

DUPLEXbase PT 900

DUPLEXbase PT



PERFORMANCE

Fans		Supply Air	Extract Air
Air volume @200Pa	m³/hr / l/sec	900 / 250	900 / 250
Nominal voltage	V	230	230
Power input (at operation point)	kW	0.26	0.23
Fan speed (nominal)	RPM	3400	3400
Max power input	kW	0.39	0.39
Max current	A	2.5	2.5
SFP	W/l/s	1.241	0.926
Fan type		EC	EC

Note: The figures above have been measured at 900 m³/h and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.

The unit consist of fans equipped with the EC technology. These fans have modulating speed control throughout the marked area.

Heat Recovery		Supply Air	Extract Air
Air volume @200Pa	m³/hr / l/sec	900 / 250	900 / 250
Temperature at inlet	°C	-5	20
Temperature at outlet	°C	16	2
Humidity at inlet	% RH	90	40
Humidity at outlet	% RH	20	100
Heat recovery efficiency winter / summer	%	84 / 80	
Performance in winter / summer	kW	6.5 / 1.5	
Condensation	l/h	1.4	
Type of heat exchanger		Counterflow, Plastic	
Part No.		90001426	

Note: The figures above have been measured at 900 m³/h and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.

Sound Power Level LwA (dB)	Total	dB (A)							
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Outdoor air e1	54	37	45	49	50	43	33	27	<25
Supply air e2	26	50	59	68	71	73	68	65	61
Extract air i1	55	35	46	51	50	43	37	31	<25
Exhaust air i2	77	50	59	70	72	71	71	66	58
Breakout noise	61	42	44	55	59	49	44	37	33
Sound Pressure Level LpA measured at 3m	41	<25	<25	34	39	28	<25	<25	<25

Note: The figures above have been measured at 900 m³/h and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.

KEY FEATURES

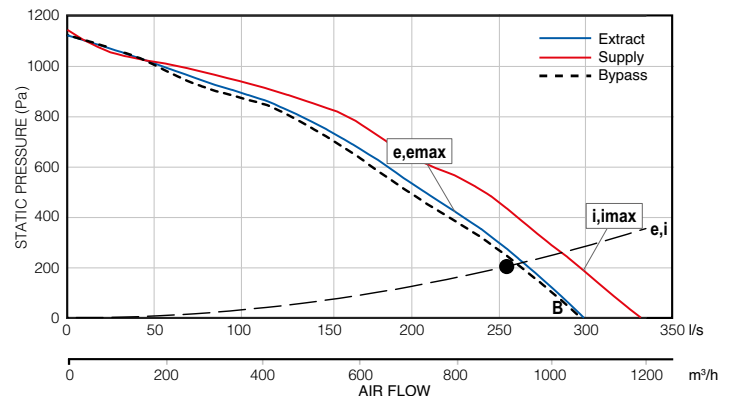
- Air volume up to 900 m³/h at 200 Pa according to ErP 2018
- Excellent thermal efficiency, up to 90%
- Compact design and high flexibility in unit orientation
- Low SFP with energy saving EC fans
- Low noise, refer to NR35 and BB93 standards
- Excellent thermal insulation (class T2, TB1)
- 100% adjustable digital controller with Internet and BMS connection
- ePM1 55% (F7) supply air filter and ePM10 50% (M5) exhaust air filter - ISO 16890 compliant
- BREEAM, Part L, Volume 2 and ErP 2018 compliant
- 2 year warranty+

OPTIONAL FEATURES

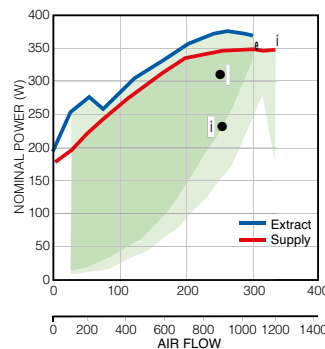
- Modulating control based on flow (constant flow function)
- Modulating control based on pressure (0-10V input)
- Pre and post-heating coils
- Cooling coils
- CO₂ monitors

More options available using our Duplexvent selection software.

AIR FLOW CURVE



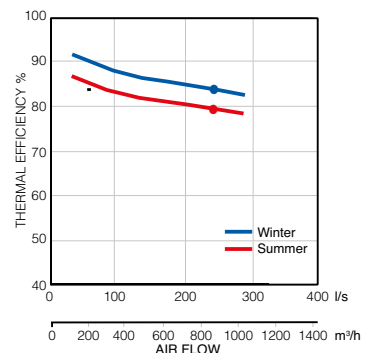
POWER CONSUMPTION



Note: Green area denotes power consumption range. Power consumption depends on system installation.

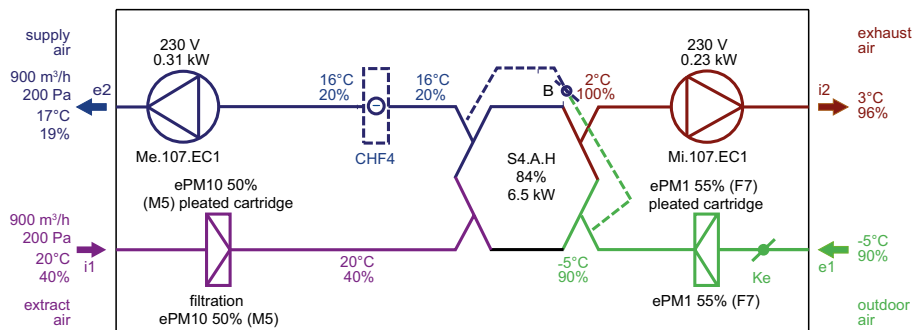
+excludes motors. Motor warranty one year from date of purchase.

HEAT RECOVERY EFFICIENCY

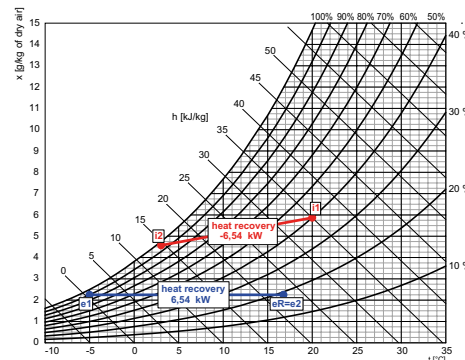


Winter Operation:

e1 - outdoor air (ODA) i1 - extract air (ETA)
 e2 - supply air (SUP) i2 - exhaust air (EHA)



Note: AHU functions diagram. Inlet and outlet location may differ from actual position and port configuration.


Supply

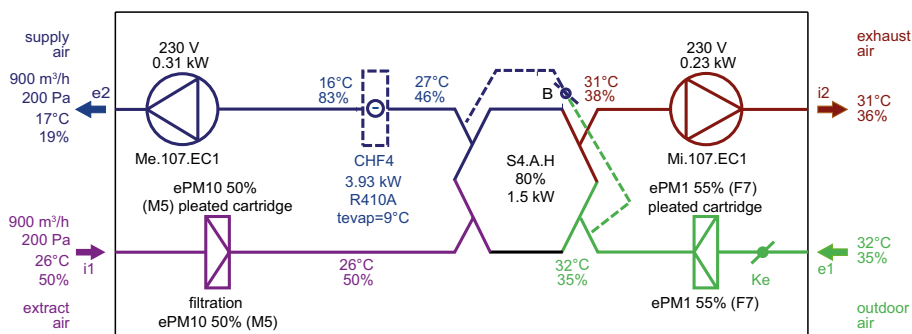
Description	t [°C]	RH [%]
e1 Outdoor Air	-5.0	90
eR Heat Recovery	16.8	19

Exhaust

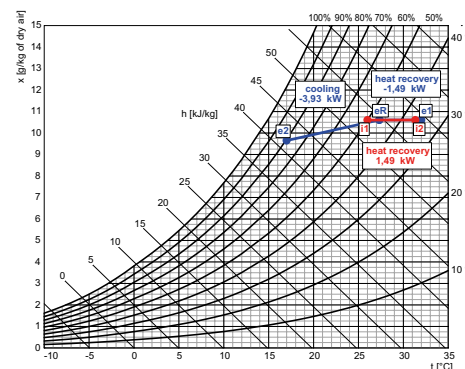
Description	t [°C]	RH [%]
i1 Extract Air	20.0	40
i2 Heat Recovery	3.0	96

Summer Operation:

e1 - outdoor air (ODA) i1 - extract air (ETA)
 e2 - supply air (SUP) i2 - exhaust air (EHA)



Note: AHU functions diagram. Inlet and outlet location may differ from actual position and port configuration.


Supply

Description	t [°C]	RH [%]
e1 Outdoor Air	32.0	35
eR Heat Recovery	27.3	46
e2 Cooling	17.0	79

Exhaust

Description	t [°C]	RH [%]
i1 Extract Air	26.0	50
i2 Heat Recovery	31.3	36

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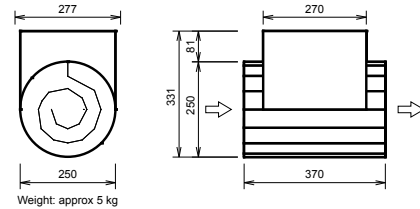
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OPTIONAL ACCESSORIES

PRE-HEATING

Electric pre-heater		Supply Air
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Max. heating capacity	kW	3.0
Voltage	V	230
Heating coil type		built-in

Electric pre-heater		Supply Air
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Max. heating capacity	kW	3
Voltage	V	400
Connection ports	mm	Ø 250
Heating coil type		external



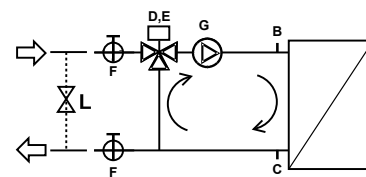
POST HEATING

Electric post-heater		Supply Air
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Temperature at inlet (upstream of heater)	°C	16
Temperature at outlet (downstream of heater)	°C	19
Heating capacity	kW	1.00
Max. heating capacity	kW	3.0
Voltage	V	230
Heating coil type		built-in

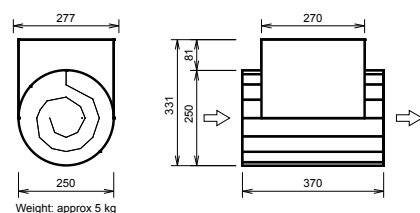
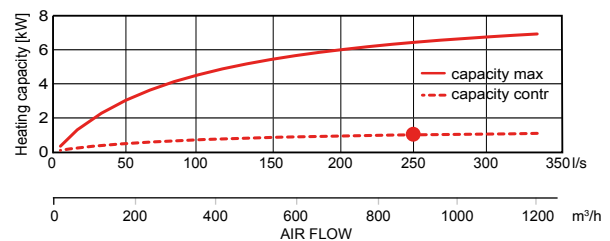
Water heating coil		Supply Air
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Temperature at inlet (after heat recovery)	°C	16
Temperature at outlet (downstream of heater)	°C	19
Heating capacity	kW	1.0
Heating medium temperature drop	°C	70 / 19
Medium flow (from source)	l/h	17
Medium-side pressure drop in heat exchanger / in valve	kPa	4.0 / 0.16
Connection dimension (hydraulic kit)		1" female
Coil capacity	l	1.1
Heating coil type		built-in

Note: The figures above have been measured at 900 m³/hr and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.

Electric post-heater		Supply Air
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Temperature at inlet (upstream of heater)	°C	17
Temperature at outlet (downstream of heater)	°C	20
Heating capacity	kW	1
Max. heating capacity	kW	3
Voltage	V	400
Connection ports	mm	Ø 250
Heating coil type		external



- B Sludge valve plug 2)
 - C Sludge valve plug 2)
 - Hydraulic kit: RE-HW3.LM24A-SR
 - D Mixing valve IVAR.MIX4, Kv 12, 1" 1)
 - E Actuator LM24A-SR 1)
 - F Globe valve 1" female 1)
 - G Pump WILO YONOS PARA RS 20/6- RKC 1)
 - Others
 - L Water bypass 3)
- 1 - Delivered separately
2 - Fitted and connected
3 - Not part of delivery, recommended



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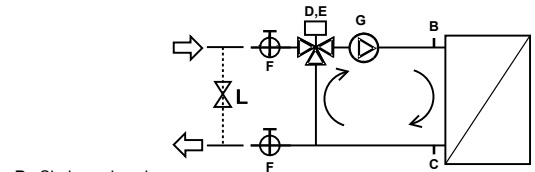
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OPTIONAL ACCESSORIES

POST HEATING continued

Water heating coil		Supply Air
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Temperature at inlet (after heat recovery)	°C	17
Temperature at outlet (downstream of heater)	°C	20
Heating capacity	kW	1
Heating medium temperature drop	°C	70 / 23
Medium flow (from source)	l/h	19
Medium-side pressure drop in heat exchanger / in valve	kPa	2.90 / 0.21
Connection dimension (hydraulic kit)		1" female
Coil capacity	l	0.8
Heating coil type		external

Note: The figures above have been measured at 900 m³/hr and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels



- B Sludge valve plug 2)
- C Sludge valve plug 2)

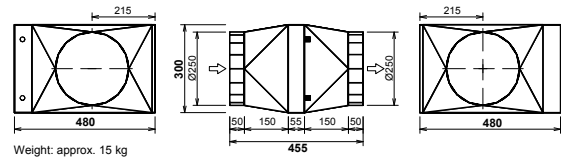
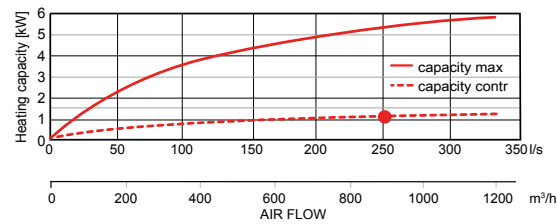
Hydraulic kit: RE-HW3.LM24A-SR

- D Mixing valve IVAR.MIX4, Kv 12, 1" 1)
- E Actuator LM24A-SR 1)
- F Globe valve 1" female 1)
- G Pump WILO YONOS PARA RS 20/6- RKC 1)

Others

- L Water bypass 3)

- 1 - Delivered separately
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- 3 - Not part of delivery, recommended

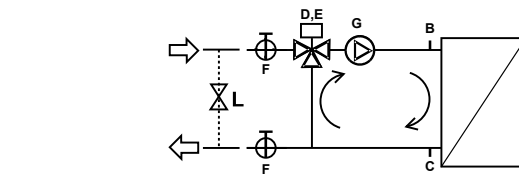


Weight: approx. 15 kg

COOLING

Water cooling coil		Supply
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Temperature at inlet (after heat recovery)	°C	27
Temperature at outlet (downstream of cooling coil)	°C	17
Inlet relative humidity (after heat recovery)	% RH	46
Outlet relative humidity (downstream the cooling coil)	% RH	83
Cooling capacity	kW	3.5
Condensate production	l/h	1
Water temperature drop	°C	6 / 13
Medium flow (at max. capacity)	l / h	450
Medium-side pressure drop in heat exchanger / in valve	kPa	39.40 / 0.07
Connection dimension		1" female
Coil capacity	l	1.2
Heating coil type		built-in

Note: The figures above have been measured at 900 m³/hr and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.



- B Sludge valve plug 2)
- C Sludge valve plug 2)

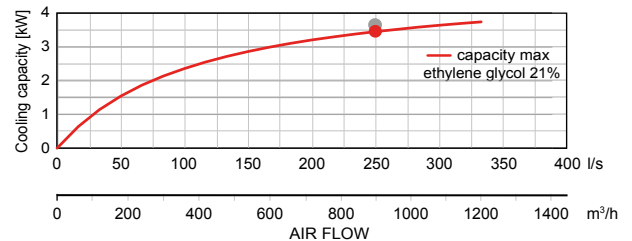
Hydraulic kit: RE-HW3.LM24A-SR

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Others

- L Water bypass 3)

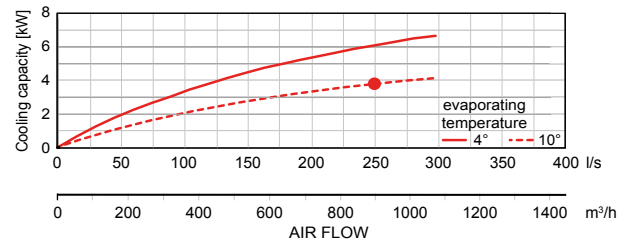
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- 3 - Not part of delivery, recommended



DX COIL

DX coil		Supply
Air volume @200Pa	m ³ /hr / l/sec	900 / 250
Temperature at inlet (after heat recovery)	°C	27
Temperature at outlet (downstream of cooling coil)	°C	16
Inlet relative humidity (after heat recovery)	% RH	46
Outlet relative humidity (downstream the cooling coil)	% RH	84
Cooling capacity	kW	3.84
Condensate production	l/h	1
Refrigerant type		R32
Evaporating temperature	°C	10
Coil capacity	l	1.3
Heating coil type		built-in

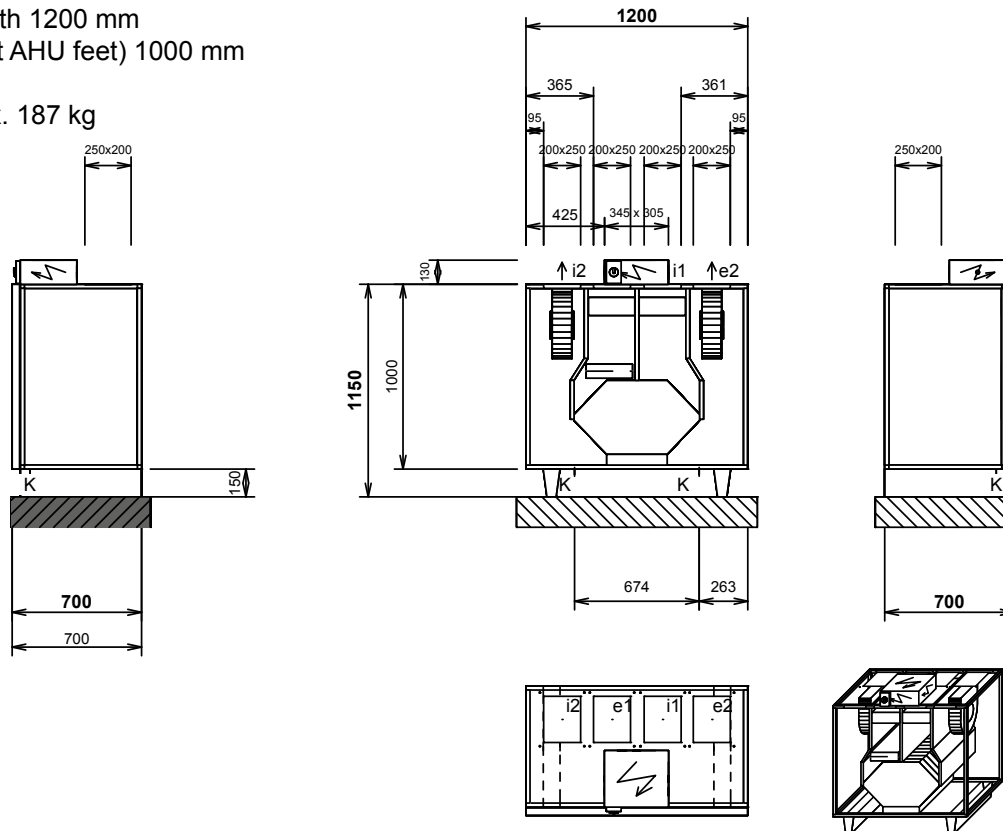
COOLING CAPACITY



Note: The figures above have been measured at 900 m³/hr and 200 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.

DIMENSIONS

AHU size length 1200 mm
height (without AHU feet) 1000 mm
depth 655 mm
Weight approx. 187 kg



Connections	Type	Dimensions	Optional components
e1	e1- outdoor air (ODA)	250 x 200 mm	Shutoff damper
e2	e2- supply air (SUP)	250 x 200 mm	4 x M6 thread for 20 mm flange
i1	i1- extract air (ETA)	250 x 200 mm	4 x M6 thread for 20 mm flange
i2	i2- exhaust air (EHA)	250 x 200 mm	4 x M6 thread for 20 mm flange
K	condensate drain	2x Ø 16 mm / 22 mm	

Notice:
- Door – 2 parts
- Diagram is intended only for basic information, binding dimensions receive at device delivery, or on request from the manufacturer.
- Bolt holes for duct connection (for one port): 4 x M6

Call: 01494 525252

Visit: airflow.com



Airflow Developments Limited
Aidelle House, Lancaster Road,
Cressex Business Park,
High Wycombe, Buckinghamshire,
United Kingdom, HP12 3QP

E-mail: info@airflow.com
Telephone: +44 (0) 1494 525252

airflow.com

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