



9. Assembly Drawing

No.	Name	No. of the materiel
28	Condenser cover plate	-
29	Condenser side plate	-
30	Condenser	L1630001
31	Condenser sole plate	-
32	Water tank cover	-
33	Water tank	-
34	Compressor	L1701502
35	Solenoid valve	L1320002
36	Manual valve	L1302014
37	Dryer filter	L1303050
38	Hot air by-pass	L1320004
39	Level indicator	L1307080
40	Pump	-
41	Evaporator	L1530001
42	Frame	-

9.9 Main Components and Functions

9.9.1 Compressor

- 1). Compress and transport the refrigeration steam and produce the low pressure in the evaporator and the high pressure in the condenser, so the compressor is the heart of the whole system.
- 2). The compressors of our company are the two types of scroll and piston.
- 3). The power of the generic compressors is 25 to 30 percent of the ice water machine's refrigeration capacity.



Figure 9.9.1

9.9.2 Condenser

- 1). The condenser is the equipment which output heat and it can discharge the heat absorbed by the cooling agent in the evaporator and the heat converted by the compressor by consuming the power to the cooling medium.
- 2). Our company adopt the air cooled condenser with ferrule(Tube-fin style).

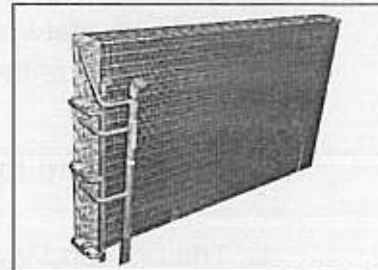


Figure 9.9.2

9.9.3 Dry filter

- 1). The functions of the dry filter are: clean the impurity in the cooling agent, absorb the free water content in the freon, and prevent the narrow section (especially the valve port of the heat expansion valve) of the pipe from forming ice jam.
- 2). The size of the filter is usually chosen according to the pipe diameter of the cooling agent pipe.
- 3). The dry filter is installed in front of the heat expansion valve to maintain the strictness of the valve.



Figure 9.9.3

9.9.4 The heat expansion valve

- 1). The heat expansion valve is used to take the effect of throttle and pressure relief, and also adjust the flow quantity of the cooling agent going into the evaporator.
- 2). The heat expansion valve is usually installed in front of the evaporator.

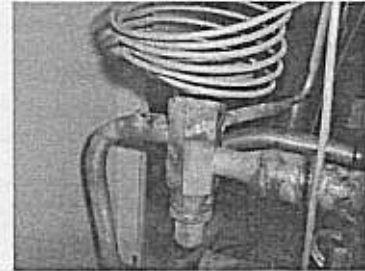
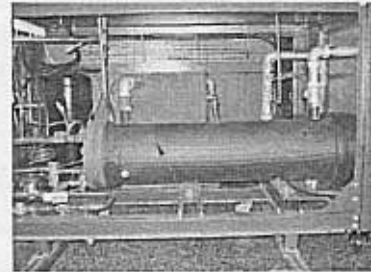


Figure 9.9.4

9.9.5 Evaporator

- 1). The evaporator is the equipment which output the refrigerating capacity, in which the cooling agent absorb the heated of the cooled objects and gain the aim of refrigeration.
- 2). The evaporators of our company are the type of Tube-in-shell style.



Evaporator

Figure 9.9.5

9.9.6 High and low pressure controller

- 1). The high and low pressure controllers are used to control the working pressure of the compressor suction port and outlet port.
- 2). The pressure of the high pressure controller is set to 25 bar, and pressure of the low pressure controller is set to 2 bar.
- 3). Give an alarm when the pressure of the compressor outlet port is higher than 25 bar or the pressure of the compressor suction port is lower than 2 bar.

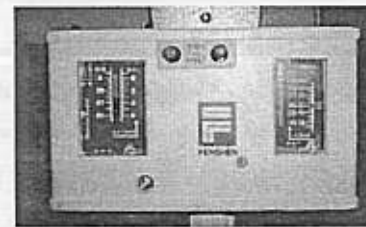


Figure 9.9.6

9. Assembly Drawing

9.9.7 Electromagnetic valve

- 1) It is used to control the liquid refrigerant coming from the condenser in order to ensure that the heat transfer area of condenser is given full play.
- 2) Feed pipe's electromagnetic valve is installed in pipe between dry filter and expansion, and bypass electromagnetic valve is installed between compressor's high-pressure pipe and evaporator.



Electromagnetic valve

Figure 9.9.7

Electromagnetic valve is installed between compressor's high-pressure pipe and evaporator.



10. Electrical Circuit

10. Electrical Circuit

10.1 SIC-3A~10A-UL-230V Electrical Circuit

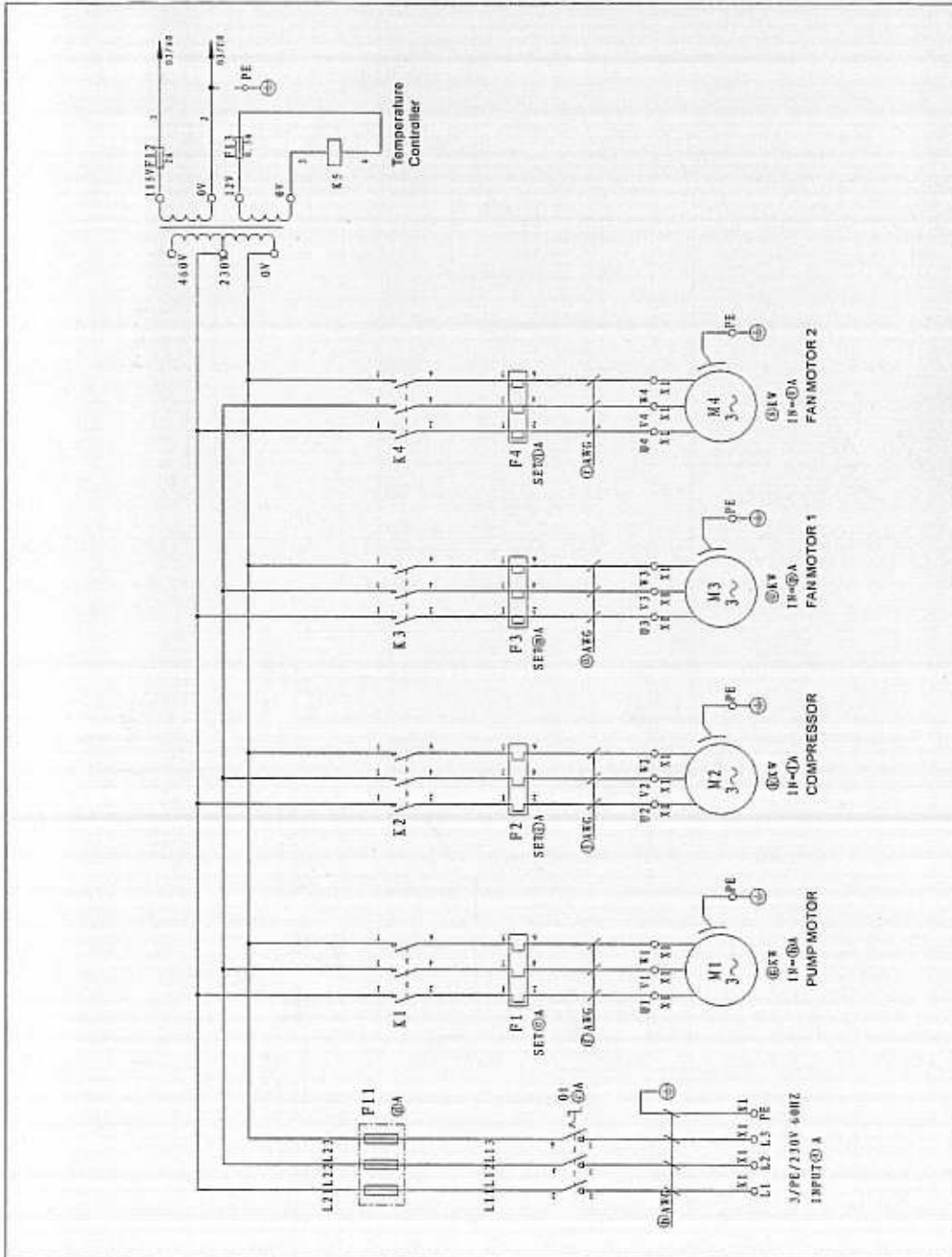
NO.	SYMBOL MODE	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		1	SIC-3A	20.1	10	32	32	7.6	12	1.5	7.2
2	SIC-5A	30.3	8	63	50	7.6	12	1.5	7.2	23	10
3	SIC-8A	41.4	8	63	63	7.6	12	1.5	7.2	34	8
4	SIC-10A	51.1	6	63	80	7.6	12	1.5	7.2	44	8

NO.	SYMBOL MODE	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)
		1	SIC-3A	2.6	11.1	0.9	12	0.12	0.85	0.9	12
2	SIC-5A	4.43	21.4	0.9	12	0.12	0.85	0.9	12	0.12	0.85
3	SIC-8A	7.0	32.4	1.0	12	0.18	0.9	1.0	12	0.18	0.9
4	SIC-10A	9.06	42.1	1.0	12	0.18	0.9	1.0	12	0.18	0.9

- (a) Main current
- (b) Main cable
- (c) Main power switch
- (d) Fuse
- (e) Thermo relay setting for pump
- (f) Cable dia. Of pump
- (g) Power of pump
- (h) Current of pump
- (i) Thermo relay setting for compressor
- (j) Cable dia. Of compressor
- (k) Power of compressor
- (l) Current of compressor
- (m) Thermo relay setting for fan 1
- (n) Cable dia. Of fan 1
- (o) Power of fan 1
- (p) Current of fan 1
- (q) Thermo relay setting for fan 2
- (r) Cable dia. Of fan 2
- (s) Power of fan 2
- (t) Current of fan 2

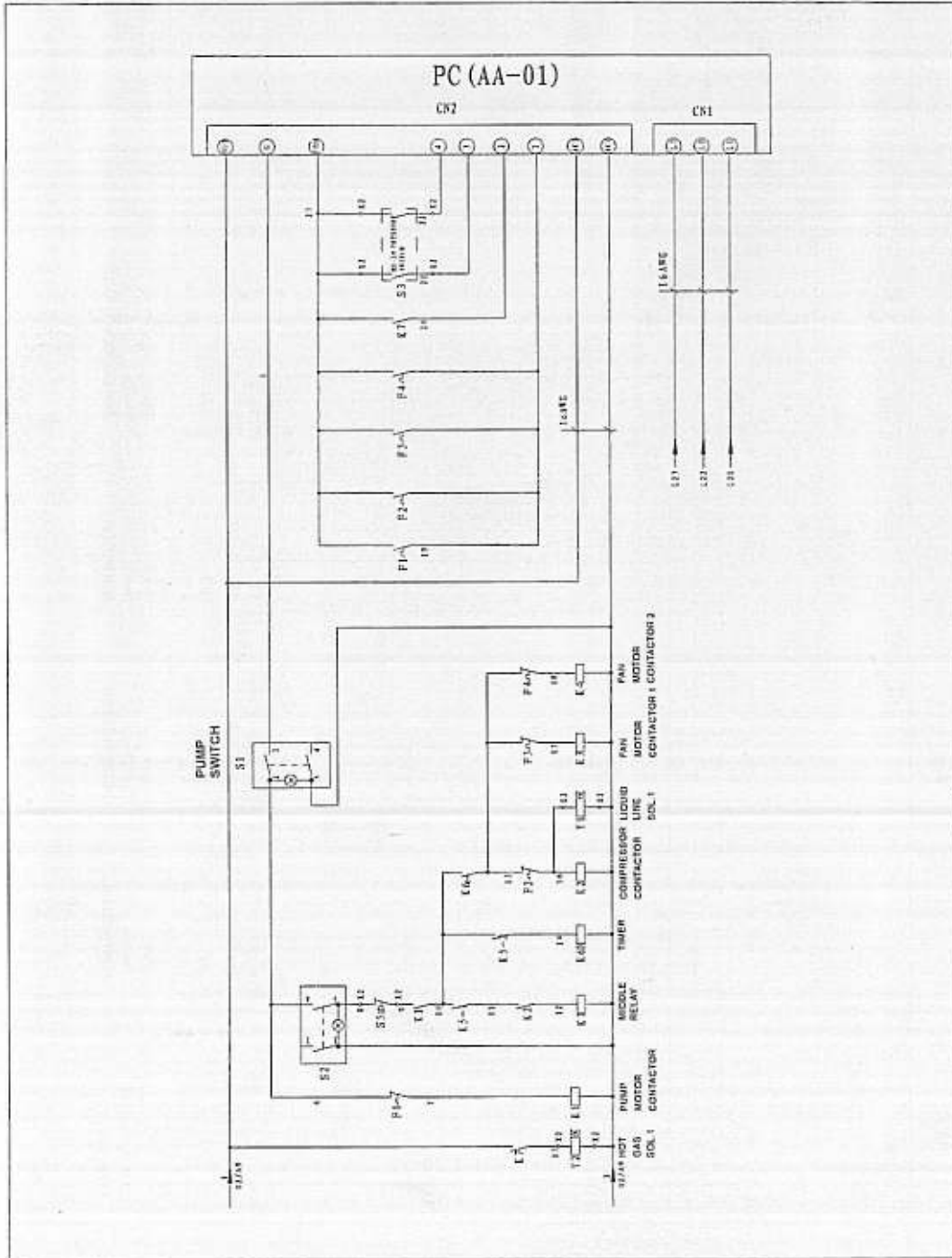
10. Electrical Circuit

10.1.1 Electrical circuit principle diagram



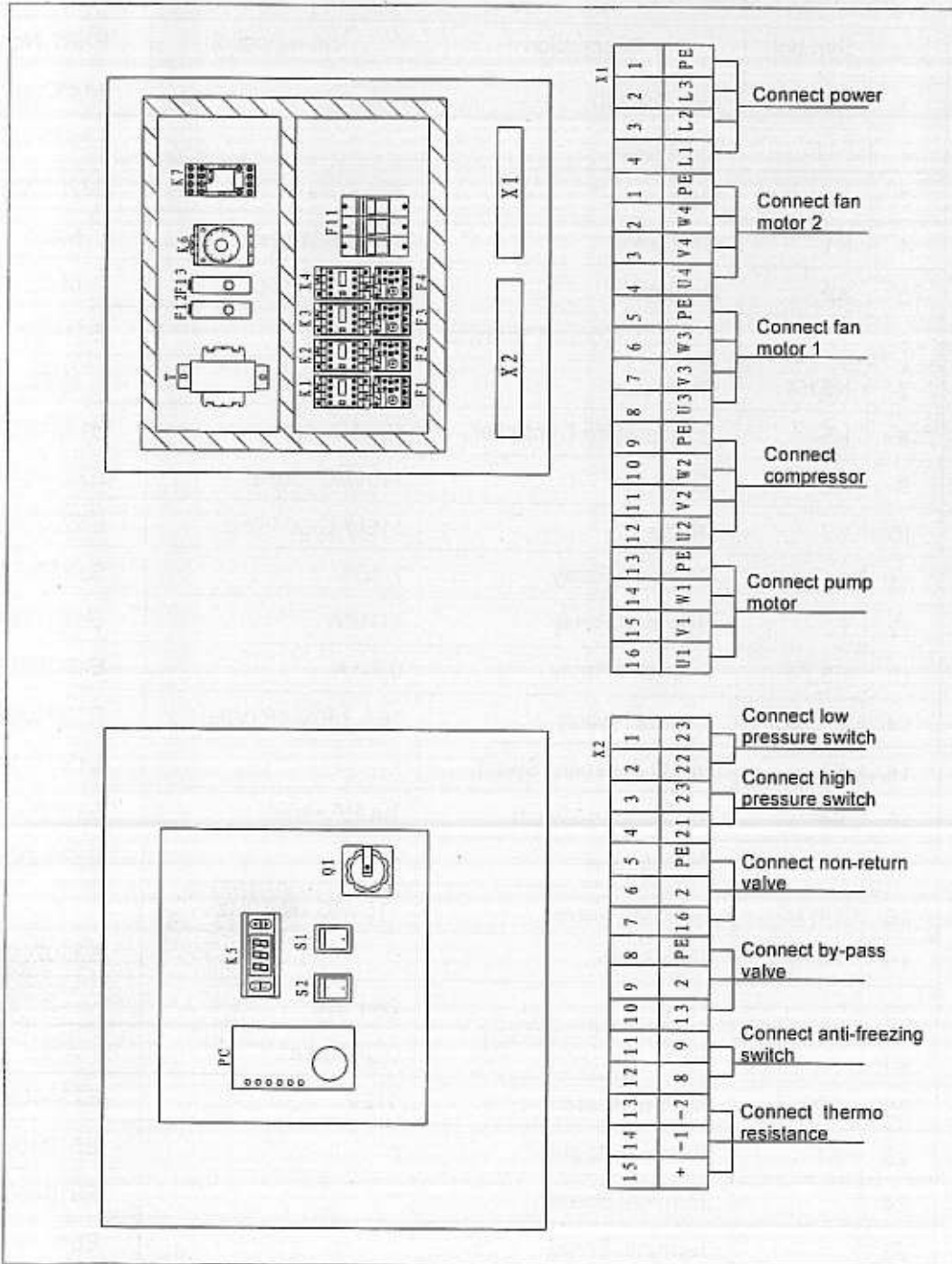
10. Electrical Circuit

10.1.2 Control circuit



10. Electrical Circuit

10.1.3 Components layout diagram





10. Electrical Circuit

10.1.4 Electrical components list

10.1.4.1 SIC-3A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	32A	E1432000
2	F11	Fuse Base	-	E3232003
3		Fuse	32A Fuse	E3202020
4	K1	Contactora	115V 50/60Hz	M-02
5	K2	Contactora	115V 50/60Hz	M-02
6		Auxiliary Contact Terminal	-	E1119211
7	K3,K4	Contactora	115V 50/60Hz	M-02
8	K5	Temperature Controller	12VAC 2W	H1221220
9	K6	Timer	115VAC 60Hz	E2211000
10	K7	Middle	115VAC 50/60Hz	E5202001
11	F1	Overload Relay	7-10A	E1270100
12	F2	Overload Relay	11-16A	E1211161
13	F3,F4	Overload Relay	0.7-1A	E1207010
14	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
15	S3	HI-LO Pressure Switch	-	L1307110
16	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
17	T	Transformer	-	E3305003
18	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
19	F12,F13	Fuse Base	-	E3202007
20		Fuse	2A Fuse	-
21		Fuse	0.5A Fuse	-
22	PC	Control Board	115V	E2304002
23	X1	Terminal Board	-	E5104001
24		Terminal Board	-	E5104004
25		Terminal Board	-	E5106002



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26		Terminal Board	-	E5106004
27	X2	Terminal Board	-	E5104001
28		Terminal Board	-	E5104004
29	M1	PUMP	230V 60Hz 1.5kW	-
30	M2	Compressor	230V 60Hz 2.6kW	-
31	M3,M4	FAN	230V 60Hz 0.12kW	-



10. Electrical Circuit

10.1.4.2 SIC-5A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	63A	E1463000
2	F11	Fuse Base	-	E3250001
3		Fuse	50A Fuse	E3202022
4	K1	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6		Auxiliary Contact Terminal	-	E1119211
7	K3,K4	Contactor	115V 50/60Hz	M-02
8	K5	Temperature Controller	12VAC 2W	H1221220
9	K6	Timer	115VAC 60Hz	E2211000
10	K7	Middle	115VAC 50/60Hz	E5202001
11	F1	Overload Relay	7-10A	E1270100
12	F2	Overload Relay	18-25A	E1218251
13	F3,F4	Overload Relay	0.7-1A	E1207010
14	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
15	S3	HI-LO Pressure Switch	-	L1307110
16	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
17	T	Transformer	-	E3305003
18	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
19	F12,F13	Fuse Base	-	E3202007
20		Fuse	2A Fuse	-
21		Fuse	0.5A Fuse	-
22	PC	Control Board	115V	E2304002
23	X1	Terminal Board	-	E5101001
24		Terminal Board	-	E5101002
25		Terminal Board	-	E5106002



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26		Terminal Board	-	E5106004
27	X2	Terminal Board	-	E5104001
28		Terminal Board	-	E5104004
29		Terminal Board	-	E5104001
30		Terminal Board	-	E5104004
31	M1	PUMP	230V 60Hz 1.5kW	-
32	M2	Compressor	230V 60Hz 4.43kW	-
33	M3,M4	FAN	230V 60Hz 0.12kW	-



10. Electrical Circuit

10.1.4.3 SIC-8A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	63A	E1463000
2	F11	Fuse Base	-	E3250001
3		Fuse	63A Fuse	E3202023
4	K1	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6		Auxiliary Contact Terminal	-	E1119211
7	K3,K4	Contactor	115V 50/60Hz	M-02
8	K5	Temperature Controller	12VAC 2W	H1221220
9	K6	Timer	115VAC 60Hz	E2211000
10	K7	Middle	115VAC 50/60Hz	E5202001
11	F1	Overload Relay	7-10A	E1270100
12	F2	Overload Relay	28-40A	E1228400
13	F3,F4	Overload Relay	0.9-1.25A	E1209125
14	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
15	S3	HI-LO Pressure Switch	-	L1307110
16	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
17	T	Transformer	-	E3305003
18	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
19	F12,F13	Fuse Base	-	E3202007
20		Fuse	2A Fuse	-
21		Fuse	0.5A Fuse	-
22	PC	Control Board	115V	E2304002
23	X1	Terminal Board	-	E5101001
24		Terminal Board	-	E5101002
25		Terminal Board	-	E5104001



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26		Terminal Board	-	E5104004
27	X2	Terminal Board	-	E5104001
28		Terminal Board	-	E5104004
29	M1	PUMP	230V 60Hz 1.5kW	-
30	M2	Compressor	230V 60Hz 7.0kW	-
31	M3,M4	FAN	230V 60Hz 0.18kW	-



10. Electrical Circuit

10.1.4.4 SIC-10A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	63A	E1463000
2	F11	Fuse Base	-	E3210001
3		Fuse	80A Fuse	M-02
4	K1	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6		Auxiliary Contact Terminal	-	E1119211
7	K3,K4	Contactor	115V 50/60Hz	M-02
8	K5	Temperature Controller	12VAC 2W	H1221220
9	K6	Timer	115VAC 60Hz	E2211000
10	K7	Middle	115VAC 50/60Hz	E5202001
11	F1	Overload Relay	7-10A	E1270100
12	F2	Overload Relay	40-50A	E1240500
13	F3,F4	Overload Relay	0.9-1.25A	E1209125
14	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
15	S3	HI-LO Pressure Switch	-	L1307110
16	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
17	T	Transformer	-	E3305003
18	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
19	F12,F13	Fuse Base	-	E3202007
20		Fuse	2A Fuse	-
21		Fuse	0.5A Fuse	-
22	PC	Control Board	115V	E2304002
23	X1	Terminal Board	-	E5116000
24		Terminal Board	-	E5116001
25		Terminal Board	-	E5101001



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26		Terminal Board	-	E5101002
27	X2	Terminal Board	-	E5104001
28		Terminal Board	-	E5104004
29		Terminal Board	-	E5104001
30		Terminal Board	-	E5104004
31	M1	PUMP	230V 60Hz 1.5kW	-
32	M2	Compressor	230V 60Hz 9.06kW	-
33	M3,M4	FAN	230V 60Hz 0.18kW	-



10. Electrical Circuit

10.2 SIC-3A~10A-UL-460V Electrical Circuit

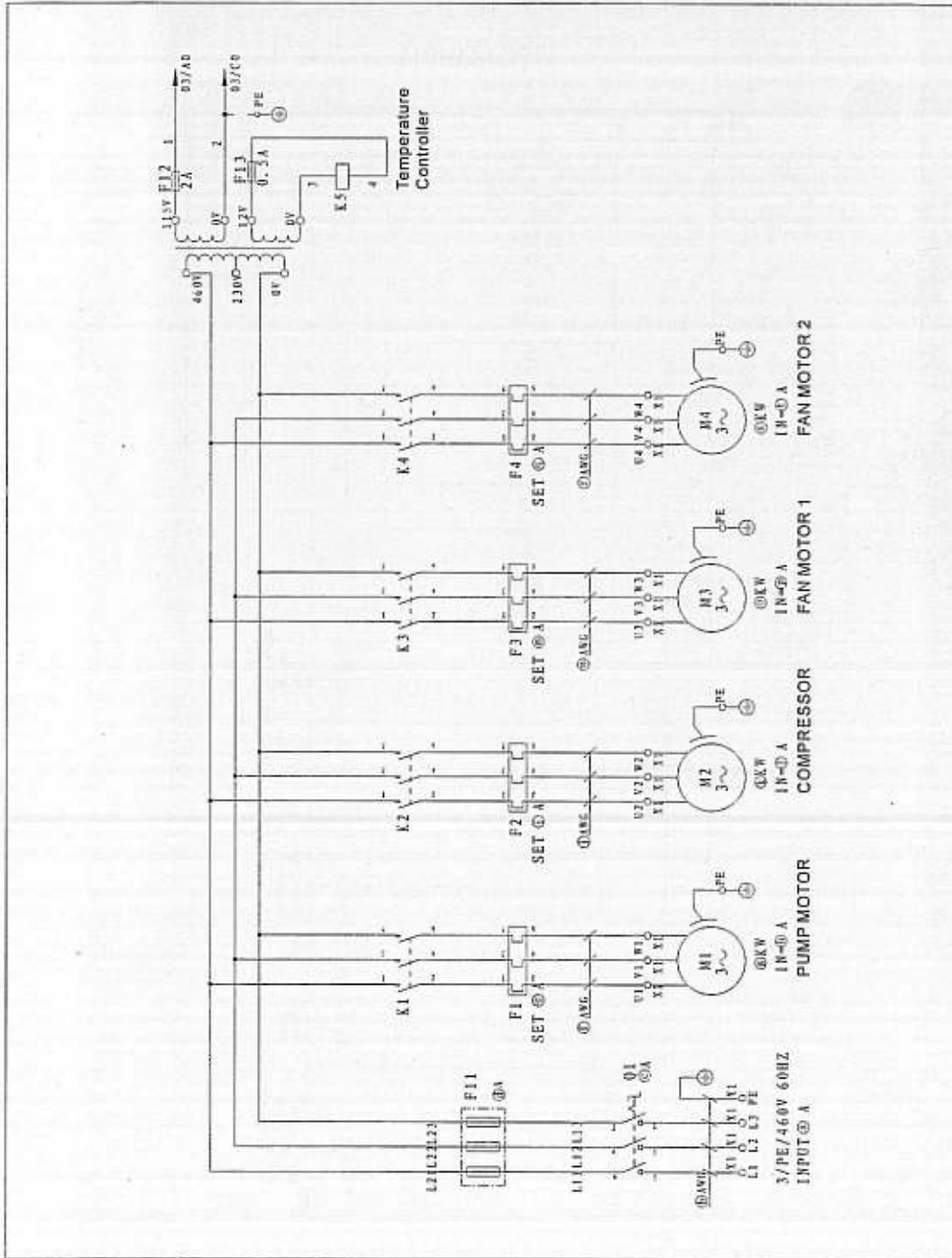
NO.	SYMBOL MODE	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		1	SIC-3A	10.66	12	16	16	4.4	12	1.5	4
2	SIC-5A	14.96	12	25	25	4.4	12	1.5	4	11	12
3	SIC-8A	21.06	10	32	40	4.4	12	1.5	4	17	10
4	SIC-10A	24.26	8	32	50	4.4	12	1.5	4	21	10

NO.	SYMBOL MODE	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)
		1	SIC-3A	2.6	5.7	0.5	12	0.12	0.48	0.5	12
2	SIC-5A	4.43	10	0.5	12	0.12	0.48	0.5	12	0.12	0.48
3	SIC-8A	7.0	16.0	0.58	12	0.18	0.53	0.58	12	0.18	0.53
4	SIC-10A	9.06	19.2	0.58	12	0.18	0.53	0.58	12	0.18	0.53

- (a) Main current
- (b) Main cable
- (c) Main power switch
- (h) Current of pump
- (i) Thermo relay setting for compressor
- (j) Cable dia. Of compressor
- (o) Power of fan 1
- (p) Current of fan 1
- (q) Thermo relay setting for fan 2
- (d) Fuse
- (e) Thermo relay setting for pump
- (f) Cable dia. Of pump
- (k) Power of compressor
- (l) Current of compressor
- (m) Thermo relay setting for fan 1
- (r) Cable dia. Of fan 2
- (s) Power of fan 2
- (t) Current of fan 2
- (g) Power of pump
- (n) Cable dia. Of fan 1

10. Electrical Circuit

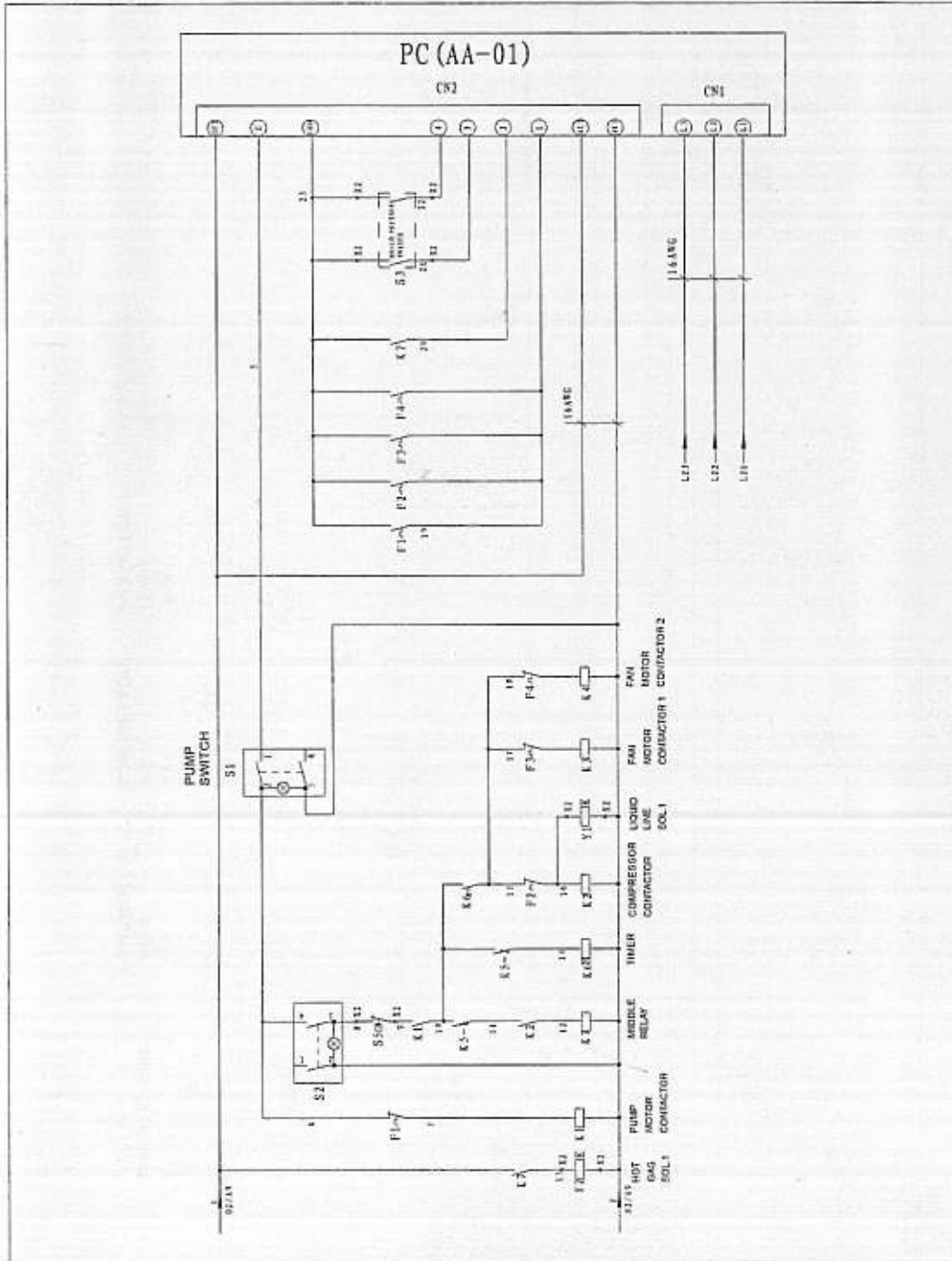
10.2.1 Electrical circuit principle diagram





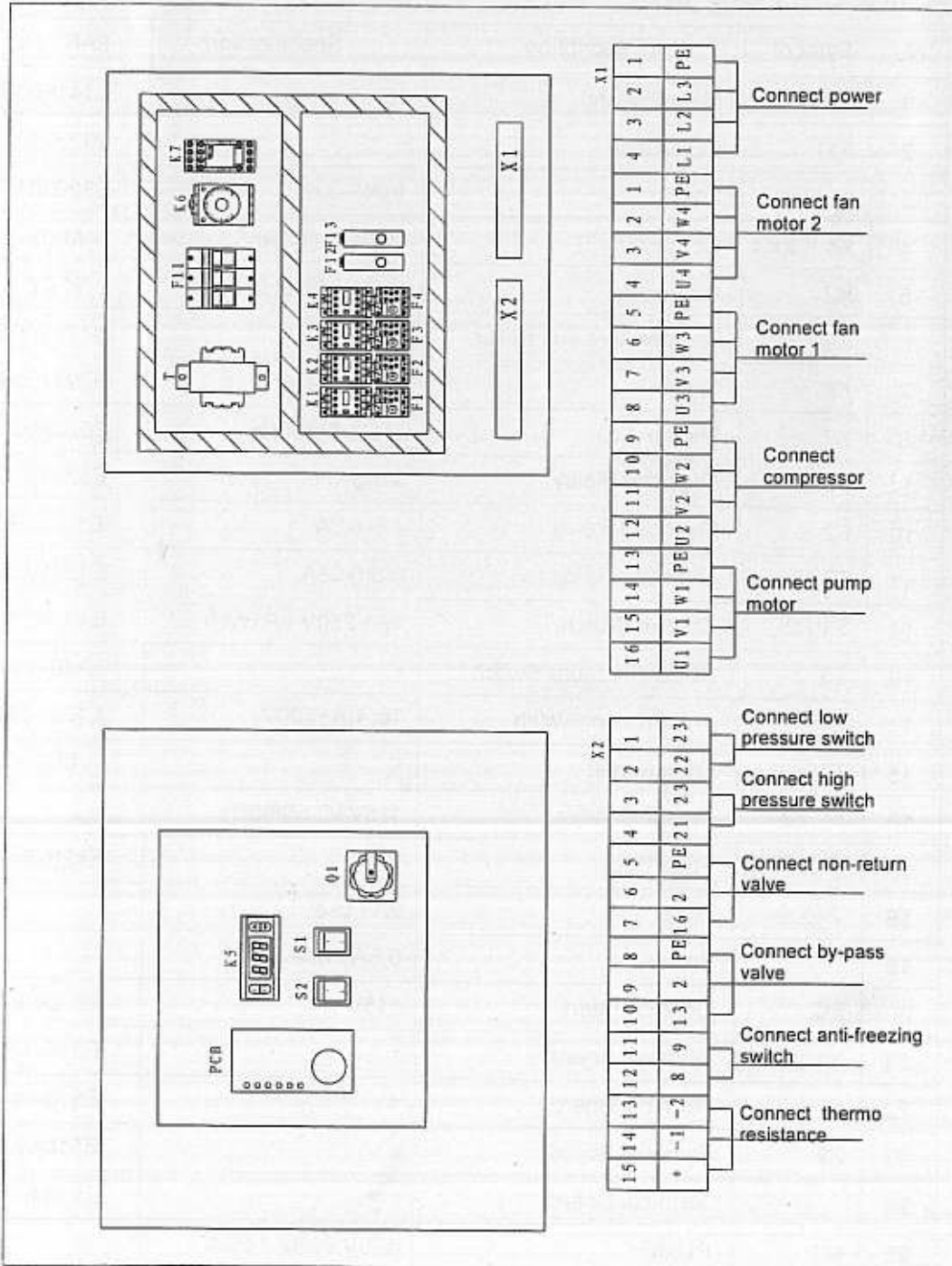
10. Electrical Circuit

10.2.2 Control circuit



10. Electrical Circuit

10.2.3 Components layout diagram





10. Electrical Circuit

10.2.4 Electrical components list

10.2.4.1 SIC-3A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	16A	E1416000
2	F11	Fuse Base	-	E3232003
3		Fuse	16A Fuse	E3202017
4	K1,K3,K4	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6	K5	Temperature Controller	12VAC 2W	H1221220
7	K6	Timer	115V 60Hz	E2211000
8	K7	Middle	115V 50/60Hz	E5202001
9	F1	Overload Relay	3.5-5A	E1235050
10	F2	Overload Relay	4.5-6.3A	E1245630
11	F3,F4	Overload Relay	0.5-0.63A	E1245632
12	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
13	S3	HI-LO Pressure Switch	-	L1307110
14	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
15	T	Transformer	-	M-02
16	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
17	F12,F13	Fuse Base	-	E3202007
18		Fuse	2A Fuse	-
19		Fuse	0.5A Fuse	-
20	PC	Control Board	115V	E2304002
21	X1	Terminal Board	-	E5104001
22		Terminal Board	-	E5104004
23	X2	Terminal Board	-	E5104001
24		Terminal Board	-	E5104004
25	M1	PUMP	460V 60Hz 1.5kW	-



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26	M2	Compressor	230V 60Hz 2.6kW	-
27	M3,M4	FAN	230V 60Hz 0.12kW	-



10. Electrical Circuit

10.2.4.2 SIC-5A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	25A	E1425000
2	F11	Fuse Base	-	E3232003
3		Fuse	25A Fuse	E3202019
4	K1,K3,K4	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6	K5	Temperature Controller	12VAC 2W	H1221220
7	K6	Timer	115V 60Hz	E2211000
8	K7	Middle	115V 50/60Hz	E5202001
9	F1	Overload Relay	3.5-5A	E1235050
10	F2	Overload Relay	9-12A	E1290120
11	F3,F4	Overload Relay	0.5-0.63A	E1245632
12	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
13	S3	HI-LO Pressure Switch	-	L1307110
14	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
15	T	Transformer	-	M-02
16	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
17	F12,F13	Fuse Base	-	E3202007
18		Fuse	2A Fuse	-
19		Fuse	0.5A Fuse	-
20	PC	Control Board	115V	E2304002
21	X1	Terminal Board	-	E5104001
22		Terminal Board	-	E5104004
23	X2	Terminal Board	-	E5104001
24		Terminal Board	-	E5104004
25	M1	PUMP	460V 60Hz 1.5kW	-



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26	M2	Compressor	230V 60Hz 4.43kW	-
27	M3,M4	FAN	230V 60Hz 0.12kW	-



10. Electrical Circuit

10.2.4.3 SIC-8A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	32A	E1432000
2	F11	Fuse Base	-	E3250001
3		Fuse	40A Fuse	E3202021
4	K1,K3,K4	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6		Auxiliary Contact Terminal	-	E1119211
7	K5	Temperature Controller	12VAC 2W	H1221220
8	K6	Timer	115V 60Hz	E2211000
9	K7	Middle	115V 50/60Hz	E5202001
10	F1	Overload Relay	3.5-5A	E1235050
11	F2	Overload Relay	14-20A	E1214200
12	F3,F4	Overload Relay	0.5-0.63A	E1245632
13	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
14	S3	HI-LO Pressure Switch	-	L1307110
15	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
16	T	Transformer	-	M-02
17	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
18	F12,F13	Fuse Base	-	E3202007
19		Fuse	2A Fuse	-
20		Fuse	0.5A Fuse	-
21	PC	Control Board	115V	E2304002
22	X1	Terminal Board	-	E5106002
23		Terminal Board	-	E5106004
24		Terminal Board	-	E5104001
25		Terminal Board	-	E5104004



10. Electrical Circuit

No.	Symbol	Description	Specification	PART No.
26	X2	Terminal Board	-	E5104001
27		Terminal Board	-	E5104004
28	M1	PUMP	460V 60Hz 1.5kW	
29	M2	Compressor	230V 60Hz 7.0kW	-
30	M3,M4	FAN	230V 60Hz 0.18kW	-



10. Electrical Circuit

10.2.4.4 SIC-10A

No.	Symbol	Description	Specification	PART No.
1	Q1	Main Switch	32A	E1432000
2	F11	Fuse Base	-	E3250001
3		Fuse	50A Fuse	E3202022
4	K1,K3,K4	Contactor	115V 50/60Hz	M-02
5	K2	Contactor	115V 50/60Hz	M-02
6		Auxiliary Contact Terminal	-	E1119211
7	K5	Temperature Controller	12VAC 2W	H1221220
8	K6	Timer	115V 60Hz	E2211000
9	K7	Middle	115V 50/60Hz	E5202001
10	F1	Overload Relay	3.5-5A	E1235050
11	F2	Overload Relay	17-22A	E1211261
12	F3,F4	Overload Relay	0.5-0.63A	E1245632
13	S1,S2	Control Switch	16A 250V 4P (WH)	E1304000
14	S3	HI-LO Pressure Switch	-	L1307110
15	S4	Anti-Frozen Switch	16(4)A~400V	L1308301
16	T	Transformer	-	M-02
17	Y1,Y2	Solenoid Valve	115VAC 50/60Hz	-
18	F12,F13	Fuse Base	-	E3202007
19		Fuse	2A Fuse	-
20		Fuse	0.5A Fuse	-
21	PC	Control Board	115V	E2304002
22	X1	Terminal Board	-	E5101001
23		Terminal Board	-	E5101002
24		Terminal Board	-	E5106002
25		Terminal Board	-	E5106004



10. Electrical Circuit

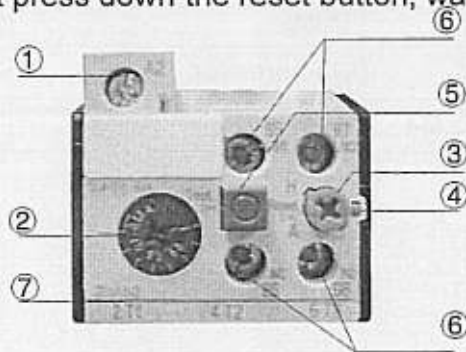
No.	Symbol	Description	Specification	PART No.
26		Terminal Board	-	E5104001
27		Terminal Board	-	E5104004
28	X2	Terminal Board	-	E5104001
29		Terminal Board	-	E5104004
30	M1	PUMP	460V 60Hz 1.5kW	
31	M2	Compressor	230V 60Hz 9.06kW	-
32	M3,M4	FAN	230V 60Hz 0.18kW	-

10. Electrical Circuit

10.3 Main Electrical Components List

10.3.1 Overload relay

At delivery, the overload relay is set for manual reset. (the reset button pointing to H). Manually reset the relay at the tripping of the switch. when motor overload occurs, stop the machine. Check and solve the problem. Then open the door of control box, press down the blue reset button of overload relay. (if you can not press down the reset button, wait for one more minute)



Description of overload relay:

- 1) Terminal for contactor coil A2.
 - 2) Setting current adjusting scale
 - 3) Reset (blue)
- H: Manual reset
A: Automatic reset
- 4) Switch position indication(green)
- Tripping of a manual-resetting is indicated by a pin projecting at the front plate
- 5) Test button(red)
 - 6) Auxiliary contact terminals shown in 95.96.97.98.
NC and NO contacts are shown in position 95.96. and 97.98. respectively.
 - 7) Main circuit connection No. must correspond with terminal number of contactor.



11. Maintenance Schedule

11. Maintenance Schedule

11.1 General Machine Information

Model: _____ SN: _____ MFG. Date: _____

Voltage: ___ ϕ _____ V Frequency: ___ Hz Total power: _____ kW

11.2 Check after Installation

- Check the pipes are all correctly connected.
- Check if there are leakages in the piping system.
- Check if there are breaks in welding joint.

Electrical Installation

- Voltage: _____ V _____ Hz
- Fuse specification: 1 phase _____ A 3 phase _____ A
- Check power phase



11. Maintenance Schedule

11.3 Daily Checking

<u> / / </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires	<u> / / </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires	<u> / / </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires
<u> / / </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires	<u> / / </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires	<u> / / </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires
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11. Maintenance Schedule

<u> </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires	<u> </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires	<u> </u> <input type="checkbox"/> Check switch functions <input type="checkbox"/> Check all the electrical wires
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11. Maintenance Schedule

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11. Maintenance Schedule

11.4 Weekly Checking

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection & alarm function

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- Check electrical connections
- Check protection & alarm function

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- Check electrical connections
- Check protection & alarm function



11. Maintenance Schedule

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection & alarm function

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11. Maintenance Schedule

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection & alarm function

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- Check protection & alarm function

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection & alarm function



11. Maintenance Schedule

11.5 Monthly Checking

<u> </u> <u> </u>	<u> </u> <u> </u>	<u> </u> <u> </u>
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<u> </u> <u> </u>	<u> </u> <u> </u>	<u> </u> <u> </u>
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<u> </u> <u> </u>	<u> </u> <u> </u>	<u> </u> <u> </u>
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<u> </u> <u> </u>	<u> </u> <u> </u>	<u> </u> <u> </u>
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<u> </u> <u> </u>	<u> </u> <u> </u>	<u> </u> <u> </u>
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function	<input type="checkbox"/> Check protection and alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe



11. Maintenance Schedule

1 1

- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check all the electrical wires
- Check electrical connections
- Check protection and alarm function
- Check refrigerant circulation pipe

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- Check switch functions
- Check all the electrical wires
- Check electrical connections
- Check protection and alarm function
- Check refrigerant circulation pipe



11. Maintenance Schedule

11.6 Half-yearly Checking

/ /	/ /	/ /
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection & alarm function	<input type="checkbox"/> Check protection & alarm function	<input type="checkbox"/> Check protection & alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<input type="checkbox"/> Check and clean the condenser and evaporator	<input type="checkbox"/> Check and clean the condenser and evaporator	<input type="checkbox"/> Check and clean the condenser and evaporator
<input type="checkbox"/> Check and clean the filter and expansion valve	<input type="checkbox"/> Check and clean the filter and expansion valve	<input type="checkbox"/> Check and clean the filter and expansion valve
<input type="checkbox"/> Check system performance	<input type="checkbox"/> Check system performance	<input type="checkbox"/> Check system performance
/ /	/ /	/ /
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection & alarm function	<input type="checkbox"/> Check protection & alarm function	<input type="checkbox"/> Check protection & alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<input type="checkbox"/> Check and clean the condenser and evaporator	<input type="checkbox"/> Check and clean the condenser and evaporator	<input type="checkbox"/> Check and clean the condenser and evaporator
<input type="checkbox"/> Check and clean the filter and expansion valve	<input type="checkbox"/> Check and clean the filter and expansion valve	<input type="checkbox"/> Check and clean the filter and expansion valve
<input type="checkbox"/> Check system performance	<input type="checkbox"/> Check system performance	<input type="checkbox"/> Check system performance
/ /	/ /	/ /
<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions	<input type="checkbox"/> Check switch functions
<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires	<input type="checkbox"/> Check all the electrical wires
<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections	<input type="checkbox"/> Check electrical connections
<input type="checkbox"/> Check protection & alarm function	<input type="checkbox"/> Check protection & alarm function	<input type="checkbox"/> Check protection & alarm function
<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe	<input type="checkbox"/> Check refrigerant circulation pipe
<input type="checkbox"/> Check and clean the condenser and evaporator	<input type="checkbox"/> Check and clean the condenser and evaporator	<input type="checkbox"/> Check and clean the condenser and evaporator
<input type="checkbox"/> Check and clean the filter and expansion valve	<input type="checkbox"/> Check and clean the filter and expansion valve	<input type="checkbox"/> Check and clean the filter and expansion valve
<input type="checkbox"/> Check system performance	<input type="checkbox"/> Check system performance	<input type="checkbox"/> Check system performance



Local Warranty Statement

1. Local warranty applies to the country of purchase only. Once the product is transited out of the country of purchase, this warranty is invalidated.
2. The warranty is only applicable to the original purchaser and in the country of purchase.
3. The warranty covers parts and labour only; and excludes freight and on-site call-out charges.
4. Your SHINI product is guaranteed against manufacturing defects for a period of twelve (12) months from the date of purchase locally unless stated otherwise.
5. The warranty shall immediately cease and become void if the product is found to have been modified or repaired by an unauthorized person.
6. The warranty is subjected to the following limitations and exclusions:
 - (a) Malfunctions or damages resulting from not complying with the recommended manner as outlined in our operation manual in relation with the application, installation, operation and maintenance.
 - (b) Defects from using wrong electrical supply, misuse or damage by negligence and abuse.
 - (c) Malfunctions or damages resulting from natural disaster, fire, civil unrest and/or accidents.
 - (d) Wear parts and accessories.
7. If your SHINI product is not the same place of purchase, you can still send the product to your local SHINI's branch or distributor for servicing at your full costs according to the individual country service policy.
8. If there is no SHINI's branch or distributor in your country, although obviously there is no warranty covered by SHINI, you may direct contact SHINI requesting for the supply of replacement parts at your full costs.
9. All the electricity installation, connection and maintenance should be carried out by the specialists or contact SHINI or its local agents.

Local Warranty Statement



10. The warranty is deemed valid only if the followings are completely filled in:

Purchaser's name and address: _____

Your supplier's name and address: _____

(company stamp)

Product model: _____ Serial number: _____

Invoice Number: _____ Date of purchase: _____