



SSP G7
(v 7.0.3.32)

CONDENSER - Design
Heat Exchanger : B25Tx40

Fluid Side 1 : R410A
Fluid Side 2 : Water

Flow Type : Counter-Current

DUTY REQUIREMENTS		Side 1	Side 2
Heat load	kW	7,200	
Inlet temperature	°C	74,00	30,00
Condensation temperature (dew)	°C	35,00	
Subcooling	K	2,00	
Outlet temperature	°C	32,90	35,00
Flow rate	kg/s	0,03274	0,3446
Fluid condensed	kg/s	0,03274	
Max. pressure drop	kPa	50,0	50,0
PLATE HEAT EXCHANGER		Side 1	Side 2
Total heat transfer area	m ²	2,39	
Heat flux	kW/m ²	3,01	
Mean temperature difference	K	4,22	
O.H.T.C. (available/required)	W/m ² , °C	829/713	
Pressure drop -total*	kPa	-0,250	3,35
- in ports	kPa	-0,0153	0,277
Operating pressure - outlet	kPa	2130	
Number of channels		19	20
Number of plates		40	
Oversurfacing	%	16	
Fouling factor	m ² , °C/kW	0,196	
Port diameter	mm	24,0	24,0
Recommended inlet connection diameter	mm	From 4,53 to 10,1	
Recommended outlet connection diameter	mm	From 2,03 to 6,43	
Reynolds number			403
Inlet port velocity	m/s	0,890	0,766
PHYSICAL PROPERTIES		Side 1	Side 2
Reference temperature	°C	34,95	32,50
Liquid - Dynamic viscosity	cP	0,106	0,757
- Density	kg/m ³	1009	994,9
- Heat capacity	kJ/kg, °C	1,783	4,178
- Thermal conductivity	W/m, °C	0,09122	0,6194
Vapor - Dynamic viscosity	cP	0,0138	
- Density	kg/m ³	81,38	
- Heat capacity	kJ/kg, °C	1,309	
- Thermal conductivity	W/m, °C	0,01298	
- Latent heat	kJ/kg	169,9	
Film coefficient	W/m ² , °C	2060	5920
Minimum wall temperature	°C	36,70	36,56
Channel velocity	m/s	0,0937	0,0766

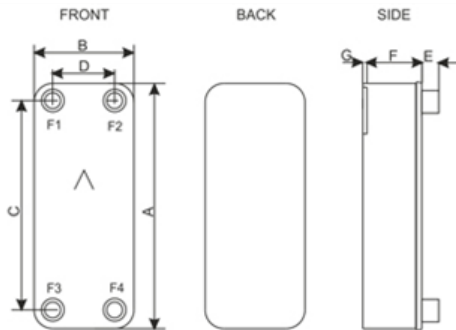


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Totals

		Side 1	Side 2
Total weight (no connections)	kg	8,19 - 55,2	
Hold-up volume, inner circuit	dm ³	2,11 - 2,17	
Hold-up volume, outer circuit	dm ³	2,22 - 2,28	
PortSize F1/P1	mm	24,0	
PortSize F2/P2	mm	24,0	
PortSize F3/P3	mm	24,0	
PortSize F4/P4	mm	24,0	
NND F1/P1	mm	27,0 and/or 18,0	
NND F2/P2	mm	18,0 and/or 27,0	
NND F3/P3	mm	27,0 and/or 18,0	
NND F4/P4	mm	18,0 and/or 27,0	
Carbon Footprint	kg	65,0	

DIMENSIONS



A	mm	524 to 566 +/-2
B	mm	117 to 159 +/-1
C	mm	479 +/-1
D	mm	72 +/-1
E	mm	20 to 54 (opt. 45) +/-1
F	mm	91,60 to 162,00 +/-3%
G	mm	0,0 to 7 +/-1
R	mm	22 to 23

This is a schematic sketch. For correct drawings please use the order drawing function or contact your SWEP representative.

Disclaimer: Data used in this calculation is subject to change without notice. Calculation is intended to show thermal and hydraulic performance, no consideration has been taken to mechanical strength of the product. Product restrictions - such as pressure, temperatures and corrosion resistance- can be found in SWEP product sheets and other technical documentation. SWEP may have patents, trademarks, copyrights or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from SWEP, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

*Excluding pressure drop in connections.