

Translation

EU-Type Examination Certificate Supplement 1

Change to Directive 2014/34/EU

Equipment or Protective System intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 13 ATEX E 036 X**

Product: **Motor types FKT 50.1 and T 50.1**

Manufacturer: **WILO SE**

Address: **Nordkirchenstr. 100, 44263 Dortmund, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 13 ATEX E 036 X to apply to products designed and constructed in accordance with the specification set out in the Appendix of the said certificate but having any variations specified in the Appendix attached to this certificate and the documents therein referred to.

The certification body of 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 13.2154 EU / N1.

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

**EN IEC 60079-0:2018
EN 60079-1:2014**

**Allgemeine Anforderungen
Druckfeste Kapselung „d“**

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified products.
Further requirements of the Directive apply to the manufacturing process and supply of these products. These are not covered by this certificate.

The marking of the product shall include the following:

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

DEKRA Testing and Certification GmbH
Bochum, dated 2019-10-02

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**
BVS 13 ATEX E 036 X
Supplement 1

15 **Product description**

15.1 **Subject and type**

Motor type *1)50.1²⁾ - *3) / **4).Ex

- | | |
|--------------------|--|
| 1) Motor series | T = dry motor
FKT = motor with jacket cooling |
| 2) Size | e.g. 50 or 50.1 |
| 3) Number of poles | e.g. 4, 6, 8, 10 |
| 4) Packet length | e.g. 08 |

15.2 **Description**

The motors are intended for driving submersible pumps and are designed for the type of protection Flameproof Enclosure 'd'.

Direct temperature control of the motor is ensured by the installation of temperature sensors (posistors DIN 44081 or bi-metals VDE 0631) in the stator winding.

The temperature sensors are connected to a triggering device that has been certified for this purpose.

Reason for the supplement:

- Change to Directive 2014/34/EU
- Compliance with updated versions of standards EN IEC 60079-0:2018 and EN 60079-1:2014

List of all components used that comply with an older version of the standard

Subject and type	Certificate	Standard version
Cable gland 42T	PTB 00 ATEX 1090 U	EN IEC 60079-0:2012+A11:2013 EN 60079-1:2014

With this supplement the certificate is changed to Directive 2014/34/EU.

(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

15.3 Parameters

15.3.1 Motor circuit

15.3.1.1 Type T 50.1-4/42 Ex, FKT 50.1-4/42 Ex (no. of poles 4)

Rated voltage	200	to	690	V
Rated frequency	50/60			Hz
Rated RPM	1450/1740			min ⁻¹
Duty T 50.1	submersed/emerged intermittent duty			
Duty FKT 50.1	S1 emerged			

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	178	194	148	161	kW
Rated input FKT 50.1	148	158	122	131	kW

15.3.1.2 Type T 50.1-4/50 Ex, FKT 50.1-4/50 Ex (no. of poles 4)

Rated voltage	200	to	690	V
Rated frequency	50/60			Hz
Rated RPM	1450/1740			min ⁻¹
Duty T 50.1	S1 submersed / emerged intermittent duty			
Duty FKT 50.1	S1 emerged			

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	215	235	178	195	kW
Rated input FKT 50.1	173	189	144	157	kW

15.3.1.3 Type T 50.1-4/57 Ex, FKT 50.1-4/57 Ex (no. of poles 4)

Rated voltage	200	to	690	V
Rated frequency	50/60			Hz
Rated RPM	1450/1740			min ⁻¹
Duty T 50.1	S1 submersed/emerged intermittent duty			
Duty FKT 50.1	S1 emerged			

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	260	280	214	230	kW
Rated input FKT 50.1	210	230	174	191	kW

15.3.1.4 Type T 50.1-4/59 Ex, FKT 50.1-4/59 Ex (no. of poles 4)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 1450/1740 min⁻¹
 Duty T 50.1 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	275	300	230	250	kW
Rated input FKT 50.1	245	270	200	225	kW

15.3.1.5 Type T 50.1-6/50 Ex, FKT 50.1-6/50 Ex (no. of poles 6)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 975/1170 min⁻¹
 Duty T 50.0 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	180	195	149	162	kW
Rated input FK 50.1	143	159	119	132	kW

15.3.1.6 Type T 50.1-6/55 Ex, FKT 50.1-6/55 Ex (no. of poles 6)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 975/1170 min⁻¹
 Duty T 50.1 S1 submersed / emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	220	240	179	196	kW
Rated input FKT 50.1	180	195	149	162	kW

15.3.1.7 Type T 50.1-6/59 Ex, FKT 50.1-6/59 Ex (no. of poles 6)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 975/1170 min⁻¹
 Duty T 50.1 S1 submersed / emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	240	260	197	215	kW
Rated input FKT 50.1	196	215	163	175	kW

15.3.1.8 Type T 50.1-6/62 Ex, FKT 50.1-6/62 Ex (no. of poles 6)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 975/1170 min⁻¹
 Duty T 50.1 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	265	290	220	245	kW
Rated input FKT 50.1	220	240	179	197	kW

15.3.1.9 Type T 50.1-8/38 Ex, FKT 50.1-8/38 Ex (no. of poles 8)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 740/890 min⁻¹
 Duty T 50.1 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	119	129	99	107	kW
Rated input FKT 50.1	98	108	81	90	kW

15.3.1.13 Type T 50.1-10/37 Ex, FKT 50.1-10/37 Ex (no. of poles 10)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 585/700 min⁻¹
 Duty T 50.1 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	104	114	86	95	kW
Rated input FKT 50.1	82	93	69	78	kW

15.3.1.14 Type T 50.1-10/46 Ex, FKT 50.1-10/46 Ex (no. of poles 10)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 585/700 min⁻¹
 Duty T 50.1 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	131	140	109	117	kW
Rated input FKT 50.1	109	114	91	94	kW

15.3.1.15 Type T 50.1-10/58 Ex, FKT 50.1-10/58 Ex (no. of poles 10)

Rated voltage 200 to 690 V
 Rated frequency 50/60 Hz
 Rated RPM 585/700 min⁻¹
 Duty T 50.1 S1 submersed/emerged intermittent duty
 Duty FKT 50.1 S1 emerged

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	157	172	131	143	kW
Rated input FKT 50.1	130	140	109	117	kW

15.3.1.16 Type T 50.1-10/62 Ex, FKT 50.1-10/62 Ex (no. of poles 10)

Rated voltage	200	to	690	V
Rated frequency	50/60			Hz
Rated RPM	585/700			min ⁻¹
Duty T 50.1	S1 submersed/emerged intermittent duty			
Duty FKT 50.1	S1 emerged			

Upper limit of ambient temperature range *	40	40	60	60	°C
Rated frequency	50	60	50	60	Hz
Rated input T 50.1	173	188	144	156	kW
Rated input FKT 50.1	143	151	119	125	kW

* The maximum temperature permitted for the pumped water is identical with the permitted maximum ambient temperature

Optionally, power can be provided by a frequency converter; in that case, the rated parameters stated on the motor type label shall not be exceeded.

15.3.2 Temperature sensor circuit (posistor DIN 44081 or bimetal VDE 0631)

According to the certificate of the triggering unit

15.3.3	Max. submersion depth			20	m
15.3.4	Ambient temperature range	-20 °C	to	+40/60 °C	
15.3.5	Maximum temperature of pumped water			+40/60 °C	

16 **Report Number**

BVS PP 13.2154 EU, as of 2019-10-02

17 **Special Conditions for Use**

- 17.1.1 In addition to the motor circuit breaker, direct thermal control of the motor has to be provided by the temperature sensors installed in the stator winding in conjunction with a triggering unit certified for this purpose.
- 17.1.2 The screws used for fastening components of the flameproof enclosure have to be of a yield strength of minimum 450 N/mm².
- 17.1.3 The dimensions of the flameproof joint of this equipment are in parts longer, and in parts shorter than required by the minimum/maximum values stated in EN 60079-1:2014. Information on the dimensions have to be obtained from the manufacturer.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

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, 2021-11-24
BVS-Pz/Mu A20210571



Managing Director