

In Touch

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 BLUASTRUM

Grasso BluAstrum

High-efficient chillers for air conditioning and industrial cooling

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 Vi for maximum full- and part-load efficiency. The advanced control system Grasso GSC TP ensures reliable operation with maximum efficiency with customer oriented communication features. As a result Grasso BluAstrum sets new benchmark for ESEER

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

The final series of the new chiller design will comprise six sizes within a capacity range from 500 kW to 2,000 kW and operating conditions between -15 °C and +15 °C.

° In touch with your market – Grasso BluAstrum

Technical Data and Product Features



- ① **Screw compressor Grasso CM**
Grasso CM is the new screw compressor that is 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 **System control Grasso GSC TP**
The 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 level to minimize the entire 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.

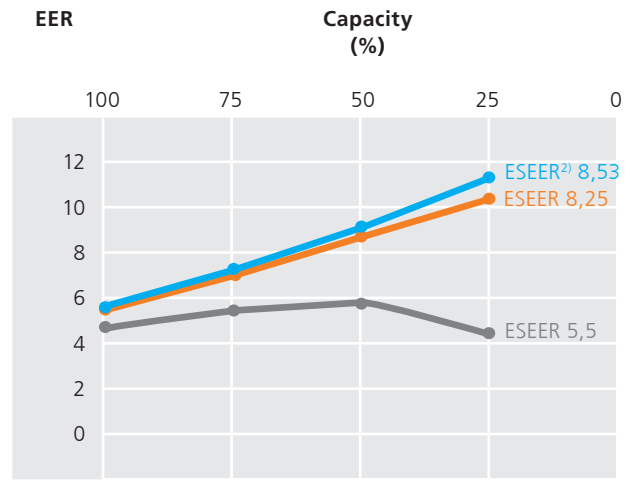
Advantages at a glance:

- ° Maximum efficiency at all operating conditions
- ° 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 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⁻¹
- ° Certification: CE-PED

Efficiency calculation according to EER¹⁾

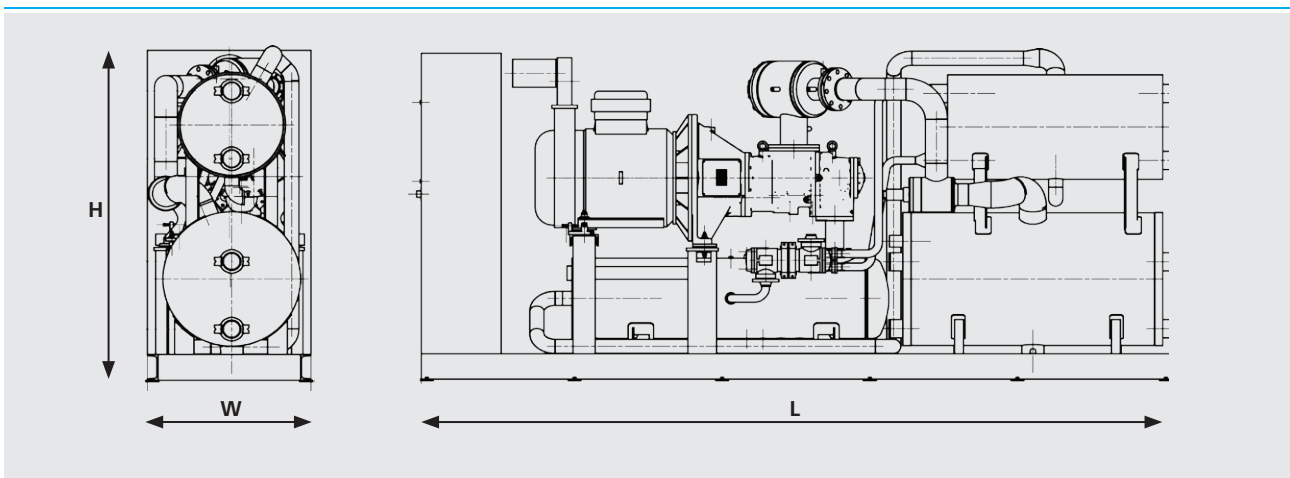


1) Energy efficiency ratio, 2) European seasonal energy efficiency ratio
 — Grasso BluAstrum; 12/7 °C water
 — Grasso BluAstrum; 12/6 °C water
 — Standard flooded chiller; 12/7 °C water

Grasso BluAstrum

Grasso BluAstrum	Cooling capacity (kW)		Condensing capacity (kW)	Electric power (kW)	EER	Dimensions (mm)			Weight (kg)
	R717 +12/+6 °C	R717 +30/+35 °C				L	W	H	
BluAstrum 500	592	695	111	5.35	4,100	1,000	2,100	4,800	
BluAstrum 800	772	906	142	5.42	4,300	1,000	2,100	5,200	
BluAstrum 900	892	1,046	164	5.42	4,500	1,000	2,100	5,600	
BluAstrum 1000	1,140	1,334	205	5.56	4,700	1,000	2,100	6,000	
BluAstrum 1500	1,424	1,663	256	5.56	4,800	1,200	2,300	6,600	
BluAstrum 1800	1,768	2,067	320	5.53	4,900	1,200	2,300	7,200	

Grasso BluAstrum 1000 will be available in 2011; all other types will follow in 2012



*Please don't hesitate to get in touch with us:
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