SWEP International AB
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CONDENSER - RATING

SWEP SSP G8 2024.116.2.0

HEAT EXCHANGER: B200THx60/1P

Date: 07/03/2024

SSP Alias: B200T

DUTY REQUIREMENTS		Side 1		Side 2
Fluid		**R410A**		**Water**
Flow type			**Counter-Current**	
Circuit		Inner		Outer
Heat load	kW		**118,0**	
Inlet vapor quality		**1,000**		
Outlet vapor quality		**0,000**		
Inlet temperature	°C	**70,00**		**35,00**
Condensation temperature (dew)	°C	**45,00**		
Subcooling	K	**3,00**		
Outlet temperature	°C	41,90		**40,00**
Flow rate	kg/h | m³/h	2238		20,47
Fluid condensed	kg/h	2238		

PLATE HEAT EXCHANGER		Side 1		Side 2
Total heat transfer area	m²		7,48	
Heat flux	kW/m²		15,8	
Mean temperature difference	K		7,37	
O.H.T.C. (available/required)	W/m²,°C		2160/2140	
Pressure drop - total*	kPa	2,06		49,1
- in ports (Inlet/Outlet)	kPa	-0,130/0,130		3,13
Operating pressure (outlet)	kPa	2720		
Number of channels per pass		29		30
Number of plates			60	
Oversurfacing	%		1	
Fouling factor	m²,°C/kW		0,004	
Port diameter (up/down)	mm	60,0/42,0		53,0/53,0
Recommended inlet connection diameter	mm	17,0 - 38,1		
Recommended outlet connection diameter	mm	20,4 - 40,9		
Reynolds number				2308
Inlet Port velocity	m/s	2,02		2,58
Channel velocity	m/s	0,413		0,398
Shear stress	Pa			101
Largest wall temperature difference	K		0,34	
Min./Max. wall temperature	°C	35,72/40,83		35,56/40,65

**Excluding pressure drop in connections.*

PHYSICAL PROPERTIES		Side 1	Side 2
Reference temperature	°C	44,95	37,50
Liquid • Dynamic viscosity	cP	0,0899	0,685
• Density	kg/m³	947,3	993,2
• Heat capacity	kJ/kg,°C	2,033	4,178
• Thermal conductivity	W/m,°C	0,08406	0,6270
Vapor • Dynamic viscosity	cP	0,0143	
• Density	kg/m³	109,0	
• Heat capacity	kJ/kg,°C	1,490	
• Thermal conductivity	W/m,°C	0,01363	
• Latent heat	kJ/kg	149,3	
Film coefficient	W/m²,°C	3100	15600

TOTALS	Side 1	Side 2

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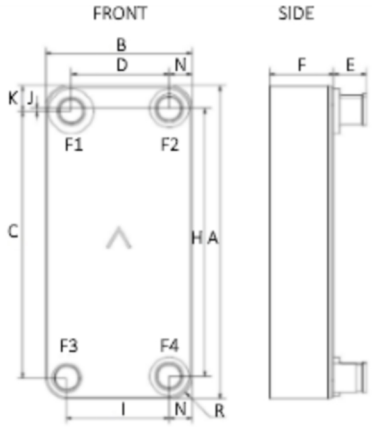
TOTALS		Side 1	Side 2
Total weight (no connections)*	kg		33,45 - 44,65
Hold-up volume (Inner Circuit)	dm³		6,99
Estimated refrigerant charge	kg		2,41
Hold-up volume (Outer Circuit)	dm³		7,23
Port size F1/P1	mm		60
Port size F2/P2	mm		53
Port size F3/P3	mm		42
Port size F4/P4	mm		53
Carbon footprint	kg		313,77

**Weight depends on the selected product.*

DIMENSIONS



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

A	mm	525 ±2
B	mm	243 ±1
C	mm	448,5 ±1
D	mm	163,5 ±1
E	mm	54 (opt. 27) ±1
F*	mm	147,4 - 159,4 +2%/-1,5%
G*	mm	0 - 4 ±1
H	mm	450 ±1
I	mm	171 ±1
J	mm	4,5
K	mm	42
N	mm	37,5
R	mm	35

**Dimensions depend on the selected product.*