



国家防爆

Electrical Apparatus for Explosive Atmospheres

CERTIFICATE OF CONFORMITY

Cert. No.: CNEx12.0851X

Manufacturer ABB Oy Motors and Generators
P.O. Box 633, Strombergin Puistotie 5A, FIN-65101 VAASA, Finland

Name of Product Three-phase induction motor

Type of Product Type M3KP100 Generation H

Marking Ex de IIB/IIC T1-T6 (*) Gb
Ex tD A21 IP6... T...°C (*) or Ex tD A22 IP5... T...°C (*)
(See Annex for details)

Drawing No. 3GZF100710-B and Technical file No. 3GZF500910-35 Rev. A

The drawings, technical documents and the samples are verified and certified according to standard(s) for safety as below:

GB 3836.1-2010	Explosive Gas atmospheres - Part 1: Equipment - General requirements
GB 3836.2-2010	Explosive Gas atmospheres - Part 2: Equipment protection by flameproof enclosure "d"
GB 3836.3-2010	Explosive Gas atmospheres - Part 3: Equipment protection by increased safety "e"
GB 12476.1-2013	Electrical apparatus for use in the presence of combustible dust - Part 1: General requirements
GB 12476.5-2013	Electrical apparatus for use in the presence of combustible dust - Part 5: Protection by enclosures "tD"

Note

1. Temperature range -55 °C to +60 °C
2. IP code: IP5X, IP54, IP6X or IP65 (see manufacturer specifications)
3. This certificate is only valid in combination with the related Annex
4. Please read and understand the special conditions for safe use as stated in the Annex to this certificate

Valid Date From March 24, 2017 to March 23, 2022

Issue Date March 24, 2017

Director



CHINA NATIONAL QUALITY SUPERVISION AND TEST CENTRE
FOR EXPLOSION PROTECTED ELECTRICAL PRODUCTS

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Note: This certificate is only valid for the products which identify with the sample(s) tested and verified. Holder(s) of this certificate have the responsibility to ensure the products complying with relevant standard(s).

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This Annex to certificate CNEx 12.0851X covers the following model: Type M3KP100.

This product has been certified by LCIE (France), under certificate number IECEx LCI 04.0031X, issue 1, dated 2011-10-27, based on drawing 3GZF100710-B and Technical file No. 3GZF500910-35 Rev. A.

Ex marking: Ex de IIB/IIC T1-T6 (*) Gb
Ex tD A21 IP6... T...°C (*) or Ex tD A22 IP5... T...°C (*)
(*) = depending on motor type and model, see manufacturers specifications

Ambient temp.: Tamb. -55 °C...+60 °C

Electrical data:

Rated voltage: 190...800 Vac, three-phase

Frequency: 50 Hz, 60 Hz, variable frequency

Special conditions for safe use:

- the temperature at the cable entry point resp. branching point can exceed 70 °C resp. 80 °C. Use suitable cables and cable glands
- some flameproof gap dimensions are lower than the maximum defined in Table 1 and Table 2 of GB 3836.2. These manufacturing gaps are defined in the manufacturers dismantling and assembly guide
- use only motor enclosure bolts grade 8.8 or A4-80 stainless steel, in the correct size
- the electrical motor supply connections are to be tightened with torque, see Manual

Issue Date March 24, 2017

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Special conditions for safe use (continued):

- in case of use with frequency converters, the motors may be equipped with internal temperature protection to ensure the temperature class. The surface temperature class may also be protected by embedded thermal sensors. The motors must be supplied according to the manufacturers specifications stated on the 2nd nameplate to ensure the temperature class. The relevant instructions for use on variable frequency stated by the manufacturer have to be respected
- ambient temperatures between -20 °C and -55 °C are allowed without heating elements or other heating systems
- the instructions of the manufacturer to minimize the risk from electrostatic discharge must be strictly respected.
- the output power of the motor is to be reduced based on the documents provided by the manufacturer if the temperature class is T5 or T6
- for IIC apparatus when the paint thickness exceeds the maximum values specified in table 8 of GB 3836.1, the following warning is added: 'WARNING: POTENTIAL ELECTRO-STATIC CHARGING HAZARD – SEE INSTRUCTIONS'
- related to opening the terminal compartment, the following warning is added: 'WARNING: AFTER DE-ENERGIZING DELAY 60 MIN. BEFORE OPENING'
- for motors in dust applications the following warning applies: 'WARNING – DO NOT OPEN WHEN AN EXPLOSIVE DUST ATMOSPHERE MAY BE PRESENT'.

Issue Date

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Installation instructions:

- only certified cable glands and blanking elements are to be used, complying with GB 3836.2, suitable for the conditions of use and correctly installed
- no thread adapters shall be used with blanking elements

Routine tests:

Routine dielectric strength tests conform standard GB 3836.3 are applicable to all Ex "e" terminal boxes. Routine overpressure tests conform standard GB 3836.2 are required for various flameproof enclosure parts, see table below:

Up to 4500 rpm						
Motor part:	Ta $\geq$ -20°C		Ta $\geq$ -40°C		Ta $\geq$ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
End Shield	-	19.5 bar	-	21 bar	-	22 bar
Up to 10000 rpm						
Motor part:	Ta $\geq$ -20°C		Ta $\geq$ -40°C		Ta $\geq$ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	23 bar	-	24 bar
End Shield	-	21.5 bar	-	23 bar	-	24 bar

Additional manufacturing locations:

ABB Sp. z o.o.. UI Placydowska, 95-070 Aleksandrow Lodzki, Poland.

ABB Logistics Center Europe GmbH, Braukerweg 132, 58706 Menden, Germany.

Issue Date March 24, 2017

Director



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防爆电气设备 防爆合格证

编号:CNEx12.0851X

制造单位 ABB Oy Motors and Generators
地址: P.O. Box 633, Strombergin Puistotie 5A, FIN-65101 VAASA,
Finland
产品名称 隔爆型三相交流电动机
型号规格 M3KP100 Generation H
防爆标志 Ex de IIB/IIC T1-T6 (*) Gb
Ex tD A21 IP6... T...°C (*)或 Ex tD A22 IP5... T...°C (*)
(*详细信息见附件)

总装图号 3GZF100710-B and Technical file No. 3GZF500910-35 Rev. A

经对上述产品图样及技术文件的审查和样品检验, 确认符合下列标准:

GB3836.1-2010 《爆炸性环境第1部分: 设备 通用要求》
GB3836.2-2010 《爆炸性环境 第2部分: 由隔爆外壳“d”保护的设备》
GB3836.3-2010 《爆炸性环境 第3部分: 由增安型“e”保护的设备》
GB12476.1-2013 《可燃性粉尘环境用电气设备 第1部分: 通用要求》
GB12476.5-2013 《可燃性粉尘环境用电气设备 第5部分: 外壳保护型“tD”》

记 事
1. 使用环境温度: -55 °C to +60 °C。
2. 防护等级: IP5X、IP54、IP6X 或 IP65, 详细信息见附件。
3. 本证书与相关附件一同使用时才视为有效。
4. 请仔细阅读并了解本证书附件中的安全使用条件。

本证有效期 2017 年 3 月 24 日至 2022 年 3 月 23 日

颁发日期 2017 年 3 月 24 日

中心主任

王军



国家防爆电气产品质量监督检验中心

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国家防爆

防爆电气设备

防爆合格证(附页)

编号:CNEx12.0851X

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本证书附件包含下列型号: M3KP100。

本产品已取得 LCIE (法国) 颁发的 IECEx 证书, 编号 IECEx LCI 04.0031X, issue 1, 颁发日期 2011-10-27, 认证图纸为 3GZF100710-B, 技术文件 3GZF500910-35 (版本 A)。

防爆标志: Ex de IIB/IIC T1-T6 (*) Gb

Ex tD A21 IP6... T... °C (*) 或 Ex tD A22 IP5... T... °C (*)

(*) 取决于电机型号规格, 见制造商说明书

使用环境温度: -55 °C 至 +60 °C

电气参数:

额定电压: 190-800Vac, 三相

频率: 50Hz、60Hz、变频

安全使用条件:

- 电缆引入口和电缆分叉点的温度分别可超过 70 °C 和 80 °C, 应选择适当的电缆及引入装置。
- 部分隔爆面的间隙小于 GB3836.2 表 1 与表 2 中规定的最大值, 具体参数见制造商提供的拆卸及安装指引。
- 外壳只能采用等级 8.8 或 A4-80 不锈钢紧固件。
- 电机的电源连接紧固件应符合说明书中的力矩要求。

颁发日期 2017 年 3 月 24 日

中心主任

王军



国家防爆电气产品质量监督检验中心

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国家防爆

防爆电气设备

防爆合格证(附页)

编号:CNEx12.0851X

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-在使用变频器的情况下,电机可以内置温度保护以保证绝缘等级,也可以通过埋入式温度传感器来保证外壳的温度组别。电机必须有按照制造商第二名牌规定的要求进行供电以保证温度组别。还需遵守制造商提供的有关变频的要求。

-当环境温度为 -20°C 至 -55°C 时,不要求使用加热元件或加热系统。

-必须严格遵守制造商说明书中关于降低静电危害的要求。

-当温度组别为T5或T6时,电机的输出功率会适当降低,具体信息见制造商文件。

-II C类设备,如果涂覆厚度大于GB3836.1表8中规定的最大值,须添加警示语:警告:潜在静电电荷危险—见使用说明书!

-涉及接线腔开启,须添加警示语:警告:断电后,应放电60分钟方可开盖!

-粉尘环境用电机,须添加警示语:警告:可能存在爆炸性粉尘环境时禁止开盖!

安装说明:

-采用的电缆引入装置和封堵元件须经过认证,符合GB3836.2的要求,与使用环境适应且安装正确。

-封堵元件不能与变径接头一起使用。

颁发日期 2017年3月24日

中心主任

王军



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例行试验:

所有增安型接线盒都须按照 GB3836.3 进行例行介电强度试验。

所有种类的隔爆外壳部件都须按照 GB3836.2 进行例行过压试验, 外壳分类见下表:

转速 4500rpm 以内						
电机部位:	Ta ≥ -20°C		Ta ≥ -40°C		Ta ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
端盖	-	19.5 bar	-	21 bar	-	22 bar
转速 10000 rpm 以内						
电机部位:	Ta ≥ -20°C		Ta ≥ -40°C		Ta ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
机座	-	-	-	23 bar	-	24 bar
端盖	-	21.5 bar	-	23 bar	-	24 bar

其他生产地址:

ABB Sp. z o.o.. Ul Placydowska, 95-070 Aleksandrow Lodzki, Poland.

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颁发日期 2017 年 3 月 24 日

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