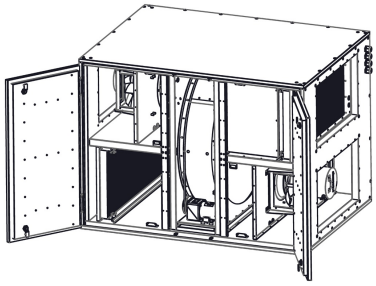
HR Rotor-3500Bu

Artikel 1662



		Supply	Extract
Air flow	[m^3/h]	3500	3500
External pressure	[Pa]	250	250
Inlet temperature, summer	[°C]	28	21
Relative humidity, summer	[%]	50	60
Inlet temperature, winter	[°C]	-10	21
Relative humidity, winter	[%]	95	50

Unit SFP	[$W/(m^3/s)$]	1617.95

Heat exchanger, summer

Supply			Extract		
Temperature after heat exchanger	[°C]	22.35	Temperature after heat exchanger	[°C]	26.65
Relative humidity after heat exchanger	[%]	69.99	Relative humidity after heat exchanger	[%]	42.71
Exchange efficiency dry	[%]	80.7	Exchange efficiency dry	[%]	80.7
Exchange efficiency wet	[%]	0	Exchange efficiency wet	[%]	0
Heat recovery wet	[kW]	-6.71			

Heat exchanger, winter

Supply			Extract		
Temperature after heat exchanger	[°C]	15.01	Temperature after heat exchanger	[°C]	-3.86
Relative humidity after heat exchanger	[%]	30.65	Relative humidity after heat exchanger	[%]	100
Exchange efficiency dry	[%]	80.69	Exchange efficiency dry	[%]	80.2
Exchange efficiency wet	[%]	27	Exchange efficiency wet	[%]	80
Heat recovery wet	[kW]	34.14			

Fans, winter

EC fan, backward curved impeller
Rated power = 1100W(1,5Hp)
Phase/voltage [50/60Hz/VAC] ~3, 380/480
Sound pressure level at 3 meters to environment 41 db(A)
Insulation class B
Motor protection class IP 54

Supply fan, winter			Extract fan, winter		
RPM	[1/min]	2043.42	RPM	[1/min]	2058.92
Electric power consumption	[W]	777.66	Electric power consumption	[W]	795.35
Current, A	[A]	1.2	Current, A	[A]	1.23
Total fan pressure, Pa	[Pa]	488.74	Total fan pressure, Pa	[Pa]	502.74
Static fan pressure, Pa	[Pa]	445.39	Static fan pressure, Pa	[Pa]	459.39
Static fan efficiency η es	[%]	55.68	Static fan efficiency η es	[%]	56.16
Airflow at operating point	[m^3/h]	3500	Airflow at operating point	[m^3/h]	3500
Power rated	[W]	1100	Power rated	[W]	1100
Current rated	[A]	1.7	Current rated	[A]	1.7
Control voltage	[V]	8.5	Control voltage	[V]	8.57
Sound pressure level to environment @3m	[dB(A)]	32.66	Sound pressure level to environment @3m	[dB(A)]	32.83

Fans sound power, winter Lw, (dB)

Sound power level	Gen.	Octave frequency bands [Hz]							
		63	125	250	500	1000	2000	4000	8000
Lwa (to inlet)	**73**	40	49	61	67	66	68	67	62
Lwa (to outlet)	**80**	42	51	63	71	76	75	71	65
Lwa (to environment)	**53**	35	42	51	43	43	42	38	33

Fans sound power, winter Lw, (dB)

Sound power level	Gen.	Octave frequency bands [Hz]							
		63	125	250	500	1000	2000	4000	8000
Lwa (to inlet)	**74**	40	49	61	67	66	68	67	62
Lwa (to outlet)	**80**	43	51	63	71	76	75	71	65
Lwa (to environment)	**53**	36	42	51	43	43	42	38	33

SFP, winter		
Unit external SFP, real at operation point	[W/(m^3/s)]	1617.95

Filter

Filter 384*196*40 - ePM1 70% ISO16890 / F7 EN 779:2012 , panel type, PP+PET / MERV 13 (ASHRAE 52.2) Frames 7.7x15.1x1.5inch.

Casing

Double skin frameless casing with 40 mm (1.5inch) mineral wool 90 kg/m3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T3, TB4.
Insulation class B

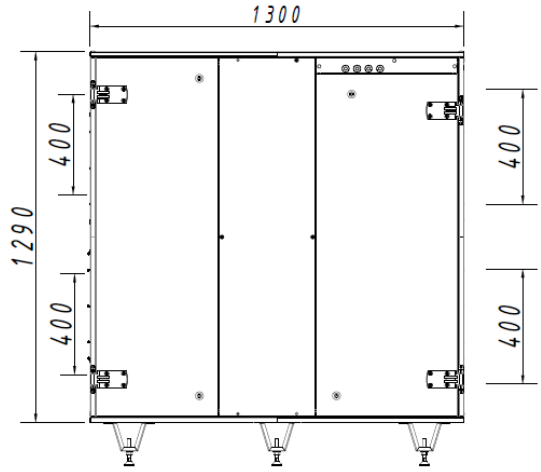
Units	L	W	H	S	H1	E2	S1	S2
mm	1300	1260	1290	700	400	170	505	360
inch	51	50	51	24	14	7	20	14

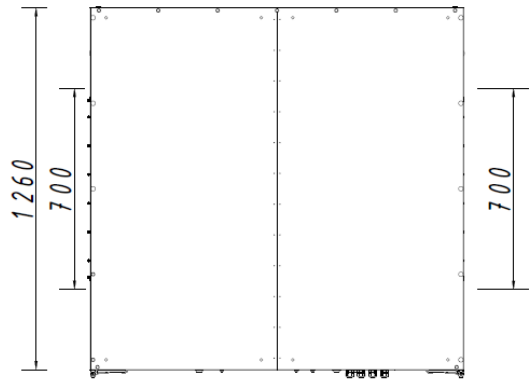
Unit Weight (without water cooler, DX coil, water heater), [Kg] - 328, [lb] - 723

DX coil/water cooler weight, [Kg] - 47, [lb] - 104

Water heater weigh, [Kg] - 40, [lb] - 88

Electric heater weigh, [Kg] - 29, [lb] - 64

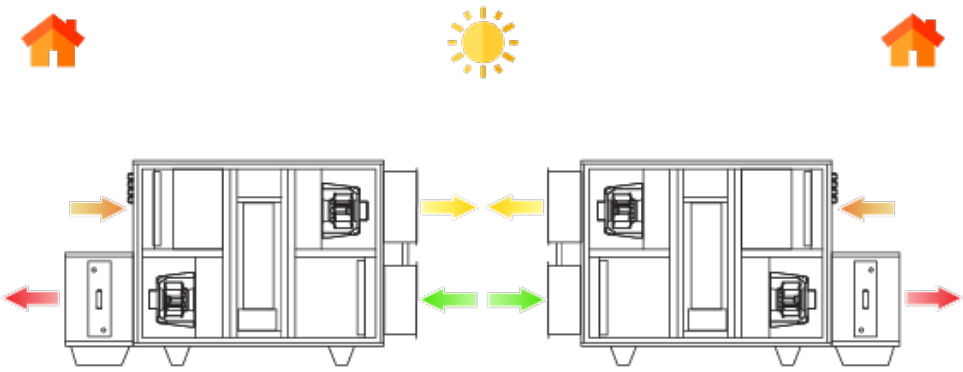




ERP		
Trade mark		Air-Transfer
Model		HR Rotor-3500Bu
Declared typology		NRVU BVU
Type of drive installed		Integrated MSD
Type of heat recovery system		Rotary
Thermal efficiency of heat recovery	[%]	80.69
Supply flow rate	[m^3/s]	0.97
Effective electric power input	[W]	1573.01
SFPint	[$W/(m^3/s)$]	723.78
Face velocity at design flow rate	[m/s]	1.38
External pressure	[Pa]	250
Internal pressure drop of ventilation components	[Pa]	195.39
Static efficiency of fans	[%]	55.68
Maximum leakage rates	[%]	2.7
Maximum leakage rates	[%]	2.7
Filtration class		B
Visual filter warning		Visual filter warning
Sound power level	[db]	53.2
Internet address		www.air-transfer.nl

Erp 2018 compliant according to Commission Regulation EU No 1253/2014, 7 July 2014

Left service side **Right service side**



Supply air Fresh air Extract air Exhaust air