

# VELAIR

MARINE AIR CONDITIONERS



 **UFLEX**





## INDEX

**MARINE AIR CONDITIONING SYSTEMS - VELAIR SERIES** *page 4-5*

**HOW TO CHOOSE AN AIR CONDITIONING SYSTEM** *page 6*

**HOW TO CHOOSE AN AIR CONDITIONING SYSTEM** *page 6*

**SELF-CONTAINED ON-OFF UNITS** *page 8-9*

**SELF-CONTAINED VSD UNITS** *page 10-11*

**CHILLER VSD UNITS - FANCOILS FOR CHILLER SYSTEMS** *page 12-17*

**SEAWATER PUMPS** *page 18-19*

**ACCESSORIES** *page 20-26*

**CONFIGURATIONS** *page 27-29*

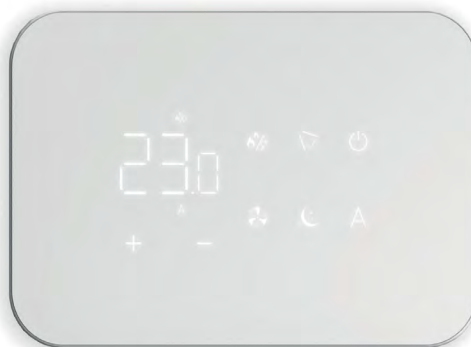
**TECHNICAL SUPPORT** *page 30*



## VELAIR SERIES



M6



M7

Velair air conditioning systems can satisfy every request, thanks to the wide range that starts from super-compact units, up to chiller systems, providing a cooling capacity from 7.000 BTU/h up to 62.000 BTU/h.

Model Part No.	POWER (K BTU/h)																																
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	
Compact7 WiFi 20379UW																																	
Compact i0912 VSD SMART 26254E																																	
Compact i0924 VSD SMART 26255G																																	
Compact i10 VSD SMART 24831GW																																	
Compact i1524 VSD SMART 26256J																																	
Compact i16 VSD SMART 24832JW																																	
Compact i21 VSD 24765WW																																	
Chiller i42 VSD 69338D																																	
Chiller i62 VSD 69339F																																	
Fancoil V5 23398P																																	
Fancoil V12 23399S																																	
Fancoil V20 23729L																																	

Optimal use



Tolerated use





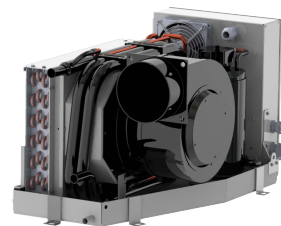
## VSD INVERTER DRIVEN SELF-CONTAINED UNITS DC (12/24V)



**COMPACT i0912 VSD SMART**  
2.500 - 9.000 BTU/h 12V



**COMPACT i0924 VSD SMART**  
2.500 - 9.000 BTU/h 24V



**COMPACT i1524 VSD SMART**  
3.500 - 15.000 BTU/h 24V

## COMPACT SERIES - ON-OFF SUPER COMPACT UNITS - REVERSE CYCLE FUNCTION



**COMPACT 7 - 7.000 BTU/h**

## VSD INVERTER DRIVEN SELF CONTAINED AIR CONDITIONING SYSTEMS - REVERSE CYCLE FUNCTION



**COMPACT i10 VSD SMART**  
4.000 - 10.000 BTU/h



**COMPACT i16 VSD SMART**  
6.000 - 16.000 BTU/h



**COMPACT i21 VSD**  
7.000 - 21.000 BTU/h

## VSD INVERTER DRIVEN CHILLER - REVERSE CYCLE FUNCTION



**CHILLER i42 VSD - 18.000 - 42.000 BTU/h**  
**CHILLER i62 VSD - 30.000 - 62.000 BTU/h**

## FANCOILS FOR CHILLER SYSTEMS



**FANCOIL V5 - 5.000 BTU/h**




**FANCOIL V12 - 12.000 BTU/h**




**FANCOIL V20 - 20.000 BTU/h**

# HOW TO CHOOSE AN AIR CONDITIONING SYSTEM


VELAIR




Below deck rooms with portholes			
Net room volume LxWxHx0,8 m³	Cold weather BTU	Hot weather (Mediterranean) BTU	Tropical weather BTU
10	3.200	4.000	5.200
15	4.800	6.000	7.800
20	8.000	8.000	10.400
25	9.600	10.000	13.000
30	11.200	12.000	15.600
35	11.200	14.000	18.200
40	12.800	16.000	20.800
45	14.400	18.000	23.400
50	16.000	20.000	26.000
55	17.600	22.000	28.600
60	19.200	24.000	31.200
65	20.800	26.000	33.800
70	22.400	28.000	36.400
75	24.000	30.000	39.000
80	25.600	32.000	41.600
85	27.200	34.000	44.200
90	28.800	36.000	46.800
95	30.400	38.000	49.400
100	32.000	40.000	52.000



Deck cabins with windows			
Net room volume LxWxHx0,8 m³	Cold weather BTU	Hot weather (Mediterranean) BTU	Tropical weather BTU
10	4.000	5.000	6.500
15	6.000	7.500	9.750
20	8.000	10.000	13.000
25	10.000	12.500	16.250
30	12.000	15.000	19.500
35	14.000	17.500	22.750
40	16.000	20.000	26.000
45	18.000	22.500	29.250
50	20.000	25.000	32.500
55	22.000	27.500	35.750
60	24.000	30.000	39.000
65	26.000	32.500	42.250
70	28.000	35.000	45.500
75	30.000	37.500	48.750
80	32.000	40.000	52.000
85	34.000	42.500	55.250
90	36.000	45.000	58.500
95	38.000	47.500	61.750
100	40.000	50.000	65.000



Deck cabins with large windows			
Net room volume LxWxHx0,8 m³	Cold weather BTU	Hot weather (Mediterranean) BTU	Clima tropicale BTU
10	4.800	6.000	7.800
15	7.200	9.000	11.700
20	9.600	12.000	15.600
25	12.000	15.000	19.500
30	14.400	18.000	23.400
35	16.800	21.000	27.300
40	19.200	24.000	31.200
45	21.600	27.000	35.100
50	24.000	30.000	39.000
55	26.400	33.000	42.900
60	28.800	36.000	46.800
65	31.200	39.000	50.700
70	33.600	42.000	54.600
75	36.000	45.000	58.500
80	38.400	48.000	62.400
85	40.800	51.000	66.300
90	43.200	54.000	70.200
95	45.600	57.000	74.100
100	48.000	60.000	78.000



Luxury motoryachts with large windows			
Net room volume LxWxHx0,8 m³	Cold weather BTU	Hot weather (Mediterranean) BTU	Tropical weather BTU
10	6.000	7.500	9.750
15	9.000	11.250	14.625
20	12.000	15.000	19.500
25	15.600	18.750	24.375
30	18.000	22.500	29.250
35	21.000	26.250	34.125
40	24.000	30.000	39.000
45	27.000	33.750	43.875
50	30.000	37.500	48.750
55	33.000	41.250	53.625
60	36.000	45.000	58.500
65	39.000	48.750	63.375
70	42.000	52.500	68.250
75	45.000	56.250	73.125
80	48.000	60.000	78.000
85	51.000	63.750	82.875
90	54.000	67.500	87.750
95	57.000	71.250	92.625
100	60.000	75.000	97.500

### CONTROL PANEL

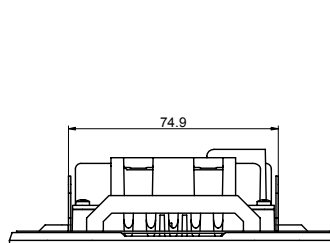
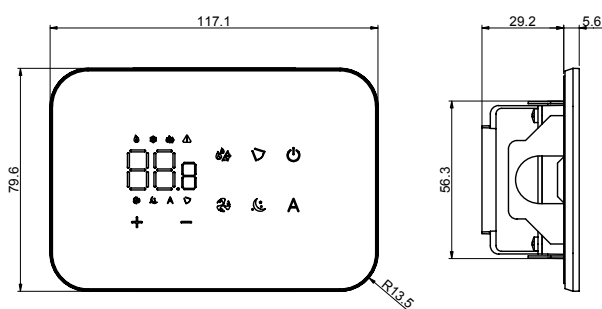
The compact 7, i10/i16 VSD Smart and i21 VSD units are supplied with the M6 wall-mounted touch control digital panel, easy to install as, being very thin, it can be applied on the wall itself, without the classic rectangular cut. A simple round hole is enough to pass the data cable.



### ELECTRIC CONTROL BOX

The units are extremely easy to install thanks to the prewired electrical box with a cable bundle that allows the optimal positioning around the machine itself. Unlocking the four screws, it's possible to access directly to the terminal block to connect the power supply and the sea water pump.

### VSD UNIT NEW OPTIONAL CONTROL PANEL



### SMART M7-Touch control panel code 25829B

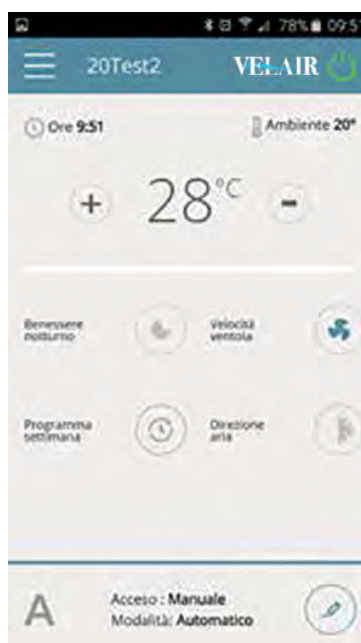
New SMART M7-Touch control panel, available as an Optional for VSD Smart i10/i16, and VSD i21 compact air conditioners, supplied as standard with i0912/i0924/i1524 VSD Smart units

- Can be installed as a refit on already assembled units, or on new installation as an alternative to the standard control panel supplied with i10/i16 VSD Smart and i21VSD
- Led electronic control with Touch interface
- Elegant Design / Ultrathin
- Magnetic installation frame on 503 box template, no connection screws to the panel

### WIFI: REMOTE CONTROL VIA SMARTPHONE



### VELAIR APP



Wi-Fi module integrated in the panel.  
This function allows to reach, monitor and set-up your unit through a dedicated app.  
When you are on board, the smartphone will speak directly with the unit. This allows to turn on the air conditioning or heat pump, adjust the desired temperature set-point and fan speed.

# VSD INVERTER DRIVEN SELF-CONTAINED A/C UNITS DC ( 12/24 V ) POWERED

**VELAIR**



## VARIABLE SPEED DRIVE

**new**

New VELAIR compact air conditioning units, powered directly @ 12/24 Volt from the boat's battery bank, without the need for a generator or inverter. Two sizes available: 9,000 Btu/h maximum cooling power @ 12 and 24 volt, and 15,000 Btu/h @ 24 volt

VSD Inverter Smart technology offers the advantages of eliminating power peaks at start-up, maximum energy efficiency, and significantly reduced compressor noise and vibration during operation.

The twin rotary compressor with a brushless permanent magnet synchronous motor ( PMSM ) varies its rotation speed to continuously adapt to the difference between the set/requested temperature and the ambient temperature detected by the sensor integrated into the control panel. This ensures highly precise room temperature control in all conditions, with minimal noise and vibration.

The outgoing air flow is kept constant thanks to DC brushless variable speed technology fans, which can also be oriented for easier on-board installation.

VELAIR air conditioners are designed and manufactured in Italy and comply with electromagnetic compatibility (EMC) regulations.



**i0912 VSD Smart**

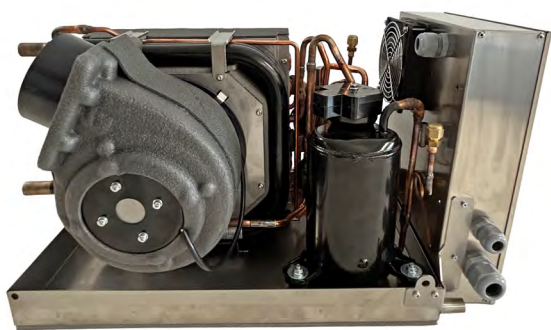
## TECHNICAL SPECIFICATIONS

MODEL	i0912 VSD SMART	i0924 VSD SMART	i1524 VSD SMART
Part No.	26254E	26255G	26256J
Cooling capacity range	2500 – 9000 Btu/h	2500 – 9000 Btu/h	3500 – 15000 Btu/h
Power supply voltage	12 VDC	24 VDC	24 VDC
Power consumption cooling (max)	45 A	22 A	40 A
Power consumption ECO mode	18 A	9 A	13 A
Max air flo	350 m³/h	350 m³/h	550 m³/h
Air exit duct	1 x Ø 100 mm - 1 x Ø 3.9"	1 x Ø 100 mm - 1 x Ø 3.9"	1 x Ø 125 mm - 1 x Ø 4.9"
Return Grill min.	400 cm²	400 cm²	600 cm²
Supply Grill min.	250 cm²	250 cm²	300 cm²
Min seawater flo	12 l/min	12 l/min	15 l/min
Dimensions WxHxD mm (")	570x320x320* (22.5x12.6x12.6)	570x320x320* (22.5x12.6x12.6)	650x330x355* (25.6x13x14)
Weight kg (lbs)	25 (55.1)	25 (55.1)	28 (61.7)
Refrigerant ( q.ty )	R32 (330 gr)	R32 (330 gr)	R32 (380 gr)
Control panel cable	8 m	8 m	8 m

\* electric box included

Working limits seawater in summer mode. +40°C / +104°F

Working limits seawater in winter mode +5°C / +41°F



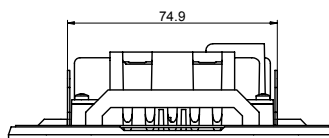
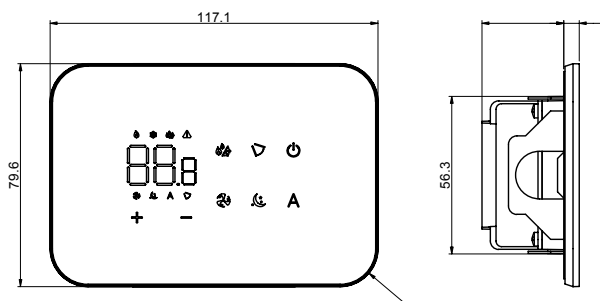
**i0924 VSD Smart**

From the unit's electrical box it will be possible to control the sea water circulation pump, @ 12/24 Volts, to ensure the correct heat exchange with the R32 refrigerant (i09: 330g / i15: 380g), and the maximum efficiency of the air conditioning system.

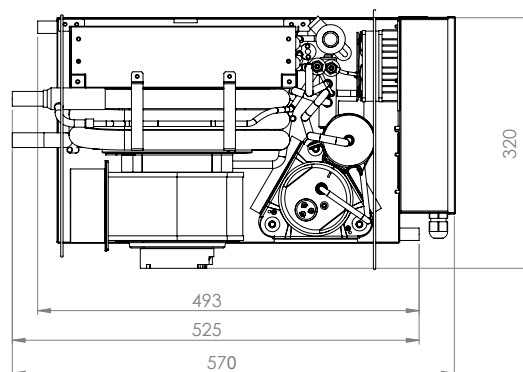
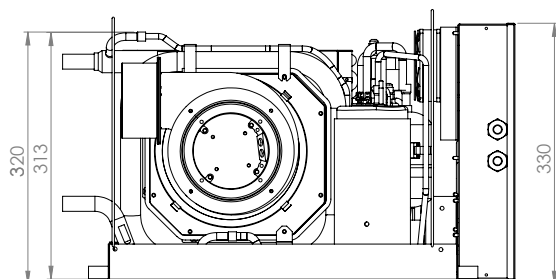
The compact VELAIR DC units are standard supplied with the new Smart M7 Touch wall-mount control panel, with integrated room temperature sensor, electronic LED control with touch interface, an elegant / ultra-thin design, with a magnetic installation frame on a std 503 box that does not require screws for connection to the panel.



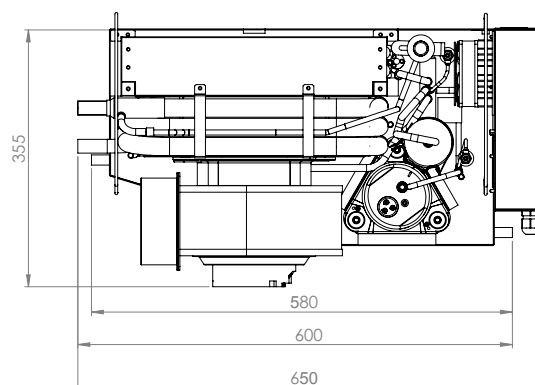
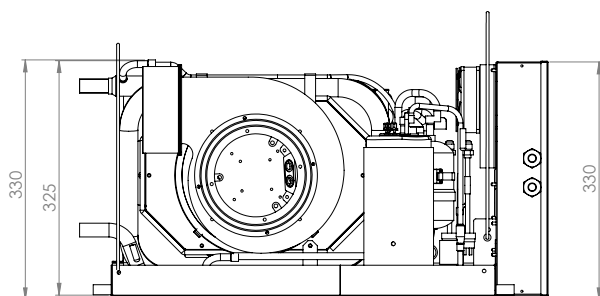
**SMART M7-Touch control panel**



### COMPACT i0912/i0924 VSD SMART - 26254E/26255G



### COMPACT i1524 VSD SMART - 24832JW





# SELF-CONTAINED ON-OFF AIR CONDITIONING SYSTEMS **VELAIR**

## COMPACT 7 - SUPER COMPACT UNIT

In order to have a solution even when spaces are minimal, VELAIR introduces the Compact 7, the super-compact air conditioning self contained unit that in just 43cm in length and 26cm in width develops 7.000 BTU/h of cooling power. 7.000 BTU model is built with a stainless steel tray and fan body, with possibility to have up to 3 air outlets.

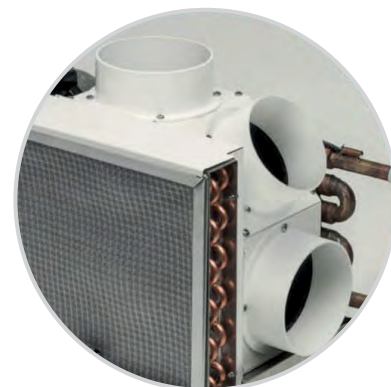
Advantages:

- Unit extremely compact in dimensions and light weight
- Brushless fan with high efficiency and low noise
- Max electrical power consumption 660 W (in cooling)
- New wall touch display included
- Heat pump reverse cycle operation to heat the environment in winter

Easy to install:

With its compact dimensions and low weight, the Compact 7 can be installed on all types of boats.

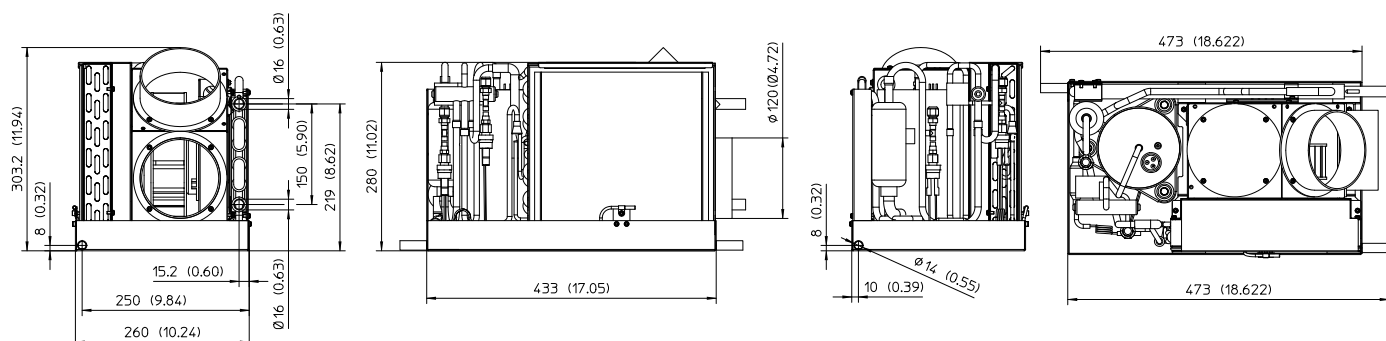
The Compact 7 can be installed with 2 or 3 air outputs, 100 mm diameter, without the need to use any T or Y additional dividers.



Ø 100 mm three air outputs application example



## COMPACT 7 - 20379UW



## Features

- Heat pump reverse cycle operation
- Brushless fan
- Rotary compressor
- New wall touch display
- WIFI: remote control via smartphone
- Multiple air outputs
- Wired electronic box
- Stainless steel condensation tray
- Designed and manufactured in Italy

Model - Part No.	Compact 7- 20379UW
Cooling capacity	7.000 BTU/h
Supply voltage	230 V - 50Hz
Heat pump	Yes
Maximum input power cooling	0,66 Kw
Cooling power consumption	3,0 A
Starting	12 A
Min. seawater flo	8 l/min
Seawater IN / OUT	Ø 16 mm (0.63)
Maximum air flo	350 m³/h
Air exit duct (for max capacity)	2 x Ø 100 mm - 2 x Ø 4"
Minimum opening for return air grill	360 cm²
Min.opening for supply air grill	150 cm²
Refrigerant	R410A
Control panel cable length	8 m
Width	433 mm - 17"
Height	280 mm - 11"
Depth	260 mm - 10.2"
Weight	23 kg - 50.7 lbs
Working limits: SW winter mode	> +5°C/+41°F
Working limits: SW summer mode	< +40°C/+104°F



# VSD INVERTER DRIVEN SELF-CONTAINED AIR CONDITIONING SYSTEMS REVERSE CYCLE FUNCTION

**VELAIR**

## Features

- Heat pump reverse cycle operation
- 0,5°C temperature fluctuation
- Compressor noise and vibrations almost zero
- No current peaks during start-up
- Overall reduction of electricity consumption
- Constant Flow technology fan (i10 and i16 only)
- Twin Rotary compressors
- Constant temperature of the air flow
- Increase in component lifetime
- New wall touch display
- WIFI: remote control via smartphone
- Designed and manufactured in Italy



**VARIABLE SPEED DRIVE**



**VELAIR APP**



**Compact i10 VSD SMART**

Self-contained-VSD air conditioners provide the best of the existing technology: compressor with brushless DC motor and inverter that constantly controls speed and delivered cooling power (Variable Speed Drive); reverse blade brushless fan; electronic expansion valve.

- Constant Flow technology fan (i10 and i16 only)
- Twin Rotary compressors

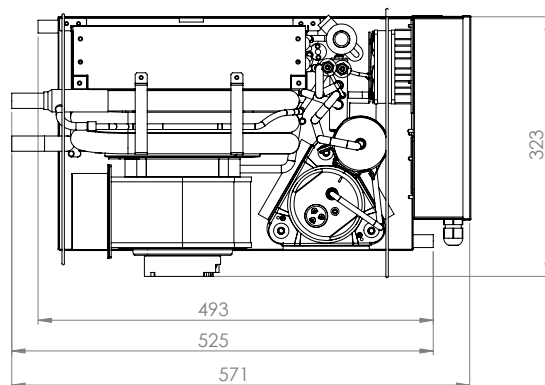
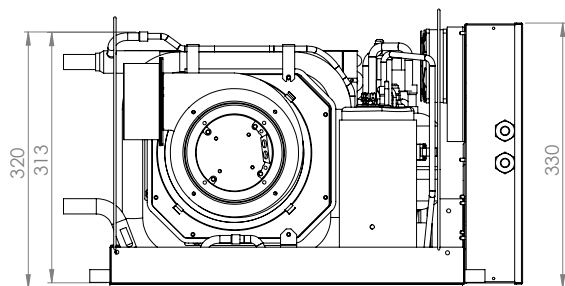
Available in three sizes: 10.000, 16.000 and 21.000 BTU/h max output.

The compressor continuously changes its running speed depending from ambient and set temperature. The compressor operates at maximum power to cool rapidly the cabins, but reaching the set temperature, it reduces the power and electric consumption. In this way it maintains the optimal comfort level with the minimum consumption. The inverter works between 20 and 100 Hz.

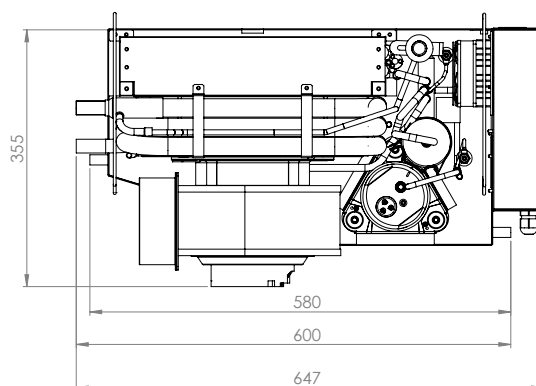
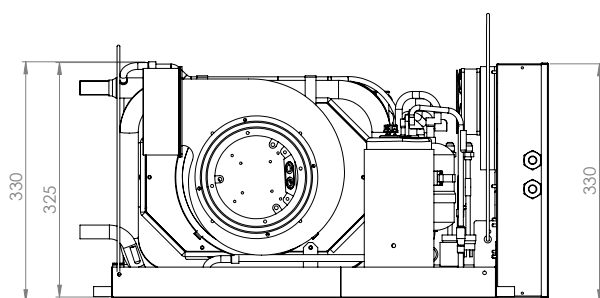
Self-contained-VSD VELAIR units meet EMC 2004/108/EC directives.

Model	Compact i10 VSD SMART	Compact i16 VSD SMART	Compact i21 VSD
230V/1ph/50-60Hz version Part No.	24831GW	24832JW	24765WW
115V/1ph/50-60Hz version Part No.	24831GU	24832JU	-
Cooling capacity range	4.000 - 10.000 BTU/h	6.000 - 16.000 BTU/h	7.000 - 21.000 BTU/h
Heat pump	Yes	Yes	Yes
Maximum input power cooling	0,64 Kw / 2,9 A	0,93 Kw / 4,1 A	1,35 Kw / 6,1 A
Input power ECO mode	0,21 Kw / 0,95 A	0,31 Kw / 1,35 A	0,46 Kw / 2,1 A
Min. seawater flow	12 l/min	15 l/min	20 l/min
Seawater IN / OUT	Ø 19 mm (0.75)	Ø 19 mm (0.75)	Ø 16 mm (0.63)
Maximum air flow	400 m³/h	550 m³/h	800 m³/h
Air exit duct (for max capacity)	1 x Ø 100 mm - 1 x Ø 3.9"	1 x Ø 125 mm - 1 x Ø 4.9"	3 x Ø 152 mm - 3 x Ø 6"
Min.opening for return air grill	400 cm²	600 cm²	800 cm²
Min.opening for supply air grill	250 cm²	300 cm²	400 cm²
Refrigerant	R32	R32	R32
Control panel cable length	8 m	8 m	8 m
Width - including electrical box	571 mm - 22.5"	650 mm - 25.6"	730 mm - 28.7"
Height	320 mm - 12.6"	330 mm - 13"	445 mm - 17.5"
Depth	323 mm - 12.7"	355 mm - 14"	322 mm - 12.7"
Weight	25 kg - 55.1 lbs	28 kg - 61.7 lbs	40 kg - 88.2 lbs
Working limits: SW winter mode	> +5°C/+41°F	> +5°C/+41°F	> +5°C/+41°F
Working limits: SW summer mode	< +40°C/+104°F	< +40°C/+104°F	< +40°C/+104°F

## COMPACT i10 VSD SMART - 24831GW



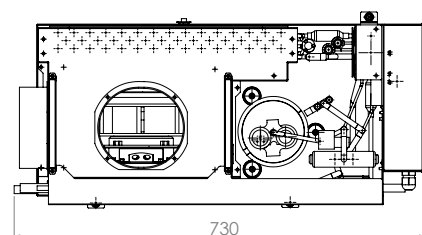
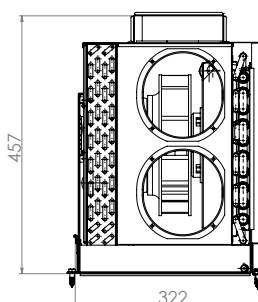
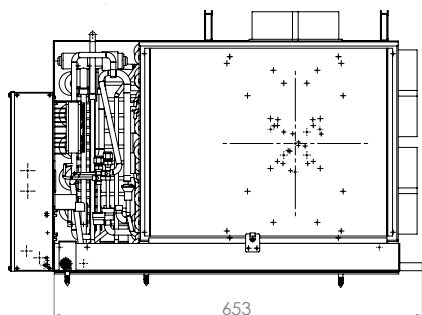
## COMPACT i16 VSD SMART - 24832JW



**new**

**Accessories:** Brackets kit for remote installation of i10/i16 VSD Smart electric box - Part No. 26102E

## COMPACT i21 VSD- 24765WW



## VSD - VARIABLE SPEED DRIVE

The inverter technology, already used in residential air-conditioning, offers the following benefits in marine applications:

- No current peaks during start-up
- Highest energy efficiency: overall reduction of electricity consumption (-40%)
- Perfectly running with small generators or battery powered (through inverter)
- Compressor noise and vibrations almost zero
- Constant temperature of the air flow
- Wi-fi connection for smartphone available through a dedicated app
- Heat pump reverse cycle operation to heat the environment in winter







**i42 - VSD**



### **VARIABLE SPEED DRIVE**

This inverter driven chiller range provides the best of the existing technology: brushless DC motor with inverter that constantly controls speed and delivered power by the compressor (Variable Speed Drive). They also use R410A eco-friendly refrigerant. Two sizes available: 42.000 and 62.000 BTU/h with modular combination to obtain systems with higher cooling power.

Benefits in marine applications:

- No current peaks during start-up phase
- Highest energy efficiency: Overall reduction of electricity consumption (-45%)
- It can operate with small generators
- Compressor noise and vibrations almost zero
- Small dimensions and weights compared to the cooling capacity
- Stable water outlet temperature

**Comfort:** The compressor continuously changes the running speed and consequently its cooling power. In this way, the chiller water loop temperature remains constant, regardless of power drawn by the fancoils. This guarantees the maximum comfort - thanks to the temperature stability of air and the best efficiency, adapting continuously the cooling power to the real need. As result, the compressor will operate at maximum power to cool rapidly the cabins, but coming closer to the set temperature, it will reduce the power and, as well, the power consumption.

**Reliability:** "Brushless DC" compressors, together with variable capacity operation, eliminate the typical ON/OFF function of the traditional systems. This allows a much longer lifetime to all the electrical and mechanical components.

**Silence:** Thanks to its function and its sound proofing cover, the compressor has minimal sound levels. This is appreciated especially during night operation.

**NIGHT mode:** It is possible to limit the maximum output power to a preselected value (factory 40%) simply pressing a button. This means the possibility to limit the max current requested, with no risk to break down the shore power if weak and, in double genset applications, it is possible to use the small and quiet generator during the night.

**Modular:** A number of units can be combined together in order to obtain the desired max. cooling power: for example, to get 250.000 BTU/h as max power, it is enough to install 4 units of 62.000 BTU/h in parallel. The units will regulate automatically in order to guarantee always the pre-determined value temperature with the lowest energy consumption.

Inverter-VSD Uflex VELAIR chillers units meet EMC 2004/108/EC directives.




**V5**

**V12**

**V20**

### Features

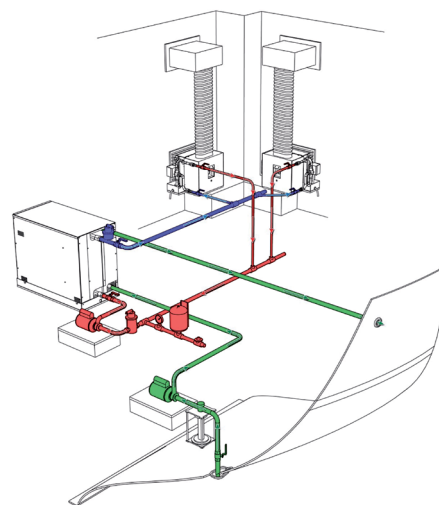
- 3 versions available: 5.000, 12.000 and 20.000 BTU/h
- Fan with permanent magnet motor
- 3 adjustable speed
- Illuminated touch screen display with WI-FI connectivity
- WI-FI unit control with Velair App
- Condensation drain in thermoplastic material (V5 and V12)

### SYSTEM COMPONENTS

For a complete installation the following components are needed:

- Fancoils
- Seawater pump
- Water pump for chilled loop
- Seawater loop components (sea water intake, water outlet, strainer, safety valve and pipeline)
- Chilled water loop components (insulated pipes, fittings, valves, bleeders, accumulator tank and glycols)
- Air ducting parts (insulated pipe, dividers, transition box, air grills)

Please contact our Technical Service for a correct choice of required accessories.



### VFC-DSP

VFC-DSP - 24600L - Digital control panel - connection cable included.

- Illuminated touch screen display with embedded temperature sensor and WI-FI connectivity.
- Constant flow fan with 3 adjustable speeds.
- Summer and winter operation mode.
- Chiller call ready
- Predisposition for the addition of solenoid valve, optional bypass Part No. 24602R (for V12 and V20 models only)
- Possibility to control multiple machines from a single display



## Features

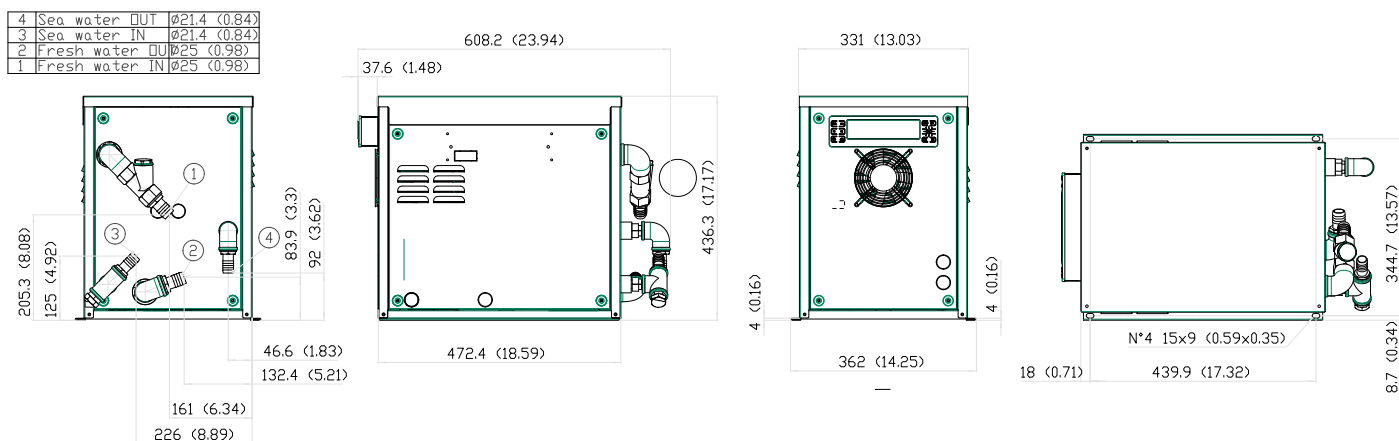
- 2 versions: 18.000 - 42.000 and 30.000 - 62.000 BTU/h
- Variable speed drive technology
- Heat pump reverse cycle operation
- Brushless DC compressor
- Overall reduction of electricity consumption
- No current peaks during start-up
- Compressor noise and vibrations almost zero
- Maximum comfort - thanks to the temperature stability of air
- Designed and manufactured in Italy



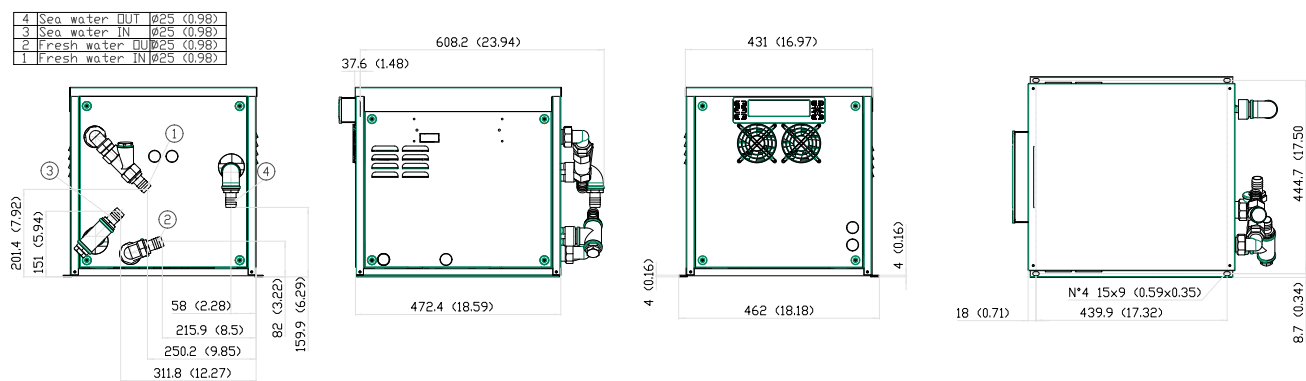
**i42 - VSD**

Model	CHILLER i42 VSD	CHILLER i62 VSD
Part No.	69338D	69339F
Cooling capacity range	18.000 - 42.000 BTU/h	30.000 - 62.000 BTU/h
Heat pump	Yes	Yes
Power supply voltage	1PH - 230V - 50/60 Hz	1PH - 230V - 50/60 Hz
Maximum input power cooling	2,2 Kw / 10,5 A	3,5 Kw / 16 A
Input power ECO mode	1 Kw / 4,5 A	1,34 Kw / 6,1 A
Min. seawater flo	30 l/min	40 l/min
Min. water flow rate chiller circui	35 l/min	45 l/min
Chiller loop pipe diameter	25 mm	25 mm
Seawater loop pipe diameter	20 mm	25 mm
Refrigerant	R32 - 0,93 kg - 2.1 lbs	R32 - 1,1 kg - 2.4 lbs
Width	473 mm - 18.6"	608 mm - 24"
Height	436 mm - 17.2"	436 mm - 17.2"
Depth	331 mm - 13"	431 mm - 17"
Weight	48 kg - 106 lbs	64 kg - 141 lbs
Working limits: SW winter mode	> +5°C/+41°F	> +5°C/+41°F
Working limits: SW summer mode	< +40°C/+104°F	< +40°C/+104°F

## CHILLER i42 VSD - 69338D



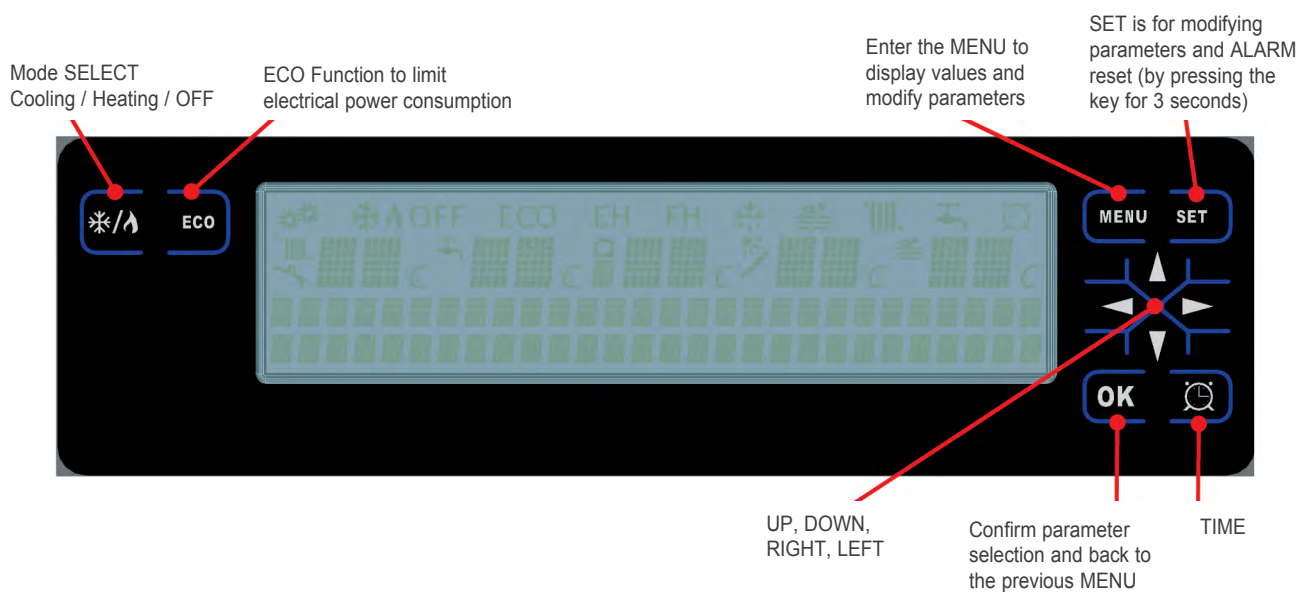
## CHILLER i62 VSD - 69339F



## DIGITAL CONTROL PANEL

The digital control panel can be placed on the chiller or remoted in a control room.

The main functions can be controlled from any centralised on-board control system by three simple switches



Velair fan coils reach the selected temperature in the shortest possible time and keep it constant in maximum silence, thanks to the fan in continuous automatic modulation, which gradually reduces the revolutions when the set temperature is reached. With this modern technology Velair operates with very low power consumption and perfect stability of operation.

## Features

- 3 versions available: 5.000, 12.000 and 20.000 BTU/h
- Fan with permanent magnet motor
- 3 adjustable speed
- Illuminated touch screen display with WI-FI connectivity
- WI-FI unit control
- Condensation drain in thermoplastic material (V5 and V12)
- Designed and manufactured in Italy



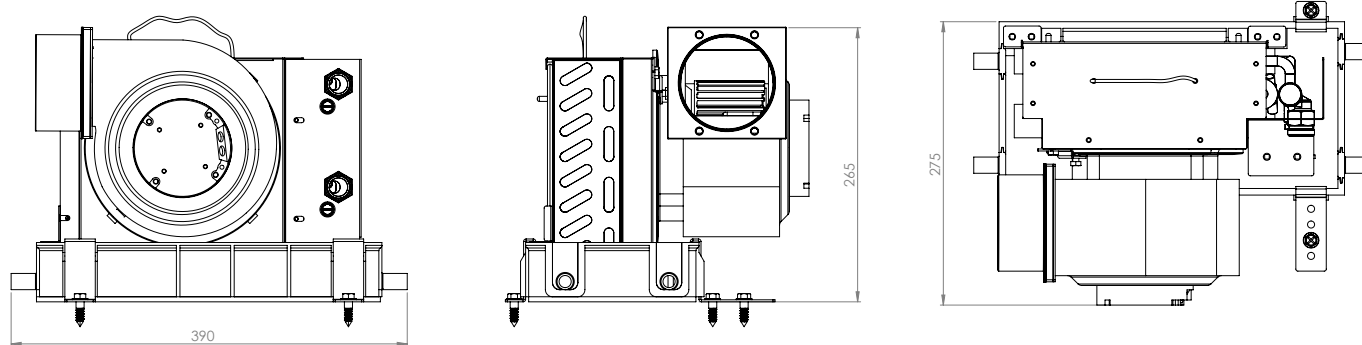
**V20**

Model	V5	V12	V20
Part No.	23398P	23399S	23729L
Cooling capacity	5.000 BTU/h	12.000 BTU/h	20.000 BTU/h
Power supply	1PH / 230V / 50 Hz	1PH / 230V / 50 Hz	1PH / 230V / 50 Hz
Fan absorption (W)	90	170	340
Fan speed N°	3	3	3
Air flo	250 m³/h	500 m³/h	1.100 m³/h
Air outlet diameter	1 x Ø 100 mm - 1 x Ø 4"	1 x Ø 125 mm - 1 x Ø 4.9"	2 x Ø 125 mm - 2 x Ø 4.9"
Control panel cable length	5 m	5 m	5 m
Width	390 mm - 15.3"	540 mm - 21.3"	697 mm - 27.4"
Height	265 mm - 10.4"	300 mm - 11.8"	295 mm - 11.6"
Depth	275 mm - 10.8"	315 mm - 12.4"	318 mm - 12.5"
Weight	5,5 kg - 12.1 lbs	9 kg - 19.8 lbs	13,5 kg - 29.7 lbs

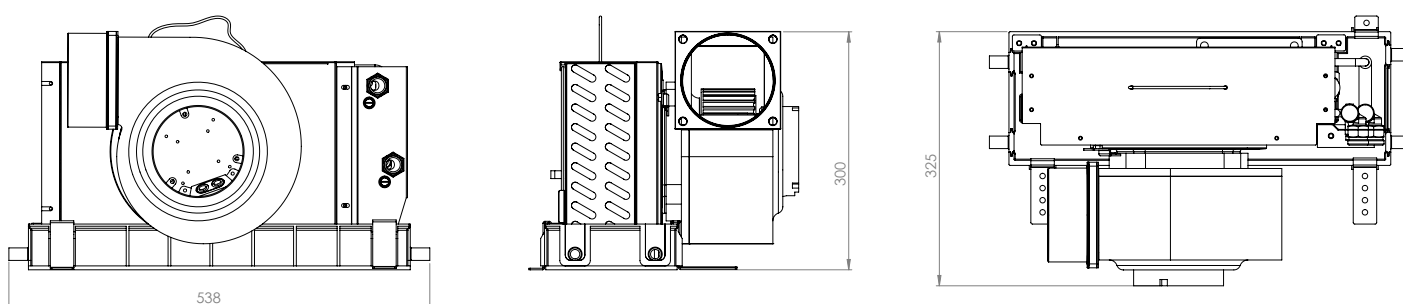




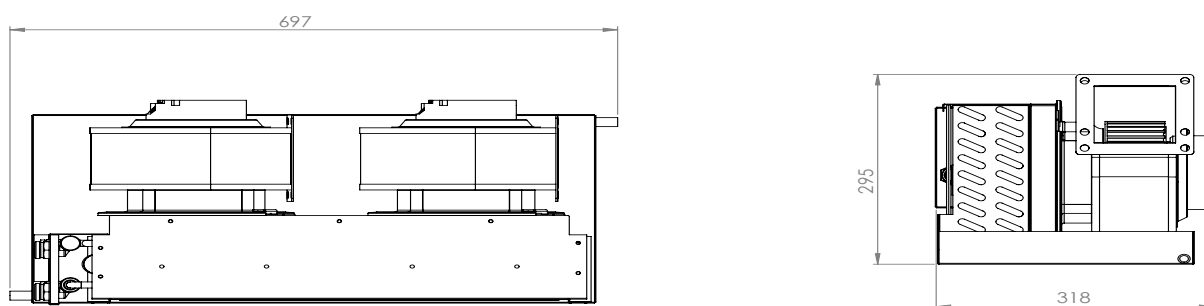
## V5 - 23398P



## V12 - 23399S



## V20 - 23729L





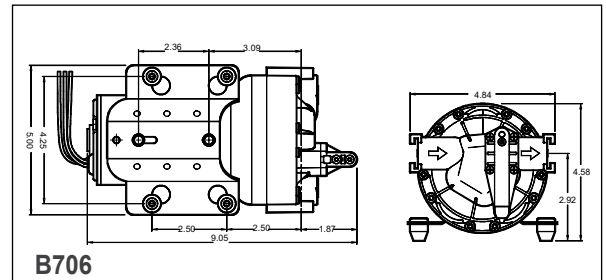
## 230V - 50/60Hz SEAWATER PUMPS

VELAIR

### B706 – 63799K

Self priming diaphragm seawater Pump

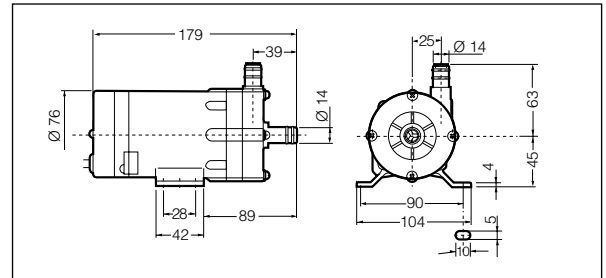
- Max flow rate: 17 l/min (4.5 GPM)
- Input power: 200 W
- Self priming up to 3,0 m (9.8')
- F1/2" connection
- Weight: 3,6 kg (7.9 lbs)



B706

### U020-220 – 65426D

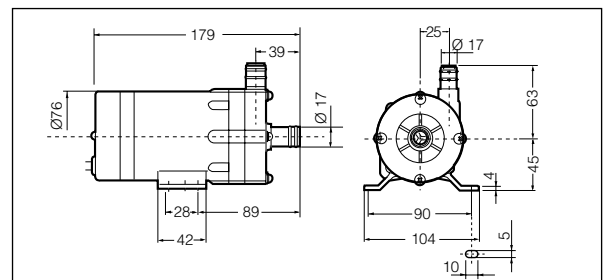
- Self-priming pump
- Max flow rate 30 l/min ( 7.9 GPM )
- Input power 105W
- Max head 15m
- Hose connection 20 mm
- Weight 5,5 kg ( 12,2 lbs )



PMD-221

### PMD-221 – 69865M

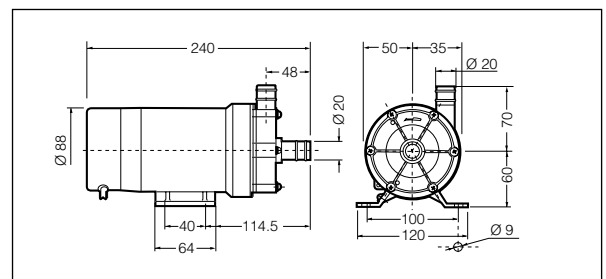
- Magnetic drive seawater centrifugal Pump
- Max flow rate: 15 l/min (4.0 GPM)
- Input power: 31 W
- Max Head: 2,6 m (8.5')
- M3/4" (19 mm) connection
- Weight: 1,7 kg (3.75 lbs)



PMD-371

### PMD-371 – 63570A

- Magnetic drive seawater centrifugal Pump
- Max flow rate: 25 l/min (6.5 GPM)
- Input power: 43 W
- Max Head: 3,1 m (10.2')
- (17 mm) hoses connection
- Weight: 1,7 kg (3.75 lbs)

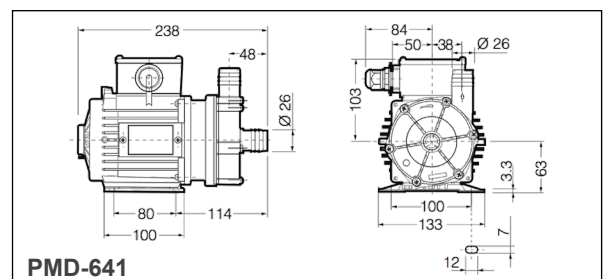


PMD-421

### PMD-421 – 69696G

Magnetic drive seawater Centrifugal Pump

- Max flow rate: 35 l/min (9.2 GPM)
- Input power: 75 W
- Max Head: 4,0 m (13.1')
- M3/4" (19 mm) connection
- Weight: 3,4 kg (7.5 lbs)



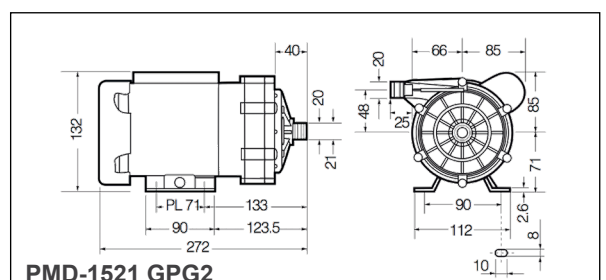
PMD-641

### PMD 641 – 20349J

- Magnetic drive seawater centrifugal Pump
- Flow rate: 55 l/min @2m (20 l/min @8m)
- Input power: 155 W
- Max Head: 5,0 m (16.4')
- M1" (25 mm) connection
- Weight: 4,8 kg (10.6 lbs)

### PMD 1521 GPG2 – 20345A

- Magnetic drive seawater centrifugal Pump
- Flow rate: 60 l/min @2m (35 l/min @8m)
- Input power: 230 W
- Max Head: 13,0 m (42.6')
- M1" (25 mm) connection
- Weight: 7,5 kg (16.5 lbs)



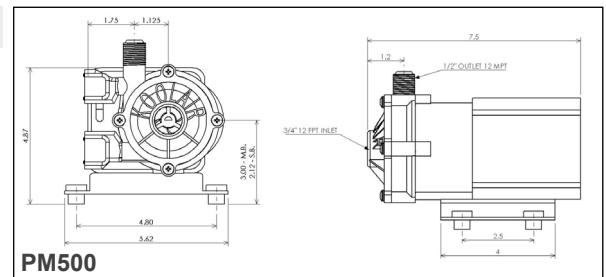
PMD-1521 GPG2

### B656 – 26150S

- Self-priming diaphragm pump
- Max flow rate 20,8 l/min ( 5.5 GPM )
- Input power 130 W
- Self priming up to 3,3 m (11')
- F 1/2" connection
- Weight 3,6 kg ( 7,9 lbs )

### PM500 – 22746F

- Seawater centrifugal Pump
- Max flow rate: 32 l/min (8.5 GPM)
- Input power: 120 W
- Max Head: 6 m (20')
- Connection: in F3/4" / out MPT 1/2"
- Weight: 3,85 kg (8.5 lbs)
- Resin-coated watertight motor
- Compliant with ISO8846 explosion-proof standard



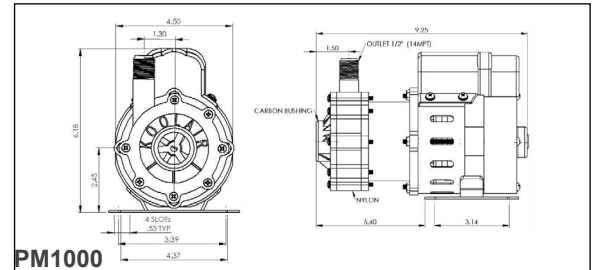
PM500

### U020-115 – 26147D

- Self-priming diaphragm pump
- Max flow rate 35 l/min ( 9.2 GPM )
- Input power 100W
- Max head 20 m
- Hose connection 20 mm
- Weight 5,5 kg ( 12,2 lbs )

### PM1000 – 23042X

- Seawater centrifugal Pump
- Max flow rate: 64 l/min (17 GPM)
- Input power: 220 W
- Max Head: 8 m (27')
- Connection: in F1" / out MPT 1/2"
- Weight: 4,5 kg (10 lbs)

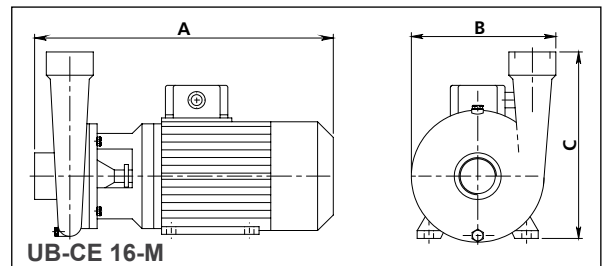


PM1000

## 230 V – 50 HZ CENTRIFUGAL PUMPS FOR SEAWATER/CHILLED WATER APPLICATIONS

### UB-CE 16-M – 67960L

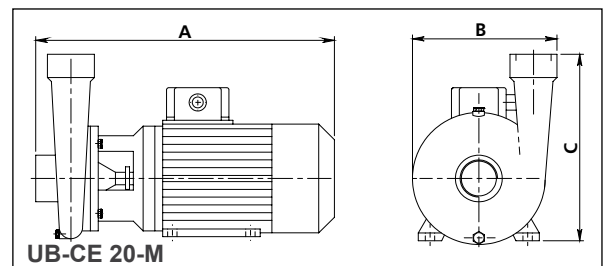
- Seawater centrifugal Pump
- Flow rate: 40 l/min
- Input power: 390 W
- Max Head: 7,0 m (23.0')
- F1/2" in/out connection
- Dimensions: A=266 mm, B=122 mm, C= 138 mm
- Weight: 5,6 kg (12.3 lbs)



UB-CE 16-M

### UB-CE 20-M – 67964V

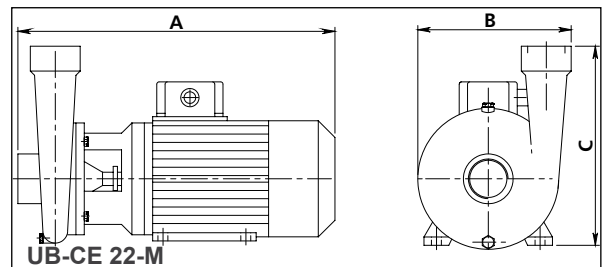
- Seawater centrifugal Pump
- Flow rate: 80 l/min
- Input power: 600 W
- Max Head: 14,0 m (46.0')
- F1" in/out connection
- Dimensions: A=303 mm, B=154 mm, C= 161 mm
- Weight: 9,1 kg (20 lbs)



UB-CE 20-M

### UB-CE 22-M – 67967B

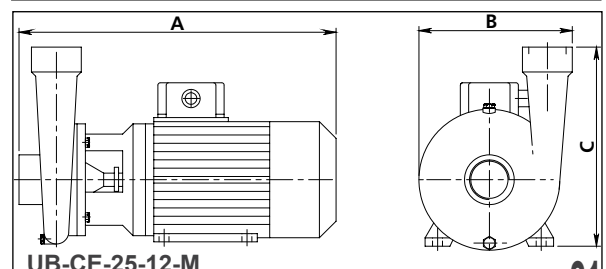
- Seawater centrifugal Pump
- Flow rate: 120 l/min
- Input power: 1000 W
- Max Head: 21 m (68.9')
- F1" in/out connection
- Dimensions: A=303 mm, B=174 mm, C= 181 mm
- Weight: 10,3 kg (22.7 lbs)



UB-CE 22-M

### UB-CE-25-12-M – 20848D

- Seawater centrifugal Pump
- Flow rate: 200 l/min
- Input power: 1300 W
- Max Head: 24 m (78.7')
- F1" in/out connection
- Dimensions: A=313 mm, B=173 mm, C= 230 mm
- Weight: 14,5 kg (31.9 lbs)



UB-CE-25-12-M

## MULTI-UNITS RELAY BOX

Relay to control a unique seawater pump by different AC units

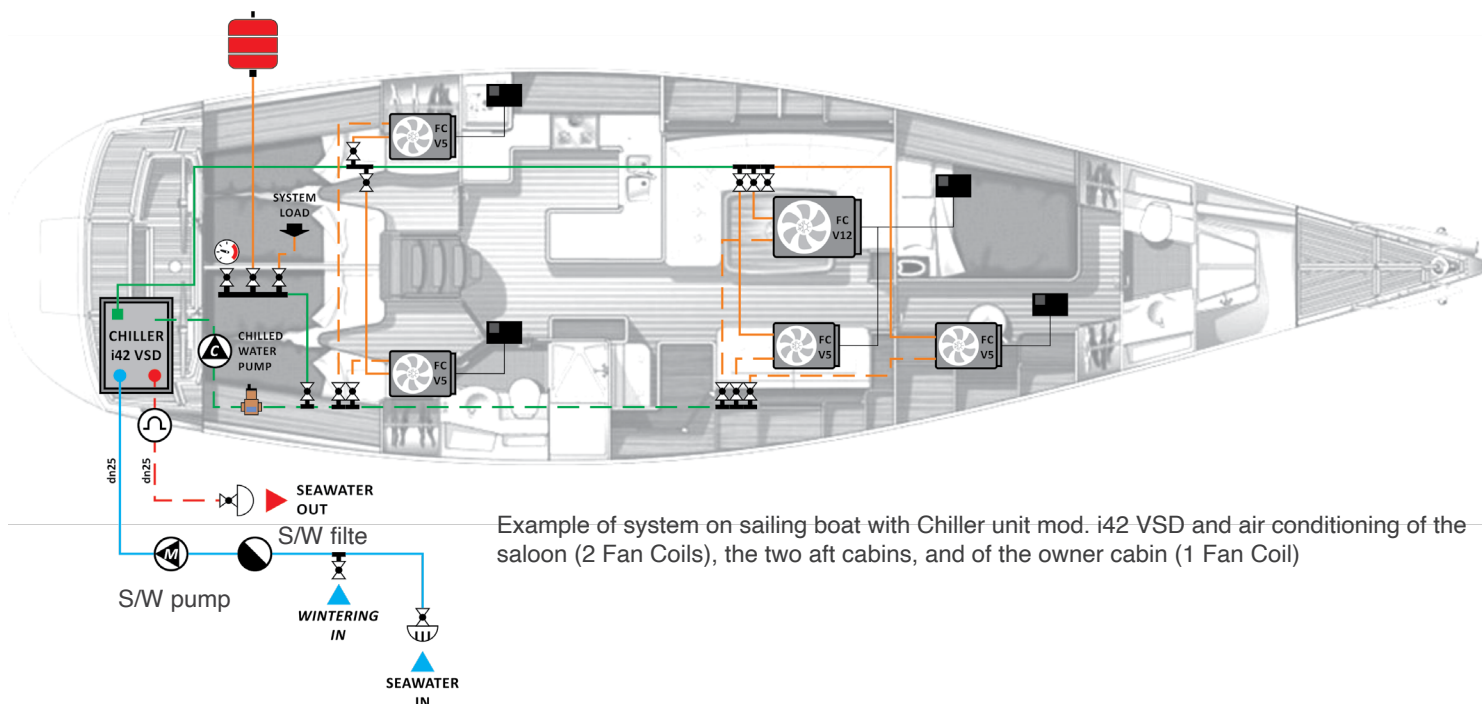
- 23391ZV - Relay Box 1 pump/2 units 230V (30A max)
- 23392BV - Relay Box 1 pump/3-6 units 230V (30A max)
- 23415LV - Relay Box 1 pump/2 units 115V (30A max)
- 23416NV - Relay Box 1 pump/3-6 units 115V (30A max)

### 23988M

VELAIR compact air conditioner retrofit kit with condensator temperature sensor + remotable room temperature sensor with 10 m cable



## SEAWATER CIRCUIT / FRESHWATER-GLYCOL CIRCUIT COMPONENTS CHILLER SYSTEMS





Example of system on sailing boat with Chiller unit mod. i42 VSD and air conditioning of the saloon (2 Fan Coils), the two aft cabins, and of the owner cabin (1 Fan Coil)









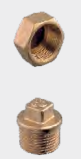




### Seawater circuit kit (nickel plated brass)

Seacock, on/off valve, water strainer, hose fittings, through hull included

69475P	1/2" through hull kit
24684W	3/4" through hull kit
69488Z	1" through hull kit
69532Z	Ø int. 16 mm transparent reinforced hose - per meter
69645N	Ø int. 20 mm transparent reinforced hose - per meter
26200E	Ø int. 25 mm transparent reinforced hose - per meter
20346C	3 outlet manifold 3/4"M x 3/4"F with valve - 1/2"M connectors - Ø int. 16 mm

## HYDRAULIC COMPONENTS FOR CHILLER SYSTEMS

 <b>SEA WATER INTAKE</b>	M	1"	69469V
	M	3/4"	24646M
	M	1/2"	69431T
 <b>SCUPPERS</b>	M	1"	24647P
	M	3/4"	69646R

	VALVES	F/F	1"	69471F
		F/F	3/4"	24648S
		F/F	1/2"	21354G
	FILTERS	F/F	1"	69470D
		F/F	3/4"	24649U
		F/F	1/2"	69433X
	TEE	F/F/F	1"	24650C
		F/F/F	3/4"	24651E
 	HOSE ADAPTOR	M	1" 25 mm	69638S
		M	1" 20 mm	69468T
		M	3/4" 25 mm	24653J
		M	3/4" 20 mm	24654L
		M	3/4" 16 mm	24655N
		M	1/2" 16 mm	69430R
		M	1/2" 20 mm	21355J
		F	1" 25 mm	20473K
		F	3/4" 20 mm	69474M
		F	3/4" 16 mm	24658V
		F	1/2" 20 mm	24659X
		F	1/2" 16 mm	24660F
	DUAL NIPLES	M/M	1"	69472H
		M/M	3/4"	24661H
		M/M	1/2"	24662K
	REDUCED DUAL NIPLES	M/F	1 1/4" to 1"	24663M
		M/F	1" to 3/4"	24664P
		M/F	1" to 1/2"	24665S
		M/F	1" to 1/2"	69733K
	MANIFOLDS	M/F	3/4"-1/2" 3 vie	20346C
		M/F	1" 2 vie	24668Y
		M/F	1" 3 vie	24669A
	CAPS	F	1"	24670J
		F	3/4"	21304R
		M	1"	24671L
		M	3/4"	20348G
	EXPANSION CHAMBERS	Max. press 8 bar - 3/4"	5 lt	24667W
		Max. press 8 bar - 3/4"	8 lt	24007A
	FRESH WATER PRESSURE GAUGE	Max. press 4 bar	1/4"	20450X
	DEAERATOR	M	1"	24674T
	INSULATED HOSES FRESH WATER-GLYCOL	-	DNi 16	24681P/M
		-	DNi 20	24693X/M
		-	DNi 25	24682S/M

New series of modular T and Y adapters / dividers, composed of basic elements, with 100/125/150 mm inlets/outlets, 100/125/150 mm fittings to adapt the basic elements to the outlets of compact air conditioner fans , and with air reductions to be able to adapt the outlets of the base elements to the insulated air distribution pipes

## T BASIC COMPONENTS

PART No.	DESCRIPTION
25571M	T Component 100x100x100
25565T	T Component 125x125x125
25572P	T Component 150x150x150



## Y BASIC COMPONENTS

PART No.	DESCRIPTION
25569B	Y Component 100x100x100
25564R	Y Component 125x125x125
25570K	Y Component 150x150x150



## CONNECTION BASIC COMPONENTS / A/C FAN OUTLETS

PART No.	DESCRIPTION
25580N	Connection 100
25567X	Connection 125
25581R	Connection 150



## BASIC COMPONENTS AIR OUTLETS REDUCTION

PART No.	DESCRIPTION
25573S	Air reduction from 100 to 80
25574U	Air reduction from 125 to 80
25566V	Air reduction from 125 to 100
25577A	Air reduction from 150 to 80
25576Y	Air reduction from 150 to 100
25575W	Air reduction from 150 to 125



Y basic component with A/C fan outlet connection and air outlets reduction installed





## FITTINGS FOR TRANSITION BOXES

Ø HOSE mm (")	ROUND HOSE RING	OVAL HOSE RING
80 (3)	61651P	-
100 (4)	62204T	62206X
125 (5)	62205V	62207Z
150 (6)	63912C	62208B



## TRANSITION BOXES (WITHOUT FITTINGS)

### Plenum diffusori d'aria (da raccordare)

69534D	TB-04x04 mm 100x100
62216A	TB-06x04 mm 150x100
62217C	TB-08x04 mm 200x100
62531J	TB-08x06 mm 200x150
62555Z	TB-08x08 mm 200x200
62218E	TB-10x04 mm 250x100
62576H	TB-10x06 mm 250x150
61331J	TB-12x04 mm 300x100
63918R	TB-16x04 mm 400x100



**20645N - Bend 90°  
outlet - 125 mm**

## TRANSITION BOXES (WITH HOSE CONNECTIONS)

### Ring back (straight)

64252R	TB-04x04-04OB mm 100x100 c/ racc. back mm 100
64253T	TB-06x04-04OB mm 150x100 c/ racc. back mm 100
64254V	TB-08x04-04OB mm 200x100 c/ racc. back mm 100
64255X	TB-08x04-05OB mm 200x100 c/ racc. back mm 125
64256Z	TB-10x04-05OB mm 250x100 c/ racc. back mm 125



## TRANSITION BOXES (WITH HOSE CONNECTIONS)

### Ring side (long side)

64257B	TB-08x04-04OS mm 200x100 c/ racc. long side mm 100
64258D	TB-08x04-05OS mm 200x100 c/ racc. long side mm 125
64259F	TB-10x04-04OS mm 250x100 c/ racc. long side mm 100
64260P	TB-10x04-05OS mm 250x100 c/ racc. long side mm 125
61336O	TB-12x04-06OS mm 300x100 c/ racc. long side mm 150



### Ring end (short side)

64261S	TB-04x04-04RE mm 100x100 c/ racc. short side mm 100
64262U	TB-06x04-04RE mm 150x100 c/ racc. short side mm 100
64263W	TB-08x04-04RE mm 200x100 c/ racc. short side mm 100
64264Y	TB-10x04-04RE mm 250x100 c/ racc. short side mm 100
64265A	TB-10x06-05RE mm 250x150 c/ racc. short side mm 125



## NEW AIR DISTRIBUTION DUCT

Additivated polyolefin resin film cover flexible hose, thermo-insulating coating in netted and closed cell foam polyethylene. Antimicrobial and antiviral protection. Embedded steel wire helix. Light grey color surface, for A/C application, mechanical ventilation simple or double flow, great reduction of condensation and heat dispersion.

**new**

PART No.	DESCRIPTION
26196T ( 10 m box )	Ø int. 80 mm
26197V ( 10 m box )	Ø int. 102 mm
26198X ( 10 m box )	Ø int. 127 mm
26199Z ( 10 m box )	Ø int. 152 mm



Insulated, flexible duct (aluminum/insulation)	
67112PP (10 m box)	Air hose Ø int. mm 100
69139XX (10 m box)	Air hose Ø int. mm 125
67113SS (10 m box)	Air hose Ø int. mm 150
20471F	mm 50 reinforced aluminum tape



Insulated, flexible duct (aluminum/insulation)	
600116SS (10 m box)	Ø int 80 mm air duct for 75 mm round grill applications

## SUPPLY ROUND GRILLS (NO PLENUM REQUIRED)

Round plastic supply grills	
25467T	mm 100 (4") VELAIR round damper vent, black.
25468V	mm 100 (4") VELAIR round damper vent, white
21213M	mm 75 (3") round damper vent, black
69615D	mm 75 (3") round damper vent, white
69428E	mm 100 (4") round grill, white (not closeable)
69616F	mm 100/75 (4"/3") round adapter
20648V	mm 125/100 (5"/4") round adapter



\* air distributions hoses are supplied in 10m lenght boxes

## RETURN / SUPPLY AIR GRILLS

### Anodized aluminum return air grills

69490K	mm 250x150
69422S	mm 300x200
61380Z	mm 300x300
69423U	mm 400x250
61381A	mm 400x400
66706R	mm 600x150



### Teak return air grills (with air filter)

69494U	mm 250x150
69497A	mm 300x200
69498C	mm 400x250



### White aluminum return air grills (with air filter)

20864B	mm 250x150
69605A	mm 300x200
20865D	mm 400x250



### Anodized aluminum supply air grills

20652K	mm 297x53
20651H	mm 475x55
69466N	mm 100x100
69022Z	mm 150x100
69023B	mm 200x100
62532L	mm 200x150
63074M	mm 200x200
69021X	mm 250x100
69421P	mm 250x150
21319E	mm 300x100



### Teak supply air grills

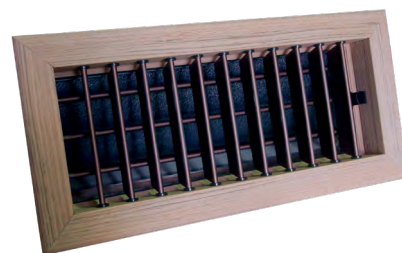
64195F	mm 100x100
64534B	mm 150x100
64535D	mm 200x100
64536F	mm 200x150
61652S	mm 250x100
61653U	mm 250x150
64361W	mm 250x250
22187V	mm 300x100



## AIR GRILLS

### Teak supply damper vents (closeable)

69492P	mm 100x100
69493S	mm 200x100
69910F	mm 250x100
69506Y	mm 250x150



### White aluminum supply air grills

69914P	mm 100x100
69915S	mm 200x100
62539B	mm 200x150
69916U	mm 250x100
22791L	mm 300x100



### Black aluminum supply air grills

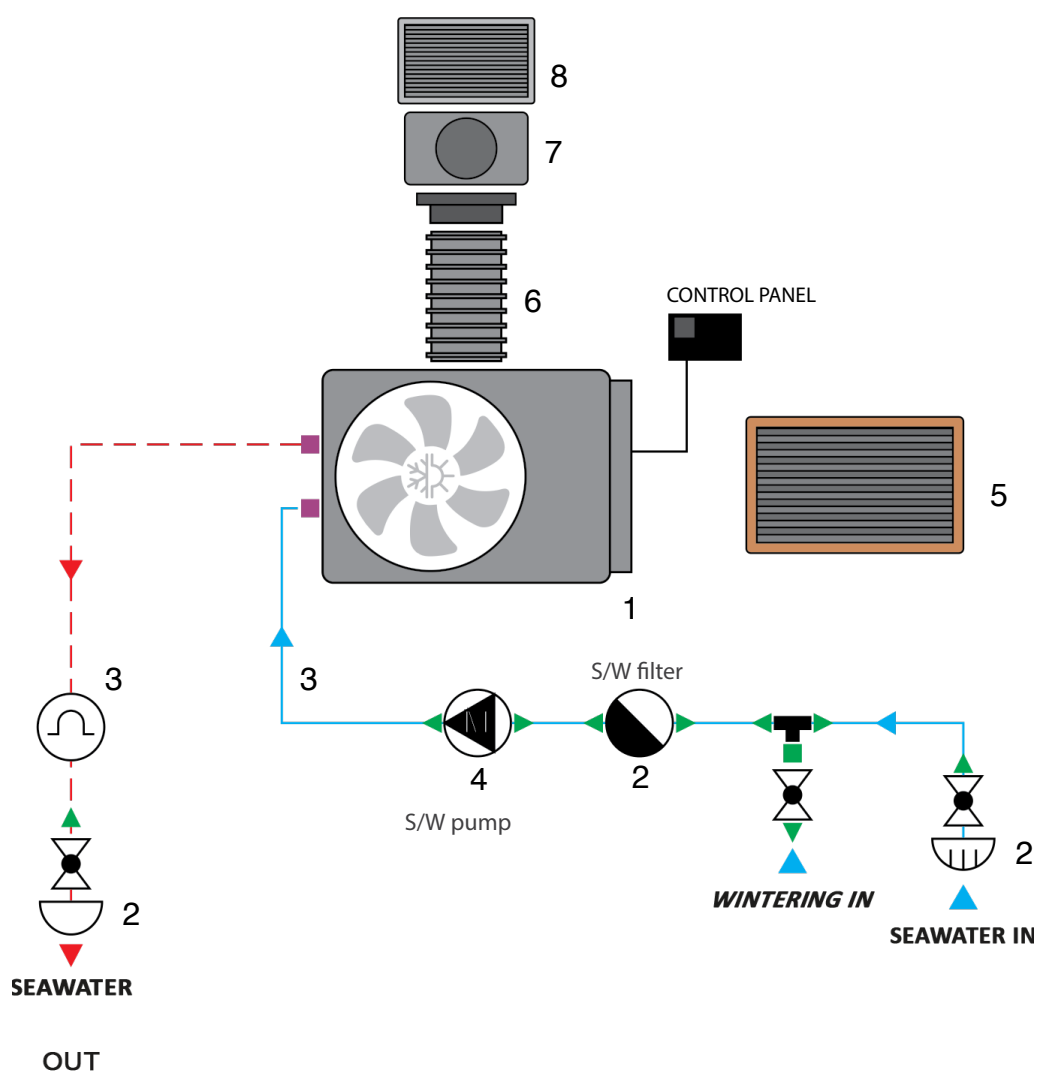
20881B	mm 200x100
69630Z	mm 250x100
69631B	mm 400x100



### White aluminum supply grills (closeable)

69533B	mm 100x100
69917W	mm 200x100
69918Y	mm 250x100

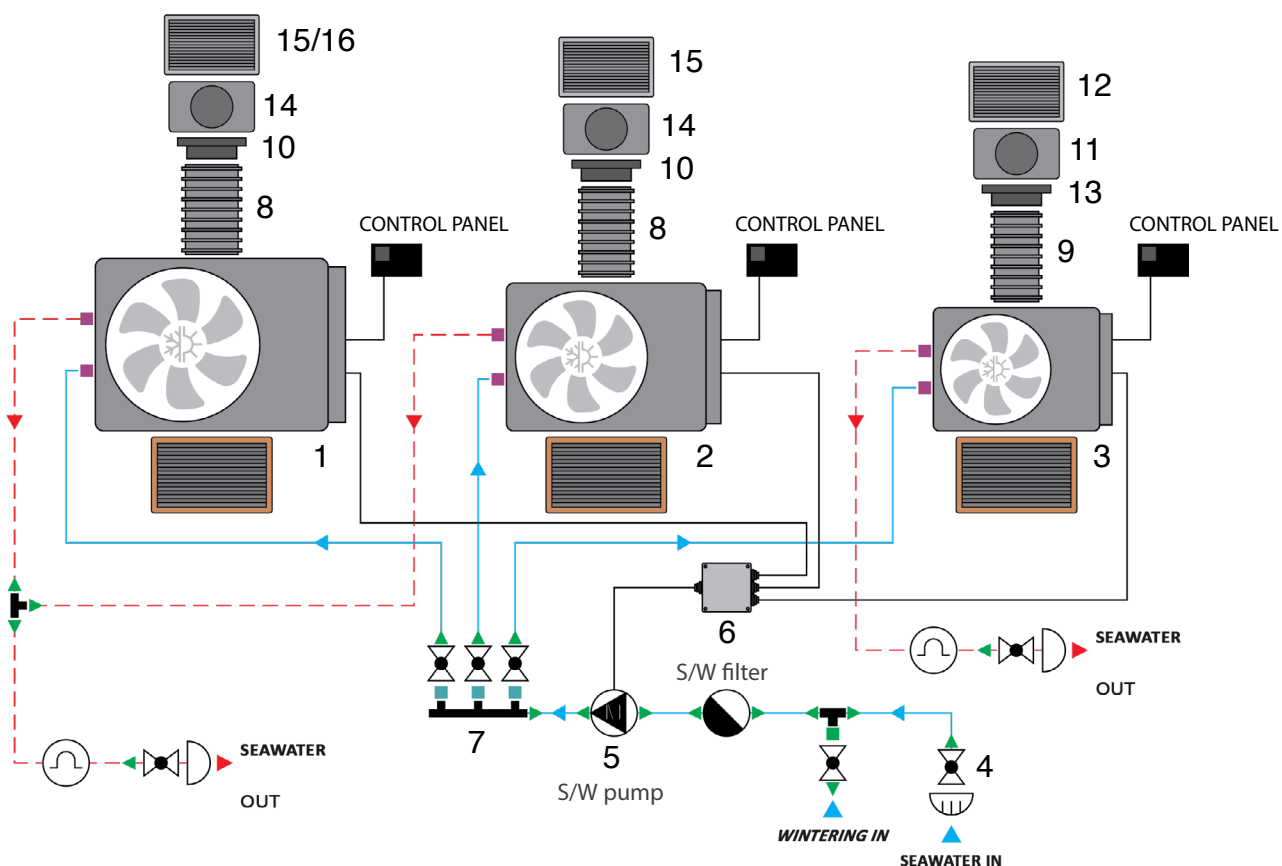




## COMPACT 7 CONFIGURATION EXAMPLE

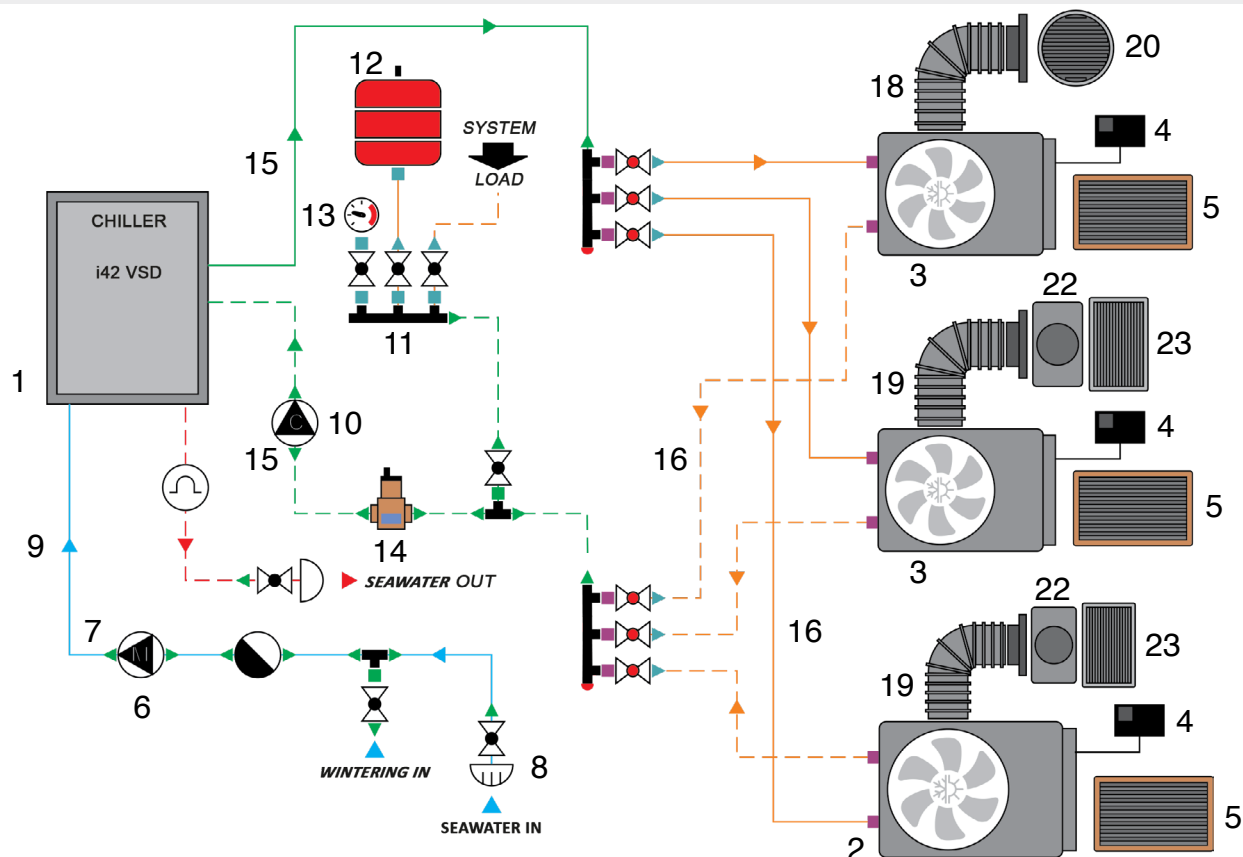
LEGEND	PART NO.	MODEL	SPECIFICATIONS	QUANTITY
<b>Air conditioning Unit</b>				
1	20379UW	Compact 7	Compact 7 - 7.000 btu On-Off 220V	1
<b>Water accessories</b>				
2	69475P	Through hull kit	1/2" Through hull kit	1
3	69532Z	HOSE16mm	Water hose Ø 16mm - metres	5
4	69886M	PMD-221	Seawater pump PMD-221 15l/min	1
<b>Air distribution</b>				
5	69490K	NOVA-R	Return air grille mm 250x150	1
6	67112P	I26	Insulated flexible duct Ø mm 100 - metres	10
7	64253T	TB-06X04-04OB	Transition box mm 150x100 - mm 100 rear connection	1
8	69022Z	NOVAA22	Supply air grill mm 150x100	1





## COMPACT i21, i16, i10 VSD CONFIGURATION

LEGEND	PART NO.	MODEL	SPECIFICATIONS	QUANTITY
<b>Air conditioning Unit</b>				
1	24765WW	Compact i21 VSD	Compact i21 VSD - 21.000 btu 220V	1
2	24832JW	Compact i16 VSD SMART	Compact i16 VSD SMART - 16.000 btu 220V	1
3	24831GW	Compact i10 VSD SMART	Compact i10 VSD SMART - 10.000 btu 220V	1
<b>Water accessories</b>				
4	69488Z	BH KIT-1	1" through hull kit	1
5	20349J	PMD-641	Seawater pump 55l/min	1
6	23392BV	Relay box	Relay box 1 pump/3-6 units 230V (30A max)	1
7	20346C	8820173	3 outlet manifold 3/4"Mx3/4"F with valve	1
<b>Air distribution</b>				
8	67113S	T I.26-152	Ø int. mm 150 insulated flexible duct - metres	Q.S.
9	69139X	T I.26-127	Ø int. mm 125 insulated flexible duct - metres	Q.S.
10	62208B	HRO6	150 mm oval hose ring	2
11	62531J	TB-08x06	200x150 mm transition box	2
12	69421P	NOVAA 2-2 2515	250x150 mm aluminium supply air grill	3
13	62207Z	HRO5	125 mm oval hose ring	1
14	62531J	TB-08x06	mm 200x150 mm transition box	1
15	69422S	NOVA-R3020	300X200 mm aluminium supply air grill	2
16	61380Z	NOVA-R3030	300X300 mm aluminium supply air grill	1



## CHILLER i42 + 3 FANCOILS CONFIGURATION EXAMPLE

LEGEND	PART NO.	MODEL	SPECIFICATIONS	QUANTITY
<b>Air conditioning Unit</b>				
1	69338D	Chiller i42 VSD	Chiller - Capacity range: 18.000 - 42.000 BTU/h	1
2	23399S	V12	Fancoil - cooling capacity 12000 BTU/h	1
3	23398P	V5	Fancoil - cooling capacity 5000 BTU/h	2
4	24600L	VFC-DSP	Digital control panel	3
5	69490K	NOVA-R	250x150mm anodized aluminium return air grill	3
<b>Water accessories</b>				
6	67960L	UB-CE 16-M	Seawater centrifugal pump P. Max. 40 l/min - 230 VAC	1
7	69468T	1004#100149	Hoseholder - M 1" hose Ø int.20 mm	2
8	69488Z	BH KIT-1	1" through hull kit	1
9	69645N	Hose 20	Ø int. 20 mm reinforced hose - metres	5
<b>Freshwater-glycol circuit components</b>				
10	67964V	UB-CE 20-M	Seawater centrifugal pump, P. Max. 80 l/min - 230 VAC	1
11	24669A	1007CV#10042B	3 outlet manifold	1
12	24637L	RN650271A	5l expansion chamber	1
13	20450X	PRESSURE GAUGE	Pressure gauge	1
14	23376D	DEAERATOR	1" deaerator	1
15	24682SM	D25 HOSE	D25 insulated hose	5
16	24681PM	D16 HOSE	D16 insulated hose	20
17	NA	MISCELLANEOUS	Hydraulic fittings	Q.S.
<b>Air distribution</b>				
18	67112P	T I.26-102	Ø int. mm 100 insulated flexible duct - metres	10
19	69139X	T I.26-127	Ø int. mm 125 insulated flexible duct - metres	10
20	62209D	RND DAMP4" B	mm 100 round damper vent, black	1
21	64256Z	TB-10x04-05OB	mm 250x100 c/ racc. mm 125 back transition box	1
22	64264Y	TB-10x04-04RE	mm 250x100 c/ racc. mm 100 short side transition box	1
23	69630Z	BS2510	mm 250x100 black aluminium supply air grill	2



Velair marine air conditioning systems are a safe choice. Velair reliability is also guaranteed by an excellent technical assistance, with pre and after sales support, managed directly from our offices in Italy and in the United States and supplied all over the world, through our official network of distributors, workshops and affiliated centres, able to provide spare parts and immediate assistance.

For further information, please contact our After-Sales Service at the email address [service@ultraflexgroup.it](mailto:service@ultraflexgroup.it)



Velair - Marine Air Conditioners V12/2025  
All rights reserved



Via Milite Ignoto 8A  
16012 Busalla (GE) - Italy  
T +39 010 96201 F +39 010 9620333  
[uf.marine.sales@ultraflexgroup.it](mailto:uf.marine.sales@ultraflexgroup.it)  
[www.uflex.it](http://www.uflex.it)

