

v.1.5.6

SWEP International AB
 P.O. Box 105
 Hjalmar Brantingsväg 5
 261 22 Landskrona
 Sweden

SWEP SSP CBE

HEAT EXCHANGER: V80x40H/1P

EVAPORATOR - Performance

Customer:
 Reference:

Date: 12/11/2009
 Our Ref.:

DUTY REQUIREMENTS

		SIDE 1	SIDE 2
Fluid Side 1	R22		
Fluid Side 2	Water		
Inlet temperature	°C	: 2.00	12.00
Evaporation temperature (dew)	°C	: 2.00	
Outlet temperature	°C	: 7.00	7.00
Flow rate	kg/s	: .1444	1.431
- inlet vapor	kg/s	: -924.0e-6	
Fluid vaporized	kg/s	: .1453	
Max. pressure drop		:	
Operating pressure – outlet	bar(a)	: 5.30	

PHYSICAL PROPERTIES

Reference temperature	°C	: 2.54	9.46
Liquid	Dynamic viscosity	cP	: .211
	Density	kg/m ³	: 1272
	Specific heat capacity	kJ/kg,°C	: 1.185
	Thermal conductivity	W/m,°C	: .09418
Vapor	Dynamic viscosity	cP	: .0117
	Density	kg/m ³	: 22.42
	Specific heat capacity	kJ/kg,°C	: .7165
	Thermal conductivity	W/m,°C	: .009257

PLATE HEAT EXCHANGER

Heat load	kW	:	30.00
Total heat transfer area	m ²	:	2.28
Heat flux	kW/m ²	:	13.16
Mean temperature difference	K	:	7.57
Overall H.T.C. (available/required)	W/m ² ,°C	:	1730/1740
Pressure drop - total	kPa	:	15.8
- in ports	kPa	:	.787
Port diameter	mm	:	33.0
Number of channels		:	19
Number of plates		:	40
Oversurfacing	%	:	0
Fouling factor	m ² ,°C/kW	:	0

Note: 1. Thermosyphon option used.

Disclaimer: Data used in this calculation is subject to change without notice. "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."