



**TECHNICOLD**  
**BY NORTHERN LIGHTS**

**MARINE CLIMATE CONTROL SOLUTIONS**

**MECTRA**  
S Y N E R G Y

**MECTRA SYNERGY (M) SDN BHD**

B-G-31 MENARA PRIMA, JALAN OJU 1/39, DATARAN PRIMA, 47301 PETALING JAYA, SELANGOR, MALAYSIA

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## ***Presenting the Technicold line of Marine Climate Control Solutions***

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## SPECIFICATIONS AND DIMENSIONS

Model	BTU @ 60 HZ	AMP Draw 115V (230V)	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
CW24	24,000	6.8 (5.4)	16.0 (406) x 13.5 (343) x 26.5 (673)	151 (68.49)
CW30	30,000	8.4 (6.3)	16.0 (406) x 13.5 (343) x 26.5 (673)	164 (74.39)
CW36	36,000	14.0 (9.5)	16.75 (425) x 13.5 (343) x 26.5 (673)	170 (77.18)
CW48	48,000	13.3 (9.0)	18.0 (457) x 13.5 (343) x 26.5 (673)	181 (82.10)
CW60	60,000	22.0 (12.4)	18.9 (480) x 13.5 (343) x 26.5 (673)	187 (84.82)
CW72	72,000	n/a (14.2)	18.75 (476) x 13.5 (343) x 26.5 (673)	194 (88.0)
CW90	90,000	n/a (20.0)	19.5 (495) x 13.5 (343) x 28.5 (723)	202 (91.70)
CW120	120,000	n/a (19.8)	24.75 (629) x 13.5 (343) x 34.0 (864)	304 (137.40)
CW180	180,000	(Contact Factory)	52.5 (1333) x 16.5 (419) x 21.5 (546)	456 (207)

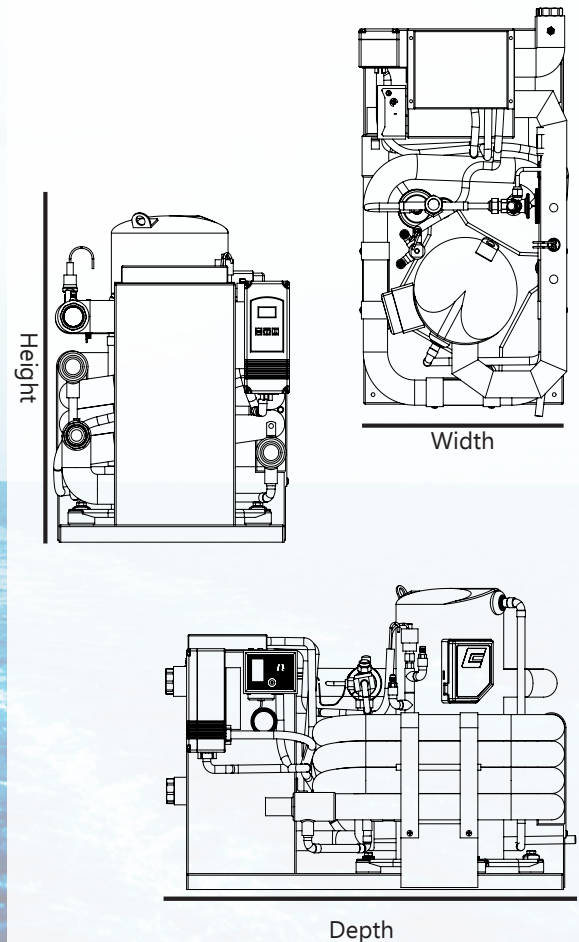
*Information and dimensions are subject to change without notice.*

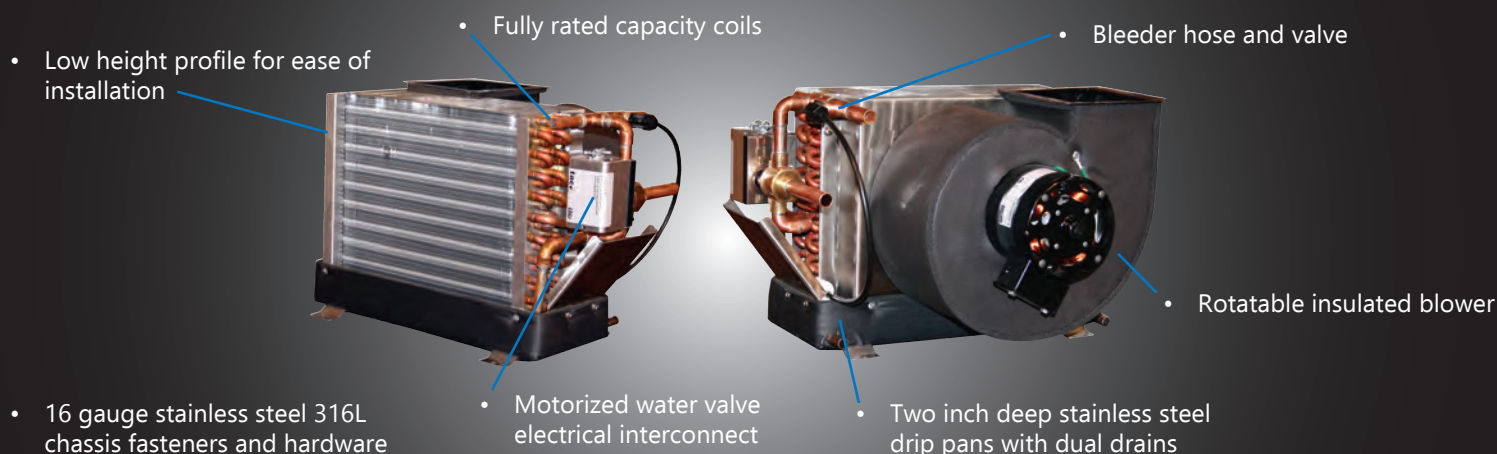


## FEATURES AND BENEFITS

- » Plate style chiller encapsulated in urethane foam inside a stainless steel housing enclosure prevents condensation.
- » Large diameter, single-pass fluted coaxial copper-nickel counter-flow condenser allows low sea water velocity while providing maximum efficiency and even condensing.
- » Digital staging thermostat allows for continuous temperature readout and preset temperature control.
- » Freezestat control direct sensing on chiller plate surface protects plate from freezing up.
- » Circulating water flow switch protects against low water pressure and flow.
- » Expansion valve metering device provides maximum performance at all temperature ranges.
- » Easy access to sight glass for convenient service diagnostics.
- » Manual high-pressure control reset and automatic low-pressure control reset.
- » Dual high and low pressure service ports for service and optional monitoring.
- » Marine quality, corrosion resistant gloss white finish.
- » Charged with environmentally responsible refrigerant.
- » Wiring covered with fire resistant sheathing.
- » 316L grade stainless steel chassis, fasteners and hardware.
- » Rubber vibration compressor isolation mounting feet.
- » Compact overall size.

## DIMENSIONAL DRAWINGS





## SPECIFICATIONS AND DIMENSIONS

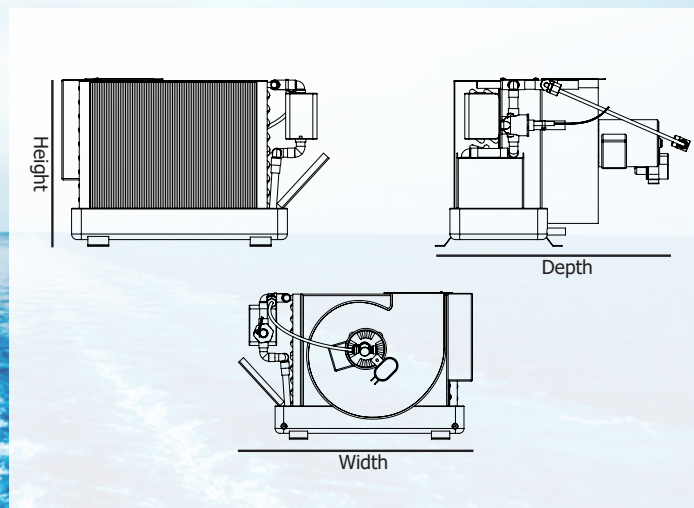
Model	BTU @ 60 HZ (50 HZ)	AMP Draw 115V (230V)	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
RA08	8,000 (6,600)	1.86 (0.93)	9 (228.6) x 16.8 (426.7) x 13.8 (350.5)	59 (26.79)
RA12	12,000 (10,000)	3.20 (1.60)	12.25 (311.1) x 18.5 (469.9) x 15.75 (400)	64 (29.06)
RA16	16,000 (13,250)	3.55 (1.70)	12.25 (311.1) x 18.5 (469.9) x 17.3 (439.4)	66 (29.96)
RA18	18,000 (15,000)	3.55 (1.70)	12 (304.8) x 19 (482.6) x 18.25 (463.5)	28 (21.71)
RA24	24,000 (20,000)	6.40 (3.20)	12.25 (311.1) x 35 (889) x 15.8 (401.3)	120 (54.48)
RA32	32,000 (26,500)	7.10 (3.40)	12.25 (311.1) x 35 (889) x 17.5 (439.4)	128 (58.11)

Information and dimensions are subject to change without notice.

## FEATURES AND BENEFITS

- » Constructed with 16 gauge 316L grade stainless steel shroud and insulated pan with two drains.
- » 2 inch deep stainless steel drip pans contain condensation.
- » Standard with bleeder hose and valve.
- » Fully rated fan coil set.
- » High-volume, rotatable blower, insulated for quiet operation.
- » 24,000 and 32,000 BTU units feature dual blower arrangement for ease of installation.
- » Engineered to eliminate the need for vibration isolation mounts.
- » Designed to withstand harsh marine environments.
- » All models available with optional electric heat strips and antimicrobial UV light.

## DIMENSIONAL DRAWINGS







## SPECIFICATIONS AND DIMENSIONS

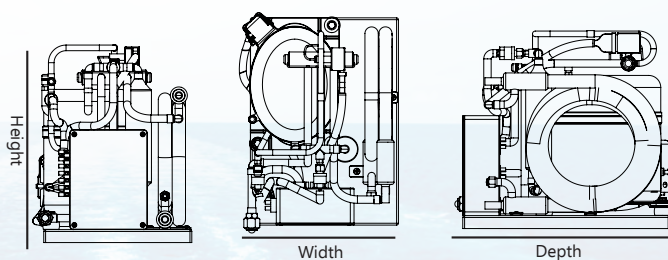
Model	BTU @ 60 HZ (50 HZ)	AMP Draw 115V (230V)	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
RC08	8,000 (6,600)	8.9 (4.4)	14 (355.6) x 10 (254) x 14 (355.6)	59 (26.79)
RC12	12,000 (10,000)	n/a (5.9)	14 (355.6) x 10 (254) x 14 (355.6)	64 (29.06)
RC16	16,000 (13,250)	15 (6.2)	14 (355.6) x 10 (254) x 14 (355.6)	66 (29.96)
RC24	24,000 (20,000)	n/a (12)	17 (431.8) x 15.25 (387.3) x 26.5 (673.1)	120 (54.48)
RC32	32,000 (26,500)	n/a (16.5)	17 (431.8) x 15.25 (387.3) x 26.5 (673.1)	128 (58.11)
RC40	40,000 (33,000)	n/a (22.5)	17 (431.8) x 15.25 (387.3) x 26.5 (673.1)	130 (59.02)
RC48	48,000 (40,000)	n/a (22.7)	16.8 (426.7) x 15.75 (400) x 26.5 (673.1)	149 (67.65)
RC60	60,000 (50,000)	n/a (26)	18.71 (475.2) x 15.75 (400) x 26.5 (673.1)	152 (69.01)

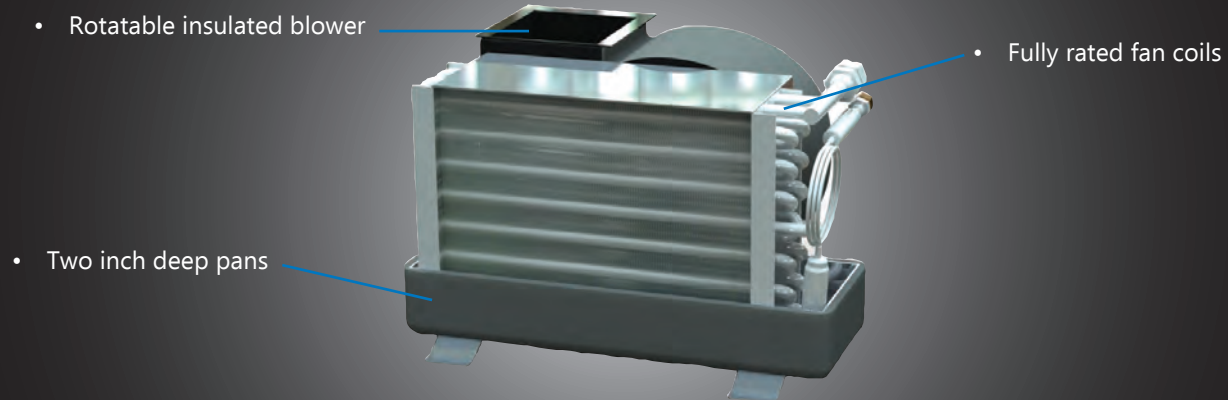
Information and dimensions are subject to change without notice.

## FEATURES AND BENEFITS

- » Single pass fluted coaxial copper-nickel counter flow condenser allows low sea water velocity while providing maximum efficiency and even condensing.
- » High and low charging ports easily accessible.
- » Wiring covered with fire resistant sheathing.
- » 316L grade stainless steel chassis, fasteners and hardware.
- » Rubber vibration compressor isolation mounting feet.
- » Small overall size.
- » Two-part urethane paint system.

## DIMENSIONAL DRAWINGS





## SPECIFICATIONS AND DIMENSIONS

Model	BTU @ 60 HZ (50 HZ)	AMP Draw 115V 1ph (230V)	CFM	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
RE08	8,000 (6,600)	1.86 (0.93)	265	9.5 (241) x 14.1 (358.1) x 13.79 (350.2)	19 (8.62)
RE12	12,000 (10,000)	3.20 (1.60)	350	12.25 (311) x 15.5 (393.7) x 16.82 (427.2)	25 (11.35)
RE16	16,000 (13,250)	3.55 (1.70)	500	12.25 (311) x 15.5 (393.7) x 17.3 (439.4)	27 (12.26)
RE24 TXV	24,000 (20,000)	6.40 (3.20)	700	12.25 (311) x 32 (813) x 15.8 (401.3)	51 (23.13)
RE32 TXV	32,000 (26,500)	7.10 (3.40)	1,000	12.25 (311) x 32 (813) x 17.45 (443.2)	55 (24.95)

Specifications may change without notice.

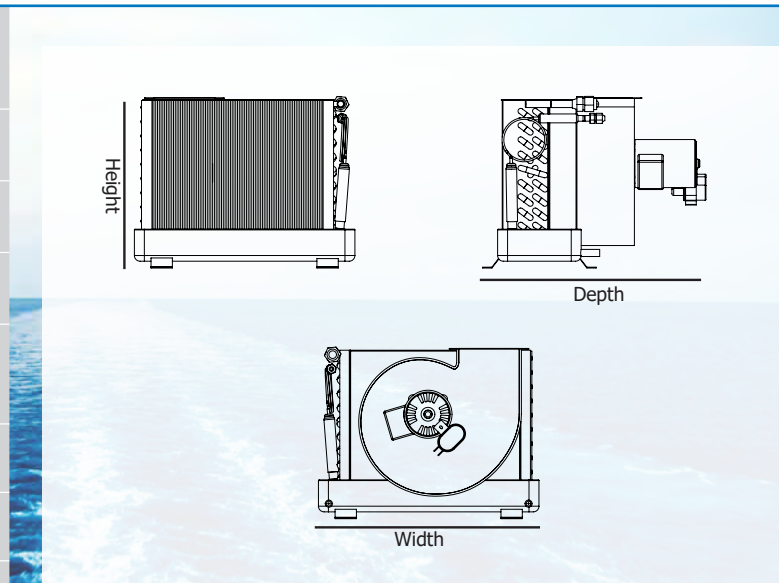
Dimensions represent the blower in a vertical discharge position without a duct ring or plenum box attached.

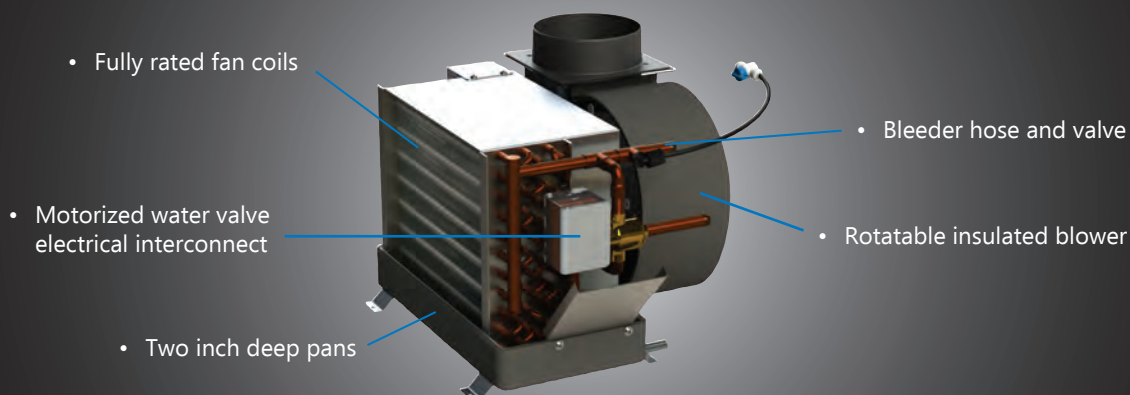
Dimensions shown without electrical heat options.

## FEATURES AND BENEFITS

- » Constructed with 16 gauge 316L grade stainless steel shroud and insulated pan with two drains.
- » 2 inch deep pans contain condensation.
- » Fully rated fan coil set.
- » Insulated, rotatable multi-position blowers with cap tube and electric heat.
- » 24,000 and 32,000 BTU units feature thermostatic expansion valve (TXV) and dual blower arrangement for ease of installation.
- » Engineered to eliminate the need for vibration isolation mounts.
- » Designed to withstand harsh marine environments.
- » All models available with optional electric heat strips and UV light.

## DIMENSIONAL DRAWINGS





## SPECIFICATIONS AND DIMENSIONS

Model	BTU @ 60 HZ (50 HZ)	AMP Draw 115V (230V)	Heat Amps (kW)	CFM	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
RA12VB	12,000 (10,000)	0.56	8.7 (2)	350	12.8 (325) x 18.5 (470) x 12.9 (329)	28 (12.70)
RA16VB	16,000 (13,200)	0.56	8.7 (2)	500	12.2 (311) x 18.5 (470) x 12.6 (319)	28.7 (13.02)
RA18VB	18,000 (15,000)	0.56	8.7 (2)	500	12.3 (314) x 19.9 (505) x 13.4 (340)	33.7 (15.29)
RA24VB	24,000 (20,000)	0.56	10.8 (2.5)	700	13.1 (333) x 35.0 (889) x 13.1 (332)	53 (24.04)
RA32VB	32,000 (26,500)	0.56	10.8 (2.5)	1,000	12.8 (324) x 35.0 (889) x 12.7 (323)	56.4 (25.6)

Specifications may change without notice.

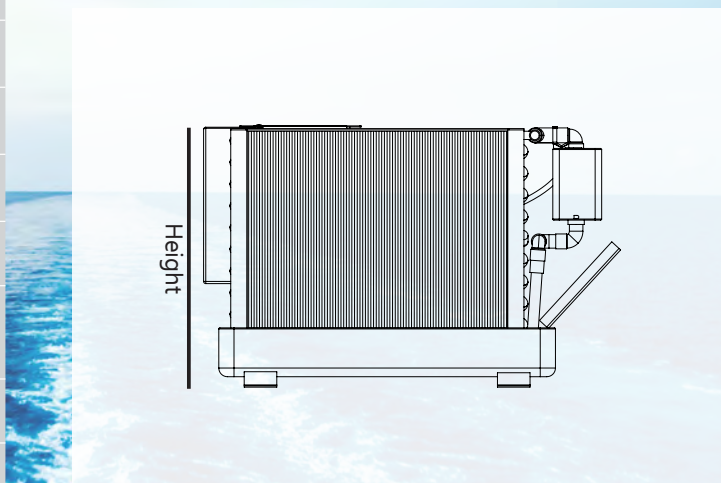
Dimensions represent the blower in a vertical discharge position without a duct ring or plenum box attached.

Dimensions shown without electrical heat options.

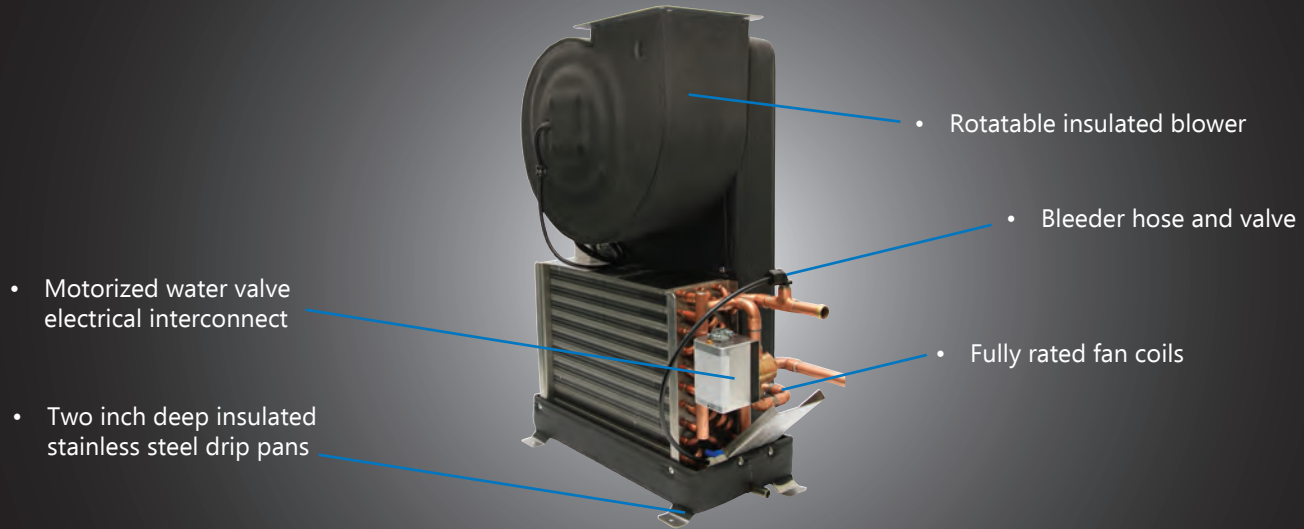
## FEATURES AND BENEFITS

- » Constructed with 16 gauge 316L grade stainless steel shroud and insulated pan with two drains.
- » 2 inch deep pans contain condensation.
- » Standard with bleeder hose and valve.
- » Fully rated fan coil set.
- » Rotatable insulated blowers.
- » 24,000 and 32,000 BTU units feature dual blower arrangement for ease of installation.
- » Engineered to eliminate the need for vibration isolation mounts.
- » Designed to withstand harsh marine environments.
- » All models available with optional electric heat strips and UV light.

## DIMENSIONAL DRAWINGS







## SPECIFICATIONS AND DIMENSIONS

Model	BTU @ 60 HZ	BTU @ 50 HZ	AMP Draw (230V 1ph)	CFM	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
RAVC12	12,000	10,000	0.62	370	25.8 (655) x 20.5 (520) x 8.7 (221)	36.5 (16.6)
RAVC16	16,000	13,200	0.78	450	25.8 (655) x 20.5 (520) x 8.6 (218)	38.2 (17.3)
RAVC18	18,000	15,000	0.78	450	25.8 (655) x 20.5 (520) x 7.125 (181)	43.5 (19.7)

Specifications may change without notice.

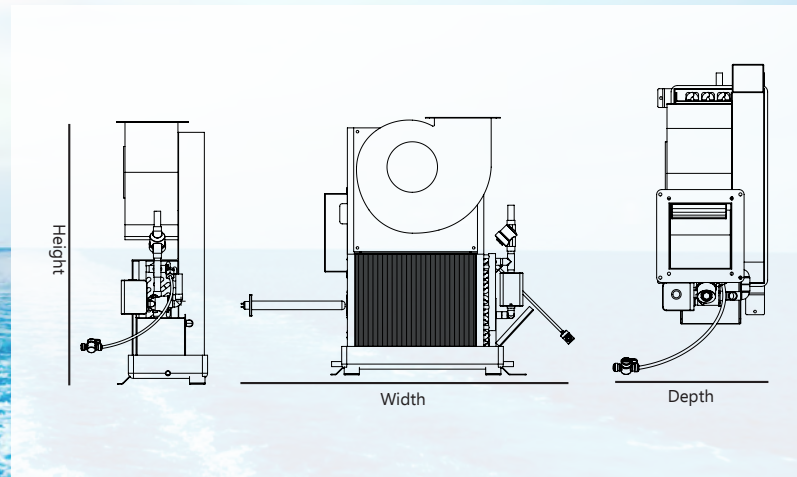
Dimensions represent the blower in a vertical discharge position without a duct ring or plenum box attached.

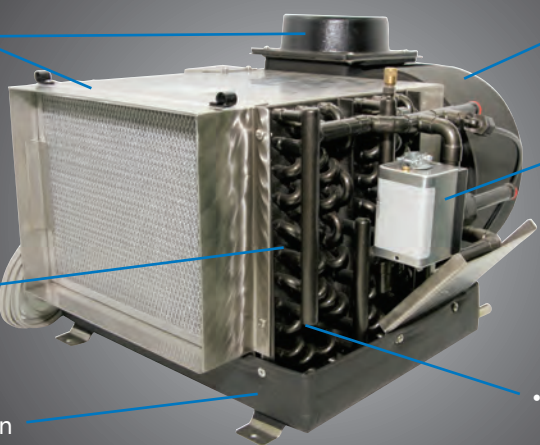
Dimensions shown without electrical heat options.

## FEATURES AND BENEFITS

- » Space saving design with minimal foot print for tight installations.
- » Constructed with 16 gauge 316L grade stainless steel shroud, and insulated pan with twin drains.
- » Fully insulated stainless steel plenum.
- » Two inch deep insulated stainless steel pans contain condensate.
- » Bleeder hose and valve come standard.
- » Fully rated fan coil set.
- » High velocity, rotatable insulated blowers.
- » Custom water valve locations available.
- » Heat strips and UV lamp options available.
- » Engineered to eliminate the need for vibration isolation mounts.
- » Designed to thrive in harsh marine environments.

## DIMENSIONAL DRAWINGS



- 
- Extended life barrier coating on fan coils and blowers
  - Fully rated fan coils
  - Two-inch deep insulated pan with double drains
  - Insulated, rotatable, high velocity blower
  - Motorized valve for efficient operation
  - Specially designed water coils cool and dehumidify in a single pass

## SPECIFICATIONS AND DIMENSIONS

Model	CFM*	AMP Draw (230V)	Heat kW/Amps	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
MA250HB with heat strip	250	0.93	1.25/5.21	12.2 (311) x 19.54 (496) x 19.06 (484)	38.5 (17.4)
MA500VHB with heat strip	500	0.56	2.00/8.30	12.3 (312) x 19.2 (488) x 20.9 (530)	51.5 (23.4)
MA1000VHB with heat strip	1000	0.56	5.00/20.83	12.3 (312) x 35.2 (894) x 21.07 (535)	75.0 (34.0)

Specifications may change without notice.

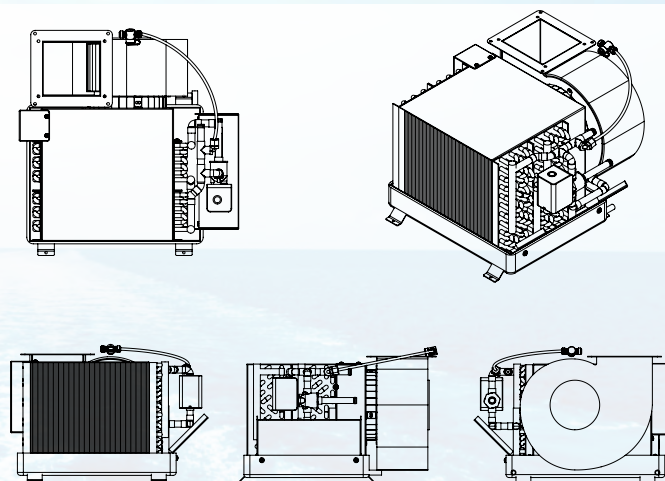
All models have non-ducted intake. Consult factory for ducted model options.

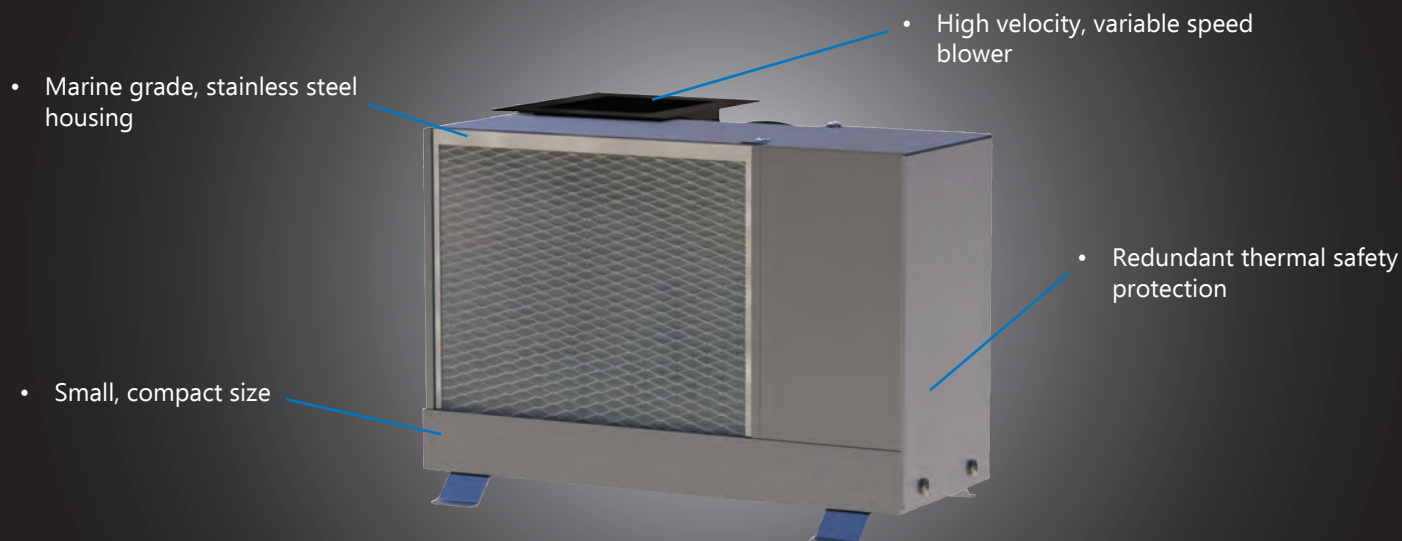
\*Models are shown at 60 Hz, single phase. Reduce CFM 17% for 50 Hz models.

## FEATURES AND BENEFITS

- » Specially designed water coil cools and dehumidifies exterior air in a single pass.
- » Constructed with 16 gauge 316L grade stainless steel shroud, drain pan and fittings.
- » Extended life barrier coating on fan coils and blowers.
- » Insulated pan with two drains.
- » 2 inch deep pans contain condensation.
- » Fully rated fan coil set.
- » Insulated, high velocity blower.
- » Engineered for design versatility, in a minimal footprint.
- » All models available with optional electric heat, outside air sensor and supply sensors.

## DIMENSIONAL DRAWINGS





## SPECIFICATIONS AND DIMENSIONS

Model	Voltage	Phase	Heat Strips (kW)	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
DH500VB	230	1	2	10.87 (276.1) x 15.6 (396.2) x 11.75 (298.4)	25 (11.35)

Specifications may change without notice.

Dimensions represent the blower in a vertical discharge position without a duct ring or plenum box attached.

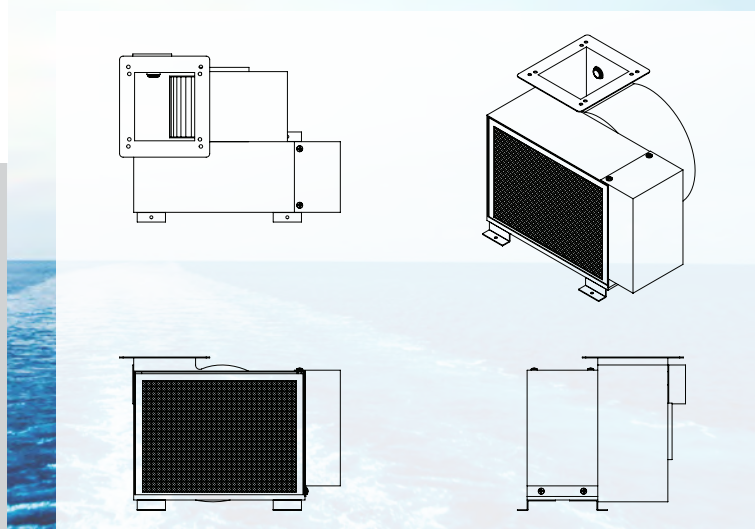
Dimensions shown without electrical heat options.

## FEATURES AND BENEFITS

Convenience and safety are augmented with a **Technicold Dash Heater**. Designed for installation below the dash in the pilot house, our Dash Heater **warms and defrosts the window, quickly and safely.**

- » 500 cfm, variable speed high velocity blower.
- » Marine grade, stainless steel construction.
- » High temperature safety shut down and control.
- » Heavy duty, marine grade heat strips.

## DIMENSIONAL DRAWINGS







FX-1 Control Panel



Cool Touch Color Panel



FX-Maxx Control Panel

## SPECIFICATIONS AND DIMENSIONS

Model	Special Features
<b>Cool Touch</b>	<ul style="list-style-type: none"><li>» Excellent primary control panel to run your vessel's cooling system</li><li>» Touch pad control</li><li>» 6 programmable manual fan speeds</li><li>» 19 programmable parameters for custom installations</li><li>» Away mode to control relative humidity</li><li>» Vimar bezels available in colors that complement your vessel's decor</li><li>» Available in CAN bus configuration</li><li>» Optional outside air temp reading, pump water sensor and more</li><li>» Full color touch screen</li><li>» Automatic monitoring and self diagnosis</li></ul>
<b>FX-1</b>	<ul style="list-style-type: none"><li>» User friendly, four button display panel</li></ul>
<b>FX-Maxx</b>	<ul style="list-style-type: none"><li>» Full range of climate control options with push button simplicity</li></ul>
<b>FX-Maxx Hideaway</b>	<ul style="list-style-type: none"><li>» Equipped with convenient front panel cover</li></ul>

## FEATURES AND BENEFITS

**Technicold - the industry leader in marine climate systems** - presents the optimal temperature control and monitoring systems: The FX Series of Digital Environmental Control Panels.

Utilizing a **user-friendly, highly intuitive menu**, the FX series has **up to 17 different function programs** that allow you to tailor your air conditioning system to your vessel's specific needs. Normal operation is a breeze - literally and figuratively - with a **single button to set the desired temperature**.

Technicold's FX control panels maintain cooling or heating while **automatically monitoring and self-diagnosing the climate control system**. The dehumidifying mode helps with environmental maintenance, ensuring a dry, odorless boat even while unattended. A touch button control panel provides a **clear visual image of the current temperature, programs, fault messages and other optional screens - fully customizable and programmable** from the factory prior to installation.

Technicold's FX control panels are designed for **ease of installation**. No complicated wiring is required - the display panel, power control module and temperature sensor all connect with a polarized plug connection similar to a telephone or internet cable.

**The best built, best designed, and best backed marine systems in the industry are available from Technicold by Northern Lights.**



## SPECIFICATIONS AND DIMENSIONS

Model	Horsepower	VAC	Dimensions: HxWxD in. (mm)	Weight: Lbs (kg)
RB020W	1/5	115	8.25 (209) x 9 (228) x 15 (381)	Consult Factory
RB050W	1/2	115 or 230	14.5 (368) x 13.5 (343) x 12.5 (317)	73 (33.1)
RB075W	3/4	115 or 230	14.5 (368) x 13.5 (343) x 13.5 (343)	95 (43.1)
RB100W	1	230	Consult Factory	Consult Factory

Air and water cooled. Available with 134A or 404A refrigerant - Consult Factory.

Specifications may change without notice.

## FEATURES AND BENEFITS

The marine environment demands the **best engineered, best built systems on the market** - it demands **Technicold by Northern Lights**.

The same seawater cooling that is **most recommended** for your generator set and engine is available in your vessel's refrigeration system using Technicold's water cooled condensing units. Designed for boats with an onboard generator set (inverter dock side operation) Technicold's water cooled condensers are **versatile enough to run with evaporators, hold over plates, forced air and even Cold Liners**. And they are sturdy enough that a single condensing unit **can be fitted with dual controls to handle multiple boxes - at different temperature settings**.

Generations of engineering know-how go into every Technicold water cooled condensing unit. It starts with a **quiet, reliable low temperature sealed hermetic compressor for maximum efficiency**. It is mounted on a 16-gauge stainless steel platform - this is twice as dense as our competitors - creating **smooth, vibration-less function without the need of added isolators**.

Refrigerant and water travel effortlessly through the **low velocity, copper-nickel counter-flow condenser**. The unique "tube-in-tube" design moves liquid efficiently and without pockets that can lead to corrosion.

The overall design **ensures optimum heat transfer with minimum water flow**. Technicold's water cooled condensing units use common refrigerants and are impervious to ambient temperature. Placing it in a hot engine room, under a cockpit or settee will not adversely affect its performance.

**Reliable, durable, simple to use - Technicold by Northern Lights is the industry leader in marine refrigeration systems.**





## SPECIFICATIONS AND DIMENSIONS

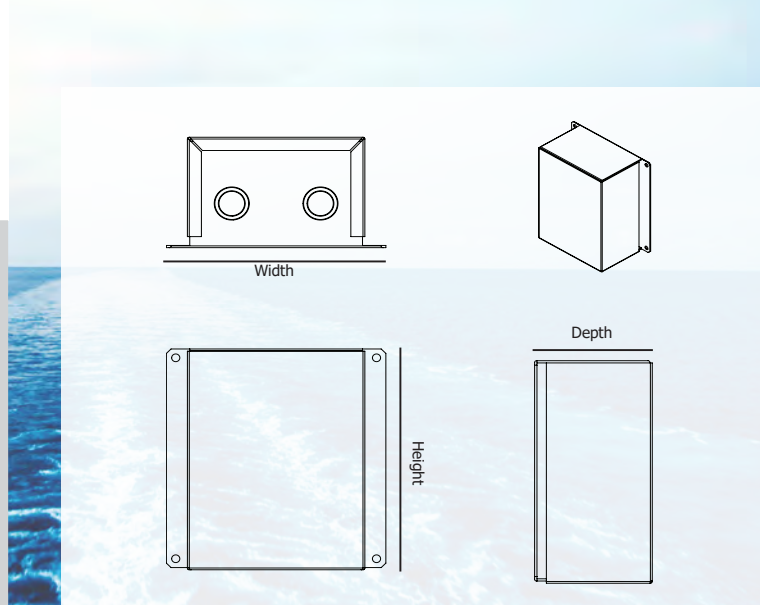
Part No.	Voltage	Max-Blower Current	Over-current Threshold	Relative Humidity Limit	Ambient Op. Temperature
22-18914	115	2 amps	2.4 amps	10-95% R Non-Condensing	0-130 F (-17.7 - 54.4 C)
22-18915	208-230	2 amps	2.4 amps	10-95% R Non-Condensing	0-130 F (-17.7 - 54.4 C)

## FEATURES AND BENEFITS

Most marine air conditioning systems use a triac to vary blower speed. While it is the most efficient method, it often produces a low-frequency. **Technicold's Quiet Fan Module eliminates that hum**, giving you the best of both world's - **top tier speed control and silent operation.**

- » 6 dBA reduction (at 1 m) in overall sound signature, compared to standard triac circuit.
- » 1 dBA reduction compared to expensive DC blowers.
- » Factory or retrofit installed on any Technicold air handler.
- » Available in multiple voltages.

## DIMENSIONAL DRAWINGS





## SPECIFICATIONS AND DIMENSIONS

Model	BTU	Amp Draw 230V	Heat Amps (kW)	CFM	Dimensions - HxWxD: in. (mm)	Weight lbs. (kg)
TAH06B	6,000	0.6	4.3 (1 kW)	310	11.2 (286) x 31 (787) x 21 (533)	78 (33)
TAH12B	12,000	0.7	8.7 (2 kW)	425	11.2 (286) x 36 (914) x 21 (533)	90 (41)
TAH16B	16,000	0.7	8.7 (2 kW)	600	11.2 (286) x 43 (1052) x 20.8 (528)	109 (49)
TAH22B	22,000	1.2	8.7 (2 kW)	780	12.2 (305) X 43.1 (1095) X 25.4 (645)	122 (55)

## FEATURES AND BENEFITS

» White powder coated aluminum enclosure standard.

» 1-3/4 inch deep pans contain condensation.

» Standard with bleeder hose and valve.

» Fully rated fan coil set.

» Dual blowers enhance ease of installation.

» Motorized water valve electrical interconnection.

» Designed to withstand harsh marine environments.

» All models available with optional electric heat strips.



## NORTHERN ICE

COMMERCIAL GRADE QUALITY,  
MEGA-YACHT FINISH.

### SPECIFICATIONS AND DIMENSIONS

Model		Dimensions: HxWxD in. (mm)	Weight lbs (kg)	Ice Production
TCI05A	Ice Machine Model 5, 60 Hz - 115v	16 (406.4) x 16 (406.4) x 16 (406.4)	124 (56.25)	500 lbs/day
TCI05B	Ice Machine Model 5, 60 Hz - 230v	16 (406.4) x 16 (406.4) x 16 (406.4)	124 (56.25)	500 lbs/day

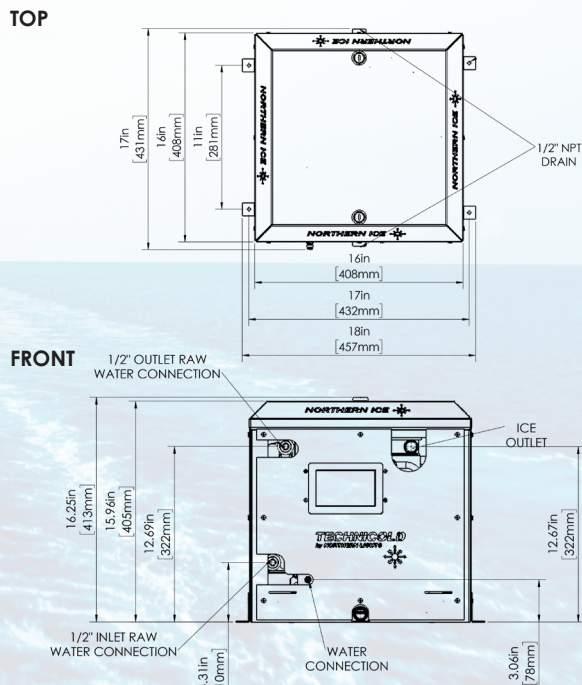
- Rated amps for the compressor and auger motor = 10.4A at 115/1/60.

- Information and dimensions are subject to change without notice.

### FEATURES AND BENEFITS

- Constructed with 16 gauge 316L grade stainless steel shroud with two drains.
- Fully rated capacity components providing maximum ice production at rated values.
- Safety devices protect all system components.
- For ease of installation, mounting brackets provided that can be positioned on all four sides of the machine.
- Marine grade stainless steel fasteners and materials.
- Produces higher yields than competitive models at design temperatures.
- Electronic monitoring and operation.
- Modular design built for easy hook-up, maintenance and service.

### DRAWING DIMENSIONS





**TECHNICOLD**  
**MARINE AIR CONDITIONING & REFRIGERATION**

*Technicold by Northern Lights is the state of the art in marine heating, ventilation, air conditioning and refrigeration systems. Our experienced, professional staff is backed by Northern Lights, Inc., a leader in the marine industry. Custom solutions and service are available worldwide. Proven in commercial vessels, high-mileage trawlers and performance yachts, Technicold products provide unmatched quality and reliability.*

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