

➤ Rack Cooling Units



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### Air/Water-heat exchangers from 1,000 W to 23,000 W

The Rack Cooling Units (RCU) are especially engineered for efficiency and reliability on superyachts. The air/water heat exchangers achieve, depending on the provided cooling water, a high cooling effectiveness. A cooling capacity of 1,000 to 23,000 Watts (3,400 to 78,500 BTU) can be achieved at temperatures of 4 to 8 °C cooling water inlet and air temperatures from 27 to 35 °C. The construction design is a perfect balance independent of ambient influences and maintenance accessibility unlike other cooling units on the market. The entire casing is made of stainless steel. Only brand-named and renowned components are installed inside. Higher energy efficiency is reached due to reduced power loss and heat development of EC fans inside. All Rack Cooling Units are equipped with electronic touch controllers. The Rack Cooling Units are highly recommended for the use in applications with high ambient temperatures or heavily polluted ambient air.

The Rack Cooling Units can be equipped with several optional extras such as external temperature sensors, alarm kits, condensate pumps or other voltages. All Rack Cooling Units can be designed according to customer requirements.

#### **Standard advantages:**

- Rack Cooling Units available in four different solutions
  - 19" integrated RCU
  - Side-mounted RCU
  - Between-mounted RCU
  - Top-mounted RCU
- High cooling capacity yet space-saving
- Stainless steel, powder-coated
- EC fans and electronic controllers
- Ideal for rough environments
- Bleeder valve for airing
- Air filters
- Flow switch





### Optional Extras:

All solutions can be modified in size, design and equipment to customer requirements.

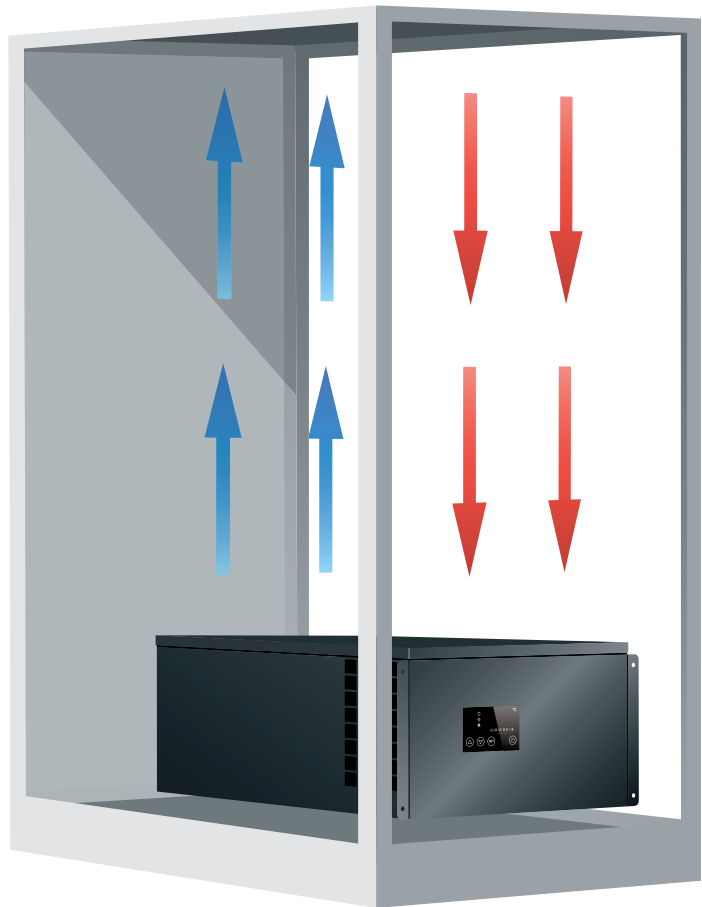
### Optional extras can be:

- Alarm Kit
- External temperature sensor
- Condensate pump
- Direct expansion
- Transfer duct for air flow out at front
- Voltages, other than 230 V

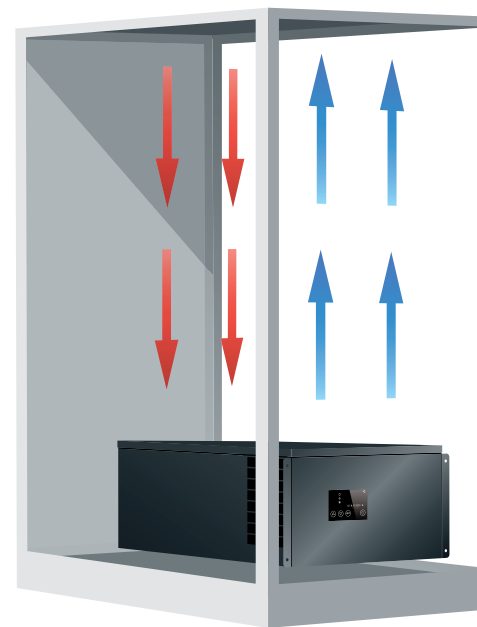
### Electronic Controller

The GIRSCHNER controller is operated via touch buttons and is equipped with a high-quality glass pane. Functions like power on / off, temperature setting (between 20-35 °C), status messages, and alarms are available by default. Alarms can be forwarded via a potential-free alarm contact. A connection via modbus or to a network for remote monitoring is available.

## > 19" INTEGRATED RACK COOLING UNITS



Standard Design



Reverse airflow with  
transfer duct application  
(optional extra)

Model		RCU-I 1045	RCU-I 1545	RCU-I 2045	RCU-I 2545	RCU-I 3052	RCU-I 3552	RCU-I 4052	RCU-I 4552	RCU-I 5059	RCU-I 6063	RCU-I 7063
Cooling Capacity, total	kW	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0
	BTU	3,400	5,200	7,000	9,000	10,500	12,000	13,700	15,400	17,100	20,500	23,900
Power Supply	V/Hz	230   50	231   50	232   50	233   50	234   50	235   50	236   50	237   50	238   50	240   50	242   50
Operating current	A	0.45	0.45	0.45	0.90	1.70	1.70	1.70	1.70	1.70	1.70	1.70
Power Input	W	40	40	40	80	175	175	175	175	175	175	175
Air flow <sup>1)</sup>	m <sup>3</sup> /h	65	100	130	160	190	225	265	305	340	425	515
Air outlet <sup>1)</sup>	°C	12.0	12.5	12.5	12.5	12.0	12.5	13.0	13.5	13.0	14.5	15.0
Water flow <sup>1)</sup>	m <sup>3</sup> /h	0.15	0.23	0.30	0.38	0.45	0.45	0.45	0.45	0.45	0.5	0.5
Operating pressure, max	bar	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Water connection	ø inch	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M
Condensate connection	ø inch	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"	2x 1/2"
Height Unit	HU	4.5	4.5	4.5	4.5	5.2	5.2	5.2	5.2	5.9	6.3	6.3
Dimensions (H/D/W)	mm	200x550x445	200x550x445	200x550x445	200x550x445	230x550x445	230x550x445	230x550x445	230x550x445	260x550x445	280x550x445	280x550x445
Weight <sup>1)</sup>	kg	22.5	22.5	22.5	23.3	24.5	24.5	24.5	24.5	28	28.5	28.5

Reference data: Water with 20% glycol | Water inlet 6°C | Water outlet 12°C | Air inlet 35°C | Humidity 50% r.F.

<sup>1)</sup> may vary per optional and configuration

Subject to change in specifications and design.

## ➤ SIDE-MOUNTED RACK COOLING UNITS

Model		RCU-S 10 L/R	RCU-S 15 L/R	RCU-S 20 L/R	RCU-S 25 L/R	RCU-S 30 L/R	RCU-S 35 L/R	RCU-S 40 L/R	RCU-S 45 L/R	RCU-S 50 L/R
Cooling Capacity, total	kW	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	BTU	3,400	5,200	7,000	9,000	10,500	12,000	13,700	15,400	17,100
Power Supply	V   Hz	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50
Fans	Qty	1	1	1	2	1	1	1	1	1
Operating current	A	0.45	0.45	0.45	0.90	1.7	1.7	1.7	1.7	1.7
Power Input	W	40	40	40	80	175	175	175	175	175
Air flow <sup>1)</sup>	m <sup>3</sup> /h	65	100	130	160	190	225	265	305	340
Air outlet <sup>1)</sup>	°C	12.0	12.5	12.5	12.5	12.0	12.5	13.0	13.5	13.0
Water flow <sup>1)</sup>	m <sup>3</sup> /h	0.15	0.23	0.30	0.38	0.45	0.45	0.45	0.45	0.45
Operating pressure, max	bar	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Water connection	ø inch	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M
Condensate connection	ø inch	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Dimensions (H/D/W) <sup>2)</sup>	mm	690x495x210	690x495x210	690x495x210	690x495x210	690x495x240	690x495x240	690x495x240	690x495x240	690x495x270
Weight <sup>1)</sup>	kg	29.0	29.0	29.0	29.0	30.0	30.0	30.0	30.0	30.5

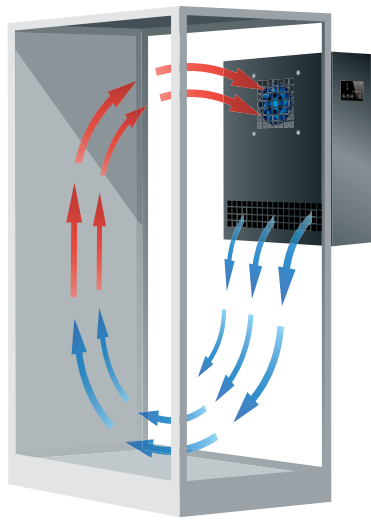
Reference data: Water with 20% glycol | Water inlet 6°C | Water outlet 12°C | Air inlet 35°C | Humidity 50% r.F.

<sup>1)</sup> may vary depending on option and configuration

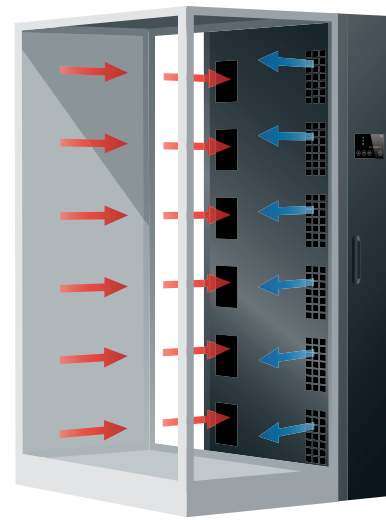
<sup>2)</sup> From RCU-S 80 L/R: Dimension information with Enoc System Carbinets. Dimensions vary depending on rack manufacturer. Carbinet/Casing to be supplied by customer or on request.

Subject to change in specifications and design.

From Model  
RCU-S 10 L/R to  
RCU-S 70 L/R

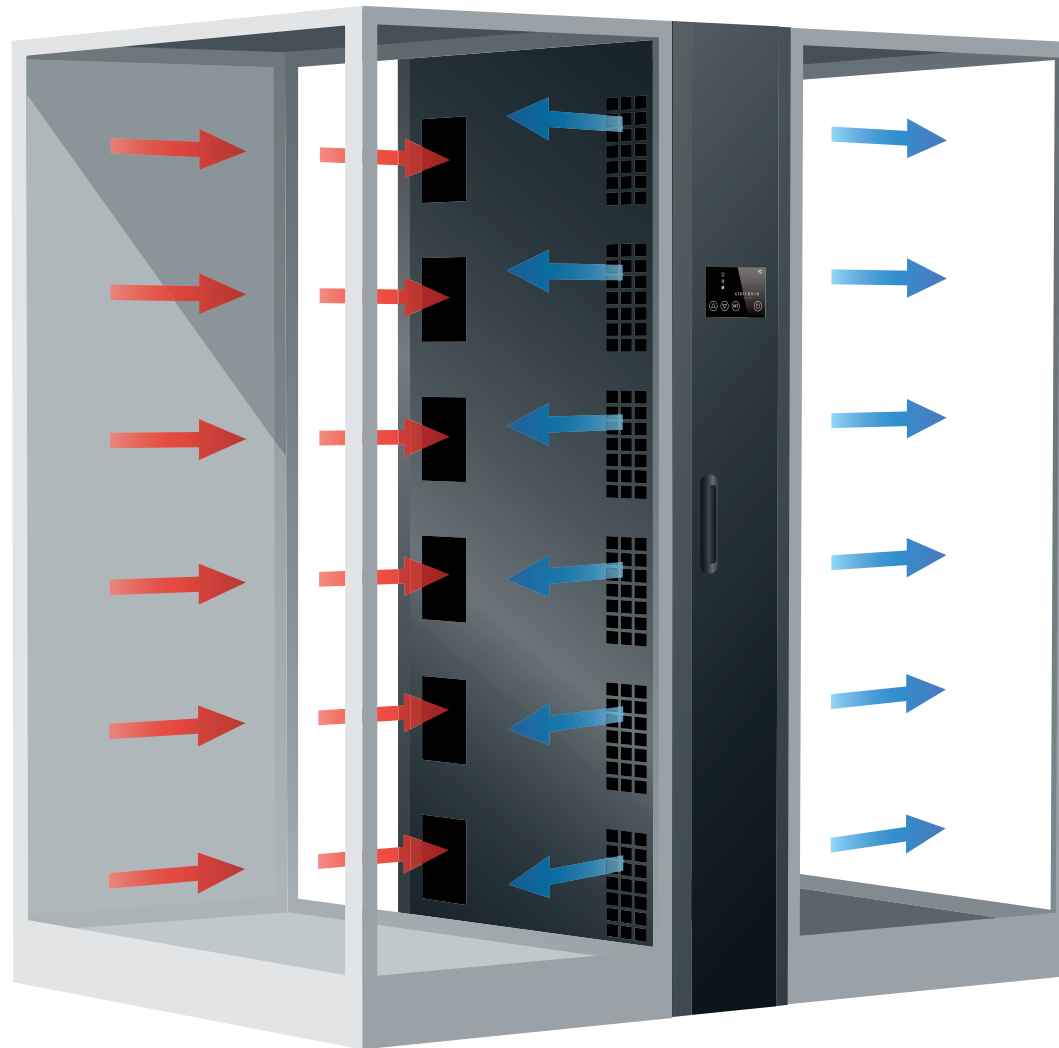


From Model  
RCU-S 80 L/R  
\*Model shown in Enoc System Carbinet



RCU-S 60 L/R	RCU-S 70 L/R	RCU-S 80 L/R	RCU-S 100 L/R	RCU-S 120 L/R	RCU-S 140 L/R	RCU-S 160 L/R	RCU-S 180 L/R	RCU-S 200 L/R	RCU-S 220 L/R	RCU-S 230 L/R
6.0	7.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	23.0
20,500	23,900	27,300	34,200	41,000	47,800	54,600	61,500	68,300	75,100	78,500
230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50
1	1	2	2	3	3	3	4	4	4	4
1.7	1.7	3.5	3.5	5.5	5.5	7.2	7.2	7.2	7.2	7.2
175	175	350	350	525	525	700	700	700	700	700
425	515	550	700	840	980	1,120	1,260	1,390	1,530	1,610
14.5	15.0	13.5	14.0	14.0	14.0	14	14.0	14.0	14.0	14.0
0.5	0.5	1.20	1.50	1.80	2.10	2.40	2.70	3.00	3.30	3.50
6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M	1/2"F   3/4"M
1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
690x495x290	690x495x290	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300
31.0	31.0	99.0	99.0	99.0	99.0	102.0	102.0	102.0	105.0	105.0

➤ BETWEEN-MOUNTED RACK COOLING UNITS





Model		RCU-B 80	RCU-B 100	RCU-B 100	RCU-B 140	RCU-B 160	RCU-B 180	RCU-B 200	RCU-B 220	RCU-B 230
Cooling Capacity, total	kW	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	23.0
	BTU	27,300	34,200	41,000	47,800	54,600	61,500	68,300	75,100	78,500
Power Supply	V/Hz	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50
Fans	Qty	2	2	3	3	3	4	4	4	4
Operating current	A	3.5	3.5	5.5	5.5	7.2	7.2	7.2	7.2	7.2
Power Input	W	350	350	525	525	700	700	700	700	700
Air flow <sup>1)</sup>	m <sup>3</sup> /h	550	700	840	980	1,120	1,260	1,390	1,530	1,610
Air outlet <sup>1)</sup>	°C	13.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Water flow <sup>1)</sup>	m <sup>3</sup> /h	1.20	1.50	1.80	2.10	2.40	2.70	3.00	3.30	3.50
Operating pressure, max	bar	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Water connection	ø inch	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M
Condensate connection	ø inch	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Dimensions (H/D/W) <sup>2)</sup>	mm	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300	2,000/800/300
Weight <sup>1)</sup>	kg	99.0	99.0	99.0	99.0	102.0	102.0	102.0	105.0	105.0

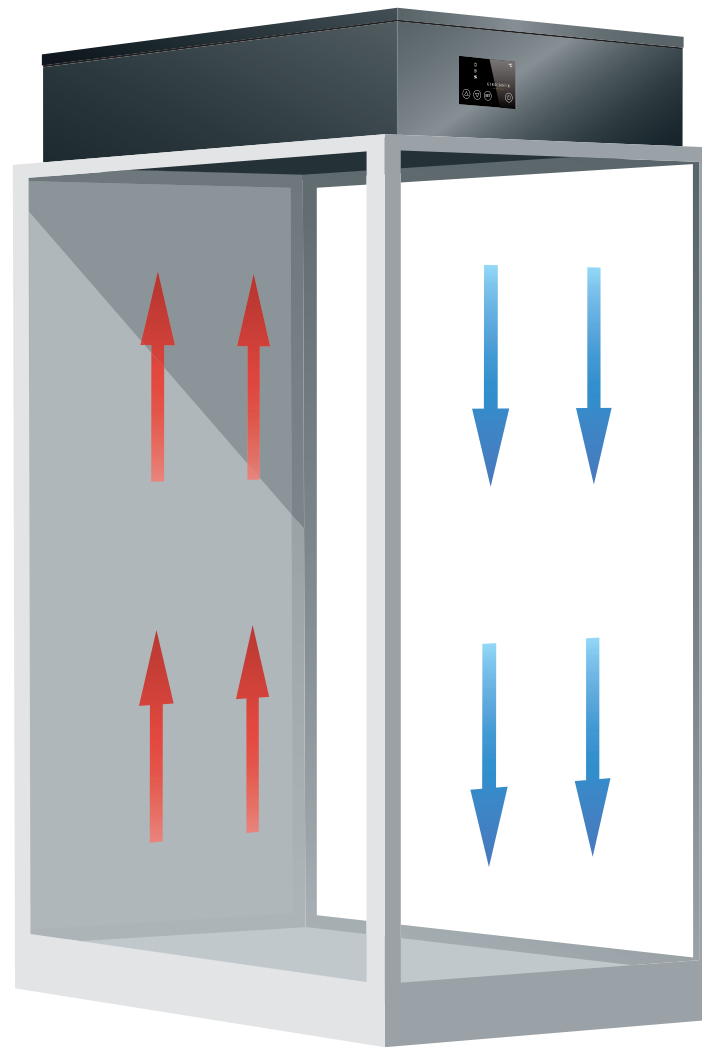
Reference data: Water with 20% glycol | Water inlet 6°C | Water outlet 12°C | Air inlet 35°C | Humidity 50% r.F.

<sup>1)</sup> may vary depending on option and configuration

<sup>2)</sup> Dimension information with Enoc System Carbinets. Dimensions vary depending on rack manufacturer. Carbinet/Casing to be supplied by customer or on request.

Subject to change in specifications and design.

## ➤ TOP-MOUNTED RACK COOLING UNITS



Model		RCU-T 10	RCU-T 15	RCU-T 20	RCU-T 25	RCU-T 30	RCU-T 35	RCU-T 40	RCU-T 45	RCU-T 50	RCU-T 60	RCU-T 70
Cooling Capacity, total	kW	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0
	BTU	3,400	5,200	7,000	9,000	10,500	12,000	13,700	15,400	17,100	20,500	23,900
Power Supply	V/Hz	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50	230   50
Operating current	A	0.45	0.45	0.45	0.90	1.70	1.70	1.70	1.70	1.70	1.70	1.70
Power Input	W	40	40	40	80	175	175	175	175	175	175	175
Air flow <sup>1)</sup>	m <sup>3</sup> /h	65	100	130	160	190	225	265	305	340	425	515
Air outlet <sup>1)</sup>	°C	12.0	12.5	12.5	12.5	12.0	12.5	13.0	13.5	13	14.5	15.0
Water flow <sup>1)</sup>	m <sup>3</sup> /h	0.15	0.23	0.30	0.38	0.45	0.45	0.45	0.45	0.45	0.5	0.5
Operating pressure, max	bar	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Water connection	ø inch	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M	1/2" F   3/4" M
Condensate connection 2x	ø inch	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Dimensions (H/D/W) <sup>2)</sup>	mm	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements
Weight <sup>2)</sup>	kg	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements	depending on customer requirements

Reference data: Water with 20% glycol | Water inlet 6°C | Water outlet 12°C | Air inlet 35°C | Humidity 50% r.F.

<sup>1)</sup> may vary depending on option and configuration

<sup>2)</sup> All top-mounted Rack Cooling Units will be designed by customers requirements

Subject to change in specifications and design.



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— MARINE —

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