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# **SPECIFICATION SHEET**

## **Airco inverter chiller units (AIV)**

## AIRCO INVERTER CHILLER UNIT

MAR-IX inverter chiller units are designed in such way that all refrigeration components are placed in a stainless steel housing. This ensures sound reduction and protection of the chiller against conditions in an engine room or other technical space. A major advantage of the compact design is that the chiller occupies little space.

The MAR-IX AIV series chiller units are equipped with inverter technology which means that the chiller will not switch on and off the compressor, but varies in speed to control the cooling capacity. By using this inverter technology current peaks belong to the past and the electric system on board the ship will not be disrupted. AIV units are standard suitable for the most common power supplies, and will function on 50 as well as 60Hz.

All units are equipped with a sea water-cooled condenser made of copper/nickel. Optionally available is a high efficient condenser that can be connected directly to a box cooler.

The AIV series chiller units can be connected to all MAR-IX fan coil units and controlled by our electronics with or without communication.

If the AIV chiller is connected to the MAR-IX communication system, the chiller will also adjust its capacity to the power requirements of the areas which are being cooled. The chiller will not deliver more cooling capacity than what is actually demanded for, which relieves the electric power consumption.

### TECHNICAL FEATURES

- Equipped with variable capacity rotary compressor
- Filled with environmental friendly refrigerant
- Mainly manufactured from stainless steel
- Sea water resistant condenser
- Sea water resistant water pump
- Standard equipped with vibration absorbers
- Pressure and temperature protected
- Low current
- Quiet operation
- Compact system
- No current peak at start-up
- Energy saving

### STANDARD SUPPLY

- Chiller unit
- User manual
- Spare part list
- Declaration of Conformity
- Test Certificate

### OPTIONAL

- Sea water kit
- Circulation pump
- Marine approved air hose, thermal and acoustic insulated

Equipped with a unique inverter technology!

## GENERAL DATA

	Power supply AC	Power supply DC	Cool capacity	Refrigerant	Current	Power (W)	Req. Chilled water flow @ 6-12°C	Min. req. sea water flow	Max. Sea water temp.
<b>AIV5</b>	220-240V 50-60Hz	12-24V	3.400-17.000 Btu	R407C	1.5 - 5 A	1 - 5 Kw	0,7 m3/hr	0,6 m3/hr	40 °C
<b>AIV8</b>	220-240V 50-60Hz	12-24V	6.800-27.300 Btu	R410A	2 - 8 A	2 - 8 Kw	1,12 m3/hr	1,0 m3/hr	40 °C
<b>AIV10</b>	220-240V 50-60Hz	12-24V	6.800-34.100 Btu	R410A	10 - 12 A	2 - 10 Kw	1,4 m3/hr	1,25 m3/hr	40 °C
<b>AIV15</b>	220-240V 50-60Hz	12-24V	6.800-51.200 Btu	R410A	2 - 15 A	2 - 15 Kw	2,1 m3/hr	1,9 m3/hr	40 °C
<b>AIV20</b>	400V / 50-60Hz (3ph+N+Pe)	12-24V	13.600-68.300 Btu	R410A	9 A	4 - 20 Kw	2,8 m3/hr	2,5 m3/hr	40 °C
<b>AIV25</b>	400V / 50-60Hz (3ph+N+Pe)	12-24V	13.600-85.300 Btu	R410A	9 A	4 - 25 Kw	3,5 m3/hr	3,1 m3/hr	40 °C
<b>AIV30</b>	400V / 50-60Hz (3ph+N+Pe)	12-24V	13.600-102.300 Btu	R410A	8 - 11 A	4 - 30 Kw	4,2 m3/hr	3,75 m3/hr	40 °C

## DIMENSIONS & WEIGHTS

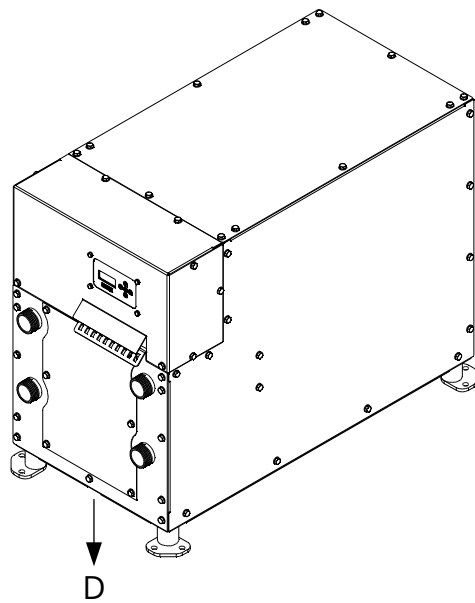
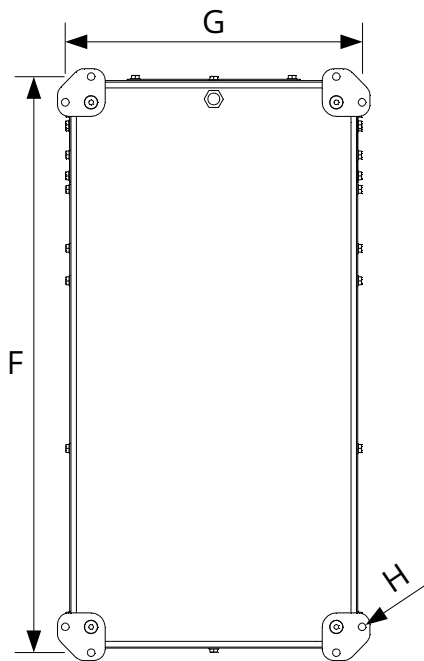
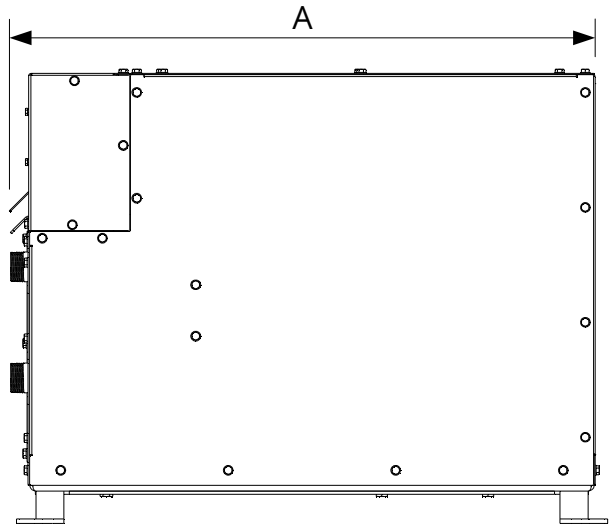
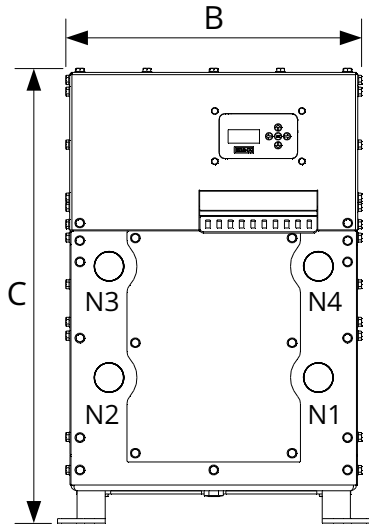
	A (mm)	B (mm)	C (mm)	F (mm)	G (mm)	H (mm)	N1 Chilled fluid in	N2 Chilled fluid out	N3 Sea water in	N4 Sea water out	Weight
<b>AIV5</b>	534	264	407	515	265	Ø 7	¾" BSP OT	¾" BSP OT	¾" BSP OT	¾" BSP OT	40 kg
<b>AIV8</b>	534	264	442	515	265	Ø 7	¾" BSP OT	¾" BSP OT	¾" BSP OT	¾" BSP OT	48 kg
<b>AIV10</b>	445	400	436	416	396	Ø 7	¾" BSP IT	¾" BSP IT	¾" BSP OT	¾" BSP OT	55 kg
<b>AIV15</b>	630	387	596	596	384	Ø 7	1" BSP IT	1" BSP IT	1" BSP OT	1" BSP OT	60 kg
<b>AIV20</b>	709	441	687	687	444	Ø 9	1" BSP IT	1" BSP IT	1" BSP OT	1" BSP OT	110 kg
<b>AIV25</b>	709	441	687	687	444	Ø 9	1" BSP IT	1" BSP IT	1" BSP OT	1" BSP OT	110 kg
<b>AIV30</b>	709	441	687	687	444	Ø 9	1" BSP IT	1" BSP IT	1" BSP OT	1" BSP OT	110 kg

Note:

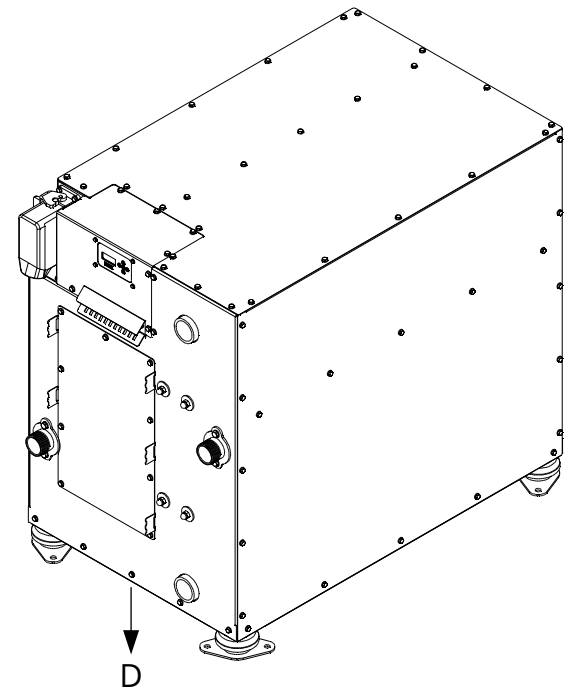
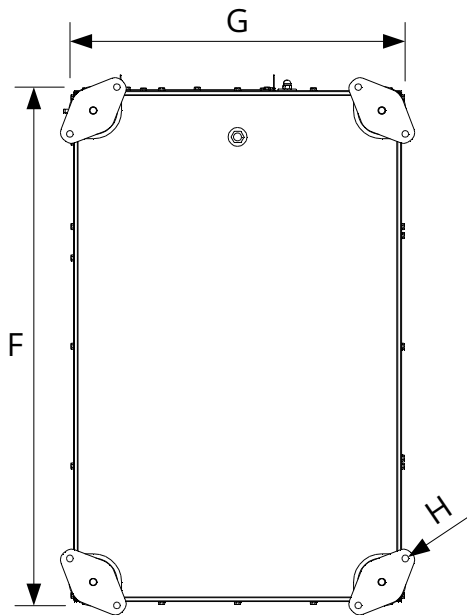
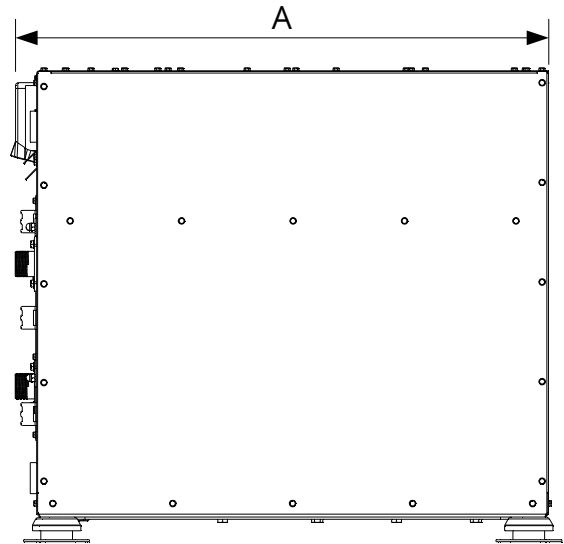
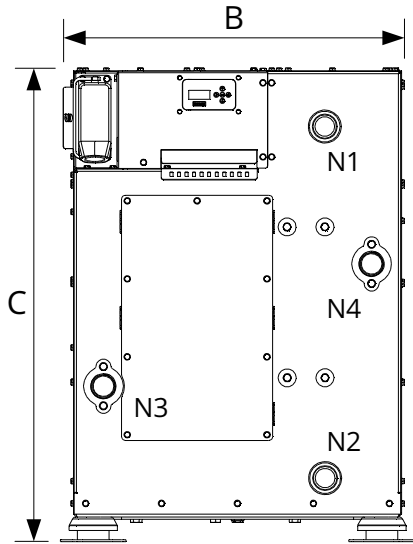
Dimensional sketch AIV5 thru AIV15 on page 6

Dimensional sketch AIV20 thru AIV30 on page 7

**DIMENSIONAL SKETCH - AIV5/AIV8/AIV10/AIV15**



**DIMENSIONAL SKETCH - AIV20/AIV25/AIV30**





**PRODUCT FROM MAVÉ**



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