

# akasa®

## product specification

Customer Name	
Product	Fan
Designed for	
Part No.	AK-174BKT-B
Issue Date	2006/11/15
Fan Spec No.	DFB122512H T
Version	

# PRODUCT SPECIFICATION

(Item)		(Specification/Condition)	
01	Part No.	DFB122512H T	
02	Bearing System	Two Ball Bearing	
03	Outline Dimension	120x120x25mm	
04	Rated Voltage	DC 12 V	
05	Starting Voltage	DC 8 V	
06	Rated Current	AT 26 °c:0.08A AT 45 °c:0.40A	A. Rated Voltage B. 25 °c.65% RH
07	Power Consumption	AT 26 °c:0.96W AT 45 °c:4.80W	
08	Speed	AT 26 °c:800RPM AT 45 °c:2300RPM	A. 25 °c.65% RH B. Free Air C. Rated Voltage
09	Max. Airflow	AT 26 °c:35.49CFM (ft <sup>3</sup> /min) AT 45 °c:105.44CFM (ft <sup>3</sup> /min)	A. Rated Voltage B. AMCA(Standard) C. Rated Current
10	Max. Static Pressure	AT 26 °c:0.4mm H <sub>2</sub> O AT 45 °c:2.99mm H <sub>2</sub> O	
11	Noise Level	AT 26 °c:18dB(A) AT 45 °c:38dB(A)	A. Rated Voltage B. Measured in a Non-Echo Chamber C. CNS 8753 Standard D. ISO 3744 Test Condition
12	Life	50000/hrs 25 °c	MTTF Mean Time to Failure Conf.Level 90%
13	No. Of Blade	9 Blades	
14	No. Of Pole	4 Poles	
15	Weight	149 g	
16	Rotating Direction	Clockwise From Label Side	
17	Safety Approval	UL; TUV; CE	
18	Tolerance	±10%	

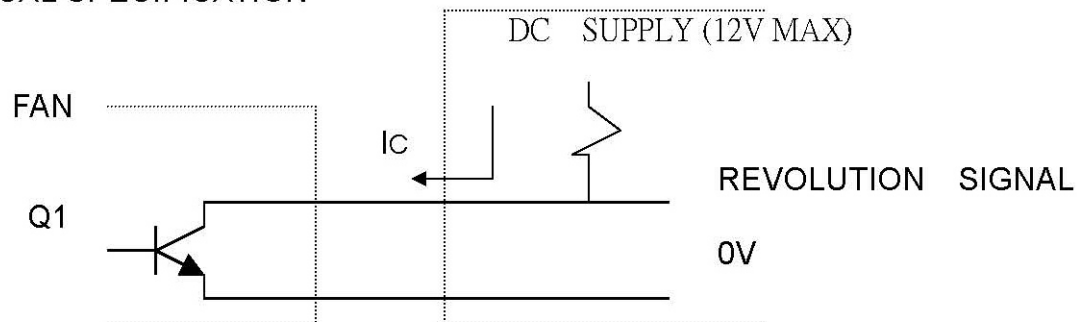
# Provision of revolution signal

## 1. OUTPUT OF REVOLUTION SIGNAL

.OUTPUT TYPE

.ELECTRICAL SPECIFICATION

OPEN COLLECTOR TYPE



TRANSISTOR Q1 AT "ON" POSITION  
 COLLECTOR CURRENT  
 SATURATION VOLTAGE  
 BETWEEN COLLECTOR AND EMITTER  
 AT  $I_C = 10\text{mA MAX.}$   
 TRANSISTOR Q1 AT "OFF" POSITION  
 RELEASE VOLTAGE

$I_C = 10\text{ mA MAX.}$   
 $V_{OL} = 0.5\text{V MAX.}$

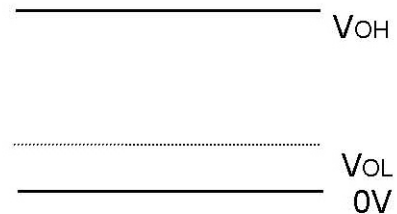
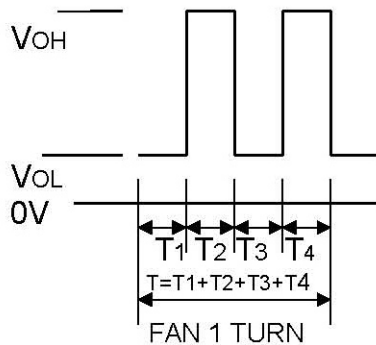
$V_{OH} = 12\text{V MAX}$

## 2. OUTPUT WAVEFORM

(ACCORDING TO INPUT VOT.)

(AT REVOLUTION)

(AT LOCKED POSITION)



REMARK: AT LOCKED POSITION, OUTPUT BECOMES  $V_{OH}$  OR  $V_{OL}$   
 $T = T_1 + T_2 + T_3 + T_4 = 60/N$  (SEC)     $N$  : FAN SPEED (r.p.m)

$$\text{DUTY} = \frac{T_1}{T_1 + T_2} = 50 \pm 10\%$$

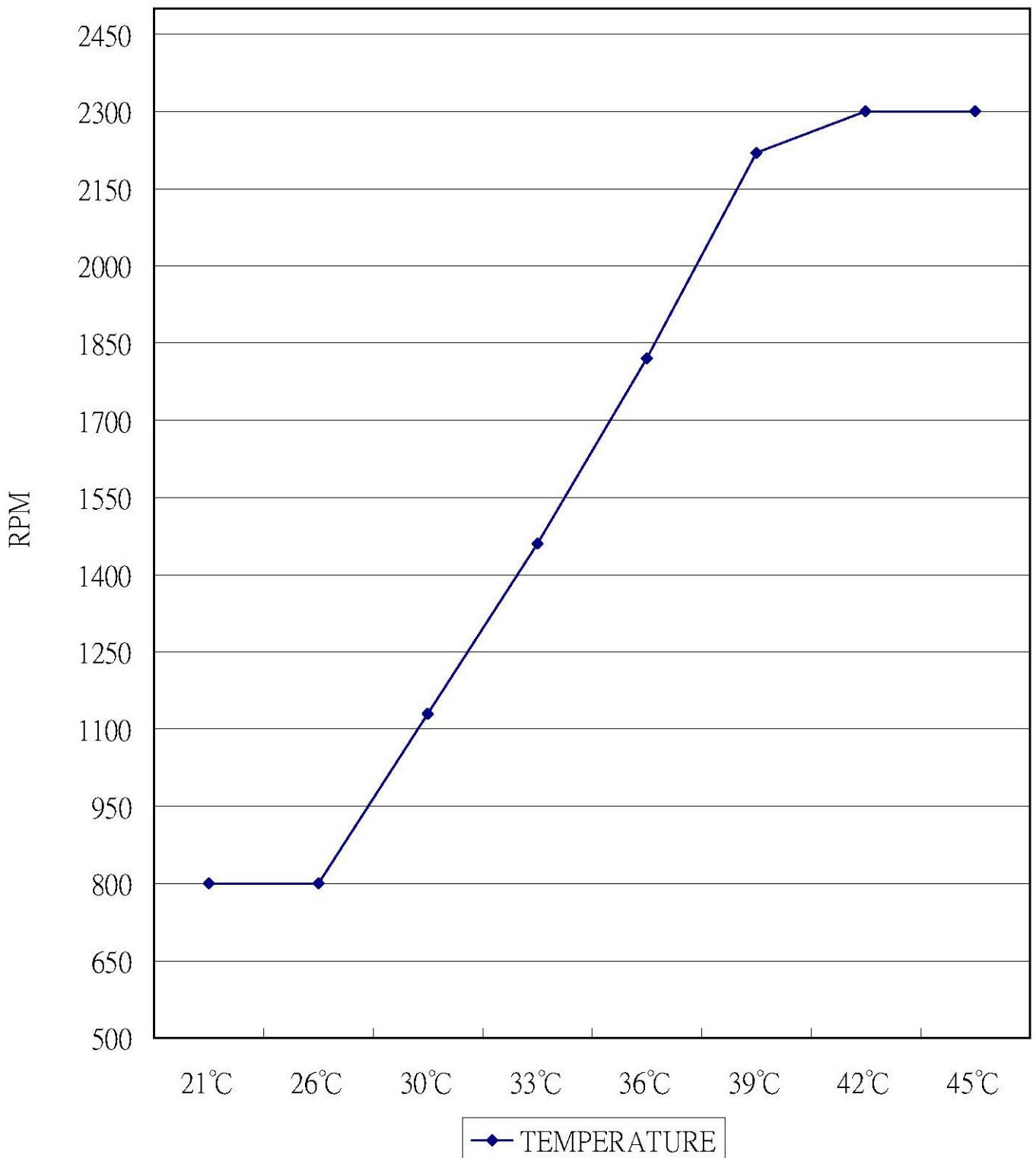
## Important notes & general instructions

1. Customer shall confirm the matching and reliability of fan on actual set or unit application.  
This include confirmation on set or unit life, electrical noise, mechanical noise, vibration, static electricity, electric power noise, drift, electric resonance between motor and control circuit, mechanical resonance between motor and chassis, irregular movement of set due to motor noise, irregular movement of set in strong electromagnetic field, damaged by lightning surge earthing method etc.
2. Any revisions on the specification shall be done based on mutual discussion and agreement.
3. In order to improve the performance within the scope of specification, parts or material changes are subject to prior notice to customer.
4. Any item which is needed to add into specification shall be determined on customer's prior written request. If no information given, fan will be delivered based on our standard judgment.
5. When any trouble occurs, both parties shall discuss on this specification to solve the matters. In this case, our guarantee is only limited to fans.

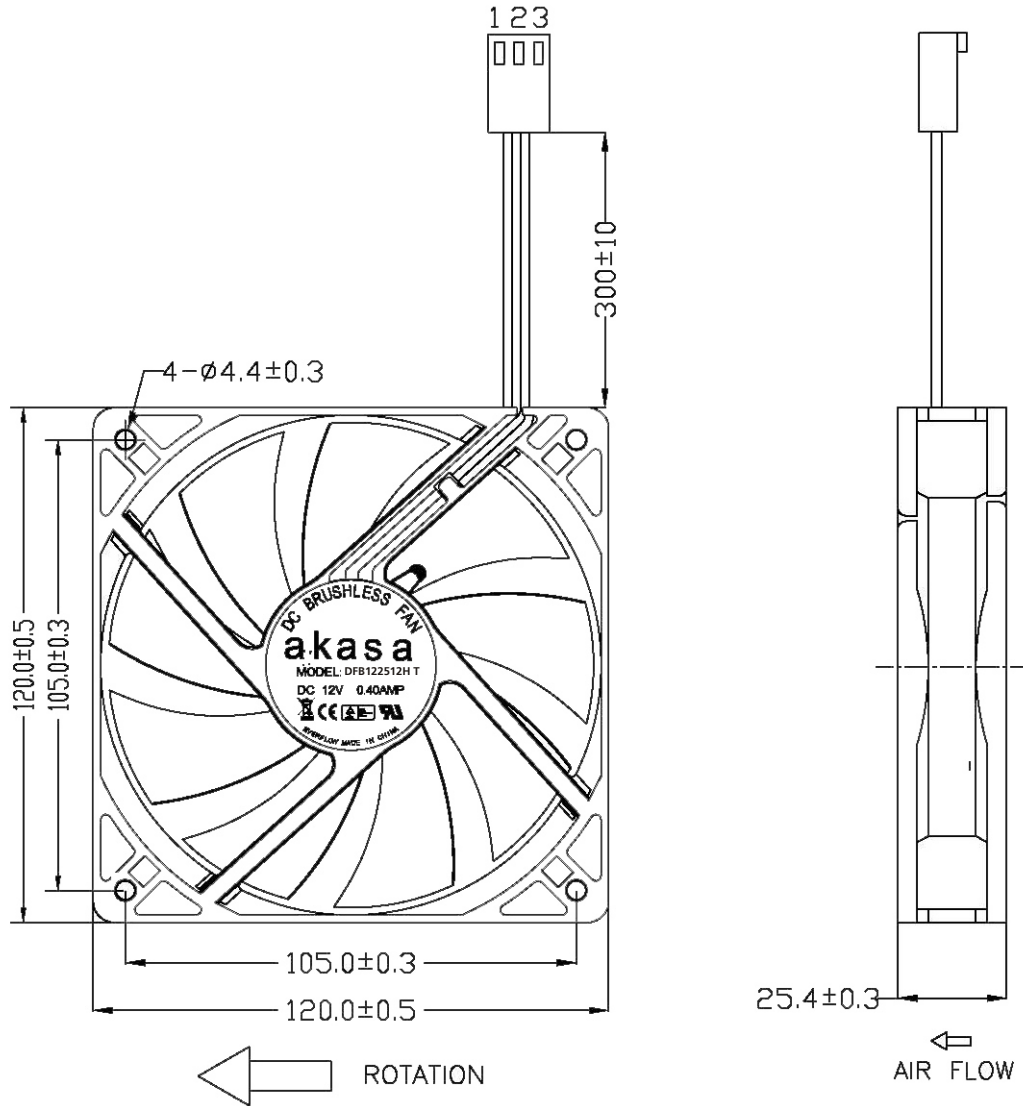
# DFB122512H T

TEMPERATURE	SPEED (RPM)	RANGE	CURRENT
26°C	800	±300	<0.10A
45°C	2300	±10%	<0.42A

## TEMPERATURE CURVE CHART



# Fan Dimension Drawing



## NOTES:

1. LEAD WIRE UL 1007 AWG#24 OR EQUIVALENT  
PIN 1: BLACK WIRE---(-)  
PIN 2: RED WIRE---(+)  
PIN 3: YELLOW WIRE---(SIGNAL)
2. HOUSING: 2510-3P OR EQUIVALENT
3. TERMINAL: 2515T OR EQUIVALENT