DAIKIN

Applied Systems

Technical Data

Water cooled chiller

EEDEN12-411

EWWP-KBW1N

TABLE OF CONTENTS

EWWP-KBW1N

1 Features

- Standard integrated: main switch, water filter, flow switch, air purge, pressure ports
- Daikin scroll compressor
- Optimised for use with R-407C
- Electronic DDC controller
- Low operating sound level
- Low energy consumption
- Extension possible up to 72HP
- Compact dimensions and low refrigerant volume
- Easy installation and maintenance
- Stainless steel plate heat exchanger
- Remote cooling or heating selection
- Water/water heat pump, with water reversibility
- Compatible with hydraulic module
- Advanced pCO³ controller for assembly of 2 or 3 modules

2 Specifications

2-1 Technical Specifications					EWWP014KBW1N	EWWP022KBW1N	EWWP028KBW1N	EWWP035KBW1N	EWWP045KBW1N	EWWP055KBW1N	EWWP065KBW1N	EWWP090KBW1N	EWWP100KBW1N
Cooling capacity	Nom.			kW	12.9	21.4	27.8	32.3	42.8	55.7	64.7	85.7	98.6
Heating capacity	Nom.			kW	16.7	27.5	35.6	41.5	55.0	71.7	83.0	110	127
Capacity steps number					1				2			4	
Power input	Cooling	Nom.		kW	3.75	6.13	7.85	9.12	12.2	16.0	18.2	24.2	28.0
	Heating	Nom.		kW	3.75	6.13	7.85	9.12	12.2	16.0	18.2	24.2	28.0
EER					3.44	3.49	3.54		3.51	3.48	3.55	3.54	3.52
COP					4.45	4.49	4.54	4.55	4.51	4.48	4.56	4.55	4.54
Casing	Material				Polyester painted steel plate								
Dimensions	Unit	Height		mm	600							1,200	
		Width		mm	600								
		Depth		mm	600				1,200				
Weight	Unit			kg	118	155	165	172	300	320	334	600	620
Water heat exchanger - evaporator	Type				Brazed plate								
	Minimum water volume in the system			l	62	103	134	155	205	268	311	205	268
	Water flow rate	Min.		l/min	31	53	65	76	101	131	152	202	232
		Nom.		l/min	37	61	80	93	123	160	185	246	283
		Max.		l/min	74	123	159	185	245	319	371	491	565
	Insulation material				Polyethylene foam								
	Model	Quantity			1							2	
Water heat exchanger - condenser	Type				Brazed plate								
	Water flow rate	Min.		l/min	24	39	51	59	79	102	118	157	181
		Nom.		l/min	48	78	102	118	157	205	237	314	362
		Max.		l/min	95	157	203	237	314	410	474	629	724
	Model	Quantity			1							2	
Sound power level	Cooling	Nom.		dBA	64			71	67		74	71	
Compressor	Type				Hermetically sealed scroll compressor								
	Quantity				1				2			4	2
	Model				JT140BF-YE	JT212DA-YE	JT300DA-YE	JT335DA-YE	JT212DA-YE	JT300DA-YE	JT335DA-YE	JT212DA-YE	
	Speed			rpm	2,900								
	Oil	Charged volume		l	1.5	2.7							
Compressor 2	Quantity				-								2
	Model				-								JT300DA-YE
	Speed			rpm	-								2,900
	Oil	Charged volume		l	-								2.7
Operation range	Evaporator	Cooling	Min.	ºCDB	-10								
			Max.	ºCDB	20								
	Condenser	Cooling	Min.	ºCDB	20								
			Max.	ºCDB	55								
Refrigerant	Type				R-407C								
	Charge			kg	1.2	2	2.5	3.1	4.6		5.6	-	
	Control				Thermostatic expansion valve								
	Circuits	Quantity			1				2			4	
Refrigerant circuit	Charge			kg	-							9.2	
Refrigerant oil	Type				FVC68D								
Piping connections	Evaporator water inlet/outlet (OD)				FBSP 25mm				FBSP 40mm			2 x 2 x FBSP 38mm	
	Evaporator water drain				Field installation								
	Condenser water inlet/outlet (OD)				FBSP 25mm				FBSP 40mm			2 x 2 x FBSP 38mm	
	Condenser water drain				Field installation								

2-2 Technical Specifications				EWWP110KBW1N	EWWP120KBW1N	EWWP130KBW1N	EWWP145KBW1N	EWWP155KBW1N	EWWP165KBW1N	EWWP175KBW1N	EWWP185KBW1N	EWWP195KBW1N
Cooling capacity	Nom.		kW	112	121	130	141	154	167	176	185	194
Heating capacity	Nom.		kW	143	155	166	182	198	215	226	237	249
Capacity steps number				4			6					
Power input	Cooling	Nom.	kW	31.9	34.0	36.2	40.2	43.9	47.7	49.8	52.0	54.1
	Heating	Nom.	kW	31.9	34.0	36.2	40.2	43.9	47.7	49.8	52.0	54.1

2 Specifications

2-2 Technical Specifications					EWWP110KBW1N	EWWP120KBW1N	EWWP130KBW1N	EWWP145KBW1N	EWWP155KBW1N	EWWP165KBW1N	EWWP175KBW1N	EWWP185KBW1N	EWWP195KBW1N
EER					3.51	3.56	3.59	3.51		3.50	3.53	3.56	3.59
COP					4.48	4.56	4.59	4.53	4.51		4.54	4.56	4.60
Casing	Material				Polyester painted steel plate								
Dimensions	Unit	Height		mm	1,200			1,800					
		Width		mm	600								
		Depth		mm	1,200								
Weight	Unit			kg	640	654	668	920	940	960	974	988	1,002
Water heat exchanger - evaporator	Type				Brazed plate								
	Minimum water volume in the system			l	268	311		205		268			311
	Water flow rate	Min.		l/min	262	283	304	333	363	393	414	435	456
		Nom.		l/min	321	347	373	404	441	479	505	530	556
		Max.		l/min	642	694	745	808	883	957	1,009	1,061	1,112
	Insulation material				Polyethylene foam								
	Model	Quantity			2								
Water heat exchanger - condenser	Type				Brazed plate								
	Water flow rate	Min.		l/min	205	221	237	260	283	307	323	339	355
		Nom.		l/min	410	442	474	519	567	614	647	679	711
		Max.		l/min	819	883	948	1,038	1,133	1,229	1,293	1,357	1,422
	Model	Quantity			2								
Sound power level	Cooling	Nom.		dBA	71	75	77	73			76	78	79
Compressor	Type				Hermetically sealed scroll compressor								
	Quantity				4	2	4			6	4		6
	Model				JT300DA-YE		JT335DA-YE	JT212DA-YE	JT300DA-YE		JT335DA-YE		
	Speed			rpm	2,900								
	Oil	Charged volume		l	2.7								
Compressor 2	Quantity				-	2	-	2		-	2		-
	Model				-	JT335DA-YE	-	JT300DA-YE	JT212DA-YE	-	JT335DA-YE	JT300DA-YE	-
	Speed			rpm	-	2,900	-	2,900		-	2,900		-
	Oil	Charged volume		l	-	2.7	-	2.7		-	2.7		-
Operation range	Evaporator	Cooling	Min.	°CDB	-10								
			Max.	°CDB	20								
	Condenser	Cooling	Min.	°CDB	20								
			Max.	°CDB	55								
Refrigerant	Type				R-407C								
	Charge			kg	-								
	Control				Thermostatic expansion valve								
	Circuits	Quantity			4			6					
Refrigerant circuit	Charge			kg	9.2	10.2	11.2	13.8			14.8	15.8	16.8
Refrigerant oil	Type				FVC68D								
Piping connections	Evaporator water inlet/outlet (OD)				2 x 2 x FBSP 38mm			3 x 2 x FBSP 38mm					
	Evaporator water drain				Field installation								
	Condenser water inlet/outlet (OD)				2 x 2 x FBSP 38mm			3 x 2 x FBSP 38mm					
	Condenser water drain				Field installation								

2-3 Electrical Specifications			EWWP014KBW1N	EWWP022KBW1N	EWWP028KBW1N	EWWP035KBW1N	EWWP045KBW1N	EWWP055KBW1N	EWWP065KBW1N	EWWP090KBW1N	EWWP100KBW1N
Compressor	Phase		3~								
	Frequency	Hz	50							-	
	Voltage	V	400								
	Starting current	A	49	79	109	129	79	109	129	79	
	Nominal running current (RLA)	A	6.6	10.4	13.1	15.0	10.4	13.1	15.0	10.4	
	Maximum running current	A	9	14.5	18.5	22	14	18	20	14	
	Starting method		Direct on line								

2 Specifications

2-3 Electrical Specifications				EWWP014KBW1N	EWWP022KBW1N	EWWP028KBW1N	EWWP035KBW1N	EWWP045KBW1N	EWWP055KBW1N	EWWP065KBW1N	EWWP090KBW1N	EWWP100KBW1N
Compressor 2	Phase			-								3~
	Voltage		V	-								400
	Starting current		A	-								109
	Nominal running current (RLA)		A	-								13.1
	Maximum running current		A	-								18
Power supply	Name			W1								
	Phase			3N~								
	Frequency		Hz	50								
	Voltage		V	400								
	Voltage range	Min.	%	-10								
		Max.	%	10								
Unit	Starting current		A	49	79	109	129	93	127	149	-	
	Maximum starting current		A	-							121	155
	Current	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	0.17 + j0.11	-	
	Nominal running current (RLA)	Cooling	A	6.6	10.4	13.1	15.0	20.8	26.2	30	41.6	47
	Maximum running current		A	9	14.5	18.5	22	28	36	40	56	64
	Recommended fuses according to IEC standard 269-2			3 x 16aM	3 x 20aM	3 x 25aM		3 x 35aM	3 x 40aM	3 x 50aM	3 x 63aM	

Notes

(1) Cooling capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8ºC

(2) Heating capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8ºC

(3) Nominal cooling capacities are based on the following conditions. Evaporator: 12ºC/7ºC; condenser: 30ºC/35ºC

(4) Power input is total input according to EN14511:2011

(5) 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.

(6) The nominal sound power level is measured according to ISO9614

2-4 Electrical Specifications				EWWP110KBW1N	EWWP120KBW1N	EWWP130KBW1N	EWWP145KBW1N	EWWP155KBW1N	EWWP165KBW1N	EWWP175KBW1N	EWWP185KBW1N	EWWP195KBW1N
Compressor	Phase			3~								
	Frequency		Hz	-								
	Voltage		V	400								
	Starting current		A	109		129	79		109			129
	Nominal running current (RLA)		A	13.1		15	10.4		13.1			15
	Maximum running current		A	18		20	14		18			20
	Starting method			Direct on line								
Compressor 2	Phase			-	3~	-	3~		-	3~		-
	Voltage		V	-	400	-	400		-	400		-
	Starting current		A	-	129	-	109		-	129		-
	Nominal running current (RLA)		A	-	15	-	13.1		-	15		-
	Maximum running current		A	-	20	-	18		-	20		-
Power supply	Name			W1								
	Phase			3N~								
	Frequency		Hz	50								
	Voltage		V	400								
	Voltage range	Min.	%	-10								
		Max.	%	10								
Unit	Starting current		A	-								
	Maximum starting current		A	163	185	189	183	191	199	221	225	229
	Current	Zmax	Text	-								
	Nominal running current (RLA)	Cooling	A	52.4	56.2	60	67.8	73.2	78.6	82.4	86.2	90
	Maximum running current		A	72	76	80	92	100	108	112	116	120
	Recommended fuses according to IEC standard 269-2			3 x 80aM			3 x 100aM		3 x 125aM			

2 Specifications

Notes

(1) Cooling capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8ºC

(2) Heating capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8ºC

(3) Nominal cooling capacities are based on the following conditions. Evaporator: 12ºC/7ºC; condenser: 30ºC/35ºC

(4) Power input is total input according to EN14511:2011

(5) 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.

(6) The nominal sound power level is measured according to ISO9614

3 Options

3 - 1 Options

EWWP-KBW1N
EWLP-KBW1N

Optional equipment for EWW/LP-KBW1*

EWWP014KBW1N*	EWWP045KBW1N*	EWLP012KBW1N*	EWLP040KBW1N*
EWWP022KBW1N*	EWWP055KBW1N*	EWLP020KBW1N*	EWLP055KBW1N*
EWWP028KBW1N*	EWWP065KBW1N*	EWLP026KBW1N*	EWLP065KBW1N*
EWWP035KBW1N*		EWLP030KBW1N*	

Option number	Option discription	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	●	●	●	●	●	●	●	Fact. mount.
ZL	Glycol application chilled water temeperature down to -10°C	●	●	●	●	●	●	●	Fact. mount.
	Available kit								
EKAC10C	Address card for connection to BMS or Remote user interface	●	●	●	●	●	●	●	kit
EKRUMCA	Remote installed user interface	●	●	●	●	●	●	●	kit
EKLS1	Low noise operation EWW/LP*(12/14)KBW1*	●1	–	–	–	–	–	–	kit
EKLS2	Low noise operation EWW/LP*(20~65)KBW1*	–	●1	●1	●1	●2	●2	●2	kit
EHMC10AV1010/1080	Hydraulic module	●	●	–	–	–	–	–	kit
EHMC15AV1010/1080	Hydraulic module	–	–	●	●	–	–	–	kit
EHMC30AV1010/1080	Hydraulic module	–	–	–	–	●	●	●	kit

4TW60149-5A

NOTES

1. std = standard on unit
   ● = available
   ●x = available and quantity of x is need for this unit size
   – = not available
   Hatched area = preliminary data
   * = option number
2. To install EKRUMCA => EKAC10C needs to be installed on the unit.
3. EKAC10C: this address card allows direct connection to MODBUS BMS system

4 Capacity tables

4 - 1 Cooling/Heating Capacity Tables

EWWP014-035KBW1N

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	7,95	10,9	2,88	7,48	10,6	3,09	6,94	10,3	3,34	6,34	10,0	3,63	5,67	9,64	3,96	4,93	9,28	4,33						
	022	12,3	16,2	3,89	12,1	16,4	4,36	11,4	16,3	4,86	10,6	16,0	5,41	9,6	15,6	6,00	8,5	15,1	6,63						
	028	16,2	21,8	5,55	16,3	22,4	6,17	15,9	22,7	6,87	15,1	22,8	7,66	14,1	22,6	8,54	12,7	22,3	9,51						
	035	20,7	27,3	6,49	20,6	27,7	7,06	20,4	28,2	7,78	19,5	28,2	8,64	18,0	27,8	9,66	16,1	27,0	10,8						
-5	014	9,83	12,7	2,89	9,33	12,5	3,11	8,79	12,2	3,37	8,20	11,9	3,70	7,56	11,6	4,01	6,88	11,3	4,38	6,15	10,9	4,77			
	022	15,8	19,9	4,11	15,2	19,8	4,59	14,6	19,7	5,11	13,7	19,4	5,67	12,8	19,0	6,29	11,6	18,6	6,94	10,3	18,0	7,65			
	028	19,9	25,6	5,72	19,9	26,2	6,31	19,6	26,6	6,99	18,7	26,5	7,77	17,9	26,6	8,63	16,6	26,2	9,59	15,2	25,8	10,6			
	035	24,2	30,9	6,62	24,1	31,4	7,21	24,0	32,0	7,93	23,1	32,0	8,79	21,8	31,7	9,79	20,1	31,1	11,0	17,8	30,0	12,2			
0	014	11,8	14,8	2,91	11,4	14,5	3,14	10,8	14,3	3,41	10,3	14,0	3,74	9,59	13,7	4,07	8,86	13,3	4,47	8,07	13,0	4,87	7,21	12,6	5,37
	022	18,6	23,0	4,35	18,2	23,0	4,80	17,4	22,7	5,31	16,7	22,6	5,88	15,7	22,2	6,52	14,5	21,7	7,22	13,2	21,2	7,97	11,9	20,7	8,79
	028	23,5	29,4	5,83	23,5	29,9	6,37	23,2	30,3	7,00	22,4	30,2	7,74	21,7	30,3	8,58	20,4	30,0	9,51	19,1	29,6	10,5	17,0	28,7	11,7
	035	27,7	34,4	6,60	27,6	34,9	7,24	27,5	35,6	7,99	26,7	35,7	8,86	25,6	35,5	9,84	23,9	35,1	11,1	21,8	34,0	12,1	19,3	32,9	13,5
4	014	13,0	15,9	2,87	12,8	16,0	3,12	12,4	15,9	3,42	12,0	15,8	3,77	11,4	15,5	4,11	10,7	15,2	4,51	9,92	14,9	4,93	9,04	14,5	5,43
	022	20,6	25,1	4,40	20,4	25,3	4,88	20,0	25,5	5,42	19,6	25,6	6,01	18,6	25,3	6,65	17,5	24,8	7,35	16,2	24,3	8,09	14,4	23,3	8,90
	028	26,5	32,4	5,88	26,5	32,9	6,42	26,2	33,3	7,07	25,5	33,4	7,86	24,7	33,4	8,66	23,5	33,1	9,59	22,0	32,6	10,6	20,1	32,0	11,8
	035	30,6	37,5	6,81	30,6	38,1	7,46	30,4	38,7	8,22	29,8	38,9	9,08	28,7	38,9	10,1	27,3	38,6	11,2	25,5	37,9	12,4	23,3	37,0	13,6
7	014	14,2	17,2	2,90	13,9	17,1	3,14	13,4	16,9	3,43	12,9	16,7	3,75	12,3	16,4	4,12	11,6	16,1	4,51	10,8	15,8	4,98	10,0	15,5	5,47
	022	22,5	27,1	4,57	22,3	27,3	5,00	22,0	27,6	5,51	21,4	27,5	6,13	20,4	27,0	6,69	19,0	26,4	7,34	17,4	25,5	8,09	15,5	24,5	9,02
	028	28,7	34,6	5,93	28,7	35,2	6,48	28,4	35,6	7,13	27,8	35,6	7,85	27,0	35,7	8,73	25,8	35,4	9,62	24,3	35,0	10,7	22,4	34,2	11,8
	035	32,9	39,9	6,89	32,8	40,5	7,56	32,8	41,2	8,32	32,3	41,5	9,12	31,3	41,6	10,2	29,9	41,2	11,3	27,9	40,5	12,5	25,5	39,3	13,7
10	014	15,4	18,3	2,90	15,0	18,2	3,17	14,7	18,2	3,47	14,2	18,0	3,78	13,7	17,9	4,19	13,0	17,6	4,60	12,2	17,3	5,06	11,2	16,7	5,49
	022	24,4	29,0	4,56	24,3	29,3	5,01	23,9	29,4	5,53	23,2	29,3	6,11	22,2	28,9	6,74	20,9	28,3	7,43	19,3	27,5	8,19	17,4	26,5	9,03
	028	30,2	36,1	5,93	30,2	36,6	6,49	30,0	37,1	7,15	29,5	37,4	7,90	28,8	37,5	8,73	27,8	37,4	9,67	26,4	37,1	10,7	24,7	36,5	11,8
	035	34,3	41,4	6,98	34,2	42,0	7,66	34,1	42,6	8,42	33,5	42,9	9,27	32,6	42,9	10,3	31,2	42,6	11,3	29,4	42,0	12,5	27,3	41,1	13,7
14	014	16,1	19,0	2,89	16,1	19,3	3,20	16,2	19,7	3,52	16,0	19,8	3,81	15,6	19,8	4,26	14,9	19,6	4,69	14,0	19,1	5,16	12,8	18,3	5,51
	022	26,2	30,7	4,53	26,2	31,2	5,02	26,0	31,6	5,55	25,6	31,6	6,08	24,6	31,4	6,80	23,4	30,9	7,52	21,8	30,2	8,31	20,1	29,1	9,02
	028	32,1	38,0	5,93	32,0	38,5	6,50	32,0	39,1	7,15	31,7	39,6	7,92	31,2	40,0	8,74	30,4	40,1	9,66	29,3	39,9	10,7	27,7	39,5	11,9
	035	38,2	45,3	7,04	38,1	45,9	7,72	37,8	46,4	8,49	37,2	46,7	9,37	36,3	46,7	10,3	35,0	46,5	11,4	33,5	46,1	12,5	30,8	44,6	13,7
16	014	16,7	19,6	2,88	16,6	19,8	3,20	16,6	20,1	3,52	16,5	20,3	3,82	16,1	20,4	4,26	15,6	20,3	4,69	14,7	19,9	5,15	13,6	19,1	5,51
	022	27,0	31,6	4,52	27,0	32,0	5,01	26,9	32,4	5,53	26,5	32,6	6,07	25,7	32,5	6,78	24,6	32,1	7,51	23,1	31,4	8,30	21,3	30,3	9,02
	028	32,4	38,4	5,94	32,4	38,9	6,52	32,3	39,5	7,19	32,1	40,1	7,95	31,7	40,5	8,78	31,0	40,7	9,71	30,0	40,8	10,7	28,7	40,6	11,9
	035	38,6	45,8	7,07	38,6	46,4	7,76	38,3	46,9	8,54	37,9	47,4	9,43	37,1	47,5	10,4	36,0	47,4	11,4	34,5	47,1	12,5	32,7	46,6	13,8
20	014	17,5	20,4	2,87	17,5	20,7	3,19	17,5	21,0	3,52	17,4	21,3	3,83	17,3	21,6	4,26	16,9	21,6	4,68	16,3	21,4	5,13	15,3	20,8	5,50
	022	28,7	33,2	4,50	28,6	33,6	4,98	28,6	34,1	5,51	28,3	34,4	6,05	27,8	34,6	6,75	26,9	34,4	7,47	25,6	33,9	8,26	23,8	32,8	9,01
	028	33,1	39,0	5,95	33,0	39,6	6,56	33,0	40,2	7,25	33,0	41,0	8,00	32,7	41,6	8,86	32,3	42,1	9,79	31,6	42,4	10,8	30,8	42,7	11,9
	035	40,7	47,8	7,04	40,6	48,4	7,75	40,6	49,2	8,54	40,5	50,1	9,46	40,5	50,9	10,4	40,4	51,9	11,4	39,0	51,6	12,5	37,2	51,2	13,9

CONDITIONS

1. Cooling capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8°C
2. Heating capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8°C
3. Power input is total input according to EN14511:2011

SYMBOLS

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

4TW57192-1A

4 Capacity tables

4 - 1 Cooling/Heating Capacity Tables

EWWP045-065KBW1N

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	24,6	32,4	7,92	24,1	32,9	8,85	22,8	32,6	9,87	21,2	32,1	11,0	19,3	31,3	12,1	17,1	30,4	13,4						
	055	32,6	43,8	11,4	32,7	45,1	12,6	31,9	45,7	14,0	30,4	45,8	15,6	28,4	45,5	17,4	25,7	44,8	19,3						
	065	41,6	54,5	13,0	41,2	55,3	14,1	40,9	56,3	15,5	39,1	56,2	17,3	36,2	55,3	19,3	32,2	53,7	21,7						
-5	045	31,6	39,9	8,36	30,5	39,7	9,31	29,2	39,4	10,4	27,5	38,9	11,5	25,5	38,2	12,7	23,3	37,3	14,0	20,7	36,1	15,4			
	055	39,9	51,5	11,7	40,0	52,7	12,9	39,4	53,5	14,3	37,6	53,2	15,8	36,1	53,4	17,6	33,5	52,8	19,5	30,6	52,0	21,6			
	065	48,5	61,8	13,2	48,3	62,8	14,4	48,0	63,8	15,8	46,4	63,8	17,6	43,8	63,2	19,6	40,2	61,9	21,9	35,7	59,8	24,3			
0	045	37,3	46,0	8,83	36,3	46,0	9,73	34,9	45,6	10,8	33,4	45,3	11,9	31,3	44,5	13,2	29,0	43,6	14,6	26,5	42,5	16,1	23,9	41,6	17,7
	055	47,3	59,0	11,9	47,3	60,1	13,0	46,7	60,8	14,3	45,1	60,7	15,8	43,6	60,9	17,4	41,1	60,2	19,3	38,3	59,5	21,4	34,2	57,7	23,6
	065	55,6	68,9	13,2	55,3	69,9	14,5	55,1	71,1	16,0	53,6	71,2	17,7	51,2	70,8	19,7	47,9	70,0	22,2	43,8	67,8	24,2	38,7	65,5	27,1
4	045	43,4	52,1	8,71	42,3	52,0	9,67	40,9	51,7	10,7	39,3	51,3	11,9	37,3	50,5	13,2	35,0	49,7	14,6	32,5	48,6	16,1	29,9	47,6	17,7
	055	53,2	65,2	12,0	53,2	66,2	13,1	52,6	66,9	14,4	51,3	67,2	16,0	49,6	67,1	17,6	47,2	66,6	19,5	44,2	65,7	21,5	40,4	64,3	24,0
	065	61,3	75,2	13,6	61,2	76,3	14,9	60,8	77,3	16,4	59,7	77,8	18,1	57,6	77,7	20,1	54,7	77,0	22,3	51,0	75,6	24,7	46,6	73,6	27,3
7	045	46,3	55,3	9,05	45,7	55,6	9,90	44,5	55,5	10,9	42,8	55,0	12,2	40,8	54,1	13,3	38,1	52,8	14,6	34,9	51,0	16,1	30,9	48,9	17,9
	055	57,6	69,6	12,1	57,6	70,8	13,2	57,0	71,5	14,5	55,7	71,7	16,0	54,1	71,8	17,7	51,8	71,3	19,4	48,8	70,4	21,7	45,0	68,9	23,8
	065	65,9	79,7	13,8	65,8	80,9	15,1	65,7	82,4	16,6	64,7	83,0	18,2	62,8	83,1	20,3	59,9	82,3	22,4	56,0	80,8	25,0	51,0	78,2	27,4
10	045	48,9	58,0	9,02	48,5	58,5	9,92	47,8	58,8	11,0	46,4	58,5	12,1	44,4	57,8	13,4	41,9	56,7	14,8	38,7	55,0	16,3	34,9	52,9	18,0
	055	60,6	72,6	12,1	60,5	73,6	13,3	60,1	74,6	14,6	59,1	75,1	16,1	57,8	75,4	17,7	55,7	75,3	19,6	53,1	74,7	21,7	49,5	73,4	24,0
	065	68,7	84,4	13,9	68,6	85,6	15,3	68,2	86,8	16,8	67,2	87,4	18,5	65,3	87,4	20,5	62,5	86,8	22,6	59,0	85,6	25,0	54,7	83,7	27,4
14	045	52,5	61,5	8,97	52,3	62,3	9,94	52,0	63,1	11,0	51,2	63,3	12,1	49,3	62,9	13,5	46,9	61,9	15,0	43,7	60,3	16,5	40,1	58,1	17,9
	055	64,4	76,5	12,1	64,3	77,5	13,3	64,1	78,7	14,6	63,6	79,7	16,1	62,7	80,4	17,7	61,0	80,5	19,6	58,7	80,3	21,6	55,6	79,5	24,0
	065	76,5	90,7	14,1	76,4	91,9	15,4	75,7	92,7	17,0	74,6	93,3	18,7	72,6	93,2	20,6	70,2	92,8	22,7	67,1	91,9	25,0	63,7	90,9	27,5
16	045	54,1	63,1	8,95	54,0	64,0	9,92	53,8	64,8	11,0	53,0	65,1	12,0	51,4	64,9	13,5	49,2	64,2	14,9	46,2	62,8	16,5	42,6	60,6	17,9
	055	65,1	77,1	12,2	64,9	78,1	13,3	64,8	79,4	14,7	64,5	80,5	16,2	63,6	81,4	17,8	62,2	81,9	19,7	60,3	81,9	21,7	57,6	81,5	24,0
	065	77,4	93,4	14,1	77,2	94,5	15,5	76,7	95,5	17,0	75,9	96,4	18,8	74,2	96,6	20,7	72,0	96,4	22,8	69,0	95,7	25,0	65,6	94,7	27,6
20	045	57,4	66,4	8,90	57,3	67,2	9,86	57,2	68,2	10,9	56,7	68,7	12,0	55,7	69,1	13,4	53,8	68,7	14,8	51,3	67,7	16,4	47,7	65,6	17,9
	055	66,3	78,4	12,2	66,2	79,6	13,4	66,1	80,8	14,8	66,1	82,3	16,3	65,6	83,5	18,0	64,7	84,5	19,9	63,4	85,2	21,9	61,8	85,7	24,0
	065	84,2	98,5	14,1	84,1	99,8	15,5	83,9	101	17,1	83,7	103	18,9	82,7	103	20,7	80,9	104	22,8	78,1	103	25,0	74,6	102	27,7

CONDITIONS

1. Cooling capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8°C
2. Heating capacity is according to EN14511:2011 and valid for chilled water range Dt = 3~8°C
3. Power input is total input according to EN14511:2011

SYMBOLS

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

4TW57232-1A

4 Capacity tables

4 - 1 Cooling/Heating Capacity Tables

EWWP090-130KBW1N
(32-48 hp)

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	32	49,2	64,7	15,7	48,4	65,7	17,5	45,7	65,1	19,6	42,4	64,1	21,8	38,6	62,6	24,1	34,2	60,7	26,6						
	36	57,3	76,1	19,1	56,9	77,9	21,3	54,8	78,2	23,7	51,7	77,8	26,4	47,7	76,8	29,3	42,8	75,1	32,5						
	40	65,3	87,4	22,6	65,5	90,0	25,0	64,0	91,3	27,8	61,0	91,5	31,0	56,8	90,9	34,5	51,4	89,4	38,4						
	44	74,3	98,2	24,1	74,0	100	26,5	72,9	102	29,3	69,6	102	32,7	64,6	101	36,4	58,0	98,3	40,7						
	48	83,3	109	25,7	82,6	110	28,0	81,9	112	30,8	78,3	112	34,3	72,5	110	38,4	64,6	107	43,1						
-5	32	63,3	79,7	16,6	61,0	79,3	18,5	58,4	78,8	20,5	55,1	77,7	22,8	51,1	76,3	25,3	46,6	74,4	27,9	41,4	72,0	30,7			
	36	71,6	91,3	19,9	70,5	92,3	22,0	68,6	92,8	24,4	65,1	92,0	27,1	61,7	91,5	30,1	56,8	89,9	33,3	51,3	87,9	36,8			
	40	80,0	103	23,2	80,0	105	25,6	78,9	107	28,3	75,2	106	31,4	72,2	107	34,9	67,0	105	38,7	61,2	104	42,9			
	44	88,5	113	24,7	88,4	115	27,1	87,5	117	29,9	84,0	117	33,2	80,0	116	36,9	73,8	115	41,2	66,3	112	45,7			
	48	97,0	123	26,2	96,8	125	28,5	96,1	127	31,4	92,9	128	34,9	87,7	126	38,9	80,5	124	43,6	71,5	119	48,4			
0	32	74,6	92,0	17,5	72,8	92,0	19,3	69,8	91,1	21,4	66,9	90,5	23,7	62,7	88,9	26,2	58,2	87,1	29,0	53,0	85,0	32,0	47,9	83,1	35,3
	36	84,6	105	20,6	83,7	106	22,6	81,6	106	24,9	78,6	106	27,5	75,0	105	30,4	70,2	104	33,7	64,8	102	37,3	58,2	99,2	41,2
	40	94,6	118	23,7	94,6	120	25,8	93,5	122	28,4	90,3	121	31,3	87,3	122	34,7	82,2	120	38,4	76,7	119	42,5	68,4	115	47,1
	44	103	128	24,9	103	130	27,2	102	132	30,0	98,8	132	33,2	94,9	132	36,9	89,1	130	41,3	82,2	127	45,4	73,0	123	50,5
	48	111	138	26,1	111	140	28,7	110	142	31,7	107	142	35,2	103	141	39,1	96,0	140	44,2	87,6	135	48,2	77,5	131	53,9
4	32	86,9	104	17,3	84,6	104	19,2	81,9	103	21,3	78,7	102	23,7	74,6	101	26,2	70,1	99,2	29,0	65,1	97,2	32,0	59,9	95,2	35,2
	36	96,7	117	20,6	95,6	118	22,6	93,5	118	25,0	90,7	118	27,7	86,9	118	30,6	82,3	116	33,9	76,8	114	37,4	70,5	112	41,5
	40	107	130	23,9	107	132	26,0	105	134	28,6	103	134	31,8	99,3	134	35,0	94,5	133	38,7	88,6	131	42,8	81,0	129	47,7
	44	115	140	25,4	115	142	27,8	113	144	30,6	111	145	33,9	107	145	37,5	102	143	41,6	95,4	141	46,0	87,2	138	51,0
	48	123	150	26,9	123	153	29,6	122	155	32,6	119	156	36,0	115	155	40,0	110	154	44,4	102,1	151	49,2	93,3	147	54,3
7	32	92,6	111	17,9	91,4	111	19,6	89,2	111	21,7	85,7	110	24,2	81,6	108	26,4	76,3	105	29,1	69,9	102	32,0	62,0	98	35,7
	36	104	125	21,0	103	126	23,0	102	127	25,3	98,6	127	28,0	94,9	126	30,8	89,9	124	33,9	83,8	121	37,6	76,1	118	41,6
	40	115	139	24,0	115	141	26,3	114	143	28,9	112	143	31,9	108	143	35,2	104	143	38,7	97,8	141	43,1	90,2	138	47,4
	44	124	149	25,7	124	152	28,1	123	154	30,9	121	155	34,0	117	155	37,8	112	154	41,6	105	151	46,4	96,2	147	51,0
	48	132	159	27,3	132	162	30,0	131	165	33,0	130	166	36,2	126	166	40,4	120	165	44,6	112	161	49,7	102	156	54,5
10	32	97,9	116	17,9	97,1	117	19,7	95,6	117	21,8	92,8	117	24,1	88,9	116	26,6	83,8	113	29,4	77,5	110	32,4	69,8	106	35,8
	36	110	131	21,0	109	132	23,0	108	133	25,3	106	134	28,0	102	133	30,9	97,7	132	34,2	91,8	130	37,8	84,5	126	41,7
	40	121	145	24,1	121	147	26,3	120	149	28,9	118	150	31,9	116	151	35,3	112	150	39,0	106	149	43,1	99,2	147	47,7
	44	129	157	25,8	129	159	28,3	128	161	31,1	126	162	34,4	123	163	38,0	118	162	42,0	112	160	46,4	104	157	51,2
	48	138	169	27,6	137	171	30,3	137	173	33,4	134	175	36,8	131	175	40,7	125	174	45,0	118	171	49,7	110	167	54,6
14	32	105	123	17,8	105	125	19,7	104	126	21,8	102	126	24,0	98,7	126	26,8	93,8	124	29,7	87,5	120	32,9	80,3	116	35,7
	36	117	138	20,9	117	140	23,0	116	142	25,4	115	143	28,0	112	143	31,1	108	142	34,4	102	140	38,0	95,8	137	41,8
	40	129	153	24,1	129	155	26,3	128	157	29,0	127	159	32,0	125	161	35,3	122	161	39,0	118	160	43,1	111	159	47,8
	44	141	167	26,0	141	169	28,5	140	171	31,3	138	173	34,6	135	173	38,1	131	173	42,1	126	172	46,4	119	170	51,2
	48	153	181	27,9	153	184	30,6	152	185	33,7	149	186	37,2	145	186	41,0	140	185	45,1	134	184	49,7	128	182	54,7
16	32	108	126	17,7	108	128	19,7	108	129	21,8	106	130	23,9	103	130	26,8	98,4	128	29,7	92,5	125	32,8	85,4	121	35,7
	36	119	140	20,9	119	142	23,1	119	144	25,4	118	146	28,0	115	146	31,1	112	146	34,4	107	145	38,0	100	142	41,8
	40	130	154	24,1	130	156	26,4	130	159	29,1	129	161	32,1	127	163	35,5	125	164	39,2	121	164	43,2	115	163	47,8
	44	143	170	26,0	142	173	28,6	142	175	31,5	140	177	34,8	138	178	38,3	134	178	42,2	129	177	46,5	123	176	51,3
	48	155	187	27,9	155	189	30,7	154	191	33,8	152	193	37,4	149	193	41,1	144	193	45,3	138	191	49,8	131	189	54,9
20	32	115	133	17,6	115	134	19,6	114	136	21,7	113	137	23,8	111	138	26,6	108	137	29,5	103	135	32,7	95,4	131	35,7
	36	124	145	20,9	124	147	23,1	123	149	25,5	123	151	28,1	121	153	31,2	119	153	34,5	115	153	38,1	110	151	41,8
	40	133	157	24,1	133	159	26,6	132	162	29,3	132	165	32,3	131	167	35,8	130	169	39,5	127	170	43,6	124	171	47,8
	44	151	177	26,0	150	179	28,7	150	182	31,6	150	185	35,0	148	187	38,5	146	188	42,4	142	188	46,7	137	188	51,5
	48	169	197	27,9	168	199	30,7	168	202	33,9	167	205	37,6	166	207	41,1	162	207	45,3	156	206	49,8	149	204	55,2

SYMBOLS

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

4TW53472-3D

4 Capacity tables

4 - 1 Cooling/Heating Capacity Tables

EWWP145-165KBW1N
(52-60 hp)

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	81,9	108	26,9	81,1	111	30,0	77,7	111	33,5	73,0	110	37,3	67,0	108	41,4	60,0	105	45,8						
	56	90,0	120	30,3	89,7	123	33,7	86,9	124	37,6	82,2	124	41,8	76,2	122	46,5	68,6	120	51,6						
	60	98,1	131	33,7	98,3	135	37,4	96,0	137	41,7	91,5	137	46,4	85,3	136	51,7	77,2	134	57,5						
-5	52	103	131	28,2	101	132	31,2	97,9	132	34,7	92,7	131	38,5	87,3	130	42,7	80,2	127	47,2	72,1	124	52,2			
	56	112	143	31,5	111	145	34,8	108	146	38,5	103	145	42,8	97,9	145	47,5	90,4	143	52,6	82,0	140	58,2			
	60	120	154	34,8	120	158	38,3	118	160	42,4	113	159	47,0	108	160	52,2	101	158	58,0	91,9	156	64,3			
0	52	122	151	29,3	120	152	32,2	117	152	35,5	112	151	39,3	106	150	43,5	99,3	147	48,2	91,4	144	53,3	82,1	141	58,8
	56	132	164	32,3	131	166	35,4	128	167	39,0	124	167	43,1	119	166	47,7	111	164	52,8	103	161	58,5	92,4	157	64,6
	60	142	177	35,4	142	180	38,6	140	182	42,4	135	182	46,9	131	182	51,9	123	181	57,5	115	178	63,7	103	173	70,5
4	52	140	169	29,2	138	170	32,2	135	170	35,6	130	170	39,5	124	168	43,7	117	166	48,4	109	163	53,4	100	159	59,1
	56	150	182	32,4	149	184	35,6	146	185	39,2	142	185	43,6	137	185	48,0	130	183	53,1	121	180	58,7	111	176	65,2
	60	160	195	35,7	160	199	38,9	158	201	42,9	154	201	47,6	149	201	52,4	142	200	57,9	133	197	64,1	122	193	71,4
7	52	150	180	29,9	149	182	32,8	146	182	36,1	141	182	40,2	136	180	44,0	128	177	48,4	119	172	53,5	107	167	59,4
	56	162	194	32,9	161	197	36,0	159	198	39,6	154	198	43,9	149	197	48,4	142	195	53,1	133	192	59,0	121	187	65,2
	60	173	209	36,0	173	212	39,3	171	214	43,2	167	215	47,7	163	215	52,8	156	214	57,9	147	211	64,6	135	206	71,1
10	52	159	188	29,9	158	191	32,8	156	192	36,2	152	192	40,0	147	191	44,2	140	188	48,9	131	185	53,9	119	179	59,6
	56	170	203	32,9	170	206	36,1	168	208	39,7	165	209	43,9	160	209	48,5	153	207	53,6	145	204	59,3	134	200	65,5
	60	182	218	36,0	182	221	39,4	180	224	43,3	178	225	47,8	174	226	52,8	167	226	58,4	159	224	64,6	149	220	71,5
14	52	169	199	29,8	169	202	32,9	168	205	36,3	166	206	40,0	161	206	44,5	155	204	49,2	146	201	54,4	136	196	59,6
	56	181	214	32,9	181	217	36,1	181	220	39,8	179	222	44,0	175	223	48,6	169	223	53,8	161	221	59,5	151	217	65,6
	60	193	229	36,0	193	232	39,4	193	236	43,3	191	239	48,0	188	241	52,8	183	241	58,4	176	241	64,5	167	238	71,5
16	52	173	203	29,8	173	206	32,9	172	209	36,3	171	211	40,0	167	211	44,5	161	210	49,2	153	207	54,4	143	203	59,6
	56	184	217	32,9	184	220	36,2	184	223	39,9	182	226	44,0	179	228	48,8	174	228	53,9	167	226	59,6	158	224	65,6
	60	195	231	36,0	195	234	39,5	195	238	43,5	194	241	48,1	191	244	53,1	187	245	58,7	181	246	64,8	173	244	71,6
20	52	181	211	29,7	181	214	32,8	181	217	36,3	180	220	40,0	177	222	44,5	172	222	49,2	166	221	54,4	157	217	59,6
	56	190	223	32,9	190	226	36,3	190	230	40,1	189	233	44,2	187	236	49,0	183	238	54,2	178	238	59,8	171	237	65,6
	60	199	235	36,1	199	239	39,8	199	242	43,9	199	247	48,4	197	250	53,6	194	253	59,2	190	255	65,2	186	257	71,6

SYMBOLS

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

4TW53472-4D

4 Capacity tables

4 - 1 Cooling/Heating Capacity Tables

EWWP175-195KBW1N
(64-72 hp)

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	64	107,0	142	35,3	106,8	145	38,9	105,0	148	43,1	100,2	148	48,0	93,1	146	53,6	83,8	143	59,8						
	68	116,0	153	36,8	115,4	155	40,3	113,9	158	44,6	108,8	158	49,6	101,0	156	55,5	90,4	152	62,1						
	72	125,0	163	38,3	123,9	166	41,7	122,9	169	46,0	117,5	168	51,3	108,8	166	57,4	97,0	161	64,4						
-5	64	129	164	36,2	128	168	39,7	127,0	170	43,9	121,7	170	48,7	116,1	170	54,2	107,4	167	60,4	97,0	163	67,0			
	68	137	175	37,7	137	178	41,2	136	181	45,4	131	181	50,4	123,9	180	56,2	114,1	176	62,9	102,1	171	69,8			
	72	146	185	39,1	145	188	42,6	144	191	47,0	139	191	52,1	132	189	58,1	121	186	65,3	107	179	72,5			
0	64	150	187	36,6	150	190	40,0	149	192	44,1	144	192	48,8	139	192	54,1	130,3	190	60,4	120,6	187	66,5	107,3	181	73,9
	68	159	197	37,8	158	200	41,4	157	203	45,7	152	203	50,7	146	202	56,2	137	200	63,2	126	195	69,3	111,8	188	77,3
	72	167	207	39,0	166	209	42,8	165	213	47,3	161	213	52,5	154	212	58,4	144	210	66,1	132	203	72,1	116	196	80,7
4	64	168	205	37,2	168	209	40,7	166	211	44,8	162	212	49,7	157	212	54,9	149	210	60,8	140	207	67,3	128	202	74,7
	68	176	215	38,7	176	219	42,4	174	221	46,8	171	223	51,8	165	222	57,4	157	220	63,6	147	217	70,4	134	211	78,0
	72	184	225	40,2	184	229	44,2	183	232	48,7	179	233	53,9	173	233	59,9	164	231	66,4	153	226	73,6	140	221	81,3
7	64	181	219	37,6	181	222	41,1	180	225	45,3	176	226	49,8	171	226	55,3	164	225	60,8	154	221	67,8	141	216	74,6
	68	190	229	39,2	189	232	42,9	189	236	47,3	185	237	52,0	180	238	57,9	172	236	63,8	161	232	71,1	147	225	78,1
	72	198	239	40,7	198	242	44,8	197	247	49,3	194	249	54,1	189	249	60,5	180	247	66,7	168	242	74,3	153	234	81,6
10	64	190	229	37,7	190	233	41,3	189	236	45,5	186	237	50,2	181	238	55,5	174	237	61,4	165	235	67,9	154	230	74,9
	68	198	241	39,5	198	245	43,3	197	248	47,7	194	250	52,6	189	250	58,2	181	249	64,4	171	246	71,1	159	241	78,3
	72	206	253	41,2	206	256	45,3	205	260	49,9	202	262	55,0	196	262	60,9	188	260	67,4	177	256	74,4	164	251	81,8
14	64	206	243	37,9	205	247	41,5	204	250	45,7	202	252	50,5	198	254	55,6	192	254	61,4	185	252	67,8	175	250	75,0
	68	218	258	39,7	217	261	43,6	216	264	48,0	213	266	53,0	208	266	58,4	202	266	64,5	193	264	71,0	183	261	78,4
	72	230	272	41,6	229	275	45,7	227	278	50,3	224	280	55,6	218	279	61,2	211	278	67,5	202	275	74,3	191	273	81,8
16	64	208	247	37,9	207	251	41,6	207	254	45,9	205	257	50,7	202	259	55,9	197	260	61,7	190	259	68,0	181	258	75,1
	68	220	264	39,8	220	267	43,8	218	270	48,2	216	273	53,3	212	274	58,7	206	274	64,7	199	273	71,2	189	271	78,6
	72	232	280	41,7	232	283	45,9	230	286	50,6	228	289	55,9	223	290	61,5	216	289	67,7	207	287	74,5	197	284	82,2
20	64	217	255	38,0	217	259	41,8	216	262	46,2	216	267	51,0	214	270	56,2	211	272	62,0	205	273	68,3	198	273	75,3
	68	235	275	39,8	235	279	43,8	234	283	48,4	234	287	53,6	231	290	58,9	227	292	64,9	220	291	71,4	211	290	78,9
	72	253	295	41,6	253	299	45,9	252	303	50,6	251	308	56,2	248	310	61,5	243	311	67,7	235	309	74,5	224	306	82,5

SYMBOLS

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

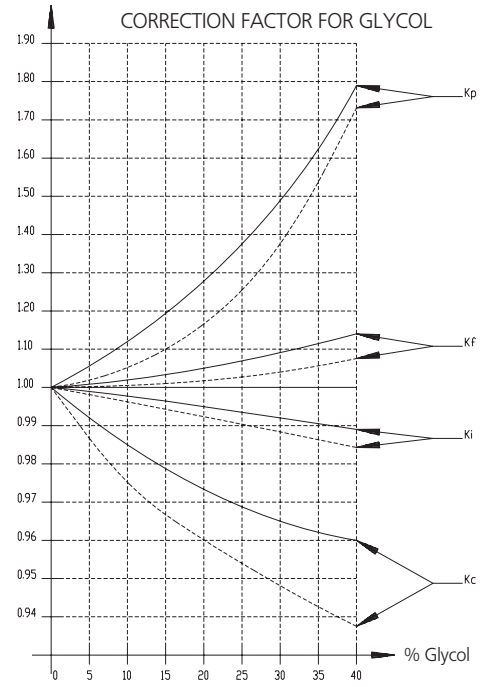
4TW53472-4D

4 Capacity tables

4 - 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

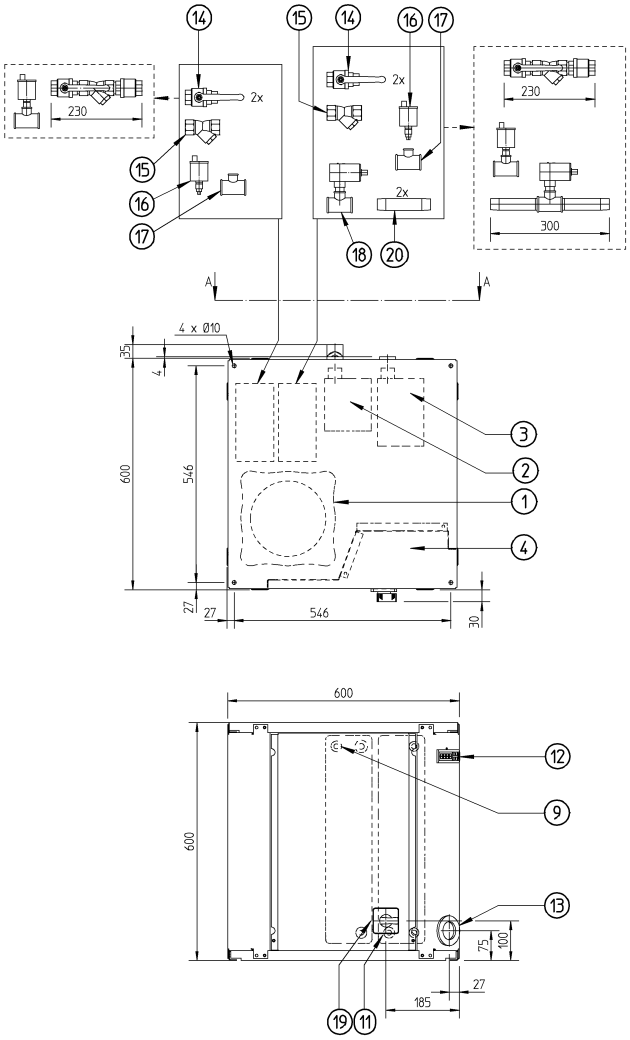
Kc Correction on cooling capacity
Ki Correction on power input
Kf Correction on flow rate
Kp Correction on pressure drop

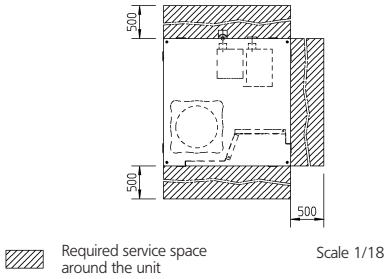
4TW54179-1

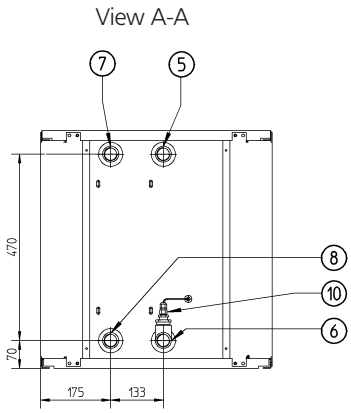
5 Dimensional drawings

5 - 1 Dimensional Drawings

EWWP014-035KBW1N







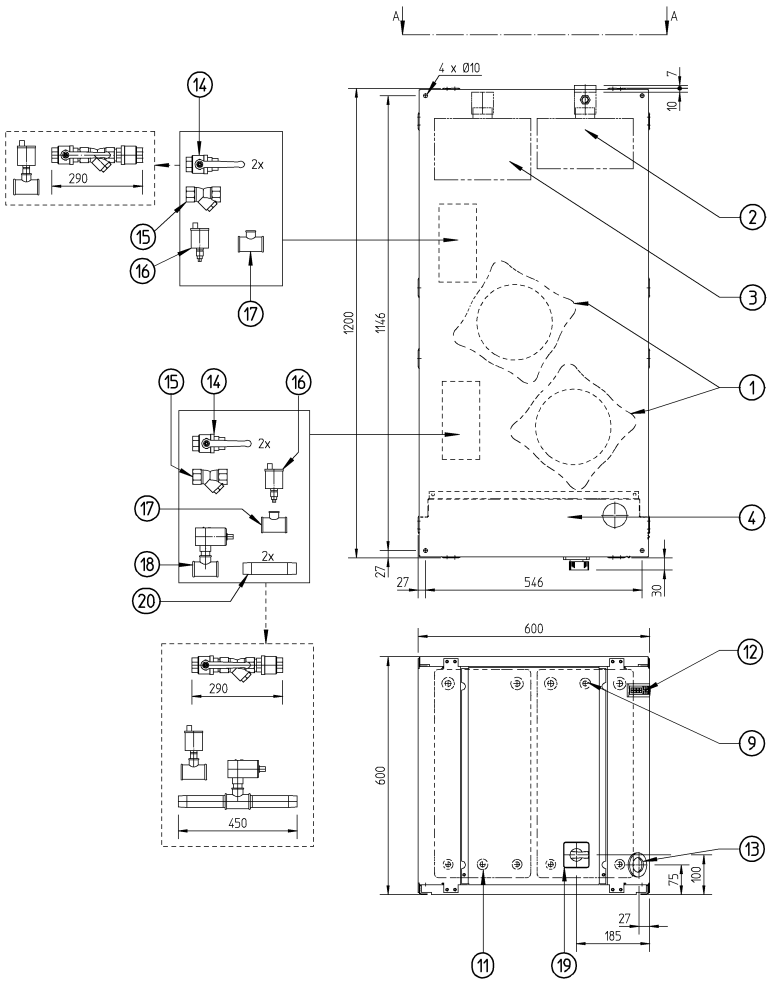
1	Compressor
2	Evaporator
3	Condenser
4	Switchbox
5	Chilled water in
6	Chilled water out
7	Condenser water out
8	Condenser water in
9	Evaporator entering water temperature sensor
10	Freeze up sensor
11	Condensor entering water temperature sensor
12	Digital display controller
13	Power supply intake (ϕ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

3TW55254-1B

5 Dimensional drawings

5 - 1 Dimensional Drawings

EWWP045-065KBW1N



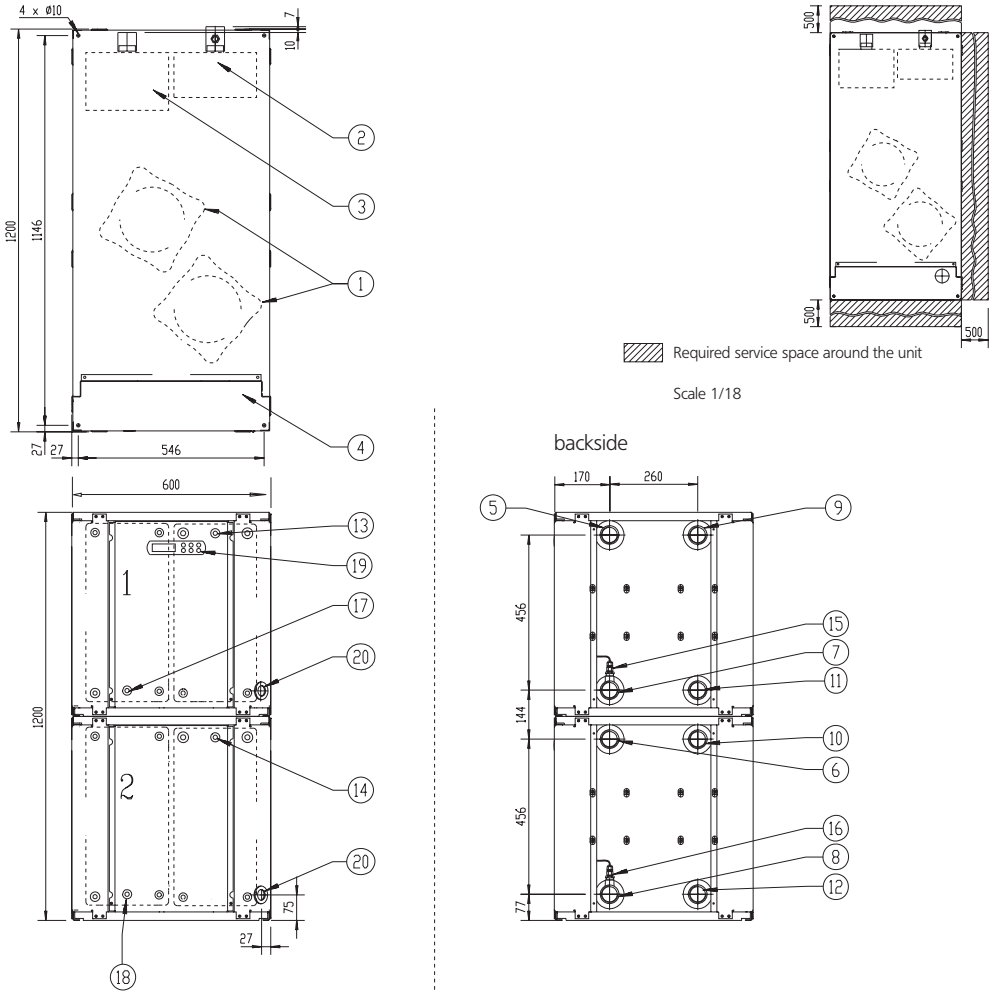
1 Compressor
2 Evaporator
3 Condenser
4 Switchbox
5 Chilled water in
6 Chilled water out
7 Condenser water out
8 Condenser water in
9 Evaporator entering water temperature sensor
10 Freeze up sensor
11 Condensor entering water temperature sensor
12 Digital display controller
13 Power supply intake (ϕ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

5 Dimensional drawings

5 - 1 Dimensional Drawings

EWWP090-130KBW1N (32-48hp)



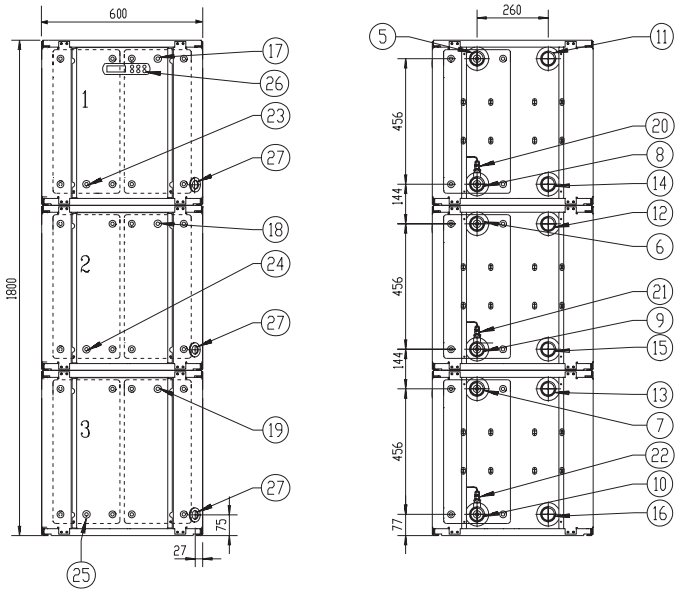
1 Compressor
2 Evaporator
3 Condenser
4 Switchbox
5 Chilled water in 1
6 Chilled water in 2
7 Chilled water out 1
8 Chilled water out 2
9 Condenser water out 1
10 Condenser water out 2
11 Condenser water in 1
12 Condenser water in 2
13 Evaporator entering water temperature sensor 1
14 Evaporator entering 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

5 Dimensional drawings

5 - 1 Dimensional Drawings

EWWP145-195KBW1N (52-72hp)



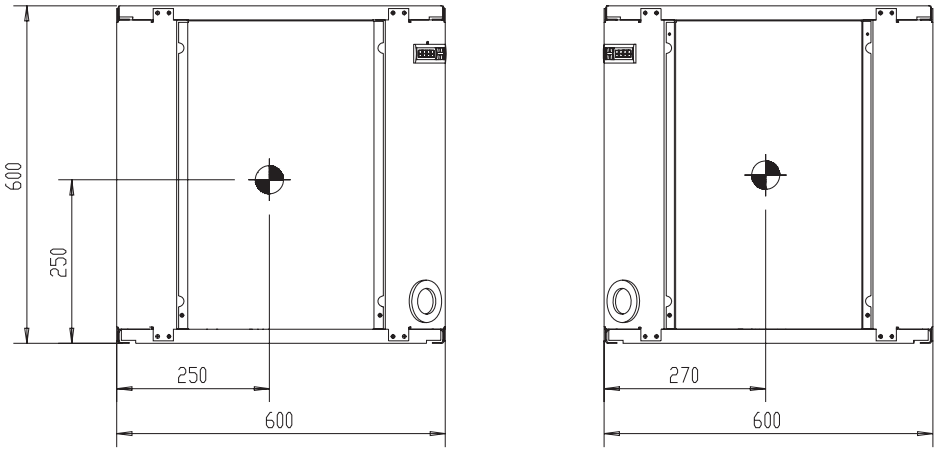
1 Compressor
2 Evaporator
3 Condenser
4 Switchbox
5 Chilled water in 1
6 Chilled water in 2
7 Chilled water in 3
8 Chilled water out 1
9 Chilled water out 2
10 Chilled water out 3
11 Condenser water out 1
12 Condenser water out 2
13 Condenser water out 3
14 Condenser water in 1
15 Condenser water in 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

6 Centre of gravity

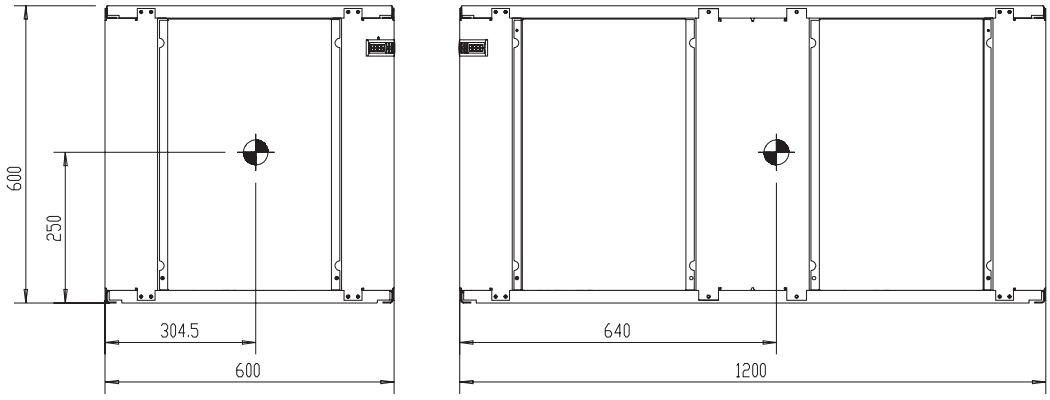
6 - 1 Centre of Gravity

EWWP014-035KBW1N



4TW53479-2

EWWP045-065KBW1N

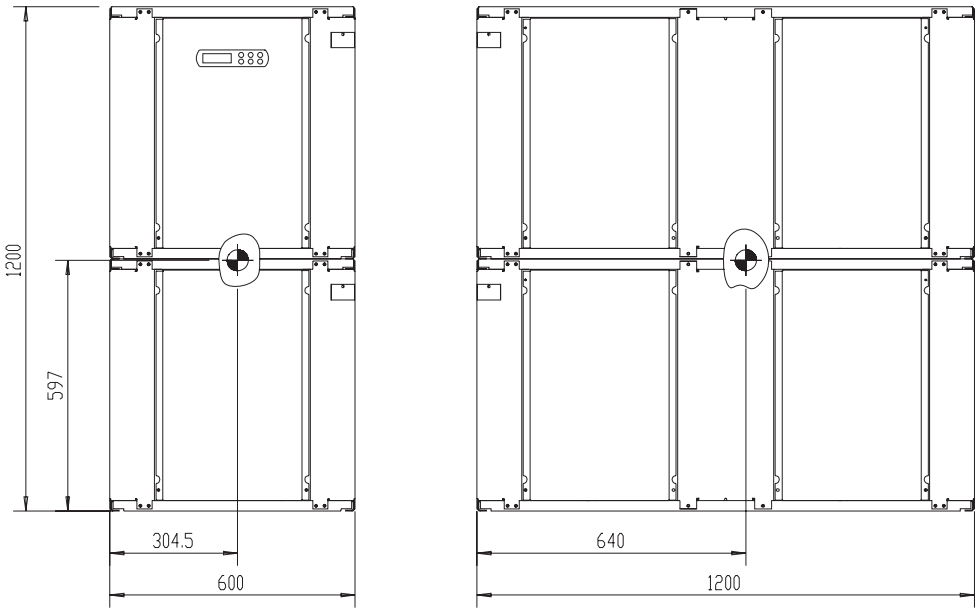


4TW53479-3

6 Centre of gravity

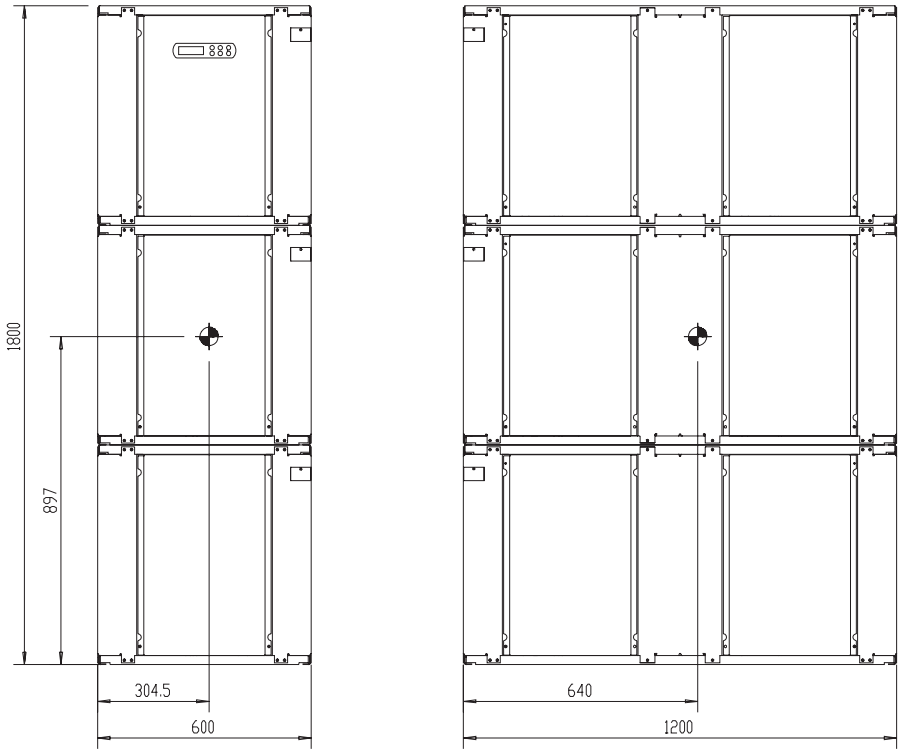
6 - 1 Centre of Gravity

EWWP090-130KBW1N (32-48hp)



4TW53479-4

EWWP145-195KBW1N (52-72hp)

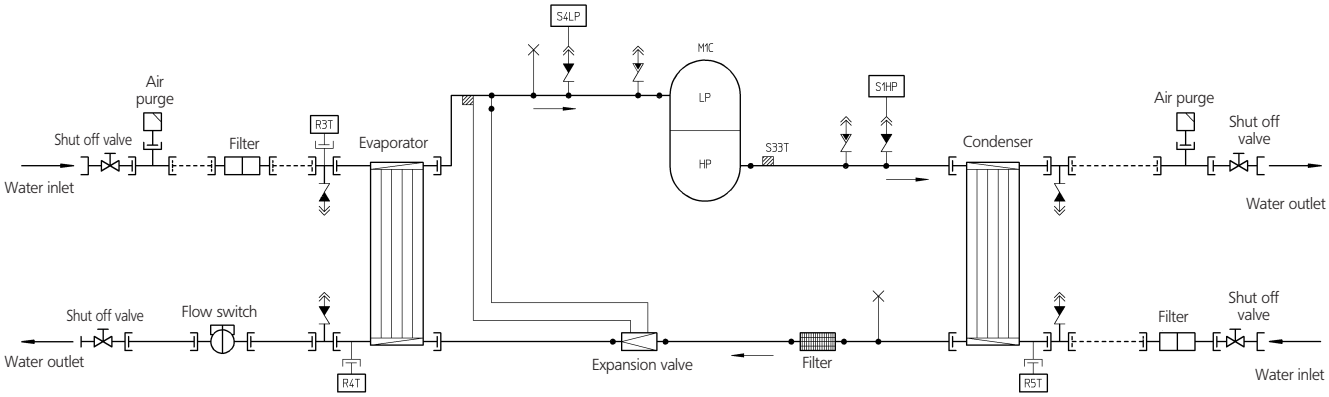


4TW53479-5

7 Piping diagrams

7 - 1 Piping Diagrams

EWWP014-035KBW1N



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

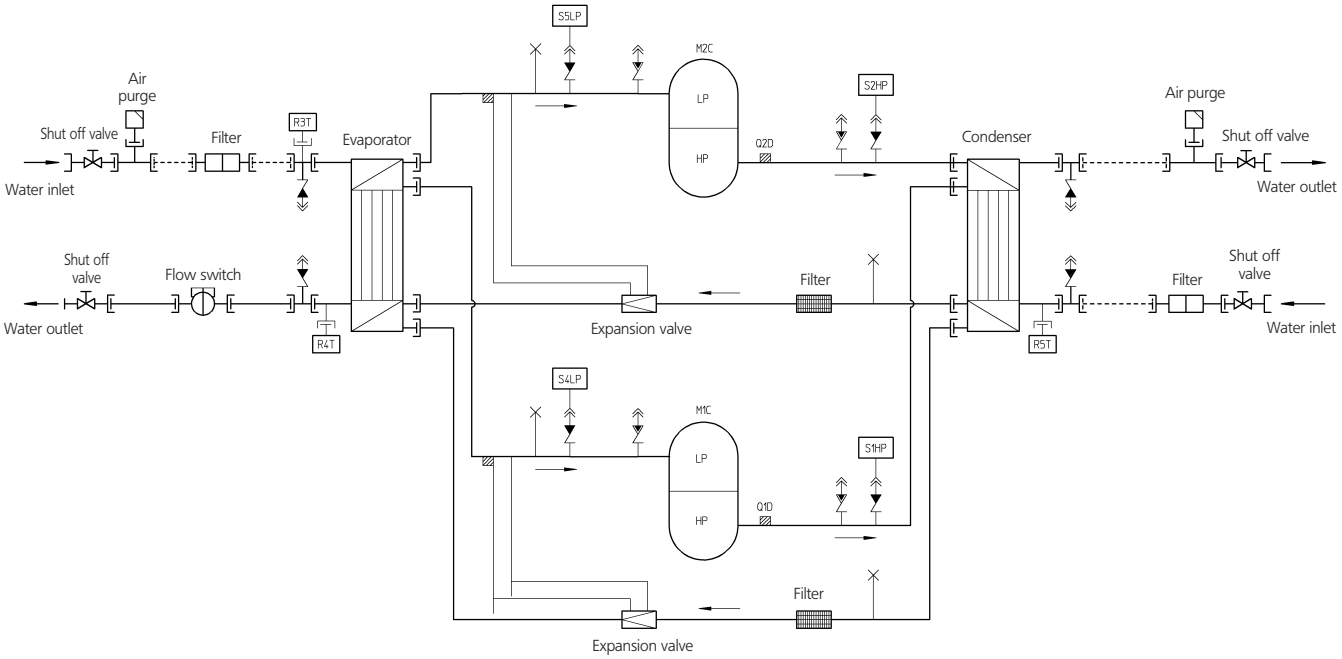
- ------ Field piping
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW55255-1B

7 Piping diagrams

7 - 1 Piping Diagrams

EWWP045-065KBW1N



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

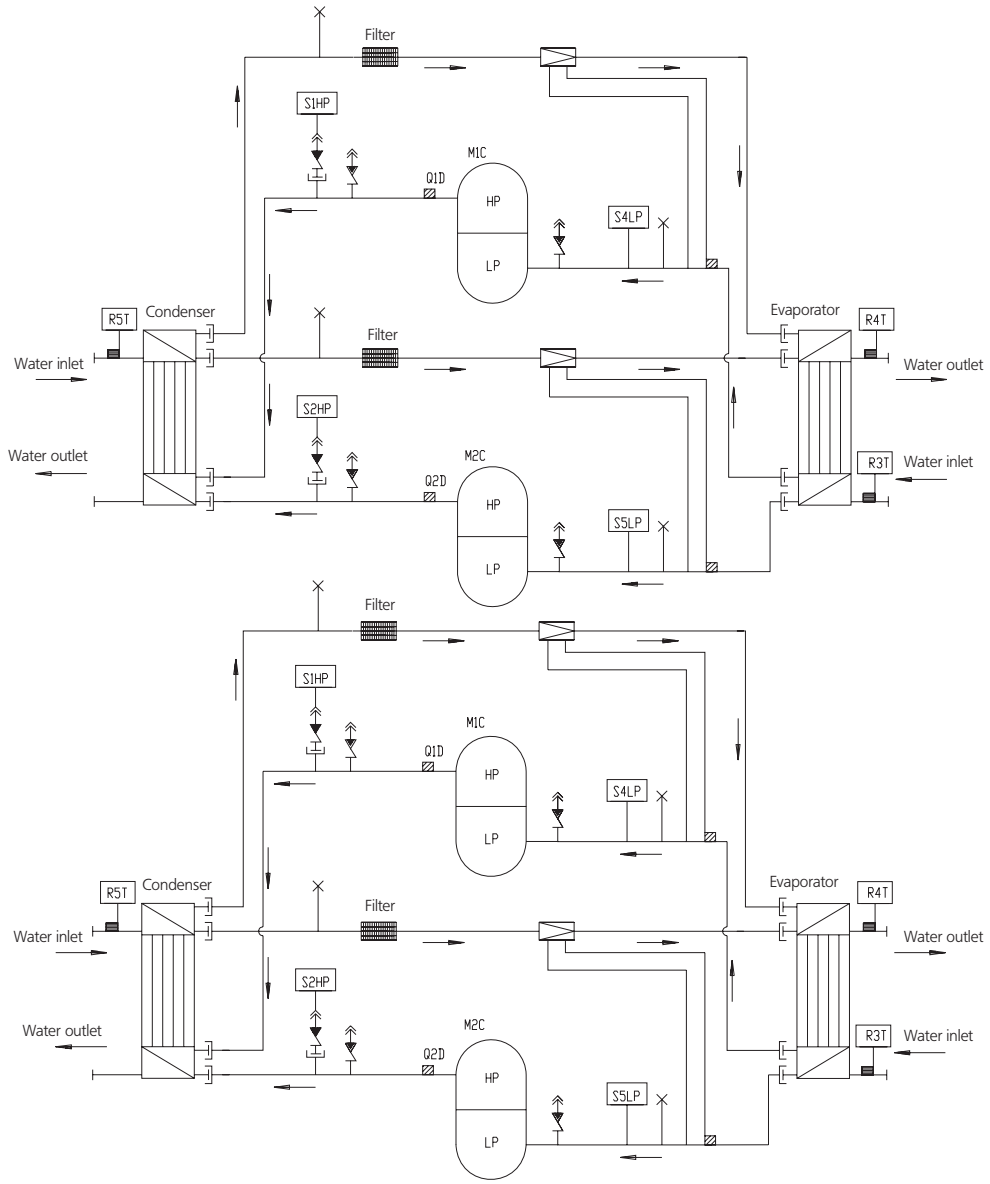
- ------ Field piping
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW55305-1B

7 Piping diagrams

7 - 1 Piping Diagrams

EWWP090-130KBW1N (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

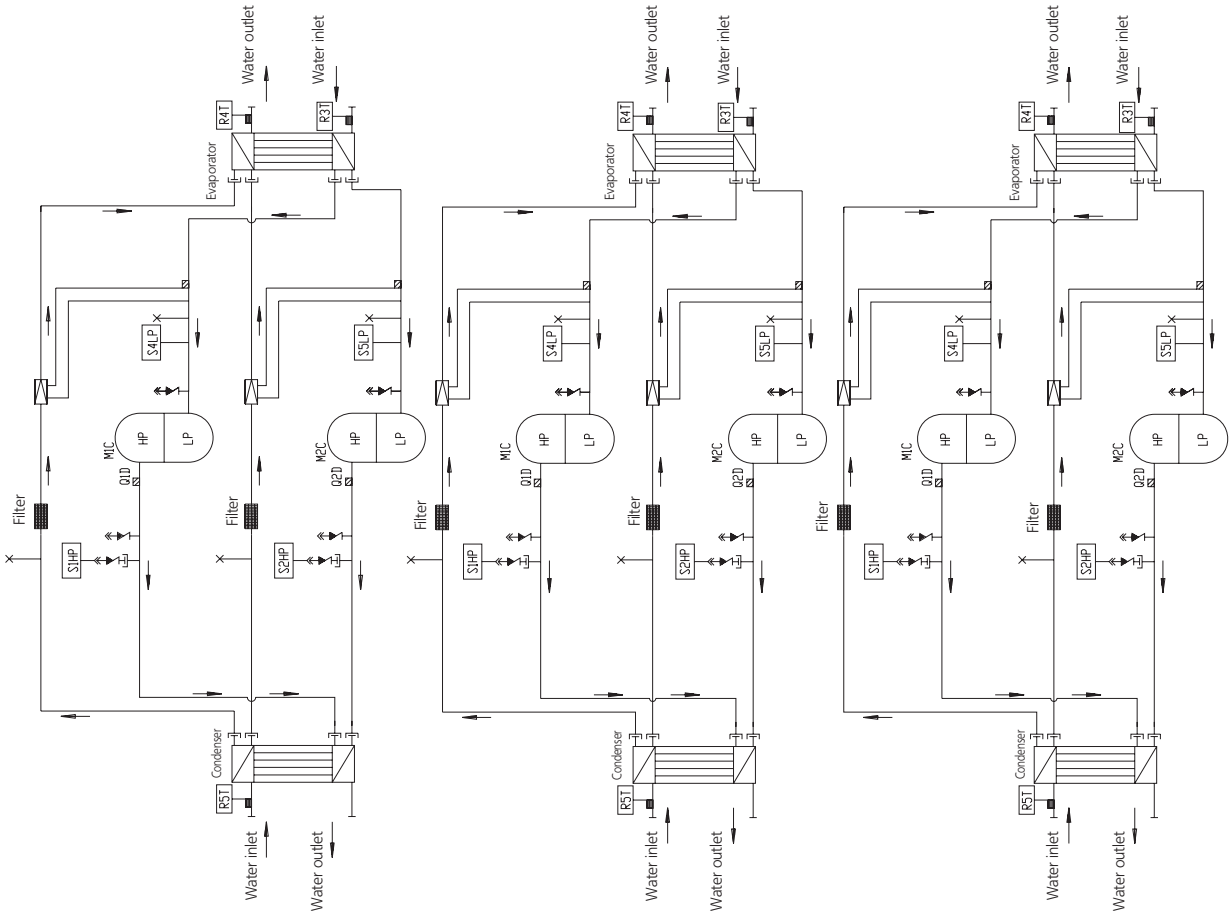
- Check valve
- Flare connection
- Screw connection
- Flange connection
- Pinched pipe
- Spinned pipe

3TW53475-3

7 Piping diagrams

7 - 1 Piping Diagrams

EWWP145-195KBW1N (52-72hp)



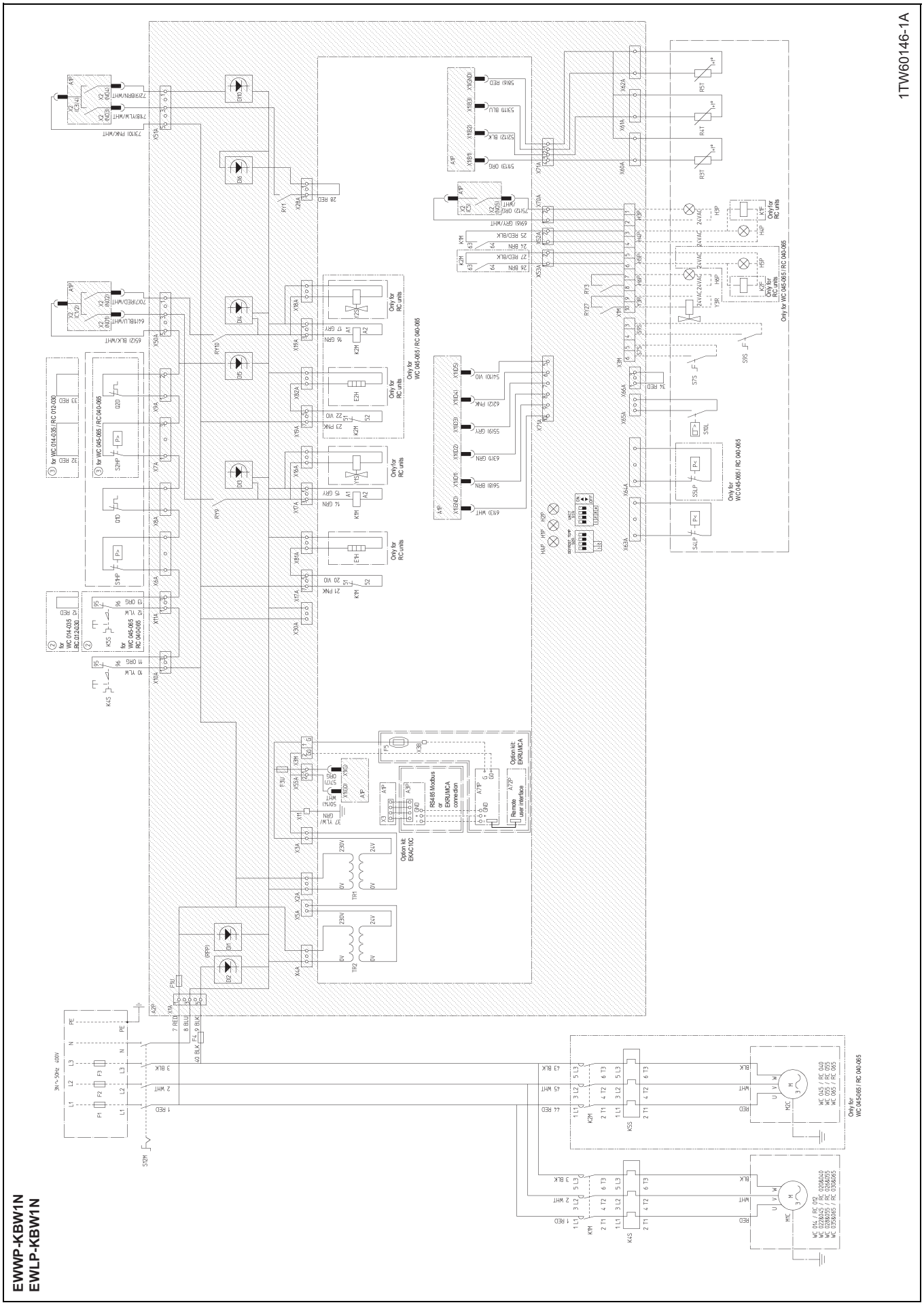
M1C-M2C	Compressor motor
R4T	Freeze-up protection
R5T	Inlet water cond. temp. sensor
S1HP	High pressure switch
S2HP	High pressure switch
S4LP	Low pressure switch
S5LP	Low pressure switch
R3T	Inlet water evap. temp. sensor
Q1D	Discharge temperature controller
Q2D	Discharge temperature controller

	Check valve
	Flare connection
	Screw connection
	Flange connection
X	Pinched pipe
→	Spinned pipe

3TW53475-4

8 Wiring diagrams

8 - 1 Wiring Diagrams - Three Phase



8 Wiring diagrams

8 - 1 Wiring Diagrams - Three Phase

EWWP-KBW1N
EWLP-KBW1N

Y3R*	Reverse valve of water circuit	R3T	Condensor inlet water temperature sensor	F3U	Fuse controller PCB
Y1S, Y2S	Liquid solenoid valve circuit 1, circuit 2	Q1D, Q2D	Discharge thermal protector circuit 1, circuit 2	F1U	Fuse I/0 PCB
X1-82(A/B/M)	Connectors	PE	Main earth terminal	F6 #	Fuse for pumpcontactor
TR2	transfo 230V -> 24V for supply of I/O PCB	M1C, M2C	Compressor mortor circuit 1, circuit 2	F5 ##	Surge proof fuse
TR1	transfo 230V -> 24V for supply of controller PCB	K1P*	Pump contractor	F4	Fuse I/0 PCB
S12M	Main isolator switch	K1F, K2F #	Fan contactor	F1, F2, F3 #	Main fuses for the unit
S10L	Flowswitch	K6S*	Overcurrent relay pump	E1H, E2H	Crankcase heater circuit 1, circuit 2
S9S*	Switch for remote start/stop or dual setpoint	K4S, K5S	Overcurrent relay circuit 1, circuit 2	A72P**	PCB: power supply card
S7S*	Switch for remote cooling/heating selection or dual setpoint	K1M, K2M	Compressor contactor circuit 1, circuit 2	A71P**	PCB: remote user interface
S4LP, S5LP	Low pressure switch circuit 1, circuit 2	H6P*	Indication lamp general operation	A3P**	PCB: address card
S1HP, S2HP	High pressure switch circuit 1, circuit 2	H5P*	Indication lamp operation compressor 2	A2P	PCB: I/0 PCB
R5T	Condensor inlet water temperature sensor	H4P*	Indication lamp operation compressor 1	A1P	PCB: controller PCB
R4T	Evaporator outlet water temperature sensor	H3P*	Indication lamp alarm		

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 Sefety 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) X2 (C1/2-NO1): Compressor M1C on X2 (C1/2-NO2): Compressor M2C on X2 (C3/4-NO3): voltage free contact for pump X2 (C3/4-NO4): Reversing valve X2 (C5-NO5): alarm voltage free contact
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	ANALOG INPUTS X1 (B1-GND): evap inlet water t° X1 (B2-GND): evap outlet water t° X1 (B3-GND): cond inlet water t°
OTHERS HAP light emitting diode (service monitor green) H1P, H2P light emitting diode (service monitor red) S1A dipswitch (unit setting) S2A dipswitch (defr. & fan setting)	ANALOG OUTPUTS X1 (Y-GND):

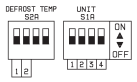
	All models (400V)						
Fuses + overcurrent	WC014 RC012	WC 022 RC020	WC028 RC026	WC035 RC030	WC045 RC040	WC055 RC055	WC065 RC065
F1, F2, F3 (+ gL/gG)	3x16A	3x20A	3x25A	3x32A	3x40A	3x50A	3x50A
F4	8A	8A	8A	8A	8A	8A	8A
F5	250mAT	250mAT	250mAT	250mAT	250mAT	250mAT	250mAT
F1U	5A	5A	5A	5A	5A	5A	5A
F3U	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT	315mAT
K4S	9A	14.5A	18.5A	22A	14A	18A	20A
K5S	--	--	--	--	14A	18A	20A

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

1TW60146-1A

NOTES

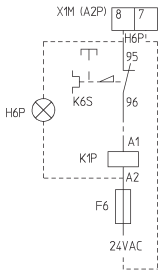
1. 1 • : Terminal 1, —— 2 : Wire 2; -----: Field wiring to be in accordance with the local electrical regulations, —·—: Earth wiring
   : Option, : PCB : Outside switchbox
2. If compressor rotates reversely, it may be damaged
3. WC: Watercooled chiller
   RC: Unit with remote condenser
4. Optional:
   - EKAC10C = address card kit for Modbus or remote user interface connection
   - EKSS = softstart
   - EKRUMCA = remote user interface
5. Terminals for fieldwiring:
   X1M: H3-6P, Y3R, K1-2F: Output terminal for fieldwiring (voltage free contact max 2A/Output)
   X3M: Input terminal for fieldwiring (don't connect voltage) (switch load 6mA/30VDC)
6. Y3R is activated in cooling mode
   S7S open = heating
   S7S closed = cooling
7. Dipswitch setting
   S2A dipswitch: defrost & fan setting
   no meaning for WC CO & WC CL CO



S1A dipswitch: Unit setting

1> off = 1 circuit
on = 2 circuit
234 > Off Off Off = WC CO & WC CL CO
Off On Off = AC CO
On Off Off = AC HP (without compr stop for defrost cycle)
On Off On = AC HP (with compr stop for defrost cycle)

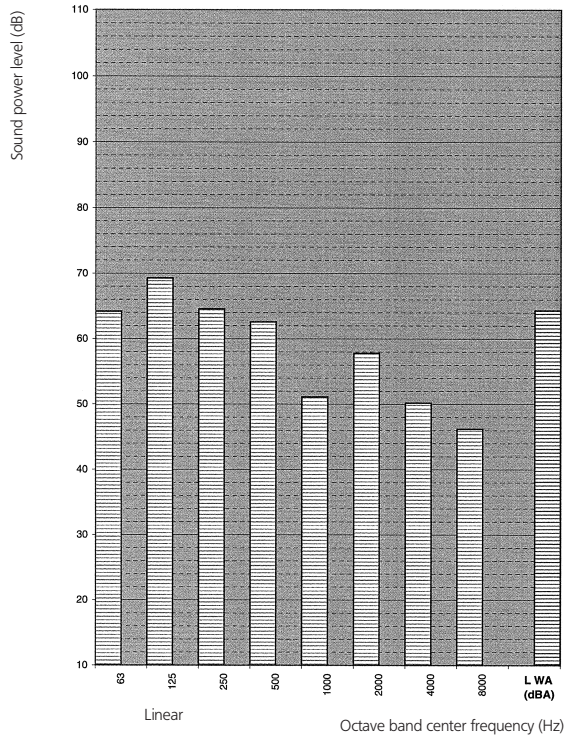
8. Pump contact



9 Sound data

9 - 1 Sound Power Spectrum

EWWP014-028KBW1N (5-10hp)

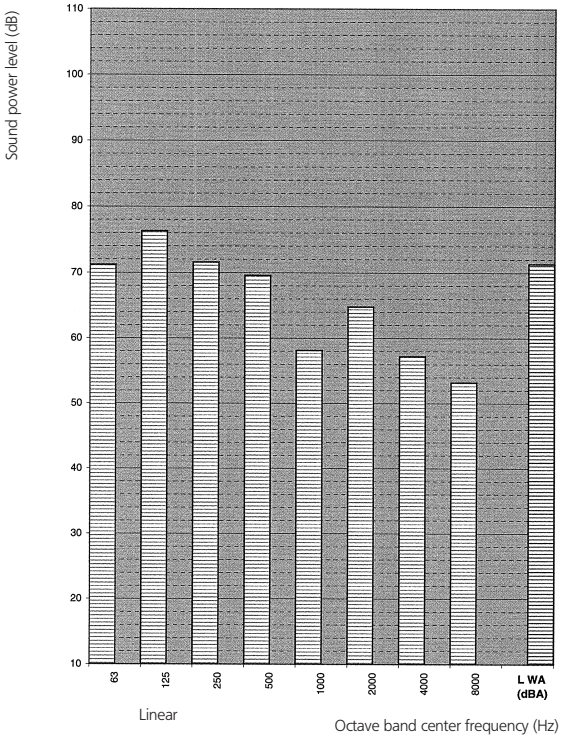


4TW57197-1

NOTES

Option low noise = -3dBa

EWWP035KBW1N (12hp)

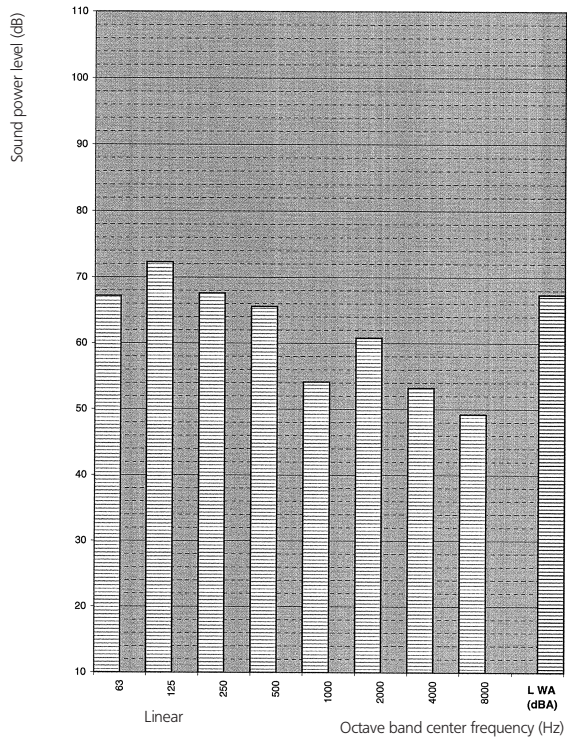


4TW57197-2

NOTES

Option low noise = -3dBa

EWWP045-055KBW1N (16-20hp)

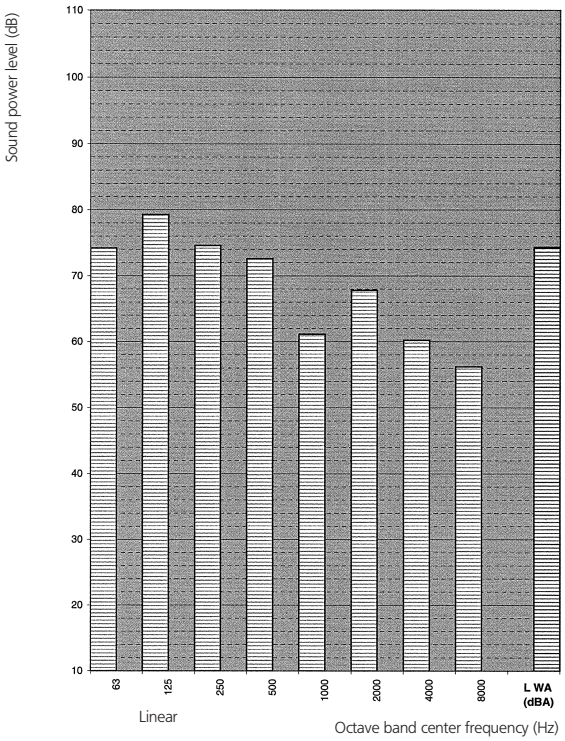


4TW57197-3

NOTES

Option low noise = -3dBa

EWWP065KBW1N (24hp)



4TW57197-4

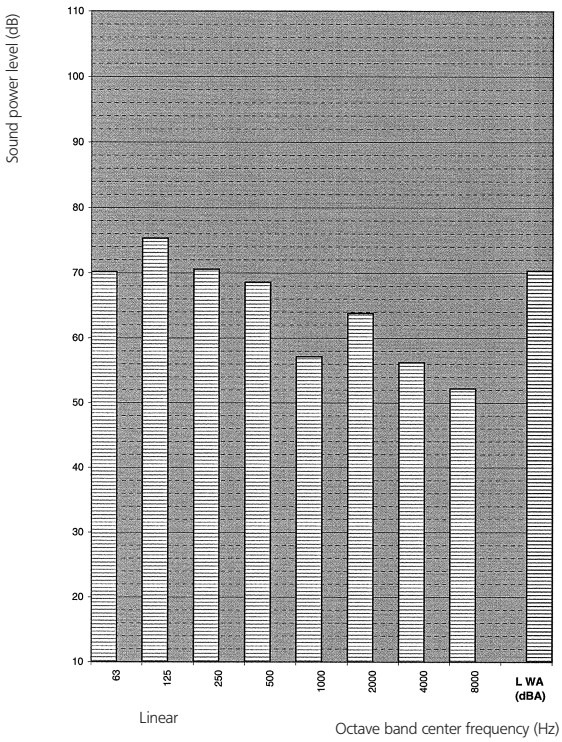
NOTES

Option low noise = -3dBa

9 Sound data

9 - 1 Sound Power Spectrum

EWWP090-110KBW1N (32-40hp)

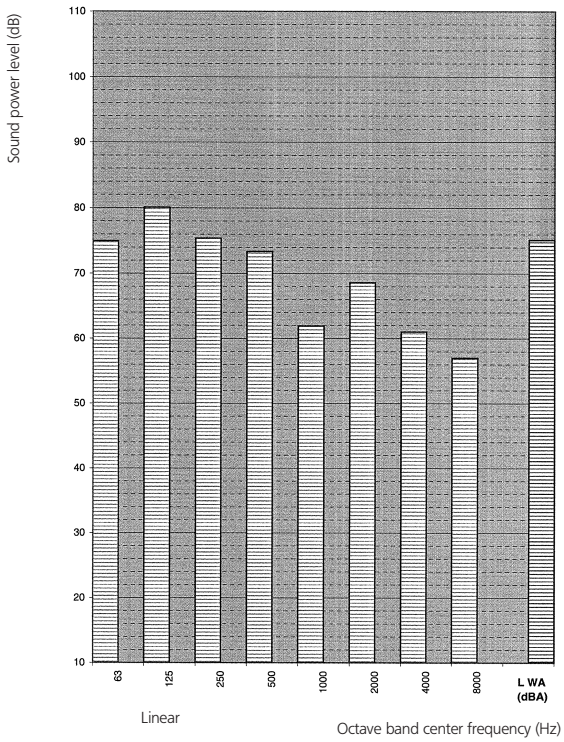


4TW57197-5

NOTES

Option low noise = -3dBa

EWWP120KBW1N (44hp)

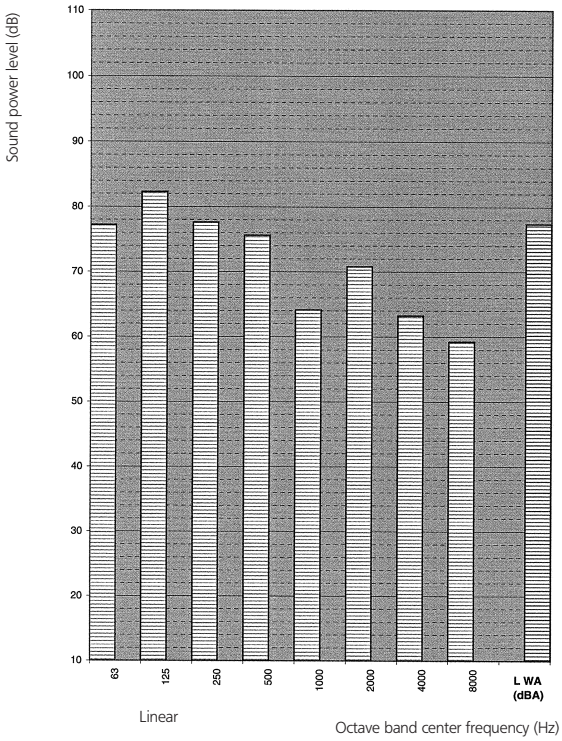


4TW57197-6

NOTES

Option low noise = -3dBa

EWWP130KBW1N (48hp)

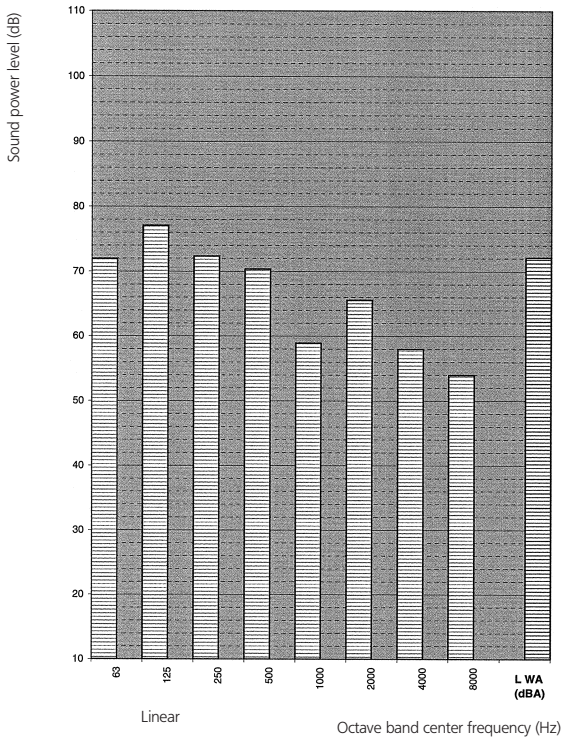


4TW57197-7

NOTES

Option low noise = -3dBa

EWWP145-165KBW1N (52-60hp)



4TW57197-8

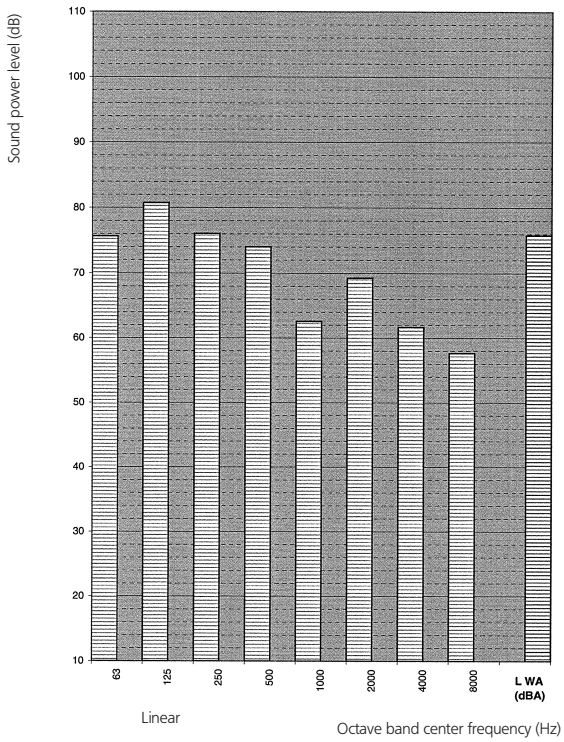
NOTES

Option low noise = -3dBa

9 Sound data

9 - 1 Sound Power Spectrum

EWWP175KBW1N (64hp)

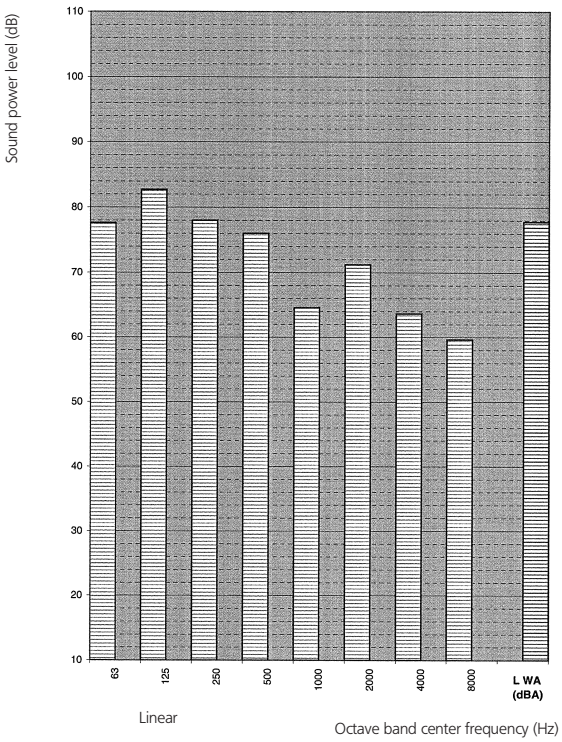


4TW57197-9

NOTES

Option low noise = -3dBa

EWWP185KBW1N (68hp)

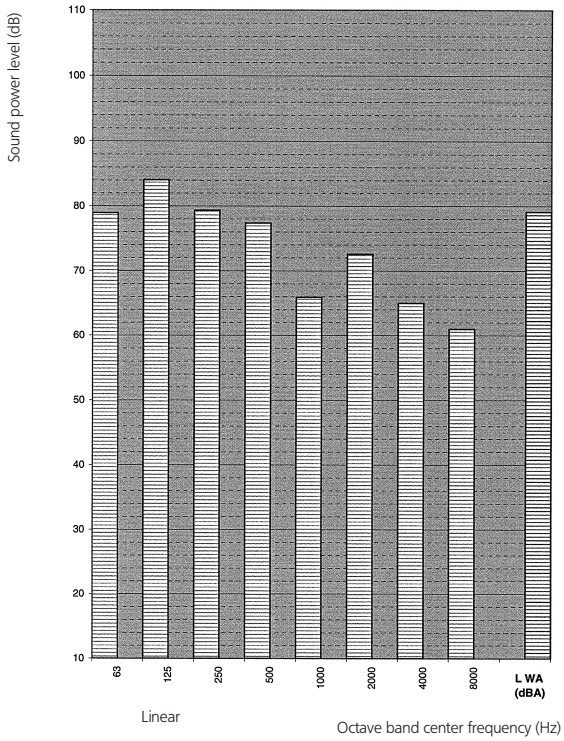


4TW57197-10

NOTES

Option low noise = -3dBa

EWWP195KBW1N (72hp)



4TW57197-11

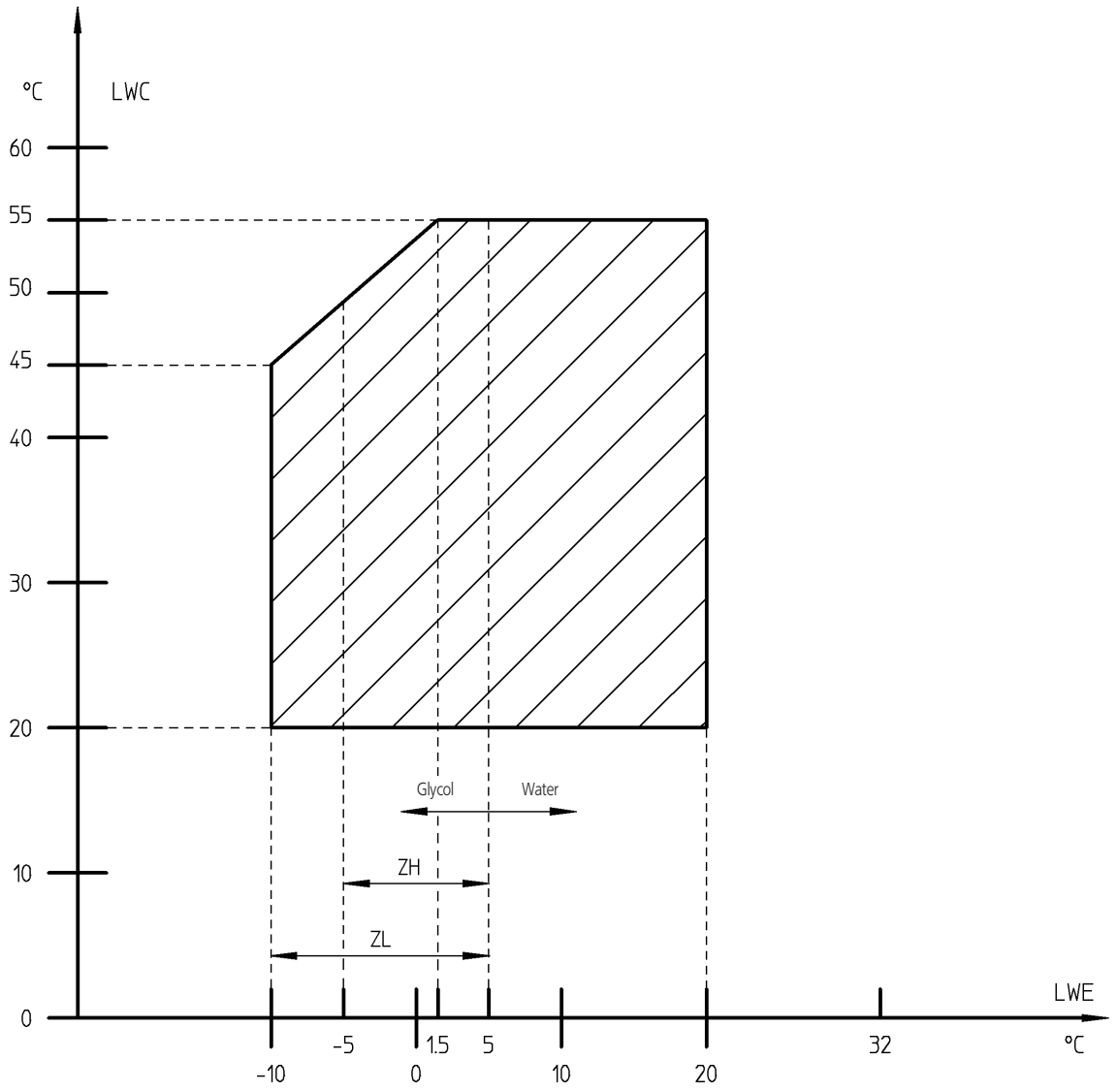
NOTES

Option low noise = -3dBa

10 Operation range

10 - 1 Operation Range

EWWP014-035KBW1N



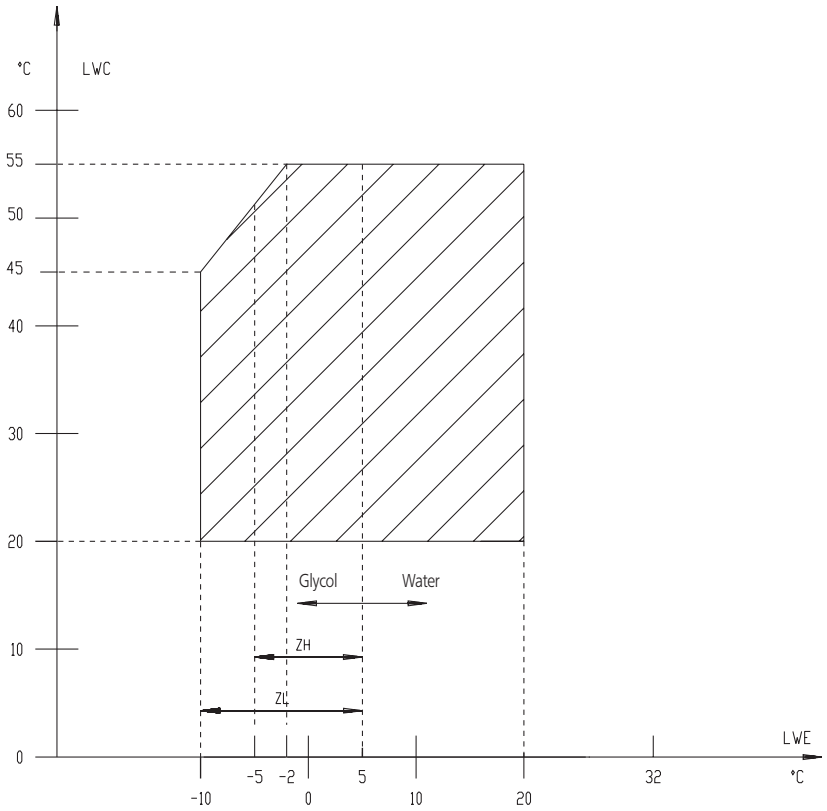
* LWE = Leaving Water Evaporator (°C)
* LWC = Leaving Water Condenser (°C)

4TW57193-1

10 Operation range

10 - 1 Operation Range

EWWP045-065KBW1N
90kW (32hp) - 195kW (72hp)



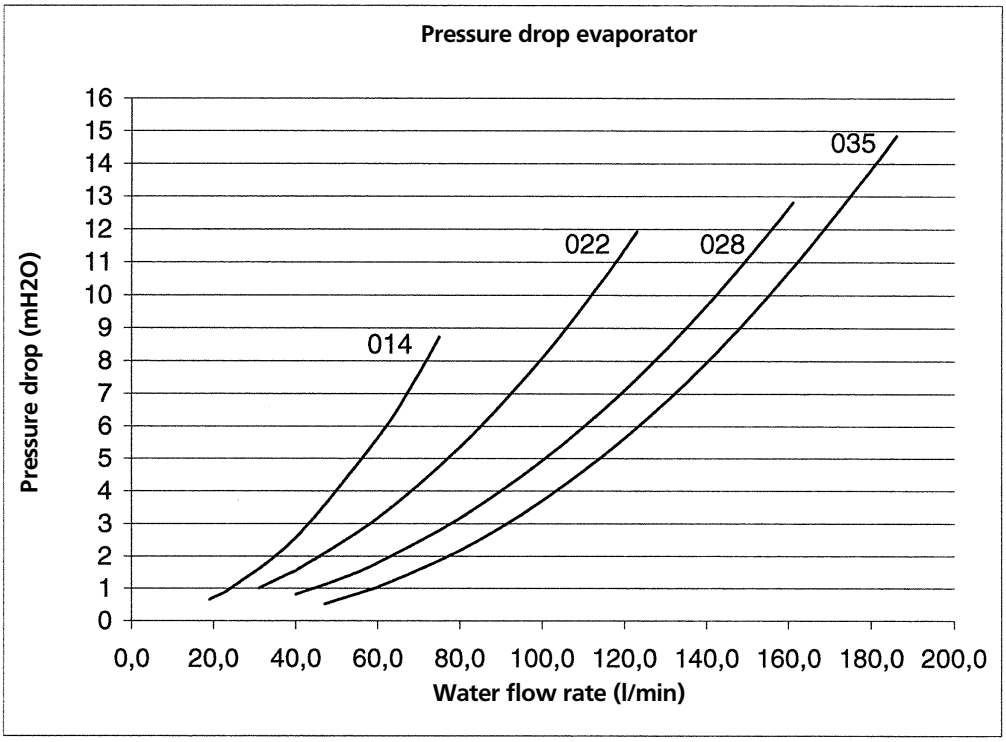
LWE = Leaving Water Evaporator (°C)
LWC = Leaving Water Condenser (°C)

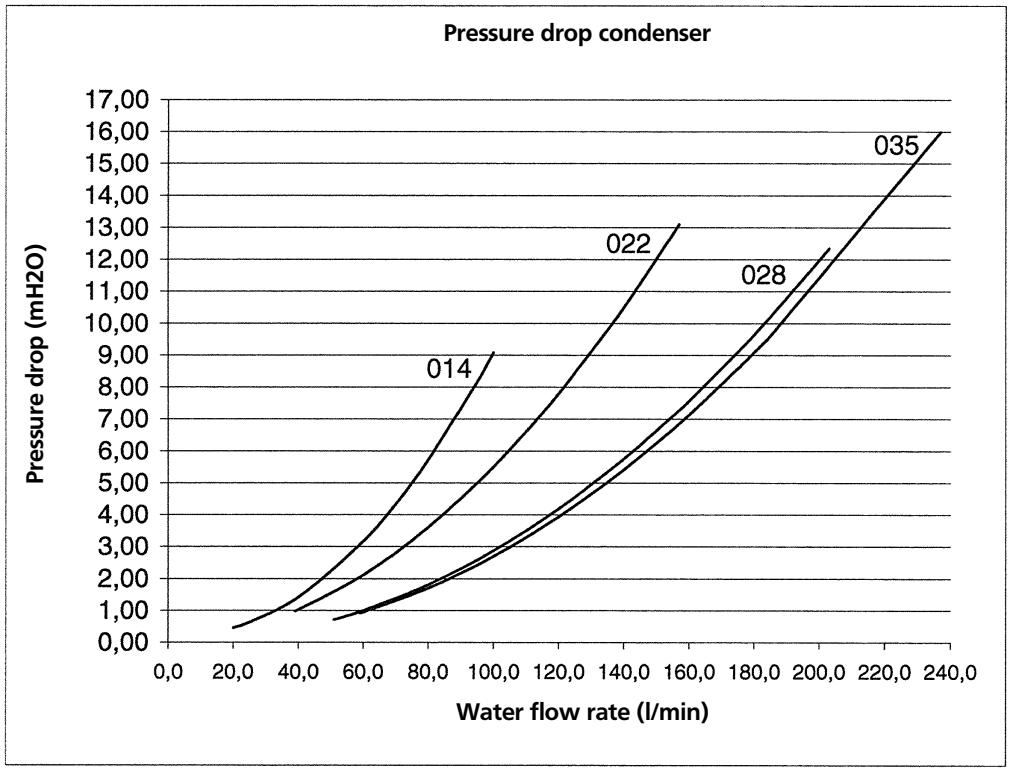
4TW53473-1B

11 Hydraulic performance

11 - 1 Water Pressure Drop Curve Evaporator/Condenser

EWWP014-035KBW1N



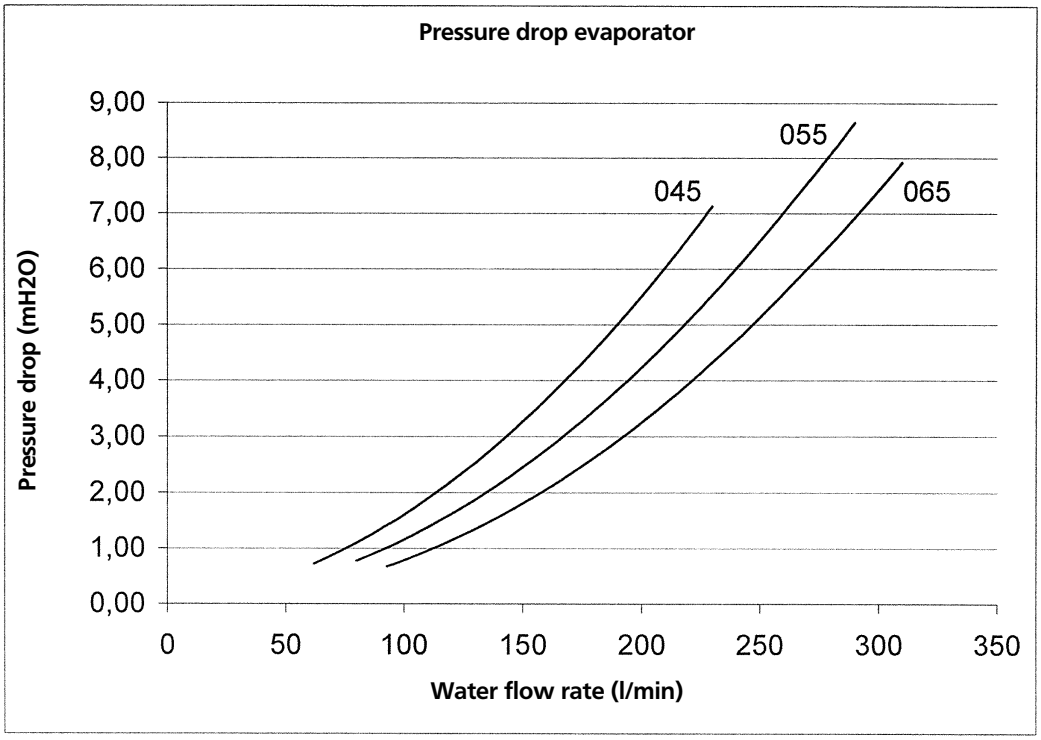


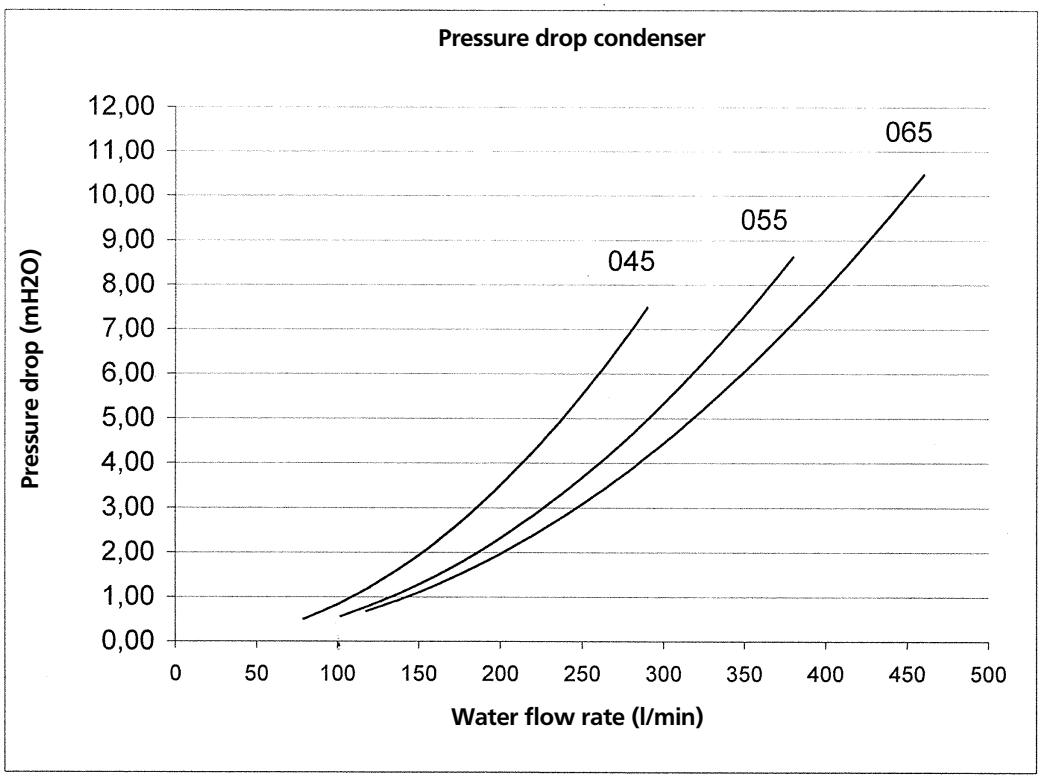
4TW57199-1A

11 Hydraulic performance

11 - 1 Water Pressure Drop Curve Evaporator/Condenser

EWWP045-065KBW1N



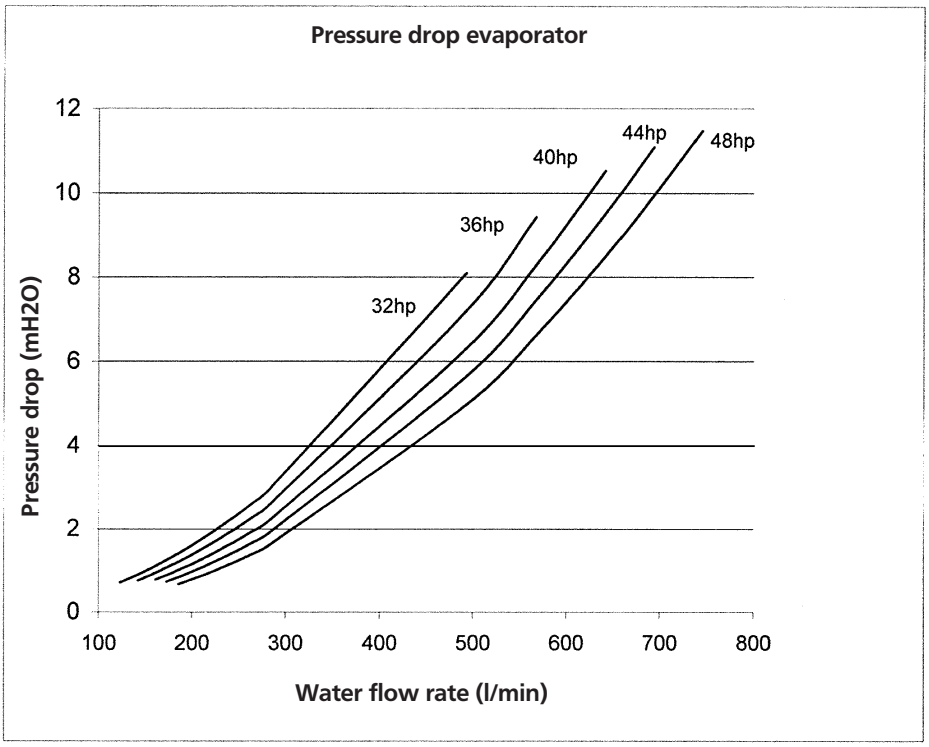


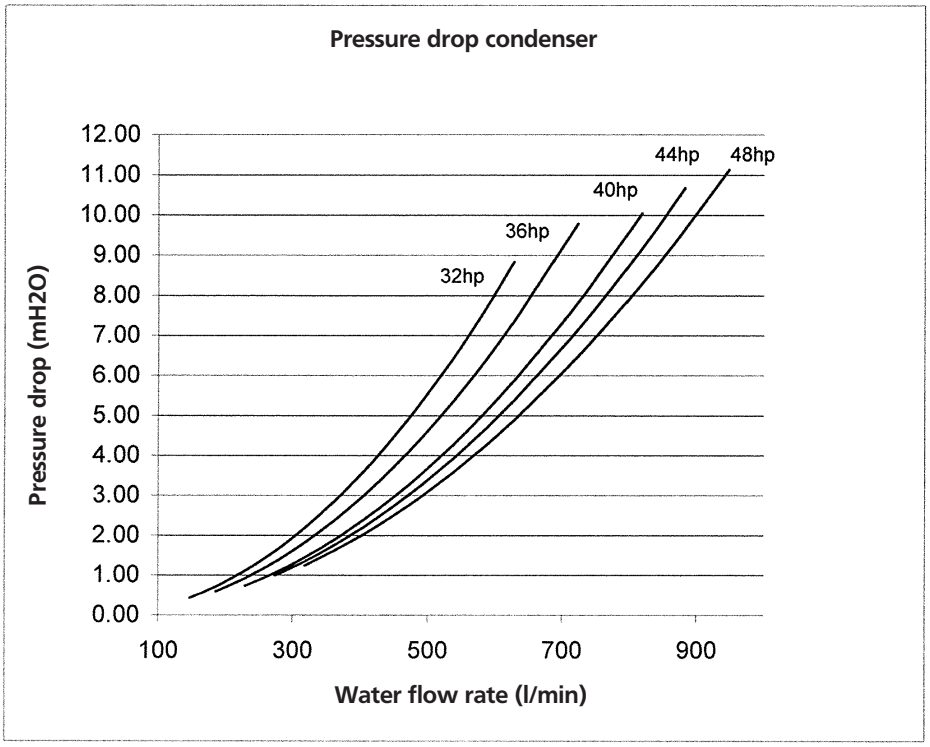
4TW57239-1

11 Hydraulic performance

11 - 1 Water Pressure Drop Curve Evaporator/Condenser

EWWP090-130KBW1N (32-48hp)





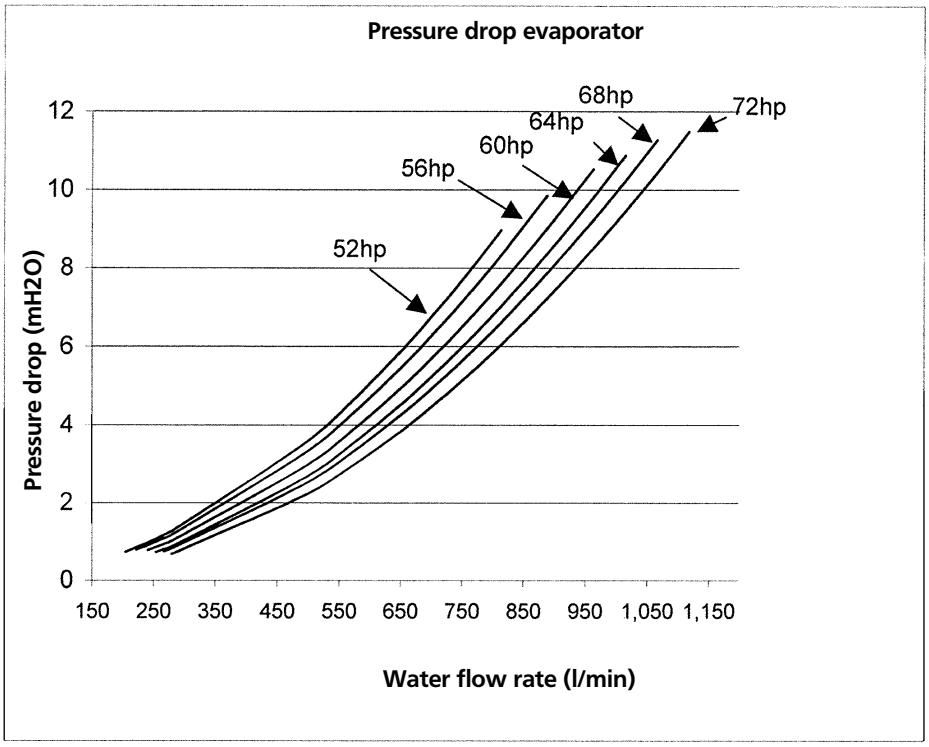
Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

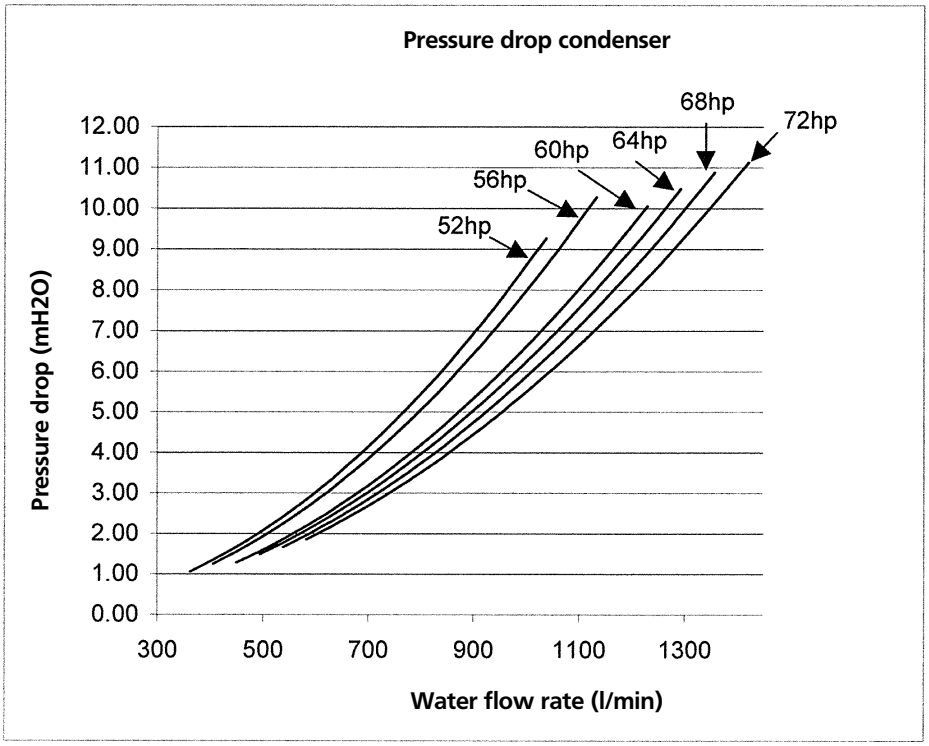
4TW53479-1A

11 Hydraulic performance

11 - 1 Water Pressure Drop Curve Evaporator/Condenser

EWWP145-195KBW1N (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

In all of us, a green heart

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

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