



coolenergy

TEMPERATURE RENTAL

Phoenix

630kW Rental Chiller



ABOUT THE CHILLER

Cool Energy's 630kW Phoenix chiller has the latest energy-saving Bitzer screw compressors (2), offering a wide temperature range of -12 °C to 15 °C water leaving temperature and 12.5% - 100% capacity control.

The chiller is fully Eurovent Compliant and offers the zero ozone depleting HFC refrigerant R134a and manufactured to the latest environmental ISO14001 controls.

With low noise (63dB(a)) operation and compact footprint, the Phoenix unit is currently the smallest chiller/kW available in the UK.

Cool Energy Service

Cool Energy can also supply the following equipment:

- Air-cooled rental chiller range from 0.3kW – 1,000kW units.
- Water-cooled rental chiller range from 7.5kW – 1,000kW units.
- Air handling units & fan coils from 5kW – 500kW duties.
- Air conditioning units from 1.3kW – 350kW units.
- Low temperature chillers (-30oC) and fan coils (0oC air off).
- Dehumidifiers (desiccant & electric) 200-10,000m³/hr.
- Generator Power with 20KVA – 800KVA fuel tanks and management.
- Air distribution (flexible ducting and perforated air socks).
- Hot water generators and boilers from 25kW – 500kW units.
- Heating (office/warehouse) from 3kW to 200kW electric/indirect/heat pump.

We also provide full installation, transportation, lifting and monitoring.



TECHNICAL

HVAC & Process Cooling Model: 600kW Phoenix Plus 280 chiller

Performance data @ design conditions

Cooling Capacity	kW	600
Operation Fluid Temperature IN/OUT	°C	12/7
Design Ambient Temperature	°C	30
Fluid Flow Min/Max	m ³ /hr	43/127.6
	l/s	11.9/35.4

Operating limits

Min/Max Ambient Temperature	°C	-18/43
Min/Max Leaving Fluid Temperature	°C	-12/15
Evaporator Pressure Drop	kPa	30
Max Working Pressure	kPa	1,000
Evaporator Water Volume	l	222.2

Electrical data

Electrical Supply Voltage 3 phase	V	400
Chiller Power Connections		12mm lugs
Cable Connection (240mm ² per phase)	M12	3 core + earth, no neutral
Max Power Absorbed	kW	228.2
Max Current Absorbed	A	410.3 (360 Nominal)
Starting Current (Max)	A	899 (720 Nominal)
Pre-Heating Crankcase Supply	V	230
AUX Supply Connection		32 or 63 A Ceeform
Recommended Generator Set	kVA	500
Control System		Carel pCO ³

Refrigerant System

Bitzer Screw Compressors (2 circuits)		2
(12.5 - 100% Variable Capacity)		
Refrigerant (Zero ozone deletion potential)	HFC	R134a

Fans

Total Number	1.25kW each	8
Total Airflow	m ³ /hr	33.3

Sound Data

Sound Pressure Level at 10 metres (ISO3744)	dB(A)	63
(see separate guide attached for octave band detail)	m ³ /hr	33.3

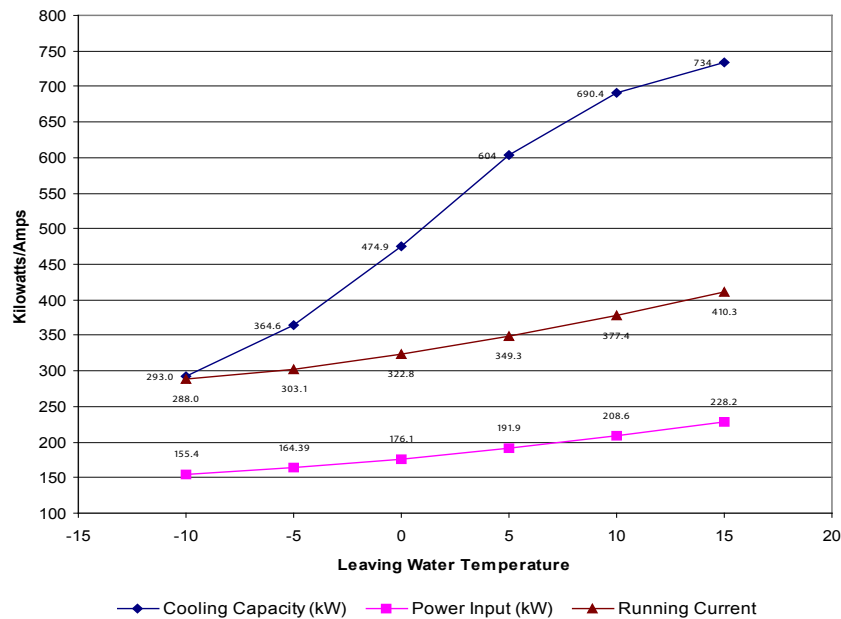
Physical Data

Overall Length	mm	4,530
Overall Width	mm	2,190
Overall Height	mm	2,360
Weight	kg	5,197
Fluid Coupling Size	mm/inch	150/6
Fluid Coupling Type	choice	PN16 Flange/bauer

E&OE. All data is subject to change and continuous improvement without notice.
 Equipment designed to ISO 9001 and all relevant electrical, pressure and mechanical directives.
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PERFORMANCE

Phoenix Plus PN280



Sound Levels

Measurements are taken in accordance with the standard ISO 3744.

Sound pressure average value obtained in free field on a reflective surface at a distance of 10m from the longer side of the machine at a height of 1.6m +/- 2 under full load in normal conditions.

For measurements closer than 10m add the following: 5m +6, 3m +10 and 1m +15

Octave bands (H3)								Sound Pressure
63	125	250	500	1000	2000	4000	8000	
Sound Power Level dB(A)								dB(A) 10m
55.6	72.4	84.8	85.7	85.7	82.0	74.0	63.6	63.0

Additional Services: Cool Energy can provide attenuated equipment and services to help further reduce the impact of our equipment to help meet your specific site requirements.

Sub 5 °C Water Applications

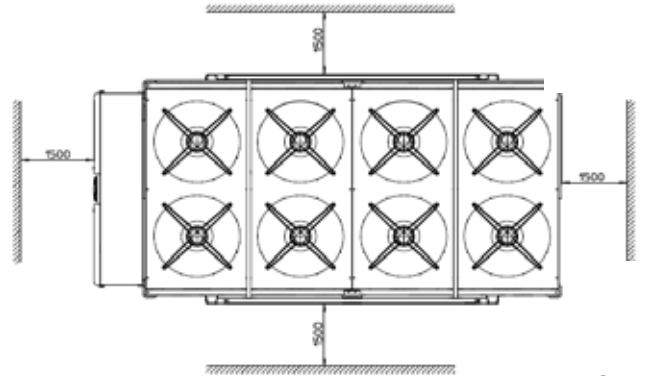
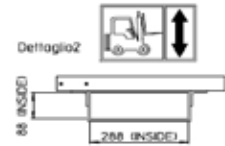
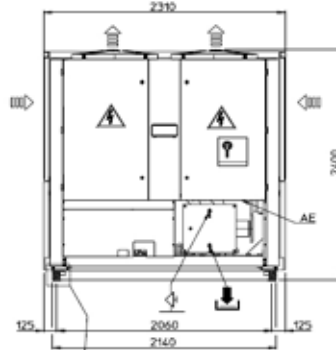
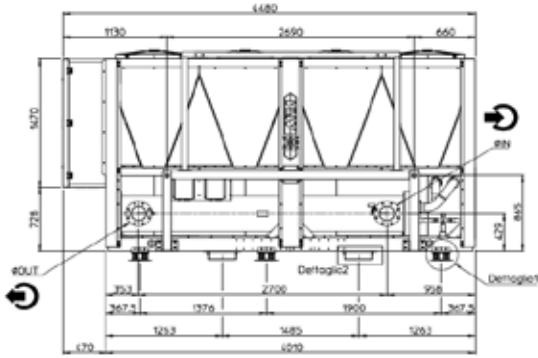
When installing a chiller and/or air handling piece of equipment, we would recommend the use of the following mix of Glycol for the systems total volume of fluid. This will protect the equipment against internal freezing and failure (e.g. 200 litre volume @ 0 °C foodsafe equals 30 litres of Glycol and 170 litres of water). Weekly checks should be made by the site maintenance engineer/manager to ensure the correct mix is present in the system.

Water/Glycol Recommendations and Guide:

Water Temperature			5 °C	0 °C	-5 °C	-10 °C	-15 °C
Industrial Grade	Mono Ethylene Glycol	% Mix	5	10	20	25	30
Foodsafe Grade	Mono Propylene GLycol	% Mix	10	15	20	25	30
Bio Foodsafe Grade (made from vegetable extracts)	Biodegradable Glycol	% Mix	10	15	20	25	30

Glycol can be purchased from Cool Energy in 25 litre, 205 litre and 1,000 litre drums.

GA DRAWING



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We also have four locations in Germany in Munich, Guglingen, Hagen and Leipzig. Further information on these locations can be found at www.coolenergy.de

www.coolenergy.co.uk



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Equipment designed to ISO-9001 and all relevant directives. Product improvement is a continual process at Cool Energy and we reserve the right to change the design and specifications without notice or obligation. Availability is subject to change without notice. Contact your local Cool Energy depot for availability. © 2010 Cool Energy. All rights reserved.