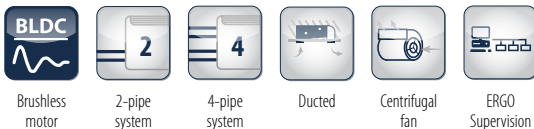


Medium available head duct units with BLDC motor

DUCTIMAX i 2 - 8 kW



Modulation and efficiency in a recess ceiling-mounted unit

The range is completed by DUCTIMAXi, which uses inverter BLDC technology in the electric motors. To the features of DUCTIMAX it adds the benefits of brushless technology, including a reduction in electricity consumption and consequent reduction in CO₂ emissions, increase in operating flexibility thanks to the modulation of air flow and increase in the level of comfort in terms of temperature, humidity and noise levels.

The range is made up of 12 models with air flows from 300 to 1200 m³/h.

Continuous modulation of the air flow and the use of high-efficiency heat exchangers enables operation also with small air – water temperature differences.

The heat exchangers can also be optimized in the circuit for centralized applications such as district cooling.

Operation is controlled from wall-mounted microprocessor control panels with display, such as the MYCOMFORT LARGE and EVO models which also enable DUCTIMAXi to be connected to ERGO.

The action of the G3 air filter can be combined with an air ionisation system, available as an accessory.

PLUS

- ✓ Permanent magnet BLDC motor
- ✓ Low electricity consumption
- ✓ Easy setup of ventilation section
- ✓ Heat exchanger up to 4 rows
- ✓ Compact dimensions
- ✓ Reversible water connections
- ✓ Can be integrated into the ERGO
- ✓ Incorporable ioniser
- ✓ Vast range of available accessories

AVAILABLE VERSIONS

- DM xx0 D i** Unit for 2-pipe systems
- DM xx1 D i** Unit for 4-pipe systems equipped with an additional 1-row exchanger for the hot water circuit
- DM xx2 D i** Unit for 4-pipe systems equipped with an additional 2-row exchanger for the hot water circuit

Besides assuring a big advantage in terms of energy efficiency, the inverter-controlled BLDC motor enables flexibility of installation and reduces the time needed to set up the ventilation section, thanks to the continuous modulation of air flow.





MAIN COMPONENTS

Structure

Built from galvanised steel sheet, heat and sound insulated by means of Class 1 self-extinguishing panels. Reduced height to facilitate installation in a horizontal position in a false ceiling. The structure incorporates a drip tray and condensate drain outlet. The main condensate drip tray is situated inside the structure of the unit and is at a positive pressure relative to the drain outlet to facilitate condensate drainage.

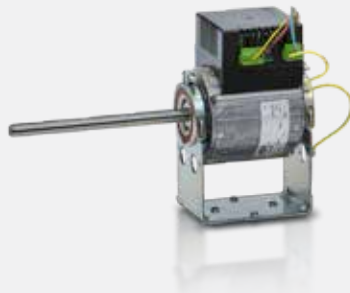
Fans

Double suction centrifugal fans made with ABS or aluminium, with statically and dynamically balanced forward-curving blades, directly coupled to the electric motor.



BLDC electric motor

Permanent magnet motor. The unit is equipped with an inverter board to control the motor, that makes it possible to precisely set the maximum rotation speed (control signal 0-10 V).



Heat exchanger

High efficiency 3 and 4 rows heat exchanger made with copper piping and aluminium fins blocked to pipings by mechanical expansion, provided with brass manifolds and air vent valve. The heat exchanger usually comes with water connections mounted on the left, but it can be turned by 180°. High-efficiency heat exchangers optimized for district cooling applications are available on request.

Air filter

Washable air filter, made of acrylic fibre, filtration class G2 or G3, applied on the air intake; may be pulled out from below.

ACCESSORIES

MICROPROCESSOR ELECTRONIC CONTROL PANELS

MCLE	MYCOMFORT large electronic controller with display
DIST	MYCOMFORT controller spacer for wall mounting
EVODISP	EVO CLOCK Remote display
EVOBOARD	EVO 230V circuit board
MCSWE	Water sensor for EVO, MYCOMFORT BASE, MEDIUM, LARGE, and LED 503 microprocessor controllers
MCSUE	Humidity sensor for EVO, MYCOMFORT MEDIUM AND LARGE microprocessor controller

PLENUM AND AIR INLET AND OUTLET CONNECTORS

PMA	Uninsulated air outlet/intake plenum with Ø 200 mm collars
PMAC	Insulated air outlet/intake plenum with Ø 200 mm collars
PAF	Uninsulated front air intake plenum with Ø 200 mm collars
RD	Straight uninsulated air inlet/outlet connector
RDC	Straight insulated air inlet/outlet connector
R90	90° uninsulated air inlet/outlet connector
R90C	90° insulated air inlet/outlet connector
MAFO	Air intake module with G4 undulated filter

CONNECTION HOSES AND PLUGS

TFA	Uninsulated hose Ø 200 mm
TFM	Insulated hose Ø 200 mm
TP	Plastic plug Ø 200 mm

AIR OUTLET AND INTAKE DUCTS

CA	Air intake duct with honeycomb grille
CAF	Air intake duct with honeycomb grille and G2 filter
CM	Insulated air outlet duct, with 2-way grille

AIR OUTLET AND INTAKE GRILLES

GM	Aluminium air outlet grille with 2-row fins, with frame
GA	Aluminium air intake grille, with frame

MOTOR DRIVEN ON/OFF AND MODULATING VALVES

VK	ON-OFF 3-way motor driven valve (230V and 24V actuator), with hydraulic kit for standard and DF heat exchanger
VK	Modulating 3-way motor driven valve (24V actuator), with hydraulic kit for standard and DF heat exchanger
KV	ON-OFF 2-way motor driven valve (230V and 24V actuator), with hydraulic kit for standard and DF heat exchanger
KVM	Modulating 2-way motor driven valve (24V actuator), with hydraulic kit for standard and DF heat exchanger

ACCESSORIES

VRC	Auxiliary external drip tray.
RE	Additional heating element for installation on board the unit, complete with safety devices
KSC	Condensate drainage pump

Rated technical data

DM Di		130			140			230			240		
Fan speed		min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	V	3,6	7,5	8,5	3,6	7,5	8,5	4,1	6,6	8,0	4,1	6,6	8,0
Air flow (E)	m ³ /h	138	246	276	138	246	276	171	275	341	171	275	341
Available static pressure (E)	Pa	15	50	63	15	50	63	19	50	77	19	50	77
Power input (E)	W	5	26	35	5	26	35	12	28	43	12	28	43
Total cooling capacity (1) (E)	kW	1,12	1,78	1,98	1,18	1,97	2,18	1,30	1,97	2,38	1,39	2,18	2,64
Sensible cooling capacity (1) (E)	kW	0,77	1,28	1,41	0,80	1,36	1,51	0,92	1,41	1,70	0,96	1,51	1,84
Water flow (1)	l/h	192	306	339	203	338	374	223	339	409	239	374	453
Water pressure drop (1) (E)	kPa	2	5	6	3	7	8	3	6	8	4	8	12
Heating capacity (2) (E)	kW	1,32	2,18	2,39	1,37	2,38	2,64	1,60	2,38	2,83	1,69	2,64	3,22
Water pressure drop (2) (E)	kPa	2	4	5	2	6	7	2	5	6	3	7	10
1 row DF heating capacity (3) (E)	kW	1,56	2,24	2,38	1,56	2,24	2,38	1,79	2,39	2,69	1,79	2,39	2,69
1 row DF Water flow (3)	l/h	137	197	209	137	197	209	157	210	236	157	210	236
1 row DF Water pressure drop (3) (E)	kPa	2	3	3	2	3	3	2	3	4	2	3	4
2 rows DF heating capacity (3) (E)	kW	2,16	3,50	3,78	2,16	3,50	3,84	2,60	3,82	4,50	2,60	3,82	4,50
2 rows DF Water flow (3)	l/h	190	307	332	190	307	337	228	335	395	228	335	395
2 rows DF Water pressure drop (3) (E)	kPa	3	7	8	3	7	9	4	8	11	4	8	11
Standard coil - number of rows	n°	3			4			3			4		
Total sound power level (4)	dB(A)	26	48	52	26	48	52	36	50	58	36	50	58
Inlet + radiated sound power level (4) (E)	dB(A)	24	46	50	24	46	50	34	48	56	34	48	56
Outlet sound power level (4) (E)	dB(A)	22	45	49	22	45	49	32	47	55	32	47	55

DM Di		330			340			430			440		
Fan speed		min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	V	4,2	7,3	8,3	4,2	7,3	8,3	4,0	6,8	8,7	4,0	6,8	8,7
Air flow (E)	m ³ /h	196	360	402	196	360	402	305	532	652	305	532	652
Available static pressure (E)	Pa	14	50	63	14	50	63	17	50	76	17	50	76
Power input (E)	W	13	34	45	13	34	45	18	48	82	18	48	82
Total cooling capacity (1) (E)	kW	1,47	2,36	2,62	1,60	2,77	3,07	2,00	3,31	3,87	2,37	3,92	4,65
Sensible cooling capacity (1) (E)	kW	1,05	1,77	1,97	1,10	1,93	2,14	1,50	2,53	3,00	1,65	2,75	3,27
Water flow (1)	l/h	253	405	449	275	476	527	343	568	664	407	673	797
Water pressure drop (1) (E)	kPa	2	5	5	3	7	9	3	8	11	6	14	18
Heating capacity (2) (E)	kW	1,88	3,20	3,52	1,92	3,36	3,72	2,78	4,40	5,11	2,90	4,74	5,62
Water pressure drop (2) (E)	kPa	2	4	4	2	6	7	3	7	9	5	11	15
1 row DF heating capacity (3) (E)	kW	2,38	3,52	3,75	2,38	3,52	3,75	3,18	4,36	4,84	3,18	4,36	4,84
1 row DF Water flow (3)	l/h	209	308	329	209	308	329	279	382	425	279	382	425
1 row DF Water pressure drop (3) (E)	kPa	2	4	4	2	4	4	3	6	7	3	6	7
2 rows DF heating capacity (3) (E)	kW	3,10	5,23	5,74	3,10	5,23	5,74	4,55	7,02	8,07	4,55	7,02	8,11
2 rows DF Water flow (3)	l/h	272	459	503	272	459	503	399	616	708	399	616	711
2 rows DF Water pressure drop (3) (E)	kPa	2	6	7	2	6	7	5	10	12	5	10	12
Standard coil - number of rows	n°	3			4			3			4		
Total sound power level (4)	dB(A)	36	52	58	36	52	58	39	52	60	39	52	60
Inlet + radiated sound power level (4) (E)	dB(A)	34	50	56	34	50	56	37	50	58	37	50	58
Outlet sound power level (4) (E)	dB(A)	32	49	55	32	49	55	35	47	56	35	47	56



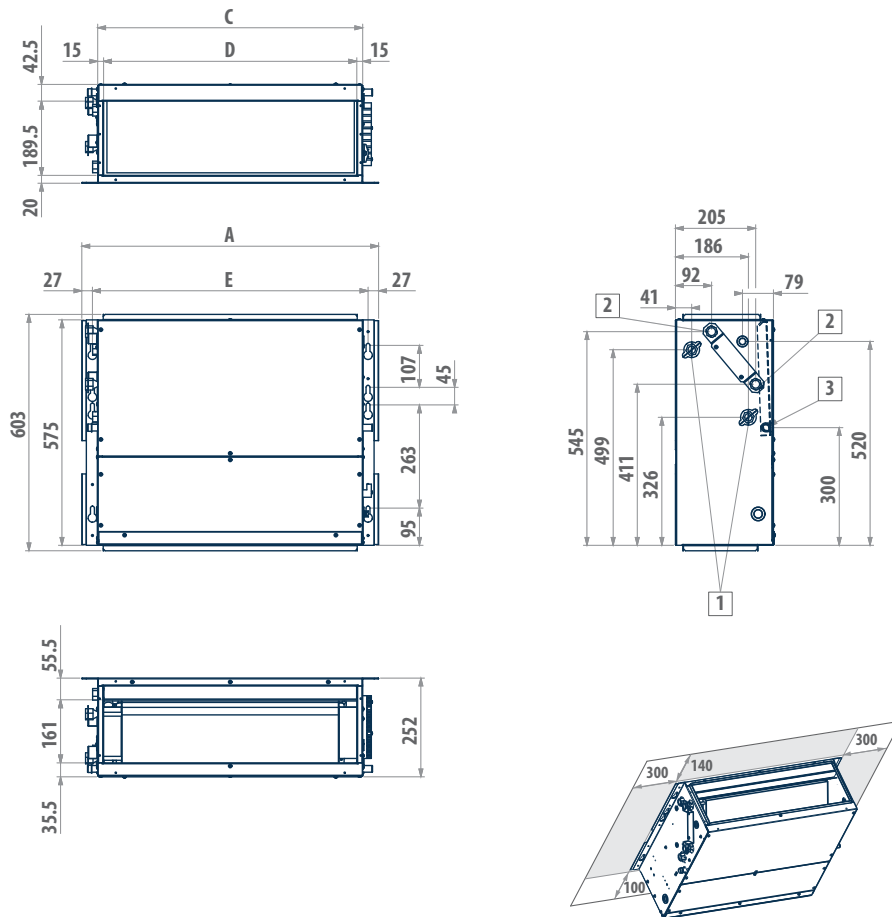
Rated technical data

DM Di		530			540			630			640		
Fan speed		min	med	max	min	med	max	min	med	max	min	med	max
Control voltage	V	4,2	7,9	8,7	4,2	7,9	8,7	6,9	7,7	8,4	6,9	7,7	8,4
Air flow (E)	m ³ /h	337	687	760	337	687	760	1045	1170	1285	1045	1170	1285
Available static pressure (E)	Pa	12	50	61	12	50	61	40	50	60	40	50	60
Power input (E)	W	18	61	77	18	61	77	119	153	189	119	153	189
Total cooling capacity (1) (E)	kW	2,31	4,39	4,82	2,54	4,95	5,42	6,36	6,98	7,52	7,11	7,81	8,42
Sensible cooling capacity (1) (E)	kW	1,70	3,26	3,58	1,79	3,50	3,83	4,72	5,19	5,61	5,04	5,54	5,99
Water flow (1)	l/h	397	754	828	436	851	930	1092	1197	1291	1221	1340	1445
Water pressure drop (1) (E)	kPa	2	7	8	3	10	12	13	16	18	20	23	26
Heating capacity (2) (E)	kW	3,05	5,66	6,16	3,18	6,04	6,59	7,94	8,65	9,29	8,59	9,40	10,1
Water pressure drop (2) (E)	kPa	2	6	7	3	8	10	11	13	15	16	19	21
1 row DF heating capacity (3) (E)	kW	3,86	5,86	6,18	3,86	5,86	6,18	7,25	7,64	7,96	7,25	7,64	7,96
1 row DF Water flow (3)	l/h	339	514	542	339	514	542	636	670	699	636	670	699
1 row DF Water pressure drop (3) (E)	kPa	8	16	18	8	16	18	23	25	27	23	25	27
2 rows DF heating capacity (3) (E)	kW	5,05	8,68	9,29	5,05	8,68	9,29	11,4	12,0	12,6	11,4	12,0	12,6
2 rows DF Water flow (3)	l/h	443	761	816	443	761	816	996	1056	1105	996	1056	1105
2 rows DF Water pressure drop (3) (E)	kPa	6	16	18	6	16	18	25	28	31	25	28	31
Standard coil - number of rows	n°	3			4			3			4		
Total sound power level (4)	dB(A)	39	55	60	39	55	60	59	62	69	59	62	69
Inlet + radiated sound power level (4) (E)	dB(A)	37	53	58	37	53	58	57	60	67	57	60	67
Outlet sound power level (4) (E)	dB(A)	35	51	56	35	51	56	55	58	65	55	58	65

- (1) Water temperature 7 / 12°C, air temperature D.B. 27°C, W.B. 19°C (47% relative humidity)
 (2) Inlet water temperature 50°C, water flow rate same as in cooling mode, air temperature 20°C
 (3) Water temperature 70 / 60°C, air temperature 20°C
 (4) Sound power measured according to standards ISO 3741 and ISO 3742
 (E) EUROVENT certified data
 Power supply 230-1-50 (V-ph-Hz)

Dimensional drawings

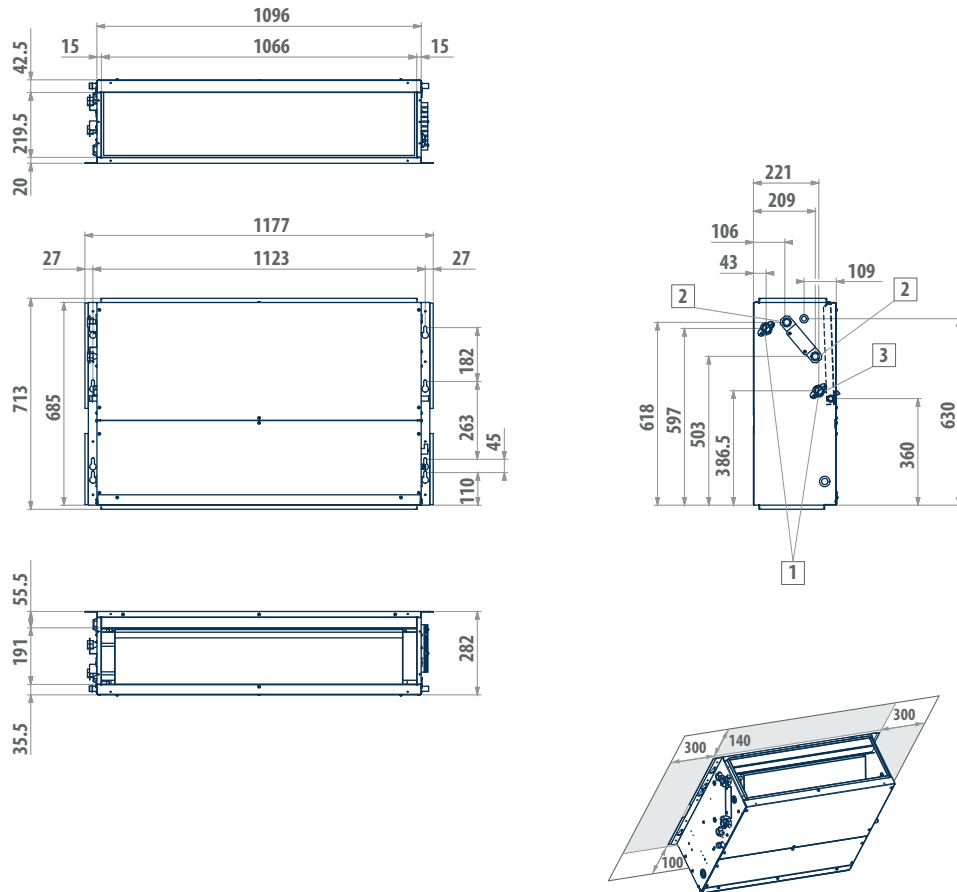
DUCTIMAX i



DUCTIMAX i	130 - 140	230 - 240	330 - 340	430 - 440
A	757	757	967	967
C	677	677	887	887
D	648	648	858	858
E	703	703	913	913
1	1/2"	1/2"	1/2"	1/2"
2	1/2"	1/2"	1/2"	1/2"
3	Ø 17	Ø 17	Ø 17	Ø 17

LEGEND

- 1 Hydraulic connections standard 1/2" female gas
- 2 Hydraulic connections additional 1/2" female gas
- 3 Condensate drainage


Dimensional drawings
DUCTIMAX i


DUCTIMAX i	530 - 540	630 - 640
1	3/4"	3/4"
2	1/2"	1/2"
3	Ø 17	Ø 17

LEGEND

1	Hydraulic connections standard 3/4" female gas
2	Hydraulic connections additional 1/2" female gas
3	Condensate drainage