

Haier

in*sens*



MRV W (380V)

Service Manual

SYJS-04-2018 REV.A

Edition: 2018-04

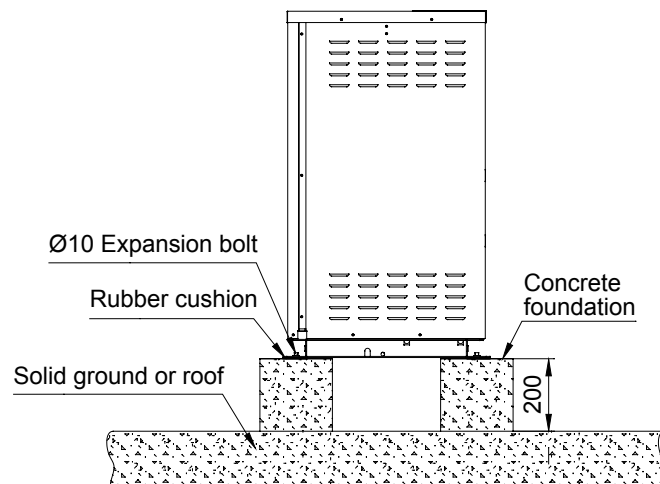
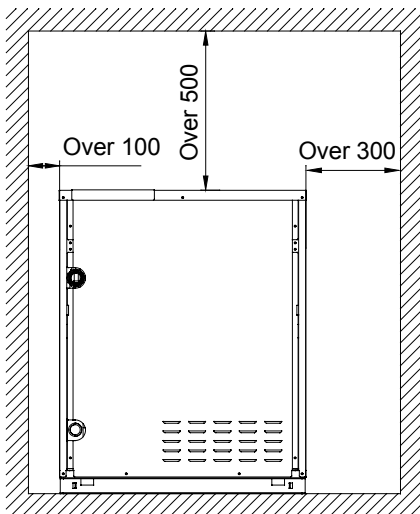
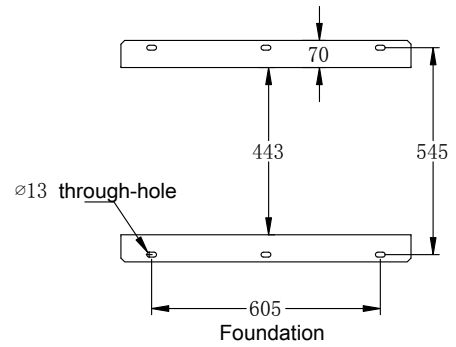
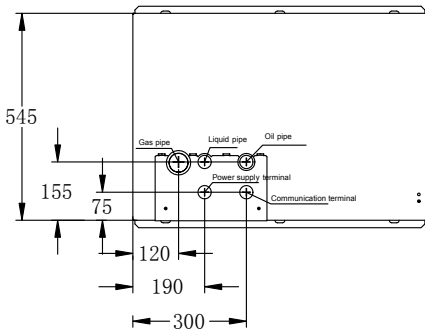
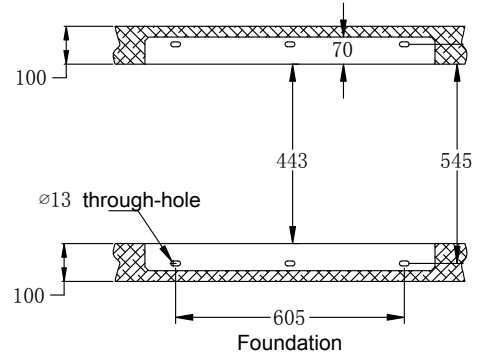
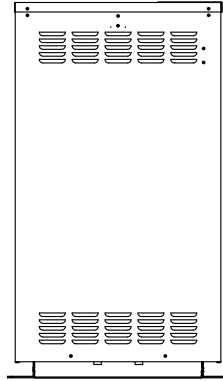
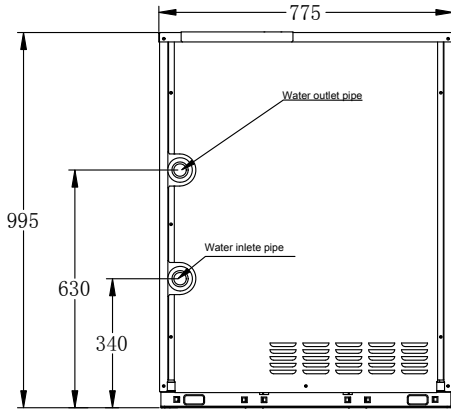
Model			AV16IMWEWA	AV18IMWEWA	AV20IMWEWA
Equivalent HP			16	18	20
Combination model			08+08	08+10	10+10
Power supply		V-Ph-Hz	3~/380-400/50/60	3~/380-400/50/60	3~/380-400/50/60
Cooling	Rated capacity	kW	44.8	50.4	56
	Rated capacity	kBtu/h	152.9	172.0	191.1
	Rated power input	kW	9.00	10.50	12.00
	Max. power input	kW	26.00	28.00	30.00
	EER		4.98	4.80	4.67
	Rated current	A	14.39	16.79	19.19
	Max. current	A	41.58	44.78	47.98
Heating	Rated capacity	kW	50.0	56.5	63
	Rated capacity	kBtu/h	170.6	192.8	215.0
	Rated power input	kW	8.30	9.95	11.60
	Max. power input	kW	26.00	28.00	30.00
	EER		6.02	5.68	5.43
	Rated current	A	13.27	15.91	18.55
	Max. current	A	41.58	44.78	47.98
Compressor	Brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Model		ANB66F+ANB66F	ANB66F+ANB66F	ANB66F+ANB66F
	Type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Capacity	W	22000+22000	22000+22000	22000+22000
	Power input	W	6500+6500	6500+6500	6500+6500
	Rated current (RLA)	A	23.7+23.7	23.7+23.7	23.7+23.7
	Speed	rps	60	60	60
	Crankcase heater	W	38+38	38+38	38+38
	Refrigerant oil brand		ITOCHU CORPORATION	ITOCHU CORPORATION	ITOCHU CORPORATION
	Refrigerant oil type		FVC68D	FVC68D	FVC68D
	Refrigerant oil charge	ml	(2300+1000)*2	(2300+1000)*2	(2300+1000)*2
Heat exchanger	Material		Cooper	Cooper	Cooper
	Type		Axial	Axial	Axial

Model			AV16IMWEWA	AV18IMWEWA	AV20IMWEWA
Heat exchanger	Water flow rate range	m ³ /h	2.4-7.2+2.4-7.2	2.4-7.2+3.0-9.0	3.0-9.0+3.0-9.0
	Water pressure drop	kPa	35+35	35+50	50+50
	Max water pressure	MPa	1.6	1.6	1.6
	Inlet/Outlet water connection pipe	mm	DN32	DN32	DN32
	Connection type / model	Inch	Inner Thread / G 1 1/4"	Inner Thread / G 1 1/4"	Inner Thread / G 1 1/4"
Control panel enclosure IP class		Standard	IPX0	IPX0	IPX0
Outdoor sound level (sound pressure level)		dB (A)	53	54	54
Outdoor sound level (sound power level)		dB (A)	64	65	65
Outdoor unit	Dimension (W*H*D)	mm	(775×545×995)*2	(775×545×995)*2	(775×545×995)*2
	Packing (W*H*D)	mm	(875×655×1182)*2	(875×655×1182)*2	(875×655×1182)*2
	Net weight	kg	344	344	344
	Gross weight	kg	366	366	366
Refrigerant	Type		R410A	R410A	R410A
	Charged volume	kg	2+2	2+2	2+2
Throttle type			EXV	EXV	EXV
Design pressure		MPa	4.15+4.15	4.15+4.15	4.15+4.15
Refrigerant piping	Liquid pipe	mm	Φ12.7	Φ15.88	Φ15.88
	Gas pipe	mm	Φ28.58	Φ28.58	Φ28.58
	Oil pipe	mm	Φ9.52	Φ9.52	Φ9.52
	Total pipe length	m	300	300	300
	Max. pipe length (Equivalent/ Actual)	m	150/120	150/120	150/120
	Max.Diff. indoor/ outdoor unit	m	50(Outdoor higher than indoor) 40(Indoor higher than outdoor)	50(Outdoor higher than indoor) 40(Indoor higher than outdoor)	50(Outdoor higher than indoor) 40(Indoor higher than outdoor)
	Max.Diff. indoor/ indoor unit	m	15	15	15
Connectable indoor unit ratio		%	50-130	50-130	50-130
Maximum indoor units		Piece	23	29	33
Connection wiring	Power wiring	mm ²	12	16	20
	Signal wiring	mm ²	Shield wire (0.75-2)*2	Shield wire (0.75-2)*2	Shield wire (0.75-2)*2
Operation range		°C	Circulating water inlet: 7°C — 45°C	Circulating water inlet: 7°C — 45°C	Circulating water inlet: 7°C — 45°C

3. Dimension

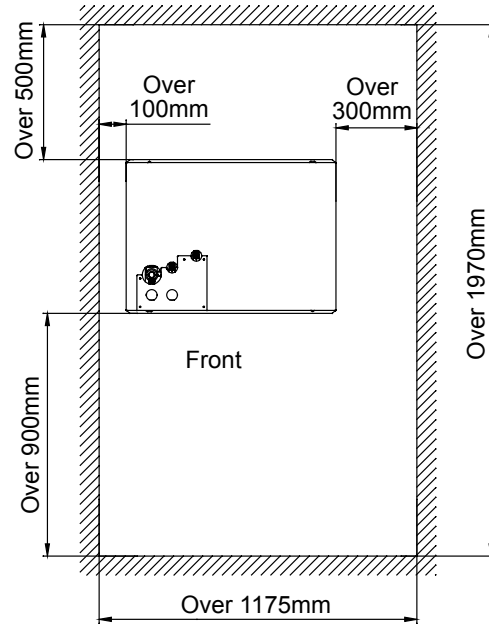
3.1 Single unit

8~12HP exterior and installation dimensions

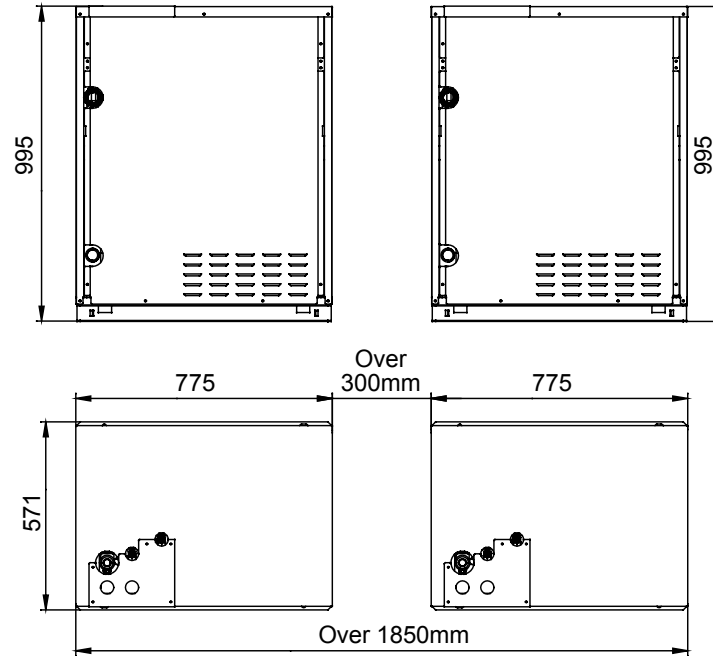


3.2 Combination unit

A. Sites for one outdoor unit



B. Sites for two outdoor unit



For installation, please review the items below:

- Are the connected units quantity and the total capacity in the allowable range?
- Is the refrigerant pipe length in the limited range?
- Is the pipe size proper? And if the pipe is installed horizontally?
- Is the branch pipe installed horizontally or vertically?
- Is the additional refrigerant counted correctly and weighed by the standard balance?
- Is there refrigerant leakage?
- Can all the indoor power supplies be on/off simultaneously?
- Is the power voltage in compliance with the data marked on the rating label?
- Have the address of indoors and outdoors been set?
- If the control line of the target flow switch connect well?
- If the control line of the pump connect well?
- If the inlet and outlet water pipe install correctly?
- If the water temperature is within the scope of the restrictions?
- If the water flow is within the scope of the restrictions?

(1) Accessories

No.	Name	Quantity
1	Flow switch	1
2	Installation manual	1
3	T shape pipe, only use for multiple modules	1
4	Variable diameter tube	1 (10HP: 2)

(2) Before installation

- 1) Before installation, check respectively if the model, power supply, pipes, wires and accessories purchased are correct.
- 2) Check if the indoors and outdoors can be combined as the following.

Name	Model	Function	For what units
Outdoor branch pipe	HZG-20A	Refrigerant gathering	2 Modules
	HZG-30A		3 Modules

Capacity (100W)	Outdoor	Indoor		Gather pipe
	Combination type	Indoor Qty	Total indoor capacity (100W)	
224	Single (8HP)	13	112-291	
280	Single (10HP)	16	140-364	
335	Single (12HP)	19	168-436	
448	Combination (8HP+8HP)	23	224-582	HZG-20A
504	Combination (8HP+10HP)	29	252-655	HZG-20A
560	Combination (10HP+10HP)	33	280-728	HZG-20A
615	Combination (10HP+12HP)	36	307-800	HZG-20A
670	Combination (12HP+12HP)	39	335-871	HZG-20A
728	Combination (8HP+8HP+10HP)	43	364-946	HZG-30A
784	Combination (8HP+10HP+10HP)	46	392-1019	HZG-30A
840	Combination (10HP+10HP+10HP)	50	420-1092	HZG-30A
895	Combination (10HP+10HP+12HP)	53	448-1164	HZG-30A
950	Combination (10HP+12HP+12HP)	56	475-1235	HZG-30A
1005	Combination (12HP+12HP+12HP)	59	503-1307	HZG-30A