

Results for RS160

Inside temperature	21	°C
Inside relative humidity	50	%
Outside temperature	-12	°C
Outside relative humidity	90	%
Flow	200	m³/h
Type	RS160	
Height recuperator	0.4	m

effectiveness for RS160

dry	89,8 %
sensible fresh air	94,3 %
latent fresh air	0,0 %
sensible waste air	64,8 %
latent waste air	63,8 %
enthalpy	64,5 %

heat transferred for RS160

heat transferred	2096 W
increase sensible heat	2096 W
increase latent heat	0 W
decrease sensible heat	1440 W
decrease latent heat	656 W

potential heat transfer RS160

sensible	2223 W
latent	1029 W
total	3252 W

condensation/evaporization RS160

condensation	0,96kg/h
	656 W
evaporization	0,00 kg/h
	0 W
water produced	0,96 kg/h
	656 W

effectiveness	pressure drop	heat transferred
94,3 %	58,3 Pa	2096 W

calculations for RS160 overview all positions

		indoor (1)	waste (2)	outside (3)	fresh (4)
temperature	[°C]	21,00	-0,38	-12,00	19,11
relative humidity	[-]	0,500	1,000	0,900	0,099
massflow moisture	[kg/s]	0,000509	0,000242	0,000090	0,000090
	[kg/h]	1,83	0,87	0,32	0,32
	[g/kg]	7,71	3,68	1,35	1,35
mass flow dry air	[kg/s]	0,0660	0,0660	0,0668	0,0668
	[kg/h]	237,6	237,6	240,4	240,4
flow (dry air)	[m³/h]	197,9	183,5	177,7	198,9
flow (wet air)	[m³/h]	200,0	184,6	178,2	199,3
rho (dry air)	[kg/m³]	1,20	1,29	1,35	1,21
enthalpy flow	[W]	2664	568	-587	1509
enthalpy	[kJ/kg]	40,06	8,54	-8,73	22,42
start condensation	[°C]	10,19	-0,38	-13,30	-13,30
saturation pressure	[Pa]	2484	594	244	2210
partial pressure (H2O)	[Pa]	1242	594	219	219

