

Translation

EU-Type Examination Certificate Supplement 1

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

EU-Type Examination Certificate Number: **BVS 16 ATEX E 132 X**

Product: **Motor type * 57- * /***Ex****

Manufacturer: **WILO SE**

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

This supplementary certificate extends EU-Type Examination Certificate No. BVS 16 ATEX E 132 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 acceptable variations 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 17.2050 EU.

The Essential Health and Safety Requirements are assured in consideration of:

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

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

This EU-Type Examination Certificate relates only to the design and construction of the specified product. 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 T3 Gb**

DEKRA Testing and Certification GmbH
Bochum, 2021-06-15

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**

**BVS 16 ATEX E 132 X
 Supplement 1**

15 **Product description**

15.1 **Subject and type**

Motor type *1) 57-*2)/(**3)*4)Ex**5)

1) Motor version	Motor type T, FKT 57
2) Poles	4, 6, 8, 10
3) Packet length	53, 58, 68, 76
4) Mechanical Version	G
5) Optional marking of efficiency class	E0 ... E6

15.2 **Description**

The Motor type * 57- * /***Ex** is used to drive submersible pumps and is built in type of protection flameproof enclosure „d“.

The motor can be equipped with PTC-thermistors 160 °C (DIN 44081-160) or bimetal thermostats (break contact, response temperature 160 °C) at the winding head.

The temperature sensors are connected for this purpose functionally tested control unit.

Reason of the supplement:

- Updating to the standards EN IEC 60079-0:2018 and EN 60079-1:2014/AC:2018
- Change of the manufacturer address

15.3 **Parameters**

15.3.1 **Electrical data**

Motor type	T 57	FKT 57
Rated voltage	200 up to 690 V	
Rated current at 400V/50Hz	330 A	570 A
Rated frequency	50 / 60 Hz	
Rated speed	995 – 1489 min ⁻¹ (50 Hz) 709 – 1788 min ⁻¹ (60 Hz)	
Duty type	S1 submerged / not immersed intermittent duty	S1 submerged / not immersed

Motor type	Poles	Paket length	f (Hz)	Upper limits of ambient temperature range ¹⁾ (°C)	Max. power P1 (KW)
T 57	4	53	50	40	330
T 57	4	58	50	40	375
T 57	6	58	50	40	285
T 57	6	68	50	40	330
T 57	6	76	50	40	370
T 57	8	58	50	40	225
T 57	8	68	50	40	265

Motor type	Poles	Paket length	f (Hz)	Upper limits of ambient temperature range ¹⁾ (°C)	Max. power P1 (KW)
T 57	8	76	50	40	300
T 57	10	58	50	40	225
T 57	10	68	50	40	270
FKT 57	4	53	50	40	285
FKT 57	4	58	50	40	320
FKT 57	6	58	50	40	245
FKT 57	6	68	50	40	280
FKT 57	6	76	50	40	320
FKT 57	8	58	50	40	187
FKT 57	8	68	50	40	225
FKT 57	8	76	50	40	250
FKT 57	10	58	50	40	188
FKT 57	10	68	50	40	225
T 57	4	53	60	40	395
T 57	4	58	60	40	445
T 57	6	58	60	40	340
T 57	6	68	60	40	395
T 57	6	76	60	40	445
T 57	8	58	60	40	265
T 57	8	68	60	40	320
T 57	8	76	60	40	355
T 57	10	58	60	40	270
T 57	10	68	60	40	320
FKT 57	4	53	60	40	340
FKT 57	4	58	60	40	385
FKT 57	6	58	60	40	290
FKT 57	6	68	60	40	340
FKT 57	6	76	60	40	380
FKT 57	8	58	60	40	225
FKT 57	8	68	60	40	270
FKT 57	8	76	60	40	300
FKT 57	10	58	60	40	225
FKT 57	10	68	60	40	270
T 57	4	53	50	60	280
T 57	4	58	50	60	310
T 57	6	58	50	60	235
T 57	6	68	50	60	280
T 57	6	76	50	60	310
T 57	8	58	50	60	184
T 57	8	68	50	60	225
T 57	8	76	50	60	250
T 57	10	58	50	60	185
T 57	10	68	50	60	225
FKT 57	4	53	50	60	235
FKT 57	4	58	50	60	265
FKT 57	6	58	50	60	205

15.3.2	Thermal parameters			
15.3.2.1	Thermistor circuit			
	Rated voltage		7.5	V
15.3.2.2	Bimetal-thermostat circuits			
	Voltage		250	V
	Current		2.5	A
15.3.3	Leakage detector			
	Voltage	max.	30	V_{res}
			(60	V_{peak})
	Current	max.	5	mA
15.3.4	Max. permissible submersion depth		20	m
15.3.5	Ambient temperature range		-20 °C up to +40/60 °C	
15.3.6	Maximum temperature of the water to be pumped		+40/60 °C	

16 **Report Number**

BVS PP 17.2050 EU, as of 2021-06-15

17 **Special Conditions for Use**

17.1 The motor must be protected directly by Temperature sensors in the stator winding or in the coil end in connection with a functionally tested control unit, additional to the motor protection switch.

In case of supply by a frequency converter the temperature shall be controlled directly by Temperature sensors in the stator winding or in the coil end in connection with a functionally tested control unit. Alternatively, equipped with temperature sensors (bimetal thermostats (break contact, response temperature 160 °C) in the stator winding.

17.2 The yield stress of the fasteners which are part of the flameproof enclosure has to be higher than 700 N/mm².

17.3 The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of EN 60079-1:2014/AC:2018. For information on the dimensions of the flameproof joints contact the manufacturer.

17.4 For the use of the motor type * 57- */***Ex** in areas with gas group IIA or IIB, the max. enclosure paint thickness must be limited to max. 2 mm according table 9 (EN IEC 60079-0:2018).

17.5 The motor may only be allowed to operate with the frequency converter using pulse width modulation to keep the parameters according clause 15.3.1.

17.6 Before setting-up operation it has to be ensured that no inadmissible over voltage caused by converter supply may occur at the terminals of the motor does not exceed 3000 V. The insulating system of the motor may require an additional limitation of a periodic over voltage.

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, 2021-06-15
BVS-Pz/MGR A20210472



Managing Director

