

# Galaxy Chillers

## GALAXY QUAD



\* The photos in this brochure are for illustrative purposes only. The appearance of the final product may vary depending on your selections, additional options and other order details.

# R290 Chillers

Natural refrigerants available!  
#R290

Choose propane or propylene and  
contribute to the environment!

## GALAXY QUAD

### DESCRIPTION

Galaxy Quad air-cooled chiller has the cooling capacity of 229 kW to 465 kW and is designed for industrial or commercial buildings with high power demand. Such systems are widely used in various factories, supermarkets, warehouses and office buildings. **Galaxy Quad chiller is made with four circuits to ensure continuous system operation in case of emergency – if one circuit is damaged, the others can still use the remaining unit capacity to service the end user.**

Special modular assembly system provides the ability to integrate Galaxy Quad with useful additional options, such as a built-in hydraulic module and 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 | Galaxy Quad

CALCULATIONS ARE MADE FOR BASIC UNITS WITHOUT ADDITIONAL OPTIONS

Model		GAL430	GAL434	GAL439
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## Standard version

Refrigeration capacity <sup>1</sup>	kW	246,40	288,40	331,60
Power consumption	kW	73,30	83,30	99,50
EER		3,4	3,5	3,3
SEPR		6,85	6,80	6,42
SEER		5,20	5,18	4,81

## System data

Refrigerant	Type	R290		
Number of compressors	n	4	4	4
Refrigerant quantity <sup>2</sup>	kg	3,7	4,6	4,6
Inlet/Outlet connections	DN	100	125	125
Sound pressure level in 10m <sup>3</sup>	dB	57	59	59

## Fan

Type		EC		
Number of fans	n	8	8	8
Air flow	m <sup>3</sup> /h	166392	166392	166392

## Plate heat exchanger

Number of plate heat exchangers	n	2	2	2
Flow rate cooling <sup>1</sup>	m <sup>3</sup> /h	47,2	55,1	63,3
Pressure drop cooling	kPa	26,5	22,3	28,5

## Power supply

Voltage		400V 3Ph/N/PE		
Max. power consumption	A	191,6	220,8	260,8

## Dimensions and weight

Length	mm	5286	5286	5286
Width	mm	2321	2321	2321
Height	mm	2355	2355	2355
Operating weight	kg	3920	3920	3920

## Dimensions and weight with additional buffer tank

Length	mm	6490	6490	6490
Width	mm	2321	2321	2321
Height	mm	2355	2355	2355
Net weight	kg	+290 kg (500 L) or +430 kg (800 L)		

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

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

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

# Technical Parameters | Galaxy Quad

CALCULATIONS ARE MADE FOR BASIC UNITS WITHOUT ADDITIONAL OPTIONS

Model		GAL444	GAL448	GAL454
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## Standard version

Refrigeration capacity <sup>1</sup>	kW	365,20	413,20	483,20
Power consumption	kW	109,90	126,20	150,50
EER		3,3	3,3	3,2
SEPR		6,83	6,51	6,36
SEER		5,25	5,02	4,80

## System data

Refrigerant	Type	R290		
Number of compressors	n	4	4	4
Refrigerant quantity <sup>2</sup>	kg	7,4	7,4	8,4
Inlet/Outlet connections	DN	125	125	125
Sound pressure level in 10m <sup>3</sup>	dB	60	61	61

## Fan

Type		EC		
Number of fans	n	12	12	12
Air flow	m <sup>3</sup> /h	249588	249588	249588

## Plate heat exchanger

Number of plate heat exchangers	n	2	2	2
Flow rate cooling <sup>1</sup>	m <sup>3</sup> /h	69,9	79,0	92,3
Pressure drop cooling	kPa	21,6	27,0	23,0

## Power supply

Voltage		400V 3Ph/N/PE		
Max. power consumption	A	289,2	336,0	417,2

## Dimensions and weight

Length	mm	7695	7695	7695
Width	mm	2321	2321	2321
Height	mm	2355	2355	2355
Operating weight	kg	5110	5110	5110

## Dimensions and weight with additional buffer tank

Length	mm	8900	8900	8900
Width	mm	2321	2321	2321
Height	mm	2355	2355	2355
Net weight	kg	+290 kg (500 L) or +430 kg (800 L)		

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

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

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