EKİN ENDÜSTRİYEL ISIT. SOĞ. SAN. TIC. LTD. STI.
DES Sanayi Sitesi 107. Sokak B14 Blok No:2 Ümraniye İstanbul
Tel.: +90 (216) 660 13 05 - Fax: +90 (216) 660 13 08
http://www.ekinendustriyel.com
info@ekinendustriyel.com

Customer	-	Date	22.03.2022
Attention	-	Project nbr.	
Description			

Exchanger properties

Capacity	41,81	kW
Obtained Capacity	44,88	kW
Margin	7,34	
Heat Transfer Area	2,50	m²
Plate Type	MB-08	
Plate Arrangement	50L	
Nbr. Of plates	50	
Global Heat tranfert coefficient	2577	W/(m² K)
LMTD	6,98	°C

	Primary circuit		Secondary circuit	
Fluid type	WATER		R22	
Nbr. of circuits	1		1	
Flow rate	7,2	m³/h	805,4	kg/h
Channel velocity	0,38	m/s	1,44	m/s
Connection velocity	4,814	m/s	0,4319/19,216	m/s
Inlet temperature	20,00	°C	10,00	°C
Outlet temperature	14,63	°C	15,00	°C
Condensing temperature			50,00	°C
Overheating			5,00	K
Total Pressure drops	21,10	kPa	8,63	kPa
Pressure drops in plates	6,06	kPa	1,75	kPa
Pressure drops in connections	15,04/15,04	kPa	0,15/6,73	kPa
Fouling factor	0,0000000	(m² K)/W	0,0000000	(m² K)/W

Thermophisical properties	Primary circuit		Secondary circuit	
Fluid density	998,69	kg/m³	28,02	kg/m³
Fluid specific heat	4186	J/(kg K)	774	J/(kg K)
Fluid thermal conductivity	0,594	W/(m K)	0,010	W/(m K)
Viscosity	1,0661	cP	0,000012043	kg/(m s)

Project data

Plate Material	0,4 mm - AISI 316L	
Brazing material	Copper	
Frame material	Carbon Steel	

Connections

Primary side	M1 => M2 1" thread	
Secondary side	M3 => M4 1" thread	
Design / Test Pressure	10 / 15	bar
Min / Max Working Temperature	-196 / 196	°C
Price	0	MPB