

VINSERVICE®

ITALY

OPERATION AND MAINTENANCE BOOK

Recirculation Chiller

GD_75_P

GD_125_P

GD_250_P

GD_350_P

Document Code: 0150GDCPENG.000



PREAMBLE

The present handbook must be considered as integral part of the equipment, and it must always be available to the persons operating with the unit; this manual must always stay with the equipment, also in case the unit is transferred to another owner.

The operators must carefully read this handbook and follow all instructions herein contained, because VINSERVICE will not be liable for any damages occurred to persons and/or things, or suffered by the equipment itself, whenever any conditions here in described are not respected. Customers has the obligation of respecting the industrial trade secret, according which the following literature and its enclosures could not be altered, edited or sold to third parts, without the explicit authorization of VINSERVICE.

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1. RECOMMENDATIONS

This instruction manual should be read in its entirety before using the equipment. Complete knowledge of the information contained herein is essential to the proper functioning and operation of this equipment. The equipment has been designed and built with mechanical safety devices suitable to protect the skilled operator from physical damage. The skilled operator must be fully aware of the operation mechanisms of the equipment and it is the buyer's responsibility to make sure that only competent personnel are allowed to operate it.

The use of original spare parts is essential to the optimization of the equipment's potential and any modifications carried out are the sole responsibility of the skilled operator.

The skilled operator is responsible for all the operations necessary to maintain the equipment in good working order.

CAUTION

Always disconnect the equipment's electrical socket from the mains before accessing its internal part. Do not remove protective covers or safety grids during operation. Keep hands away from moving part.

2. SUPPLY CONDITIONS

- VINSERVICE will not be held liable for any failure to comply with the standards governing correct installation.
- VINSERVICE will not be held liable for any loss in production, unless expressly shown in the purchase order.
- VINSERVICE will not be held liable for any defects or malfunction arising from; improper use of the equipment, alterations due to the transportation or peculiar environmental conditions, lack off or improper maintenance, manhandling or improper service; operation by unqualified personnel and the use of product accessories not belonging to the equipment.
- VINSERVICE will not be held liable for damages arising from inappropriate or imprudent operations not conforming to those described within this manual and in the attached documentation performed by both expert and inexpert personnel.

Since it is not possible to foresee all the installations and environments in which this equipment will be installed, therefore customer must check the following:

- Environmental conditions where the equipment is installed;
- Beverage feeding and pushing systems;
- The capacities of the personnel entrusted with the installation and/or use of the machine.

N.B. Manufacturer accepts liability for commercial parts. If in doubt, ask for documentation.

VINSERVICE will not be held liable for the disposal of equipment parts or materials needed to operate the machine: coolant gas, compressor or under pressure container, condensers, etc...

Please remember that this is an electrical equipment and thus its components must be disposed in compliance with the regulations enforced in its country of installation.

3. GENERAL INFORMATIONS

3.1. Equipment Description

This equipment is composed of a refrigerating unit assemble between a metal plate and a glycol bath.

3.2 Appropriate Uses

This equipment is intended for the cooling of well insulated and carefully configured trunk lines. In operation, cold food grade liquid propylene glycol is pumped through cooling line that are parallel to and in contact with the product line.

3.3 Inappropriate Uses

This equipment is not intended for use other than that described above. This equipment has not been designed to operate in adverse environmental conditions, including excessive humidity and explosive atmosphere.

3.4. TECHNICAL SPECIFICATIONS

	GD_75_P	GD_125_P	GD_250_P	GD_350_P
Cooling Distance	75 Feet, 22.8 m	125 Feet, 38.1 m	250 Feet, 76.2 m	350 Feet, 107 m
Compressor	1/2 Hp	3/8 Hp	1/2 Hp	5/8 Hp
Refrigerant	R 404	R 134 A	R 134 A	R 134 A
Charge	0.225 Kg, 7.9 Oz	0.220 Kg, 7.8 Oz	0.195 Kg, 6.9 Oz	0.216 Kg, 7.6 Oz
Voltage	115 V, 60Hz	115 V, 60Hz	115 V, 60Hz	220 V, 60Hz
Current	12 A	23 A	23 A	12 A
Temperature Control	Digital	Digital	Digital	Digital
Pump	1/3 Hp (1)	1/3 Hp (1 - 2)	1/3 Hp (1 - 2)	1/3 Hp (1 - 2 - 3)
Bath Capacity	25 Liters, 6.6 Gallons	50 Liters, 13.2 Gallons	50 Liters, 13.2 Gallons	50 Liters, 13.2 Gallons
Foam Insulation	1 Inch	1 Inch	1 Inch	1 Inch
Inlet Barb	10 mm (3/8")	10 mm (3/8")	10 mm (3/8")	10 mm (3/8")
Outlet Barb	10 mm (3/8")	10 mm (3/8")	10 mm (3/8")	10 mm (3/8")
Dimensions H x L x W	433 x 400 x 602	729 x 595 x 595	729 x 595 x 595	729 x 595 x 740
	17 x 15.7 x 23.7	28.7 x 23.4 x 23.4	28.7 x 23.4 x 23.4	28.7 x 23.4 x 29.1

4. TRANSPORTATION

4.1 Packaging

The equipment is usually shipped in a cardboard box packaging, adequately protected on all its edges. The packaging in its dry and integral state is self-supporting and sturdy enough for machine lifting and handling. If packaging is in a wet state, pay attention while lifting and make sure lifting bands are placed in the centre.

4.2 Transportation and handling

Stacking of equipment over another is only allowed when packaging is in its integral and dry state. Equipment should be lifted one at a time. The lifting equipment (ropes, polyester belts, chains) must be designed to bear the weight of the machines: the opening angle must be the same as or less than 50°-60° in order to avoid crashing or damaging the packaging and/or the bodywork sheet metal.

5. ACCIDENT PREVENTION AND RESIDUAL RISKS

- Although this equipment has been manufactured under the strictest safety regulations, however for obvious reasons it is not possible to foresee all the installations and environments in which this equipment will be installed.

Therefore it is pertinent that customer should inform the manufacturer of peculiar installation conditions.

- The instructions set out in this manual do not replace the safety instructions and technical data on installation and operation of the equipment. It neither replaces common sense nor the safety regulations enforced in the country of installation.
- Operators must be given correct information. They must therefore read and follow the technical Information set out in the manual and in the attached documentation.
- VINSERVICE will not be held liable if installation instructions are not followed.
- The equipment has been designed under strictest energy saving regulations enforced in the manufacturing country therefore customer should avoid unnecessary energy waste.

6. INSTALLATION AND ADJUSTMENTS

6.1 Installation

After removing the machine from its packaging, check that:

A -The area where the machine is to be installed is solid and perfectly level;

B -The cooler is positioned far from heat or humidity sources.

C -The condenser and the grills are free. It is recommended to leave a 20-30 space cm from wall to grant a good air circulation In the condenser.

6.2 Filling of the glycol bath

After settling the cooler as indicated proceed with bath filling. Remove the equipment's top cover and then fill the bath with a glycol water solution without added additives up to 1" from the bath top. After filing, replace the top cover. Connect a plastic hose to the overflow pipe and then to the nearest drain. We recommend the use of food grade propylene glycol, mixed in a ratio of 25 % glycol and 75 % water. We also recommend the use of a refractometer to check the mixing ration. The correct mixing ratio should be 16 BRIX. This control operation should be done every 2 months. In the case of values lower than 16, mixing ratio should be corrected by adding more propylene glycol.

6.3 Hydraulic connection

- A. Connect one line from isolated trunk line to pump outlet;
- B. Connect second circulation line to the inlet of the tub;
- C. Make sure all re-circulation lines are properly connected and turn the pump motor on;
- D. Liquid level will drop until circulation lines are full;
- E. Refill with water approximately 1" from cover;
- F. Temperature will slowly drop to 26°F on thermostat/outlet gauge.

6.4. Electronic thermostat

Two suitable electronic thermostats are approved for use on GD line of coolers.

Verify on the cooler which model has been installed.

Important parameters settings for use as trunk line cooler:

Measuring Unit for Temp.	°F
<u>Temp. Set point</u>	<u>26°F</u>
Min. T setpoint	22°F
Max. T setpoint	34°F
Type of probe	ntc
T measure filter	10sec
T differential	2°F
Defrost interval	4hr
Defrost max duration	8min
T at end of defrost	8°C
Defrost activation T	2°C
Compressor start delay after defrost	2min
Compressor protection type	delay after OFF
Compressor delay after OFF	5min
Compressor min. ON time	10min
Compressor activation delay at switch-on	1min

CAREL_PJEZSOE130 - CAREL_PJEZSOE020



ELECTRICAL CONNECTION

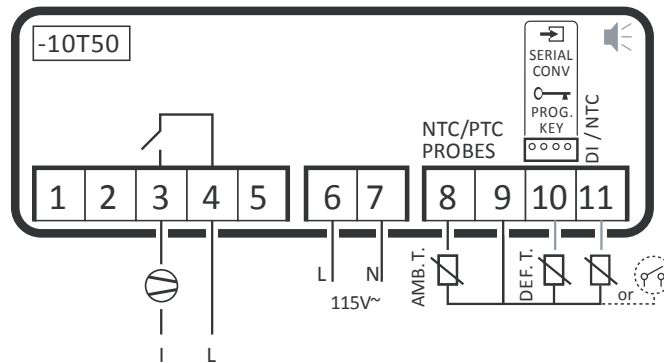


TABLE OF ALARMS

Alarm code	buzzer and alarm relay	LED	Description	Parameters involved
E0	active	ON	probe 1 error= control	-
E1	inactive	ON	probe 2 error= defrost	[d0 = 0 / 1]
E2	inactive	ON	probe 3 error= condenser	[A4=10]
IA	active	ON	external alarm	[A4 = 1] [+A7]
dOr	active	ON	open door alarm	[A4 = 7/8][+A7]
LO	active	ON	low temperature alarm	[AL] [Ad]
HI	active	ON	high temperature alarm	[AH] [Ad]
EE	inactive	ON	unit parameter error	-
EF	inactive	ON	operating parameter error	-
Ed	inactive	ON	defrost ended by timeout	[dP] [dt] [d4] [A8]
dF	inactive	OFF	defrost running	[d6=0]
cht	inactive	ON	condenser dirty pre-alarm	[A4=10]
CHt	active	ON	condenser dirty alarm	[A4=10]
EtC	inactive	ON	clock alarm	if bands active

7. MAINTENANCE

7.1 Ordinary maintenance

Keep liquid level constant in glycol reservoir.

A. Check liquid monthly. If level is low, fill with water

B. If ice builds up, remove one gallon of water and replace with glycol. Clean the equipment monthly as it may have sucked in dust and filaments that may overload motor or cause faulty operation.

7.2 Extraordinary maintenance

A. Glycol should be changed every year except in very hot areas where it should be changed every six (6) months.

B. Keep condensing unit free of foreign matter and clean every six (6) months.

7.3 Storing, dismantling and disposal

If the equipment remains unused for long periods disconnect the power plug, hydraulic and electric systems; empty and clean it; sanitize and wash the coils. Allow cleaned parts to dry, plug and then store the equipment in its original packaging if available.

8. TROUBLESHOOTING

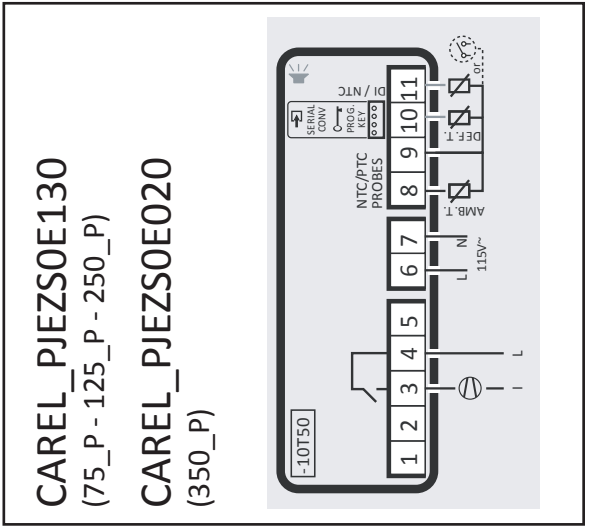
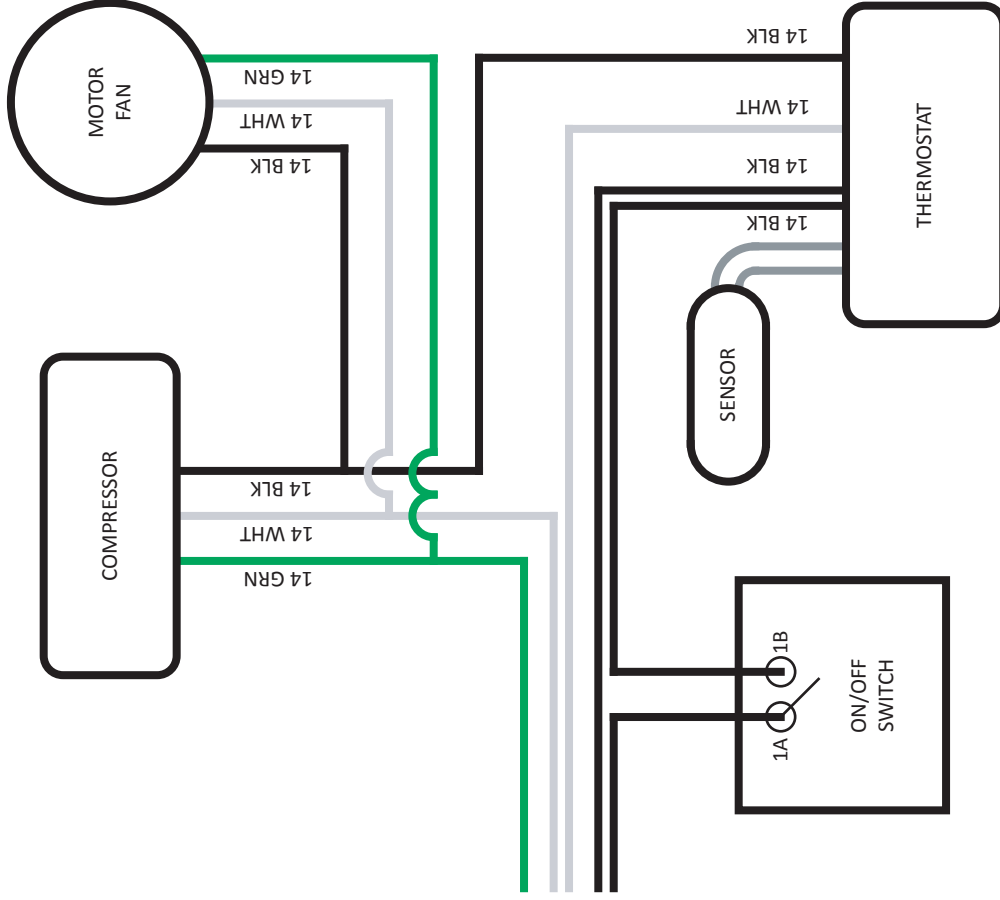
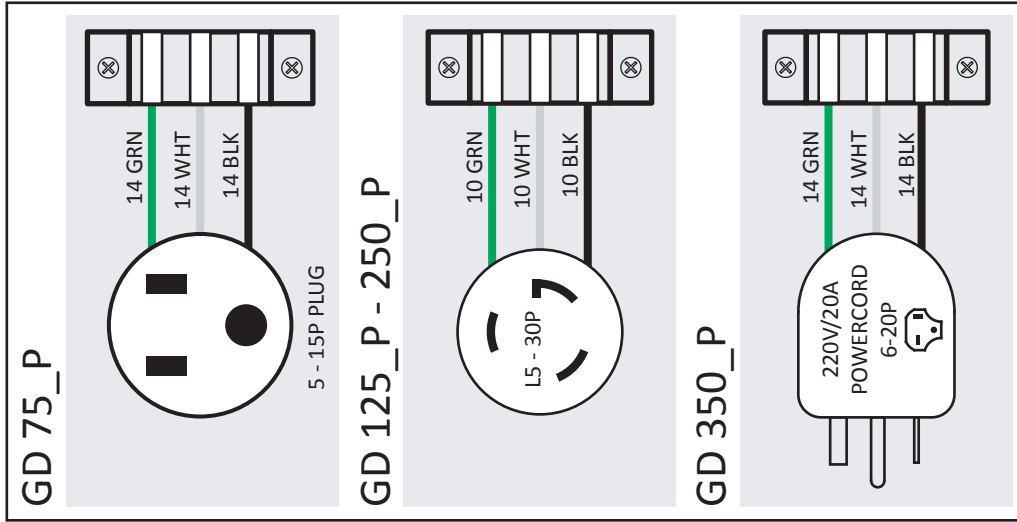
If the control system does not function properly, verify that the unit is wired, configured and set properly.

If the problem persists, use the following procedures to determine the cause of the problem:

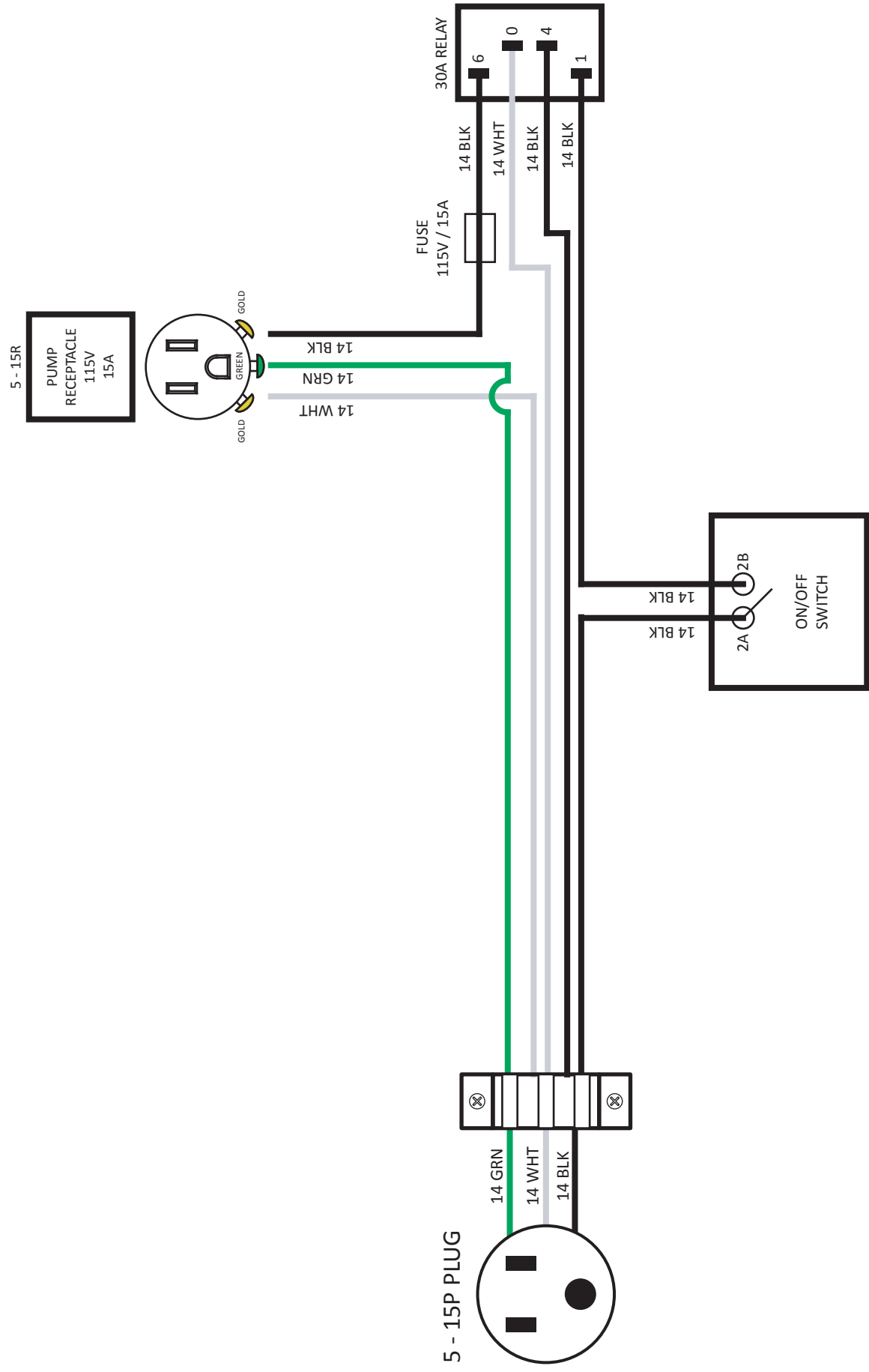
PROBLEM	CAUSE	SOLUTION (S)
1- Compressor does not start (no hum), but the fan motor runs.	A - Compressor relay or capacitor malfunction B - Inadequate voltage C - Compressor failure	A - Replace compressor relay, overload or capacitor B - Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. C - Replace compressor
2 - Compressor starts and continues to run until freeze up and will not cut off.	A -Thermostat control failure B - Freon Leak	A - Replace thermostat B - Repair leak and recharge
3 - Compressor does not run but hums.	A- Inadequate voltage B - Starting relay malfunction C - Compressor malfunction	A - Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. B - Replace starting relay. (Be sure to use correct relay. Failure to do so will cause compressor failure.) C - Replace compressor

WIRING DIAGRAM - COOLING (ALL)

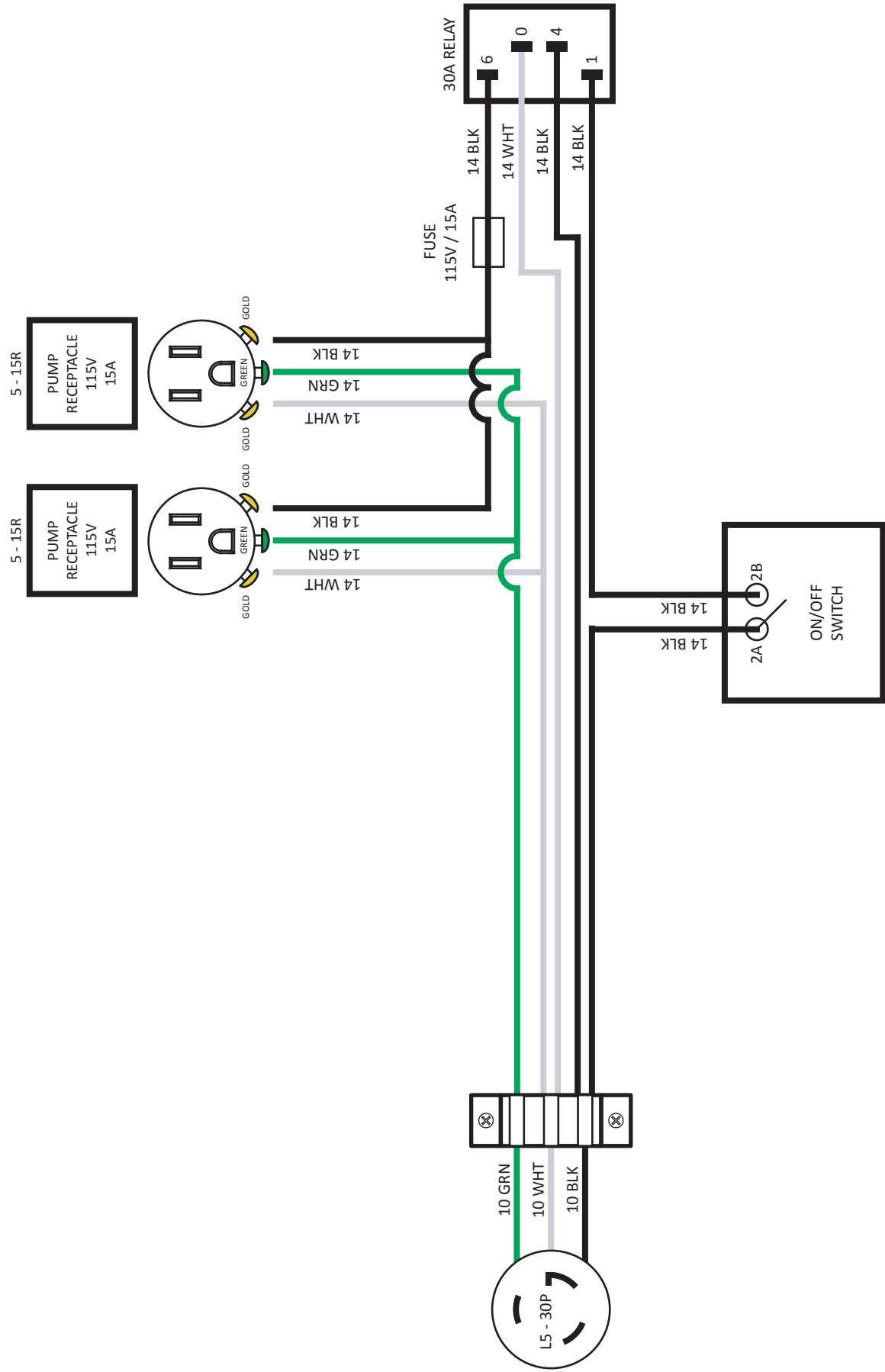
PLUG



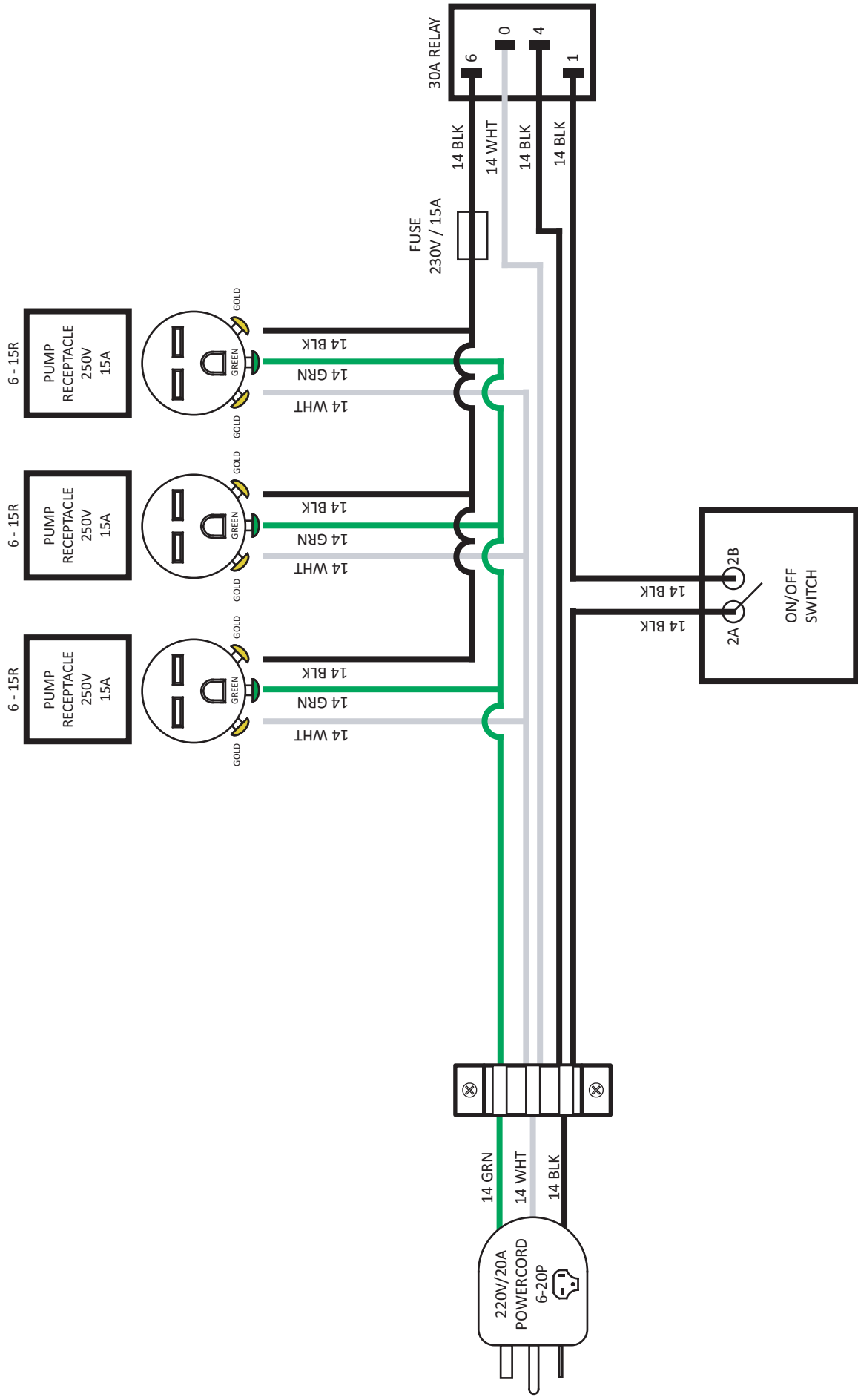
WIRING DIAGRAM - PUMPS GD_75_P



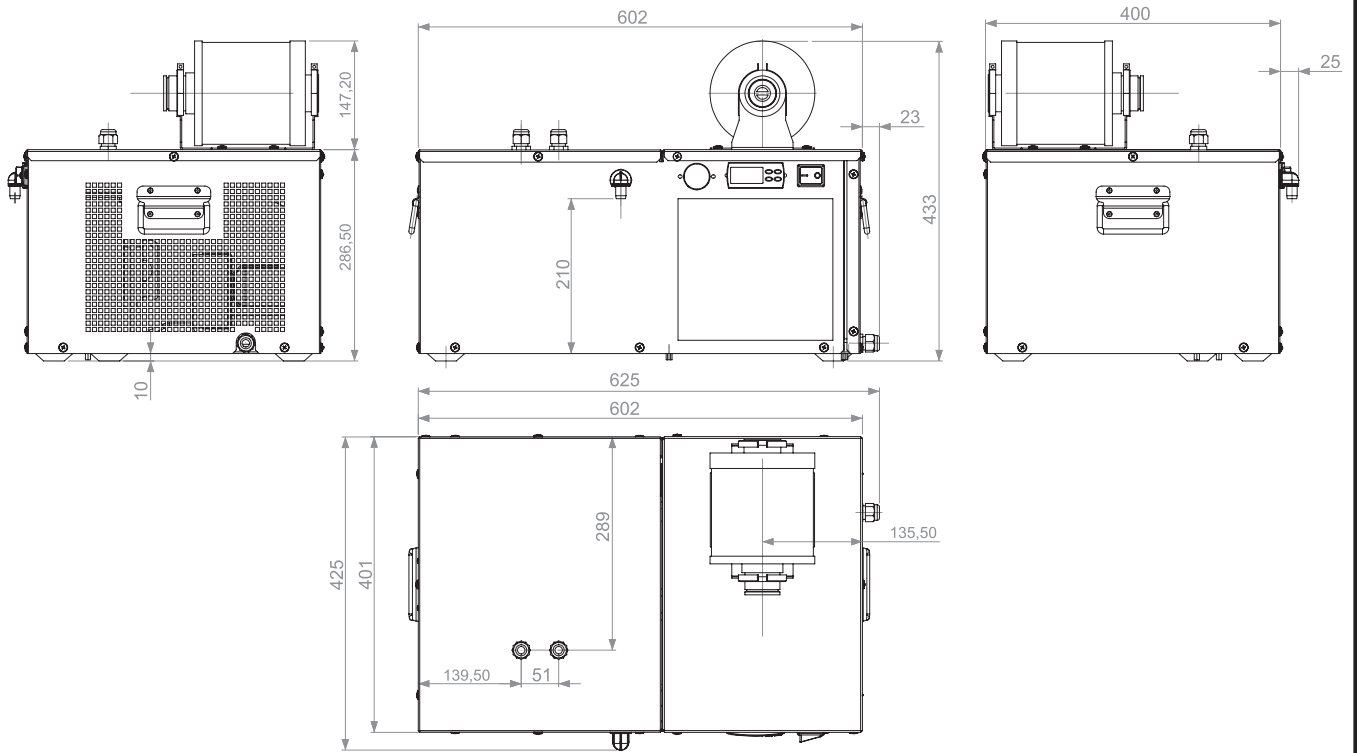
WIRING DIAGRAM - PUMPS GD_125_P - GD_250_P



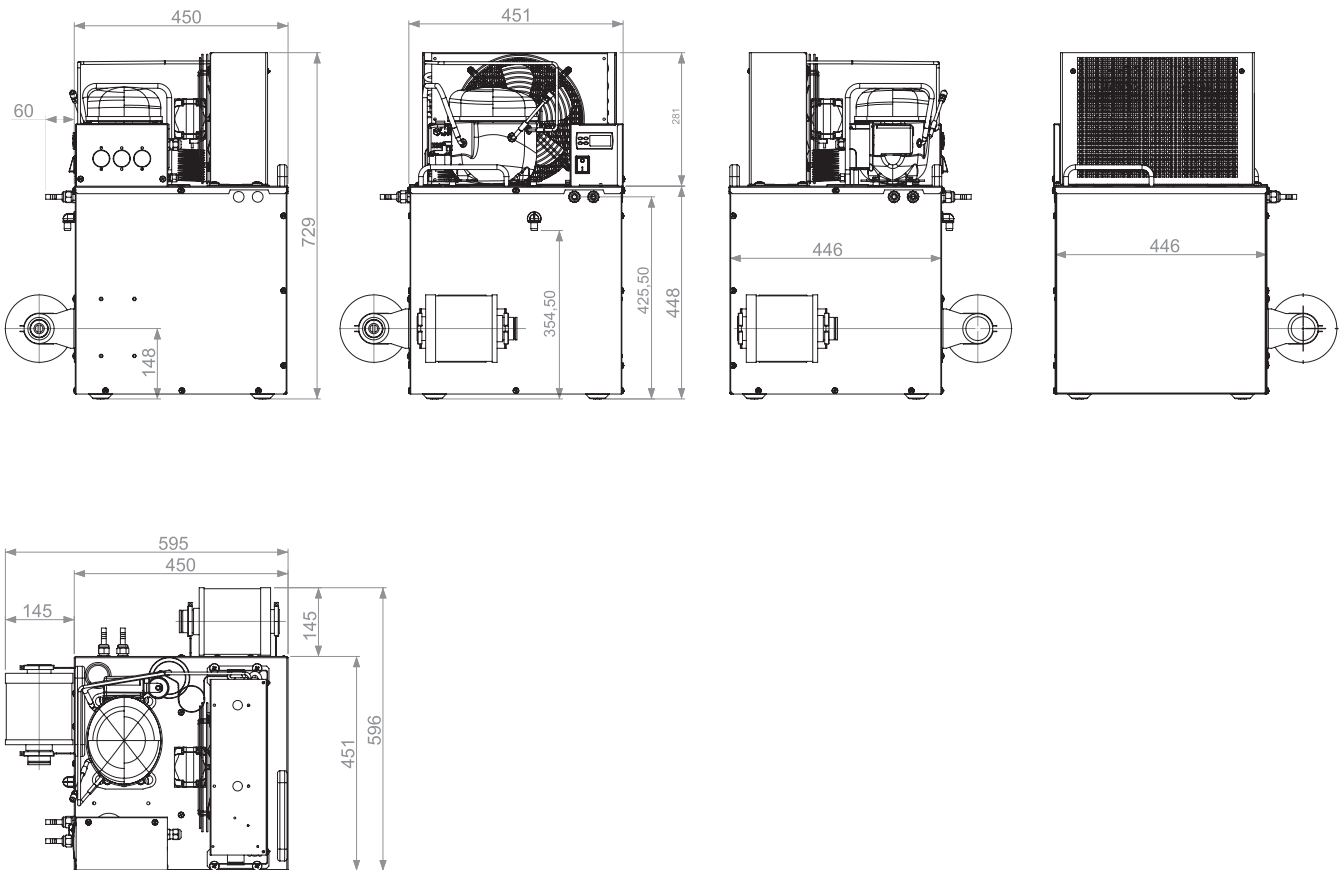
WIRING DIAGRAM - PUMPS GD_350_P



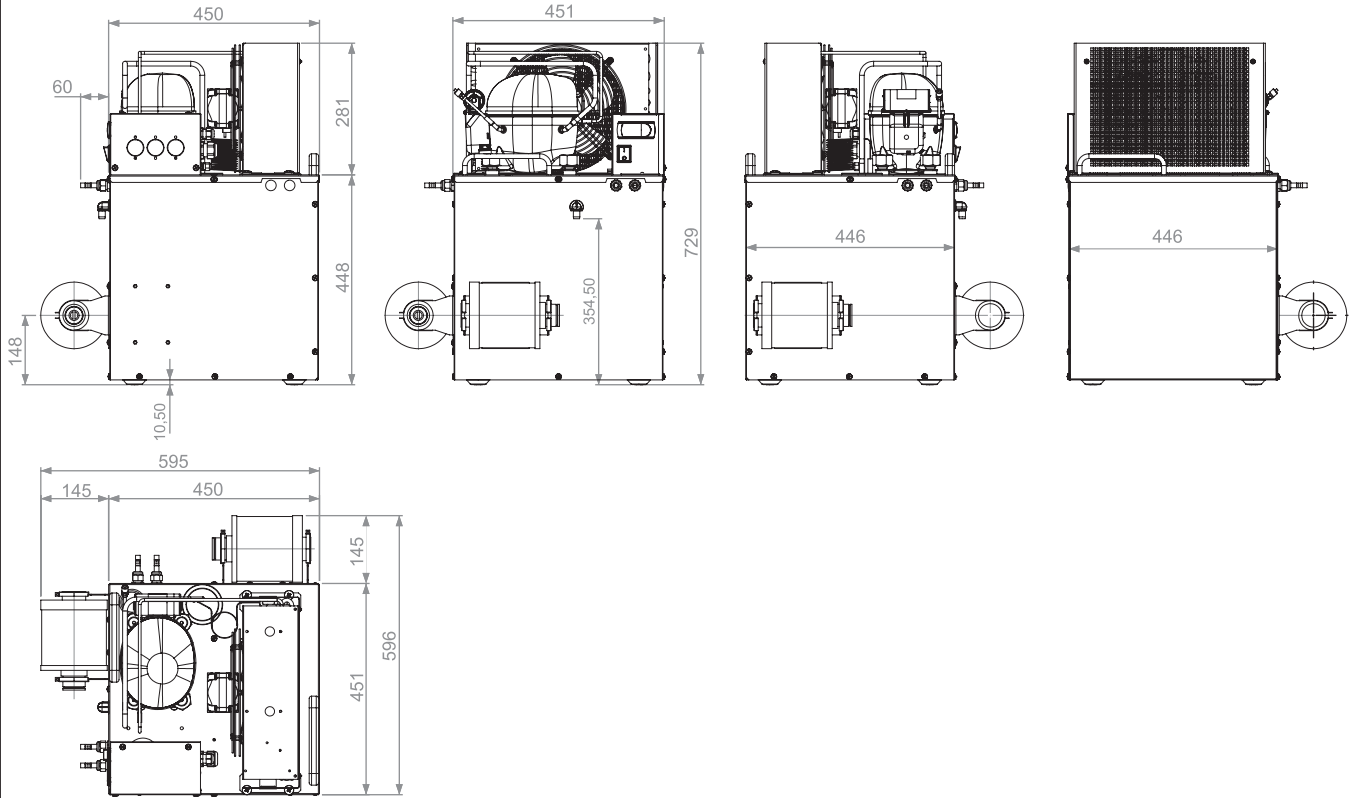
GD_75_P



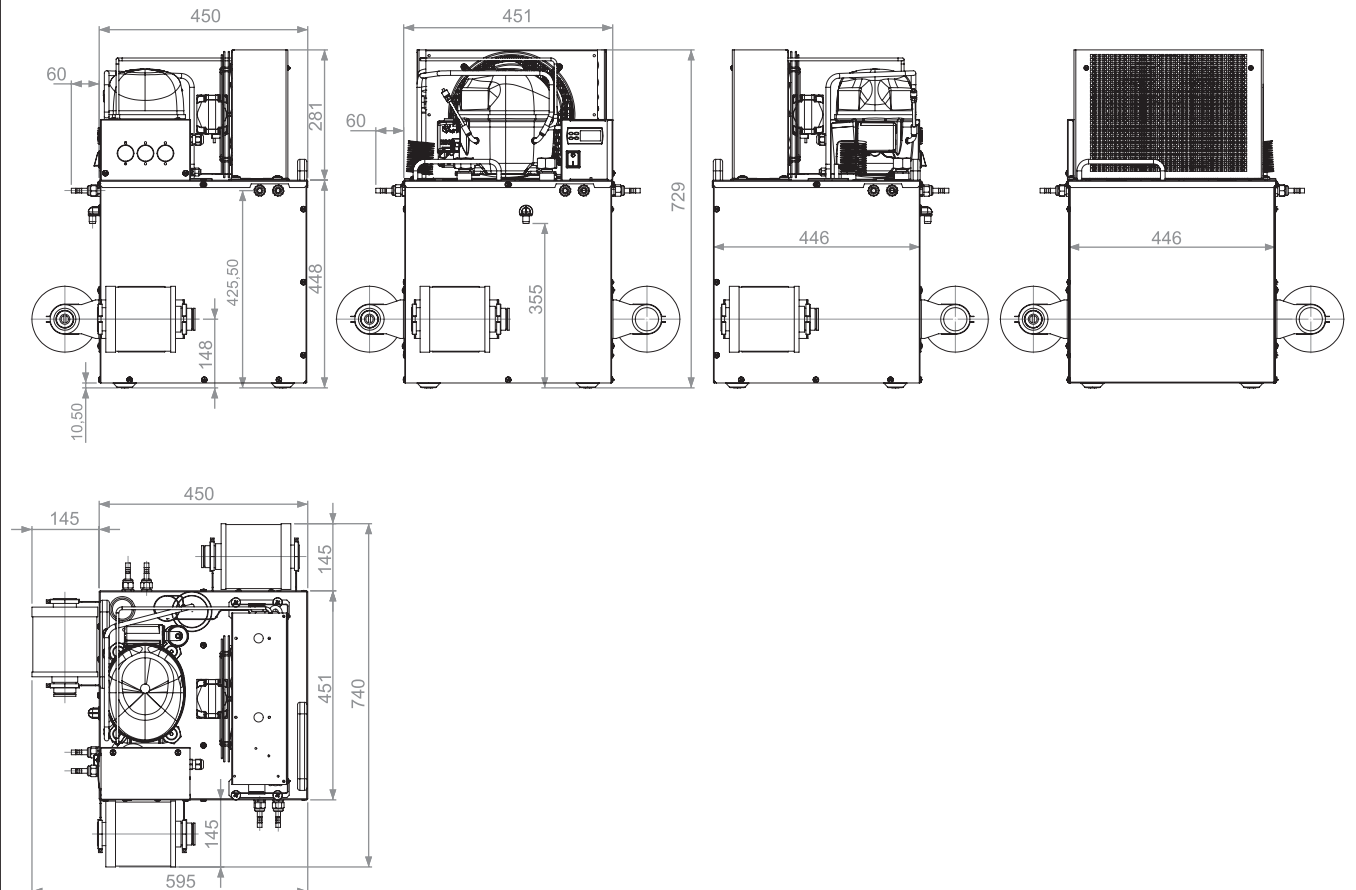
GD_125_P



GD_250_P



GD_350_P



DECLARATION OF CONFORMITY 

ACCORDING TO DIRECTIVES

"Low tension" 2006/95 CE

"EMC" 2004/108 CE

UL471 REV. 03/12/2012

CSA C22.2.120 ED.4



VIN SERVICE S.R.L. - VIA G.FALCONE 26/34. 24050 ZANICA (BG)

DECLARES UNDER ITS OWN RESPONSABILITY THAT ALL PRODUCTS DESCRIBED HEREBY
HAVE BEEN DESIGNED AND BUILT IN COMPLIANCE WITH THE SAFETY REQUIREMENTS
REQUESTED BY THE ABOVE LISTED REGULATIONS

THIS DECLARATION APPLIES TO:

GD_75_P

GD_125_P

GD_250_P

GD_350_P

GIULIO GUADALUPI MANAGING DIRECTOR

