



# coolenergy

TEMPERATURE RENTAL

TAE 602 LT -30°C

35kW Rental Chiller



## ABOUT THE CHILLER

Cool Energy's 35kW TAE Low Temperature chiller has an integral thermal buffer tank in order to give a controlled band of temperature control to your process or cooling system.

This chiller offers a wide temperature range of -5°C to -30°C water leaving, and is 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 TAE chillers are fully packaged to simplify installation on site with easy set up and control.

## 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 (-30°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.

# TECHNICAL

## Process Cooling Chiller: 35kW @ -30°C TAE Evo 602 LT

### Performance data @ design conditions

Cooling Capacity	kW	35
Operation Fluid Temperature IN/OUT	°C	-25/-30
Design Ambient Temperature	°C	30
Fluid Flow Min/Max	m <sup>3</sup> /hr	15.0/34.7
Lowara FHE 32 160/22 Pump	l/s	4.17/9.64

### Operating limits

Min/Max Ambient Temperature	°C	-18/43
Min/Max Leaving Fluid Temperature	°C	-5/-30
Evaporator Pressure Drop	kPa	41
Max Working Pressure	kPa	600
Evaporator Water Volume	l	600

### Electrical data

Electrical Supply Voltage 3 phase	V	400
Chiller Power Connections		125amp C Forme 5 pin Plug
Cable (35mm per phase)	M12	3 core + earth, no neutral
Max Power Absorbed	kW	37
Max Current Absorbed	A	98 (68.7 Nominal)
Starting Current (Max)	A	170 (148.7 Nominal)
Pre-Heating Crankcase Supply	V	N/A
AUX Supply Connection		N/A
Recommended Generator Set	kVA	100
Control System		Dixell

### Refrigerant System

Maneurop Reciprocating Compressors (2 circuits)		4
(50 - 100% Capacity)		
Refrigerant (Zero ozone depletion potential)	HFC	R404a

### Fans

Total Number	1.2kW each	2
Total Airflow	m <sup>3</sup> /hr	42,500

### Sound Data

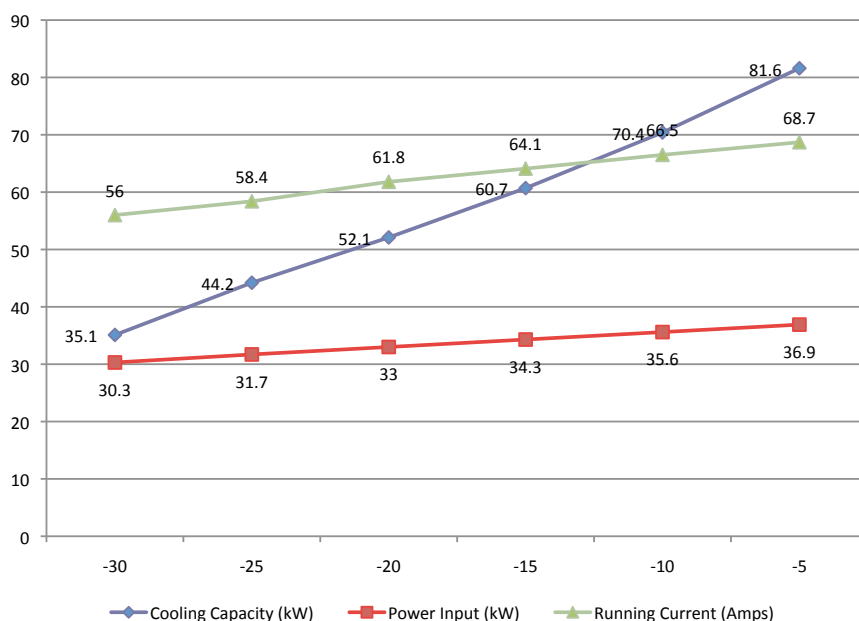
Sound Pressure Level at 10 metres (ISO3744)	dB(A)	62
(see separate guide attached for octave band detail)		

### Physical Data

Overall Length	mm	3,600
Overall Width	mm	1,275
Overall Height	mm	2,210
Weight	kg	1,600
Fluid Coupling Size	mm/inch	50/2
Fluid Coupling Type		PN16 Flange

## PERFORMANCE

TAE 602 LT -30°C



### 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
51	49	52	56	57	48	36	29	62.0

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

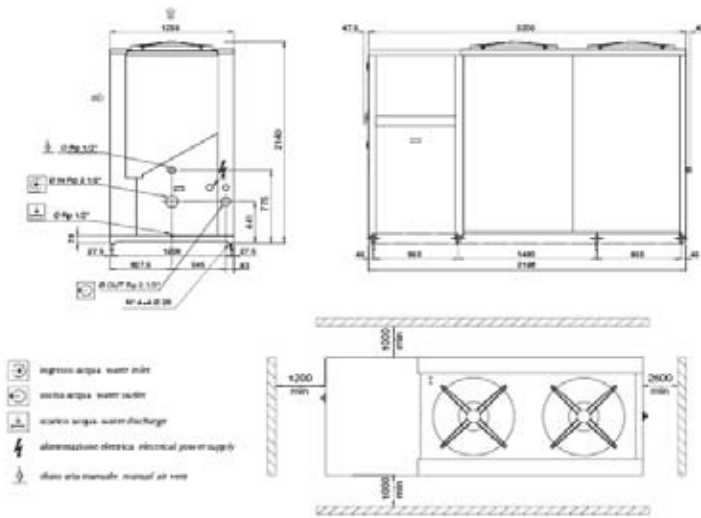
When installing a chiller and/or air handling piece of equipment, we would recommend the use of the following mix of Glycol for the systems total volume of fluid. This will protect the equipment against internal freezing and failure (e.g. 200 litre volume @ 0 °C foodsafe equals 30 litres of Glycol and 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			-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
Industrial Grade	Mono Ethylene Glycol	% Mix	25%	30%	35%	40%	45%	50%	N/A
Foodsafe Grade	Mono Propylene Glycol	% Mix	30%	35%	40%	45%	50%	55%	N/A
Bio Foodsafe Grade (made from vegetable extracts)	Biodegradable Glycol	% Mix	30%	35%	40%	45%	50%	55%	N/A
Tyfoxit F60	Potassium Formate Brine	% Mix	LVF20	LVF20	LVF20	LVF30	LVF30	LVF40	LVF40

Glycol can be purchased from Cool Energy in 25 Litre, 205 litre and 1,000 litre drums.

## GA DRAWING



### Head Office South

ICS House, Stephenson Road, Calmore Industrial Estate, Totton, SO40 3RY  
 T (+44) 23 8052 7300 F (+44) 23 8042 8366

### Midlands

Birmingham Science Park Aston, Faraday Wharf, Holt Street, Birmingham B7 4BB  
 T (+44) 121 326 7771 F (+44) 121 327 4114

### North

Floor 2, Caspian House, East Parade, Little Germany, Bradford BD1 5EP  
 T (+44) 1274 740 877 F (+44) 1274 391 708

### Scotland

Unit 5, 53/58 South Avenue, Blantyre Industrial Estate, Blantyre, G72 0XB  
 T (+44) 1698 723308 F (+44) 1698 723309

### Ireland

T (+353) 46 925 2934 F (+353) 46 925 2936

We also have four locations in Germany, Holland and Switzerland.  
 Further information on these locations can be found at  
[www.coolenergy.eu](http://www.coolenergy.eu)

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



  
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