



LCIE



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No. : **IECEX LCI 04.0031** Issue No.: **0**  
Status : **Current** Page 1 of 3  
Date of Issue : **2004-12-13**  
Applicant : **ABB Oy, Electrical Machines, LV Motors**  
P.O. Box 633  
Strombergin Puistotie 5A  
FIN - 65101 VAASA  
Finland  
Electrical Apparatus : **Three-phase AC motor - M3JP/M3KP 100 and M3JP/M3KP 112**  
Optional accessory :  
Type of Protection : **Flameproof 'd' and Increased safety 'e' (TB)**  
Marking: **IECEX LCI 04.0031**  
**Ex d/de IIB/IIC T1 to T6**

Approved for issue on behalf of the IECEx  
Certification Body :

Michel BRENON

Position :

Manager of the Certification body

Signature :  
(for printed version)

Date : *December 20, 2004*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by :

## Laboratoire Central des Industries Electriques (LCIE)

33 Avenue du Général Leclerc  
FR-92260 Fontenay-aux-Roses  
France



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FIN - 65101 VAASA  
**Finland**

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacture's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

### STANDARDS :

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

- IEC 60079-0 : 2000**      Electrical apparatus for explosive gas atmospheres - Part 0: General requirements  
Edition: 3.1
- IEC 60079-1 : 2001**      Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'  
Edition: 4
- IEC 60079-7 : 2001**      Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'  
Edition: 3

*This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

IECEX ATR :	File Reference :
IECEX Test Report (ExTR)	60029840-526964-03



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## Schedule

### EQUIPMENT :

*Equipment and systems covered by this certificate are as follows :*

Asynchronous motor with a flameproof frame equipped with a flameproof or increased safety terminal box.

### DESCRIPTION :

M3JP 100 and M3JP 112... for Ex d motors (when equipped with a flameproof 'd' terminal box).  
M3KP 100 and M3KP 112... for Ex de motors (when equipped with an increased safety 'e' terminal box).

M3 : Motor serie,  
J : Ex d / K : Ex de,  
P : Process Industry,  
100 : shaft high acc. to IEC,  
112 : shaft high acc. to IEC.

Depending on its application, the motor ingress protection is either IP5X or IP6X dust tight apparatus tested under conditions described in IEC60034-5, acceptance conditions being those also indicated in IEC60529.

The electrical parameters are the following :

- Network voltage supply : between 190 V and 690 V/3 phases
- Tolerances according to :
- IEC60034-1 ( $\pm 5\%$ ) for motors stamped in multivoltages use (eg : 380 V - 420 V)
- IEC60038 ( $\pm 10\%$ ) for motor stamped in single voltage use (eg : 400 V /690 V).
- Frequency : 50 Hz or 60 Hz or variable frequency
- Duty : S1

Electrical and mechanical variations are defined within the descriptive documents established by the manufacturer (3GZF500910-17 Rev A dated 2004-12-01).

Any motors for voltage between 190 V and 690 V, designed with same nominal flux within a tolerance of  $\pm 3\%$  and same frequency as motors listed in descriptive manufacturer documents is acceptable (3GZF500910-17 Rev A dated 2004-12-01).

Greater voltage tolerances than IEC 60038 are allowed provided that the design and tests are in conformity with the descriptive documents.

Any motors with lower rated output power than listed in descriptive documents (3GZF500910-17 Rev A dated 2004-12-01) is acceptable.

Motors at intermittent duty : S2 ... S10 respecting the specifications stated in the descriptive file are acceptable. Any motors with higher outputs than the standardized listed ones, respecting the technical requirements stated in the descriptive file are acceptable.

In case of variable frequency, the motors must be equipped with internal temperature protection to ensure the insulation class. The motors must be supplied according to the manufacturer's specifications stated on the name plate to ensure the temperature class. The relevant instructions for use on variable frequency stated by the manufacturer have to be respected.

.../...



**MARKING :**

ABB Oy, Electrical Machines  
LV Motors, Vaasa, Finland  
Type : M3JP/KP 100... or M3JP/KP 112...  
Serial number  
Year of manufacture  
IECEX LCI 04.0031  
Ex d/de IIB/IIC T1 to T6  
Rated Value (voltage, frequency, current, duty, ...)

Maximum ambient temperature ... °C if > 40 °C or < - 20 °C according to the descriptive documents as below :  
Ambient temperature between - 55 °C to - 20 °C is allowed without adding heating elements or other heating system.  
Ambient temperature between + 40 °C and + 60 °C is allowed under the respect of specifications stated in the descriptive documents supplied by the manufacturer.

The acronym "e" or "Ex e" on the terminal box "e" with M3KP motor.

"DO NOT OPEN WHILE ENERGIZED" (on the covers).  
"AFTER DE-ENERGIZING DELAY 60 MIN. BEFORE OPENING"

For converter driven motors a second name plate will be fixed on the motors mentioning voltage, current and load conditions according to the frequency range, as well as relevant converter characteristics.

**CONDITIONS OF CERTIFICATION: NO**