

A photograph of a man and a woman relaxing on the white cushions of a yacht's stern. The woman is lying down, wearing a white dress, and the man is sitting behind her, wearing a light blue shirt. They are on a wooden deck. In the background, there is a calm sea and a large, forested island under a sunset sky. A decorative graphic of blue and orange dots is overlaid on the right side of the image.

# PRODUCT CATALOG 2021

WE OFFER A WIDE RANGE OF MARINE AIR CONDITIONERS TO KEEP YOUR BOAT AT THE MOST COMFORTABLE TEMPERATURE!

## About Us

MBC Marine is a Hungarian company active, since 2010 as producer of high tech marine air conditioners. Our products for which we make use only of the highest quality components available in the market, are proudly made in EU.

Our range of products includes direct expansion systems available in self contained and split version, having cooling power from 6.000 BTU/h up to 24.000, powered not only by 220V but also by direct current at 12 or 24 V. All of them are available with heat pump operation (cooling and heating).

Besides of the air conditioners, we are able to provide all the accessories needed for the installation of the full air conditioning system into any kind of boats, such as grilles, ducts, pumps and so on; our technical and commercial departments will be happy to assist you in order to choose the ideal air conditioning system to be installed in your projects, basing on the general layout of the boat and on the owners' desires.

Our units are carefully designed to be lightweight and compact, for a quick and easy installation and are provided with an elegant LCD backlight digital control panel supplied as a part of the standard installation kit.

We produce air conditioners for our warehouse so that we give our Customers the great advantage that all the products, accessories and spare parts they need are always on stock.

All our products are fully CE and TUV certified.

You are welcome to visit our website [www.myboatclima.com](http://www.myboatclima.com) and follow our Facebook page "MBC Marine – Marine air conditioning solutions" to know more about our products, upcoming events, exhibitions and so on.





## **SIMPLY COOL!**

A basic function of our body is to create a pleasant thermal comfort: this is why we sweat when we are hot and find ourselves shivering when we are cold. This function may seem so natural to us that it only appears in extreme circumstances how bad the lack of it is to our well-being. We believe that time spent on the sea is a lifestyle, where the boat is our living space. Therefore it is imperative to have an always homely environment surrounding us: for this it is essential to create the right temperature.

## **SIMPLY EASY!**

Join us in the world of always pleasant and perfect thermal comfort! MBC Marine air conditioners are designed to meet the needs of shipyards and boat owners, whether these are electric, sailing or motorboats. Our product range includes two main types of air conditioning systems ranging from 3500 to 24000 BTU / h, but we also offer customized devices – in individual sizes.

Our air conditioners are manufactured from durable materials using state-of-the-art technologies that ensure long service life and high quality. Each air conditioner unit is delivered in a pre-loaded condition, equipped with an R410A eco-friendly cooling agent so no further installation or inspection is required for safe use after installation.

## **SIMPLY PROFESSIONAL!**

At the time of founding our business, our primary goal was set that MBC Marine should be not only a product distributor but also a reliable partner in the field of boat air conditioning equipments. Our many years of experience, professional machine park and qualified staff guarantee that not only the purchase of the product, but also its installation, setup, maintenance and servicing will be in safe hands with us.

# SSC - Direct expansion Self Contained systems

6.000 - 24.000 BTU/h

**COOLING, HEATING, DEHUMIDIFYING WITH A SINGLE DEVICE,  
PROVIDING PERFECT TEMPERATURE ON BOARD!**

MBC Marine – SSC units are self contained direct expansion systems specifically developed for boats where simultaneous cooling or heating of one or more cabins is desired. MBC Marine – SSC units are carefully designed to be lightweight and compact and for a quick and easy installation in any suitable room of every boat. The base plates of these units are entirely made of AISI 316 stainless steel, which assures a long service life and allows the collection of a large amounts of condensate water.

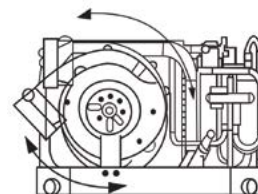
The SSC range is provided with an elegant LCD backlight digital control panel as a part of the standard installation kit. SSC systems are all available in heat pump version and in 6 sizes ranging from 6.000 to 24.000 BTU/h.

These units are equipped with easy-to-remove and washable air filters to ensure constant filtration and the best quality of the internal air. To make the connection of the air ducts to the air conditioner the easiest one, the blower can be rotated allowing many installation options.

All SSC units are manufactured from durable materials – all metallic components are made in stainless steel AISI316 - and using the most advanced state-of-the-art technologies which ensure long service life and high quality. Each air conditioner unit is delivered fully tested in our factory and in a pre-loaded condition, filled with an eco-friendly cooling agent. No further installation or inspection is required for safe use after installation.

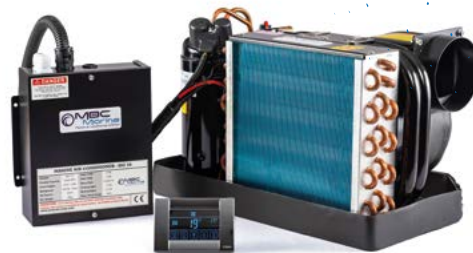
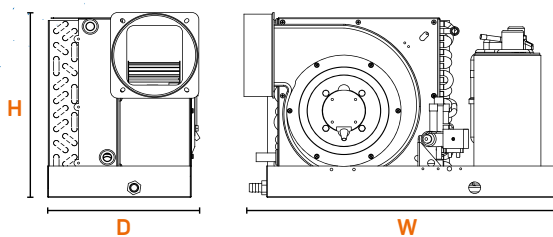
- 3 operation mode: Cool - Heat - Fan
- 5-speed fan speed selection
- High & low pressure protection
- Overload protection
- Compressor 3-minutes delayed start function
- Humidity control
- Memory functions: Timer ON or OFF
- Sleep & alarm function

- Condenser coil with high-efficiency spiral double tube allows high-heat exchange rate.
- Freely adjustable air outlet.
- Rust resistant components by using stainless steel
- Nikkel Antimicrobial Evaporators
- High static pressure ball bearings blowers with auto mode



For the easiest  
installation fan  
can be rotated.

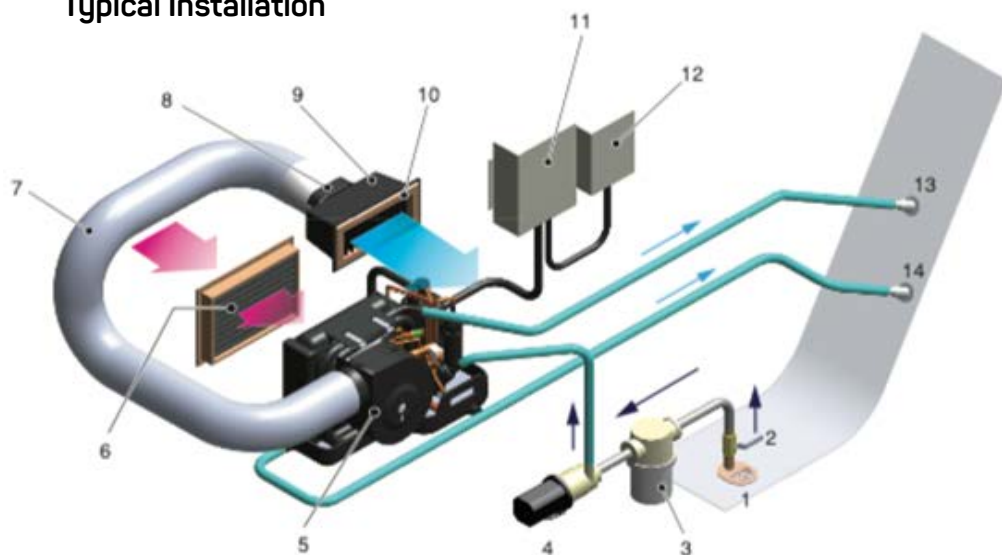




UNIT PARAMETERS		SSC 06	SSC 08	SSC 10	SSC 13	SSC 16	SSC24
Cooling capacity	Btu/h	6000	8000	10000	13000	16000	24000
Heating capacity	Btu/h	6500	8700	11000	13800	17600	26400
Power source		230V/50Hz					
Input power (kW)	Cooling	0.51	0.74	0.78	1.01	1.17	1.75
	Heating	0.66	0.86	1.05	1.28	1.56	2.2
Amp Draw (A)	Cooling	4.5	3.3	3.5	4.2	5.1	7.9
	Heating	5.8	3.7	4	5.2	6.5	9.9
Air flow (m3/h)	High	380	420	500	580	730	1200
	Middle	305	350	405	495	610	1080
	Low	210	280	350	410	520	900
Refrigerant		R410A					
Dimension	Height	280	298	298	298	338	430
	Width	400	480	480	480	500	690
	Depth	238	285	285	285	315	448
Minimum air Duct Size (mm)		100	100	125	125	150	200
Minimum Return Air Grille Size (cm <sup>2</sup> )		300	300	450	450	510	720
Minimum Supply Air Grille Size (cm <sup>2</sup> )		750	750	800	800	1030	1400
Drain Connection Size		DN20	DN20	DN20	DN20	DN20	DN20
Seawater pipe		5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Net Weight (kg)		17.5	20	25.5	26.5	29.5	58



## Typical Installation



1. Scoop Type Thru-Hull
2. Ball Valve
3. Sea Water Strainer
4. Sea Water pump
5. A/C unit
6. Return Air Grille
7. Flexible Duct
8. Duct Ring
9. Transistor Box
10. Supply Air Grille
11. Control Box
12. Starting Booster Outlet
13. Sea Water Outlet
14. Drain Outlet



INCLUDING LED DISPLAY



REMOTE CONTROL - RIGHT ON YOUR PHONE



# SCP - Direct expansion Split systems

10.000 - 24.000 BTU/h

**COOLING, HEATING, DEHUMIDIFYING WITH A SINGLE DEVICE,  
PROVIDING PERFECT TEMPERATURE ON BOARD!**

MBC Marine – SCP units are direct expansion systems consisting into two separate units (condensing and ventilating units) which represent the ideal solution to serve the air conditioning needs of sailing and motor boats. The use of split systems minimizes the noise level into the cabins because the compressor (condensing unit) can be installed outside of the living ambient and it represents also the optimal solution in those situations where there is not enough space to install a Self Contained system. The most typical installation is with the condensing unit placed into the engine compartment in order to isolate the noise from the compressor, while the ventilating unit is generally installed below the sofa or the bed or into a furniture inside one cabin. Condensing and ventilating units of a split system are connected each other by mean of insulated copper refrigerant pipes. SCP units come with a standard of 2.5 m long insulated pipes; it is also possible to increase the distance between the two parts of the air conditioners up to 7-8m. For such long distances, it is suggested to contact MBC technical department to ask for suggestions.

SCP systems are available in 4 models ranging from 10,000 to 24,000 BTU / h cooling capacity. Thanks to the heat pump design (reverse cycle operation) they provide the most convenient solution for an all-round year use. SCP units are carefully designed to be lightweight and compact and for a quick and easy installation in any suitable room of every boat.

MBC Marine – SCP type air conditioning systems are provided with an elegant LCD backlight digital control panels as part of the standard kit. These units are equipped with easy-to-remove and washable air filters to ensure constant filtration and the best quality of the internal air. To make the connection of the air ducts to the air conditioner the easiest one, the blower can be rotated allowing many installation options.

All SCP units are manufactured from durable materials – all metallic components are made in stainless steel

### **3 operation mode: Cool - Heat - Fan**

- 5-speed fan speed section
- High & low pressure protection
- Overload protection
- Compressor 3-minutes delayed start function
- Humidity control
- Memory functions: Timer ON or OFF
- Sleep & alarm function
- Condenser coil with high-efficiency spiral double tube allows high-heat exchange rate.
- Freely adjustable air outlet.
- Rust resistant components by using stainless steel
- Nikkel Antimicrobial Evaporators
- High static pressure ball bearings blowers with auto

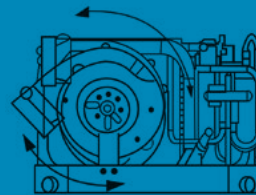
AISI316 - and using the most advanced state-of-the-art technologies which ensure long service life and high quality. Each air conditioner unit is delivered fully tested in our factory and in a pre-loaded condition, filled with an eco-friendly cooling agent. No further installation or inspection is required for safe use after installation.



UNIT PARAMETERS		SCP10	SCP13	SCP16	SCP24
Parameter list of Condensing unit					
Cooling capacity	Btu/h	10000	13000	16000	24000
Heating capacity	Btu/h	11000	14300	17500	26400
Power source		230V/50Hz			
Input power (kW)		0,94	1,05	1,15	1,36
Refrigerant		R410A			
Dimension of Condensing unit	Height	315	315	335	408
	Width	280	280	250	250
	Depth	220	220	330	330
Connection Pipe	Gas	9,52	9,52	12,7	12,7
	Liquid	6,35	6,35	9,52	9,52
Sea Water Connection Size		1/2"	1/2"	1/2"	1"
Drain Connection Size		DN20	DN20	DN20	DN20
Net Weight (kg)		29	30	32	58
Parameter list of Evaporator unit					
Dimension of Evaporator unit	Height	300	300	355	430
	Width	355	355	500	560
	Depth	245	245	345	370
Minimum Air Duct Size (mm)		125	125	150	200
Input power (W)		100	150	200	300
Connection pipe	Gas	9,52	9,52	12,7	12,7
	Liquid	6,35	6,35	9,52	9,52
Drain Connection Size		DN20	DN20	DN20	DN20
Net Weight (kg)		10	12	14	18

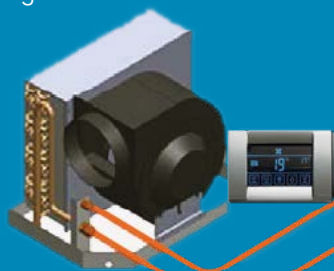


Condensing Unit



For the easiest installation fan can be rotated.

Evaporating Unit



Refrigerant pipe



INCLUDING LED DISPLAY



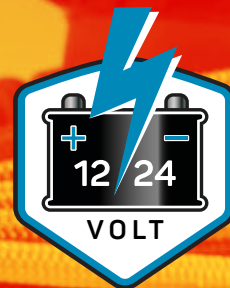
REMOTE CONTROL - RIGHT ON YOUR PHONE





# SDC 12-24V Direct expansion Self Contained systems

7.000 - 12.000 BTU/h



## PICK YOUR SETUP

A SDC unit is the exclusive and innovative sea water cooled boat air conditioner powered in 12 V or 24 V (direct current) directly from the battery bank of your boat, without using a generator or inverter. The SDC units is a well designed and elegant product which offers the most simple and versatile installation.

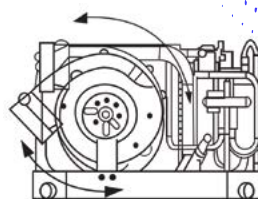
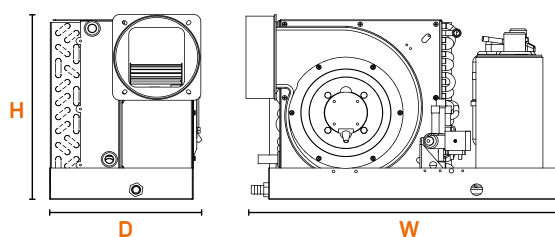
To make the connection of the air ducts to the air conditioner the easiest one, the blower can be rotated allowing many installation options. The best quality of the treated air is assured by the installation of an easily removable and washable filter. All SCP units are manufactured from durable materials – all metallic components are made in stainless steel AISI316 - and using the most advanced state-of-the-art technologies which ensure long service life and high quality.

Each air conditioner unit is delivered fully tested in our factory and in a pre-loaded condition, filled with an eco-friendly cooling agent. No further installation or inspection is required for safe use after installation.

***Join us in the world of always pleasant and perfect thermal comfort!***







For the easiest installation fan can be rotated.

UNIT PARAMETERS		SDC 12-07	SDC 24-12
Cooling capacity	Btu/h	7000	12000
Heating capacity	Btu/h	7500	12800
Power source	*	DC-12V	DC-24V
Input power (W)	Cooling	540	960
	Heating	580	1080
Amp Draw (A)	Cooling	18	16
	Heating	25	22,5
Air Flow	m <sup>3</sup> /h	350	500
Refrigerant	*	R134A	R134A
Dimension (mm)	Height	285	315
	Width	400	480
	Depth	240	285
Minimum Air Duct Size (mm)	*	100	125
Return Air Grille Size (cm <sup>2</sup> )	*	215	215
Supply Air Grille Size (cm <sup>2</sup> )	*	415	415
Net Weight (kg)	*	17,5	25,5



INCLUDING LCD DISPLAY



REMOTE CONTROL - RIGHT ON YOUR PHONE



# Air grills

## RETURN AIR GRILLS



**OAK WOOD**  
RETURN AIR GRILL  
250×250mm (RAG-2525-O)  
250×450mm (RAG-2545-O)  
150×450mm (RAG-1545-O)



**WHITE PVC**  
RETURN AIR GRILL  
200×300mm (PRAG-2030)  
400×300mm (PRAG-4030)



**TEAK WOOD**  
RETURN AIR GRILL  
250×250mm (RAG-2525-T)  
250×450mm (RAG-2545-T)  
150×450mm (RAG-1545-T)

## SUPPLY AIR GRILLS



**TEAK WOOD**  
SUPPLY AIR GRILL  
200×100mm (SAG-2010-T)  
250×150mm (SAG-2515-T)



**WHITE PVC**  
SUPPLY AIR GRILL  
100×200mm (SAG-2010-WP)



**OAK WOOD**  
SUPPLY AIR GRILL  
200×100mm (SAG-2010-O)  
250×150mm (SAG-2515-T)



**WHITE PVC**  
SUPPLY AIR GRILL  
"ROUND" 100mm  
(PSAG-R-100)



**PLASTIC**  
• **BLACK** (PSAG-100-B)  
• **WHITE** (PSAG-100-W)  
• **MAHAGONI** (PSAG-100-M)  
SUPPLY AIR GRILL "SQUARE"  
100×100mm (with plenum box)

MBC Marine also offers customers a wide range of accessories helping in selling and installing air conditioners. Among our products you can find air grilles, water pipes, circulating pumps as well as a wide range of accessories for professional installation.



# Air Distribution

## ACCESSORIES



**PLENUM BOX BOTTOM**  
200x100 mm (PB-B-2010-125)  
250x150 mm (PB-B-125)



**PLENUM BOX SIDE**  
200x100 mm (PB-S-2010)  
200x100 mm (PB-B-2010)  
250x150 mm (PB-S-125)



**AIR DIVIDER "T"**  
100 mm (AST-101010)  
125 mm (AST-252525)



**THERMALLY AND ACOUSTICALLY INSULATED AIR DUCT**  
100 mm (DUCT-100)  
125 mm (DUCT-125)  
150 mm (DUCT-150)



**AIR DIVIDER "Y"**  
100mm (ASY-101010)  
125mm (ASY-252525)



**AIR REDUCERS**  
ASD-125-100  
ASD-150-125





# Soft starter

## TECHNOLOGY DEVELOPED TO SOLVE PROBLEMS

MBC Easy Start allows to start any air conditioner at a lower voltage power source. It means there is no need for bigger or second generator. With MBC Easy Start the start current of the compressor is strongly reduced. MBC Easy Start is a one-of-a-kind, custom-developed soft starter for single-phase motors. It makes use of a 4-part self-optimising start ramp sequence, resulting in the lowest possible start-up current. Therefore Easy Start represents the best solution to operate an air conditioner with generator, inverter with limited utility power. The device is manufactured with a completely weatherproof, flameproof plastic enclosure. MBC Easy Start is manufactured is fully CE certified and is available in several sizes for various applications.

### GENERATOR START UP LOAD ISSUES? NOT A PROBLEM ANYMORE!

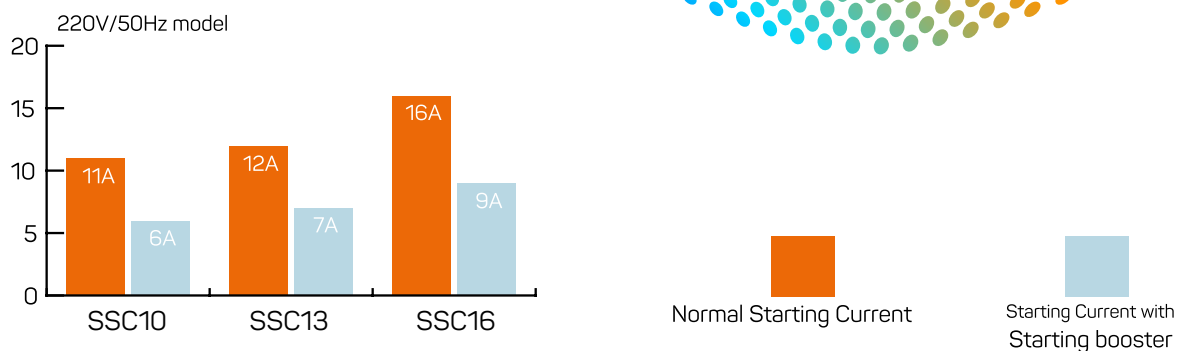
Start Your Marine AC Without Buying a Second or Bigger Generator or Inverter! Simply Installing a MBC Easy Start to minimize the starting load on your Genset.



Starting booster, *Easy Start!*

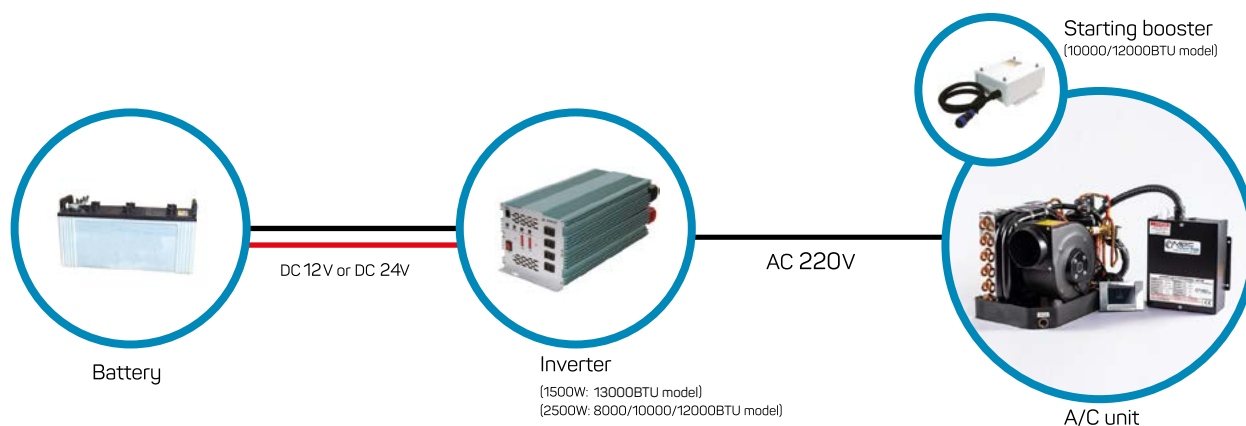
## START YOUR MARINE AIR CONDITIONER WITH EASY START

Compressor starting current will be reduced by Easy Start (MBC soft-start device) by approximately 50%. Connecting the MBC air conditioner control box to Easy Start is quite simple and requires no special setting.



## RUNNING AIR CONDITIONERS ON INVERTER POWER

A 3500 BTU air conditioner needs a 1500W or bigger inverter to run using batteries. For a 8000 BTU model a 2500 W inverter must at least be used. For both models MBC Easy Starter is not necessary. On the contrary a 10000 or 13000 BTU model Require a 2500 W inverter (at least) and East Starter.



# Sea water pumps

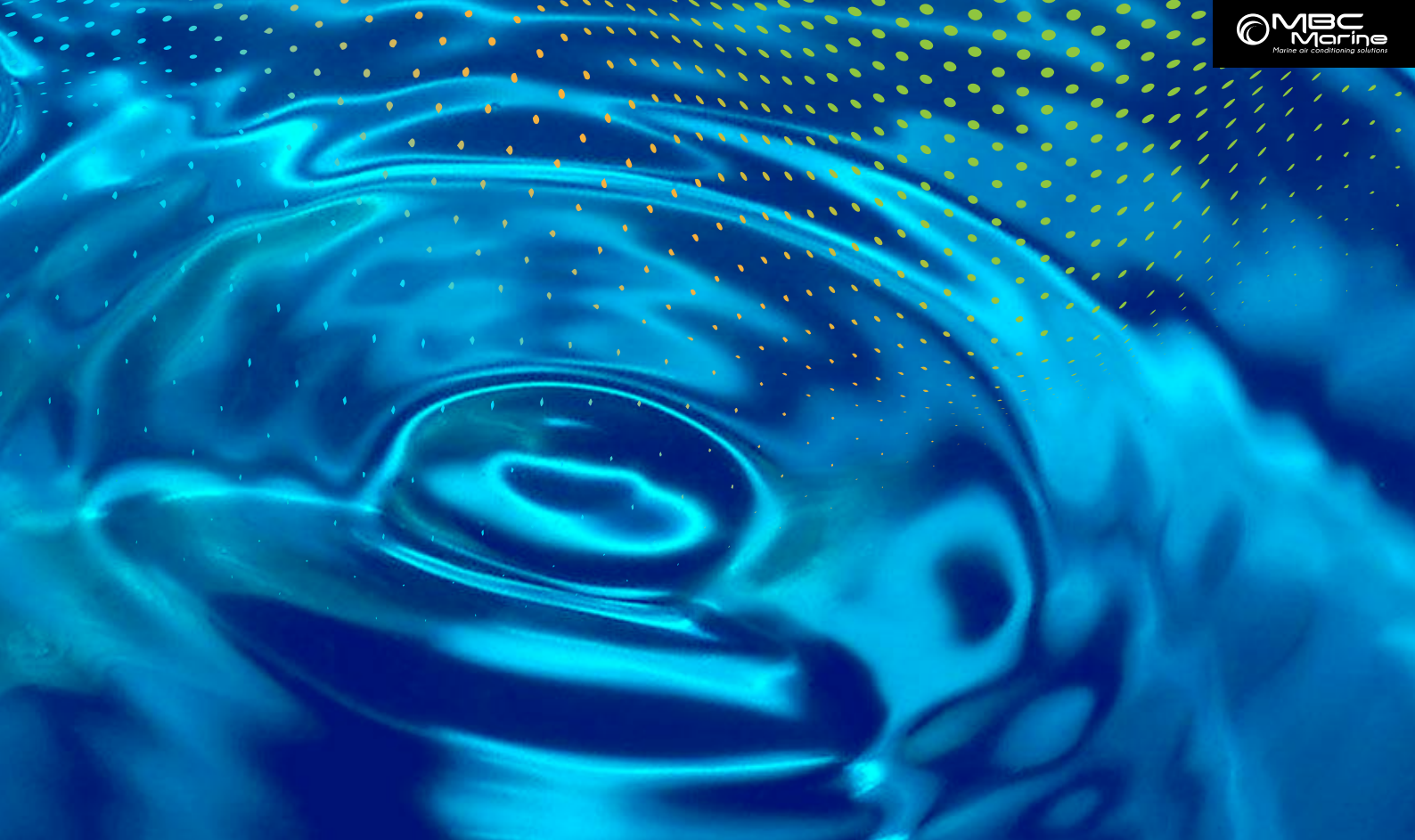
## MAGNETIC DRIVEN PUMPS

The Magnetic Circulation pump is a centrifugal drive pump, eliminating the need for a shaft seal. Pumps are serviceable with a screwdriver. The pump is able to be run fully submerged or in open air for complete moisture protection. It also can pump liquids with a specific gravity greater than water, have a higher viscosity.



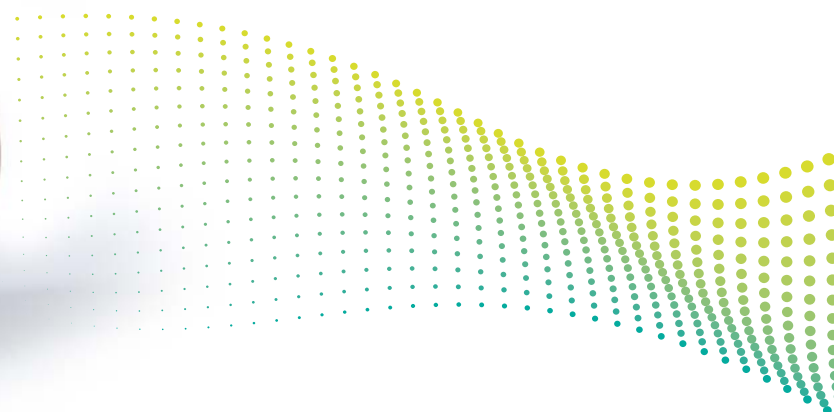
MODEL	VOLTAGE	FLOW RATE	FREQUENCY	HEAD	POWER	AMPS DRAW
MDP18	230 V	5 GPM	60 Hz	13 ft / 5,2 psi	55 W	0,50 A
		18,5 LPM	50Hz	2,7 m	55 W	0,56 A
MDP24	230 V	8,5 GPM	60 Hz	19 ft / 8,2 psi	110 W	0,9 A
		31 LPM	50Hz	4,3 m	105 W	0,9 A





Magnetic drive circulation pump is running on the shaft and impeller assembly of magnetic materials and attracted to each other coupled respectively ,don't need to match with the traditional mechanical shaft seal, so it is completely sealed.

Motor rotation torque is through active magnetic and driven magnetic gravity drive blade work operation. It is the most ideal liquid pump on boat industrial equipment.

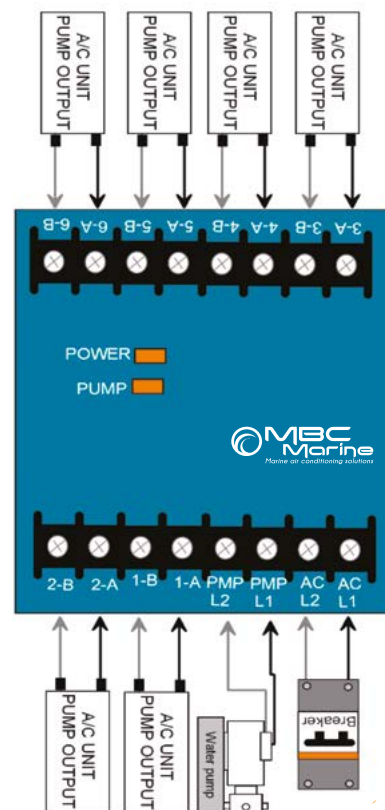


MAGNETIC DRIVEN			
Model	MP-15-R	MP-20-R	MP-40-R
Condensing capacity BTU/h	6.000-8.000	10.000-13.000	16.000-24.000
Capacity l/m	10	15	22,5
Power absorption W	27	45	60
Input voltage V - PH - Hz	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50
Diam. Inlet,outlet mm	14	17	20
Net weight kg	2	2,3	4
Sizes mm	167x104x100	202x106x113	272x120x130

# Sea water pump relay box

The 6-station Pump Relay box allows the control of a common seawater pump between of two – or more air condition units.

The 6-station Pump Relay (PRP) boards allows control of a common seawater pump between multiple cabin or chiller controls. It can also be used to control a common chilled-water loop pump between multiple chiller controls. Separate, fully-isolated pump trigger inputs accept either 230VAC/50-60Hz. The pump power source and pump output is also isolated and can be 230VAC/50-60Hz. The metal enclosure allows for entry and exit of all wires to and from the controls, from the pump power source, and to the pump.



# Sea water circuit



**SEA WATER INTAKE**



**BALL VALVE**



**SEAWATER DISCHARGE**



**PLASTIC SEA WATER STRAINER**



**MALE HOSE CONNECTOR**



**WATER STRAINER SERIES  
WITH METAL COVER**



**MALE HOSE CONNECTOR 90°**



**DRAIN WATER PUMP  
SYSTEM 12V**



**FEMALE HOSE CONECTOR**



**SEA WATER PIPE  
ARMOFLEX**

MBC Marine also offers customers a wide range of accessories helping in selling and installing air conditioners. Among our products you can find air grilles, water pipes, circulating pumps as well as a wide range of accessories for professional installation.





# MBC Marine Smart Connect

With the **MBC Marine Smart Connect**, you can ensure the perfect temperature and fresh air supply for your boat at any time.

Either from your office or waiting at the red light. Imagine, how comfortable it would be if your boat welcomes you with the preset temperature. Your smartphone is always available, so all you have to do is connect to your boat's air conditioning via the Internet and set the desired temperature. Be it cooling or heating mode.



Simple **easy** simple **professional**.

## DETERMINATION OF THE CALCULATION

Tipology of cabin	up to m3	Cooling capacity BTU/h	Heating capacity BTU/h
Well insulated cabin with thermal insulation	18	5.000	3.000
	24	8.000	4.800
	35	10.000	6.000
	42	13.000	7.800
	55	16.000	9.600
	86	18.000	10.800
Lightly exposed cabin with low insulation	11	5.000	3.000
	15	8.000	4.800
	22	10.000	6.000
	26	13.000	7.800
	37	16.000	9.600
	56	24.000	14.400
More exposed cabin with low insulation	6	5.000	3.000
	13	8.000	4.800
	17	10.000	6.000
	22	13.000	7.800
	28	16.000	9.600
	42	24.000	14.400

## CONVERSION TABLE

BTU/h	3,413	=	1	Watt
Watt	24	=	0,86	Kcal/h
Kw	35	=	1000	Watt
Frig/h	42	=	3,413	Btu/h
Kcal/h	55	=	0,86	Frig/h

