



coolenergy

TEMPERATURE RENTAL

Lab Cooler

0.2-3.5kW Rental Unit



ABOUT THE LAB COOLER

The 0.2-3.5kW Lab Cooler range of air cooled refrigerated rental chillers has a temperature range of -10°C - 40°C and is available for rental now.

The Lab Cooler Bench Top Range of stand alone, self-contained chillers include a refrigeration circuit, liquid pump, storage tank and control gear. Their compact size combined with low noise/vibration characteristics means they can be situated unobtrusively on or under a bench and makes them ideal for laboratory applications.

These units provide the ideal solution to a wide range of medical and scientific cooling and temperature control applications including:

- Mass Spectrometers
- X-Ray equipment
- MRI
- Solid State Lasers
- Induction hardening

General Description

These liquid chillers are equipped with efficient high ambient compressors and air-cooled condensers.

The units are designed and manufactured in the UK to meet the high environmental standards set by the Montreal Protocol.

Refrigeration Circuit

- R404A Refrigerant
- High pressure switches
- Refrigerant sight glass
- Internally equalised thermostatic expansion valve
- High capacity refrigerant drier
- High and low side service connections
- Close temperature control $\pm 0.3^{\circ}\text{C}$

Compressor

Reciprocating hermetically sealed compressor with a refrigerant cooled motor. The compressor is direct on line starting with internal overheating protection and external current monitoring equipment.

Evaporator

Compact Plate with Stainless Steel Plate and Copper Braze Plate Evaporator, for high thermal efficiency.

Condenser

Condenser tubes of oval construction. Very compact construction for maximum capacity/volume ratio.

Secondary fluid pump

The pump is non-ferrous, self-priming and has a vertical suction, which self-venting.

TECHNICAL

0.2-3.5kW Lab Cooler

Performance data @ design conditions

MODEL	LC600	LC900	LC1500	LC2000	LC2500	LC3500
Capacity Watts*	600	900	1500	2000	2500	3500
Required Flow Rate (litres/min)	1.7	2.6	4.3	5.7	7.2	8.6
System Absorbed Power kW***	0.34	0.42	0.63	0.74	1.03	1.33
Electricity Supply**	220-240/50/-1					
Tank Capacity (litres)	1.5	1.5	1.5	1.5	1.5	1.5
Available Pump Pressure (bar)	1.6	1.6	1.5	1.5	1.3	1.1
Designed Running Current (Amps) ***	3	3.5	5	5	6	7.5
Water Connections (Hose Tail)	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"

*Cooling capacity based 15°C liquid leaving temperature, 30°C ambient and does not include heat input from pump.

** 60Hz selections available on request.

*** Figures based on standard water pump.

Other pump options available to suit application

Physical Data

MODEL	LC600	LC900	LC1500	LC2000	LC2500	LC3500
Depth (mm)	550	550	550	550	550	550
Width (mm)	570	570	570	570	570	570
Height (mm)	315	315	315	400	400	400
Weight (Kg)	26	28	30	32	35	40

In all the above models, tubeless form of construction is employed. This is achieved by the use of highly ductile steel fins having funnel type collars formed (each funnel), which are subsequently copper brazed in an inert atmosphere furnace.

Standard Features

- Environmentally friendly refrigerant with low unit running costs
- Low refrigerant charge
- Polypropylene tank
- Brazed plate evaporator
- High quality non-ferrous water pump
- Electronic temperature control with digital display
- Manufactured to ISO9001 standards
- Low level alarm
- Close temperature control +/- 0.3°C, via Hot gas Injection
- Pump pressure gauge

ADDITIONAL INFORMATION

The Cool Energy range of rental Lab Coolers can also be supplied with the following additional options.

- Hot Gas Bypass for +/- 0.3°C Close Control
- High pressure 3 bar pump
- Various quick release couplings and connections (please ask)
- Castors
- Manual bypass
- 100 Micro external filters
- DI External cartridge
- Stainless Steel panels
- Alternative paint finish (std RAL 7035)



Call us free on 0800 840 4210 or visit our website
www.coolenergy.co.uk for more information.

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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



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www.coolenergy.co.uk

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