ebm-papst Ventilator (Shanghai) Co., Ltd.
依必安派特风机（上海）有限公司
No.418 Huajing Road, No. 2001 Yang Gao(N) Road, Wai Gao Qiao Free Trade Zone, Shanghai, P.R. of China
上海市杨高北路 2001 号（新海关内）外高桥保税区
华京路 418 号

SPECIFICATION FOR APPROVAL

Customer:

Description: 400V, dia. 450mm, Backward curved AC centrifugal fan

Customer P/N: REV:

Fan Type: R4D450-AD12-06/A01 Article No.:

Sample Issue Date: Quantity:

Part designation/Type: R4D450-AD12-06/A01
R: Centrifugal fan, single inlet
4: number of poles (AC)
D: single-phase motor with capacitor
450: impeller diameter in mm
AD12-06: key for mechanical, electrical, mechanical design
/A01: Cable difference with stand type

1、SCOPE:

This specification defines the electrical and mechanical characteristics of the AC-External rotor motor centrifugal fan. The appearance of the impeller in a centrifugal fan is somewhat similar to that of a millwheel. Air intake occurs in an axial direction; the air flows through the impeller radially. The blades which are fixed to the impeller backplate direct the air from intake to exhaust. Our comprehensive portfolio of ebm-papst products offers a suitable solution for every kind of demand and is divided into individual categories to meet the different demands of various fields of application.

2、CHARACTERS:

ITEM	DESCRIPTION
Nominal voltage	3~400V
Power Input	665W@50Hz
Nominal Speed	1380min^{-1}
Maximum permissible ambient temperature	-40~+55℃
Max. air flow(at zero static pressure)	4540m^3/h
Acoustical noise	76dBA
Insulation class	F
Type of protection	IP54
Rotation	Clockwise, seen on rotor
Motor protection	Thermal overload protector (TOP)
Motor connection	Variable

Technical parameters & scope



High standards for all ebm-papst products

Here at ebm-papst, we constantly strive to further improve our products in order to be able to offer you the best possible product for your application. Careful monitoring of the market ensures that technical innovations are reflected in the improvements of our products. Based on the technical parameters listed below and the ambience you want our product to operate in, we here at ebm-papst can always work out the best solution for your specific application.

General performance parameters

Any deviations from the technical data and parameters described here are listed on the product-specific data sheet.

Operating mode

If no other operating mode is specified on the product-specific data sheet, the operating mode is taken to be continuous operation (S1).

Insulation class (acc. to EN 60335)

On principle, our products comply with insulation class B.
Products with other insulation class are especially marked in the product-specific data sheets.

Protection class

In general, our products comply with protection class I (acc. to EN 50178 and EN 60335-1). Products with other protection class are specially indicated in the product-specific data sheets.

Type of protection

The type of protection applying to each product (according to DIN EN 60034-5) depends on the mounting position and is listed together with the relevant mounting position in the product-specific data sheet.

Drilled condensate discharges / mounting position

Condensate discharges are drilled depending on the mounting position. The product-specific data sheets provide information on this.
Please make sure that the drilled condensate discharges are not obstructed or closed.

Service life

The service life of ebm-papst products depends on two major factors:
- the service life of the insulation system
- the service life of the bearing system

The service life of the insulation system mainly depends on voltage level, temperature and ambient conditions, such as humidity and condensation.
The service life of the bearing system depends mainly on the thermal load on the bearing.
The majority of our products use maintenance-free ball bearings for any mounting position possible.
As an option, sleeve bearings can be used, which is indicated on the product-specific data sheet wherever applicable.
The service life L_{10} of the ball bearings can be taken as ca. 40,000 operating hours at an ambient temperature of 40 °C, yet this estimate can vary according to the actual ambient conditions.
We gladly provide you with a lifetime calculation taking into account your specific operating conditions.

Thermal protection / motor protection

Most of the ebm-papst motors are protected in accordance with the relevant and appropriate directives. Depending on motor type and field of application, the following protective features are realised:
- Thermal overload protection (TOP), either in circuit or brought out
- PTC with electronic diagnosis
- Impedance protection
- Thermal overload protection (TOP) with electronic diagnosis
- Current limitation via electronics

With the TOP brought out, the customer has to make sure to connect a conventional trigger device for switching it off.
All fans with 1~ AC voltage are equipped with a TOP that is connected in the winding circuit.
Exceptions to this are indicated on the data sheets.
Products without fitted TOP and without protection against improper use, a motor protection complying with the valid standards has to be installed.

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Sound pressure level (SPL)

The specified sound pressure level is established in a room low in reflection and with reverberant floor as required in DIN EN 45635 part or ISO 3745. The product under test is anti-vibration mounted and operated at nominal voltage, in the case of AC also at nominal frequen The microphone is placed one meter away from the air intake. The measured values, however, cannot be taken as absolutes, as the specific application is always subject to factors of influence that the measuring lab cannot adequately reproduce.

Determination of sound pressure levels (SPL)

The A-rated sound pressure level L_{WA} is 7 dB higher than the A-sound pressure level L_{pA}. This supposition is an approximated value and can deviate in some individual cases due to the mounting conditions.

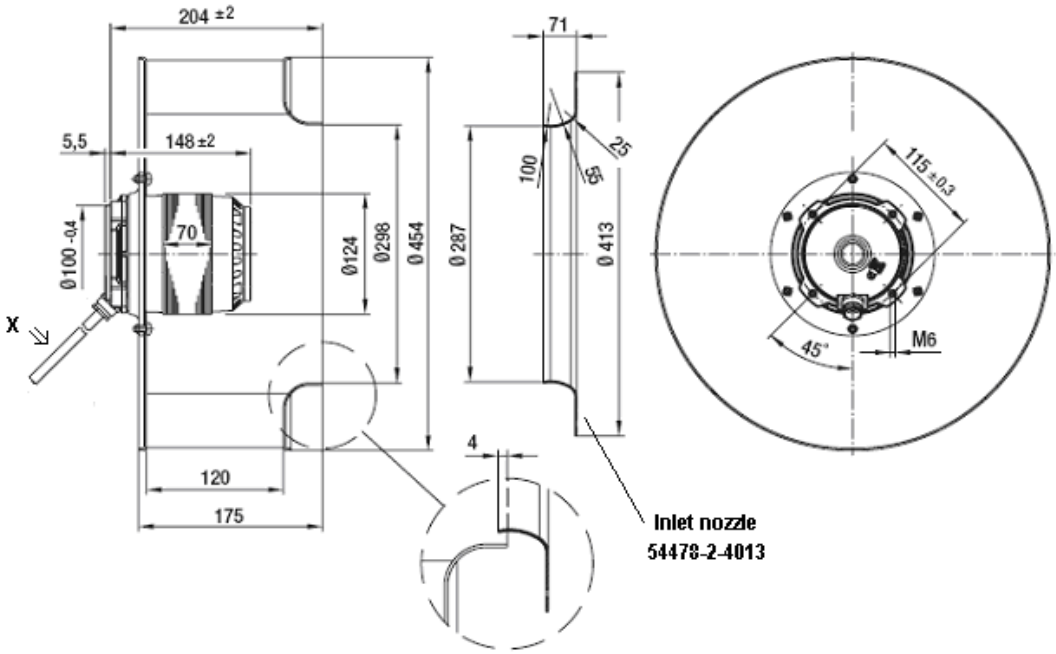
Measuring conditions

ebm-papst products are measured under the following conditions:

- axial and centrifugal fans with direction of air flow "V", without guard grille and in the wall ring
- backward curved centrifugal fans, free-running and with inlet ring
- forward curved single and dual inlet centrifugal fans with housing

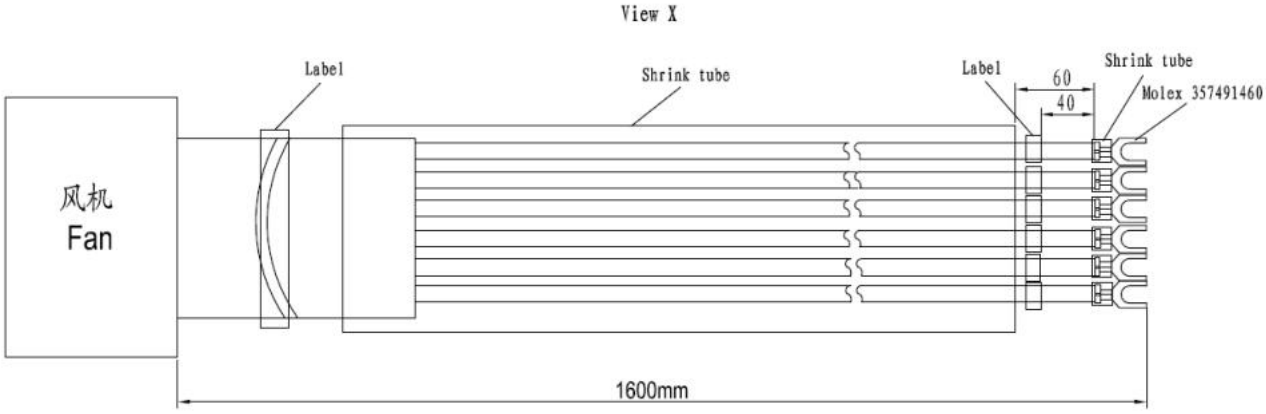
3、MECHANICAL:

3-1. Dimensions



Inlet nozzle not included in R4D450-AD12-06/A01

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3-2. Bearing System: ball bearings

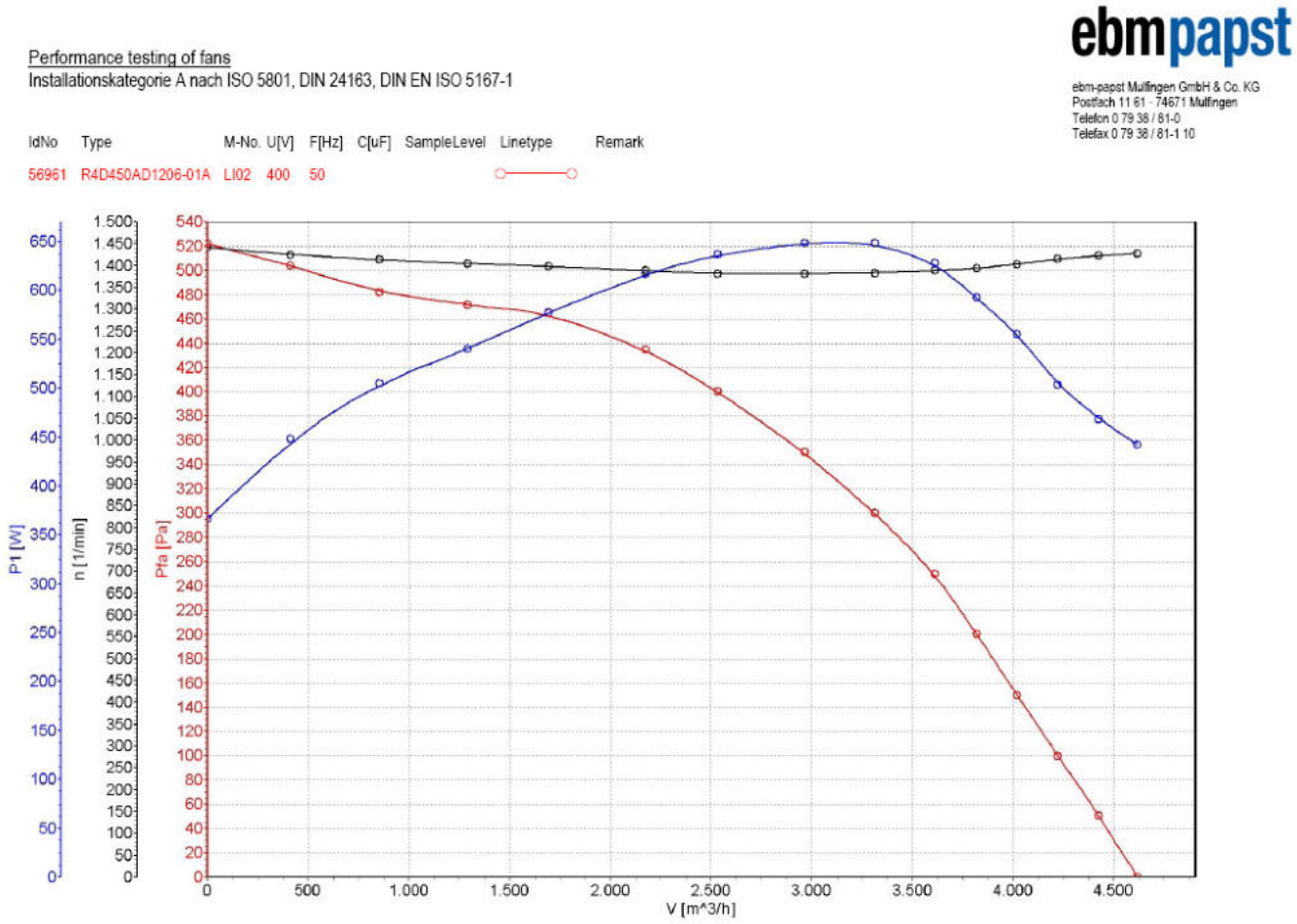
4、MOTOR TYPE: M4D094-HA

5、PRODUCTION LOCATION: Mulfingen Germany

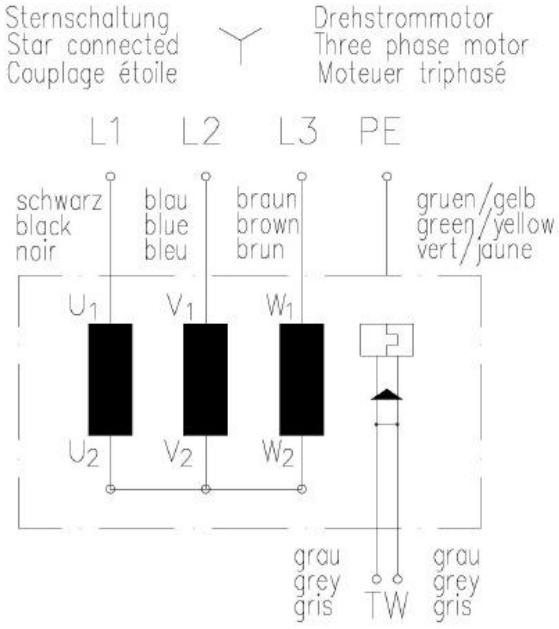
6、IMPELLER NUMBER: 6

7、ROHS: Compliance

8、P & Q CURVE:



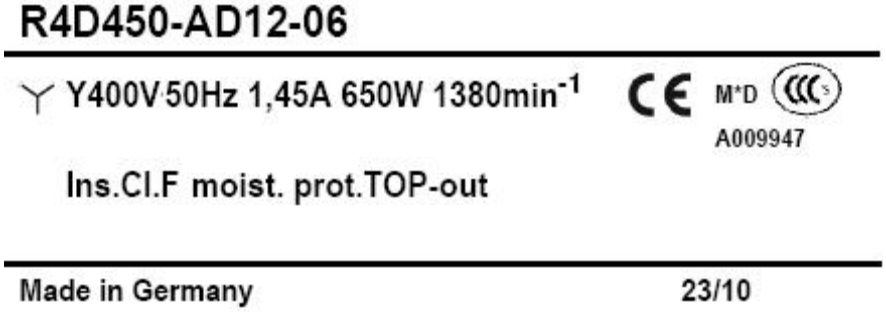
9、CONNECTION DIAGRAM



Drehrichtungsaenderung durch Vertauschen zweier Phasen
Change of direction of rotation by interchanging of two phases
Changement du sens de rotation par inversion de deux phases

10、Label Drawing

Imported German Fan label



Processed in Shanghai Fan label



Rohs Compliance

ebmpapst

European Guidelines 2002/95/EC 、2005/618/EC、2005/717/EC、2005/747/EC、2006/310/EC (RoHS):

Legal regulation for substances

Dear Sir / Madam,

Referring to the European Guidelines 2002/95/EC 、2005/618/EC、2005/717/EC、2005/747/EC、2006/310/EC, we confirm that according to the current status of our knowledge and in accordance with the regulations, we could produce products complying with above mentioned guidelines and limited to the **order request** via our affiliated company from July 1,2006.

Yours Sincerely

Robert Xi

RoHS project manager

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CCC

中国国家强制性产品认证证书

证书编号：2009010401322945

申请人名称及地址

依必安派特风机（上海）有限公司
上海市外高桥保税区华京路418（B）号

商标：ebm ebmpapst

制造商名称及地址

ebm-papst Mulfingen GmbH & Co. KG
Bachmuehle 2, 74673 Mulfingen, Germany

生产企业名称及地址

ebm-papst Mulfingen GmbH & Co. KG
Bachmuehle 2, 74673 Mulfingen, Germany

产品名称和系列、规格、型号

三相异步电动机

见附件

产品标准和技术要求

GB12350-2000

上述产品符合强制性产品认证实施规则的要求，特发此证。

发证日期：2009年01月22日

本证书的有效性依据发证机构的定期监督获得保持。

CQC

主　任：

中国质量认证中心

中国 · 北京 · 南四环西路 188 号 9 区 100070

http://www.cqc.com.cn

CHINA QUALITY CERTIFICATION CENTRE 中国质量认证中心

Q 0035208

CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No. : 2009010401322945

NAME AND ADDRESS OF THE APPLICANT

ebm-papst Ventilator(Shanghai) Co., Ltd.
No. 418 Hua Jing Road, Wai Gao Qiao Free Trade Zone, Shanghai, P. R. China

TRADE MARK: ebm ebmpapst

NAME AND ADDRESS OF THE MANUFACTURER

ebm-papst Mulfingen GmbH & Co. KG
Bachmuehle 2, 74673 Mulfingen, Germany

NAME AND ADDRESS OF THE FACTORY

ebm-papst Mulfingen GmbH & Co. KG
Bachmuehle 2, 74673 Mulfingen, Germany

NAME, MODEL AND SPECIFICATION

Three-phase Asynchronous Motor

See Appendix

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB12350-2000

THIS IS TO CERTIFY THAT THE ABOVE MENTIONED PRODUCTS HAVE QUALIFIED FOR THE REQUIREMENTS OF IMPLEMENTATION RULES FOR COMPULSORY CERTIFICATION

ISSUED DATE: Jan. 22, 2009

THE VALIDITY OF THE CERTIFICATE DEPEND ON THE FOLLOW UP INSPECTION BY THE CERTIFICATION BODY AT REGULAR INTERVALS

President: Wang Kejiao

CHINA QUALITY CERTIFICATION CENTRE

Section 9,No.188,Nansihuan Xilu, Beijing 100070 P.R.China

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