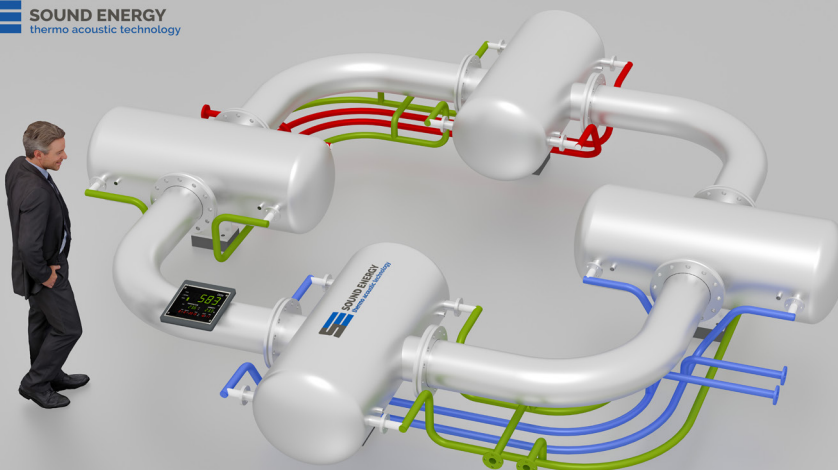


Technical specifications THEAC-25

Sustainable Thermoacoustic energy converter

	min	typ.	max		
Heat input temperature difference	30 ¹	160	300	°C	Available between heat source and heat sink
Power control range ²		0-100		%	Proportional with heat input temperature
Cooling power		25		kW	Proportional with heat input power
Refrigerant type		argon			Inert gas
Refrigerant GWP		0			
Refrigerant charge		940		dm ³	One time fill
Tonne CO ₂ equivalent		0			
Energy efficiency rating (EER)		0.6			Defined as cooling power over input heat
System noise			70	dB _a	
System weight		550		kg	
Foot print		12		m ²	At height of 0.6 m





Specification per section

TA heat engine

	min	typ.	max	
TA heat engine input capacity	45		70	kW _T
Hot fluid input temperature	55	185	300	°C
Heat transfer medium	Thermal oil or process fluid			
Flow rate	50			l/min
Fluid content	5			dm ³
High temperature circulation pump	0.5			kW _e
High temperature fluid connections	G1"			
Heat rejection temperature	25		50	
Heat sink capacity	70			kW _T
Heat sink flow rate	215			l/min
Heat sink connections	G1"			
Fluid content	5			dm ³

TA heat pump

	min	typ.	max	
Net cooling capacity	25			kW
Cold transfer medium	water/glycol			
Flow rate	45			l/min
Cold output temperature	-35	8		°C
Cold return temperature	-30	12		°C
Cold fluid connections	G1"			
Heat sink transfer medium	water/glycol			
Heat sink temperature	<0	25	50	°C
Fluid content	5			dm ³
Flow rate	90			l/min
Heat sink connections	G1"			
Max pressure	10			bar

¹ Onset temperature is the temperature difference at which thermoacoustic oscillation (and cooling) starts.

² Beginning at onset temperature, cooling power is proportional with input temperature.

These specifications are subject to alterations without notice.