SWEP International AB
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SINGLE PHASE - DESIGN
HEAT EXCHANGER: E6THx20/1P

SWEP DThermX

Date: 04/02/2026

SSP Alias: E6T

DUTY REQUIREMENTS		Side 1		Side 2
Fluid		**Water**		**Water**
Flow type			**Counter-Current**	
Circuit		Outer		Inner
Heat load	kW		**45.00**	
Inlet temperature	°C	**65.0**		**10.0**
Outlet temperature	°C	**45.0**		**45.0**
Flow rate	kg/s	0.5379		0.3076
Pressure drop (Design PD)	kPa	21.1 **(30.00)**		8.75 **(30.00)**
Thermal length		0.75		1.31

PLATE HEAT EXCHANGER		Side 1		Side 2
Total heat transfer area	m²		0.252	
Heat flux	kW/m²		179	
Mean temperature difference	K		26.8	
Overall heat transfer coefficient required	W/m²,°C		6660	
Pressure drop - total*	kPa	21.1		8.75
- in ports	kPa	3.48		1.12
Port diameter (up/down)	mm	16.0/16.0		16.0/16.0
Number of channels per pass		10		9
Number of plates			20	
Oversurfacing	%		0	
Fouling factor	m²,°C/kW		-0.001	
Reynolds number		2922		1112
Port velocity (up/down)	m/s	2.71/2.71		1.54/1.54
Channel velocity	m/s	0.374		0.235
Shear stress	kPa	0.0841		0.0363
Average wall temperature	°C	45.1		42.2
Largest wall temperature difference	K		5.2	
Min./Max. wall temperature	°C	33.0/58.2		27.8/55.2

**Excluding pressure drop in connections.*

PHYSICAL PROPERTIES		Side 1	Side 2
Reference temperature	°C	55.0	27.5
Dynamic viscosity	cP	0.504	0.842
Density	kg/m³	985.7	996.4
Heat capacity	kJ/kg,°C	4.183	4.179
Thermal conductivity	W/m,°C	0.6492	0.6113
Film coefficient	W/m²,°C	19300	13000

TOTALS		Side 1	Side 2
Total weight empty (no connections)*	kg	1.14	
Total weight filled (no connections)*	kg	1.63	
Hold-up volume (Inner Circuit)	dm³	0.23	
Hold-up volume (Outer Circuit)	dm³	0.26	
Port size F1/P1	mm	16	
Port size F2/P2	mm	16	
Port size F3/P3	mm	16	
Port size F4/P4	mm	16	

**Weight depends on the selected product.*

DIMENSIONS

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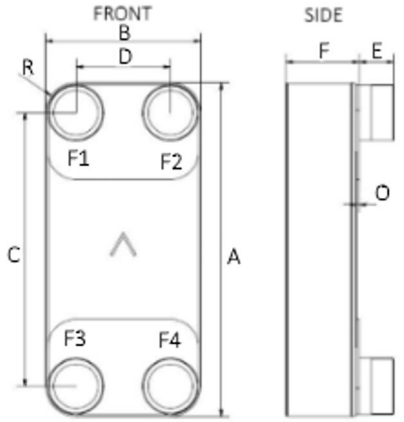

A	mm	210 ±2
B	mm	73 ±1
C	mm	172 ±1
D	mm	40 ±1
E	mm	12 (opt. 20) ±1
F	mm	42.32 +4%/-3.3%
G	mm	7 ±1
Q	mm	2
R	mm	16

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

CARBON FOOTPRINT	Unit	Value
Sweden - Landskrona	kg CO_2e	5.8
USA - Tulsa	kg CO_2e	6.1
Slovakia - Košice	kg CO_2e	6.7
Malaysia - Kuala Lumpur	kg CO_2e	9.3
China - Suzhou	kg CO_2e	15.9