



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx TUN 17.0009X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2017-07-04\)](#)
[Issue 0 \(2017-05-04\)](#)
Date of Issue: 2019-02-22
Applicant: **WISTRO Elektro-Mechanik GmbH**
Berliner Allee 29 – 31, 30855 Langenhagen
Germany
Equipment: **Forced ventilation fans**
Optional accessory:
Type of Protection: **increased safety 'ec', protection by enclosure 'tc'**
Marking: Ex ec IIC T3 Gc
Ex tc IIIC T120 °C Dc

Approved for issue on behalf of the IECEx
Certification Body:

Christian Roder

Position:

Head of the Certification Body

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1, 30519 Hannover
Germany





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Date of issue: 2019-02-22

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Manufacturer: **WISTRO Elektro-Mechanik GmbH**
Berliner Allee 29 – 31, 30855 Langenhagen
Germany

Manufacturing
locations:

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 manufacturer'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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

This Certificate **does not** indicate compliance with 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:

Test Report:

[DE/TUN/ExTR17.0004/02](#)

Quality Assessment Report:

[DE/TUN/QAR17.0002/01](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Description

The forced ventilation fans are supposed for cooling of electric motors in hazardous areas of EPL Gc or Dc. Each fan consists of motor and fan, including a customized housing for the fan.

Subject and type

See attachement for type designation and parameters

Parameters

See attachement for parameters

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The motors must be supplied with a voltage of $UN \pm 5\%$.
2. The fan made of non-metallic material must be protected against UV light.
3. Due to the geometry of the entry threads at the terminal box, cable glands and blind plugs with seal must be used.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 2

- *The terminal compartment for Bg204 and Bg250 can be mounted by screws to the fan cover (O-rings are used to seal the new gaps)*
- *Change of motor diameter of Bg204 and Bg250 (influence on the sealing)*
- *New fan design for Gb90-112, Bg204 and Bg250*
- *Change of the electric design for Bg63-112, Bg204 and Bg250 for variants IL-2-9 (so 3~ 50Hz/346-525V and 3~ 60Hz/380-575V)*
- *Update of the IEC 60079-0 to ed. 7*

Annex:

[Attachment to IECEx TUN 17.0009X issue 2.pdf](#)

Subject and type

Forced ventilation fans of types FLAI Bg63 to Bg450

FLAI BgX¹X¹X¹

1 = size of the fan in mm
(see "relation between fan and motor type" and parameters for details)

Corresponding motors

X¹X²X³ IL-X⁴-X⁵

- 1 = Placeholder for stack-diameter (B, C, D, E or F)
- 2 = Length of the package (20-60)
- 3 = Not ex-relevant
- 4 = Number of poles (2 or 4)
- 5 = Placeholder for voltage (9 or 10)

See section 'parameters' for details of the permissible motor types

Relation between fan and motor type

Forced ventilation fan	Motor types	Motor size
FLAI Bg63	B20 IL 2-9	Bg63
FLAI Bg71	B21 IL 2-9	Bg71
FLAI Bg80	B31 IL 2-10	Bg80
FLAI Bg90	B31 IL 2-9	Bg90
FLAI Bg100	B32 IL 2-9	Bg100
FLAI Bg112	B31 IL 2-10	Bg112
FLAI Bg132	C36 IL 2-9 C36 IL 4-9	Bg132
FLAI Bg160-200	C62 IL 2-9 C62 IL 4-9	Bg160
FLAI Bg204-249	D48 IL 4-9 D49 IL 4-9	Bg204
FLAI Bg250-450	F50 IL 4-9 H40 IL 4-9	Bg250

Parameters

Frame size	Motor type	50 Hz			60 Hz			Connection type
		U* in V AC	n _{max} in min ⁻¹	P _{max} in W	U* in V AC	n _{max} in min ⁻¹	P _{max} in W	
Bg63	B20 IL-2-9	346 to 525	2900	34	380 to 575	3450	33	star
Bg71			2850	35		3400	35	
Bg80			2760	39		3280	42	
Bg63	B21 IL-2-9		2955	34		3537	29	
Bg71			2928	36		3495	33	
Bg80			2885	39		3420	39	
Bg90	B31 IL-2-9		2900	120		3450	111	
Bg100			2860	123		3410	123	
Bg112			2850	144		3370	132	
Bg90	B32 IL-2-9		2942	92		3510	85	
Bg100			2917	97		3460	96	
Bg112			2871	104		3380	114	
Bg63	B31 IL-2-10	174 to 210	2940	74	174 to 234	3520	68	
Bg71			2930	72		3500	66	
Bg80			2920	77		3480	75	
Bg90			2910	81		3460	85	
Bg100			2850	87		3440	96	
Bg112			2820	95		3340	110	
Bg132	C36 IL-2-9	346 to 525	2830	167	380 to 575	3380	183	
	C36 IL-4-9		1470	91		1730	81	
Bg160	C62 IL-2-9		2845	327		3350	405	
	C62 IL-4-9		1440	95		1700	97	
Bg204	D48 IL-4-9		1430	181		1690	260	
	D49 IL-4-9		1431	176		1682	239	
Bg250	F50 IL-4-9		1405	341		1640	509	
	H40 IL-4-9		1422	281		1649	434	

*permissible voltage tolerance ± 5 %

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Attachment to IECEx TUN 17.0009 X Issue 02

Frame size	Motor type	50 Hz			60 Hz			Connection type
		U* in V AC	n _{max} in min ⁻¹	P _{max} in W	U* in V AC	n _{max} in min ⁻¹	P _{max} in W	
Bg63	B20 IL-2-9	200 to 303	2900	34	220 to 332	3450	33	delta
Bg71			2850	35		3400	35	
Bg80			2760	39		3280	42	
Bg63	B21 IL-2-9		2955	34		3537	29	
Bg71			2928	36		3495	33	
Bg80			2885	39		3420	39	
Bg90	B31 IL-2-9		2900	120		3450	111	
Bg100			2860	123		3410	123	
Bg112			2850	144		3370	132	
Bg90	B32 IL-2-9		2942	92		3510	85	
Bg100			2917	97		3460	96	
Bg112			2871	104		3380	114	
Bg63	B31 IL-2-10	100 to 122	2940	74	100 to 135	3520	56	
Bg71			2930	72		3500	66	
Bg80			2920	77		3480	75	
Bg90			2910	81		3460	85	
Bg100			2850	87		3440	96	
Bg112			2820	95		3340	110	
Bg132			C36 IL-2-9	2830		167	3380	
	C36 IL-4-9	1470	91	1730	81			
Bg160	C62 IL-2-9	2845	327	3350	405			
	C62 IL-4-9	1440	95	1700	97			
Bg204	D48 IL-4-9	1430	181	1690	260			
	D49 IL-4-9	1431	176	1682	239			
Bg250	F50 IL-4-9	1405	341	1640	509			
	H40 IL-4-9	1422	281	1649	434			

*permissible voltage tolerance ± 5 %

Permissible ambient temperature range: -20 °C ≤ Ta ≤ +40 °C