

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	m ²		1.06
Heat flux	kW/m ²		34.8
Mean temperature difference	K		10.0
Overall heat transfer coefficient required	W/m ² ,°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	m ² ,°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/m ³	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/m ² ,°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)	dm ³		0.49
Hold-up volume (Outer Circuit)	dm ³		0.52
Port size F1/P1	mm		16
Port size F2/P2	mm		16
Port size F3/P3	mm		16

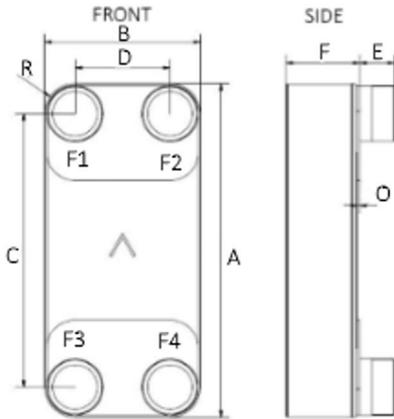


TOTALS

	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 ₂ e	21.4
USA - Tulsa	kg CO ₂ e	22.4
Slovakia - Košice	kg CO ₂ e	24.3
Malaysia - Kuala Lumpur	kg CO ₂ e	33.9
China - Suzhou	kg CO ₂ e	58.1

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