ics cool energy

CHILLER 160



ABOUT THE CHILLER

ICS Cool Energy's Chiller 160 has an integral thermal buffer tank in order to give a controlled band of temperature control to your process or HVAC system.

This chiller offers a wide temperature range of -10°C to 15°C water leaving temperature. The unit is also supplied with an integral process pump together with quick-release water and power connections for a fast start-up.

With low noise operation and compact footprint, the Chiller 160 is fully packaged to simplify installation on site with easy set up and control.

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 160

PERFORMANCE DATA @ DESIGN CONDITIONS		
Cooling Capacity	kW	160
Operation Fluid Temperature IN/OUT	°C	12/7
Design Ambient Temperature	°C	30
Fluid Flow Min/Max	m³/hr	12.5/56
	l/s	-

OPERATING LIMITS		
Min/Max Ambient Temperature	°C	-5/46
Min/Max Leaving Fluid Temperature	°C	-12/15
Evaporator Pressure Drop	kPa	53
Max Working Pressure	BAR	6
Evaporator Water Volume	1	678

ELECTRICAL DATA		
Electrical Supply Voltage 3 phase	V	400
Chiller Power Connections		125amp C Forme 5 pin Plug
Max Power Absorbed	kW	71 (64.3 Nominal)
Max Current Absorbed	A	119 (109 Nominal)
Starting Current (Max)	A	224.5
Recommended Generator Set	kVA	100
Control System		Dixell

REFRIGERANT SYSTEM		
Maneurope Scroll Compressors (2 circuits)		4
(25-100% Capacity)		
Refrigerant (Zero ozone deletion potential)	HFC	R410A

FANS		
Total Number	(1.2kW each)	3
Total Airflow	m³/hr	6390

SOUND DATA		
Sound Pressure Level at 10 metres (ISO3744) (see separate guide attached for octave band detail)	dB(A)	77.2

PHYSICAL DATA		
Overall Length	mm	4000
Overall Width	mm	1,270
Overall Height	mm	2151
Weight	kg	1585 (+ 678 Wet Weight)
Fluid Coupling Size	mm/inch	100/4

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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

MODEL	OCTANE BANDS (Hz)	63	125	250	500	1000	2000	4000	8000
Chiller 160	Sound Power Level	55,7	73,4	74,7	82,3	86,5	83,6	80,5	75,7

MODEL	SOUND POWER LEVEL	SOUND PRESSURE LEVEL	SOUND PRESSURE LEVEL	SOUND PRESSURE LEVEL	SOUND PRESSURE LEVEL
Chiller 160	90,2 dB(A)	62,2 dB(A) 10 m	68,2 dB(A) 5 m	72,2 dB(A) 3 m	77,2 dB(A) 1 m

Additional Services: ICS 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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