ROTOR VENT

Rotors Wheel Datasheet

Project Details:	Energy Wheel 1		
Unit Reference:	Rotor-Vent	Unit Tag :	1
Customer:	Rotor-Vent	Qty .:	1
Country :	Poland	Sales Eng. :	
Created Date:	2021/04/26	Rev. No. :	001

Input Data

Description	Supply Air	Extract Air	
Dry Bulb Temp. :	-10	20	°C
Air Volume :	1500	1500	m3/h
Relative Humidity :	80	40	%
Mass Flow :	1800	1800	kg/h

Model No: REC-0-18-290-900-1000/1000-H

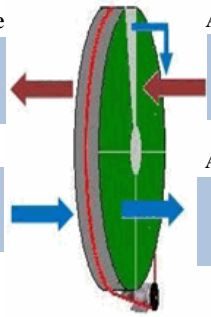
Airside Data Performance

Supply Air

	After	Before	
Dry Bulb Temp. :	14.73	-10	°C
Wet Bulb Temp. :	7.68	-10.63	°C
Relative Humidity	35.46	80	%
Absolute Humidity :	3.67	1.28	g/kg
Enthalpy :	24.1	-6.88	kJ/kg

Air Volume 1374 m3/h

Air Volume 1342 m3/h



Air Volume 1499 m3/h

Air Volume 1473 m3/h

Extract Air

	Before	After	
Dry Bulb Temp. :	20	-3.15	°C
Wet Bulb Temp. :	12.42	-3.39	°C
Relative Humidity	40	95	%
Absolute Humidity :	5.79	2.76	g/kg
Enthalpy :	34.82	3.72	kJ/kg

Energy Recovery Data

Supply Air			Extract Air		
Face Air Velocity :	1.17	m/s	Face Air Velocity :	1.31	m/s
Pressure Drop (actual density):	48.76	Pa	Pressure Drop (actual density):	59.25	Pa
Pressure Drop (Standard density):	59	Pa	Pressure Drop (Standard density):	59	Pa

Efficiency Performance Data

Supply Air			Extract Air		
Temp. efficiency (EN 308)	82.43	%	Temp. efficiency (EN 308)	77.15	%
Humidity efficiency (EN 308)	52.9	%	Humidity efficiency (EN 308)	67.32	%
Energy efficiency(DIN EN 13053)	80.88% /H1	%			
Temp. efficincy ErP Lot 6 :	82.59 2018 Ready	%			

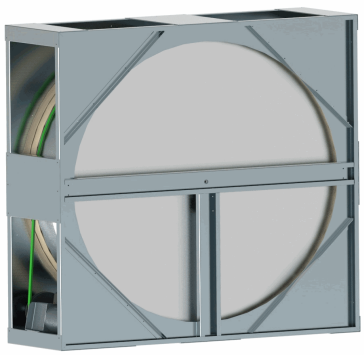
Energy / Heat Recovery Data

Supply Air			Extract Air		
Sensible heat	12.5	kW	Sensible heat	-11.7	kW
Latent heat	2.98	kW	Latent heat	-3.78	kW
Total heat	15.48	kW	Total heat	-15.48	kW
Moisture Recovery	2.38	g/kg	Moisture Recovery	-3.02	g/kg

Mechanical and Physical Data

Mechanical Data

Rotor Type	Condensation	
Rotor depth	200	mm
Wave height:	1.80	mm
Wheel Speed	0-10	rpm
Altitude	0	m
Air Pressure	1013	mbar



Physical Data

Rotor Diameter	900	mm
Housing Height	1000	mm
Housing Width	1000	mm
Housing Depth	290	mm

Version : 1.0.1