

Low Temperature Unit

50kW Rental Fan Coil



## ABOUT THE AIR HANDLER

Cool Energy's 50kW Low Temperature fan coil is a flexible twin fan unit capable of offering 27,700m<sup>3</sup>/hr airflow. The unit requires a water source to the integral coil and has quick-release water connections, together with a 63amp 3-phase power connection for low temperature operation and 16amp for standard use.

The air handler is sited internally and can be supplied with or without an independent low temperature defrost panel to offer a nominal 0°C air off temperature, capable of offering stability to a 4°C room or below.

The unit is also supplied with a condensate hose, real timer defrost control panel (to manage both coil and condensate tray heater element defrost), together with optional warehouse stands built to order.

## 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) 200-10,000m<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.



## TECHNICAL

### Low temperature 50kW fan coil

#### Performance data @ design conditions

Cooling Capacity	kW	50
Air Off Temperature	°C	0
Air On Temperature	°C	4
Water/Glycol mix in (min 25%)	°C	-8
Water/Glycol mix out	°C	-4

#### Cooling Operating limits

Min/Max Duty	kW	25/100
Min/Max Air Off Temperature	°C	-5/20
Fluid Pressure Drop	kPa	22.6
Max Working Pressure	kPa	1,000
Evaporator Water Volume	l	78
Condensate Connection (hose tail)	mm/inches	37/ 3/4

#### Air Limits

Total Number Fans	1.2kW each	2
Fan Diameter	mm	800
Total Airflow	m <sup>3</sup> /hr	27,700
	m <sup>3</sup> /s	7.7
Max Air Throw	m	40

#### Electrical data

Electrical Supply Voltage 3 phase	V	400
Power Connections (without defrost)	A	16 C forme plug
Power Connections (with defrost)	A	63 C forme Plug
Cable Connection (35mm <sup>2</sup> per phase)		3 core + earth, no neutral
Max Power Absorbed	kW	2.4/30
Max Current Absorbed (without/with defrost)	A	5.6/36
Starting Current (Max)	A	16
Recommended Generator Set (without/with defrost)	kVA	10/20
Control System		Carel pCO <sup>3</sup>

#### Sound Data

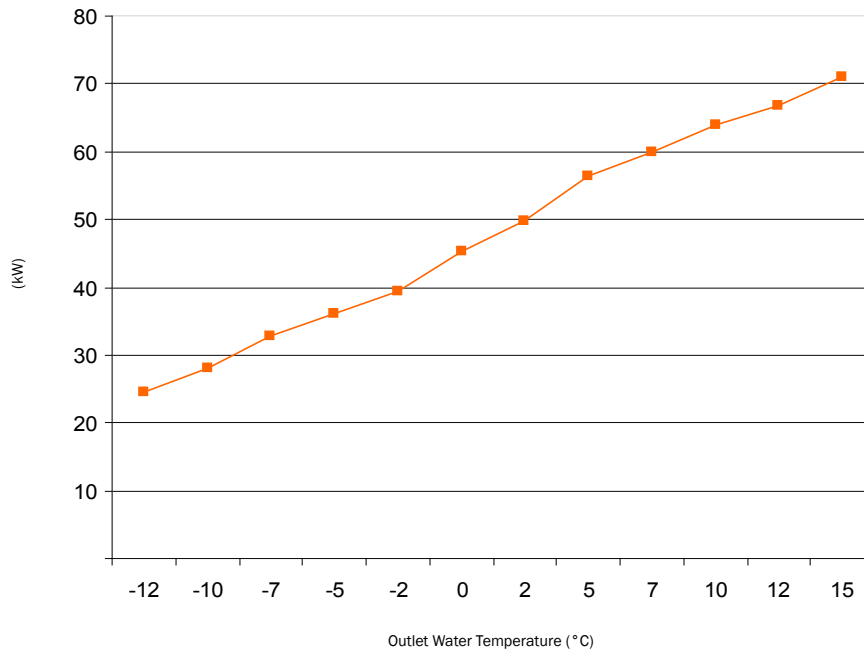
Sound Pressure Level at 10 metres (ISO3744)	dB(A)	66
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#### Physical Data

Overall Length	mm	3,050
Overall Width	mm	1,253
Overall Height	mm	1,376
Weight Dry	kg	591
Weight + Water/Glycol mix	kg	669
Fluid Coupling Size	mm/inch	50/2
Fluid Coupling Type	choice	PN16 Flange/bauer

## PERFORMANCE

### 50kW LT Fan Coil



### 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](http://www.coolenergy.de)

[www.coolenergy.co.uk](http://www.coolenergy.co.uk)



**coolenergy**

TEMPERATURE RENTAL

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.