



# coolenergy

TEMPERATURE RENTAL

TWE Evo 602

146kW Water-Cooled Chiller



## ABOUT THE CHILLER

Cool Energy's 146kW TWE Evo water-cooled chiller 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. 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 TWE Evo 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

## HVAC & Process Cooling Chiller: 146kW TAE Evo 602

### Performance data @ design conditions

Cooling Capacity	kW	146
Operation Fluid Temperature IN/OUT	°C	12/7
Design Ambient Temperature	°C	30
Fluid Flow Min/Max	m <sup>3</sup> /hr	10.4/48.0
	l/s	2.89/13.3

### Operating limits

Min/Max Ambient Temperature	°C	-5/46
Min/Max Leaving Fluid Temperature	°C	-10/30
Evaporator Pressure Drop	kPa	41
Max Working Pressure	kPa	600
Evaporator Water Volume	l	500

### Electrical data

Electrical Supply Voltage 3 phase	V	400
Chiller Power Connections		125amp C Forme 5 pin Plug
Cable (35mm <sup>2</sup> per phase)	M12	3 core + earth, no neutral
Max Power Absorbed	kW	43
Max Current Absorbed	A	96 (72 Nominal)
Starting Current (Max)	A	170 (150 Nominal)
Pre-Heating Crankcase Supply	V	N/A
AUX Supply Connection		N/A
Recommended Generator Set	kVA	100
Control System		Dixell

### Refrigerant System

Maneurop Scroll Compressors (2 circuits)		4
(25 - 100% Capacity)		
Refrigerant (Zero ozone deletion potential)	HFC	R407c

### Condensers

Total Number		1
Fluid Flow min/max	m <sup>3</sup> /hr	4.0/16.6

### Sound Data

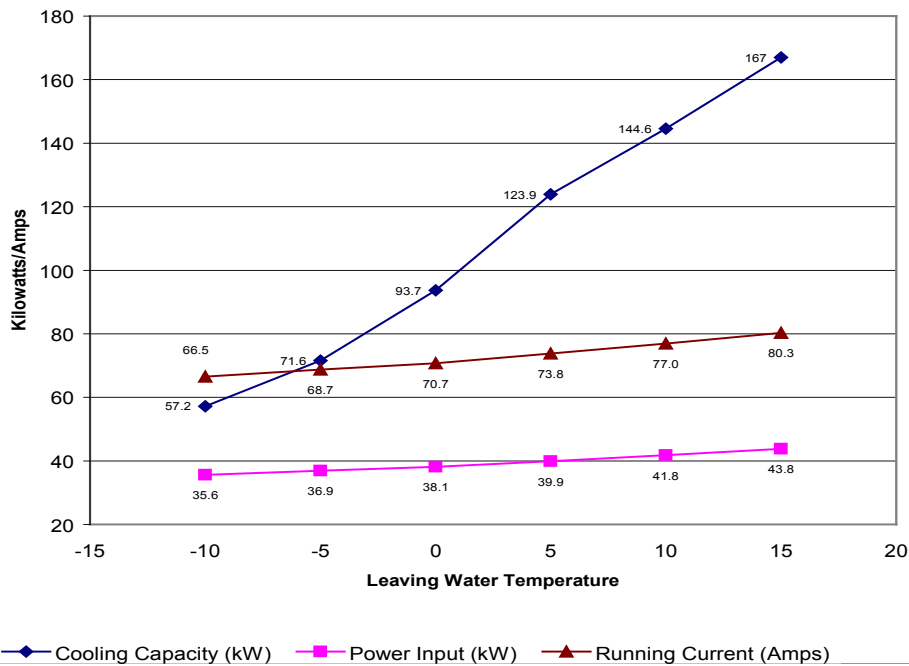
Sound Pressure Level at 10 metres (ISO3744)	dB(A)	56.6
(see separate guide attached for octave band detail)		

### Physical Data

Overall Length	mm	3,300
Overall Width	mm	1,255
Overall Height	mm	2,050
Weight	kg	1,700 (with pump)
Fluid Coupling Size (Evaporator)	mm/inch	62/2 1/2"
Fluid Coupling Type (Condenser)	mm/inch	62/2 1/2"

## PERFORMANCE

### TWE 602 Evo



### 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
45.6	44.1	54.4	77.2	77.7	80.0	76.4	74.6	

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.

