

Translation

EU-Type Examination Certificate

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **BVS 11 ATEX E 119 X** Issue: **01**

Equipment: **Motor type *13.*-****

Manufacturer: **WILO SE**

Address: **Wilopark 1, 44263 Dortmund, Germany**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 11.2243 EU. This issue of the EU-Type Examination Certificate replaces the previous issue of the EU-Type Examination Certificate BVS 11 ATEX E 119 X including supplements 1 to 4.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018	General requirements
EN 60079-1:2014	Flameproof enclosure "d"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex db IIB T4/T3 Gb**

DEKRA Testing and Certification GmbH
Bochum, 2024-04-26

Signed: Oliver Brumm

Managing Director

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 11 ATEX E 119 X issue 01

15 **Product description**

15.1 **Subject and type**

Motor type *1)132), *3)_**4)

1) Motor type series P = Cast iron enclosure, S = Stainless steel enclosure

2) Motor size

3) Design shaft/connector

- 1 standard / 7-pol connector
- 2 heavy / 7-pol connector
- M standard / 10-pol connector
- L heavy / 10-pol connector

4) Stator length for example 08

15.2 **Description**

The motor is intended as a drive for a submersible pump.

It is equipped with 2 bimetal thermostats (rated cut-off temperature 140 °C) in the upper winding head.

Alternatively, the motor is equipped with 3 PTC-thermistors (rated cut-off temperature 140 °C) in the upper winding head. These temperature devices are connected to a functional tested safety device. The connection is made by flexible cords with a separately certified cable entry (PTB 00 ATEX 1090 U).

The motor is equipped with a double shaft seal. The interspace between these two seals can be monitored by an electrode. The electrode is not part of the explosion-proof enclosure, and it has to be connected to a separately tested intrinsically safe circuit. The intrinsic safety of the electrode and of this circuit is not a subject of this test report.

- Description 1st Supplement:
- 1) The routine test according 16.1.1 of EN 60079-1:2014 can be waived, because the overpressure test according 15.2.3.1 of said standard was carried out successfully with a pressure of four times the reference pressure.
 - 2) Alternatively, a motor enclosure with modified outer enclosure design and same wall thickness can be used.
 - 3) The gap width of flameproof joints was modified.
 - 4) Parameters (rated rotational speed) were modified.

- Description 2nd Supplement:
- 1) The parameters and the duty types of 2-poles version with package length 9, 11 and 16, 4-poles with package length 16 were added and duty types were modified.

- Description 3rd Supplement:
- 1) Updating of the standards EN 60079-0:2012 and EN 60079-1:2014. The parameters and the duty types of 2-poles version with package length 8 and 16 were modified.

- Description 4th Supplement:
- 1) Updating of the standard EN IEC 60079-0:2018 and EN 60079-1:2014/AC:2018
 - 2) Change of the manufacturer address
 - 3) Temperature Class T3 by use of inverter

- Description 5th Issue:
- 1) Updating of the type code

15.3 **Parameters**

Motor circuit

Type *13.*-08 (number of poles 2)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 2850/3450 min⁻¹

Duty type

S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	2.1	2.3	1.7	2.05	kW

Type *13.*-09 (number of poles 2)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 2850/3450 min⁻¹

Duty type

S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	1.85	2.05	---	---	kW

Duty type

S1 (emerged)

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	1.45	1.55	---	---	kW

Type *13.*-10 (number of poles 2)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 2850/3450 min⁻¹

Duty type

S1 (submerged)

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	3.2	3.9	2.8	3.35	kW

Type *13.*-11 (number of poles 2)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 2850/3450 min⁻¹

Duty type

S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	3.1	3.45	---	---	kW

Duty type

S1 (emerged)

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
rated frequency	50	60	50	60	Hz
power input	1.65	1.75	---	---	kW

Type *13.*-15 (number of poles 2)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 rated rotational speed 2850/3450 min⁻¹

Duty type

S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	4.8	5.9	4.1	5.2	kW

Type *13.*-16 (number of poles 2)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 2850/3450 min⁻¹

Duty type

S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	4.6	5.1	---	---	kW

Duty type
S1 (emerged)

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	1.95	2.05	---	---	kW

Duty type
S1 (submerged), S3 10 %, S2 (15 min emerged)

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	6.1	6.1	---	---	kW

Type *13.*-10 (number of poles 4)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 1450/1740 min⁻¹

Duty type
S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	2.05	2.45	1.8	2.15	kW

Type *13.*-11 (number of poles 4)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 1450/1740 min⁻¹

Duty type
S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	2.05	2.45	1.8	2.15	kW

Type *13.*-13 (number of poles 4)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 1450/1740 min⁻¹

Duty type
S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	3.25	4	2.85	3.5	kW

Type *13.*-16 (number of poles 4)

Rated voltage 200 up to 690 V
 Rated frequency 50/60 Hz
 Rated rotational speed 1450/1740 min⁻¹

Duty type

S1 (submerged), S2-30 (emerged), S3-25 (emerged), S3-50 (emerged with flooding for 1 minute, emerged operation (only with temperature control 130 °C))

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	4.5	5.2	3.9	4.5	kW

Duty type

S1 (emerged)

Upper limits of ambient temperature range ¹⁾	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Power input	1.55	1.6	---	---	kW

¹⁾ The maximum operation temperature is the limit for the ambient temperature as well as the limit for the temperature of the water to be pumped.

Thermistor circuit:

Rated voltage 7.5 V

Bimetal-thermostat circuits:

Voltage 250 V

Current 2.5 A

Motor monitoring:

Voltage max. 30 V_{res} (60 V_{peak})

Current max. 5 mA

Max. permissible submersion depth: 20 m

Ambient temperature range: -20 °C up to +40/60 °C

Maximum temperature of the water to be pumped: +40/60 °C

16 Report Number

BVS PP 11.2243 EU, as of 2024-04-26

17 Specific Conditions of Use

The motor has to be protected additional to the motor protection switch with temperature sensor which is mounted in the stator winding and in combination with a functional tested safety device for this purpose.

The fasteners screws of the flameproof enclosure parts have to appear a yield stress ≥ 450 N/mm².

In case of the parts forming the joint shall be replaced or repaired, the dimensions information of the flameproof joints must be obtained from the manufacturer, because the gap length of the flameproof joint of this apparatus are in parts longer and the gap width are in parts smaller than required by Table 2 of EN 60079-1:2014/AC:2018.

The motor is used for the Gas Group IIB, the painting of the enclosure must not be thicker than 2 mm according to table 9 (EN IEC 60079-0:2018).

18 **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

19 **Remarks and additional information**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2024-04-26
BVS-Pz/MGR A 20240229 / 343356200



Managing Director

