

# SPECIFICATION FOR APPROVAL

TO : \_\_\_\_\_

REF. No. \_\_\_\_\_

APPROVED DATE 	CHECKED DATE 	PREPARED DATE 
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MODEL No. AK1751HB P.S. (AT)

DESCRIPTION: AC FAN (RoHS) REV. E

ID No. \_\_\_\_\_

THIS OFFER IS MADE ACCORDING TO YOUR CURRENT INQUIRY.  
UNLESS OTHERWISE REVISED, THIS SPECIFICATION WILL BE FINAL FOR  
ALL FUTURE PRODUCTION OF ORDERS FROM YOUR RESPECTED COMPANY

KINDLY STUDY IN DETAILS AND RETURN TO US THE DUPLICATE DULY  
SIGNED AS YOUR CONFIRMATION OF SAME.



ADDA CORP.  
REGISTERED TO ISO 9001  
183718 13978  
CERTIFICATE NO. A8035


 **ADDA CORPORATION**

DATA - SHEET

Engineering

Printed On: 13/02/23

BRUSHLESS AXIAL COOLING FANS

Customer	:		Ref:	(RoHS)
Adda Model No	:	AK1751HB	P.S:	(AT)
Samples attached	:	Piece(s),		
Safety Approval	:	UL,CUL, TUV,CE	TUV:EN60335-1:2002+A1+A11+A12+A2+A13+A14 EN60335-2-80:2003+A1+A2 UL:UL 507 CE:EN 55014-1:2006 EN 55014-2:1997+A1 EN 61000-3-2:2006 EN 61000-3-3:1995+A1+A2	
<u>Specifications</u>				
<u>ITEM</u>		<u>SPECIFICATION / CONDITION</u>		
DIMENSIONS	:	172x150x51 mm		
BEARING TYPE	:	BALL		
RATED VOLTAGE	:	115 VAC		
OPERATING VOLTAGE RANGE	:	100 VAC – 120 VAC		
OPERATIONG FREQUENCY	:	50 / 60 Hz		
REAL CURRENT	:	0.25 / 0.24 Amp		
REAL POWER	:	27.60 / 26.50 Watt		
RATED CURRENT	:	0.24 / 0.25 Amp + 10%		
RATED POWER	:	27.60 / 28.80 Watt		
RATED SPEED	:	2700 / 3100 RPM ± 10%		
AIR FLOW	:	180.000 / 210.000 CFM (min: 162.00 / 189.00 CFM)		
AIR FLOW	:	5.094 / 5.943 CMM (min: 4.584 / 5.348 CMM) / (min at zero air flow.)		
STATIC AIR PRESSURE	:	0.533 / 0.700 Inch H <sub>2</sub> O (min: 0.431 / 0.567 Inch H <sub>2</sub> O)		
STATIC AIR PRESSURE	:	13.538 / 17.780 mm H <sub>2</sub> O (min: 10.965 / 14.401 mm H <sub>2</sub> O) / (min at zero air flow.)		
NOISE LEVEL	:	63.0 / 65.0 dB(A) (max.: 67.0 / 69.0 dB(A))		
MOTOR PROTECTION	:	Thermal Protect		
LIFE EXPECTANCY	:	50000 Hours at 25°C / 65% RH		
NET WEIGHT	:	1050 Gram.		
PACKING	:	12 pcs. Per Export Carton.		
<p>Unless otherwise stated, the relative humidity is 65%, and the temperature is 25°C for the standard testing. Should you have any doubt, please refer to the environmental conditions specified in the acknowledgement document.</p>				
				
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## SPECIFICATION

1 · 0 Scope : This documentation defines the mechanical & electrical characteristics of AC brushless fans.

2 · 0 Material :

2 · 1 Housing High quality aluminum die-casting frame flated with black paint.

2 · 2 Fan blade UL 94V - 0 Glass filled polyester ( P.B.T )

2 · 3 Bearing Sys  Oil impregnated sleeve or  
 Ball Bearing : Japan  
 Hypro Bearing  
 one Ball one Sleeve  
 RoHS

2 · 4 RoHS wire UL 1015 , 20 AWG

2 · 5 Connector  Not included in this fan  
 Note as : -----  
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3 · 0 Dimension & construction : All dimension, direction of rotation and air flow, rated characteristics are specified in drawing & data-sheet of enclosed.

4 · 0 Characteristics definition :

4 · 1 Rated current : Rated current shall be measured after 30 minutes continuous rotation at rated voltage.

4 · 2 Rated speed : Rated speed shall be measured after 30 minutes continuous rotation at rated voltage.

4 · 3 Start voltage : The voltages that enable to start the fan by sudden switch on.

4 · 4 Input power : Input power shall be measured after 30 minutes continuous rotation at rated voltage.

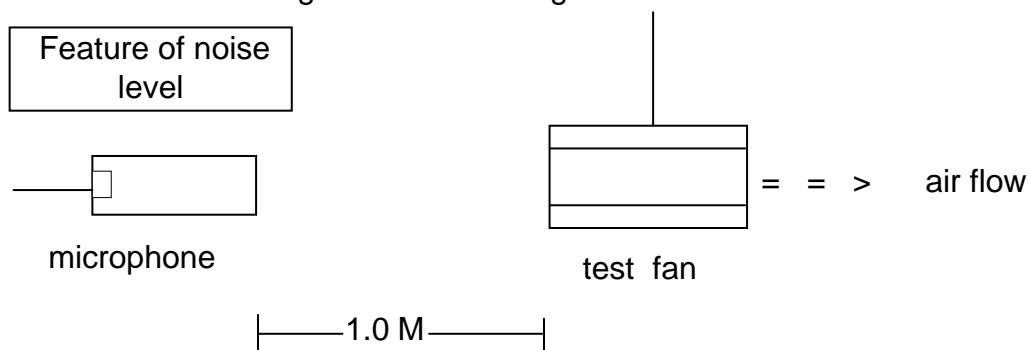
4 · 5 Locked current : Locked current shall be measured with in one minutes or rotor locked , After 30 minutes continuous rotation at rated voltage in clean air.

4 · 6 Air flow & static pressure : The air flow data and static pressures are determined in accordance with AMCA-210 standard in a double-chamber testing with intake-side measurement.



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- 4 · 7 Noise level : The measurement of noise level is carried out with reference to CNS8753 in a anechoic chamber with the microphone positioned 1 M from the air intake. Testing fan shall be hung in clear air.



### 5 · 0 Mechanical inspection

- 5 · 1 Rotation direction : Clockwise from the front face of the fan. A clear " = = > " ( arrow mark ) shall be found on the body of housing .
- 5 · 2 Safe design : All fans have intergrated protection against locked rotor condition so that there can be no damage on winding and / or any electrical components. Restart is automatic as soon as any constraint to running has been released.
- 5 · 3 Locked rotor protection : No damage shall be found for continuous 72 hours at condition of rotation locked. Restart is automatic as soon as constraint to running has be releessed.
- 5 · 4 Free drop shock : In minute package condition. The fan should withstand each one drop of three faces from 30 cm distance height onto 10 mm thickness of wooden board

### 6 · 0 Electrical inspection

- 6 · 1 Insulation resistance : 100 MΩ or more at 500 V megger.
- 6 · 2 Dielectric strength : 1 minute at 1500 VAC / 50-60Hz

### 7 · 0 Environmental

- 7 · 1 Operating Temperature : - 10°C ~ + 70°C
- 7 · 2 Humidity RH : 20 % ~ 85 % ( Max )
- 7 · 3 Storage Temperature : Will satisfy performace standards after 500 hours storage at - 40 °C ~ 70 °C ( normal humidity ) with a 24 - hour recovery period at room temperature.



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7 · 4 Humidity : After 96 hrs, 95 % RH,  $40 \pm 2$  °C per MIL - STD - 202F, method 103B, Humidity test, The measured data of insulation resistance & dielectric strength should meet the specification listed in attach.

7 · 5 Theraml Shock : After thermal shock test per MIL - STD - 202F, method 107G, condition D, The measured data of insulation resistance & dielectric strength should the specification listed in datasheet.

## 8 · 0 Remark

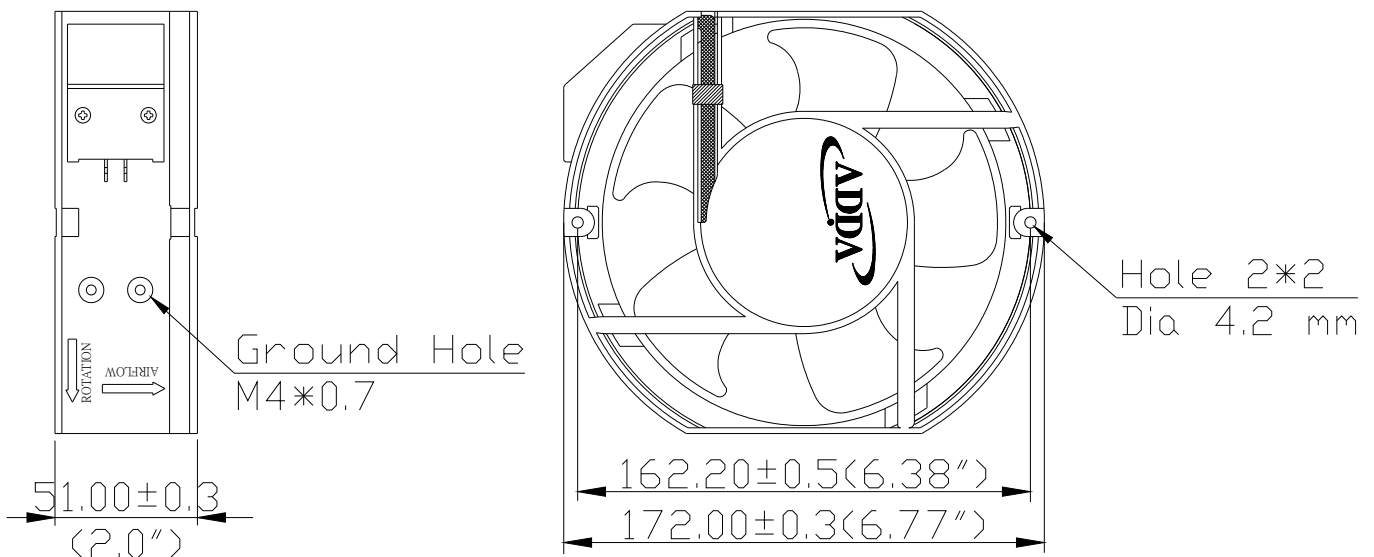
8 · 1 Material and construction are subject to change without advance notice.  
The changes should be within specification listed in this approved sheet.

8 · 2 All the fans shall meet the inspection under sampling plan MIL - STD - 105E,  
The AQL are as follow :

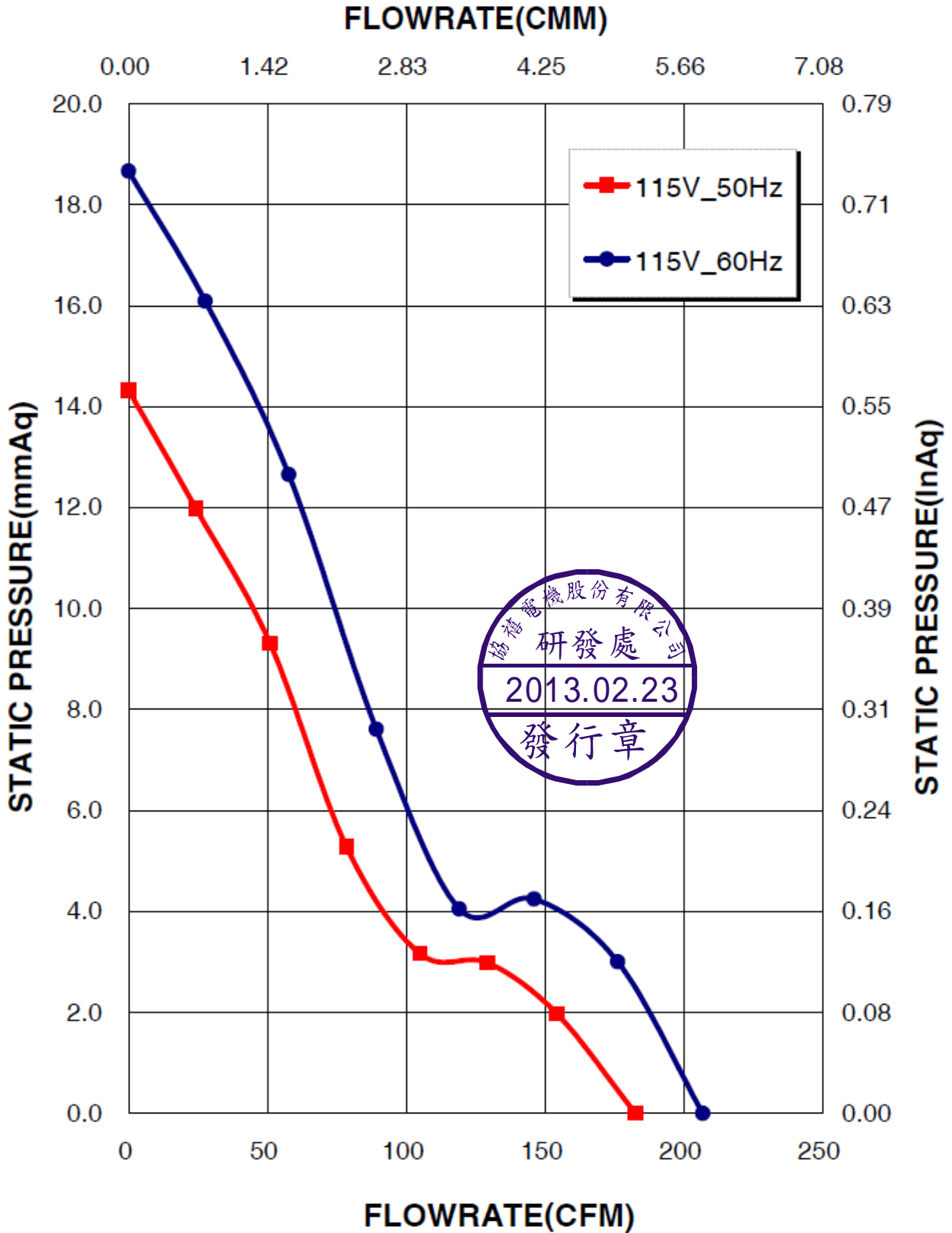
Critical	AQL = 0.25 %
Major	AQL = 1.00 %
Minor	AQL = 2.50 %



## 9 · 0 Drawing



# Fan Performance Curve



協禧電機股份有限公司  
研發處  
2013.02.23  
發行章

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50081257

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0001

Ihr Zeichen *Client Reference*  
12039117/EH

Unser Zeichen *Our Reference*  
ZTW1-IRC- 10002060 004

Ausstellungsdatum  
07.04.2006

*Date of Issue*  
(day/month/year)

**Genehmigungsinhaber *License Holder***  
Adda Corporation  
6, East Section, Industry 6 Road  
Pingtung City 900  
Taiwan

**Fertigungsstätte *Manufacturing Plant***  
ZTW1-BIO-10002060 001

## Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*  
EN 60335-1:2002+A1+A11  
EN 60335-2-80:2003+A1

**Zertifiziertes Produkt *(Geräteidentifikation)***  
***Certified Product (Product Identification)***

**Lizenzentgelte - Einheit**  
***License Fee - Unit***

Ventilator (AC Fan)

Bezeichnung : AKxxxzyzB  
(Type Designation)  
xxx steht für : 125, 128, 165, 175, 178, 186, 207  
(stands for) 258, 825, 838, 925 oder (or) 938  
y steht für : 1 oder (or) 2  
(stands for)  
z steht für : H, M oder (or) L  
(stands for)  
Nennspannung : AC 100-120V, 50/60Hz (y=1)  
(Rated Voltage) AC 200-240V, 50/60Hz (y=2)  
Nennstrom : siehe Anlage  
(Rated Current) (see Appendix)



Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.  
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.  
*This certificate is based on our Testing and Certification Regulation. The product fulfills above-mentioned-requirements, the production is subject to surveillance.*

Zertifizierungsstelle

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln

Tel.:(+49/221)8 06 - 13 71 Fax:(+49/221)8 06 - 39 35 e-mail: Althoff@de.tuv.com

Dipl.-Ing. W. Hsu



# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50081257

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0005

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Ausstellungsdatum	<i>Date of Issue</i> (day/mo/yr)
12062538	ZTW1-TAL- 10002060 009	31.01.2013	

**Genehmigungsinhaber *License Holder***  
Adda Corporation  
6, East Section, Industry 6 Road  
Pingtung City 900  
Taiwan

**Fertigungsstätte *Manufacturing Plant***  
ZTW1-BIO-10002060 001

## Prüfzeichen *Test Mark*



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
Überwachung

www.tuv.com  
ID 2000000000

## Geprüft nach *Tested acc. to*

EN 60335-1:2002+A1+A11+A12+A2+A13+A14  
EN 60335-2-80:2003+A1+A2

**Zertifiziertes Produkt (Geräteidentifikation)**  
*Certified Product (Product Identification)*

**Lizenzentgelte - Einheit**  
*License Fee - Unit*

Ventilator (AC Fan)

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Änderung  
(Change)

Prüfgrundlage : siehe oben  
(Test Requirement) (see above)



Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**  
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Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Zertifizierungsstelle

Dipl.-Ing. F. Stöelzel

