

SINGLE PHASE - DESIGN

2 HEAT EXCHANGERS : E6THx34/1P

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		31.00
Inlet temperature	°C	75.0	45.0
Outlet temperature	°C	55.0	65.0
Flow rate	kg/s	0.3701	0.3706
Pressure drop (Design PD)	kPa	1.36 (30.00)	1.26 (30.00)
Thermal length		2.00	2.00

PLATE HEAT EXCHANGER		Side 1	Side 2
Total heat transfer area	m ²		0.896
Heat flux	kW/m ²		34.6
Mean temperature difference	K		10.0
Overall heat transfer coefficient required	W/m ² , °C		3460
Pressure drop - total*	kPa	1.36	1.26
- in ports	kPa	0.421	0.421
Port diameter (up/down)	mm	16.0/16.0	16.0/16.0
Number of channels per pass		16	17
Number of plates			34
Oversurfacing	%		0
Fouling factor	m ² , °C/kW		-0.003
Reynolds number		730.7	592.0
Port velocity (up/down)	m/s	0.939/0.939	0.935/0.935
Channel velocity	m/s	0.0808	0.0757
Shear stress	kPa	4.47e-3	4.00e-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	49.7/69.7

*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	7680	7200

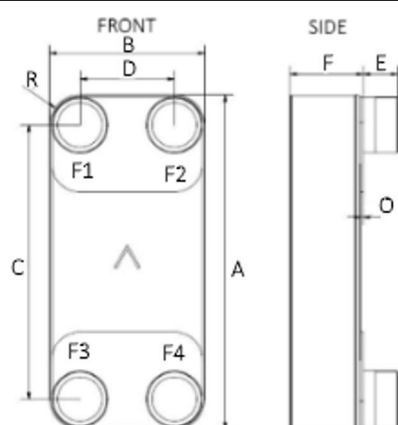
TOTALS		Side 1	Side 2
Total weight empty (no connections)*	kg		3.59
Total weight filled (no connections)*	kg		4.43
Hold-up volume (Inner Circuit)	dm ³		0.42
Hold-up volume (Outer Circuit)	dm ³		0.44
Port size F1/P1	mm		16
Port size F2/P2	mm		16
Port size F3/P3	mm		16



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	73.68 +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	18.5
USA - Tulsa	kg CO ₂ e	19.4
Slovakia - Košice	kg CO ₂ e	21.0
Malaysia - Kuala Lumpur	kg CO ₂ e	29.3
China - Suzhou	kg CO ₂ e	50.2

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