

## GEA Grasso BluAstrum

High efficient chillers for air conditioning and industrial cooling



GEA Grasso BluAstrum is the new chiller series of GEA Refrigeration Technologies that provides compactness and efficiency at its best. One of the most important novelties is the new generation of screw compressors utilizing speed control and variable internal volume ratio for maximum full and part load efficiency. The advanced control system GEA Grasso GSC TP ensures reliable operation and maximum efficiency with customer oriented communication features. As a result GEA Grasso BluAstrum sets new benchmark for ESEER values.

The enclosure is optionally available to reduce the noise level even further. GEA Grasso BluAstrum uses only the natural refrigerant ammonia (R717).

The new chiller series comprises six sizes within a capacity range from 500 kW to 2,000 kW and operating conditions between -15 °C and +15 °C.

## Product features and technical data



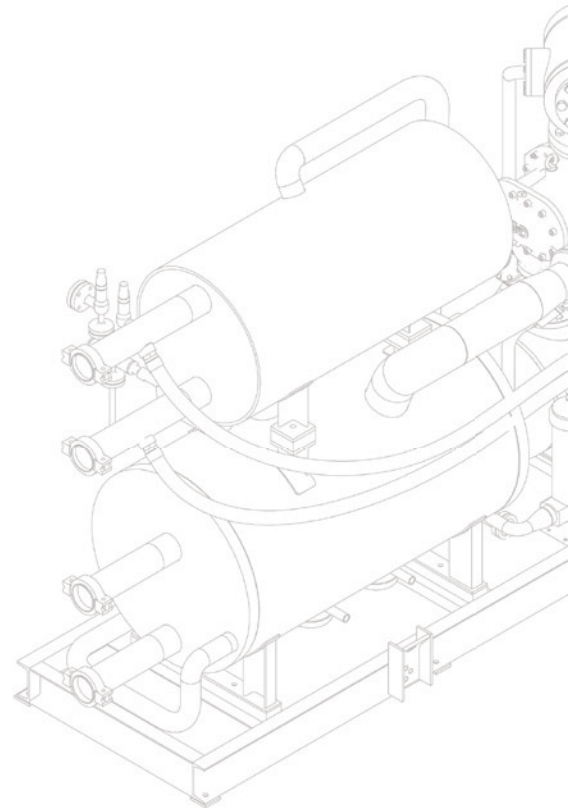
- ① Screw compressor GEA Grasso MC**  
The new compressors of the updated GEA Grasso MC series are characterized by a small size and high efficiency. The Vi adoption ensures best efficiency at all operating conditions. The generous internal flow paths give the compressor a very low noise level and the simple oil circuit with less mechanical parts lowers the service demand as well as the TCO (Total Cost of Ownership).
- ② Sytem control GEA Grasso GSC TP**  
The GEA Grasso GSC TP ensures a reliable operation of the chiller with an easy menu structure and extended functionalities. One of the major novelties is the optimized sequence control and the easy network setup.
- ③ Variable speed drive (VSD)**  
The variable speed drive operation ensures the best possible part load efficiency and steady process temperature at all capacity levels. The starting current is very low compared to traditional starters.
- ④ Enclosure**  
A compact enclosure can optionally be delivered to reduce the noise level.
- ⑤ Condenser**  
The new condenser works at very low approach temperatures that minimizes the TCO.
- ⑥ Expansion control system**  
The liquid level is controlled at a minimum stage to minimize the refrigerant charge and to maximize the efficiency.
- ⑦ Evaporator with integrated separator**  
The new flooded evaporator design combines compactness and exceptional high efficiency by offering low approach temperatures. The evaporator is equipped with an internal liquid separator.

## Advantages at a glance

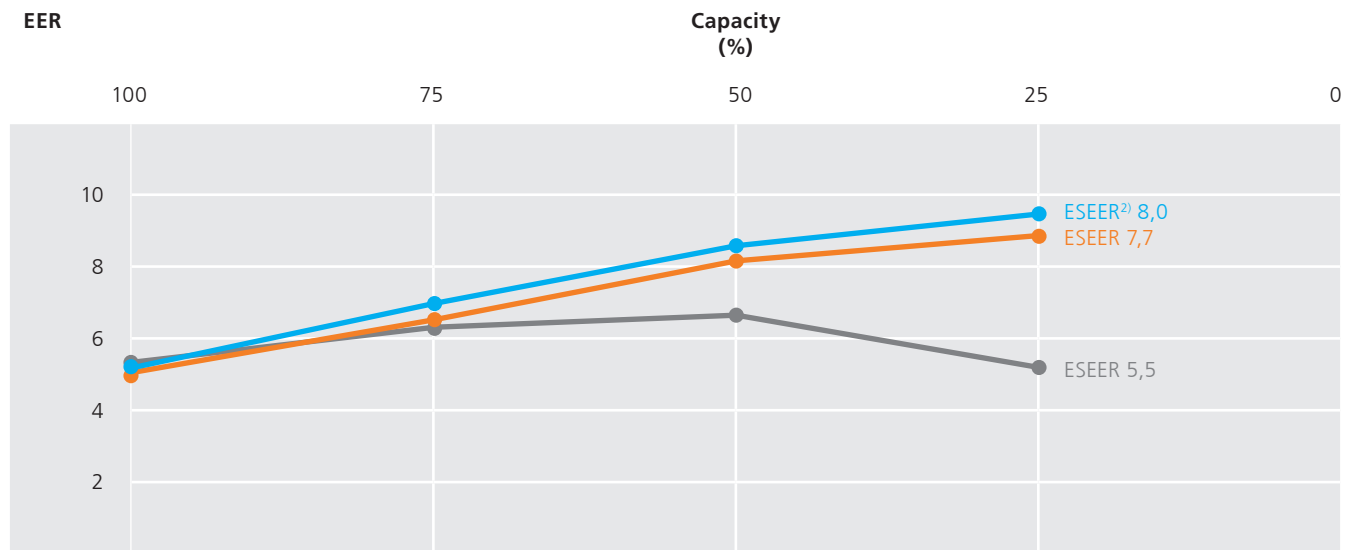
- Maximum efficiency at all operating conditions (ESEER 8.0)
- Low operational costs
- Compact & easy-to-service design
- Door size for easy replacement of HFC / HCFC units
- Low vibration & noise level
- Long-term solution with the natural refrigerant ammonia (R717), GWP = 0

## Technical data

- Max. design pressure: 28 bar
- Refrigerant: R717
- Ambient temperature: 5 to 40 °C
- Water/brine temperature (outlet): -15 °C to +15 °C
- Speed range: 1,000 to 4,500 min<sup>-1</sup>
- Certification: CE-PED



## Efficiency calculation according to EER<sup>1)</sup>



1) Energy efficiency ratio

2) European seasonal energy efficiency ratio

— GEA Grasso BluAstrum; 12/7 °C water

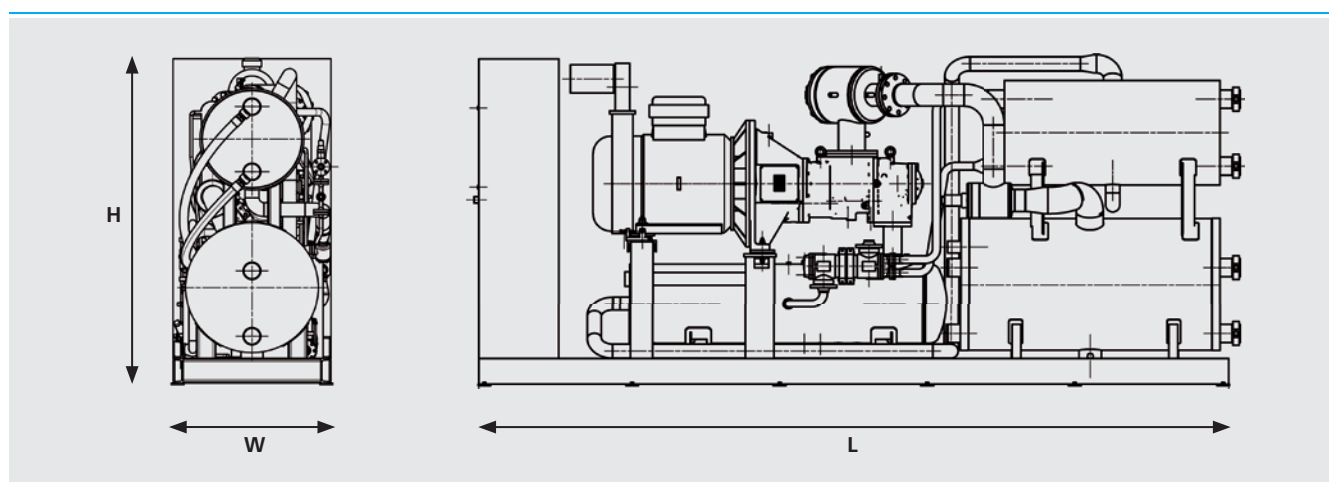
— GEA Grasso BluAstrum; 12/6 °C water

— Standard flooded chiller; 12/7 °C water

## GEA Grasso BluAstrum

Chiller type	Cooling capacity (kW)	Condensing capacity* (kW)	Electric power (kW)	EER	Dimensions (mm)			Weight (kg)
					L	W	H	
	R717 +12/+6 °C	R717 +30/+35 °C						
BluAstrum 500	550	660	110	5,00	4700	1000	2100	5500
BluAstrum 800	740	893	153	4,84	5000	1000	2100	6000
BluAstrum 900	880	1052	172	5,12	5000	1000	2100	6500
BluAstrum 1000	1100	1317	217	5,07	5000	1000	2100	7000
BluAstrum 1500	1450	1716	266	5,45	6500	1200	2400	8000
BluAstrum 1800	1730	2053	330	5,36	6800	1200	2400	8500

\* including oil cooling capacity



## GEA Refrigeration Technologies

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