

MARINE AIR HANDLING UNIT

Marine Air Handling Unit

Description

The MAHK marine air handling unit is the important device to deal with the temperature and humidity of the air in the cabin.

Normal AHU parts consist of the following sections, which can be freely combined and mounted in casings to form complete sections: mixing air intake, filter section, heating section, cooling section, humidifying section, fan section, discharge section.

Features

- Panel and frame: corrosion protection material, Alu-Zinc Steel or Stainless Steel optional.
- The panels are 50 mm thick and consist of a double skinned steel sheet with intermediate mineral wool.
- Fan-motor unit: double inlet centrifugal fan, with V-belt driven motor.
- The spiroduct or square duct can be connected directly to the sections for easy installation.
- The access doors are available, which can be opened and detached easily for inspection and servicing.
- The functional sections are optional for customers, and meet the most demanding requirements.
- Cooling medium: refrigerant (R404A, R407C, R134A, R22 etc.) or chilled water
- Heating medium: steam, hot water, hot oil, or electric heating
- Humidifying medium: Steam, fresh water + compressed air, or fresh water
- 50/60 Hz, 3 phase.



Air handling unit type MAHK

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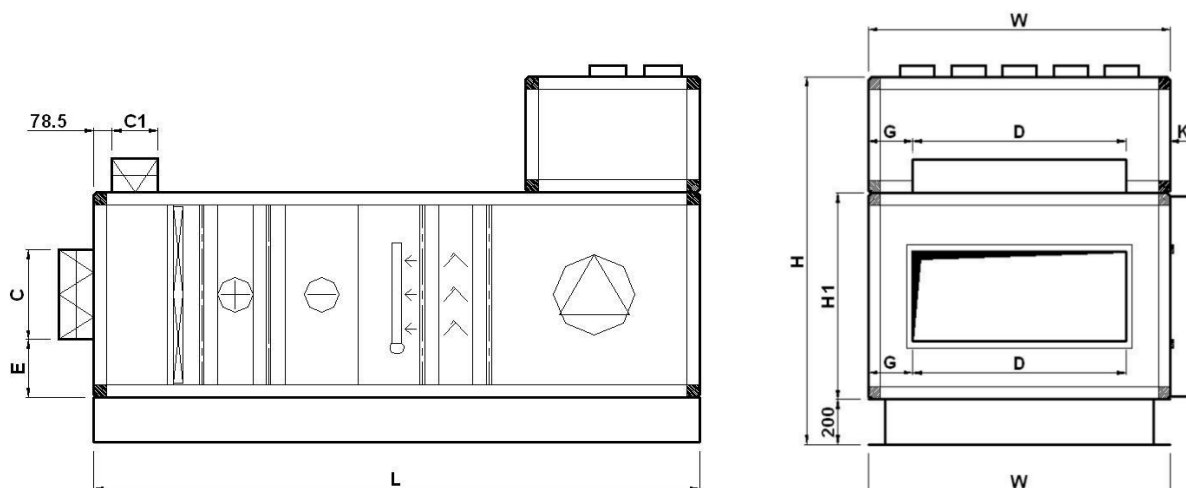
Technical data

AHU type Item MAHK			1006	1009	1406	1409	1413	1909	1911	1913	1916
Air flow	Min	m ³ /s	0.43	0.68	0.69	1.09	1.68	1.65	2.09	2.54	3.29
		m ³ /h	1548	2448	2484	3924	6048	5940	7524	9144	11844
	Max	m ³ /s	1.29	2.03	1.90	2.98	4.61	4.28	5.45	6.62	8.56
		m ³ /h	4644	7308	6840	10728	16596	15408	19620	23832	30816
Cooling capacity	Min	KW	12	18	18	29	45	44	56	68	88
	Max	KW	100	157	147	231	358	332	423	513	664
Heating capacity	Min	KW	12	18	19	29	45	45	56	69	89
	Max	KW	97	152	142	223	345	321	408	496	641
Humidifying Capacity	Max	kg/h	45	71	66	104	161	149	190	231	299
Max External Static pres.	Pa		1440	3180	1230	3190	3290	2930	3200	3100	2480
Centrifugal Fan	Max Fan size		250	315	280	355	450	400	500	560	630
	Max Motor Power KW		6.33	12.7	8.6	17.3	17.3	21.3	34.5	42.6	42.6
	Max Motor size		132S	160M	132S	160L	200L	180M	200L	200L	200L
Cooling medium ⁽¹⁾			R404A (R407C /R134A/R22/other second refrigerant)								
Heating medium ⁽¹⁾			Steam, hot water, or electric								
Humidifying medium ⁽¹⁾			Steam, fresh water + compressed air, or fresh water								
Power Supply			3Ph, 440/380 V, 60/50Hz								

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- Normal design condition:
 - Summer: Inside temperature 27°C, relative humidity 50%; outside temperature 35°C, relative humidity 70%;
 - Winter: Inside temperature 22°C, relative humidity 50%; outside temperature -20°C; Fresh
 - air rate: 0~100%;
 - Room supply temperature 17°C for summer, and 40°C for winter.
- Other design is available on request (refrigerant, static pressure etc.)

Principal dimensions



Unit (mm)

AHU type MAHK	W	H	L ₅	H1	C	C1	D	G	E	K	Weight Approx kg
1006	1027	1384	2457	667	300	100	800	113.5	183.5	100	1400
1009	1027	1634	2937	917	400	200	800	113.5	258.5		1450
1406	1417	1384	2617	667	300	100	1200	108.5	183.5	100 ¹⁾	1450
1409	1417	1634	2777	917	400	200	1200	108.5	258.5	130	1500
1413	1417	2034	3257	1317	700	300	1200	108.5	308.5		1550

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1909	1947	1634	2857	917	400	200	1700	123.5	258.5		1550
1911	1947	1834	2857	1117	500	200	1700	123.5	308.5	130 ²⁾	1600
1913	1947	2184	3017	1317	700	300	1700	123.5	308.5	130 ³⁾ /130	1650
1916	1947	2484	3177	1617	900	300	1700	123.5	358.5	130 ³⁾ /250 ⁴⁾	1700

1) Extension, for motor size 160M.

3) Extension, for small fan.

2) Extension, for motor size 200L and large fan.

4) Extension, for large fan.

5) The length is just one solution from all possible arrangements for guidance, and other possibilities are available.