

# Installation, operation and maintenance manual

Cooling units for door or wall mounting



 $\epsilon$ 







# **ATTENTION!**

Read carefully and completely before installation. Keep the manual until unit decommissioning.



1. Cooling unit application	3
1.1 Intended use	3
1.2 Improper use	3
2. Supply	3
3. Updates	3
4. Technical features	4
5. Transport and handling	4
6. Installation	4
7. Condensate discharge hose	4
8. Electrical connection	4
8.1 Safety	4
8.2 Two-phase models with autotransformer	4
8.3 Alarm pins	5
9. First start up and adjustment	5
9.1 Electronic thermostat	5
9.1.1 Setting the set point	5
10. Maintenance	5
11. Technical information	5
11.1 Operating principle	5
11.2 Safety devices	6
11.3 Disposal	6
12. Troubleshooting	6
13. Pictograms	7
14. Technical data	9
15. Performances	10
16. Dimensions	12
17. Spare parts	14
18. Wiring diagram	17
19. Guarantee	18
20. Assistance service	18



# 1. Cooling unit application

The **EGO** series cooling units described in this manualare designed and built to cool the air inside electrical switchboards in order to protect components sensitive to thermal sh ock. They also provide IP54 ingress protection against contaminating and aggressive/corrosive substances.

### 1.1 Intended use

The **EGO** cooling unit must be used:

- For cooling electrical switchboards
- Within the temperature and voltage-supply limits indicated on the data plate (**F.06**, **pos. 5**) of the cooling unit and also given in table **F.14** of this manual
- Away from any sources of heat or hot air
- In an environment with adequate air exchange
- On switchboards with IP54 rating or higher. If these requirements are not respected, excessive condensation build-up may occur. As a consequence, cable entry points or any other openings in the cabinet should be well sealed. To ensure correct operation, the specified scheduled maintenance operations (see section **10**) must be performed regularly. Incorrect or careless use may cause irreparable damage to the cooling unit and may lead to hazardous situations.

### 1.2 Improper use

The **EGO** cooling unit must NOT be used:

- Under any condition except those described in section 1.1
- Outdoors, with excessive concentration of solid contaminants and/or aggressive chemical contaminants
- With the doors of the electrical switchboard open, or installed on enclosures without a minimum IP54 rating, due to excessive condensate formation
- With the temperature set below the dew point of the ambient air
- In explosive atmospheres, or those with aggressive chemicals or high concentrations of dust or oil suspended in the air
- In potentially inflammable atmospheres
- Exposed to the elements
- With the condensate line closed or blocked off, or in any case in which the condensate is not allowed to run off freely
- Without the front panel
- With the cooling unit intake and outlet air flows obstructed by walls or objects that are too close To this end, check the minimum distances as regards the external air flow (figure **F.02**), and make sure there are no obstructions caused by the switchboard components as regards the internal air flow.

### 2. Supply

Inside the packaging you will find:

- 1 Cooling unit
- 1 Electronic thermostat
- 1 Installation, operation and maintenance manual
- 1 CE conformity certificate
- 1 Test certificate
- 1 A4 drilling template (F.06, p.4)
- 1 Installation kit containing (F.06):
- Flanged nuts (p.1)
- Flat washers (p.2)
- Grub screws (p.3)
- 2 Connectors, one for the power supply and one for the signals (F.5)
- 1 Self-adhesive sealing strip (F.06, p.4)
- 1 Flexible hose for condensate drainage 12x2x100 mm (F.10) Lifting eyebolts (F.03)

### 3. Updates

ITRack S.r.l. reserves the right to update its products and the corresponding manuals based on technical progress without prior notice. Please note that at the time of sale, this manual and the corresponding product may not be considered inadequate only because they are not subject to the above-mentioned updates.



# 4. Technical features

(figures F. 14 and F. 15)

The unit's technical features and CE marking are given on the data plate attached to the cooling unit.

# 5. Transport and handling

During transport and storage the cooling unit must be kept in a vertical position, as indicated on the packaging (figure **F.01**), and must not be exposed to temperatures above 70°C or below -20°C. Upon receipt, check that the packaging has not been damaged during shipping. To lift the cooling unit in a safe manner the two supplied M6 eyebolts may be used; these should be fitted into the threaded inserts located on the top of the cooling unit (figure **F.03**).

### 6. Installation

Installation of the unit should only be performed by qualified and authorised personnel. The cooling unit must be installed with the enclosure air intake hole in the highest possible point. Ensure the fixing elements and couplings will not interfere with the equipment inside the enclosure itself. If the cooling unit is to be installed on a door, make sure the door can take the weight. The unit must be installed in the vertical position indicated. Maximum permitted deviation from the vertical is 2°. Disconnect power before starting any work inside the switchboard. The cooling unit must be installed on the outside of the electrical switchboard. If semi-recessed installation is required (fig. **F.06**), the corresponding accessory must be used. This is available upon request as an optional extra. Depending on the installation option, drill the holes and make the necessary cuts in the switchboard (figure **F.06**) using the drilling template supplied with the unit. Fit the sealing strip on the cooling unit on the side connected to the enclosure and follow the assembly diagram (figure **F.06**).

### 7. Condensate discharge hose

The condensate which, depending on the ambient temperature and humidity conditions, forms on the heat exchanger which cools the enclosure air, is not a malfunction but a normal phenomenon of the cooling unit. In models **EGO04-EGO06**, this condensate is taken outside through a hose at the bottom of the cooling unit. The transparent plastic hose, supplied with the unit, must be connected to this outlet (figure **F.10**). This plastic hose can be connected to another one with the same diameter to carry the condensate to another point, allowing it to be discharged where there can be no slipping hazard for personnel. In this case, make sure the condensate flows without any hindrance. Avoid horizontal lengths of more than 0.5 metres, uphill sections and the accidental formation of traps (figure **F.07**). The end of the condensate discharge hose must always be free and not underwater, so never place the end of the discharge hose inside a condensate collection container (figure **F.08**). Models **EGO08** to **EGO40** are fitted with a condensate evaporation device which operates via the hot (outlet) tube of the compressor (Fig. **F.13**). These models nevertheless have an emergency condensate outlet which can be carried outside as described above. If the cooling unit is used with the doors of the enclosure open, excessive quantities of condensate will form and this is an unauthorised condition of use (figure **F.09**). We suggest using a position switch on the door connected to the cooling unit's digital input to stop the unit if the door is opened. (See section **8.3**)

# 8. Electrical connection

### 8.1 Safety

Warning! Electrical connections must only be performed by specialised and authorised personnel. Switch power off to the enclosure before making the connection. Check that there is no power to the switchboard and that the supply voltage corresponds to the characteristics given on the cooling unit's data plate. The power supply must be protected using appropriate time-delay fuses (type T) or circuit breakers with K-curve, per the indications given in table F.14. Connect the power-supply cables to the black connector included with the unit, following the indications given in figure F.04. Disconnect the cooling unit before performing testing on the enclosure.

# 8.2 Two-phase models with autotransformer (EGO06G / EGO08G / EGO10G / EGO12G /EGO16G)

These two-phase models can operate with two different supply voltages: 440V 2~50-60Hz and 400V 2~50-60Hz. If the available power supply is 440V 2~50-60Hz, connect terminals L1(0) and L3(440) on the terminal board (figure **F. 04**). If, on the other hand, the available supply voltage is 400V 2~50-60Hz, connect terminals L1(0) and L2(400) on the same terminal board.



# (EGO10K / EGO16K)

These two-phase models can operate with two different supply voltages: 460V 2~50-60Hz and 400V 2~50-60Hz. If the available power supply is 460V 2~50-60Hz, connect terminals L1(0) and L3(460) on the terminal board (figure **F. 04**). If, on the other hand, the available supply voltage is 400V 2~50-60Hz, connect terminals L1(0) and L2(400) on the same terminal board.

### 8.3 Alarm pins

(figure **F.05**)

All input/output signals from the electronic control unit are managed via the grey pin:

- Alarm signals from the electronic control unit can be taken from terminals 1 and 2
- A digital input for voltage free contacts is available on terminals 3 and 4

The cooling unit's electronic control unit is programmed to generate an alarm when the digital input is open. When the digital input is not being used, it is therefore necessary to bridge it by connecting terminals 3 and 4 of the grey pin together with a cable.

### 9. First start up and adjustment

If, prior to installation, the cooling unit was left in an incorrect position (figure **F.1**), wait at least 8 hours before switching it on. Otherwise, 30 minutes is more than enough time for the oil to return to the compressor, after which the cooling unit can be powered up. The enclosure air intake fan starts working immediately, making the temperature inside the enclosure even. If this temperature exceeds 2K above the set point, both the compressor and external air fan will turn on, causing the cooling cycle to start. This then stops when the inside temperature reaches the set point. The thermostat is factory-set to 35°C. The set point can be set to between 20°C and 50°C. In order to save energy and minimise the production of condensate, it is nevertheless recommended it not be set below 30 °C.

### 9.1 Electronic thermostat

# 9.1.1 Setting the set point

The cooling unit is fitted with a TX050 electronic thermostat. See the specific manual C17000199 included with the unit for the functions of this thermostat and how to program it. ITRack S.r.l. shall be in no way heldliable for any alterations the customer may make to the default parameters if they have not received authorisation to do so.

# 10. Maintenance

Warning! Caution! Before embarking on any maintenance work, cut the current to the enclosure.

Job	Frequency
Check the external air heat exchanger and clean if necessary.	Every 3 months
Check effectiveness of the condensate discharge.	Every 3 months
Check the fans for any overheating or excessive vibrations.	Every 6 months

The cooling unit is the low maintenance type, sono filter change is required. The only maintenance required is for the internal components, which should be checked regularly, as indicated in the table given in this section, and cleaned with compressed air at a maximum pressure of 4 bar (figure **F.11**). Any repairs that may need doing must only be performed by specialised and authorized personnel.

### 11. Technical information

# 11.1 Operating principle

The cooling unit for electrical switchboard enclosures works on the basis of a refrigeration circuit consisting of four main components: compressor, evaporator, condenser and expansion device (figure **F.12**). The circuit is hermetically sealed and the refrigerant circulates inside it. The refrigerant used is R134a, chlorine free and harmless for the ozone layer. The unit is divided into two hermetically separated sections where the ambient air and enclosure air do not come into contact with one another and are treated separately. The compressor (CP) compresses the refrigerant, taking it to a high pressure and high temperature. The compressor then pushes the refrigerant through a heat-exchanger coil, called the condenser (C), where it is cooled by ambient air, thus passing from the gas to the liquid state. In the liquid state it then passes through the expansion valve (EXP), vaporising at the outlet as it is now at a much lower pressure. It is then received by the heat exchanger coil, called the evaporator (E), by means of which it absorbs heat from the enclosure air and passes from a liquid state to gas. The enclosure is cooled down in this manner. The gaseous refrigerant is then drawn back into the compressor and this cycle is repeated.



# 11.2 Safety devices.

The refrigeration circuit is fitted with a high-pressure safety switch P (figure **F.12**) set to the maximum working pressure of the cooling unit. If this threshold is exceeded, the pressure switch stops the compressor working. It resets automatically. The fans and compressor have an (internal or external) thermal cut-out switch that stops them in the case of overheating.

# 11.3 Disposal

**Caution! The cooling unit contains R134a refrigerant and small quantities of lubricating oil.** These are polluting substances and must not be dumped. Replacement, repairs and final disposal must be performed by experts.

### NOTE

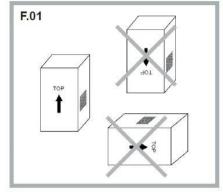
Keep the unit's documentation in a safe, dry place.

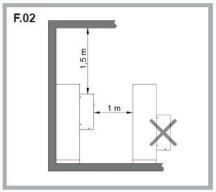
# 12. Troubleshooting

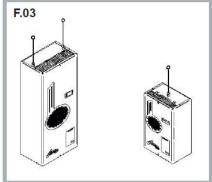
Malfunction	Conditions	Causes	Remedy				
It fails to cool	The internal fan works, the external fan and compressor do not work.	The temperature inside the enclosure is lower than what is set on the adjustment thermostat.	This is not a malfunction of the cooling unit.  To verify functioning when testing, lower the thermostat setting unit the compressor and external fan start working and then reset the thermostat.				
		The adjustment (or antifreeze) thermostat has failed	Change the adjustment (or antifreeze) thermostat				
	No component works	No electricity getting to the unit.	This is not a malfunction of the cooling unit.  Make sure the power cable has been connected well to the terminals.  Check that the cubicle doors and switches are closed				
	Compressor, external and internal fan work	Cooling unit empty of fluid	Call a refrigeration expert or the Manufacturer's Technical Assistance Service				
		Compressor mechanical failure	Call a refrigeration expert or the Manufacturer's Technical Assist- ance Service				
	Compressor and external fan work, internal fan	Internal fan capacitor failed	Change the internal fan's capacitor				
	does not work	Internal fan failed	Change the internal fan				
	External and internal fan work, compressor does not work	Compressor's amperometric protector failed (external to the compressor, where present)	Change the amperometric protector				
		Relay or PTC for compressor starting failed	Change the relay or PTC for compressor starting				
		Capacitor for compressor starting failed (where present)	Change the capacitor for compressor starting				
		Compressor motor electrical failure	Call a refrigeration expert or the Manufacturer's Technical Assis ance Service				
		High pressure safety switch failed	Call a refrigeration expert or the Manufacturer's Technical Assist- ance Service				
		Compressor contactor failed (where present)	Change the contactor				
It is not cooling enough	External and internal fans work, compressor works all the time	Cooling unit under sized for the heat dissipated inside the enclosure	Change the cooling unit with another of greater capacity				
	Inside fan works, external fan and compressor work irregularly	Antifreeze thermostat triggered (where present)	Clean the evaporator coil     See if there are any obstacles inside the enclosure to hinder th flow of recycling air				
		Insufficient gas in the cooling unit	Call a refrigeration expert or the Manufacturer's Technical Assistance Service				
		Thermostat set point incorrect	Check thermostat setpoint				
	External and internal fans work, compressor works irregularly	High pressure safety switch triggered:  Ambient temperature over the maximum working limit  Heat exchanger coil (condenser) either dirty or clogged	ambient temperature lower.				
		Thermal protector inside the compressor triggered:  Ambient temperature over the maximum working limit  Heat exchanger coil (condenser) either dirty or clooged	Ventilate the premises where the enclosure is installed to keep ambient temperature lower.     Clean the coil with compressed air and detergent				
Too much condensate forming	Enclosure door open	Too much ambient air inside the enclosure	This is not a malfunction of the cooling unit. Close the enclosur door or disable the cooling unit				
	Enclosure door closed	Enclosure protection level is below IP54	This is not a malfunction of the cooling unit. Seal enclosure oper ings, e.g. for passage and upward path of wires				
		The enclosure/cooling unit connecting seal has been fitted incorrectly	Check seal and remedy				

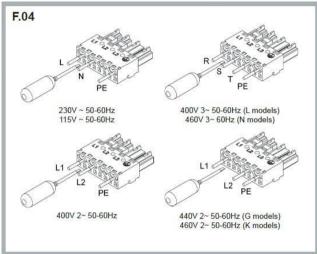


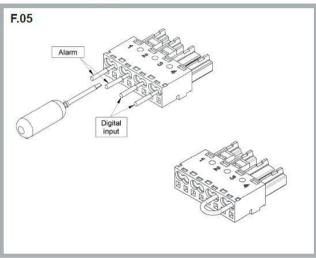
# 13. Pictograms

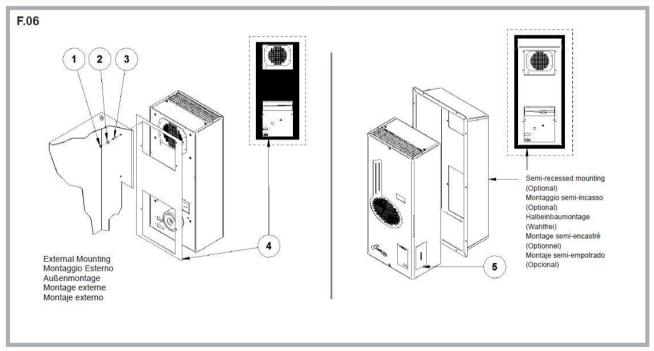






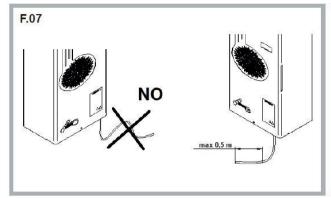


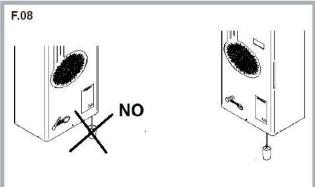


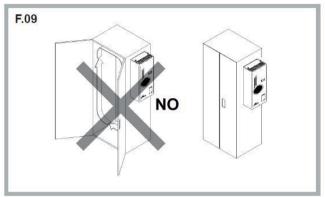


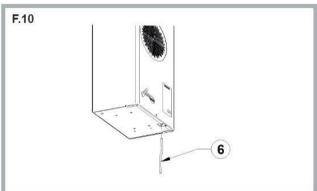


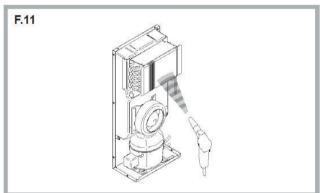
# 13. Pictograms

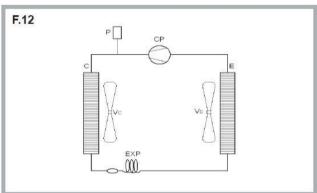


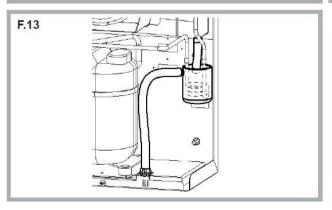












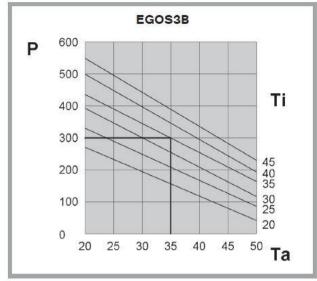


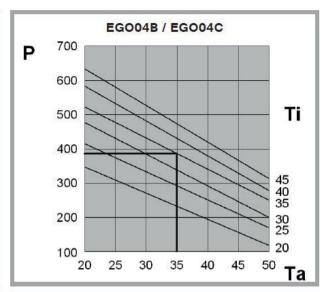
# 14. Technical data F.14

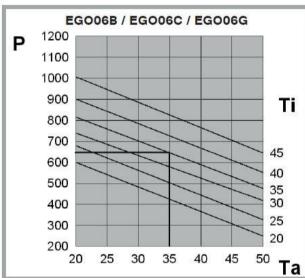
ENG	Useful	coolin	Supply voltage	Dimensions (WxHxD)	Max current	Starting current	Pre-fuse	Ele	ctric acity	Duty cycle	Refrigerant	Max pressure	Enclosure temperature range	Ambient tempe- rature range	Protection internal circuit	Protection external circuit	Noise level	Weight	Temperature control	Conformity
	A35 A35	4511 A35 A50						EN1 A35 A35	4511 A35 A50		R134a									
	W	W	V ~ Hz	mm	Α	Α	Α	W	W		g	bar	°C	°C	IP	IP	dB(A)	kg	1525	-
EGO\$3BT1B	300	150	230 1 ~ 50-60	525x345x136	1,5	4,2	4	270	310	100 %	120	25	+20 ÷ +50	20 ÷ 55*	IP55	IP34	61	1000	Ele. Thermo.	CE - EAC
EGO04BT1B	380	240	230 1 ~ 50-60	285x460x180	1,6	6	4	230	260	100 %	130	26	+20 ÷ +50	20 ÷ 55*	IP55	IP34	60	17	Electronic	CE - EAC
EGO04BTVBX0000	380	240	230 1 ~ 50-60	285x460x180	1,7	6	4	280	330	100 %	130	28	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	17	Thermostat	CE - EAC - U
EGO04CT1B	380	240	115 1 ~ 50-60	285x460x180	3,2	11	6	240	270	100 %	130	26	+20 ÷ +50	20 ÷ 50	IP55	IP34	60	18	7110111100ttax	CE - EAC
EGO06BT1B	640	470	230 1 ~ 50-60	316x606x212	2,1	8,1	6	380	420	100 %	190	25	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	21		CE - EAC
EGO06BTVBX0000	640	470	230 1 ~ 50-60	316x606x212	2,6	8,1	6	400	470	100 %	230	28	+20 + +50	20 ÷ 55*	IP55	IP34	65	21	Electronic	CE - EAC - U
EGO06CT1B	640	470	115 1 ~ 50-60	316x606x212	4,4	16	8	390	430	100 %	190	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	22	Thermostat	CE - EAC
EGO06GT1B	640	470	400/440 2 ~50-60	316x606x212	1,2	5	2	390	430	100 %	190	25	+20 + +50	20 ÷ 50	IP55	IP34	65	22		CE - EAC
EGO08BT1B	820	680	230 1 ~ 50-60	348x783x216	2,6	10,8	6	410	490	100 %	210	25	+20 + +50	20 + 55*	IP55	IP34	65	27		CE - EAC
EGO08BTVBX0000	820	680	230 1 ~ 50-60	348x783x216	3,1	10,8	6	440	490	100 %	210	28	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	27	Electronic	CE - EAC - U
EGO08CT1B	820	680	115 1 ~ 50-60	348x783x216	5,3	21,5	10	420	500	100 %	210	25	+20 + +50	20 + 50	IP55	IP34	65	28	Thermostat	CE - EAC
EGO08GT1B	820	680	400/440 2 ~50-60	348x783x216	1,7	6,1	6	420	500	100 %	210	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	28		CE - EAC
EGO10BT1B	1000	790	230 1 ~ 50-60	348x783x216	3	10,5	6	470	560	100 %	200	25	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	28		CE - EAC
EGO10BTVBX0000	1000	790	230 1 ~ 50-60	348x783x216	3,1	10,5	6	590	670	100 %	240	28	+20 ÷ +50	20 + 50	IP55	IP34	65	28	Electronic	CE - EAC - U
EGO10CT1B	1000	790	115 1 ~ 50-60	348x783x216	6,7	23	10	490	580	100 %	200	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	29	Thermostat	CE - EAC
EGO10GT1B	1000	790	400/440 2~50-60	348x783x216	2	8	4	490	580	100 %	200	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	29	memostat	CE - EAC
EGO10KTVBX0000	1000	790	400/460 2~50-60	348x783x216	2	8	4	620	710	100 %	240	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	29		CE - EAC - UI
EGO12BT1B	1250	910	230 1 ~ 50-60	405x999x237	3,8	11	6	680	790	100 %	260	25	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	38		CE - EAC
EGO12BTVBX0000	1250	910	230 1 ~ 50-60	405x999x237	5	11	8	710	820	100 %	290	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	38	Electronic	CE - EAC - U
EGO12CT1B	1250	910	115 1 ~ 50-60	405x999x237	7,6	24	10	690	800	100 %	260	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	40	Thermostat	CE - EAC
EGO12GT1B	1250	910	400/440 2~50-60	405x999x237	2,2	8,5	4	690	800	100 %	260	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	40		CE - EAC
EGO16BT1B	1600	1230	230 1 ~ 50-60	405x999x237	5,3	18	10	820	940	100 %	330	25	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	40		CE - EAC
EGO16BTVBX0000	1600	1230	230 1 ~ 50-60	405x999x237	6	18	10	850	970	100 %	430	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	40	Electronic	CE - EAC - U
EGO16CT1B	1600	1230	115 1 ~ 50-60	405x999x237	12,9	39	20	840	960	100 %	330	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	42	Thermostat	CE - EAC
EGO16GT1B	1600	1230	400/440 2~50-60		2,9	11	6	840	960	100 %	330	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	42		CE - EAC
EGO16KTVBX0000	1600	1230	400/460 2~50-60	405x999x237	3	11	5	960	1170	100 %	430	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	42		CE - EAC - U
EGO20BT1B	2000	1510	230 1 ~ 50-60	405x999x237	6,5	24	10	1080	1290	100 %	430	25	+20 ÷ +50	20 ÷ 55*	IP55	IP34	65	52		CE - EAC
EGO20BTVBX0000	2000	1510	230 1 ~ 50-60	405x999x237	7	24	10	1100	1300	100 %	540	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	52	Electronic	CE - EAC - U
EGO20CT1B	2000	1510	115 1 ~ 50-60	405x999x237	13,3	48	20	1070	1210	100 %	430	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	54	Thermostat	CE - EAC
EGO20LT1B	2000	1510	400 3 ~50-60	405x999x237	2,5	10	6	970	1150	100 %	450	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	54		CE - EAC
EGO20NTVBX0000	2000	1510	460 3 ~60	405x999x237	2,7	14	5	1220	1440	100 %	610	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	65	54		CE - EAC - U
EGO30BT1B	2900	2250	230 1~ 50-60	500x1270x336	8,2	37,4	16	1340	1560	100 %	570	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	70	80 Electronia	Electronic	CE - EAC
EGO30LT1B	2900	2250	400 3 ~50-60	500x1270x336	2,6	14	6	1220	1440	100 %	620	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	70	84	Thermostat	CE - EAC
EGO30NTVBX0000	2900	2250	460 3 ~60	500x1270x336	3,7	15	6	1810	2020	100 %	840	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	70	84	memiostat	CE - EAC - U
EGO40BT1B	3850	2870	230 1~ 50-60	500x1270x336	9,5	35,2	16	1710	1990	100 %	690	25	+20 ÷ +50	20 ÷ 50	IP55	IP34	70	82	Floritorial	CE - EAC
EGO40LT1B	3850	2870	400 3 ~50-60	500x1270x336	3,6	18	8	1780	2050	100 %	690	25	+20 + +50	20 + 50	IP55	IP34	70	85	Electronic	CE - EAC
EGO40NTVBX0000	3850	2870	460 3 ~60	500x1270x338	4,2	18	8	2040	2350	100 %	1140	28	+20 ÷ +50	20 ÷ 50	IP55	IP34	70	85	Thermostat	CE - EAC - U
												10,544		* 50°C a 60 Hz						

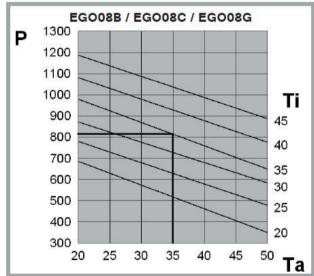


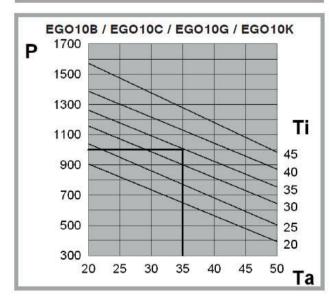
# 15. Performances F.15

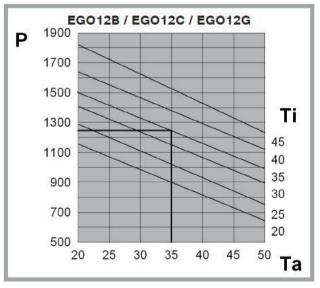






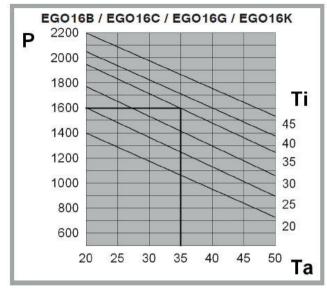


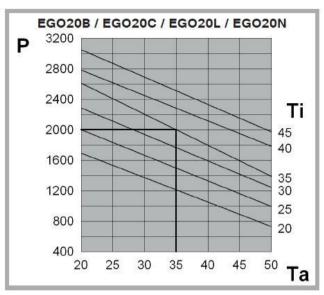


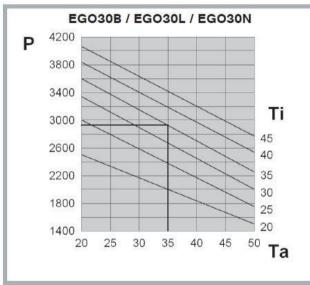


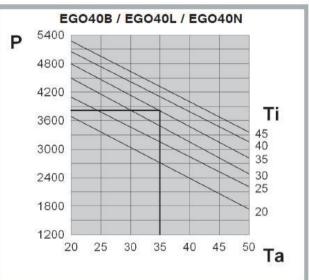


# 15. Performances F.15





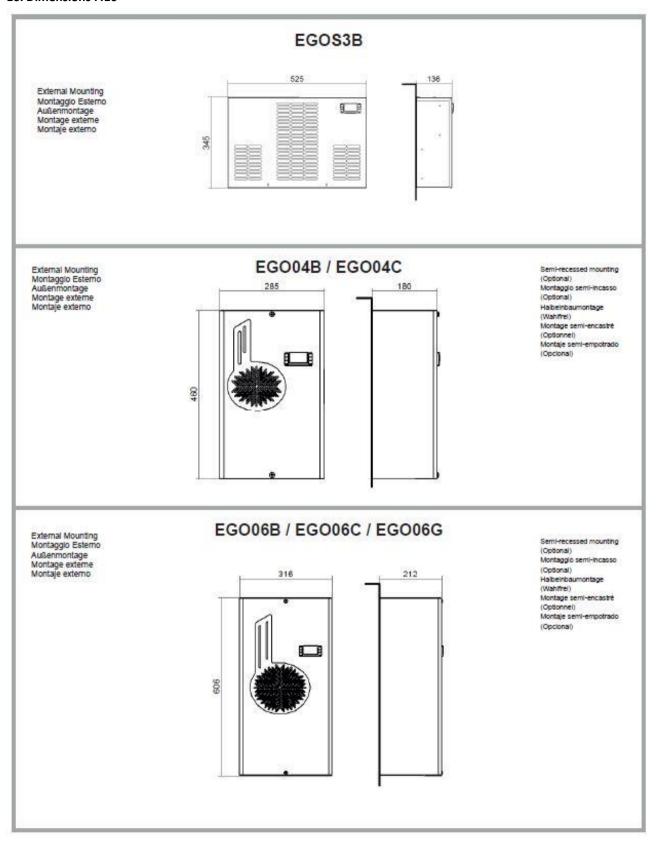




P(W)	Ta(°C)	Ti (°C)
Useful cooling	Ambient	Enclosure internal
output	temperature	temperature

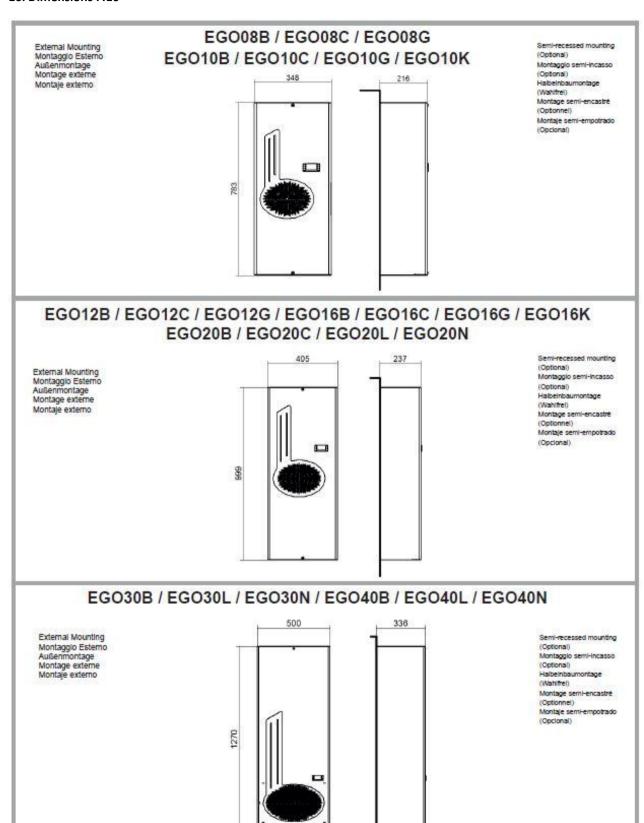


# 16. Dimensions F.16





# 16. Dimensions F.16

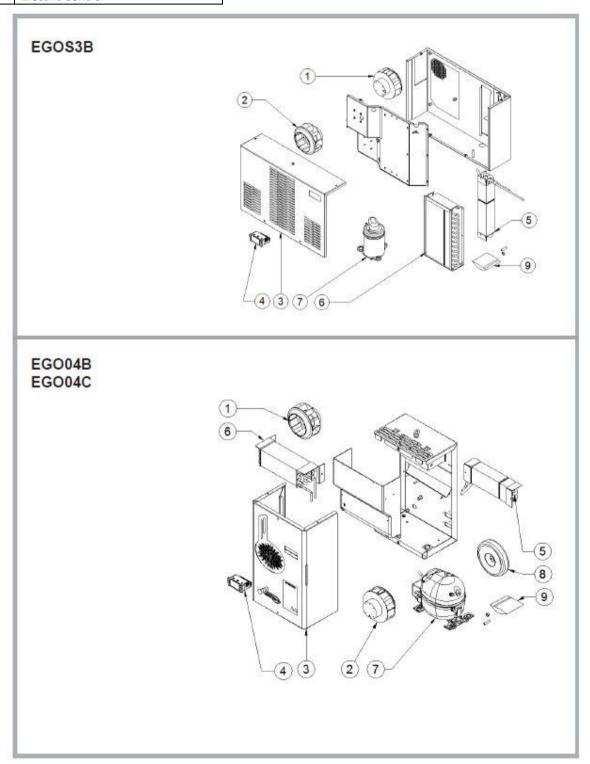




# 17. Spare parts F.17

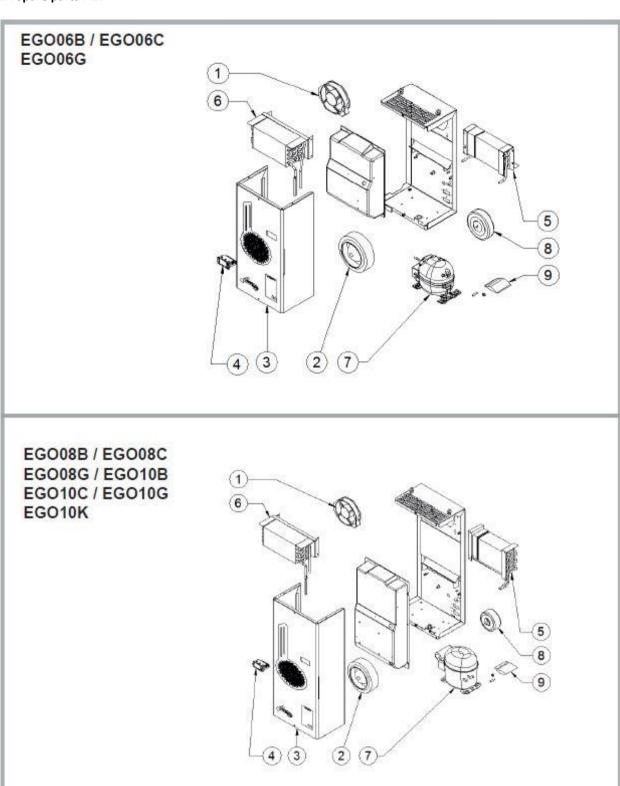
1	Autotransformer
2	Condenser fan
3	Evaporator fan
4	Condenser
5	Evaporator
6	Compressor
7	Assembly accessory kit
8	Cover
9	Electric Control

When ordering the following informations are essential:
Model
Serial Number
Date of production
Requested parts' code



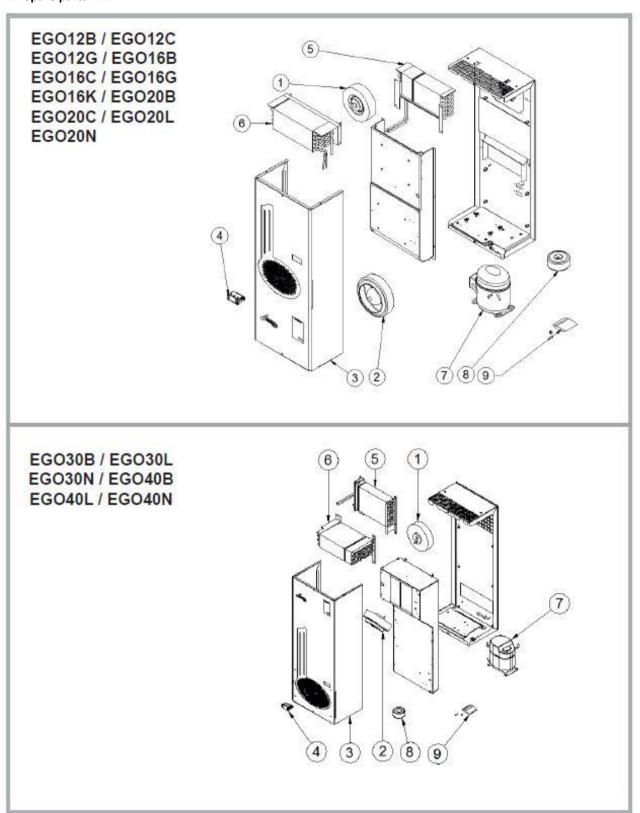


# 17. Spare parts F.17





# 17. Spare parts F.17





# 18. Wiring diagram F.18



### 19. Guarantee

ITRack S.r.l. guarantees its product free from quality defects. It also guarantees for 18 months all the product's components starting from the date of shipment and when they are used in the following conditions:

- 1) When the temperatures of the panel or enclosure are no higher or lower than those indicated on the rating plate.
- 2) In circuits or systems that do not require cooling capacities higher than those indicated on the rating plate.
- 3) On premises where the temperatures are no higher or lower than those indicated on the rating plate.
- 4) On panels or enclosures with at least a minimum protection level of IP54.
- 5) When the instructions given in the "operating and maintenance" manual, provided with each single product, are fully complied with. This guarantee does not cover any damage to the product due to:
- a) using a type and quantity of gas in the cooling circuit different to that indicated on the rating plate.
- b) using the product on unsuitable premises: where there is an acid or corrosive atmosphere.

For each component found to be faulty during the term of the guarantee, the manufacturer will, according to its unquestionable judgement, repair and/or substitute the faulty components free of charge either at its factory or in one of its authorised companies. Any additional expenses incurred for removing, handling and installation if required are not payable by the manufacturer. Any maintenance work needed and requested by the customer care/of his premises, even if it is during the term of the guarantee, will be billed according to the manufacturer rates. The products repaired or substituted in no way modify the time the guarantee starts or ends. The manufacturer can in no way be held liable except for repairing or substituting faulty products and if such products have to be redelivered it will be on a Carriage Forward basis. It is the customer's responsibility to see to the correct earthing, installation and power supply of the product in compliance with current standards. Reference must be made to the current laws in force regarding liability for damage caused by a faulty product, for which manufacturer is insured.

To benefit from the guarantee terms and relative product information it is essential to have the purchase document and the serial number of the product which you will find on the rating plate. The rating plate is printed on plastic and the writing will remain for a long time even on premises and in environments where conditions are particularly bad. ATTENTION: the guarantee is automatically invalidated if the product is tampered with in any way.

### 20. Assistance service

ITRack S.r.l.

Viale Alcide De Gasperi, 19/B 36061 – Bassano del Grappa (VI) - ITALIA e-mail: info@it-rack.it

Before contacting the Manufacturer Assistance Service, ensure you have:

A. The full machine code number;

B. The serial number of the machine;

All requests for assistance must be sent to Manufacturer in writing, by email or fax.

**WARNING:** The equipment can only be returned to Manufacturer on request and after agreement by the Manufacturer itself.