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EWWP-KAW1N

1 Specifications

1-1 TECHNICAL SPECIFICATIONS				EWWP014KAW1N	EWWP022KAW1N	EWWP028KAW1N	EWWP035KAW1N	EWWP045KAW1N	EWWP055KAW1N
Capacity (Eurovent)	Cooling	Nominal	kW	13.0	21.5	28.0	32.5	43.0	56.0
Capacity Steps			%	1	1	1	1	2	2
Nominal input (Eurovent)	Cooling		kW	3.61	5.79	7.48	8.75	11.80	15.50
Casing	Colour			Ivory white/Munsell code 5Y7.5/1					
	Material			Polyester painted steel plate					
Dimensions	Unit	Height	mm	600	600	600	600	600	600
		Width	mm	600	600	600	600	600	600
		Depth	mm	600	600	600	600	1200	1200
Weight	Unit		kg	118	155	165	172	300	320
Water Heat Exchanger Evaporator	Type			Brazed plate					
	Minimum water volume in the system		l	62	103	134	155	205	268
	Water flow rate	Min	l/min	19	31	40	47	62	80
		Nominal	l/min	37	62	80	93	123	161
		Max	l/min	75	123	161	186	247	321
	Insulation material			Polyethylene foam					
	Model	Quantity		1	1	1	1	1	1
Water Heat Exchanger Condenser	Type			Brazed plate					
	Water flow rate	Min	l/min	24	39	51	59	79	102
		Nominal	l/min	48	78	102	118	157	205
		Max	l/min	95	157	203	237	314	410
	Model	Quantity		1	1	1	1	1	1
Compressor	Type			Hermetically sealed scroll compressor					
	Refrigerant oil type			FVC68D					
	Refrigerant oil charge		l	1.5	2.7	2.7	2.7	2.7	2.7
			l					2.7	2.7
	Model	Quantity		1	1	1	1	2	2
		Model		JT140BF-YE	JT212DA-YE	JT300DA-YE	JT335DA-YE	JT212DA-YE	JT300DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900
Sound level	Sound Power	Cooling	dBA	64	64	64	71	67	67
Refrigerant circuit	Refrigerant type			R-407C					
	Refrigerant charge		kg	1.2	2	2.5	3.1	4.6	4.6
	No of circuits			1	1	1	1	2	2
	Refrigerant control			Thermostatic expansion valve					
Piping connections	Evaporator water inlet/outlet			FBSP 25	FBSP 25	FBSP 25	FBSP 25	FBSP 40	FBSP 40
	Evaporator water drain			field installation					
	Condensor water inlet/outlet			FBSP 25	FBSP 25	FBSP 25	FBSP 25	FBSP 40	FBSP 40
				field installation					
Notes				Capacity is for chilled water range Dt = 2~5°C					
				Power input is total input (kW) : compressor + control circuit + pumps					
				Water flow rate (WFR) = (860 x CC)/(60 x Dt) in (l/min) = ((860 x CC)/(60 x Dt)) x (1/60000) in m³/s (CC = cooling capacity from table (kW)/ Dt = chilled water temperature rise within 2~5°C / WFR should always be within the limits).					
				No pumps are supplied with the unit, so the added power input for the pumps is calculated as (WFR (m³/s) x Dp (Pa))/ 0.3 (as fixed by 6/C/003). This is for the cooled and cooling water (DP = pressure drop from pressure drop curves).					
				A filter strainer must be added in the water circuit of the evaporator and the condensor. A flow switch must be provided at the evaporator side. Min. water volume system applicable at nominal conditions.					
				Nominal cooling capacities are based on the following conditions: Evaporator : 12°C/7°C ; condenser : 30°C/35°C					
				The sound power level is an absolute value indicating the ''power'' which a sound source generates.					
				The sound data is valid at nominal operation condition					
				dBA = A-weighted sound power level (A-scale according to IEC)					
				Reference acoustic pressure 0dB = 1pW					
				Measured according to ISO9614					

1 Specifications

1-1 TECHNICAL SPECIFICATIONS				EWWP065KAW1N	90kw (32hp)	100kw (36hp)	110kw (40hp)	120kw (44hp)	130kw (48hp)
Capacity (Eurovent)	Cooling	Nominal	kW	65.0	86.0	99.0	112	121	130
Capacity Steps			%	2	4	4	4	4	4
Nominal input (Eurovent)	Cooling		kW	17.60	23.6	27.3	31.0	33.1	35.2
Casing	Colour			Ivory white/Munsell code 5Y7.5/1					
	Material			Polyester painted steel plate					
Dimensions	Unit	Height	mm	600	1200	1200	1200	1200	1200
		Width	mm	600	600	600	600	600	600
		Depth	mm	1200	1200	1200	1200	1200	1200
Weight	Unit		kg	334	600	620	640	654	668
Water Heat Exchanger Evaporator	Type			Brazed plate					
	Minimum water volume in the system		l	311	205	268	268	311	311
	Water flow rate	Min	l/min	93	123	142	161	173	186
		Nominal	l/min	186	247	284	321	347	373
		Max	l/min	373	493	568	642	694	745
	Insulation material			Polyethylene foam					
	Model	Quantity		1	2	2	2	2	2
Water Heat Exchanger Condenser	Type			Brazed plate					
	Water flow rate	Min	l/min	118	157	181	205	221	237
		Nominal	l/min	237	314	362	410	442	474
		Max	l/min	474	629	724	819	883	948
	Model	Quantity		1	2	2	2	2	2
Compressor	Type			Hermetically sealed scroll compressor					
	Refrigerant oil type			FVC68D					
	Refrigerant oil charge		l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
			l	-	2.7	2.7	2.7	2.7	2.7
			l		2.7	2.7	2.7	2.7	2.7
	Model	Quantity		2	4	2	4	2	4
		Model		JT335DA-YE	JT212DA-YE	JT212DA-YE	JT300DA-YE	JT300DA-YE	JT335DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900
		Quantity		-		2	-	2	-
		Model				JT300DA-YE		JT335DA-YE	
		Speed	rpm			2900		2900	
Sound level	Sound Power	Cooling	dBA	74	71	71	71	75	77
Refrigerant circuit	Refrigerant type			R-407C					
	Refrigerant charge		kg	5.6	9.2	9.2	9.2	10.2	11.2
	No of circuits			2	4	4	4	4	4
	Refrigerant control			Thermostatic expansion valve					
Piping connections	Evaporator water inlet/outlet			FBSP 40	2 x 2 x FBSP 38	2 x 2 x FBSP 38	2 x 2 x FBSP 38	2 x 2 x FBSP 38	2 x 2 x FBSP 38
	Evaporator water drain			field installation					
	Condensor water inlet/outlet			FBSP 40	2 x 2 x FBSP 38	2 x 2 x FBSP 38	2 x 2 x FBSP 38	2 x 2 x FBSP 38	2 x 2 x FBSP 38
				field installation					

1 Specifications

1-1 TECHNICAL SPECIFICATIONS	EWWP065KAW1N	90kw (32hp)	100kw (36hp)	110kw (40hp)	120kw (44hp)	130kw (48hp)
Notes	Capacity is for chilled water range Dt = 2~5°C					
	Power input is total input (kW) : compressor + control circuit + pumps					
	Water flow rate (WFR) = (860 x CC)/(60 x Dt) in (l/min) = ((860 x CC)/(60 x Dt)) x (1/60000) in m³/s (CC = cooling capacity from table (kW)/ Dt = chilled water temperature rise within 2~5°C / WFR should always be within the limits).					
	No pumps are supplied with the unit, so the added power input for the pumps is calculated as (WFR (m³/s) x Dp (Pa))/ 0.3 (as fixed by 6/C/003). This is for the cooled and cooling water (DP = pressure drop from pressure drop curves).					
	A filter strainer must be added in the water circuit of the evaporator and the condensor. A flow switch must be provided at the evaporator side. Min. water volume system applicable at nominal conditions.					
	Nominal cooling capacities are based on the following conditions: Evaporator : 12°C/7°C ; condenser : 30°C/35°C					
	The sound power level is an absolute value indicating the ''power'' which a sound source generates.					
	The sound data is valid at nominal operation condition					
	dBA = A-weighted sound power level (A-scale according to IEC)	-				
	Reference acoustic pressure 0dB = 1pW					
	Measured according to ISO9614					

1-1 TECHNICAL SPECIFICATIONS				145kw (52hp)	155kw (56hp)	165kw (60hp)	175kw (64hp)	185kw (68hp)	195kw (72hp)
Capacity (Eurovent)	Cooling	Nominal	kW	142	155	168	177	186	195
Capacity Steps			%	6	6	6	6	6	6
Nominal input (Eurovent)	Cooling		kW	39.1	42.8	46.5	48.6	50.7	52.8
Casing	Colour			Ivory white/Munsell code 5Y7.5/1					
	Material			Polyester painted steel plate					
Dimensions	Unit	Height	mm	1800	1800	1800	1800	1800	1800
		Width	mm	600	600	600	600	600	600
		Depth	mm	1200	1200	1200	1200	1200	1200
Weight	Unit		kg	920	940	960	974	988	1002
Water Heat Exchanger Evaporator	Type			Brazed plate					
	Minimum water volume in the system		l	205	205	268	268	268	311
	Water flow rate	Min	l/min	204	222	241	254	267	280
		Nominal	l/min	407	444	482	507	533	559
		Max	l/min	814	889	963	1015	1066	1118
	Insulation material			Polyethylene foam					
	Model	Quantity		2	2	2	2	2	2
Water Heat Exchanger Condenser	Type			Brazed plate					
	Water flow rate	Min	l/min	260	283	307	323	339	355
		Nominal	l/min	519	567	614	647	679	711
		Max	l/min	1038	1133	1229	1293	1357	1422
	Model	Quantity		2	2	2	2	2	2
Compressor	Type			Hermetically sealed scroll compressor					
	Refrigerant oil type			FVC68D					
	Refrigerant oil charge		l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
			l	2.7	2.7	2.7	2.7	2.7	2.7
	Model	Quantity		4	4	6	4	4	6
		Model		JT212DA-YE	JT300DA-YE	JT300DA-YE	JT300DA-YE	JT335DA-YE	JT335DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900
		Quantity		2	2	-	2	2	-
		Model		JT300DA-YE	JT212DA-YE		JT335DA-YE	JT300DA-YE	
		Speed	rpm	2900	2900		2900	2900	
Sound level	Sound Power	Cooling	dBA	73	73	73	76	78	79

1 Specifications

1-1 TECHNICAL SPECIFICATIONS			145kw (52hp)	155kw (56hp)	165kw (60hp)	175kw (64hp)	185kw (68hp)	195kw (72hp)
Refrigerant circuit	Refrigerant type		R-407C					
	Refrigerant charge	kg	13.8	13.8	13.8	14.8	15.8	16.8
	No of circuits		6	6	6	6	6	6
	Refrigerant control		Thermostatic expansion valve					
Piping connections	Evaporator water inlet/outlet		3 x 2 x FBSP 38					
	Evaporator water drain		field installation					
	Condensor water inlet/outlet		3 x 2 x FBSP 38					
			field installation					
Notes			Capacity is for chilled water range Dt = 2~5°C					
			Power input is total input (kW) : compressor + control circuit + pumps					
			Water flow rate (WFR) = (860 x CC)/(60 x Dt) in (l/min) = ((860 x CC)/(60 x Dt)) x (1/60000) in m³/s (CC = cooling capacity from table (kW)/ Dt = chilled water temperature rise within 2~5°C / WFR should always be within the limits).					
			No pumps are supplied with the unit, so the added power input for the pumps is calculated as (WFR (m³/s) x Dp (Pa))/ 0.3 (as fixed by 6/C/003). This is for the cooled and cooling water (DP = pressure drop from pressure drop curves).					
			A filter strainer must be added in the water circuit of the evaporator and the condensor. A flow switch must be provided at the evaporator side. Min. water volume system applicable at nominal conditions.					
			Nominal cooling capacities are based on the following conditions: Evaporator : 12°C/7°C ; condenser : 30°C/35°C					
			The sound power level is an absolute value indicating the ''power'' which a sound source generates.					
			The sound data is valid at nominal operation condition					
			Reference acoustic pressure 0dB = 1pW					
			Measured according to ISO9614					

1-2 ELECTRICAL SPECIFICATIONS				EWWP014KAW1N	EWWP022KAW1N	EWWP028KAW1N	EWWP035KAW1N	EWWP045KAW1N	EWWP055KAW1N
Power Supply	Name			W1					
	Phase			3N~					
	Frequency		Hz	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400
	Voltage Tolerance	Minimum	%	-10%					
		Maximum	%	+10%					
Unit	Starting Current		A	49	79	109	129	93	127
	Zmax	text		0.24 + j0.15	0.20 + j0.12	0.18 + j0.12	0.18 + j0.11	0.18 + j0.12	0.18 + j0.11
	Nominal Running Current Cooling		A	6.6	10.4	13.1	15.0	20.8	26.2
	Maximum Running Current		A	9	14.5	18.5	22	28	36
	Recommended fuses according to IEC standard 269-2			3x16aM	3x20aM	3x25aM	3x25aM	3x35aM	3x40aM
Compressor	Phase			3~					
	Voltage		V	400	400	400	400	400	400
	Starting current		A	49	79	109	129	79	109
	Nominal running current (RLA)		A	6.6	10.4	13.1	15.0	10.4	13.1
	Maximum Running Current		A	9	14.5	18.5	22	14	18
	Starting Method			Direct on line					

1-2 ELECTRICAL SPECIFICATIONS				EWWP065KAW1N	90kw (32hp)	100kw (36hp)	110kw (40hp)	120kw (44hp)	130kw (48hp)
Power Supply	Name			W1					
	Phase			3N~					
	Frequency		Hz	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400
	Voltage Tolerance	Minimum	%	-10%					
		Maximum	%	+10%					
Unit	Starting Current		A	149	121	155	163	185	189
	Zmax	text		0.17 + j0.11					
	Nominal Running Current Cooling		A	30	41.6	47	52.4	56.2	60
	Maximum Running Current		A	40	56	64	72	76	80
	Recommended fuses according to IEC standard 269-2			3x50aM	3x63aM	3x63aM	3x80aM	3x80aM	3x80aM

1 Specifications

1-2 ELECTRICAL SPECIFICATIONS			EWWP065KAW1N	90kw (32hp)	100kw (36hp)	110kw (40hp)	120kw (44hp)	130kw (48hp)
Compressor	Phase		3~					
	Voltage	V	400	400	400	400	400	400
	Starting current	A	129	79	79	109	109	129
	Nominal running current (RLA)	A	15.0	10.4	10.4	13.1	13.1	15
	Maximum Running Current	A	20	14	14	18	18	20
	Starting Method		Direct on line					
	Phase				3~		3~	
	Voltage	V			400		400	
	Starting current	A			109		129	
	Nominal running current (RLA)	A	-		13.1	-	15	-
	Maximum Running Current	A			18		20	
	Starting Method				Direct on line		Direct on line	

1-2 ELECTRICAL SPECIFICATIONS				145kw (52hp)	155kw (56hp)	165kw (60hp)	175kw (64hp)	185kw (68hp)	195kw (72hp)
Power Supply	Name			W1					
	Phase			3N~					
	Frequency		Hz	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400
	Voltage Tolerance	Minimum	%	-10%					
		Maximum	%	+10%					
Unit	Starting Current		A	183	191	199	221	225	229
	Nominal Running Current Cooling		A	67.8	73.2	78.6	82.4	86.2	90
	Maximum Running Current		A	92	100	108	112	116	120
	Recommended fuses according to IEC standard 269-2			3x100aM	3x100aM	3x125aM	3x125aM	3x125aM	3x125aM
Compressor	Phase			3~					
	Voltage		V	400	400	400	400	400	400
	Starting current		A	79	79	109	109	109	129
	Nominal running current (RLA)		A	10.4	10.4	13.1	13.1	13.1	15
	Maximum Running Current		A	14	14	18	18	18	20
	Starting Method			Direct on line					
	Phase			3~	3~		3~	3~	
	Voltage		V	400	400		400	400	
	Starting current		A	109	109		129	129	
	Nominal running current (RLA)		A	13.1	13.1	-	15	15	-
	Maximum Running Current		A	18	18		20	20	
	Starting Method			Direct on line	Direct on line		Direct on line	Direct on line	

2 Options

Number	Option description	Unit size							Availability
		014WC 012RC	022WC 020RC	028WC 026RC	035WC 030RC	045WC 040RC	055WC 055RC	065WC 065RC	
	Standard unit	○	○	○	○	○	○	○	
	Not completely combinable options								
ZH	Glycol application chilled water temperature down to -5°C	○	○	○	○	○	○	○	Factory mounted
ZL	Glycol application chilled water temperature down to -10°C	○	○	○	○	○	○	○	Factory mounted
	Available kit								
EKBMSMBA	BMS gateway modbus / j-bus protocol	○	○	○	○	○	○	○	Kit
EKBMSBNA	BMS gateway bacnet protocol	○	○	○	○	○	○	○	Kit
EKAC10B	BMS card	○	○	○	○	○	○	○	Kit
EKRUMC	Remote controller	○	○	○	○	○	○	○	Kit
EKLS1	Low noise operation EWWP014KAW1N / EWLP012KAW1N	○1	–	–	–	–	–	–	Kit
EKLS2	Low noise operation EWWP022KAW1N / EWLP020-065KAW1N	–	○1	○1	○1	○2	○2	○2	Kit
EHMC10AV1010/1080	Hydraulic module	○	○	–	–	–	–	–	Kit
EHMC15AV1010/1080	Hydraulic module	–	–	○	○	–	–	–	Kit
EHMC30AV1010/1080	Hydraulic module	–	–	–	–	○	○	○	Kit

4TW55259-1D

NOTES

* = Option number

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

SYMBOLS

std = standard on unit

○ Available

○x Available and a quantity of x is needed for this unit size

– Not available

Hatched area = preliminary data

Number	Option description	Unit size			Availability	DT
		045 W1	055 W1	065 W1		
	Standard unit	○	○	○		
	Not completely combinable options					
ZH	Glycol application chilled water temperature down to -5°C	○	○	○	Factory mounted	S
ZL	Glycol application chilled water temperature down to -10°C	○	○	○	Factory mounted	S
	Available kit					
EKBMSMBA	BMS gateway modbus / j-bus protocol	○	○	○	Kit	S
EKBMSBNA	BMS gateway bacnet protocol	○	○	○	Kit	S
EKAC10B	BMS card	○	○	○	Kit	S
EKRUMC	Remote controller	○	○	○	Kit	S
EKLS1	Low noise operation EWWP014KAW1N / EWLP012KAW1N	–	–	–	Kit	S
EKLS2	Low noise operation EWWP022KAW1N / EWLP020-065KAW1N	○2	○2	○2	Kit	S
EHMC10AV1010/1080	Hydraulic module	–	–	–	Kit	S
EHMC15AV1010/1080	Hydraulic module	–	–	–	Kit	S
EHMC30AV1010/1080	Hydraulic module	○	○	○	Kit	S

4TW53449-4B

NOTES

* = Option number

- To install EKBMSMBA, EKBMSBNA and EKRUMC => EKAC10B needs to be installed on the unit.
  Supplementary available options:
  EWWP045-065KAW1M (x1) + ECB1MUW
  EWWP045-065KAW1M (x2) + ECB2MUW
  EWWP045-065KAW1M (x1) + ECB3MUW

SYMBOLS

std = standard on unit

○ Available

○x Available and a quantity of x is needed for this unit size

– Not available

Hatched area = preliminary data

3 Capacity tables

3 - 1 Cooling/Heating capacity tables

LWC		20			25			30			35			40			45			50			55		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI
-10	014	8,0	10,8	2,75	7,5	10,5	2,95	7,0	10,2	3,20	6,4	9,9	3,49	5,7	9,6	3,82	5,0	9,2	4,19	-	-	-	-	-	-
	022	12,4	16,0	3,55	12,2	16,2	4,02	11,5	16,1	4,53	10,7	15,8	5,08	9,8	15,4	5,66	8,7	15,0	6,29	-	-	-	-	-	-
	028	16,4	21,6	5,18	16,4	22,2	5,80	16,1	22,6	6,50	15,3	22,6	7,29	14,3	22,4	8,17	12,9	22,1	9,14	-	-	-	-	-	-
	035	20,9	27,0	6,12	20,8	27,4	6,69	20,6	28,0	7,41	19,7	28,0	8,27	18,2	27,5	9,29	16,3	26,7	10,47	-	-	-	-	-	-
-5	014	9,9	12,7	2,75	9,4	12,4	2,97	8,9	12,1	3,23	8,3	11,8	3,56	7,6	11,5	3,87	6,9	11,2	4,25	6,2	10,9	4,63	-	-	-
	022	15,9	19,7	3,77	15,4	19,6	4,25	14,7	19,5	4,77	13,9	19,2	5,34	12,9	18,9	5,95	11,8	18,4	6,61	10,5	17,8	7,31	-	-	-
	028	20,1	25,4	5,35	20,1	26,0	5,94	19,8	26,4	6,62	18,9	26,3	7,40	18,1	26,4	8,26	16,8	26,0	9,22	15,4	25,6	10,28	-	-	-
	035	24,4	30,6	6,25	24,3	31,1	6,84	24,1	31,7	7,56	23,3	31,8	8,42	22,0	31,5	9,42	20,2	30,9	10,61	18,0	29,8	11,81	-	-	-
0	014	11,9	14,7	2,77	11,4	14,4	3,00	10,9	14,2	3,27	10,3	13,9	3,60	9,7	13,6	3,94	8,9	13,3	4,33	8,1	12,9	4,73	7,3	12,5	5,23
	022	18,8	22,6	4,01	18,3	22,8	4,46	17,6	22,5	4,97	16,8	22,4	5,55	15,8	22,0	6,18	14,7	21,5	6,88	13,4	21,0	7,64	12,1	20,5	8,45
	028	23,7	29,2	5,46	23,7	29,7	5,99	23,4	30,1	6,63	22,6	30,0	7,37	21,9	30,1	8,21	20,6	29,8	9,14	19,2	29,4	10,18	17,2	28,5	11,31
	035	27,9	34,2	6,22	27,8	34,7	6,87	27,7	35,3	7,62	26,9	35,4	8,49	25,7	35,2	9,47	24,1	34,9	10,74	22,0	33,8	11,75	19,5	32,7	13,17
4	014	13,1	15,8	2,73	12,9	15,9	2,99	12,5	15,8	3,28	12,0	15,7	3,63	11,4	15,4	3,97	10,7	15,1	4,37	10,0	14,8	4,79	9,1	14,4	5,29
	022	20,8	24,9	4,07	20,6	25,1	4,55	20,2	25,3	5,08	19,8	25,5	5,67	18,8	25,1	6,31	17,7	24,7	7,01	16,4	24,1	7,76	14,6	23,2	8,56
	028	26,7	32,2	5,51	26,7	32,7	6,05	26,4	33,1	6,70	25,7	33,2	7,49	24,9	33,2	8,29	23,7	32,9	9,22	22,2	32,5	10,24	20,3	31,8	11,47
	035	30,8	37,2	6,44	30,7	37,8	7,09	30,6	38,4	7,85	30,0	38,7	8,71	28,9	38,6	9,71	27,5	38,3	10,80	25,6	37,6	12,00	23,4	36,7	13,27
7	014	14,3	17,1	2,76	14,0	17,0	3,00	13,5	16,8	3,29	**13,0**	**16,6**	**3,61**	12,3	16,3	3,98	11,6	16,0	4,37	10,9	15,7	4,84	10,1	15,4	5,33
	022	22,7	26,9	4,24	22,5	27,2	4,66	22,2	27,4	5,17	**21,5**	**27,3**	**5,79**	20,5	26,9	6,35	19,2	26,2	7,00	17,6	25,4	7,75	15,6	24,3	8,69
	028	28,9	34,5	5,56	28,9	35,0	6,11	28,6	35,4	6,76	**28,0**	**35,4**	**7,48**	27,1	35,5	8,35	26,0	35,2	9,25	24,5	34,8	10,32	22,6	34,1	11,45
	035	33,1	39,6	6,52	33,0	40,2	7,19	33,0	40,9	7,95	**32,5**	**41,2**	**8,75**	31,5	41,3	9,81	30,1	41,0	10,90	28,1	40,2	12,12	25,7	39,0	13,33
10	014	15,5	18,2	2,76	15,1	18,1	3,03	14,8	18,1	3,33	14,3	17,9	3,64	13,7	17,8	4,05	13,0	17,5	4,46	12,2	17,2	4,92	11,2	16,6	5,35
	022	24,6	28,8	4,22	24,4	29,1	4,67	24,0	29,2	5,19	23,3	29,1	5,78	22,3	28,8	6,40	21,1	28,2	7,10	19,5	27,3	7,85	17,6	26,3	8,69
	028	30,4	35,9	5,56	30,3	36,4	6,12	30,1	36,9	6,78	29,6	37,2	7,53	29,0	37,3	8,36	27,9	37,2	9,30	26,6	36,9	10,32	24,9	36,3	11,47
	035	34,5	41,1	6,61	34,4	41,7	7,29	34,3	42,3	8,05	33,7	42,6	8,90	32,8	42,7	9,89	31,4	42,4	10,97	29,6	41,8	12,14	27,5	40,9	13,37
14	014	16,2	19,0	2,75	16,2	19,2	3,06	16,2	19,6	3,38	16,0	19,7	3,67	15,6	19,7	4,12	14,9	19,5	4,55	14,0	19,0	5,02	12,8	18,2	5,37
	022	26,4	30,6	4,20	26,3	31,0	4,68	26,2	31,4	5,21	25,7	31,5	5,75	24,8	31,3	6,46	23,6	30,8	7,19	22,0	30,0	7,98	20,2	28,9	8,68
	028	32,3	37,8	5,56	32,2	38,3	6,13	32,2	38,9	6,78	31,9	39,5	7,55	31,4	39,8	8,37	30,6	39,9	9,29	29,4	39,8	10,31	27,9	39,4	11,49
	035	38,4	45,0	6,67	38,3	45,7	7,35	38,0	46,1	8,12	37,4	46,4	9,00	36,5	46,4	9,94	35,2	46,2	10,98	33,7	45,8	12,11	31,0	44,4	13,36
16	014	16,7	19,5	2,74	16,7	19,8	3,06	16,7	20,0	3,38	16,5	20,2	3,68	16,2	20,3	4,13	15,6	20,2	4,55	14,8	19,8	5,01	13,7	19,0	5,37
	022	27,2	31,4	4,19	27,1	31,8	4,67	27,0	32,2	5,20	26,6	32,4	5,74	25,8	32,3	6,45	24,7	31,9	7,17	23,2	31,2	7,96	21,5	30,1	8,68
	028	32,6	38,2	5,57	32,6	38,7	6,15	32,5	39,3	6,82	32,3	39,9	7,58	31,9	40,3	8,41	31,2	40,5	9,34	30,2	40,6	10,36	28,9	40,4	11,49
	035	38,8	45,5	6,70	38,7	46,1	7,39	38,5	46,7	8,17	38,1	47,1	9,06	37,3	47,3	9,99	36,1	47,2	11,03	34,7	46,8	12,16	32,9	46,4	13,43
20	014	17,6	20,3	2,73	17,6	20,6	3,05	17,5	20,9	3,38	17,5	21,2	3,69	17,4	21,5	4,12	17,0	21,5	4,54	16,3	21,3	4,99	15,4	20,7	5,36
	022	28,9	33,0	4,16	28,8	33,4	4,64	28,7	33,9	5,17	28,5	34,2	5,71	28,0	34,4	6,41	27,0	34,2	7,13	25,8	33,7	7,92	24,0	32,6	8,67
	028	33,2	38,8	5,58	33,2	39,4	6,19	33,1	40,0	6,88	33,1	40,8	7,63	32,9	41,4	8,49	32,4	41,9	9,42	31,8	42,2	10,44	31,0	42,5	11,50
	035	40,9	47,6	6,67	40,8	48,2	7,38	40,8	49,0	8,17	40,7	49,8	9,09	40,7	50,7	9,98	40,6	51,6	11,02	39,2	51,3	12,14	37,4	50,9	13,49

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SYMBOLS

CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator (°C)
LWC : Leaving Water Condenser (°C)

NOTES

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

2 Heating capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3~8°C.

3 Power input is total input according to Eurovent rating standard 6/C/003-2003.

3 Capacity tables

3 - 1 Cooling/Heating capacity tables

LWC		20			25			30			35			40			45			50			55		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI
-10																									
	045	24,8	32,2	7,5	24,3	32,7	8,5	23,0	32,4	9,5	21,4	31,9	10,6	19,5	31,1	11,7	17,3	30,2	13,0	-	-	-	-	-	-
	055	32,9	43,5	10,8	32,9	44,8	12,1	32,2	45,5	13,5	30,7	45,5	15,1	28,6	45,2	16,8	25,9	44,5	18,8	-	-	-	-	-	-
	065	41,9	54,2	12,3	41,5	55,0	13,5	41,2	55,9	14,9	39,4	55,8	16,6	36,5	55,0	18,7	32,5	53,3	21,0	-	-	-	-	-	-
-5																									
	045	31,8	39,7	8,0	30,6	39,5	8,9	29,4	39,2	10,0	27,7	38,7	11,1	25,7	38,0	12,3	23,5	37,1	13,6	20,9	35,9	15,0	-	-	-
	055	40,2	51,2	11,2	40,2	52,4	12,4	39,7	53,2	13,7	37,8	52,9	15,3	36,3	53,2	17,0	33,7	52,5	18,9	30,8	51,7	21,0	-	-	-
	065	48,7	61,4	12,6	48,6	62,4	13,8	48,3	63,4	15,2	46,7	63,5	16,9	44,1	62,8	18,9	40,5	61,6	21,3	36,0	59,4	23,7	-	-	-
0																									
	045	37,4	45,8	8,4	36,5	45,8	9,3	35,1	45,4	10,4	33,6	45,1	11,5	31,5	44,3	12,8	29,2	43,4	14,2	26,7	42,3	15,7	24,1	41,4	17,3
	055	47,5	58,7	11,4	47,5	59,8	12,5	46,9	60,5	13,7	45,3	60,4	15,2	43,8	60,6	16,9	41,3	60,0	18,8	38,5	59,2	20,8	34,4	57,4	23,1
	065	55,9	68,6	12,5	55,6	69,5	13,8	55,4	70,7	15,3	53,9	70,9	17,1	51,5	70,4	19,0	48,2	69,6	21,6	44,1	67,4	23,6	39,0	65,2	26,4
4																									
	045	43,6	51,9	8,3	42,5	51,8	9,3	41,1	51,5	10,3	39,5	51,1	11,5	37,5	50,3	12,8	35,2	49,5	14,2	32,7	48,4	15,7	30,1	47,4	17,3
	055	53,5	64,9	11,5	53,5	66,0	12,6	52,8	66,6	13,9	51,5	66,9	15,5	49,8	66,8	17,1	47,5	66,3	18,9	44,5	65,4	21,0	40,7	64,0	23,4
	065	61,6	74,9	13,0	61,5	76,0	14,3	61,1	77,0	15,8	59,9	77,5	17,5	57,9	77,4	19,5	55,0	76,6	21,7	51,3	75,2	24,1	46,9	73,3	26,6
7																									
	045	46,4	55,1	8,6	45,9	55,4	9,5	44,7	55,3	10,5	**43,0**	**54,8**	**11,8**	40,9	53,9	12,9	38,3	52,5	14,2	35,1	50,8	15,7	31,1	48,7	17,5
	055	57,9	69,4	11,6	57,9	70,5	12,7	57,3	71,2	14,0	**56,0**	**71,4**	**15,5**	54,4	71,5	17,2	52,0	71,0	18,9	49,1	70,2	21,1	45,3	68,6	23,3
	065	66,2	79,4	13,1	66,1	80,5	14,5	65,9	82,0	16,0	**65,0**	**82,7**	**17,6**	63,1	82,8	19,7	60,2	82,0	21,8	56,3	80,4	24,3	51,3	77,9	26,8
10																									
	045	49,1	57,8	8,6	48,7	58,3	9,5	47,9	58,5	10,6	46,6	58,3	11,7	44,6	57,6	13,0	42,0	56,5	14,4	38,9	54,8	15,9	35,1	52,7	17,6
	055	60,9	72,4	11,6	60,7	73,4	12,7	60,3	74,3	14,0	59,4	74,8	15,5	58,0	75,2	17,2	56,0	75,0	19,1	53,3	74,4	21,1	49,8	73,1	23,4
	065	69,0	84,1	13,3	68,9	85,2	14,7	68,5	86,5	16,2	67,5	87,1	17,9	65,5	87,1	19,9	62,8	86,5	22,0	59,3	85,2	24,4	55,0	83,3	26,8
14																									
	045	52,6	61,3	8,6	52,5	62,1	9,5	52,2	62,9	10,6	51,3	63,1	11,7	49,5	62,6	13,1	47,1	61,7	14,5	43,9	60,1	16,1	40,3	57,9	17,5
	055	64,7	76,2	11,6	64,5	77,2	12,7	64,4	78,4	14,0	63,9	79,4	15,6	62,9	80,1	17,2	61,3	80,3	19,1	59,0	80,0	21,1	55,8	79,2	23,5
	065	76,8	90,3	13,4	76,7	91,6	14,8	76,0	92,4	16,3	74,9	93,0	18,1	72,9	92,8	20,0	70,5	92,4	22,1	67,4	91,6	24,3	64,0	90,6	26,8
16																									
	045	54,3	62,9	8,5	54,2	63,8	9,5	54,0	64,6	10,6	53,2	64,9	11,6	51,6	64,7	13,1	49,4	63,9	14,5	46,4	62,6	16,1	42,8	60,4	17,5
	055	65,3	76,8	11,6	65,2	77,9	12,8	65,1	79,1	14,1	64,7	80,3	15,6	63,9	81,1	17,3	62,5	81,6	19,2	60,5	81,6	21,2	57,9	81,3	23,5
	065	77,7	93,0	13,5	77,5	94,2	14,8	77,0	95,2	16,4	76,2	96,1	18,2	74,5	96,3	20,0	72,3	96,1	22,1	69,3	95,3	24,4	65,9	94,4	26,9
20																									
	045	57,6	66,2	8,5	57,5	67,0	9,5	57,4	68,0	10,5	56,9	68,5	11,6	55,8	68,9	13,0	54,0	68,5	14,4	51,4	67,5	16,0	47,9	65,4	17,5
	055	66,6	78,1	11,6	66,5	79,3	12,9	66,4	80,5	14,2	66,4	82,0	15,7	65,9	83,3	17,5	65,0	84,2	19,3	63,7	84,9	21,3	62,1	85,4	23,5
	065	84,5	98,2	13,4	84,4	99,5	14,8	84,2	101	16,4	84,0	102	18,3	83,0	103	20,1	81,2	103	22,1	78,4	103	24,4	74,9	102	27,1

4TW57232-1

SYMBOLS

CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving water evaporator (°C)
LWC : Leaving water condenser (°C)

NOTES

1 Cooling capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3~8°C.
2 Heating capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3~8°C.
3 Power input is total input according to Eurovent rating standard 6/C/003-2003.

3 Capacity tables

3 - 1 Cooling/Heating capacity tables

LWC		20			25			30			35			40			45			50			55		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI
-10																									
	16	24.8	32.2	7.52	24.3	32.7	8.45	23.0	32.4	9.47	21.4	31.9	10.56	19.5	31.1	11.74	17.3	30.2	13.00	-	-	-	-	-	-
	20	32.9	43.5	10.85	32.9	44.8	12.08	32.2	45.5	13.49	30.7	45.5	15.07	28.6	45.2	16.83	25.9	44.5	18.76	-	-	-	-	-	-
	24	41.9	54.2	12.33	41.5	55.0	13.48	41.2	55.9	14.91	39.4	55.8	16.65	36.5	55.0	18.68	32.5	53.3	21.0	-	-	-	-	-	-
-5																									
	16	31.8	39.7	7.96	30.6	39.5	8.91	29.4	39.2	9.95	27.7	38.7	11.08	25.7	38.0	12.31	23.5	37.1	13.62	20.9	35.9	15.03	-	-	-
	20	40.2	51.2	11.19	40.2	52.4	12.37	39.7	53.2	13.73	37.8	52.9	15.28	36.3	53.2	17.01	33.7	52.5	18.93	30.8	51.7	21.0	-	-	-
	24	48.7	61.4	12.59	48.6	62.4	13.77	48.3	63.4	15.22	46.7	63.5	16.94	44.1	62.8	18.93	40.5	61.6	21.3	36.0	59.4	23.7	-	-	-
0																									
	16	37.4	45.8	8.43	36.5	45.8	9.33	35.1	45.4	10.36	33.6	45.1	11.51	31.5	44.3	12.78	29.2	43.4	14.17	26.7	42.3	15.68	24.1	41.4	17.31
	20	47.5	58.7	11.39	47.5	59.8	12.47	46.9	60.5	13.75	45.3	60.4	15.23	43.8	60.6	16.90	41.3	60.0	18.77	38.5	59.2	20.8	34.4	57.4	23.1
	24	55.9	68.6	12.55	55.6	69.5	13.84	55.4	70.7	15.34	53.9	70.9	17.08	51.5	70.4	19.03	48.2	69.6	21.6	44.1	67.4	23.6	39.0	65.2	26.4
4																									
	16	43.6	51.9	8.31	42.5	51.8	9.27	41.1	51.5	10.3	39.5	51.1	11.5	37.5	50.3	12.8	35.2	49.5	14.2	32.7	48.4	15.7	30.1	47.4	17.3
	20	53.5	64.9	11.5	53.5	66.0	12.6	52.8	66.6	13.9	51.5	66.9	15.5	49.8	66.8	17.1	47.5	66.3	18.9	44.5	65.4	21.0	40.7	64.0	23.4
	24	61.6	74.9	13.0	61.5	76.0	14.3	61.1	77.0	15.8	59.9	77.5	17.5	57.9	77.4	19.5	55.0	76.6	21.7	51.3	75.2	24.1	46.9	73.3	26.6
7																									
	16	46.4	55.1	8.65	45.9	55.4	9.50	44.7	55.3	10.5	**43.0**	**54.8**	**11.8**	40.9	53.9	12.9	38.3	52.5	14.2	35.1	50.8	15.7	31.1	48.7	17.5
	20	57.9	69.4	11.6	57.9	70.5	12.7	57.3	71.2	14.0	**56.0**	**71.4**	**15.5**	54.4	71.5	17.2	52.0	71.0	18.9	49.1	70.2	21.1	45.3	68.6	23.3
	24	66.2	79.4	13.1	66.1	80.5	14.5	65.9	82.0	16.0	**65.0**	**82.7**	**17.6**	63.1	82.8	19.7	60.2	82.0	21.8	56.3	80.4	24.3	51.3	77.9	26.8
10																									
	16	49.1	57.8	8.62	48.7	58.3	9.5	47.9	58.5	10.6	46.6	58.3	11.7	44.6	57.6	13.0	42.0	56.5	14.4	38.9	54.8	15.9	35.1	52.7	17.6
	20	60.9	72.4	11.6	60.7	73.4	12.7	60.3	74.3	14.0	59.4	74.8	15.5	58.0	75.2	17.2	56.0	75.0	19.1	53.3	74.4	21.1	49.8	73.1	23.4
	24	69.0	84.1	13.3	68.9	85.2	14.7	68.5	86.5	16.2	67.5	87.1	17.9	65.5	87.1	19.9	62.8	86.5	22.0	59.3	85.2	24.4	55.0	83.3	26.8
14																									
	16	52.6	61.3	8.57	52.5	62.1	9.5	52.2	62.9	10.6	51.3	63.1	11.7	49.5	62.6	13.1	47.1	61.7	14.5	43.9	60.1	16.1	40.3	57.9	17.5
	20	64.7	76.2	11.6	64.5	77.2	12.7	64.4	78.4	14.0	63.9	79.4	15.6	62.9	80.1	17.2	61.3	80.3	19.1	59.0	80.0	21.1	55.8	79.2	23.5
	24	76.8	90.3	13.4	76.7	91.6	14.8	76.0	92.4	16.3	74.9	93.0	18.1	72.9	92.8	20.0	70.5	92.4	22.1	67.4	91.6	24.3	64.0	90.6	26.8
16																									
	16	54.3	62.9	8.55	54.2	63.8	9.5	54.0	64.6	10.6	53.2	64.9	11.6	51.6	64.7	13.1	49.4	63.9	14.5	46.4	62.6	16.1	42.8	60.4	17.5
	20	65.3	76.8	11.6	65.2	77.9	12.8	65.1	79.1	14.1	64.7	80.3	15.6	63.9	81.1	17.3	62.5	81.6	19.2	60.5	81.6	21.2	57.9	81.3	23.5
	24	77.7	93.0	13.5	77.5	94.2	14.8	77.0	95.2	16.4	76.2	96.1	18.2	74.5	96.3	20.0	72.3	96.1	22.1	69.3	95.3	24.4	65.9	94.4	26.9
20																									
	16	57.6	66.2	8.50	57.5	67.0	9.5	57.4	68.0	10.5	56.9	68.5	11.6	55.8	68.9	13.0	54.0	68.5	14.4	51.4	67.5	16.0	47.9	65.4	17.5
	20	66.6	78.1	11.6	66.5	79.3	12.9	66.4	80.5	14.2	66.4	82.0	15.7	65.9	83.3	17.5	65.0	84.2	19.3	63.7	84.9	21.3	62.1	85.4	23.5
	24	84.5	98.2	13.4	84.4	99.5	14.8	84.2	101	16.4	84.0	102	18.3	83.0	103	20.1	81.2	103	22.1	78.4	103	24.4	74.9	102	27.1

4TW53472-2C

SYMBOLS

CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving Water Evaporator (°C)
LWC : Leaving Water Condenser (°C)

NOTES

1 Cooling capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3~8°C.
2 Heating capacity is according to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt = 3~8°C.
3 Power input is total input according to Eurovent rating standard 6/C/003-2003.

3 Capacity tables

3 - 1 Cooling/Heating capacity tables

LWC		20.0			25.0			30.0			35.0			40.0			45.0			50.0			55.0		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI
-10	32	49,5	64,4	15,0	48,7	65,4	16,9	46,0	64,8	18,9	42,8	63,7	21,1	38,9	62,3	23,5	34,5	60,4	26,0	-	-	-	-	-	-
	36	57,6	75,7	18,4	57,3	77,5	20,5	55,2	77,8	23,0	52,1	77,4	25,6	48,1	76,4	28,6	43,2	74,7	31,8	-	-	-	-	-	-
	40	65,7	87,0	21,7	65,9	89,6	24,2	64,4	90,9	27,0	61,4	91,1	30,1	57,2	90,5	33,7	51,9	89,0	37,5	-	-	-	-	-	-
	44	74,7	97,7	23,2	74,5	99,8	25,6	73,4	101	28,4	70,1	101	31,7	65,1	100	35,5	58,4	97,8	39,8	-	-	-	-	-	-
	48	83,7	108	24,7	83,0	110	27,0	82,3	112	29,8	78,7	112	33,3	73,0	110	37,4	65,0	107	42,1	-	-	-	-	-	-
-5	32	63,6	79,4	15,9	61,3	79,0	17,8	58,7	78,5	19,9	55,4	77,4	22,2	51,4	76,0	24,6	47,0	74,1	27,2	41,7	71,7	30,1	-	-	-
	36	72,0	90,9	19,2	70,9	91,9	21,3	69,0	92,4	23,7	65,5	91,6	26,4	62,1	91,1	29,3	57,2	89,5	32,6	51,7	87,5	36,1	-	-	-
	40	80,4	102	22,4	80,5	105	24,7	79,3	106	27,5	75,6	106	30,6	72,7	106	34,0	67,4	105	37,9	61,6	103	42,1	-	-	-
	44	88,9	113	23,8	88,8	115	26,1	88,0	117	28,9	84,5	116	32,2	80,4	116	35,9	74,2	114	40,3	66,8	111	44,8	-	-	-
	48	97,5	123	25,2	97,2	125	27,5	96,6	127	30,4	93,3	127	33,9	88,1	126	37,9	81,0	123	42,6	71,9	119	47,4	-	-	-
0	32	74,9	91,7	16,9	73,1	91,7	18,7	70,1	90,8	20,7	67,2	90,1	23,0	63,1	88,6	25,6	58,5	86,8	28,3	53,3	84,6	31,4	48,2	82,8	34,6
	36	85,0	105	19,8	84,0	106	21,8	82,0	106	24,1	78,9	105	26,7	75,4	105	29,7	70,6	103	32,9	65,2	102	36,5	58,5	98,8	40,4
	40	95,0	117	22,8	95,0	120	24,9	93,9	121	27,5	90,7	121	30,5	87,7	121	33,8	82,6	120	37,5	77,1	118	41,7	68,9	115	46,2
	44	103	127	23,9	103	129	26,3	102,3	131	29,1	99,2	131	32,3	95,3	131	35,9	89,5	130	40,4	82,6	127	44,4	73,4	123	49,5
	48	112	137	25,1	111	139	27,7	110,7	141	30,7	107,8	142	34,2	103,0	141	38,1	96,4	139	43,2	88,1	135	47,2	78,0	130	52,9
4	32	87,2	104	16,6	84,9	104	18,5	82,2	103	20,7	79,0	102	23,0	74,9	101	25,6	70,4	98,9	28,4	65,4	96,8	31,4	60,2	94,9	34,6
	36	97,1	117	19,8	95,9	118	21,9	93,9	118	24,2	91,0	118	27,0	87,3	117	29,9	82,7	116	33,1	77,2	114	36,7	70,8	111	40,7
	40	107	130	23,0	107	132	25,2	106	133	27,8	103	134	30,9	99,7	134	34,1	94,9	133	37,8	89,0	131	41,9	81,4	128	46,8
	44	115	140	24,5	115	142	26,9	114	144	29,7	111	144	33,0	108	144	36,6	102	143	40,6	95,8	141	45,1	87,6	137	50,1
	48	123	150	25,9	123	152	28,6	122	154	31,6	120	155	35,0	116	155	39,0	110	153	43,4	102,6	150	48,2	93,8	147	53,3
7	32	92,9	110	17,3	91,7	111	19,0	89,5	111	21,0	86,0	110	23,6	81,9	108	25,7	76,6	105	28,4	70,2	102	31,4	62,3	97	35,1
	36	104	124	20,2	104	126	22,2	102	127	24,5	99,0	126	27,3	95,3	125	30,1	90,3	124	33,1	84,2	121	36,8	76,4	117	40,8
	40	116	139	23,2	116	141	25,4	115	142	28,0	112	143	31,0	109	143	34,4	104	142	37,8	98,2	140	42,3	90,6	137	46,6
	44	124	149	24,7	124	151	27,2	123	153	30,0	121	154	33,1	117	154	36,9	112	153	40,7	105	151	45,5	96,6	146	50,1
	48	132	159	26,3	132	161	29,0	132	164	32,0	130	165	35,2	126	166	39,4	120	164	43,6	113	161	48,7	103	156	53,5
10	32	98,2	116	17,2	97,4	117	19,0	95,9	117	21,1	93,1	117	23,5	89,2	115	26,0	84,1	113	28,7	77,8	110	31,8	70,1	105	35,1
	36	110	130	20,2	109	132	22,2	108	133	24,6	106	133	27,3	103	133	30,2	98,0	131	33,4	92,2	129	37,0	84,9	126	41,0
	40	122	145	23,2	121	147	25,4	121	149	28,1	119	150	31,1	116	150	34,4	112	150	38,1	107	149	42,3	99,6	146	46,8
	44	130	156	24,9	130	159	27,4	129	161	30,2	127	162	33,4	124	162	37,1	119	161	41,1	113	160	45,5	105	156	50,2
	48	138	168	26,6	138	170	29,3	137	173	32,4	135	174	35,8	131	174	39,7	126	173	44,0	119	170	48,7	110	167	53,6
14	32	105	123	17,1	105	124	19,1	104	126	21,2	103	126	23,3	99,0	125	26,2	94,1	123	29,1	87,8	120	32,3	80,6	116	35,1
	36	117	137	20,2	117	139	22,3	117	141	24,6	115	142	27,2	112	143	30,3	108	142	33,6	103	140	37,2	96,1	137	41,0
	40	129	152	23,2	129	154	25,5	129	157	28,1	128	159	31,2	126	160	34,4	123	161	38,1	118	160	42,2	112	158	46,9
	44	141	167	25,0	141	169	27,5	140	171	30,4	139	172	33,7	136	173	37,2	132	173	41,1	126	172	45,4	120	170	50,3
	48	154	181	26,9	153	183	29,6	152	185	32,7	150	186	36,2	146	186	40,0	141	185	44,1	135	183	48,7	128	181	53,7
16	32	109	126	17,1	108	128	19,0	108	129	21,1	106	130	23,3	103	129	26,1	98,7	128	29,0	92,8	125	32,2	85,7	121	35,1
	36	120	140	20,2	119	142	22,3	119	144	24,7	118	145	27,3	116	146	30,4	112	146	33,7	107	144	37,3	101	142	41,0
	40	131	154	23,2	130	156	25,6	130	158	28,2	129	161	31,3	128	162	34,6	125	163	38,3	121	163	42,4	116	163	46,9
	44	143	170	25,1	143	172	27,6	142	174	30,5	141	176	33,8	138	177	37,3	135	178	41,3	130	177	45,6	124	176	50,4
	48	155	186	26,9	155	188	29,7	154	190	32,8	152	192	36,4	149	193	40,1	145	192	44,3	139	191	48,8	132	189	53,9
20	32	115	132	17,0	115	134	18,9	115	136	21,0	114	137	23,2	112	138	26,0	108	137	28,9	103	135	32,0	95,7	131	35,0
	36	124	144	20,1	124	146	22,3	124	149	24,8	123	151	27,3	122	152	30,4	119	153	33,8	115	152	37,4	110	151	41,0
	40	133	156	23,3	133	159	25,7	133	161	28,5	133	164	31,5	132	167	34,9	130	168	38,6	127	170	42,7	124	171	47,0
	44	151	176	25,1	151	179	27,7	151	181	30,7	150	184	34,0	149	186	37,5	146	188	41,5	142	188	45,7	137	187	50,6
	48	169	196	26,9	169	199	29,7	168	201	32,9	168	205	36,6	166	206	40,1	162	207	44,3	157	205	48,8	150	203	54,2

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SYMBOLS

CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving water evaporator (°C)
LWC : Leaving water condenser (°C)

3 Capacity tables

3 - 1 Cooling/Heating capacity tables

LWC		20			25			30			35			40			45			50			55		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI
-10	52	82,4	108	25,9	81,6	110	29,0	78,2	110	32,4	73,4	109	36,2	67,5	107	40,3	60,4	105	44,8	-	-	-	-	-	-
	56	90,5	119	29,2	90,2	122	32,6	87,4	123	36,4	82,8	123	40,7	76,7	122	45,4	69,1	119	50,5	-	-	-	-	-	-
	60	98,6	130	32,5	98,8	134	36,2	96,6	136	40,5	92,1	137	45,2	85,8	136	50,5	77,8	133	56,3	-	-	-	-	-	-
	64	108	141	34,0	107	145	37,6	106	147	41,9	101	147	46,8	93,7	145	52,3	84,4	142	58,6	-	-	-	-	-	-
	68	117	152	35,5	116	155	39,0	115	157	43,3	109	157	48,4	102	155	54,2	91,0	151	60,8	-	-	-	-	-	-
	72	126	163	37,0	125	165	40,4	123	168	44,7	118	168	49,9	109	165	56,0	97,6	160	63,1	-	-	-	-	-	-
-5	52	104	131	27,1	102	131	30,2	98	132	33,6	93	130	37,5	88	129	41,6	80,7	127	46,2	72,6	123	51,1	-	-	-
	56	112	142	30,3	111	144	33,6	109	146	37,4	103	145	41,7	98	144	46,3	90,9	142	51,5	82,5	139	57,1	-	-	-
	60	121	154	33,6	121	157	37,1	119	160	41,2	113	159	45,8	109	159	51,0	101	157	56,8	92,5	155	63,1			
	64	129	164	35,0	129	167	38,5	128	170	42,7	122	169	47,5	117	169	53,0	108	167	59,2	97,6	163	65,8	-	-	-
	68	138	174	36,4	137	177	39,9	136	180	44,2	131	180	49,2	124	179	54,9	115	176	61,6	103	171	68,5	-	-	-
	72	146	184	37,8	146	187	41,3	145	190	45,7	140	190	50,8	132	189	56,8	121	185	64,0	108	178	71,2	-	-	-
0	52	122	150	28,3	121	151	31,1	117	151	34,5	112	151	38,2	107	149	42,5	100	147	47,1	91,8	144	52,2	82,6	140	57,7
	56	132	163	31,2	132	165	34,3	129	166	37,9	124	166	42,0	119	166	46,6	112	163	51,7	104	161	57,4	93,0	156	63,5
	60	143	176	34,2	143	180	37,4	141	182	41,2	136	181	45,7	132	182	50,7	124	180	56,3	116	178	62,5	103	172	69,3
	64	151	186	35,3	151	189	38,8	149	192	42,8	145	192	47,5	139	192	52,8	131	190	59,1	121	186	65,3	108	180	72,6
	68	159	196	36,5	159	199	40,2	158	202	44,4	153	202	49,4	147	201	55,0	138	199	61,9	127	194	68,0	112	188	76,0
	72	168	206	37,6	167	209	41,5	166	212	46,0	162	213	51,2	154	211	57,1	145	209	64,7	132	202	70,8	117	195	79,3
4	52	141	169	28,1	138	169	31,1	135	170	34,6	131	169	38,5	125	167	42,7	118	165	47,3	110	162	52,3	101	159	58,0
	56	151	182	31,3	149	184	34,4	147	185	38,1	143	185	42,4	137	184	46,9	130	182	52,0	122	179	57,6	112	176	64,1
	60	160	195	34,5	160	198	37,8	159	200	41,7	155	201	46,4	150	200	51,2	142	199	56,8	134	196	62,9	122	192	70,2
	64	169	205	36,0	168	208	39,5	167	210	43,6	163	211	48,4	158	211	53,6	150	209	59,5	140	206	66,0	128	201	73,5
	68	177	215	37,4	176	218	41,2	175	221	45,5	171	222	50,5	166	222	56,1	157	220	62,3	147	216	69,2	134	211	76,7
	72	185	225	38,9	184	228	42,9	183	231	47,4	180	233	52,6	174	232	58,5	165	230	65,1	154	226	72,3	141	220	79,9
7	52	151	180	28,9	150	181	31,7	147	182	35,0	142	181	39,1	136	179	42,9	129	176	47,3	119	172	52,5	108	166	58,4
	56	162	194	31,8	162	196	34,9	159	198	38,5	155	198	42,8	150	197	47,3	142	195	52,0	133	191	57,9	122	186	64,1
	60	174	208	34,8	174	212	38,1	172	214	42,0	168	214	46,5	163	214	51,6	156	213	56,7	147	210	63,4	136	206	69,9
	64	182	218	36,3	182	222	39,9	181	225	44,0	177	226	48,6	172	226	54,1	164	224	59,6	154	221	66,6	142	215	73,3
	68	190	228	37,9	190	232	41,7	189	235	46,0	186	237	50,7	181	237	56,6	172	235	62,5	162	231	69,8	148	224	76,8
	72	199	238	39,4	198	242	43,4	198	246	48,0	195	248	52,8	189	248	59,1	180	246	65,4	169	241	73,0	154	234	80,3
10	52	159	188	28,8	158	190	31,8	156	191	35,1	153	191	39,0	147	190	43,2	140	188	47,8	131	184	52,9	120	178	58,5
	56	171	202	31,8	170	205	35,0	169	207	38,6	165	208	42,8	161	208	47,4	154	206	52,5	146	204	58,1	135	199	64,4
	60	183	217	34,8	182	220	38,2	181	223	42,1	178	225	46,6	174	226	51,6	168	225	57,2	160	223	63,4	149	219	70,3
	64	191	229	36,5	190	232	40,1	189	235	44,2	186	237	49,0	182	237	54,3	175	236	60,2	166	234	66,6	155	230	73,7
	68	199	241	38,2	198	244	42,0	197	247	46,4	194	249	51,3	189	249	56,9	182	248	63,1	172	245	69,9	160	240	77,1
	72	207	252	39,9	207	256	44,0	206	259	48,5	202	261	53,6	197	261	59,6	188	259	66,0	178	256	73,1	165	250	80,5
14	52	170	199	28,7	170	201	31,8	169	204	35,2	167	206	38,9	162	205	43,4	155	204	48,2	147	200	53,4	136	195	58,5
	56	182	214	31,8	182	216	35,0	181	220	38,7	179	222	42,8	175	223	47,5	170	222	52,7	162	220	58,3	152	216	64,4
	60	194	229	34,8	194	232	38,2	193	235	42,1	192	238	46,8	189	240	51,6	184	241	57,2	177	240	63,3	167	238	70,4
	64	206	243	36,6	206	246	40,2	205	249	44,4	203	252	49,3	199	253	54,4	193	253	60,2	185	252	66,5	176	249	73,7
	68	218	257	38,5	218	260	42,3	216	263	46,7	214	265	51,8	209	266	57,2	202	265	63,2	194	263	69,8	184	260	77,1
	72	230	271	40,3	230	275	44,4	228	277	49,0	225	279	54,3	219	279	59,9	211	277	66,2	202	275	73,0	192	272	80,5
16	52	174	203	28,7	174	205	31,8	173	208	35,2	171	210	38,9	167	211	43,4	161	209	48,2	153	207	53,4	144	202	58,5
	56	185	217	31,8	185	219	35,1	184	223	38,8	183	225	42,9	179	227	47,7	174	227	52,8	167	226	58,5	159	223	64,5
	60	196	231	34,8	196	234	38,3	195	237	42,3	194	241	46,9	192	243	51,9	187	245	57,5	182	245	63,6	174	244	70,4
	64	208	247	36,7	208	250	40,4	207	253	44,6	206	257	49,5	202	259	54,6	197	259	60,4	190	259	66,8	182	257	73,9
	68	221	263	38,6	220	266	42,5	219	269	46,9	217	272	52,0	213	274	57,4	207	274	63,4	199	272	70,0	190	270	77,4
	72	233	279	40,4	232	283	44,5	231	286	49,2	228	288	54,6	224	289	60,1	217	288	66,4	208	286	73,2	198	283	80,8
20	52	182	211	28,6	182	213	31,8	181	216	35,3	180	219	38,9	178	221	43,4	173	221	48,2	167	220	53,4	158	216	58,5
	56	191	222	31,8	191	226	35,2	190	229	39,0	190	233	43,1	188	235	47,9	184	237	53,1	179	237	58,7	172	236	64,5
	60	200	234	34,9	200	238	38,6	199	242	42,7	199	246	47,2	198	250	52,4	195	253	58,0	191	255	64,0	186	256	70,4
	64	218	254	36,7	217	258	40,6	217	262	44,9	217	266	49,8	215	270	55,0	211	272	60,8	206	273	67,1	199	273	74,0
	68	236	275	38,5	235	278	42,6	235	282	47,1	234	287	52,3	232	290	57,6	227	291	63,6	220	290	70,1	212	289	77,6
	72	253	295	40,3	253	298	44,5	253	302	49,3	252	307	54,8	249	309	60,2	244	310	66,4	235	308	73,2	225	305	81,2

4TW53472-4C

SYMBOLS

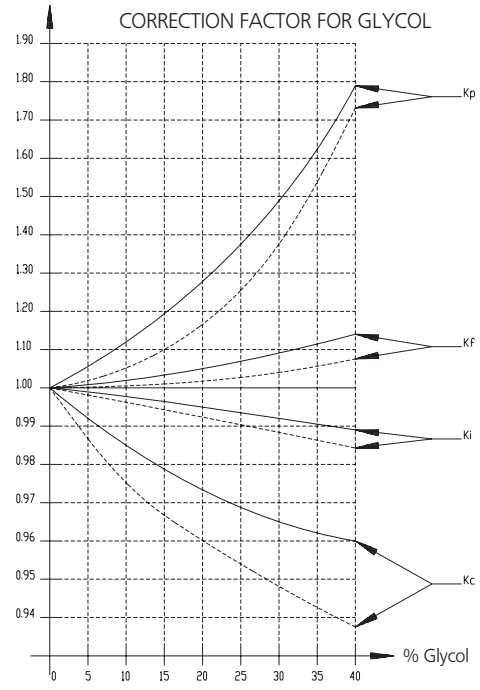
CC : Cooling capacity (kW)
HC : Heating capacity (kW)
PI : Power input (kW)
LWE : Leaving water evaporator (°C)
LWC : Leaving water condenser (°C)

3 Capacity tables

3 - 2 Capacity correction factor

Required glycol concentration

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



Legend

Ethylene glycol
Propylene glycol

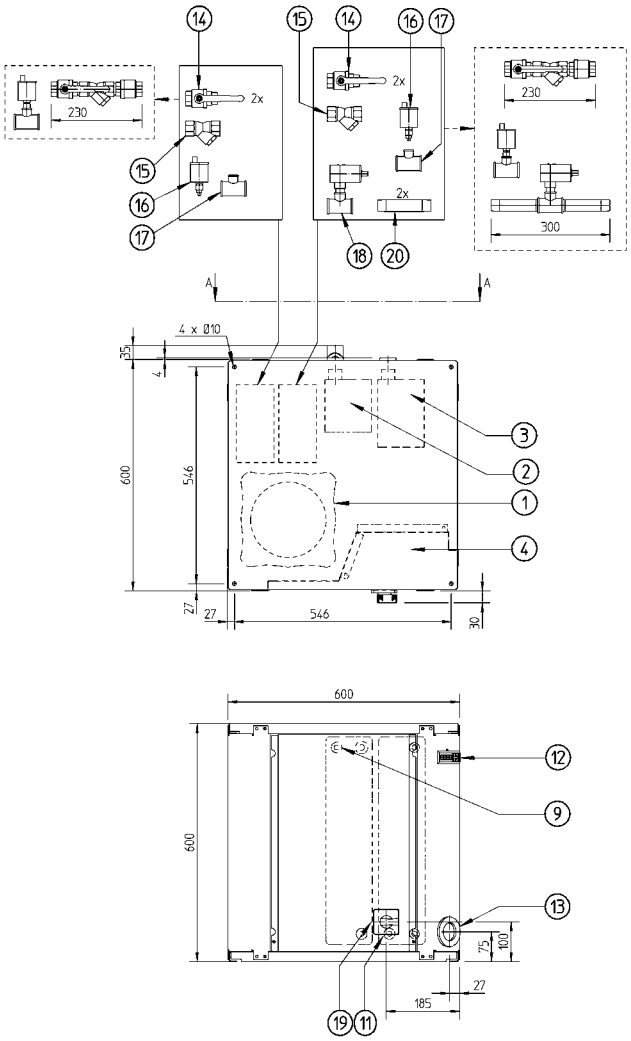
Kc Correction on cooling capacity
Ki Correction on power input
Kf Correction on flow rate
Kp Correction on pressure drop

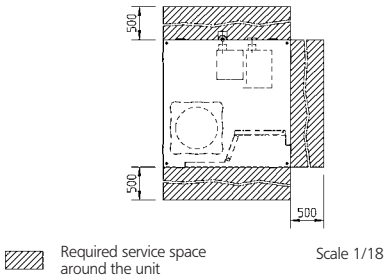
4TW54179-1

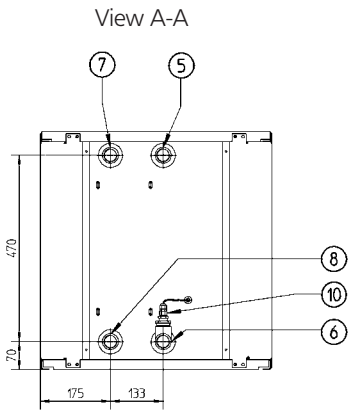
4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

EWWP014-035KAW1N







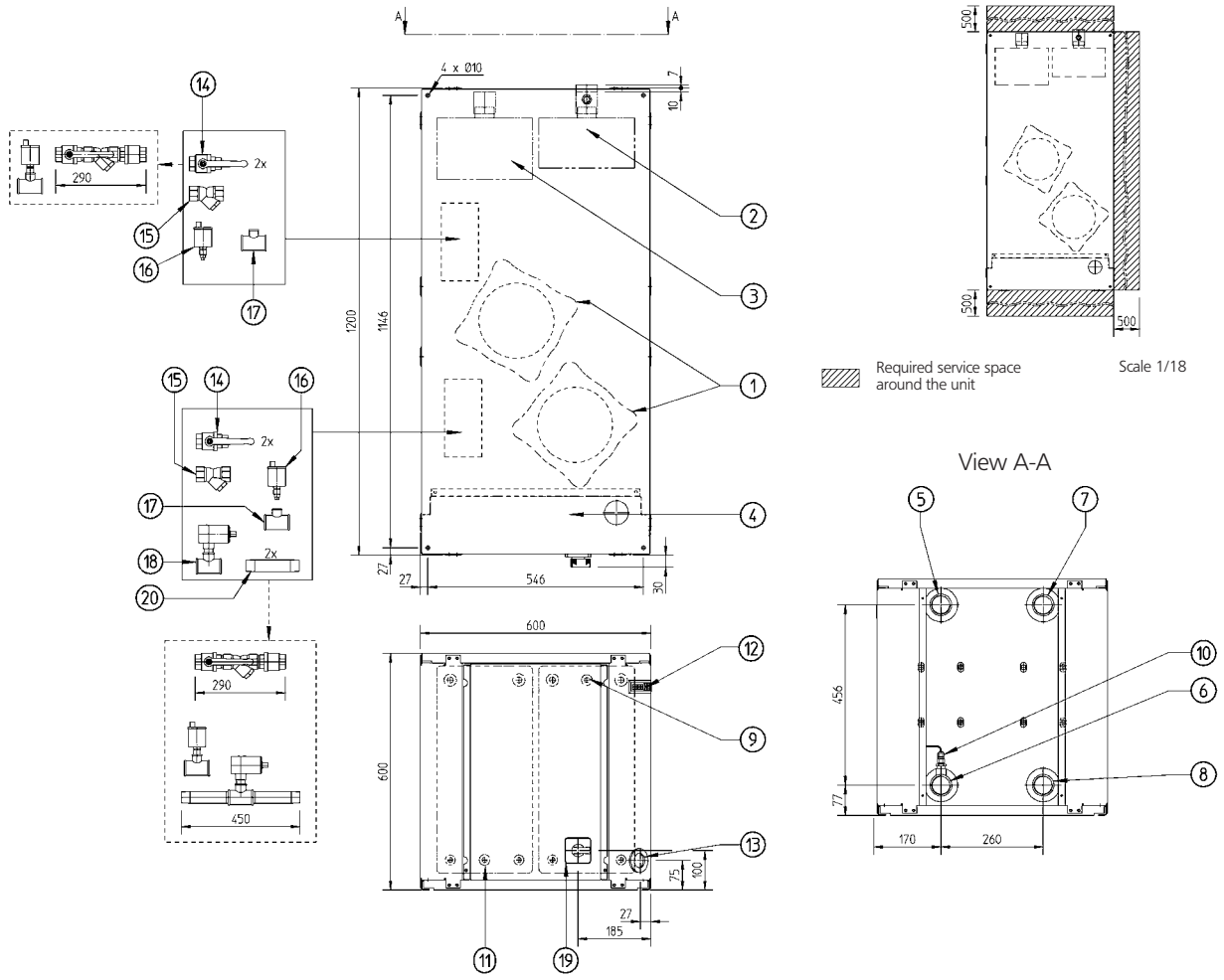
1	Compressor	12	Digital display controller
2	Evaporator	13	Power supply intake (ϕ 48)
3	Condenser	14	Ballvalve
4	Switchbox	15	Water filter
5	Chilled water in	16	Air purge
6	Chilled water out	17	T-joint for air purge
7	Condenser water out	18	Flow switch
8	Condenser water in	19	Main switch
9	Evaporator entering water temperature sensor	20	Flow switch pipe
10	Freeze up sensor		
11	Condensor entering water temperature sensor		

3TW55254-1B

4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

EWWP045-065KAW1N



1 Compressor
2 Evaporator
3 Condenser
4 Switchbox
5 Chilled water in
6 Chilled water out
7 Condenser water out
8 Condenser water in
9 Evaporator entering water temperature sensor
10 Freeze up sensor
11 Condensor entering water temperature sensor
12 Digital display controller
13 Power supply intake (ϕ 48)
14 Ballvalve
15 Water filter
16 Air purge
17 T-joint for air purge
18 Flow switch
19 Main switch
20 Flow switch pipe

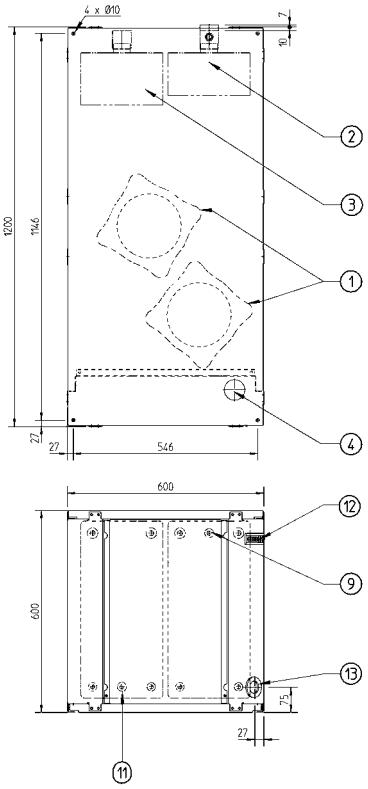
3TW55304-1B

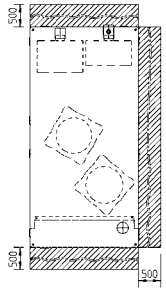
4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

EWWP045-065KAW1M

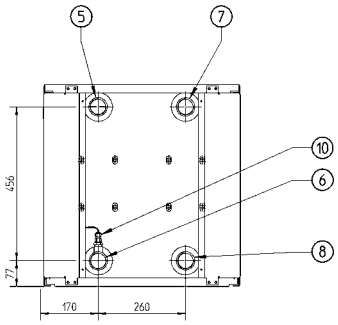
① Compressor
② Evaporator
③ Condenser
④ Switchbox
⑤ Chilled water in
⑥ Chilled water out
⑦ Condenser water out
⑧ Condenser water in
⑨ Evaporator entering water temperature sensor
⑩ Freeze-up sensor
⑪ Condenser entering water temperature sensor
⑫ Digital display controller
⑬ Power supply intake (φ48)





Required service space around the unit

Backside

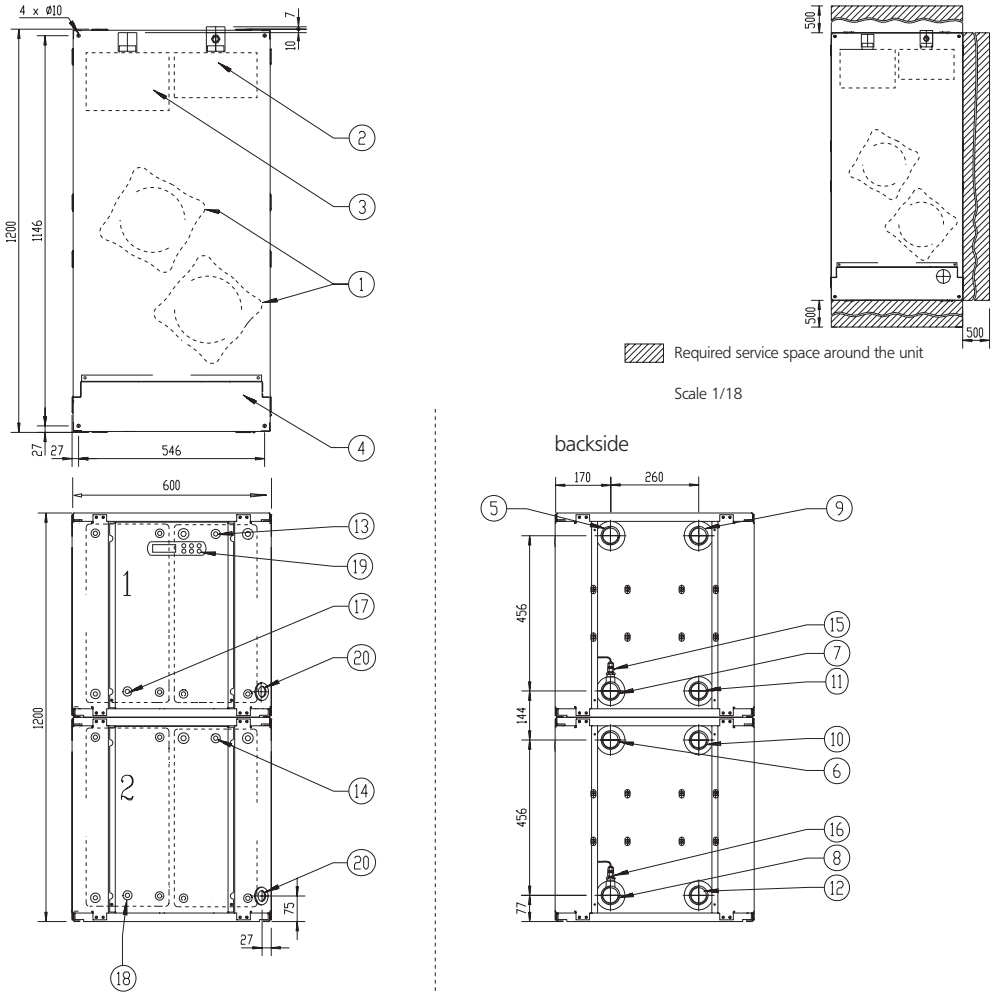


3TW53474-2B

4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

EWWP090-130KAW1N (32-48hp)



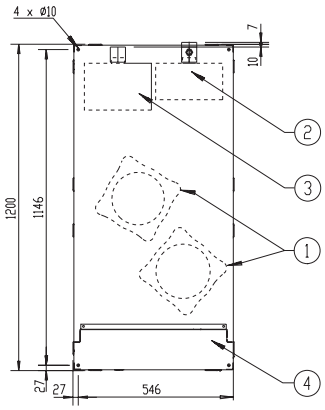
1 Compressor
2 Evaporator
3 Condenser
4 Switchbox
5 Chilled water in 1
6 Chilled water in 2
7 Chilled water out 1
8 Chilled water out 2
9 Condenser water out 1
10 Condenser water out 2
11 Condenser water in 1
12 Condenser water in 2
13 Evaporator entering water temperature sensor 1
14 Evaporator entering water temperature sensor 2
15 Freeze up sensor 1
16 Freeze up sensor 2
17 Condensor entering water temperature 1
18 Condensor entering water temperature 2
19 Digital display controller
20 Power supply intake (ϕ 48)

3TW53474-3B

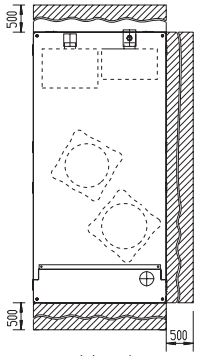
4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

EWWP145-195KAW1N (52-72hp)

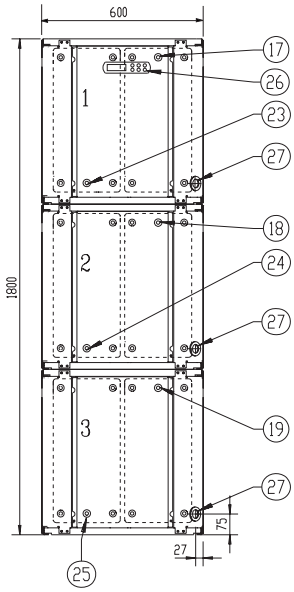


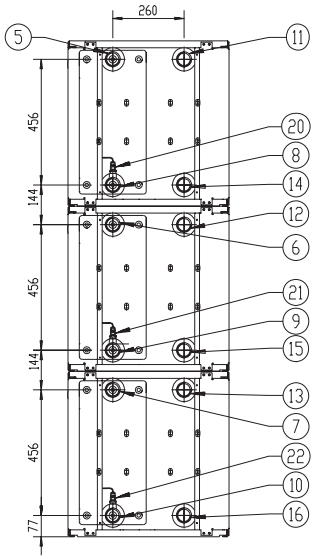
backside



Required service space around the unit

Scale 1/18





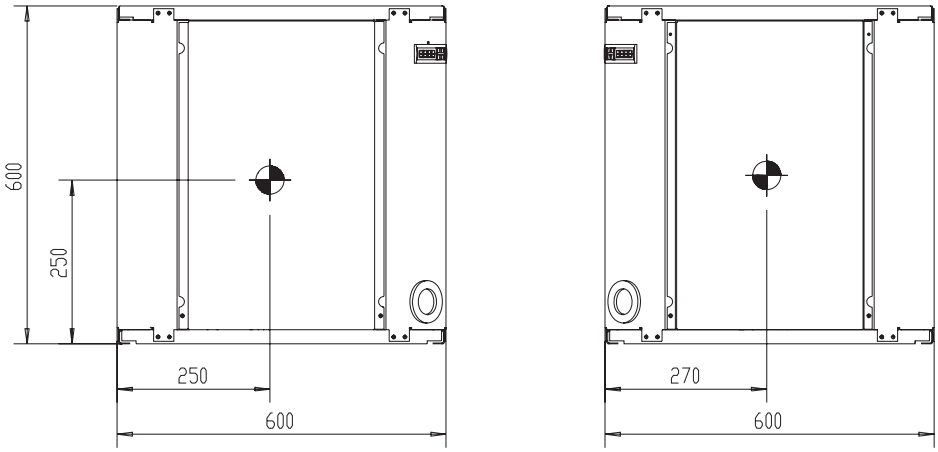
1 Compressor
2 Evaporator
3 Condenser
4 Switchbox
5 Chilled water in 1
6 Chilled water in 2
7 Chilled water in 3
8 Chilled water out 1
9 Chilled water out 2
10 Chilled water out 3
11 Condenser water out 1
12 Condenser water out 2
13 Condenser water out 3
14 Condenser water in 1
15 Condenser water in 2
16 Condenser water in 3
17 Evaporator entering water temperature sensor 1
18 Evaporator entering water temperature sensor 2
19 Evaporator entering water temperature sensor 3
20 Freeze up sensor 1
21 Freeze up sensor 2
22 Freeze up sensor 3
23 Condensor entering water temperature 1
24 Condensor entering water temperature 2
25 Condensor entering water temperature 3
26 Digital display controller
27 Power supply intake (ϕ 48)

3TW53474-4B

4 Dimensional drawing & centre of gravity

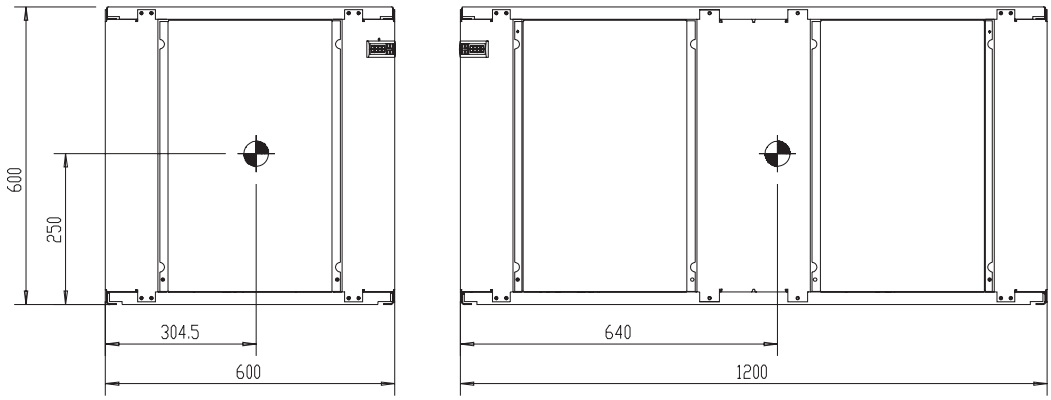
4 - 2 Centre of gravity

EWWP014-035KAW1N



4TW53479-2

EWWP045-065KAW1N

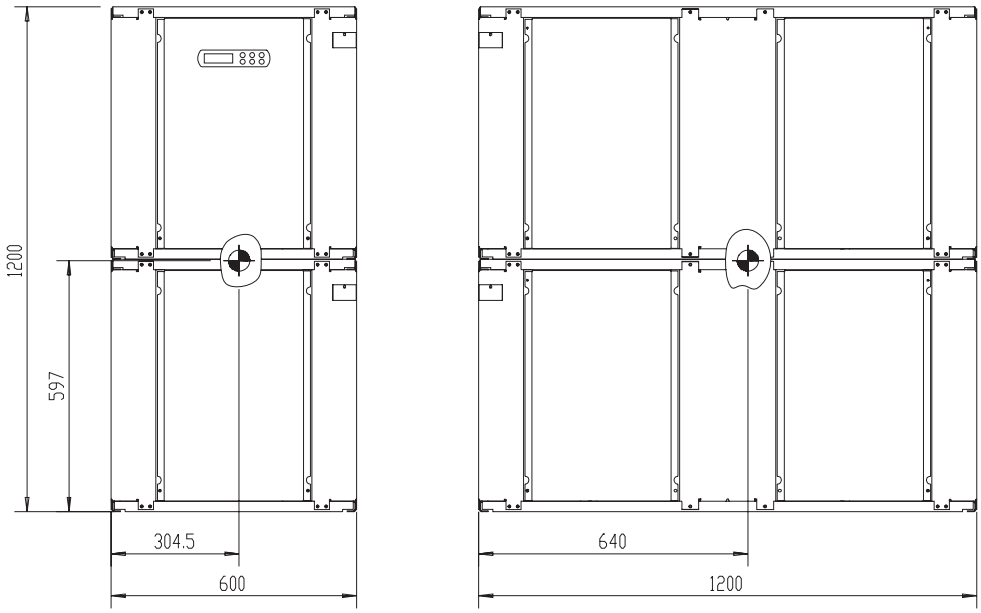


4TW53479-3

4 Dimensional drawing & centre of gravity

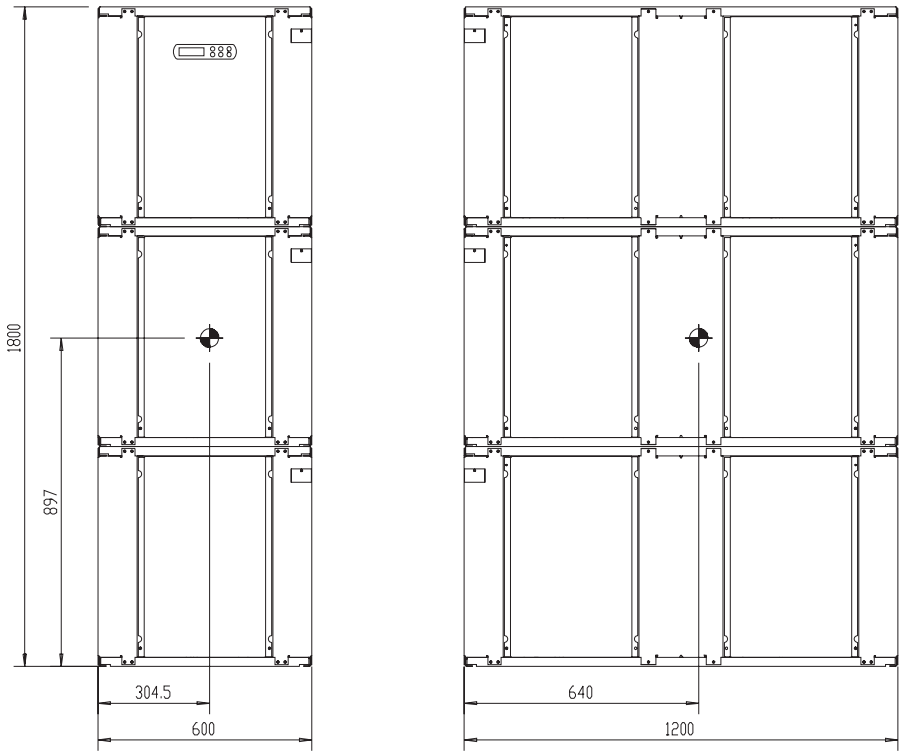
4 - 2 Centre of gravity

EWWP090-130KAW1N (32-48hp)



4TW53479-4

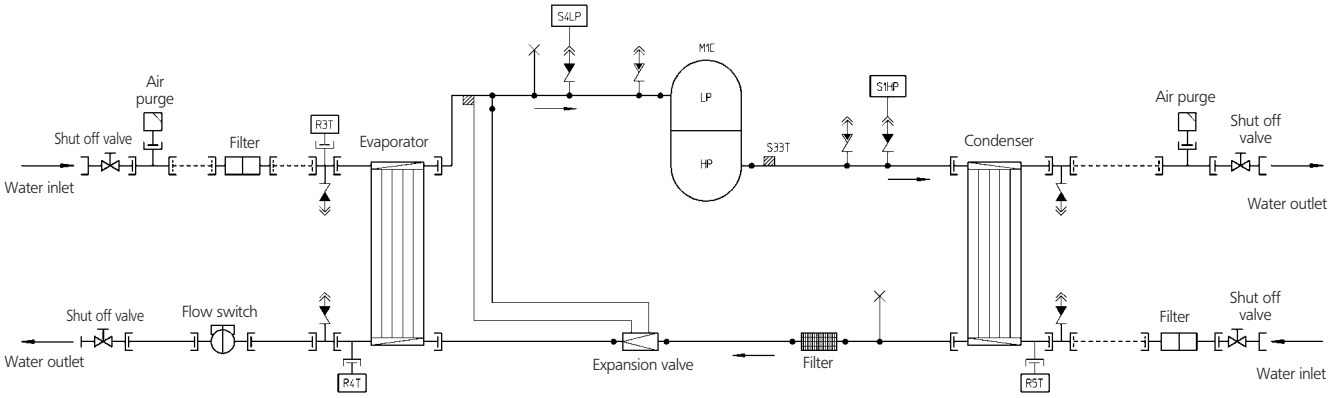
EWWP145-195KAW1N (52-72hp)



4TW53479-5

5 Piping diagram

EWWP014-035KAW1N



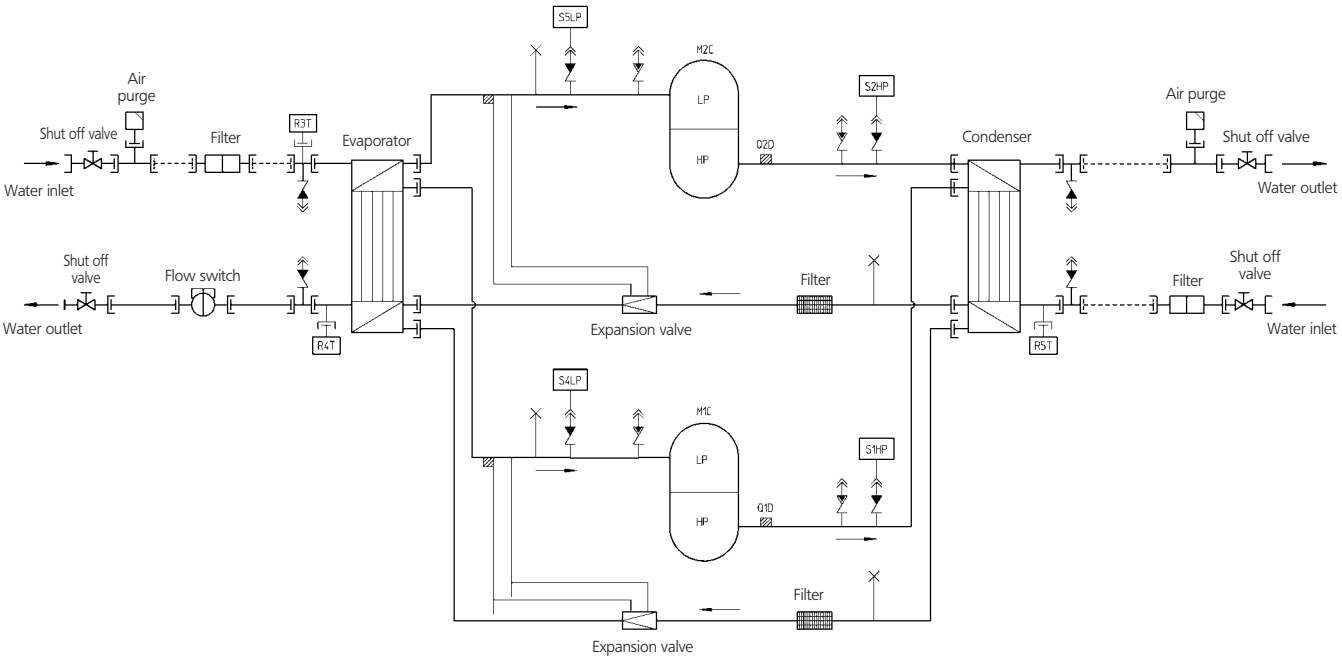
M1C	Compressor motor 1
R3T	Outlet water evap. temp. sensor
R5T	Inlet water cond. temp. sensor
S1HP	High pressure switch
S4LP	Low pressure switch
R4T	Freeze-up protection
S33T	Discharge temperature controller

- ------ Field piping
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW55255-1B

5 Piping diagram

EWWP045-065KAW1N



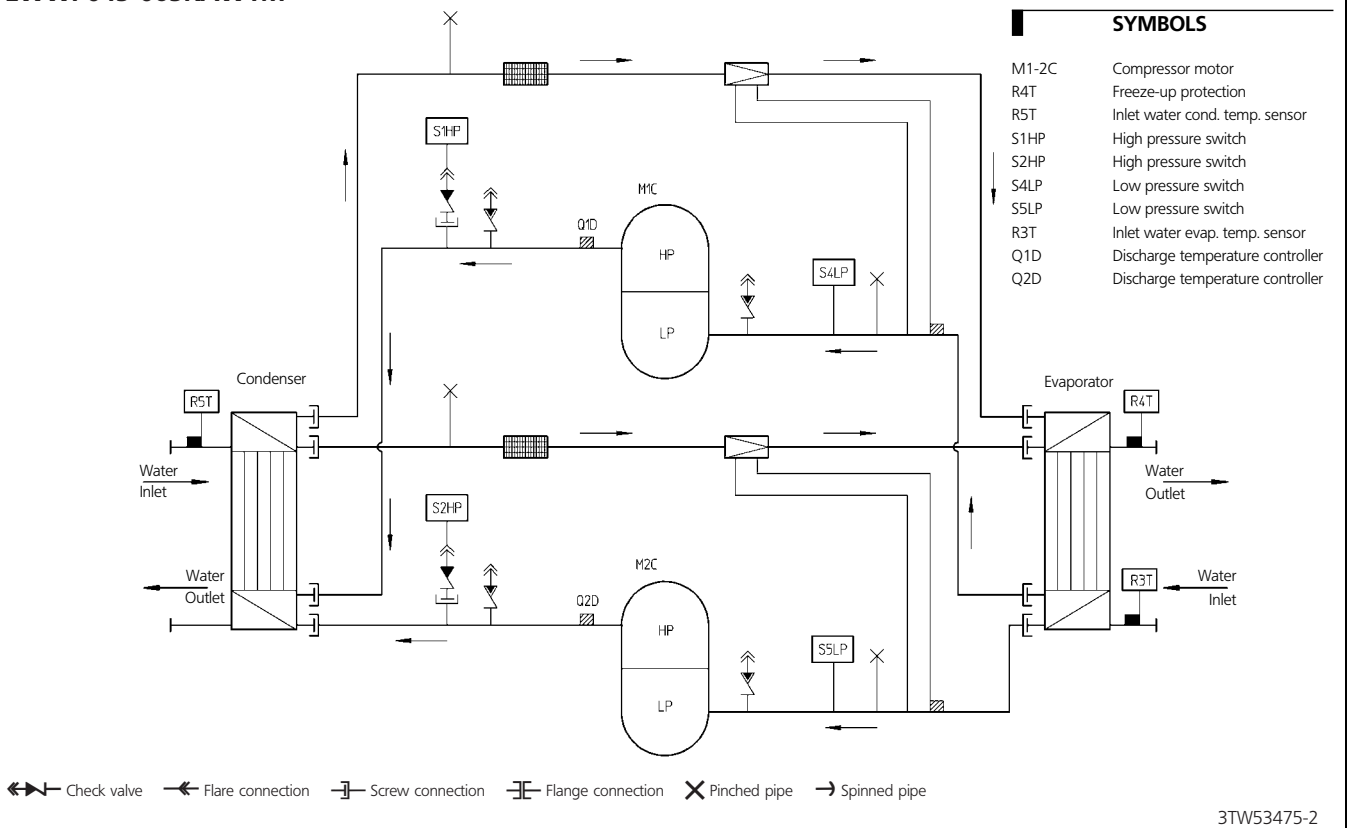
M1-2C	Compressor motor
R4T	Freeze-up protection
R5T	Inlet water cond. temp. sensor
S1HP	High pressure switch
S2HP	High pressure switch
S4LP	Low pressure switch
S5LP	Low pressure switch
R3T	Inlet water evap. temp. sensor
Q1D	Discharge temperature controller
Q2D	Discharge temperature controller

- ------ Field piping
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW55305-1B

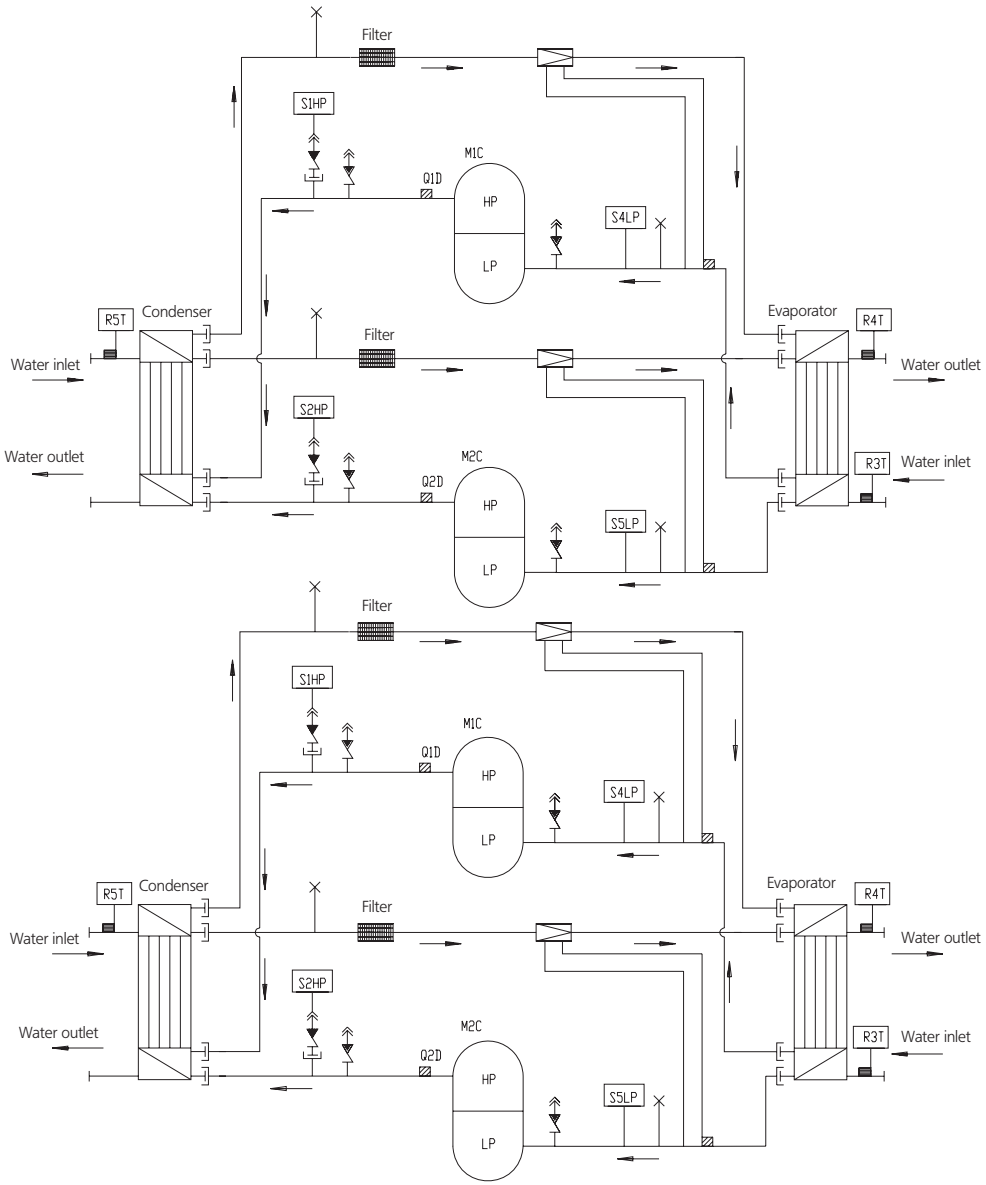
5 Piping diagram

EWWP045-065KAW1M



5 Piping diagram

EWWP090-130KAW1N (32-48hp)



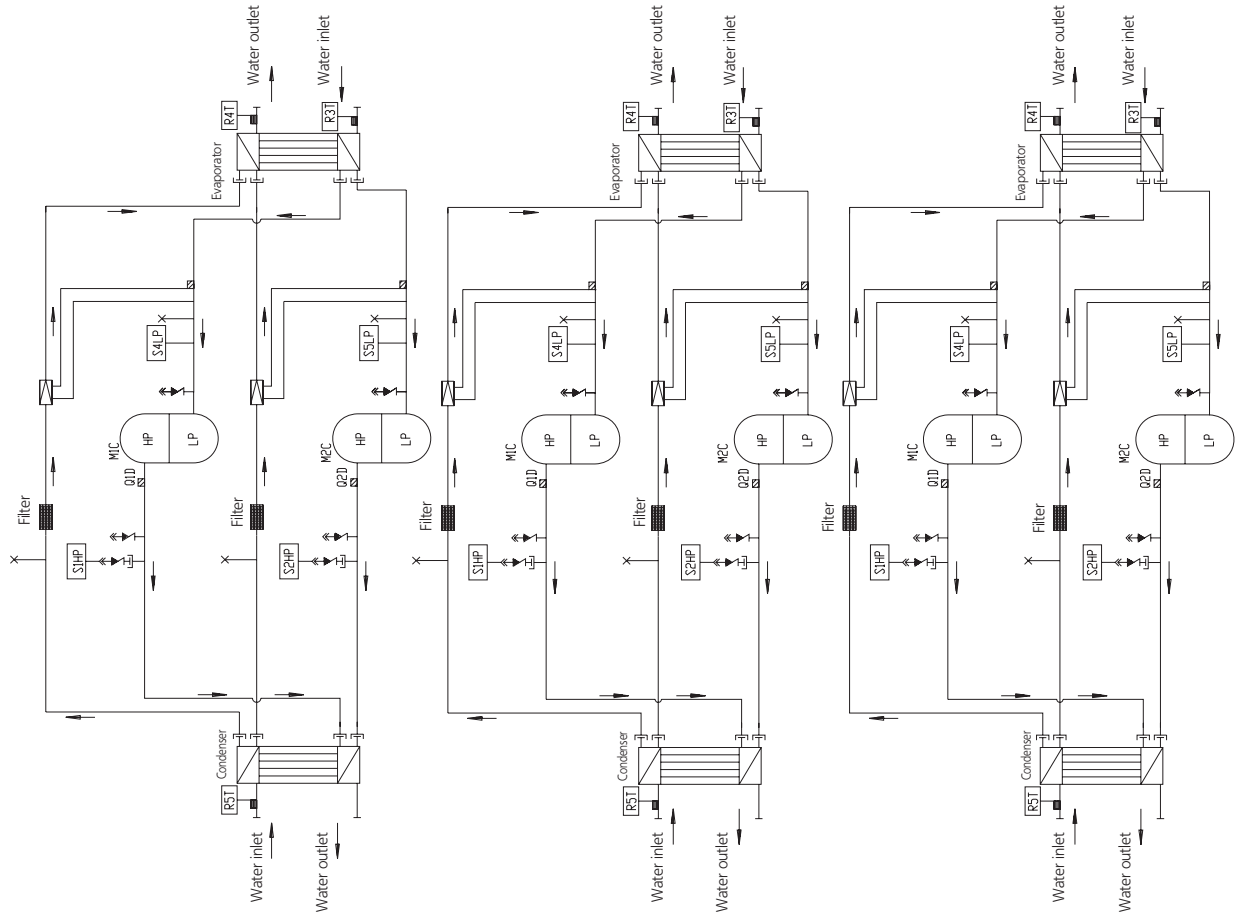
M1C-M2C	Compressor motor
R4T	Freeze-up protection
R5T	Inlet water cond. temp. sensor
S1HP	High pressure switch
S2HP	High pressure switch
S4LP	Low pressure switch
S5LP	Low pressure switch
R3T	Inlet water evap. temp. sensor
Q1D	Discharge temperature controller
Q2D	Discharge temperature controller

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

3TW53475-3

5 Piping diagram

EWWP145-195KAW1N (52-72hp)



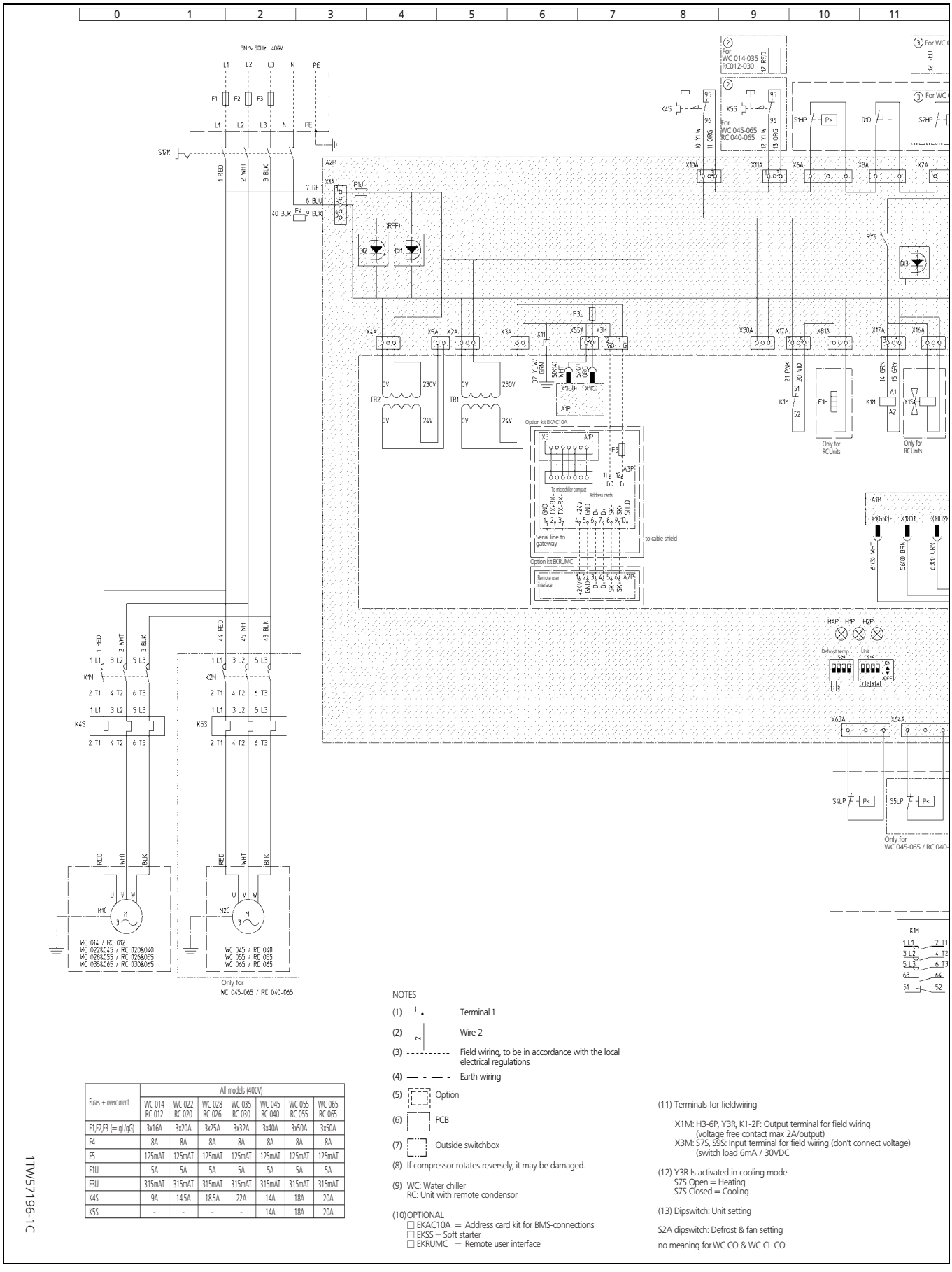
M1C-M2C	Compressor motor
R4T	Freeze-up protection
R5T	Inlet water cond. temp. sensor
S1HP	High pressure switch
S2HP	High pressure switch
S4LP	Low pressure switch
S5LP	Low pressure switch
R3T	Inlet water evap. temp. sensor
Q1D	Discharge temperature controller
Q2D	Discharge temperature controller

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

3TW53475-4

6 Wiring diagram

6 - 1 Wiring diagram



NOTES

(1) Terminal 1

(2) Wire 2

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

(4) Earth wiring

(5) Option

(6) PCB

(7) Outside switchbox

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

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

(10) OPTIONAL
☐ EKAC10A = Address card kit for BMS-connections
☐ EKSS = Soft starter
☐ EKRUMC = Remote user interface

(11) Terminals for fieldwiring

X1M: H3-6P, Y3R, K1-2F: Output terminal for field wiring
(voltage free contact max 2A/output)
X3M: S7S, S9S: Input terminal for field wiring (don't connect voltage)
(switch load 6mA / 30VDC

(12) Y3R Is activated in cooling mode
S7S Open = Heating
S7S Closed = Cooling

(13) Dipswitch: Unit setting

S2A dipswitch: Defrost & fan setting

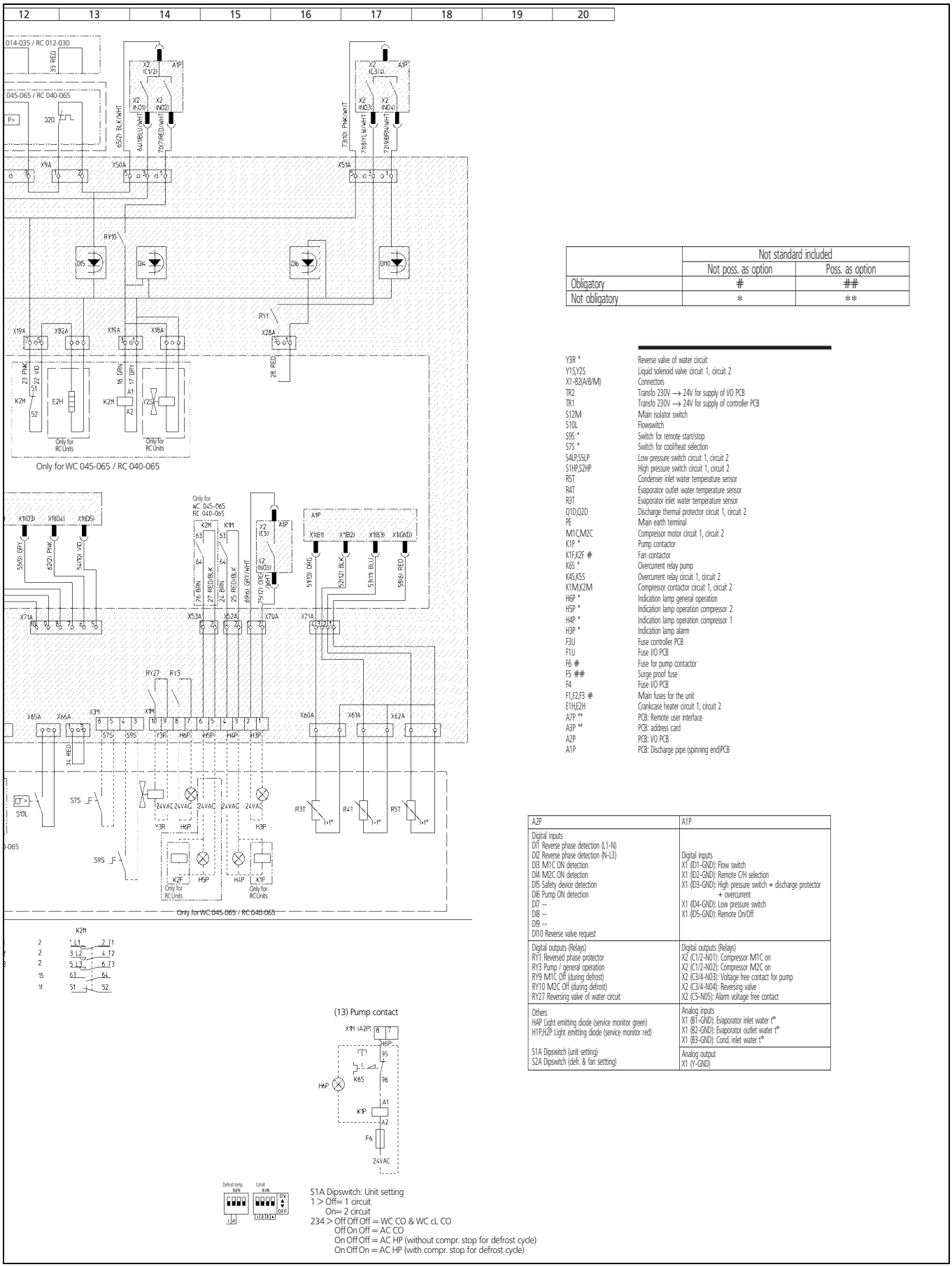
no meaning for WC CO & WC CL CO

Fuses + overcurrent	All models (400V)						
	WC 014 RC 012	WC 022 RC 020	WC 028 RC 026	WC 035 RC 030	WC 045 RC 040	WC 055 RC 055	WC 065 RC 065
F1,F2,F3 (= gL/gG)	3x16A	3x20A	3x25A	3x32A	3x40A	3x50A	3x50A
F4	8A	8A	8A	8A	8A	8A	8A
F5	125mAT	125mAT	125mAT	125mAT	125mAT	125mAT	125mAT
F1U	5A	5A	5A	5A	5A	5A	5A
F3U	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT
K4S	9A	14.5A	18.5A	22A	14A	18A	20A
K5S	-	-	-	-	14A	18A	20A

1TW57196-1C

6 Wiring diagram

6 - 1 Wiring diagram



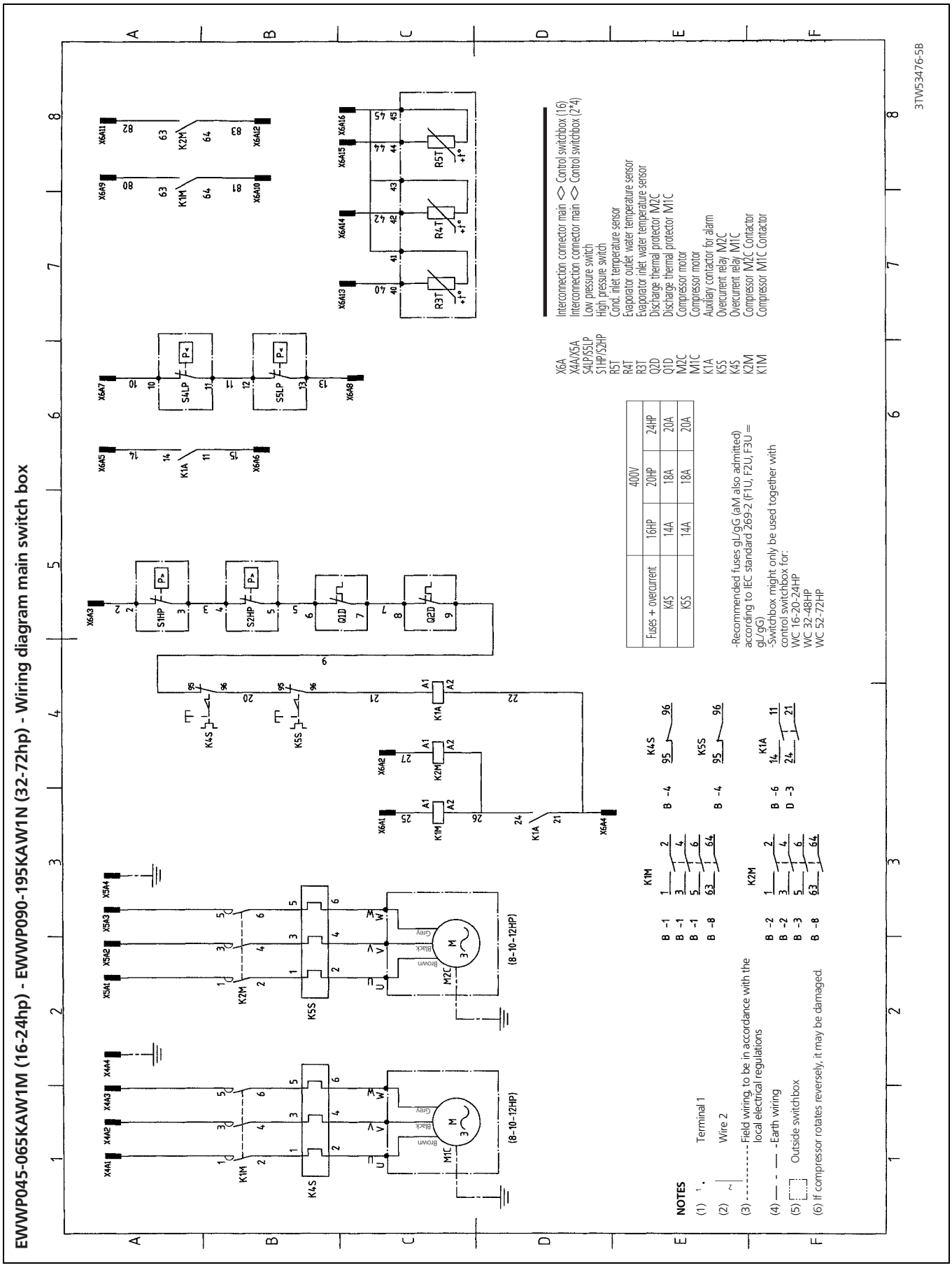
	Not standard included	
	Not poss. as option	Poss. as option
Obligatory	#	##
Not obligatory	*	**

Y3R *	Reverse valve of water circuit
Y1S,Y2S	Liquid solenoid valve circuit 1, circuit 2
X1-82(A/B/M)	Connectors
TR2	Transfo 230V → 24V for supply of I/O PCB
TR1	Transfo 230V → 24V for supply of controller PCB
S12M	Main isolator switch
S10L	Flowswitch
S9S *	Switch for remote start/stop
S7S *	Switch for cool/heat selection
S4LP,S5LP	Low pressure switch circuit 1, circuit 2
S1HP,S2HP	High pressure switch circuit 1, circuit 2
R5T	Condenser inlet water temperature sensor
R4T	Evaporator outlet water temperature sensor
R3T	Evaporator inlet water temperature sensor
Q1D,Q2D	Discharge thermal protector circuit 1, circuit 2
PE	Main earth terminal
M1C,M2C	Compressor motor circuit 1, circuit 2
K1P *	Pump contactor
K1F,K2F #	Fan contactor
K6S *	Overcurrent relay pump
K4S,K5S	Overcurrent relay circuit 1, circuit 2
K1M,K2M	Compressor contactor circuit 1, circuit 2
H6P *	Indication lamp general operation
H5P *	Indication lamp operation compressor 2
H4P *	Indication lamp operation compressor 1
H3P *	Indication lamp alarm
F3U	Fuse controller PCB
F1U	Fuse I/O PCB
F6 #	Fuse for pump contactor
F5 ##	Surge proof fuse
F4	Fuse I/O PCB
F1,F2,F3 #	Main fuses for the unit
E1H,E2H	Crankcase heater circuit 1, circuit 2
A7P **	PCB: Remote user interface
A3P **	PCB: address card
A2P	PCB: I/O PCB
A1P	PCB: Discharge pipe (spinning end)PCB

A2P	A1P
Digital inputs DI1 Reverse phase detection (L1-N) DI2 Reverse phase detection (N-L3) DI3 M1C ON detection DI4 M2C ON detection DI5 Safety device detection DI6 Pump ON detection DI7 -- DI8 -- DI9 -- DI10 Reverse valve request	Digital inputs X1 (D1-GND): Flow switch X1 (D2-GND): Remote C/H selection X1 (D3-GND): High pressure switch + discharge protector + overcurrent X1 (D4-GND): Low pressure switch X1 (D5-GND): Remote On/Off
Digital outputs (Relays) RY1 Reversed phase protector RY3 Pump / general operation RY9 M1C Off (during defrost) RY10 M2C Off (during defrost) RY27 Reversing valve of water circuit	Digital outputs (Relays) X2 (C1/2-N01): Compressor M1C on X2 (C1/2-N02): Compressor M2C on X2 (C3/4-N03): Voltage free contact for pump X2 (C3/4-N04): Reversing valve X2 (C5-N05): Alarm voltage free contact
Others HAP Light emitting diode (service monitor green) H1P,H2P Light emitting diode (service monitor red)	Analog inputs X1 (B1-GND): Evaporator inlet water t° X1 (B2-GND): Evaporator outlet water t° X1 (B3-GND): Cond. inlet water t°
S1A Dipswitch (unit setting) S2A Dipswitch (defr. & fan settting)	Analog output X1 (Y-GND)

6 Wiring diagram

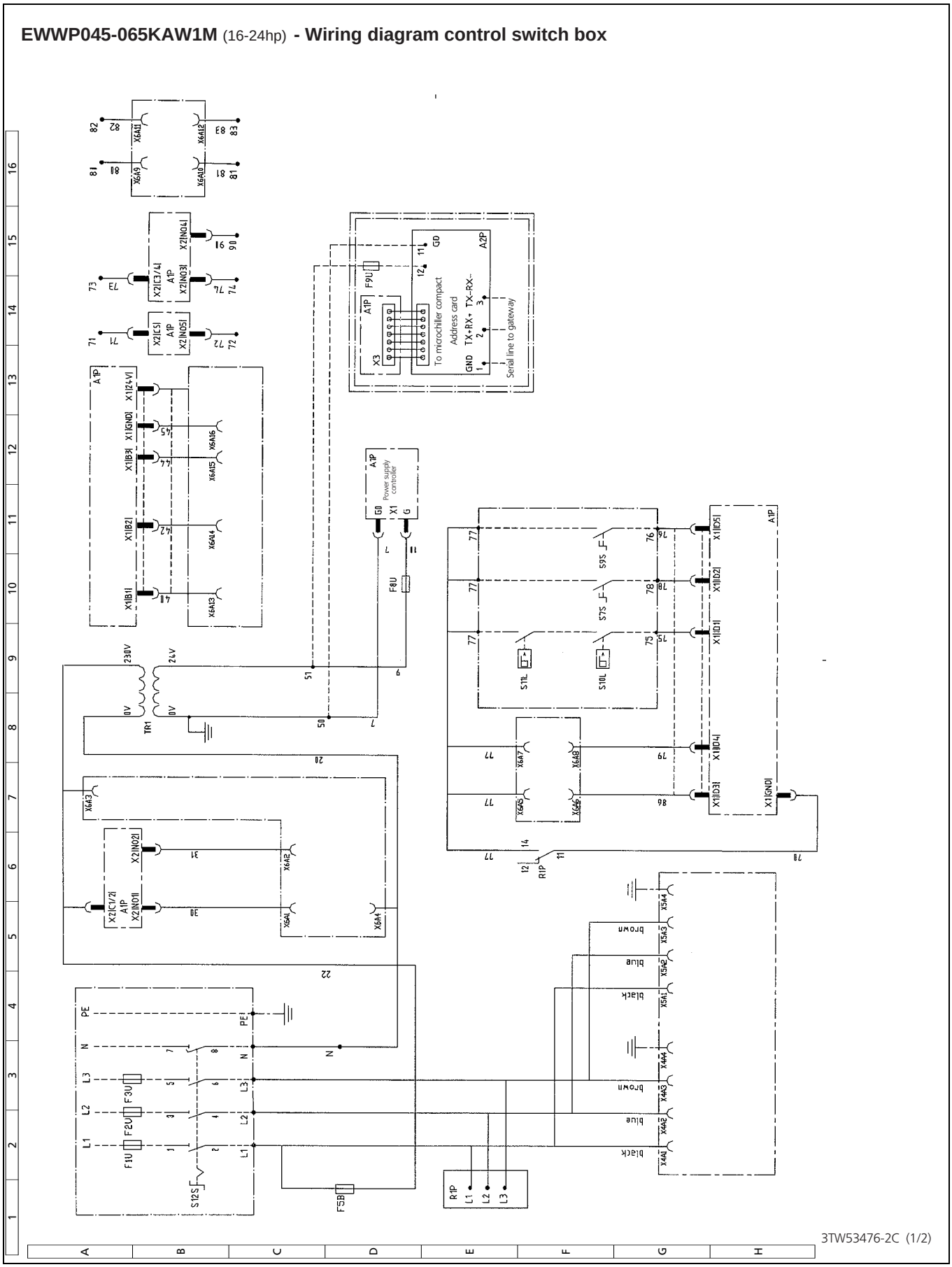
6 - 1 Wiring diagram



6 Wiring diagram

6 - 1 Wiring diagram

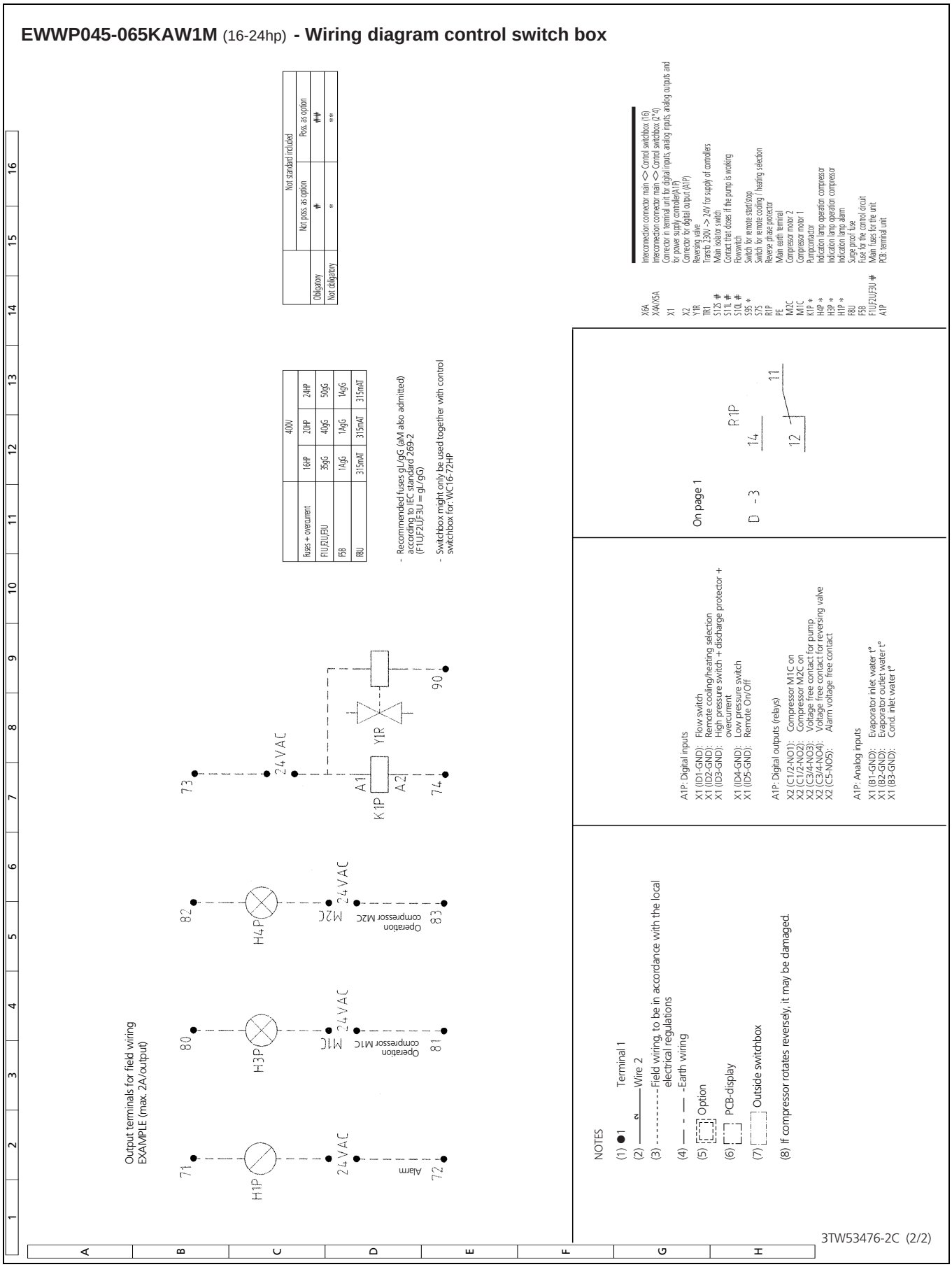
EWWP045-065KAW1M (16-24hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

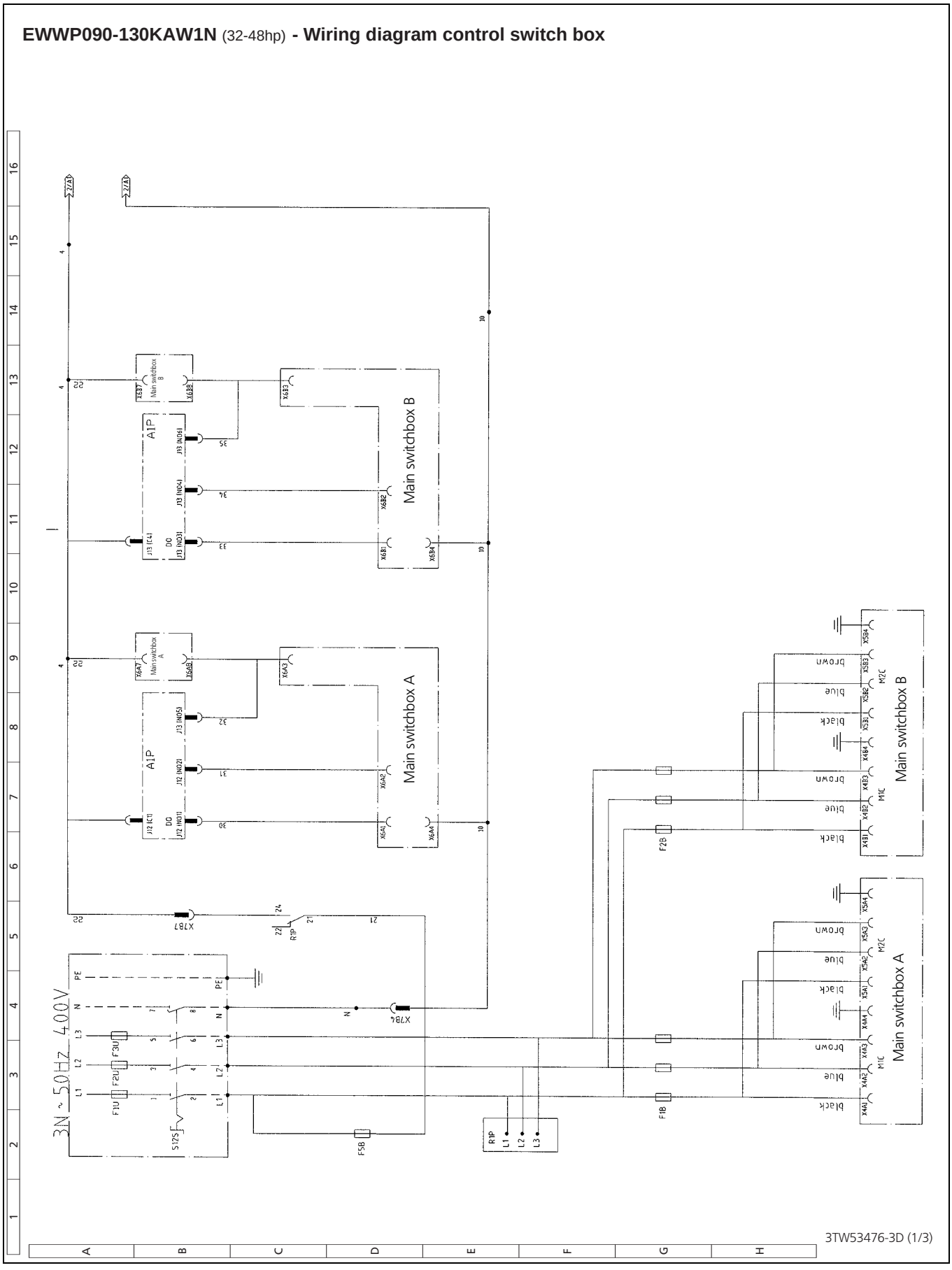
EWWP045-065KAW1M (16-24hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

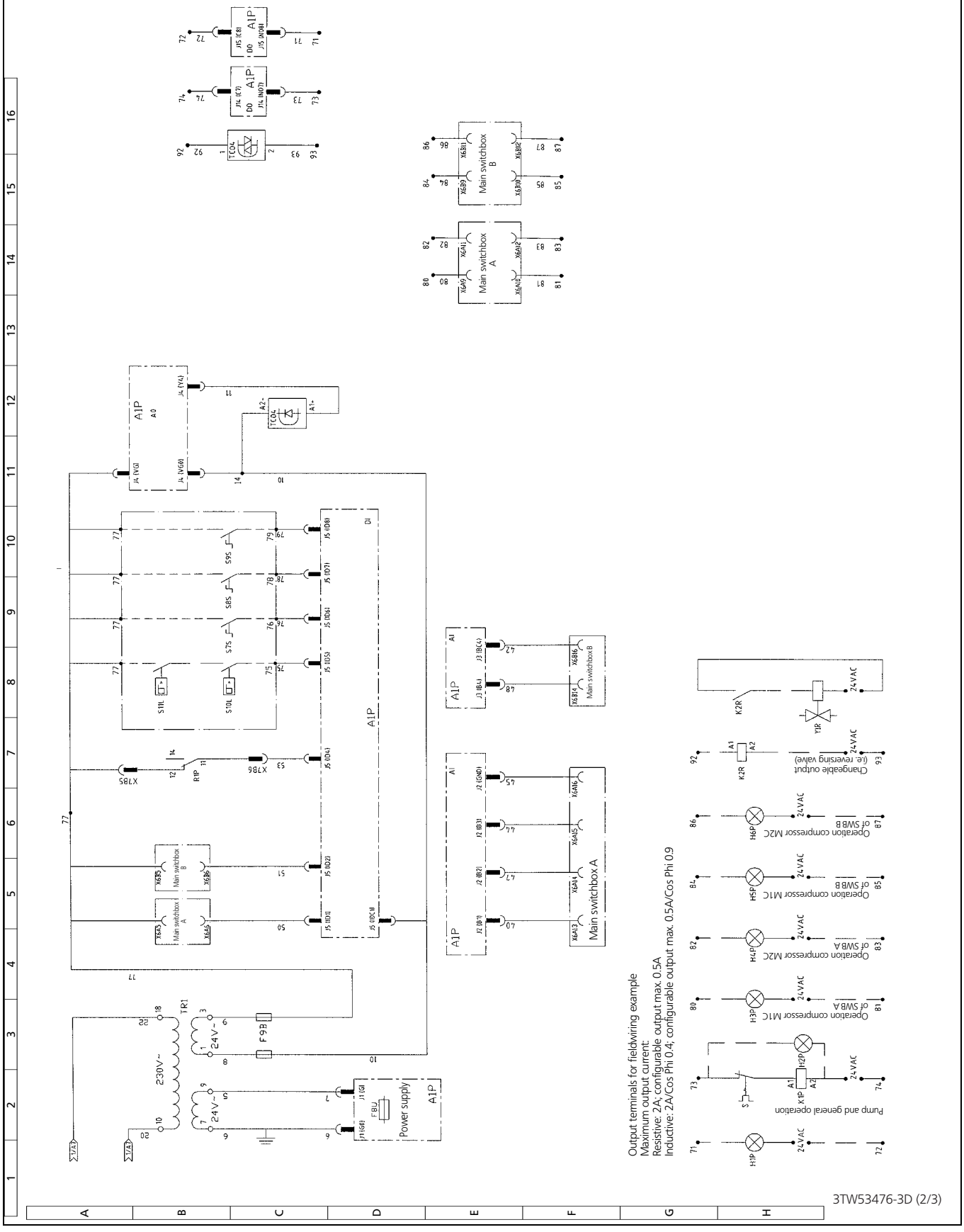
EWWP090-130KAW1N (32-48hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

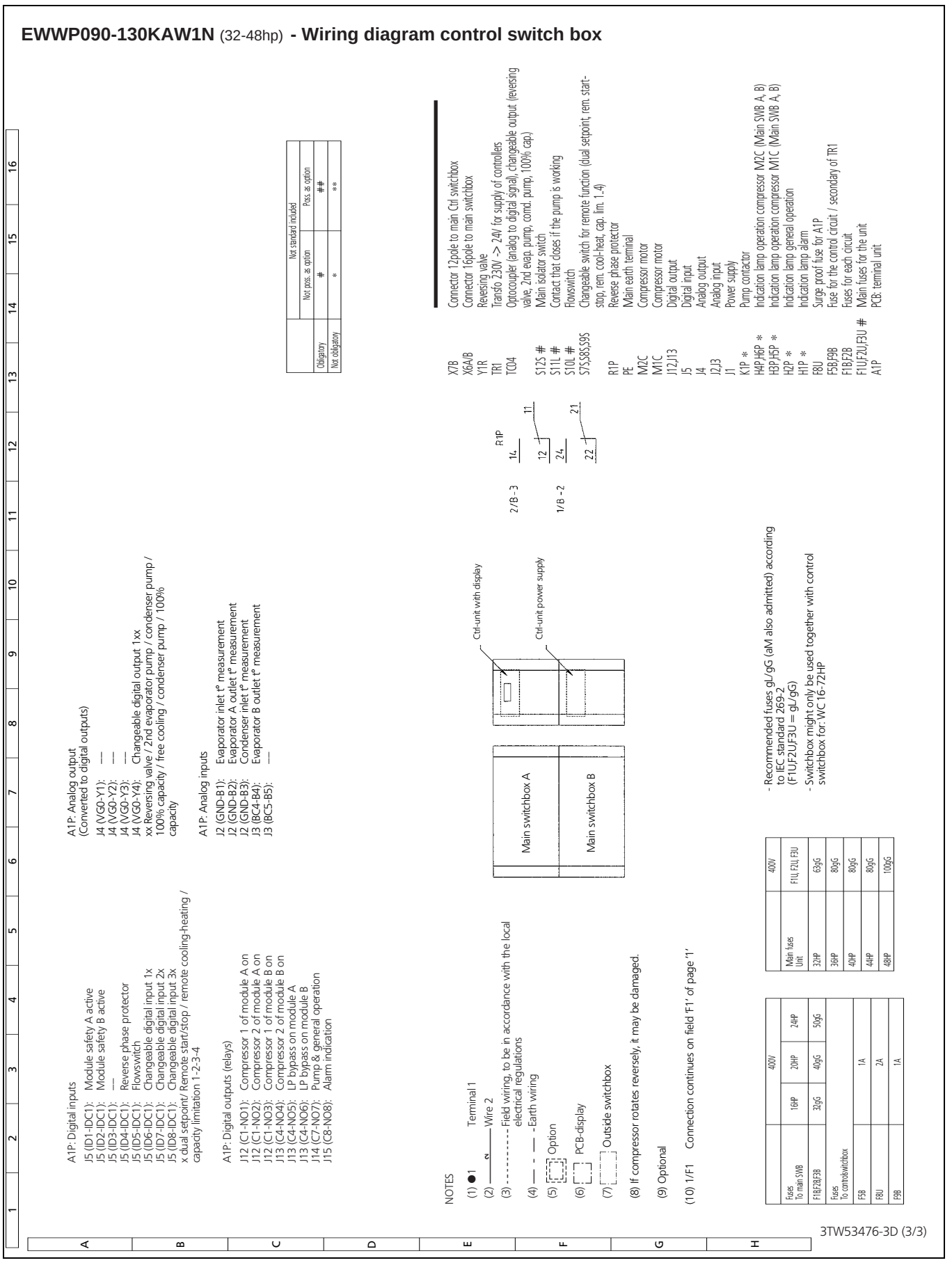
EWWP090-130KAW1N (32-48hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

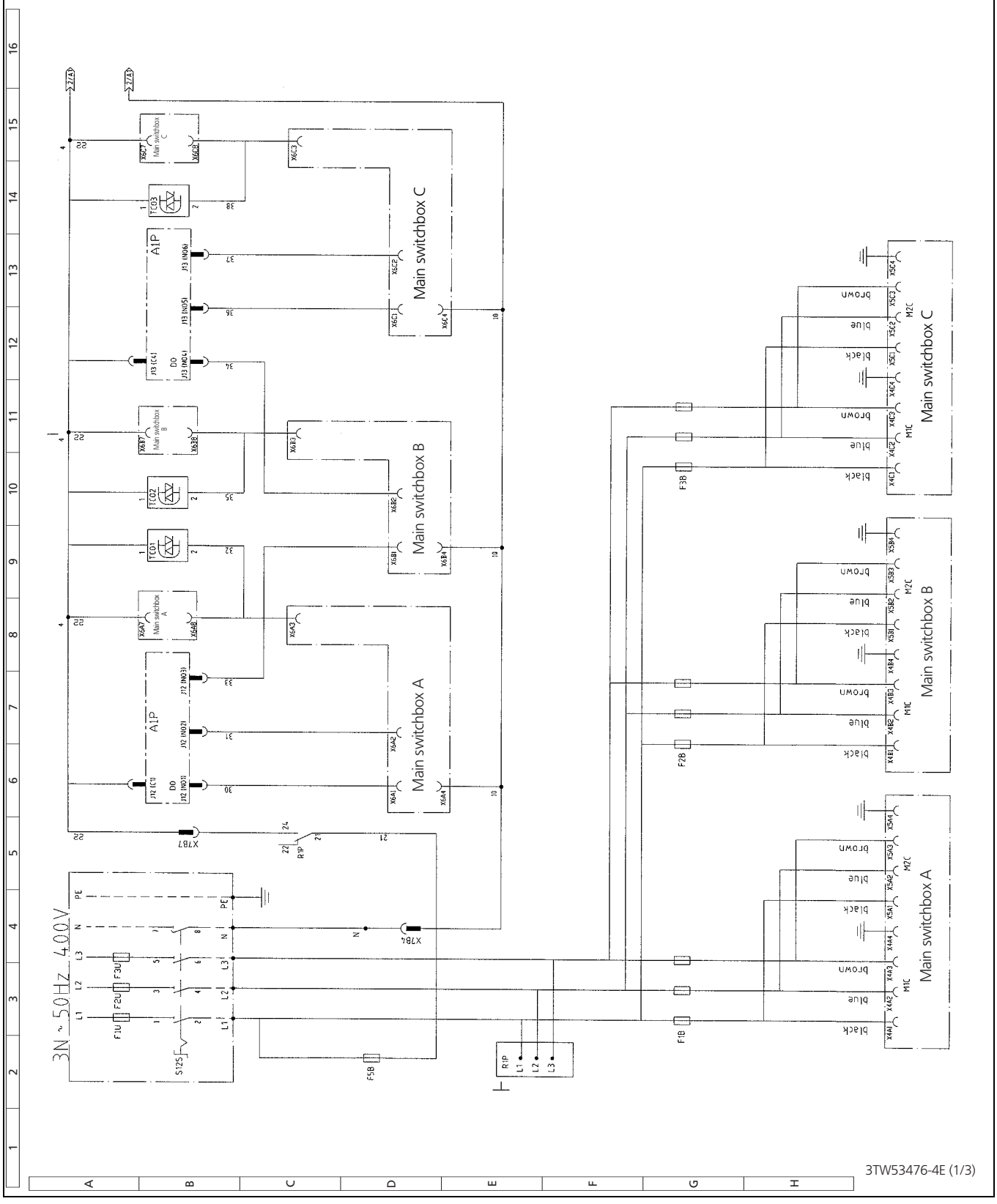
EWWP090-130KAW1N (32-48hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

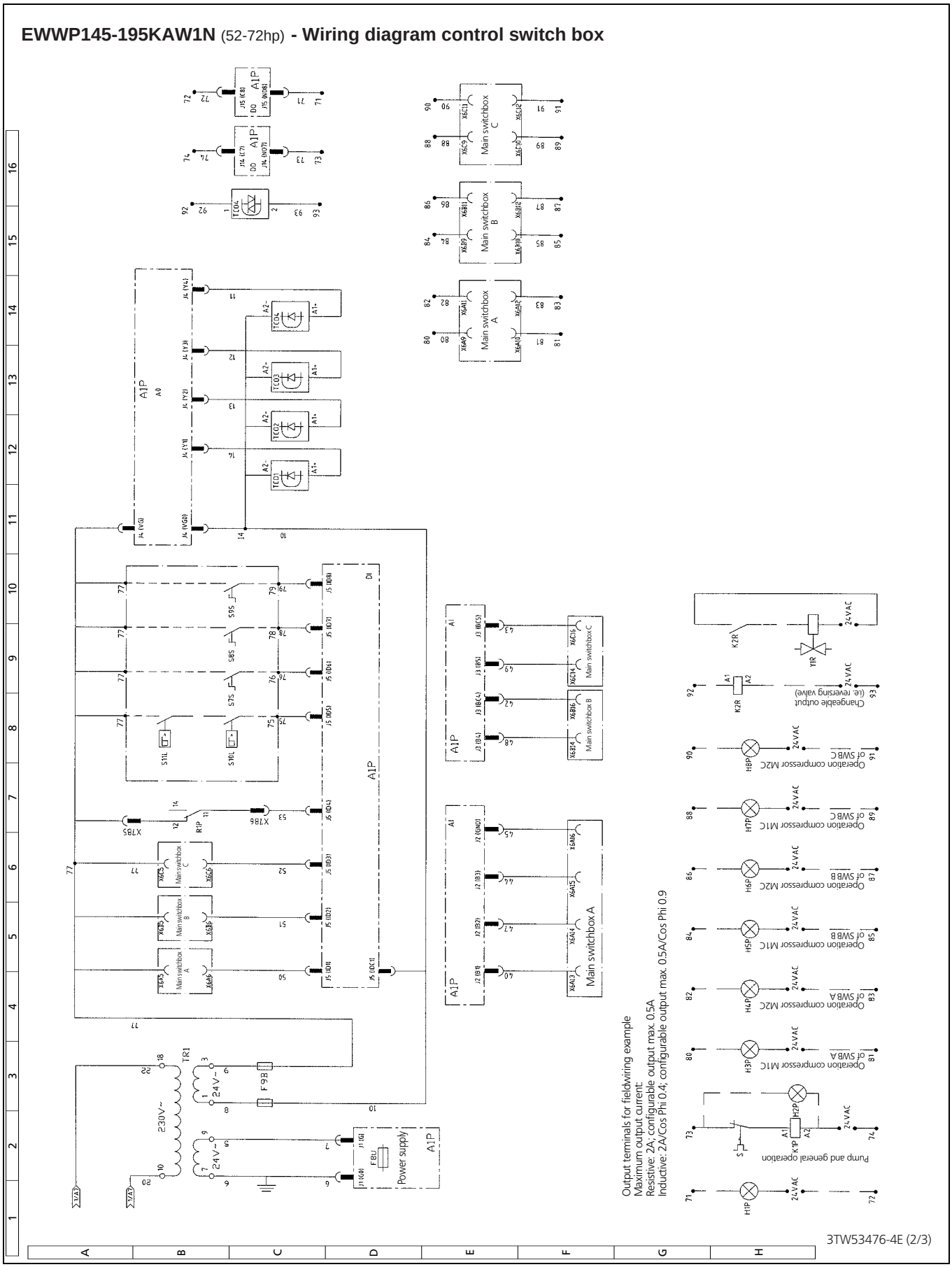
EWWP145-195KAW1N (52-72hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

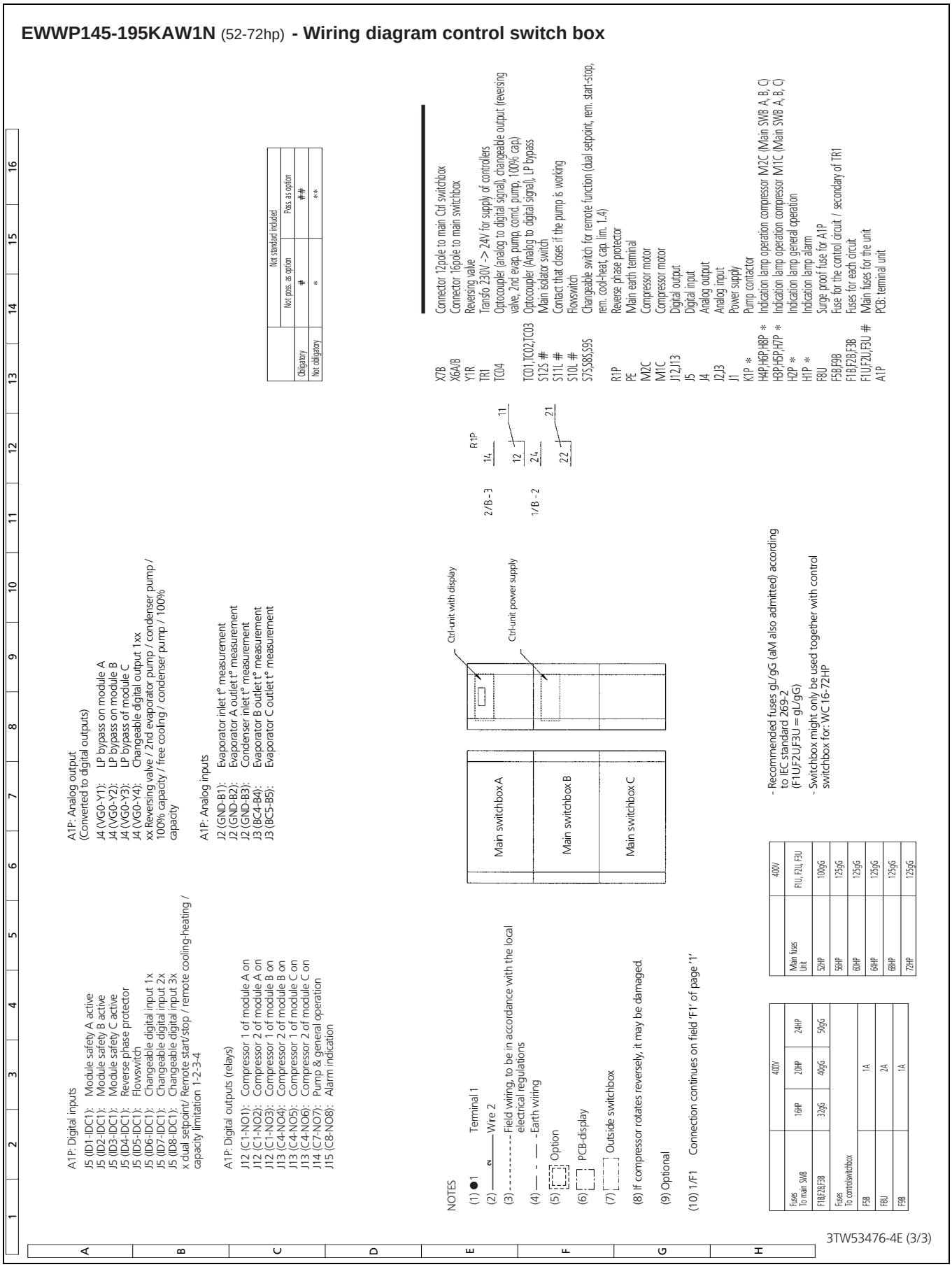
EWWP145-195KAW1N (52-72hp) **- Wiring diagram control switch box**



6 Wiring diagram

6 - 1 Wiring diagram

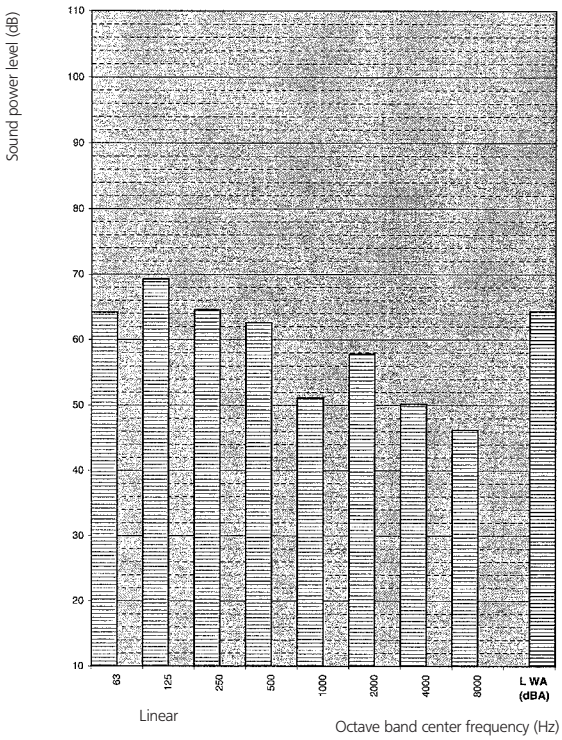
EWWP145-195KAW1N (52-72hp) **- Wiring diagram control switch box**



7 Sound data

7 - 1 Sound power spectrum

EWWP014-028KAW1N (5-10hp)

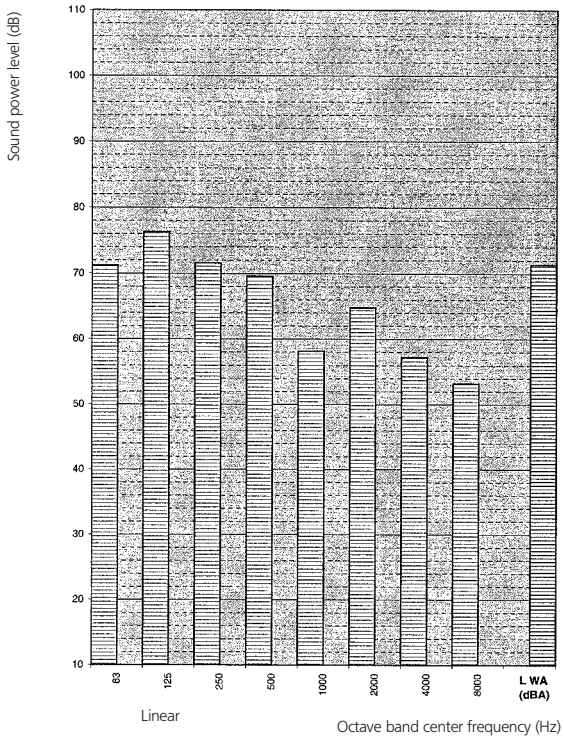


4TW57197-1

NOTES

Option low noise = -3dBa

EWWP035KAW1N (12hp)

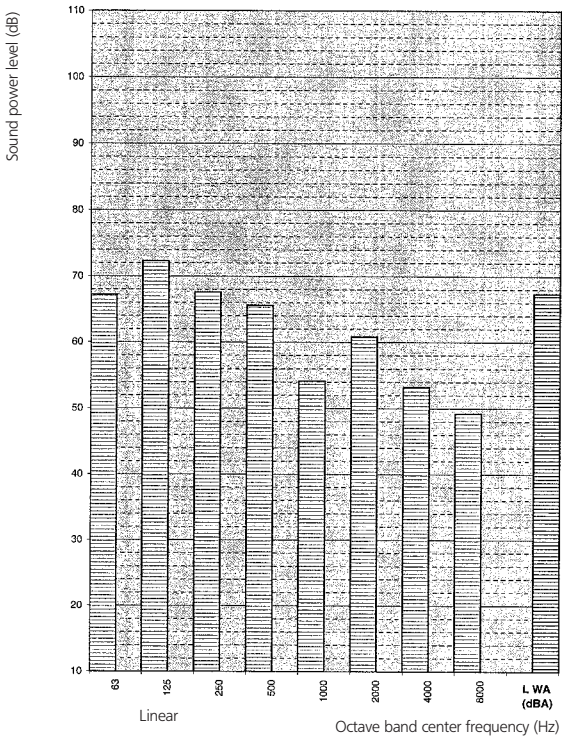


4TW57197-2

NOTES

Option low noise = -3dBa

EWWP045-055KAW1N (16-20hp)

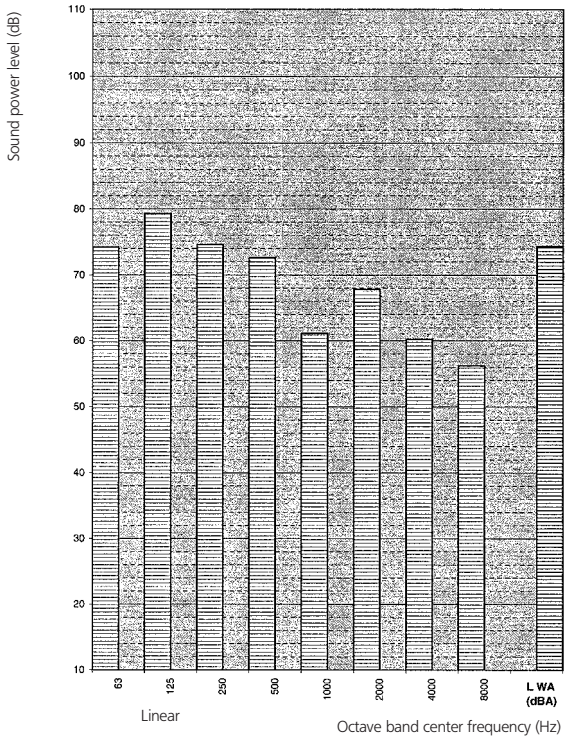


4TW57197-3

NOTES

Option low noise = -3dBa

EWWP065KAW1N (24hp)



4TW57197-4

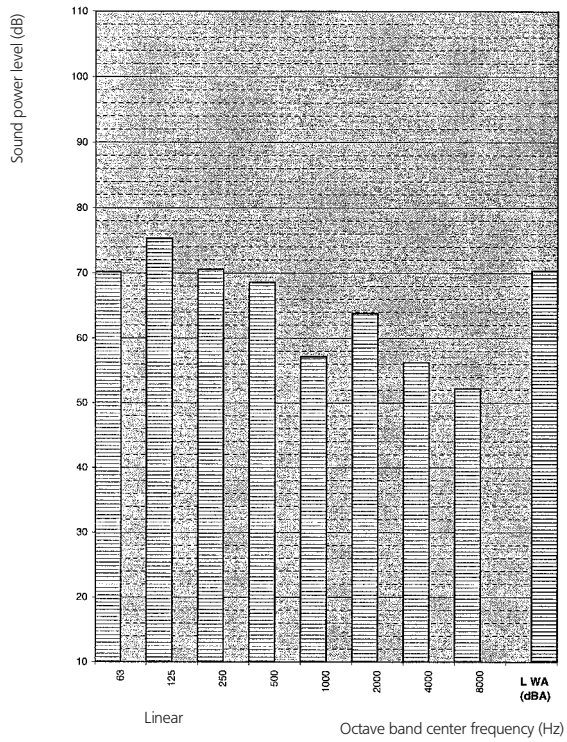
NOTES

Option low noise = -3dBa

7 Sound data

7 - 1 Sound power spectrum

EWWP090-110KAW1N (32-40hp)

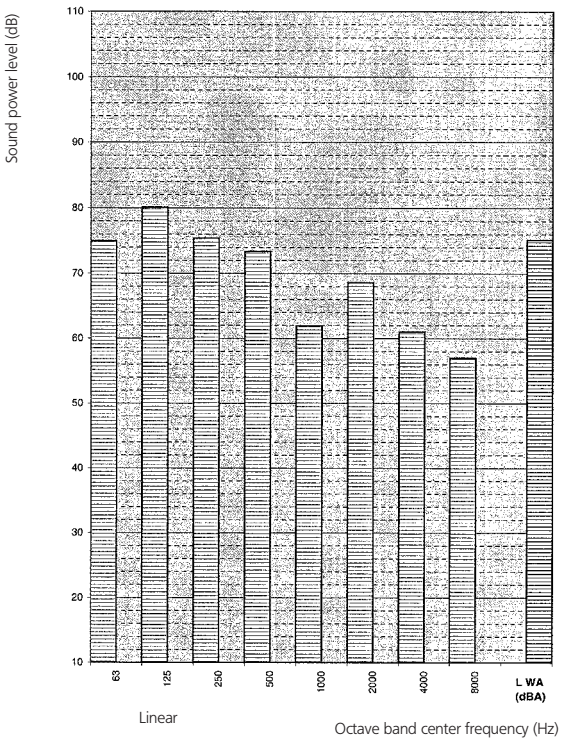


4TW57197-5

NOTES

Option low noise = -3dBa

EWWP120KAW1N (44hp)

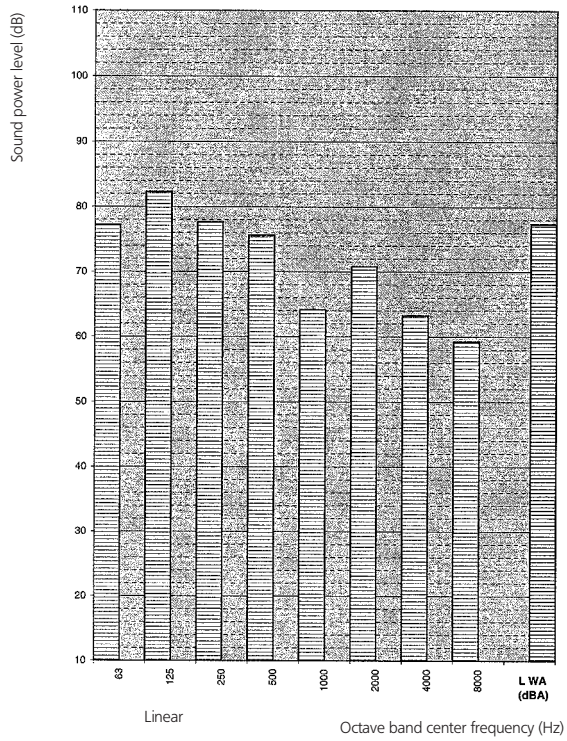


4TW57197-6

NOTES

Option low noise = -3dBa

EWWP130KAW1N (48hp)

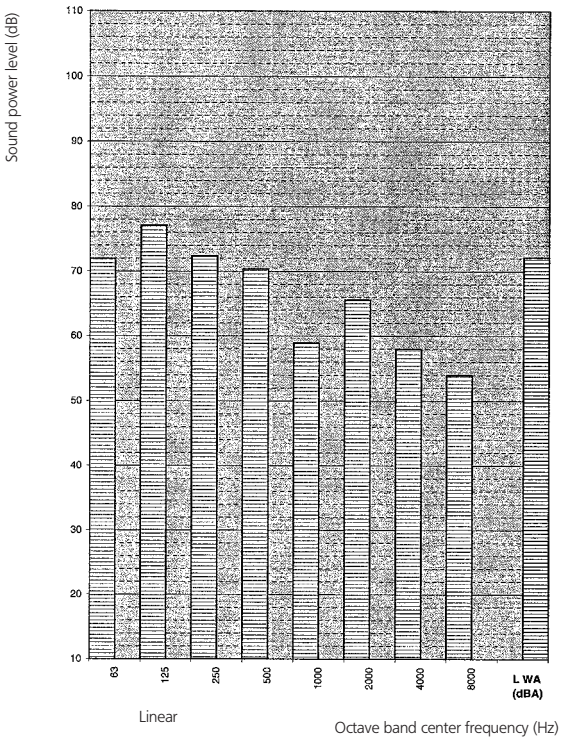


4TW57197-7

NOTES

Option low noise = -3dBa

EWWP145-165KAW1N (52-60hp)



4TW57197-8

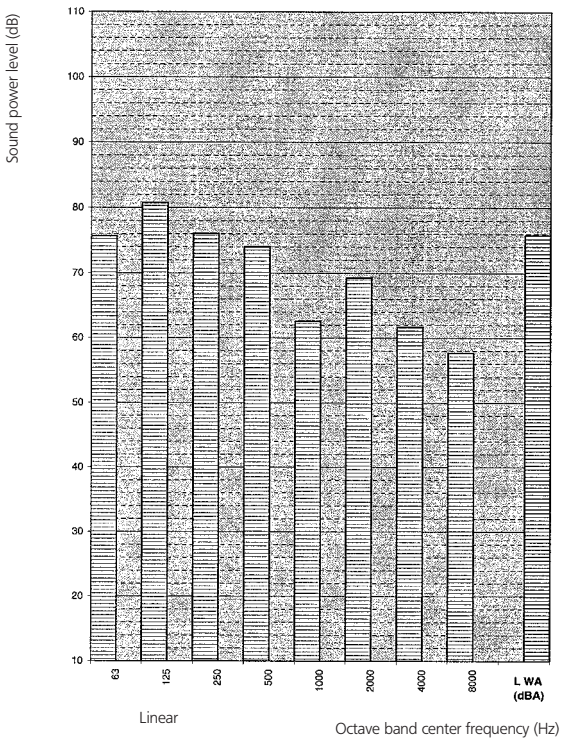
NOTES

Option low noise = -3dBa

7 Sound data

7 - 1 Sound power spectrum

EWWP175KAW1N (64hp)

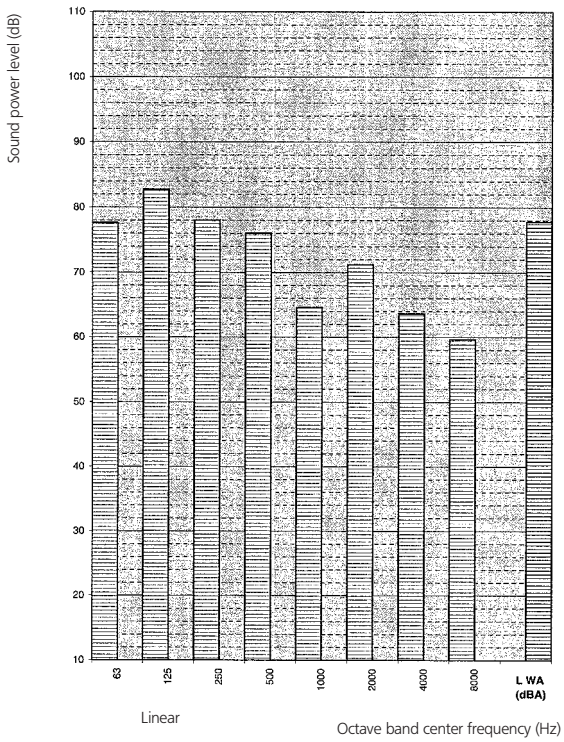


4TW57197-9

NOTES

Option low noise = -3dBa

EWWP185KAW1N (68hp)

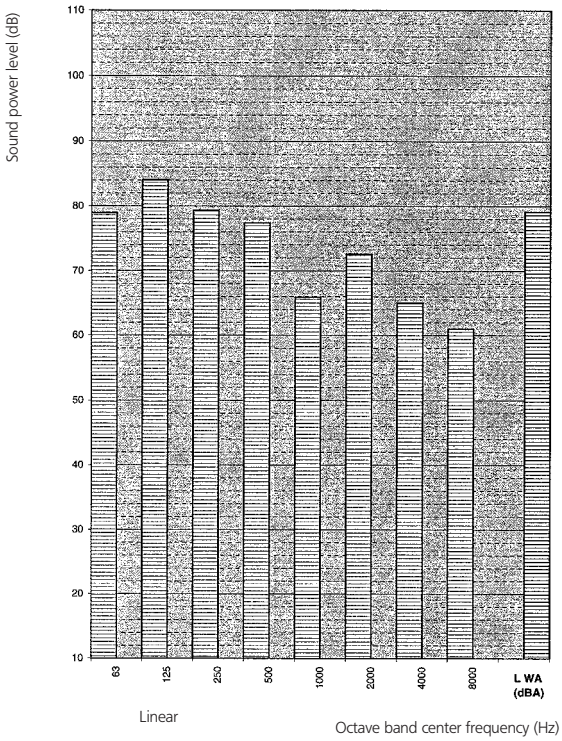


4TW57197-10

NOTES

Option low noise = -3dBa

EWWP195KAW1N (72hp)



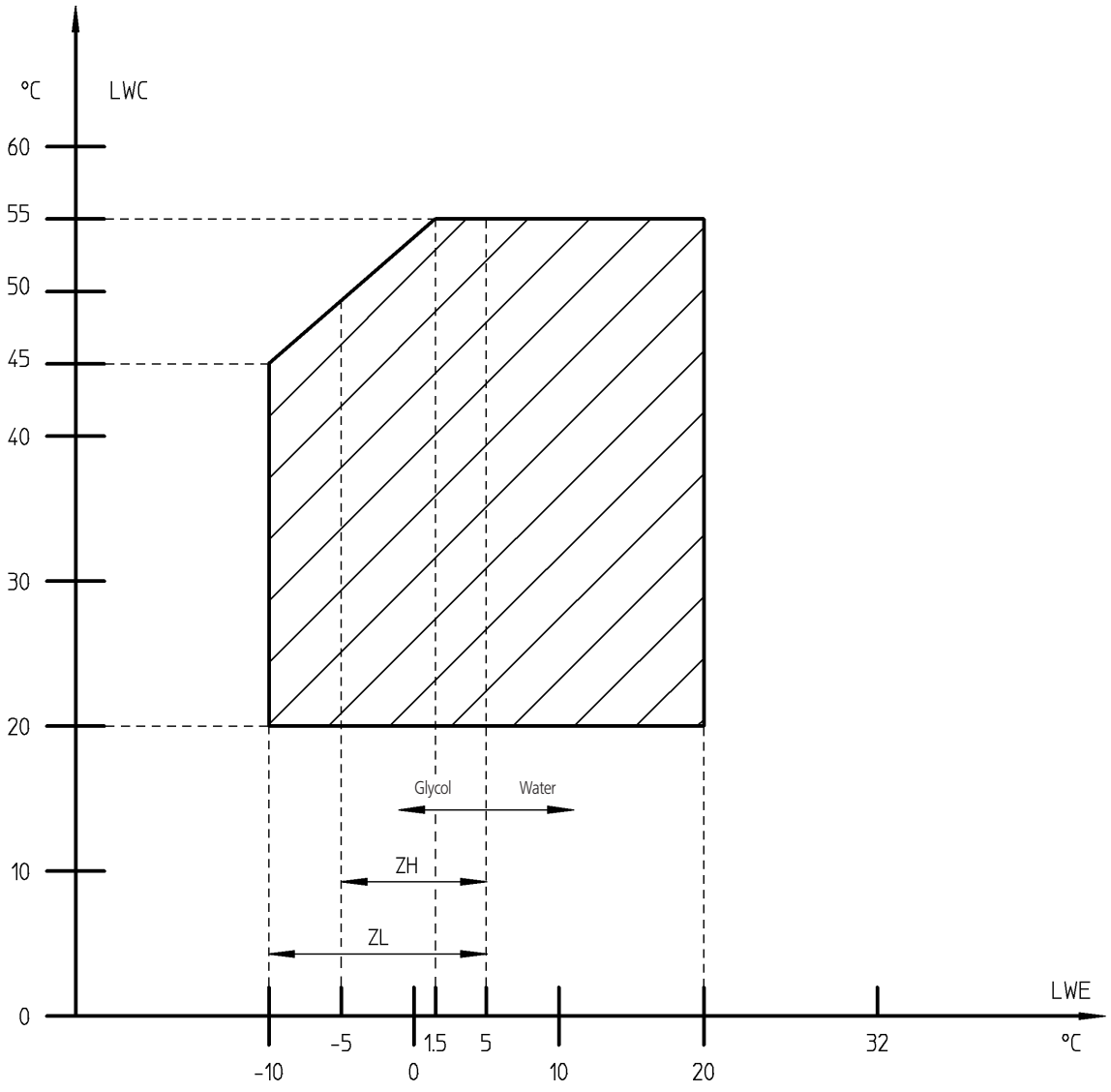
4TW57197-11

NOTES

Option low noise = -3dBa

8 Operation range

EWWP014-035KAW1N

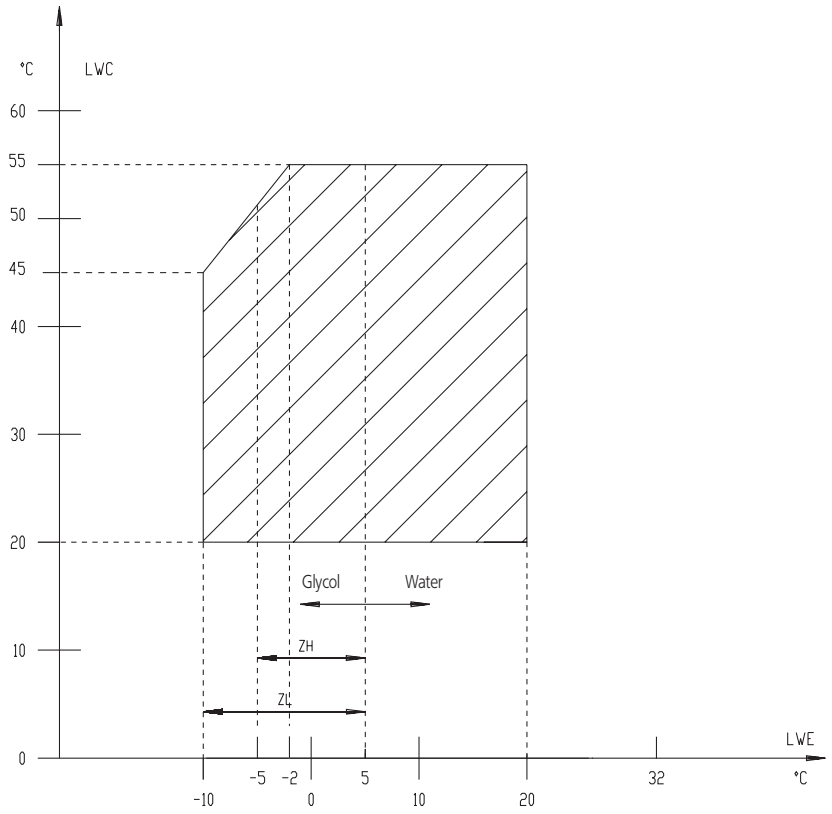


* LWE = Leaving Water Evaporator (°C)
* LWC = Leaving Water Condenser (°C)

4TW57193-1

8 Operation range

EWWP045-065KAW1N
90kW (32hp) - 195kW (72hp)



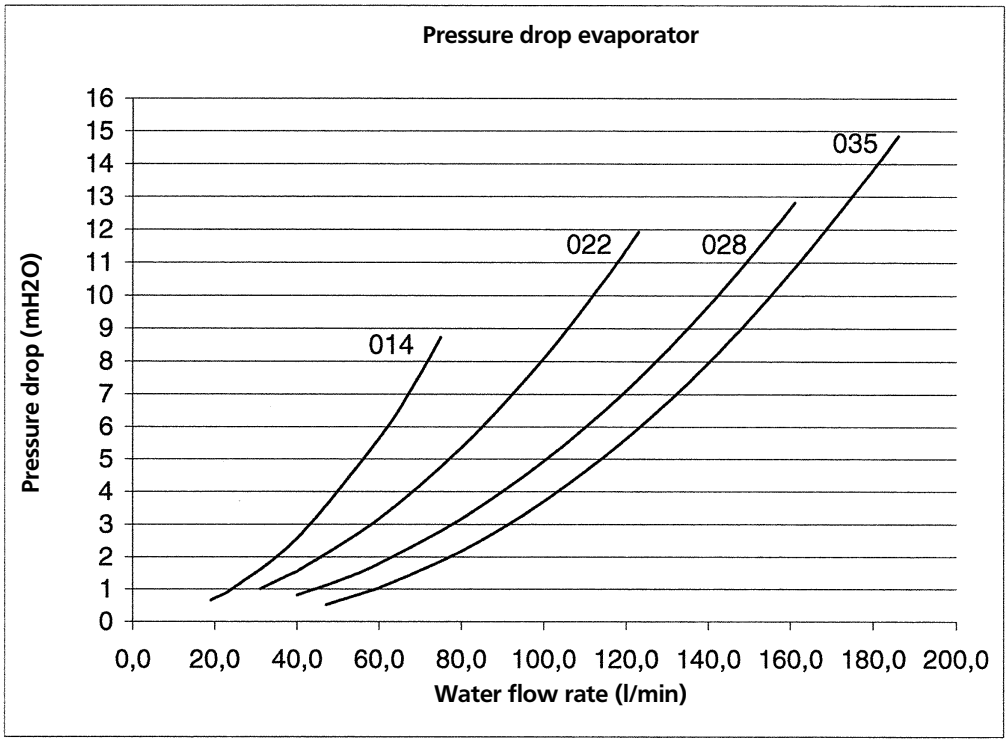
LWE = Leaving Water Evaporator (°C)
LWC = Leaving Water Condenser (°C)

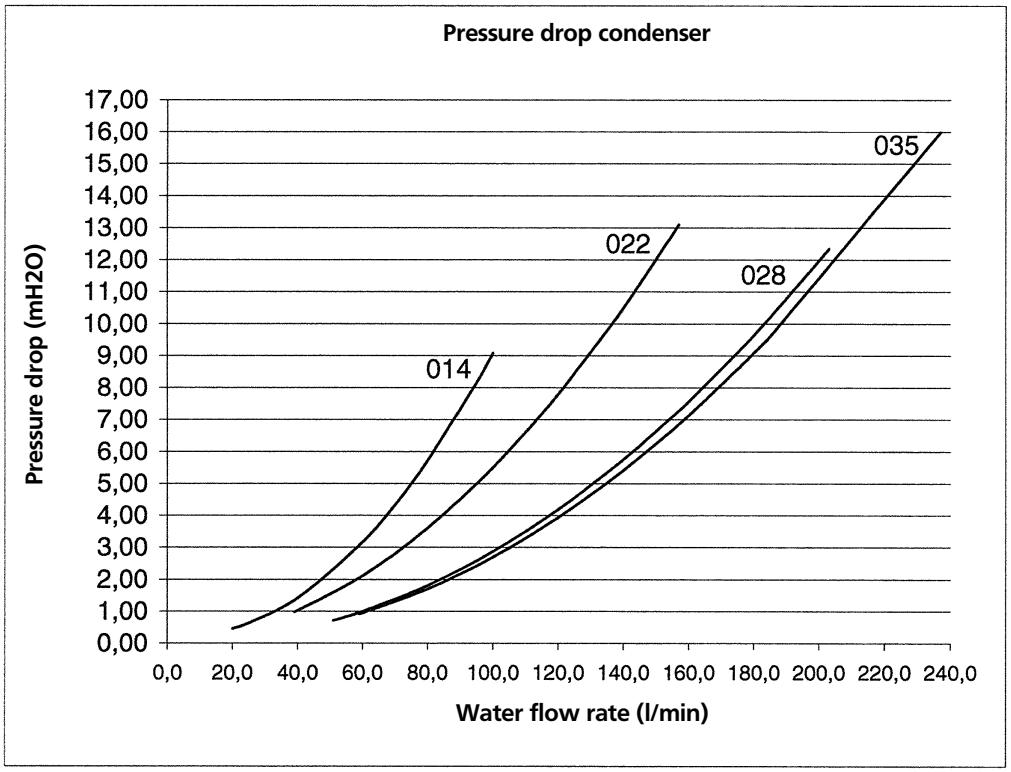
4TW53473-1B

9 Hydraulic performance

9 - 1 Water pressure drop curve evaporator/condenser

EWWP014-035KAW1N



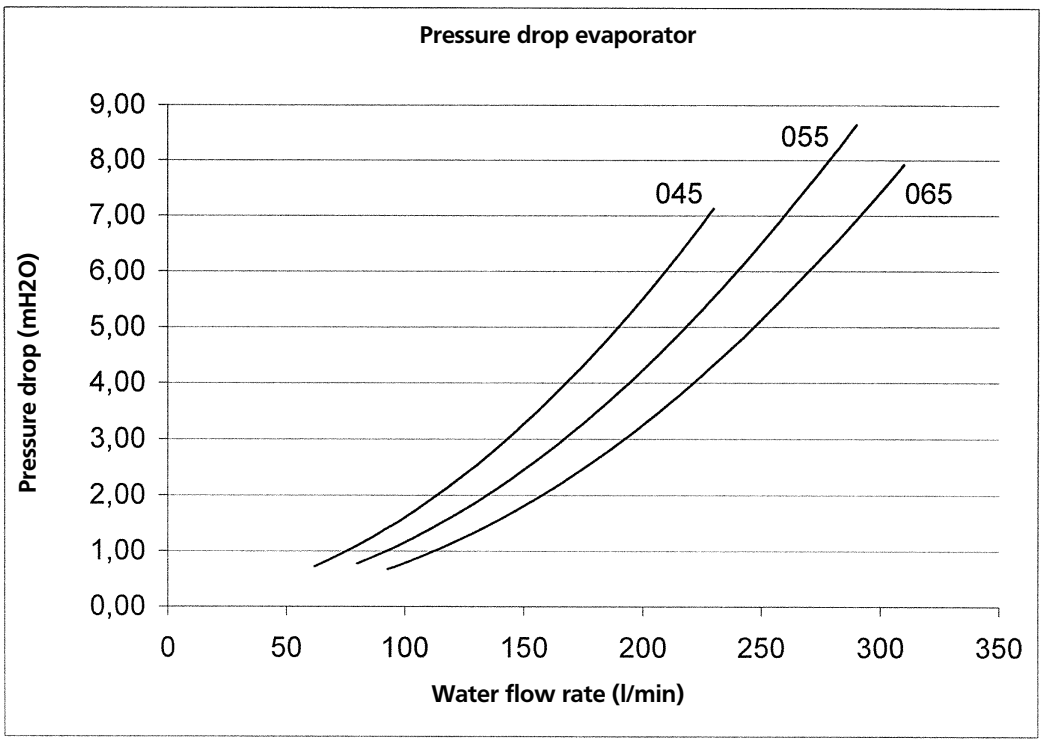


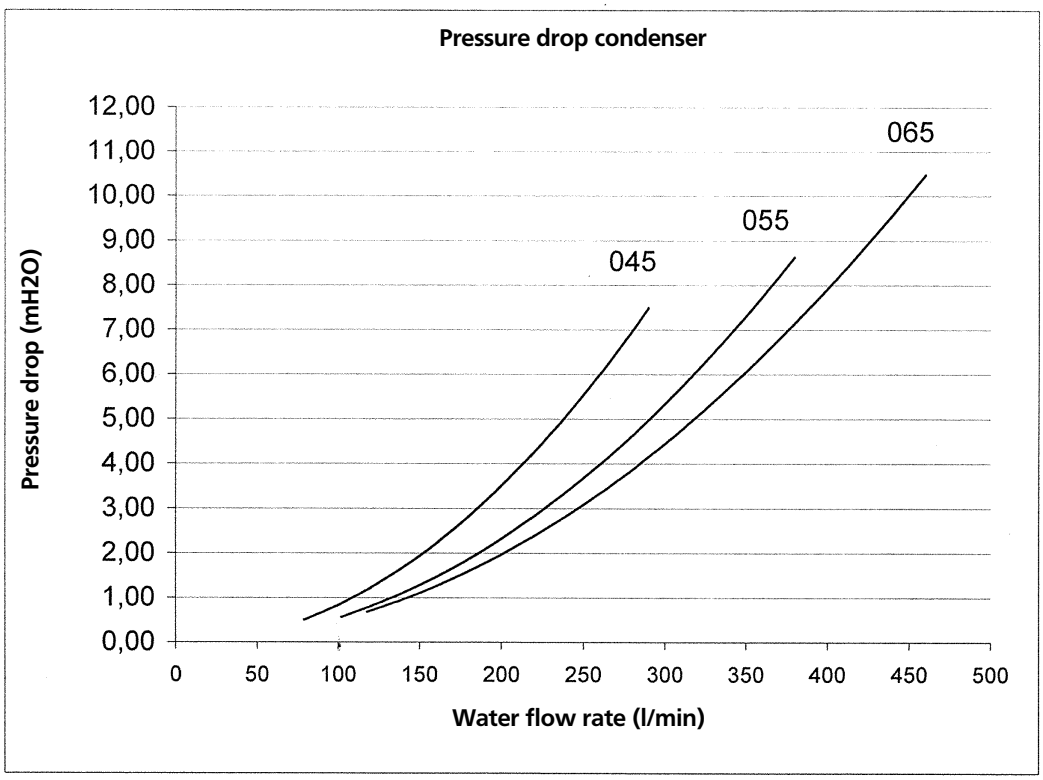
4TW57199-1A

9 Hydraulic performance

9 - 1 Water pressure drop curve evaporator/condenser

EWWP045-065KAW1N



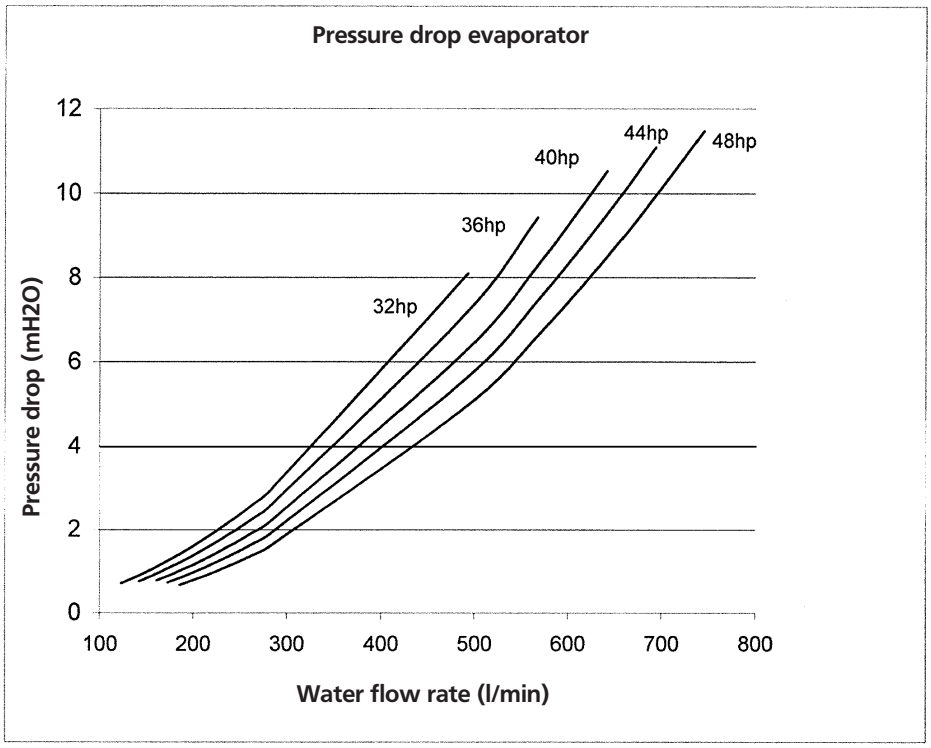


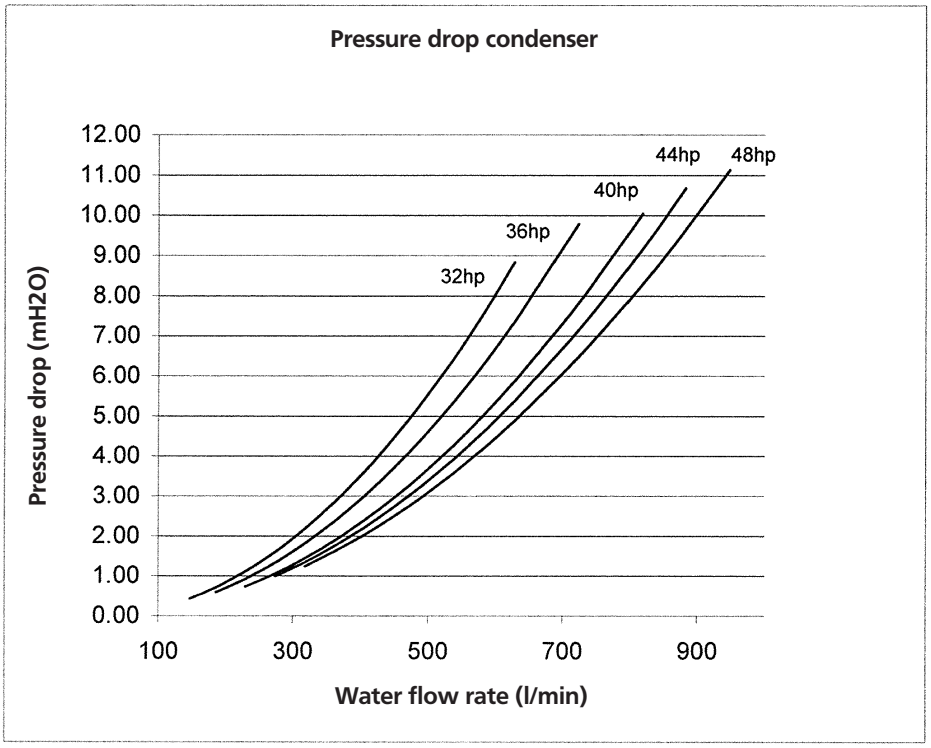
4TW57239-1

9 Hydraulic performance

9 - 1 Water pressure drop curve evaporator/condenser

EWWP090-130KAW1N (32-48hp)





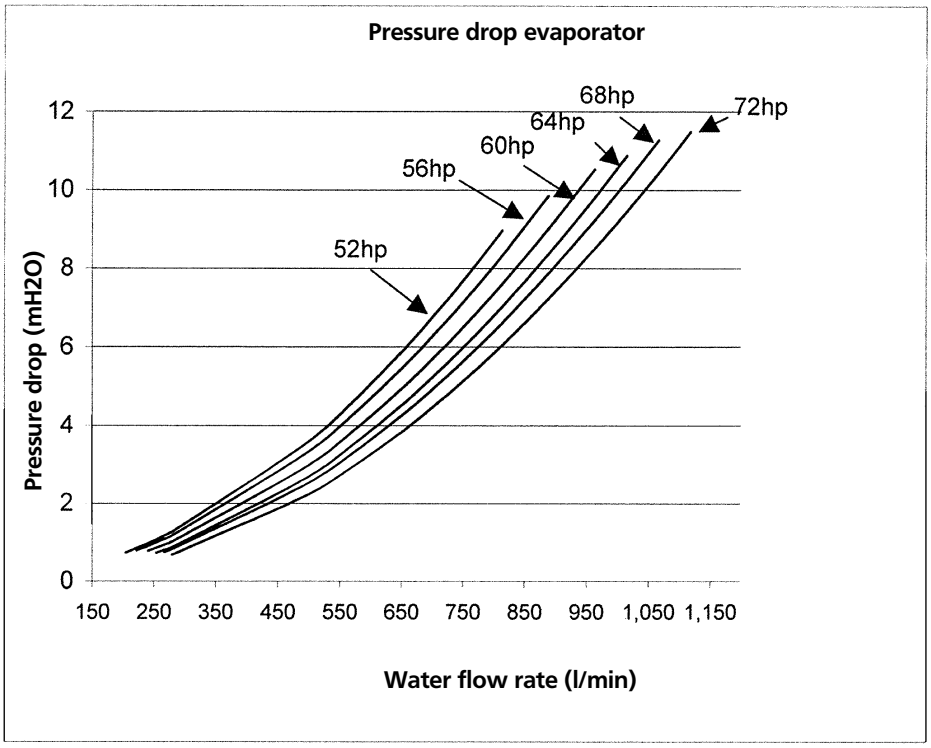
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

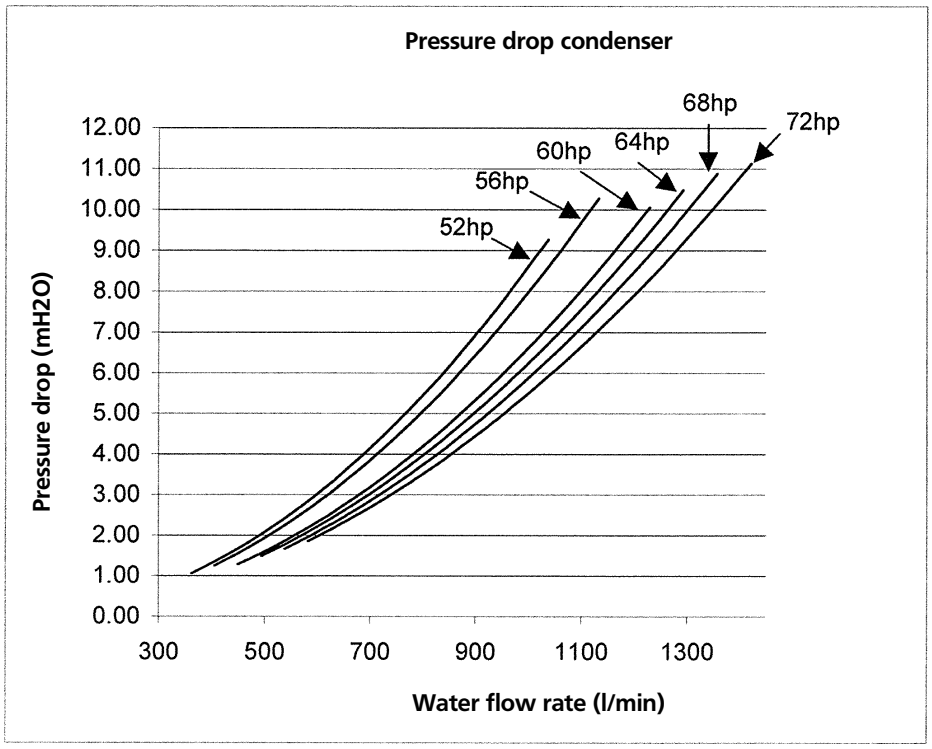
4TW53479-1A

9 Hydraulic performance

9 - 1 Water pressure drop curve evaporator/condenser

EWWP145-195KAW1N (52-72hp)





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.

4TW53479-1A

TABLE OF CONTENTS

EWLP-KAW1N

1 Specifications

1-1 TECHNICAL SPECIFICATIONS				EWLP012KAW1N	EWLP020KAW1N	EWLP026KAW1N	EWLP030KAW1N	EWLP040KAW1N	EWLP055KAW1N	EWLP065KAW1N
Capacity (Eurovent)	Cooling	Nominal	kW	12.1	20.0	26.8	31.2	40.0	53.7	62.4
Capacity Steps			%	1	1	1	1	2	2	2
Nominal input (Eurovent)	Cooling		kW	4.2	6.6	8.5	10.1	13.4	17.8	20.3
Casing	Colour			Ivory white/Munsell code 5Y7.5/1						
	Material			Polyester painted steel plate						
Dimensions	Unit	Height	mm	600	600	600	600	600	600	600
		Width	mm	600	600	600	600	600	600	600
		Depth	mm	600	600	600	600	1200	1200	1200
Weight	Unit		kg	108	141	147	151	252	265	274
Water Heat Exchanger Evaporator	Type			Brazed plate						
	Minimum water volume in the system		l	62	103	134	155	205	268	311
	Water flow rate	Min	l/min	17	29	38	45	57	77	89
		Nominal	l/min	35	57	77	89	115	154	179
		Max	l/min	69	115	153	179	229	307	358
	Insulation material			Polyethylene foam						
	Model	Quantity		1	1	1	1	1	1	1
Compressor	Type			Hermetically sealed scroll compressor						
	Refrigerant oil type			FVC68D						
	Refrigerant oil charge		l	1.5	2.7	2.7	2.7	2.7	2.7	2.7
			l					2.7	2.7	2.7
	Model	Quantity		1	1	1	1	2	2	2
		Model		JT140BF-YE	JT212DA-YE	JT300DA-YE	JT335DA-YE	JT212DA-YE	JT300DA-YE	JT335DA-YE
		Speed	rpm	2900	2900	2900	2900	2900	2900	2900
		Crankcase Heater	W	33	33	33	33	33	33	33
Sound level	Sound Power	Cooling	dBA	64	64	64	71	67	67	74
Refrigerant circuit	Refrigerant type			R-407C						
	N2 holding charge			Yes						
	No of circuits			1	1	1	1	2	2	2
	Refrigerant control			Thermostatic expansion valve						
Piping connections	Evaporator water inlet/outlet			FBSP 25	FBSP 25	FBSP 25	FBSP 25	FBSP 40	FBSP 40	FBSP 40
	Evaporator water drain			field installation						
	Liquid line connection			9.52 flare	12.7 flare	12.7 flare	12.7 flare	2x12.7 flare	2x12.7 flare	2x12.7 flare
	Discharge line connection			12.7 flare	19.1 flare	19.1 flare	19.1 flare	2x19.1 flare	2x19.1 flare	2x19.1 flare
Notes				Nominal cooling capacity at Eurovent conditions: See Eurovent 6/C/003 Entering/leaving water temperature = 12°C/7°C - condensing temperature = 45°C(*) - liquid temperature = 40°C						
				Nominal cooling power input at Eurovent conditions: See Eurovent 6/C/003 Entering/leaving water temperature = 12°C/7°C - condensing temperature = 45°C(*) - liquid temperature = 40°C and includes besides the power input of the unit also an addition for the						
				(*) This temperature corresponds to compressor discharge pressure						
				Capacity is for chilled water range Dt = 3~8°C						
				Power input is total input (kW) : compressor + control circuit + pump evaporator						
				Water flow rate (WFR) = (860 x CC)/(60 x Dt) in (l/min) = ((860 x CC)/(60 x Dt)) x (1/60000) in m³/s (CC = cooling capacity from table (kW) / Dt = chilled water temperature rise within 3~8°C / WFR should always be within the limits).						
				No pumps are supplied with the unit, so the added power input for the pumps is calculated as (WFR (m³/s) x Dp (Pa))/0.3 (as fixed by 6/C/003) (DP = pressure drop from pressure drop curves).						
				A filter strainer must be added in the water circuit of the evaporator. A flow switch must be provided at the evaporator side. Min. water volume system applicable at nominal conditions.						
				The sound power level is an absolute value indicating the ''power'' which a sound source generates.						
				The sound data is valid at nominal operation condition						
				dBA = A-weighted sound power level (A-scale according to IEC)						
				Reference acoustic pressure 0dB = 1pW						
				Measured according to ISO9614						

1 Specifications

1-2 ELECTRICAL SPECIFICATIONS				EWLP012KAW1N	EWLP020KAW1N	EWLP026KAW1N	EWLP030KAW1N	EWLP040KAW1N	EWLP055KAW1N	EWLP065KAW1N
Power Supply	Name			W1						
	Phase			3N~						
	Frequency		Hz	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400
	Voltage Tolerance	Minimum	%	-10%						
		Maximum	%	+10%						
Unit	Starting Current		A	49	79	109	129	93	127	149
	Zmax	text		0,27 + j0,17	0,22 + j0,13	0,19 + j0,12	0,19 + j0,12	0,20 + j0,12	0,18 + j0,12	0,18 + j0,11
	Nominal Running Current Cooling		A	7.4	11.5	14.3	16.6	23.0	28.7	33.3
	Maximum Running Current		A	9	14.5	18.5	22	28	36	40
	Recommended fuses according to IEC standard 269-2			3x16aM	3x20aM	3x25aM	3x25aM	3x35aM	3x40aM	3x50aM
Compressor	Phase			3~						
	Voltage		V	400	400	400	400	400	400	400
	Starting current		A	49	79	109	129	79	109	129
	Nominal running current (RLA)		A	7.4	11.5	14.3	16.6	11.5	14.3	16.6
	Maximum Running Current		A	9	14.5	18.5	22	14	18	20
	Starting Method			Direct on line						

Number	Option description	Unit size							Availability
		014WC 012RC	022WC 020RC	028WC 026RC	035WC 030RC	045WC 040RC	055WC 055RC	065WC 065RC	
	Standard unit	○	○	○	○	○	○	○	
	Not completely combinable options								
ZH	Glycol application chilled water temperature down to -5°C	○	○	○	○	○	○	○	Factory mounted
ZL	Glycol application chilled water temperature down to -10°C	○	○	○	○	○	○	○	Factory mounted
	Available kit								
EKBMSMBA	BMS gateway modbus / j-bus protocol	○	○	○	○	○	○	○	Kit
EKBMSBNA	BMS gateway bacnet protocol	○	○	○	○	○	○	○	Kit
EKAC10B	BMS card	○	○	○	○	○	○	○	Kit
EKRUMC	Remote controller	○	○	○	○	○	○	○	Kit
EKLS1	Low noise operation EWWP014KAW1N / EWLP012KAW1N	○1	–	–	–	–	–	–	Kit
EKLS2	Low noise operation EWWP022KAW1N / EWLP020-065KAW1N	–	○1	○1	○1	○2	○2	○2	Kit
EHMC10AV1010/1080	Hydraulic module	○	○	–	–	–	–	–	Kit
EHMC15AV1010/1080	Hydraulic module	–	–	○	○	–	–	–	Kit
EHMC30AV1010/1080	Hydraulic module	–	–	–	–	○	○	○	Kit

4TW55259-1D

NOTES

* = Option number

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

SYMBOLS

std = standard on unit

○ Available

○x Available and a quantity of x is needed for this unit size

– Not available

Hatched area = preliminary data

3 Capacity tables

3 - 1 Cooling capacity tables

Tc [°C]		25		30		35		40		45		50		55		60	
LWE [°C]		CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
-10	012	7,9	2,8	7,4	3,0	6,8	3,3	6,2	3,6	5,5	4,0	4,7	4,3				
	020	12,4	3,7	12,0	4,2	11,3	4,7	10,4	5,3	9,4	5,9	8,2	6,5				
	026	16,4	5,2	16,4	5,9	15,9	6,6	15,1	7,5	13,9	8,5	12,5	9,5				
	030	20,9	6,2	20,7	6,8	20,5	7,5	19,4	8,5	17,8	9,6	15,7	10,8				
	040	24,7	7,7	24,0	8,7	22,5	9,8	20,7	11,0	18,7	12,2	16,4	13,5				
	055	32,9	10,9	32,8	12,3	31,9	13,8	30,2	15,5	27,8	17,4	25,0	19,4				
	065	41,8	12,4	41,5	13,6	40,9	15,2	38,8	17,0	35,6	19,2	31,5	21,7				
-5	012	9,8	2,8	9,2	3,0	8,7	3,3	8,0	3,7	7,4	4,0	6,7	4,4	5,9	4,8		
	020	15,8	3,9	15,2	4,4	14,5	4,9	13,6	5,5	12,5	6,2	11,3	6,9	9,9	7,6		
	026	20,1	5,4	20,0	6,0	19,6	6,8	18,7	7,6	17,7	8,5	16,3	9,6	14,8	10,7		
	030	24,4	6,3	24,3	6,9	24,0	7,7	23,1	8,6	21,6	9,7	19,7	10,9	17,3	12,2		
	040	31,5	8,2	30,3	9,2	28,8	10,3	27,0	11,5	24,9	12,8	22,5	14,2	19,8	15,6		
	055	40,2	11,3	40,2	12,5	39,3	14,0	37,5	15,7	35,6	17,6	32,7	19,7	29,7	21,9		
	065	48,7	12,7	48,6	13,9	48,1	15,5	46,2	17,3	43,3	19,5	39,3	22,0	34,6	24,4		
0	012	11,8	2,8	11,3	3,1	10,7	3,4	10,1	3,7	9,4	4,1	8,6	4,5	7,8	4,9	6,9	5,5
	020	18,7	4,1	18,1	4,6	17,4	5,1	16,5	5,8	15,4	6,4	14,2	7,2	12,8	8,0	11,5	8,8
	026	23,7	5,5	23,7	6,1	23,3	6,8	22,4	7,6	21,5	8,5	20,1	9,5	18,4	10,6	16,2	11,8
	030	28,0	6,3	27,8	6,9	27,6	7,7	26,7	8,7	25,4	9,8	23,6	11,0	21,3	12,2	18,6	13,7
	040	37,2	8,7	36,1	9,6	34,6	10,7	32,9	11,9	30,7	13,3	28,2	14,8	25,6	16,4	23,0	18,0
	055	47,5	11,5	47,4	12,6	46,6	14,0	45,0	15,6	43,1	17,4	40,4	19,5	36,9	21,7	32,6	24,1
	065	55,9	12,6	55,5	14,0	55,1	15,6	53,4	17,4	50,8	19,6	47,1	22,1	42,5	24,5	37,3	27,4
4	012	13,0	2,8	12,7	3,1	12,3	3,4	11,8	3,7	11,2	4,1	10,4	4,5	9,6	5,0	8,7	5,5
	020	20,7	4,2	20,4	4,7	19,9	5,3	19,5	5,9	18,4	6,6	17,2	7,3	15,9	8,1	14,1	8,9
	026	26,7	5,6	26,6	6,1	26,3	6,8	25,5	7,7	24,5	8,6	23,2	9,6	21,4	10,7	19,4	12,0
	030	30,8	6,5	30,7	7,2	30,5	8,0	29,8	8,9	28,6	9,9	27,0	11,1	25,0	12,4	22,7	13,7
	040	43,3	8,5	42,1	9,6	40,6	10,7	38,8	11,9	36,7	13,3	34,2	14,8	31,6	16,4	29,0	18,0
	055	53,5	11,6	53,4	12,8	52,6	14,2	51,1	15,8	49,1	17,6	46,4	19,6	43,0	21,9	39,0	24,5
	065	61,6	13,1	61,4	14,4	60,9	16,1	59,6	17,9	57,2	20,0	54,0	22,3	50,0	24,9	45,4	27,5
7	012	14,2	2,8	13,8	3,1	13,1	3,4	12,8	3,7	**12,1**	**4,2**	11,3	4,6	10,5	5,0	9,7	5,6
	020	22,6	4,3	22,3	4,8	21,9	5,4	21,2	6,0	**20,0**	**6,6**	18,6	7,3	16,8	8,1	14,7	9,1
	026	28,9	5,6	28,9	6,2	28,5	6,9	27,8	7,7	**26,8**	**8,5**	25,5	9,6	23,7	10,8	21,7	12,0
	030	33,1	6,6	33,0	7,3	32,9	8,1	32,3	9,0	**31,2**	**10,1**	29,6	11,2	27,4	12,5	24,8	13,7
	040	46,3	8,9	45,6	9,8	44,2	10,9	42,3	12,1	**40,0**	**13,4**	37,1	14,8	33,5	16,5	29,4	18,4
	055	57,9	11,7	57,8	12,9	57,1	14,3	55,6	15,9	**53,7**	**17,8**	51,0	19,8	47,6	22,0	43,6	24,3
	065	66,2	13,2	66,1	14,6	65,8	16,2	64,6	18,0	**62,4**	**20,3**	59,1	22,5	54,8	25,1	49,6	27,6
10	012	15,4	2,8	15,0	3,1	14,6	3,4	14,1	3,8	13,5	4,2	12,7	4,6	11,8	5,1	10,8	5,5
	020	24,5	4,3	24,3	4,8	23,8	5,4	23,0	6,0	21,9	6,7	20,4	7,4	18,7	8,2	16,7	9,1
	026	30,4	5,6	30,3	6,2	30,0	6,9	29,5	7,7	28,7	8,6	27,5	9,7	25,9	10,8	24,1	12,0
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	040	49,0	8,8	48,5	9,8	47,5	10,9	45,9	12,1	43,7	13,5	40,8	15,0	37,3	16,6	33,4	18,3
	055	60,9	11,7	60,7	12,9	60,2	14,3	59,1	15,9	57,4	17,7	55,1	19,8	51,9	22,0	48,2	24,5
	065	69,0	13,4	68,8	14,8	68,4	16,4	67,1	18,3	64,9	20,4	61,9	22,6	58,0	25,1	53,5	27,7
14	012	16,2	2,8	16,2	3,2	16,2	3,5	15,9	3,8	15,4	4,3	14,6	4,7	13,5	5,2	12,3	5,5
	020	26,4	4,3	26,3	4,8	26,0	5,4	25,4	6,0	24,4	6,7	23,0	7,5	21,2	8,3	19,4	9,0
	026	32,3	5,6	32,2	6,2	32,1	6,9	31,8	7,7	31,2	8,6	30,2	9,6	28,8	10,8	27,2	12,0
	030	38,4	6,7	38,3	7,4	37,9	8,2	37,3	9,2	36,2	10,2	34,8	11,3	33,2	12,5	30,4	13,8
	040	52,6	8,8	52,5	9,8	52,0	10,9	50,7	12,1	48,6	13,6	45,8	15,2	42,4	16,7	38,7	18,2
	055	64,6	11,7	64,5	12,9	64,3	14,3	63,7	16,0	62,4	17,7	60,5	19,8	57,7	22,0	54,4	24,5
	065	76,7	13,5	76,6	14,9	75,9	16,6	74,5	18,4	72,4	20,4	69,7	22,6	66,4	25,1	62,8	27,7
16	012	16,7	2,8	16,7	3,1	16,6	3,5	16,4	3,8	16,0	4,3	15,3	4,7	14,3	5,2	13,2	5,5
	020	27,2	4,3	27,1	4,8	26,9	5,4	26,4	6,0	25,4	6,7	24,2	7,5	22,5	8,3	20,7	9,0
	026	32,6	5,6	32,5	6,2	32,5	7,0	32,2	7,8	31,7	8,7	30,9	9,7	29,7	10,8	28,3	12,0
	030	38,8	6,7	38,7	7,5	38,4	8,3	37,9	9,2	37,0	10,2	35,8	11,3	34,1	12,5	32,3	13,9
	040	54,3	8,8	54,1	9,8	53,7	10,9	52,7	12,1	50,8	13,6	48,2	15,1	44,9	16,7	41,2	18,2
	055	65,3	11,7	65,2	12,9	65,0	14,4	64,5	16,0	63,5	17,8	61,8	19,8	59,5	22,1	56,7	24,5
	065	77,6	13,6	77,4	15,0	76,9	16,7	75,9	18,6	74,0	20,5	71,5	22,7	68,3	25,2	64,7	27,8
20	012	17,6	2,8	17,6	3,1	17,5	3,5	17,5	3,8	17,2	4,3	16,7	4,7	15,9	5,1	14,9	5,5
	020	28,8	4,3	28,8	4,8	28,7	5,3	28,3	5,9	27,6	6,7	26,5	7,4	25,0	8,2	23,2	9,0
	026	33,2	5,6	33,2	6,3	33,1	7,0	33,1	7,8	32,8	8,8	32,2	9,8	31,5	10,9	30,6	12,0
	030	40,9	6,7	40,8	7,5	40,8	8,3	40,6	9,3	40,5	10,2	40,2	11,3	38,7	12,5	36,8	13,9
	040	57,6	8,7	57,5	9,7	57,2	10,8	56,5	12,1	55,2	13,5	53,0	15,0	50,0	16,6	46,3	18,2
	055	66,6	11,7	66,5	13,0	66,4	14,5	66,3	16,1	65,6	18,0	64,5	20,0	63,0	22,2	61,3	24,4
	065	84,5	13,5	84,4	15,0	84,2	16,7	83,8	18,6	82,6	20,5	80,4	22,7	77,3	25,2	73,7	28,0

4TW57292-1A

NOTES

1 **CC**
According to Eurovent rating standard 6/C/003-2003 and valid for chilled water range Dt=3-8°C.

2 **PI**
According to Eurovent rating standard 6/C/003-2003 (compressor + control circuit).

SYMBOLS

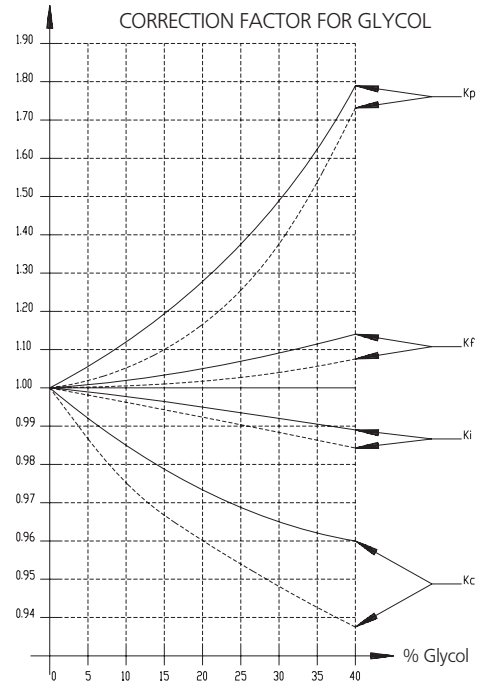
CC : Cooling capacity (kW)
PI : Power input (kW)
TC : Condensing temperature bubble (°C)
LWE : Leaving water evaporator (°C)

3 Capacity tables

3 - 2 Capacity correction factor

Required glycol concentration

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



Legend

Ethylene glycol
Propylene glycol

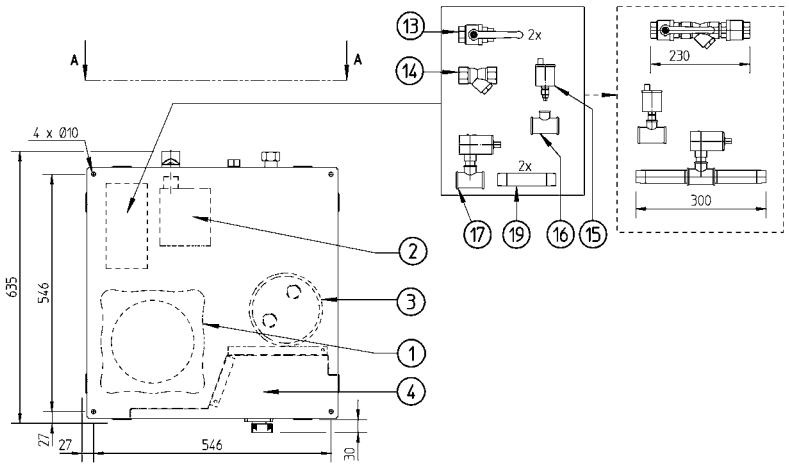
Kc Correction on cooling capacity
Ki Correction on power input
Kf Correction on flow rate
Kp Correction on pressure drop

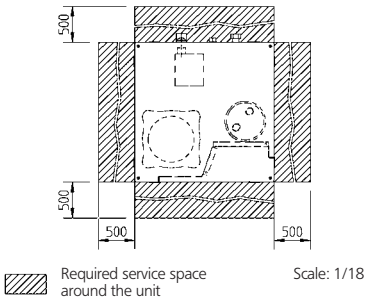
4TW54179-1

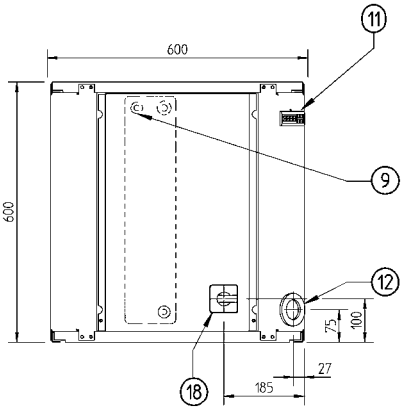
4 Dimensional drawing & centre of gravity

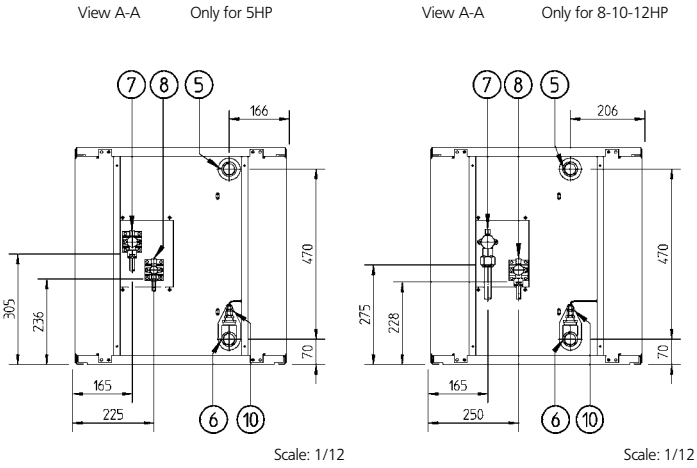
4 - 1 Dimensional drawing

EWLP012-030KAW1N









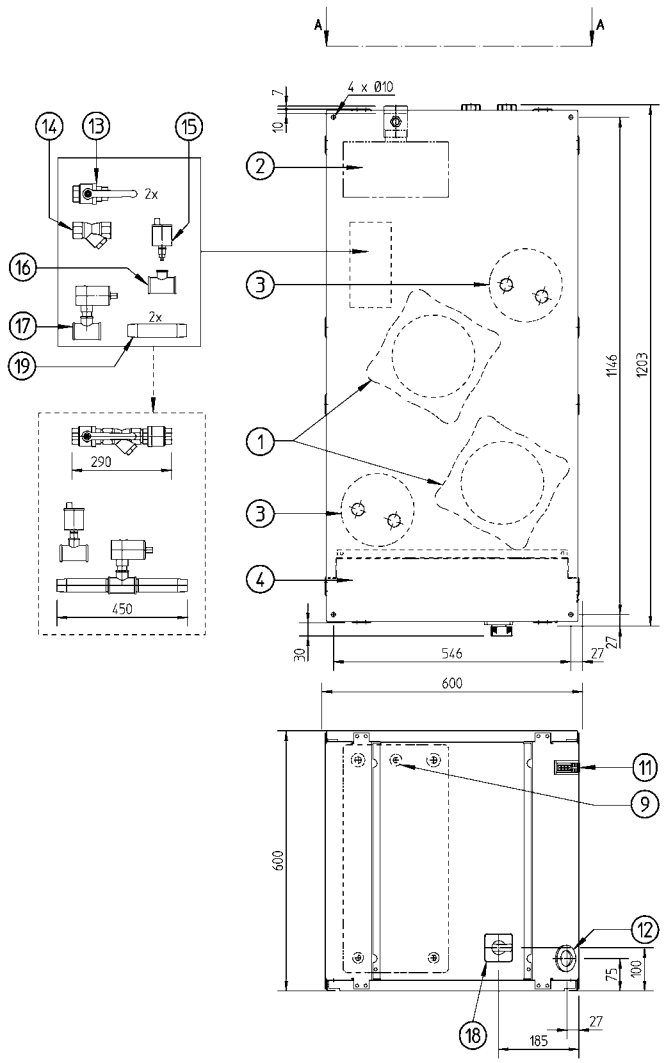
1	Compressor	11	Digital display controller
2	Evaporator	12	Power supply intake (ϕ 48)
3	Accumulator	13	Ballvalve
4	Switchbox	14	Water filter
5	Chilled water in	15	Air purge
6	Chilled water out	16	T-joint for air purge
7	Discharge stop valve	17	Flow switch
8	Liquid stop valve	18	Main switch
9	Evaporator entering water temperature sensor	19	Flow switch pipe
10	Freeze up sensor		

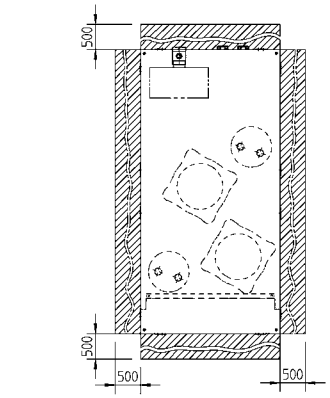
3TW55254-2B

4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

EWLP040-065KAW1N

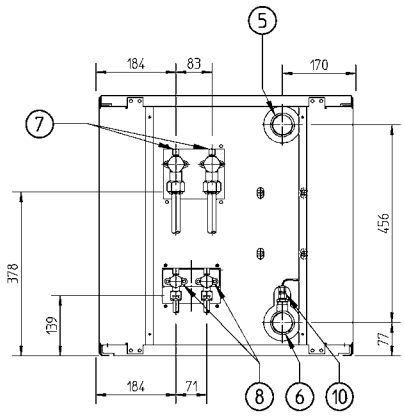




Required service space around the unit

Scale: 1/18

View A-A



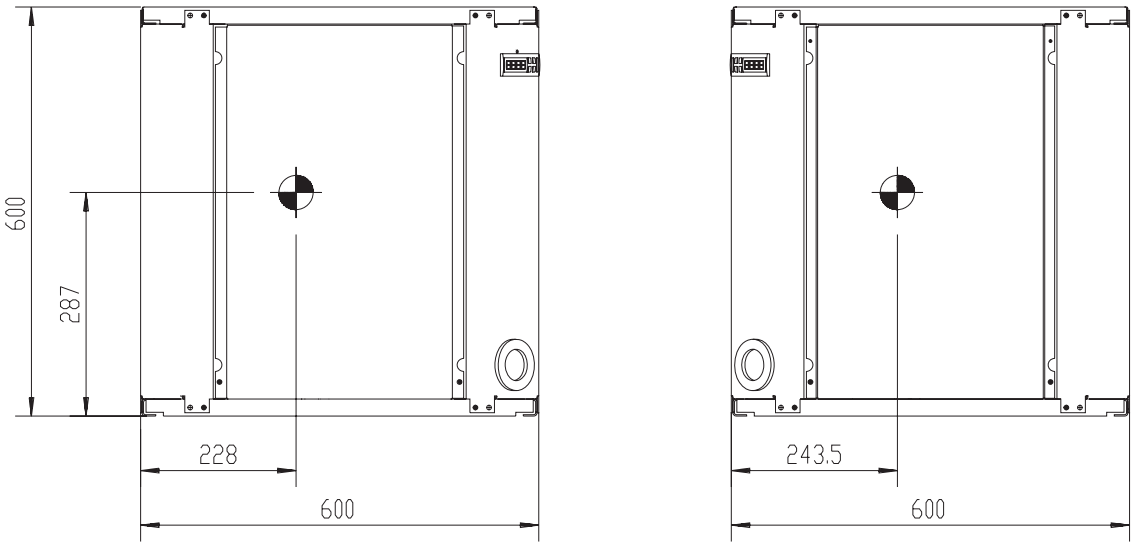
1	Compressor	11	Digital display controller
2	Evaporator	12	Power supply intake (ϕ 48)
3	Accumulator	13	Ballvalve
4	Switchbox	14	Water filter
5	Chilled water in	15	Air purge
6	Chilled water out	16	T-joint for air purge
7	Discharge stop valve	17	Flow switch
8	Liquid stop valve	18	Main switch
9	Evaporator entering water temperature sensor	19	Flow switch pipe
10	Freeze up sensor		

3TW55304-2B

4 Dimensional drawing & centre of gravity

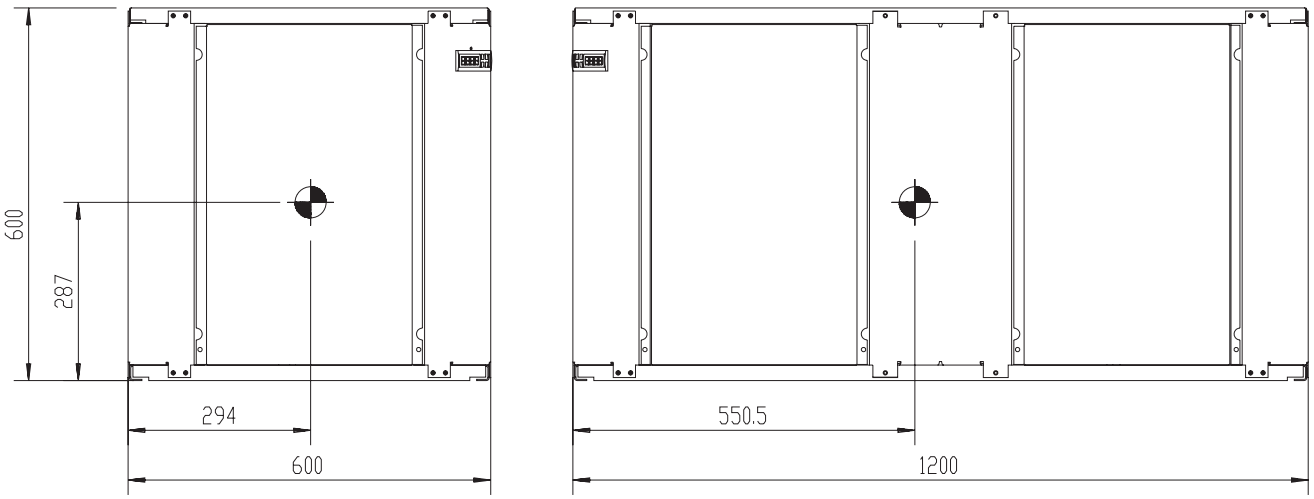
4 - 2 Centre of gravity

EWLP012-030KAW1N



4TW54629-2

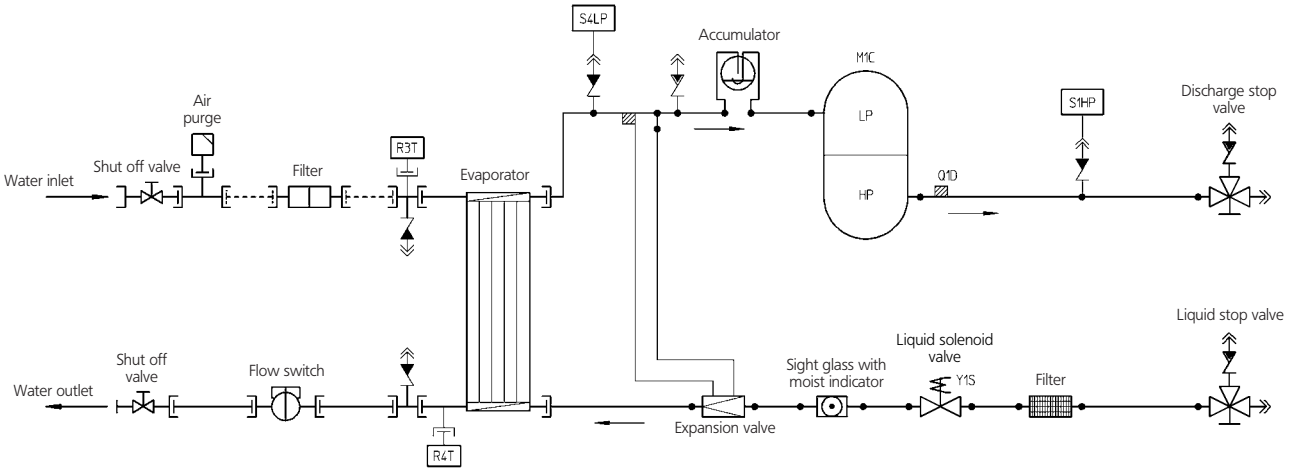
EWLP040-065KAW1N



4TW54629-3

5 Piping diagram

EWLP012-030KAW1N



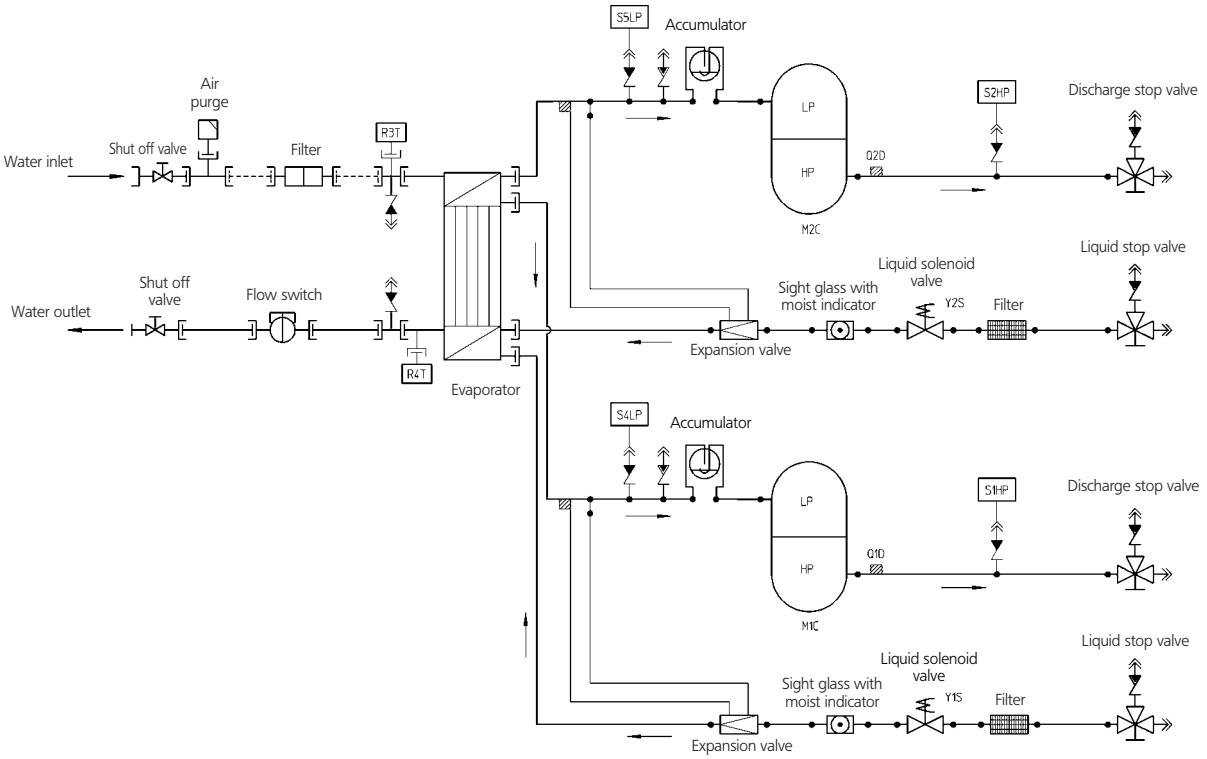
Y1S	Liquid solenoid valve
M1C	Compressor motor 1
R4T	Freeze-up protection
S1HP	High pressure switch
S4LP	Low pressure switch
R3T	Inlet water evap. temp. sensor
Q1D	Discharge temperature controller

- ------ Field piping
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW55255-2B

5 Piping diagram

EWLP040-065KAW1N



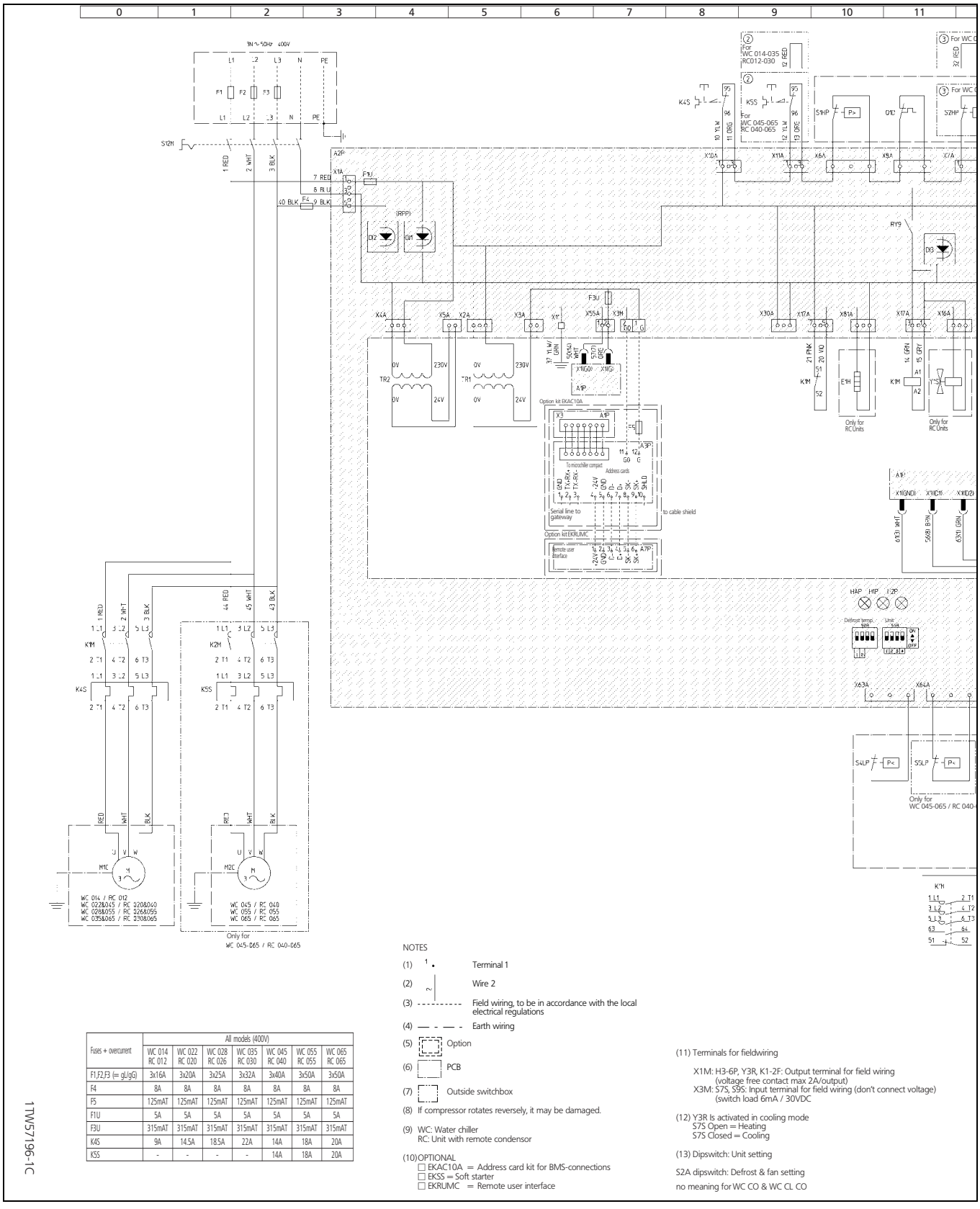
Y1S	Liquid solenoid valve
Y2S	Liquid solenoid valve
M1C	Compressor motor
M2C	Compressor motor
R4T	Freeze-up protection
R5T	Inlet water cond. temp. sensor
S1HP	High pressure switch
S2HP	High pressure switch
S4LP	Low pressure switch
S5LP	Low pressure switch
R3T	Inlet water evap. temp. sensor
Q1D	Discharge temperature controller
Q2D	Discharge temperature controller

- ------ Field piping
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW55305-2B

6 Wiring diagram

6 - 1 Wiring diagram



NOTES

(1) Terminal 1

(2) Wire 2

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

(4) Earth wiring

(5) Option

(6) PCB

(7) Outside switchbox

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

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

(10) OPTIONAL
☐ EKAC10A = Address card kit for BMS-connections
☐ EKSS = Soft starter
☐ EKRUMC = Remote user interface

(11) Terminals for fieldwiring

X1M: H3-6P, Y3R, K1-2F: Output terminal for field wiring
(voltage free contact max 2A/output)
X3M: S7S, S9S: Input terminal for field wiring (don't connect voltage)
(switch load 6mA / 30VDC

(12) Y3R Is activated in cooling mode
S7S Open = Heating
S7S Closed = Cooling

(13) Dipswitch: Unit setting

S2A dipswitch: Defrost & fan setting

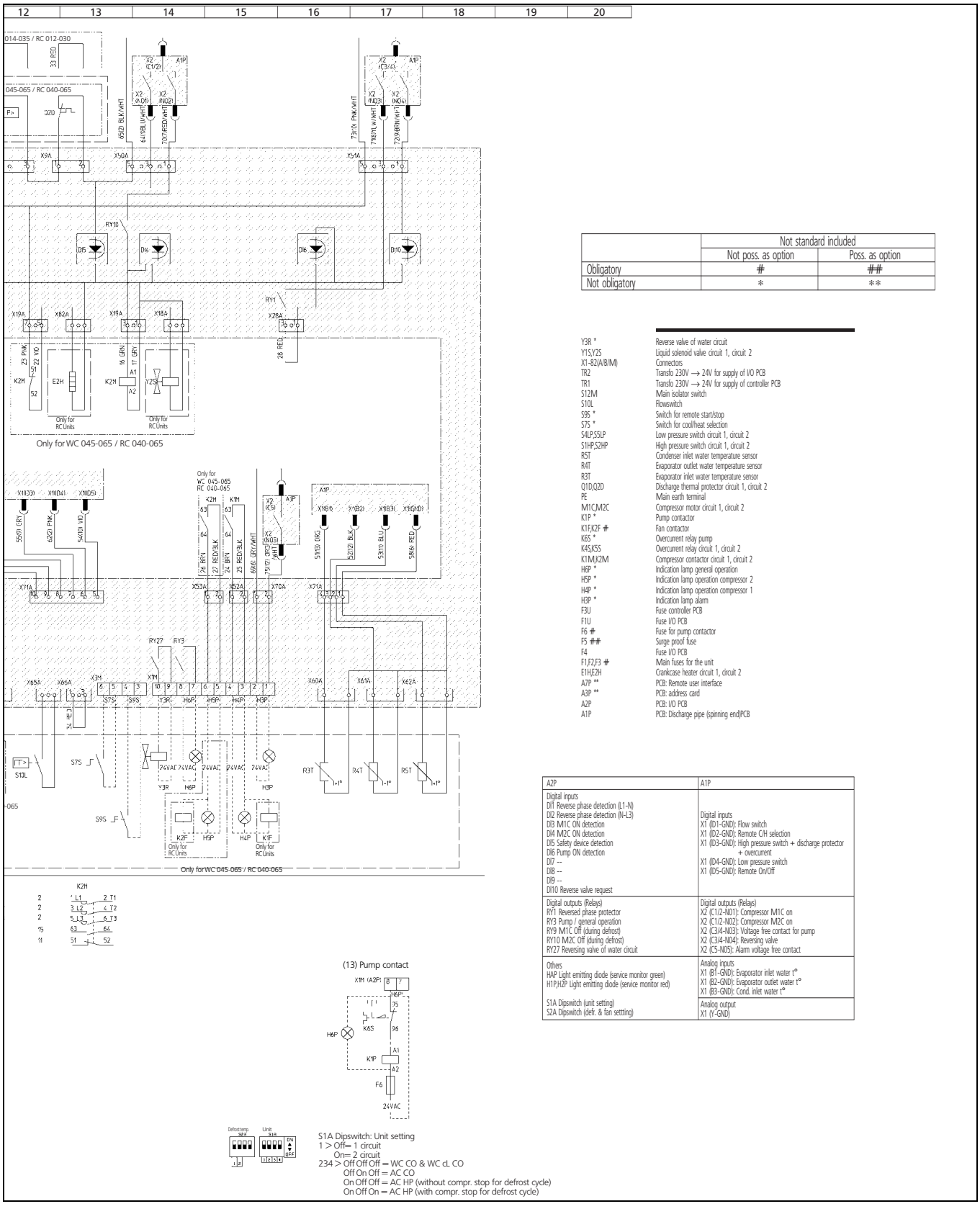
no meaning for WC CO & WC CL CO

Fuses + overcurrent	All models (400V)						
	WC 014 RC 012	WC 022 RC 020	WC 028 RC 026	WC 035 RC 030	WC 045 RC 040	WC 055 RC 055	WC 065 RC 065
F1,F2,F3 (= gL/gG)	3x16A	3x20A	3x25A	3x32A	3x40A	3x50A	3x50A
F4	8A	8A	8A	8A	8A	8A	8A
F5	125mAT	125mAT	125mAT	125mAT	125mAT	125mAT	125mAT
F1U	5A	5A	5A	5A	5A	5A	5A
F3U	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT
K4S	9A	14.5A	18.5A	22A	14A	18A	20A
K5S	-	-	-	-	14A	18A	20A

11W57196-1C

6 Wiring diagram

6 - 1 Wiring diagram



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

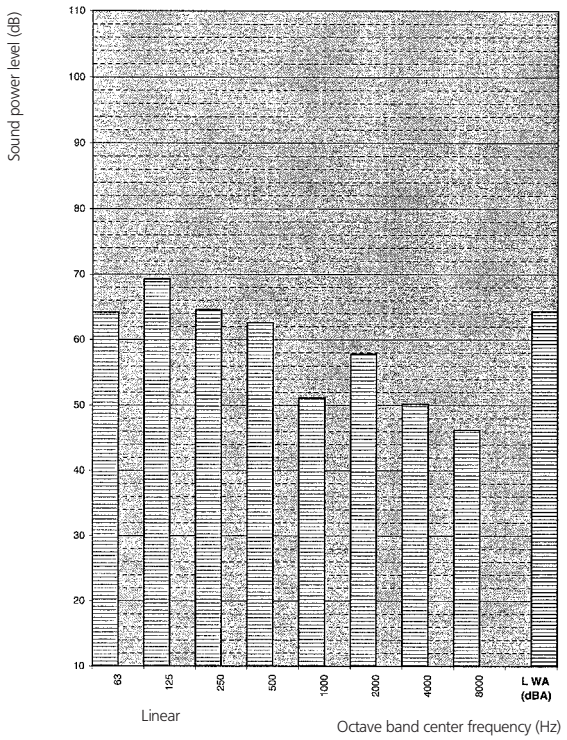
Y3R *	Reverse valve of water circuit
Y1S,Y2S	Liquid solenoid valve circuit 1, circuit 2
X1-82(A/B/M)	Connectors
TR2	Transfo 230V → 24V for supply of I/O PCB
TR1	Transfo 230V → 24V for supply of controller PCB
S12M	Main isolator switch
S10L	Flowswitch
S9S *	Switch for remote start/stop
S7S *	Switch for cool/heat selection
S4LP,S5LP	Low pressure switch circuit 1, circuit 2
S1HP,S2HP	High pressure switch circuit 1, circuit 2
R5T	Condenser inlet water temperature sensor
R4T	Evaporator outlet water temperature sensor
R3T	Evaporator inlet water temperature sensor
Q1D,Q2D	Discharge thermal protector circuit 1, circuit 2
PE	Main earth terminal
M1C,M2C	Compressor motor circuit 1, circuit 2
K1P *	Pump contactor
K1F,K2F #	Fan contactor
K6S *	Overcurrent relay pump
K4S,K5S	Overcurrent relay circuit 1, circuit 2
K1M,K2M	Compressor contactor circuit 1, circuit 2
H6P *	Indication lamp general operation
H5P *	Indication lamp operation compressor 2
H4P *	Indication lamp operation compressor 1
H3P *	Indication lamp alarm
F3U	Fuse controller PCB
F1U	Fuse I/O PCB
F6 #	Fuse for pump contactor
F5 ##	Surge proof fuse
F4	Fuse I/O PCB
F1,F2,F3 #	Main fuses for the unit
E1H,E2H	Crankcase heater circuit 1, circuit 2
A7P **	PCB: Remote user interface
A3P **	PCB: address card
A2P	PCB: I/O PCB
A1P	PCB: Discharge pipe (spinning end)PCB

A2P	A1P
Digital inputs DI1 Reverse phase detection (L1-N) DI2 Reverse phase detection (N-L3) DI3 M1C ON detection DI4 M2C ON detection DI5 Safety device detection DI6 Pump ON detection DI7 -- DI8 -- DI9 -- DI10 Reverse valve request	Digital inputs X1 (ID1-GND): Flow switch X1 (ID2-GND): Remote C/H selection X1 (ID3-GND): High pressure switch + discharge protector + overcurrent X1 (ID4-GND): Low pressure switch X1 (ID5-GND): Remote On/Off
Digital outputs (Relays) RY1 Reversed phase protector RY3 Pump / general operation RY9 M1C Off (during defrost) RY10 M2C Off (during defrost) RY27 Reversing valve of water circuit	Digital outputs (Relays) X2 (C1/2-N01): Compressor M1C on X2 (C1/2-N02): Compressor M2C on X2 (C3/4-N03): Voltage free contact for pump X2 (C3/4-N04): Reversing valve X2 (C5-N05): Alarm voltage free contact
Others HAP Light emitting diode (service monitor green) H1P,H2P Light emitting diode (service monitor red)	Analog inputs X1 (B1-GND): Evaporator inlet water t° X1 (B2-GND): Evaporator outlet water t° X1 (B3-GND): Cond. inlet water t°
S1A Dipswitch (unit setting) S2A Dipswitch (defr. & fan setting)	Analog output X1 (Y-GND)

7 Sound data

7 - 1 Sound power spectrum

EWLP012-026KAW1N

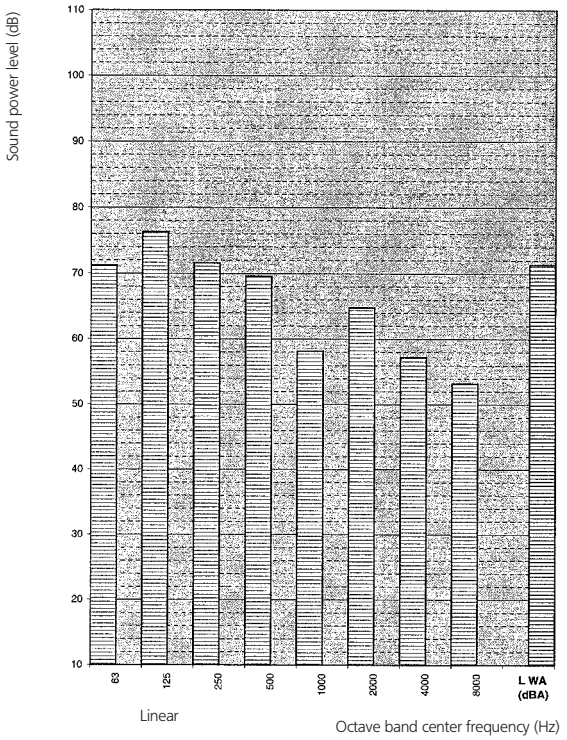


4TW57197-1

NOTES

Option low noise = -3dBa

EWLP030KAW1N

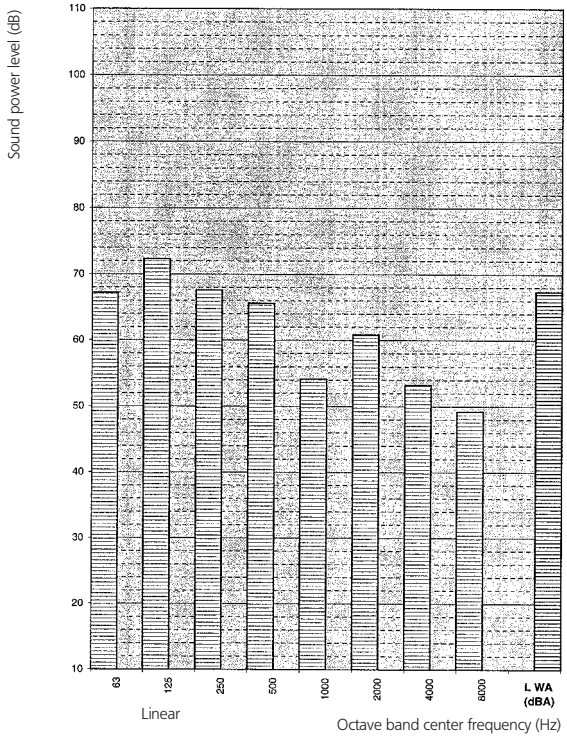


4TW57197-2

NOTES

Option low noise = -3dBa

EWLP040-055KAW1N

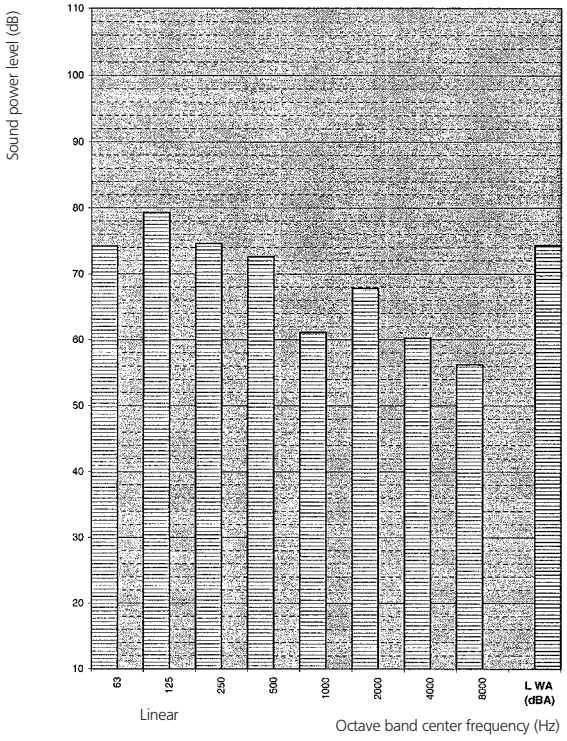


4TW57197-3

NOTES

Option low noise = -3dBa

EWLP065KAW1N



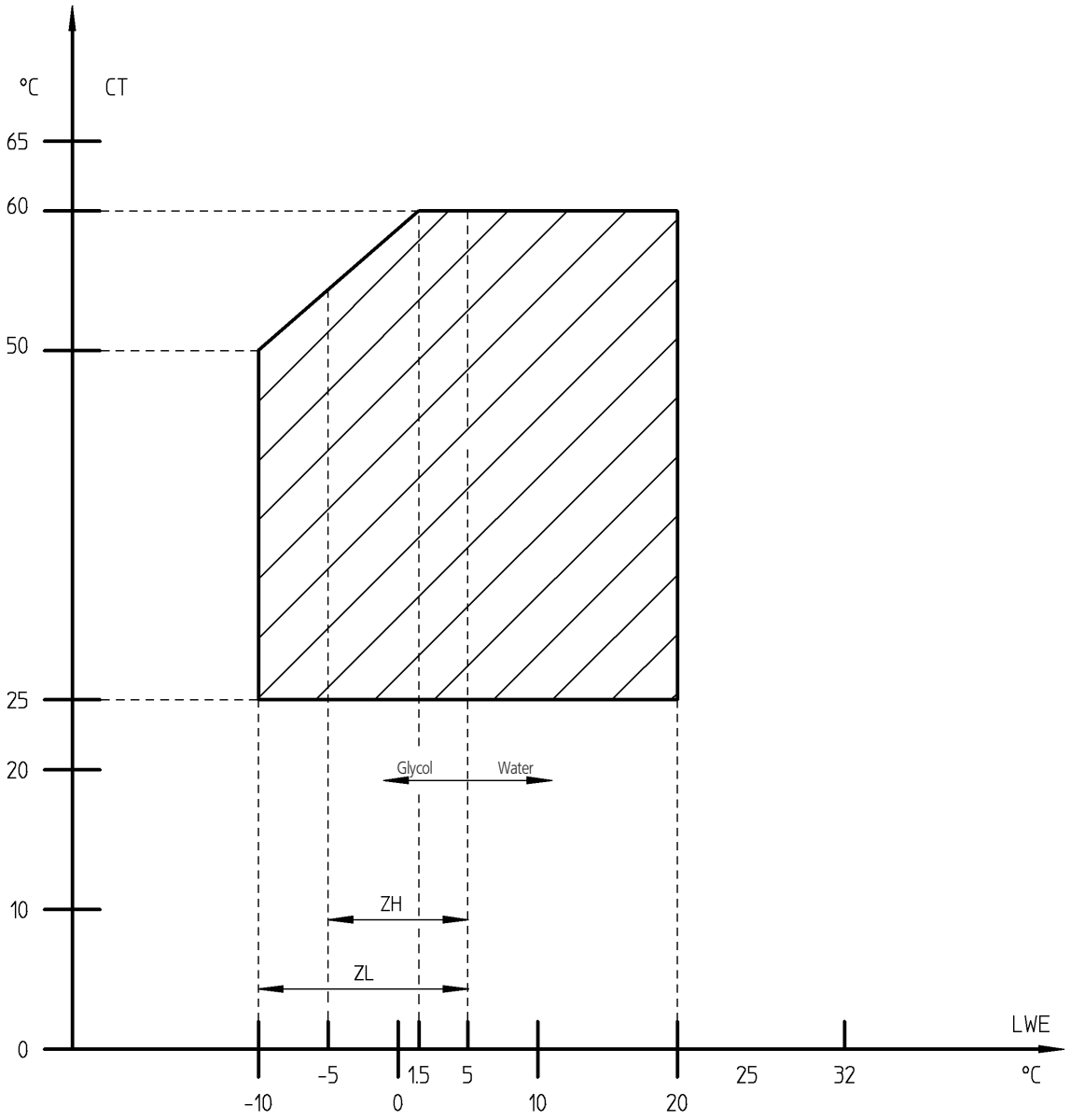
4TW57197-4

NOTES

Option low noise = -3dBa

8 Operation range

EWLP012-030KAW1N

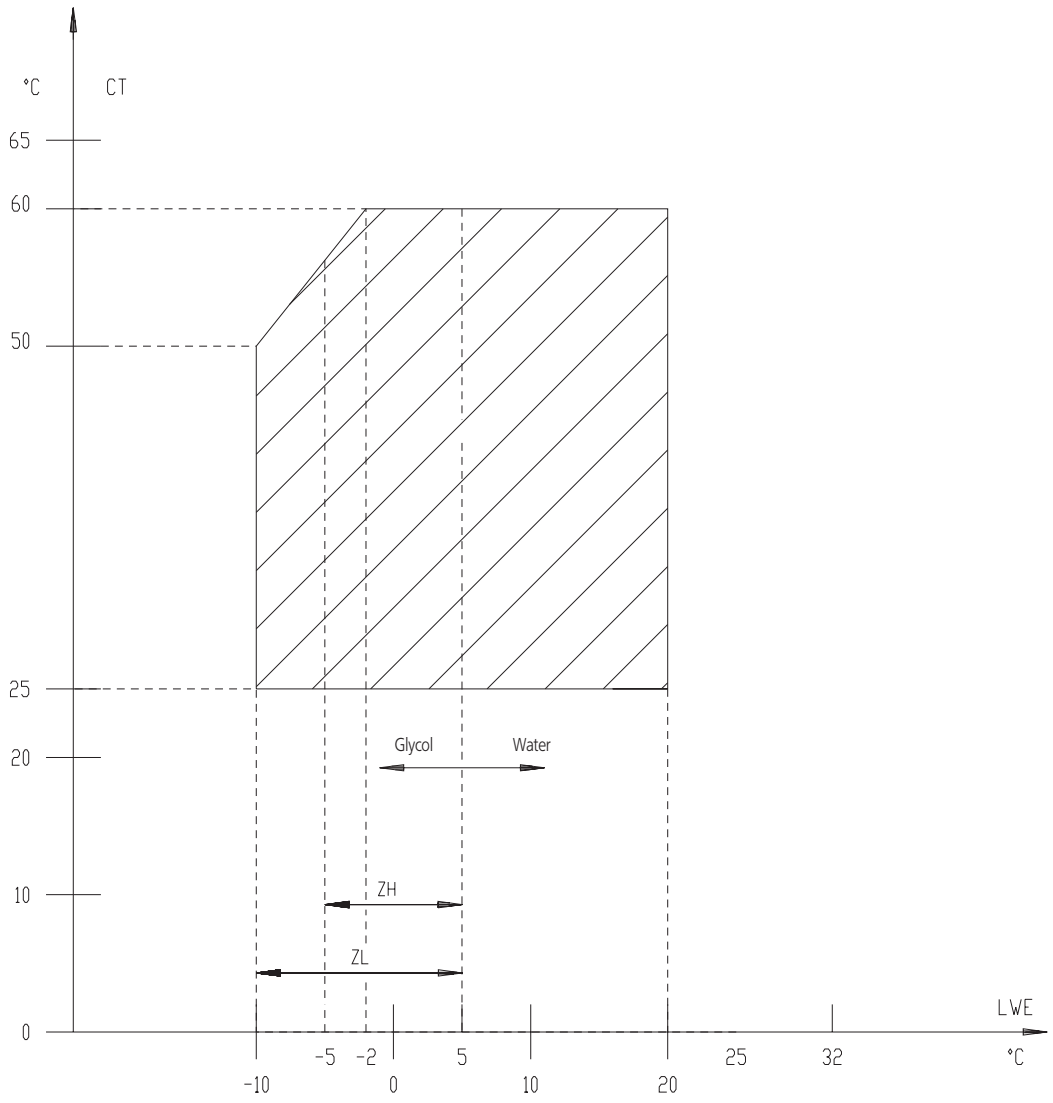


* LWE = Leaving Water Evaporator (°C)
* CT = Condensing Temperature (°C)

4TW57293-1

8 Operation range

EWLP040-065KAW1N

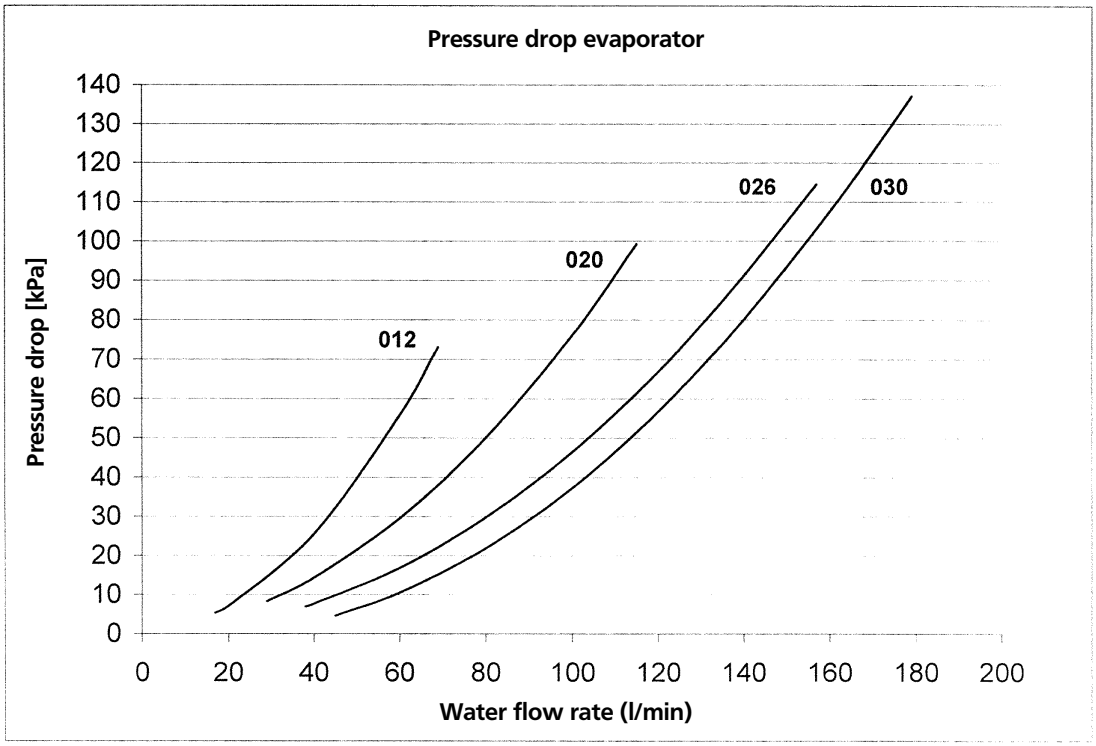


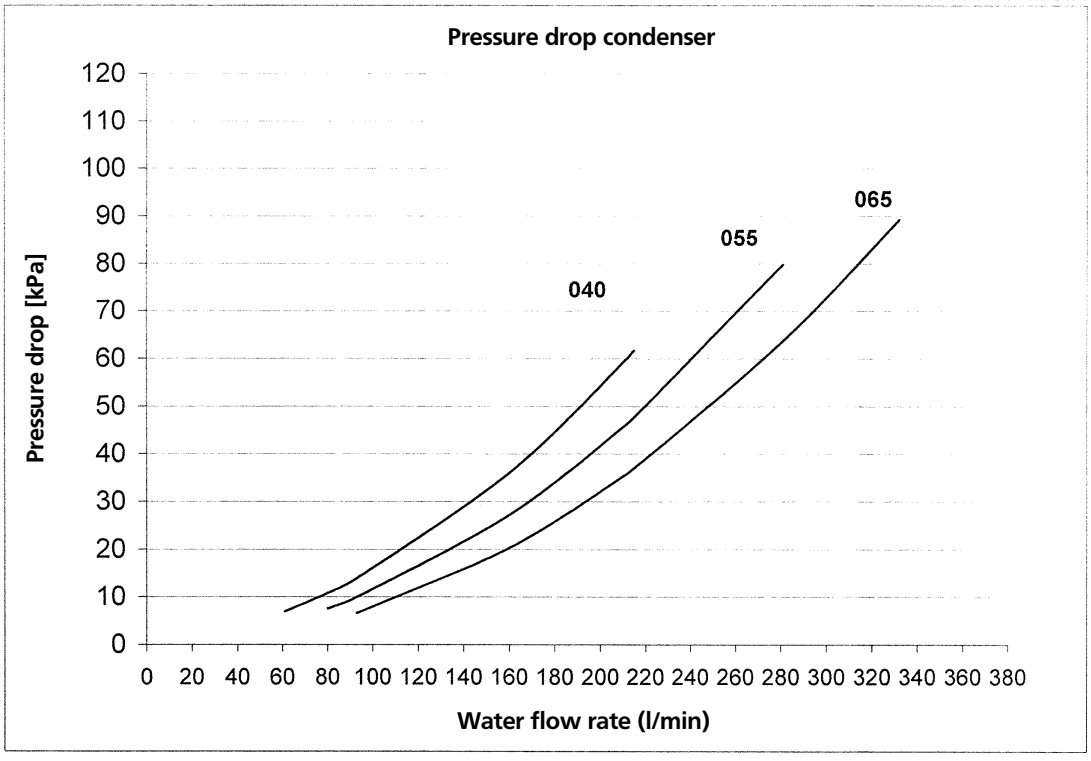
LWE = Leaving Water Evaporator (°C)
CT = Condensing temperature (°C)

4TW53473-2

9 Hydraulic performance

9 - 1 Water pressure drop curve evaporator





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.

4TW57299-1A