DAIKIN

EEDEN07-429

technical data

Applied Systems

Air-cooled EWAQ080-260DAYN

R-410A

Air-cooled
EWAQ080-260DAYN

In all of us, a green heart

Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intension to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

iSO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.

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.

Specifications are subject to change without prior notice

DAIKIN EUROPE N.V.
Naamloze Vennootschap
Zandvoordestraat 300
B-8400 Oostende, Belgium
www.daikin.eu
BTW: BE 0412 120 336
RPR Oostende

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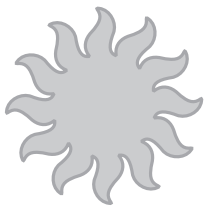
Applied Systems

Air-cooled
EWAQ080-260DAYN

R-410A

Cooling only

Heating only



Heat pump

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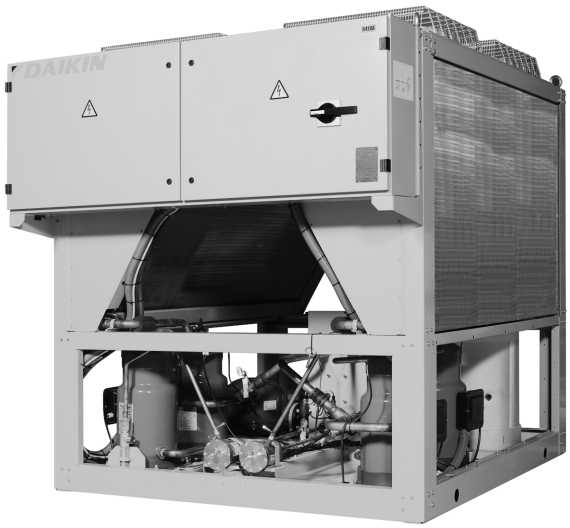
EWAQ-DAYN

1 Features

- Wide capacity range: 80 to 260kW with 8 cooling only models
- R-410A refrigerant
- Multiple refrigerant circuits and multiple compressors per circuit
- Reliable and efficient scroll with high EER values
- Good part load efficiency (seasonal EER)
- Anti-corrosion treated aluminium coils
- Low operating noise levels
- Easy 'plug and play' installation
- Unit dimensions allow easy transport
- Fans protected against abnormal operation (4 - 8 fans depending on unit size)
- Safety valves in each circuit
- Electronic circuit breakers
- Electronic expansion valve
- True dual plate brazed plate heat exchanger
- Sight glass
- All hydronics can be accessed easily from 3 sides (no surrounding cabinet)
- Separate switchbox for easy access
- Compressors and controls at side of unit
- Increased reliability via 2 independent refrigerant circuits
- Double circuit heat exchanger (from >100 kW)
- Non hermetic filter/dryer
- New Daikin controller (Pcaso) with user friendly and powerful LCD interface



2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EWAQ080DAYN	EWAQ100DAYN	EWAQ130DAYN	EWAQ150DAYN	EWAQ180DAYN	EWAQ210DAYN	EWAQ240DAYN	EWAQ260DAYN
Capacity (Eurovent conditions specified in notes)	Cooling	Nominal	kW	80	105	131	152	182	209	230	254
Capacity Steps			%	0-50-100	0-50-100	0-25-50-75-100	0-25-50-75-100	21/29-43/50/57-71/79-100	0-25-50-75-100	22/28-40/50/56-72/78-100	0-25-50-75-100
Nominal input (Eurovent conditions specified in notes)	Cooling		kW	26.4	36.2	46.6	56.3	64.5	74.6	82.2	94.0
EER				3.03	2.90	2.81	2.70	2.82	2.80	2.80	2.70
ESEER				4.00	4.00	4.34	4.17	4.36	4.32	4.32	4.17
Casing	Colour			Ivory white							
	Material			Polyester painted galvanised steel plate							
Dimensions	Unit	Height	mm	2311	2311	2311	2311	2311	2311	2311	2311
		Width	mm	2000	2000	2000	2000	2000	2000	2000	2000
		Depth	mm	2566	2566	2631	2631	3081	3081	4850	4850
Weight	Unit		kg	1350	1400	1500	1550	1800	1850	3150	3250
	Operating Weight		kg	1315	1415	1517	1569	1825	1877	3189	3292
	Gross weight		kg	1400	1450	1550	1600	1850	1900	3200	3300
Water Heat Exchanger	Type			Brased plate							
	Filter	Type		STRAINER GALVANIZED							
		Diameter perforations	mm	1	1	1	1	1	1	1	1
	Minimum water volume in the system		l	358	470	295	341	408	468	529	579
	Water flow rate	Min	l/min	115	151	188	218	261	300	339	371
		Max	l/min	459	602	754	871	1043	1198	1355	1483
	Nominal Water Flow	Cooling	l/min	229	301	377	436	522	599	677	749
Nominal Water Flow	Cooling	Total	kPa	59	58	52	49	52	53	51	49
Water Heat Exchanger	Insulation material			Foamed synthetic elastomer							
	Model	Quantity		1	1	1	1	1	1	1	1
		Model		PT120	PT120	DV47	DV47	DV58	DV58	DV58	DV58
Air heat exchanger	Type			Cross fin coil / Hi-Xss tubes and PE coated							
	Rows			2	2	3	3	3	3	3	3
	Stages			56	56	48	56	56	56	48	48
	Fin Pitch		mm	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	Face Area		m²	2.46	2.46	2.11	2.46	3.02	3.02	2.11	2.11
	No. of coils			4	4	4	4	4	4	8	8
Hydraulic components	Unit water volume		l	15	15	17	19	25	27	39	42
	Nominal water pressure drop unit		kPa	66	67	64	63	72	79	83	88
Fan	Drive			Direct drive							
	Nominal air flow		m³/min	780	780	800	860	1290	1290	1600	1600
	Model	Quantity		4	4	4	4	6	6	8	8
		Speed	rpm	880	880	900	970	970	970	900	900
		Motor Output	W	500	500	600	1000	1000	1000	600	600
		Discharge direction		Vertical							
Compressor	Type			Scroll compressor							
	Refrigerant oil type			Daphne FVC68D							
	Refrigerant oil charge		l	6.2	6.2	3.3	6.2	6.2	6.2	6.2	6.2
	Model	Quantity		2	2	4	4	2	4	2	4
		Model		SJ180	SJ240	SJ161	SJ180	SJ180	SJ240	SJ240	SJ300
		Speed	rpm	2900	2900	2900	2900	2900	2900	2900	2900
		Quantity						2		2	
		Model						SJ240		SJ300	
		Speed	rpm					2900		2900	
Sound Level	Sound Power	Cooling	dBA	86	86	88	89	90	91	91	93

2 Specifications

2-1 TECHNICAL SPECIFICATIONS			EWAQ080DAYN	EWAQ100DAYN	EWAQ130DAYN	EWAQ150DAYN	EWAQ180DAYN	EWAQ210DAYN	EWAQ240DAYN	EWAQ260DAYN
Refrigerant circuit	Refrigerant type		R-410A							
	Refrigerant charge	kg	33	33	19	25	29	28	39	39
		kg			19	25			39	39
	No of circuits		1	1	2	2	2	2	2	2
	Refrigerant control		Electronic expansion valve							
Piping connections	Water heat exchanger inlet / outlet		3"OD	3"OD	3" OD	3" OD	3" OD	3" OD	3"	3"
	Water heat exchanger drain		1/2" G							
Safety Devices			High pressure switch	High pressure (pressure switch)						
			Pressure relief valve							
			Low pressure protection						Low pressure safety	
			Freeze up protection							
			Flowswitch							
			Discharge temperature control							
			Reverse phase protector							
			Electronic protection module compressors (only for SJ180 SJ240)		Electronic protection module compressors (only for SJ180)		Electronic protection module compressors (only for SJ180 SJ240)		Electronic protection module compressors	
			Overcurrent relays for compressors and fans							
Notes			Nominal cooling capacity at Eurovent conditions: Evaporator 12×C/7×C; ambient 35×C							
			Nominal cooling power input at Eurovent conditions: Evaporator 12×C/7×C; ambient 35×C (=Power input compressors + fans + electrical circuit)							
			Minimum required watervolume for standard thermostat settings and at nominal conditions							

2-2 ELECTRICAL SPECIFICATIONS				EWAQ080 DAYN	EWAQ100 DAYN	EWAQ130 DAYN	EWAQ150 DAYN	EWAQ180 DAYN	EWAQ210 DAYN	EWAQ240 DAYN	EWAQ260 DAYN
Power Supply	Phase			3	3	3	3	3	3	3	3
	Frequency		Hz	50	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400	400
	Voltage Tolerance	Minimum	%	-10%							
		Maximum	%	+10%							
Unit	Starting Current		A	201 (max 240)	221 (max 272)	161 (max. 269)	199 (max. 320)	221 (max. 357)	221 (max. 368)	266 (max. 426)	266 (max. 468)
	Nominal Running Current Cooling		A	60	72	88	113	131	144	162	181
	Maximum Running Current		A	96	120	160	177	209	233	262	290
	Recommended fuses according to IEC standard 269-2			3x125gL	3x160gL	3x200gL	3x200gL	3x250gL	3x250gL	3x300gL	3x355gL
Fan	Starting Method			Direct On-Line							
	Maximum Running Current		A	1.5	1.5	1.4	2.1	2.1	2.1	1.6	1.6
Compressor	Starting current		A	195	215	158	195	195/215	215	215/260	260
	Nominal running current (RLA)		A	25/25	31/31	19/19	25/25	25/31	31/31	31/40	40/40
	Maximum Running Current		A	39	51	35	39	39/51	51	51/65	65
	Starting Method			Direct on line							
Control Circuit	Phase			1	1	1	1	1	1	1	1
	Frequency		Hz	50	50	50	50	50	50	50	50
	Voltage		V	230V (supplied by factory installed transformers)							
	Crankcase heater (E1/2HC)		W	2x75	2x75	4x65	4x75	4x75	4x75	75	75
Notes				Starting current of the unit = maximum running current 4 fans + starting current 1 compressor		Starting current of the unit = Maximum running current 2 fans (1 circuit) + starting current 1 compressor		Starting current of the unit = maximum running current 3 fans (1 circuit) + starting current 1 compressor		Initial starting current = maximum running current 4 fans + starting current 1 compressor	
				Maximum starting current = maximum running current 4 fans + maximum running current 1 compressor + starting current 1 compressor		Max. starting current of the unit = Maximum running current 4 fans + max. running current 3 compressors + starting current 1 compressor		Maximum starting current = maximum running current 6 fans + maximum running current 3 compressors + starting current 1 compressor		Maximum starting current = maximum running current 8 fans + maximum running current 3 compressors + starting current 1 compressor	

2 Specifications (Options)

EWAQ080-100DAYN

Technical specifications options				
OPSP				
Units			**EWAQ080DAYN***	**EWAQ100DAYN***
Weight	Additional machine weight	kg	250	250
	Additional operation weight	kg	283	283
	Additional gross weight	kg	250	250
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP50-240/2	TP50-240/2
	Nominal Static Height Unit	kPa	142	133
Hydraulic components	Additional unit water volume	l	33	33
	Expansion vessel	l	35	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPSP + OPBT				
Units			**EWAQ080DAYN***	**EWAQ100DAYN***
Weight	Additional machine weight	kg	300	300
	Additional operation weight	kg	523	523
	Additional gross weight	kg	300	300
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP50-240/2	TP50-240/2
	Nominal Static Height Unit	kPa	142	133
Hydraulic components	Buffertank	l	190	190
	Additional unit water volume	l	223	223
	Expansion vessel	l	35	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPHP				
Units			**EWAQ080DAYN***	**EWAQ100DAYN***
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP50-430/2	TP50-430/2
	Nominal Static Height Unit	kPa	337	322

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EWAQ080-100DAYN

Electrical specifications options				
OPSP				
Units			**EWAQ080DAYN***	**EWAQ100DAYN***
Std Pump	Starting method		Direct On-Line	
	Power	W	2,2kW	2,2kW
	Maximum Running current	A	4,5	4,5
	Starting current	A	42	42
OPHP				
Units			**EWAQ080DAYN***	**EWAQ100DAYN***
High Esp Pump	Starting method		Direct On-Line	
	Power	W	5,5kW	5,5kW
	Maximum Running current	A	11,2	11,2
	Starting current	A	131	131
OP10				
Units			**EWAQ080DAYN***	**EWAQ100DAYN***
Heater Tape	Supply Voltage	V	230+/-10%	
	Reccommended fuses	A	2 x 10A	
	Power standard model		1 x 300W	1 x 300W
	Power model with pump		2 x 300W	2 x 300W
	Power model with pump and buffertank		2 x 300W + 1 x 150W	2 x 300W + 1 x 150W

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2 Specifications (Options)

EWAQ130-150DAYN

Technical specifications options				
OPSP				
Units			**EWAQ130DAYN***	**EWAQ150DAYN***
Weight	Additional machine weight	kg	250	250
	Additional operation weight	kg	286	286
	Additional gross weight	kg	250	250
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-230/2	TP65-230/2
	Nominal Static Height Unit	kPa	134	126
Hydraulic components	Additional unit water volume	l	36	36
	Expansion vessel	l	35	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPSP + OPBT				
Units			**EWAQ130DAYN***	**EWAQ150DAYN***
Weight	Additional machine weight	kg	300	300
	Additional operation weight	kg	526	526
	Additional gross weight	kg	300	300
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-230/2	TP65-230/2
	Nominal Static Height Unit	kPa	134	126
Hydraulic components	Buffertank	l	190	190
	Additional unit water volume	l	226	226
	Expansion vessel	l	35	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPHP				
Units			**EWAQ130DAYN***	**EWAQ150DAYN***
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-340/2	TP65-340/2
	Nominal Static Height Unit	kPa	253	248

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EWAQ130-150DAYN

Electrical specifications options				
OPSP				
Units			**EWAQ130DAYN***	**EWAQ150DAYN***
Std Pump	Starting method		Direct On-Line	
	Power	W	3kW	3kW
	Maximum Running current	A	6,3	6,3
	Starting current	A	58	58
OPHP				
Units			**EWAQ130DAYN***	**EWAQ150DAYN***
High Esp Pump	Starting method		Direct On-Line	
	Power	W	5,5kW	5,5kW
	Maximum Running current	A	11,2	11,2
	Starting current	A	131	131
OP10				
Units			**EWAQ130DAYN***	**EWAQ150DAYN***
Heater Tape	Supply Voltage	V	230+/-10%	
	Reccommended fuses	A	2 x 10A	
	Power standard model		1 x 300W	1 x 300W
	Power model with pump		2 x 300W	2 x 300W
	Power model with pump and buffertank		2 x 300W + 1 x 150W	2 x 300W + 1 x 150W

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2 Specifications (Options)

EWAQ180-210DAYN

Technical specifications options				
OPSP				
Units			**EWAQ180DAYN***	**EWAQ210DAYN***
Weight	Additional machine weight	kg	250	250
	Additional operation weight	kg	286	286
	Additional gross weight	kg	250	250
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-260/2	TP65-260/2
	Nominal Static Height Unit	kPa	142	120
Hydraulic components	Additional unit water volume	l	36	36
	Expansion vessel	l	35	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPSP + OPBT				
Units			**EWAQ180DAYN***	**EWAQ210DAYN***
Weight	Additional machine weight	kg	300	300
	Additional operation weight	kg	526	526
	Additional gross weight	kg	300	300
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-260/2	TP65-260/2
	Nominal Static Height Unit	kPa	142	120
Hydraulic components	Buffertank	l	190	190
	Additional unit water volume	l	226	226
	Expansion vessel	l	35	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPHP				
Units			**EWAQ180DAYN***	**EWAQ210DAYN***
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-410/2	TP65-410/2
	Nominal Static Height Unit	kPa	296	278

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EWAQ180-210DAYN

Electrical specifications options				
OPSP				
Units			**EWAQ180DAYN***	**EWAQ210DAYN***
Std Pump	Starting method		Direct On-Line	
	Power	W	4kW	4kW
	Maximum Running current	A	8	8
	Starting current	A	98	98
OPHP				
Units			**EWAQ180DAYN***	**EWAQ210DAYN***
High Esp Pump	Starting method		Direct On-Line	
	Power	W	7,5kW	7,5kW
	Maximum Running current	A	15,2	15,2
	Starting current	A	169	169
OP10				
Units			**EWAQ180DAYN***	**EWAQ210DAYN***
Heater Tape	Supply Voltage	V	230+/-10%	
	Reccommended fuses	A	2 x 10A	
	Power standard model		1 x 300W	1 x 300W
	Power model with pump		2 x 300W	2 x 300W
	Power model with pump and buffertank		2 x 300W + 1 x 150W	1 x 300W + 1 x 150W

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2 Specifications (Options)

EWAQ240-260DAYN

Technical specifications options				
OPSP				
Units			**EWAQ240DAYN***	**EWAQ260DAYN***
Weight	Additional machine weight	kg	250	250
	Additional operation weight	kg	271	271
	Additional gross weight	kg	250	250
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-260/2	TP65-260/2
	Nominal Static Height Unit cooling	kPa	119	110
Hydraulic components	Additional unit water volume	l	21	21
	Expansion vessel	l	50	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPSP + OPBT				
Units			**EWAQ240DAYN***	**EWAQ260DAYN***
Weight	Additional machine weight	kg	300	300
	Additional operation weight	kg	511	511
	Additional gross weight	kg	300	300
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-260/2	TP65-260/2
	Nominal Static Height Unit cooling	kPa	119	110
Hydraulic components	Buffertank	l	190	190
	Additional unit water volume	l	211	211
	Expansion vessel	l	50	
	Pre-charge pressure exp. vessel	bar	1,5	
	Safety valve	bar	3	
OPSP + OPBT				
Units			**EWAQ240DAYN***	**EWAQ260DAYN***
Pump	Type		Single-stage-in-line-pumps	Single-stage-in-line-pumps
	Quantity		1	1
	Model		TP65-410/2	TP65-410/2
	Nominal Static Height Unit cooling	kPa	321	276

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EWAQ240-260DAYN

Electrical specifications options				
OPSP				
Units			**EWAQ240DAYN***	**EWAQ260DAYN***
Std Pump	Starting method		Direct On-Line	
	Power	kW	4,0	4,0
	Maximum Running current	A	8,0	8,0
	Starting current	A	98	98
OPHP				
Units			**EWAQ240DAYN***	**EWAQ260DAYN***
High Esp Pump	Starting method		Direct On-Line	
	Power	kW	7,5	7,5
	Maximum Running current	A	15,2	15,2
	Starting current	A	169	169
OP10				
Units			**EWAQ240DAYN***	**EWAQ260DAYN***
Heater Tape	Supply Voltage	V	230+/-10%	
	Reccommended fuses	A	2 x 10A	
	Power standard model		1 x 300W	1 x 300W
	Power model with pump		2 x 300W	2 x 300W
	Power model with pump and buffertank		2 x 300W + 1 x 150W	2 x 300W + 1 x 150W

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3 Options

EWAQ-DAYN(N-P-B)

Optional equipment for EWAQ-DAYNN

Capacity: 080-260 kW

EWAQ080DAYNN EWAQ150DAYNN EWAQ240DAYNN
EWAQ100DAYNN EWAQ180DAYNN EWAQ260DAYNN
EWAQ130DAYNN EWAQ210DAYNN

Option number	Option description	Unit size								Availability
		080	100	130	150	180	210	240	260	
	Standard unit	°	°	°	°	°	°	°	°	
OPSC	Single pump contactor	°	°	°	°	°	°	°	°	fact. mount.
OPTC	Twin pump contactor	°	°	°	°	°	°	°	°	fact. mount.
OPSP	Single pump	°	°	°	°	°	°	°	°	fact. mount.
OPTP	Twin pump (1 pump house, dual motor)	°	°	°	°	°	°	°	°	fact. mount.
OPHP	High ESP pump (single pump only)	°	°	°	°	°	°	°	°	fact. mount.
OPBT	Buffer tank	°	°	°	°	°	°	°	°	fact. mount.
OPIF	Inverter fans (For low ambient -15°C)	°	°	°	°	°	°	°	°	fact. mount.
OPZL	Glycol 0°C / -10°C	°	°	°	°	°	°	°	°	fact. mount.
OP03	Dual pressure relief valve	°	°	°	°	°	°	°	°	fact. mount.
OP10	Evaporator heater tape	°	°	°	°	°	°	°	°	fact. mount.
OP12	Option valves (discharge-, liquid line- and suction stop valve)	°(S)	°(S)	°(S)	°(S)	°(S)	°(S)	°(S)	°(S)	fact. mount.
OP57	A-meter / V-meter	°	°	°	°	°	°	°	°	fact. mount.
OPLN	Low noise = OPIF + Compressor housing	°	°	°	°	°	°	°	°	fact. mount.
OPCG	Condenser protection grills	°	°	°	°	°	°	°	°	fact. mount.
	Available kits									
EKLONPG	Gateway for LON	°	°	°	°	°	°	°	°	Kit
EKBNPG	Gateway for BACNET	°	°	°	°	°	°	°	°	Kit
EKACPG	Adress card	°	°	°	°	°	°	°	°	Kit
EKRUPG	Remote user interface	°	°	°	°	°	°	°	°	Kit

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NOTES

° Available
- Not available
(S) Option required for Swedish national law SNFS 1992:16

4 Capacity tables

4 - 1 Cooling capacity tables

EWAQ080-260DAYN(N-B-P)

STANDARD

Tamb (°C)		20		25		30		35		40		43	
LWE	Size	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
4	080	83,6	20,3	79,9	22,0	76,2	23,9	72,2	26,1	67,9	28,5	65,2	30,2
	100	110	27,0	105	29,5	100	32,3	94,9	35,5	89,0	39,0	85,2	41,4
	130	138	34,8	132	38,0	126	41,5	119	45,5	111	49,9	106	52,9
	150	164	42,2	156	46,1	147	50,5	138	55,4	128	60,9	122	64,5
	180	191	48,5	183	52,9	174	57,9	164	63,4	154	69,7	148	73,8
	210	225	56,8	214	61,4	203	66,6	191	73,1	178	80,4	169	85,2
	240	242	61,8	232	67,5	221	73,8	209	80,9	195	88,8	187	94,0
	260	267	71,3	256	77,6	244	84,6	230	92,3	215	101	206	107
7	080	92,3	20,6	88,4	22,3	84,4	24,3	80,0	26,4	75,3	28,9	72,3	30,5
	100	122	27,7	117	30,2	111	33,0	105	36,2	98,4	39,7	94,2	42,1
	130	153	35,8	146	39,1	139	42,6	131	46,6	123	51,0	117	54,0
	150	180	43,2	171	47,1	162	51,5	152	56,3	141	62,0	134	65,6
	180	211	49,5	202	54,0	192	58,9	182	64,5	171	70,8	163	74,9
	210	246	58,2	234	62,8	222	68,0	209	74,6	195	81,9	186	86,7
	240	267	63,0	256	68,7	244	75,1	230	82,2	216	90,2	206	95,4
	260	295	72,7	282	79,1	269	86,2	254	94,0	237	103	227	108
10	080	102	20,9	97,6	22,7	93,2	24,6	88,4	26,8	83,3	29,3	80,0	30,9
	100	134	28,5	128	31,0	122	33,8	116	36,9	108	40,5	104	42,8
	130	168	36,9	161	40,2	153	43,8	144	47,8	135	52,2	129	55,2
	150	198	44,3	188	48,3	178	52,7	167	57,7	155	63,3	147	66,9
	180	233	50,7	223	55,1	212	60,1	201	65,7	188	72,0	180	76,1
	210	269	59,8	256	64,4	243	69,6	228	76,2	213	83,5	203	88,3
	240	294	64,4	282	70,2	268	76,6	254	83,7	238	91,7	227	97,0
	260	325	74,3	311	80,8	296	87,9	279	95,9	261	105	249	110
13	080	112	21,3	108	23,1	103	25,1	97,5	27,3	91,8	29,7	88,2	31,3
	100	147	29,4	141	31,8	134	34,6	127	37,8	119	41,3	114	43,6
	130	185	38,1	177	41,5	168	45,1	158	49,0	148	53,5	141	56,5
	150	216	45,4	206	49,5	194	54,1	182	59,1	169	64,7	161	68,4
	180	256	52,0	245	56,4	233	61,4	221	67,0	207	73,3	198	77,5
	210	293	61,7	279	66,2	265	71,4	249	77,9	232	85,3	221	90,1
	240	323	66,0	310	71,7	295	78,2	278	85,4	261	93,4	249	98,7
	260	356	76,1	341	82,6	325	89,8	306	97,8	286	107	273	112
16	080	123	21,7	118	23,5	113	25,5	107	27,7	101	30,2	96,9	31,8
	100	161	30,4	154	32,8	147	35,5	139	38,7	130	42,2	125	44,5
	130	203	39,4	193	42,7	184	46,4	173	50,4	161	54,9	154	57,9
	150	235	46,7	224	50,9	211	55,5	198	60,6	184	66,3	96	32,4
	180	281	53,4	269	57,9	256	32,9	242	68,5	227	74,8	217	79,0
	210	318	63,7	304	68,2	288	73,3	271	79,9	252	87,2	241	92,0
	240	354	67,8	339	73,5	323	79,9	305	87,2	285	95,2	273	100,5
	260	390	78,0	373	84,6	355	91,9	335	99,9	313	109	299	115
20	080	139	22,4	133	24,2	127	26,2	121	28,5	114	30,9	59,8	15,1
	100	180	31,8	173	34,2	164	36,9	155	40,0	146	43,5	76,5	21,3
	130	227	41,1	217	44,5	206	48,3	193	52,3	180	56,9	94,2	27,8
	150	262	48,6	249	52,9	235	57,7	220	62,9	204	68,6	106	33,5
	180	315	55,6	302	60,1	287	65,1	271	70,7	254	77,1	133	37,7
	210	354	66,7	338	71,2	320	76,2	301	82,8	281	90,1	147	44,0
	240	398	70,4	381	76,1	362	82,6	342	89,8	320	97,9	168	47,9
	260	438	80,8	419	87,5	398	94,9	375	103	350	112	183	54,7

Symbols:

CC : Cooling Capacity (kW)

PI : Power Input (kW)

LWE : Leaving Water Evaporator temperature (°C)

Tamb : Ambient temperature (°C)

NOTES

1 **Cooling capacity (kW)**
Capacity is according to Eurovent rating standard 6/C/003-2006 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/003-2006: Compressor + fans + control circuit

3 **For units with integrated pump**
values for CC are to be multiplied by 0,99 in order to compensate heat input of the pump

3TW57572-1B

4 Capacity tables

4 - 1 Cooling capacity tables

EWAQ080-260DAYN(N-P-B)

OPZL

Tamb (°C)		20		25		30		35		40		43	
LWE	Size	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
-10	080	52,8	19,2	49,7	21,0	46,7	23,0	43,8	25,2	40,7	27,8		
	100	67,7	24,8	64,3	27,3	60,9	30,0	57,3	33,0	53,6	36,4		
	130	88,1	31,0	83,8	34,1	79,4	37,6	74,6	41,6	69,5	46,1		
	150	100	38,7	93,6	42,6	87,7	46,9	81,8	51,8	75,6	57,4		
	180	117	45,2	111	49,6	105	54.4	98,2	59,9	91,6	66,1		
	210	143	51,9	136	56,5	128	61,5	120	67,7	111	74,7		
	240	154	57,6	146	63,1	138	69,1	130	75,9	121	83,4		
	260	170	66,1	162	72,0	153	78,6	144	86,0	134	94		
-7	080	58,0	19,4	54,9	21,2	51,9	23,1	48,8	25,3	45,6	27,8		
	100	75,2	25,2	71,6	27,7	67,9	30,4	64,0	33,5	59,9	36,9		
	130	96,7	31,6	92,2	34,8	87,5	38,3	82,4	42,2	76,9	46,8		
	150	111	39,3	105	43,1	99,0	47,4	92,5	52,3	85,8	57,8		
	180	130	45,7	123	50,1	117	55,0	110	60,5	103	66,7		
	210	158	52,7	150	57,3	142	62,4	133	68,8	124	75,8		
	240	169	58,3	161	63,8	153	70,0	144	76,8	135	84,5		
	260	187	67,1	178	73,0	169	78,7	160	87,2	149	96		
-5	080	61,9	19,5	58,8	21,3	55,7	23,2	52,5	25,4	49,1	27,9	47,0	29,5
	100	80,6	25,4	76,8	27,9	73,0	30,7	68,9	33,8	64,5	37,3	61,7	39,6
	130	103	32,1	98,3	35,3	93,4	38,8	88,1	42,7	82,3	47,2	78,5	50,3
	150	133	39,7	113	43,5	107	47,8	100	52,7	92,9	58,2	88,3	61,8
	180	140	46,1	133	50,5	126	55,4	119	60,9	111	67,1	106	71,2
	210	169	53,3	161	58,0	152	63,1	142	69,5	132	76,6	126	81,3
	240	180	58,8	172	64,4	163	70,6	154	77,5	144	85,2	138	90,3
	260	199	67,7	190	73,7	181	80,5	171	88,0	159	96	152	102
-2	080	68,4	19,7	65,1	21,5	61,8	23,4	58,4	25,6	54,8	28,1	52,6	29,7
	100	89,6	25,9	85,5	28,4	81,3	31,2	76,8	34,3	72,0	37,8	68,9	40,1
	130	113	32,9	108	36,1	103	39,6	97,3	43,5	91,0	48,0	86,9	51,0
	150	133	40,4	127	44,3	119	48,5	112	53,4	104	58,9	99,0	62,5
	180	155	46,8	148	51,2	140	56,1	133	61,7	124	67,9	119	72,0
	210	186	54,3	177	59,0	167	64,1	157	70,6	146	77,8	140	82,5
	240	199	59,7	190	65,3	181	71,5	171	78,5	160	86,3	153	91,4
	260	219	68,8	210	74,9	200	81,7	189	89,3	176	98	168	103
2	080	78,1	20,1	74,7	21,8	71,1	23,8	67,3	25,9	63,3	28,4	60,8	30,0
	100	103	26,6	98,4	29,1	93,6	31,9	88,5	35,1	83,0	38,6	79,5	40,9
	130	129	34,1	124	37,3	118	40,8	111	44,8	104	49,2	99,3	52,2
	150	153	41,5	145	45,4	138	49,7	129	54,5	120	60,0	114	63,7
	180	178	47,9	170	52,3	162	57,2	153	62,8	144	69,00	137	73,1
	210	211	55,9	201	60,5	190	65,7	179	72,2	167	79,5	159	84,3
	240	227	61,0	217	66,7	207	73,0	195	80,0	183	87,9	175	93,1
	260	250	70,4	240	76,6	228	83,5	216	91,3	202	100	192	106

Symbols:

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

3TW57572-1B

NOTES

1 **Cooling capacity (kW)**
Capacity is according to Eurovent
rating standard 6/C/003-2006 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/003-2006: Compressor + fans + control circuit

3 **For units with integrated pump**
Values for CC are to be multiplied by 0,99 in order to compensate heat input of the pump

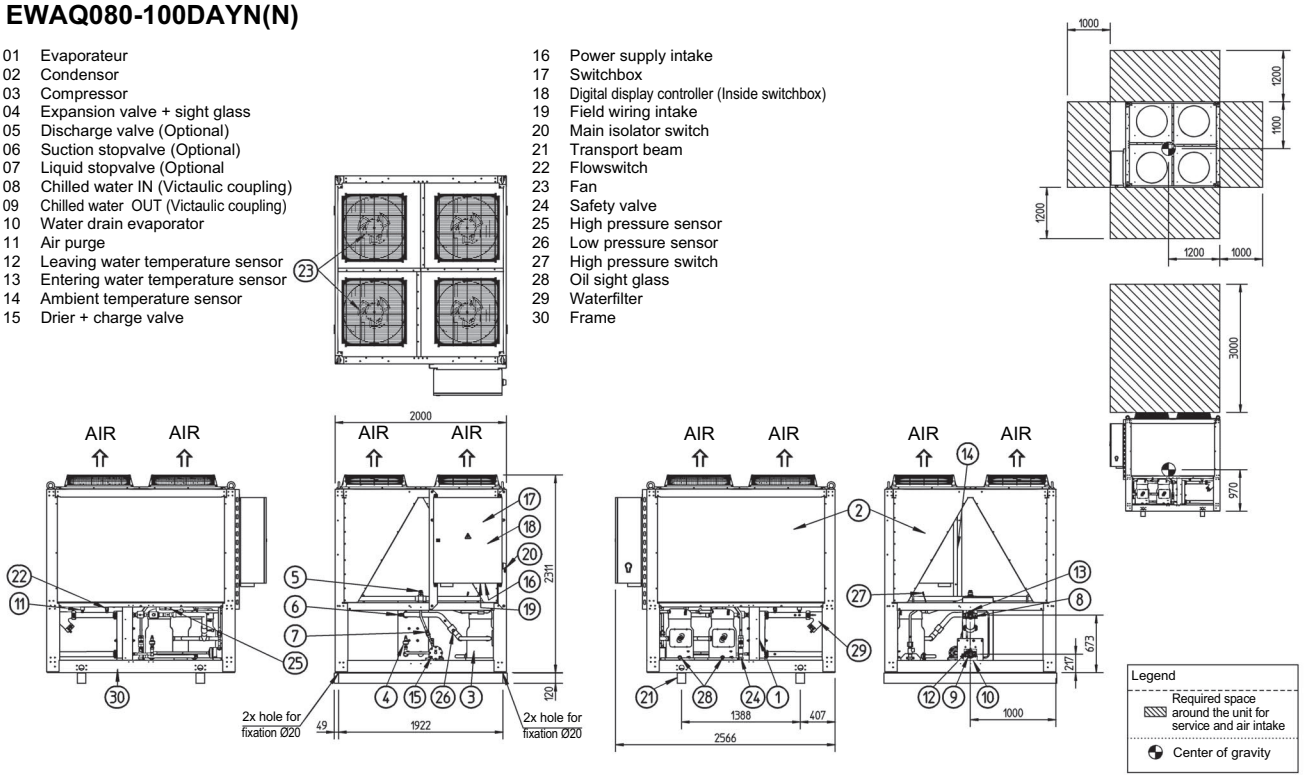
4 **Usage of glycol and other anti-freeze**
Correction factors for CC and PI are applicable according type and concentration of the used anti-freeze

5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

EWAQ080-100DAYN(N)

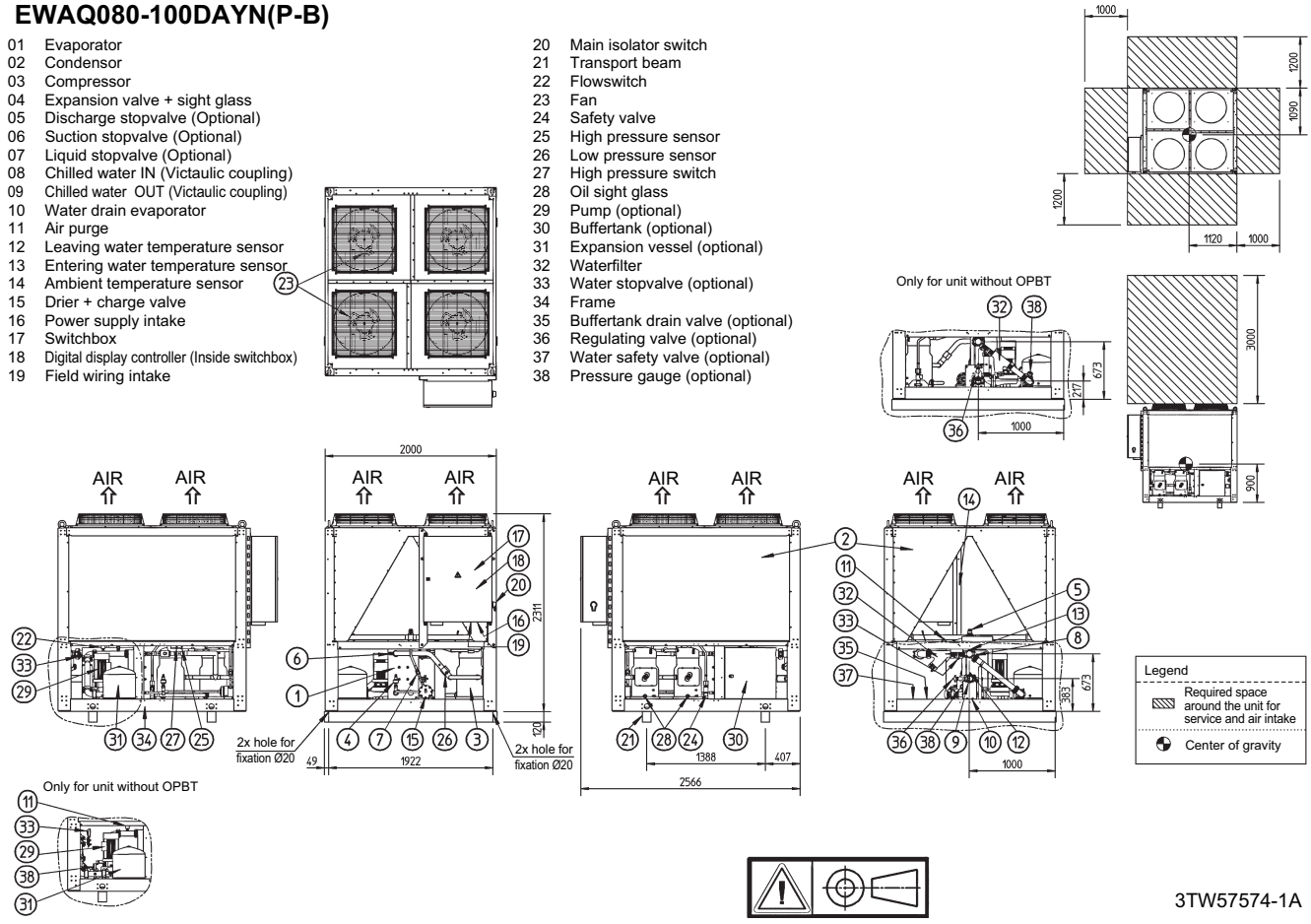
01 Evaporateur
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge valve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient temperature sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Waterfilter
30 Frame



3TW57574-2A

EWAQ080-100DAYN(P-B)

01 Evaporator
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional)
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient temperature sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Pump (optional)
30 Buffertank (optional)
31 Expansion vessel (optional)
32 Waterfilter
33 Water stopvalve (optional)
34 Frame
35 Buffertank drain valve (optional)
36 Regulating valve (optional)
37 Water safety valve (optional)
38 Pressure gauge (optional)



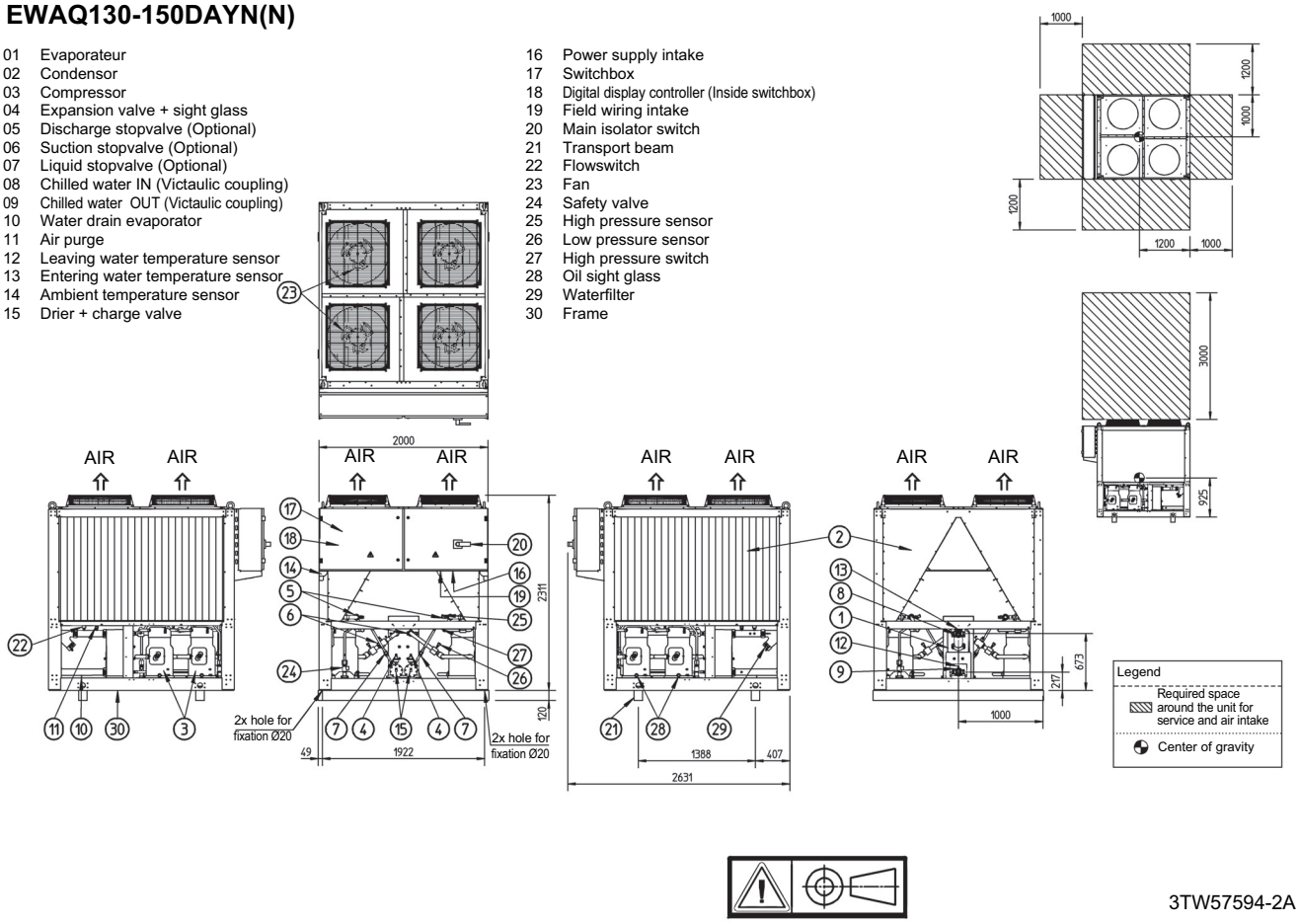
3TW57574-1A

5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

EWAQ130-150DAYN(N)

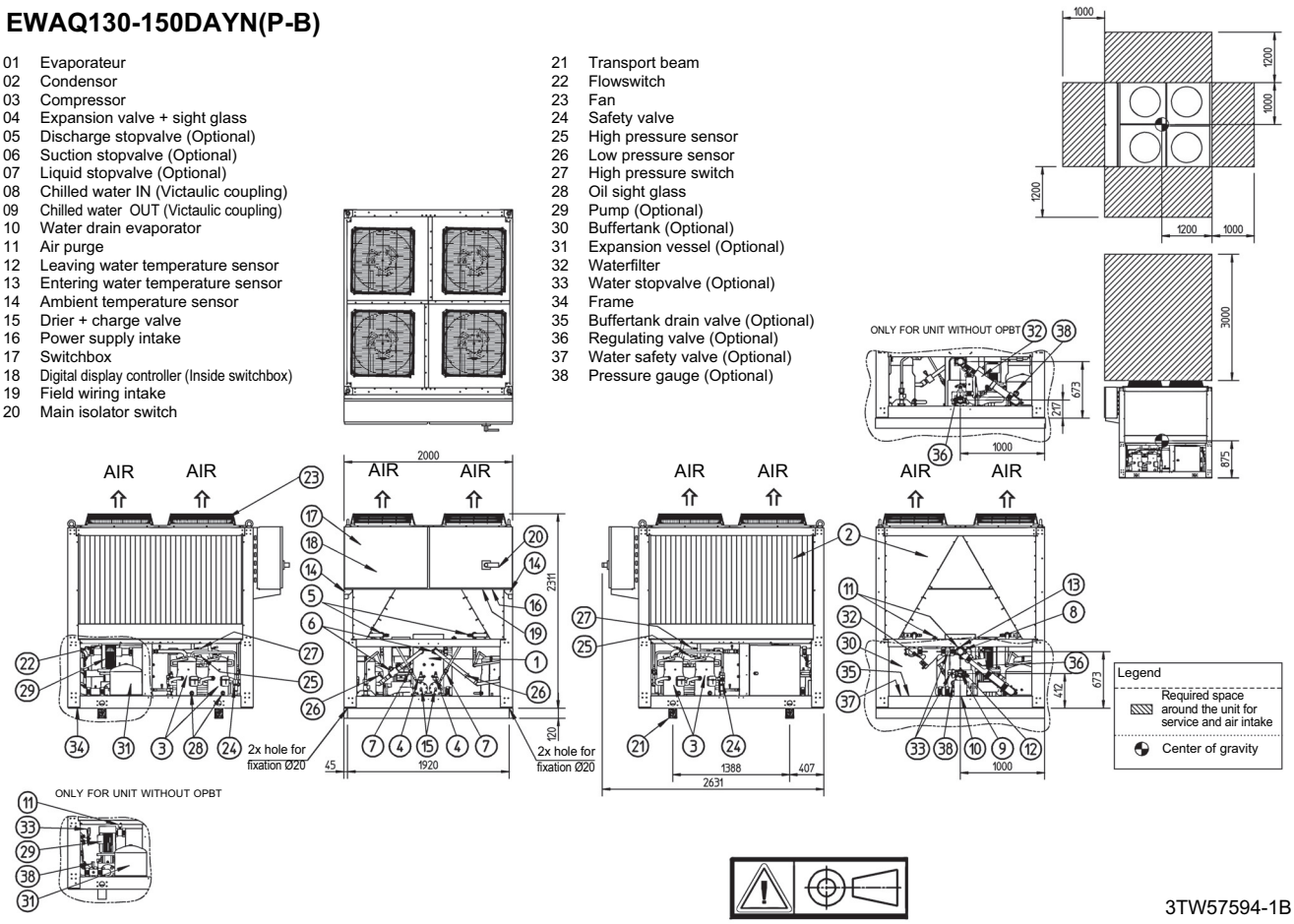
01 Evaporateur
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional)
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient temperature sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Waterfilter
30 Frame



3TW57594-2A

EWAQ130-150DAYN(P-B)

01 Evaporateur
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional)
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient temperature sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Pump (Optional)
30 Buffertank (Optional)
31 Expansion vessel (Optional)
32 Waterfilter
33 Water stopvalve (Optional)
34 Frame
35 Buffertank drain valve (Optional)
36 Regulating valve (Optional)
37 Water safety valve (Optional)
38 Pressure gauge (Optional)



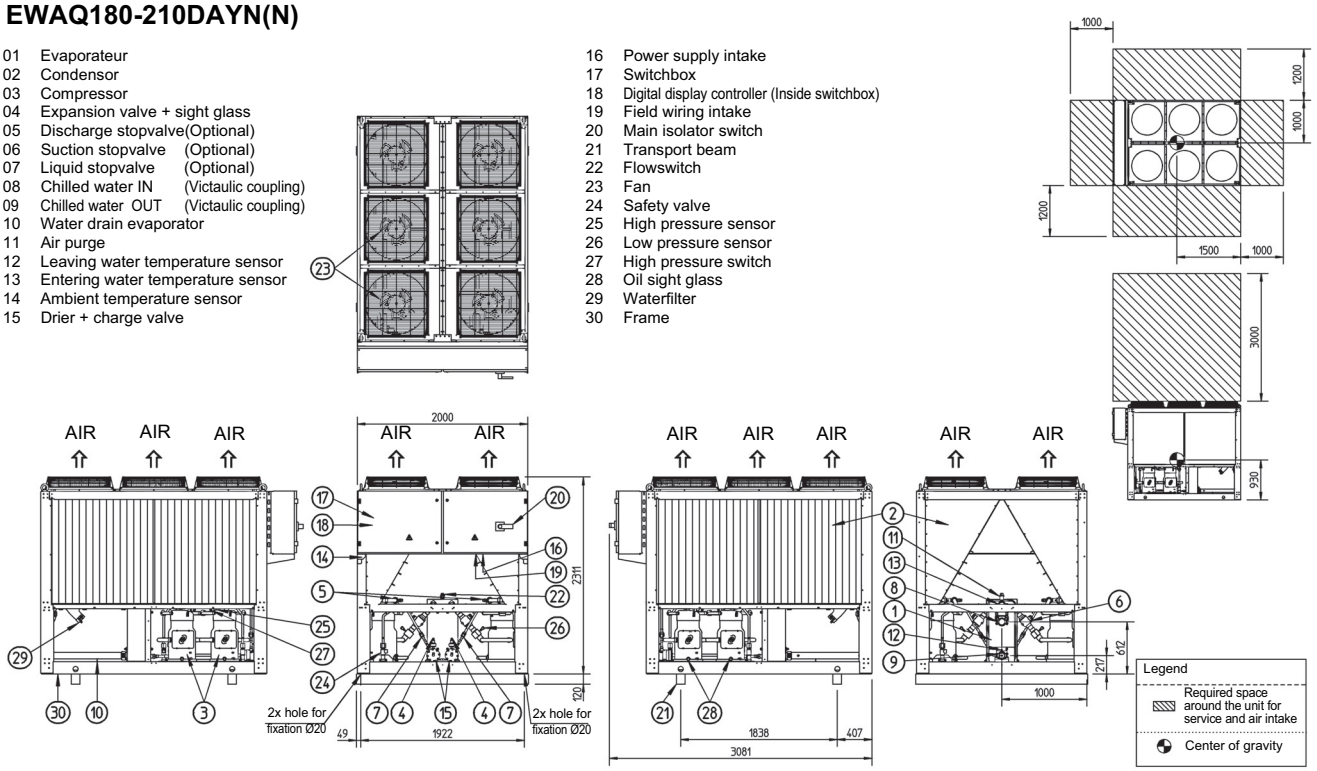
3TW57594-1B

5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

EWAQ180-210DAYN(N)

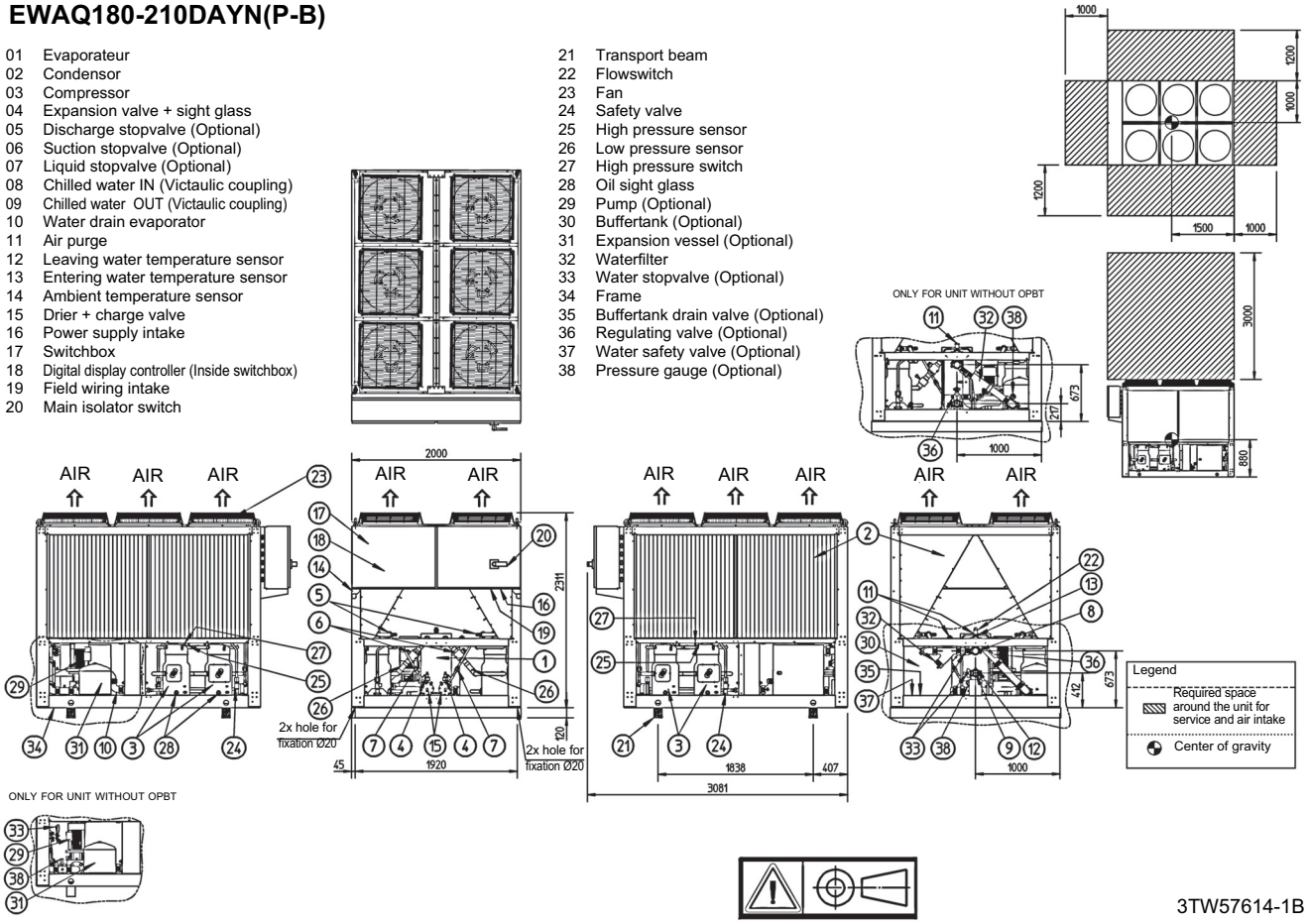
01 Evaporateur
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve(Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional)
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient temperature sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Waterfilter
30 Frame



3TW57614-2A

EWAQ180-210DAYN(P-B)

01 Evaporateur
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional)
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient temperature sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Pump (Optional)
30 Buffertank (Optional)
31 Expansion vessel (Optional)
32 Waterfilter
33 Water stopvalve (Optional)
34 Frame
35 Buffertank drain valve (Optional)
36 Regulating valve (Optional)
37 Water safety valve (Optional)
38 Pressure gauge (Optional)



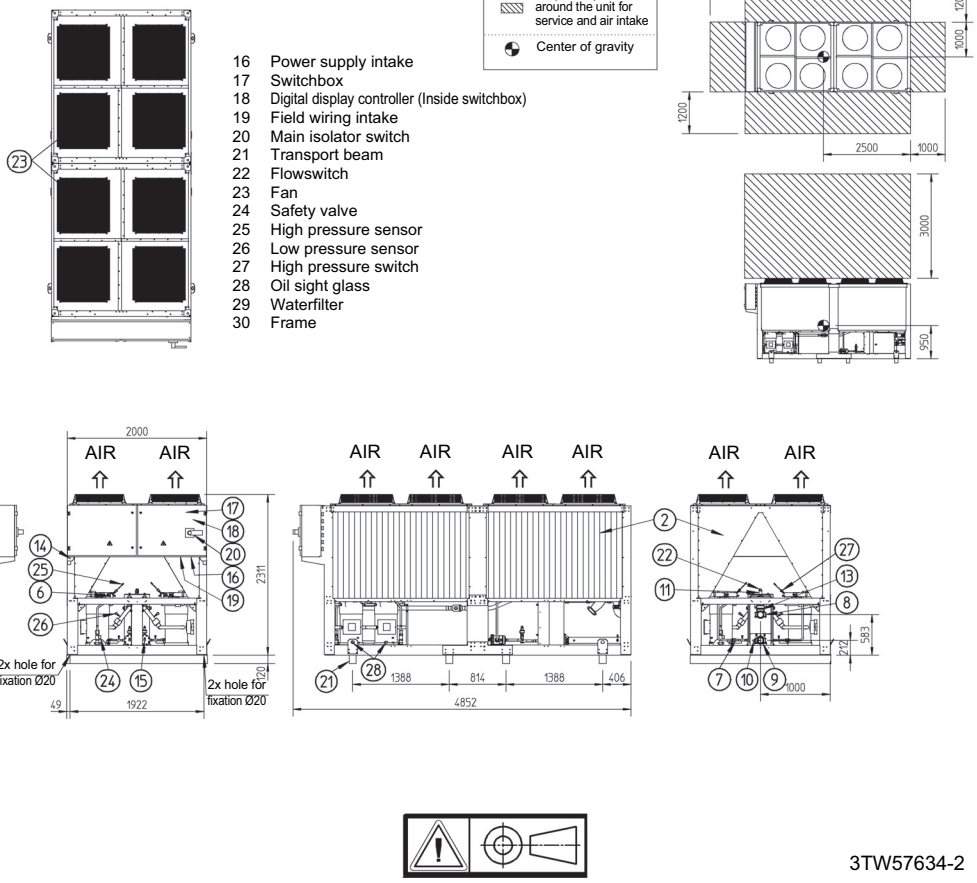
3TW57614-1B

5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

EWAQ240-260DAYN(N)

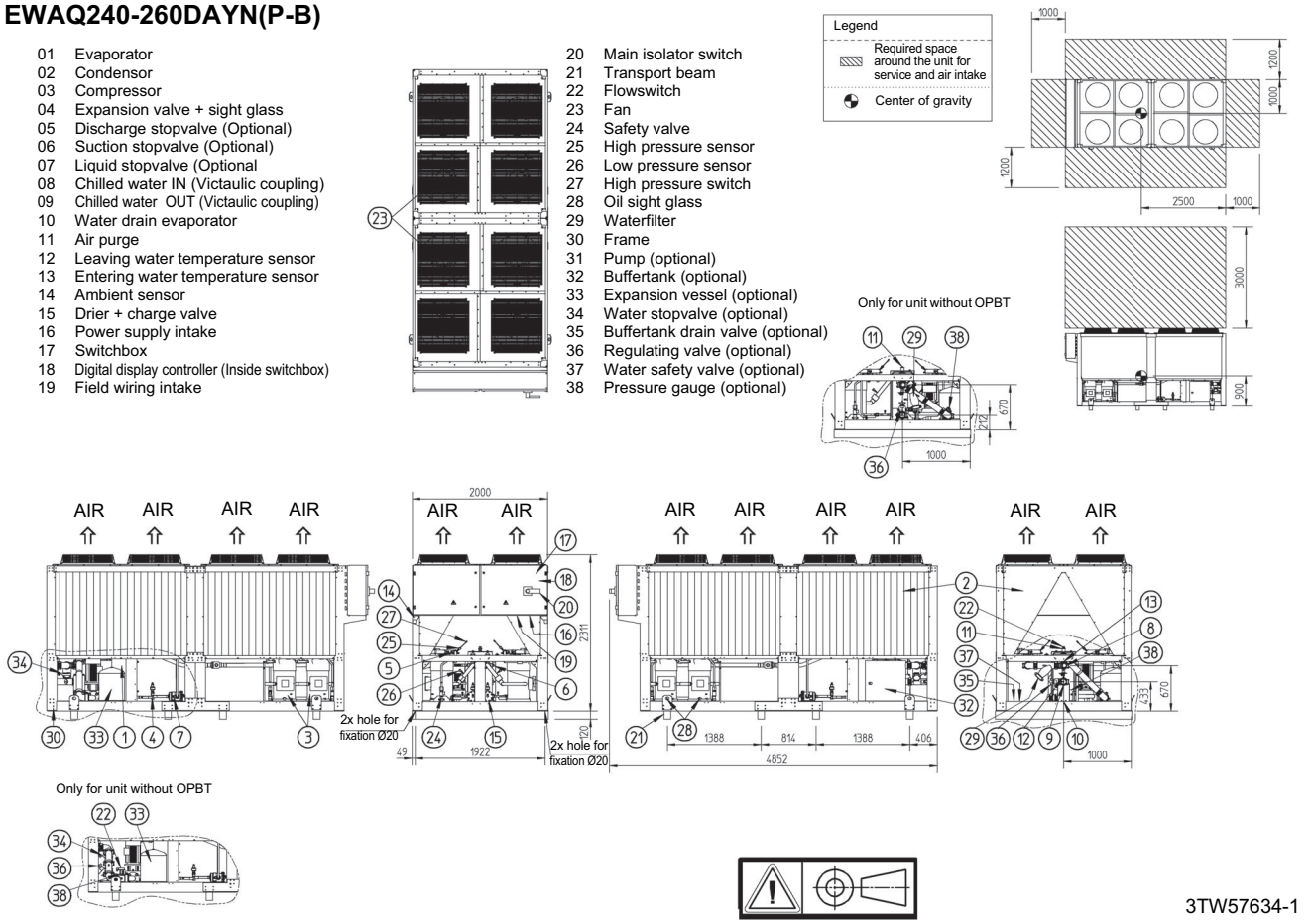
01 Evaporateur
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional)
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Waterfilter
30 Frame



3TW57634-2

EWAQ240-260DAYN(P-B)

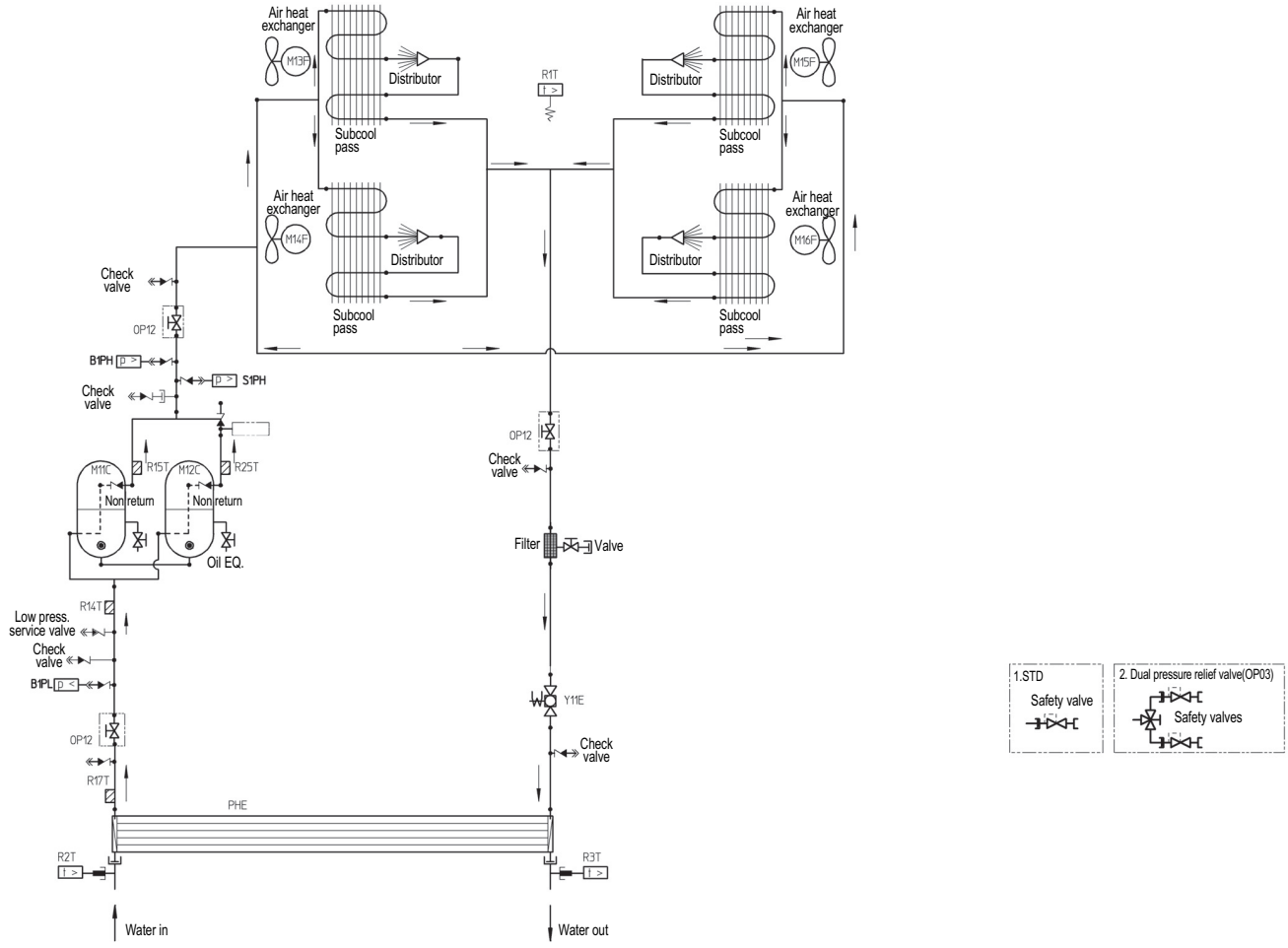
01 Evaporator
02 Condensor
03 Compressor
04 Expansion valve + sight glass
05 Discharge stopvalve (Optional)
06 Suction stopvalve (Optional)
07 Liquid stopvalve (Optional
08 Chilled water IN (Victaulic coupling)
09 Chilled water OUT (Victaulic coupling)
10 Water drain evaporator
11 Air purge
12 Leaving water temperature sensor
13 Entering water temperature sensor
14 Ambient sensor
15 Drier + charge valve
16 Power supply intake
17 Switchbox
18 Digital display controller (Inside switchbox)
19 Field wiring intake
20 Main isolator switch
21 Transport beam
22 Flowswitch
23 Fan
24 Safety valve
25 High pressure sensor
26 Low pressure sensor
27 High pressure switch
28 Oil sight glass
29 Waterfilter
30 Frame
31 Pump (optional)
32 Buffertank (optional)
33 Expansion vessel (optional)
34 Water stopvalve (optional)
35 Buffertank drain valve (optional)
36 Regulating valve (optional)
37 Water safety valve (optional)
38 Pressure gauge (optional)



3TW57634-1

6 Piping diagram

EWAQ080-100DAYN(N-P-B) (piping diagram)



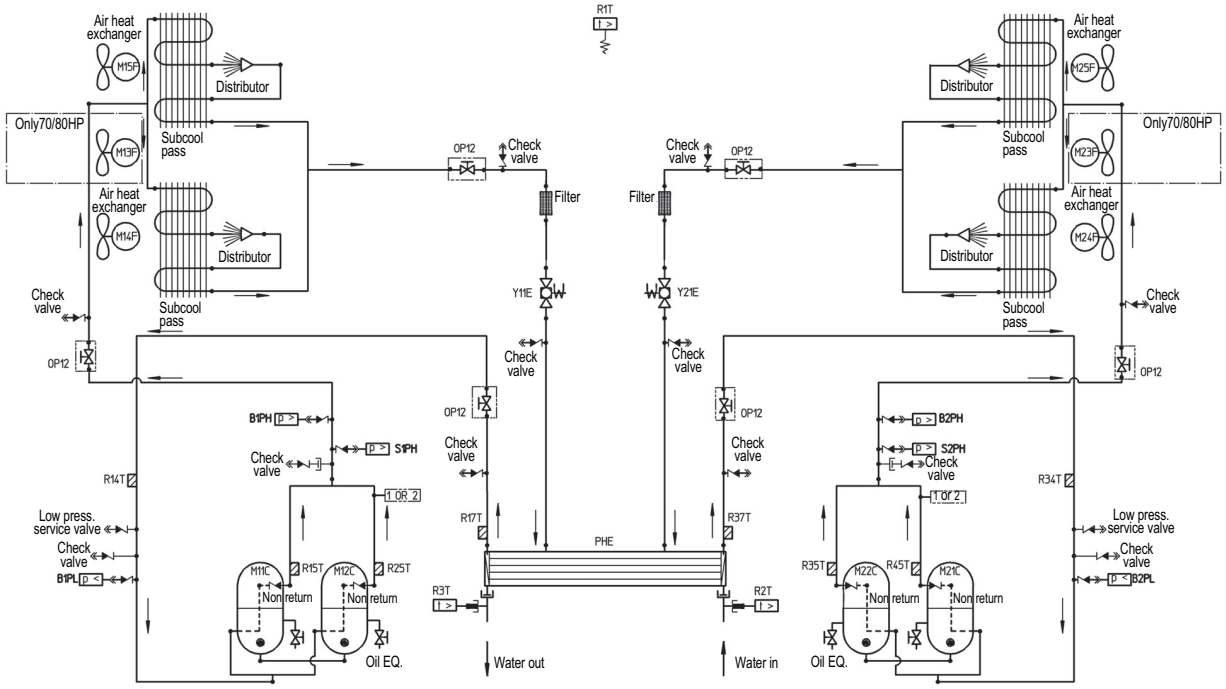
MERK	BENAMING		
M11-12C	Compressor motors	B1PH	High pressure sensor
M13-16F	Fan motors	B1PL	Low pressure sensor
R14T	Suction temperature sensor	Y11E	Electronic expansion valve cooling
R17T	Refrigerant piping temperature sensor	R1T	Ambient temperature sensor
S1PH	High pressure switch	R2T	Evaporator inlet water temperature sensor
R15T, R25T	Discharge temperature sensor	R3T	Evaporator outlet water temperature sensor

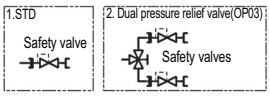
: Check valve
: Flare Conn.
: Screw conn.
: Flange conn.
: Pinched pipe
: Spinned pipe

3TW57575-1

6 Piping diagram

EWAQ130-210DAYN(N-P-B)(piping diagram)





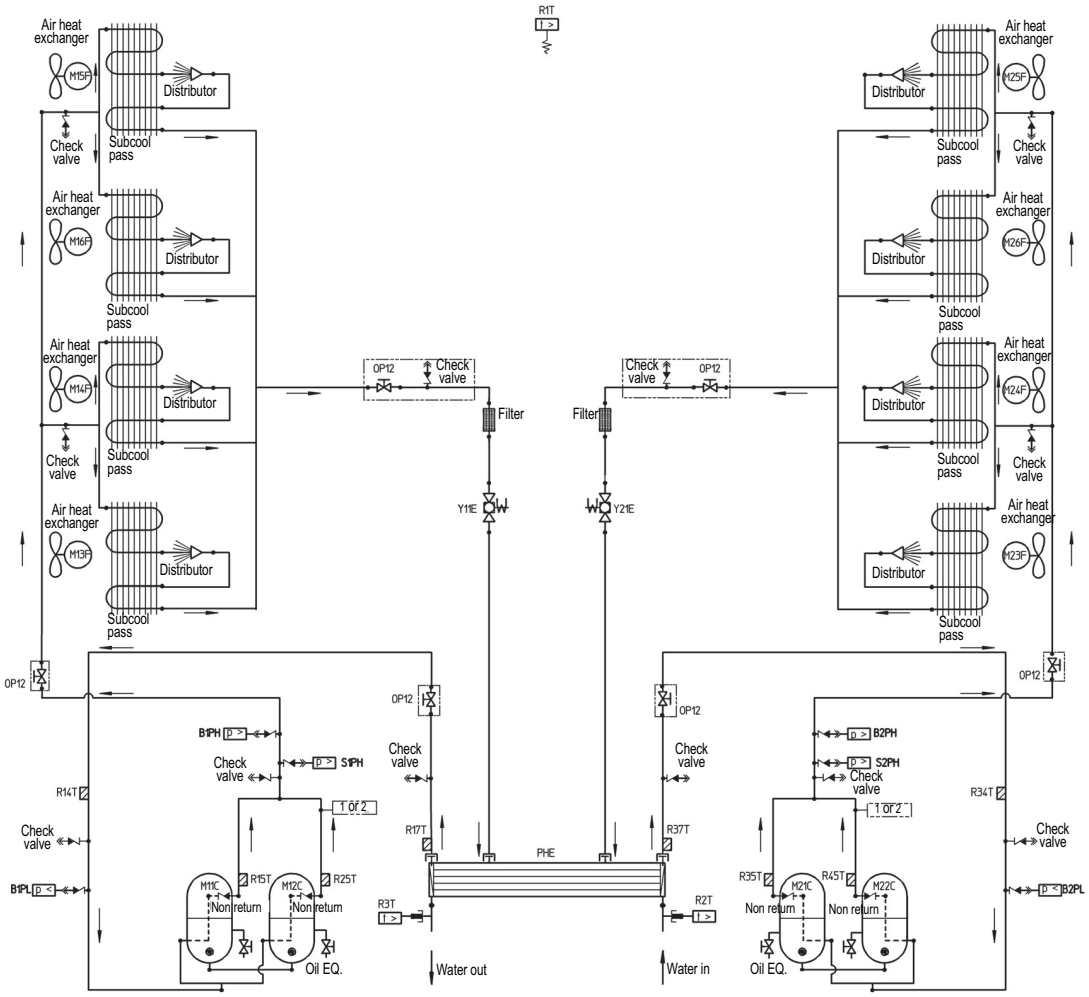
MERK	BENAMING		
M11-12C	Compressor motors circuit 1	M23-25F	Fan motors circuit 2
M13-15F	Fan motors circuit 1	R34T	Suction temperature sensor circuit 2
R14T	Suction temperature sensor circuit 1	R37T	Refrigerant piping temperature sensor circuit 2
R17T	Refrigerant piping temperature sensor circuit 1	S2PH	High pressure switch circuit 2
S1PH	High pressure switch circuit 1	R35T, R35T	Discharge temperature sensor circuit 2
R15T, R25T	Discharge temperature sensor circuit 1	B2PH	High pressure sensor circuit 2
B1PH	High pressure sensor circuit 1	B2PL	Low pressure sensor circuit 2
B1PL	Low pressure sensor circuit 1	Y21E	Electronic expansion valve cooling circuit 2
Y11E	Electronic expansion valve cooling circuit 1	R1T	Ambient temperature sensor
M21-22C	Compressor motors circuit 2	R2T	Evaporator inlet water temperature sensor
		R3T	Evaporator outlet water temperature sensor

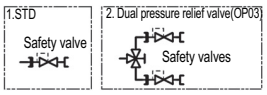
: Check valve
: Flare Conn.
: Screw conn.
Flange conn.
: Pinched pipe
: Spinned pipe

2TW57595-1

6 Piping diagram

EWAQ240-260DAYN(N-P-B)(piping diagram)





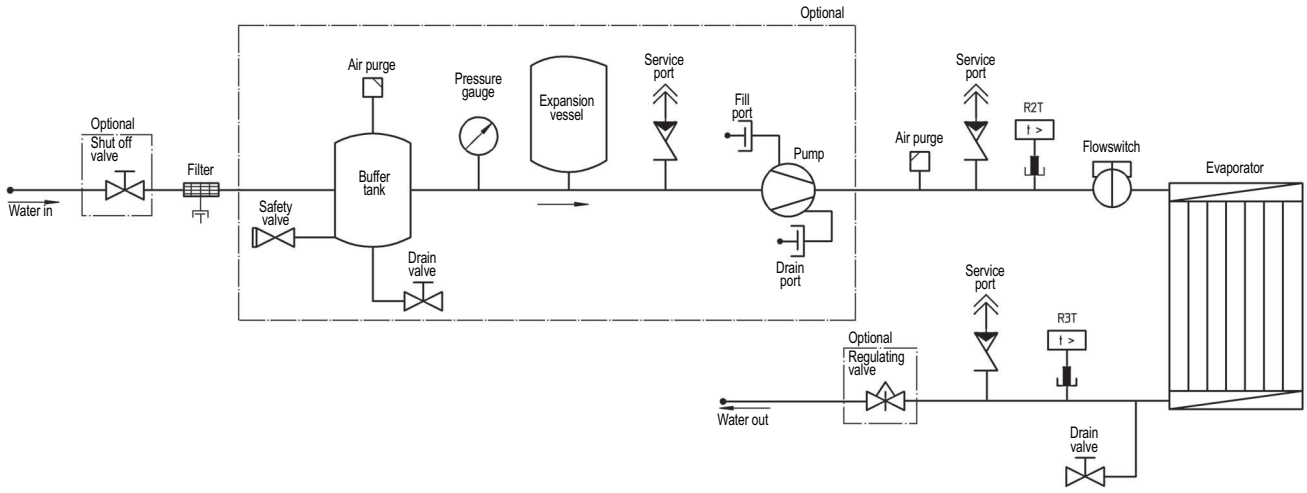
MERK	BENAMING		
M11-12C	Compressor motors circuit 1	M23-26F	Fan motors circuit 2
M13-16F	Fan motors circuit 1	R34T	Suction temperature sensor circuit 2
R14T	Suction temperature sensor circuit 1	R37T	Refrigerant piping temperature sensor circuit 2
R17T	Refrigerant piping temperature sensor circuit 1	S2PH	High pressure switch circuit 2
S1PH	High pressure switch circuit 1	R35T, R35T	Discharge temperature sensor circuit 2
R15T, R25T	Discharge temperature sensor circuit 1	B2PH	High pressure sensor circuit 2
B1PH	High pressure sensor circuit 1	B2PL	Low pressure sensor circuit 2
B1PL	Low pressure sensor circuit 1	Y21E	Electronic expansion valve cooling circuit 2
Y11E	Electronic expansion valve cooling circuit 1	R1T	Ambient temperature sensor
M21-22C	Compressor motors circuit 2	R2T	Evaporator inlet water temperature sensor
		R3T	Evaporator outlet water temperature sensor

: Check valve
: Flare Conn.
: Screw conn.
Flange conn.
: Pinched pipe
: Spinned pipe

2TW57635-1

6 Piping diagram

EWAQ-EWYQ-DAYN(N-P-B)(water piping diagram)



: Check valve
: Flare Conn.
: Screw conn.
: Flange conn.
: Pinched pipe
: Spinned pipe

3TW57575-2A

7 Wiring diagram

7 - 1 External connection diagram

LEGEND

Translation of this legend can be found in the installation manual.

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

: Field wiring

(1) : Several wiring possibilities

: Dipswitch set on left position

Part number		Description
A02P	**	Communication PCB (EKACPG)
A4P		PCB wired remote control
A5P	**	PCB wired remote control (EKRUPG)
E5H	*	fieldheater
F1,F2,F3	#	main fuses
F4,F5	#	fuses for heaters
H11,12,21,22P	*	indication lamp: operation compressor
H1P	*	indication lamp: alarm signal (default NO)
H2,3,4,5,6P	*	indication lamp for changeable digital outputs
K1P	##	pump contactor (Only OPSP/OPHP/OPSC/OPTP/OPTC)
K2P	**	pump contactor (Only for OPTP/OPTC)
K1S	*	overcurrent relay pump (P/B unit or OPSC)
M1P	*	pump motor 1 (Only OPSP/ OPHP/OPSC/OPTP/OPTC)
M2P	*	pump motor 2 (Only for OPTP/OPTC)
R8T	*	temperature sensor for changeable ambient
S1M		main isolator switch
S1,2,3,4,5S	*	switch for changeable digital input
S2M	#	heatertape isolator switch
V2C	**	ferrite core (EKACPG)

Options (factory installed)	
OPSP	=Single pump
OPTP	=Twin pump
OPSC	=Single pump contactor
OPTC	=Twin pump contactor
OPHP	=Hi ESP pump
OPIF	=Inverter fans

Options (user installed)	
EKACPG	=Address card including
	-RS 485 (Integrated modbus)
	-F1,F2 (DCIN+DBACS connection)
EKRUPG	=Remote user interface

N-Model	=unit with no options included
Ch.	=Changeable

Changeable I/O possible functions

Refer to the installation manual for instructions how to configure changeable I/O

Changeable digital input (4 available)
-None
-Status
-Dual setpoint
-Remote on-off
-Capacity limitation 25%,50%,75% or setting
-Low noise (only for OPIF)
-Free cooling signal
-Fan forced on

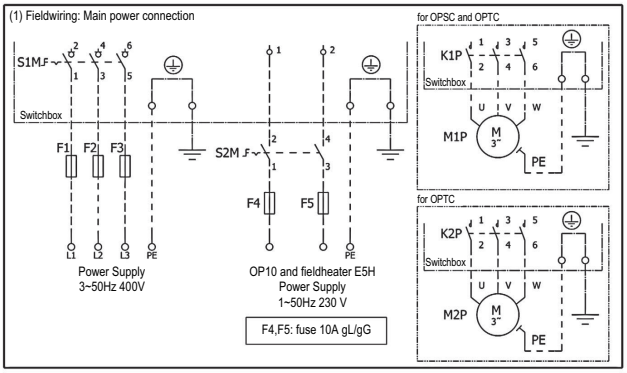
Changeable analog output (1 available)
-None
-Unit Capacity (mA,V)
-Details of types
Type mA: 0..20mA/4..20mA
Type V: 0-1V/0-5V/0-10V

Changeable digital output (6 or 5 available depending on unit)
-None
-Closed
-2nd pump
-100% capacity
-Full capacity
-Free cooling
-General operation
-Safety+warning NO
-Safety+warning NC (only for Ch.DO1)
-Safety NO (excluding warning)
-Safety NC (excluding warning) (only for Ch.DO1)
-C1,C2 Safety NO
-Warning NO
-C1,C2 operation
-Cooling (only EWYQ)
-Heating (only EWYQ)
-Defrost (only EWYQ

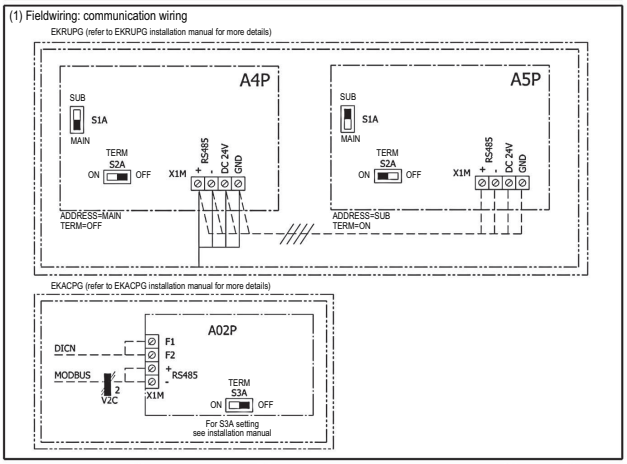
Changeable analog input (4 available)
-None
-Status (mA,V,NTC*,DI)
-Floating setpoint (mA, V, NTC*)
-Water temperature measurement (NTC*)
-Changeable DI, refer to Ch DI for possibilities (DI)
-Details of types:
Type mA: 0..20mA/4..20mA
(internal 5V or external power supply)
Type V: 0-1V/0-5V/0-10V
Type DI: DI (5V detection)

*: for allowed NTC types and how to configure the software please contact your local dealer.

(1) Fieldwiring: Main power connection

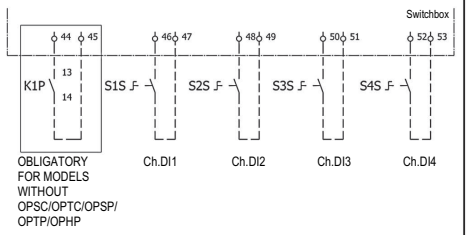


(1) Fieldwiring: communication wiring

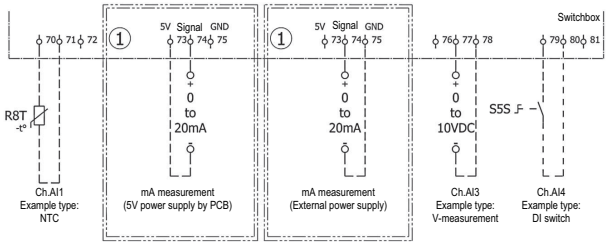


DAIKIN	Description: Connection diagram		Drawing number: 4TW57579-2	Revision: B	Page: 1
		Unit name:	EWAQ/EWYQ 80-260		

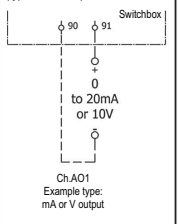
(3) Fieldwiring: Digital input terminals



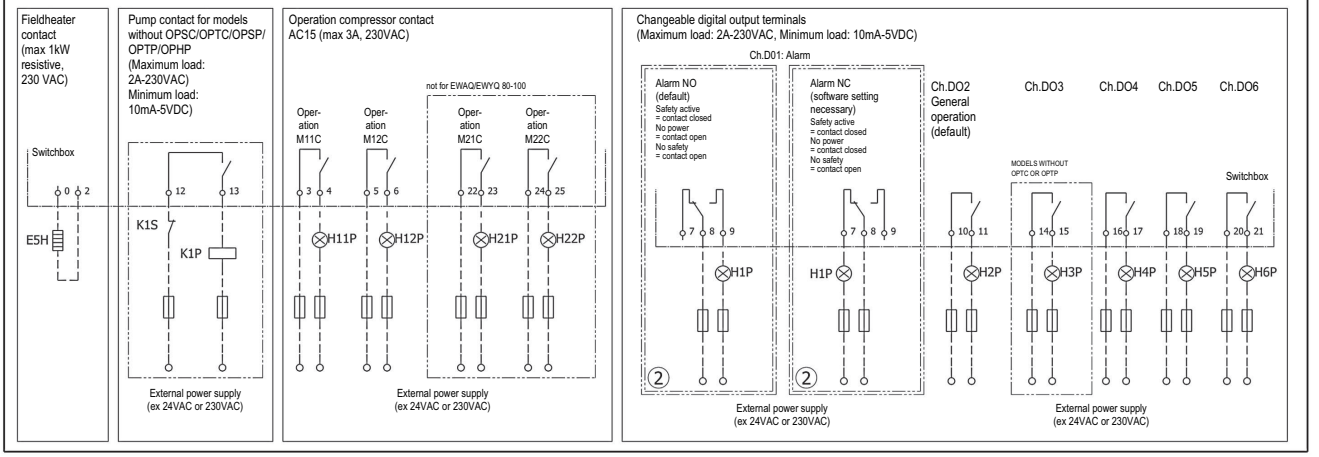
(4) Fieldwiring: Analog input terminals
(connection is depending on type setting: NTC or mA or V or DI)



(5) Fieldwiring:
Analog output terminals
(types: mA or V)



(6) Fieldwiring: Output terminals



DAIKIN	Description: Connection diagram		Drawing number: 4TW57579-2	Revision: B	Page: 2
		Unit name:	EWAQ/EWYQ 80-260		

8 Sound data

8 - 1 Sound power spectrum

EWAQ-EWYQ-DAYN(N-P-B)

STD - Units	Sound power Lw per Octva band (dB)								Total (dBA)
	63	125	250	500	1000	2000	4000	8000	LwA
EWAQ080DAYN*	64	69	73	83	80	77	71	63	86
EWAQ100DAYN*	63	69	74	82	81	80	73	61	86
EWAQ130DAYN*	64	70	73	81	85	80	72	61	88
EWAQ150DAYN*	65	74	75	85	84	80	74	65	89
EWAQ180DAYN*	70	75	79	85	86	82	75	64	90
EWAQ210DAYN*	68	75	80	86	87	84	77	65	91
EWAQ240DAYN*	66	71	75	88	84	84	76	57	91
EWAQ260DAYN*	67	71	75	91	86	82	77	58	93
EWYQ080DAYN*	64	69	73	83	80	77	71	63	86
EWYQ100DAYN*	63	69	74	82	81	80	73	61	86
EWYQ130DAYN*	64	70	73	81	85	80	72	61	88
EWYQ150DAYN*	65	74	75	85	84	80	74	65	89
EWYQ180DAYN*	70	75	79	85	86	82	75	64	90
EWYQ210DAYN*	68	75	80	86	87	84	77	65	91
EWYQ230DAYN*	66	71	75	88	84	84	76	57	91
EWYQ250DAYN*	67	71	75	91	86	82	77	58	93

OPLN:
(Compressor insulation + inverter fans)

A sound reduction is obtained up to 5 dBA in full operation, depending on the operation condition.

NOTES

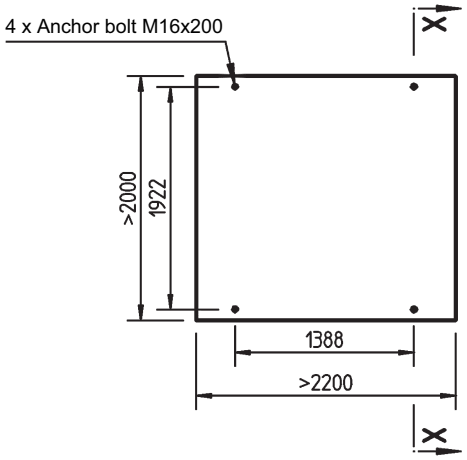
1 Data valid at nominal operation condition
2 According to ISO9614-2

4TW57577-1B

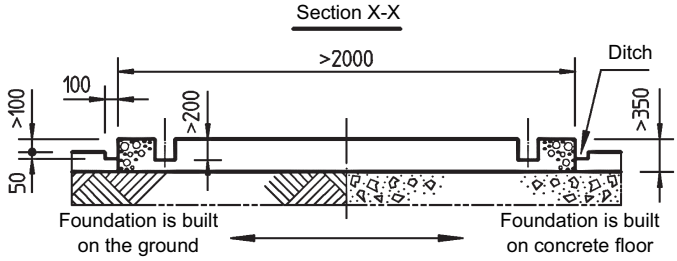
9 Installation

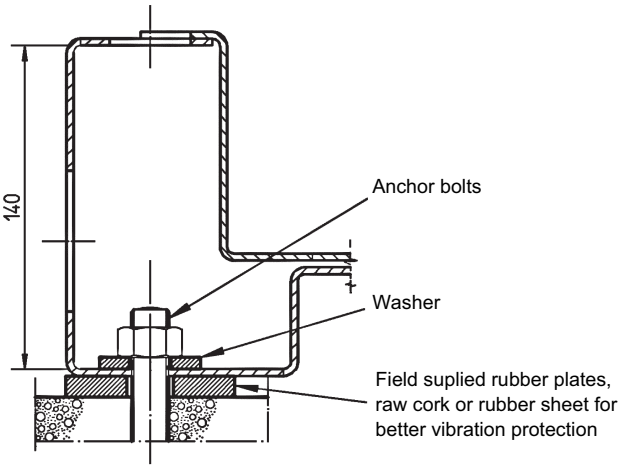
9 - 1 Fixation and foundation of units

EWAQ-EWYQ080-150DAYN(N-P-B)



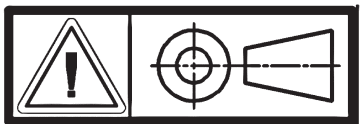
Fix anchor bolts into the concrete foundation.
The concrete foundation should be higher than the floor level by approximately 100 mm for ease of plumbing work and better drain.
Further, strength of the floor should be sufficient to support the weights of concrete foundation and unit.
Be certain that foundation surface is even and flat.





NOTES

1 The measurement tabulated is based on the fact the base is made in the ground or on a concrete floor. In case the base is made on a concrete floor. In case the base is made on a rigid concrete floor, it is possible to include thickness of concrete floor, in that of the base.
2 In case a base is made on concrete floor, be sure to provide a ditch as shown. It is important to extract drainage regardless of wether a base is made in the ground or on the concrete floor. (Ditch → Sewerage).
3 Ingredient ratio of the concrete is cement: 1, sand: 2, gravel: 3, which is standard and insert iron bars of ∅10 at every interval of 300mm. The edge of the concrete base should be planed.

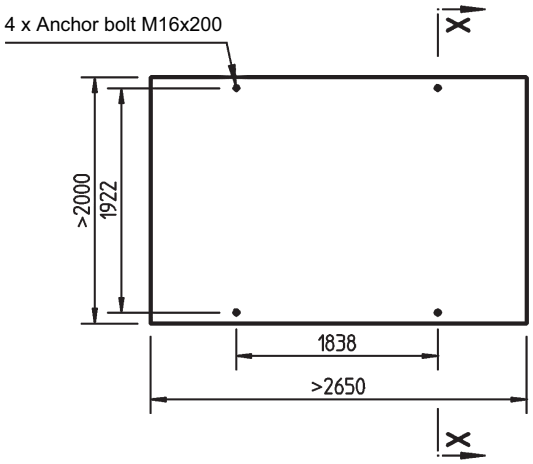


4TW57599-1

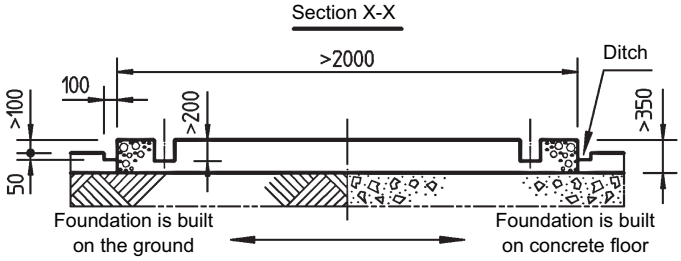
9 Installation

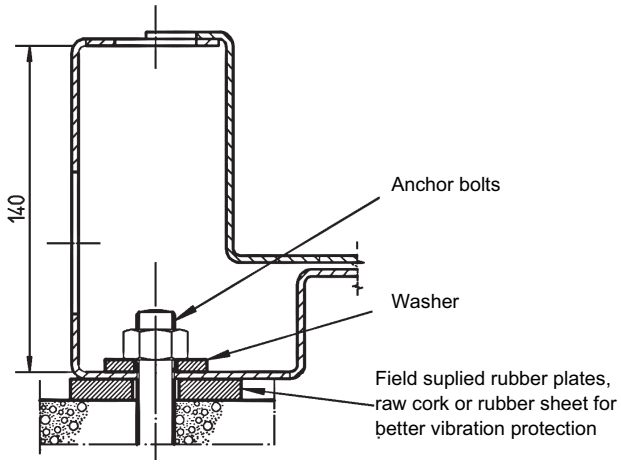
9 - 1 Fixation and foundation of units

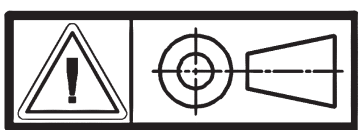
EWAQ-EWYQ180-210DAYN(N-P-B)



Fix anchor bolts into the concrete foundation.
The concrete foundation should be higher than the floor level by approximately 100 mm for ease of plumbing work and better drain.
Further, strength of the floor should be sufficient to support the weights of concrete foundation and unit.
Be certain that foundation surface is even and flat.







NOTES

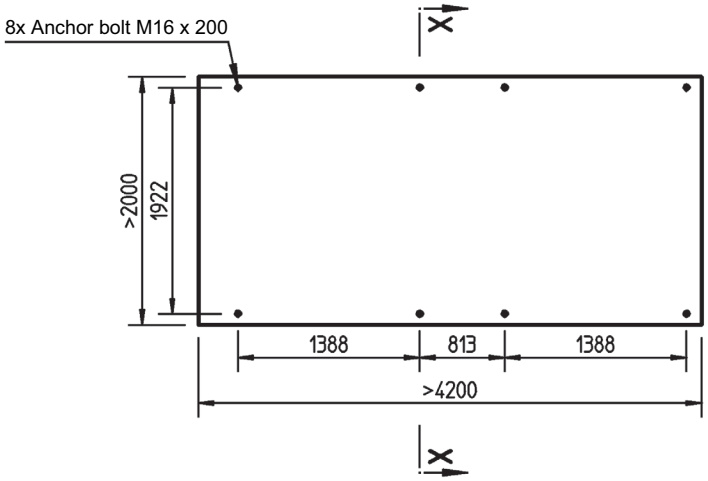
1 The measurement tabulated is based on the fact the base is made in the ground or on a concrete floor. In case the base is made on a concrete floor. In case the base is made on a rigid concrete floor, it is possible to include thickness of concrete floor, in that of the base.
2 In case a base is made on concrete floor, be sure to provide a ditch as shown. It is important to extract drainage regardless of wether a base is made in the ground or on the concrete floor. (Ditch → Sewerage).
3 Ingredient ratio of the concrete is cement: 1, sand: 2, gravel: 3, which is standard and insert iron bars of ∅10 at every interval of 300mm. The edge of the concrete base should be planed.

4TW57619-1

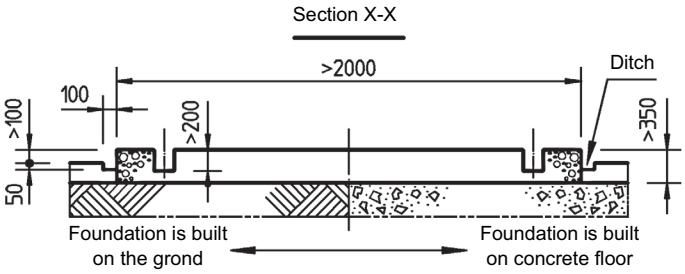
9 Installation

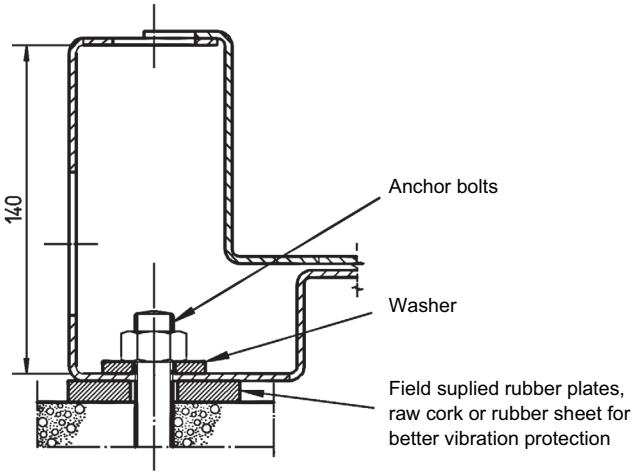
9 - 1 Fixation and foundation of units

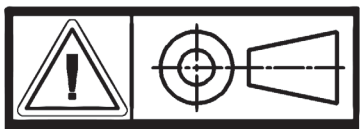
EWAQ240-260DAYN(N-P-B)_EWYQ230-250DAYN(N-P-B)



Fix anchor bolts into the concrete foundation.
The concrete foundation should be higher than the floor level by approximately 100 mm for ease of plumbing work and better drain.
Further, strength of the floor should be sufficient to support the weights of concrete foundation and unit.
Be certain that foundation surface is even and flat.







NOTES

1 The measurement tabulated is based on the fact the base is made in the ground or on a concrete floor. In case the base is made on a rigid concrete floor, it is possible to include thickness of concrete floor in that of the base.

2 In case a base is made on concrete floor, be sure to provide a ditch as shown. It is important to extract drainage regardless of wether a base is made in the ground or on the concrete floor. (Ditch → Sewerage).

3 Ingredient ratio of the concrete is cement: 1, sand:2, gravel:3, which is standard and insert iron bars of ∅10 at every interval of 300mm. The edge of the concrete base should be planed.

4TW57639-1

9 Installation

9 - 2 Water charge, flow and quality

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

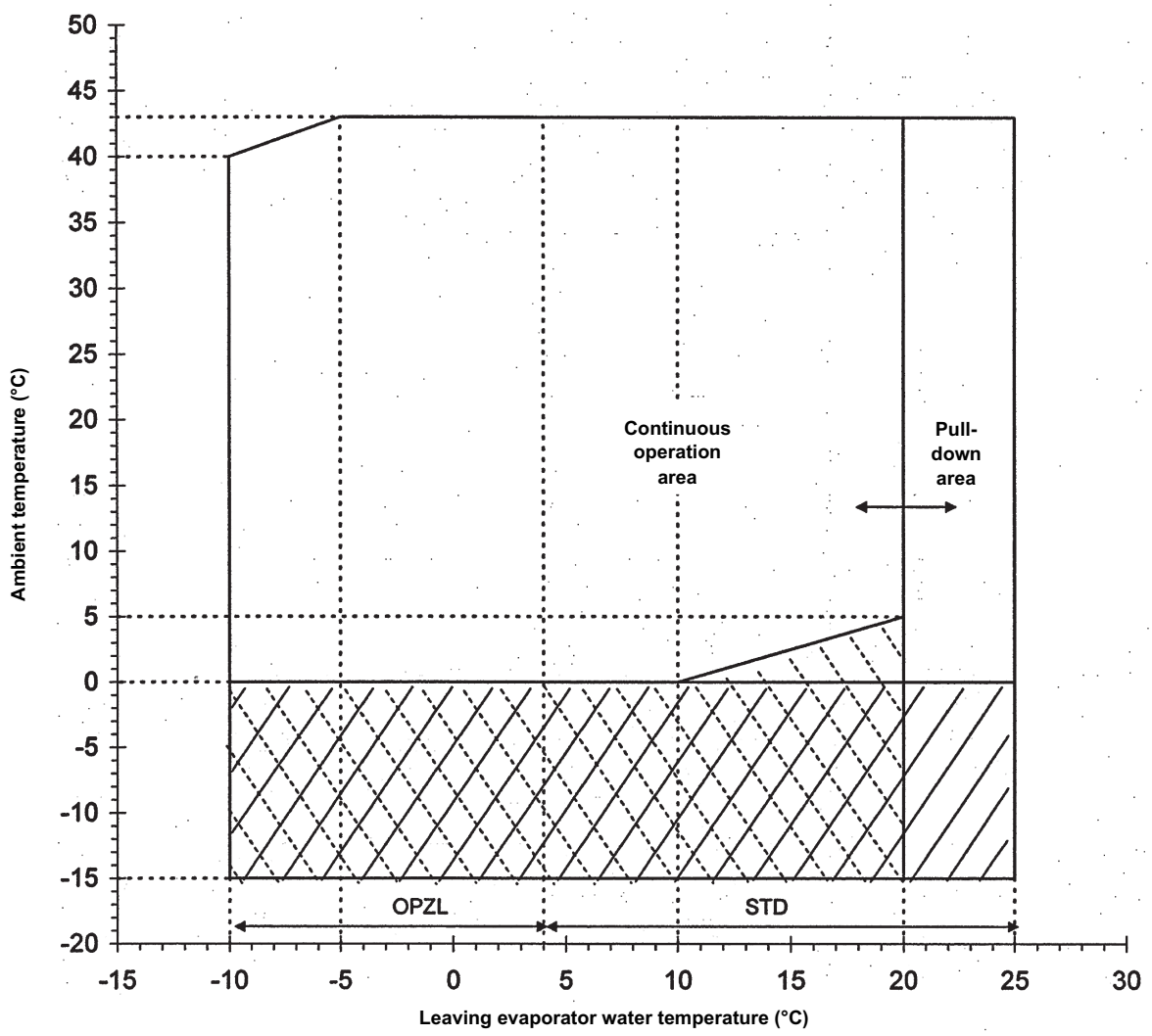
ITEMS	Evaporator water		Tendency if out of criteria
	Circulating water [<20°C]	Supply water	
Items to be controlled:			
- pH at 25°C	6.8 - 8.0	6.8 - 8.0	Corrosion + scale
- Electrical conductivity			
(mS/m) at 25°C	Below 40	Below 30	Corrosion + scale
- Chloride ion (mg Cl^-/l)	Below 50	Below 50	Corrosion
- 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 CO_2/l)	Below 4.0	Below 4.0	Corrosion
- Stability index	—	—	Corrosion + scale

3TW50179-1

Note:
Provide adequate safeguards in the water circuit to make sure that the water pressure will never exceed the maximum allowable working pressure.

10 Operation range

EWAQ080-100-180-210-240-260DAYN(N-P-B)



STD: Standard unit

OPZL: Leaving water evaporator from -10 to 4°C by use of glycol

Protect the water circuit against freezing by:

* OR OP10: heater tape

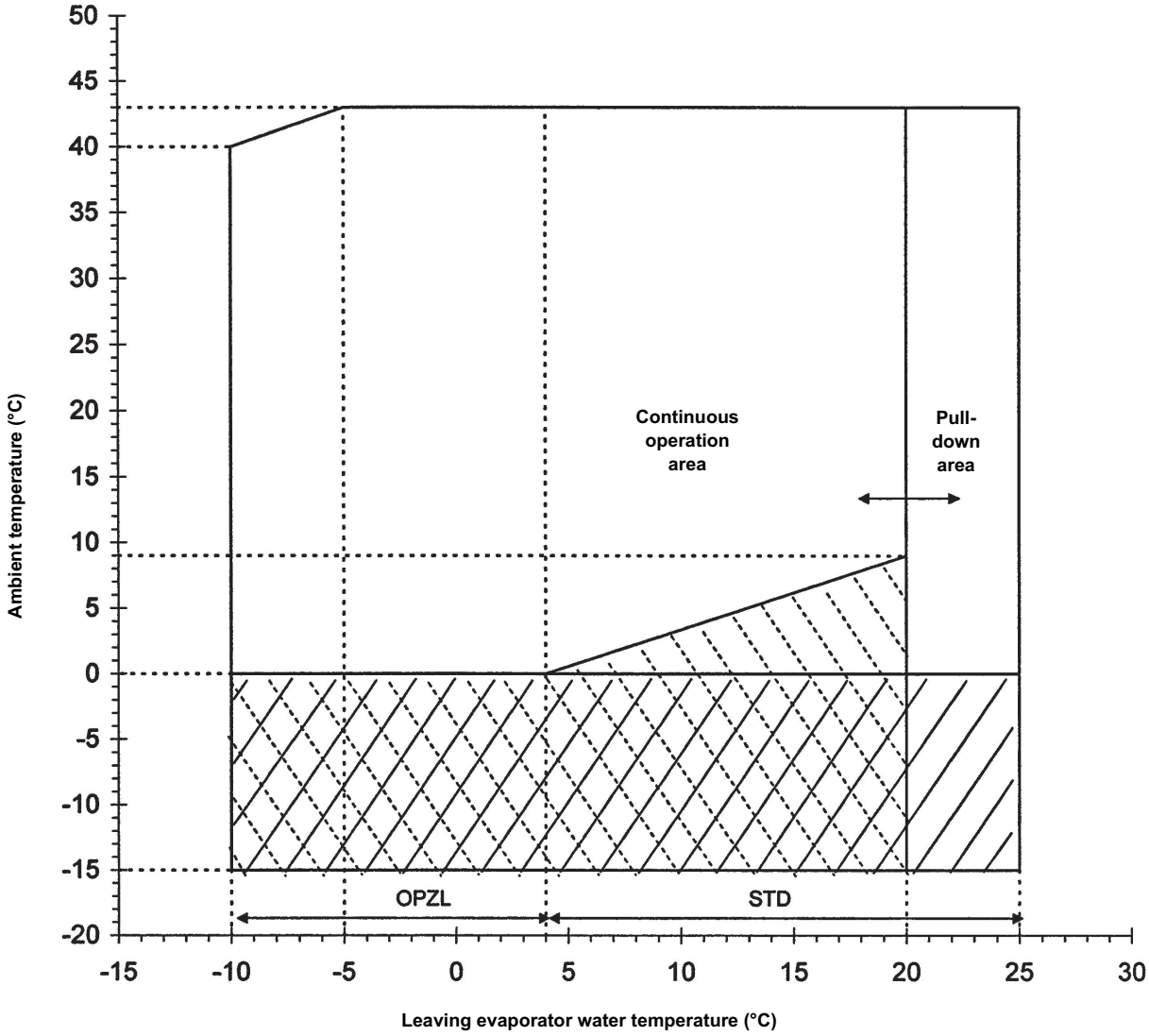
* Or filling up the system with a glycol solution

OPIF Option Inverter Fans EWAQ080-100-180-210-240-260

4TW57593-1B

10 Operation range

EWAQ130-150DAYN(N-P-B)



STD: Standard unit

OPZL: Leaving water evaporator from -10 to 4°C by use of glycol

Protect the water circuit against freezing by:

* OR OP10: heater tape
* Or filling up the system with a glycol solution

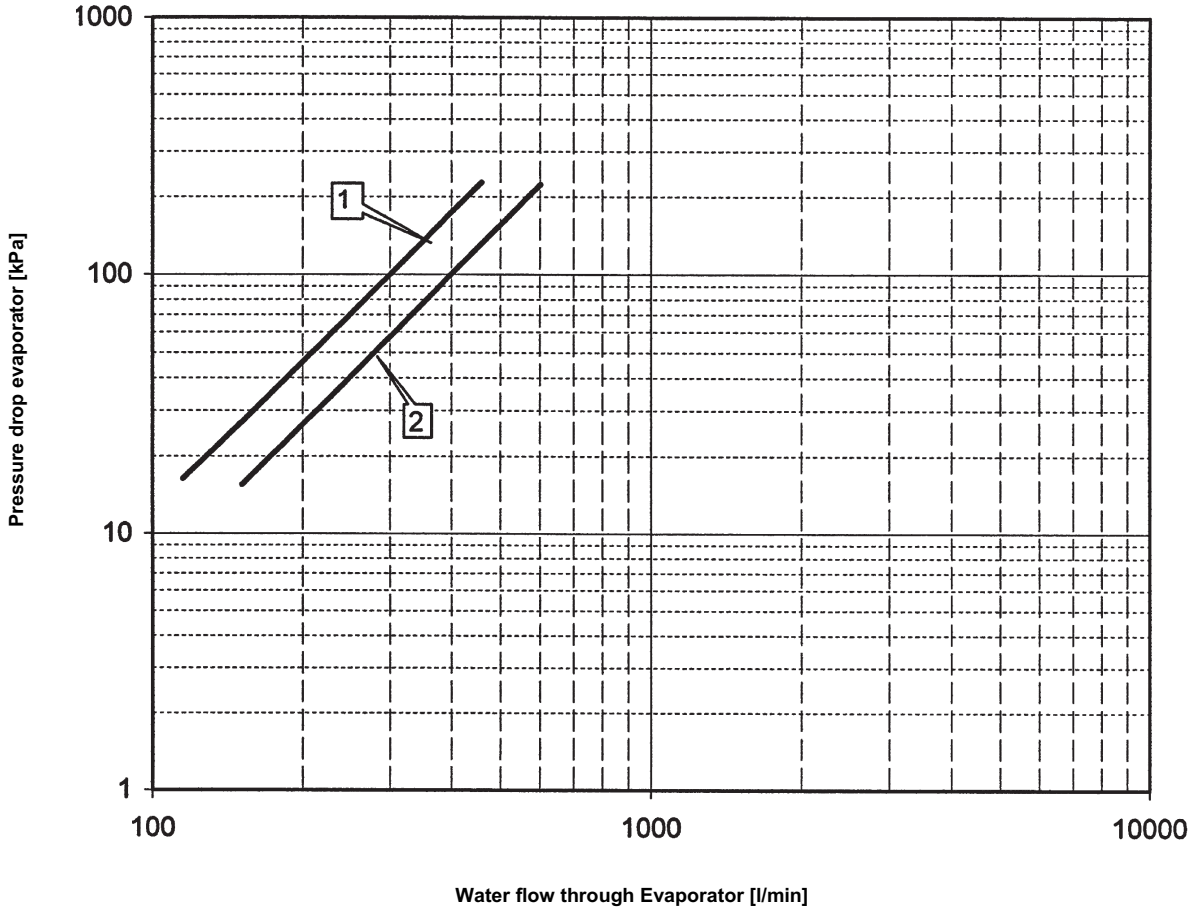
OPIF Option Inverter Fans EWAQ130-150

4TW57603-1A

11 Hydraulic performance

11 - 1 Water pressure drop curve evaporator

EWAQ080-100DAYN(N-P-B)



1. EWAQ080DAYN*

2. EWAQ100DAYN*

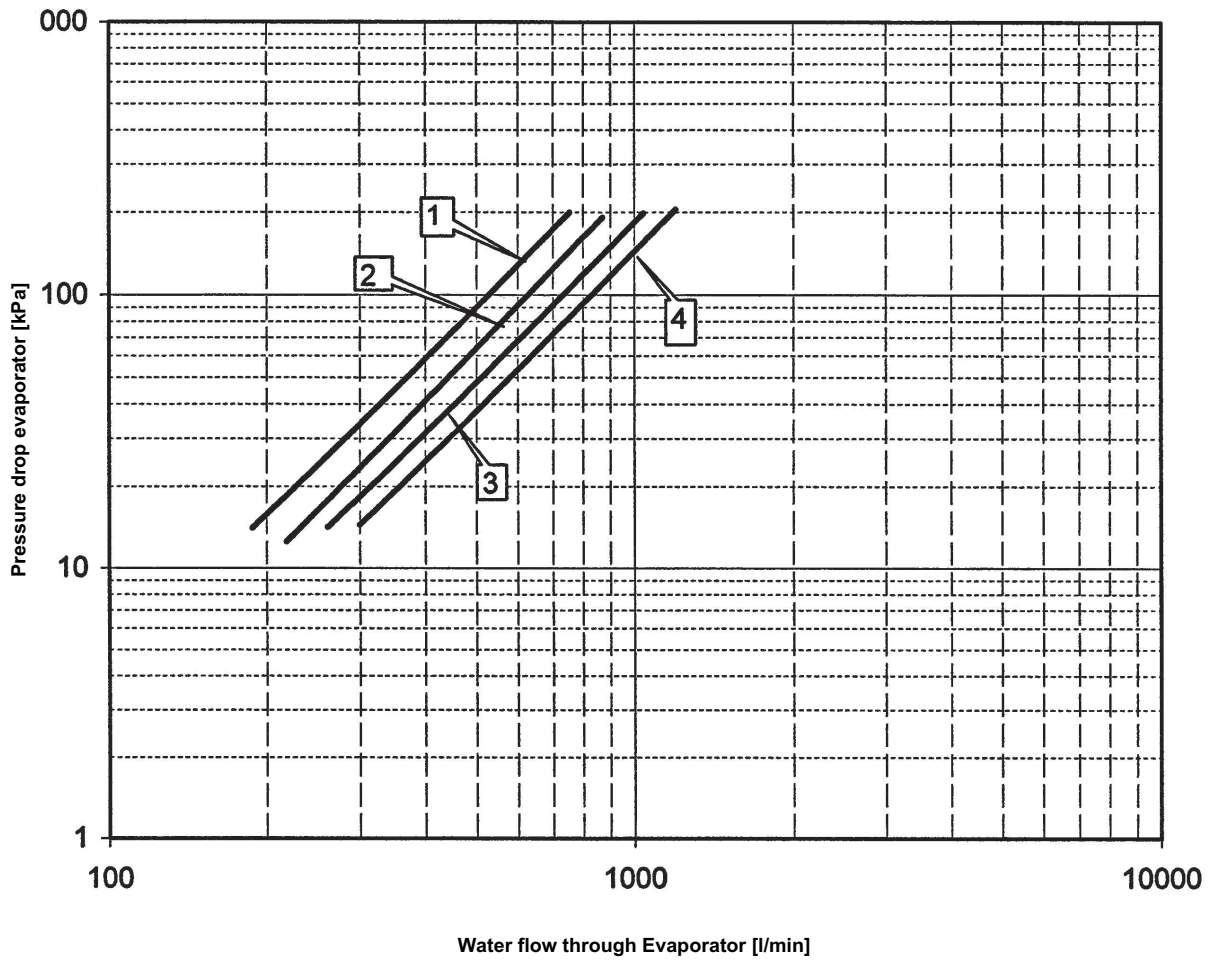
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57579-5

11 Hydraulic performance

11 - 1 Water pressure drop curve evaporator

EWAQ130-210DAYN(N-P-B)



1. EWAQ130DAYN*
2. EWAQ150DAYN*
3. EWAQ180DAYN*
4. EWAQ210DAYN*

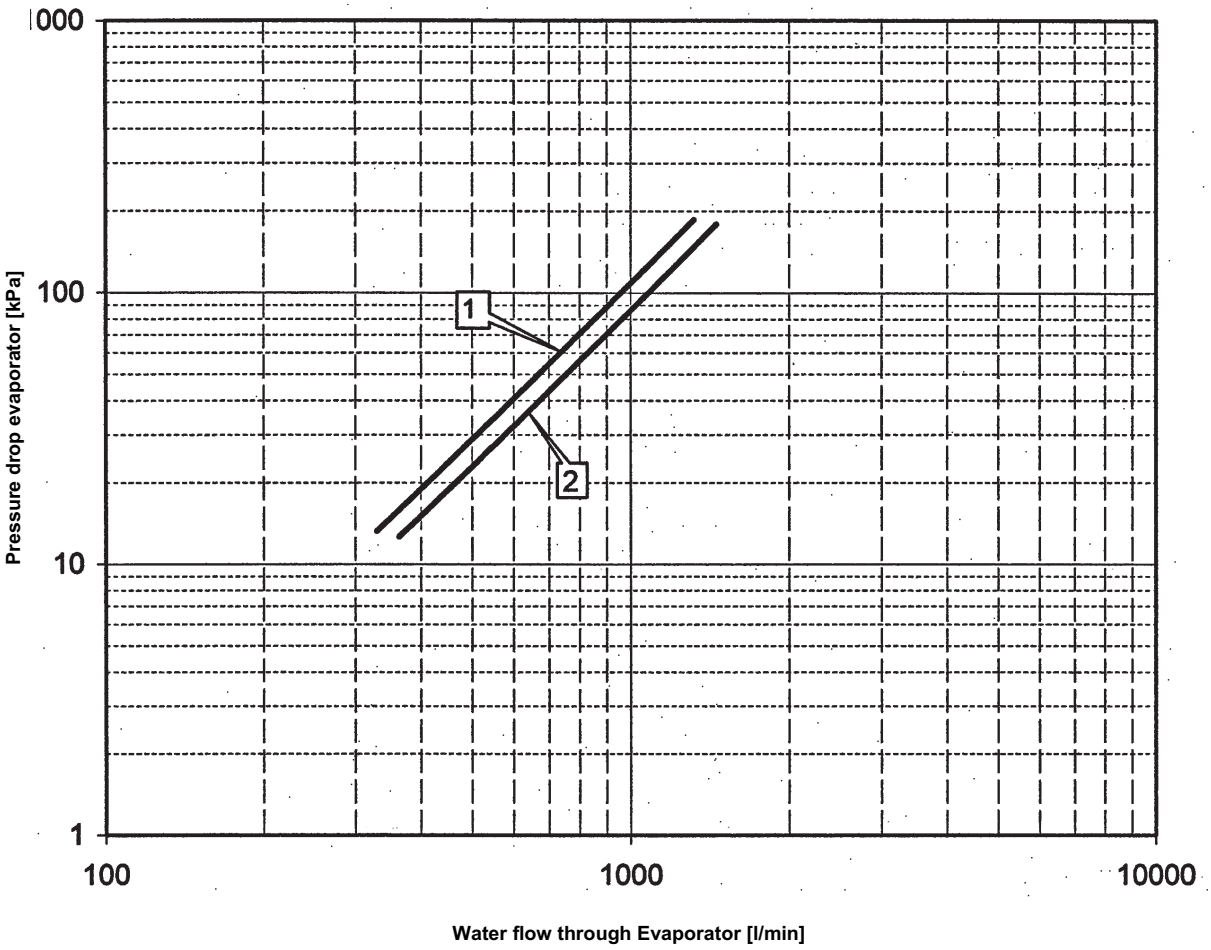
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57599-5

11 Hydraulic performance

11 - 1 Water pressure drop curve evaporator

EWAQ240-260DAYN(N-P-B)



1. EWAQ240DAYN*

2. EWAQ260DAYN*

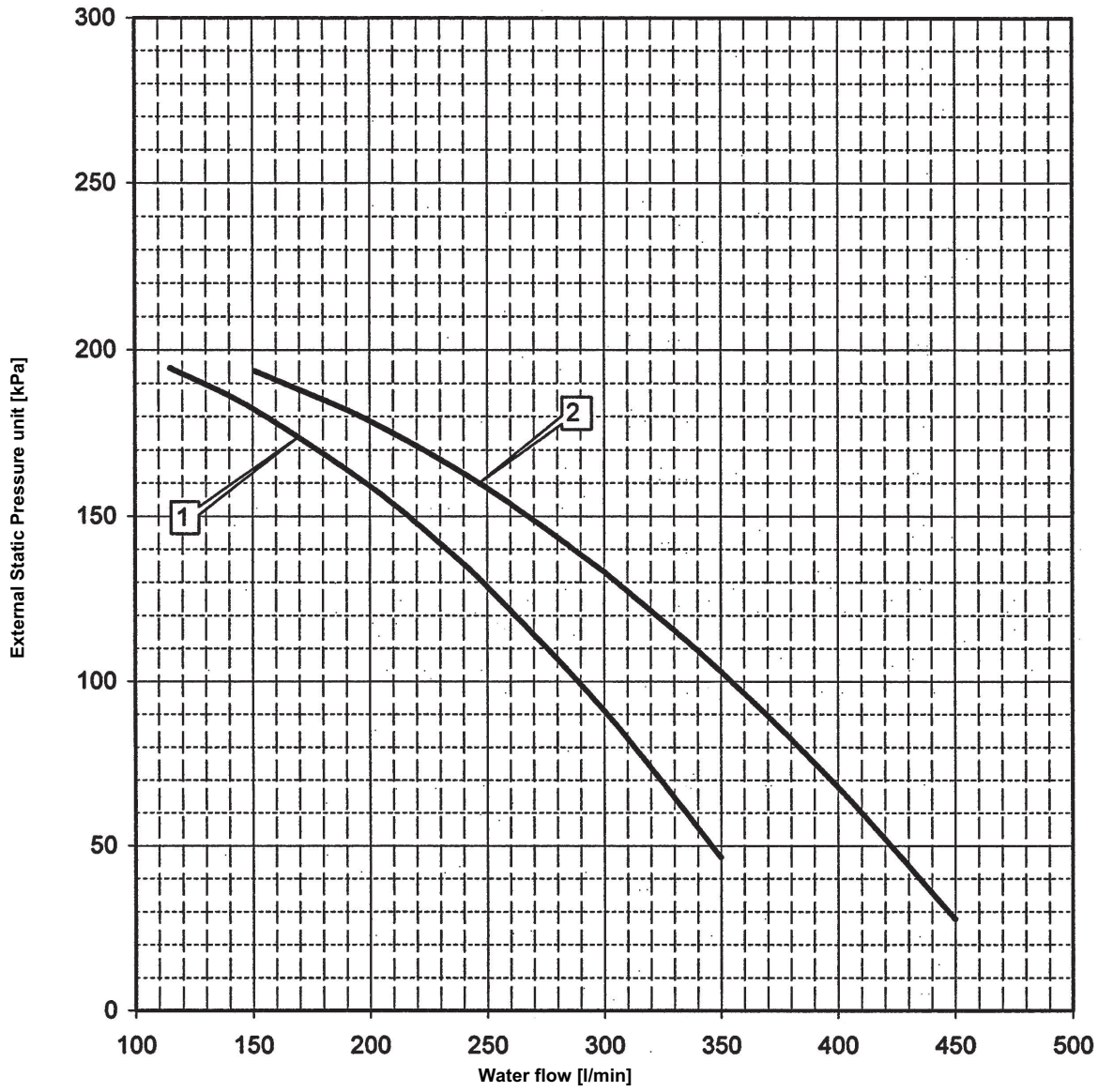
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57639-5

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ080-100DAYN(P-B)



1. EWYQ080DAYN* + OPSP

2. EWYQ100DAYN* + OPSP

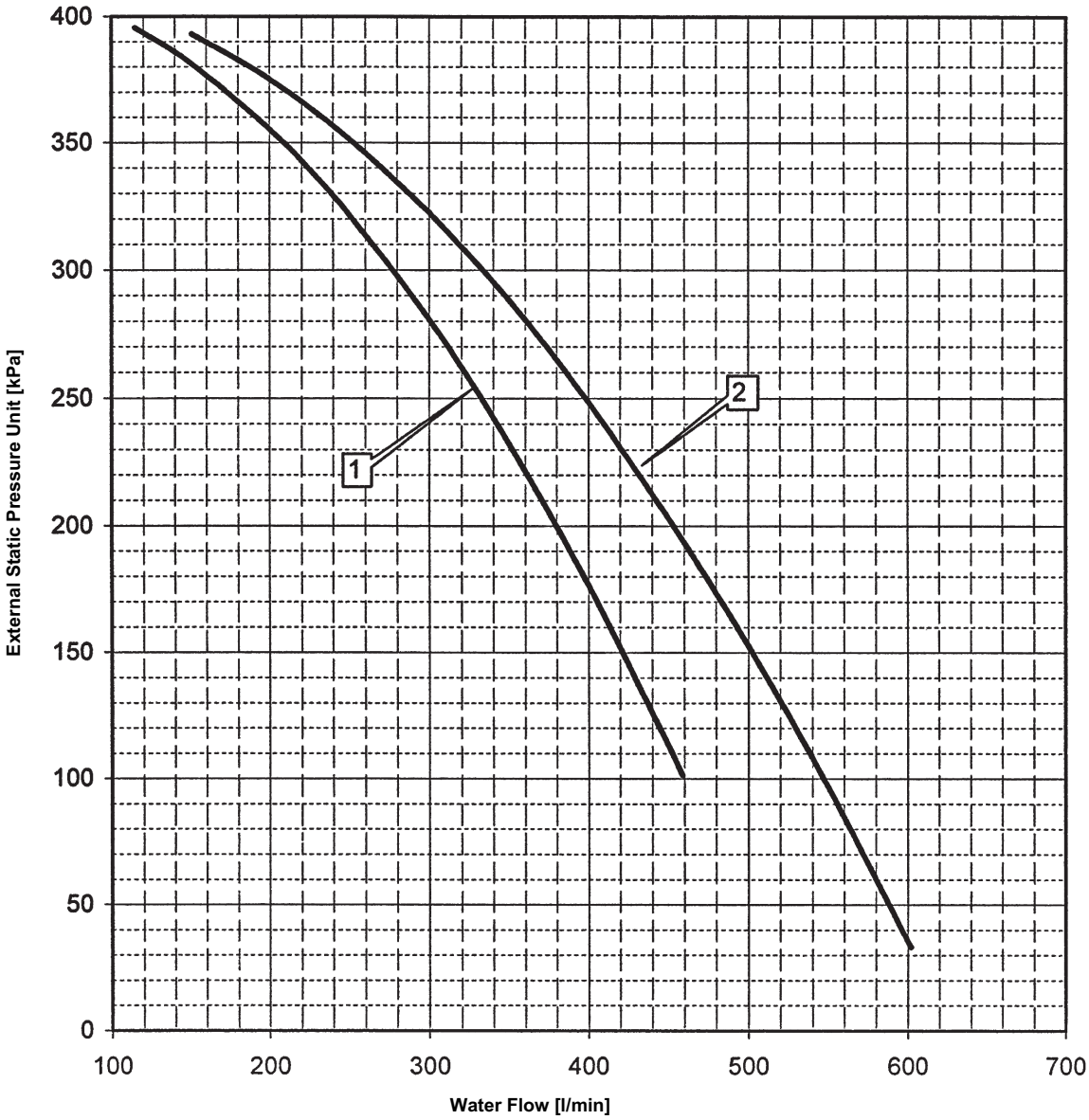
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57579-4

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ080-100DAYN(OPHP)



1. EWAQ080DAYN* + OPHP

2. EWAQ100DAYN* + OPHP

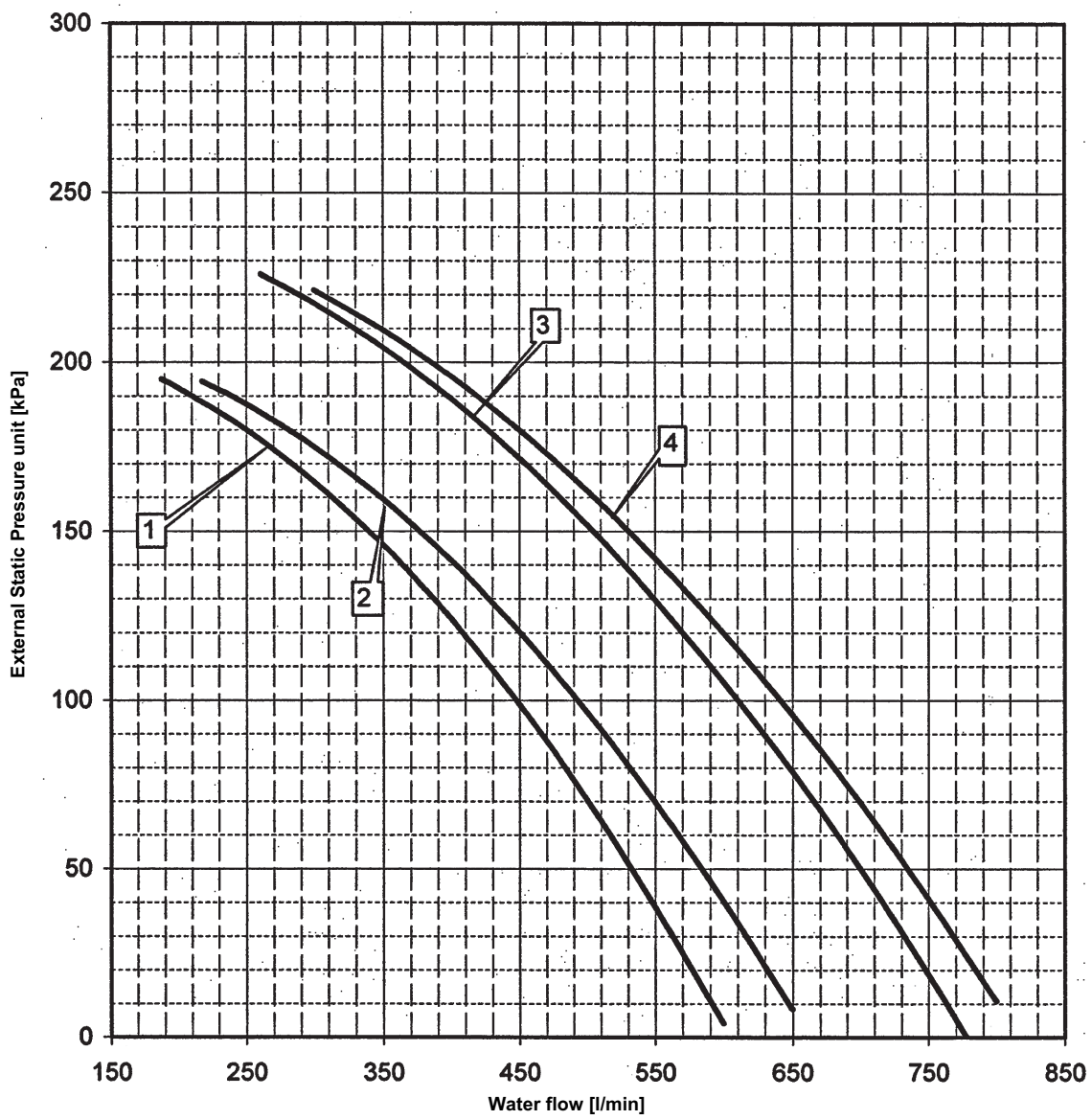
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57579-9.

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ130-210DAYN(P-B)



1. EWAQ130DAYN* + OPSP
2. EWAQ150DAYN* + OPSP
3. EWAQ180DAYN* + OPSP
4. EWAQ210DAYN* + OPSP

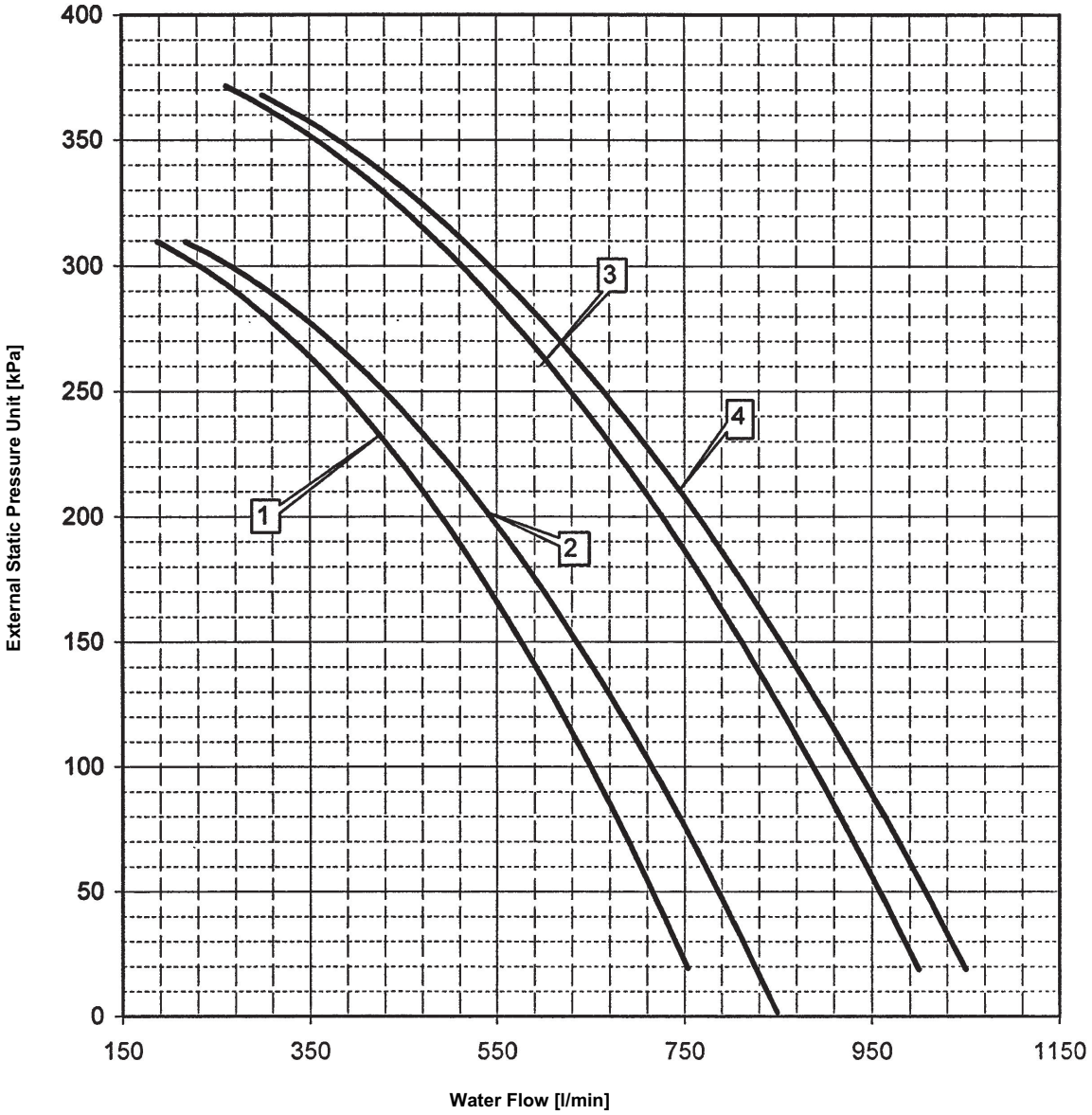
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57599-4.

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ130-210DAYN (OPHP)



1. EWAQ130DAYN* + OPHP
2. EWAQ150DAYN* + OPHP
2. EWAQ180DAYN* + OPHP
2. EWAQ210DAYN* + OPHP

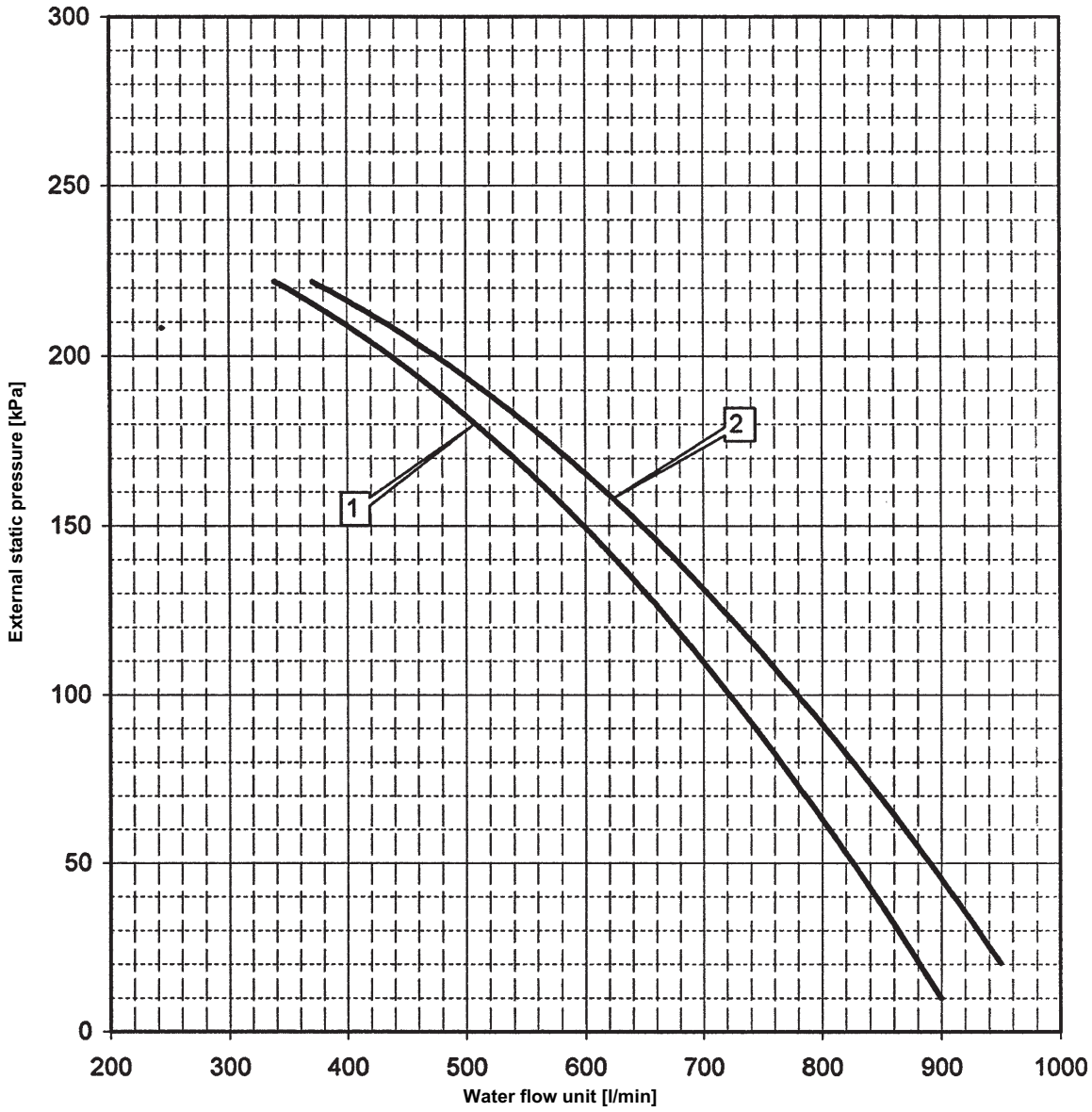
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57599-9

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ240-260DAYN(P-B)



1. EWAQ240DAYN* + OPSP

2. EWAQ260DAYN* + OPSP

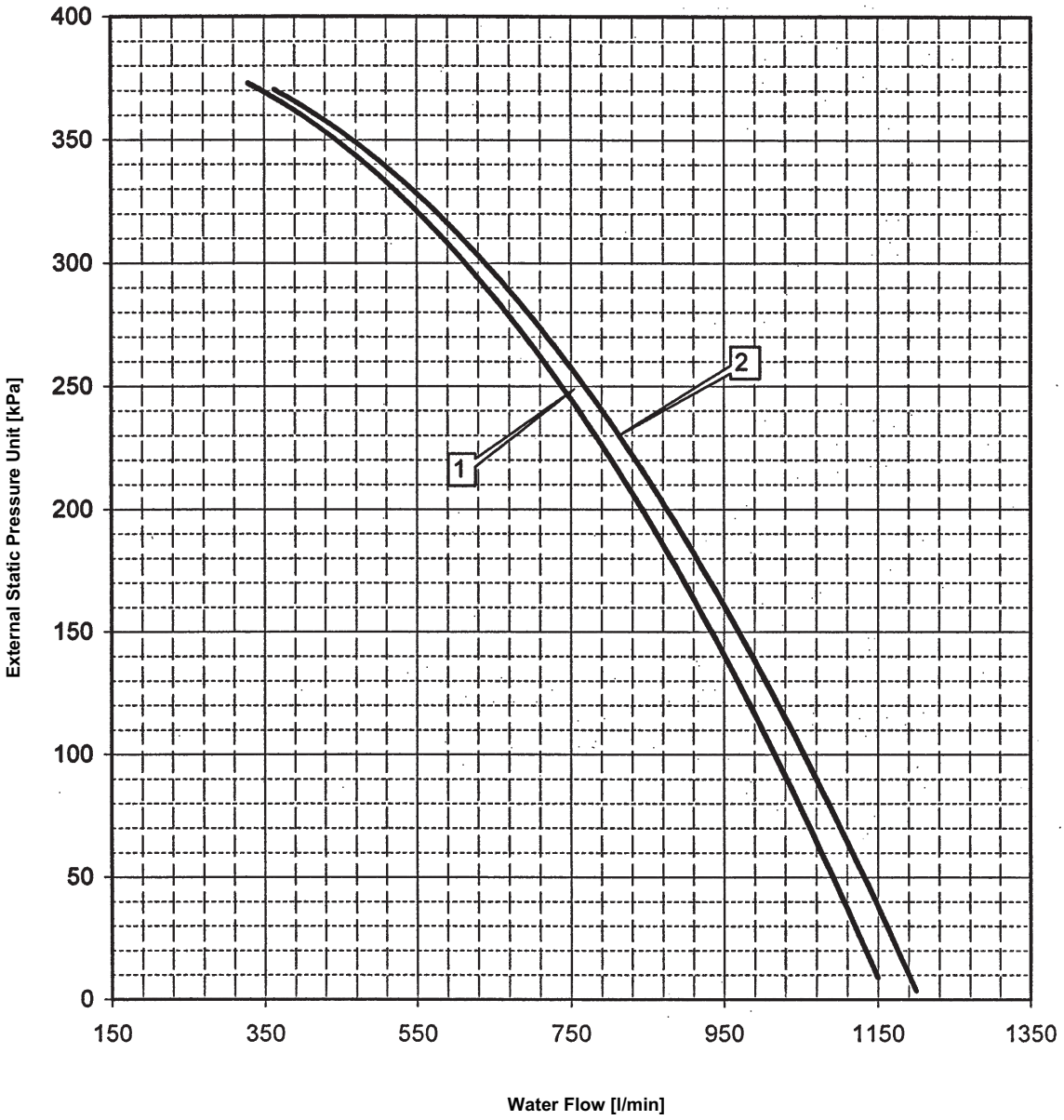
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57639-4

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ240-260DAYN(OPHP)



1. EWAQ240DAYN* + OPHP

2. EWAQ260DAYN* + OPHP

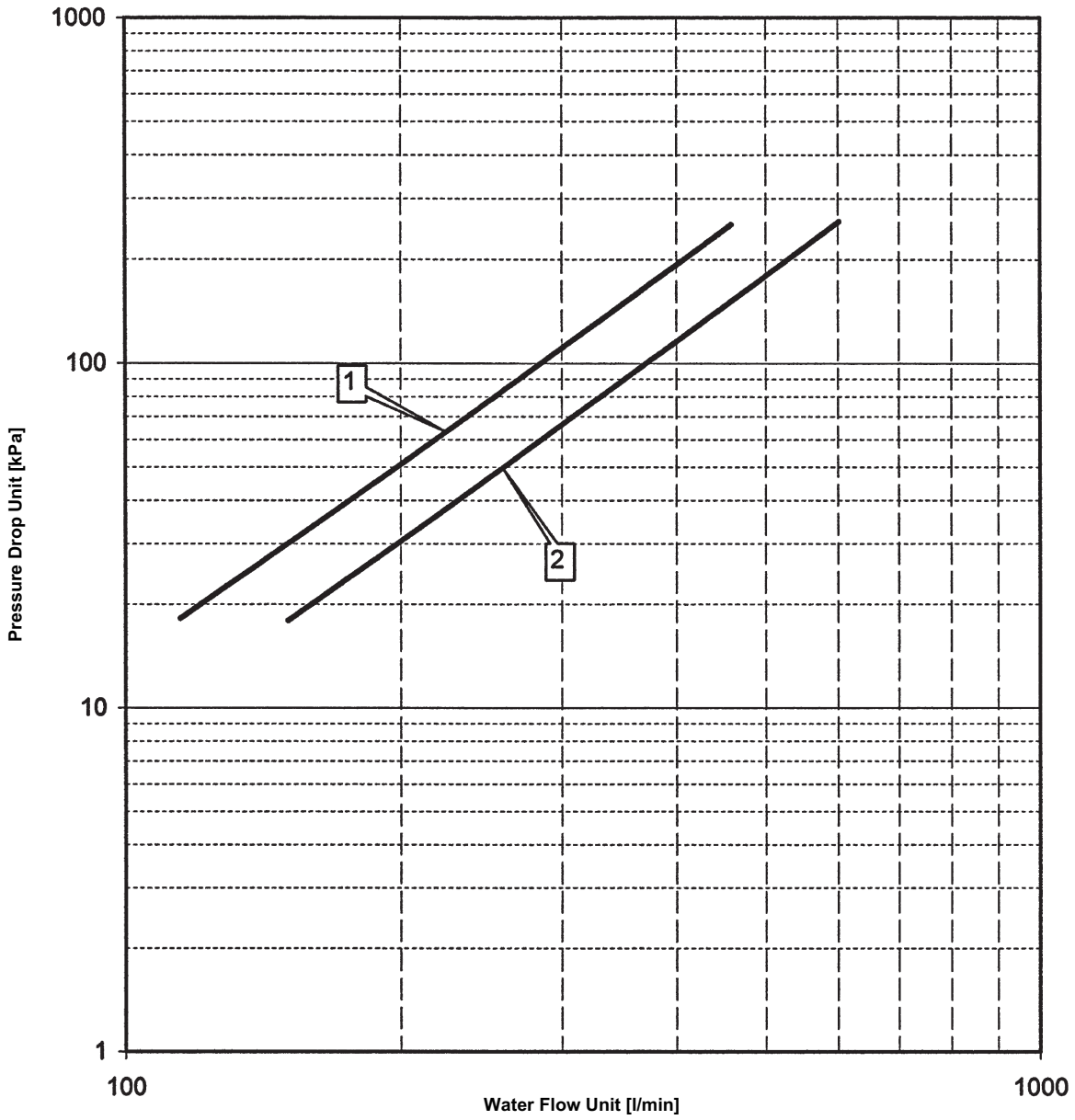
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57639-9.

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ080-100DAYN(N)



1. EWAQ080DAYN* Standard model

2. EWAQ100DAYN* Standard model

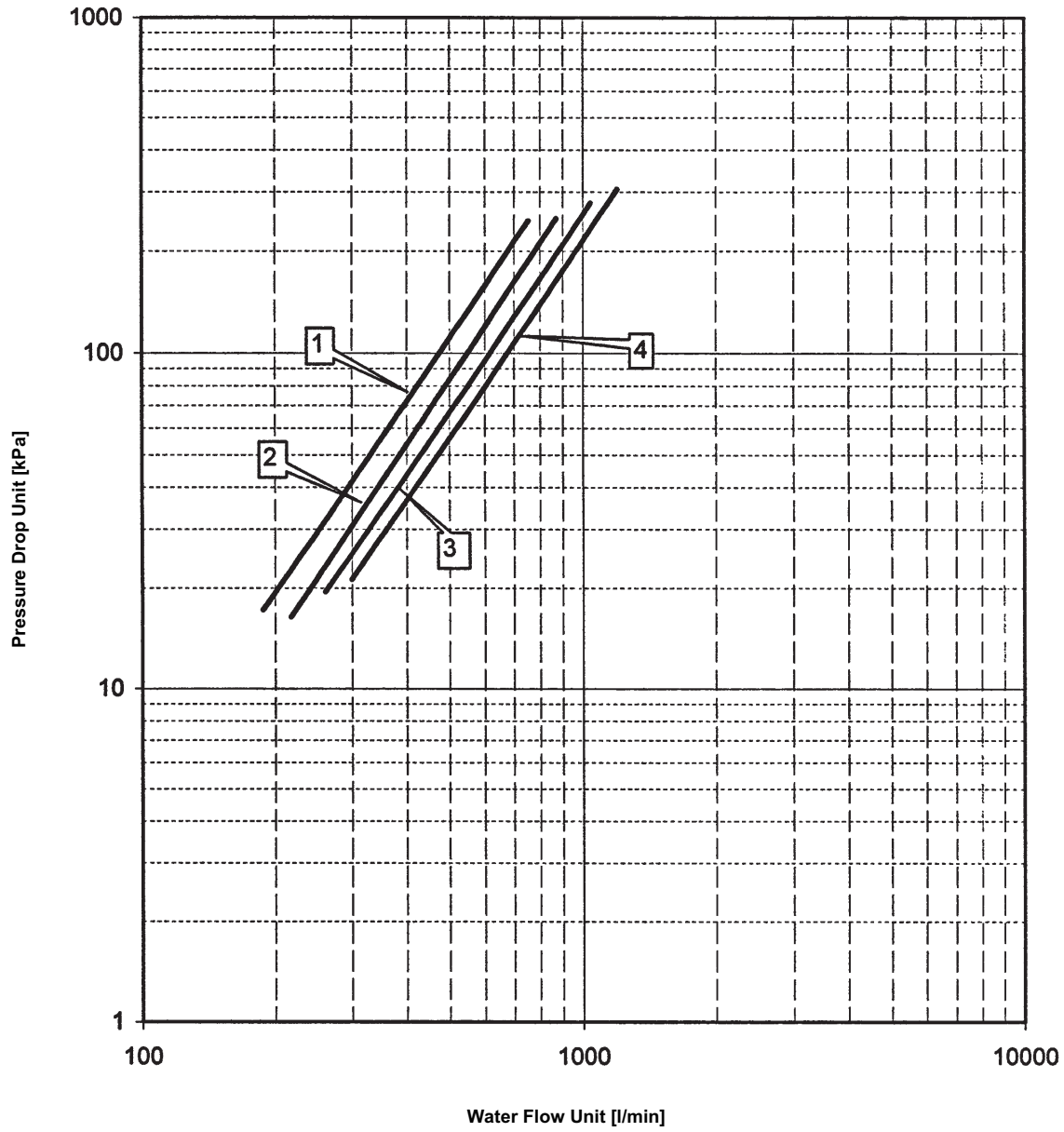
Warning:
Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

4TW57579-7.

11 Hydraulic performance

11 - 2 Static pressure drop unit

EWAQ130-210DAYN(N)



1. EWAQ130DAYN* Standard model
2. EWAQ150DAYN* Standard model
3. EWAQ180DAYN* Standard model
4. EWAQ210DAYN* Standard model

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.

4TW57599-7