

Duplexvent Flexi DV650

Flexi Line Side Entry



KEY FEATURES

- Air volume up to 650 m³/h at 170 Pa according to ErP 2018
- Excellent thermal efficiency, up to 90%
- Versatile unit positioning with floor and ceiling mounting options
- 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
- BREEAM, Passive House and ErP 2018 compliant
- 2 year warranty+

PERFORMANCE

Ventilation		Supply Air	Extract Air
Air volume @ 200 Pa	m ³ /hr / l/sec	650 / 181	650 / 181
Nominal voltage	V	230	230
Nominal power (at operation point)	kW	0.17	0.15
Fan Speed	RPM	4300	4300
Max power input	kW	0.167	0.147
Max current	A	1.31	1.14
Fan Type		EC	EC

Note: The figures above have been measured at 650 m³/h and 170 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels

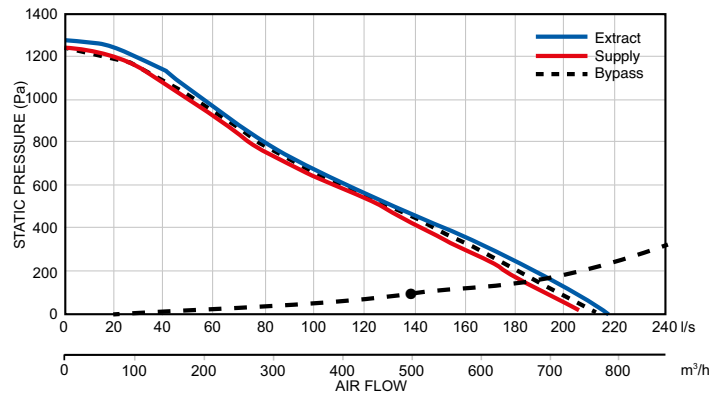
Heat Recovery		Supply Air	Extract Air
Air volume @ 200 Pa	m ³ /hr / l/sec	650 / 181	650 / 181
Temperature at inlet	°C	-5	20
Temperature at outlet	°C	15	3
Humidity at inlet	% RH	90	40
Humidity at outlet	% RH	21	100
Heat recovery efficiency winter / summer	%	80 / 75.8	
Performance in winter / summer	kW	4.5 / 1	
Condensation	l/h	0.9	
Type of heat exchanger		Cross-counter-flow, Plastic	
Part No.		90001062	

Note: The figures above have been measured at 650 m³/h and 170 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels

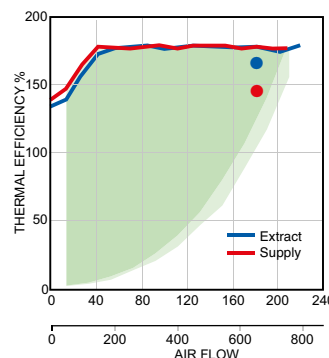
Sound Power Level L _w	Total	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Outdoor air e1	56	43	43	42	53	50	49	36	28
Supply air e2	80	53	59	66	74	73	74	70	71
Extract air i1	55	45	46	43	48	50	46	34	30
Exhaust air i2	79	53	59	65	73	71	72	69	70
Breakout noise	56	29	34	45	53	49	45	35	<25
Sound Pressure Level L _p measured at 3m	35	<25	<25	25	33	28	25	<25	<25

Note: The figures above have been measured at 650 m³/h and 170 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels

AIR FLOW CURVE



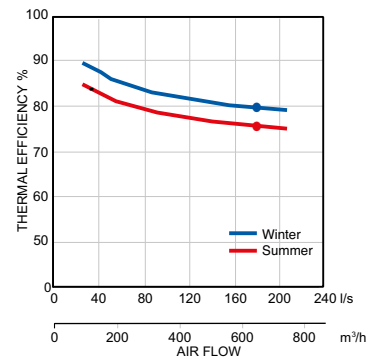
POWER CONSUMPTION



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

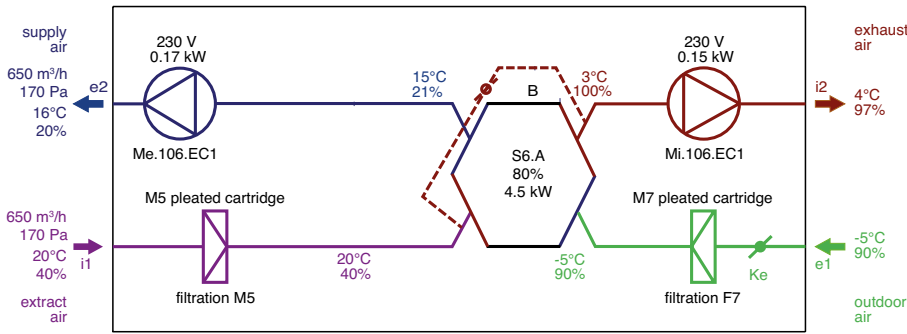




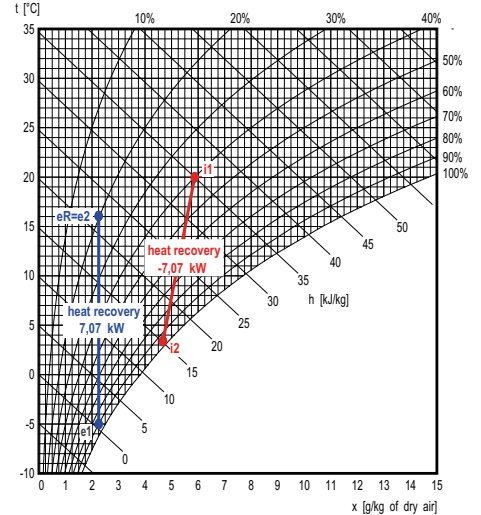
2018

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

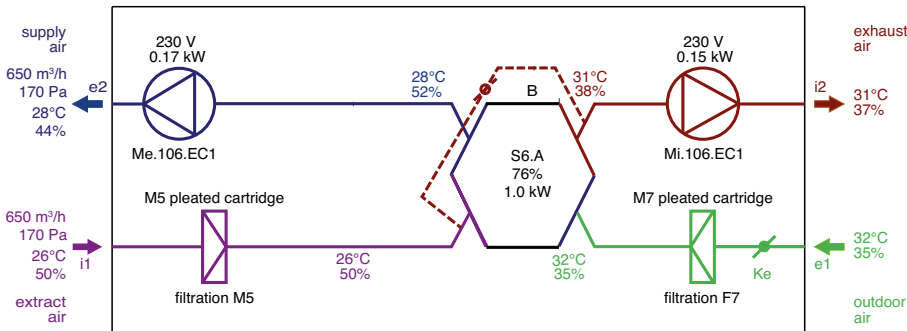
Description	t [°C]	RH [%]
e1 Outdoor Air	-5.0	90
e2 Supply Air	15.6	20

Exhaust

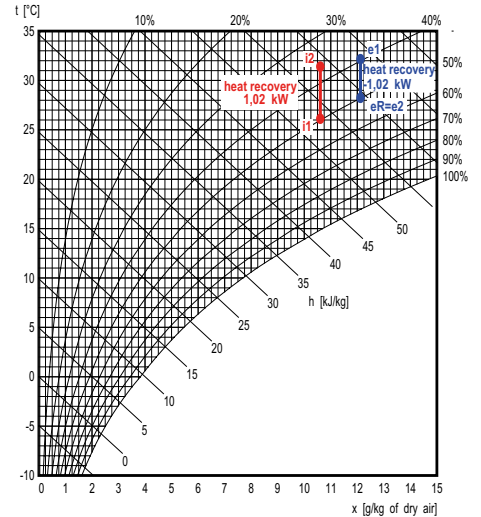
Description	t [°C]	RH [%]
i1 Extract Air	20.0	40
i2 Exhaust Air	3.5	97

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.

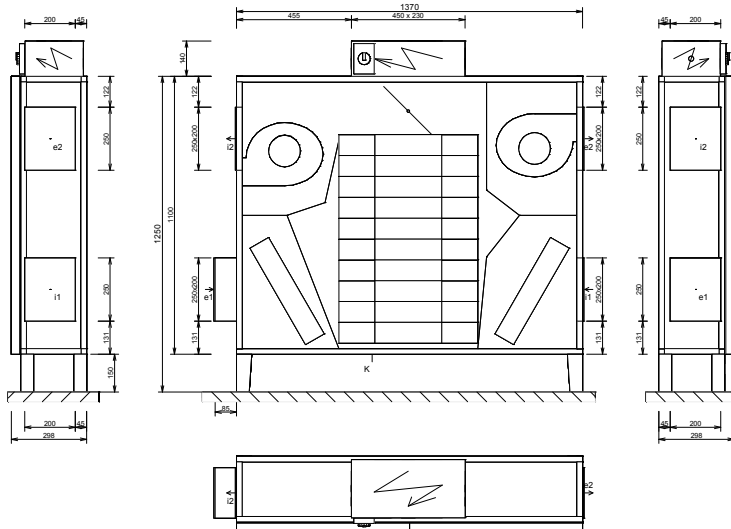


Supply

Description	t [°C]	RH [%]
e1 Outdoor Air	32.0	35
e2 Supply Air	28.1	44

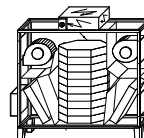
Exhaust

Description	t [°C]	RH [%]
i1 Extract Air	26.0	50
i2 Exhaust Air	31	37



DIMENSIONS

Connections	Type	Dimensions	Optional components
e1	e1- outdoor air (ODA)	250 x 200 mm	Shutoff damper, Flexible connection
e2	e2- supply air (SUP)	250 x 200 mm	Flexible connection
i1	i1- extract air (ETA)	250 x 200 mm	Shutoff damper, Flexible connection
i2	i2- exhaust air (EHA)	250 x 200 mm	Flexible connection
K	condensate drain	2x Ø 16 mm / 22 mm	Condensate pump



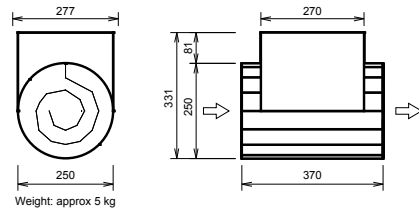
Notice:

- Unit supplied as one piece
- Door – 2 parts
- Diagram is intended only for basic information, binding dimensions receive at device delivery, or on request from the manufacturer.



ELECTRIC PRE-HEATER

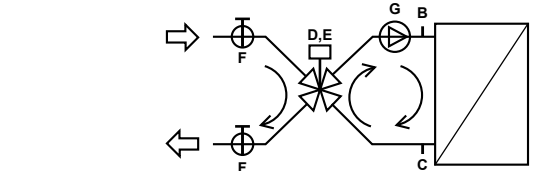
Electric pre-heater		Supply
Air volume	m ³ /h / l/s	650 / 181
Maximum heating capacity	kW	2.0
Voltage	V	230
Connection ports	mm	Ø 200



WATER HEATING COIL

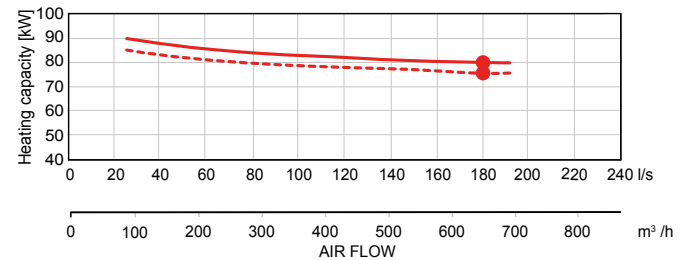
Water heating coil		Supply
Heating medium		Water
Air volume	m ³ /h / l/s	650 / 181
Temperature at inlet (after heat recovery)	°C	24.7
Temperature at outlet (downstream of the heater)	°C	22.4
Heating capacity	kW	1
Heating medium temperature drop	°C	70/50
Medium flow (from source)	l/h	43
Connection dimension (hydraulic kit)		1" female

Note: The figures above have been measured at 650 m³/hr and 170 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-HW4.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)
- 1 - Delivered separately
2 - Fitted and connected

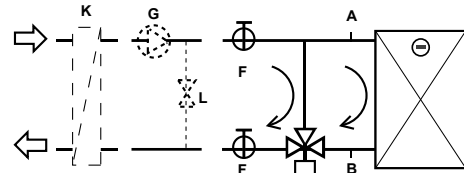
HEATING CAPACITY



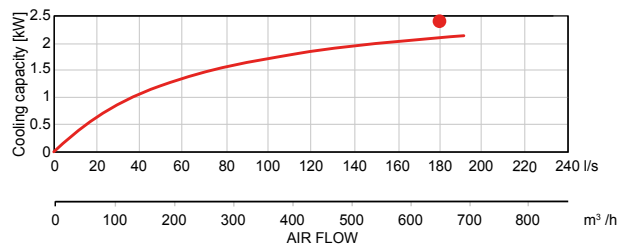
WATER COOLING COIL

Water cooling coil		Supply
Cooling medium		21% Ethylene glycol
Air volume	m ³ /h / l/s	650 / 181
Temperature at inlet (after heat recovery)	°C	28.1
Temperature at outlet (downstream of the cooling coil)	°C	18.4
Inlet relative humidity (after heat recovery)	% RH	44
Outlet relative humidity (downstream of the cooling coil)	% RH	79.1
Cooling capacity	kW	2.12
Condensate production	l/h	0.1
Water temperature drop	°C	6 / 12
Medium flow (at max. capacity)	l/h	320
Medium-side pressure drop		
in heat exchanger	kPa	2.9
in valve	kPa	0.1
Connection dimension		1" female

Note: The figures above have been measured at 650 m³/hr and 170 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.



- B Sludge valve plug 2)
 - Hydraulic kit: R-CW3.TR 24-SR
 - D 3-way ball valve R320BM, Kv 21, ¾" 1)
 - E Actuator TR 24-SR 1)
 - F Globe valve 1" female 1)
 - Others:
 - G Pump 3)
 - L Water bypass 3)
 - K Coil water/ethylene glycol 3)
- 1 - Delivered separately
2 - Fitted and connected
3 - Not part of delivery

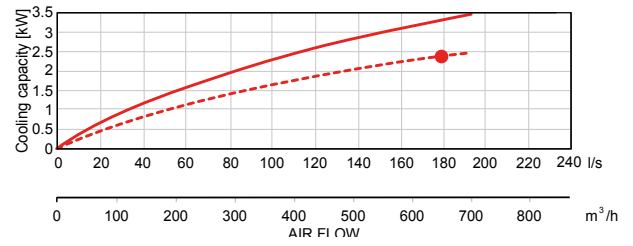


DX COIL

DX coil		Supply
Air volume	m ³ /h / l/s	650 / 181
Temperature at inlet (after heat recovery)	°C	28
Temperature at outlet (downstream of the DX coil)	°C	17
Inlet relative humidity (after heat recovery)	% RH	44
Outlet relative humidity (downstream of the DX coil)	% RH	86
Cooling capacity	kW	2.4
Condensate production	l/h	0.2
Refrigerant type		R410A
Evaporating temperature	°C	6

Note: The figures above have been measured at 650 m³/hr and 170 Pa. Please use the Duplexvent Selection Software to calculate measurements at other performance levels.

COOLING CAPACITY



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80000989 Issue 1 04/20