

## The InvenSor LTC 09 is the ideal solution when it comes to efficient cooling based on thermal drive within a range of low temperatures.

Depending on the application for which it is used, the unit will reach its full capacity at temperatures as low as approx. 65 °C, which represents a temperature level at which other thermal chillers will run at limited capacity or cannot even operate at all. It is, therefore, particularly well suited for use in combination with (among others) combined heat and power stations, district heat grids and thermal solar plants installed in moderate climatic zones. The InvenSor LTC 09 can be used in outside temperatures of up to approx. 35 °C. We recommend using the InvenSor HTC model if operation at higher temperatures is required.

### Easy installation and start-up

Thanks to its slim design the machine can be transported easily within buildings. Its housing is optimized for transport by lift truck and skid. Even after it has been set up, the machine can easily be connected to the hydraulic system using the connectors on the rear which are arranged for easy access at the top.

### Automatic and reliable operation

- automatically optimized operation
- online access for service & analysis purposes
- low maintenance requirements, extremely quiet

### Parallel connection possible

Greater cooling capacities can be achieved very easily by connecting several modules in parallel. Since its operating point is optimized automatically, the machine will usually work even more efficiently when operating at part load conditions.

### Use as a thermal heat pump possible

Operation as a thermal heat pump has been implemented and can be activated on the machine. The hot side of the machine must remain available for the drive just as during the operation as a chiller. On the cold side of the machine, geothermal and solar energy can be coupled into the machine. If needed, a low-temperature heat consumer is connected at the recooling circuit. This makes it possible to achieve efficiency factors of up to 150% in relation to the invested thermal energy.



### Dimensions of the machine

Length ..... approx. 1,300 mm  
 Height ..... approx. 1,650 mm  
 Width ..... approx. 650 mm  
 Weight ..... approx. 370 kg

### Position of the connectors

from the ground ..... approx. 1,580 mm

### Nominal widths (AG)

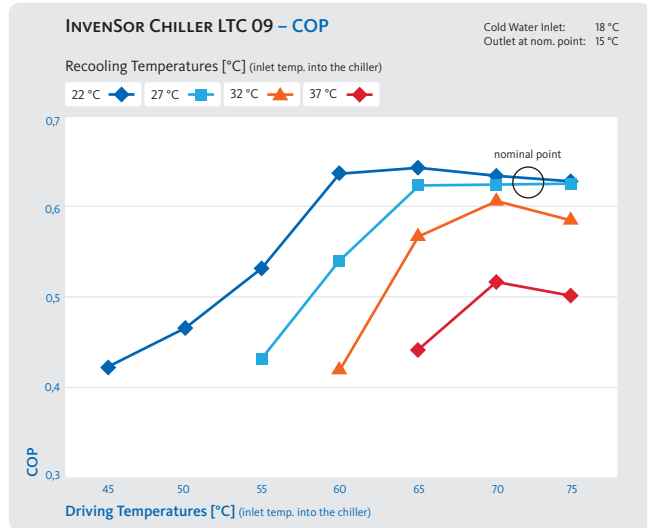
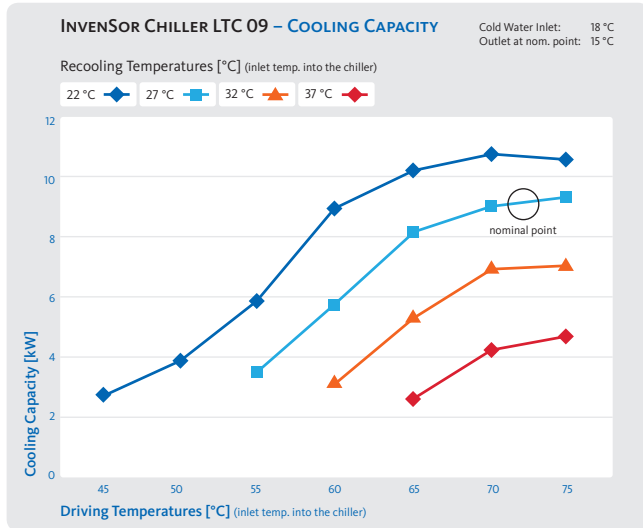
Drive (2x) ..... G 1"  
 Cooling (2x) ..... G 1 1/4"  
 Re-cooling (2x) ..... G 1 1/2"

General technical specifications		InvenSor LTC 09		
Output range – cooling	kW	3–11		
COP maximum		0.69		
Max. overpressure	bar	4		
Electrical connection	V~, Hz	230, 50		
Approx. electrical power consumption	W	20		
Specifications at nominal conditions		Cooling circuit	Recooling circuit	Drive circuit
COP at nominal conditions		0,61		
Performance values	kW	9	23.8	14.8
Temperature – cooling system inlet (IN)	°C	18	27	72
Temperature – cooling system outlet (OUT)	°C	14,5	31,5	66
Temperatures – possible application	°C	10–25	20–37	45–100
Volume flows	l/h	2,300	4,500	2,200
Pressure losses	mbar	170	500	230

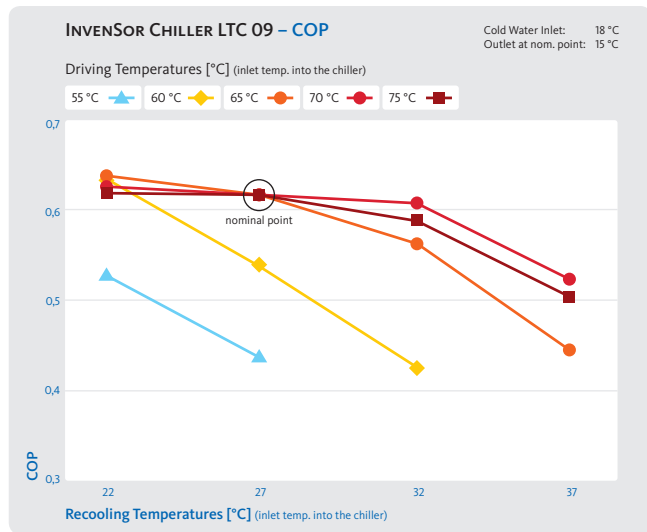
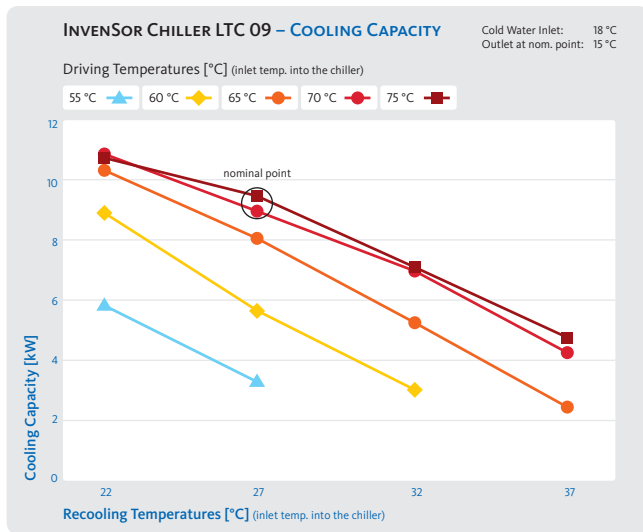
All specifications apply for operation with water in hydraulic circuits.

## Technical specifications at different conditions

### Capacity and COP at different temperatures of recooling and driving energy



### Capacity and COP at different temperatures of driving energy and recooling



### Capacity and COP at different temperatures of driving energy and chilled water

