

Technical specification

Brazed Plate Heat Exchanger



Project ref: TERMOELECTRICA SA -CHISINAU
 Line ref:
 Model: CB110-32M
 Item Id: n/a
 No of units: 1

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 Date: 2023-04-12

		Hot side S1 -> T1	Cold Side T4 -> S4
Process data			
Capacity:	kW	220.0	
Fluid:		Water	Water
Duty type:		Liquid cooling	Liquid heating
Volume flow rate:	m ³ /h	4,83	4,21
Inlet temperature:	°C	62,0	10,0
Outlet temperature:	°C	22,0	55,0
Total pressure drop calculated (allowed)	kPa	18,2 (20,00)	16,8 (20,00)
Velocity connections:	m/s	0,81	0,71

Heat exchanger specification			
Relative directions of fluids:		Countercurrent	
Number of plates:		32	
Channel volume:	dm ³	3,4	3,2
Number of circuits:		1	1
Design pressure at -196 °C	bar	30	30
Design pressure at 225 °C	bar	25	25
Design temperature (min/max):	°C	-196 / 225	
Pressure vessel code:		PED	
Material Channel plates / Sealing:		ALLOY 316 / Cu	
Additional connections:		S2, S3, T2	
Connection S1 (Hot-In):		Threaded (External) 2" ALLOY 316	
Connection T1 (Hot-Out):		Threaded (External) 2" ALLOY 316	
Connection T4 (Cold-In):		Threaded (External) NPT 2" ALLOY 316	
Connection S4 (Cold-Out):		Threaded (External) 2" ALLOY 316	
Additional connection S2:		Threaded (External) / 2"ISO 228/1-GB23	
Additional connection S3:		Threaded (External) / 2"ISO 228/1-GB23	
Additional connection T2:		Threaded (External) / 2"ISO 228/1-GB23	
Unit dimensions (length x width x height):	mm	183 x 191 x 616	
Net weight, empty / operating:	kg	18,6 / 25,10	
Packed length x width x height:	mm	0 x 0 x 0	
Packed weight:	kg	18,6	

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Fluid properties		Hot side	Cold Side
Density (in/out):	kg/m ³	981,20/996,87	999,98/984,53
Specific heat capacity:	kJ/(kg·K)	4,18	4,19
Thermal conductivity:	W/(m·K)	0,630	0,617
Viscosity (in/out):	cP	0,4515/0,9601	1,3112/0,5031

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