



Maintenance manual

R32 Split

Air to Water Heat Pump



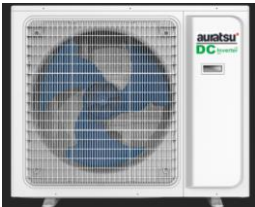
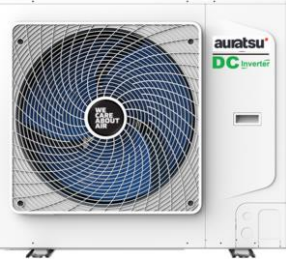
Capacity	ODU models	Hydraulic box models
6kW	AHA-06RA1	AHM-60RA1
8kW	AHA-08RA1	AHM-100RA3
10kW	AHA-10RA1	AHM-100RA3
12kW	AHA-12RA3	AHM-160RA3
14kW	AHA-14RA3	AHM-160RA3
16kW	AHA-16RA3	AHM-160RA3

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Part1 General information

1.1 Unit Capacities and External Appearance

Capacity	Outdoor unit		Hydraulic box models	
	models	Appearance	models	Appearance
6kW	AHA-06RA1		AHM-60RA1	
8kW	AHA-08RA1		AHM-100RA3	
10kW	AHA-10RA1		AHM-100RA3	
12kW	AHA-12RA3		AHM-160RA3	
14kW	AHA-14RA3		AHM-160RA3	
16kW	AHA-16RA3		AHM-160RA3	

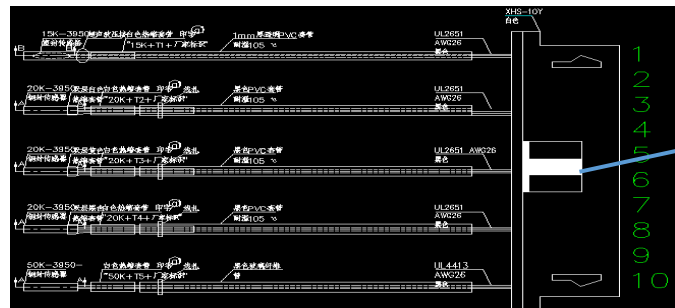
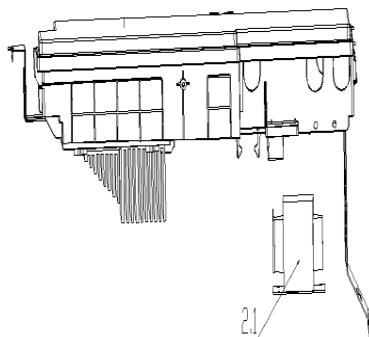
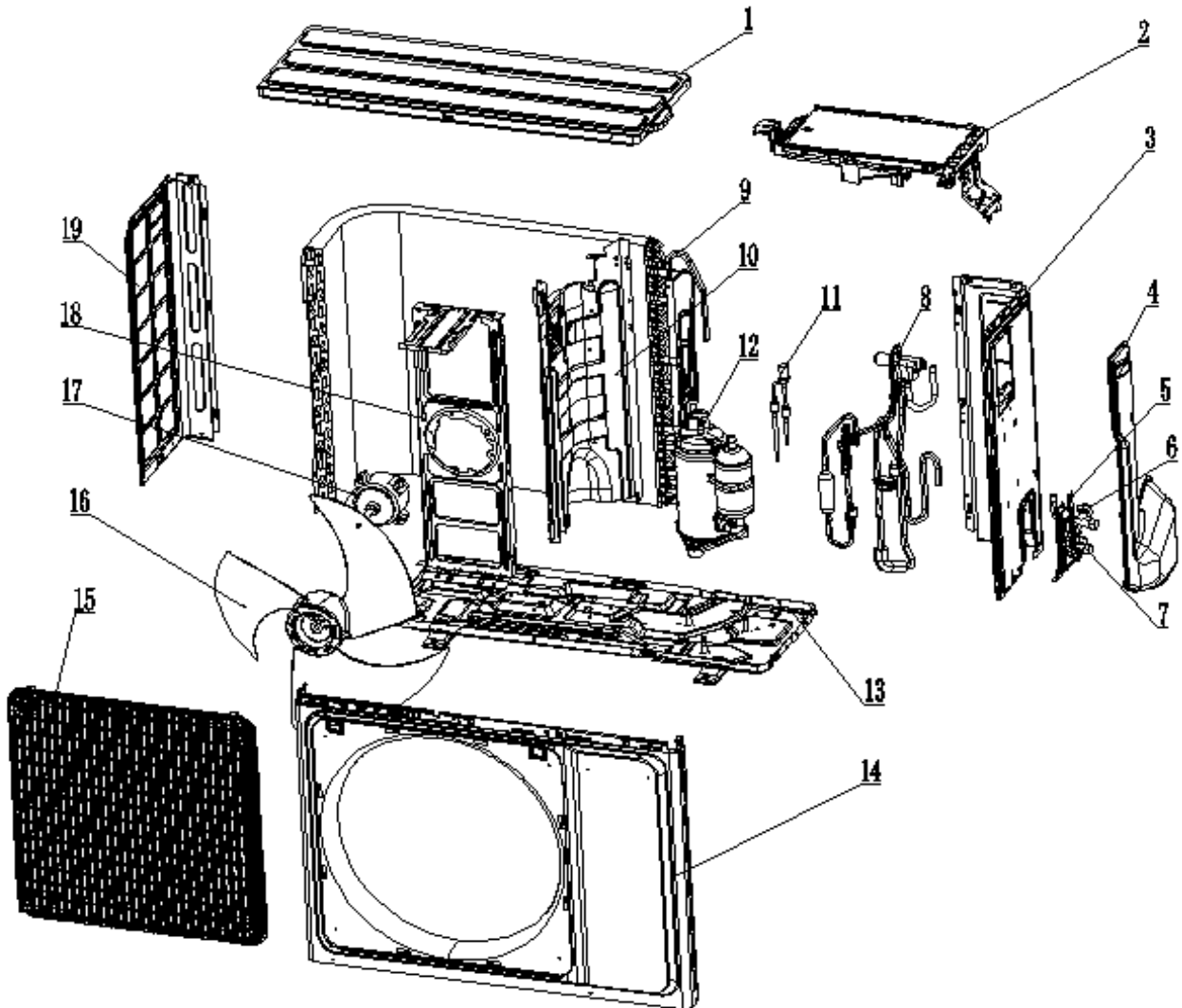
※ The single-phase IDU contains 3kW electric heating, and the three-phase IDU contains 9kW electric heating.

Part2 Component Layout and Refrigerant Circuits

2.1 Explosion pattern

2.1.1 ODU

1 Phase : AHA-06RA1



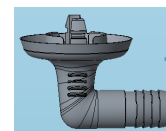
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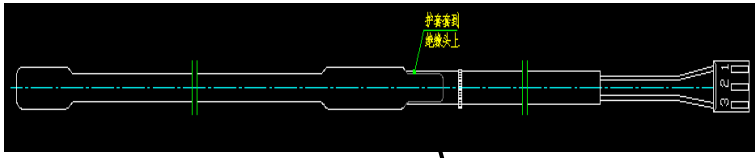
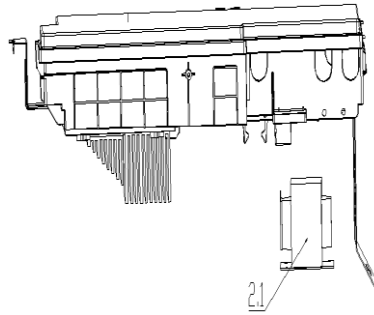
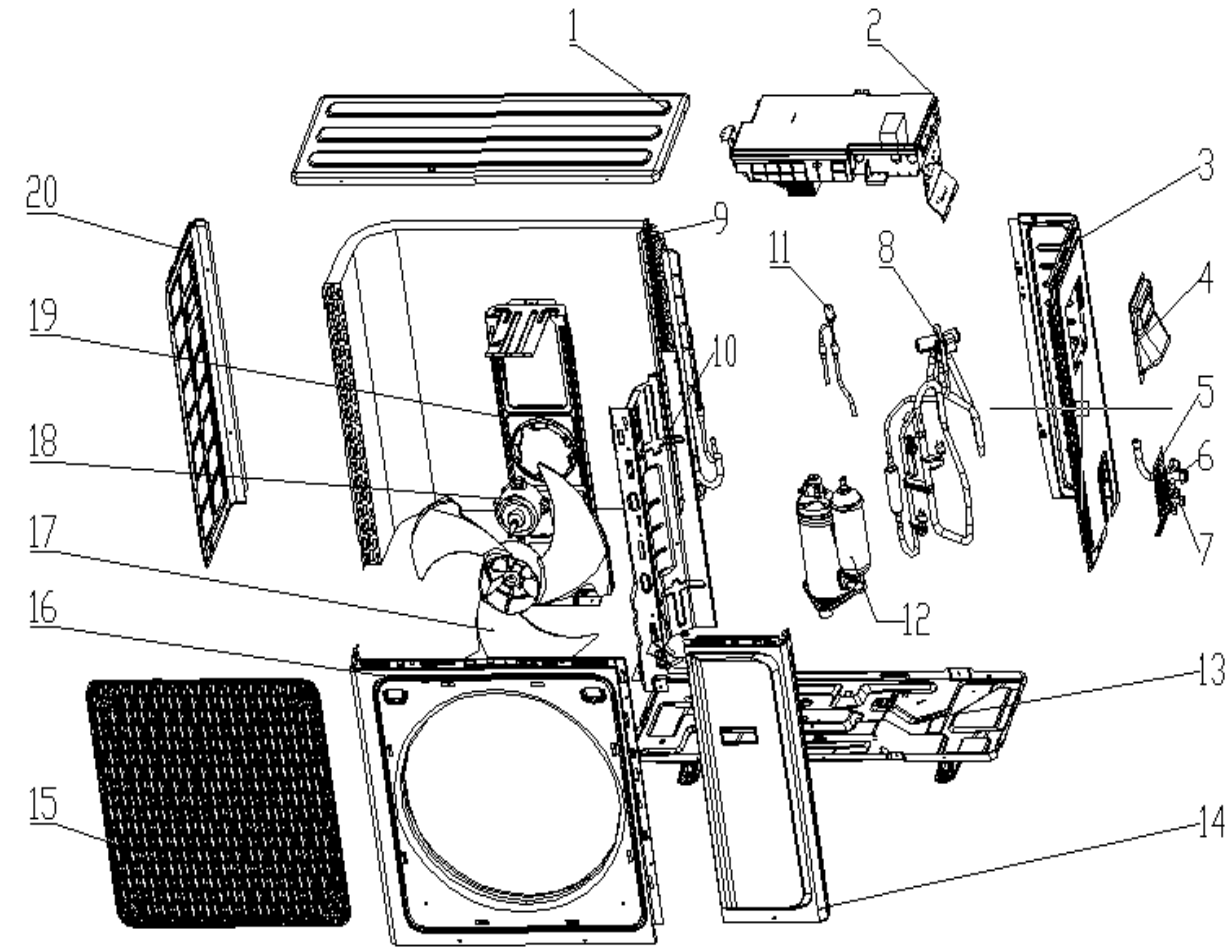


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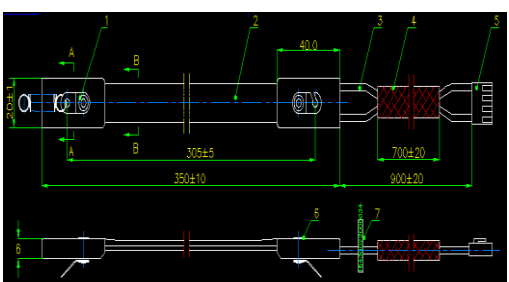
R32 Split - Air to water Heat Pump

No.	BOM Code	Part Name	Quantity
1	16321027000020	Top cover	1
2	11222550000051	Controller assembly	1
2.1	11330034000004	Reactor	1
2.2	16430035000001	Chassis electric heating belt	1
2.3	16430007000239	Temperature sensor assembly	1
2.4	11222542000150	Main PCB	1
3	11321007000328	Right side panel	1
4	11320101000036	Globe valve guard	1
5	11321031000027	Valve plate	1
6	11225517000011	Globe valve 5/8in	1
7	16441004000080	Globe valve 3/8in	1
8	16325020000104	Four-way valve line assembly	1
8.1	16441008000055	Four-way reversing valve	1
8.2	11325512000011	Silencer	1
8.3	16442024000035	High voltage switch	1
8.4	16426069000003	Pressure sensor	1
8.5	16442024000004	Low voltage switch	1
9	16324020000131	Condenser assembly	1
10	11321025000055	Air baffle	1
11	16325034000009	Expansion valve assembly	1
11.1	16441014000042	Electronic expansion valve body	1
11.2	16441015000014	Electronic expansion valve coil	1
12	16438003000052	Compressor	1
13	16321018000101	Chassis components	1
13.1	11320133000002	Water faucet	1
14	11321005000084	Large panel	1
15	11320026000049	Fan grille	1
16	11320009000065	Wind blade	1
17	11230005000019	Motor	1
18	16321004000173	Motor bracket	1
19	16321052000003	Left panel	1

1 Phase: AHA-08RA1; AHA-10RA1



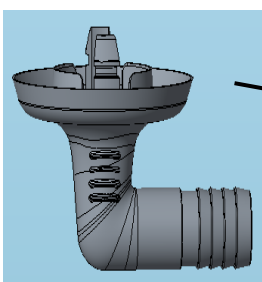
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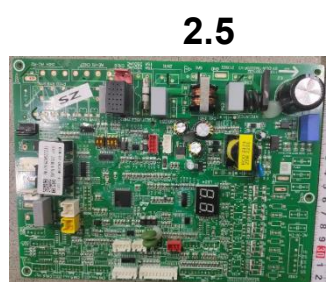
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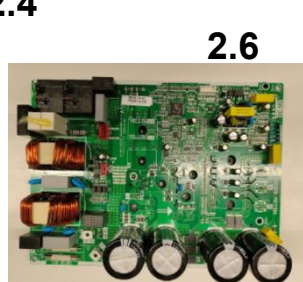
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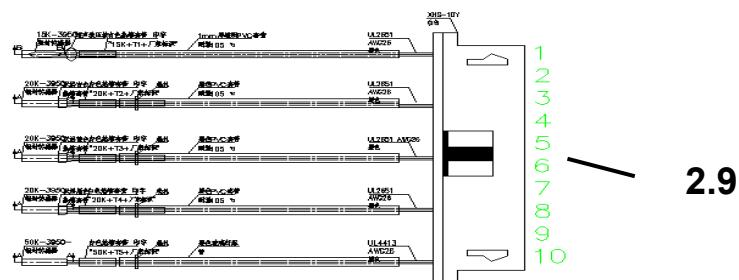
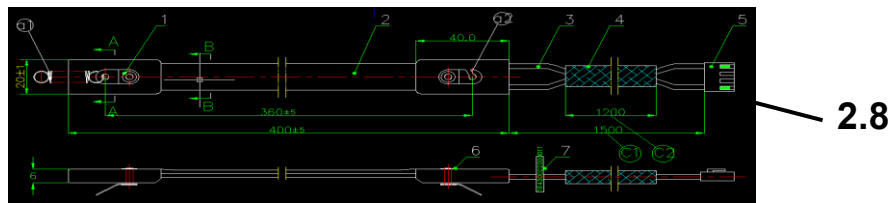
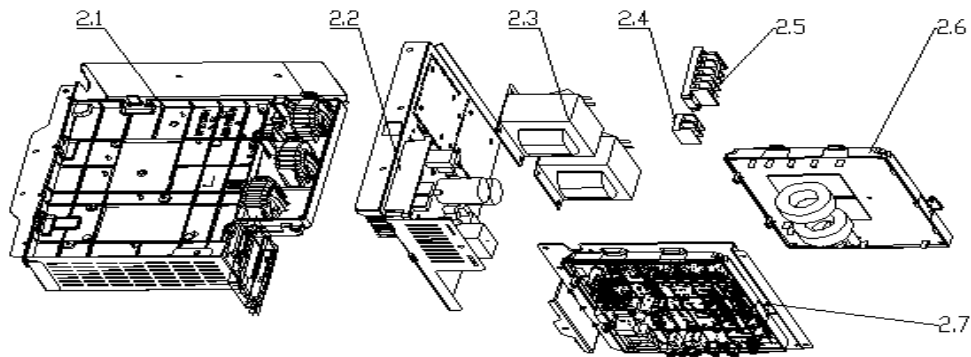
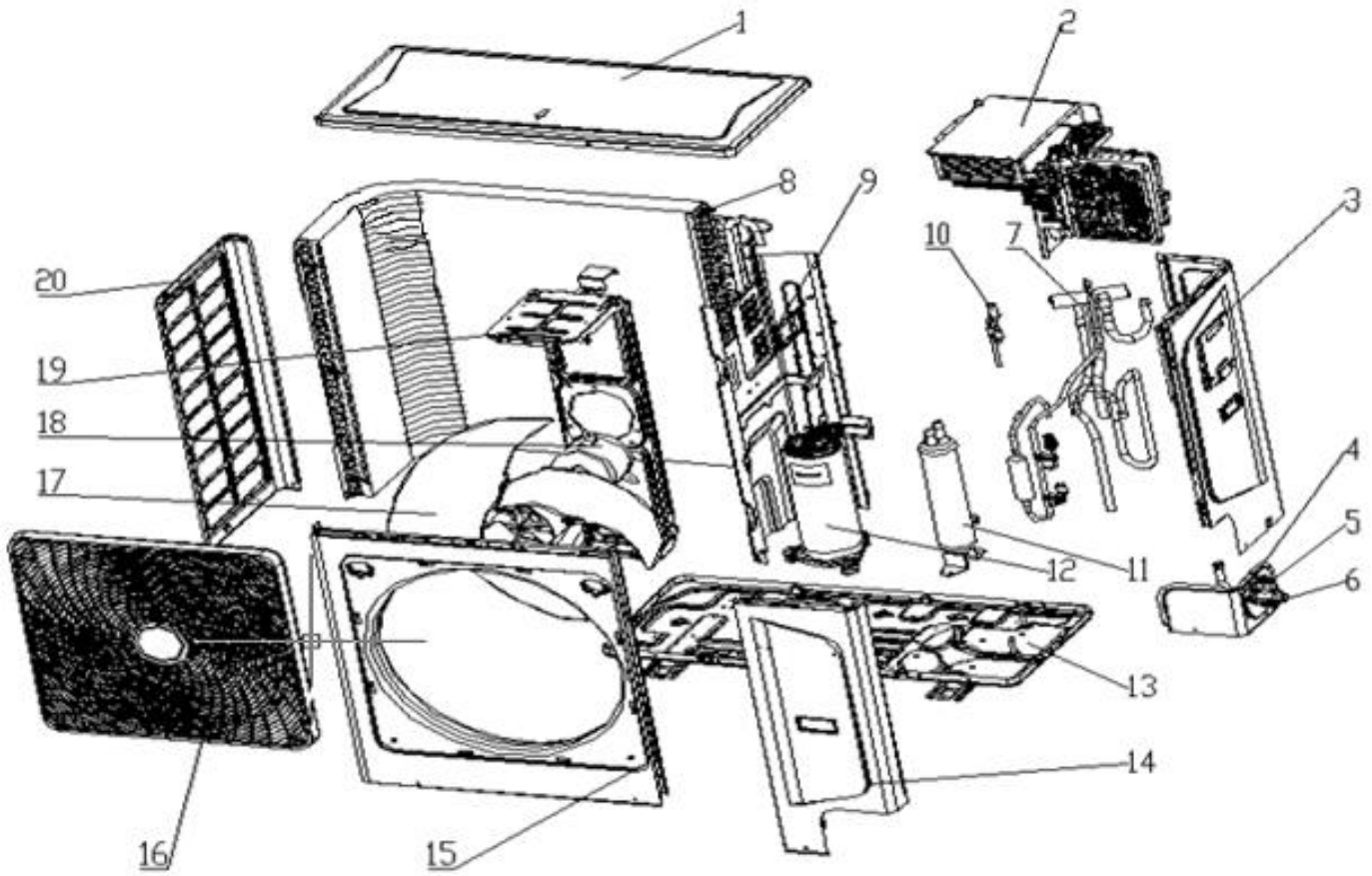
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R32 Split - Air to water Heat Pump

No.	BOM Code	Part Name	Quantity
1	16321027000005	Top cover	1
2	11222550000063	Controller assembly	1
2.1	11330034000012	Reactor	1
2.2	16430035000001	Chassis electric heating belt	1
2.3	16430022000034	Oil heating belt	1
2.4	16430007000239	Temperature sensor assembly	1
2.5	11222542000146	Main PCB	1
2.6	11222543000094	Compressor drive	1
3	11321157000027	Right side panel	1
4	11320068000006	Electrical cover	1
5	11321031000027	Valve plate	1
6	16441004000066	Globe valve 5/8in	1
7	16441004000080	Globe valve 3/8in	1
8	16325020000105	Four-way valve line assembly	1
8.1	11325007000104	Four-way reversing valve	1
8.2	11325512000025	Silencer	1
8.3	16442024000035	High voltage switch	1
8.4	16426069000003	Pressure sensor	1
8.5	16442024000004	Low voltage switch	1
9	16324020000132	Condenser assembly	1
10	11321025000074	Air baffle	1
11	16325034000046	Expansion valve assembly	1
11.1	16441014000042	Electronic expansion valve body	1
11.2	16441015000014	Electronic expansion valve coil	1
12	16438003000053	Compressor	1
13	16321018000031	Chassis components	1
13.1	11320133000002	Water faucet	1
14	16321064000007	Small panel	1
15	11320026000057	Fan grille	1
16	11321005000099	Large panel	1
17	11320009000061	Wind blade	1
18	16430034000008	Motor	1
19	11321002000038	Motor bracket	1
20	16321052000005	Left panel	1

R32 Split - Air to water Heat Pump

3 Phase: AHA-12RA3; AHA-14RA3; AHA-16RA3

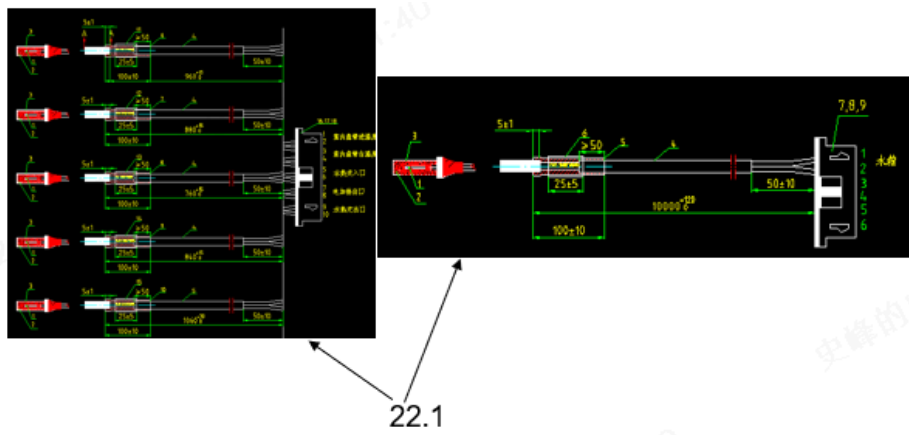
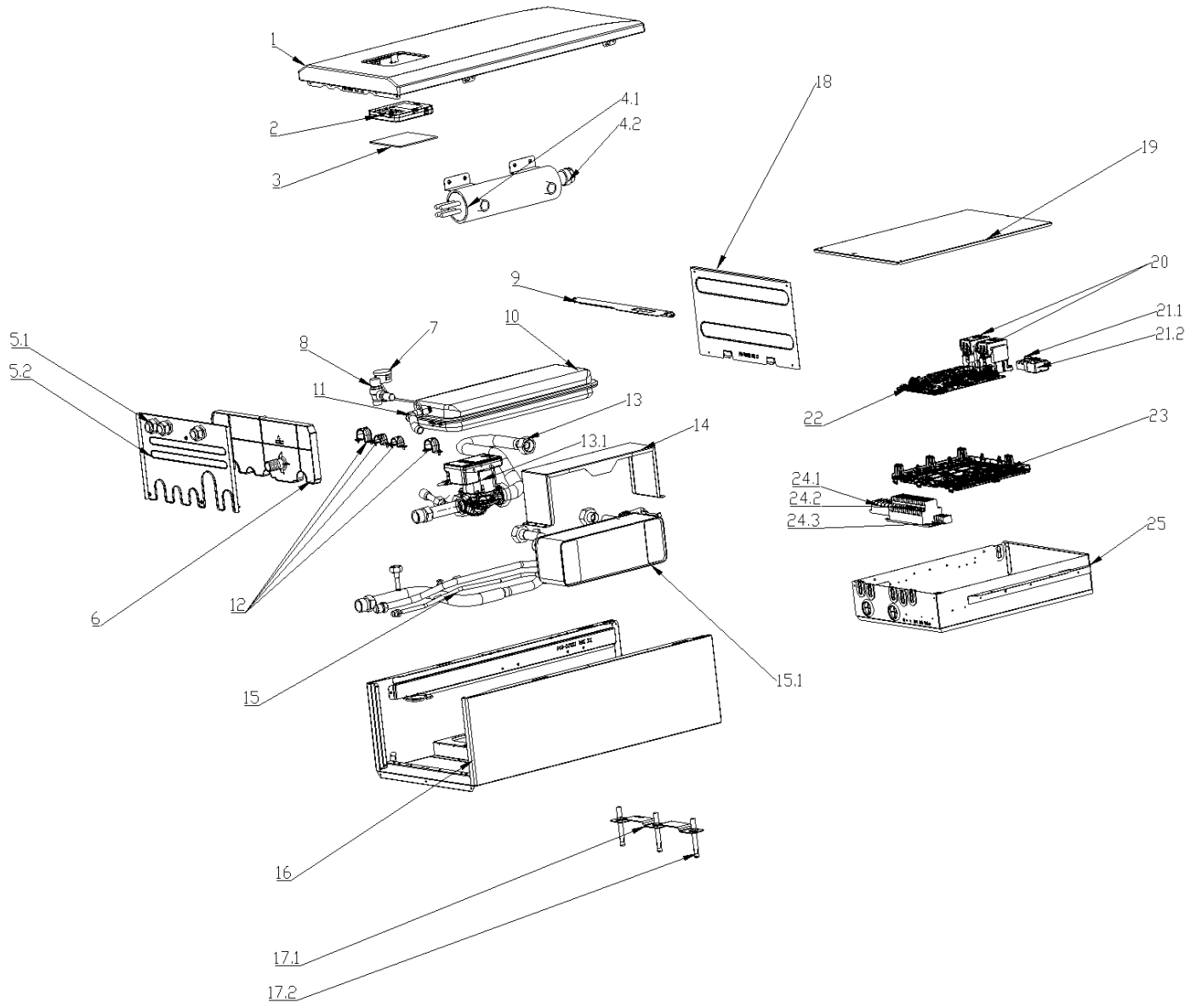


R32 Split - Air to water Heat Pump

No.	BOM Code	Part Name	Quantity
1	16321027000021	Top cover	1
2	16322020000014	Electronic control assembly	1
2.1	11222543000083	Compressor drive	1
2.2	11222543000074	Fan drive	1
2.3	16430013000009	Reactor	1
2.4	16427001000079	Terminal board	1
2.5	16427001000011	Terminal board	1
2.6	11222548000006	Filter plate	1
2.7	11222542000146	Main PCB	1
2.8	16430022000011	Oil heating belt	1
2.9	16430007000244	Temperature sensor assembly	1
3	16321052000044	Right side panel	1
4	16421014000146	Valve plate	1
5	16441004000090	Globe valve 5/8in	1
6	16441004000080	Globe valve 3/8in	1
7	16325020000120	Four-way valve line assembly	1
7.1	16426088000006	Four-way reversing valve	1
7.2	11325512000021	Silencer	1
7.3	16442024000035	High voltage switch	1
7.4	16426069000003	Pressure sensor	1
7.5	16442024000004	Low voltage switch	1
8	16324020000129	Condenser assembly	1
9	16321038000010	Air baffle	1
10	16325034000045	Expansion valve assembly	1
11.1	16441014000034	Electronic expansion valve body	1
11.2	16441015000016	Electronic expansion valve coil	1
11	16442023000051	Gas-liquid separator	1
12	16438003000054	Compressor	1
13	16321018000083	Chassis components	1
14	16321064000031	Small panel	1
15	16421061000028	Large panel	1
16	16420020000035	Fan grille	1
17	16420028000001	Wind blade	1
18	16430034000011	Motor	1
19	16421035000081	Motor bracket	1
20	16321052000046	Left panel	1

2.1.2 IDU

1 Phase : AHM-60RA1



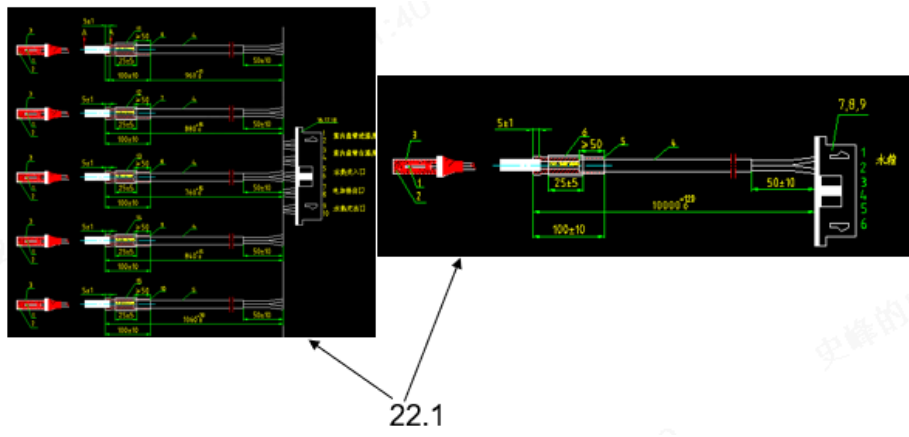
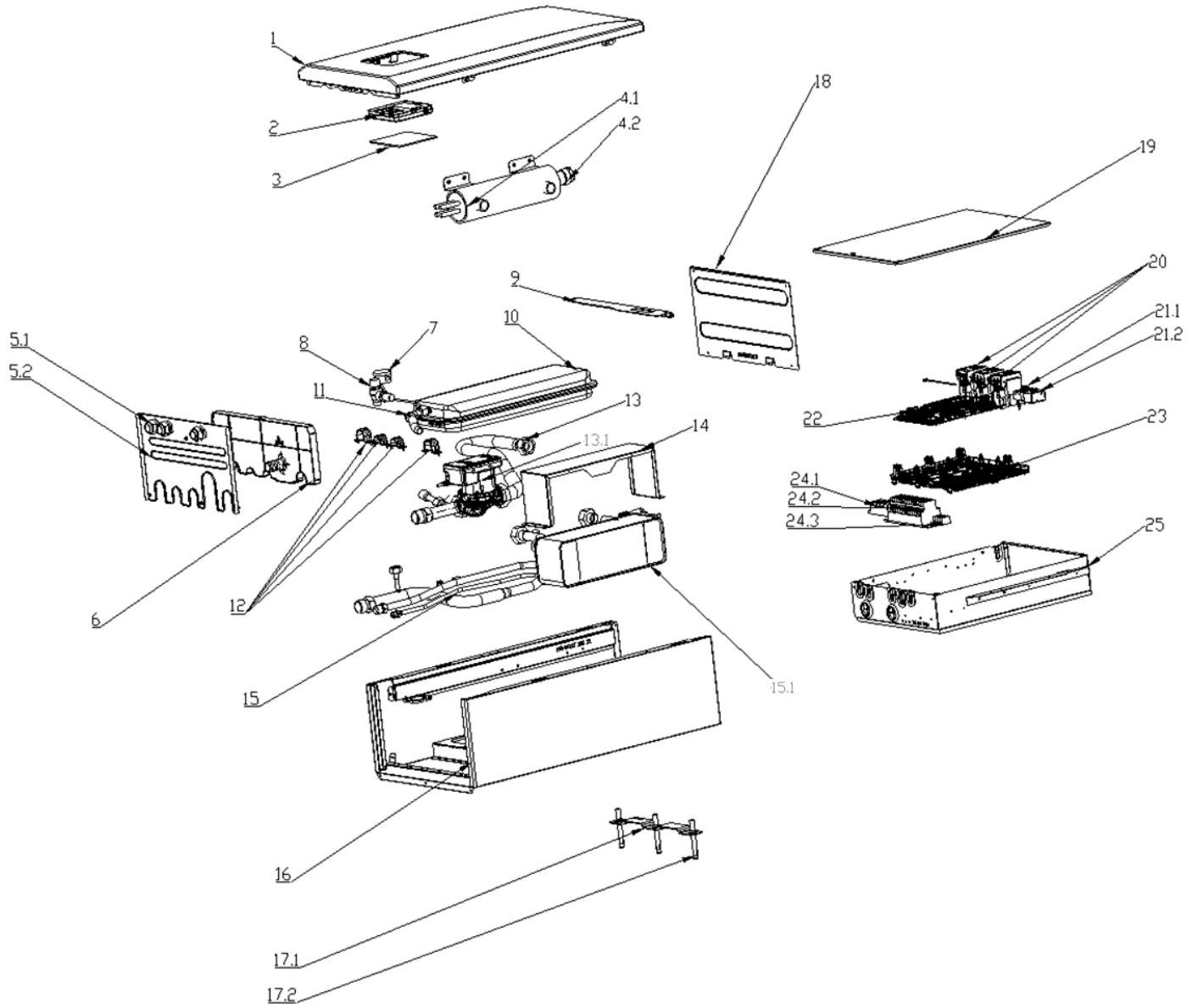
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R32 Split - Air to water Heat Pump

No.	BOM Code	Part Name	Quantity
1	16321064000044	Front panel	1
2	11222020000073	XK06 wired controller	1
3	16421045000003	Wired controller fixing plate	1
4.1	16430021000038	Electric heating tube	1
4.2	16445002000009	Exhaust valve	1
5.1	16446008000001	locking joint	3
5.2	16321054000005	Bottom cover	1
6	16420046000002	Water tray	1
7	16443003000005	Pressure gauge	1
8	16445003000005	Drain valve	1
9	16421050000008	Electric control box beam	1
10	16445001000008	Expansion tank	1
11	16445024000008	Stainless Steel Braided Hose	1
12	16446010000003	Rubber hugging	2
12	16432013000008	Rubber hugging	2
13	16325050000004	Water pump outlet pipe assembly	1
13.1	16440002000021	water pump	1
14	16421123000002	protective case	1
15	16325041000009	Plate Heat Exchanger Components	1
15.1	16439003000021	Plate Heat Exchanger	1
16	16321051000001	Backplane Components	1
17.1	16421002000556	Back hanging board	1
17.2	14731199000002	Expansion bolt	3
18	16321054000004	Top cover	1
19	16421042000036	Electric control box cover	1
20	16430009000063	AC contactor	2
21.1	16430025000010	Temperature controller	1
21.2	16430025000009	Temperature controller	1
22	11222542000147	CJ control board	1
22.1	16430007000272	Temperature Sensor	1
23	16420038000001	Main control board base	1
24.1	16427001000014	Terminal board	1
24.2	16427001000143	Terminal board	1
24.3	16427001000118	Terminal board	1
25	16321019000051	Electric control box components	1

R32 Split - Air to water Heat Pump

3 Phase: AHM-100RA3; AHM-160RA3



R32 Split - Air to water Heat Pump

No.	BOM Code	Part Name	Quantity
1	16321064000044	Front panel	1
2	11222020000073	XK06 wired controller	1
3	16421045000003	Wired controller fixing plate	1
4.1	16430021000037	Electric heating tube	1
4.2	16445002000009	Exhaust valve	1
5.1	16446008000001	locking joint	3
5.2	16321054000005	Bottom cover	1
6	16420046000002	Water tray	1
7	16443003000005	Pressure gauge	1
8	16445003000005	Drain valve	1
9	16421050000008	Electric control box beam	1
10	16445001000008	Expansion tank	1
11	16445024000008	Stainless Steel Braided Hose	1
12	16446010000003	Rubber hugging	2
12	16432013000008	Rubber hugging	2
13	16325050000004	Water pump outlet pipe assembly	1
13.1	16440002000021	water pump	1
14	16421123000001	protective case	1
15	16325041000008	Plate Heat Exchanger Components	1
15.1	16439003000022	Plate Heat Exchanger	1
16	16321051000001	Backplane Components	1
17.1	16421002000556	Back hanging board	1
17.2	14731199000002	Expansion bolt	3
18	16321054000004	Top cover	1
19	16421042000036	Electric control box cover	1
20	16430009000063	AC contactor	3
21.1	16430025000010	Temperature controller	1
21.2	16430025000009	Temperature controller	1
22	11222542000147	CJ control board	1
22.1	16430007000272	Temperature Sensor	1
23	16420038000001	Main control board base	1
24.1	16427001000014	Terminal board	1
24.2	16427001000143	Front panel	1
24.3	16427001000118	XK06 wired controller	1
25	16321019000051	Wired controller fixing plate	1