

SERVICE MANUAL

AIR-CONDITIONER SPLIT TYPE

These models are provided for exclusive use in Australia, based on the models for Europe.
However their model names and a part of the service parts have been changed.
Please refer to the following service manuals for each outdoor units.

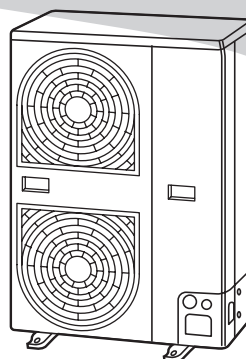
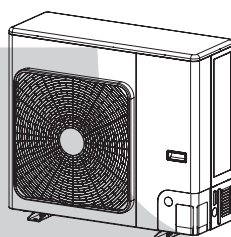
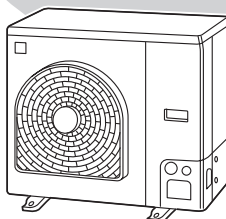
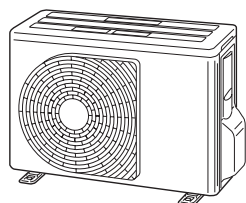
OUTDOOR UNIT

<DIGITAL INVERTER>

RAV-SM563AT-A	:A06-010
RAV-SM803AT-A	:A06-010
RAV-SM1103AT-A	:A06-010
RAV-SM1403AT-A	:A06-010
RAV-SM1603AT-A	:A07-009

<SUPER DIGITAL INVERTER>

RAV-SP564AT-A	:A08-007
RAV-SP804AT-A	:A08-007
RAV-SP1104AT-A	:A07-003
RAV-SP1404AT-A	:A07-003



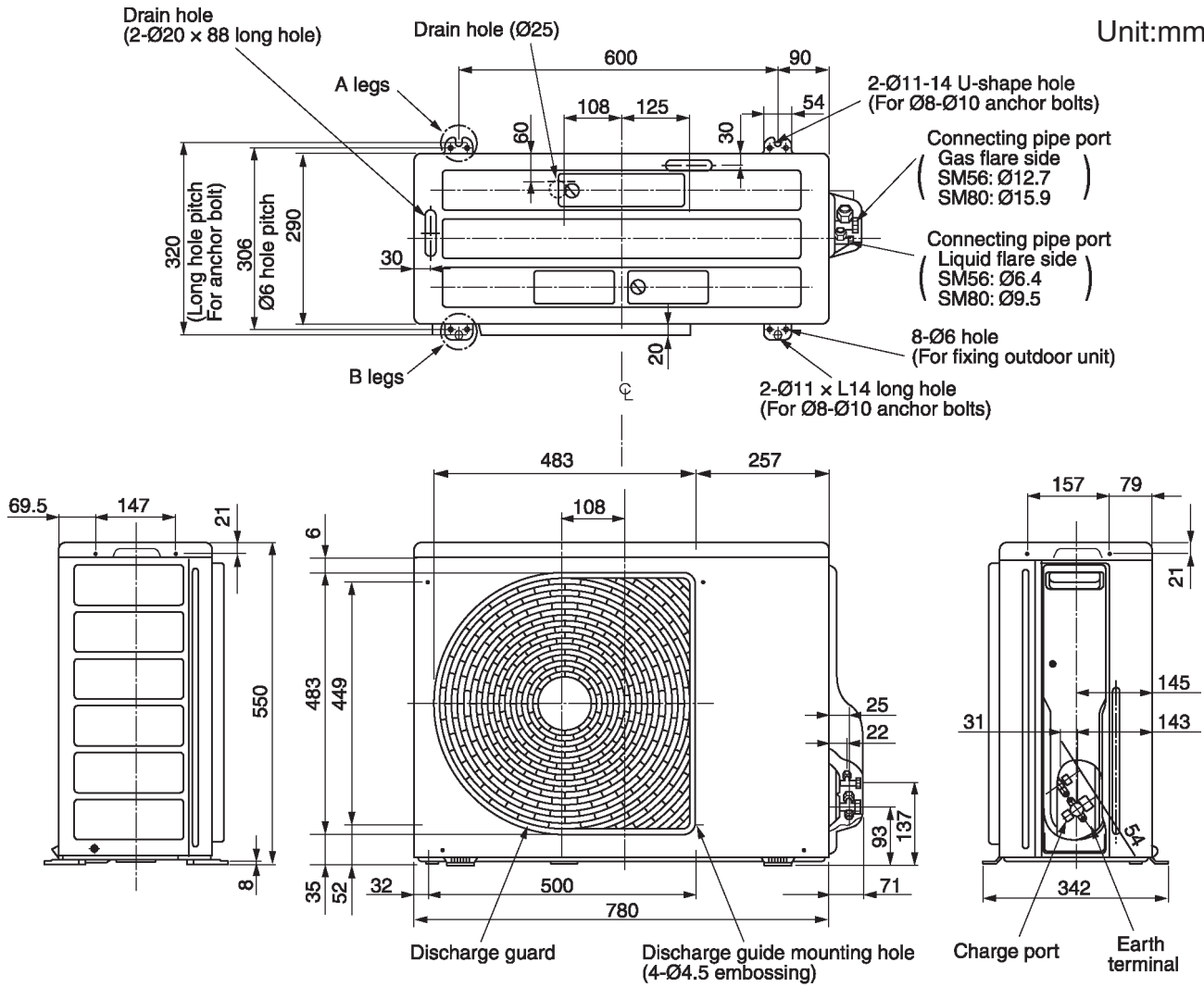
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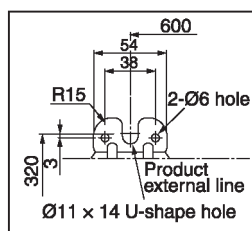
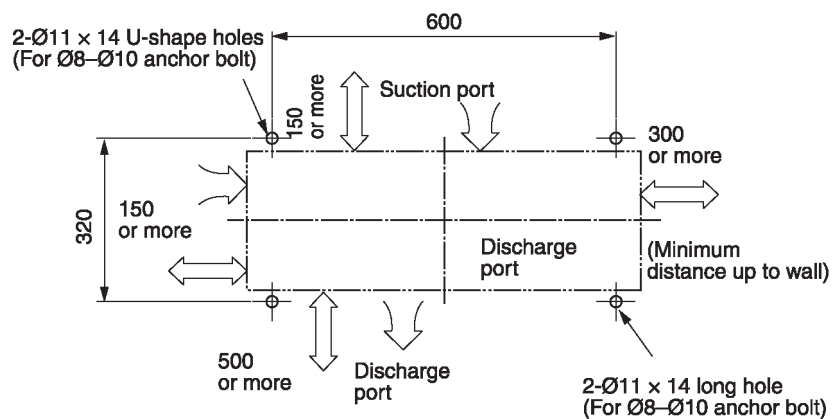
1. CONSTRUCTION VIEWS (EXTERNAL VIEWS)

1-1. RAV-SM563AT-A, RAV-SM803AT-A

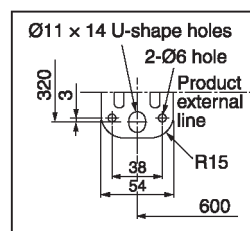
Unit:mm



Space required for service



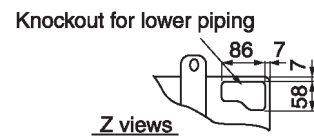
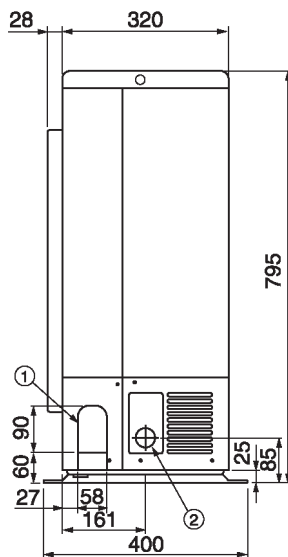
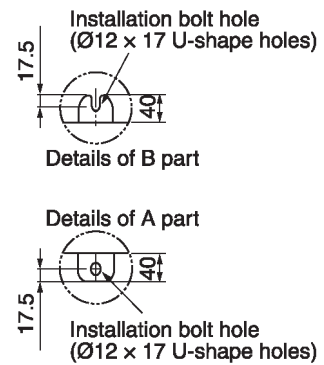
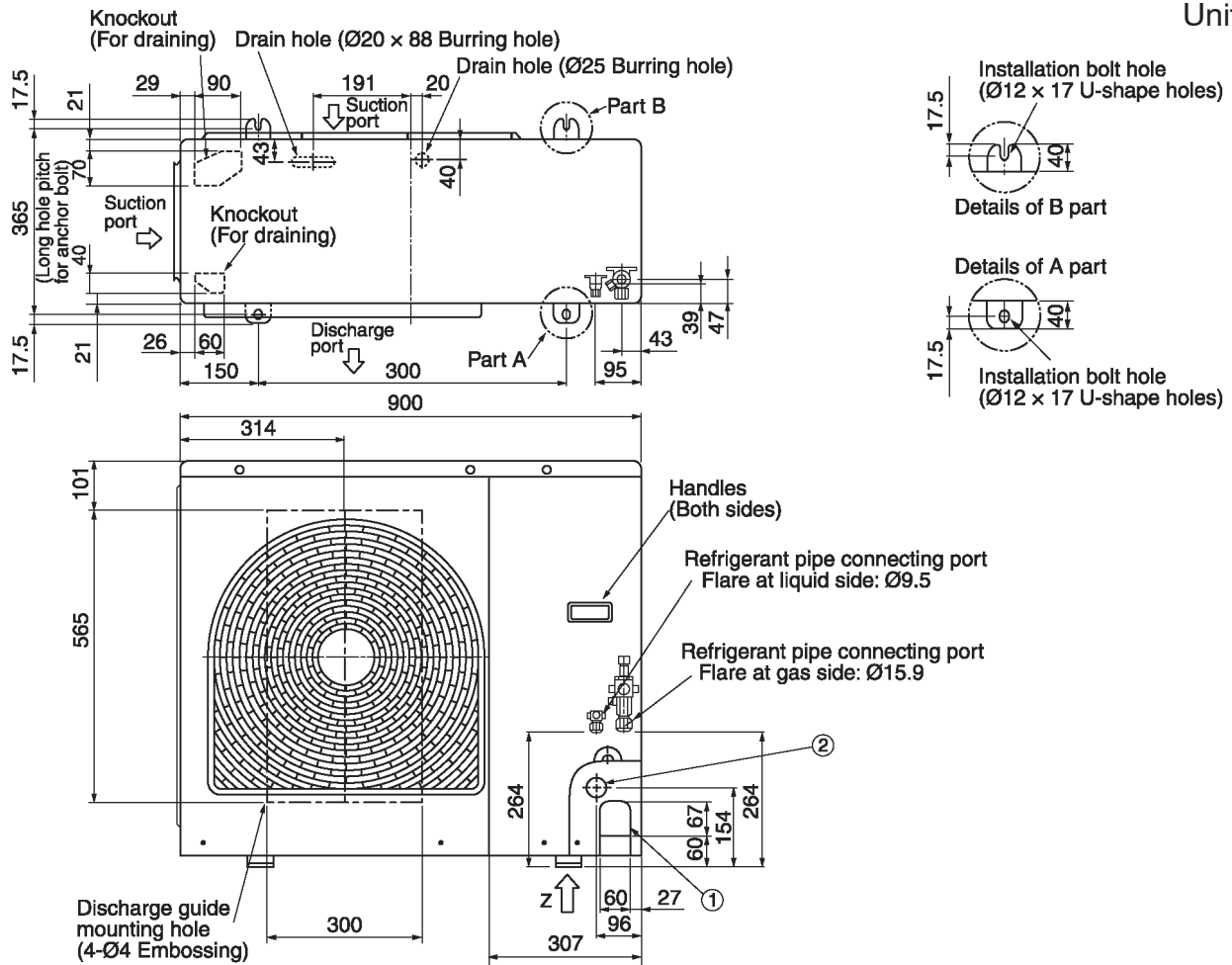
Details of A legs



Details of B legs

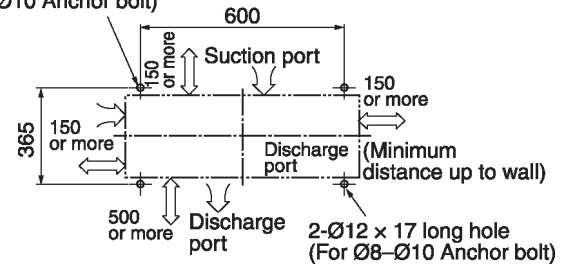
1-2. RAV-SM1103AT-A, RAV-SM1403AT-A

Unit:mm

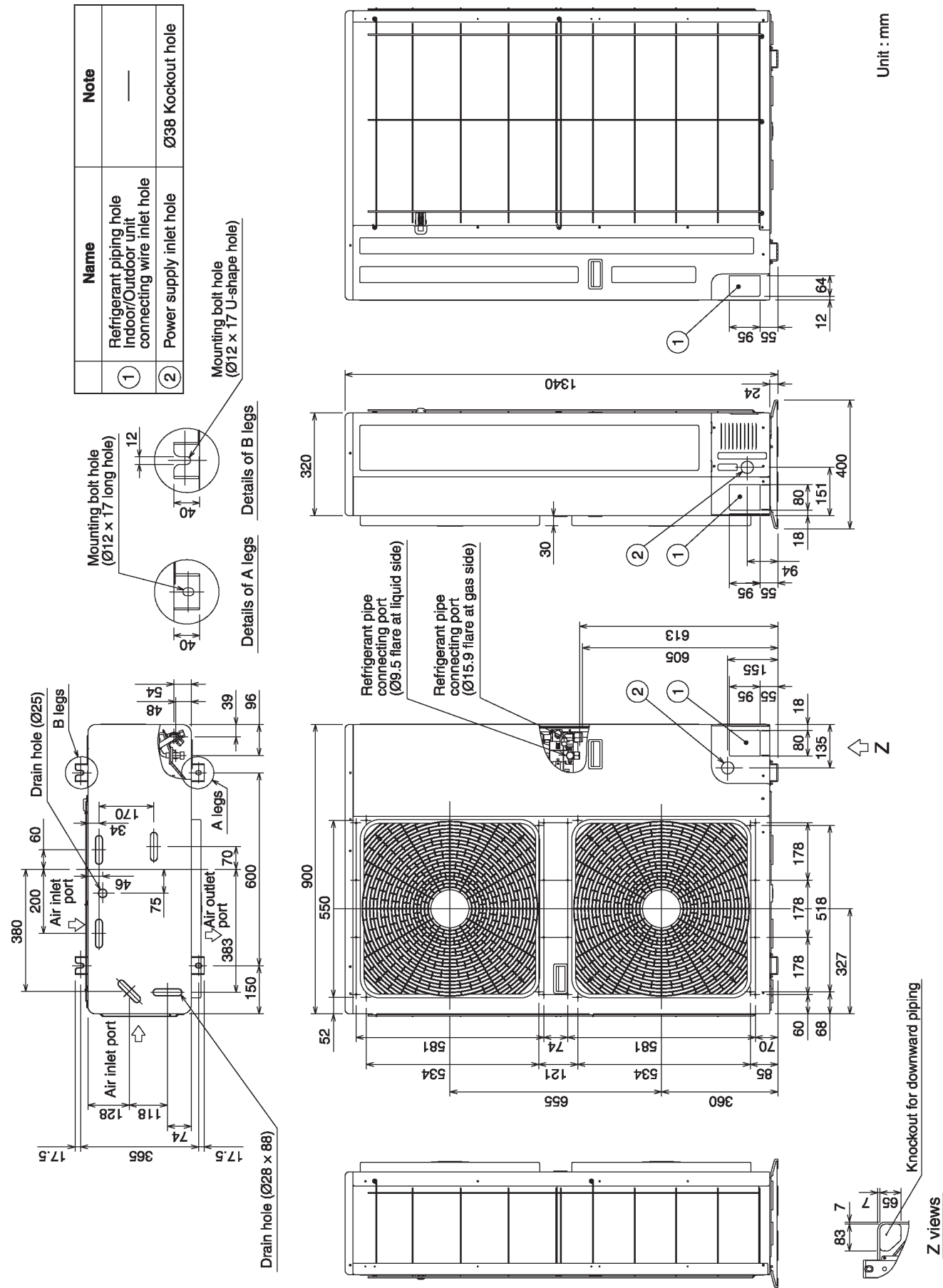


Space required for service

2-Ø12 x 17 U-shape holes
(For Ø8-Ø10 Anchor bolt)

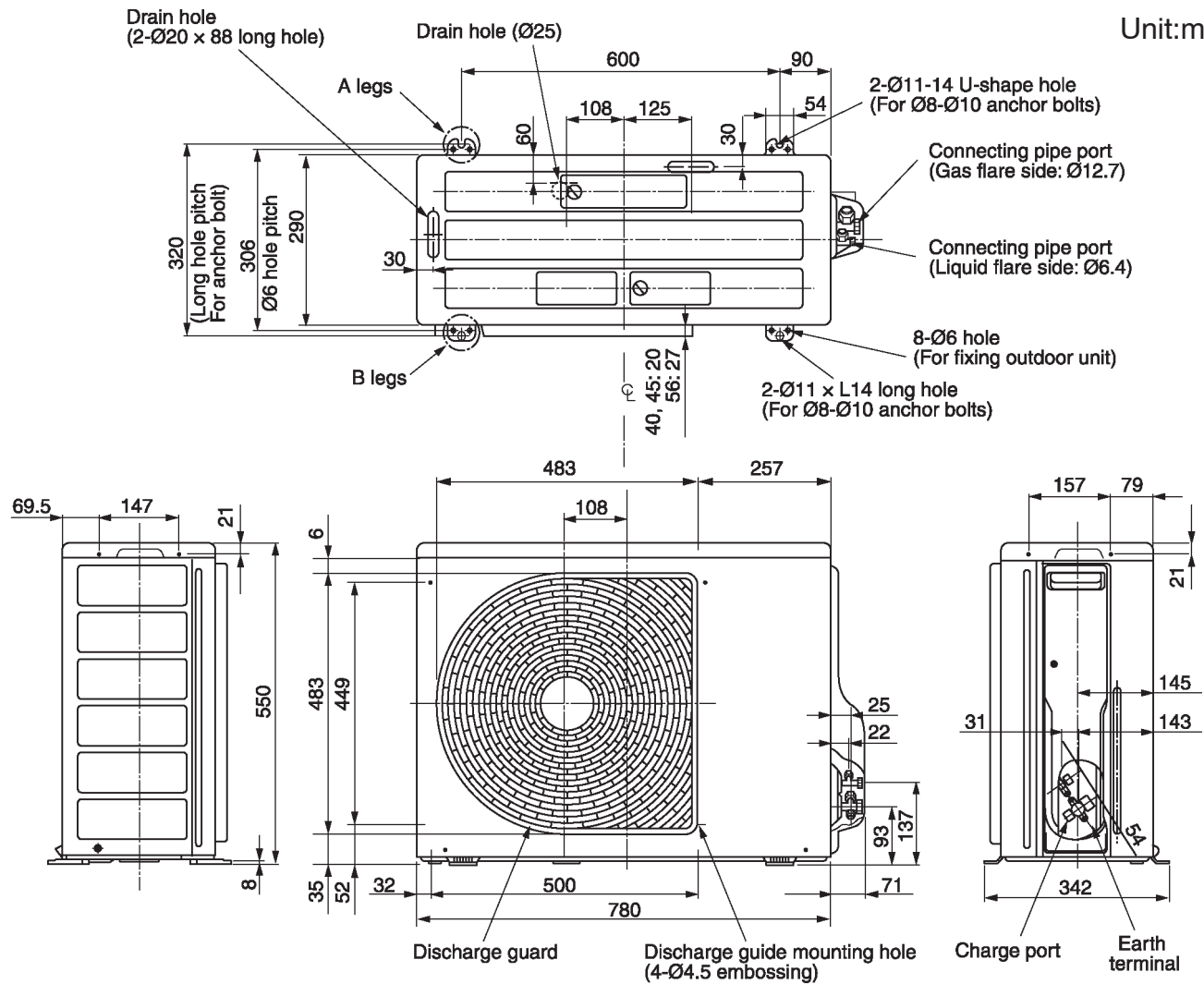


1-3. RAV-SM1603AT-A

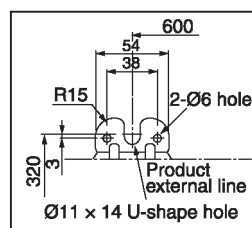
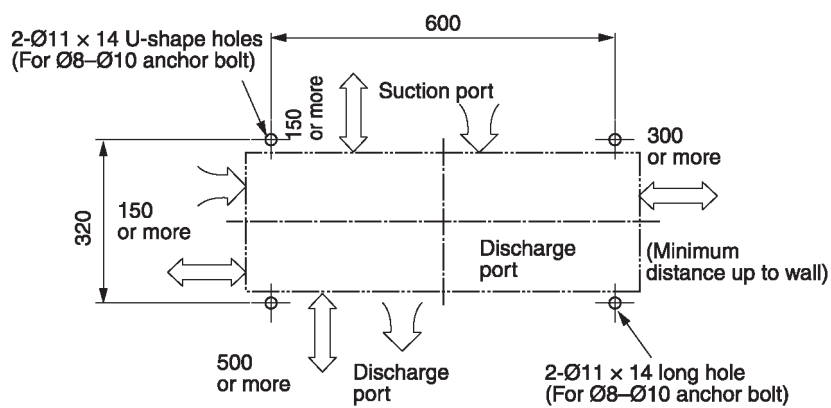


1-4. RAV-SP564AT-A

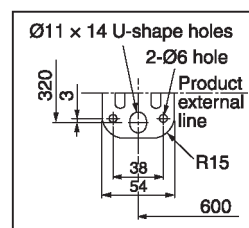
Unit:mm



Space required for service



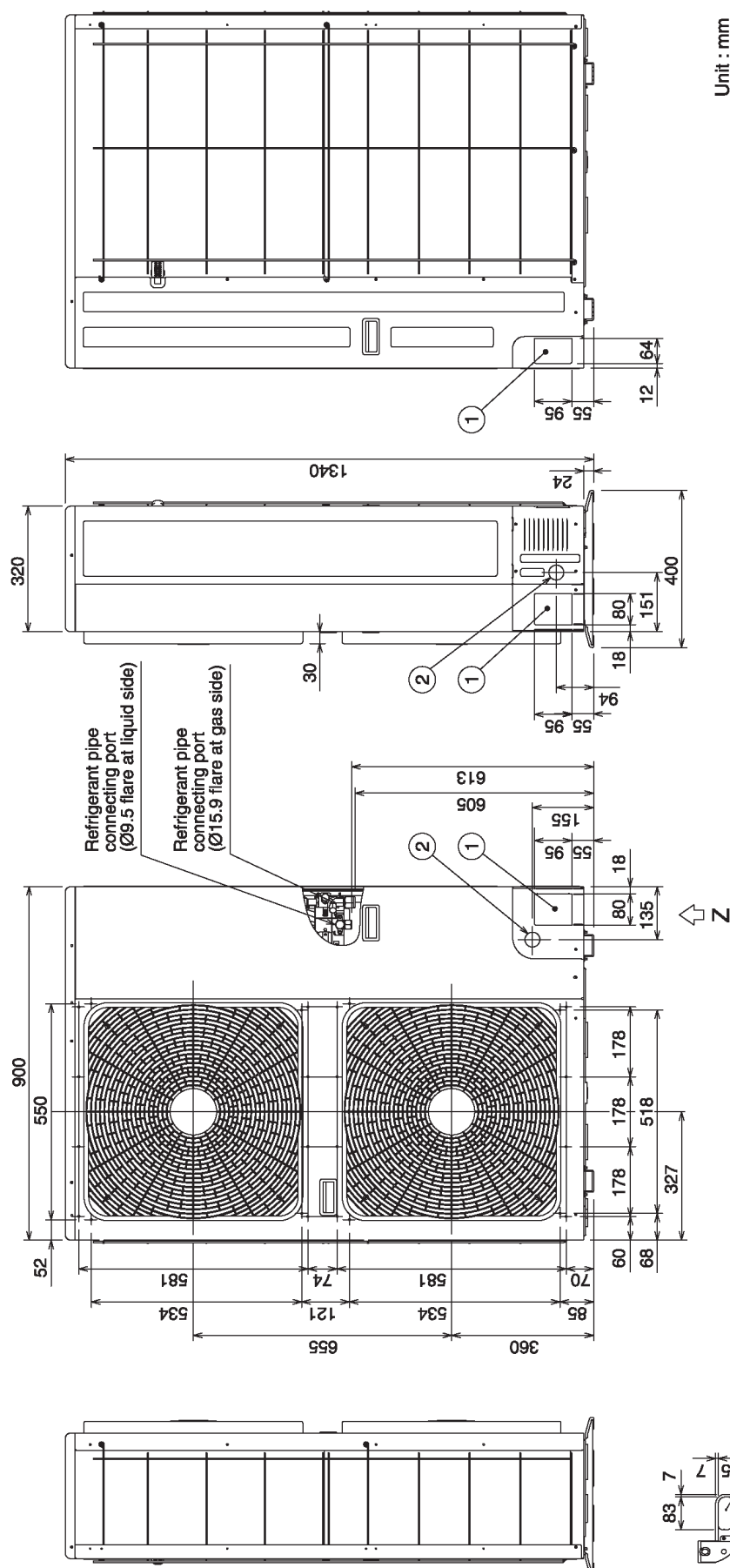
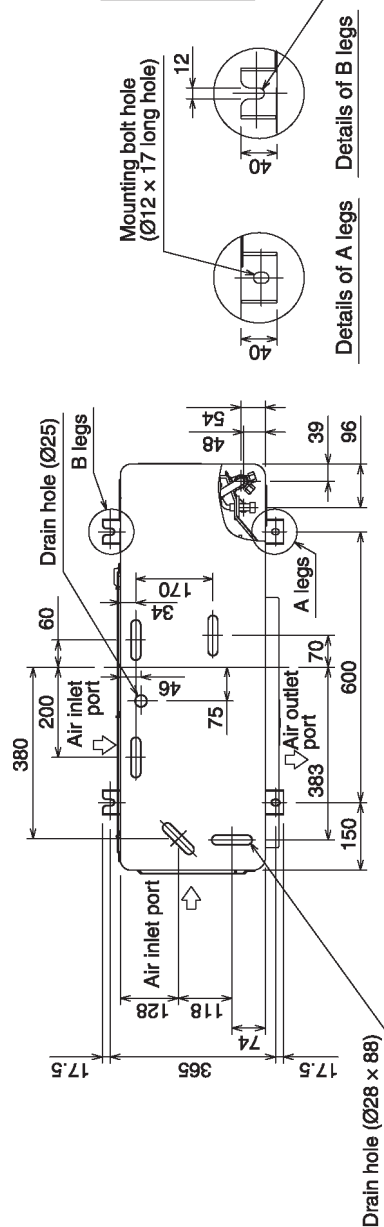
Details of A legs



Details of B legs

1-6. RAV-SP1104AT-A, RAV-SP1404AT-A

	Name	Note
①	Refrigerant piping hole Indoor/Outdoor unit connecting wire inlet hole	—
②	Power supply inlet hole	Ø38 Knockout hole



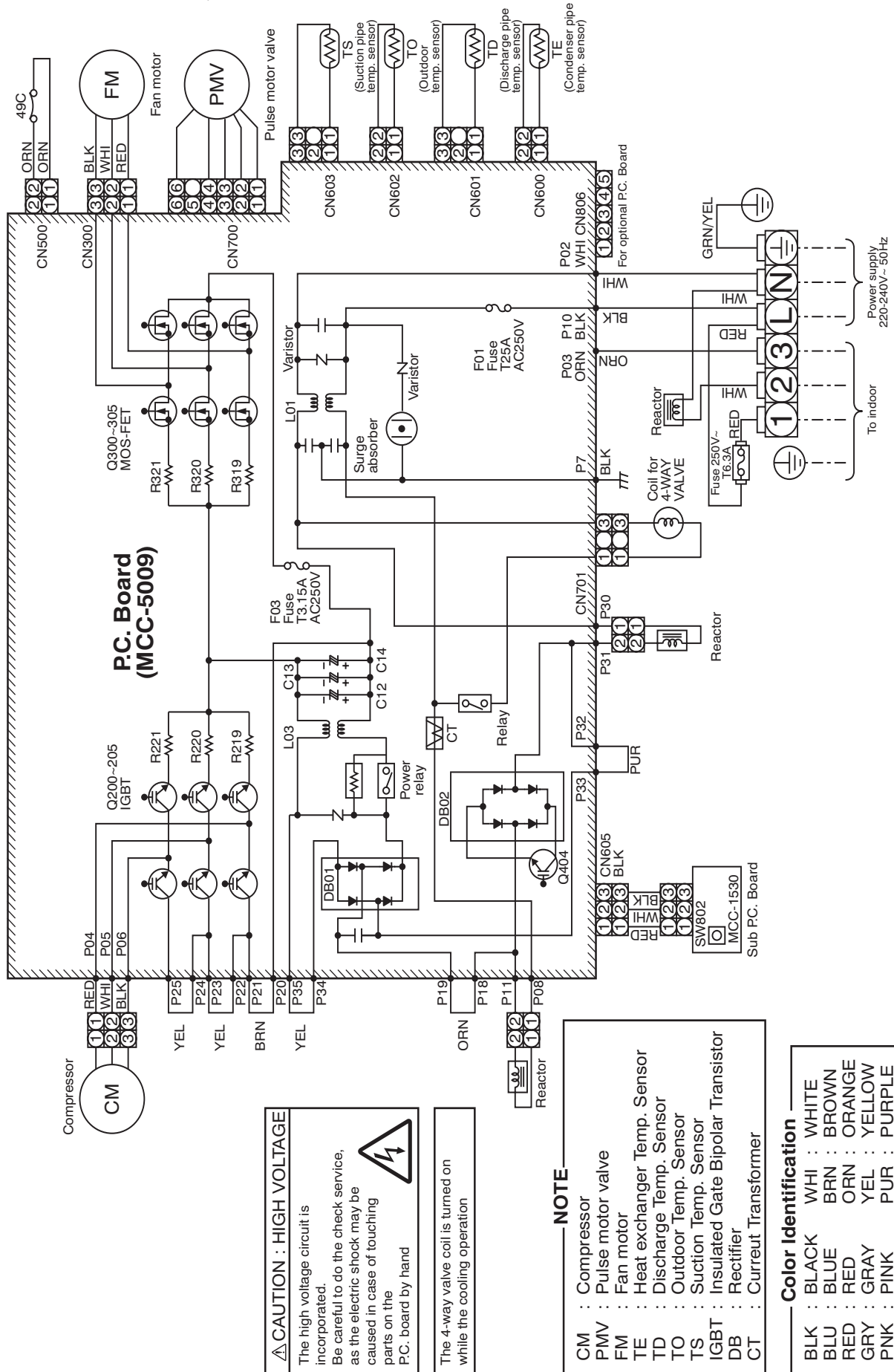
Unit : mm

Z views

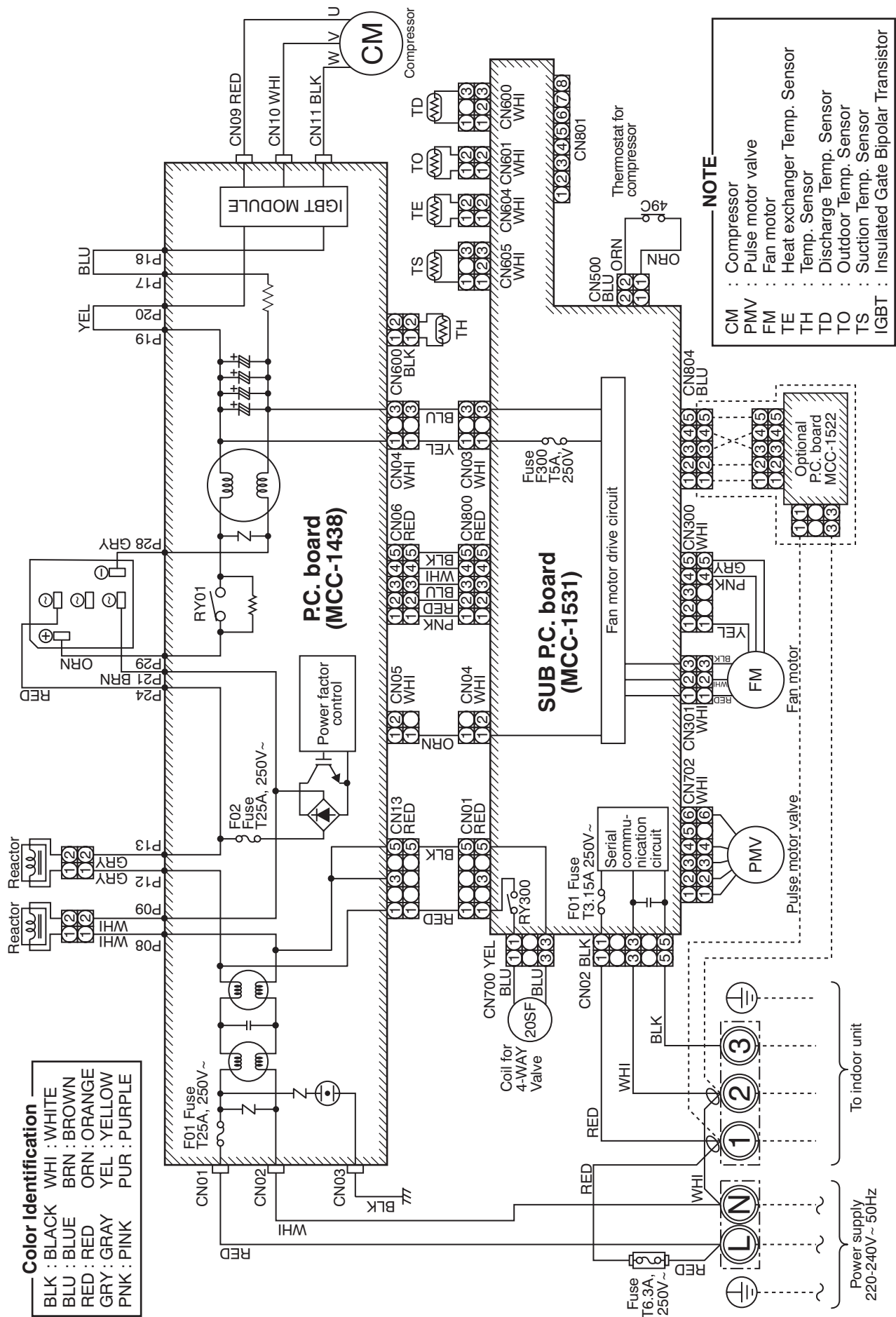
Knockout for downward piping

2. WIRING DIAGRAM

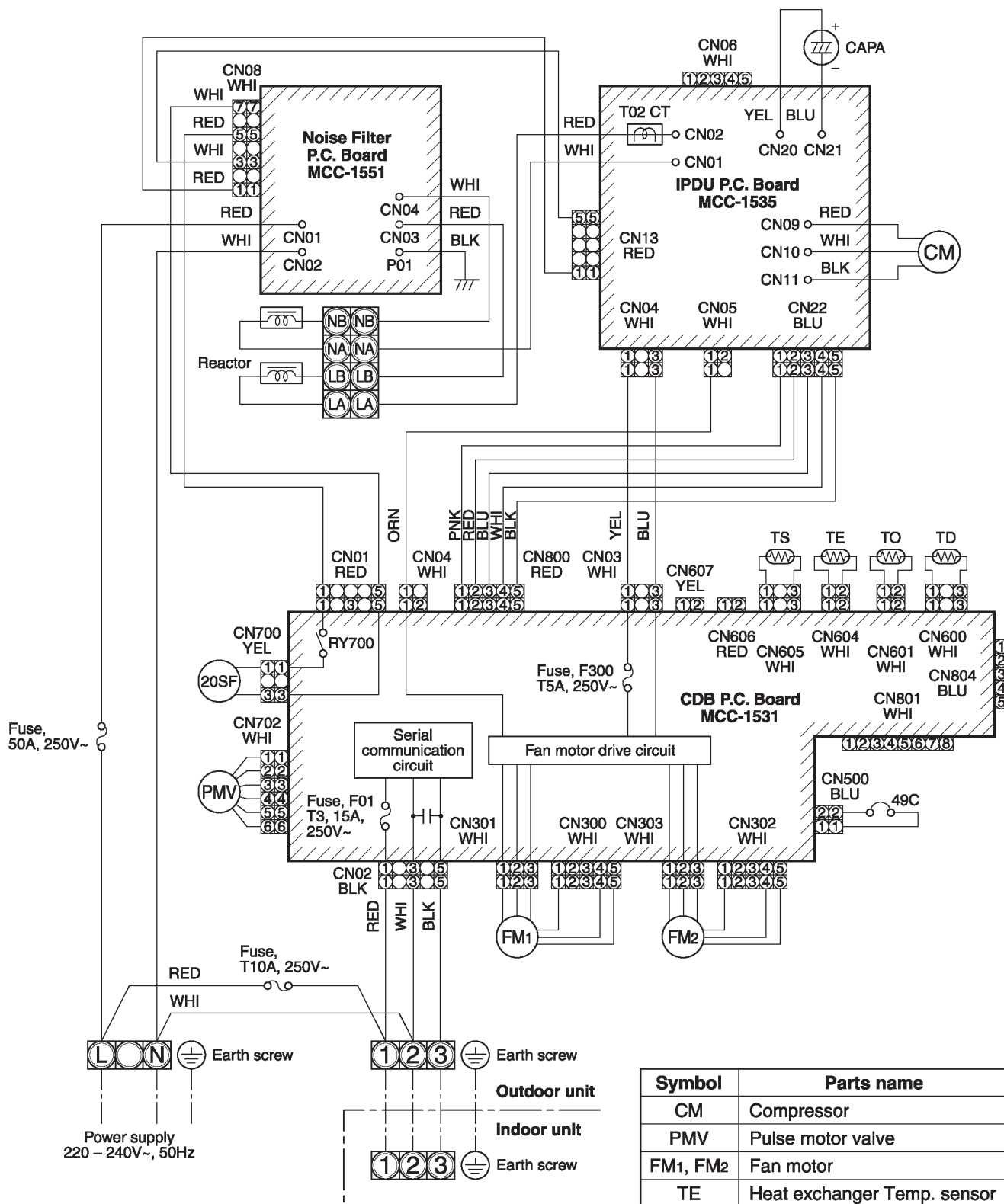
2-1. RAV-SM563AT-A, RAV-SM803AT-A



2-2. RAV-SM1103AT-A, RAV-SM1403AT-A

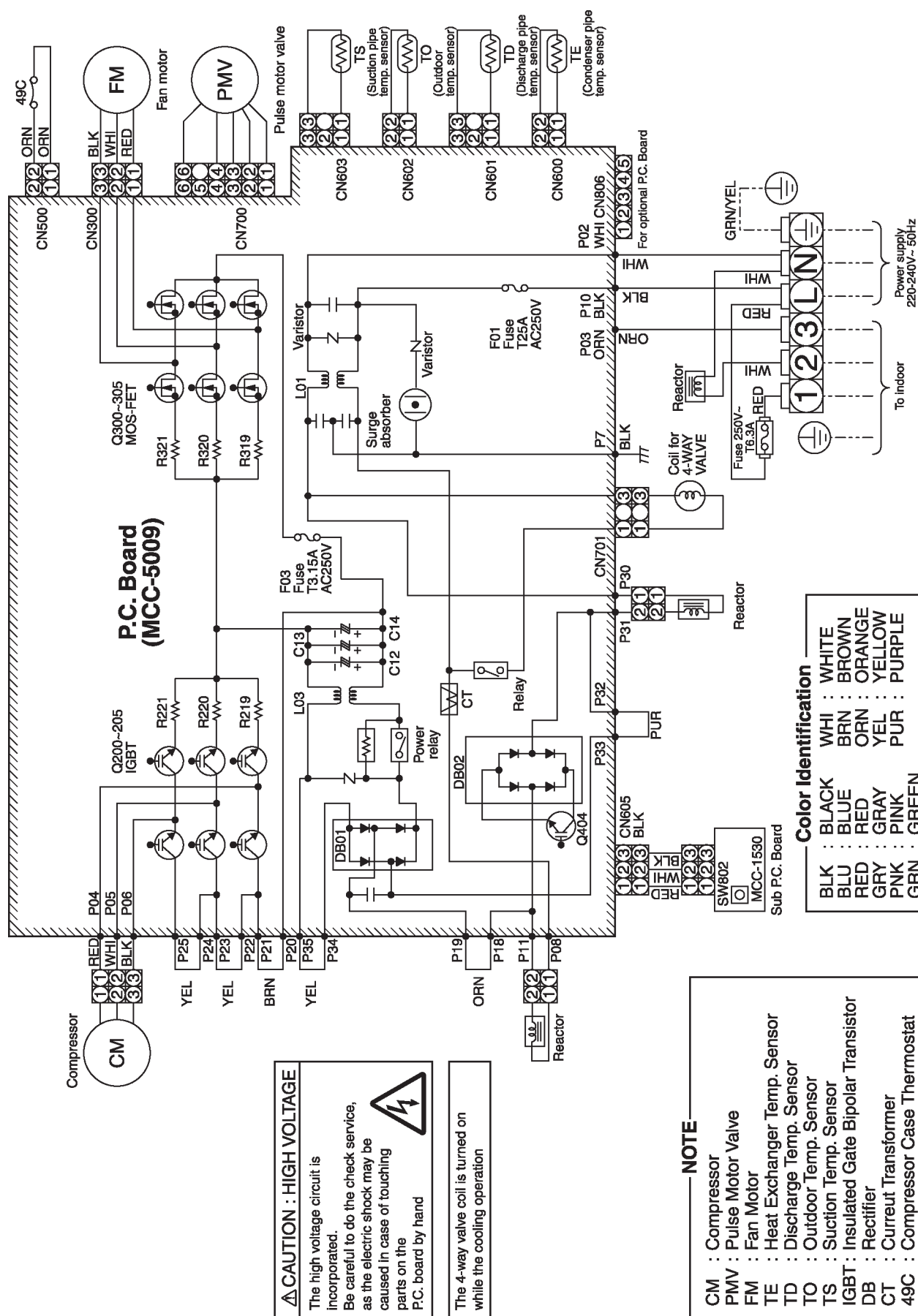


2-3. RAV-SM1603AT-A

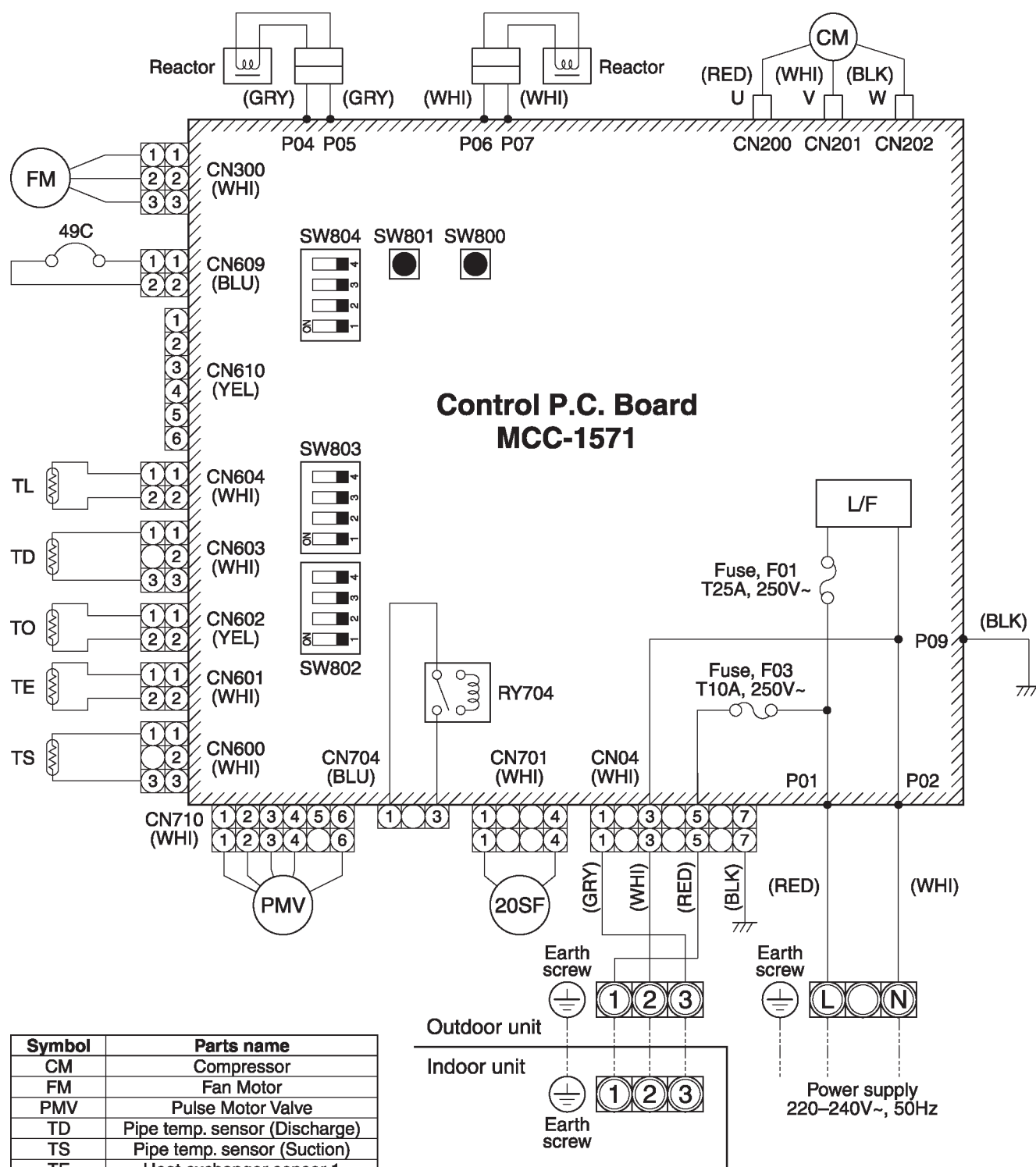


Symbol	Parts name
CM	Compressor
PMV	Pulse motor valve
FM1, FM2	Fan motor
TE	Heat exchanger Temp. sensor
TD	Discharge Temp. sensor
TO	Outdoor Temp. sensor
TS	Suction Temp. sensor
49C	Compressor case thermostat
20SF	4-way valve coil
RY	Relay

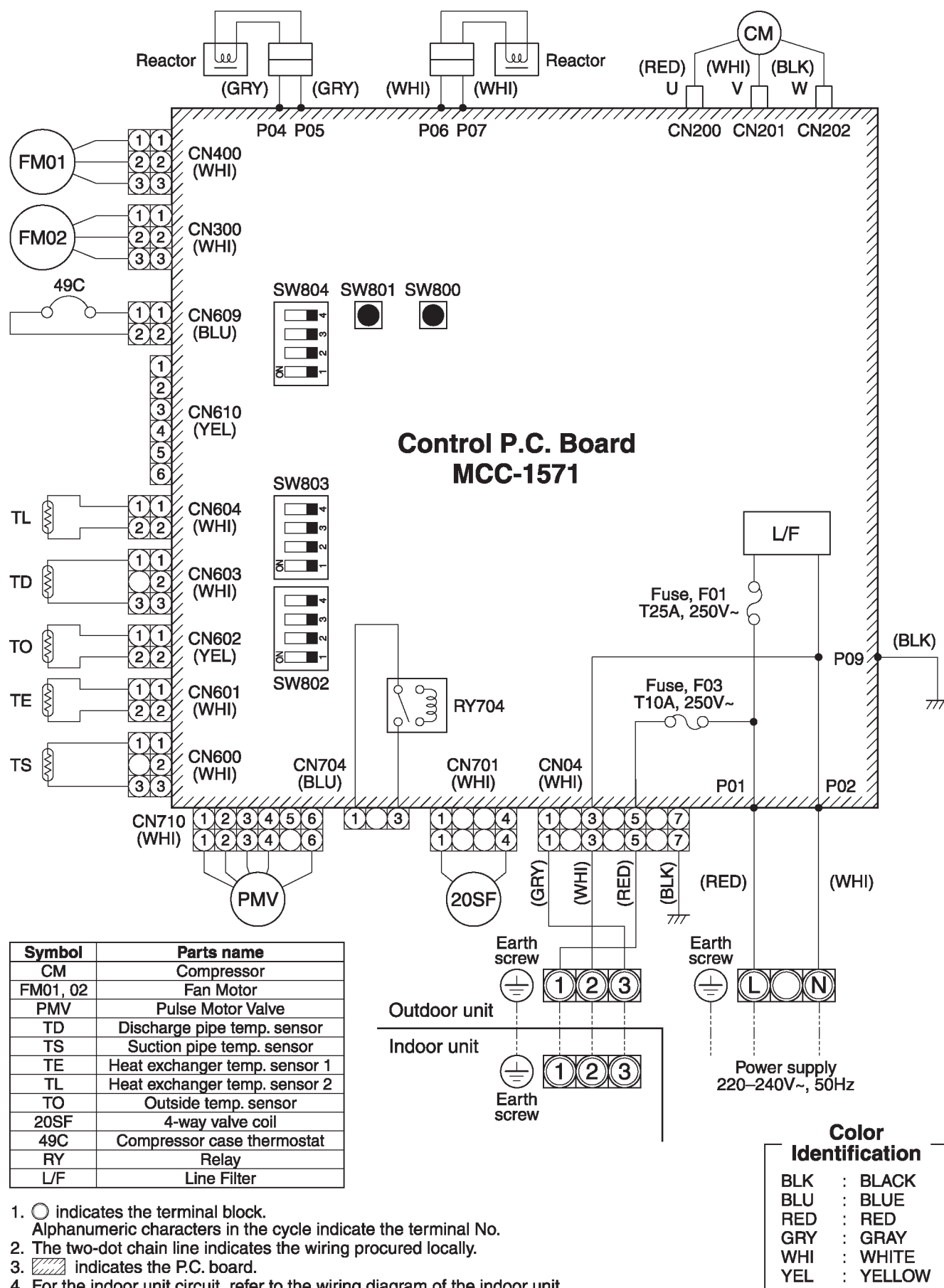
2-4. RAV-SP564AT-A



2-5. RAV-SP804AT-A

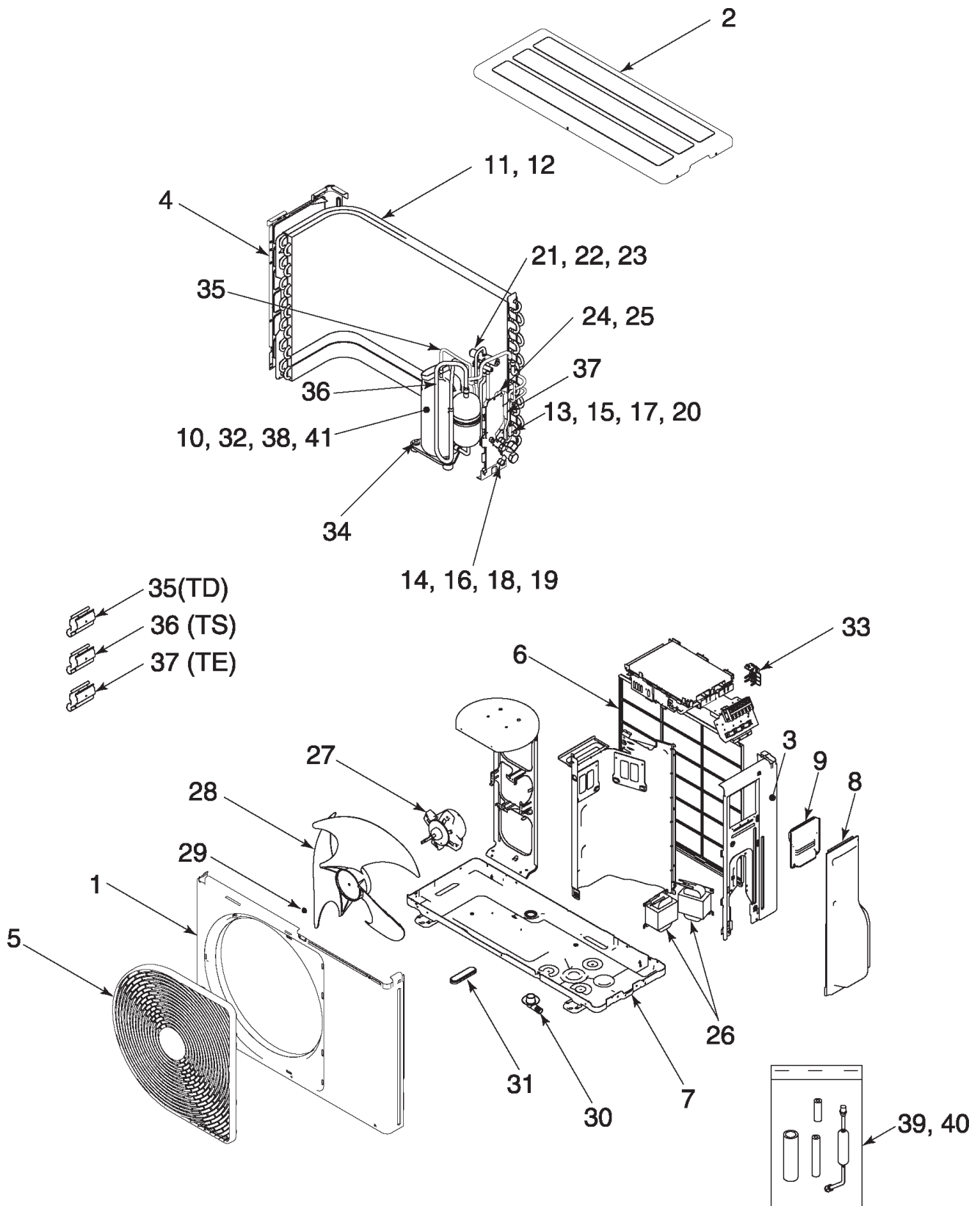


2-6. RAV-SP1104AT-A, RAV-SP1404AT-A



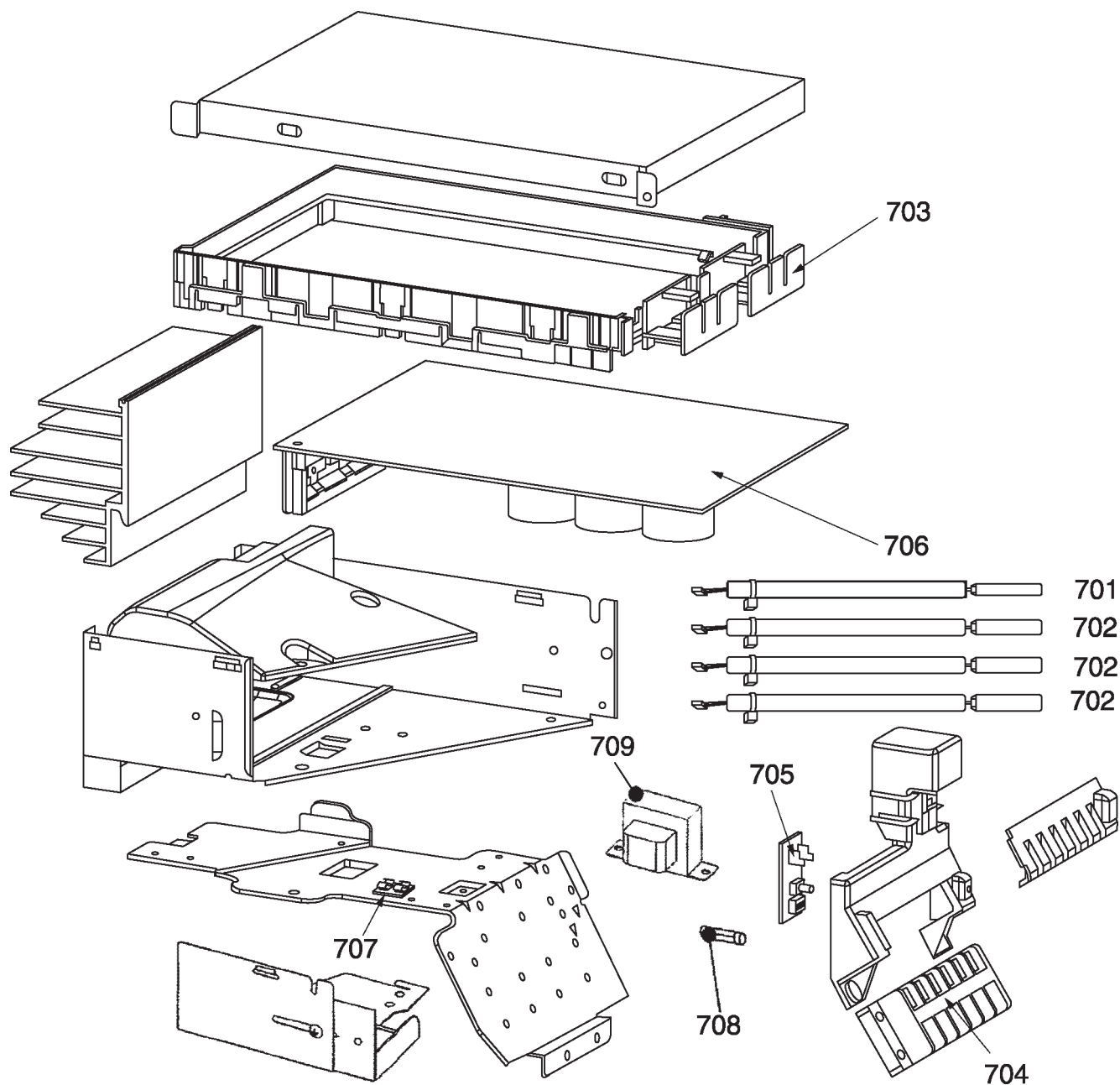
3. EXPLODED VIEWS AND PARTS LIST

3-1. RAV-SM563AT-A, RAV-SM803AT-A



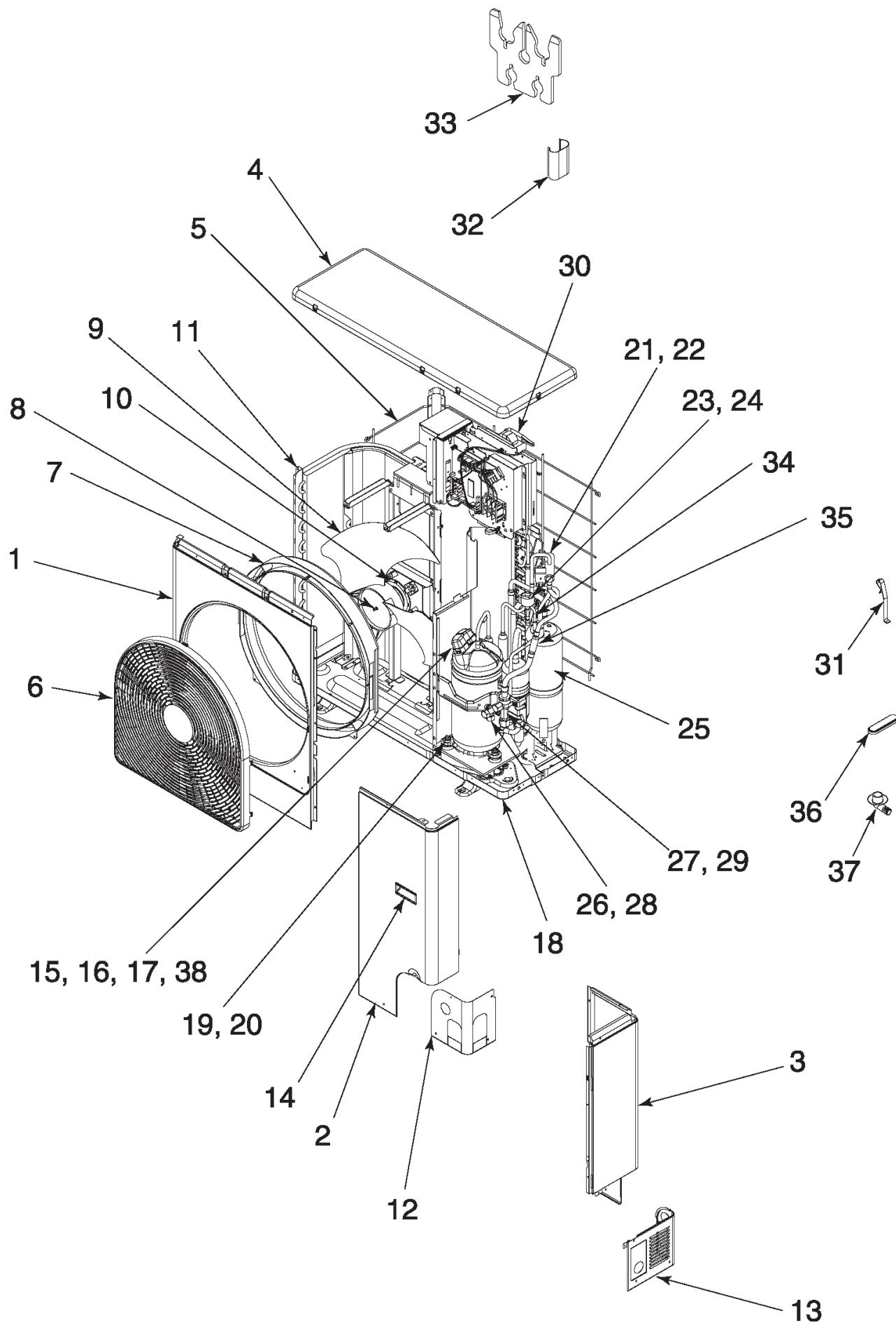
Location No.	Part No.	Description	Model Name RAV-	
			SM563AT-A	SM803AT-A
1	43005657	CABI, FRONT	1	1
2	43005642	CABINET, UPPER	1	1
3	43F05658	CABI, SIDE, RIGHT	1	1
4	43F05634	CABINET, SIDE, LEFT	1	1
5	4301V035	GUARD, FAN	1	1
6	43F1V053	GUARD, FIN	1	1
7	43100346	BASE ASSY	1	1
8	43119471	COVER, VALVE, PACKED	1	1
9	43162055	COVER, WIRING, ASSY	1	1
10	43041786	COMPRESSOR, DA150A1F-20F	1	1
11	4314G204	CONDENSER ASSY	1	
12	4314G251	CONDENSER ASSY		1
13	37546845	VALVE, PACKED, 6.35	1	
14	43046508	VALVE, PACKED, 12.7	1	
15	43146686	VALVE, PACKED, 9.52		1
16	43146681	VALVE, PACKED, 15.9		1
17	43147196	BONNET, 1/4 IN	1	
18	43147195	BONNET, 1/2 IN	1	
19	43194029	BONNET, 5/8 IN		1
20	43F47401	BONNET, 3/8 IN		1
21	43046444	VALVE, 4-WAY,STF-0108Z	1	
22	43046445	VALVE, 4-WAY, STF-0213Z		1
23	43146722	COIL, SOLENOID, STF-01AJ502E1	1	1
24	43146695	VALVE, PULSE, MODULATING, CAM-B30YGTF-2	1	1
25	43046487	COIL, PMV, CAM-MD12TF-12	1	1
26	43F55521	REACTOR, CH-57	2	2
27	43F2C068	MOTOR,FAN,ICF-140-43-4R	1	1
28	43F20329	FAN,PROPELLER,PJ421	1	1
29	43F47669	NUT, FLANGE	1	1
30	43F32441	NIPPLE, DRAIN	1	1
31	43F89160	CAP, WATERPROOF	2	2
32	43F50407	THERMOSTAT,BIMETAL	1	1
33	43F63339	HOLDER, SENSOR (TO)	1	1
34	43F49749	RUBBER, CUSHION	3	3
35	43F63321	HOLDER, SENSOR (TD)	1	1
36	43F63322	HOLDER, SENSOR (TS)	1	1
37	43F63325	HOLDER, SENSOR (TE)	1	1
38	43F63317	HOLDER,THERMOSTAT	1	1
39	4314Q063	MUFFLER, 5/8		1
40	4314Q064	MUFFLER, 1/2	1	
41	43160634	LEAD, ASSY, COMORESSOR	1	1

Inverter assembly



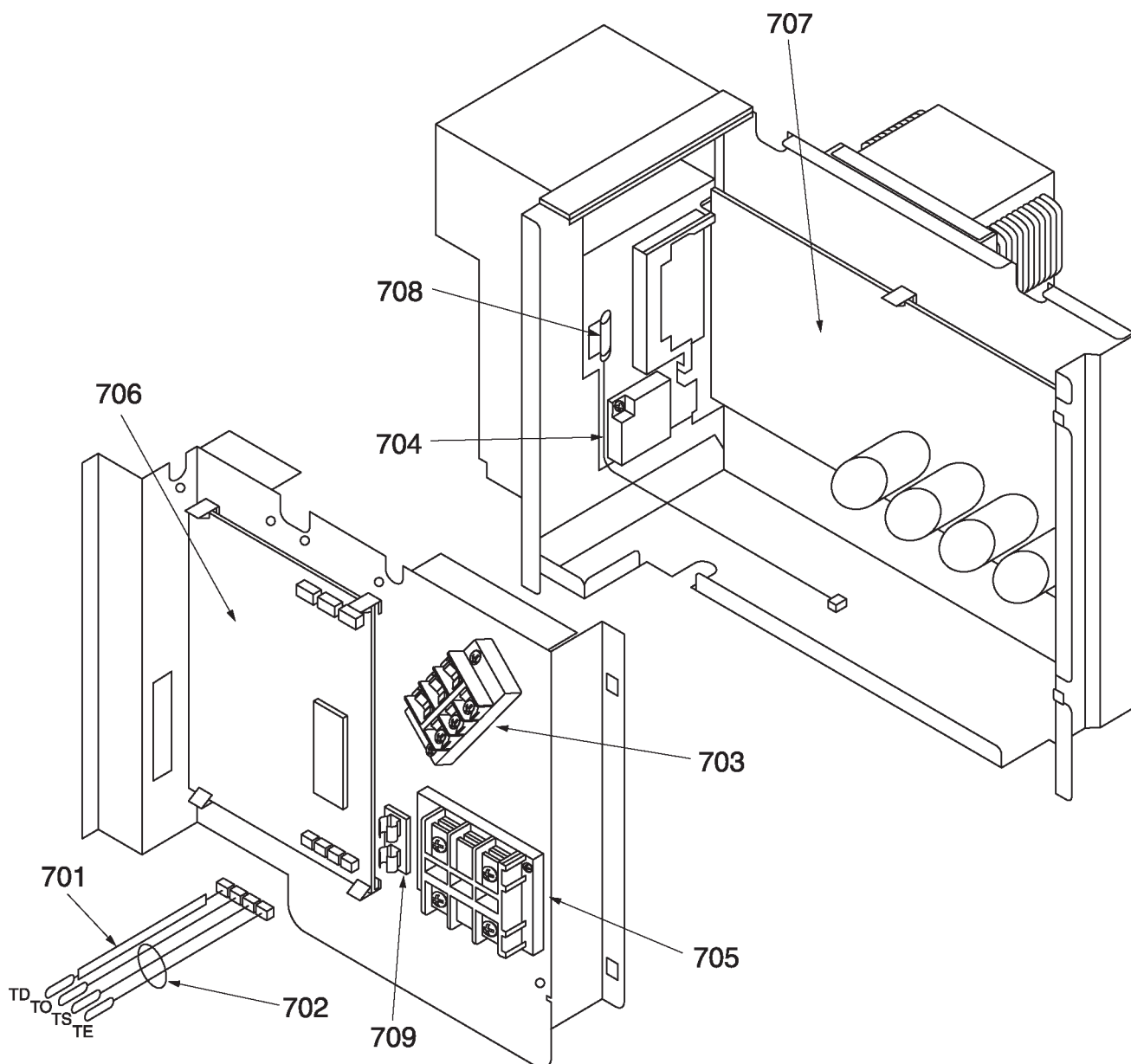
Location No.	Part No.	Description	Model Name	
			SM563AT-A	RAV-SM803AT-A
701	43150319	SENSOR ASSY, SERVICE	1	1
702	43050425	SENSOR ASSY, SERVICE	3	3
703	43F62228	BASE, PC BOARD	1	1
704	43160566	TERMINAL BLOCK, 6P, 20A	1	1
705	4316V293	PC BOARD ASSY, SW, MCC-1530	1	1
706	4316V284	PCBORD ASSY, MCC-5009	1	1
707	43160571	FUSE, HOLDER, 15A, 250V	1	1
708	43160590	FUSE	1	1
709	43158192	REACTOR, CH-43	1	1

3-2. RAV-SM1103AT-A, RAV-SM1403AT-A



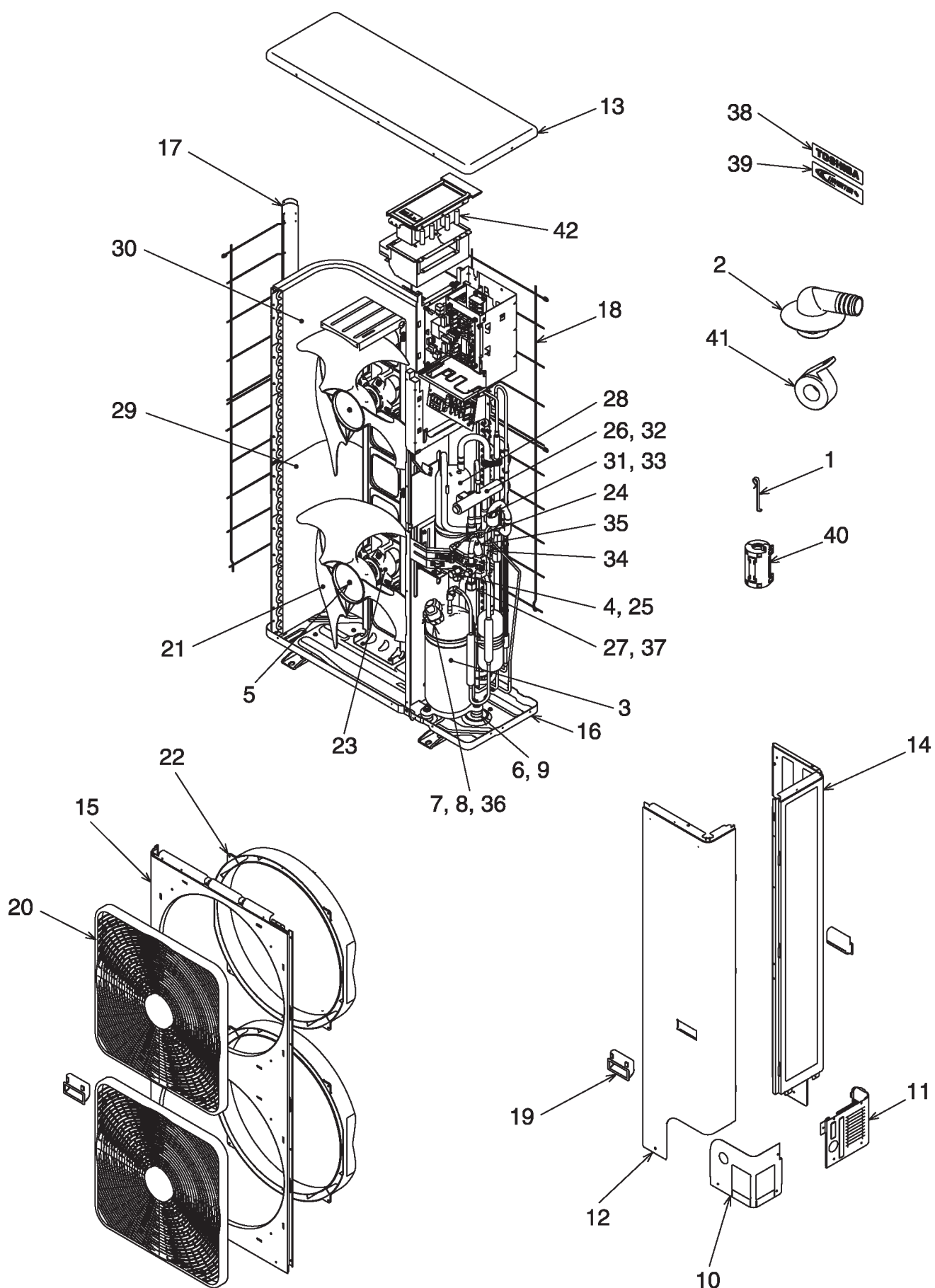
Location No.	Part No.	Description	Model Name RAV-	
			SM1103AT-A	SM1403AT-A
1	43005727	CABINET, AIR, OUTLET	1	1
2	43100350	CABINET, FRONT, ASSY	1	1
3	43100349	CABINET, SIDE, ASSY	1	1
4	43100355	PLATE, ROOF	1	1
5	4301V071	GUARD, FIN	1	1
6	43191651	GUARD, FAN	1	1
7	43122065	BELL MOUTH	1	1
8	43F47669	NUT, FLANGE	1	1
9	43120224	FAN, PROPELLER, PE492	1	1
10	43121744	MOTOR, FAN, ICF-280-100-1R	1	1
11	4314G209	CONDENSER ASSY	1	1
12	43100347	PANEL, FRONT, PIPING	1	1
13	43100345	PANEL, BACK, PIPING	1	1
14	43119390	HANGER	2	2
15	43041787	COMPRESSOR, DA420A3F-21M	1	1
16	43F50407	THERMOSTAT, BIMETAL	1	1
17	43F63317	HOLDER, THERMOSTAT	1	1
18	43100343	BASE ASSY	1	1
19	43197183	BOLT, COMPRESSOR	3	3
20	43149324	RUBBER, CUSHION	3	3
21	43046445	VALVE, 4-WAY, STF-0213Z	1	1
22	43146722	COIL, SOLENOID, STF-01AJ502E1	1	1
23	43146634	VALVE, PULSE, MODULATING, UKV-25D22	1	1
24	43046494	COIL, PMV, ASSY, UKV-A040	1	1
25	43148170	ACCUMULATOR ASSY, 2.5L	1	1
26	43146686	VALVE, PACKED, 9.52	1	1
27	43146724	VALVE, BALL, SBV-JA5GTC-1	1	1
28	43F47401	BONNET, 3/8 IN	1	1
29	43194029	BONNET, 5/8 IN	1	1
30	43158190	REACTOR, CH-62-ZT	2	2
31	43F19904	HOLDER, SENSOR (TS)	2	2
32	43F63188	HOLDER, TC SENSOR	1	1
33	43063332	HOLDER, SENSOR	1	1
34	4314Q069	STRAINER	1	1
35	4314Q033	STRAINER	1	1
36	43F89160	CAP, WATERPROOF	1	1
37	43F32441	NIPPLE, DRAIN	1	1
38	43160630	LEAD, ASSY, COMORESSOR	1	1

Inverter assembly



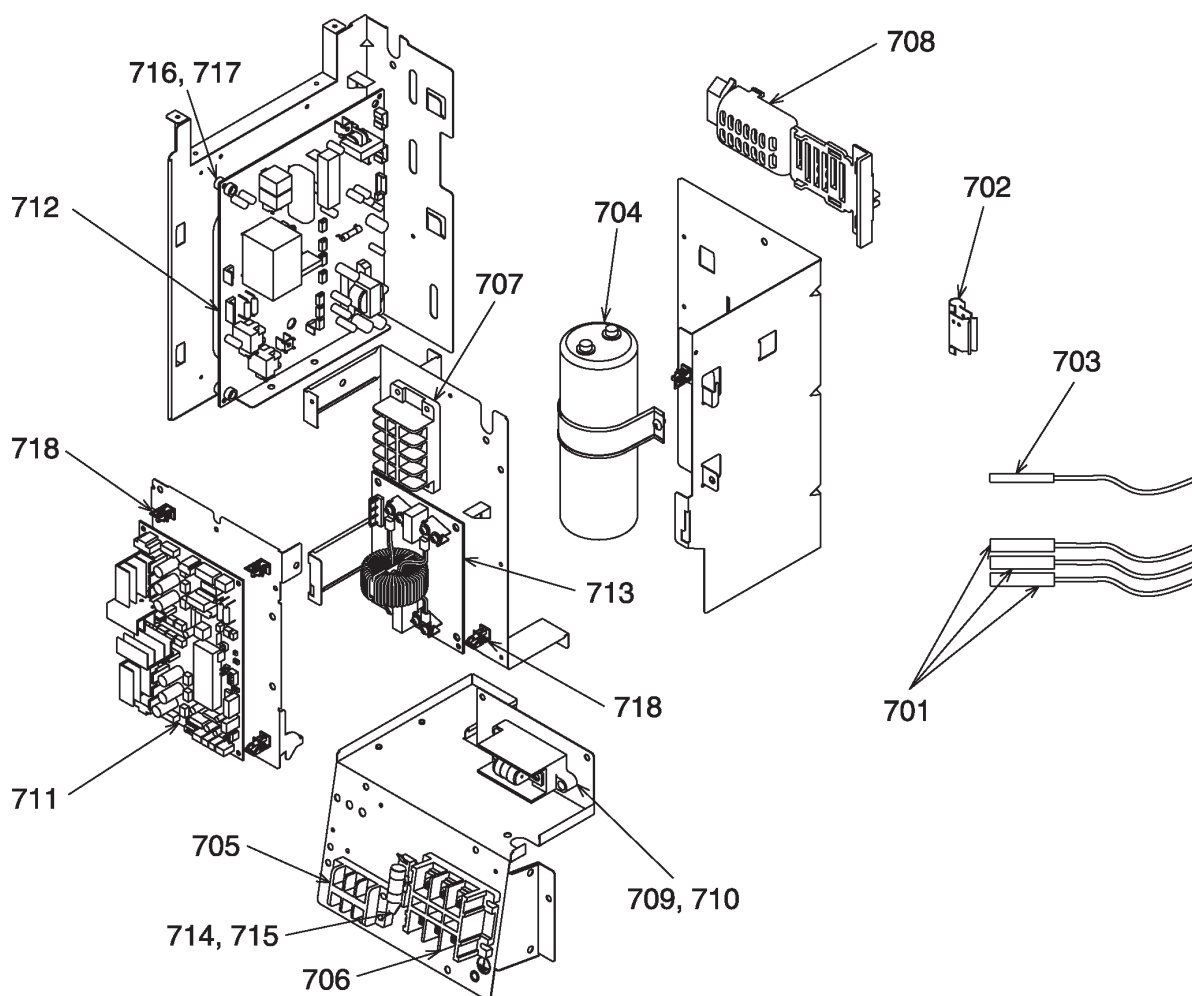
Location No.	Part No.	Description	Model Name RAV-	
			SM1103AT-A	SM1403AT-A
701	43150319	SENSOR ASSY, SERVICE	1	1
702	43050425	SENSOR ASSY, SERVICE	3	3
703	43160565	TERMINAL BLOCK, 3P, 20A	1	1
704	43131052	RECTIFIER	1	1
705	43160567	TERMINAL BLOCK, 3P, 30A	1	1
706	4316V283	PC BOARD ASSY, CDB, MCC-1531	1	1
707	4316V291	PC BOARD ASSY, IPDU, MCC-1438	1	1
708	43150320	SENSOR ASSY, SERVICE	1	1
709	43160571	FUSE, HOLDER, 15A, 250V	1	1
710	43160590	FUSE	1	1

3-3. RAV-SM1603AT-A



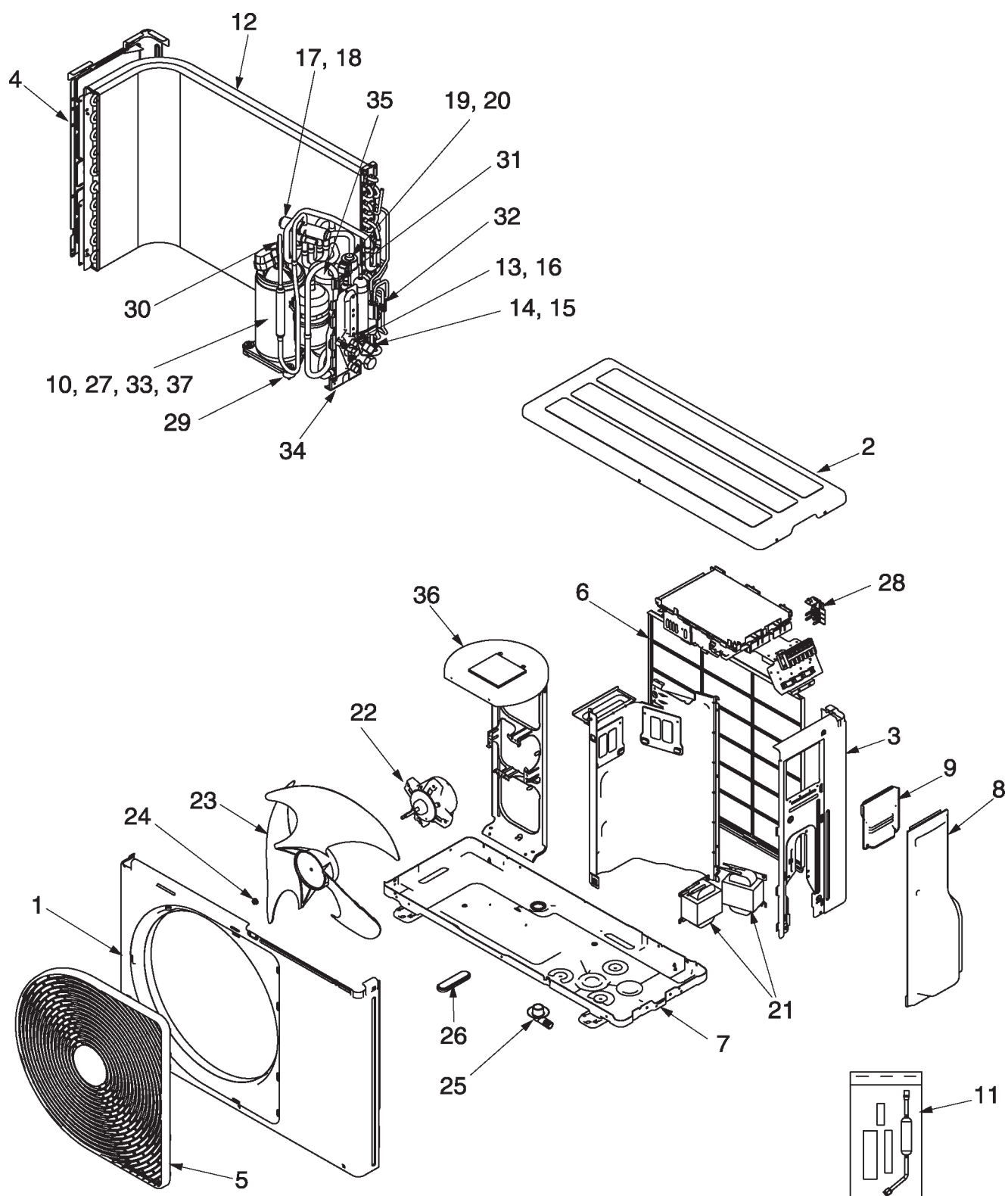
Location No.	Part No.	Description	Model Name
			RAV-SM1603AT-A
1	43F19904	HOLDER, SENSOR (TS)	2
2	43F32441	NIPPLE, DRAIN	1
3	43041794	COMPRESSOR, DA422A3F-25M	1
4	43F47401	BONNET, 3/8 IN	1
5	43F47669	NUT, FLANGE	2
6	43049739	CUSHION, RUBBER	3
7	43F50407	THERMOSTAT, BIMETAL	1
8	43F63317	HOLDER, THERMOSTAT	1
9	43F97212	NUT	3
10	43100437	PANEL, FRONT, PIPING	1
11	43100438	PANEL, BACK, PIPING	1
12	43100439	PANEL, FRONT	1
13	43100451	PANEL, ROOF	1
14	43100441	PANEL, SIDE	1
15	43100442	PANEL, AIR OUTLET	1
16	43100443	BASE ASSY	1
17	43107274	GUARD, FIN, SIDE	1
18	43107275	GUARD, FIN, BACK	1
19	43107276	HANGER	3
20	43109422	GUARD, FAN	2
21	43120244	FAN, PROPELLER, PB521	2
22	43122113	BELL MOUTH	2
23	43121744	MOTOR, FAN, ICF-280-100-1R	2
24	43146676	JOINT,CHECK	1
25	43146686	VALVE, PACKED, 9.52	1
26	43146687	VALVE, 4-WAY, STF-0401G	1
27	43146724	VALVE, BALL, SBV-JA5GTC-1	1
28	43148170	ACCUMULATOR ASSY	1
29	4314G266	CONDENSER ASSY, DOWN	1
30	4314G269	CONDENSER ASSY, UP	1
31	4314N023	VALVE, PLUS, MODULAING, UKV-25D100	1
32	43146722	COIL, SOLENOID, STF-01AJ502E1	1
33	4314N025	COIL, PMV, UKV-A038	1
34	4314Q031	STRAINER	1
35	4314Q032	STRAINER	1
36	43160591	LEAD ASSY, COMPRESSOR	1
37	43194029	BONNET, 5/8 IN	1
38	4301P703	MARK, TOSHIBA	1
39	4301P729	MARK, INVERTER	1
40	43F60029	FILTER, NOISE	1
41	43155216	FILTER, NOISE	1
42	43158197	REACTOR, CH-65	1

Inverter assembly



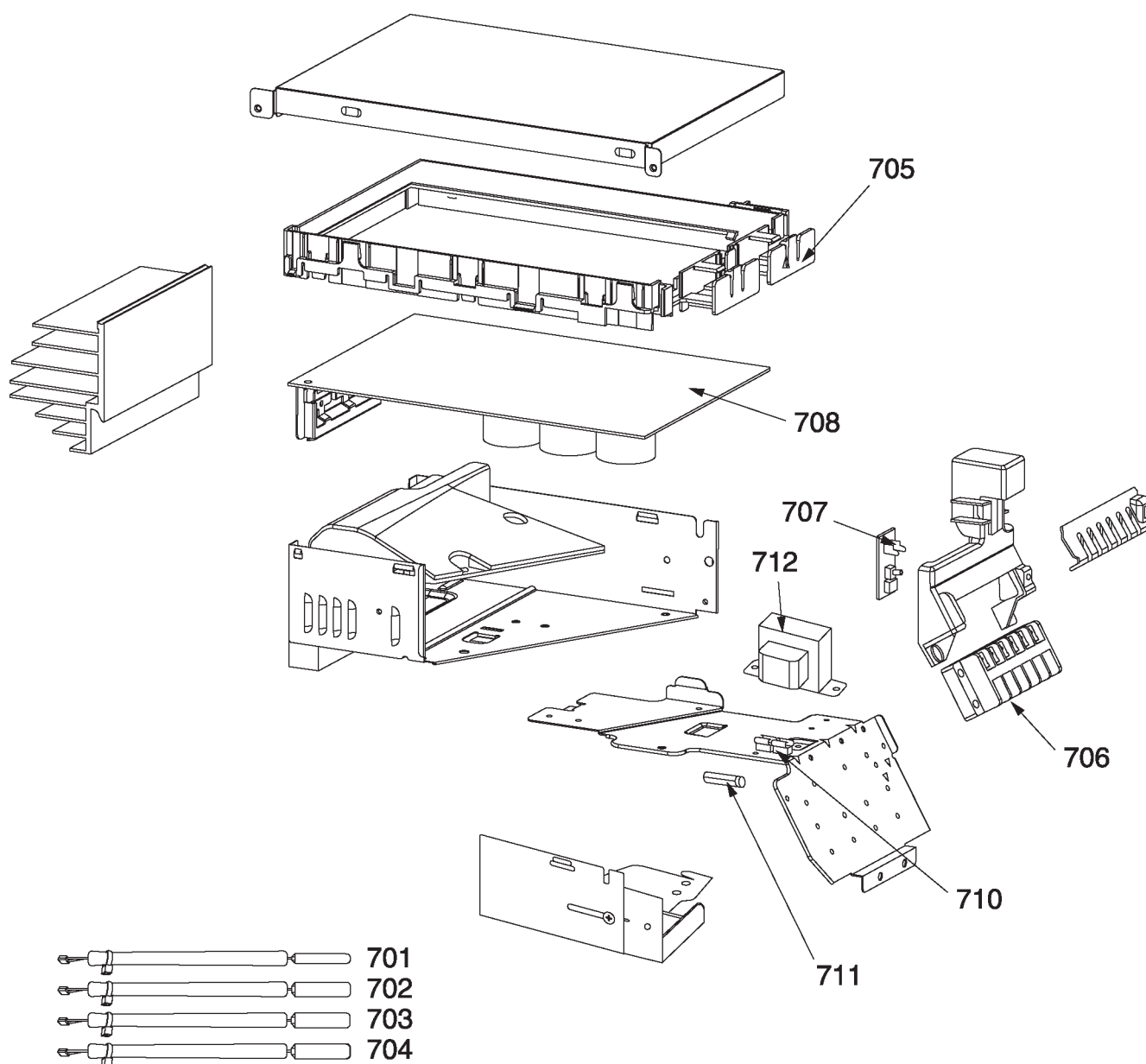
Location No.	Part No.	Description	Model Name
			RAV-SM1603AT-A
701	43050425	SENSOR ASSY, SERVICE, TC	3
702	43F63325	HOLDER, SENSOR (TE)	1
703	43150319	SENSOR ASSY, SERVICE, TD	1
704	43155211	CAPACITOR	1
705	43160565	TERMINAL BLOCK, 3P, 20A	1
706	43160581	TERMINAL, 3P, 60A	1
707	43160579	TERMINAL, 4P, 30A	1
708	43163055	HOLDER, SENSOR	1
709	43160594	FUSE	1
710	43160595	HOLDER-FUSE	1
711	4316V370	PC BOARD ASSY, CDB, MCC-1531	1
712	4316V371	PC BOARD ASSY, A3-IPDU, MCC-1535	1
713	4316V372	PC BOARD ASSY, NOISE-FILTER, MCC-1551	1
714	43F60859	FUSE BLOCK, 30A, 250V	1
715	43060700	FUSE, 10A, 250V	1
716	43282001	BUSHING	2
717	43183020	COLLAR	2
718	43F63248	SUPPORTER, ASSY	2

3-4. RAV-SP564AT-A



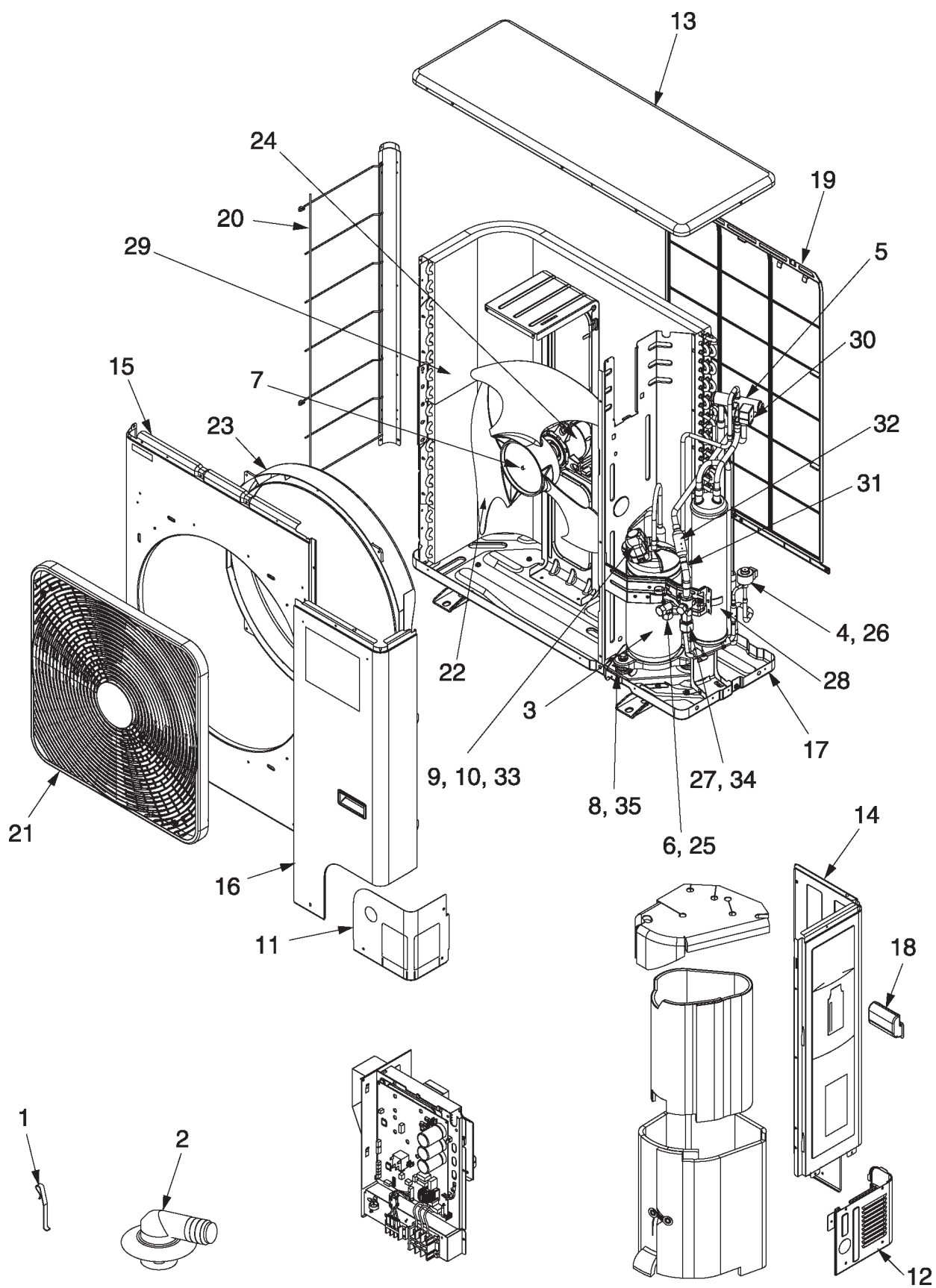
Location No.	Part No.	Description	Model Name
			RAV-SP564AT-A
1	43105042	CABINET, FRONT	1
2	43105041	CABINET, UPPER	1
3	43005698	CABINET, SIDE, RIGHT	1
4	43F05672	CABINET, SIDE, LEFT	1
5	43F1V088	GUARD, FAN	1
6	43F1V053	GUARD, FIN	1
7	43100346	BASE ASSY	1
8	43119471	COVER, VALVE, PACKED	1
9	43162055	COVER, WIRING, ASSY	1
10	43041644	COMPRESSOR, DA150A1F-21F	1
11	4314Q064	MUFFLER	1
12	4314G281	CONDENSER, ASSY	1
13	37546845	VALVE, PACKED, 6.35	1
14	43046508	VALVE, PACKED, 12.7	1
15	43147195	BONNET, 1/2 IN	1
16	43147196	BONNET, 1/4 IN	1
17	43046445	VALVE, 4-WAY, STF-0213Z	1
18	43146722	COIL, SOLENOID, STF-01AJ502E1	1
19	43146695	VALVE, PULSE, MODULATING, CAM-B30YGTF-2	1
20	43046487	COIL, PMV, CAM-MD12TF-12	1
21	43F58277	REACTOR, CH-57-Z-T	2
22	43F2C068	MOTOR,FAN,ICF-140-43-4R	1
23	43F20329	FAN,PROPELLER,PJ421	1
24	43F47669	NUT, FLANGE	1
25	43F32441	NIPPLE, DRAIN	1
26	43F89160	CAP, WATERPROOF	2
27	43F50407	THERMOSTAT,BIMETAL	1
28	43F63339	HOLDER, SENSOR (TO)	1
29	43F42485	RUBBER, CUSHION	3
30	43F63321	HOLDER, SENSOR (TD)	1
31	43F63322	HOLDER, SENSOR (TS)	1
32	43F63325	HOLDER, SENSOR (TE)	1
33	43F63317	HOLDER,THERMOSTAT	1
34	43107256	PLATE, FIX, VALVE, PACKED	1
35	43148205	ACCUMULATOR, ASSY	1
36	43039392	BASE, MOTOR	1
37	43160634	LEAD, ASSY, COMORESSOR	1

Inverter assembly



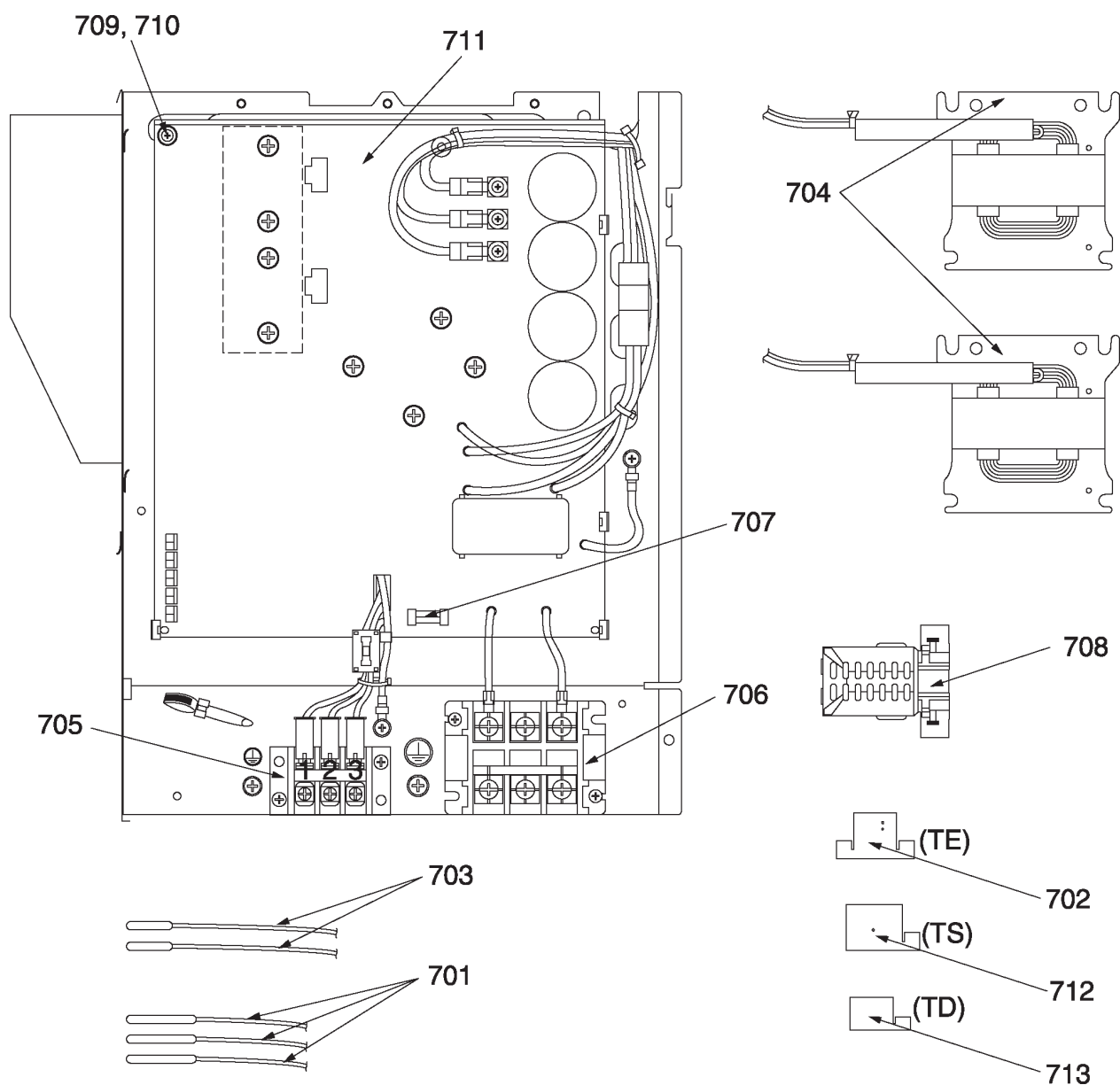
Location No.	Part No.	Description	Model Name
			RAV-SP564AT-A
701	43F50422	SENSOR, TE	1
702	43F50423	SENSOR, TS	1
703	43050427	SENSOR, TO	1
704	43F50430	SENSOR, TD	1
705	43F62228	BASE, PC BOARD	1
706	43160566	TERMINAL BLOCK, 6P, 20A	1
707	4316V293	PC BOARD ASSY, SW, MCC-1530	1
708	4316V384	PC BOARD ASSY, MCC-5009	1
710	43160571	FUSE, HOLDER, 15A, 250V	1
711	43160590	FUSE	1
712	43158192	REACTOR	1

3-5. RAV-SP804AT-A



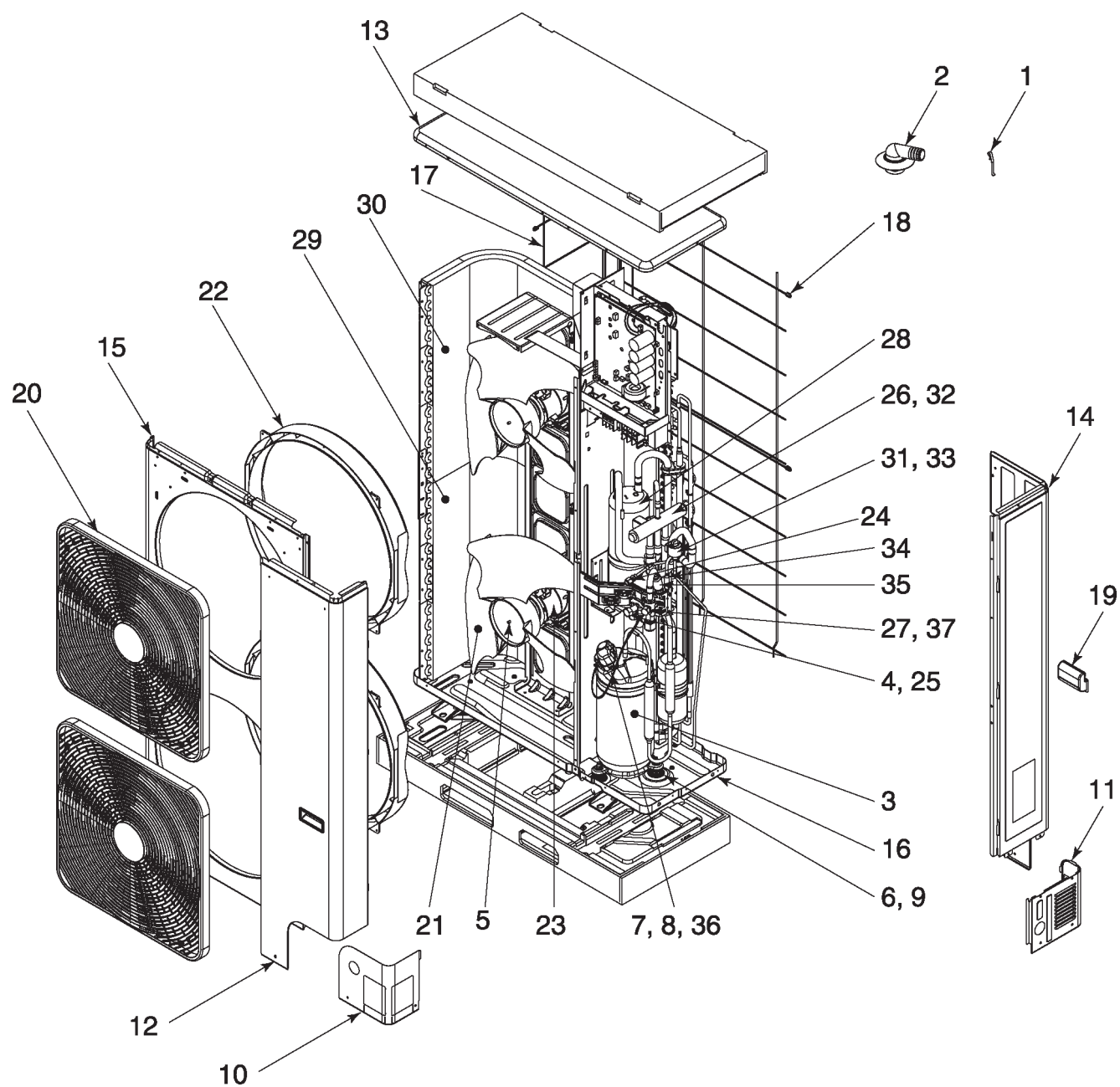
Location No.	Part No.	Description	Model Name
			RAV-SP804AT-A
1	43F19904	HOLDER, SENSOR (TS)	1
2	43F32441	NIPPLE, DRAIN	1
3	43041798	COMPRESSOR, DA220A2F-22L	1
4	43F46493	COIL, PMV, CAM-MD12TF-15	1
5	43F46451	VALVE, 4-WAY, STF-0218G	1
6	43F47401	BONNET, 3/8 IN	1
7	43F47669	NUT, FLANGE	1
8	43049739	CUSHION, RUBBER	3
9	43F50407	THERMOSTAT,BIMETAL	1
10	43F63317	HOLDER,THERMOSTAT	1
11	43100437	PANEL, FRONT, PIPING	1
12	43100438	PANEL, BACK, PIPING	1
13	43100440	PLATE, ROOF	1
14	43100452	PANEL, SIDE	1
15	43100453	PANEL, AIR OUTLET	1
16	43100454	PANEL, FRONT	1
17	43100455	BASE ASSY	1
18	43107276	HANGER	2
19	43107277	GUARD, FIN, BACK	1
20	43107278	GUARD, FIN, SIDE	1
21	43109422	GUARD, FAN	1
22	43120244	FAN, PROPELLER, PB521	1
23	43122113	BELL MOUTH	1
24	4312C042	MOTOR, FAN, ICF-280-A60-1	1
25	43146686	VALVE, PACKED, 9.52	1
26	43146695	VALVE, PULSE, MODULATING, CAM-B30YGTF-2	1
27	43146724	VALVE, BALL, SBV-JA5GTC-1	1
28	43148232	ACCUMULATOR, ASSY	1
29	4314G278	CONDENSER ASSY	1
30	4314N024	COIL, VALVE, 4-WAY, VHV-01AP552B1	1
31	4314Q031	STRAINER, 9.52	1
32	4314Q056	STRAINER, 25.4	1
33	43160591	LEAD ASSY, COMPRESSOR	1
34	43194029	BONNET, 5/8 IN	1
35	43197183	BOLT, COMPRESSOR	3

Inverter assembly



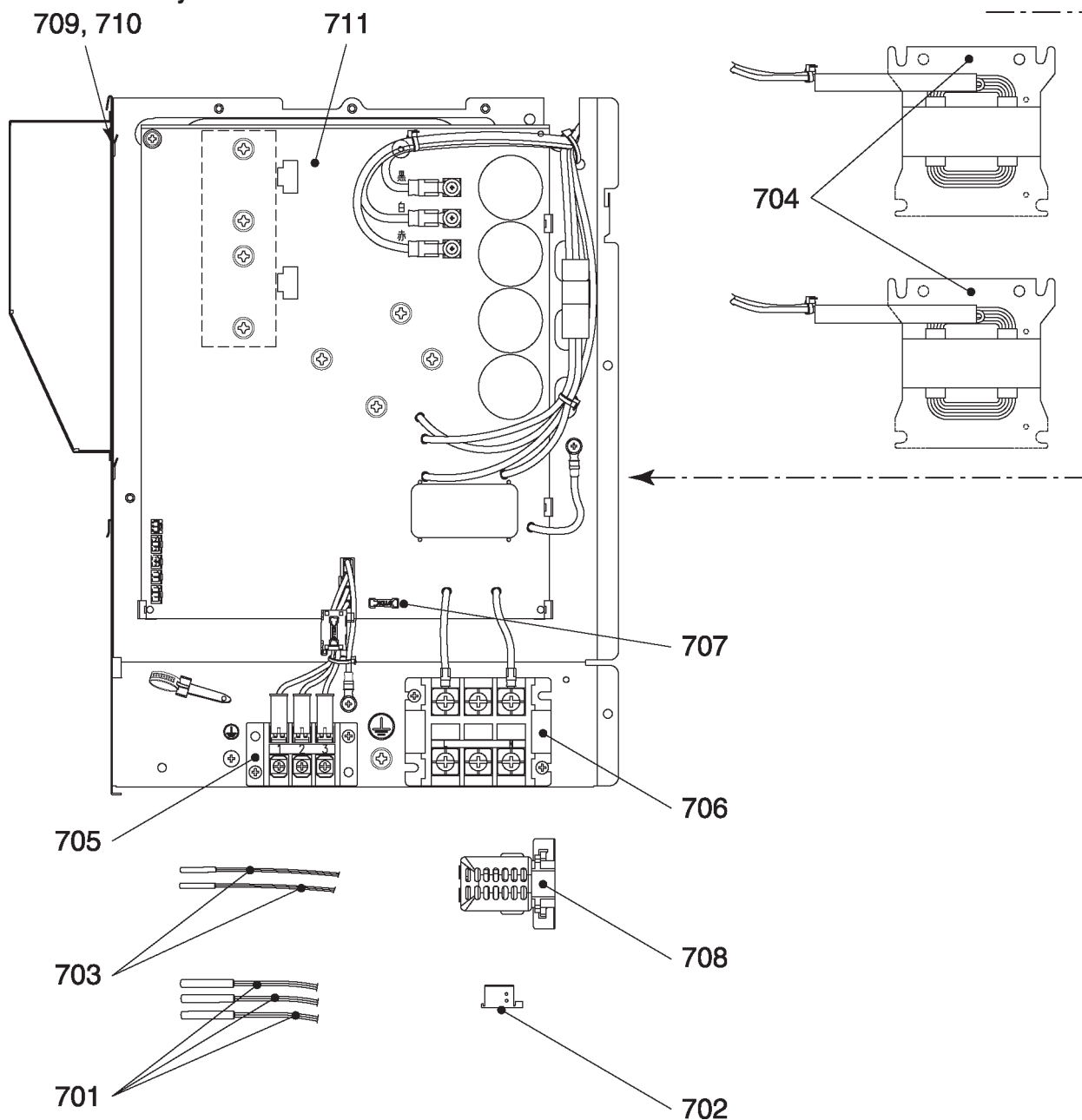
Location No.	Part No.	Description	Model Name
			RAV-SP804AT-A
701	43050425	SENSOR ASSY, SERVICE	3
702	43F63325	HOLDER, SENSOR (TE)	1
703	43150319	SENSOR ASSY, SERVICE	2
704	43155188	REACTOR, CH-56-2Z-T	2
705	43160565	TERMINAL BLOCK, 3P, 20A	1
706	43160581	TERMINAL	1
707	43160589	FUSE	1
708	43163055	HOLDER, SENSOR	1
709	43163059	SPACER, BUSH	1
710	43163060	SPACER, COLLAR	1
711	4316V387	PC BOARD ASSY, MCC-1571	1
712	43F63322	HOLDER, SENSOR (TS)	1
713	43F63321	HOLDER, SENSOR (TD)	1

3-6. RAV-SP1104AT-A, RAV-SP1404AT-A



Location No.	Part No.	Description	Model Name RAV-	
			SP1104AT-A	SP1404AT-A
1	43F19904	HOLDER, SENSOR (TS)	3	3
2	43F32441	NIPPLE, DRAIN	1	1
3	43041794	COMPRESSOR, DA422A3F-25M	1	1
4	43F47401	BONNET, 3/8 IN	1	1
5	43F47669	NUT, FLANGE	2	2
6	43049739	CUSHION, RUBBER	3	3
7	43F50407	THERMOSTAT,BIMETAL	1	1
8	43F63317	HOLDER,THERMOSTAT	1	1
9	43F97212	NUT	3	3
10	43100437	PANEL, FRONT, PIPING	1	1
11	43100438	PANEL, BACK, PIPING	1	1
12	43100439	PANEL, FRONT	1	1
13	43100440	PLATE, ROOF	1	1
14	43100441	PANEL, SIDE	1	1
15	43100442	PANEL, AIR OUTLET	1	1
16	43100443	BASE ASSY	1	1
17	43107274	GUARD, FIN, SIDE	1	1
18	43107275	GUARD, FIN, BACK	1	1
19	43107276	HANGER	3	3
20	43109422	GUARD, FAN	2	2
21	43120244	FAN, PROPELLER, PB521	2	2
22	43122113	BELL MOUTH	2	2
23	4312C070	MOTOR, FAN, ICF-280-A100-1	2	2
24	43146676	JOINT,CHECK	1	1
25	43146686	VALVE, PACKED, 9.52	1	1
26	43146687	VALVE, 4-WAY, STF-0401G	1	1
27	43146724	VALVE, BALL, SBV-JA5GTC-1	1	1
28	43148170	ACCUMULATOR ASSY	1	1
29	4314G266	CONDENSER ASSY, DOWN	1	1
30	4314G269	CONDENSER ASSY, UP	1	1
31	4314N023	VALVE, PLUS, MODULAING, UKV-25D100	1	1
32	4314N024	COIL, VALVE, 4-WAY, VHV-01AP552B1	1	1
33	4314N025	COIL, PMV, UKV-A038	1	1
34	4314Q031	STRAINER, 9.52	1	1
35	4314Q032	STRAINER	1	1
36	43160591	LEAD ASSY, COMPRESSOR	1	1
37	43194029	BONNET, 5/8 IN	1	1

Inverter assembly



Location No.	Part No.	Description	Model Name RAV-	
			SP1104AT-A	SP1404AT-A
701	43050425	SENSOR ASSY, SERVICE	3	3
702	43F63325	HOLDER, SENSOR (TE)	1	1
703	43150319	SENSOR ASSY, SERVICE	2	2
704	43158190	REACTOR	2	2
705	43160565	TERMINAL BLOCK, 3P, 20A	1	1
706	43160581	TERMINAL	1	1
707	43160589	FUSE	1	1
708	43163055	HOLDER, SENSOR	1	1
709	43163059	SPACER, BUSH	1	1
710	43163060	SPACER, COLLAR	1	1
711	4316V357	PC BOARD ASSY, MCC-1571	1	1

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