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EUW*40-200KX



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Features



- Daikin single screw compressor
- All components optimised for use with R-134a refrigerant
- Small footprint and modular design
- Electronic DDC controller
- Totally independent twin circuits (models from 120hp upwards)
- Victaulic joints as standard
- Cold and hot side control for cooling and heat pump application
- Voltage free contacts
- Lead-lag switch
- Moisture indicator as standard
- BMS connection possible
- DICN option available

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2 Specifications



NOMINAL CAPACITY, CAPACITY STEPS and NOMINAL INPUT						
UNITS			EUW*40KX	EUW*60KX	EUW*80KX	EUW*100KX
NOMINAL CAPACITY (1)	Cooling	kW	120	190	249	290
	Heating	kW	149	237	313	362
CAPACITY STEPS		%	100-74-48-12 (Start up)		100-74-48-36-12 (Start up)	
NOMINAL INPUT	Cooling	kW	30	48.6	66.1	74
	Heating	kW	35.1	57.2	75.5	87.3

TECHNICAL SPECIFICATIONS							
UNITS				EUW*40KX	EUW*60KX	EUW*80KX	EUW*100KX
DIMENSIONS	Unit	H	mm	1,014	1,014	1,014	1,014
		W	mm	2,672	2,672	2,672	2,672
		D	mm	898	898	898	898
WEIGHT	Machine weight		kg	990	1,320	1,640	1,680
	Operation weight		kg	1,020	1,370	1,710	1,760
MATERIAL				Polyester painted galvanised steel plate			
COLOUR				Ivory white / Munsell code 5Y7.5/1			
SOUND LEVEL (2)	Sound power (standard)		dBa	90	96	96	98
	Sound power (low noise option)		dBa	87	90	90	92
EVAPORATOR	Type			Brased plate heat exchanger, one per circuit			
	Qty x model			1 x AC250Q-NP60	1 x AC250Q-NP96	1 x AC250Q-NP128	1 x AC250Q-NP162
	Minimum water volume in the system (3)		l	1,400	2,100	2,200	2,400
	Water flow range (min./max.)		l/min	172/660	272/1,038	357/1,284	416/1,284
	Insulation material			Polyethylene foam			
CONDENSER	Type			Shell and tube			
	Qty x model		m ²	1 x AS240	1 x AS350	1 x AS80T	1 x AS92T
	Qty x model		l/min	217/800	336/1,050	452/1,233	522/1,367
REFRIGERANT CIRCUIT	Refrigerant type			R-134a			
	Refrigerant charge		kg	20	67	74	70
	No. of circuits			1	1	1	1
	Refrigerant control			Thermostatic expansion valve			
COMPRESSOR	Type			Semi-hermetic single screw			
	Qty x model			1 x ZHA5LLFLYE	1 x ZHA7MLFLYE	1 x ZHA9SLFLYE	1 x ZHA9LLFLYE
	Speed		rpm	2,880	2,880	2,880	2,880
	Refrigerant oil			FVC68D			
	Refrigerant oil charge		l	10 + $\frac{0.5}{0}$	13 + $\frac{0.5}{0}$	18 + $\frac{0.5}{0}$	18 + $\frac{0.5}{0}$
	Crankcase heater		W	150	150	150	150
PIPING CONNECTIONS	Evap. water in/outlet			3" victaulic	3" victaulic	3" victaulic	3" victaulic
	Condenser water in/outlet			2"1/2 victaulic	3" victaulic	3" victaulic	3" victaulic
	Condenser water drain			M6	M6	M6	M6
	Evaporator water drain			Field installation			
	Relief device outlet			1 x 1"	1 x 1"	2 x 1"	2 x 1"
SAFETY DEVICES				Double TÜV approved high pressure switches / Low pressure protection / Pressure relief valve / Compressor motor thermal protector / Compressor motor overcurrent relay / Discharge temperature controller / Freeze up protection / Recycling and guard timer / Digital display controller with electronic temperature control / Reverse phase protector			

2 Specifications



NOMINAL CAPACITY, CAPACITY STEPS and NOMINAL INPUT							
UNITS			EUW*120KX	EUW*140KX	EUW*160KX	EUW*180KX	EUW*200KX
NOMINAL CAPACITY (1)	Cooling	kW	380	439	498	539	580
	Heating	kW	474	551	626	675	724
CAPACITY STEPS		%	100-88-76-63-50-38-25-12 (Start up)	100-88-76-63-50-38-25-12 (Start up)	100-87-74-68-50-37-24-18-12 (Start up)		
NOMINAL INPUT	Cooling	kW	97.2	115	132	140	148
	Heating	kW	114	133	151	163	175

TECHNICAL SPECIFICATIONS								
UNITS				EUW*120KX	EUW*140KX	EUW*160KX	EUW*180KX	EUW*200KX
DIMENSIONS	Unit	H	mm	2,000	2,000	2,000	2,000	2,000
		W	mm	2,672	2,672	2,672	2,672	2,672
		D	mm	898	898	898	898	898
WEIGHT	Machine weight		kg	2,640	2,960	3,280	3,320	3,360
	Operation weight		kg	2,740	3,080	3,420	3,470	3,520
MATERIAL				Polyester painted galvanised steel plate				
COLOUR				Ivory white / Munsell code 5Y7.5/1				
SOUND LEVEL (2)	Sound power (standard)		dBa	99	99	99	100	101
	Sound power (low noise option)		dBa	93	93	93	94	95
EVAPORATOR	Type			Brased plate heat exchanger, one per circuit				
	Qty x model			2xAC250Q-NP96	AC250Q-NP128+ AC250Q-NP96	2 x AC250Q-NP128	AC250Q-NP162+ AC250Q-NP128	2 x AC250Q-NP162
	Minimum water volume in the system (3)		l	2,100	2,100	2,200	2,200	2,400
	Water flow range (min./max.)		l/min	544/2,076	692/2,322	714/2,568	773/2,568	832/2,568
	Insulation material			Polyethylene foam				
CONDENSER	Type			Shell and tube				
	Qty x model		m²	2 x AS350	AS80T+AS350	2 x AS80T	AS92T + AS80T	2 x AS92T
	Water flow range		l/min	672/2,100	788/2,283	904/2,466	974/2,600	1,044/2,734
REFRIGERANT CIRCUIT	Refrigerant type			R-134a				
	Refrigerant charge		kg	2 x 67	67+74	2 x 74	74 + 70	2 x 70
	No. of circuits			2	2	2	2	2
	Refrigerant control			Thermostatic expansion valve				
COMPRESSOR	Type			Semi-hermetic single screw				
	Qty x model			2 x ZHA7MLFLYE	ZHA9SLYE+ ZHA7MLFLYE	2 x ZHA9SLFLYE	ZHA9LLFLYE+ ZHA9SLFLYE	2 x ZHA9LLFLYE
	Speed		rpm	2,880	2,880	2,880	2,880	2,880
	Refrigerant oil			FVC68D				
	Refrigerant oil charge		l	2 x 13 + 0.5 0	13 & 18 + 0.5 0	2 x 18 + 0.5 0	2 x 18 + 0.5 0	2 x 18 + 0.5 0
	Crankcase heater		W	2 x 150	2 x 150	2 x 150	2 x 150	2 x 150
PIPING CONNECTIONS	Evap. water in/outlet			3" victaulic	3" victaulic	3" victaulic	3" victaulic	3" victaulic
	Condenser water in/outlet			3" victaulic	3" victaulic	3" victaulic	3" victaulic	3" victaulic
	Condenser water drain			M6	M6	M6	M6	M6
	Evaporator water drain			Field installation				
	Relief device outlet			2 x 1"	3 x 1"	4 x 1"	4 x 1"	4 X 1"
SAFETY DEVICES				Double TÜV approved high pressure switches / Low pressure protection / Pressure relief valve / Compressor motor thermal protector / Compressor motor overcurrent relay / Discharge temperature controller / Freeze up protection / Recycling and guard timer / Digital display controller with electronic temperature control / Reverse phase protector				

2 Specifications



ELECTRICAL SPECIFICATIONS											
UNITS			EUW*40KX		EUW*60KX		EUW*80KX		EUW*100KX		
POWER SUPPLY			Y1	T1	Y1	T1	Y1	T1	Y1	T1	
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		3~	3~	3~	3~	3~	3~	3~	3~	
	Frequency	Hz	50		50		50		50		
	Voltage	V	400	230	400	230	400	230	400	230	
	Voltage tolerance	%	± 10%		± 10%		± 10%		± 10%		
UNIT	Starting current		A	172	298	250	433	177	307	254	440
	Nominal running current		A	62	107	99	171	112	194	130	225
	Maximum running current		A	87	151	133	230	210	294	242	419
	Recommended fuses according to IEC standard 269-2		aM	3x100gL/gG	3x160gL/gG	3x160gL/gG	3x250gL/gG	3x224gL/gG	3x355gL/gG	3x250gL/gG	3x425gL/gG
COMPRESSOR	Phase		3~		3~		3~		3~		
	Voltage	V	400	230	400	230	400	230	400	230	
	Starting current		A	172	298	250	433	177	307	254	440
	Nominal running current		A	62	107	99	171	112	194	130	225
	Maximum running current		A	87	151	133	230	210	294	242	419
	Starting method		Star-delta								
CONTROL CIRCUIT	Phase		1~		1~		1~		1~		
	Voltage	V	230		230		230		230		
	Recommended fuses		aM	Factory installed							

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2 Specifications



ELECTRICAL SPECIFICATIONS													
UNITS			EUW*120KX		EUW*140KX		EUW*160KX		EUW*180KX		EUW*200KX		
POWER SUPPLY			Y1	T1	Y1	T1	Y1	T1	Y1	T1	Y1	T1	
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		3~	3~	3~	3~	3~	3~	3~	3~	3~	3~	
	Frequency	Hz	50		50		50		50		50		
	Voltage	V	400	230	400	230	400	230	400	230	400	230	
	Voltage tolerance	%	±10		±10		± 10		± 10		± 10		
UNIT	Nominal running current		A	198	343	211	365	224	388	242	419	260	450
	Starting current		A	250	433	177+250	307+433	177	307	254	440	254	440
	Maximum running current		A	266	460	343	524	420	588	452	714	484	838
	Recommended fuses according to IEC standard 269-2		aM	2x3160µA/gG	2x3300µA/gG	1x3160µA/gG & 1x3224µA/gG	1x3300µA/gG & 1x3400µA/gG	2x3224µA/gG	2x3400µA/gG	1x3224µA/gG & 1x3250µA/gG	1x3500µA/gG & 1x3400µA/gG	2x3250µA/gG	2x3500µA/gG
COMPRESSOR	Phase		3~	3~	3~	3~	3~	3~	3~	3~	3~	3~	
	Voltage	V	400	230	400	230	400	230	400	230	400	230	
	Starting current		A	250	433	177	307	177	304	254	440	254	440
	Nominal running current		A	99	171	112	194	112	194	130	225	130	225
	Maximum running current		A	133	230	210	294	210	294	242	419	242	419
	Starting method		Star-delta										
CONTROL CIRCUIT	Phase		1~		1~		1~		1~		1~		
	Voltage	V	230		230		230		230		230		
	Recommended fuses		aM	Factory installed									

NOTES

- Nominal cooling capacities are based on the following conditions:
Evaporator: 12°C/7°C; condenser: 30°C/35°C
Nominal heating capacities are based on the following conditions:
Evaporator: 12°C/7°C; condenser: 40°C/45°C
- The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment. The sound power level is an absolute value indicating the "power" which a sound source generates.
- Min. water volume system applicable at nominal conditions

3 Capacity tables

3-1 Cooling / heating capacities for air conditioning applications



LEAVING WATER CONDENSER		20			25			30			35		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI	CC	HC	PI
4	40	111	131	20.7	109	132	23.4	107	132	26.2	104	132	28.9
	60	182	219	37.7	181	220	40.3	177	219	43.3	169	214	46.9
	80	260	312	53.6	247	301	55.9	234	291	59.1	221	282	62.8
	100	304	362	59.5	288	348	62	272	336	65.7	257	326	70.7
	120	364	437	75.4	362	440	80.6	354	438	86.6	338	429	93.8
	140	442	531	91.3	428	521	96.2	411	510	102	390	497	110
	160	520	624	107	494	603	112	468	582	118	442	564	126
	180	564	674	113	535	649	118	506	627	125	478	607	133
	200	608	723	119	576	696	124	544	671	131	514	651	141
7	40	130	152	22.5	128	152	25	124	151	27.5	120	149	30
	60	202	240	39.6	201	242	42.1	197	241	45.1	190	237	48.6
	80	290	346	57.6	276	334	59.6	262	322	62.3	249	313	66.1
	100	337	398	62.8	321	385	65.5	306	373	69.2	290	362	74
	120	404	481	79.2	402	484	84.2	394	481	90.2	380	474	97.2
	140	492	586	97.2	477	576	102	459	563	107	439	551	115
	160	580	692	115	552	667	119	524	645	125	498	626	132
	180	627	744	121	597	718	125	568	696	132	539	675	140
	200	674	796	126	642	769	131	612	746	138	580	724	148
10	40	149	173	25.2	146	172	27.3	141	170	29.5	136	167	31.7
	60	218	259	42.4	216	259	44.8	212	258	47.7	205	255	51.1
	80	320	380	62.2	305	367	64.2	291	356	66.7	276	344	70.1
	100	371	436	66.5	355	422	69.3	339	410	73	323	399	78
	120	436	518	84.8	432	519	89.6	424	517	95.4	410	509	102
	140	538	640	105	521	627	109	503	614	114	481	598	121
	160	640	760	124	610	734	128	582	711	133	552	688	140
	180	691	816	129	660	789	133	630	766	140	599	743	148
	200	742	871	133	710	845	139	678	820	146	646	797	156
16	40	188	216	28.9	182	212	30.5	175	206	32.2	167	200	33.9
	60	259	304	46.3	256	303	48.5	252	302	51.3	246	299	54.6
	80	380	451	73.2	364	436	74	348	421	75.7	331	407	78.6
	100	439	511	74.2	422	497	77.5	405	484	81.7	389	473	86.3
	120	519	609	92.6	512	606	97	503	603	103	492	598	109
	140	639	755	120	620	739	123	600	723	127	577	706	133
	160	760	902	146	728	872	148	696	842	151	662	814	157
	180	819	962	147	786	933	152	753	905	157	720	880	165
	200	878	1022	148	844	994	155	810	968	163	778	946	173

SYMBOLS

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

NOTES

- Cooling capacity (CAP)**
CAP = Cooling capacity from table (kW)
Capacity is for chilled water range Dt = 2~5°C
- Power input (PC)**
PI = Power input from table (kW)
Power input is total input kW: compressor + control circuit + pumps (kW)
- Water flow rate (WFR)**
 $WFR = (860 \times CAP) / (60 \times Dt)$ (l/min)
CAP = From above calculation
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 $(WFR \times Dp) / 0.3$ as fixed by 6/C/003 (Dp = pressure drop from pressure drop curves). This is for cooled and cooling water.
- Heating capacity has been calculated as follows:
 $CC + PI \times 0.97$

3 Capacity tables

3-1 Cooling / heating capacities for air conditioning applications



LEAVING WATER CONDENSER		40			45			50		
LWE	MODEL	CC	HC	PI	CC	HC	PI	CC	HC	PI
4	40	100	131	31.6	95	128	34.4	89	125	37.1
	60	159	208	51	145	199	55.7	128	187	60.8
	80	208	274	67.6	195	266	73	182	259	79.1
	100	241	315	76.8	226	308	84.2	210	300	92.8
	120	318	417	102	290	398	111	256	374	122
	140	367	482	119	340	465	129	310	446	140
	160	416	547	135	390	532	146	364	517	158
	180	449	589	144	421	573	157	392	559	172
	200	482	631	154	452	615	168	420	600	186
7	40	115	147	32.6	109	143	35.1	102	138	37.6
	60	180	231	52.7	167	222	57.2	152	212	62.3
	80	235	303	70.2	221	294	75.5	207	286	81.5
	100	274	352	80	258	343	87.3	242	335	95.8
	120	360	462	105	334	445	114	304	425	125
	140	415	534	123	388	517	133	359	499	144
	160	470	606	140	442	588	151	414	572	163
	180	509	655	150	479	637	163	449	621	177
	200	548	703	160	516	686	175	484	670	192
10	40	130	163	33.8	123	158	36	115	152	38.2
	60	197	250	55.1	186	244	59.5	173	236	64.5
	80	262	334	74.5	247	324	79.2	232	314	84.9
	100	307	388	83.8	291	379	91	275	371	99
	120	394	501	110	372	487	119	346	471	129
	140	459	585	130	433	568	139	405	550	149
	160	524	669	149	494	647	158	464	629	170
	180	569	725	161	538	703	170	507	685	184
	200	614	777	168	582	759	182	550	742	198
16	40	159	194	35.6	150	186	37.4	141	179	39.1
	60	239	296	58.4	231	292	62.8	221	287	67.6
	80	315	395	82.2	299	383	86.4	283	372	92.1
	100	372	461	92.2	356	452	98.8	339	442	106
	120	477	590	117	461	583	126	442	573	135
	140	554	691	141	530	675	149	504	659	160
	160	630	789	164	598	766	173	566	744	184
	180	687	856	174	655	826	176	622	814	198
	200	744	922	184	712	904	198	678	884	212

SYMBOLS

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

NOTES

- Cooling capacity (CAP)**
CAP = Cooling capacity from table (kW)
Capacity is for chilled water range Dt = 2~5°C
- Power input (PC)**
PI = Power input from table (kW)
Power input is total input kW: compressor + control circuit + pumps (kW)
- Water flow rate (WFR)**
 $WFR = (860 \times CAP) / (60 \times Dt)$ (l/min)
CAP = From above calculation
Dt = 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 $(WFR \times Dp) / 0.3$ as fixed by 6/C/003 (Dp = pressure drop from pressure drop curves). This is for cooled and cooling water.
- Heating capacity has been calculated as follows:
CC + PI x 0.97

3 Capacity tables

3-2 Cooling capacities with glycol for process cooling application



LEAVING WATER CONDENSER		20		25		30		35		40		45		50	
LWE	MODEL	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
-10	40	55.0	13.1	54.8	16.8	54.6	20.5	54.6	24.2	53.3	28.0	-	-	-	-
	60	97.0	31.0	96.9	33.8	94.3	37.2	89.2	41.0	81.6	45.4	-	-	-	-
	80	119	34.3	110	38.0	101	42.2	92	47.1	83	52.7	-	-	-	-
	100	146	45.7	132	47.0	117	50.3	103	55.0	88	61.7	-	-	-	-
	120	194	62.0	194	67.6	189	74.4	178	82.0	163	90.8	-	-	-	-
	140	216	65.3	207	71.8	195	79.4	181	88.1	165	98.1	-	-	-	-
	160	238	68.6	220	76.0	202	84.4	184	94.2	166	105	-	-	-	-
	180	265	80.0	242	85.0	218	92.5	195	102	171	115	-	-	-	-
	200	292	91.4	264	94.0	234	101	206	110	176	123	-	-	-	-
-5	40	71.0	15.7	70.8	19.0	70.7	22.4	69.8	25.8	67.7	29.2	64.5	32.6	-	-
	60	123	33.0	123	35.7	119	39.0	114	42.8	105	47.0	93.3	51.9	-	-
	80	170	40.8	159	44.0	149	47.6	138	52.5	128	58.0	117	63.9	-	-
	100	202	50.2	187	52.0	173	55.3	158	60.3	143	66.8	128	74.7	-	-
	120	246	66.0	246	71.4	238	78.0	228	85.6	210	94.0	187	104	-	-
	140	293	73.8	282	79.7	268	86.6	252	95.3	233	105	210	116	-	-
	160	340	81.6	318	88.0	298	95.2	276	105	256	116	234	128	-	-
	180	372	91.0	346	96.0	322	103	296	113	271	125	245	138	-	-
	200	404	100	374	104	346	111	316	121	286	134	256	149	-	-
-2	40	82.8	17.3	82.3	20.4	81.8	23.6	80.2	26.8	77.5	30.0	73.8	33.2	69.0	36.3
	60	140	34.4	140	37.1	137	40.3	130	44.0	121	48.2	109	53.0	93.4	58.3
	80	200	45.0	188	47.8	177	51.5	166	55.8	155	60.8	143	66.7	132	73.2
	100	236	53.2	221	55.3	206	58.8	191	63.7	176	70.0	161	77.8	145	86.8
	120	280	68.8	280	74.2	274	80.6	260	88.0	242	96.4	218	106	187	117
	140	340	79.4	328	84.9	314	91.8	296	99.8	276	109	252	120	225	132
	160	400	90.0	376	95.6	354	103	332	112	310	122	286	133	264	146
	180	436	98.2	409	99.1	383	110	357	119	331	131	304	145	277	160
	200	472	106	442	111	412	117	382	127	352	140	322	156	290	174

SYMBOLS

CC	: Cooling capacity (kW)
PI	: Power input (kW)
LWE	: Leaving Water Evaporator (°C)
LWC	: Leaving water condenser (°C)
-	: Out of range

NOTES

- Cooling capacity (CAP)**
CAP = Cooling capacity from table (kW)
Capacity is for chilled water range Dt = 2~5°C
- Power input (PC)**
PI = Power input from table (kW)
Power input is total input kW: compressor + control circuit + pumps (kW)
- Water flow rate (WFR)**
 $WFR = (860 \times CAP) / (60 \times Dt)$ (l/min)
CAP = From above calculation
Dt = 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 $(WFR \times Dp) / 0.3$ as fixed by 6/C/003 (Dp = pressure drop from pressure drop curves). This is for cooled and cooling water.

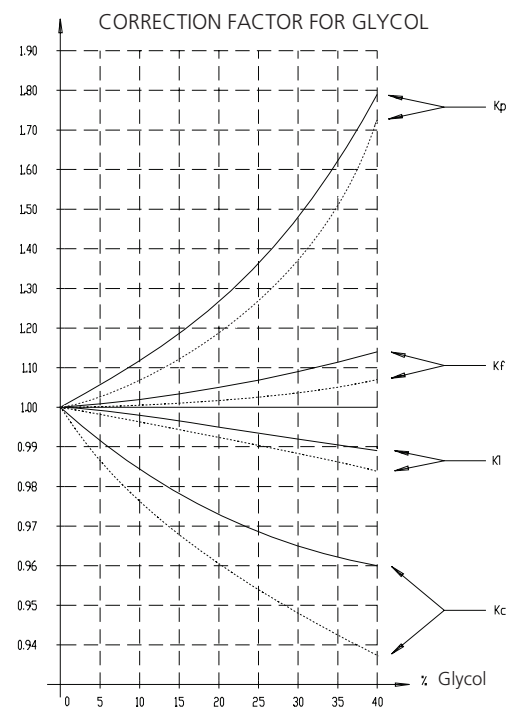
3 Capacity tables

3-2 Cooling capacities with glycol for process cooling application



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

K_c Correction on cooling capacity
 K_d Correction on power input
 K_f Correction on flow rate
 K_p Correction on pressure drop

4TW50689-8

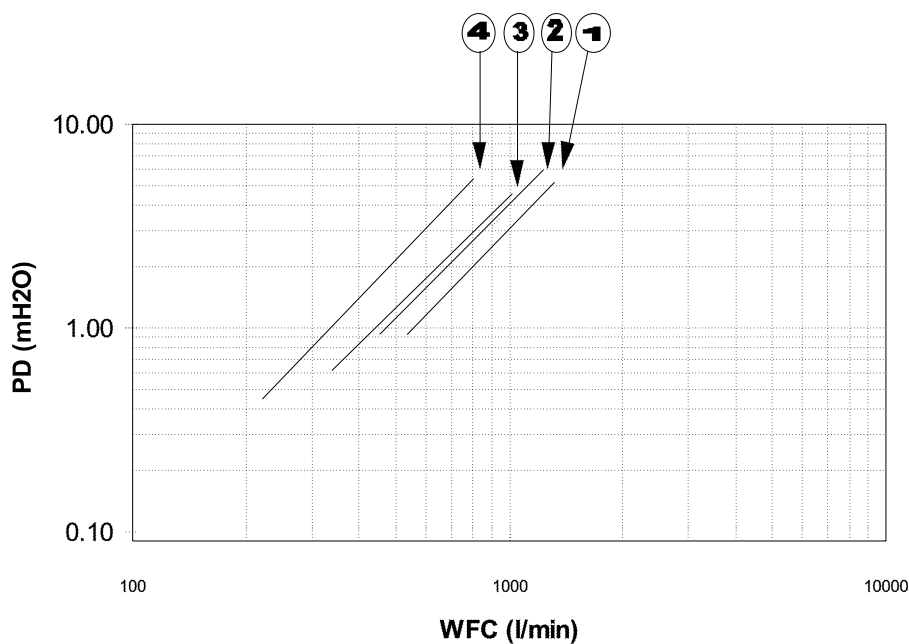


4 Water pressure drop curve

4-1 Pressure drop evaporator / condenser

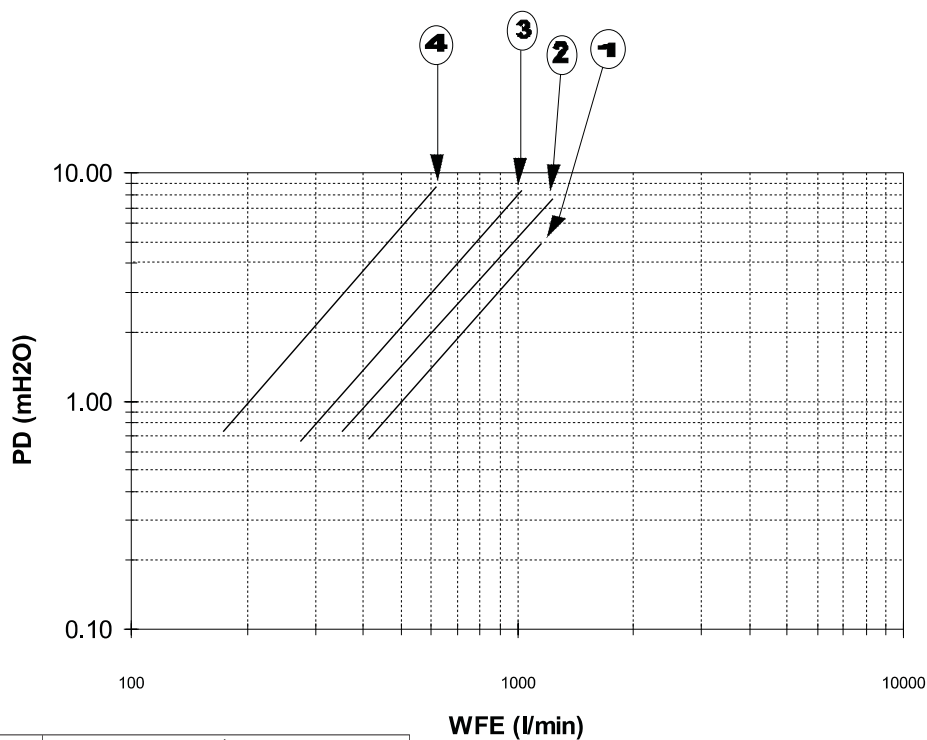
EUW*40-200KX

Pressure drop curve condenser



Sheet 2/2 4TW51569-7B

Pressure drop curve evaporator



Sheet 1/2 4TW51569-7B

Model	Pressure drop curve			
	1	2	3	4
EUW*40KX*	—	—	—	1x
EUW*60KX*	—	—	1x	—
EUW*80KX*	—	1x	—	—
EUW*100KX*	1x	—	—	—
EUW*120KX*	—	—	2x	—
EUW*140KX*	—	1x	1x	—
EUW*160KX*	—	2x	—	—
EUW*180KX*	1x	1x	—	—
EUW*200KX*	2x	—	—	—

SYMBOLS

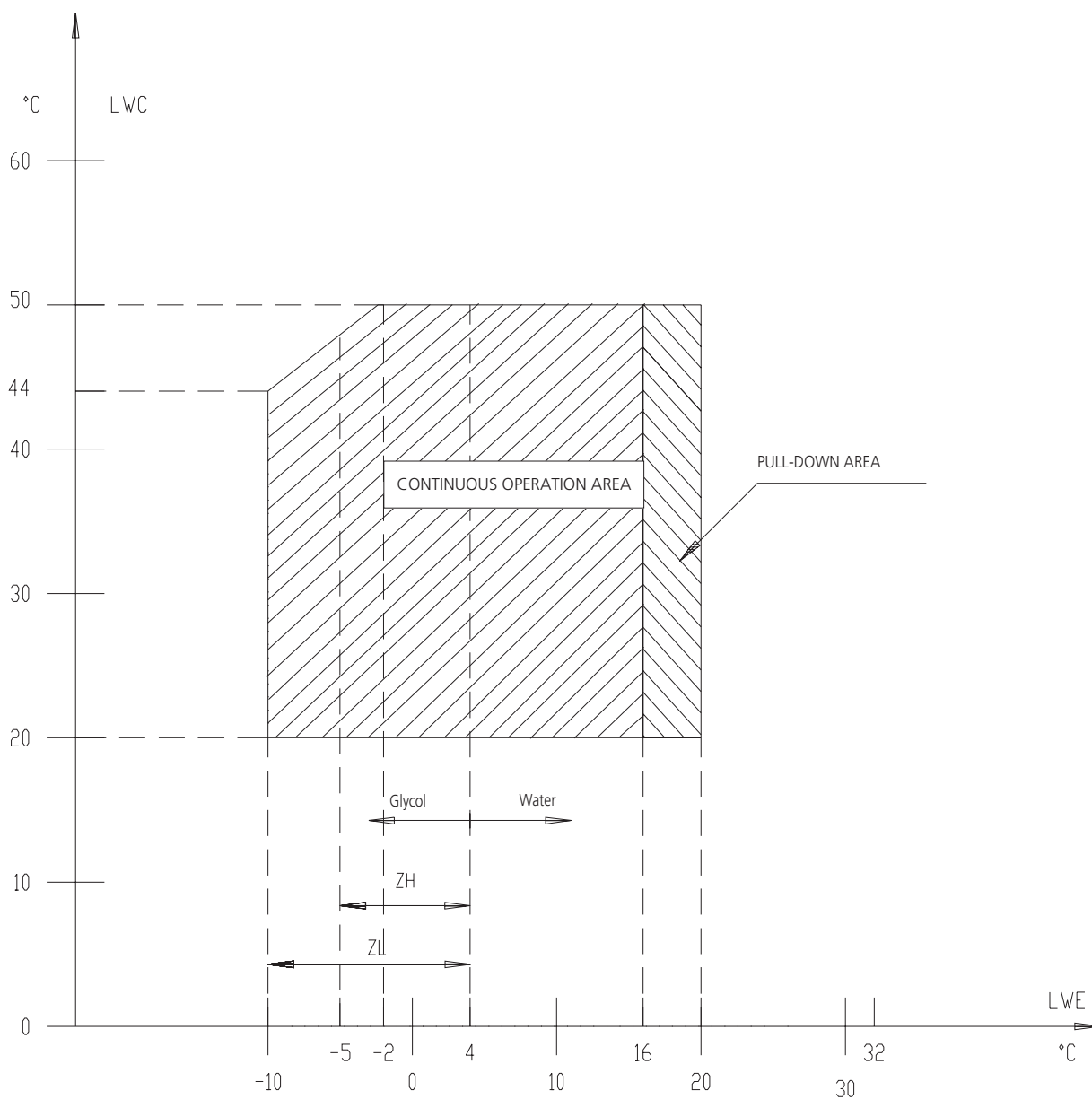
PD: Pressure drop through evaporator
WFE: Evaporator waterflow rate
WFC: Condenser waterflow rate

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.

5 Operation range

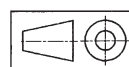


EUW*40-200KX



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

* Same application range is applicable for EUWT/B/K/M/S*KX

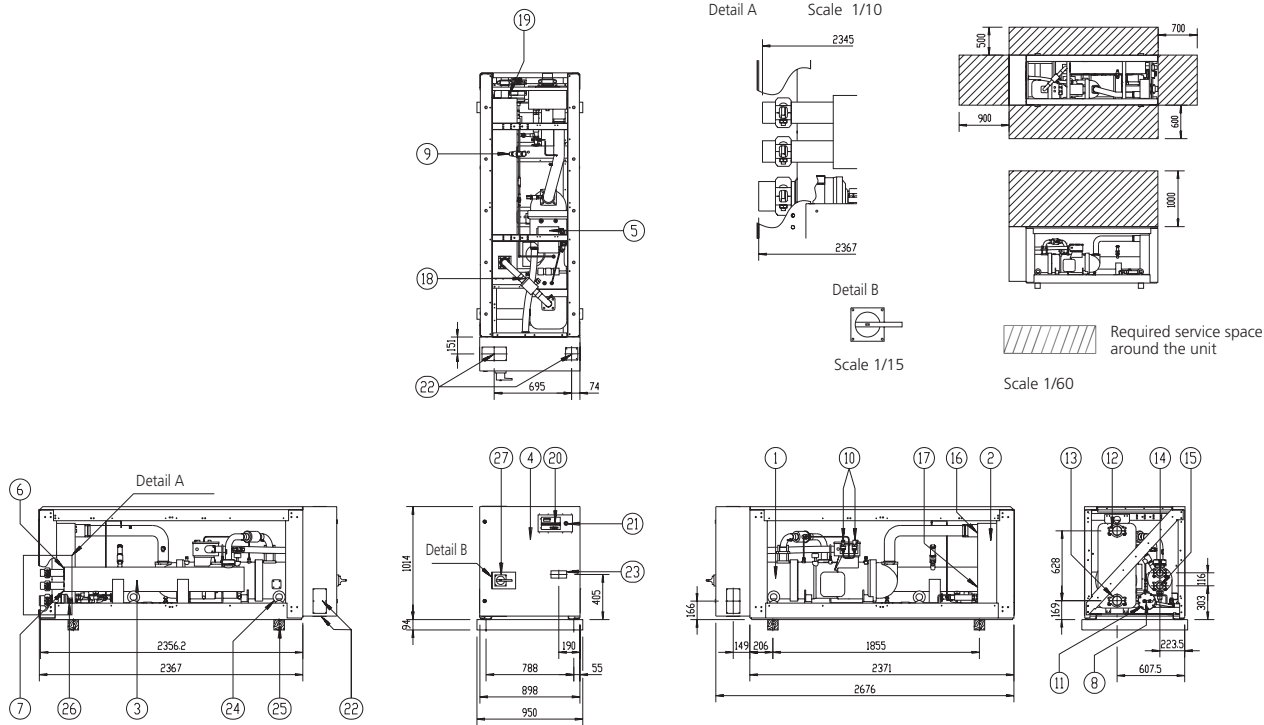


4TW51563-1

6 Dimensional drawings

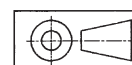


EUW*40KX



- 1 Compressor
- 2 Evaporator
- 3 Condenser
- 4 Switchbox
- 5 Compressor switchbox
- 6 Air purge condenser
- 7 Water drain condenser
- 8 Charge valve
- 9 Safety valves
- 10 High pressure switch
- 11 Drier
- 12 Chilled water in
- 13 Chilled water out
- 14 Condenser water out
- 15 Condenser water in

- 16 Entering water temperature sensor
- 17 Leaving water temperature sensor
- 18 Discharge stop valve
- 19 Condenser entering water temperature sensor
- 20 Digital display control (DDC)
- 21 Emergency stop
- 22 Power supply intake
- 23 Field wiring intake
- 24 Eyebolts for lifting
- 25 Transport beam
- 26 Ballvalve liquid pipe
- 27 Main isolator switch (optional)

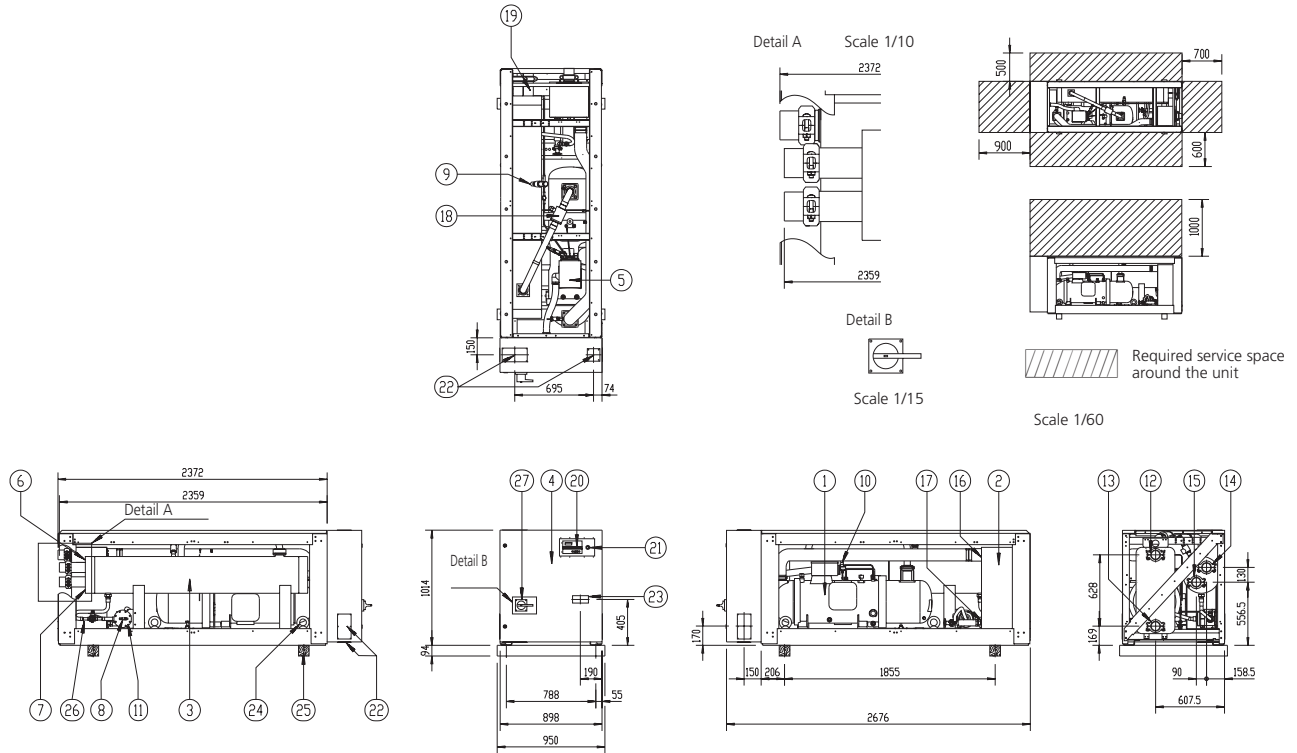


3TW51534-1B

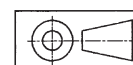
6 Dimensional drawings



EUW*60KX



- | | |
|-------------------------|--|
| 1 Compressor | 16 Entering water temperature sensor |
| 2 Evaporator | 17 Leaving water temperature sensor |
| 3 Condenser | 18 Discharge stop valve |
| 4 Switchbox | 19 Condenser entering water temperature sensor |
| 5 Compressor switchbox | 20 Digital display control (DDC) |
| 6 Air purge condenser | 21 Emergency stop |
| 7 Water drain condenser | 22 Power supply intake |
| 8 Charge valve | 23 Field wiring intake |
| 9 Safety valves | 24 Eyebolts for lifting |
| 10 High pressure switch | 25 Transport beam |
| 11 Drier | 26 Ballvalve liquid pipe |
| 12 Chilled water in | 27 Main isolator switch (optional) |
| 13 Chilled water out | |
| 14 Condenser water out | |
| 15 Condenser water in | |

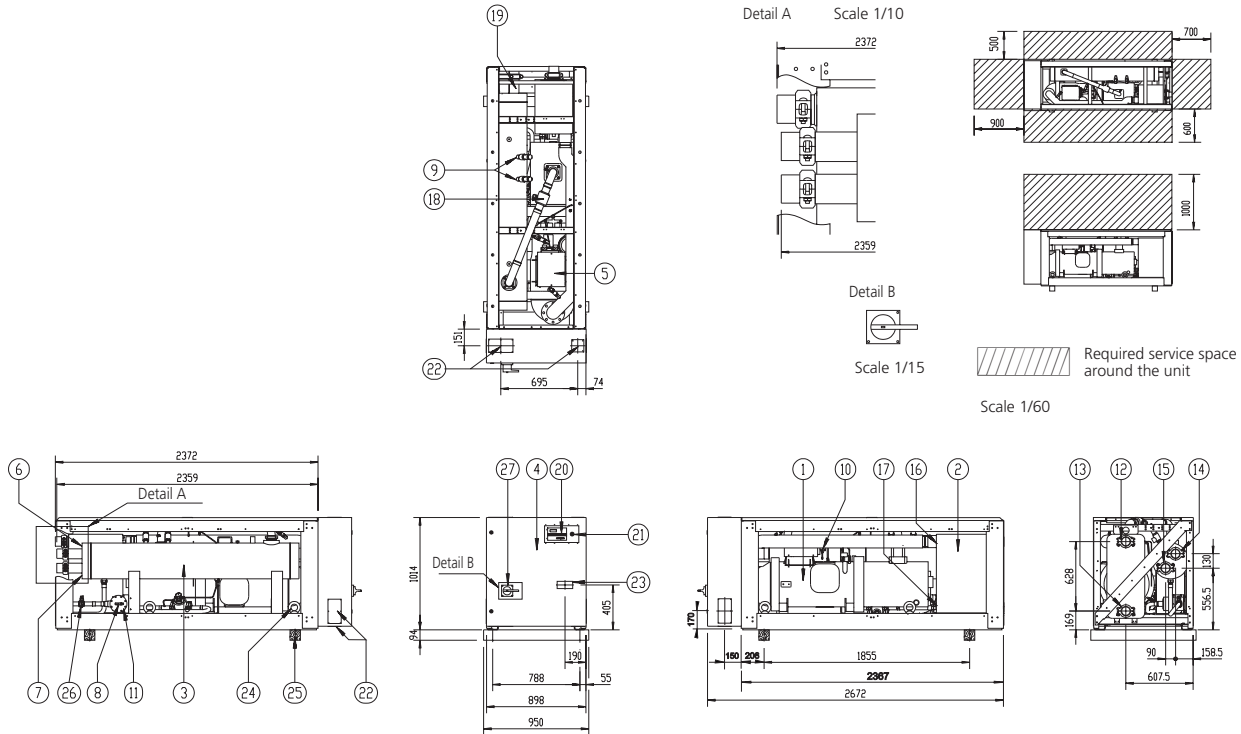


3TW51544-1B

6 Dimensional drawings

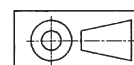


EUW*80-100KX



- 1 Compressor
- 2 Evaporator
- 3 Condenser
- 4 Switchbox
- 5 Compressor switchbox
- 6 Air purge condenser
- 7 Water drain condenser
- 8 Charge valve
- 9 Safety valves
- 10 High pressure switch
- 11 Drier
- 12 Chilled water in
- 13 Chilled water out
- 14 Condenser water out
- 15 Condenser water in

- 16 Entering water temperature sensor
- 17 Leaving water temperature sensor
- 18 Discharge stop valve
- 19 Condenser entering water temperature sensor
- 20 Digital display control (DDC)
- 21 Emergency stop
- 22 Power supply intake
- 23 Field wiring intake
- 24 Eyebolts for lifting
- 25 Transport beam
- 26 Ballvalve liquid pipe
- 27 Main isolator switch (optional)

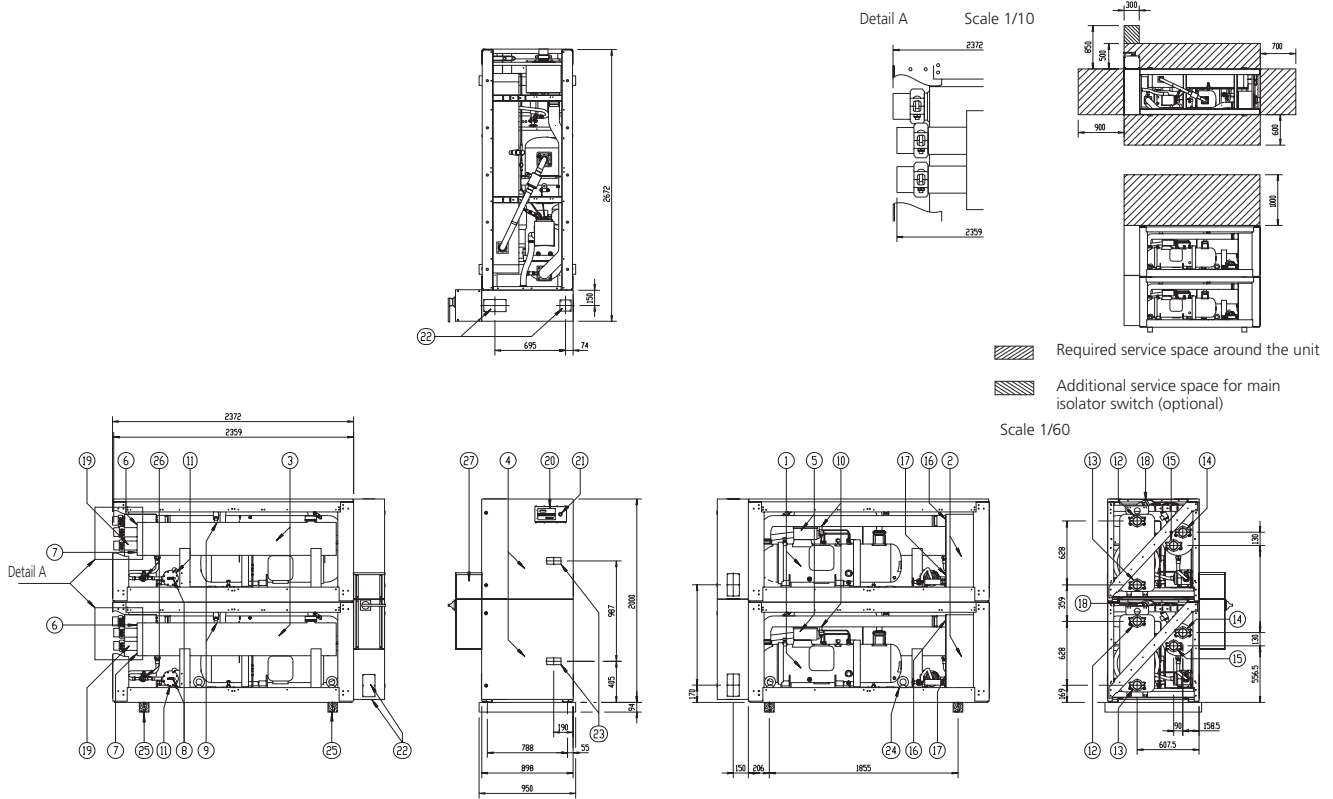


3TW51564-1C

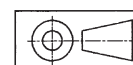
6 Dimensional drawings



EUW*120KX



- | | |
|-------------------------|--|
| 1 Compressor | 16 Entering water temperature sensor |
| 2 Evaporator | 17 Leaving water temperature sensor |
| 3 Condenser | 18 Discharge stop valve |
| 4 Switchbox | 19 Condenser entering water temperature sensor |
| 5 Compressor switchbox | 20 Digital display control (DDC) |
| 6 Air purge condenser | 21 Emergency stop |
| 7 Water drain condenser | 22 Power supply intake |
| 8 Charge valve | 23 Field wiring intake |
| 9 Safety valves | 24 Eyebolts for lifting |
| 10 High pressure switch | 25 Transport beam |
| 11 Drier | 26 Ballvalve liquid pipe |
| 12 Chilled water in | |
| 13 Chilled water out | |
| 14 Condenser water out | |
| 15 Condenser water in | |

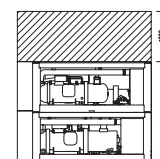
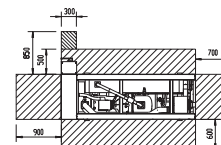
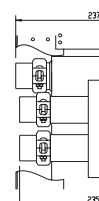
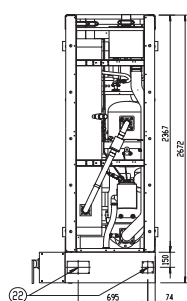



2TW51574-1B

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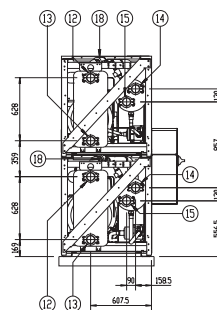
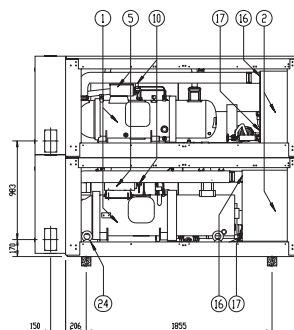
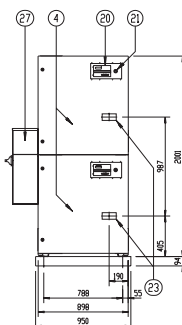
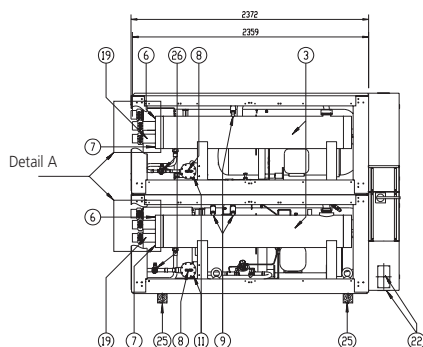
6

Detail A Scale 1/10

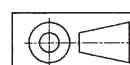


 Additional service space for main isolator switch (optional)

Scale 1/60



- | | | | |
|----|-----------------------|----|---|
| 1 | Compressor | 16 | Entering water temperature sensor |
| 2 | Evaporator | 17 | Leaving water temperature sensor |
| 3 | Condenser | 18 | Discharge stop valve |
| 4 | Switchbox | 19 | Condenser entering water temperature sensor |
| 5 | Compressor switchbox | 20 | Digital display control (DDC) |
| 6 | Air purge condenser | 21 | Emergency stop |
| 7 | Water drain condenser | 22 | Power supply intake |
| 8 | Charge valve | 23 | Field wiring intake |
| 9 | Safety valves | 24 | Eyebolts for lifting |
| 10 | High pressure switch | 25 | Transport beam |
| 11 | Drier | 26 | Ballvalve liquid pipe |
| 12 | Chilled water in | | |
| 13 | Chilled water out | | |
| 14 | Condenser water out | | |
| 15 | Condenser water in | | |

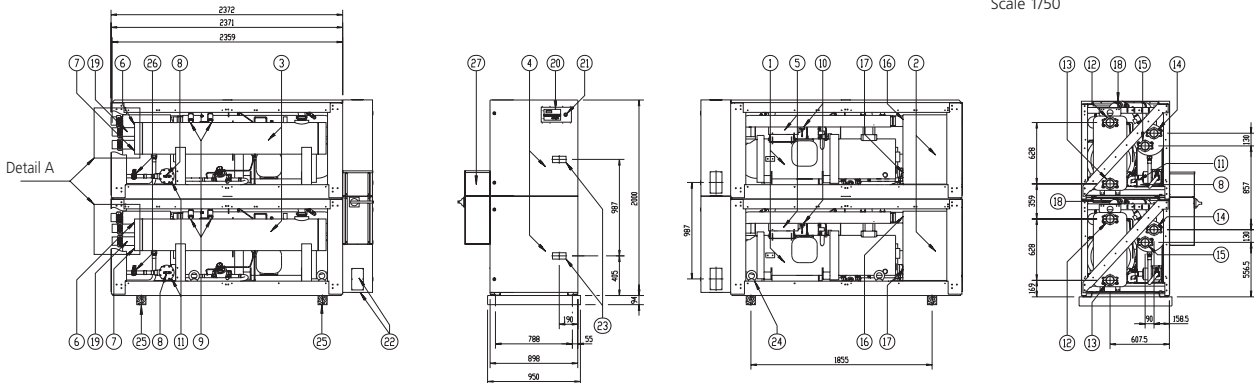
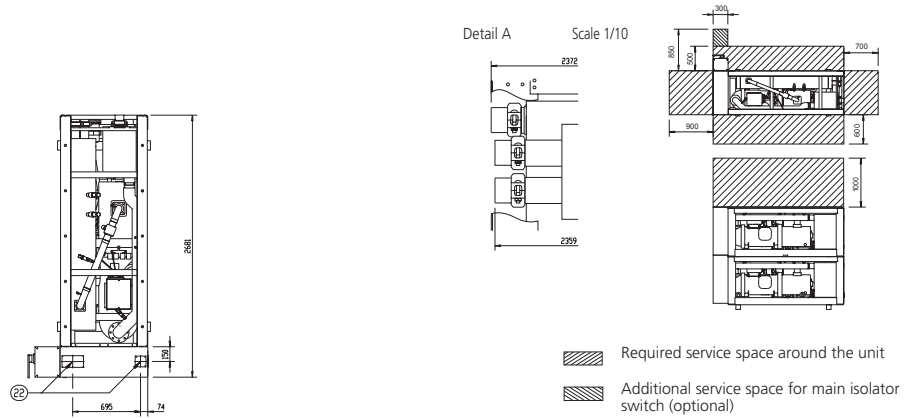


2TW51584-1B

6 Dimensional drawings

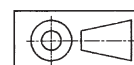


EUW*160-200KX



- 1 Compressor
- 2 Evaporator
- 3 Condenser
- 4 Switchbox
- 5 Compressor switchbox
- 6 Air purge condenser
- 7 Water drain condenser
- 8 Charge valve
- 9 Safety valves
- 10 High pressure switch
- 11 Drier
- 12 Chilled water in
- 13 Chilled water out
- 14 Condenser water out
- 15 Condenser water in

- 16 Entering water temperature sensor
- 17 Leaving water temperature sensor
- 18 Discharge stop valve
- 19 Condenser entering water temperature sensor
- 20 Digital display control (DDC)
- 21 Emergency stop
- 22 Power supply intake
- 23 Field wiring intake
- 24 Eyebolts for lifting
- 25 Transport beam
- 26 Ballvalve liquid pipe
- 27 Main isolator switch (optional)

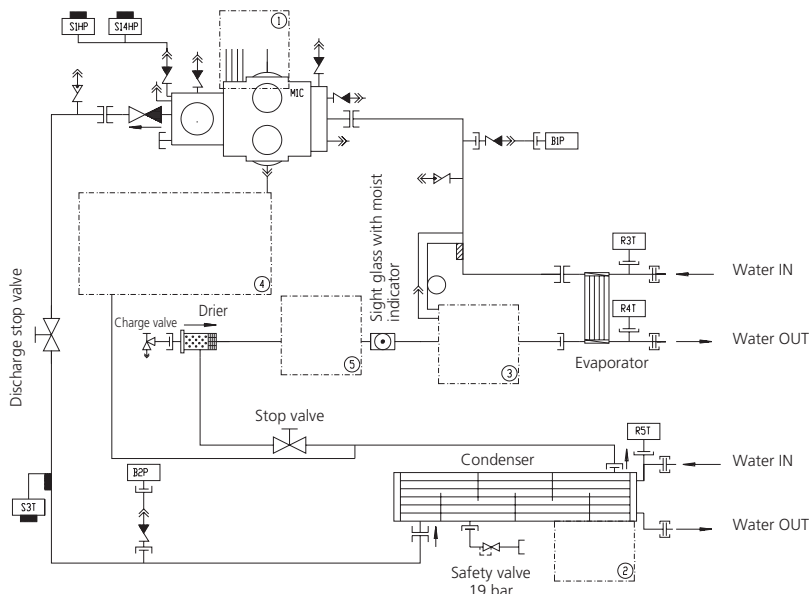
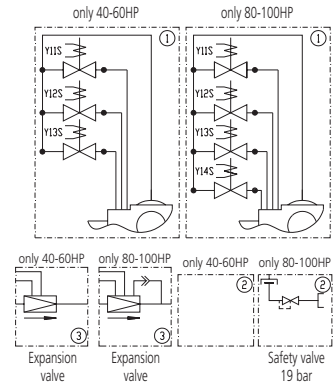
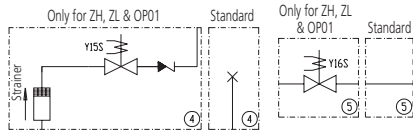


2TW51614-1C

7 Piping diagrams

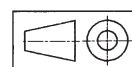


EUW*40-100KX



- M1C Compressor motor 1
- S1HP High pressure switch
- S14HP High pressure switch
- S3T Discharge temperature controller
- R3T Inlet water evap. temp. sensor
- R4T Outlet water evap. temp. sensor
- R5T Inlet water cond. temp. sensor
- B1P Low pressure transmitter
- B2P High pressure transmitter
- Y11S Unloader solenoid valve
- Y12S Unloader solenoid valve
- Y13S Unloader solenoid valve
- Y14S Unloader solenoid valve
- Y15S Liquid injection solenoid valve
- Y16S Liquid line solenoid valve

- ↔ Check valve
- ↘ Flare connection
- ⌵ Screw connection
- ⌵ Flange connection
- ✕ Pinched pipe
- ⌵ Flexible connection
- Spinned pipe

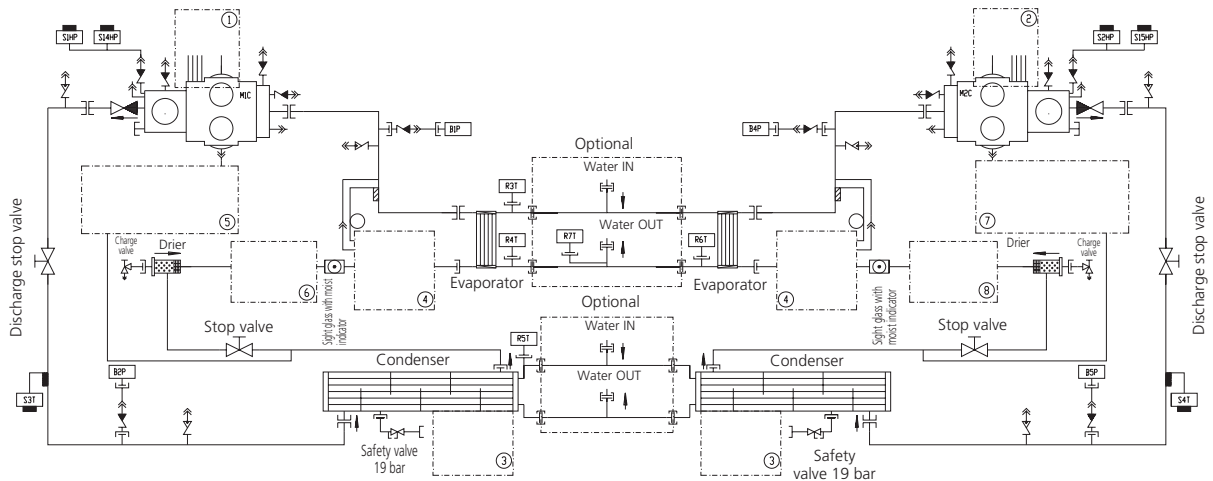
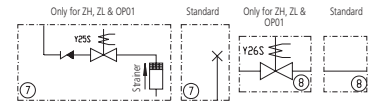
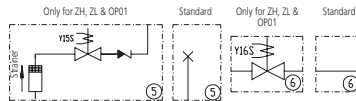


3TW51565-1B

7 Piping diagrams

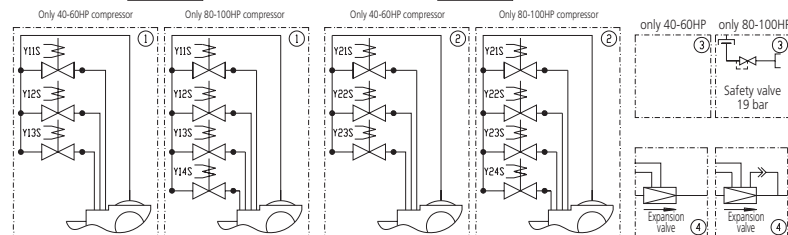


EUW*120-200KX



For M1C

For M2C



M1C Compressor motor 1
S1PH High pressure switch
S14HP High pressure switch
S3T Discharge temperature controller
R3T Inlet water evap. temp. sensor
R4T Outlet water evap. temp. sensor
R5T Inlet water cond. temp. sensor
B1P Low pressure transmitter
B2P High pressure transmitter
Y11S Unloader solenoid valve
Y12S Unloader solenoid valve
Y13S Unloader solenoid valve
Y14S Unloader solenoid valve
Y15S Liquid injection solenoid valve
Y16S Liquid line solenoid valve

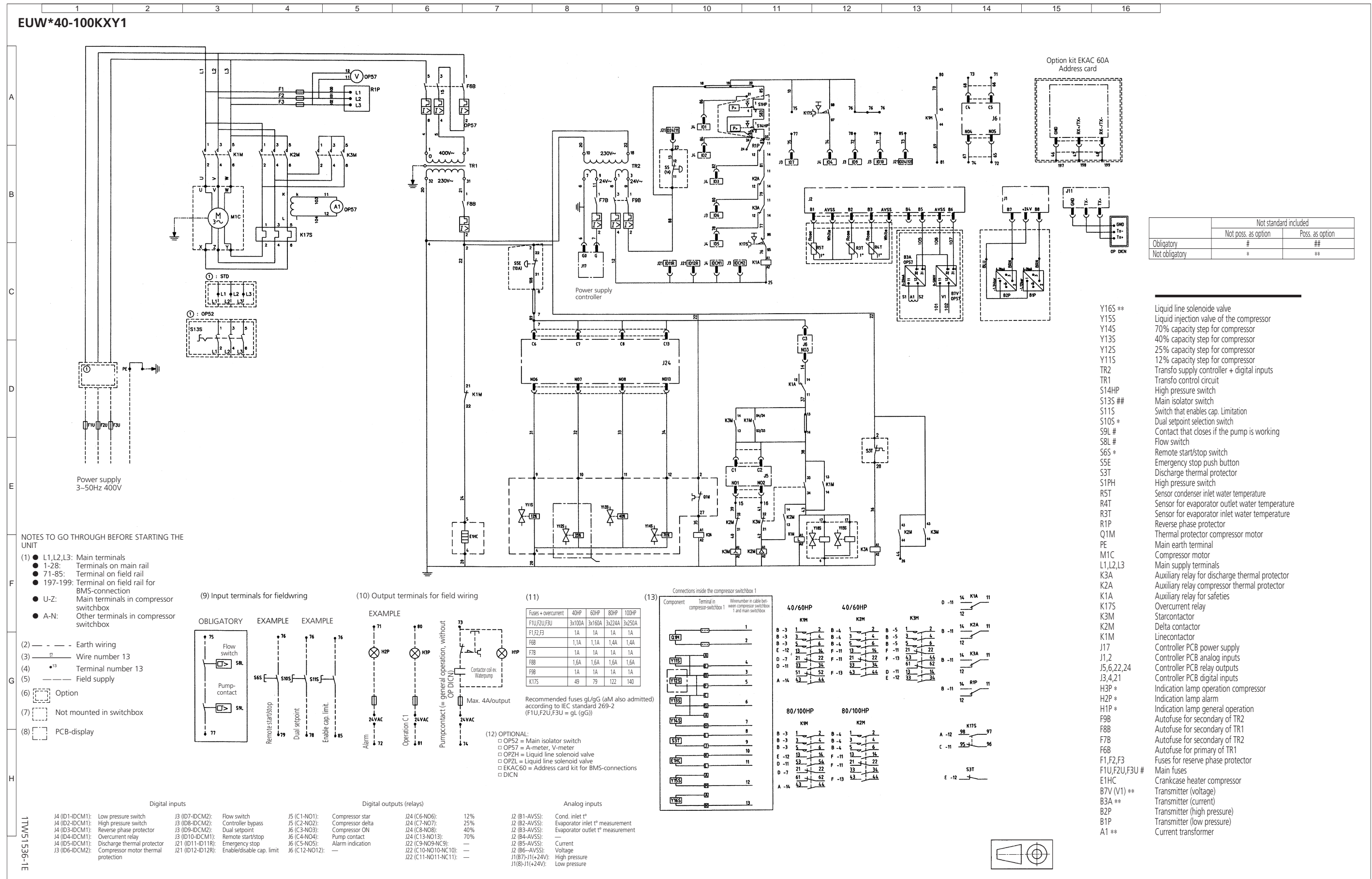
M2C Compressor motor 2
S2PH High pressure switch
S15HP High pressure switch
S4T Discharge temperature controller
R6T Outlet water evap. temp. sensor
R7T Mixed outlet water temp. sensor
B4P Low pressure transmitter
B5P High pressure transmitter
Y21S Unloader solenoid valve
Y22S Unloader solenoid valve
Y23S Unloader solenoid valve
Y24S Unloader solenoid valve
Y25S Liquid injection solenoid valve
Y26S Liquid line solenoid valve

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

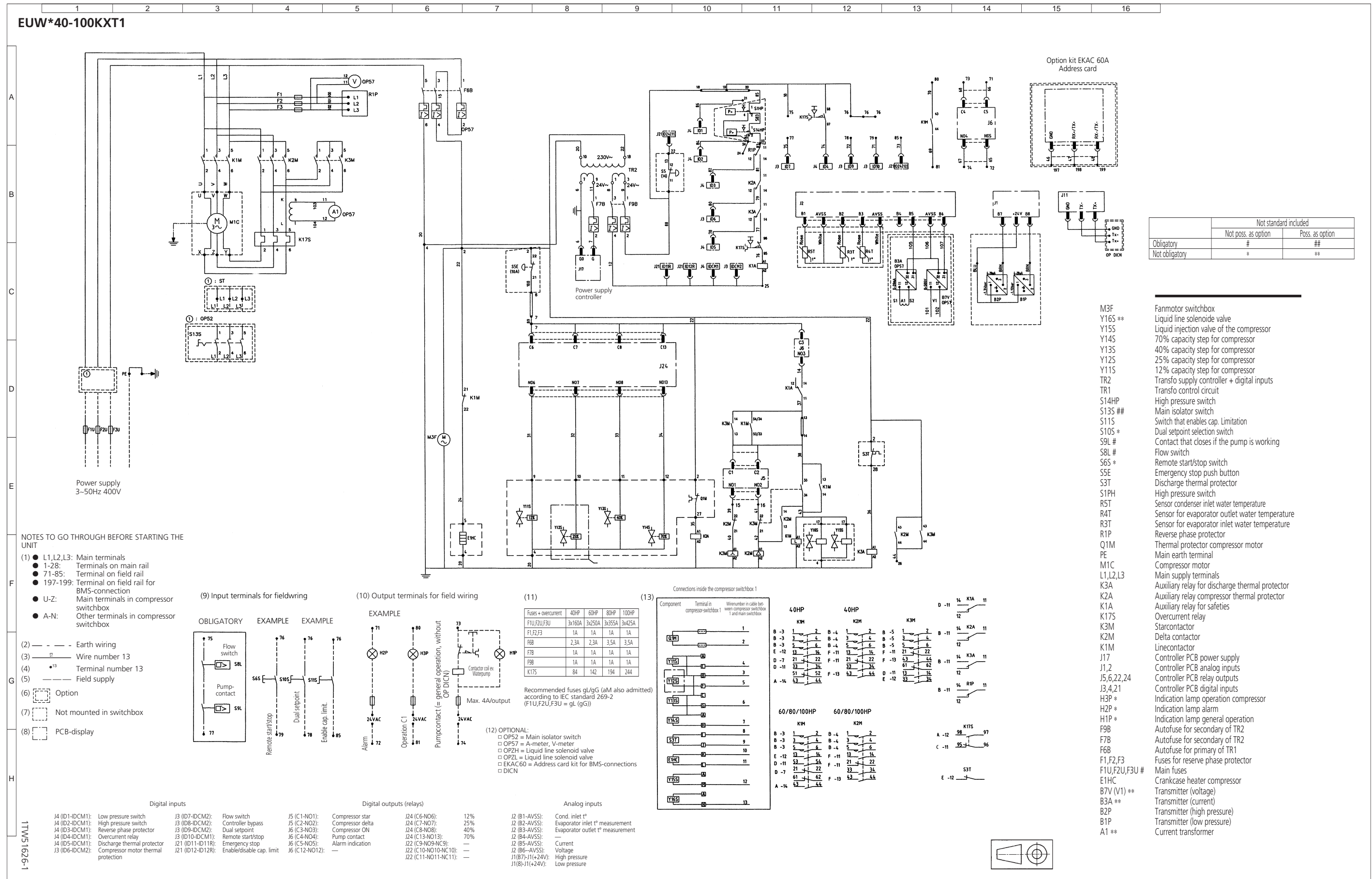


3TW51615-1C

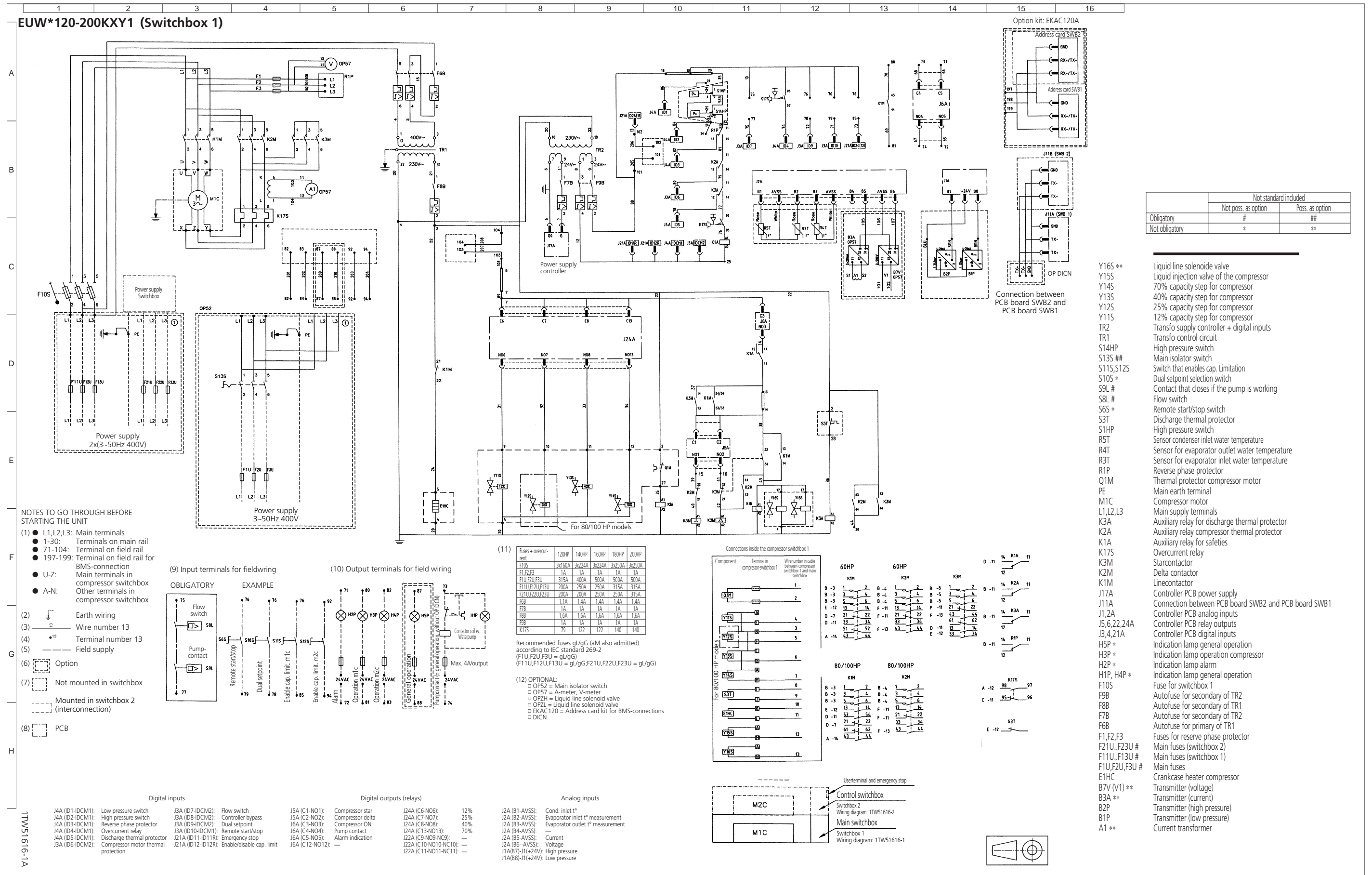
8 Wiring diagrams



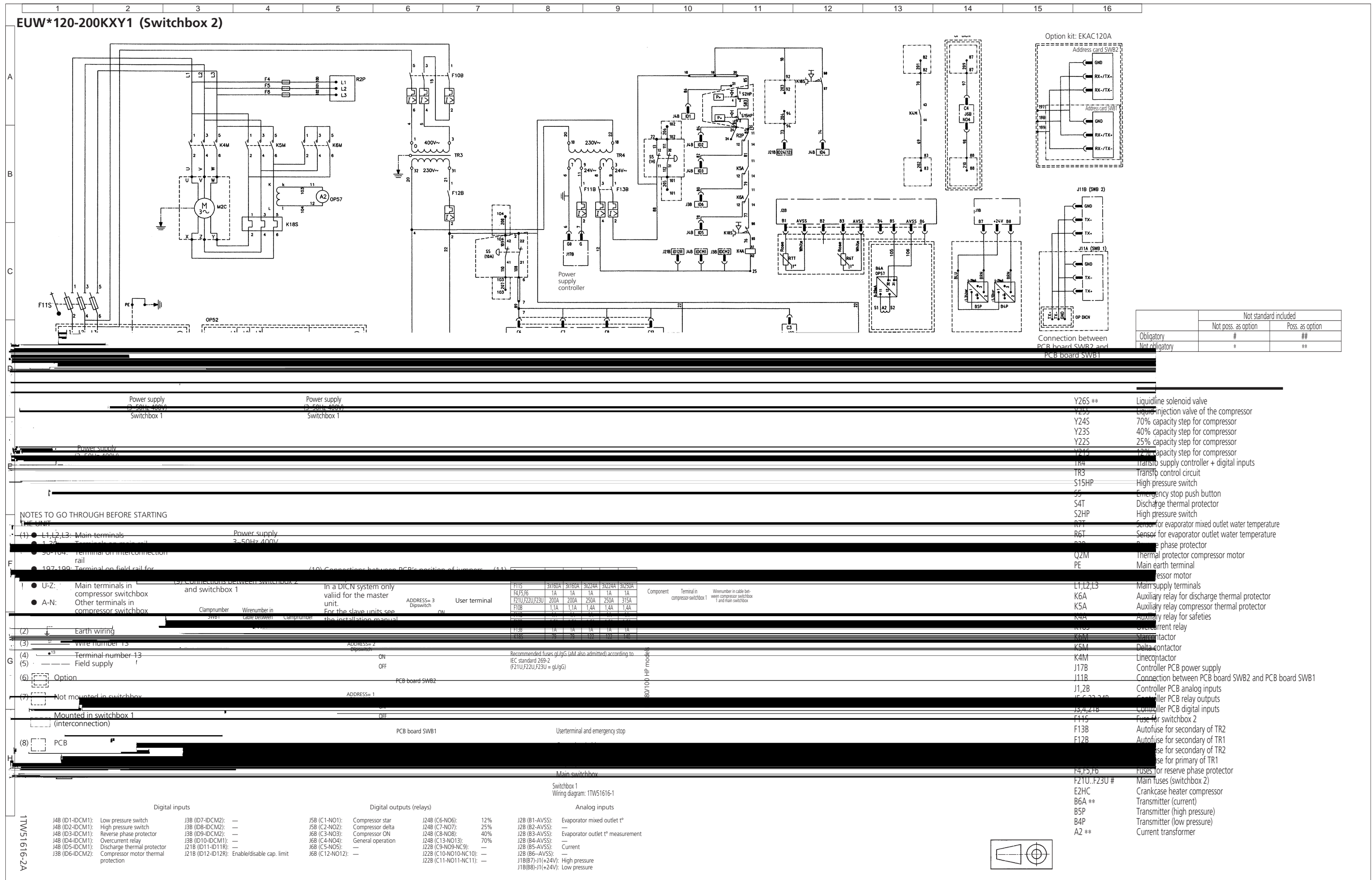
8 Wiring diagrams



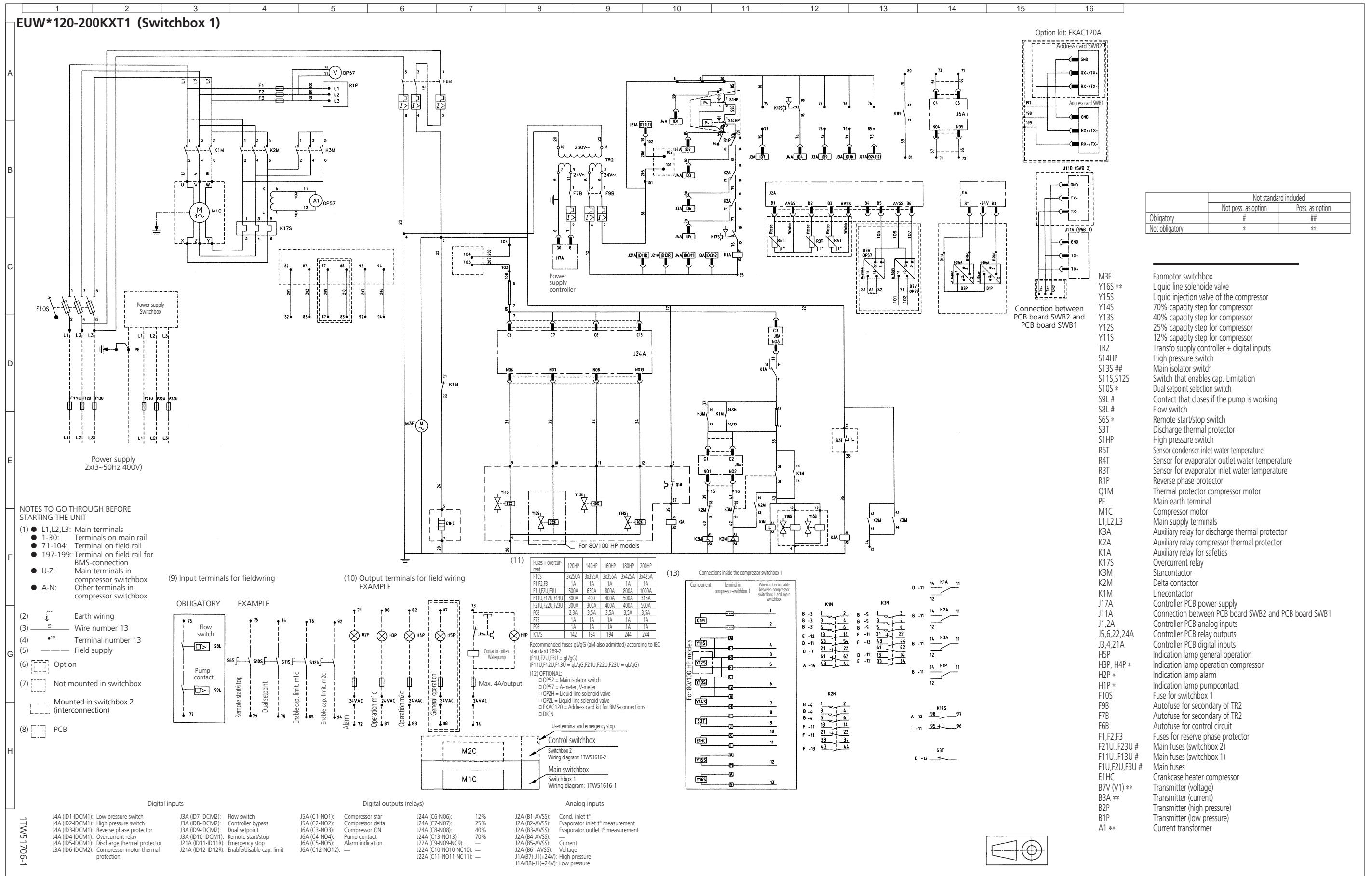
8 Wiring diagrams



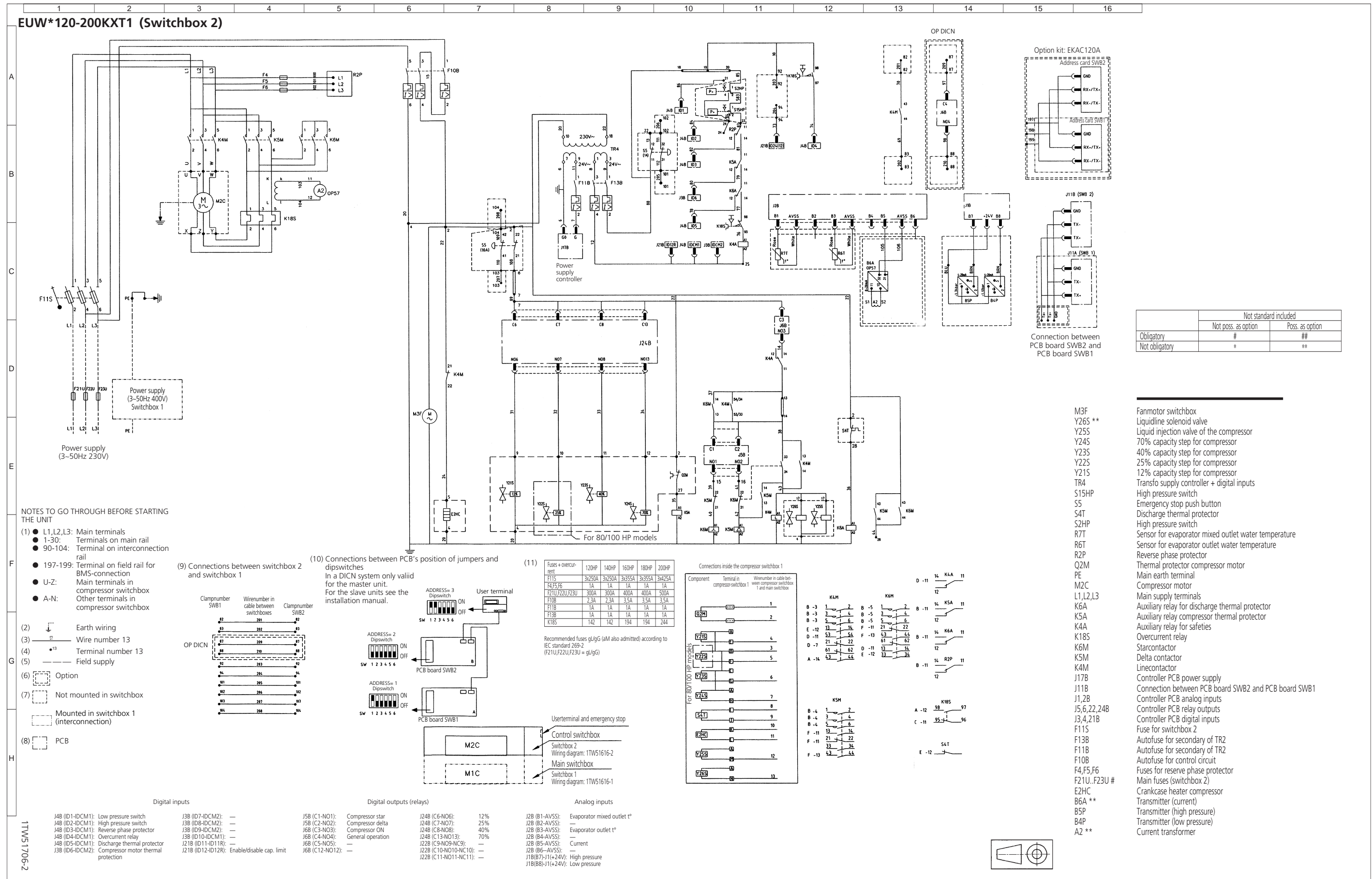
8 Wiring diagrams



8 Wiring diagrams



8 Wiring diagrams

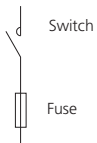


8 Wiring diagrams



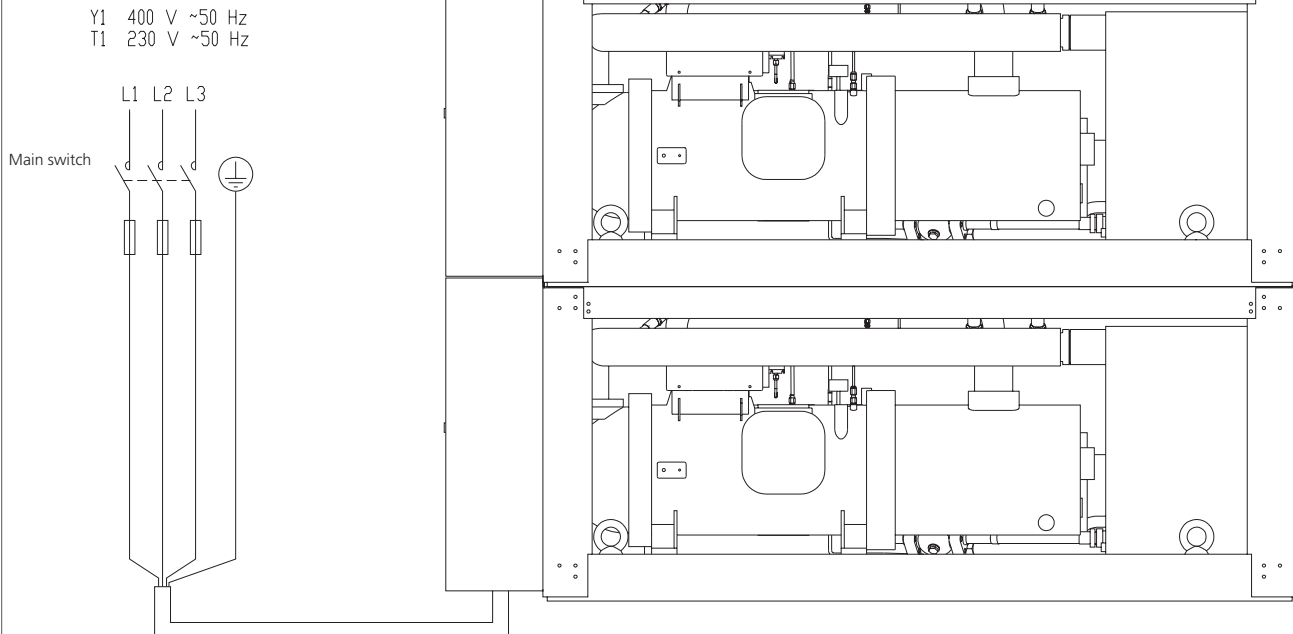
Electrical circuit equipment

Power supply wiring



Notes:

1. All used wiring components and materials must comply with the applicable local and national regulations.
2. Use copper conductors only.
3. For more details, see wiring diagram.
4. Install a circuit breaker for safety.
5. All field wiring and components must be installed by a licensed electrician.
6. The unit shall be grounded in compliance with the applicable local and national codes.
7. The wirings are only general points of connection guides and are not intended to include all details for a specific installation.
8. Install the main switch that can interrupt all power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
9. Install the switch and the fuse to the power in line of each equipment.



3TW51569-4

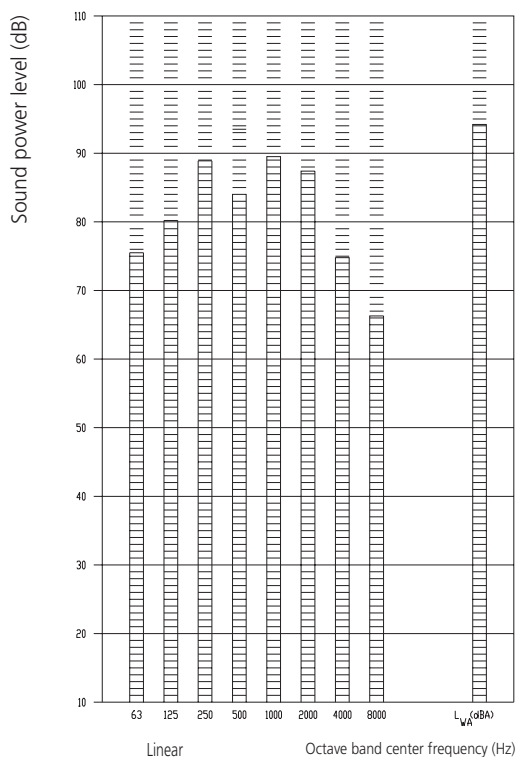


9 Sound power spectrum

6
9

EUW*40KXY1

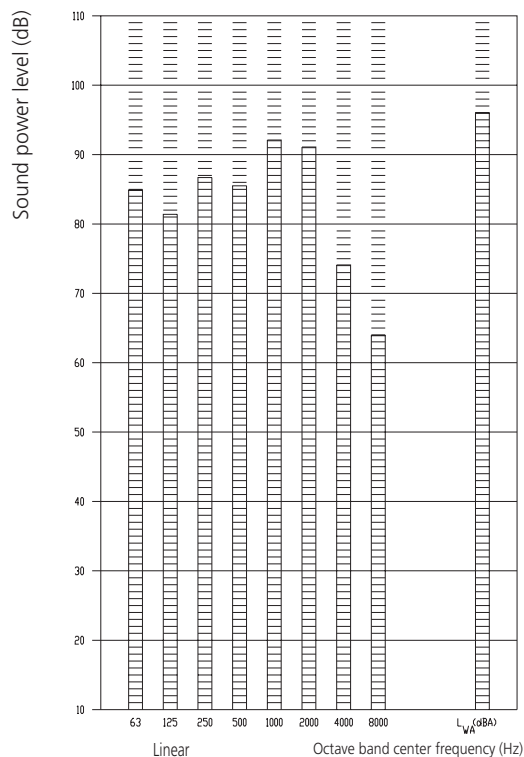
Sound power



3TW51537-1

EUW*60KXY1

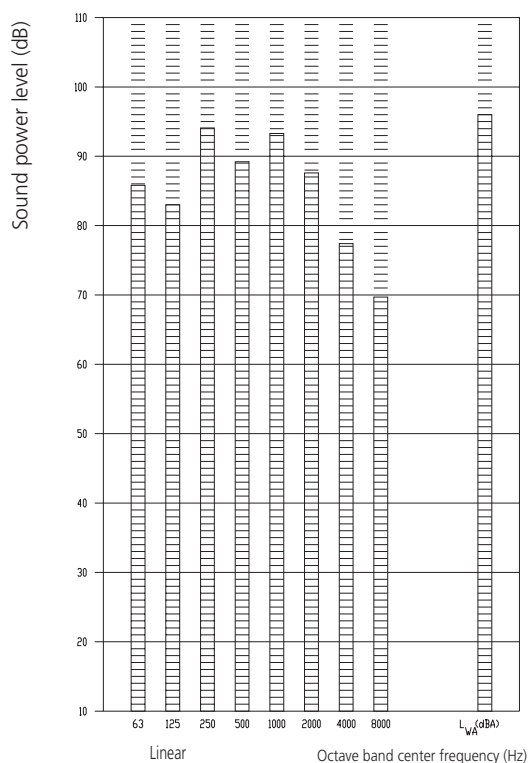
Sound power



3TW51547-1

EUW*80KXY1

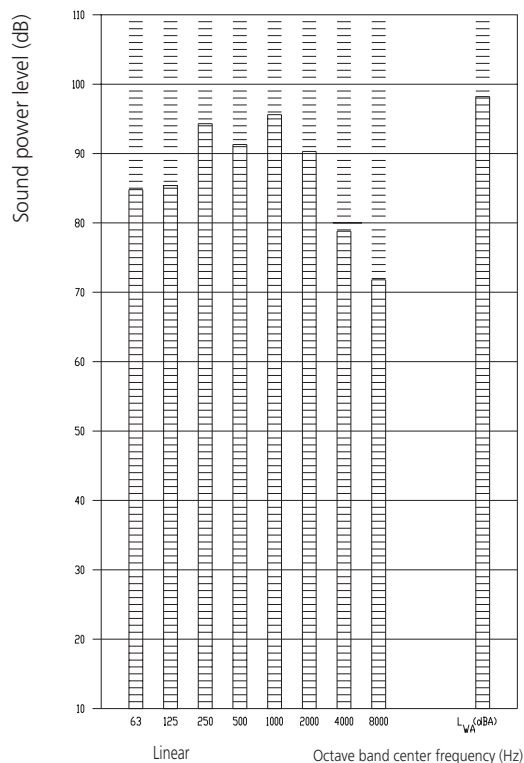
Sound power



3TW51557-1

EUW*100KXY1

Sound power



3TW51567-1

9

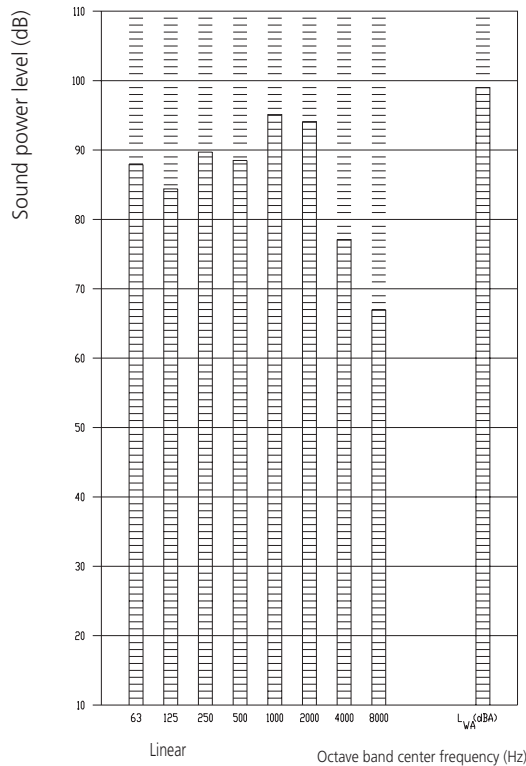
Sound power spectrum



6
9

EUW*120KXY1

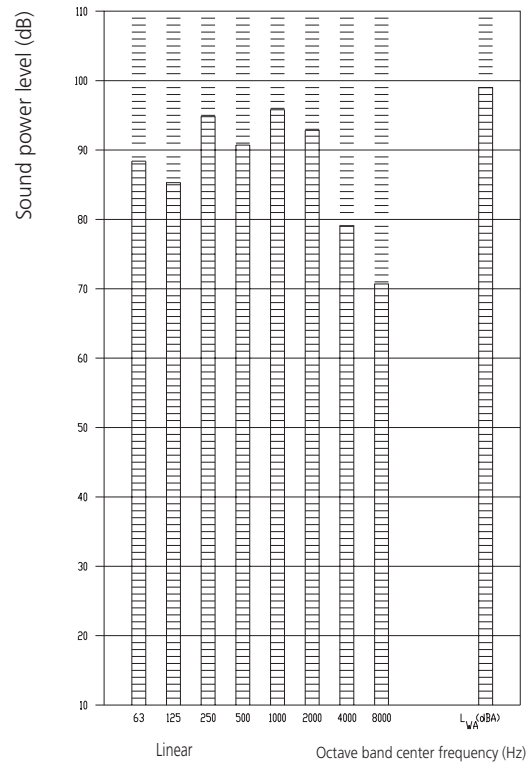
Sound power



3TW51577-1

EUW*140KXY1

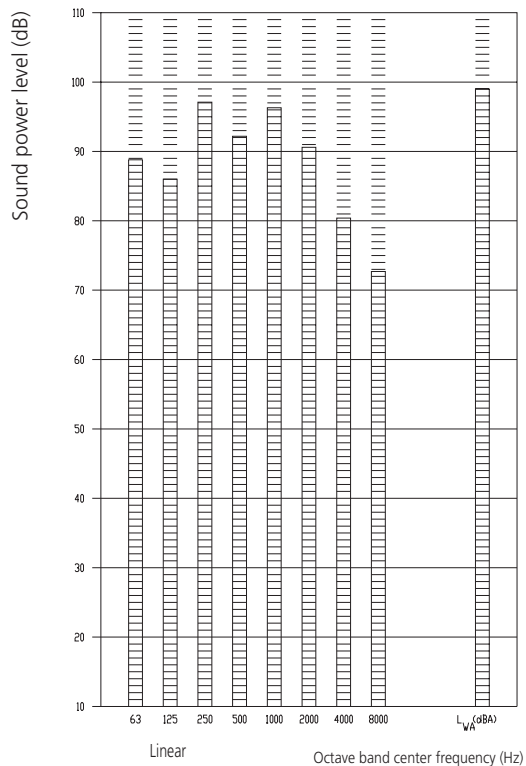
Sound power



3TW51587-1

EUW*160KXY1

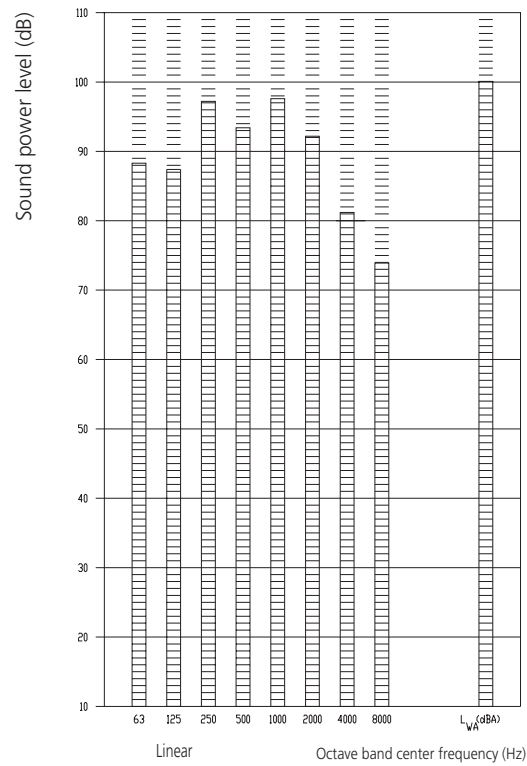
Sound power



3TW51597-1

EUW*180KXY1

Sound power

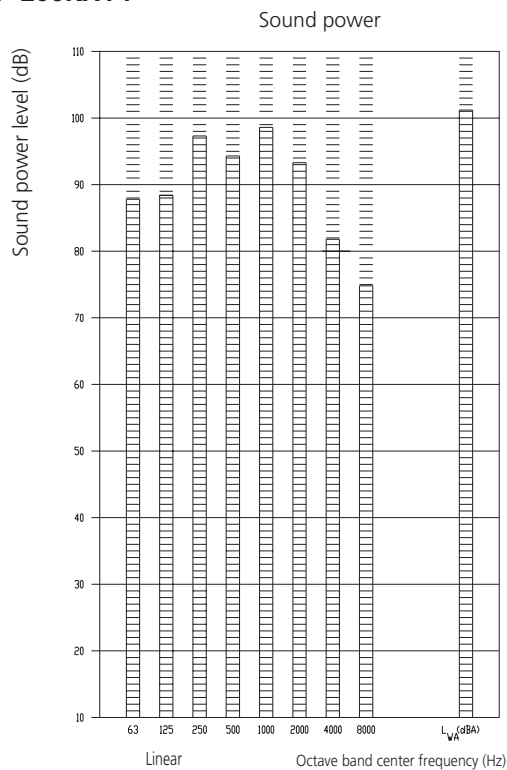


3TW51607-1

9 Sound power spectrum



EUW*200KXY1



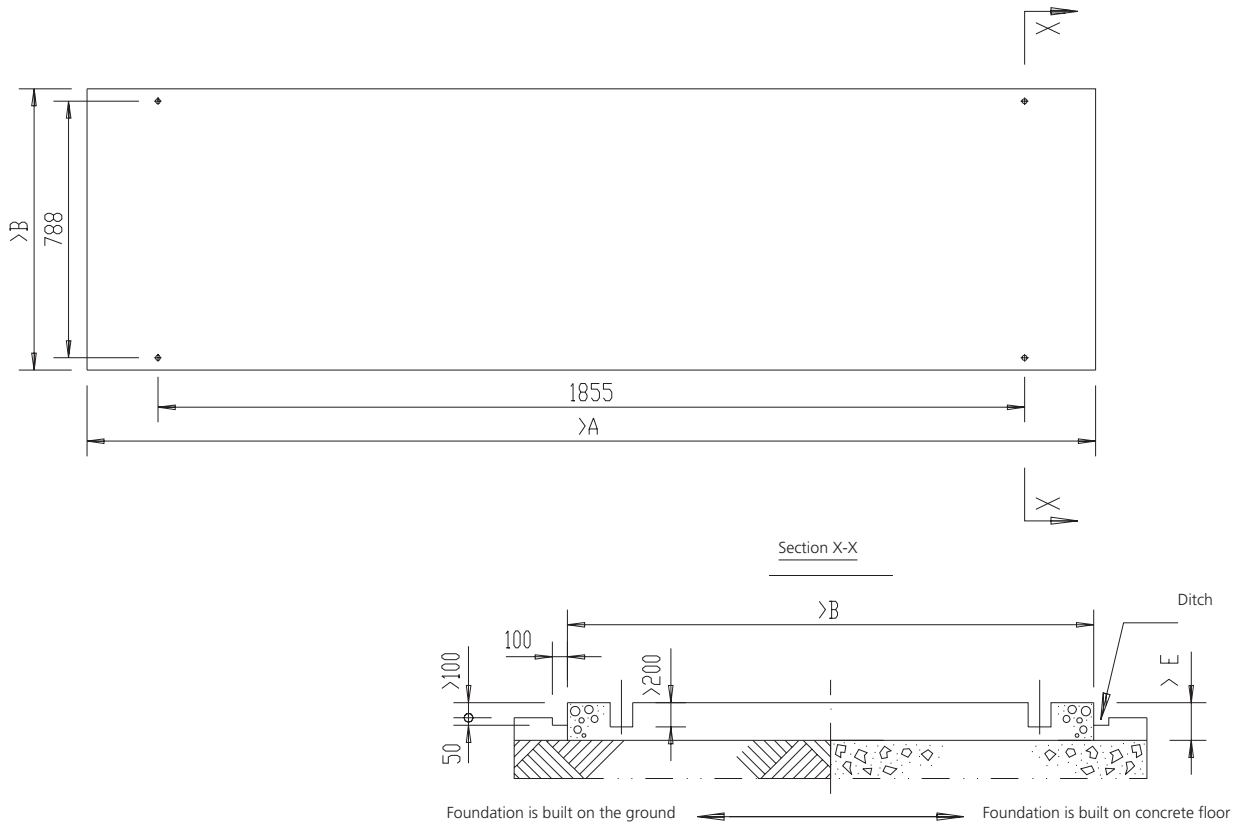
3TW51617-1

NOTES

- 1 Operation sound levels are valid at nominal operation condition 230V
- 2 dBA = A-weighted sound pressure level (A-scale according to IEC)
- 3 Reference acoustic pressure 0 dB = 1 pW
- 4 Measured according to ISO 3744

10 Installation

10-1 Fixation + foundation



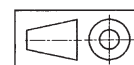
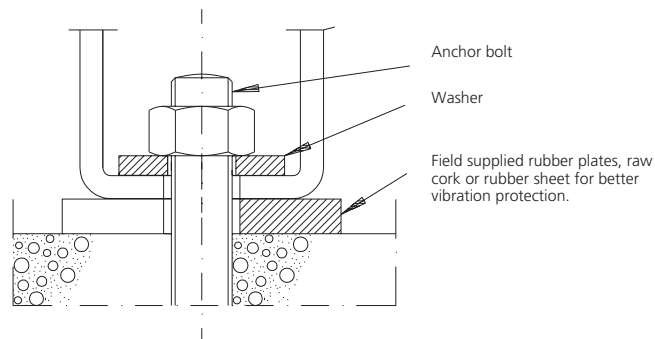
Fix anchor bolts into the concrete foundation. The concrete foundation should be higher than the floor level by approximately 100 mm for ease of plumbing work and better drain. Further, strength of the floor should be sufficient to support the weight of concrete foundation and unit. Be certain that the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

MODEL	A	B	E	Anchor bolt	
				Size	Qty.
EUW*40-60KX	2367	898	300	M20 x 200	4
EUW*80-100KX	2367	898	350	M20 x 200	4
EUW*120-200KX	2367	898	350	M20 x 270	4

Unit = mm

NOTES:

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



4TW51569-2

10 Installation

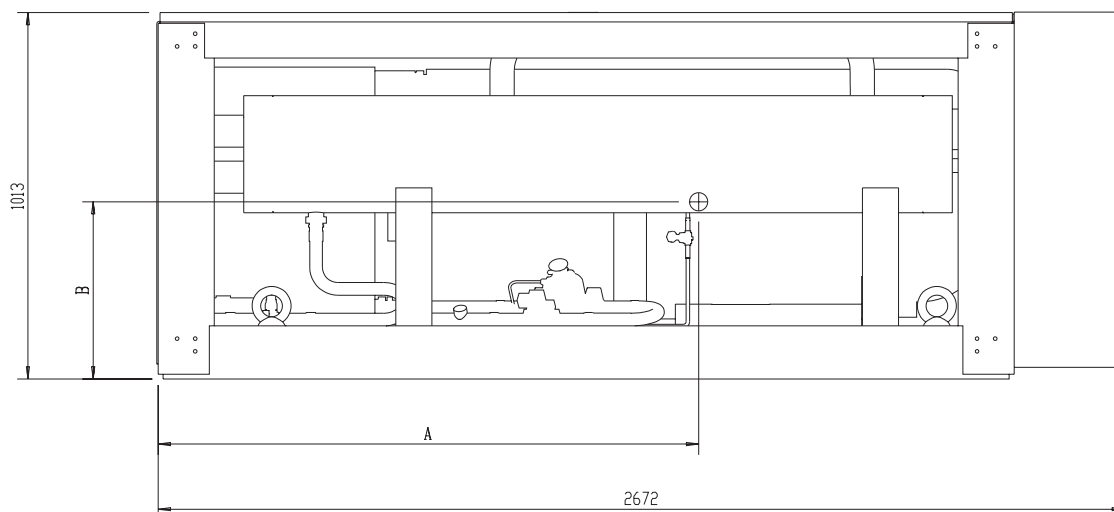
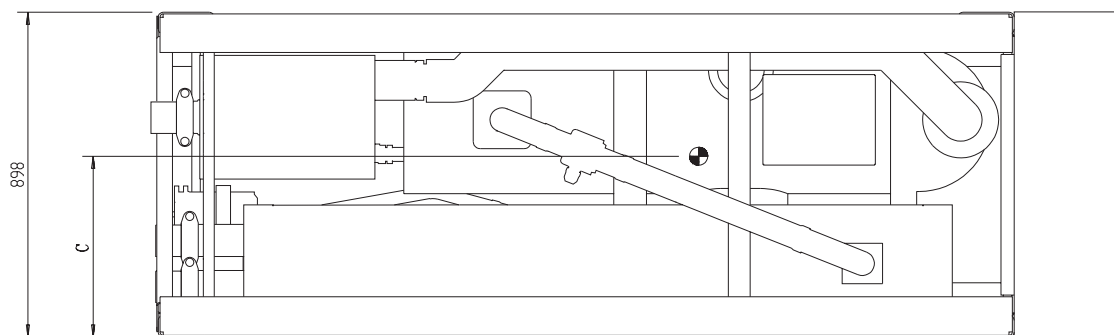
10-2 Centre of gravity



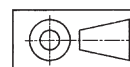
6

10

10-2



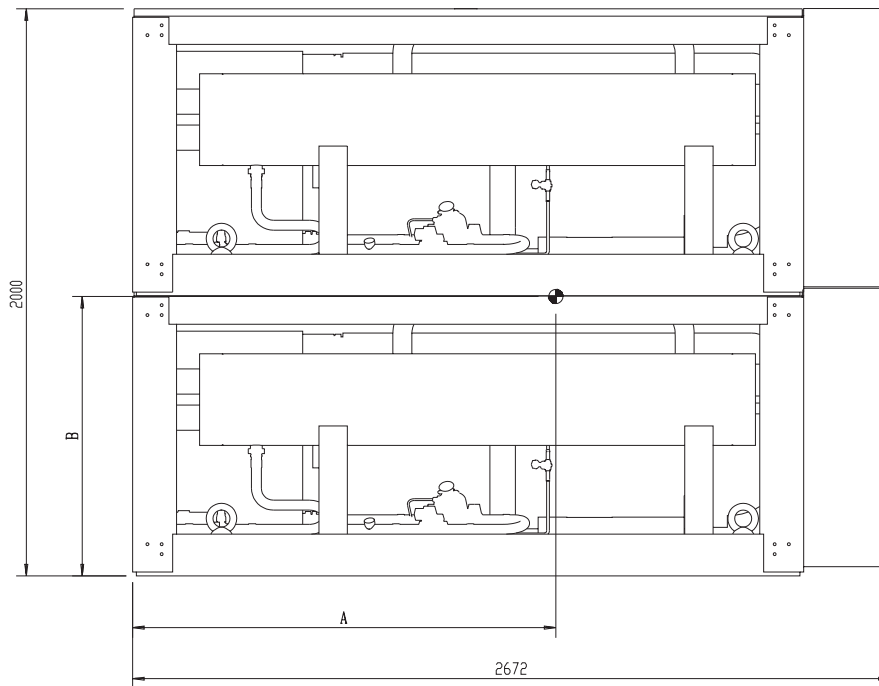
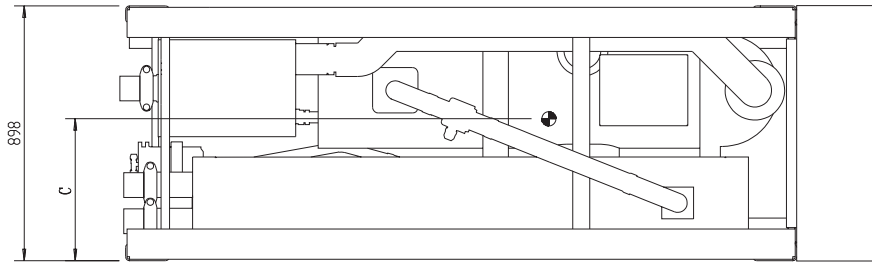
Model	A	B	C
EUW*40KX	1328	425	529
EUW*60KX	1349	458	492
EUW*80KX	1326	492	497
EUW*100KX	1321	492	500



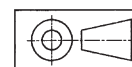
3TW51569-5A

10 Installation

10-2 Centre of gravity



Model	A	B	C
EUW*120KX	1349	952	492
EUW*140KX	1336	905	495
EUW*160KX	1327	985	497
EUW*180KX	1324	976	499
EUW*200KX	1321	985	500



3TW51619-5

11 Accessories & options

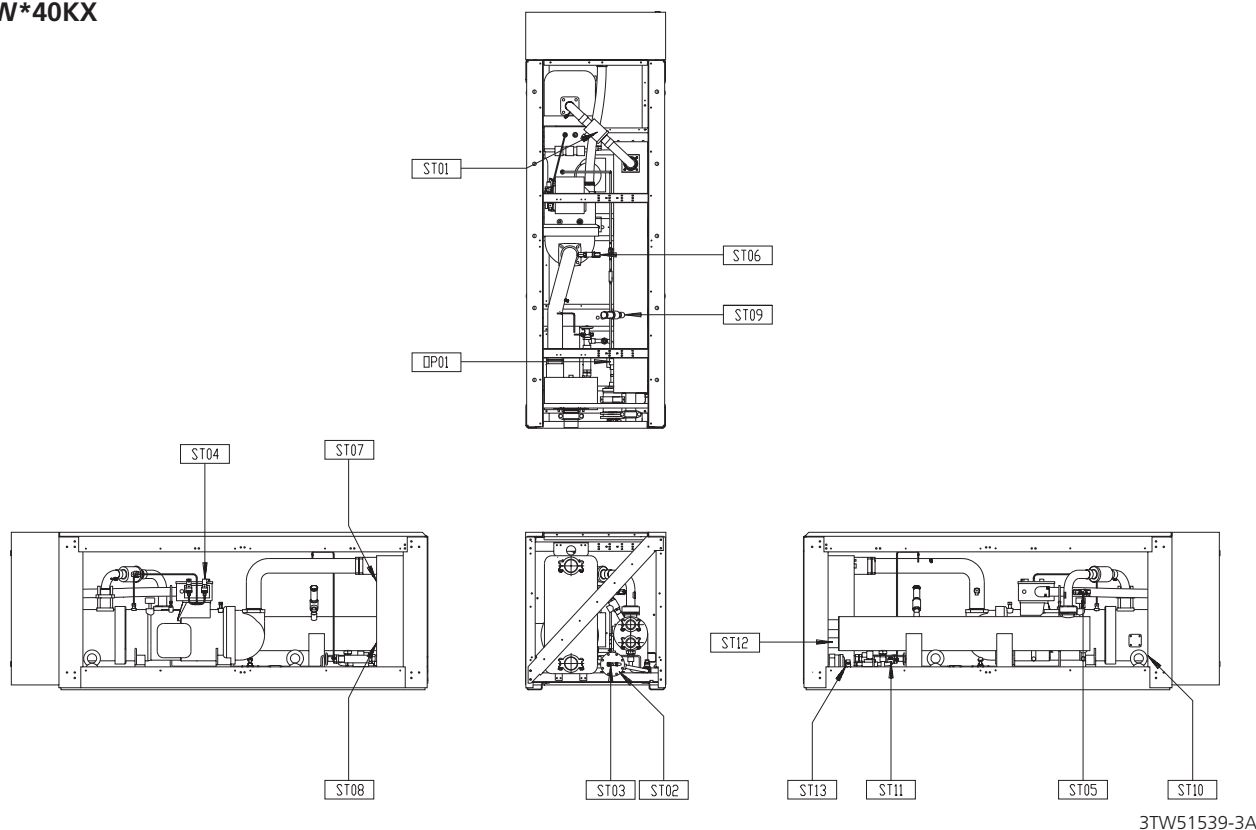
Refrigerant circuit



6

11

EUW*40KX



Standard accessories

- ST01 Discharge stop valve (suction stop valve only on EUWS40-200KX)
- ST02 Drier with solid core
- ST03 Charge valve
- ST04 Two resetable high pressure switches
- ST05 High pressure transmitter
- ST06 Low pressure transmitter
- ST07 Entering water temperature sensor
- ST08 Leaving water temperature sensor
- ST09 Pressure relief valves
- ST10 Crankcase heater for smooth compressor start
- ST11 Sightglass
- ST12 Entering water temp. sensor for condenser
- ST13 Liquid line stop valve

OPTIONAL ACCESSORIES

- OP01 Liquid line solenoid valve
- ZH Glycol application down to -5°
- ZL Glycol application down to -10°

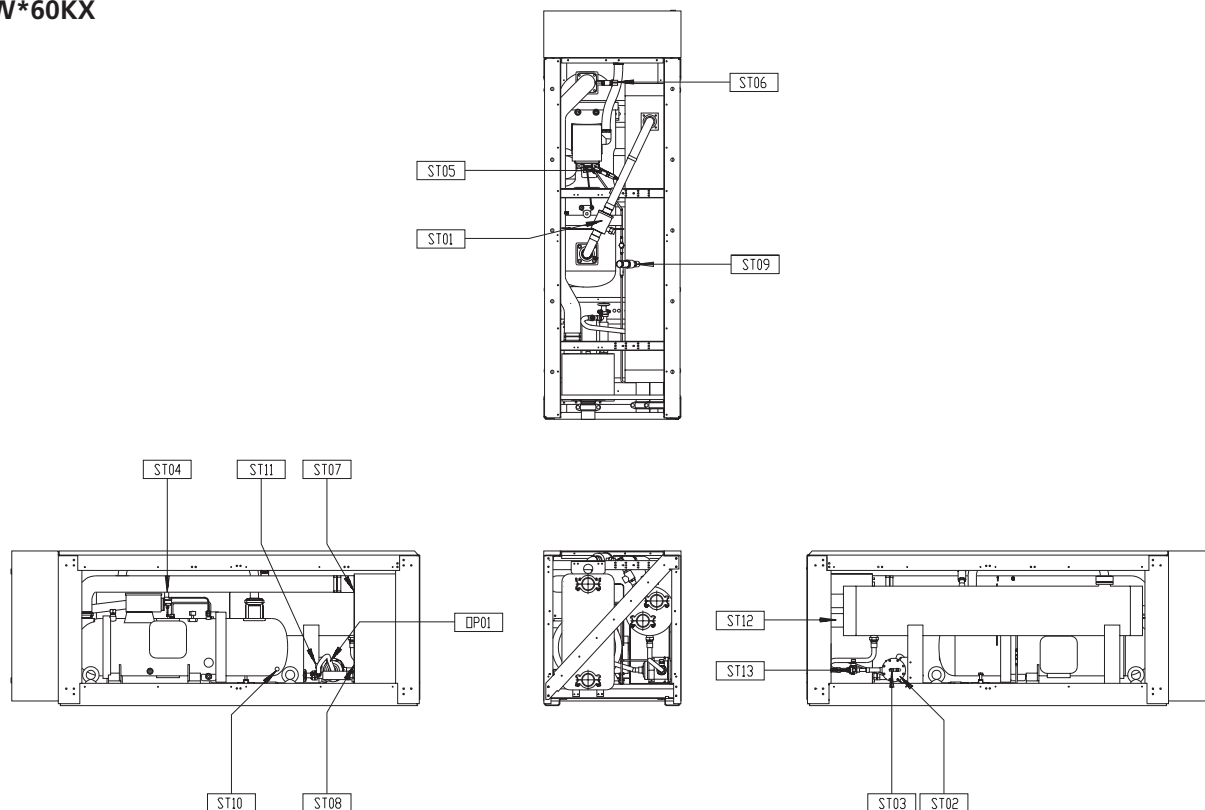
11 Accessories & options

Refrigerant circuit



6
11

EUW*60KX



3TW51549-3A

Standard accessories

- ST01 Discharge stop valve (suction stop valve only on EUWS40-200KX)
- ST02 Drier with solid core
- ST03 Charge valve
- ST04 Two resettable high pressure switches
- ST05 High pressure transmitter
- ST06 Low pressure transmitter
- ST07 Entering water temperature sensor
- ST08 Leaving water temperature sensor
- ST09 Pressure relief valves
- ST10 Crankcase heater for smooth compressor start
- ST11 Sightglass
- ST12 Entering water temp. sensor for condenser
- ST13 Liquid line stop valve

OPTIONAL ACCESSORIES

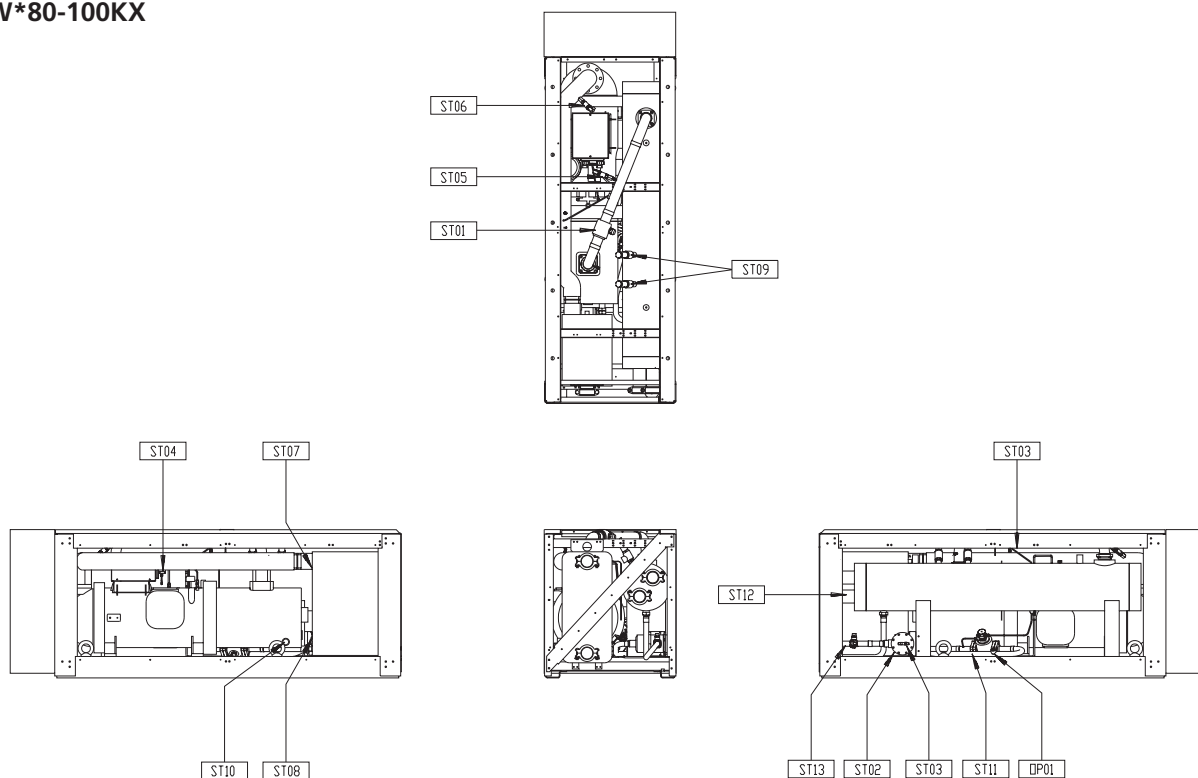
- OP01 Liquid line solenoid valve
- ZH Glycol application down to -5°
- ZL Glycol application down to -10°

11 Accessories & options

Refrigerant circuit



EUW*80-100KX



3TW51569-3B

Standard accessories

- ST01 Discharge stop valve (suction stop valve only on EUWS40-200KX)
- ST02 Drier with solid core
- ST03 Charge valve
- ST04 Two resetable high pressure switches
- ST05 High pressure transmitter
- ST06 Low pressure transmitter
- ST07 Entering water temperature sensor
- ST08 Leaving water temperature sensor
- ST09 Pressure relief valves
- ST10 Crankcase heater for smooth compressor start
- ST11 Sightglass
- ST12 Entering water temp. sensor for condenser
- ST13 Liquid line stop valve

OPTIONAL ACCESSORIES

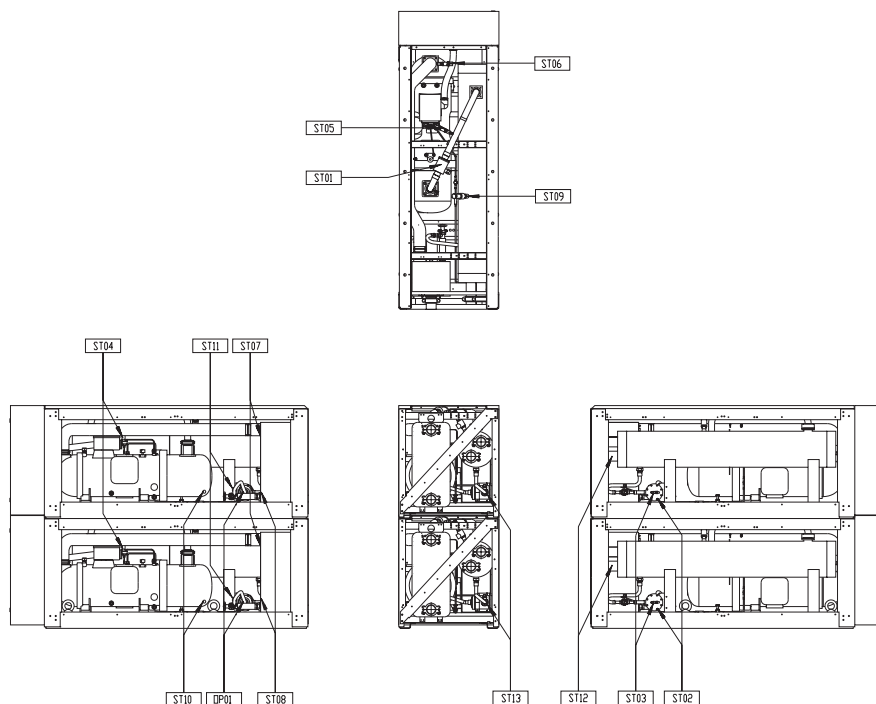
- OP01 Liquid line solenoid valve
- ZH Glycol application down to -5°
- ZL Glycol application down to -10°

11 Accessories & options

Refrigerant circuit



EUW*120KX



3TW51579-3A

Standard accessories

- ST01 Discharge stop valve (suction stop valve only on EUWS40-200KX)
- ST02 Drier with solid core
- ST03 Charge valve
- ST04 Two resettable high pressure switches
- ST05 High pressure transmitter
- ST06 Low pressure transmitter
- ST07 Entering water temperature sensor
- ST08 Leaving water temperature sensor
- ST09 Pressure relief valves
- ST10 Crankcase heater for smooth compressor start
- ST11 Sightglass
- ST12 Entering water temp. sensor for condenser
- ST13 Liquid line stop valve

OPTIONAL ACCESSORIES

- OP01 Liquid line solenoid valve
- ZH Glycol application down to -5°
- ZL Glycol application down to -10°

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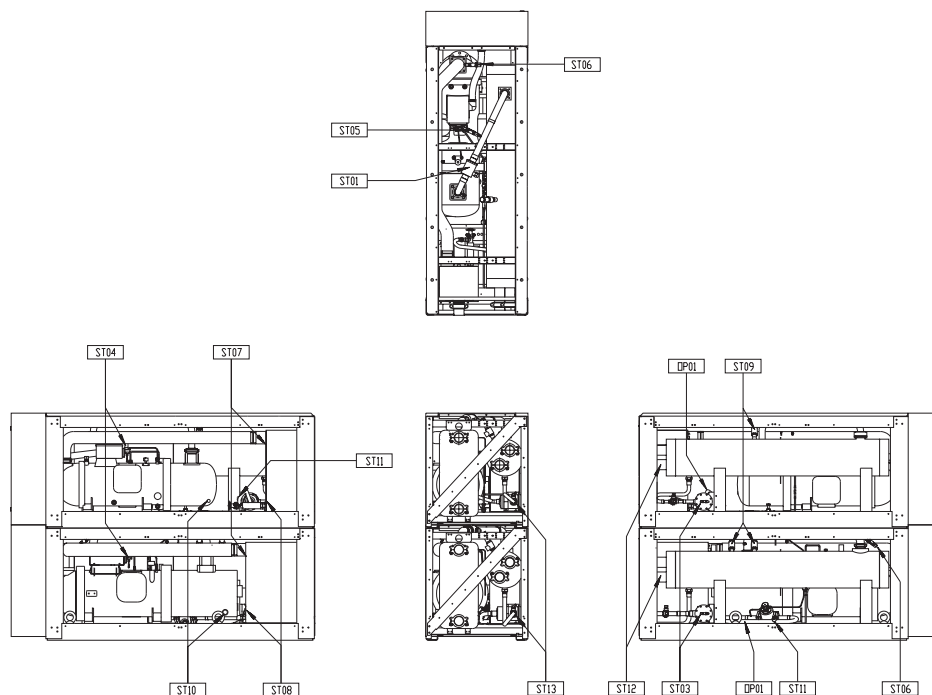
11

11 Accessories & options

Refrigerant circuit



EUW*140KX



3TW51589-3A

Standard accessories

- ST01 Discharge stop valve (suction stop valve only on EUWS40-200KX)
- ST02 Drier with solid core
- ST03 Charge valve
- ST04 Two resettable high pressure switches
- ST05 High pressure transmitter
- ST06 Low pressure transmitter
- ST07 Entering water temperature sensor
- ST08 Leaving water temperature sensor
- ST09 Pressure relief valves
- ST10 Crankcase heater for smooth compressor start
- ST11 Sightglass
- ST12 Entering water temp. sensor for condenser
- ST13 Liquid line stop valve

OPTIONAL ACCESSORIES

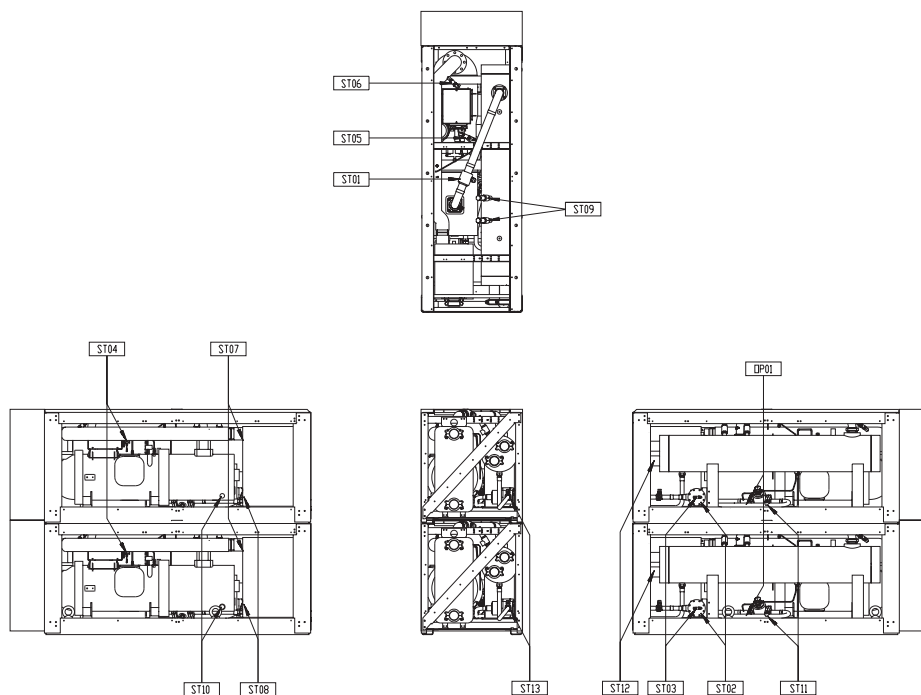
- OP01 Liquid line solenoid valve
- ZH Glycol application down to -5°
- ZL Glycol application down to -10°

11 Accessories & options

Refrigerant circuit



EUW*160-200KX



3TW51619-3A

Standard accessories

- ST01 Discharge stop valve (suction stop valve only on EUWS40-200KX)
- ST02 Drier with solid core
- ST03 Charge valve
- ST04 Two resetable high pressure switches
- ST05 High pressure transmitter
- ST06 Low pressure transmitter
- ST07 Entering water temperature sensor
- ST08 Leaving water temperature sensor
- ST09 Pressure relief valves
- ST10 Crankcase heater for smooth compressor start
- ST11 Sightglass
- ST12 Entering water temp. sensor for condenser
- ST13 Liquid line stop valve

OPTIONAL ACCESSORIES

- OP01 Liquid line solenoid valve
- ZH Glycol application down to -5°
- ZL Glycol application down to -10°



11 Accessories & options

6
11

Option number	Option description	3 digit code	Model-type (approval)							Unit size							Availability		
			b	d	k	m	q	s	t	40	60	80	100	120	140	160		180	200
	Standard unit		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Not completely combinable options	1st digit																	
zh	Glycol application chilled water temperature down to -5°C	12	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
zl	Glycol application chilled water temperature down to -10°C	24	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
	Completely combinable options	2nd/3rd digit																	
OP01	Liquid line solenoid valve	2	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
OP03	Dual pressure relief valve on the condenser	1	—	○	std	○	○	○	std	○	○	○	○	○	○	○	○	○	Factory mounted
OP12	Suction stop valve	4	—	○	std	○	○	○	std	○	○	○	○	○	○	○	○	○	Factory mounted
OP52	Main isolator switch (only Y1-model)	8	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
OP57	A-meter, V-meter	16	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
OPCN	Option Daikin Integrated Chiller Network	256	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Factory mounted
	Available kit																		
EKCLWS	Common leaving water kit		—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
EKDCE	Evaporator water collector double circuit		—	○	○	○	○	○	○	—	—	—	○	○	○	○	○	○	Kit
EKDCC	Condenser water collector double circuit		—	○	○	○	○	○	○	—	—	—	○	○	○	○	○	○	Kit
EKAC60A	BMS address card for single circuit		—	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	Kit
EKAC120A	BMS address card for double circuit		—	○	○	○	○	○	○	—	—	—	○	○	○	○	○	○	Kit
EKBMSBNA	BMS gateway BACNET protocol		—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit
EKBMSMBA	BMS gateway MODBUS protocol		—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Kit

NOTES

- std = standard on unit
 - Model type for ISPEL approval pressure vessels (B)
 - Model type for RLK approval (Dutch) (D)
 - Model type for TTK approval (Finland) (K)
 - Model type for SolM approval pressure vessels (M)
 - Model type for UDT approval (Q)
 - Model type for SA approval (S)
 - Model type for TUV approval pressure vessels (T) → BASIC MODEL
- 2 ○ Available
— Not available
std Standard
- Impossible option combinations: zh + zl