# ICTUS 250P | 350P | 450P



System D ventilation unit with heat recovery ceiling and wall mounting





## **OVERALL CONCEPT**

## Space-saving, energy-efficient, easy to install, whisper-quiet

These key characteristics were specified at the beginning of the design process. No effort or expense was spared to combine these characteristics in a new unit.

Noise sources were mapped out in a lab using 3D software. Wherever possible the noisemakers were neutralised and reduced, with the desired result.



The new hardware and software keep intake and return airflows equal under all conditions. This constant flow means a significant E-level reduction. The intelligent bypass function increases the comfort level in three ways: night cooling, heating and humidity regulation.



The counterflow plastic plate exchanger ensures that dirty and clean air don't come into contact. Bacteria don't stand a chance.



Particulate filters are delivered as standard. Pollen filters are available as an option.



The right ventilation unit can be selected on the basis of the performance shown in this graph. The unique design of the ICTUS ensures very low energy consumption year-round, under all circumstances.

## QUIET

Annoying noise is a common problem with ventilation. With an innovative shape and the right choice of materials, Airsmart has been able to develop an extremely low-noise unit.

## INTELLIGENT CONTROL

User-friendly and intuitive control was the aim; the unit is controlled by an app with either IOS or Android. Various stepby-step menus easily guide you through the app.

## HIGH E-LEVEL

Exceptional attention was devoted to energy efficiency in the design process. This has resulted in an extremely highperformance, energy-efficient unit that consumes up to 20% less energy than most comparable units.

LIGHTWEIGHT

The unit weighs less than 15 kg, which makes it the lightweight champion in its class!



The unit is suitable for both ceiling and wall mounting. The vibration dampers supplied ensure that the unit doesn't transmit any vibrations to the walls or ceilings.

## LEFT|RIGHT CONNECTION

1

Smart

The unit can be connected to either the left or right. This can be set in the software. The time, and so money, saved this way can be significant.

## CAN BE USED IN ANY TYPE OF HOUSING

## we understand your needs

With ceiling mounting, no useful space is occupied unnecessarily and the supply and return lines are limited to a minimum. The filters are accessible and easily replaced.



Wall mounting can be a good solution in the attic. Thanks to the unique 45° connection to the unit, the ventilation ducts can be installed very efficiently. This has a very favourable effect on the resistance in the whole installation, resulting in lower energy consumption.



HOUSES WITH FLAT ROOF



HOUSES WITH GABLE ROOF



**MULTI-FAMILY HOUSING** 

The technical spaces in apartment buildings are becoming smaller, so it's advisable to mount the ventilation system against the ceiling. This way no useful space is wasted in storage or pantry areas. Thanks to the left/right software setting, the risk of mistakes in installation is non-existent.



## INNOVATIONS

### made reality

An innovative design demands out-of-the-box thinking. Key characteristics such as energy-efficiency, low SFP value, silence, light weight and ease of installation can't be achieved without pushing boundaries...



#### SMART LOGIC

The "brains" of Ictus units are built around smart software that ties together the rest of the components. All the control functions have a clear purpose: higher indoor air quality, maximum comfort and satisfaction of the wishes of residents.

The system uses sensors to monitor the indoor and outdoor temperature as well as the indoor air quality and adjust it as necessary. All these data are processed in the central processor/database. This self-learning smart software then controls the system components (bypass/heat recovery/ humidification unit) depending on the need. Always with a view to maximum efficiency and better air quality, without the risk of condensation.

#### SMART FREE COOLING

The bypass operation of ICTUS ventilation units is based on the measured intake temperature of the indoor air instead of the outdoor temperature. Consequently the bypass can have a cooling function, a heating function and a humidity-regulating function.

MODULATED COOLING FUNCTION: When the outdoor temperature is above 17°C and the comfort temperature is exceeded indoors, the bypass opens 100%. In this situation the smart logic control switches over from the outdoor temperature to the intake temperature.

If the outdoor temperature continues to fall to below 17°C, the smart logic can modulate the closure of the bypass. Consequently, the energy of the warm indoor air can be transferred to the cold outdoor air without the risk of condensation. (source, KMI)

HEATING FUNCTION: In the spring and autumn, the daytime indoor temperature is often lower than the outdoor temperature. By opening the bypass completely, the heat can be entirely transferred to the dwelling. This warms the dwelling with outdoor air at a marginal energy cost.

HUMIDITY-REGULATING FUNCTION: The bypass control can be opened or closed via the app or the control panel, so the bypass can be opened in humid weather. The humid outdoor air can then be mixed with the dry indoor air, resulting in a higher relative humidity in the dwelling. Dry air doesn't stand a chance.



#### ACOUSTICS

A new fan housing has been developed to reduce noise produced by airflows to a minimum, so that we have been able to improve the acoustic performance of the fan. A great deal of attention has been devoted to the inside; air resistance has been reduced to a minimum by the proper choice of shape, finish and material. This makes the acoustic performance of ICTUS units exceptional.





## **PHYSICAL CHARACTERISTICS**

ICTUS 250P | 350P | 450P

Length x Height x Depth	1065x770x327 mm
Housing	Black EP
Connections	4 x 180 mm
Condensation drain	Ø 19 mm
Heat exchanger	Counterflow, PET / Polystyrene
Material of interior components	EPP, PP, galvanised steel
Weight	15 kg
Mounting	Ceiling and wall



### **ELECTRICAL CHARACTERISTICS**

ICTUS	250P	350P	450P					
Type of fan	courant continu EC							
Grid voltage	220-230 VCA							
Frequency	50 Hz							
IP class	IP40							
Max. current consumption (A)	2	2	3,5					
Max. power	90 watts	176 watts	332 watts					

### **GENERAL CHARASTERISTICS**

IC.	ICTUS 250		350P		450P				
Filter			Filter 272x195x23 mm / Coarse 75% / G4						
Particulate fil	.ter		Option						
Operation			App via wifi						
RF transmitte	ED	Option							
Demand-drive	en	1	N/A	Option	Option				

### **EPBD DATA**

	ICTUS 250P			ICTUS 350P			ICTUS 450P				
m³/h	150	200	255	255	291	366	401	365	405	451	501
% efficiency	84	82	81	81	80	78	77	78	77	76	75
P at 150 Pa external	35 W	51 W	75 W	75 W	95 W	152 W	173 W	-	-	-	-
Automatic control/ constant flow						Yes					
Bypass	100% complete										

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