

THEAC-25

Technical specifications | April 2019

Generic system specifications

System type:		Thermoacoustic heat pump with integrated thermoacoustic heat engine		
	typ.	max		Notes
Heat input temperature difference	160	300		Available between heat source and heat sink (outdoor temperature)
Power control range ¹	0-100		%	Proportional with heat input temperature
Cooling power	25		kW	Proportional with heat input (see graph)
Refrigerant type	argon			Or other Inert gas
Refrigerant GWP	0			
Refrigerant charge	940		dm3	One time fill
Tonne CO2 Equivalent	0			
NET energy efficiency rating (EER)	0.5			Defined as cooling power over input heat
Coefficient of Performance (COP)	12.5			Defined as cooling power over input electric power
BTU	85.250			British Thermal Units (BTU)
System noise (incl. pumps)	70		dBa	
System weight	800		kg	
Foot print	4 x 4		m2	At 0.6m build height

Specification per section

TA heat engine				TA Heat pump				
	typ.	max			min	typ.	max	
TA heat engine input heat capacity	45	70	kWT	Net cooling capacity ²		25		kWT
Hot fluid input temperature ³	185	300	°C					
Heat transfer medium	Thermal oil or process fluid			Cold transfer medium	water/glycol			
Flow rate	50		l/min	Flow rate		45		l/min
Fluid content	5		dm3	Cold output temperature	-20	8	-	°C
High temperature circulation pump	1.0		kWe	Cold return temp.	-15	12	-	°C
High temperature fluid connections	G 1"			Cold fluid connections		G1"		
				Heat sink transfer medium	Water/glycol			
Heat sink temperature	25	50		Heat sink temperature.	<0	25	50	°C
Heat sink capacity	70		kWT	Fluid content		5		dm3
Heat sink flow rate	60		l/min	Flow rate		50		l/min
Heat sink terminals	G1"			Heat sink terminals		G1"		
Fluid content	5		dm3	Max. pressure		10		bar

These specifications are subject to alterations without notice

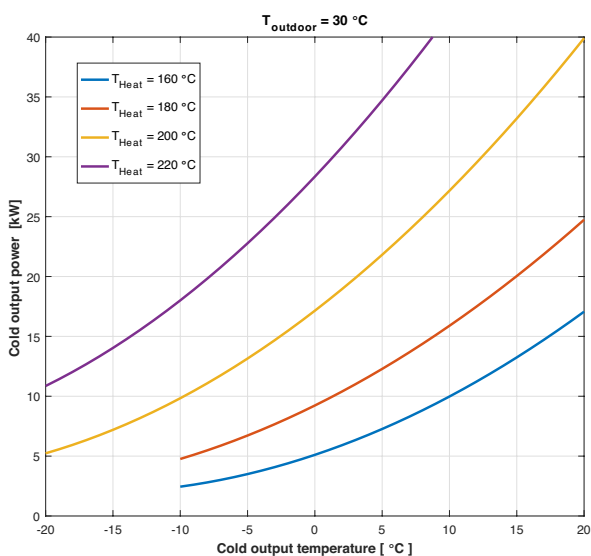
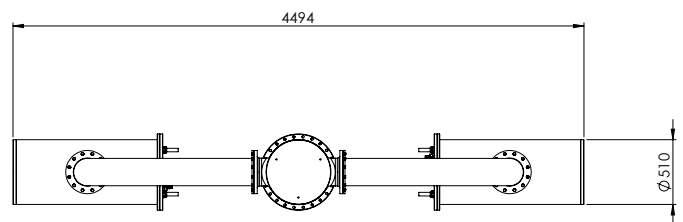
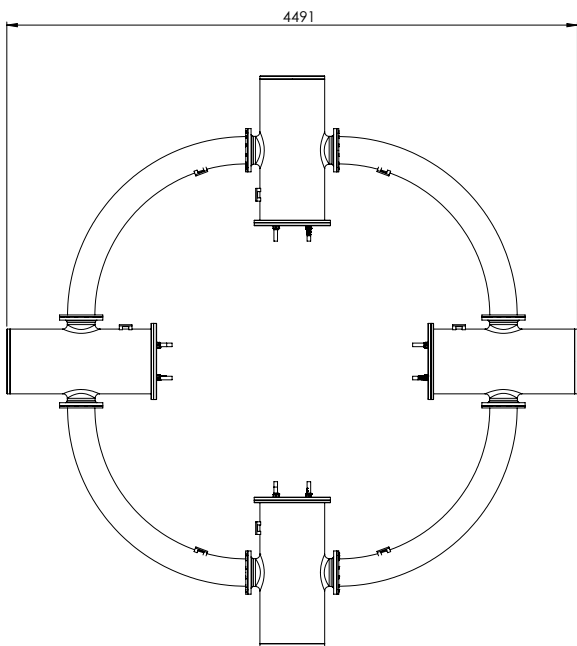
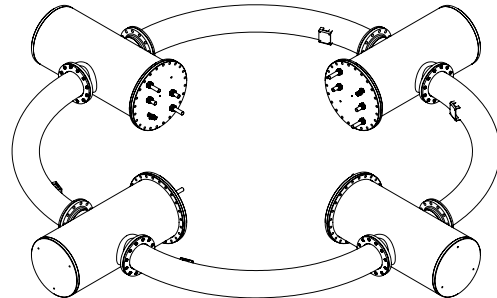
¹ At typical operating conditions

² At typical operating conditions

³ At a heat sink temperature of 25°C

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