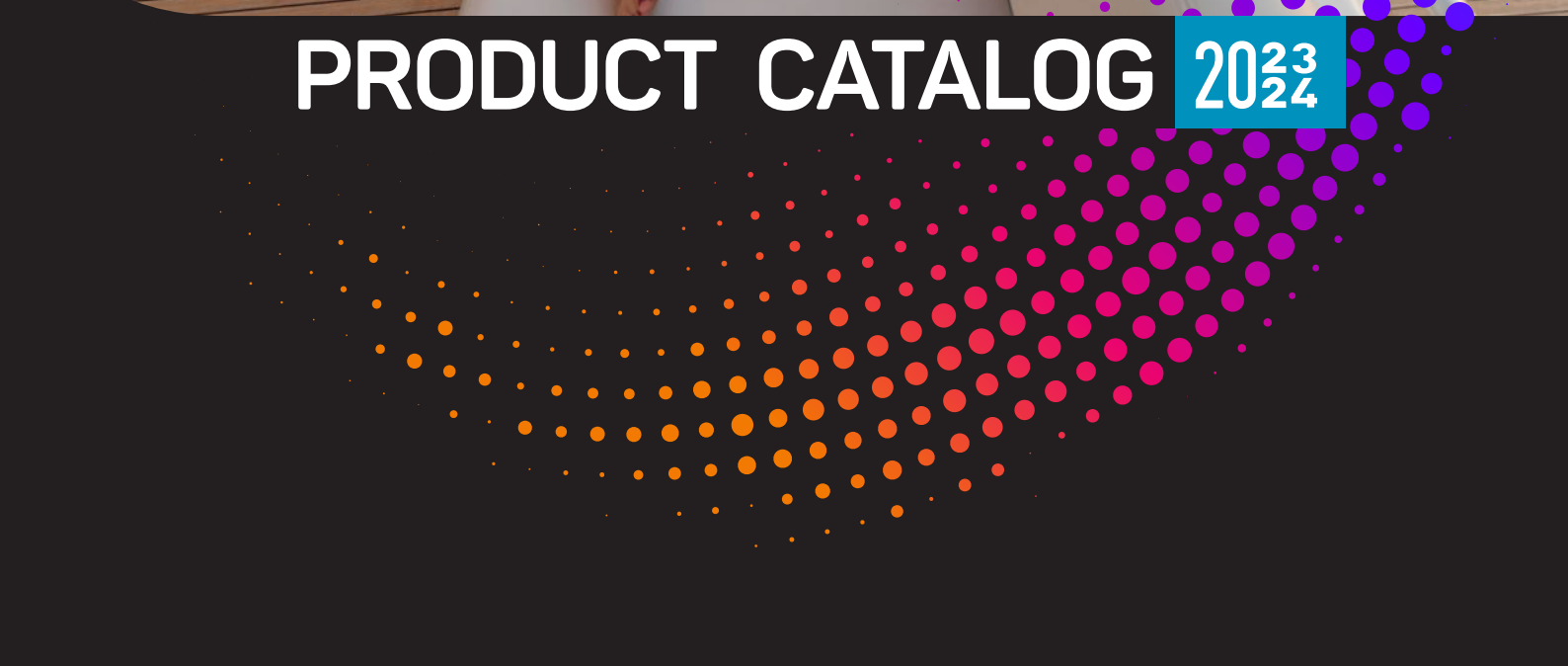




# PRODUCT CATALOG **2023** **2024**



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

## About Us

MBC Marine is a German company active since 2010, as a 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 include direct expansion systems available in self contained and split versions, having cooling power from 6.000 BTU/h up to 24.000, powered not only by 220V but also by direct current at 12-24-48 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, based on the general layout of the boat, and the owners' specific needs.

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 part of the standard installation kit.

We produce and stock our air conditioners, giving our Customers the ultimate advantage of having units, accessories and spare parts always on stock.

All our products are fully CE and TUV certified.

You are welcome to visit our website [www.mbc-marine.de](http://www.mbc-marine.de)



## **SIMPLY COOL!**

This function may seem so natural to us that we notice only under extreme conditions how important thermal comfort is to our well-being. A basic function of our body is to maintain thermal equilibrium: 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 6000 to 24000 BTU / h, but we also offer customized devices – in individual sizes.

Our air conditioners are manufactured made of 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-charged condition, equipped with an R410A eco-friendly cooling agent so no further steps or inspection are required for safe use after installation.

## **SIMPLY PROFESSIONAL!**

At the time of founding our business, our primary goal was that MBC Marine should be not only a product distributor but also a reliable partner in the field of boat air conditioning equipment. 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!**

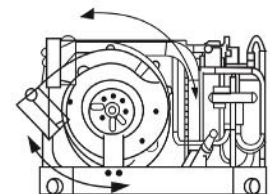
MBC Marine – SSC units are self contained direct expansion systems specifically developed for boats where simultaneous cooling or heating of one or more cabins desired. MBC Marine – SSC units are carefully designed to be lightweight and compact and for a quick and easy installation in any suitable room of any 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 large amounts of water condensate.

The SSC range is provided with an elegant LED 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.

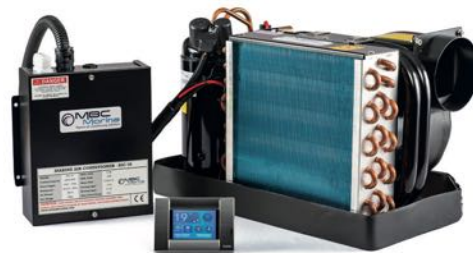
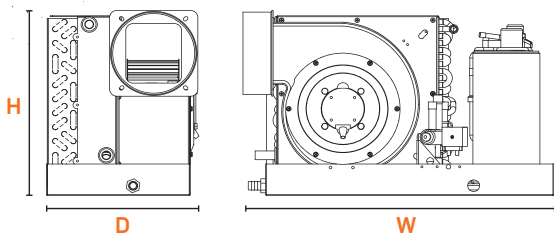
These units are equipped with easy-to-remove and washable air filters to ensure constant filtration and the best quality of the internal air. To make the connection of the air ducts to the air conditioner easier, the blower, the blower can be rotated allowing many installation options.

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-charged condition, filled with an eco-friendly cooling agent. No further steps or inspection is required for safe use after installation.

- 3 operation modes: 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
- Nickel Antimicrobial Evaporators
- High static pressure ball bearings blowers with auto mode



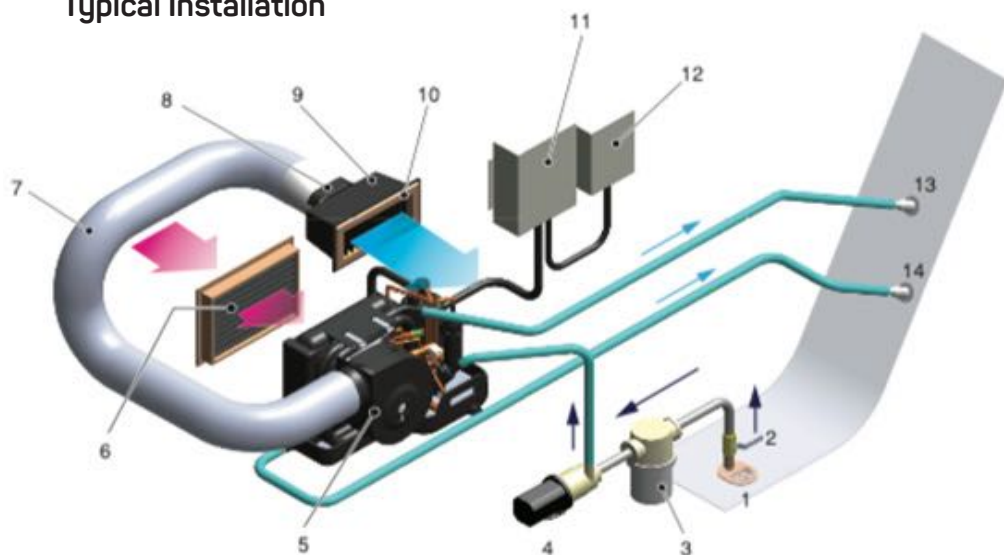
For the easier installation fan can be rotated.



UNIT PARAMETERS		SSC 06	SSC 08	SSC 10	SSC 13	SSC 16	SSC 24
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



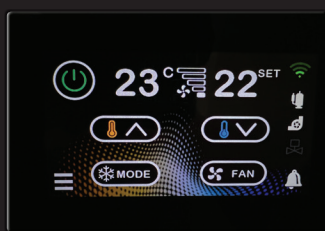
## Typical Installation



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. Transition Box
10. Supply Air Grille
11. Control Box
12. Starting Booster Outlet
13. Sea Water Outlet
14. Drain Outlet



INCLUDING LED DISPLAY



OPTIONAL SMART 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 of 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 in the cabins because the compressor (condensing unit) can be installed outside of the living space, and it also represents 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 of 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 by means 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 LED 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 easier, the blower can be rotated allowing many installation options.

All SCP units are manufactured from durable materials – all metallic components are made of 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
- Nickel Antimicrobial Evaporators
- High static pressure ball bearings blowers with auto

AI316 - 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 steps or inspection is required for safe use after installation.

UNIT PARAMETERS		SCP10	SCP13	SCP16	SCP24
Condenser unit data					
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					
Dimensions of Condensing unit	Height	315	315	335	408
	Width	280	280	250	250
	Depth	220	220	330	330
Connecting 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					
Dimensions of Evaporator unit	Height	300	300	355	430
	Width	355	355	500	560
	Depth	245	245	345	370
Minimum air duct diameter (mm)		125	125	150	200
Input power (W)		100	150	200	300
Connecting 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



INCLUDING LED DISPLAY



OPTIONAL SMART DISPLAY

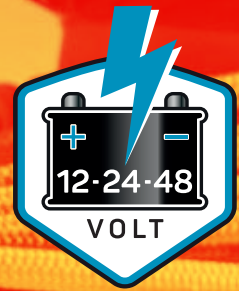


REMOTE CONTROL  
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# SDC 12-24-48V Direct expansion Self Contained systems

7.000 - 12.000 - 16.000 BTU/h



## PICK YOUR SETUP

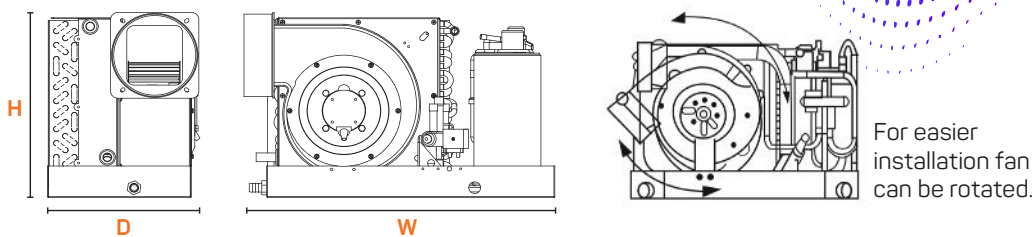
A SDC unit is the exclusive and innovative sea water cooled marine air conditioner powered in 12-24-48V (direct current) directly from the battery bank of your boat, without using a generator or inverter. The SDC units is a well designed and elegant product which offers the most simple and versatile installation.

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

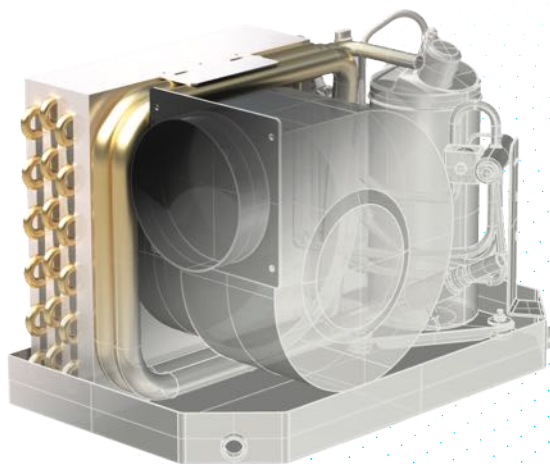
Each air conditioner unit is delivered fully tested in our factory and in a pre-charged condition, filled with an eco-friendly cooling agent. No further steps or inspection is required for safe use after installation.

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

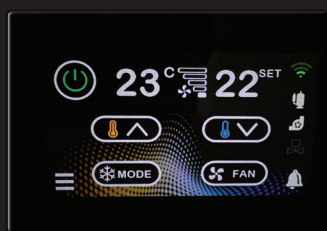




UNIT PARAMETERS		SDC12-7000	SDC24-7000	SDC24-12000	SDC48-16000
Power supply	Ph/V/Hz	DC 12V	DC24V	DC24V	DC48V
<b>COOLING</b>					
Capacity	BTU/hr	7.000	7.000	12.000	16.000
Rated power	kW	0.45	0.56	0.72	0.96
Rated current	A	35	23	30	20
<b>HEATING</b>					
Capacity	BTU/hr	8.000	8.500	13.000	17.000
Rated power	kW	0.54	0.60	0.8	1.2
Rated current	A	45	25	35	25
Seawater flow	m3/h	0.55	0.6	0.9	1.2
Air flow	m3/h	350	350	450	600
Dehumidification	L/h	0.8	1.0	1.2	1.8
Noise level	dB(A)	50	less 50	50	55
Width	mm	400	400	480	500
Height	mm	280	280	300	340
Depth	mm	240	240	285	513
Weight	kg	18	18	23	31
Refrigerant type		R134A	R134A	R134A	R134A
Air duct Diameter	mm	100	100	125	150
Sea water pipe Diameter	mm	16	16	16	16



INCLUDING LED DISPLAY



OPTIONAL SMART 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

#### SUPPLY AIR GRILL "SQUARE" 100×100mm (with plenum box)

- **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.

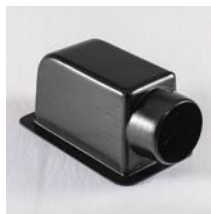
# Air Distribution

## ACCESSORIES



### PLENUM BOX BOTTOM

- 200x100 mm with 100mm flange (PB-B-2010-100)
- 200x100 mm with 125mm flange (PB-B-2010-125)
- 250x125 mm with 125mm flange (PB-B-2515-125)
- 250x125 mm with 150mm flange (PB-B-2515-150)



### PLENUM BOX SIDE

- 200x100 mm with 100mm flange (PB-S-2010)
- 250x125 mm with 125mm flange (PB-S-2515)



### AIR DIVIDER "T"

- 100 mm (AST-101010)
- 125 mm (AST-252525)
- 150mm (AST150-150-150)



### THERMALLY AND ACOUSTICALLY INSULATED AIR DUCT

- 100 mm (DUCT-100)
- 125 mm (DUCT-125)
- 150 mm (DUCT-150)



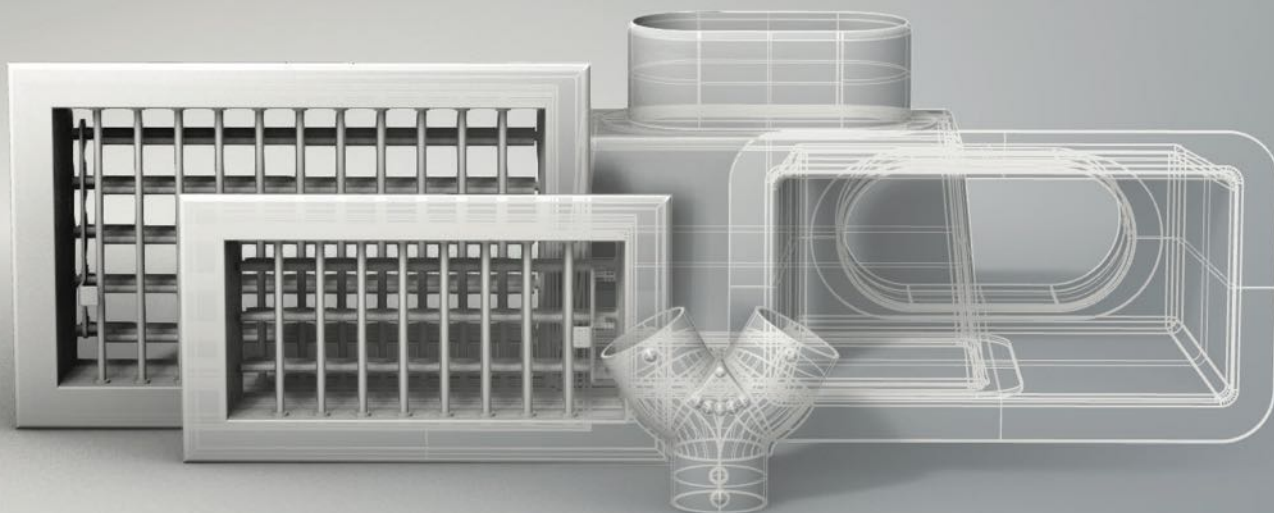
### AIR DIVIDER "Y"

- 100mm (ASY-101010)
- 125mm (ASY-252525)
- 150mm (AST150-150-150)



### AIR REDUCERS

- ASD-125-100
- ASD-150-125



# Sea water pumps

## MAGNETIC DRIVEN PUMPS FOR AC 230V UNITS

Magnetic drive circulation pumps work with a unified shaft and impeller assembly, running in sealed housing, without the need of a traditional shaft seal. Motor speed and torque is regulated via the built-in electronics, including soft-start and overload protection. This is the perfect liquid pump for marine applications.

### AC PUMPS



MAGNETIC DRIVEN PUMPS FOR AC 230V UNITS	Voltage	Flow rate L/min	capacity (BTU/H)	Head/m
MP-15	230V	16	6000 BTU	2,7
MP-20	230V	27	10-13k	3,1
MP-40	230V	34	16000 BTU	4



MAGNETIC DRIVEN PUMPS FOR AC 230V UNITS	Power	Voltage	Flow rate L/min	capacity (BTU/H)	Head/m
CPM-100	250 W	230V	60	20K - 25K	7
CPM-130	370 W	230V	80	25K - 35K	14
CPM-132	600 W	230V	120	35K - 50K	22

## MAGNETIC DRIVEN PUMPS FOR DC 12-24V UNITS

### DC PUMPS



MAGNETIC DRIVEN PUMPS FOR DC 12-24V UNITS	Voltage	Flow rate L/min	capacity (BTU/H)	Head/m
DC5512A	12V	33-40	12000BTU	12-16
DC6024B	24V	53-63	16000BTU	10-12



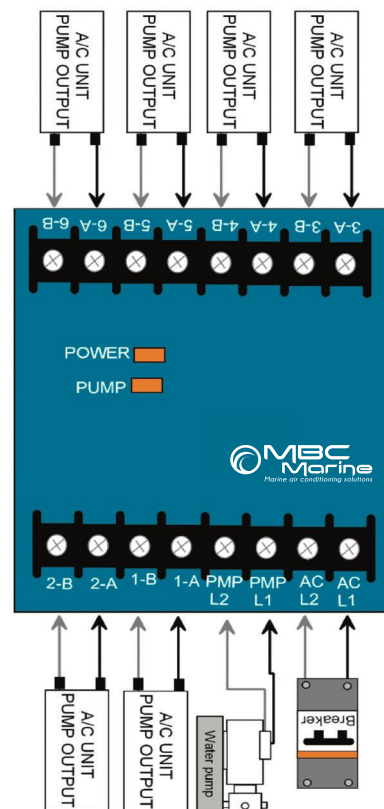
MAGNETIC DRIVEN PUMPS FOR DC 12-24V UNITS	Voltage	Flow rate L/min	capacity (BTU/H)	Head/m
DC4012C	12V	12-15	8000	4-6

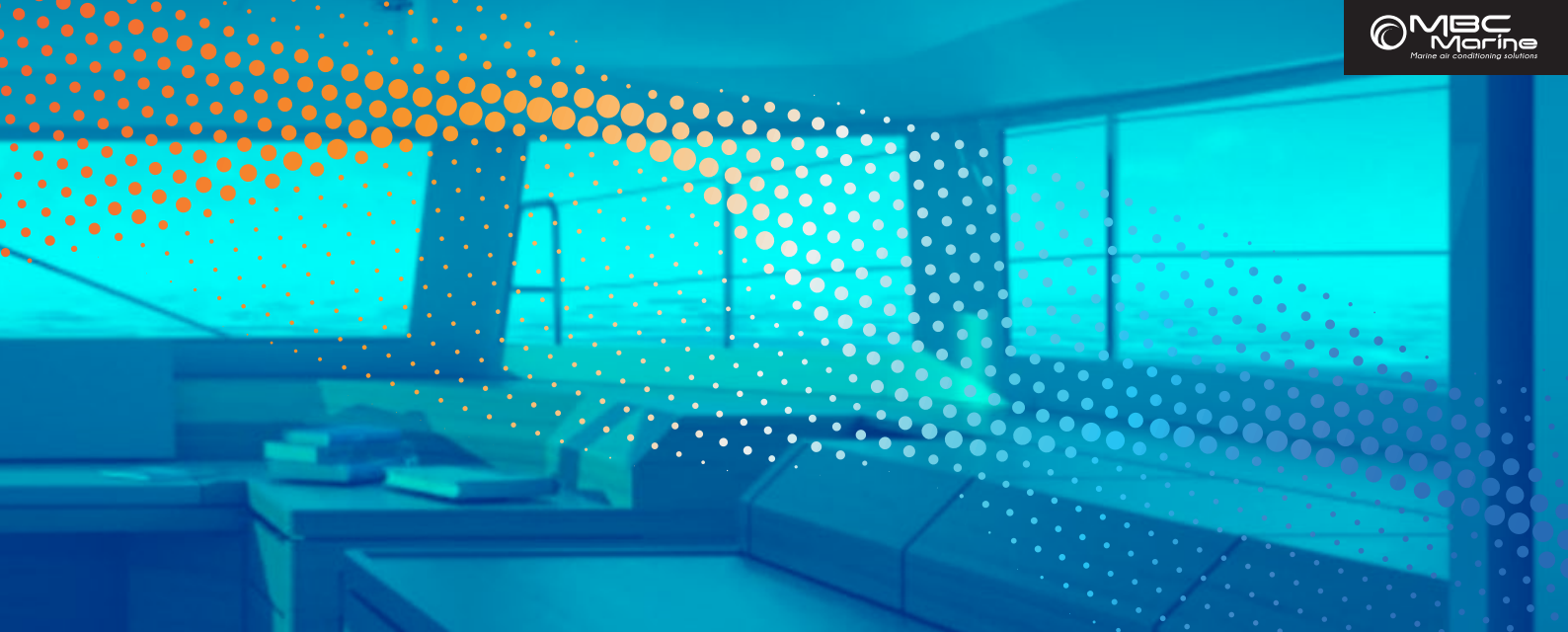
# Sea water pump relay box

## PRB-6 220V-50HZ

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





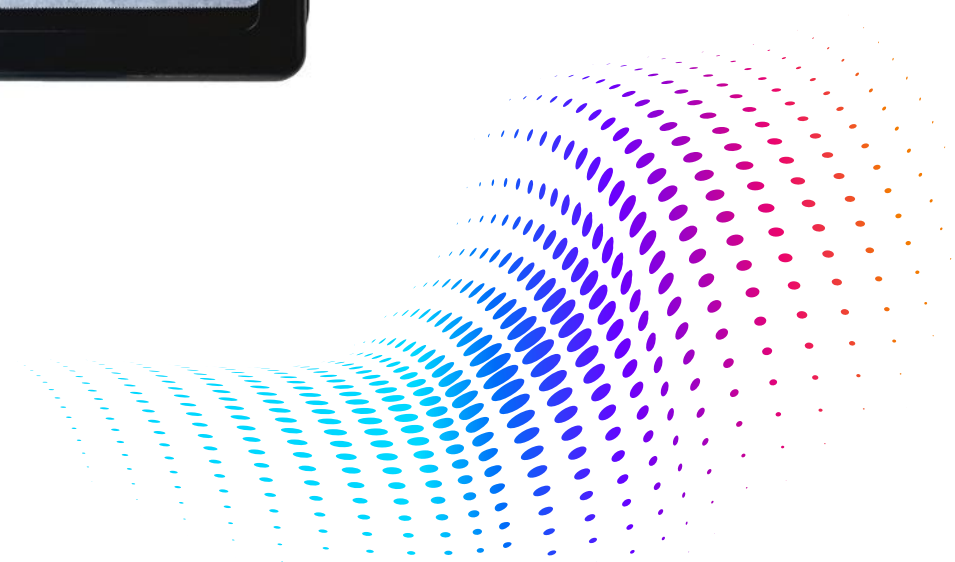
## DCPR-1 12V - 48V

The DCPR1 DC Relay Box is an electronic device that allows multiple DC voltage sources (airconditioner pump outputs) to operate a single DC device (water pump).



## XV-1 48V - 24V

The XV1 DC-DC Converter is an electronic device that allows a 24V DC device to be operated from 48V DC power source. This is required when a 24V DC water pump must be installed on a 48V DC power network.



# Soft starter

## TECHNOLOGY DEVELOPED TO SOLVE PROBLEMS

MBC Easy Start allows to start any air conditioner using a lower ampage power source. It means there is no need for bigger or second generator. With MBC Easy Start the current of the compressor is 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 a generator or inverter with a limited maximum 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 Power Source.



Starting booster, *Easy Start!*

# Sea water circuit

## SEA WATER FILTERS AND PIPES



**DWP-12**  
12V DRAIN WATER PUMP  
SYSTEM 12V



**AMP-M-03**  
3/4" WATER STRAINER SERIES  
WITH METAL COVER



**AMP-S-01**  
1/2" PLASTIC SEA WATER  
STRAINER



**SWP-1827**  
18x27 SEA WATER PIPE  
ARMOFLEX



**AMP-M-02**  
1/2" WATER STRAINER SERIES  
WITH METAL COVER



**HSCP1625**  
16-25 W4 SS201 DIN3017  
GERMANY TYPE STAINLESS  
STEEL HOSE CLAMP



## DISPLAYS, SOFT STARTER, AND SPARE PARTS



**SMTD-4,3**  
4,3" LED COLOUR  
DISPLAY WITH Wi-Fi  
CONNECT AND SMART  
PHONE APPLICATION



**SOFT ST.**  
SOFT STARTER:  
8000 - 24000 BTU



**CD-3 3"**  
LED COLOUR DISPLAY



**PCB-AC**  
MAIN BOARD 230V FOR  
SSC - SCP - ESC UNITS

*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.*

## FITTINGS AND HOSECONNECTORS



**SWB-12**  
1/2" SEA WATER INLET 1/2"  
**SWB-34**  
3/4" SEA WATER INLET 3/4"



**BV-12**  
1/2" BALL VALVE 1/2"  
**BV-34**  
3/4" BALL VALVE 3/4"



**SWB-12**  
1/2" SEA WATER INLET 1/2"  
**SWB-34**  
3/4" SEA WATER INLET 3/4"



**HCF-1219**  
1/2"x19 BRASS HOSE  
CONNECTOR FEMALE  
**HCF-3420**  
3/4"x20 BRASS HOSE  
CONNECTOR FEMALE  
**HCF-3425**  
3/4"x25 BRASS HOSE  
CONNECTOR FEMALE  
**HCF-1-25**  
1"x25 BRASS HOSE  
CONNECTOR FEMALE



**HCM-1219**  
1/2"x19 BRASS HOSE  
CONNECTOR MALE  
**HCM-3420**  
3/4"x20 BRASS HOSE  
CONNECTOR MALE  
**HCM-3425**  
3/4"x25 BRASS HOSE  
CONNECTOR MALE  
**HCM-1-25**  
1"x25 BRASS HOSE  
CONNECTOR MALE



**HCM-1219/90**  
1/2"x19 BRASS 90 DEGREES HOSE  
CONNECTOR MALE



**HCF-T-12**  
1/2" BRASS "T" SHAPE



**ELB-90-KB-12**  
1/2" BRASS ELBOW MALE/FEMALE  
**ELB-90-KB-34**  
3/4" BRASS ELBOW MALE/FEMALE



**ELB-90-BB-12**  
1/2" BRASS ELBOW MALE/MALE  
**ELB-90-BB-34**  
3/4" BRASS ELBOW MALE/MALE



**MANIFOLD-3**  
3 WAY INLET 1x3/4" - OUTLET 3x 1/2"  
**MANIFOLD-4**  
4 WAY INLET 1x3/4" - OUTLET 4x 1/2"  
**MANIFOLD-5**  
5 WAY INLET 1x3/4" - OUTLET 5x 1/2"



**MNF-F/M**  
3/4" MALE/FEMALE - PLUG FOR  
MANIFOLD

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# MBC Marine Smart Connect

The Smart Touch is a touch-screen controller and internet remote for the MBC Marine line of air conditioners.





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.



Simply **Easy** Simply **Professional**.



## Sizing guidelines

Cabin type	up to m3	Cooling capacity BTU/h	Heating capacity BTU/h
Cabin in shade 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
Cabin in semi-shade with weak 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
Cabin in direct sunlight with weak 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

