

AIR HANDLER



 **COOLMAR®**
HVAC & R MARINE SYSTEM



compact
MAF-C series



slimline
MAF-SL series



crossflow
MAF-CF series



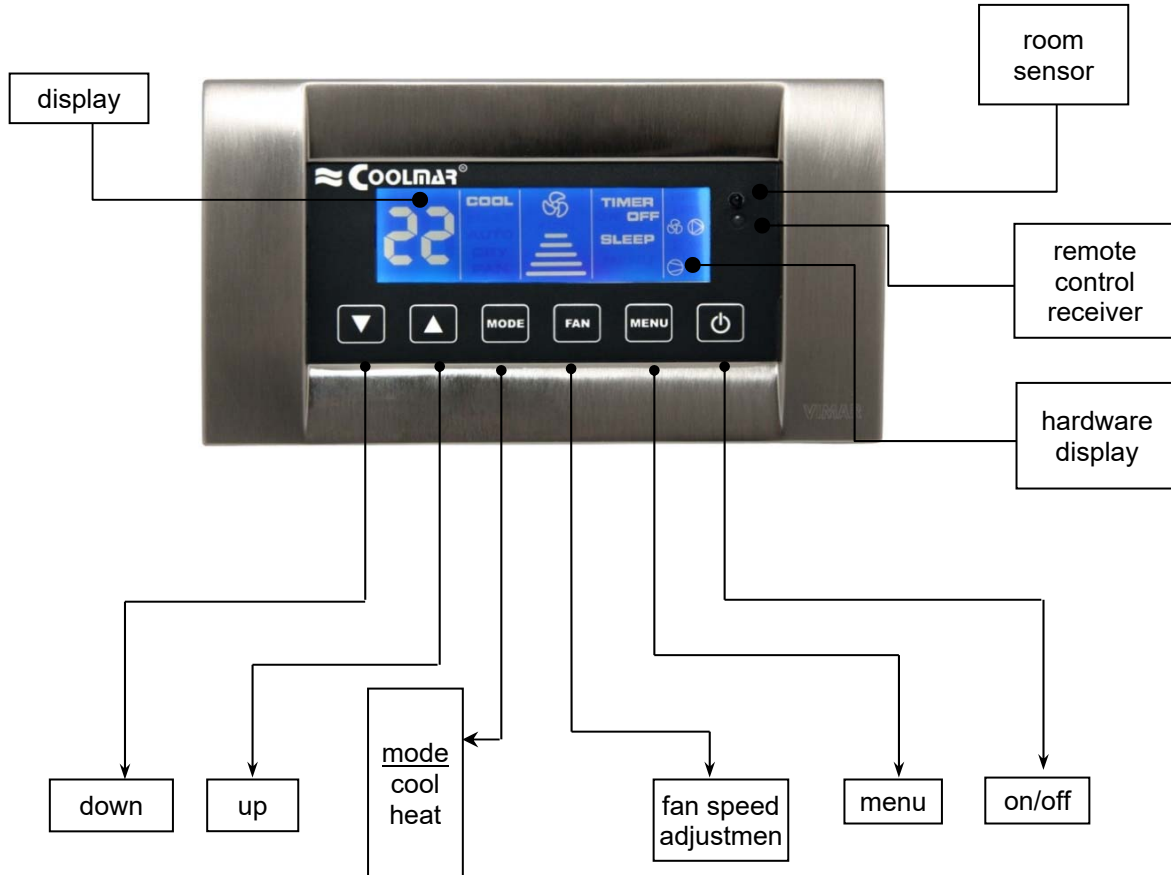
crossflow
MAF-GT series

MAF SERIES: Our Fancoil products of 4000 – 36000 Btu/h capacity are within the scope of our standard manufacturing processes. Special manufacturing for higher capacities is also possible. These products have three way motorized valve, digital Vimar compliant smart fixed control and silent fan motor systems. They can be easily assembled in confined spaces. The product range for our hidden roof and floor type models shall be extended next year.

CONTROL

COOLMAR marine air conditioning

CM-MPC20 LCD CONTROL BOARD



SYMBOL	DESCRIPTION
COOL	Operating at "COOLING" mode
HEAT	Operating at "HEATING" mode
AUTO	Operating at AUTO fan speed
—	Operating at low fan speed
≡	Operating at medium fan speed
≡≡	Operating at high fan speed
FAN AUTO	Operating at automatic fan speed
TIMER	Operating with timer function mode
⋮	Thermostat symbol
⋮	Fan symbol
MENU	Entering into program menu

FANCOIL VALVE

COOLMAR marine air conditioning

TECHNICAL SPECIFICATIONS

Description

Fan-coil control valves **series 2131, 3131, 4131** are used for controlling the flow of hot or cold water in heating and air conditioning systems. They are operated by electric actuators with max. stroke of 2.5 mm. such as electrothermic actuator **series 22C**.

As standard, the valves are available in the configuration with male thread in the following versions :

- 2-way **series 2131**
- 3-way **series 3131**
- 3-way with 4 ports **series 4131** with built-in by-pass.

Operation of the valve plug is by electrothermic actuator **series 22C**, available in the following versions:

- NO (normally open) 2-wire(Standard) or 4-wire (with auxiliary microswitch contact)
- NC (normally closed) 2-wire (Standard) or 4-wire (with auxiliary microswitch contact)

All actuators of the 22C series can easily be fastened to the valve body with a threaded ring nut. (M30x1.5).



3131

Three-way brass valve for fan-coils. ON/OFF operation with actuators series 22C. Max. operating temperature: 100°C. Disc stroke: 2.5 mm. Can be used both as mixing and diverting valve, except for version 31311 which can only be used as diverting valve. Nominal pressure: 16 bar.

The Kvs and by-pass Kvs values given in the table alongside refer to the valve used for diverting service.

Type	Part number	Dn	Kvs	Kvs By-pass	Weight (g)
3131	313112	1/2" MM	1,7	1,3	200
3131	313134	3/4" MM	2,8	1,8	250
3131	31311	1" MM	4,5	3,1	550



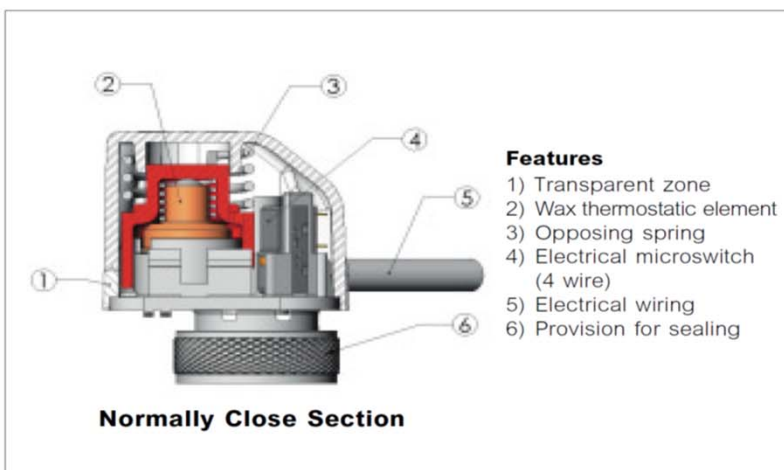
4131

Three-way brass valve with 4 connections for fan-coils. ON/OFF operation with actuators series 22C. Max. operating temperature: 100°C. Disc stroke: 2.5 mm. Can be used both as mixing and diverting valve. Nominal pressure: 16 bar.

The Kvs and by-pass Kvs values given in the table alongside refer to the valve used for diverting service.

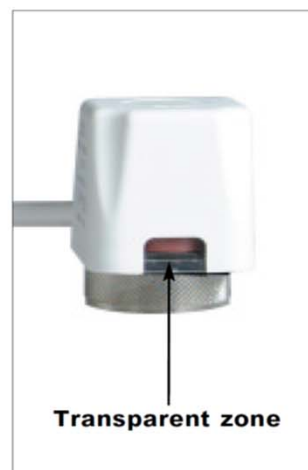
Type	Part number	Dn	Kvs	Kvs By-pass	Weight (g)
4131	413112	1/2" MM	1,7	1,3	350
4131	413134	3/4" MM	2,8	1,8	400

Electrothermic actuator 22C

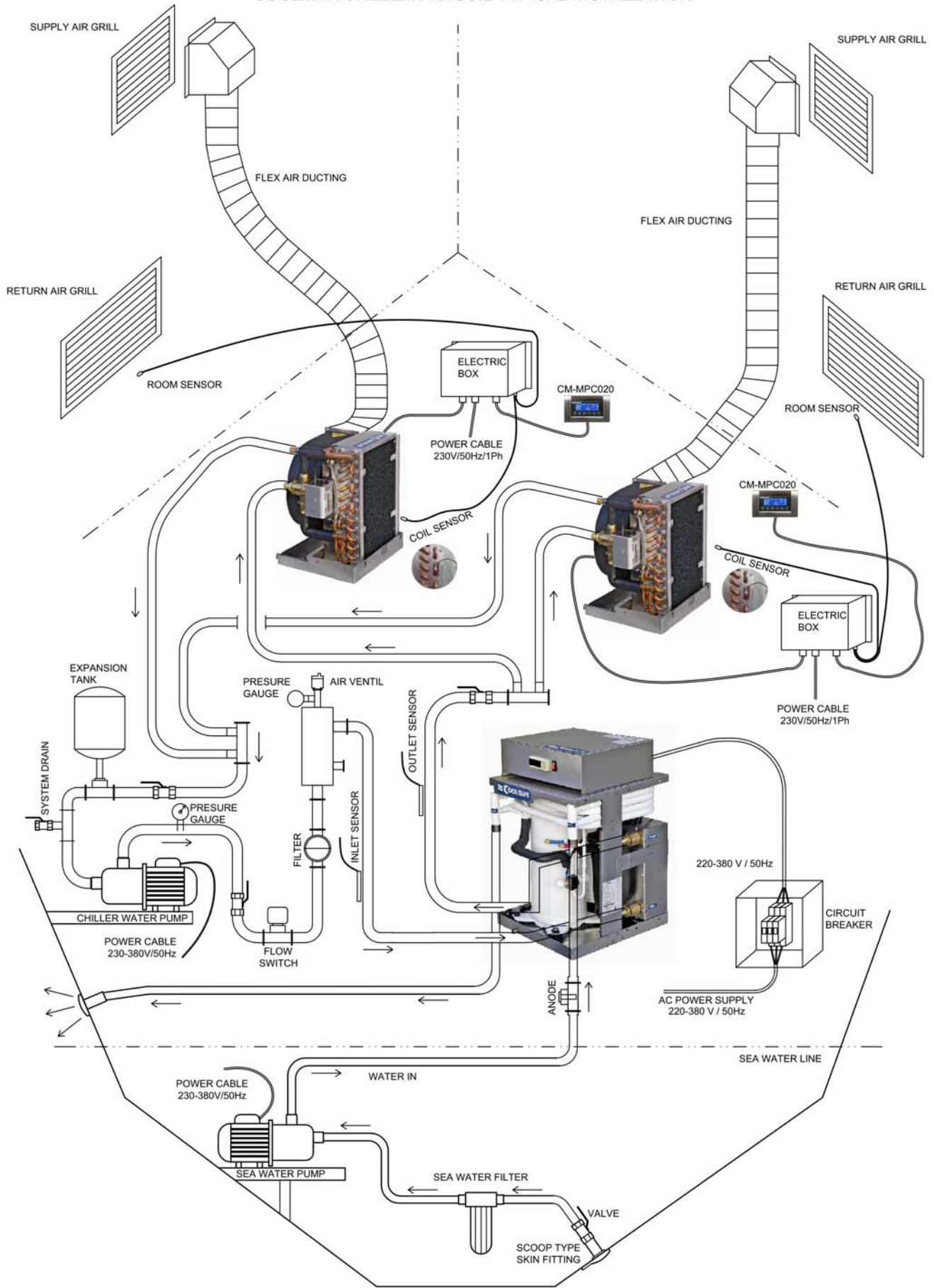


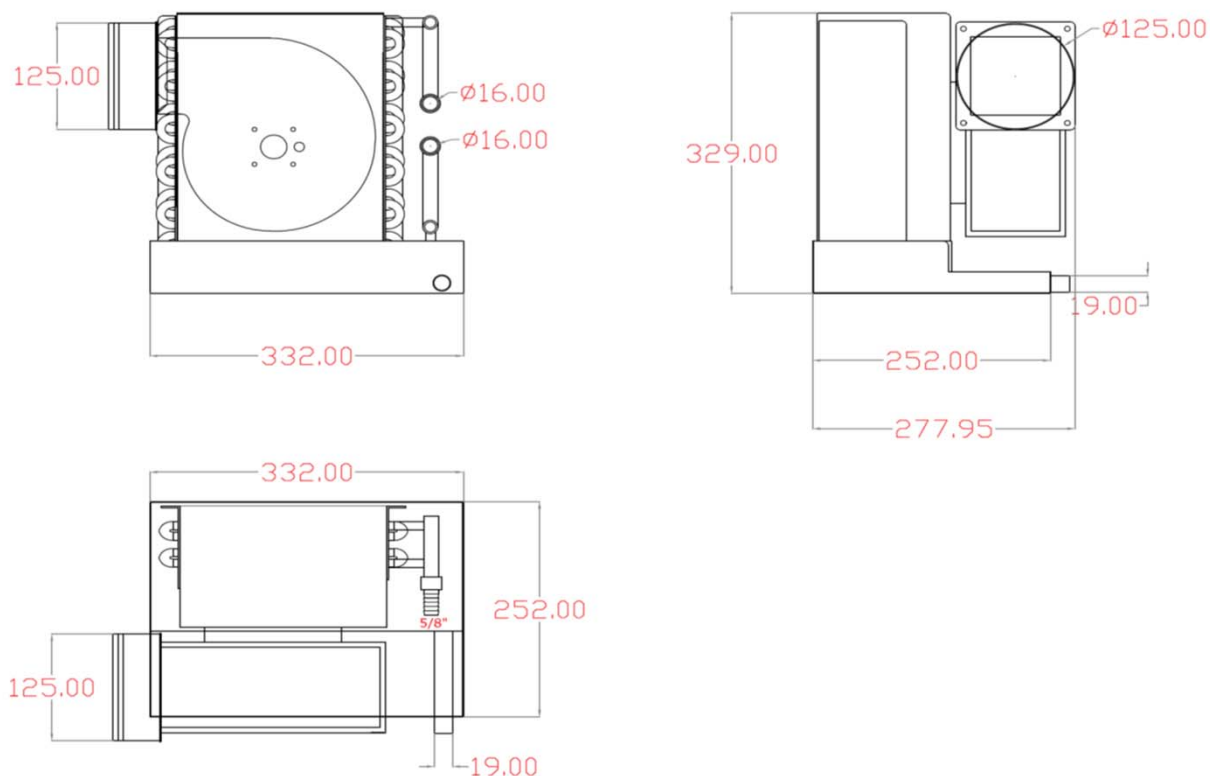
Features

- 1) Transparent zone
- 2) Wax thermostatic element
- 3) Opposing spring
- 4) Electrical microswitch (4 wire)
- 5) Electrical wiring
- 6) Provision for sealing



COOLMAR CHILLER FANCOIL TYPICAL INSTALLATION





TECHNICAL SPECIFICATIONS

MODEL			MAF008
SERIAL NUMBER			FC15010108xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		7.500
Capaciyt	Kcal/h		1.894
Heater Capacity	KW		-----
Power	W		90
F.L.A.	A		0,4
DIMENTIONS (mm)	Height		329
	Lenght valve		350
	Lenght w/o valve		332
	Width		278
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		9
Volumetric Fluid Flow	m3/h		0,4
Pressure Drop Air	kPa		29
Pressure Drop Fluid	kPa		15
Duct Diameter	mm		125
Air Flow	m3/h		330
Pipe Dimention	Water Pipe	Inch (mm)	5/8" (16)
	Drainage	Inch (mm)	3/4" (19)

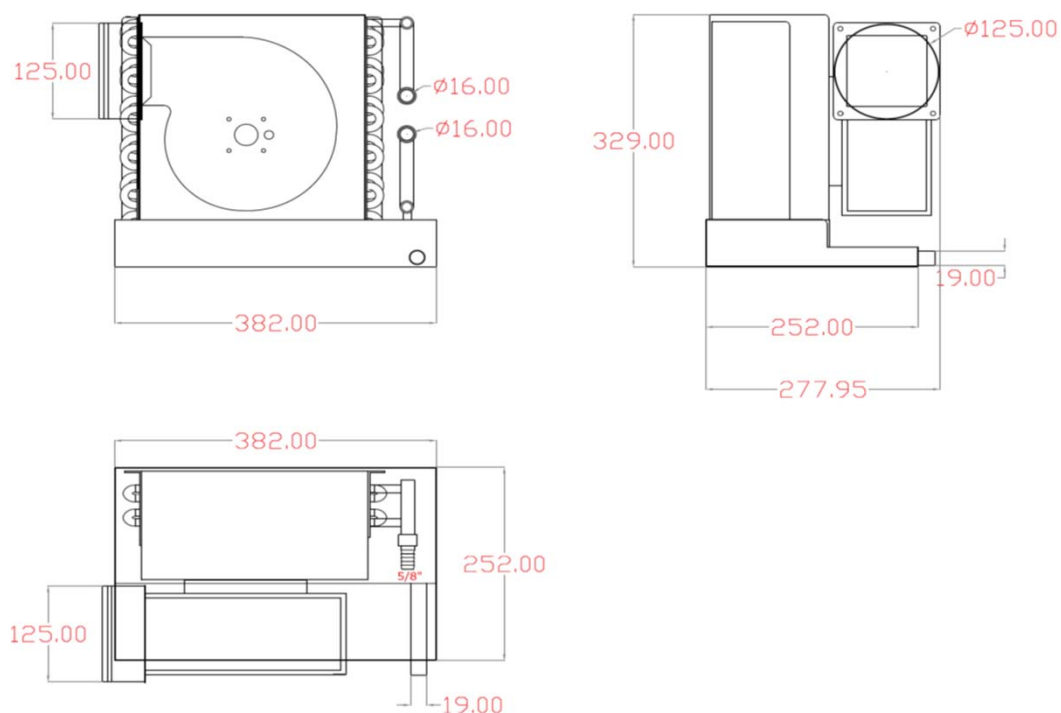
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF010
SERIAL NUMBER			FC15010110xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		9.500
Capaciyt	Kcal/h		2.399
Heater Capacity	KW		-----
Power	W		115
F.L.A.	A		0,5
DIMENTIONS (mm)	Height		329
	Lenght valve		420
	Lenght w/o valve		382
	Width		278
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		10
Volumetric Fluid Flow	m3/h		0,5
Pressure Drop Air	kPa		26
Pressure Drop Fluid	kPa		25
Duct Diameter	mm		125
Air Flow	m3/h		375
Pipe Dimention	Water Pipe	inch (mm)	5/8" (16)
	Drainage	inch (mm)	3/4" (19)

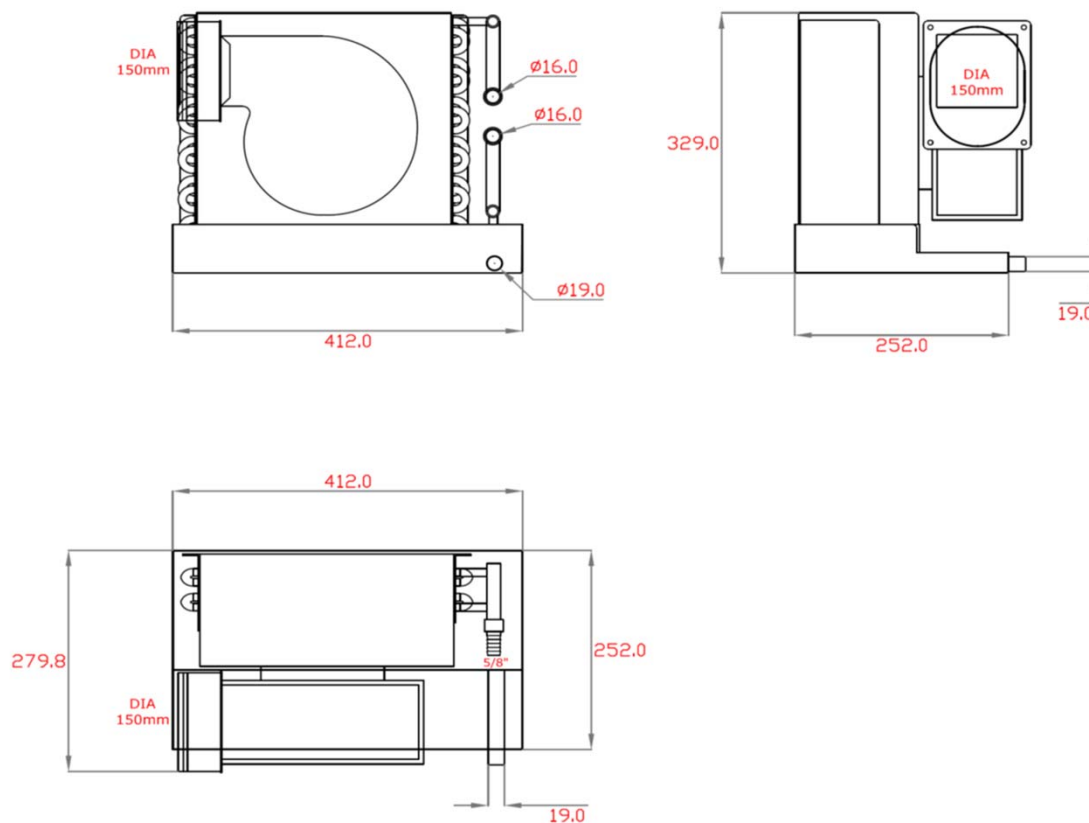
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF012
SERIAL NUMBER			FC15010112xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		12.500
Capaciyt	Kcal/h		3.157
Heater Capacity	KW		-----
Power	W		180
F.L.A.	A		0,7
DIMENTIONS (mm)	Height		329
	Lenght valve		432
	Lenght w/o valve		412
	Width		280
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		13
Volumetric Fluid Flow	m3/h		0,5
Pressure Drop Air	kPa		37
Pressure Drop Fluid	kPa		13
Duct Diameter	mm		150
Air Flow	m3/h		480
Pipe Dimention	Water Pipe	inch (mm)	5/8" (16)
	Drainage	inch (mm)	3/4" (19)

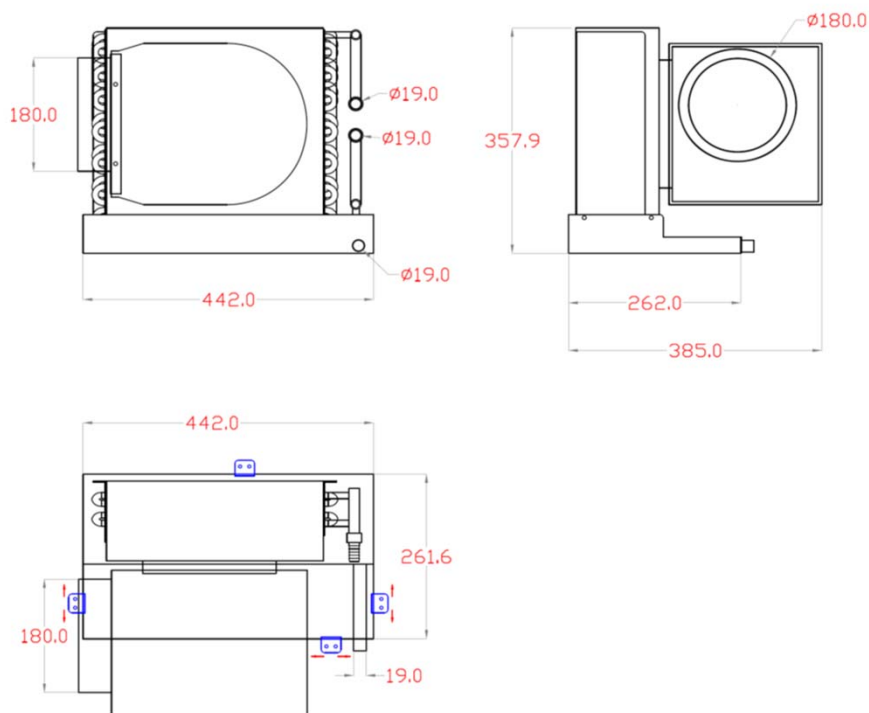
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF016
SERIAL NUMBER			FC15010116xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		16.000
Capaciyt	Kcal/h		4.040
Heater Capacity	KW		-----
Power	W		242
F.L.A.	A		1,1
DIMENTIONS (mm)	Height		360
	Lenght valve		452
	Lenght w/o valve		442
	Width		385
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		14
Volumetric Fluid Flow	m3/h		0,7
Pressure Drop Air	kPa		46
Pressure Drop Fluid	kPa		25
Duct Diameter	mm		180
Air Flow	m3/h		700
Pipe Dimention	Water Pipe	inch (mm)	3/4" (19)
	Drainage	inch (mm)	3/4" (19)

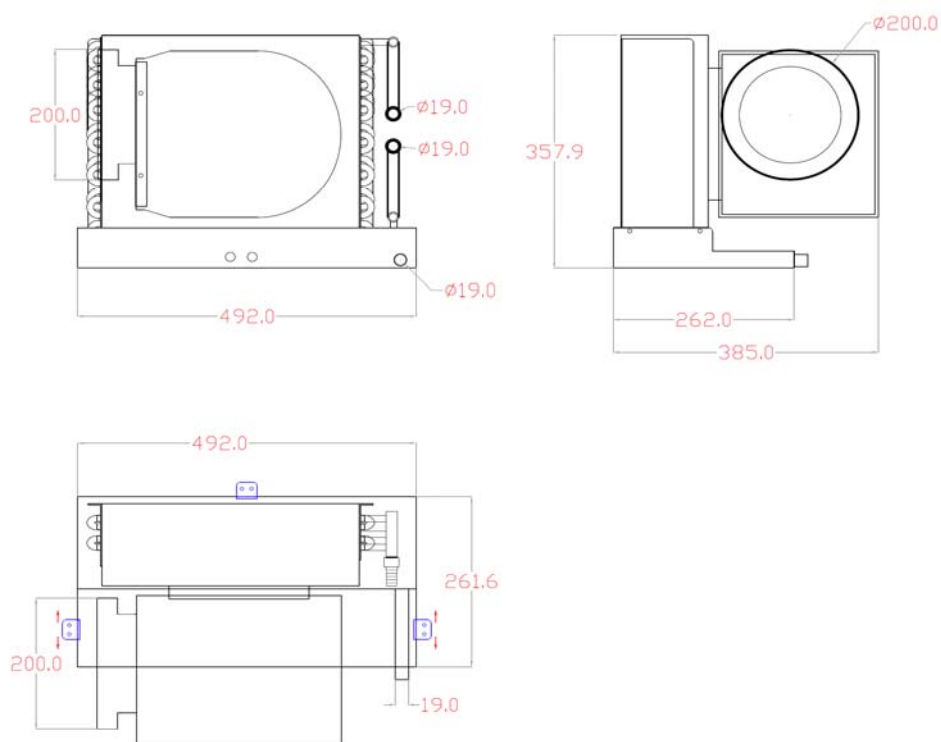
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL		MAF020	
SERIAL NUMBER		FC15010120xxx	
Power Supply		220-240V / 1Ph / 50Hz	
Brand		COOLMAR	
Control		CM-MPC20 LCD	
Capacity	Btu/h	20.500	
Capaciyt	Kcal/h	5.177	
Heater Capacity	KW	-----	
Power	W	355	
F.L.A.	A	1,55	
DIMENTIONS (mm)		Height	360
		Lenght valve	520
		Lenght w/o valve	492
		Width	385
Body Material		304 Cr-Ni	
Paint Coating		Electrostatic Powder Coating	
Weight	Kg	15	
Volumetric Fluid Flow	m3/h	0,9	
Pressure Drop Air	kPa	55	
Pressure Drop Fluid	kPa	35	
Duct Diameter	mm	200	
Air Flow	m3/h	850	
Pipe Dimention	Water Pipe	inch (mm)	3/4" (19)
	Drainage	inch (mm)	3/4" (19)

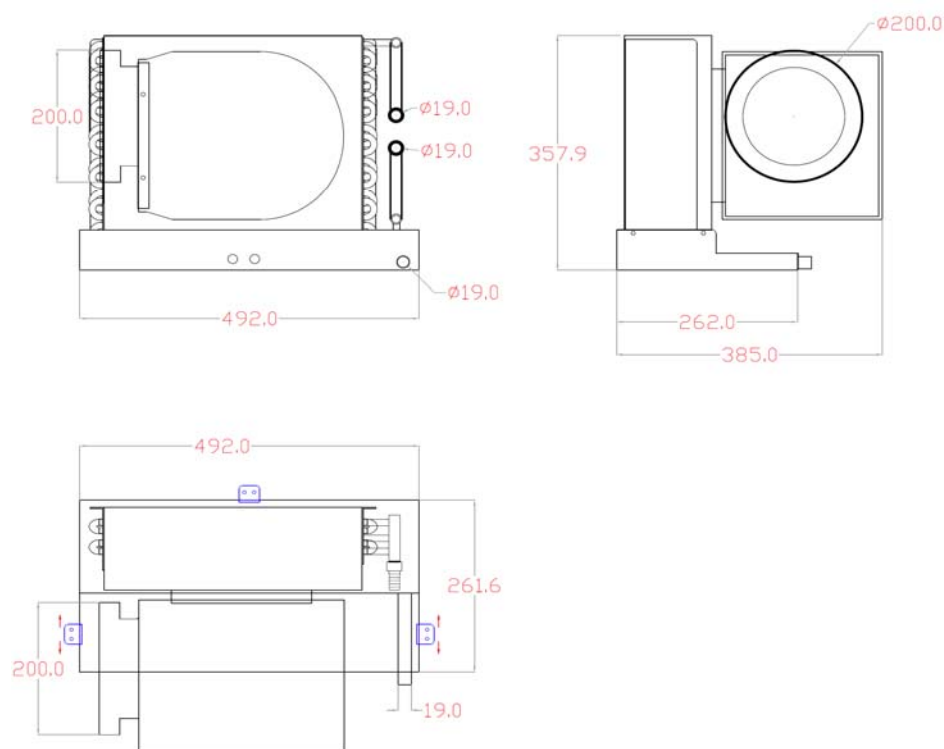
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF024
SERIAL NUMBER			FC15010124xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		24.000
Capaciyt	Kcal/h		6.061
Heater Capacity	KW		-----
Power	W		355
F.L.A.	A		1,55
DIMENTIONS (mm)	Height		360
	Lenght valve		520
	Lenght w/o valve		492
	Width		385
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		20
Volumetric Fluid Flow	m3/h		1,25
Pressure Drop Air	kPa		100
Pressure Drop Fluid	kPa		22
Duct Diameter	mm		200
Air Flow	m3/h		1000
Pipe Dimention	Water Pipe	inch (mm)	3/4" (19)
	Drainage	inch (mm)	3/4" (19)

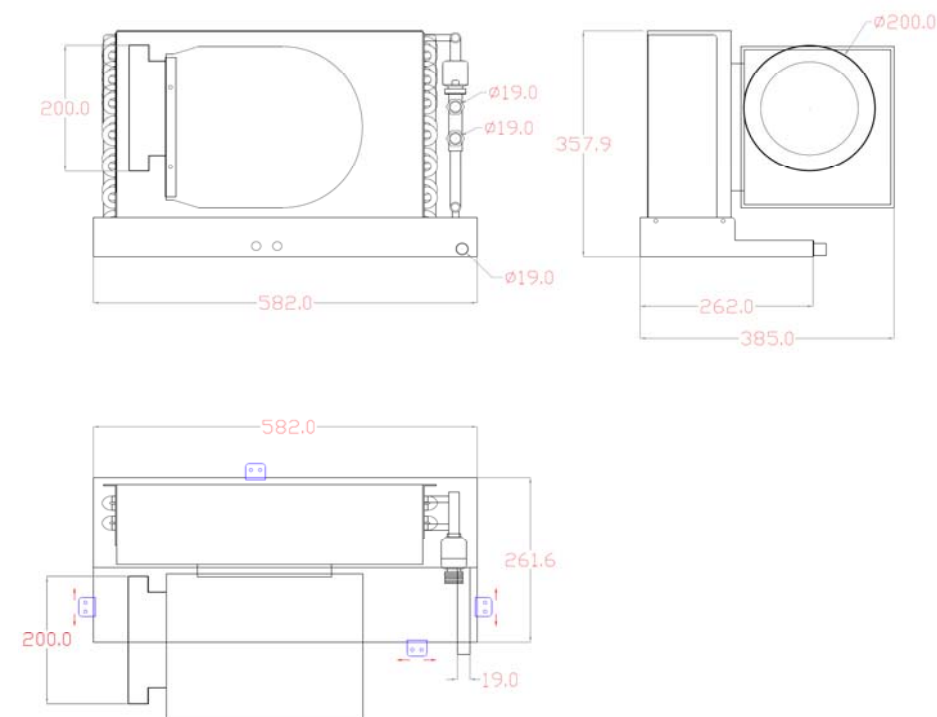
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF028
SERIAL NUMBER			FC15010128xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		28.000
Capaciyt	Kcal/h		7.071
Heater Capacity	KW		-----
Power	W		355
F.L.A.	A		1,55
DIMENTIONS (mm)		Height	358
		Lenght valve	600
		Lenght w/o valve	582
		Width	385
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		20
Volumetric Fluid Flow	m3/h		1,5
Pressure Drop Air	kPa		70
Pressure Drop Fluid	kPa		40
Duct Diameter	mm		200
Air Flow	m3/h		1000
Pipe Dimention	Water Pipe	inch (mm)	3/4" (19)
	Drainage	inch (mm)	3/4" (19)

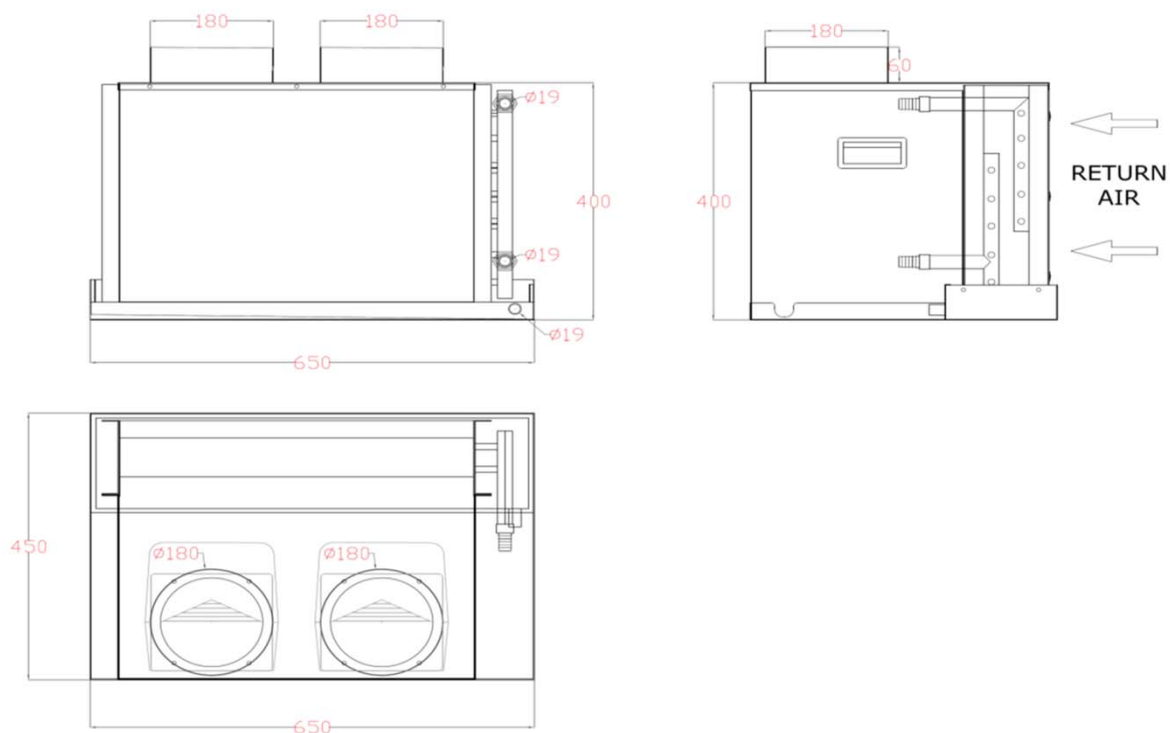
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF032
SERIAL NUMBER			FC15010132xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		32.000
Capaciyt	Kcal/h		8.081
Heater Capacity	KW		-----
Power	W		480
F.L.A.	A		1,8
DIMENTIONS (mm)	Height		400
	Lenght valve		650
	Lenght w/o valve		650
	Width		450
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		26
Volumetric Fluid Flow	m3/h		1,9
Pressure Drop Air	kPa		100
Pressure Drop Fluid	kPa		43
Duct Diameter	mm		2X180
Air Flow	m3/h		1300
Pipe Dimention	Water Pipe	inch (mm)	3/4" (19)
	Drainage	inch (mm)	3/4" (19)

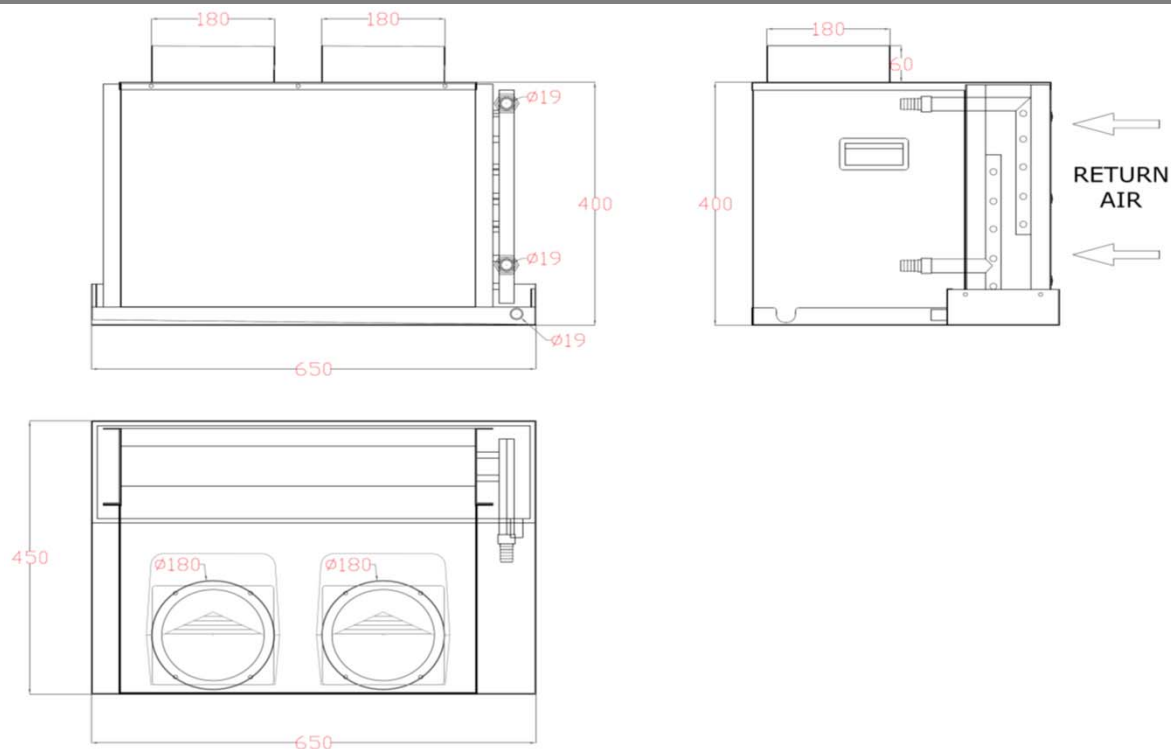
Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%



TECHNICAL SPECIFICATIONS

MODEL			MAF036
SERIAL NUMBER			FC15010136xxx
Power Supply			220-240V / 1Ph / 50Hz
Brand			COOLMAR
Control			CM-MPC20 LCD
Capacity	Btu/h		36.000
Capaciyt	Kcal/h		9.091
Heater Capacity	KW		-----
Power	W		560
F.L.A.	A		2,6
DIMENTIONS (mm)		Height	400
		Lenght valve	650
		Lenght w/o valve	650
		Width	450
Body Material			304 Cr-Ni
Paint Coating			Electrostatic Powder Coating
Weight	Kg		28
Volumetric Fluid Flow	m3/h		1,9
Pressure Drop Air	kPa		100
Pressure Drop Fluid	kPa		43
Duct Diameter	mm		2X180
Air Flow	m3/h		1500
Pipe Dimention	Water Pipe	inch (mm)	3/4" (19)
	Drainage	inch (mm)	3/4" (19)

Capacity and electrical data operating conditions

Inlet Fluid Temperature : 5°C

Outlet Fluid Temperature : 10°C

All dimensions +- 0,35" / 9mm

All weigths +- 10%

