



# CHILLER 40



## ABOUT THE CHILLER

The Chiller 40, which provides a reduced footprint, lower power usage and is Eurovent certified, is part of a 10 model range capable of offering between 1kW and 50kW of cooling.

The chillers all contain a circulation pump and thermal buffer tank capable of receiving variable load conditions and providing stable return temperatures.

The units can be supplied with ferrous or non-ferrous circuit, together with a wide range of connecting valves and hoses to help connect on to customers specific systems.

The ranges have been designed to help provide cooling for the following uses:

- R&D testing for long or short term trials
- Plastics and Rubber production
- Food storage and packaging
- Laser applications
- Jacketed vessels and tank cooling
- Air compressor cooling

## 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) 200-10,000m<sup>3</sup>/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](http://www.icscoolenergy.com)

Depots Nationwide

[hire@icscoolenergy.com](mailto: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 40

### PERFORMANCE DATA @ DESIGN CONDITIONS

Cooling Capacity	kW	40
Operation Fluid Temperature IN/OUT	°C	7/12
Design Ambient Temperature	°C	30
Fluid Flow Min/Max	m <sup>3</sup> /hr	3.0/18
	l/s	0.8/5.0

### OPERATING LIMITS

Min/Max Ambient Temperature	°C	-18/43
Min/Max Leaving Fluid Temperature	°C	-5/15
Evaporator Pressure Drop	kPa	41
Max Working Pressure	kPa	600
Evaporator Water Volume	1	255

### ELECTRICAL DATA

Electrical Supply Voltage 3 phase	V	400
Chiller Power Connections		32amp C Forme Plug
Max Power Absorbed	kW	18
Max Current Absorbed	A	32
Starting Current (Max)	A	42
AUX Supply Connection for pump		YES
Recommended Generator Set	kVA	20
Control System		Dixell

### REFRIGERANT SYSTEM

Maneurop Scroll Compressors (2 circuits)		1
(50-100% Variable Capacity)		
Refrigerant (Zero ozone depletion potential)	HFC	R407c or R410a

### FANS

Total Number	0.78kW each	1
Total Airflow	m <sup>3</sup> /hr	13.5

### SOUND DATA

Sound Pressure Level at 10 metres (ISO3744)	dB(A)	55
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### PHYSICAL DATA

			WITH FRAME
Overall Length	mm	1,860	2,260
Overall Width	mm	760	805
Overall Height	mm	1,447	1,770
Weight	kg	570	740
Fluid Coupling Size	mm/inch	50/2	
Fluid Coupling Type	2"	Bauer	

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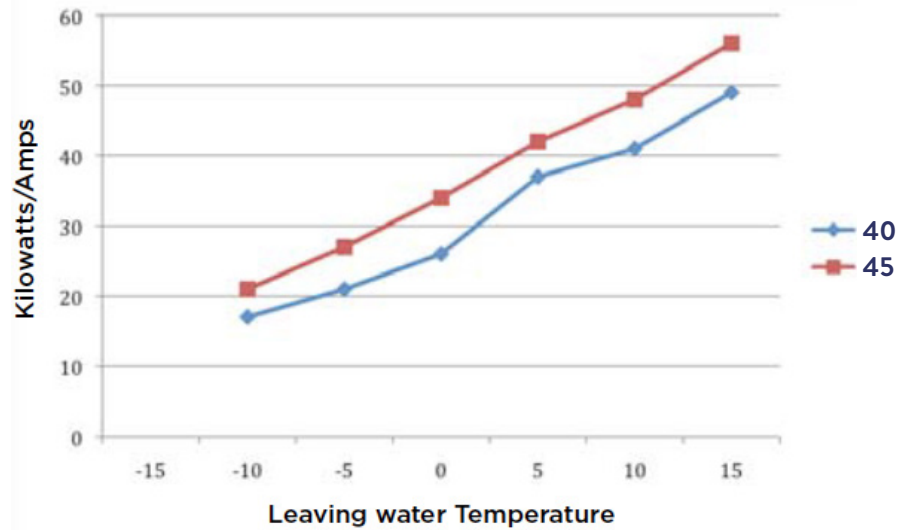
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## TECHNICAL CHILLER 40

CHILLER 40/45



### 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
36.0	52.9	63.9	72.7	80.3	76.3	74.2	62.1	55.0

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 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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