



CHILLER 230



ABOUT THE CHILLER

ICS Cool Energy's Chiller 230 has the latest energy-saving Maneurop Scroll compressors (4), offering a wide temperature range of -10°C to 15°C water leaving temperature and 12.5% - 100% capacity control.

The chiller offers the zero ozone depleting HFC refrigerant R410a and manufactured to the latest environmental ISO14001 controls.

With low noise (64.6dB(a)) operation and compact footprint.

THE ICS COOL ENERGY PORTFOLIO

ICS 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 (-40°C) and fan coils (0°C 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.

CONTACT US

Call us free on
0800 840 4210 or
visit our website
www.icscoolenergy.com

Depots Nationwide

hire@icscoolenergy.com

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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TECHNICAL CHILLER 230

PERFORMANCE DATA @ DESIGN CONDITIONS

Cooling Capacity	kW	230
Operation Fluid Temperature IN/OUT	°C	12/7
Design Ambient Temperature	°C	30
Fluid Flow Min/Max	m ³ /hr	18.8/43
	l/s	5.2/11.9

OPERATING LIMITS

Min/Max Ambient Temperature	°C	-18/43
Min/Max Leaving Fluid Temperature	°C	-12/15
Evaporator Pressure Drop	kPa	41
Max Working Pressure	kPa	1,000
Evaporator Water Volume	1	58.1

ELECTRICAL DATA

Electrical Supply Voltage 3 phase	V	400
Chiller Power Connections		10mm lugs
Cable Connection (95mm ² per phase)	M12	3 core + earth, no neutral
Max Power Absorbed	kW	70.4
Max Current Absorbed	A	170
Starting Current (Max)	A	347
Pre-Heating Crankcase Supply	V	230
AUX Supply Connection for pump		32A C Forme
Recommended Generator Set	kVA	200
Control System		Dixcel

REFRIGERANT SYSTEM

Maneurop Scroll Compressors (2 circuits)		4
(25-100% Variable Capacity)		
Refrigerant (Zero ozone deletion potential)	HFC	R410a

FANS

Total Number	1.2kW each	4
Total Airflow	m ³ /hr	39.8

SOUND DATA

Sound Pressure Level at 10 metres (ISO3744)	dB(A)	64.6
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PHYSICAL DATA

Overall Length	mm	3,418
Overall Width	mm	2,188
Overall Height	mm	1,989
Weight	kg	2,300
Fluid Coupling Size	mm/inch	100/4
Fluid Coupling Type	choice	PN16 Flange/bauer
IPLV Rating		4.58
ESEER Rating		4.32

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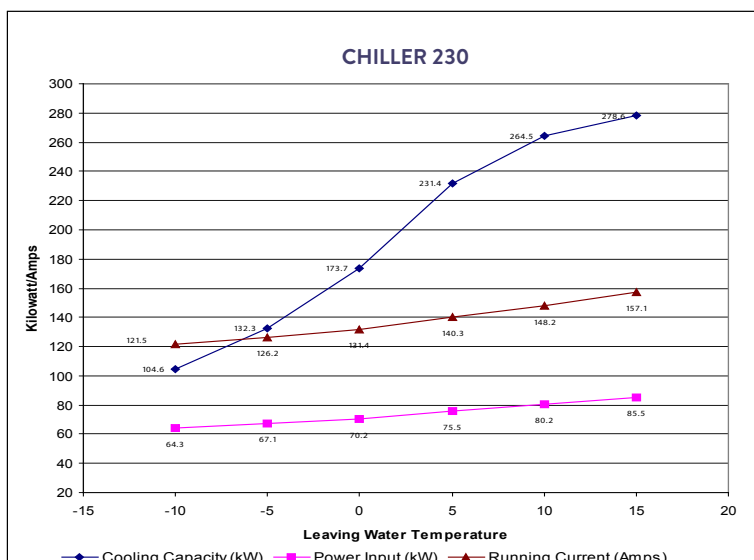
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PERFORMANCE



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	
55.4	62.9	66.9	62.4	59.2	55.1	47.4	39.1	64.6	

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 ICS Cool Energy in 25 litre, 205 litre and 1,000 drums.

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