IDROFAN®

Fan Coil

42N

THE NEW GENERATION

ELEGANCE, PERFORMANCE, COMFORT

Carrier

ENERGY EFFICIENCY MAKES IT A CLEAR SUCCESS

The IDROFAN fits in well with the new benchmarks for low-consumption buildings, offering increased energy savings and precisely matching user requirements. Its success is essentially due to low energy consumption, modularity, ease-of-installation and reliability.

20% less CO_2 emitted to the atmosphere by 2020 - an objective the IDROFAN fulfilled several years ago.
It is designed for optimum efficiency and maximised savings, integrating more flexible, less constraining technologies that are more aligned with sustaining our natural environment. The IDROFAN is ideally suited for many varied applications, such as hotels, offices and other commercial buildings - optimising comfort and reducing energy costs.

MORE THAN 1.000.000 UNITS SOLD

AN ALL-INCLUSIVE OFFER

In the IDROFAN everything is pre-planned and all options are factory-installed and ready for use to minimise installation time. All control devices, from electronic Carrier controllers to water control valves, are tested at the end of the production line.

The new multi-speed motor and the high-efficiency, variable-speed LEC motor allow precise matching of the unit to the user's comfort requirements.

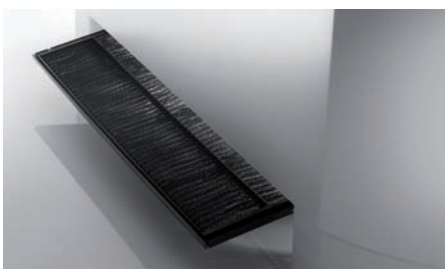
THE POWER OF ATTRACTION IN ANY LOCATION

With its discreet elegance and clean lines, the IDROFAN also meets the expectations of architects: Available as a concealed unit installed above a false ceiling or as a console unit that blends in with any interior space configuration, IDROFAN ensures optimised occupant comfort, in both new and refurbished buildings.

MINIMISED SOUND LEVEL

The high-performance fan of the IDROFAN incorporates the latest five-speed or variable-speed LEC motor technology and enhances user comfort by reducing the sound level down 10 dB(A).
The variable-speed LEC motor, coupled with the latest-generation electronic NTC controller, ultra-discreet air flow and customised on-site fan speed setting, ensures optimised comfort and ultra-quiet operation.

NEW ENHANCED MODEL FOR SUPERIOR EFFICIENCY



OPTIMISED AIR QUALITY

Indoor air quality is essential to the well-being of building occupants and fundamental to their good health.
The IDROFAN offers an optional G3 filter that absorbs between 80 and 90% of particles down to 1µm.

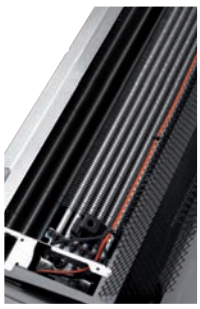
PERSONALISED EFFICIENCY

MORE ECONOMICAL MOTORS

Variable-speed LEC motors reduce the fan coil unit power consumption by 50% to 70%. This option meets the building energy regulation objectives. LEC motors include autoadaptive control of the air flow from 0 to 100% to match individual comfort levels in both cooling and heating mode.

HYDRONIC OPTION EVERYTHING BUILT IN

Everything is included for a faster, problem-free installation to suit your individual requirements. A wide choice of options is available: 2-way or 4-way valves (3-way valve with integrated bypass), 230-V or 24-V on/off or modulating valve actuators. The moulded plastic frame incorporates the coil drain pan, and the anti-condensate shell on the valve body guarantees safety and simplicity. Suitable for any configuration and any environment. A customised solution, supplied fully assembled and ready for use.



ELECTRIC PTC HEATER

PTC technology (positive temperature coefficient) combines the efficiency of electric heating with a high safety level, limiting the surface temperature. The actual power dissipation is self-regulated and based on the air flow and the entering temperature.

A WIDE CONTROLLER RANGE

THERMOSTAT A/B

An elegant electronic thermostat with automatic or manual speed control, manual or automatic summer/winter mode, frost protection function and economy mode.

HDB CONTROLLER

Allows unit grouping in a closed capability operation loop using an infrared or wired remote control, and daily time scheduling.

NTC CONTROLLER

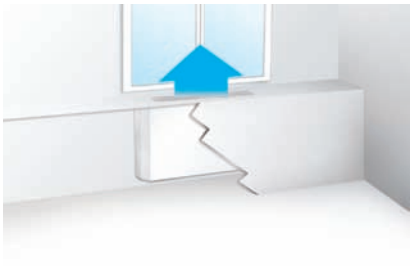
Allows control of units with the LEC option. By optimising the new Carrier algorithms, this communicating controller combines energy savings with optimised comfort.

CHOOSE YOUR INSTALLATION

We offer many solutions to optimise space usage: installation above a false ceiling or as a console unit, with cabinet or concealed, to suit your aesthetic and configuration needs.

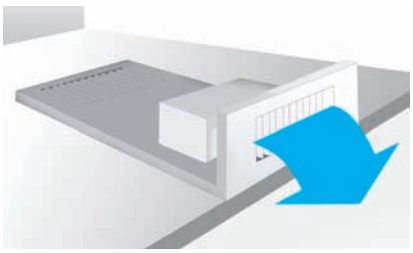
VERTICAL CONSOLE WITH CABINET

VERTICAL CONCEALED UNIT



HORIZONTAL CONSOLE WITH CABINET

CONCEALED IN A FALSE CEILING



AQUASMART SYSTEM

Touch-screen control of all system components by unit, zone or building occupancy. Centralised control or 24-hour control via the internet, if available. Optimised energy savings at your fingertips.

THE ECO SYSTEM

42N_S		15					20					26			30					42			45					65		
Fan type		1 Tangential					1 Centrifugal					1 Centrifugal			2 Centrifugal					2 Centrifugal			2 Centrifugal					2 Centrifugal		
Fan speed		5	4	3	2	1	5	4	3	2	1	3	2	1	5	4	3	2	1	3	2	1	5	4	3	2	1	3	2	1
Fan speed No.	l/s	35	56	69	84	97	59	80	92	107	128	93	149	196	97	126	153	182	207	147	222	268	146	185	224	277	333	237	331	422
	m3/h	125	200	250	300	350	215	285	330	385	460	335	536	706	350	455	550	655	745	531	798	965	525	665	805	995	1195	853	1191	1519

COIL TYPE		2 PIPE					2 PIPE					2 PIPE			2 PIPE					2 PIPE			2 PIPE					2 PIPE		
Total cooling capacity	KW	0,83	1,07	1,19	1,34	1,49	1,39	1,81	2,08	2,34	2,54	2,10	3,00	3,60	2,07	2,54	3,01	3,46	3,70	3,00	4,00	4,50	2,60	3,37	3,98	4,74	5,45	3,90	5,45	6,35
Sensible cooling capacity	KW	0,70	0,93	1,03	1,19	1,31	1,03	1,42	1,60	1,85	2,03	1,65	2,35	2,90	1,40	1,96	2,35	2,84	3,10	2,35	3,30	3,85	2,12	2,78	3,30	3,98	4,55	3,20	4,60	5,10
Heating capacity	KW	1,14	1,42	1,66	1,89	2,09	1,70	2,10	2,54	2,87	3,18	2,56	3,68	4,38	2,86	3,54	4,18	4,80	5,29	4,05	5,55	6,40	4,00	5,05	5,90	6,90	8,08	6,10	8,00	9,50
Electric heater (high capacity)	W	800					1000					1000			2000					2000			2000					2000		
Electric heater (low capacity)	W	500					500					500			1000					1000			1000					1000		

COIL TYPE		4 PIPE					4 PIPE					4 PIPE			4 PIPE					4 PIPE			4 PIPE					4 PIPE		
Total cooling capacity	kW	0,75	1,05	1,16	1,36	1,47	1,19	1,45	1,66	1,91	2,06	1,70	2,32	2,74	2,02	2,45	2,75	3,02	3,33	2,65	3,36	3,78	2,75	3,30	3,90	4,36	5,00	4,04	4,94	5,73
Sensible cooling capacity	kW	0,66	0,89	1,01	1,19	1,25	1,00	1,23	1,41	1,60	1,72	1,40	1,94	2,38	1,57	1,95	2,22	2,47	2,73	2,13	2,83	3,22	2,15	2,60	3,15	3,55	4,12	3,25	4,08	4,85
Heating capacity	kW	0,60	0,99	1,14	1,35	1,51	1,83	2,21	2,46	2,68	2,87	2,50	3,16	3,85	2,73	3,14	3,51	3,82	4,27	3,36	4,39	5,00	3,90	4,50	5,00	5,60	6,10	5,12	6,05	7,10
Power input	W	16	17	19	23	30	29	30	31	34	36	45	55	65	42	44	46	50	57	45	75	100	69	77	83	92	128	90	125	165
Sound power	dB(A)	28	37	42	47	51	29	36	42	46	50	44	54	61	36	42	47	51	54	47	57	62	41	47	53	57	62	54	62	68
Sound pressure (*)	dB(A)	19	28	33	38	42	20	27	33	37	41	35	45	52	27	33	38	42	45	38	48	53	32	38	44	48	53	45	53	59
NR Value (*)		15	24	28	34	39	14	23	29	33	36	31	40	48	22	29	33	37	40	31	44	49	28	34	40	43	48	40	49	54

HORIZONTAL CONCEALED																														
Length	mm	518					518					518			518					518			518					518		
Width	mm	599					799					799			999					999			1199					1199		
Height	mm	220					220					220			220					220			220					220		
Weight	kg	13					15					15			16					16			28					28		

VERTICAL CONSOLE WITH CABINET																														
Length	mm	830					1030					1030			1230					1230			1430					1430		
Width	mm	220					220					220			220					220			220					220		
Height (with 100 mm feet)	mm	657					657					657			657					657			657					657		
Weight	kg	17					19					19			22					22			35					35		

Based on Eurovent conditions:

Cooling mode (2 and 4-pipe coil): entering air temperature 27°C db/1 9°C wb, entering/leaving water temperature 7/12°C.
Heating mode (2-pipe coil): entering air temperature 20°C, entering water temperature 50°C, high fan speed, water flow rate as cooling mode.
Heating mode (4-pipe coil): entering air temperature 20°C, entering water temperature 70°C, water Delta T: 10K
(*) Sound pressure level and NR levels based on a hypothetical acoustic attenuation for the room of -9 dB(A)
(LEC performance table available early 2011)

Quality Management Systems

EUROVENT CERTIFIED PERFORMANCE

CE

Supersedes order No.: 18315-20, 06.2005
Manufacturer reserves the right to discontinue, or change at any time specifications or designs without notice and without incurring obligations.

Carrier
turn to the experts