

GALAXY SOLO

R290 CHILLERS



NATURAL HVAC SYSTEMS SOLUTIONS
FOR A MORE SUSTAINABLE FUTURE

PRODUCT DESCRIPTION

Galaxy Solo air-cooled chiller has the cooling capacity of 45 kW to 120 kW and is designed for industrial or commercial buildings with smaller power demand. Such systems are widely used in various factories, supermarkets and office buildings. Galaxy Solo chiller is made with one circuit to service the end user. Special modular assembly system provides the ability to integrate Galaxy Solo with useful additional options, such as a built-in hydraulic module or heat recovery system. With extensive power selection options and many possible extra features, Galaxy chillers stand out as one of the most versatile products that Refra can offer.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

Comprehensive modular frame construction is assembled with high-quality EC fan motor technology, microchannel heat exchangers, reciprocating compressors. The galvanized steel and powder coated frame with a reliable 20 mm non-flammable acoustical PU foam insulation material ensures proper unit protection as well as noise reduction. An additional 30 mm rock wool material can be supplemented for a super silent unit operation.

PARTS INCLUDED

- Bitzer reciprocating compressors (Ex II-3G) with oil charge and oil level monitoring/differential pressure switch;
- Polymer powder painted RAL7035 frame;
- HP/LP pressure switch per circuit;
- HP/LP pressure gauges per circuit;
- Necessary pressure and temperature probes;
- Air cooled microchannel condenser;
- Double safety valves per circuit;
- Filter drier on liquid line per circuit;
- Sight glass on liquid line per circuit;
- Magnetic expansion valve per circuit;
- Control board with Siemens Climatix controller;
- Vibration absorbers;
- BPHE evaporator;
- R290 leak detector;
- Emergency EX fan;
- EC Fans.

TECHNICAL PARAMETERS

Calculations are made for basic units without additional options

| Model | | GAL106 | GAL108 | GAL109 | GAL110 | GAL112 | GAL113 | GAL114 |
|-------------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| Standard version | | | | | | | | |
| Refrigeration capacity ¹ | kW | 48,40 | 63,40 | 72,30 | 85,40 | 94,40 | 108,80 | 124,50 |
| Power consumption | kW | 14,40 | 18,40 | 20,80 | 25,10 | 29,20 | 33,20 | 38,90 |
| EER | | 3,4 | 3,4 | 3,5 | 3,4 | 3,2 | 3,3 | 3,2 |
| SEPR | | 7,04 | 7,02 | 6,90 | 6,50 | 7,00 | 6,93 | 6,86 |
| SEER | | 5,69 | 5,48 | 5,38 | 5,38 | 5,68 | 5,55 | 5,56 |

System data

| Refrigerant | Type | R290 | | | | | | |
|--|------|------|-----|-----|-----|-----|-----|-----|
| Number of compressors | n | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Refrigerant quantity ² | kg | 4,4 | 4,4 | 4,4 | 5,1 | 5,8 | 6,9 | 6,9 |
| Inlet/Outlet connections | DN | 50 | 50 | 50 | 65 | 65 | 65 | 80 |
| Sound pressure level in 10m ³ | dB | 51 | 51 | 53 | 53 | 54 | 56 | 56 |

Fan

| Type | | EC | | | | | | |
|----------------|------|-------|-------|-------|-------|-------|-------|-------|
| Number of fans | n | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Air flow | m³/h | 41598 | 41598 | 41598 | 41598 | 83196 | 83196 | 83196 |

Plate heat exchanger

| | | | | | | | | |
|---------------------------------|------|-----|------|------|------|------|------|------|
| Number of plate heat exchangers | n | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Flow rate cooling ¹ | m³/h | 9,3 | 12,1 | 13,8 | 16,3 | 18,1 | 20,9 | 23,8 |
| Pressure drop cooling | kPa | 9,6 | 15,1 | 18,8 | 14,1 | 16,8 | 15,1 | 19,0 |

Power supply

| | | | | | | | | |
|------------------------|---|---------------|------|------|------|------|------|-------|
| Voltage | | 400V 3Ph/N/PE | | | | | | |
| Max. power consumption | A | 36,5 | 47,9 | 55,2 | 65,2 | 75,7 | 87,4 | 107,7 |

Dimensions and weight

| | | | | | | | | |
|------------------|----|------|------|------|------|------|------|------|
| Length | mm | 2607 | 2607 | 2607 | 2607 | 2877 | 2877 | 2877 |
| Width | mm | 1275 | 1275 | 1275 | 1275 | 2321 | 2321 | 2321 |
| Height | mm | 2355 | 2355 | 2355 | 2355 | 2355 | 2355 | 2355 |
| Operating weight | kg | 980 | 1030 | 1030 | 1050 | 1260 | 1260 | 1290 |

Dimensions and weight with additional buffer tank

| | | | | | | | | |
|------------|----|------------------------------------|------|------|------|------|------|------|
| Length | mm | 2877 | 2877 | 2877 | 2877 | 4082 | 4082 | 4082 |
| Width | mm | 2321 | 2321 | 2321 | 2321 | 2321 | 2321 | 2321 |
| Height | mm | 2355 | 2355 | 2355 | 2355 | 2355 | 2355 | 2355 |
| Net weight | kg | +430 kg (500 L) or +570 kg (800 L) | | | | | | |

¹ Outside air temperature 35°C, medium temperature 12/7°C, medium EG 35%.

² Theoretical values refer to the basic unit. The actual amount of gas charge in the unit may differ.

³ Sound pressure level at a distance of 10m in the free field and at the extended point, tolerance +/-2dB(A).



Additional Information

All Dimensions shown in Millimetres (mm) unless otherwise stated. Dimensions and features are subject to change. Please obtain current technical information prior to order confirmation.

NOTE: We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or Shipped.

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