SINGLE PHASE - Performance
Heat Exchanger : E8ASN-Wx40

Fluid Side 1 : Water
Fluid Side 2 : Water

Flow Type : Counter-Current

DUTY REQUIREMENTS		**Side 1**		**Side 2**
Heat load	kW		94.01	
Inlet temperature	°C	75.00		10.00
Outlet temperature	°C	29.53		55.00
Flow rate	kg/s	0.4945		0.5000
Max. pressure drop	kPa	50.0		50.0
Thermal length		2.300		2.277

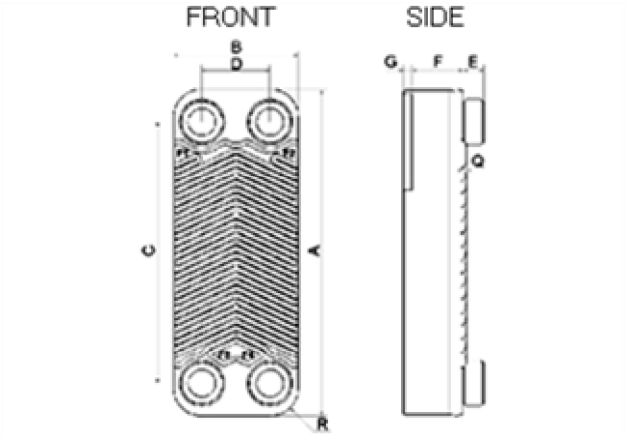
PLATE HEAT EXCHANGER		**Side 1**		**Side 2**
Total heat transfer area	m²		0.961	
Heat flux	kW/m²		97.8	
Mean temperature difference	K		19.77	
O.H.T.C. (available/required)	W/m²,°C		4950/4950	
Pressure drop -total*	kPa	17.7		9.72
- in ports	kPa	2.94		3.03
Port diameter	mm	16.0		16.0
Number of channels		19N		20W
Number of plates			40	
Oversurfacing	%		0	
Fouling factor	m²,°C/kW		0.000	
Reynolds number		1353		904.3
Port velocity	m/s	2.49		2.50

PHYSICAL PROPERTIES		**Side 1**	**Side 2**
Reference temperature	°C	52.27	32.50
Dynamic viscosity	cP	0.527	0.757
Dynamic viscosity - wall	cP	0.601	0.614
Density	kg/m³	987.0	994.9
Heat capacity	kJ/kg,°C	4.182	4.178
Thermal conductivity	W/m,°C	0.6462	0.6194
Min. fluid temperature at wall	°C	22.13	
Max. fluid temperature at wall	°C		65.76
Film coefficient	W/m²,°C	13100	9210
Minimum wall temperature	°C	44.60	43.38
Channel velocity	m/s	0.185	0.177
Shear stress	Pa	51.9	23.5

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Totals		**Side 1**	**Side 2**
Total weight empty	kg	2.77	
Total weight filled	kg	4.32	
Hold-up volume, inner circuit	dm³	0.703	
Hold-up volume, outer circuit	dm³	0.860	
PortSize F1/P1	mm	16.0	
PortSize F2/P2	mm	16.0	
PortSize F3/P3	mm	16.0	
PortSize F4/P4	mm	16.0	
NND F1/P1	mm	16.0	
NND F2/P2	mm	16.0	
NND F3/P3	mm	16.0	
NND F4/P4	mm	16.0	
Carbon Footprint	kg	19.5	

DIMENSIONS



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

A	mm	315 +/-2
B	mm	74 +/-1
C	mm	278 +/-1
D	mm	40 +/-1
E	mm	12 (opt. 20) +/-1
F	mm	82.00 +5%/-4.5%
G	mm	7 +/-1
Q	mm	2
R	mm	17

Disclaimer: Data used in this calculation is subject to change without notice. Calculation is intended to show thermal and hydraulic performance, no consideration has been taken to mechanical strength of the product. Product restrictions - such as pressure, temperatures and corrosion resistance- can be found in SWEP product sheets and other technical documentation. SWEP may have patents, trademarks, copyrights or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from SWEP, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

*Excluding pressure drop in connections.

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