17,7
	24 KZ	57,2	17,0	53,8	18,7	50,2	20,3	46,6	22,3	43,2	24,3
7	5 KZ	10,1	2,86	9,85	3,18	9,45	3,49	9,05	3,82	8,55	4,12
	8 KZ	20,9	5,87	19,6	6,33	18,3	6,87	17,0	7,51	15,7	8,28
	10 KZ	25,0	6,69	23,6	7,25	22,2	7,91	20,8	8,65	19,4	9,49
	12 KZ	30,1	8,70	28,4	9,53	26,6	10,5	24,8	11,5	23,1	12,5
	16 KZ	41,9	11,7	39,3	12,6	36,7	13,7	34,1	14,9	31,5	16,4
	20 KZ	47,8	12,7	45,2	13,8	42,5	15,0	39,8	16,4	37,2	18,0
	24 KZ	60,4	17,4	57,0	19,0	53,4	20,9	49,8	22,8	46,4	24,9
10	5 KZ	11,3	2,89	11,2	3,20	10,7	3,52	10,3	3,84	9,75	4,14
	8 KZ	23,2	6,05	21,8	6,50	20,4	7,05	19,0	7,72	17,7	8,47
	10 KZ	27,1	6,88	25,7	7,44	24,2	8,11	22,8	8,86	21,3	9,70
	12 KZ	32,5	9,14	30,7	9,98	29,0	10,9	27,2	11,9	25,5	12,9
	16 KZ	46,5	12,1	43,7	13,0	40,9	14,1	38,1	15,4	35,5	16,9
	20 KZ	51,8	13,1	49,2	14,2	46,3	15,4	43,6	16,8	40,8	18,4
	24 KZ	65,2	18,3	61,6	20,0	58,2	21,8	54,6	23,6	51,2	25,7
13	5 KZ	11,5	2,90	11,3	3,23	11,0	3,54	10,6	3,85	10,2	4,16
	8 KZ	25,4	6,19	23,9	6,66	22,5	7,20	21,1	7,88	19,6	8,63
	10 KZ	29,2	7,07	27,7	7,64	26,2	8,31	24,8	9,06	23,3	9,90
	12 KZ	34,9	9,47	33,1	10,3	31,4	11,3	29,6	12,2	27,8	13,2
	16 KZ	50,9	12,5	47,9	13,4	45,1	14,4	42,3	15,7	39,3	17,2
	20 KZ	55,8	13,5	53,0	14,6	50,1	15,8	47,5	17,2	44,6	18,8
	24 KZ	70,0	19,0	66,4	20,7	63,0	22,5	59,4	24,4	55,8	26,4
16	5 KZ	11,7	2,94	11,5	3,26	11,2	3,58	10,9	3,90	10,5	4,21
	8 KZ	27,7	6,35	26,2	6,82	24,6	7,39	23,1	8,07	21,6	8,84
	10 KZ	31,3	7,25	29,8	7,82	28,3	8,50	26,8	9,26	25,2	10,1
	12 KZ	37,3	9,89	35,5	10,8	33,8	11,6	32,0	12,7	30,2	13,7
	16 KZ	55,5	12,8	52,5	13,7	49,3	14,8	46,3	16,1	43,3	17,7
	20 KZ	59,8	13,9	57,0	15,0	54,1	16,2	51,3	17,6	48,2	19,2
	24 KZ	74,8	20,0	71,2	21,6	67,8	23,3	64,2	25,3	60,6	27,4
19	5 KZ	11,9	2,97	11,8	3,29	11,6	3,61	11,3	3,93	11,0	4,23
	8 KZ	30,7	6,51	29,0	6,99	27,4	7,59	25,8	8,28	24,2	9,04
	10 KZ	33,4	7,42	31,9	8,00	30,3	8,68	28,8	9,45	27,2	10,3
	12 KZ	39,7	10,21	37,9	11,1	36,1	12,0	34,4	13,0	32,6	14,0
	16 KZ	61,5	13,3	58,1	14,2	54,9	15,3	51,7	16,6	48,5	18,1
	20 KZ	63,8	14,3	61,0	15,4	57,9	16,6	55,1	18,0	52,0	19,6
	24 KZ	79,6	20,7	76,0	22,3	72,4	24,2	69,0	26,1	65,4	28,1

CONDITIONS

1. Cooling capacity
Capacity is according to EN14511:2011 and valid for chilled water range Dt = 3 - 8°C

2. Heating capacity
Capacity is according to EN14511:2011 and valid for chilled water range Dt = 3 - 8°C

3. Power input (kW)
Power input is total input according to EN14511:2011

SYMBOLS

CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
LWC : Leaving Water Condensor temperature (°C)
Tamb : Ambient temperature (°C)
Tamb : Ambient temperature dry bulb [°CDB]

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4 Capacity tables

4 - 1 Cooling Capacity Tables

EUWYP/B-KBZ

Cooling P/B-models											
Tamb (°C)		20		25		30		35		40	
LWE [°C]	Model	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
5	5 KZ	9,92	2,94	9,42	3,24	9,02	3,57	8,62	3,88	8,12	4,20
	8 KZ	20,0	5,73	18,7	6,14	17,4	6,71	16,2	7,37	14,9	8,12
	10 KZ	24,3	6,59	22,9	7,15	21,5	7,80	20,1	8,54	18,8	9,38
	12 KZ	29,1	8,5	27,4	9,4	25,6	10,2	23,8	11,2	22,1	12,2
	16 KZ	40,0	11,7	37,4	12,5	34,8	13,7	32,4	15,0	29,8	16,5
	20 KZ	46,2	12,6	43,5	13,7	40,9	14,9	38,2	16,3	35,7	17,9
	24 KZ	58,3	17,1	54,9	18,7	51,3	20,4	47,7	22,4	44,3	24,4
7	5 KZ	10,4	2,96	10,22	3,27	9,82	3,59	9,42	3,91	8,92	4,21
	8 KZ	21,4	5,83	20,1	6,29	18,8	6,83	17,5	7,47	16,2	8,24
	10 KZ	25,7	6,72	24,3	7,28	22,9	7,94	21,5	8,69	20,1	9,52
	12 KZ	30,7	8,7	29,0	9,5	27,2	10,5	25,4	11,5	23,7	12,5
	16 KZ	42,8	12,0	40,2	12,9	37,6	13,9	35,0	15,2	32,4	16,7
	20 KZ	48,9	12,9	46,2	13,9	43,5	15,2	40,9	16,6	38,2	18,1
	24 KZ	61,5	17,5	58,1	19,1	54,5	20,9	50,9	22,9	47,5	25,0
10	5 KZ	11,6	2,98	11,5	3,30	11,0	3,61	10,6	3,93	10,12	4,24
	8 KZ	23,7	6,01	22,3	6,46	20,9	7,01	19,5	7,68	18,2	8,43
	10 KZ	27,8	6,91	26,4	7,48	24,9	8,14	23,5	8,89	22,0	9,73
	12 KZ	33,1	9,1	31,3	10,0	29,6	10,9	27,8	11,9	26,1	12,9
	16 KZ	47,4	12,4	44,6	13,3	41,8	14,3	39,0	15,6	36,4	17,1
	20 KZ	52,9	13,3	50,2	14,3	47,4	15,6	44,7	17,0	41,8	18,6
	24 KZ	66,3	18,4	62,7	20,0	59,3	21,9	55,7	23,7	52,3	25,8
13	5 KZ	11,8	3,00	11,6	3,32	11,3	3,63	10,9	3,95	10,5	4,25
	8 KZ	25,9	6,15	24,4	6,62	23,0	7,16	21,6	7,84	20,1	8,59
	10 KZ	29,9	7,10	28,4	7,67	26,9	8,34	25,5	9,09	24,0	9,93
	12 KZ	35,5	9,5	33,7	10,3	32,0	11,3	30,2	12,2	28,4	13,2
	16 KZ	51,8	12,7	48,8	13,6	46,0	14,7	43,2	16,0	40,2	17,5
	20 KZ	56,9	13,7	54,0	14,7	51,2	16,0	48,5	17,4	45,6	19,0
	24 KZ	71,1	19,1	67,5	20,8	64,1	22,6	60,5	24,5	56,9	26,5
16	5 KZ	12,0	3,03	11,8	3,35	11,5	3,68	11,2	3,99	10,8	4,30
	8 KZ	28,2	6,31	26,7	6,78	25,1	7,35	23,6	8,03	22,1	8,80
	10 KZ	32,0	7,28	30,5	7,86	29,0	8,53	27,5	9,29	25,9	10,1
	12 KZ	37,9	9,9	36,1	10,8	34,4	11,6	32,6	12,7	30,8	13,7
	16 KZ	56,4	13,1	53,4	14,0	50,2	15,1	47,2	16,4	44,2	17,9
	20 KZ	60,9	14,1	58,0	15,1	55,2	16,4	52,3	17,8	49,3	19,4
	24 KZ	75,9	20,0	72,3	21,7	68,9	23,4	65,3	25,4	61,7	27,5
19	5 KZ	12,2	3,06	12,1	3,38	11,9	3,70	11,6	4,02	11,3	4,32
	8 KZ	31,2	6,47	29,5	6,95	27,9	7,55	26,3	8,24	24,7	9,00
	10 KZ	34,1	7,46	32,6	8,04	31,0	8,72	29,5	9,48	27,9	10,3
	12 KZ	40,3	10,2	38,5	11,1	36,7	12,0	35,0	13,0	33,2	14,0
	16 KZ	62,4	13,5	59,0	14,4	55,8	15,6	52,6	16,9	49,4	18,4
	20 KZ	64,9	14,5	62,0	15,5	59,0	16,8	56,1	18,2	53,1	19,8
	24 KZ	80,7	20,7	77,1	22,4	73,5	24,3	70,1	26,1	66,5	28,2

CONDITIONS

1. Cooling capacity
Capacity is according to EN14511:2011 and valid for chilled water range Dt = 3 - 8°C

2. Heating capacity
Capacity is according to EN14511:2011 and valid for chilled water range Dt = 3 - 8°C

3. Power input (kW)
Power input is total input according to EN14511:2011

SYMBOLS

CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator temperature (°C)
LWC : Leaving Water Condensor temperature (°C)
Tamb : Ambient temperature (°C)
Tamb : Ambient temperature dry bulb [°CDB]

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4 Capacity tables

4 - 1 Cooling Capacity Tables

EUWY*-KBZ

N-models

Tamb (°C)		20		25		30		35		40	
LWE [°C]	Model	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
-10	5 KZ	5,80	2,69	5,30	3,01	4,90	3,33	4,50	3,65		
	8 KZ	9,97	4,75	8,54	5,19	7,11	5,74	6,62	6,47		
	10 KZ	13,1	5,53	11,7	6,07	10,3	6,63	8,94	7,37		
	12 KZ	16,5	7,19	14,8	8,00	13,0	8,66	11,2	9,67		
	16 KZ	20,0	9,48	17,1	10,4	14,3	11,5	13,3	12,9		
	20 KZ	25,2	10,4	22,5	11,4	19,8	12,5	17,2	13,9		
	24 KZ	33,2	14,2	29,8	15,8	26,2	15,9	22,6	17,9		
-7	5 KZ	6,55	2,72	6,05	3,04	5,65	3,36	5,25	3,68	4,75	4,07
	8 KZ	11,2	4,94	9,86	5,39	8,56	5,93	7,96	6,65	7,46	7,35
	10 KZ	15,2	5,74	13,8	6,29	12,4	6,86	11,0	7,60	10,3	8,49
	12 KZ	18,9	7,47	17,2	8,29	15,4	8,95	13,6	10,0	11,9	11,0
	16 KZ	22,4	9,87	19,8	10,8	17,2	11,8	16,0	13,3	13,4	14,7
	20 KZ	29,2	10,8	26,5	11,9	23,8	12,9	21,2	14,3	19,8	16,0
	24 KZ	38,0	14,8	34,6	16,4	31,0	16,8	27,4	18,8	24,0	20,8
-4	5 KZ	7,30	2,75	6,80	3,07	6,40	3,39	6,00	3,71	5,50	4,09
	8 KZ	13,3	5,12	12,0	5,57	10,7	6,12	9,9	6,82	8,61	7,54
	10 KZ	17,3	5,95	15,9	6,50	14,5	7,09	13,1	7,83	12,3	8,71
	12 KZ	21,3	7,75	19,6	8,56	17,8	9,23	16,0	10,2	14,3	11,3
	16 KZ	26,6	10,2	24,0	11,1	21,4	12,2	19,9	13,6	17,3	15,1
	20 KZ	33,2	11,2	30,5	12,3	27,8	13,4	25,2	14,8	23,6	16,5
	24 KZ	42,8	15,3	39,4	17,0	35,8	17,7	32,2	19,7	28,8	21,7
-1	5 KZ	8,05	2,78	7,55	3,10	7,15	3,42	6,75	3,74	6,25	4,10
	8 KZ	15,4	5,30	14,1	5,75	12,8	6,30	11,9	7,00	10,6	7,73
	10 KZ	19,4	6,16	18,0	6,71	16,6	7,32	15,2	8,06	14,2	8,93
	12 KZ	23,7	8,01	22,0	8,84	20,2	9,51	18,4	10,5	16,7	11,5
	16 KZ	30,8	10,6	28,2	11,5	25,6	12,6	23,8	14,0	21,2	15,5
	20 KZ	37,2	11,6	34,5	12,7	31,8	13,8	29,2	15,2	27,3	16,9
	24 KZ	47,6	15,9	44,2	17,5	40,6	18,6	37,0	20,6	33,6	22,6
2	5 KZ	8,80	2,80	8,30	3,12	7,90	3,45	7,50	3,77	7,00	4,11
	8 KZ	17,5	5,47	16,2	5,93	14,9	6,48	13,8	7,16	12,5	7,92
	10 KZ	21,5	6,36	20,1	6,91	18,7	7,54	17,3	8,29	16,2	9,14
	12 KZ	26,1	8,28	24,4	9,10	22,6	9,78	20,8	10,8	19,1	11,8
	16 KZ	35,0	11,0	32,4	11,9	29,8	13,0	27,7	14,3	25,1	15,8
	20 KZ	41,2	12,0	38,5	13,1	35,8	14,3	33,2	15,7	31,0	17,3
	24 KZ	52,4	16,5	49,0	18,1	45,4	19,4	41,8	21,4	38,4	23,5

P/B-models

Tamb (°C)		20		25		30		35		40	
LWE [°C]	Model	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
-10	5 KZ	6,17	2,78	5,67	3,11	5,27	3,43	4,87	3,75		
	8 KZ	10,4	4,81	8,95	5,25	7,52	5,79	7,02	6,53		
	10 KZ	13,8	5,56	12,4	6,11	11,0	6,67	9,55	7,40		
	12 KZ	17,1	7,19	15,4	8,00	13,6	8,66	11,8	9,67		
	16 KZ	20,9	9,80	18,0	10,7	15,1	11,8	14,1	13,2		
	20 KZ	26,2	10,6	23,5	11,6	20,9	12,7	18,2	14,0		
	24 KZ	34,3	14,3	30,9	15,9	27,3	16,0	23,7	18,0		
-7	5 KZ	6,92	2,81	6,42	3,13	6,02	3,46	5,62	3,78	5,12	4,17
	8 KZ	11,6	5,00	10,3	5,44	8,97	5,99	8,37	6,71	7,87	7,41
	10 KZ	15,9	5,77	14,5	6,32	13,1	6,90	11,7	7,63	11,0	8,53
	12 KZ	19,5	7,47	17,8	8,29	16,0	8,95	14,2	10,0	12,5	11,0
	16 KZ	23,2	10,2	20,6	11,1	18,0	12,2	16,8	13,6	14,2	15,0
	20 KZ	30,2	11,0	27,5	12,0	24,9	13,1	22,2	14,5	20,9	16,2
	24 KZ	39,1	14,9	35,7	16,5	32,1	16,9	28,5	18,9	25,1	20,9
-4	5 KZ	7,67	2,84	7,17	3,16	6,77	3,48	6,37	3,80	5,87	4,18
	8 KZ	13,7	5,18	12,4	5,63	11,1	6,17	10,3	6,88	9,02	7,60
	10 KZ	18,0	5,98	16,6	6,53	15,2	7,13	13,8	7,86	12,9	8,74
	12 KZ	21,9	7,75	20,2	8,56	18,4	9,23	16,6	10,2	14,9	11,3
	16 KZ	27,4	10,6	24,8	11,5	22,2	12,5	20,7	14,0	18,1	15,4
	20 KZ	34,2	11,4	31,5	12,4	28,9	13,6	26,2	14,9	24,6	16,6
	24 KZ	43,9	15,4	40,5	17,0	36,9	17,8	33,3	19,8	29,9	21,8
-1	5 KZ	8,42	2,87	7,92	3,19	7,52	3,51	7,12	3,83	6,62	4,19
	8 KZ	15,8	5,35	14,5	5,81	13,2	6,36	12,3	7,05	11,0	7,79
	10 KZ	20,1	6,19	18,7	6,74	17,3	7,35	15,9	8,09	14,9	8,96
	12 KZ	24,3	8,02	22,6	8,84	20,8	9,51	19,0	10,5	17,3	11,5
	16 KZ	31,6	10,9	29,0	11,8	26,4	12,9	24,6	14,3	22,0	15,8
	20 KZ	38,2	11,8	35,5	12,8	32,9	14,0	30,2	15,4	28,3	17,0
	24 KZ	48,7	16,0	45,3	17,6	41,7	18,6	38,1	20,7	34,7	22,7
2	5 KZ	9,17	2,90	8,67	3,22	8,27	3,54	7,87	3,86	7,37	4,21
	8 KZ	17,9	5,53	16,6	5,98	15,3	6,53	14,2	7,22	12,9	7,97
	10 KZ	22,2	6,39	20,8	6,95	19,4	7,58	18,0	8,32	16,8	9,17
	12 KZ	26,7	8,28	25,0	9,10	23,2	9,78	21,4	10,8	19,7	11,8
	16 KZ	35,8	11,3	33,2	12,2	30,6	13,3	28,5	14,6	25,9	16,1
	20 KZ	42,2	12,2	39,5	13,3	36,9	14,4	34,2	15,8	32,0	17,5
	24 KZ	53,5	16,5	50,1	18,2	46,5	19,5	42,9	21,5	39,5	23,5

SYMBOLS

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

CONDITIONS

1. Cooling capacity
Capacity is according to EN14511:2011 and valid for chilled water range Dt = 3 - 8°C

2. Power input
Power input is total input according to EN14511:2011

3TW55172-2A

4 Capacity tables

4 - 2 Heating Capacity Tables

EUWYN-KBZ

Heating N-models															
Tamb (°CDB)		-7		-3		0		3		7		10		13	
LWC [°C]	Model	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
35	5 KZ	8,66	3,50	9,76	3,65	10,7	3,69	11,5	3,74	12,7	3,79	13,5	3,83	14,4	3,87
	8 KZ	13,0	5,92	14,6	5,96	15,9	5,98	17,3	6,00	19,2	6,02	20,7	6,04	22,3	6,05
	10 KZ	15,2	7,44	17,7	7,46	19,6	7,46	21,5	7,47	24,0	7,47	25,9	7,47	27,8	7,47
	12 KZ	17,1	8,82	19,9	8,85	22,0	8,86	24,1	8,86	27,0	8,85	29,1	8,84	31,2	8,82
	16 KZ	25,9	11,7	29,1	11,8	31,7	11,9	34,5	11,9	38,3	12,0	41,3	12,1	44,5	12,1
	20 KZ	28,9	14,1	33,7	14,2	37,3	14,2	41,0	14,3	45,8	14,3	49,4	14,3	53,1	14,3
	24 KZ	34,0	17,5	39,6	17,6	43,8	17,6	48,0	17,6	53,8	17,7	58,0	17,7	62,2	17,7
40	5 KZ	8,36	4,00	9,46	4,07	10,4	4,10	11,2	4,15	12,3	4,20	13,2	4,24	14,1	4,28
	8 KZ	12,7	6,47	14,3	6,51	15,6	6,54	17,0	6,56	18,9	6,59	20,4	6,60	22,0	6,62
	10 KZ	15,3	8,28	17,8	8,29	19,7	8,30	21,6	8,30	24,1	8,31	26,0	8,31	27,9	8,30
	12 KZ	17,2	9,81	20,0	9,84	22,1	9,85	24,3	9,85	27,1	9,84	29,2	9,83	31,3	9,81
	16 KZ	25,3	12,8	28,5	12,9	31,1	13,0	33,9	13,1	37,7	13,1	40,7	13,2	43,9	13,2
	20 KZ	29,1	15,7	33,9	15,8	37,5	15,8	41,2	15,8	46,0	15,9	49,6	15,9	53,2	15,9
	24 KZ	34,2	19,5	39,8	19,6	44,0	19,6	48,4	19,6	54,0	19,7	58,2	19,7	62,4	19,7
45	5 KZ	7,96	4,43	9,16	4,48	9,96	4,53	10,9	4,56	12,0	4,62	12,9	4,66	13,7	4,70
	8 KZ	12,4	7,02	14,0	7,06	15,3	7,09	16,7	7,11	18,6	7,14	20,1	7,16	21,7	7,17
	10 KZ	15,4	9,11	17,9	9,13	19,8	9,13	21,7	9,14	24,2	9,14	26,1	9,14	28,0	9,14
	12 KZ	17,3	10,8	20,1	10,8	22,3	10,8	24,4	10,8	27,2	10,9	29,3	10,9	31,5	10,9
	16 KZ	24,7	13,9	27,9	14,0	30,5	14,1	33,3	14,2	37,1	14,2	40,1	14,3	43,3	14,3
	20 KZ	29,3	17,3	34,1	17,4	37,7	17,4	41,4	17,5	46,2	17,5	49,8	17,5	53,4	17,5
	24 KZ	34,4	21,5	40,0	21,5	44,4	21,6	48,6	21,6	54,2	21,6	58,4	1,6	62,8	21,7
50	5 KZ			8,86	4,89	9,66	4,94	10,6	4,98	11,7	5,04	12,5	5,08	13,4	5,11
	8 KZ			13,7	7,62	15,0	7,65	16,4	7,68	18,3	7,71	19,8	7,71	21,3	7,73
	10 KZ			18,0	9,96	19,9	9,97	21,8	9,97	24,3	9,98	26,2	9,98	28,1	9,96
	12 KZ			20,3	11,8	22,4	11,8	24,5	11,8	27,3	11,8	29,5	11,8	31,6	11,8
	16 KZ			27,3	15,1	29,9	15,2	32,7	15,3	36,5	15,4	39,5	15,4	42,5	15,5
	20 KZ			34,3	19,0	37,9	19,0	41,6	19,0	46,4	19,1	50,0	19,1	53,6	19,1
	24 KZ			40,4	23,5	44,6	23,6	48,8	23,6	54,4	23,6	58,8	23,6	63,0	23,6

NOTES

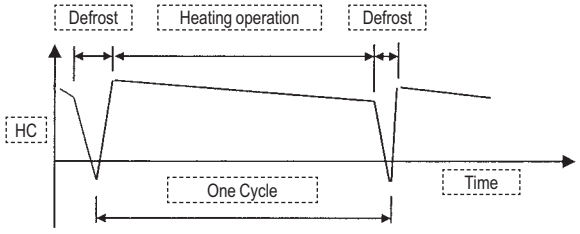
1. The heating capacities tabulated do not include capacity drop during frosting period and defrosting operation.
Namely, the integrated heating capacities in consideration with capacity drop during frosting period and defrosting operation are obtained from the following formular :

Integrated heating capacity = (Capacity tabulated) * (Integrated correction factor during frosting period)

- Integrated heating capacity means the heating capacity during one cycle (between defrosting period and defrosting period), which is integrated and converted to heating capacity per hour.
- Integrated correction factor :

Entering air temp (°C) RH 85%	-7	-5	-3	0	3	5	7
Correction factor	0,85	0,86	0,86	0,87	0,89	0,91	1

- Integrated heating capacity graph :



2. In case the surface of the heat exchanger is covered with snow, heating capacity drops temporarily although it differs with outdoor temperature (°CDB), relative humidity (RH) and frosting volume.

3TW55172-1E

4 Capacity tables

4 - 2 Heating Capacity Tables

EUWYP/B-KBZ

Heating P/B-models															
Tamb (°CDB)		-7		-3		0		3		7		10		13	
LWC [°C]	Model	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
35	5 KZ	8,10	3,40	9,20	3,54	10,1	3,59	10,9	3,63	12,1	3,68	12,9	3,72	13,8	3,76
	8 KZ	12,3	5,66	13,9	5,70	15,2	5,72	16,6	5,74	18,5	5,76	20,0	5,78	21,6	5,79
	10 KZ	14,3	7,28	16,8	7,30	18,7	7,30	20,6	7,31	23,1	7,31	25,0	7,31	26,9	7,31
	12 KZ	15,9	8,32	18,7	8,35	20,8	8,36	22,9	8,36	25,8	8,35	27,9	8,34	30,0	8,33
	16 KZ	24,5	11,5	27,7	11,6	30,3	11,7	33,1	11,7	36,9	11,8	39,9	11,9	43,1	11,9
	20 KZ	27,3	13,7	32,1	13,8	35,7	13,8	39,4	13,8	44,1	13,9	47,8	13,9	51,4	13,9
	24 KZ	32,3	17,0	37,9	17,1	42,1	17,1	46,3	17,1	52,1	17,2	56,3	17,2	60,5	17,2
40	5 KZ	7,80	3,90	8,90	3,96	9,8	4,00	10,6	4,04	11,7	4,09	12,6	4,14	13,5	4,18
	8 KZ	12,0	6,21	13,6	6,25	14,9	6,28	16,3	6,30	18,2	6,33	19,7	6,35	21,3	6,36
	10 KZ	14,4	8,12	16,9	8,13	18,8	8,14	20,7	8,14	23,2	8,15	25,1	8,15	27,0	8,14
	12 KZ	16,0	9,31	18,8	9,34	20,9	9,35	23,1	9,35	25,9	9,34	28,0	9,33	30,1	9,31
	16 KZ	23,9	12,6	27,1	12,7	29,7	12,8	32,5	12,9	36,3	12,9	39,3	13,0	42,5	13,0
	20 KZ	27,5	15,3	32,3	15,4	35,9	15,4	39,5	15,4	44,3	15,5	48,0	15,5	51,6	15,5
	24 KZ	32,5	19,0	38,1	19,0	42,3	19,1	46,7	19,1	52,3	19,1	56,5	19,2	60,7	19,2
45	5 KZ	7,40	4,32	8,60	4,37	9,40	4,42	10,3	4,45	11,4	4,52	12,3	4,55	13,1	4,59
	8 KZ	11,7	6,76	13,3	6,80	14,6	6,83	16,0	6,86	17,9	6,88	19,4	6,90	21,0	6,91
	10 KZ	14,5	8,94	17,0	8,97	18,9	8,97	20,8	8,98	23,3	8,98	25,2	8,98	27,1	8,97
	12 KZ	16,1	10,3	18,9	10,3	21,1	10,3	23,2	10,3	26,0	10,4	28,1	10,4	30,3	10,4
	16 KZ	23,3	13,7	26,5	13,8	29,1	13,9	31,9	14,0	35,7	14,0	38,7	14,1	41,9	14,1
	20 KZ	27,7	16,9	32,5	17,0	36,1	17,0	39,7	17,0	44,5	17,1	48,2	17,1	51,8	17,1
	24 KZ	32,7	21,0	38,3	21,0	42,7	21,1	46,9	21,1	52,5	21,1	56,7	1,1	61,1	21,1
50	5 KZ			8,30	4,79	9,10	4,83	10,0	4,88	11,1	4,93	11,9	4,97	12,8	5,00
	8 KZ			13,0	7,36	14,3	7,39	15,7	7,42	17,6	7,45	19,1	7,45	20,6	7,47
	10 KZ			17,1	9,80	19,0	9,81	20,9	9,81	23,5	9,82	25,3	9,82	27,2	9,80
	12 KZ			19,1	11,3	21,2	11,3	23,3	11,3	26,1	11,3	28,3	11,3	30,4	11,3
	16 KZ			25,9	14,9	28,5	15,0	31,3	15,1	35,1	15,2	38,1	15,2	41,1	15,3
	20 KZ			32,6	18,6	36,3	18,6	39,9	18,6	44,7	18,7	48,4	18,7	52,0	18,7
	24 KZ			38,7	23,0	42,9	23,0	47,1	23,1	52,7	23,1	57,1	23,1	61,3	23,1

NOTES

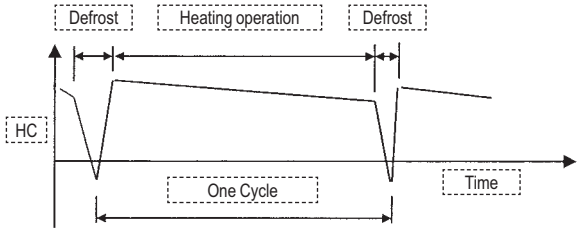
1. The heating capacities tabulated do not include capacity drop during frosting period and defrosting operation.
Namely, the integrated heating capacities in consideration with capacity drop during frosting period and defrosting operation are obtained from the following formular :

Integrated heating capacity = (Capacity tabulated) * (Integrated correction factor during frosting period)

- Integrated heating capacity means the heating capacity during one cycle (between defrosting period and defrosting period), which is integrated and converted to heating capacity per hour.
- Integrated correction factor :

Entering air temp (°C) RH 85%	-7	-5	-3	0	3	5	7
Correction factor	0,85	0,86	0,86	0,87	0,89	0,91	1

- Integrated heating capacity graph :



2. In case the surface of the heat exchanger is covered with snow, heating capacity drops temporarily although it differs with outdoor temperature (°CDB), relative humidity (RH) and frosting volume.

3TW55172-1E

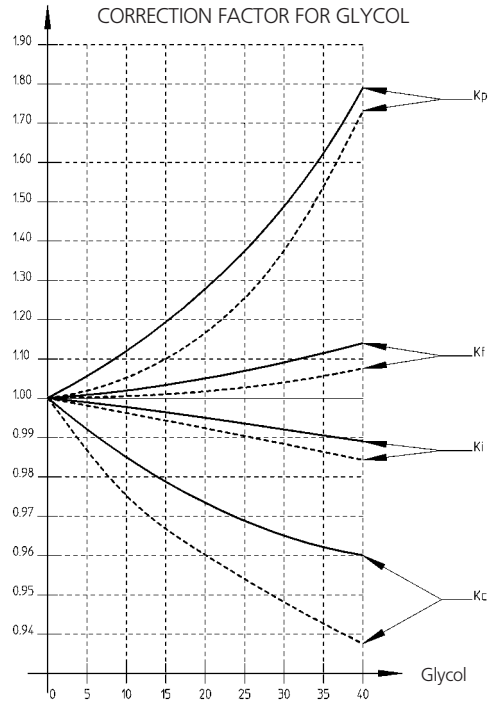
4 Capacity tables

4 - 3 Capacity Correction Factor

EUWY-KBZW1

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

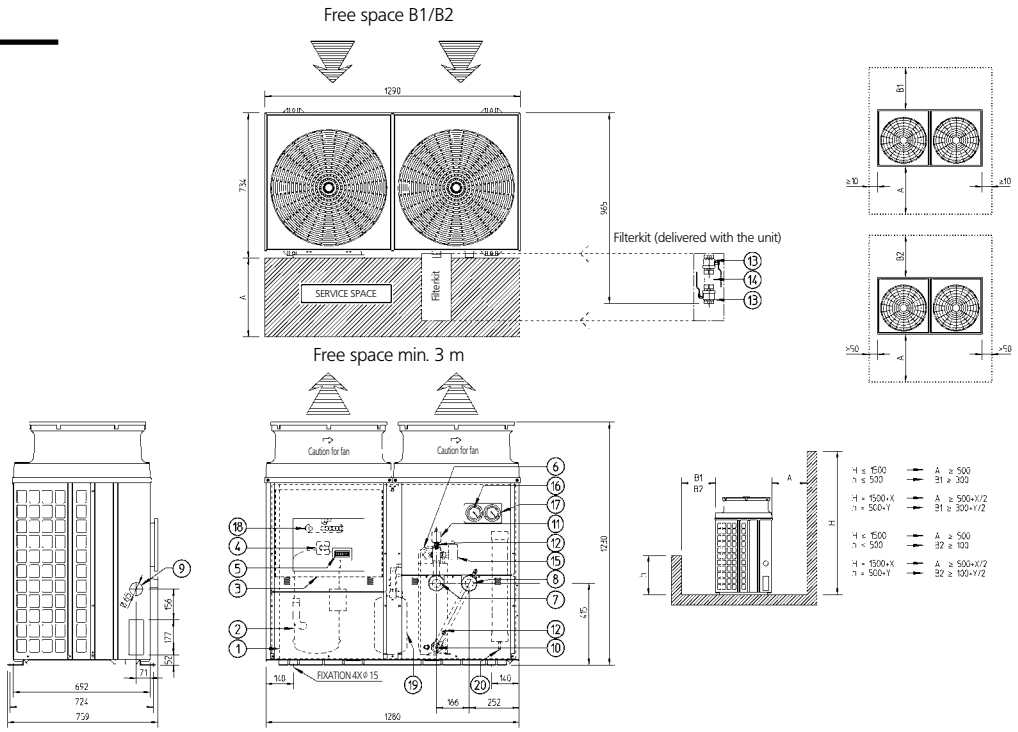
5 Dimensional drawings

5 - 1 Dimensional Drawings

EUWYN5-8KBZW1

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

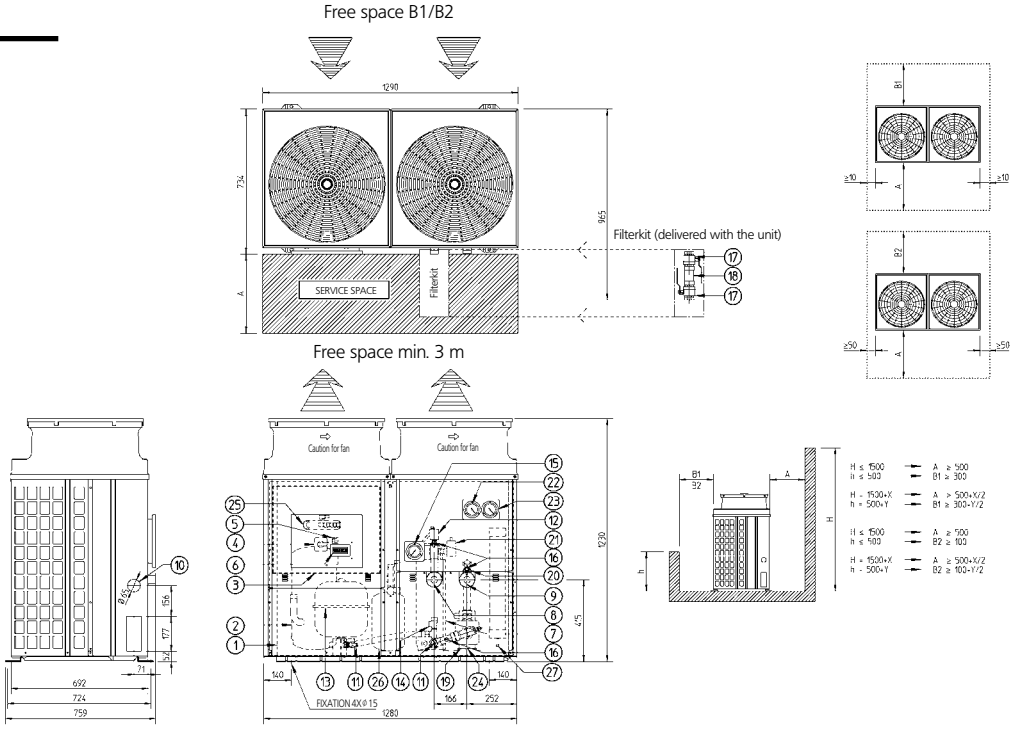


3TW55694-1

EUWYP5-8KBZW1

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



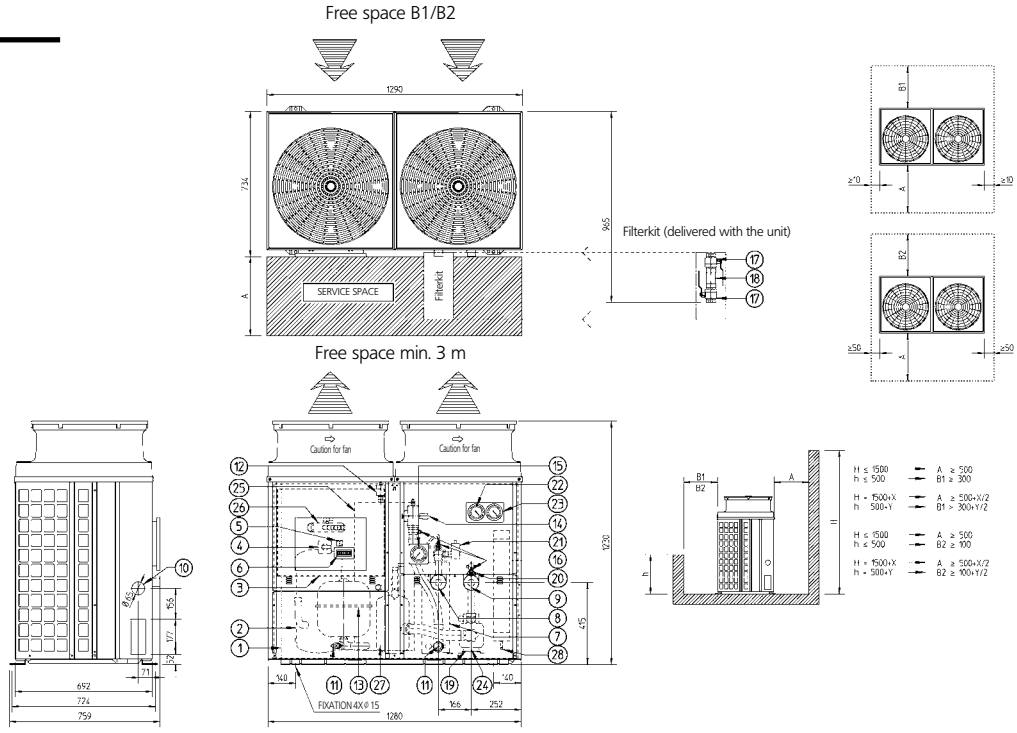
3TW55694-2

5 Dimensional drawings

5 - 1 Dimensional Drawings

EUWYB5-8KBZW1

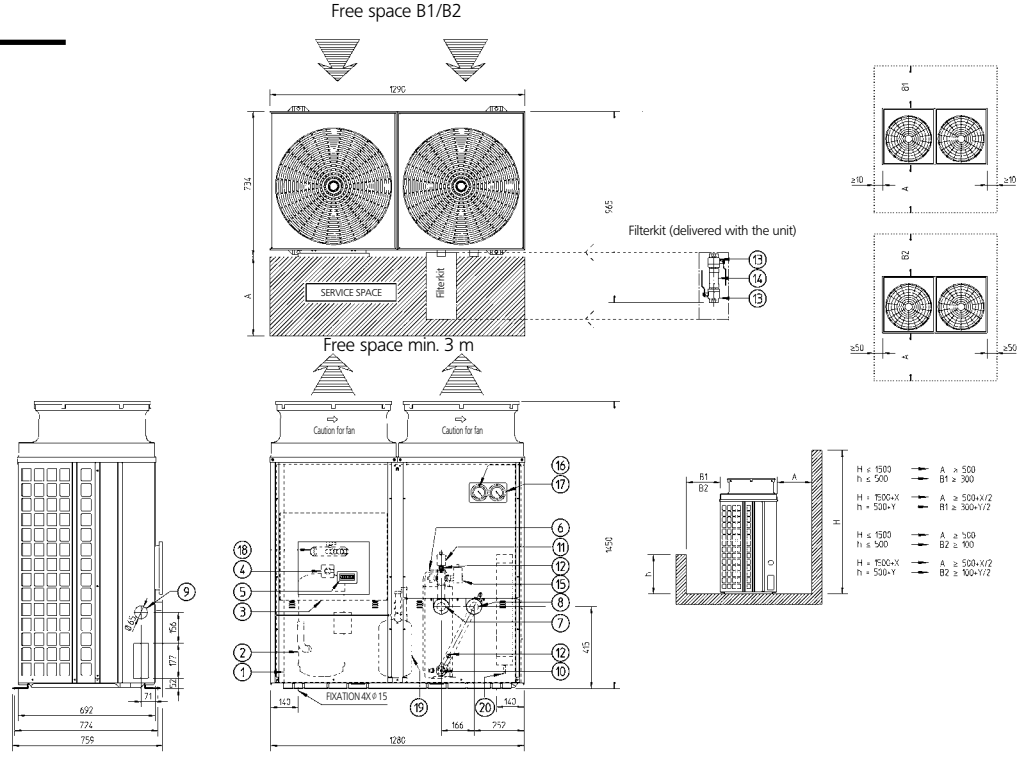
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 1 1/4" M BSP
9 Water OUT connection: 1 1/4" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Manometer (water)
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

EUWYN10-12KBZW1

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



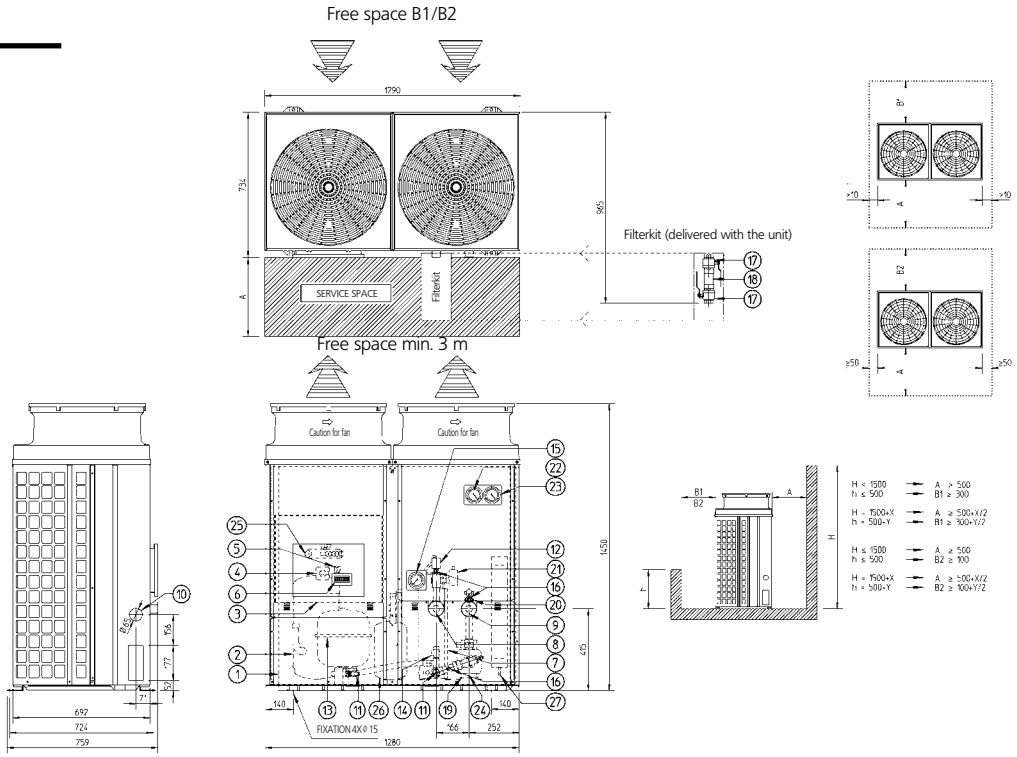
3TW55714-1

5 Dimensional drawings

5 - 1 Dimensional Drawings

EUWYP10-12KBZW1

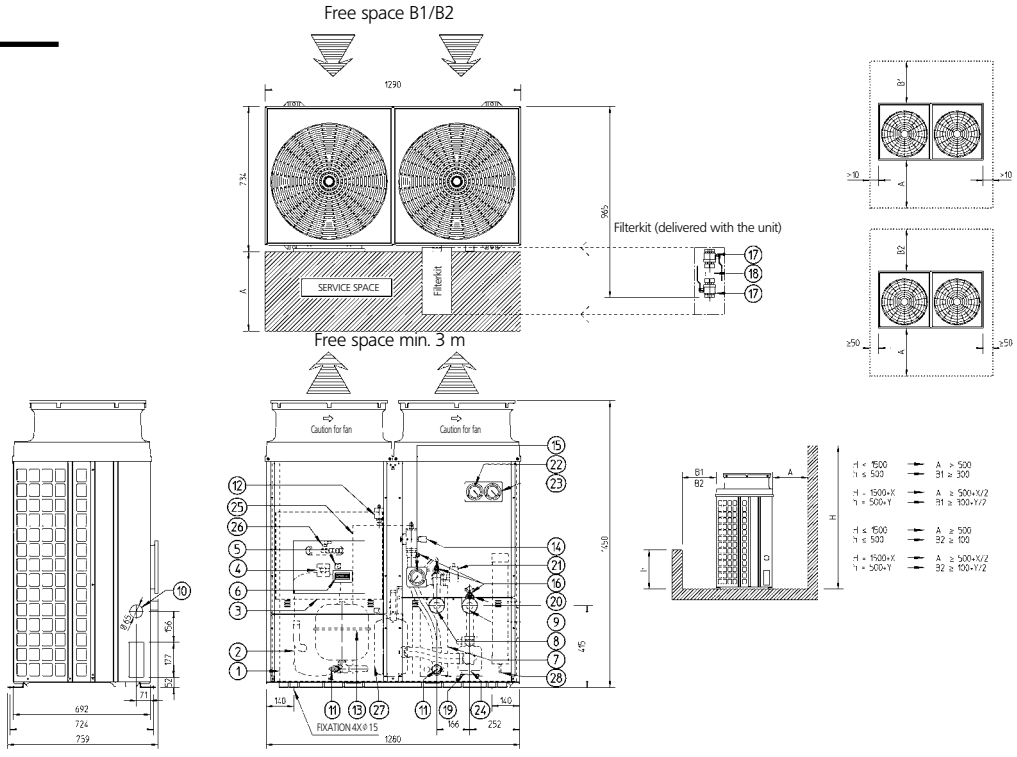
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 1 1/4" M BSP
9 Water OUT connection: 1 1/4" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Manometer (water)
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

EUWYB10-12KBZW1

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



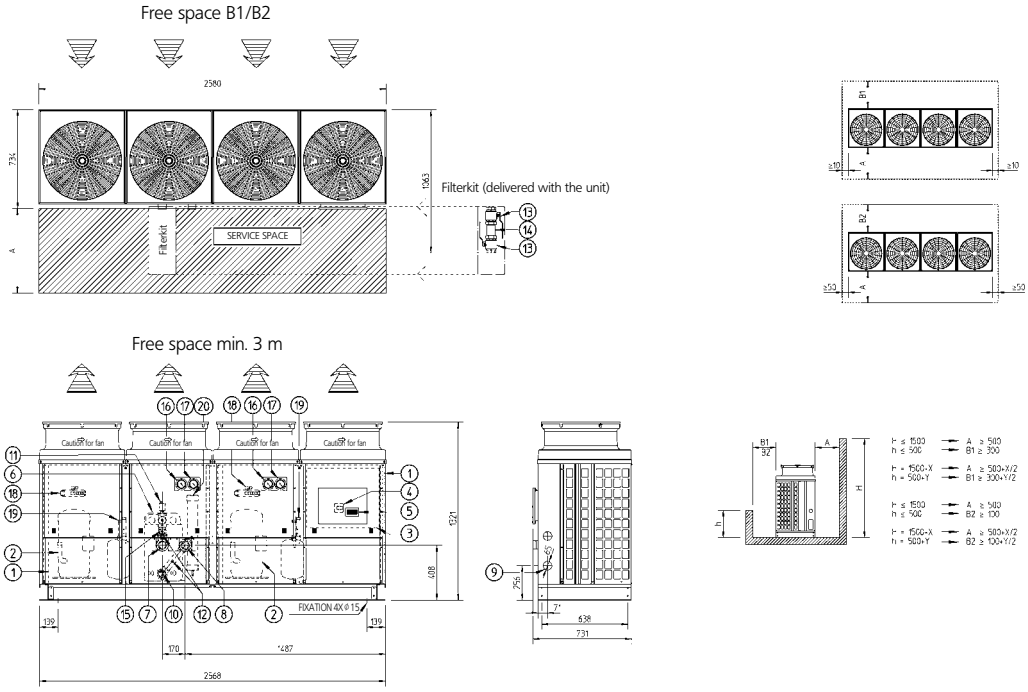
3TW55714-3

5 Dimensional drawings

5 - 1 Dimensional Drawings

EUWYN16KBZW1

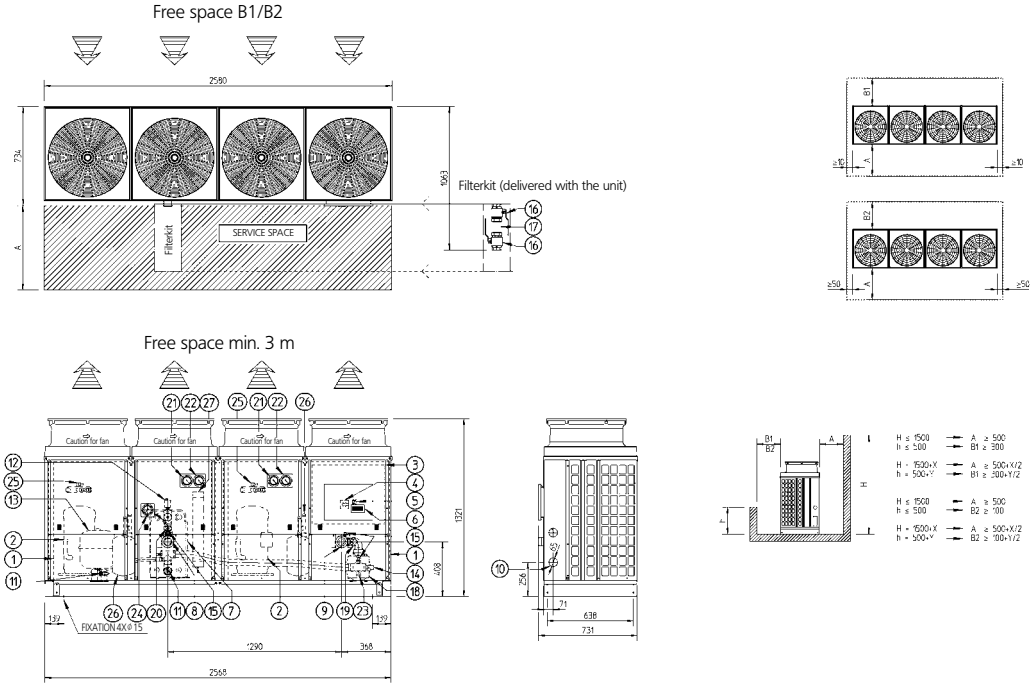
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Digital display controller
6 Water heat exchanger
7 Water IN connection: 2" M BSP
8 Water OUT connection: 2" M BSP
9 Power supply intake
10 Drain
11 Air purge
12 Pressure port
13 Ball valve
14 Water filter
15 Flow switch
16 High pressure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



3TW55734-1

EUWYP16KBZW1

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



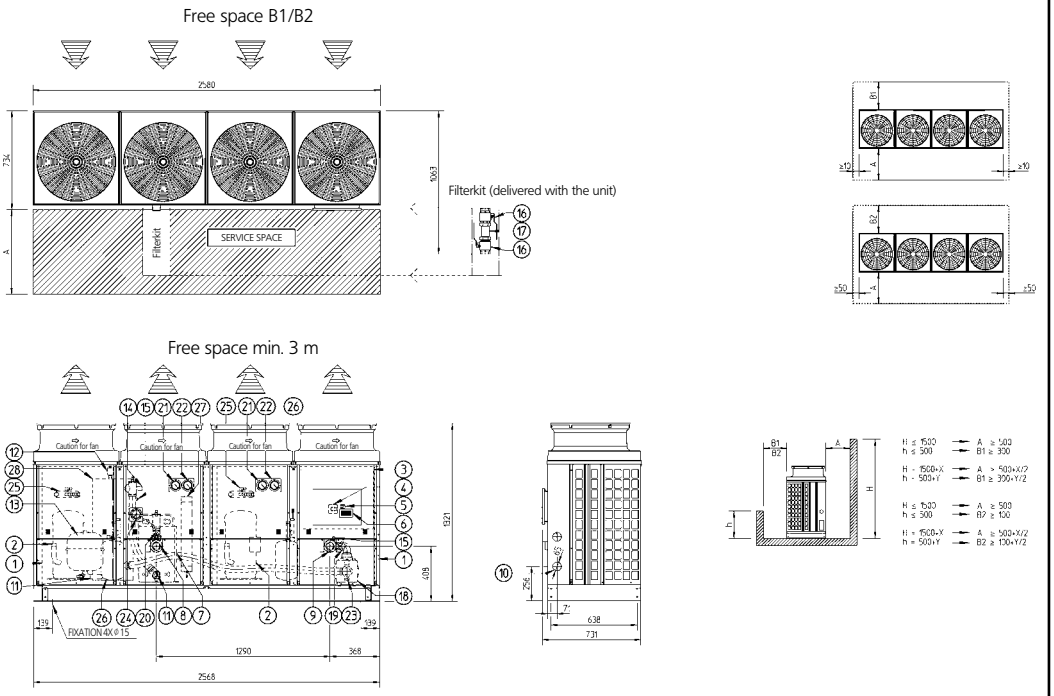
3TW55734-2

5 Dimensional drawings

5 - 1 Dimensional Drawings

EUWYB16KBZW1

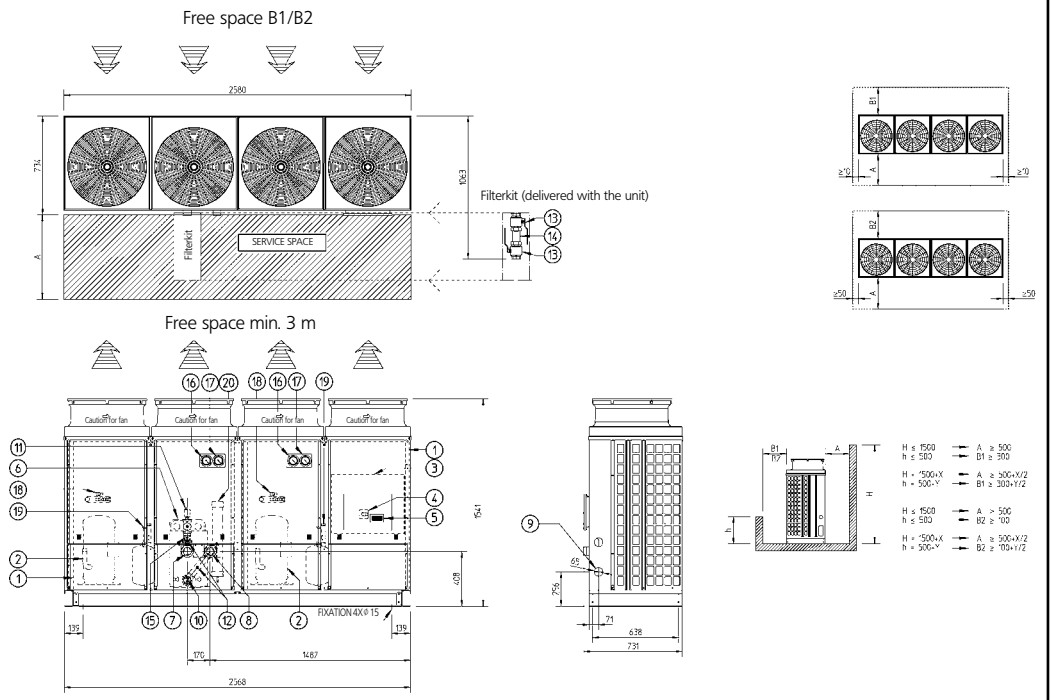
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
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

EUWYN20-24KBZW1

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

5 Dimensional drawings

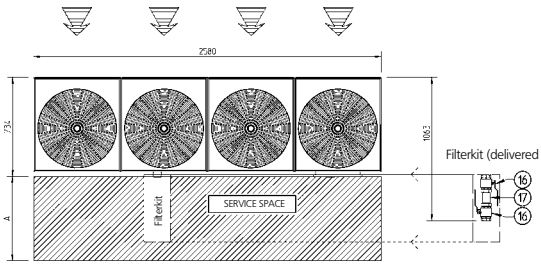
5 - 1 Dimensional Drawings

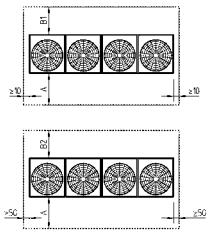
5

EUWYP20-24KBZW1

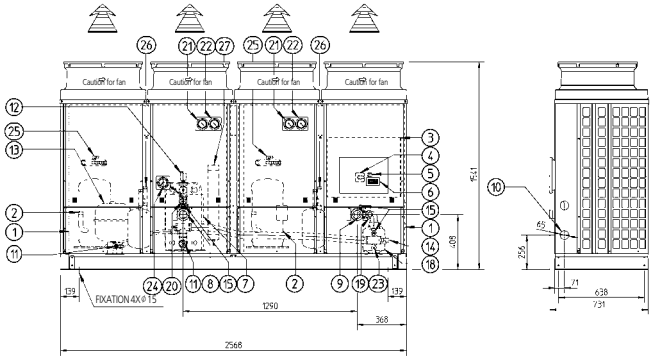
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
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

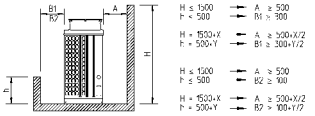
Free space B1/B2





Free space min. 3 m



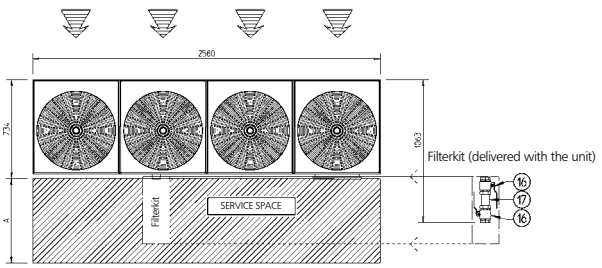


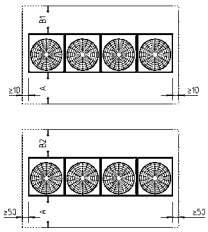
3TW55744-2

EUWYB20-24KBZW1

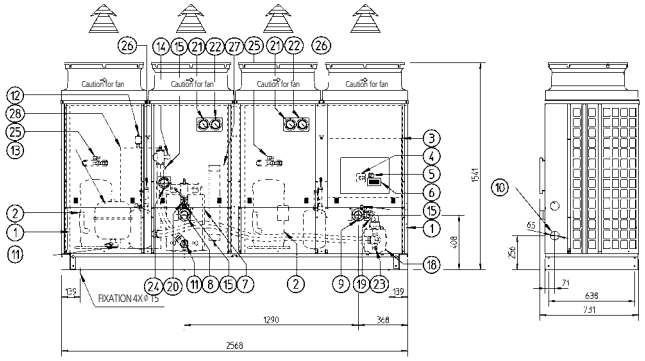
1 Air heat exchanger
2 Compressor
3 Switch box
4 Main switch
5 Pump switch
6 Digital display controller
7 Water heat exchanger
8 Water IN connection: 2" M BSP
9 Water OUT connection: 2" M BSP
10 Power supply intake
11 Drain
12 Air purge
13 Expansion vessel
14 Safety valve
15 Pressure port
16 Ball valve
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

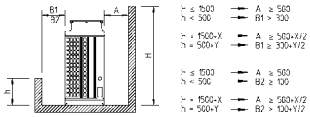
Free space B1/B2





Free space min. 3 m



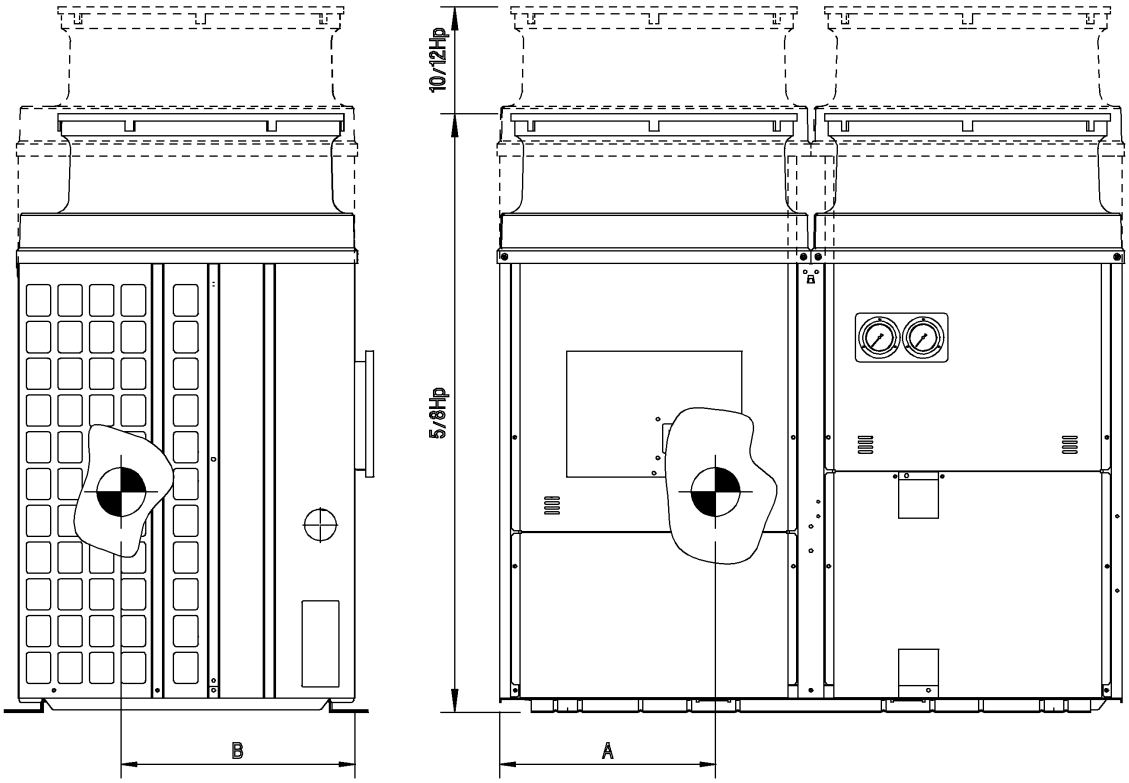


3TW55744-3

6 Centre of gravity

6 - 1 Centre of Gravity

EUWY*5-12KBZW1



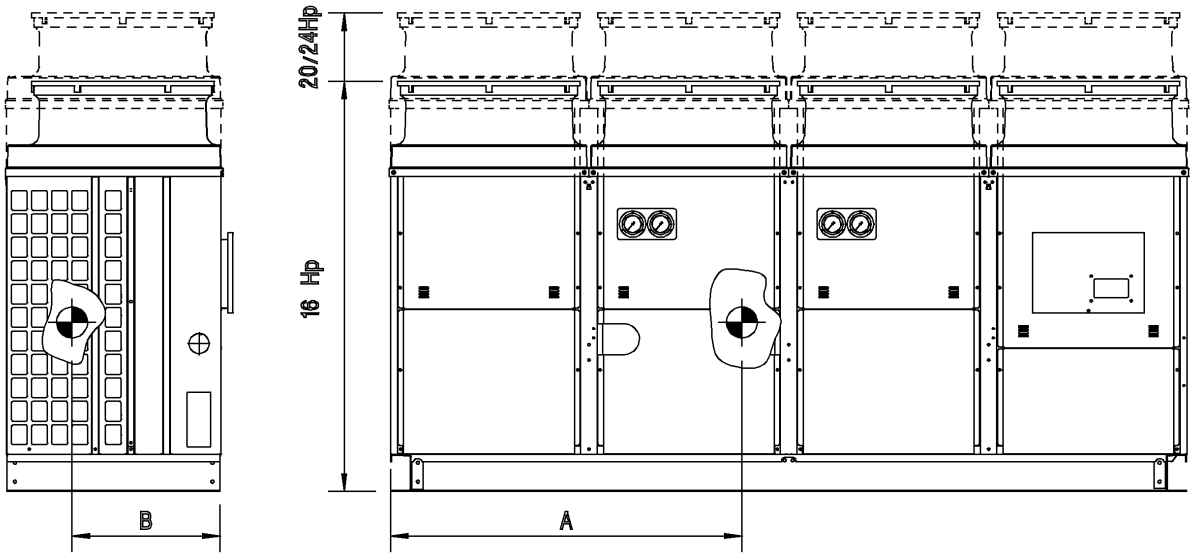
	5Hp		8Hp		10Hp		12Hp	
	A	B	A	B	A	B	A	B
B-Models	520	420	480	420	490	430	490	430
P-Models	510	420	470	420	480	430	490	430
N-Models	480	420	440	430	450	430	460	430

4TW54759-2

6 Centre of gravity

6 - 1 Centre of Gravity

EUWY*16-24KBZW1



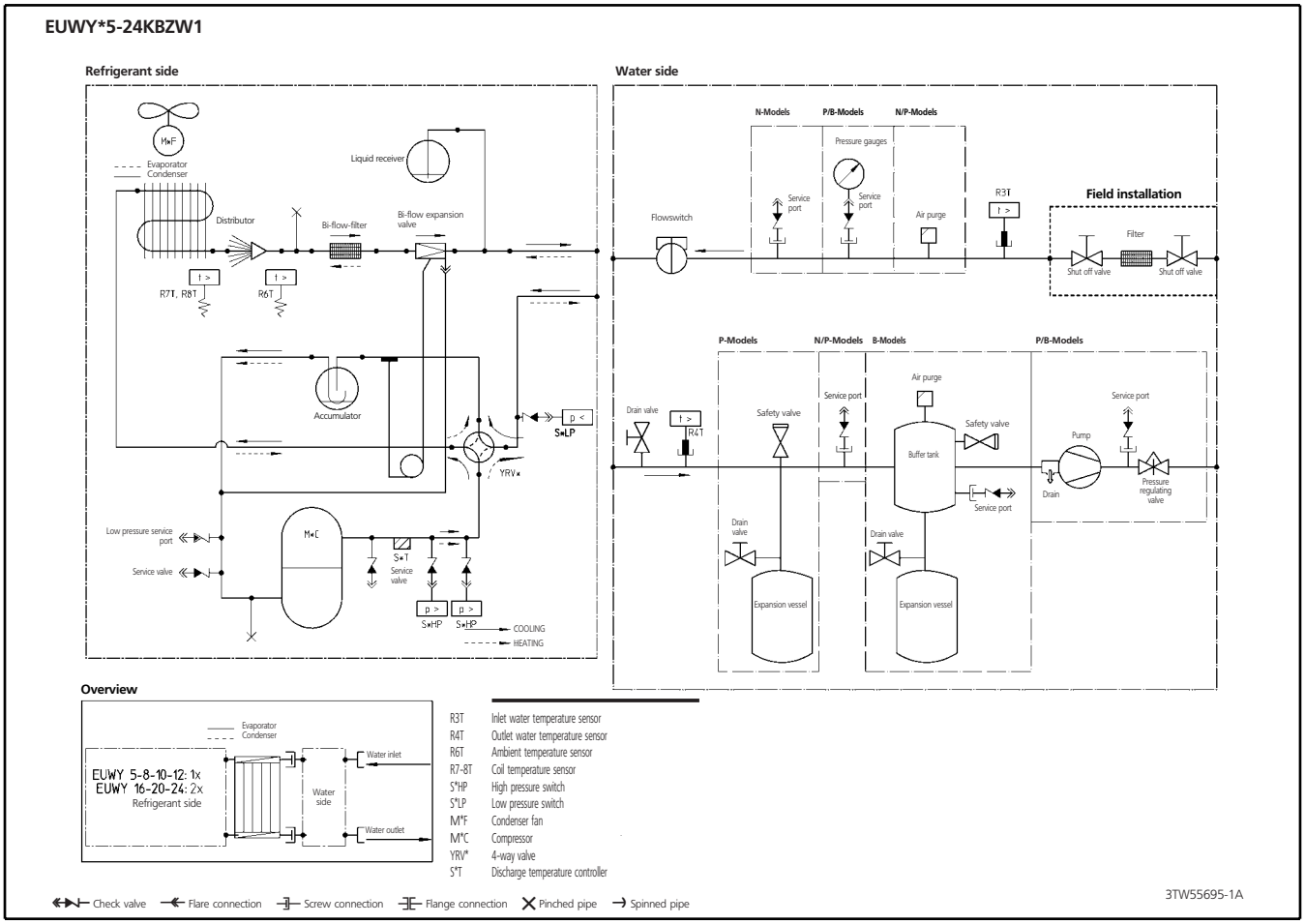
	16Hp		20Hp		24Hp	
	A	B	A	B	A	B
B-Models	1115	435	1120	435	1115	435
P-Models	1145	435	1140	435	1135	435
N-Models	1110	430	1115	435	1110	435

4TW54799-2

7 Piping diagrams

7 - 1 Piping Diagrams

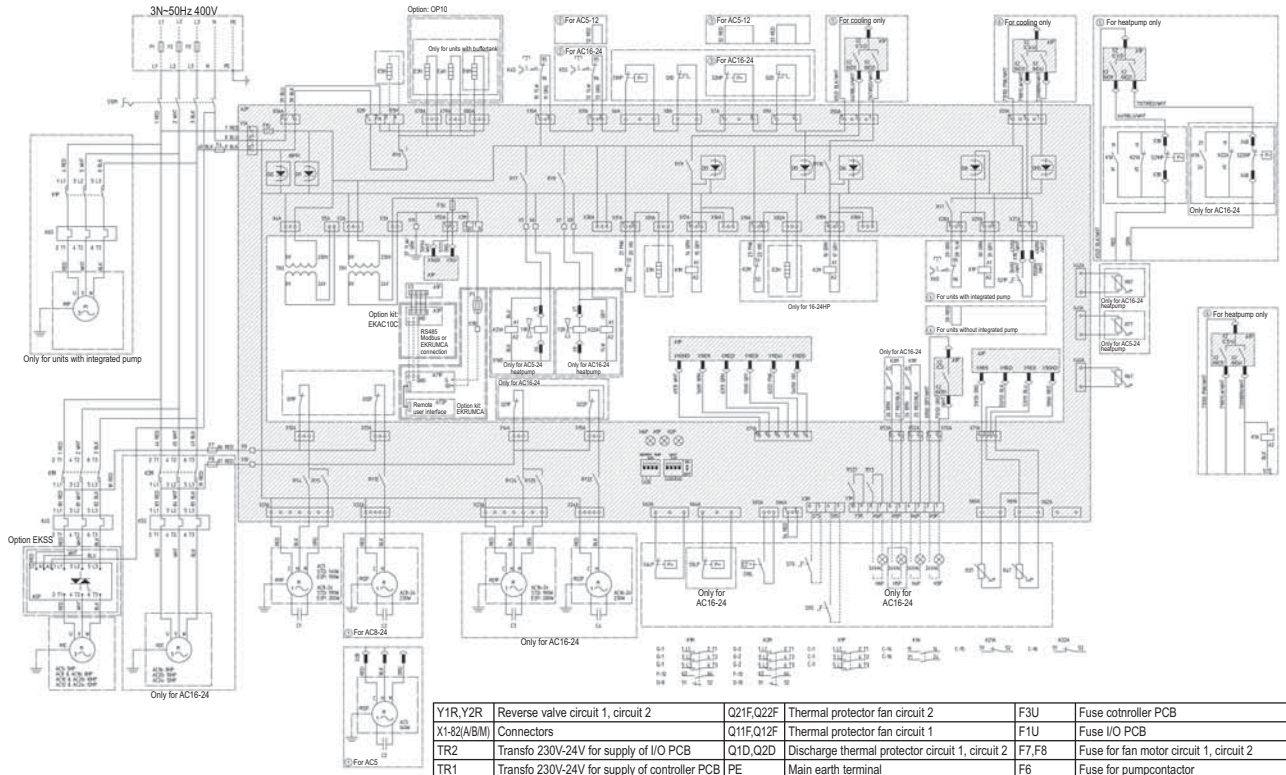
EUWY*5-24KBZW1



8 Wiring diagrams

8 - 1 Wiring Diagrams - Three Phase

EUWA-KBZW1 / EUWY-KBZW1



	Not standard included	
	Not possible as option	Possible as option
Obligatory	#	##
Not obligatory	*	* *

( ) Applicable for unit without integrated pump

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 3 RY27 Reversing valve of water circuit	DIGITAL OUTPUTS (RELAYS) X2 (C1/2-NO1) : Compressor M1C on X2 (C1/2-NO2) : Compressor M2C on X2 (C3/4-NO3) : Voltage free contact for pump X2 (C3/4-NO4) : Reversing valve X2 (C5-NO5) : Alarm voltage free contact
	ANALOG INPUTS X1 (B1-GND) : inlet water t° X1 (B2-GND) : outlet water t° X1 (B3-GND) : none
OTHERS HAP Light emitting diode (service monitor green) H1P,H2P Light emitting diode (service monitor red) S1A Dipswitch (unit setting) S2A Dipswitch (defr. & fan setting)	ANALOG OUTPUTS X1 (Y-GND)

	Units with integrated pump (400V)						
Fuses	5HP	8HP	10HP	12HP	16HP	20HP	24HP
F1,F2,F3 (= gL/gG)	3x20A	3x25A	3x32A	3x40A	3x50A	3x50A	3x63A

	Units without integrated pump (400V)						
Fuses	5HP	8HP	10HP	12HP	16HP	20HP	24HP
F1,F2,F3 (= gL/gG)	3x20A	3x25A	3x25A	3x32A	3x40A	3x50A	3x63A

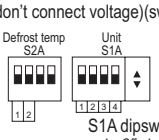
	All models (400V)						
Fuses + overcurrent	5HP	8HP	10HP	12HP	16HP	20HP	24HP
F4	8A	8A	8A	8A	8A	8A	8A
F5	250mAT	250mAT	250mAT	250mAT	250mAT	250mAT	250mAT
F7,8	5A	5A	5A	5A	5A	5A	5A
F1U	5A	5A	5A	5A	5A	5A	5A
F3U	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT
K4S	9A	14A	17A	24A	14A	17A	24A
K5S	– –	– –	– –	– –	14A	17A	24A
K6S (st. pump or OPZH/ZL)	1.2A	1.2A	1.8A	1.8A	3A	3A	3A
K6S (op. pump or +OPZH/ZL)	1.9A	1.9A	1.9A	4.4A	4.4A	4.4A	4.4A

Y1R,Y2R	Reverse valve circuit 1, circuit 2	Q21F,Q22F	Thermal protector fan circuit 2	F3U	Fuse cotnroller PCB
X1-82(A/B/M)	Connectors	Q11F,Q12F	Thermal protector fan circuit 1	F1U	Fuse I/O PCB
TR2	Transfo 230V-24V for supply of I/O PCB	Q1D,Q2D	Discharge thermal protector circuit 1, circuit 2	F7,F8	Fuse for fan motor circuit 1, circuit 2
TR1	Transfo 230V-24V for supply of controller PCB	PE	Main earth terminal	F6	Fuse for pumpcontactor
S21P	Switch for pump: Manual/Auto	M1P	Pump motor	F5	Surge proof fuse
S12M	Main isolator switch	M11F,M12F	Fan motors circuit 1	F4	Fuse I/O PCB & evaporator heatertape
S10L	Flowswitch	M21F,M22F	Fan motors circuit 2	F1,F2,F3	Main fuses for the unit
S9S	Switch for remote start/stop or dual setpoint	M1C,M2C	Compressor motor circuit 1, circuit 2	E6H	Buffertank (55l) heater
S7S	Switch for remote cooling/heating selection or dual setpoint	K1P	Pumpcontactor	E5H	Field heater
		K6S	Overcurrent relay pump	E3H,E4H	Evaporator heatertape
S4LP,S5LP	Low pressure switch circuit 1, circuit 2	K4S,K5S	Overcurrent relay circuit 1, circuit 2	E1H,E2H	Crankcase heater circuit 1, circuit 2
S1HP,S2HP	High pressure switch circuit 1, circuit 2	K1M, K2M	Compressor contactor circuit 1, circuit 2	C1,C2,C3,C4	Capacitors for fanmotors
S21HP,S22HP	High pressure switch during defrost circuit 1, circuit 2	K1A	Auxiliary bypass relay	A71P	PCB: Power supply card
		K21A,K22A	Auxiliary bypass relay	A72P	PCB: Remote user interface
R7T,R8T	Coil temperature sensor for circuit 1, circuit 2	H6P	Indication lamp general operation	A5P	PCB: Softstarter for circuit 1
R6T	Ambient temperature sensor	H5P	Indication lamp operation compressor 2	A3P	PCB: Address card
R4T	Evaporator outlet water temperature sensor	H4P	Indication lamp operation compressor 1	A2P	PCB: I/O PCB
R3T	Evaporator inlet water temperature sensor	H3P	Indication lamp alarm	A1P	PCB: Controller PCB

1TW60006-1

NOTES

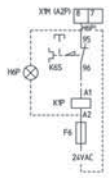
1. [1] : Terminal 1, ~ : Wire 2, – – – : Field wiring to be in accordance with the local electrical regulations, –·– : Earth wiring, ▭ : Option, ▨ : PCB, ▭ : outside switchbox
2. If compressor rotates reversely, it may be damaged
3. Optional:
   - OP10 = Evaporator heatertape
   - EKAC10C = Address card kit for Modbus or remote user interface connection
   - EKSS = softstart
   - OP PUMP high = High head pressure pump
   - EKRUMCA = Remote user interface
4. Terminals for fieldwiring
   X1M: H3-6P: output terminal for fieldwiring (voltage free contact max 2A / output)
   X2M: E5H: fieldheater (max 500W reistive / 230VAC / 50Hz)
   X3M: S7S,S9S: Input terminal for fieldwiring (don't connect voltage)(switch load 6mA / 30VDC)
5. Y1R, Y2R are activated in cooling mode
   S7S open = heating
   S7S closed = cooling
6. Dipswitch 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 (5, 8, 10, 12, 16, 20, 24Hp)
2 > Off= fansetting 1 (5, 8, 16Hp)
On= fansetting 2 (10, 12, 20, 24Hp)

S1A dipswitch: Unit setting
1 > Off= 1 circuit
On= 2 circuit
234 > Off Off Off = WC CO & WC CL CO
Off On Off = AC CO
On Off Off = AC HP (without compr. stop for defrost cycle)
On Off On = AC HP (with compr. stop for defrost cycle)

7. Pump contact for units without integrated pump



9 Sound data

9 - 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(B)ZW1	70	71	67	64	61	59	53	46	67
EUWA/Y(*)8K(B)ZW1	78	76	72	77	68	64	58	52	76
EUWA/Y(*)10K(B)ZW1	82	91	77	77	71	67	63	57	78
EUWA/Y(*)12K(B)ZW1	82	91	77	77	71	67	63	57	78
EUWA/Y(*)16K(B)ZW1	81	79	75	80	71	67	61	55	79
EUWA/Y(*)20K(B)ZW1	85	94	80	80	74	70	66	60	81
EUWA/Y(*)24K(B)ZW1	85	94	80	80	74	70	66	60	81

4TW54757-1D

NOTES

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

10 Installation

10 - 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

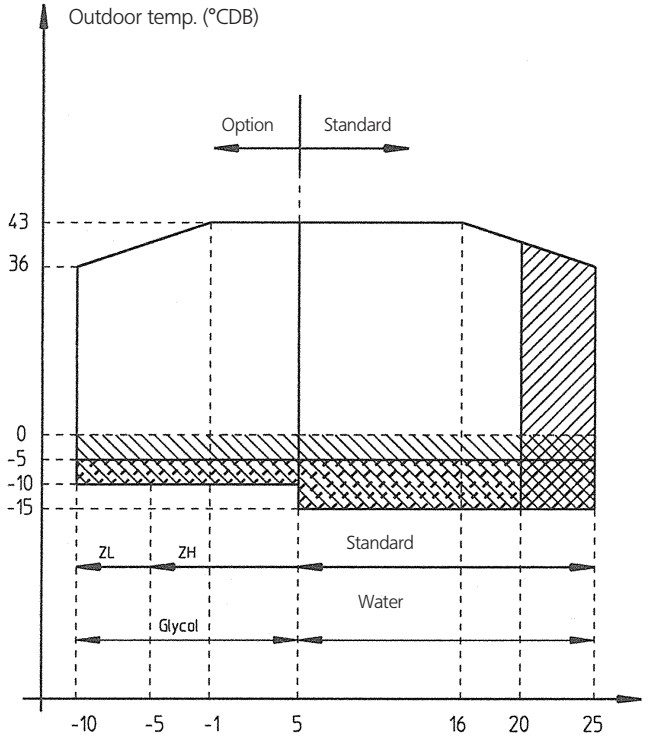
Names, definitions and units are according to JIS K 0101. Units and figures between brackets are old units published as reference only.

11 Operation range

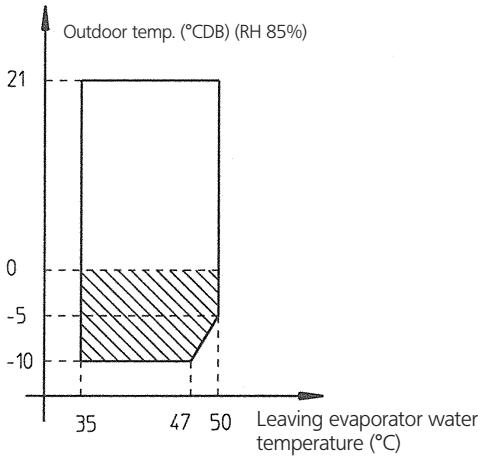
11 - 1 Operation Range

EUWY*5-24KBZW1

Cooling mode



Heating mode



: Pull down area

: Protect the water circuit against freezing

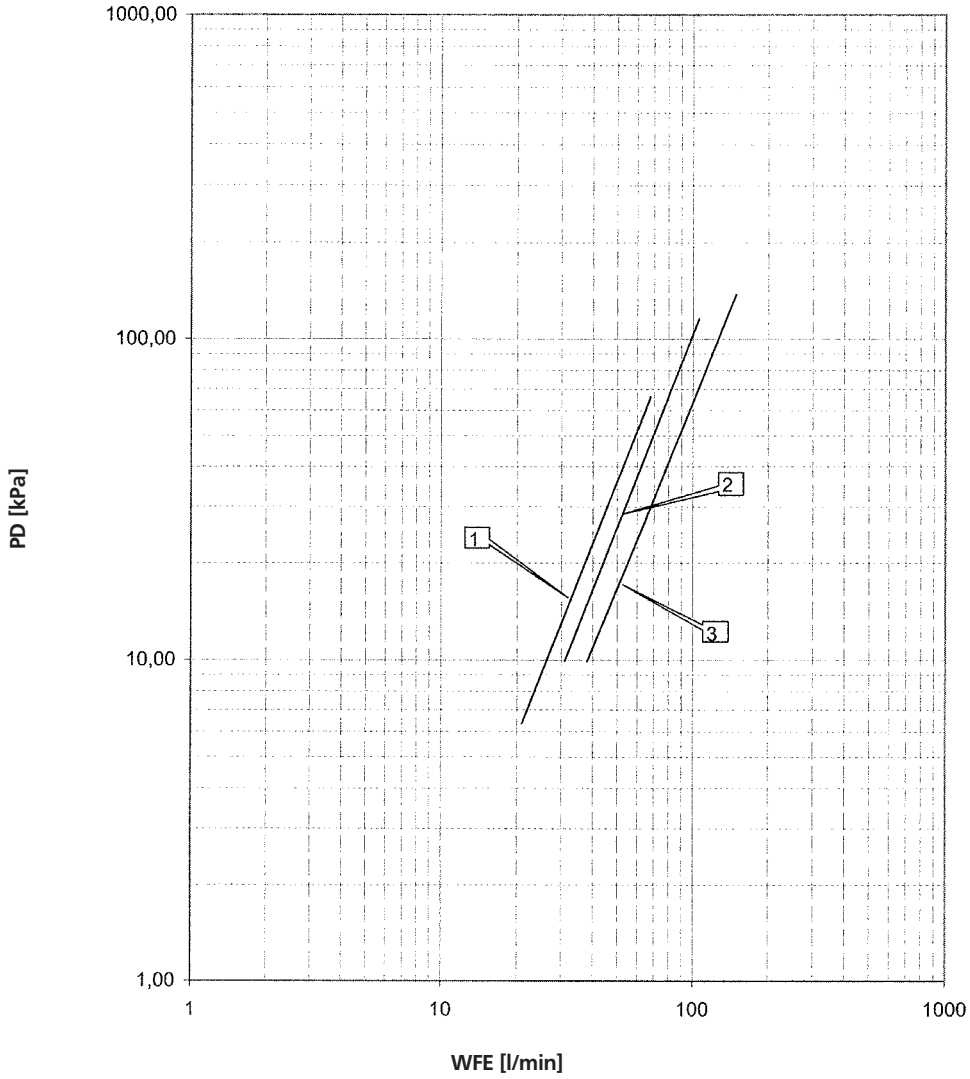
: If the units operate below -5°C and are installed in a rather windy space, a windscreen is required.

4TW55173-1

12 Hydraulic performance

12 - 1 Water Pressure Drop Curve Evaporator

EUWY*5-12KBZW1



PD: Pressure drop evaporator
WF: Evaporator waterflow rate
① EUWY(*)5K(B)ZW1
② EUWY(*)8K(B)ZW1
③ EUWY(*)10K(B)ZW1
EUWY(*)12K(B)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.

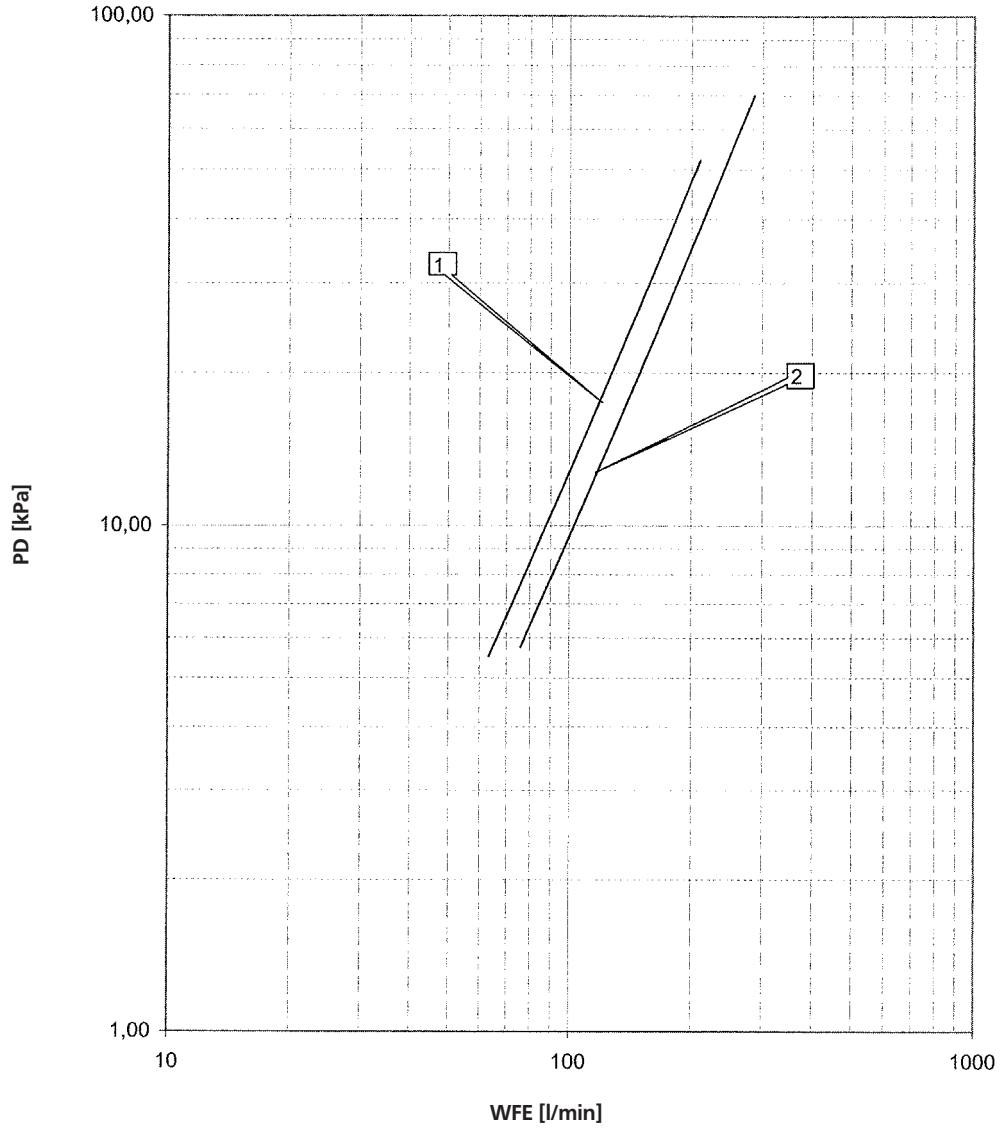
(*) Note:
Minimum allowed flow of 12 Hp is 45 l/min.

4TW55179-1A

12 Hydraulic performance

12 - 1 Water Pressure Drop Curve Evaporator

EUWY*16-24KBZW1



PD: Pressure drop evaporator
WF: Waterflow rate
① EUWY(*)16K(B)ZW1
② EUWY(*)20K(B)ZW1
EUWY(*)24K(B)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.

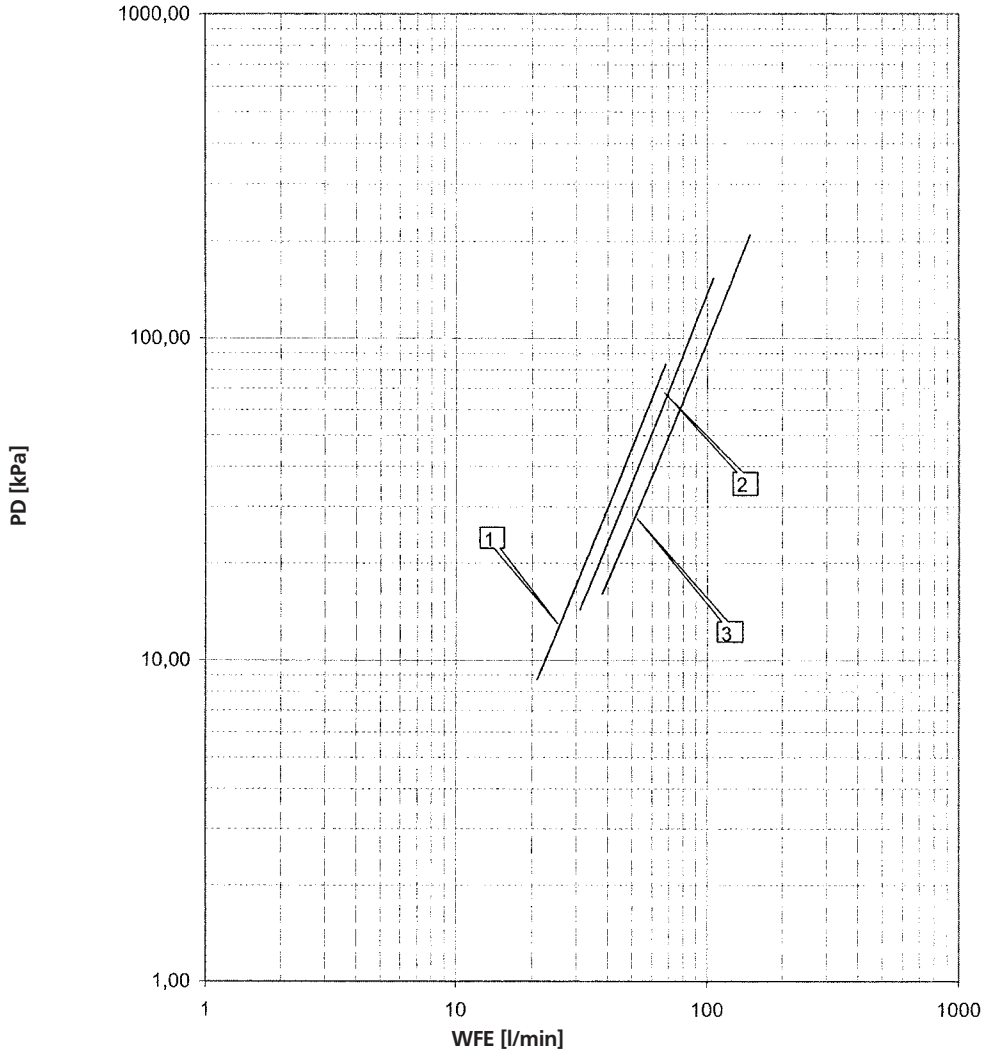
(*) Note:
Minimum allowed waterflow of 24 Hp unit is 90 l/min.

4TW55219-1A

12 Hydraulic performance

12 - 2 Water Pressure Drop Curve Evaporator/Condenser

EUWYN5-12KBZW1



PD: Pressure drop evaporator
WF: Evaporator waterflow rate
① EUWYN5KBZW1
② EUWYN8KBZW1
③ EUWYN10KBZW1 - EUWYN12KBZW1(*)

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

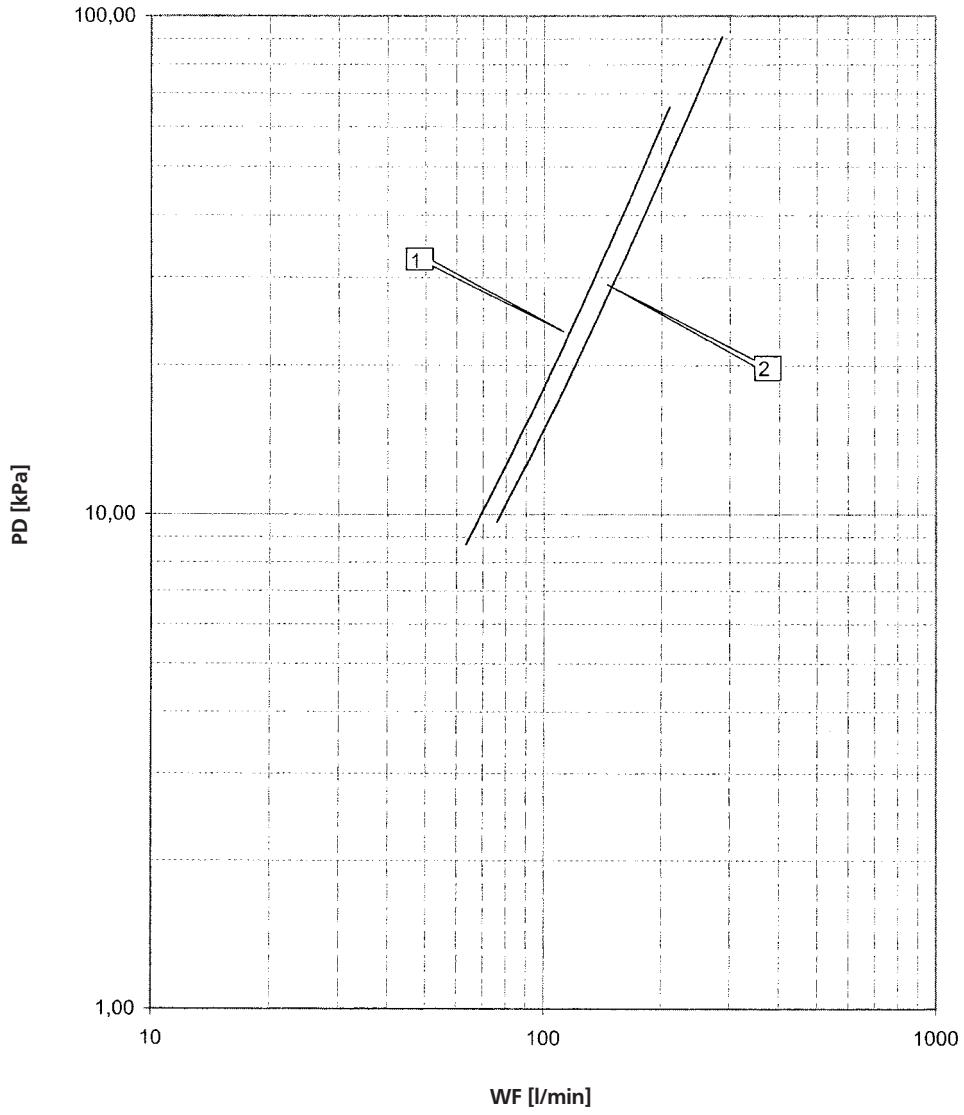
(*) Note:
Minimum allowed flow of 12 Hp is 45 l/min.

4TW55699-6

12 Hydraulic performance

12 - 2 Water Pressure Drop Curve Evaporator/Condenser

EUWYN16-24KBZW1



PD: Pressure drop through the unit
WF: Waterflow rate
① EUWYN16KBZW1
② EUWYN20KBZW1 - EUWYN24KBZW1(*)

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

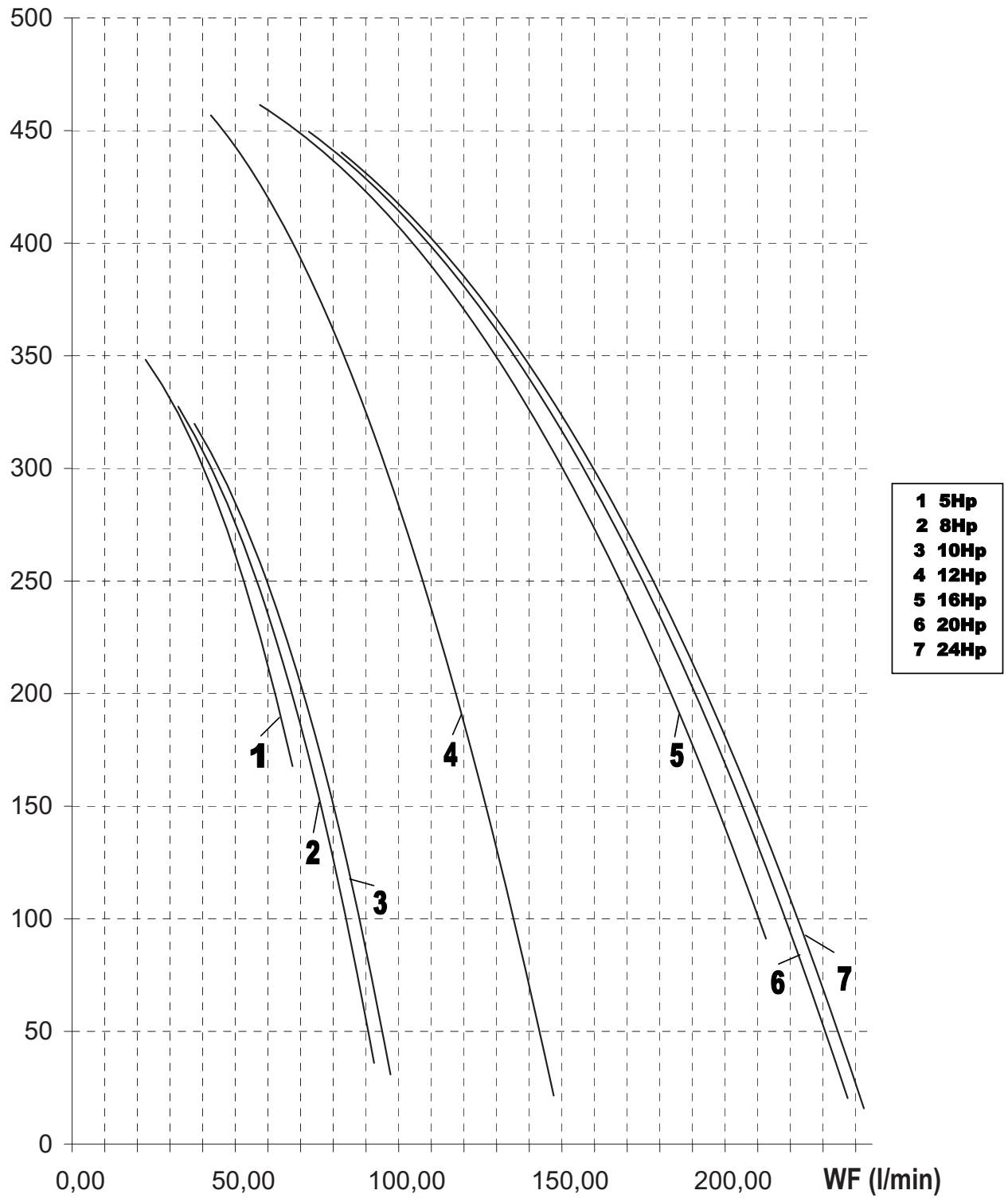
(*) Note:
Minimum allowed waterflow of 24 Hp unit is 90 l/min.

4TW55739-6

12 Hydraulic performance

12 - 3 Static Pressure Drop Unit

EUWY5-24KBZW1

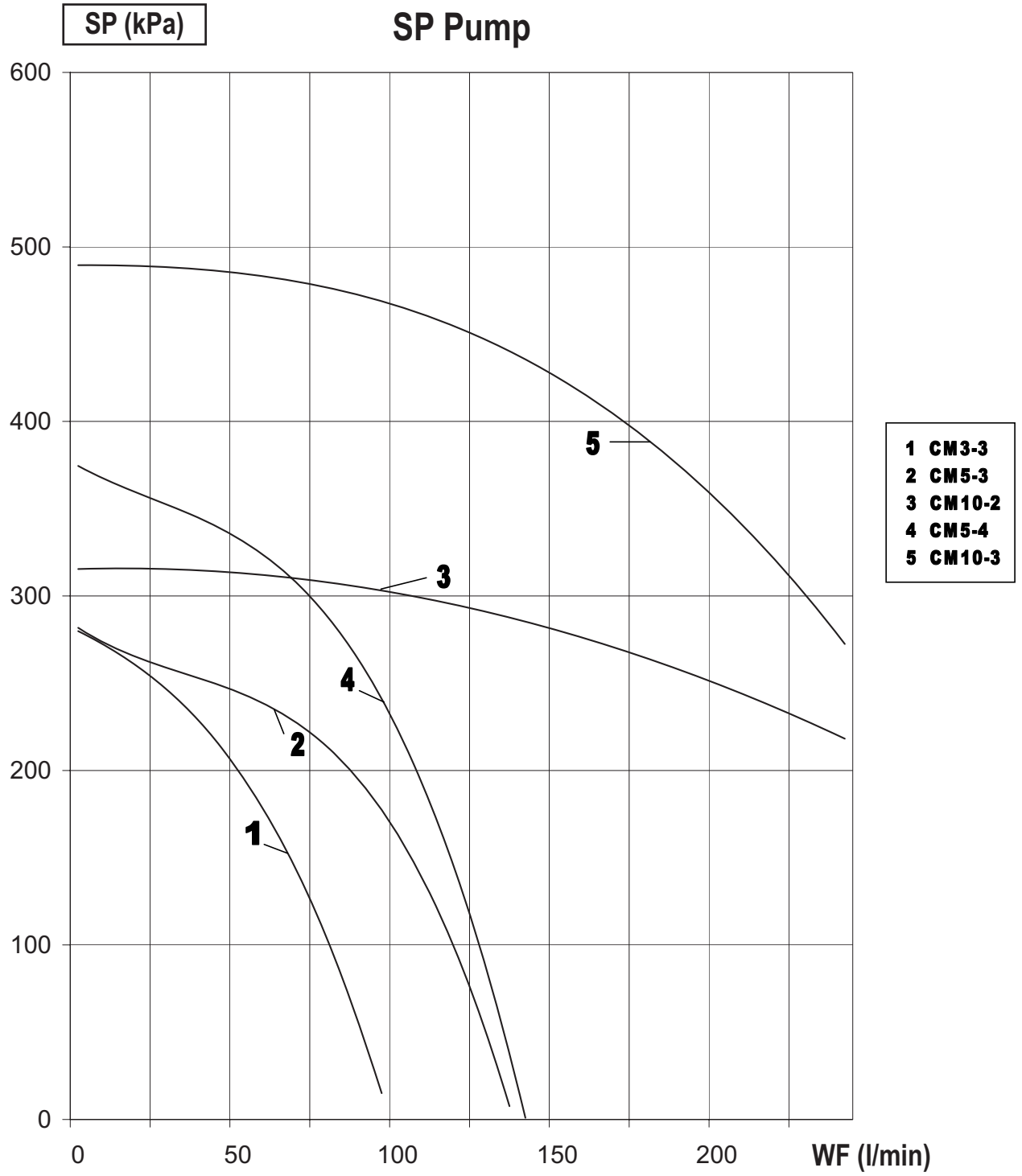


4TW60079-4

12 Hydraulic performance

12 - 4 Pump Characteristics

EUWA5-24KBZW1
EUWY5-24KBZW1



4TW60009-3

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. participates in the Eurovent Certification programme for Air conditioners (AC), Liquid Chilling Packages (LCP) and Fan coil units (FCU). Check ongoing validity of certificate online: www.eurovent-certification.com or using: www.certiflash.com"

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