

i-HWD2 102÷902

Ducted High Head Hydronic Terminal with EC Brushless motor for continuous regulation of fan speed and air flow.



The picture is referred to the unit with mounted valves and plenum with spigots.

The new high head ducted units i-HWD2, are equipped with an EC Brushless motor fan of new generation with continuous modulation of the air flow, which ensures better comfort and real energy savings. The possibility of vertical and / or horizontal installation, the small dimensions and the wide range of accessories for the canalization, make these units very flexible in

installation and adaptable to any type of system. Thanks to the brushless motor and the internal insulation the i-HWD2 guarantee an operation with high levels of acoustic comfort.

Controls

ATW-EC Wall Control

User interface for selection of functioning mode (Off/Summer/Winter/Auto), fan speed (Max, Med, Min, Auto), and temperature set. Control of main and additional coil valve unit. (summer/winter 2 and 4-pipe installation). Management of traditional ON/OFF valve unit. Air and water temperature probe. Multifunction digital input configurable by user. Configuration dip switch. The controls can be connected to BMS system.

Remote Control EKW

User interface for selection of functioning mode (OFF/summer/winter/AUTO), fan speed (Max/Med/Min/AUTO), temperature set. Control of main and additional coil valve unit (summer/winter - 2 and 4-pipe installation). Management of traditional ON/OFF valve unit or modulating valve unit 0-10V or 3 points. Air and water temperature probe. Multifunction digital input configurable by user. Configuration dip switch. Modbus protocol for installation in BMS (e.g. Idrorelax system by Climaveneta). Installation and management of Master-Slave system up to 8

LIFE2 fan coil units. Easy control installation thanks to 2 wires connection.

iK control with LCD screen

Interface with LCD screen with user-friendly icons. Control kit for universal installation: wall-mounted as well as plug-in. Selection of functioning mode (OFF/summer/winter/AUTO), fan speed (Max/Med/Min/AUTO), temperature set. Control iK could function manually or with weekly timer regulation configurable by the customer. Control of main coil valve unit (summer/winter - 2-pipe) and additional coil (winter - 4-pipe). Management of traditional ON/OFF valve unit or modulating valve unit 0-10V or 3 points (supply 230 VAC or 24V). Parameters configurable directly by user. Modbus protocol for installation in Building Management System (e.g. Idrorelax system by Climaveneta). Installation and management of Master-Slave system up to 8 LIFE2 fan coil units. Easy control installation thanks to 2 wires connection through HB power board.

Version

DFIO	built-in version, front air intake, horizontal installation
DFIV	built-in version, front air intake, vertical installation
DLIO	built-in version, low air intake, horizontal installation
DLIV	built-in version, low air intake, vertical installation

Features

- Ducted Terminal unit for horizontal and vertical installation.
- Bearing structure made of thick galvanized steel sheet, resistant to rust, corrosion, chemical agents.
- Self-supporting and removable panels provided with holes for ceiling and wall mounting, directly from the main casing. Pre-cuts slots and prearranged holes to configure the unit upon request, to install the accessories, and to reverse the units even on - site.
- Discharge Flange on units.
- High pressure centrifugal fan unit for ducted system;
- High efficiency EC motor.
- Modulating speed centrifugal fan and air flow regulation.
- Energy consumption reduced by more than 50%
- Highly efficient coil made of cooper pipes and aluminium fins
- Standard connections on the right side; on request connections on the left side.
- Possibility to reverse the connections on-site.
- Coils tested at 30 Bar pressure, suitable to work with water at max. 15 Bar pressure.
- Incorporated additional coil, or additional coil section for 4-pipe systems.
- EU2 efficiency flat air filters, which may be easily removed from any side of the unit (bottom, side, top) for periodic cleaning. EU3 undulated air filter section, and EU5 with pocket air filter section.
- Incorporated electrical heater, or electrical heater sections
- Auxiliary drain pan with thermal insulation for all Horizontal versions, made of galvanized steel.
- Configurations for 2 and 4-pipe Systems.

Accessories

- Hot water coil kit
- Heating element module
- Main coil 2-way/3-way valve unit
- Additional coil 2-way/3-way valve unit
- Ductable air filter section, flat, undulated, or with pocket bags
- Plenum kit with round, straight or 90° air ducts.
- Section with Air Louver, manual and motorized
- Noise level attenuator section for both air intake and supply outlets
- Section for humidifier
- Interface SPB Kit
- i-HB Power box
- Kit control board to manage 0-10V or 3 points modulating valve unit
- Kit RS485 - interface for Building Management System
- Kit Gateway interface for MyHome Bticino System
- Auxiliary condensate collecting tray

Technical data

i-HWD2		102	202	302	402	502	602	702	802	902
ELECTRICAL DATA										
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max absorbed power	W	170	170	170	320	320	320	500	500	500
2-PIPE SYSTEM CONFIGURATION										
MAX SPEED										
ESP External Static Pressure	Pa	41	46	45	37	45	45	46	46	46
Air flow	m ³ /h	1267	1314	1284	2148	2342	2299	3829	3746	3710
Total capacity in cooling mode	(1) kW	6,25	6,91	8,66	9,86	11,3	15,0	15,9	18,6	22,3
Sensible capacity in cooling mode	(1) kW	5,44	6,07	6,34	8,64	10,0	10,8	13,1	14,9	16,7
Max water flow	(1) m ³ /h	1,08	1,19	1,49	1,70	1,95	2,57	2,73	3,20	3,84
Max pressure drop	(1) kPa	31,6	35,1	35,7	22,3	27,6	30,2	34,4	34,6	36,6
Total capacity (heating mode)	(2) kW	8,44	9,34	10,9	13,3	15,3	19,2	22,8	26,8	30,2
Water flow in heating mode	(2) m ³ /h	1,08	1,19	1,49	1,70	1,95	2,57	2,73	3,20	3,84
Pressure drop in heating mode	(2) kPa	31,6	35,1	35,7	22,3	27,6	30,2	34,4	34,6	36,6
Sound Pressure on inlet side Lp (IR)	(3) dB(A)	52	51	52	54	54	55	54	54	55
Sound Power on inlet side Lw (IR)	(4) dB(A)	63	62	63	65	65	66	65	65	66
Sound Pressure on outlet side Lp (OD)	(3) dB(A)	51	50	50	50	50	51	51	51	52
Sound Power on outlet side Lw (OD)	(4) dB(A)	62	61	61	61	61	62	62	62	63
MED SPEED										
ESP External Static Pressure	Pa	29	38	39	24	34	35	35	39	40
Air flow	m ³ /h	1070	1204	1188	1735	2044	2023	3336	3474	3427
Total capacity in cooling mode	(1) kW	5,73	6,51	8,18	8,53	10,2	13,7	14,5	17,7	21,3
Sensible capacity in cooling mode	(1) kW	4,81	5,60	5,96	7,30	8,93	9,80	11,9	14,1	15,9
Max water flow	(1) m ³ /h	0,99	1,12	1,41	1,47	1,76	2,35	2,50	3,05	3,66
Max pressure drop	(1) kPa	26,5	31,0	31,8	16,7	22,6	25,1	28,6	31,4	33,2
Total capacity (heating mode)	(2) kW	7,64	8,76	10,3	11,4	13,8	17,5	20,7	25,4	28,6
Water flow in heating mode	(2) m ³ /h	0,99	1,12	1,41	1,47	1,76	2,35	2,50	3,05	3,66
Pressure drop in heating mode	(2) kPa	26,5	31,0	31,8	16,7	22,6	25,1	28,6	31,4	33,2
Sound Pressure on inlet side Lp (IR)	(3) dB(A)	48	50	51	50	52	53	52	53	54
Sound Power on inlet side Lw (IR)	(4) dB(A)	59	61	62	61	63	64	63	64	65
Sound Pressure on outlet side Lp (OD)	(3) dB(A)	47	48	49	47	48	49	49	50	51
Sound Power on outlet side Lw (OD)	(4) dB(A)	58	59	60	58	59	60	60	61	62
MIN SPEED										
ESP External Static Pressure	Pa	14	19	20	8	14	14	19	27	27
Air flow	m ³ /h	733	851	849	983	1294	1284	2473	2885	2854
Total capacity in cooling mode	(1) kW	4,41	5,30	6,60	5,61	7,40	9,89	11,6	15,5	18,8
Sensible capacity in cooling mode	(1) kW	3,62	4,39	4,70	4,57	6,17	6,89	9,27	12,1	13,8
Max water flow	(1) m ³ /h	0,76	0,91	1,14	0,97	1,27	1,70	2,00	2,67	3,24
Max pressure drop	(1) kPa	15,7	20,5	20,6	7,2	11,6	13,0	18,4	24,0	25,9
Total capacity (heating mode)	(2) kW	5,79	6,99	8,14	7,35	9,77	12,3	16,3	21,9	24,9
Water flow in heating mode	(2) m ³ /h	0,76	0,91	1,14	0,97	1,27	1,70	2,00	2,67	3,24
Pressure drop in heating mode	(2) kPa	15,7	20,5	20,6	7,2	11,6	13,0	18,4	24,0	25,9
Sound Pressure on inlet side Lp (IR)	(3) dB(A)	38	42	44	39	43	45	40	48	49
Sound Power on inlet side Lw (IR)	(4) dB(A)	49	53	55	50	54	56	51	59	60
Sound Pressure on outlet side Lp (OD)	(3) dB(A)	37	40	41	34	37	41	36	44	45
Sound Power on outlet side Lw (OD)	(4) dB(A)	48	51	52	45	48	52	47	55	56
SIZE AND WEIGHT										
A-HWD2 / DLIV-DFIV										
A	(5) mm	880	880	880	1280	1280	1280	1680	1680	1680
B	(5) mm	630	630	630	630	630	630	630	630	630
H	(5) mm	275	275	275	275	275	275	275	275	275
Operating weight	(5) kg	37	38	40	52	54	57	68	70	73
A-HWD2 / DLIO-DFIO										
A	(5) mm	880	880	880	1280	1280	1280	1680	1680	1680
B	(5) mm	605	605	605	605	605	605	605	605	605
H	(5) mm	275	275	275	275	275	275	275	275	275
Operating weight	(5) kg	37	38	40	52	54	57	68	70	73

- Notes:
- 1 Room temperature 27 °C d.b./19 °C w.b.; Chilled water (in/out) 7/12 °C.
 - 2 Room temperature 20 °C d.b.; Hot water (in/out) 50/* °C (with identical flow note1).
 - 3 Sound pressure level in free field on a reflective surface, 1 m from fan front and 1 m from the ground. Non -binding value obtained from sound power level.
 - 4 Sound power on the basis of measurements made in compliance with ISO 3741 and Eurovent 8/2.
 - 5 Unit in standard configuration/execution, without optional accessories.



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Technical data

i-HWD2		104	204	404	504	704	804
ELECTRICAL DATA							
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max absorbed power	W	170	170	320	320	500	500
4-PIPE SYSTEM CONFIGURATION							
MAX SPEED							
ESP External Static Pressure	Pa	49	46	37	45	46	46
Air flow	m ³ /h	1379	1314	2148	2342	3829	3746
Total capacity in cooling mode	(1) kW	6,63	6,91	9,87	11,3	15,9	18,7
Sensible capacity in cooling mode	(1) kW	5,84	6,07	8,68	10,0	13,1	14,9
Max water flow	(1) m ³ /h	1,14	1,19	1,70	1,95	2,74	3,21
Max pressure drop	(1) kPa	35,6	35,1	22,3	27,6	34,6	34,8
Total capacity (heating mode)	(2) kW	6,76	6,68	10,3	11,1	17,1	16,8
Water flow in heating mode	(2) m ³ /h	0,59	0,59	0,90	0,97	1,50	1,47
Pressure drop in heating mode	(2) kPa	17,5	17,1	18,0	20,8	47,2	45,8
Sound Pressure on inlet side Lp (IR)	(3) dB(A)	52	51	54	54	54	54
Sound Power on inlet side Lw (IR)	(4) dB(A)	63	62	65	65	65	65
Sound Pressure on outlet side Lp (OD)	(3) dB(A)	51	50	50	50	51	0
Sound Power on outlet side Lw (OD)	(4) dB(A)	62	61	61	61	62	0
MED SPEED							
ESP External Static Pressure	Pa	41	38	24	34	35	39
Air flow	m ³ /h	1267	1204	1735	2044	3336	3474
Total capacity in cooling mode	(1) kW	6,25	6,50	8,51	10,3	14,5	17,7
Sensible capacity in cooling mode	(1) kW	5,47	5,65	7,28	8,96	11,8	14,0
Max water flow	(1) m ³ /h	1,08	1,12	1,46	1,77	2,49	3,04
Max pressure drop	(1) kPa	31,6	31,0	16,6	22,6	28,6	31,1
Total capacity (heating mode)	(2) kW	6,35	6,33	8,75	10,2	15,5	15,9
Water flow in heating mode	(2) m ³ /h	0,56	0,55	0,77	0,89	1,36	1,39
Pressure drop in heating mode	(2) kPa	15,6	15,5	13,3	17,7	39,2	41,1
Sound Pressure on inlet side Lp (IR)	(3) dB(A)	52	50	50	52	52	53
Sound Power on inlet side Lw (IR)	(4) dB(A)	63	61	61	63	63	64
Sound Pressure on outlet side Lp (OD)	(3) dB(A)	51	48	47	48	49	0
Sound Power on outlet side Lw (OD)	(4) dB(A)	62	59	58	59	60	0
MIN SPEED							
ESP External Static Pressure	Pa	19	19	8	14	19	27
Air flow	m ³ /h	863	851	983	1294	2473	2885
Total capacity in cooling mode	(1) kW	4,98	5,30	5,61	7,42	11,6	15,5
Sensible capacity in cooling mode	(1) kW	4,13	4,40	4,57	6,18	9,28	12,1
Max water flow	(1) m ³ /h	0,86	0,91	0,97	1,28	2,00	2,67
Max pressure drop	(1) kPa	20,0	20,5	7,2	11,7	18,4	24,0
Total capacity (heating mode)	(2) kW	4,76	4,87	5,71	7,07	12,3	13,9
Water flow in heating mode	(2) m ³ /h	0,42	0,43	0,50	0,62	1,08	1,21
Pressure drop in heating mode	(2) kPa	9,0	9,5	5,9	8,8	25,7	32,0
Sound Pressure on inlet side Lp (IR)	(3) dB(A)	43	42	38	43	40	48
Sound Power on inlet side Lw (IR)	(4) dB(A)	54	53	49	54	51	59
Sound Pressure on outlet side Lp (OD)	(3) dB(A)	42	40	34	37	36	0
Sound Power on outlet side Lw (OD)	(4) dB(A)	53	51	45	48	47	0
SIZE AND WEIGHT							
A-HWD2 / DLIV-DFIV							
A	(5) mm	880	880	1280	1280	1680	1680
B	(5) mm	630	630	630	630	630	630
H	(5) mm	275	275	275	275	275	275
Operating weight	(5) kg	39	40	55	57	72	74
A-HWD2 / DLIO-DFIO							
A	(5) mm	880	880	1280	1280	1680	1680
B	(5) mm	605	605	605	605	605	605
H	(5) mm	275	275	275	275	275	275
Operating weight	(5) kg	39	40	55	57	72	74

Notes:

1 Room temperature 27 °C d.b./19 °C w.b.; Chilled water (in/out) 7/12 °C.

2 Room temperature 20 °C d.b.; Hot water (in/out) 70/60 °C.

3 Sound pressure level in free field on a reflective surface, 1 m from fan front and 1 m from the ground. Non-binding value obtained from sound power level.

4 Sound power on the basis of measurements made in compliance with ISO 3741 and Eurovent 8/2.

5 Unit in standard configuration/execution, without optional accessories.