



Technical data sheet G100 Generator R449A

EN_V1.00_2022-11-02



Physical limits of the G100 Generator

- Coolant type:
- According to the configuration of the G100 H ou SH: R134a, R404A, R507A, R407F ,R449A ,T R22, R717
 - According to the configuration of the G100-H CO2 ou SH CO2: R744



For the other coolants: contact Geneglace

Maxi allowable pressures (PS) :	"Permissible limits of pressure equipment"(Down)
Mini allowable temperature	
Ambient air temperature:	+ 10 to + 35°C (dry bulb)
Water quality	Fresh water for human consumption
Temperature of water to be frozen	+ 5 to + 25°C
Water supply pressure	0,8 to 1,5 bars
Supply water hardness	TH 15 to 20° français
Supply water acidity	PH 7/8
Sodium chloride content	100 g/m ³
Protection index:	IP44
Electrical power supply:	Read information on maker's plate and comply with applicable standards.
Value airborne noise	>70 dB

Permissible limits of pressure equipment

Type	Volume (L)		PS (Min/Max) (Bar)	T° (Min/Max) (°C)
	Cylinder	Exchanger		
G100-H*	2,25	2,07	-1/+22	-30/+55
G100-SH**	2,25	-	-1/+22	-30/+55

* With plate heat exchanger for direct expansion (not installed)/ ** Generator without exchanger for recirculation by pump.

Type	Coolant	D.E.S.P. Category	Coolant group	Load (kg)	T. eq CO2
G100-H	R449A	Art. 4.3	2	2	2,79
G100-SH	R449A	Art. 4.3	2	2	2,79

G100 Generator supply limit

Cylinder	<ul style="list-style-type: none"> • Double-walled cylinder: Stainless steel. • Thermal insulation of the cylinder: Expanded polyurethane injection. • External cylinder coating: RAL 9006 lacquered aluminium sheet.
Base	<ul style="list-style-type: none"> • Lower base: Stainless steel • Thermal insulation of the base: polyurethane panels and PVC coating. • Base covers: PVC foam. • Water supply float valve . • Submersible water pump • Water tube between water pump discharge and distribution bowl.
Rotating part	<ul style="list-style-type: none"> • Central shaft: Stainless steel. • Lower central shaft bearing assembly: Stainless steel box. • Upper central shaft bearing assembly: Stainless steel box. • Lower water collection bowl: stainless steel. • Upper water distribution bowl: stainless steel. • Rear reamer deflector: stainless steel. • Helical reamer: stainless steel. • Lower reamer bearing assembly: Stainless steel box. • Upper reamer bearing assembly: Stainless steel box • Reamer approach adjustment arrangement. • Scrapers for limiting the watering area: natural rubber. • Top part with inspection hatch: Stainless steel.
Rotating part drive	<ul style="list-style-type: none"> • Geared motor with pulley-belt transmission.
Safety	<ul style="list-style-type: none"> • Motor and gearbox casing: stainless steel. • Safety by force limiter on electrical contact (manual reset) • Mushroom switch "Scraper stop" on electric contact (manual reset)
Refrigeration supply	<ul style="list-style-type: none"> • (G100H and G100 CO2 H) Plate heat exchanger (not mounted): stainless steel. • G100 H) Thermostatic expansion valve.
Misc.	<ul style="list-style-type: none"> • Refillable salt dosing tube + 25 kg of sodium chloride tablets

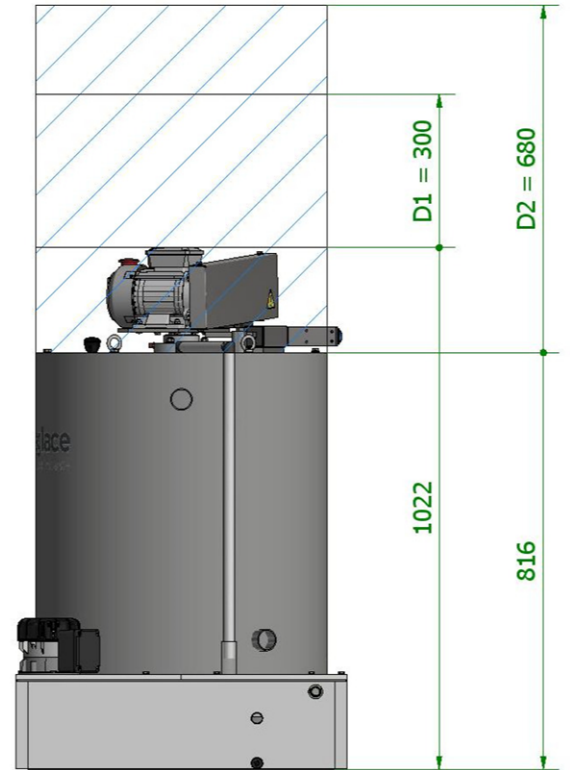
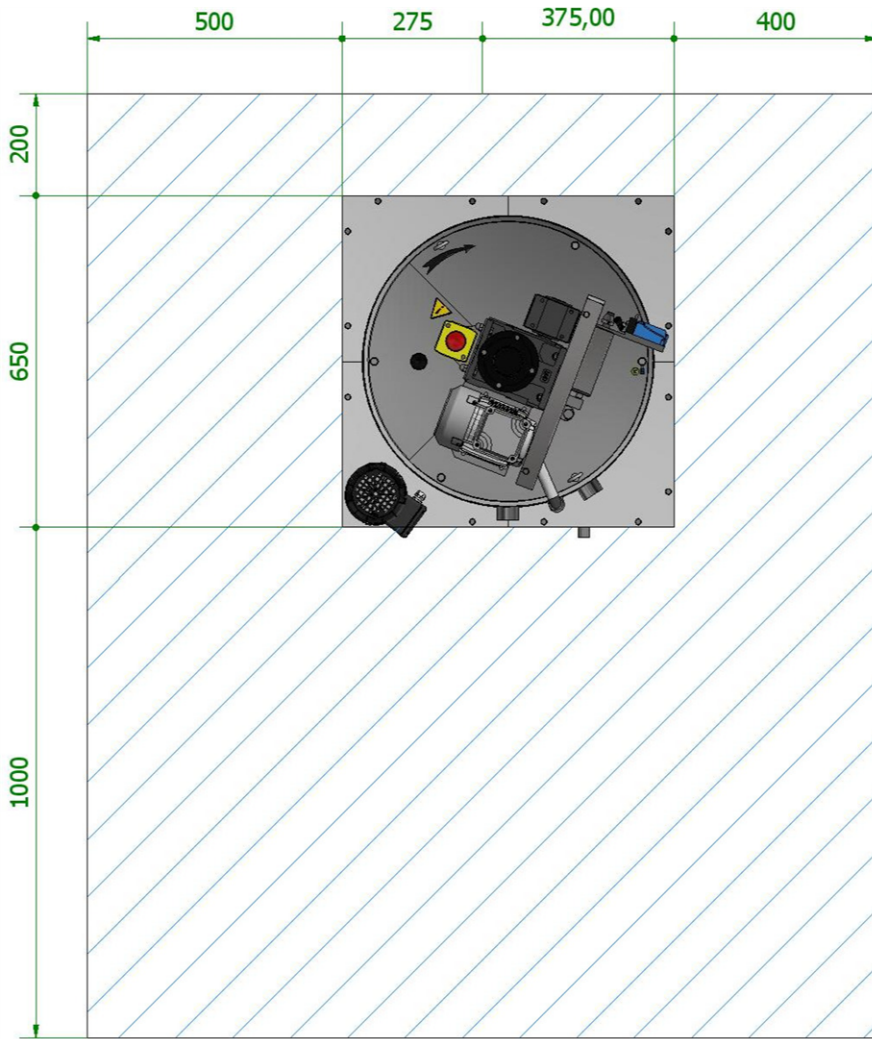
G100 H generator with R449A coolant

Characteristics	Units			
Approx. load	kg	<i>"Permissible limits of pressure equipment"(Page2)</i>		
Water to be frozen	°C	15		
	°F	59		
Production	T /24 h	1.8	2	2.5
	UST/24 h	1.9	2.2	2.8
Cooling capacity	kW	9	10	12
	BTU/h	30726	34140	40968
Condensation temp.				
Max.: (Liquid hammer)	°C	55	55	51
	°F	131	131	124
Min.: (Oil return)	°C	30	30	30
	°F	86	86	86
Pressure reducer	Type	TES5		
Orifice (thermostatic pressure reducer)	No.	2		
Frequency	Hz	50		
Speed of rotation	rpm	92	92	128
Thickness of ice flakes	mm	1.9	2.1	1.9
	inch	0.07	0.08	0.07
Evaporation temperature at the generator	°C	-24.4	-25.1	-26.2
	°F	-12	-13.5	-16
Frequency	Hz	60		
Speed of rotation	rpm	93	93	131
Thickness of ice flakes	mm	1.9	2.1	1.9
	inch	0.07	0.08	0.07
Evaporation temperature at the generator	°C	-24.4	-25.1	-26.2
	°F	-12	-13.5	-16

G100 SH generator with R449A coolant


Characteristics	Units			
Approx. load	kg	<i>"Permissible limits of pressure equipment"(Page2)</i>		
Water to be frozen	°C	15		
	°F	59		
Production	T /24 h	1.7	2	2.5
	UST/24 h	1.9	2.2	2.8
Cooling capacity	kW	8	10	12
	BTU/h	5804	5803	40968
Frequency	Hz	50		
Speed of rotation	rpm	92	92	128
Thickness of ice flakes	mm	1.9	2.1	1.9
	inch	0.07	0.08	0.07
Evaporation temperature at the generator	°C	-24.4	-25.1	-26.2
	°F	-12	-13.5	-16
Frequency	Hz	60		
Speed of rotation	rpm	93	93	131
Thickness of ice flakes	mm	1.9	2.1	1.9
	inch	0.07	0.08	0.07
Evaporation temperature at the generator	°C	-24.4	-25.1	-26.2
	°F	-12	-13.5	-16

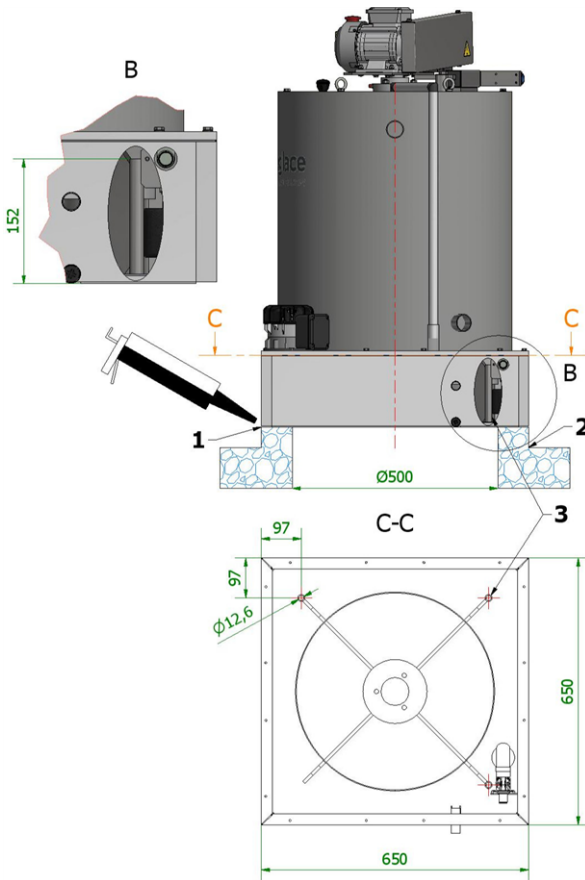
Dimensions



*Values in millimetres

G100 attachments

 Apply sealing compound all around the generator base to prevent water from leaking into the ice tank.



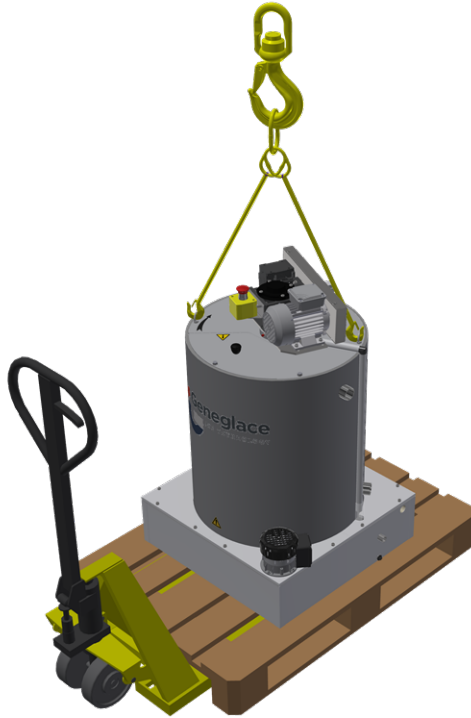
	Generator	G100
ØG	mm	500
	inch	19.69
Øi	mm	12.60
	inch	0.50
k	mm	152
	inch	5.98
a	mm	97
	inch	3.83
b	mm	97
	inch	3.83

Ref. 1 = Seal around the hole.

Ref. 2 = Raised floor to avoid accidental ingress of water into the ice storage tank.

Ref. 3 = Tubular attachment spacer. Qty 3.

G100 Generator Shipment

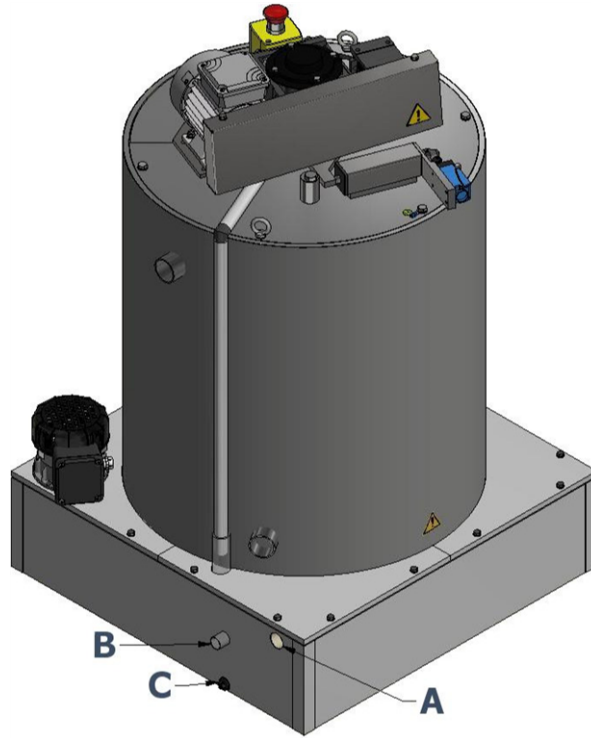


The packaging is hydrophobic and moisture resistant,
The packaging is used for air, sea and road shipments.

G100 Generator

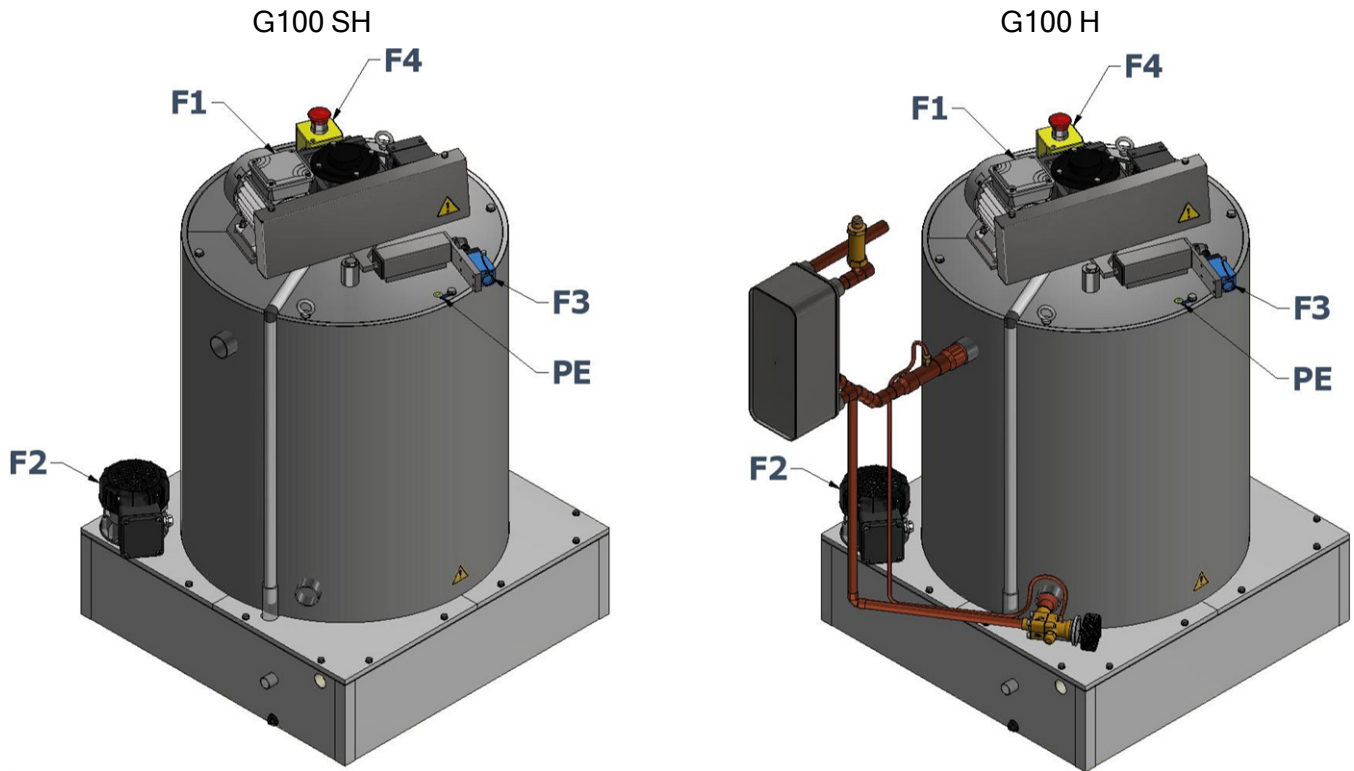
Volume	1,5 m ³
Length	1040 mm (41 inches)
Width	940 mm (37 inches)
Height	1520 mm (60 inches)
Net weight	160 Kg (353 lbs)
Gross weights	300 Kg (662 lbs)

G100 Generator Hydraulic characteristics



Ref.	Designation	Qty	Connections		
			Dimensions	Type	Material
A	Generator water supply	1	1/2" gas	Threaded	PVC
B	Overflow	1	20/22 mm	Smooth tube	Stainless steel
C	Draining	1	3/8" gas	Tapped	Stainless steel

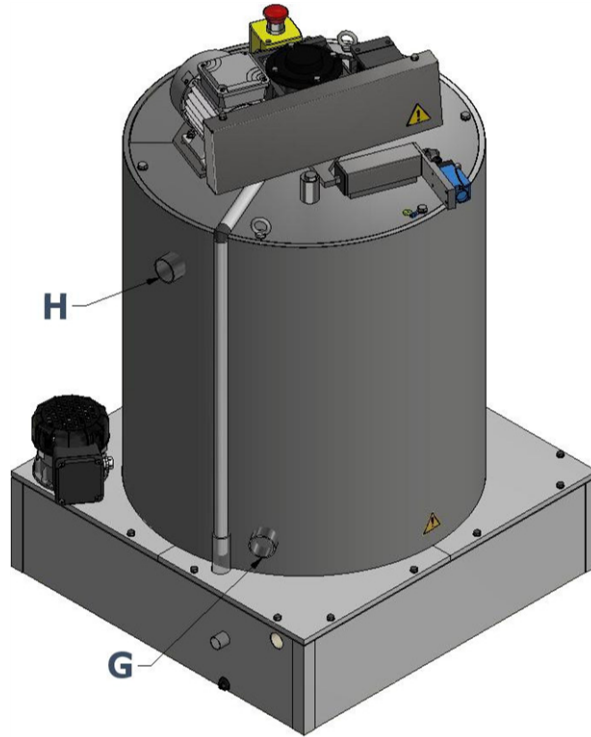
G100 Generator Electrical characteristics



Ref.	Designation	Qty	Electrical power supply	Nominal power	Nominal current	Contact
F1	Scraper motor	1	400V - 3 - 50Hz	1 x 180W	1 x 0,8A	-
F2	Water pump	1	230V - 1 - 50Hz	1 x 40W	1 x 0,3A	-
F3	Torque limiter contact	1	-	-	-	1NC/1NO
F4	Scraper emergency stop contact	1	-	-	-	1NC/1NO
PE	equipotential earth bonding socket	1	-	-	-	-

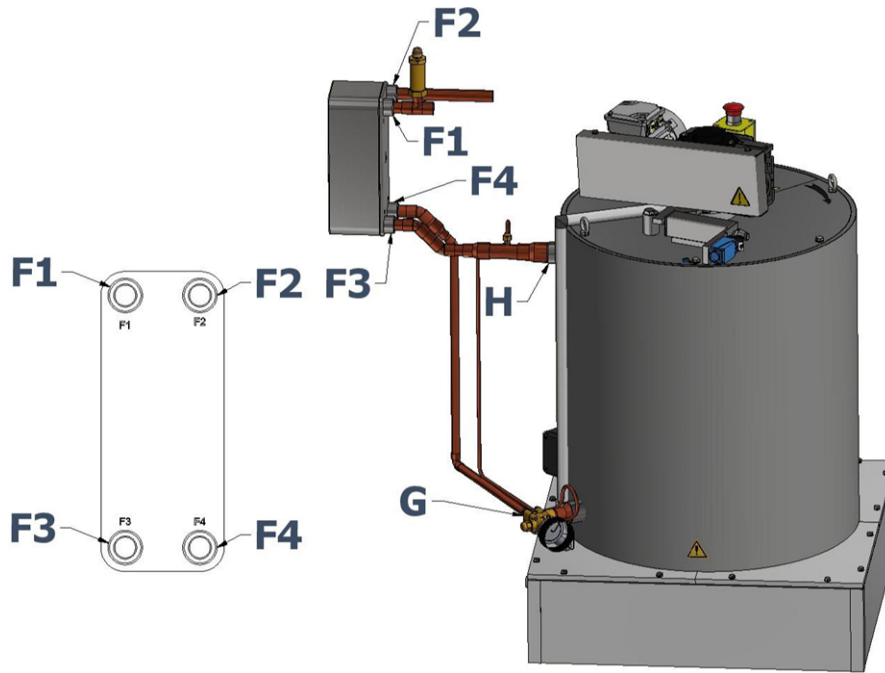
G100 Generator Cooling characteristics

Generator G100-SH



Ref.	Designation	Qty	Connections	
H	Suction	1	Dimensions (mm)	42.16 x 3.56
			Type	Smooth tube
			Material	Stainless steel
G	Liquid supply	1	Dimensions (mm)	42.16 x 3.56
			Type	Smooth tube
			Material	Stainless steel

Generator G100-H with exchanger

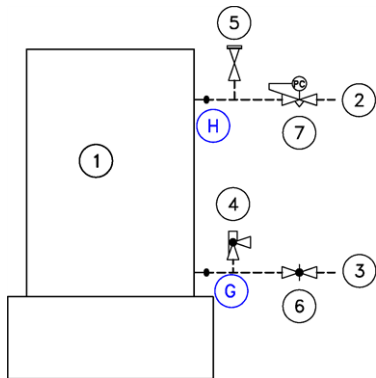


Ref.	Designation	Qty	connections	
F3-F1	Heat exchanger Suction line	1	Dimensions (mm)	Ø 28 mm
			Type	O.D.F
			Material	Stainless steel
F2-F4	HP liquid supply	1	Dimensions (mm)	Ø 22 mm
			Type	O.D.F
			Material	Stainless steel
H	Suction	1	Dimensions (mm)	42,16 x 3,56
			Type	Smooth tube
			Material	Stainless steel
G	Heat exchanger Liquid line	1	Dimensions (mm)	5/8"
			Type	O.D.F
			Material	Brass

Cooling diagram G100 Generator without exchanger

«SH» Generator without exchanger is intended to be connected to a refrigeration system supplying the generator with HP liquid by pump recirculation.

G100-SH and G100-SH CO2 generators without exchanger.

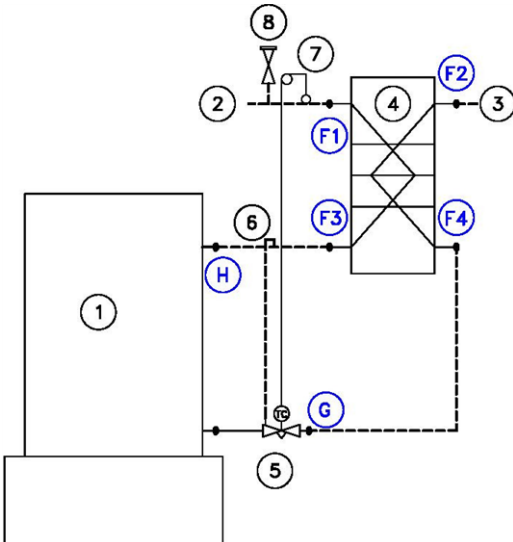


1. Generator
2. Suction
3. LP supply
4. Oil purge (only R717) (supplied/not installed)
5. Safety valve (not supplied)
6. Adjuster (not supplied)
7. Constant pressure valve (not supplied)

--- Connections not supplied

Cooling diagram G100 Generator with exchanger

G100-H connection



1. Generator
2. Suction
3. HP liquid supply
4. Heat exchanger
5. Thermostatic pressure reducer
6. External equalisation
7. Bulb position
8. Safety valve (not supplied)

--- Connections not supplied

Options G100 Generator

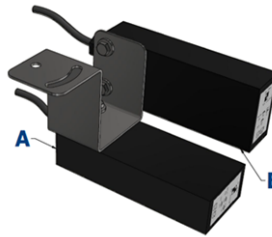
Salt dosing pump

- Power supply 100÷240 Vac - 50/60 Hz - 15 W
- Flow rate range: (0.1 % to 100%)x 2 L/h.
- IP65
- Fuse 1.6 A (20 W).
- 50 L reserve
- 25 Kg salt tablets



Ice level detection

- IP: 67
- CE and UL standards
- Power supply : 10-30 VDC
- 2 Infrared sensors:
 - A: Infrared sensor for security level
 - B: Infrared sensor for control level
- 1 Ice level sensors holder in inox steel



Electrical panel PGS_2

- IP: 55
- CE or UL standards
- Available power supply voltages:
 - 400 V-3+Neutral / 50 Hz
 - 400 V-3 / 50 Hz
 - 575 V-3 / 60 Hz
 - 460 V-3 / 60 Hz



Remote control for PGS_2 Electrical panel

- IP: 65
- CE or UL standards
- An On button
- An Off button
- A green On indicator light
- A red fault indicator light
- A weekly programmable clock
- An emergency stop button

