



国家防爆

Electrical Apparatus for Explosive Atmospheres

# CERTIFICATE OF CONFORMITY

Cert. No.: CNEx19.3840X

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

**Name of Product** Three-phase AC Motors

**Type of Product** Type M3JP180

**Marking** Ex d IIB or IIC T3-T6 (\*) Gb  
Ex tD A21 IP6... T...°C (\*) or Ex tD A22 IP5... T...°C (\*)  
(see Annex for details)

**Drawing No.** 3GZF500716-202 and Technical file No. 3GZF500918-40 Rev. D

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 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 August 21, 2019 to August 20, 2024

**Issue Date** August 21, 2019

**Director**



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

Address: No.20 North Zhongjing Rd, Nanyang, Henan(473008), P.R.China

Tel: 0377-63258564 Fax: 0377-63208175 Http://www.china-ex.com

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 CNEx19.3840X covers the following models: Type M3JP180

This product has been certified by LCIE (France), under certificate number IECEx LCI 09.0008X, issue 4, dated 2015-11-27, based on drawing No. No. 3GZF500716-202 and Technical file No. 3GZF500918-40 Rev. D, which includes the added efficiency class IE3.

**Ex marking:** Ex d IIB or IIC T3-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...800Vac, three-phase  
Frequency: 50Hz, 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 joint dimensions are lower than the maximum defined dimensions in Table 1 and Table 2 of GB 3836.2. See dismantling and assembly guide from manufacturer for guidance
- 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** August 21, 2019

**Director**



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**Special conditions for safe use (continued):**

- in case of use with frequency convertors, the motors may be equipped with internal temperature protection to ensure the insulation class. The surface temperature class may also be protected by embedded thermal sensors. Where the thermal sensors are connected to intrinsic safety circuits "ia" or "ib", the symbol related to the applied protection mode must be added to the marking on the motor. 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'.

**Installation instructions:**

- only certified cable glands and blanking elements are to be used, complying with GB3836.2, rated minimum IP 64, suitable for the conditions of use and correctly installed
- no thread adapters shall be used with blanking elements.

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**Routine tests:**

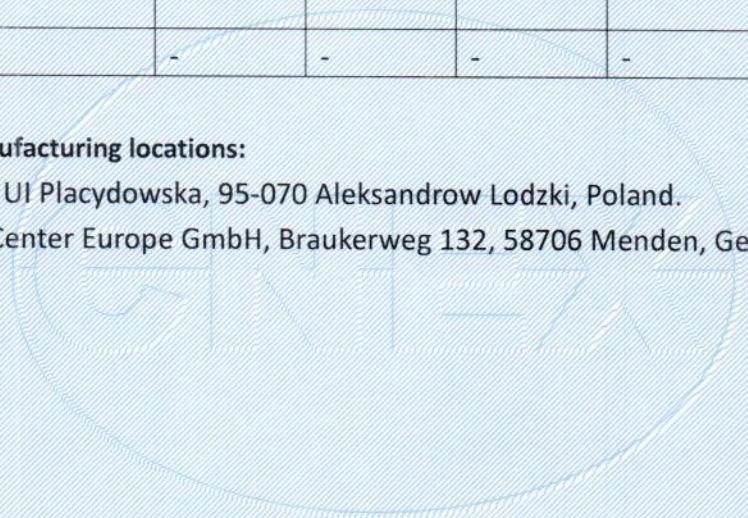
Routine overpressure tests conform standard GB 3836.2 are required for various flameproof enclosure parts, see table below:

Up to 10000 rpm						
Motor part:	Ta ≥ -20°C		Ta ≥ -40°C		Ta ≥ -55°C	
	Group IIB	Group IIC	Group IIB	Group IIC	Group IIB	Group IIC
Frame	-	-	-	-	-	29.5 bar

**Additional manufacturing locations:**

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

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



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# 防爆合格证

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 三相交流电动机

型号规格 Type M3JP180

防爆标志 Ex d IIB/IIC T3-T6 (\*) Gb  
Ex tD A21 IP6... T...°C (\*)或 Ex tD A22 IP5... T...°C (\*)  
(详细信息见附页)

产品标准 —

总装图号 3GZF500716-202 and Technical file No. 3GZF500918-40 Rev. D

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》

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。

中心主任

颁发日期 2019年8月21日

本证有效期 2019年8月21日至2024年8月20日



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国家防爆

# 防爆合格证 (附页)

共2页 第1页

本证书附件包含下列型号: M3JP180。

本产品已取得 LCIE (法国) 颁发的 IECEx 证书, 编号 IECEx LCI 09.0008X, issue 4, 颁发日期 2015-11-27, 认证图纸为 3GZF500716-202, 技术文件 3GZF500916-200 (版本 D), 包含 IE3 能效等级。

防爆标志: Ex d IIB/IIC T3-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。
- 一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。
- 在使用变频器的情况下, 电机应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。当温度传感器连接到本质安全电路 “ia” 或 “ib” 时, 必须将所

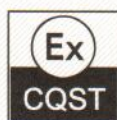
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# 防爆合格证 (附页)

共 2 页 第 2 页

应用的保护模式符号添加到电动机的标记上。必须按照第二铭牌上规定的制造商规格提供电动机以确保温度等级。还需遵守制造商提供的有关变频的要求。

- 当环境温度为 $-20^{\circ}\text{C}$ 至 $-55^{\circ}\text{C}$ 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。

**例行试验:**

按照 GB3836.2 的要求, 须按照以下压力对不同部分进行过压试验:

10000rpm 以下						
电机部分	$T_a \geq -20^{\circ}\text{C}$		$T_a \geq -40^{\circ}\text{C}$		$T_a \geq -55^{\circ}\text{C}$	
	IIB	IIC	IIB	IIC	IIB	IIC
机座	-	-	-	-	-	29.5bar

**其他生产地址:**

ABB Sp. z o.o.. Ul Placydowska, 95-070 Aleksandrow Lodzki, Poland.  
 ABB Logistics Center Europe GmbH, Braukerweg 132, 58706 Menden, Germany.

中心主任

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