

# ADDA CORPORATION OSMARTAC Fan



**Product Picture** 

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## **Energy-saving war**



OSMART AC FAN's unique AC temperature control matrix circuit provides you linear speed control. The dimension 120x120x38m/m AC fan takes 60% of the worldwide AC fan market. (Annual demand is about 10 Million.) It is suitable for networking, inspection equipment, power equipment and etc. The variable speed control solves your problem on energy-saving.

#### The Actual Effect on Power Consumption:

**Scenario 1:** Say, if basis on the annual selling amount of OSMART AC FAN is 10 Million pcs and its utilization is only 50%, we will get below result

- Ordinary 12038 AC FAN= 17.5W x 12hours x 365days x 10,000,000pcs= 766.5KMW (the power consumption in whole year.)
- ADDA 12038 OSMART AC FAN = (17.5W+7W)/2 x 12hours x 365days x 10,000,000pcs = 536.55KMW(the power consumption in whole year.)

**Scenario 2:** Assuming OSMART AC FAN is running at high-speed mode and low-speed mode evenly, then we can save about 229.5KMW annually worldwide. That is enough power to supply 63,000 household's electricity in Taiwan the whole year around. (Static reference: TaiPower announces in 2010 each household is using averagely 3648KW annually) In other words, using ordinary AC Fan meaning 229.5KW per year is wasted.

Developing the most value-added product is not ADDA's single goal, but also to be responsible for our CSR and our mother Earth. Comparison Table of AC Fan:

Performance	Competitor	OSMART AC FAN	OSMART AC FAN Specialty		
Air-Flow(CFM)	92	46~92	controllable		
Noise dB(A)	43	23~43	Lower noise		
Power(W)	17.5	7~17.5	Lower power consumption		
Power Consumption/PCS	76.65 KW	53.655 KW	Energy saving		
Linear Speed Control	Fixed speed	Linear Speed Control	Maximum operation line		







# OSmart AC fan With your will, with your speed



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ADDA corporation's **OSMART AC FAN** temperature control smart energy-saving fan is the first to use AC temperature control matrix circuit technology.

Equipped with AC cooling fan's high performance, combined with smart technology and integrated human designs, it comprehensively solves the energy-saving, noise-polluting and cost-lowering issues, saving unnecessary electricity costs for customers.





# **Technological innovation**

- OSmart AC Fan can alter its speed upon ambient temperature change, hence saving more energy.
- The ordinary Ac fan is limited by rated input frequency, so the speed cannot be controlled or altered. OSmart AC fan is the first AC fan applying AC temperature control matrix circuit. It's the best combination of AC fan's high cooling performance and smart fuzzy technology.
- One can adjust the rated speed of OSmart Ac fan whether manually or by customizing the circuit, so that more energy is saved.
- 2011 ROC Patent No.M410115







# **Energy Saving**

How to keep cooling performance but at same time being energy-efficient, it is a task for all fan makers. Now ADDA presents you the most energy saving AC Fan.





#### Working Phase:

Ramp Up

1. Ramp Up: Smart AC provide smoother ramp up speed rises according to temperature change.

Cooling

2. Operating: Both operating same power consumption and speed.

Operating

- 3. Cooling: While temperature drop, smart AC has effectively speed drop while temperature drop to save energy.
- 4. Idle: Smart AC may lower the speed to Idle mode, where Normal AC may keep operating as continuously.

#### www.adda.com.tw

Phase Period

Idle

Ramp Up Operating

Smart AC — Normal AC



### **Applications-Industrial**



### **Power Welding Machine**



Industry Power Supply Rack



### Uninterruptible Power System



**Power Backup Station** 



### **Applications-Commercial**



#### **Combination Oven**



**Commercial Freezer** 



Freezer



### **Applications-Latest Technological**



### **Automation Controller Box**



### Photovoltaic Inverter



### **Electrical Car Charger**





## LOW noise



ADDA Smart AC fan, mainly by temperature control devices for environment or specific sensing point, it does belong to ADDA patented by the AC control circuits, to make the linear change of fan speed in the many kind of applications. This linear variable speed model, with many advantages, especially in the energy saving considerations.

\* Figure 1 is a typical example.

\* Figure-2 is belong to the mode of fixed speed, no matter how the temperature is on the low or high, the speed always keep on the standards.





# **High competitive cost**

• General the AC the FAN SPEED, CONTROL: Inverter

$$AC IN \longrightarrow AC/DC \longrightarrow DC CONTROL \longrightarrow DC/AC \longrightarrow AC OUT$$
100USD

ADDA AC FAN SPEED CONTROL: AC/AC matrix

AC IN 
$$\longrightarrow$$
 AC/AC circuit controller  $\longrightarrow$  AC OUT





### Sensor is fixed on the fan frame Internal













20. AA1282HB-ATA2(T6N)

60

220

terminal

out





✓

Item	Model	(HZ)	(V)	Wire type	Sensor	<b>گھ</b> CUL	NU (E	CE	TÜV
1.	AA1281HB-AWR2(T5N)	50	110	Wire	In	✓	✓	$\checkmark$	✓
2.	AA1281HB-AWR2(T5E)	50	110	Wire	out	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
3.	AA1281HB-AWR2(T6N)	60	110	Wire	In	✓	✓	$\checkmark$	✓
4.	AA1281HB-AWR2(T6E)	60	110	Wire	out	✓	✓	$\checkmark$	$\checkmark$
5.	AA1281HB-ATR2(T5N)	50	110	terminal	In	✓	✓	$\checkmark$	✓
6.	AA1281HB-ATR2(T5E)	50	110	terminal	out	✓	✓	$\checkmark$	$\checkmark$
7.	AA1281HB-ATR2(T6N)	60	110	terminal	In	✓	✓	$\checkmark$	✓
8.	AA1281HB-ATR2(T6E)	60	110	terminal	out	✓	✓	$\checkmark$	$\checkmark$
9.	AA1282HB-AWR2(T5N)	50	220	Wire	In	✓	✓	✓	✓
10.	AA1282HB-AWR2(T5E)	50	220	Wire	out	✓	✓	$\checkmark$	$\checkmark$
11.	AA1282HB-AWR2(T6N)	60	220	Wire	In	✓	✓	$\checkmark$	✓
12.	AA1282HB-AWR2(T6E)	60	220	Wire	out	~	✓	$\checkmark$	1
13.	AA1282HB-ATR2(T5N)	50	220	terminal	In	✓	✓	$\checkmark$	✓
14.	AA1282HB-ATR2(T5E)	50	220	terminal	out	✓	✓	$\checkmark$	$\checkmark$
15.	AA1282HB-ATR2(T6N)	60	220	terminal	In	✓	✓	$\checkmark$	✓
16.	AA1282HB-ATR2(T6E)	60	220	terminal	out	~	✓	$\checkmark$	$\checkmark$
17.	AA1282HB-AWA2(T5E)	50	220	Wire	In	✓	✓	$\checkmark$	✓
18.	AA1282HB-AWA2(T5N)	50	220	Wire	out	✓	✓	$\checkmark$	$\checkmark$
19.	AA1282HB-ATA2(T6E)	60	220	terminal	In	✓	✓	$\checkmark$	$\checkmark$

 $\checkmark$ 

 $\checkmark$ 

 $\checkmark$ 



## **Specifications-**AA1282HB-AWR2T(5E)







Frame Size (mm)	Model No.	Bearing System Type	Voltage (VAC)	Freq. (Hz)	Current (A) 15°C~45°C	Power (W) 15°C~45°C	Rated Speed (rpm) 15°C~45°C	Max Air Flow @2800rpm		Max Pressure @2800rpm		*Max Noise	Weight (g)
								(CFM)	(CMM)	(InAq)	(mmAq)	@2800rpm	
120×120×38	AA1282HB-AWR2T(5E)	Ball	230	50	0.07~0.12	8~19.5	1350~2500	88.5	2.51	0.298	7.45	43	570
120×120×38	AA1282HB-AWR2T(5N)	Ball	230	50	0.07~0.12	8~19.5	1350~2500	88.5	2.51	0.298	7.45	43	570

#### Fan Performance Curve



# **Specifications-**AA1751HB-AWT



#### Fan Performance Curve





Frame Size (mm)	Model No.	Bearing System Type	Voltage (VAC)	Freq. (Hz)	Current (A) 0°C~70°C	Power Rated (W) Speed 0°C~70°C 0°C~70°C		Air Flow (CFM)	Noise dBA	Weight (g)
172×150×51	AA1751HB-AW(T)	Ball	115	60	0.32~0.45	20~32	1600~2600	113.5~190.3	38.1~51.5	950



