aldes air&people

Aldes ME Flash

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Case Study

Low Energy Consumption: micro-watt fans

Nowadays, countries are building up new regulations to decrease the energy consumption of buildings, and thus saving the planet's resources. The UAE government itself has promised to deal with the country's ecological footprint after the Emirates were cited has topping the WWF's environmental footprint ranking.

To **decrease energy consumption** is one of the main concern of Aldes Group.

In order to fit new regulations and needs of people in every country, Aldes has created a **large range of fans** with the micro-watt technology: inoVEC microwatt, VIK micro-watt, and TVEC GII micro-watt...

The main innovative Aldes product of this range is **C.VEC micro-watt +**, which is part of a new generation of cabinet fans with C4 fire classification. It brings further energy saving through a large range of functionalities (programmable curve, fan history, parameter changes,...).

→ Micro-watt technology spreading ahead

Micro-watt is a technology developed by Aldes to control the duct static pressure and ensure a fan economical operation.

Micro-watt's specific electronics drives the motor speed through frequency variations and controls a continuous pressure on the fan's airflow range.

300 250 200

2 150

100

50 0

0

1000



3000

4000



• Savings on the 3-phase line voltage thanks to a 50/60Hz single phase power supply up to 2.2kW motors.

• **Return on the investment** within 4 years, thanks to the energy savings made during the operation.

• Easier settings thanks to the adjustable potentiometer and the pressure display.

• **Sound reduction** into the grilles through adapted airflow, contrary to a classical installation.

→ A wide range of micro-watt fans

Aldes has created a wide range of micro-watt fans that would suit any need and building.

<u>1- Air exhaust with a C4^{*} fire classification</u> *400C ½h fire rating

• **inoVEC micro-watt** is the new generation of lowconsumption C4 fan-units. Airflows up to 12000 m3/h. Up to 75% of energy consumption gains.



Continuous pressure Fan Curve

• For airflows up to 2500 m3/h: C.VEC micro-watt +



This exclusive concept has numerous advantages: • Up to **40%** of electrical consumption **saving**.

2000

m3/h



With an **Aldes patented system**, C.VEC microwatt+ fans provide an important consumption saving through the control of a constant or rising pressure on the fan's airflow range.



For the first time integrated into a C4 fire classification fan, an electronically commutated (EC) motor allows a really low energy consumption with high control possibilities.

Beyond an airflow display and an integrated overvoltage (400 V) and lightning protection, C.VEC micro-watt + fans offer an expert level with several new functionalities: programmable curve, fan history, parameter changes,...

C.VEC micro-watt fans provide <u>up to 60% of</u> <u>savings</u> on the electricity bills.

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<u>2- Air supply or air exhaust with a pre-treatment</u> (modules with filters, heaters...)

These 2 Aldes fans allow up to <u>40% of electrical</u> consumption decrease.

• TVEC GII micro-watt Supply & exhaust fans



VIK micro-watt
Supply & exhaust fans



For more information on these Aldes micro-watt fans, please visit our website: www.aldes.ae

→ Technical information on micro-watt & micro-watt + fans

	EXHAUST FANS (C4)		SUPPLY / EXHAUST FANS	
FEATURES	C.VEC micro-watt +	inoVEC micro-watt	VIK micro-watt	TVEC GII micro-watt
Constant pressure control	Х	Х	х	х
Rising or programmable pressure control	х			
Airflow display	Х			
Fan history	Х			
90° or vertical discharge	Х	х		
In-line discharge	Х	Х	Х	Х
Filter			Х	Х
Modularity (sound attenuators, heaters)				Х