

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Certificate of Assurance

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BAS No. Ex 97Y4357X

3 This certificate is issued for the electrical apparatus:

AE RANGE OF INDUCTION MOTORS FRAME SIZES 80 TO 250

4 Manufactured and submitted for certification by:

TECO ELECTRIC & MACHINERY CO, LTD
of Factory Number I, 11 An Tung Road, Chung Li Industrial District, Taoyuan, Taiwan

5 This electrical apparatus and any acceptable variation thereto is specified in the Schedule to this Certificate and the documents therein referred to.

6 BASEEFA being an Accredited Certification Body in accordance with EN45011 certifies that the apparatus has been found to comply with the requirements of:

BS 5000: Part 16: 1997

and has successfully met the examination and test requirements recorded in confidential Report number:

96(C)0565 dated 21 May 1998

7 The apparatus marking shall include the code:

Ex N II T3 (T_{amb} -20°C to +55°C)

8 The manufacturer of the electrical apparatus referred to in this certificate, has the responsibility to ensure that the apparatus conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

File No: EECS 3903/03/001

Sheet 1 of 5



This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of this certificate is given on the relevant EECS Manufacturing Licence or Verification Certificate.

I M CLEARE
DIRECTOR

28 May 1998



Registration Number
020
The use of the Accreditation
Mark entitles subscribers in
respect of those activities
covered by the accreditation
certificate number 020.



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Schedule

Certificate of Assurance BAS No. Ex 97Y4357X

APPARATUS DESCRIPTION

The AE range of cage induction motors, frame sizes 80 to 250, are continuously rated for S1 duty up to 75 kW, 3600 rpm designed for use up to 690V, on a 3 phase 50 or 60 Hz supply.

Construction

The motors may be foot and or flange, horizontally or vertically mounted and are totally enclosed, with a cast iron stator frame incorporating cooling fins on the external surface. Cast iron endbrackets supporting the shaft bearings are fixed to the stator frame at each end. A terminal box for the connection of supply cables is provided on one side of the stator casing and a shaft mounted fan external to the motor enclosure circulates cooling air over the stator casing fins. The fan is protected by a pressed steel cover which is fixed to the non-drive end endbracket.

Frame sizes 80 to 132 have through bolts which pass the length of the stator frame and clamp the endbrackets to the stator. Frame sizes 160 to 250 machines have tapped holes in the stator frame. The endbrackets are manufactured from cast iron and are located by a spigot joint.

Drain plugs may be fitted in the bottom of the stator or endbracket.

Bearings

For 80 to 180 (4+ poles) frame sizes ball bearings are mounted in the stator endbrackets. V-ring Viton seals are fitted on the shaft and pressed up against each endbracket.

The 180 (2 pole) to 250 frame sizes may have ball bearings at each end or a ball bearing and a roller bearing. These are mounted in cast iron covers which are bolted each side of the bearings and are secured by through bolts locked with spring washers. The inner bearing covers have an integral labyrinth seal. V-ring or oil seals manufactured from Viton are fitted on the shaft and pressed up against each outer bearing cover.

Ventilation

The motor is cooled by air passing over the external surface of the stator frame and a shaft mounted fan is provided to drive the airflow. The fan is secured by a clamp and screw and enclosed by a pressed steel cover which is fixed to the stator endbracket. Air is drawn through punched openings and expelled through gaps between the cooling fins on the stator. For vertical machines a steel canopy is fixed over the fan cover to prevent foreign bodies from falling directly into the ventilation openings.

The shaft mounted fan may be manufactured from anti-static polypropylene or phosphor bronze.

Stator

The stator core is laminated with insulated windings and is dipped in an insulating varnish before being pressed into the stator frame. Windings are Class F insulated.



British Approvals Service for Electrical
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Certificate of Assurance

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BAS No. Ex 97Y4358X

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This certificate is issued for the electrical apparatus:

AE RANGE OF INDUCTION MOTORS, FRAME SIZES D280 TO D355**

4

Manufactured and submitted for certification by:

TECO ELECTRIC & MACHINERY CO, LTD
of Factory Number II, 11 An Tung Road, Chung Li Industrial District, Taoyuan, Taiwan

5

This electrical apparatus and any acceptable variation thereto is specified in the Schedule to this Certificate and the documents therein referred to.

6

BASEEFA being an Accredited Certification Body in accordance with EN45011 certifies that the apparatus has been found to comply with the requirements of:

BS 5000: Part 16: 1997

and has successfully met the examination and test requirements recorded in confidential Report number:

96(C)0566 dated 28 May 1998

7

The apparatus marking shall include the code:

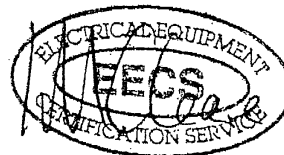
Ex N II T3 (T_{amb} = -20°C to +55°C)

8

The manufacturer of the electrical apparatus referred to in this certificate, has the responsibility to ensure that the apparatus conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

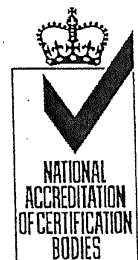
File No: EECS 3949/03/001

Sheet 1 of 5



I M CLEARE
DIRECTOR
28 May 1998

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Registration Number
020
The use of the Accreditation
Mark indicates accreditation in
respect of those activities
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HSE
Health & Safety
Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
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British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Schedule

Certificate of Assurance BAS No. Ex 97Y4358X

APPARATUS DESCRIPTION

The AE** range of cage induction motors, frame sizes D280 to D355 are continuously rated for S1 duty up to 370 kW, 3600 rpm and are designed for use up to 690V, on a 3 phase, 50 or 60 Hz supply.

The AE** motors are defined as AEEB for motors of frame size 280 to 315 and having cast aluminium rotors or AEJC for motors of frame size 315 to 355 and having laminated rotors with copper rotor bars.

Construction

The motors have shaft centre heights corresponding to the frame size in millimetres and may be foot and /or flange, horizontally or vertically mounted. The motors are totally enclosed, with a cast iron stator incorporating cooling fins on the external surface and cast iron endbrackets supporting the shaft bearings fixed to the stator at each end. A terminal box for the connection of supply cables is provided on one side of the stator casing and a shaft mounted fan external to the motor enclosure circulates cooling air over the stator fins. The fan is protected by a fabricated or pressed steel cover which is fixed to the non-drive end endbracket.

The stator frame has tapped holes which provide the mounting point for the endbrackets, which are manufactured from cast iron and provide the mounting point for the bearing assemblies. The endbrackets are located on the stator frame by a machined spigot joint and are secured with bolts.

Drain plugs may be fitted in the bottom of the stator and endbracket.

Bearings

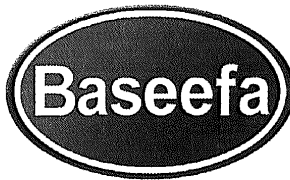
The machines are fitted with ball bearings, or a ball bearing and a roller bearing, these being mounted in the endbrackets. Cast iron covers are bolted each side of the bearings and are secured by bolts with washers. The inner bearing covers have an integral labyrinth seal and the outer bearing cover a non-rubbing seal.

An oil drain cover, which is sealed with a rubber gasket and secured with two screws is fitted to each outer bearing cover.

Ventilation

The motor is cooled by air passing over the external surface of the stator. Cooling fins cast on the surface of the stator improve heat transfer and a shaft mounted fan is provided to drive the airflow. The fan is secured by a retaining ring and enclosed by a fabricated or pressed steel cover which is fixed to the endbracket by screws. Air is drawn through openings in the fan cover then expelled through the cooling fins on the stator. This cover may contain sound insulation fixed to the sides. For vertical machines a steel canopy is fixed over the fan cover to prevent foreign bodies from falling directly into the ventilation openings.

The shaft mounted fan is manufactured from anti-static polypropylene, aluminium or cast iron.



10 July 2008

1. **QUALITY ASSURANCE NOTIFICATION**

2. **Equipment or Protective Systems or Components Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3. **Notification number: Baseefa ATEX 3903**

4. Equipment or Protective systems or Components are as listed in the Schedule attached to this Notification.

5. Applicant: See Manufacturer

6. Manufacturer:
Teco Electric & Machinery Co, Ltd
Factory Number I & 2
11 An Tung Road
Chung Li Industrial District
Taoyuan
TAIWAN

7. Baseefa Ltd., Notified Body No. 1180 for Annexes IV and VII in accordance with article 9 of the Council Directive 94/9/EC of the 23 March 1994, notifies to the applicant that the actual manufacturer has a quality system which complies with Annexes IV and VII of the Directive.

8. This Notification is based upon Audit Report No 3903 issued on 24/01/2008.

This Notification can be withdrawn if the manufacturer no longer satisfies the requirements of the Annexes IV and VII.

Results of periodical re-assessment of the quality system are a part of this Notification

9. This Notification is valid until 19/08/2011 and can be withdrawn if the manufacturer does not satisfy the quality assurance re-assessment.

10. According to Article 10 [1] of the Directive 94/9/EC the CE marking shall be followed by the identification number 1180 identifying the notified body involved in the production control stage.

This Notification may only be reproduced in its entirety and without any change.

Baseefa

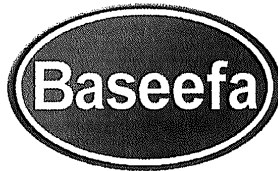
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire, SK17 9RZ. United Kingdom.
Tel. +44 (0)1298 766600 Fax. +44 (0)1298 766601
e-mail info@baseefa.com web site www.baseefa.com

Baseefa is a trading name of Baseefa Ltd

Registered in England No. 4305578. Registered address as above

**R S SINCLAIR
DIRECTOR**

On behalf of Baseefa



Issued: 13 August 2008

Page : 1 of 1

Schedule to ATEX Quality Assurance Notification / IECEx Quality Assessment Report
Number: 3903
Issued to: Teco Electric & Machinery Co, Ltd

Products for which the Manufacturer controls the design and manufacture of the product		
Product Type Designation	Type Examination Certificate Number (Including ATEX)	IECEx Certificate of Conformity Number
Product category - Ex d		
A Low Voltage A.C. Motor Frame Size 132	Baseefa07ATEX0295X	
A Low Voltage A.C. Motor Frame Size 132	Baseefa07ATEX0296X	
Product category - EEx nA (ATEX Certificates are covered on a voluntary basis)		
AEHBXC and AEUBXC 80-250 Range of High Efficiency Cage Induction Motors	BAS02ATEX3304X	
AEHDXC and AEUJXC 280-315 Range of High Efficiency Cage Induction Motors	BAS02ATEX3305X	

Non-ATEX Products covered on a voluntary basis for which the Manufacturer controls the design and manufactures the product	
Group 1	
Group 11 Ex97Y4357X, Ex97Y4358X	