SINGLE PHASE - DESIGN
2 HEAT EXCHANGERS : E6THx40/1P

SWEP DThermX

Date: 04/02/2026

Number of parallel units: 2

SSP Alias: E6T

DUTY REQUIREMENTS		Side 1	Side 2
Fluid		**Water**	**Water**
Flow type		**Counter-Current**	
Circuit		Inner	Outer
Heat load	kW	**37.00**	
Inlet temperature	°C	**75.0**	**45.0**
Outlet temperature	°C	**55.0**	**65.0**
Flow rate	kg/s	0.4417	0.4423
Pressure drop (Design PD)	kPa	1.55 **(30.00)**	1.47 **(30.00)**
Thermal length		2.00	2.00

PLATE HEAT EXCHANGER		Side 1	Side 2
Total heat transfer area	m²	1.06	
Heat flux	kW/m²	34.8	
Mean temperature difference	K	10.0	
Overall heat transfer coefficient required	W/m²,°C	3480	
Pressure drop - total*	kPa	1.55	1.47
- in ports	kPa	0.606	0.606
Port diameter (up/down)	mm	16.0/16.0	16.0/16.0
Number of channels per pass		19	20
Number of plates		40	
Oversurfacing	%	0	
Fouling factor	m²,°C/kW	-0.002	
Reynolds number		734.4	600.6
Port velocity (up/down)	m/s	1.12/1.12	1.12/1.12
Channel velocity	m/s	0.0812	0.0768
Shear stress	kPa	4.51e-3	4.11e-3
Average wall temperature	°C	60.4	59.9
Largest wall temperature difference	K	0.8	
Min./Max. wall temperature	°C	50.5/70.5	49.8/69.8

Excluding pressure drop in connections.

NOTES

i   *This result consists of 2 units in parallel*

PHYSICAL PROPERTIES		Side 1	Side 2
Reference temperature	°C	65.0	55.0
Dynamic viscosity	cP	0.434	0.504
Density	kg/m³	980.5	985.7
Heat capacity	kJ/kg,°C	4.188	4.183
Thermal conductivity	W/m,°C	0.6590	0.6492
Film coefficient	W/m²,°C	7710	7270

TOTALS		Side 1	Side 2
Total weight empty (no connections)*	kg	4.15	
Total weight filled (no connections)*	kg	5.15	
Hold-up volume (Inner Circuit)	dm³	0.49	
Hold-up volume (Outer Circuit)	dm³	0.52	
Port size F1/P1	mm	16	
Port size F2/P2	mm	16	
Port size F3/P3	mm	16	

TOTALS		Side 1	Side 2
Port size F4/P4	mm	16	

Weight depends on the selected product.

DIMENSIONS
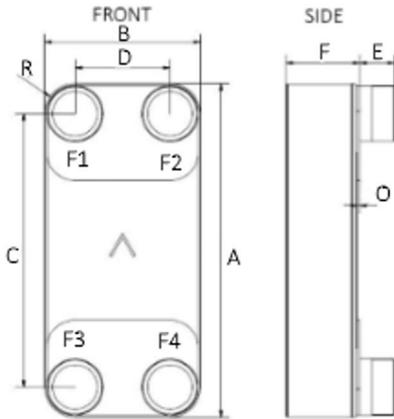
A	mm	210 ±2
B	mm	73 ±1
C	mm	172 ±1
D	mm	40 ±1
E	mm	12 (opt. 20) ±1
F	mm	87.12 +4%/-3.3%
G	mm	7 ±1
Q	mm	2
R	mm	16

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	21.4
USA - Tulsa	kg CO_2e	22.4
Slovakia - Košice	kg CO_2e	24.3
Malaysia - Kuala Lumpur	kg CO_2e	33.9
China - Suzhou	kg CO_2e	58.1