

## CERTIFICATE



Italia

## [1] EU-TYPE EXAMINATION CERTIFICATE

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

[3] EU-Type Examination Certificate number:

**TÜV IT 20 ATEX 033 X Rev. 5**

[4] Equipment or Protective System: Electric submersible pumps provided with cable  
or cable entry

[5] Manufacturer: **Caprari S.p.A.**

[6] Address: Via Emilia Ovest 900  
I- 41123 Modena (MO)

[7] This equipment or protective system and any acceptable variation thereto is specified in the  
schedule to this certificate and the documents therein referred to.

[8] TÜV Italia, notified body no. 0948 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 confidential report no. R 20 EX 033 Rev. 5.

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

**EN IEC 60079-0:2018; EN 60079-1:2014; EN ISO 80079-36:2016; EN ISO 80079-37:2016**

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective  
system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] 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.

[12] The marking of the product shall include the following:



**I M2 Ex db h I Mb  
II 2G Ex db h IIB T4 Gb**

This certificate may only be reproduced in its entirety and without any change, schedule included.

Issue date: 26<sup>th</sup> September 2025



00077



**TÜV Italia S.r.l.  
Notified body N° 0948**

**Alberto Carelli**

**Industry Service - Real Estate & Infrastructure  
Managing Director**

TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment or protective  
system intended for use in potentially explosive atmospheres. This document is not valid without official signature and logo. The  
internal reference code is 722385989.

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SCHEDULE

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Certificate History

Revision:	Description:	Report rev.:	Issue Date:
-	First emission	0	16/06//2020
1	Added 090(F) and 100(F) size	1	18/01/2021
2	Added models size 180 - 200 Added Flame arrester	2	16/02/2022
3	Added voltage up to 1000 V	3	20/06/2022
4	Change dimension of charging oil hole	4	03/08/2023
5	Electrical supply by generic VFD, new VFD use nameplate Variant with cable gland connection using TÜV IT 19 ATEX 020 X motor certificate.	5	26/09/2025

[15] Description of equipment

Submersible motor-pump provided with cable.

F  
H  
Type K\_ \_ \_ \_ \_L\_ + \_ \_ \_ \_ \_X\_ / # # # # #  
N  
P

Equivalent surface motor frame size: 090(F), 100(F), 112(H), 132(H), 132(L), 160(L), 160(N) – 180(N/P) – 200(N/P)

Rated characteristics

Asynchronous A. C. motors standard version (-10°C<Tamb<+60°C):  
Max 1000 V / 50 Hz (2900 rpm MAX)  
Max 1000 V / 60 Hz (3500 rpm MAX)  
Power from 0,37 kW to 35 kW  
Service: S1, S3 (only “F”)

Insulation Class H (180°C)

n.2 thermic probes connected in series; sunk in the stator winding with intervention at 132°C ± 3%; resetting at T < 114°C or with intervention at 130°C ± 5°C; resetting at T < 115°C.  
As alternative, n.1 PTC thermistor sensors, with nominal response temperature: 130°C (blue-blue).

Only for size 180 and 200: 2 thermal probes connected in series inside the stator windings.  
Intervention temperature: 140°C ± 5°C, reset temperature: 110°C ± 15°C  
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Motors can be driven by an inverter/converter ( $-10^{\circ}\text{C} < T_{\text{amb}} < +40^{\circ}\text{C}$ )

Vortex recessed impellers or impellers with blades, characterized by wide free passages or vortex with shredder; performances according to UNI EN ISO 9906:2012.

Electrical connection by cable permanently connected or by cable gland using motor variant according to ATEX certificate TÜV IT 19 ATEX 020 X.

**Warning label**

“DO NOT OPEN WHILE ENERGIZED”

“Only for inverter-fed motors:

- minimum internal inverter switching frequency 4kHz, maximum internal inverter switching frequency 5kHz;
- appropriate [dv/dt] reduction filter unit placed between the inverter and the motor;
- modulation range 35-60Hz.”

[16] **Report no.** R 20 EX 033 Rev. 5**Routine tests**

Routine tests according to EN 60079-1 cl. 15.2.3.2 are not required, as the enclosures have been successfully tested at four times the reference pressure.

[17] **Special conditions for safe use**

- In addition to parameters for inverter written on the label on equipment, read manual for information.
- The electric pump is supplied with the power cable permanently connected and without switch. The electric cable must therefore be connected to the power supply in a safe area or using one of the protection methods provided for in the EN 60079-0 standard with a switch off button; The cable cannot be reduced in length less than 3 m.  
The same prescription shall be considered for variant with cable gland.
- The screws class used for the assembly of explosion-proof enclosures must be A2-70 ISO 3506-1.
- Flameproof joints are not intended to be repaired.
- If motor provided with PTC thermistor, read manual for installation information.

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[18] Essential Health and Safety Requirements

Assured by compliance with the standards set out in the [9].

[19] Drawings and Documents

Listed documents (prot. 722226913 + 722215065 + 722252674 + 722309477 + 722326269 + 722385989)

Title:	Description:	Pages:	Rev:	Date:
0022533	Product description	1/3	8	18/03/2020
0022533	Product description	2/3	10	19/12/2022
0022533	Product description	3/3	3	18/03/2020
0024757	Product description	1/3	6	10/01/2022
0024757	Product description	2/3	7	19/12/2022
0024757	Product description	3/3	1	10/01/2022
0041921	Motor-pump section drawing	1	A	27/04/2020
0044917	Motor-pump section drawing	1	A	24/07/2023
0033971	Complete female connector with power supply cable	1	F	27/03/2019
0041326	Complete female connector with power supply cable	1	C	19/01/2021
0041319	Complete male connector	1	A	23/10/2019
0034007	Complete male connector	1	F	27/03/2019
0022534	Electric Submersible sewage pumps	1/3	4	20/03/2020
0022534	Electric cable and pin	2/3	2	20/03/2020
0022534	Electric Submersible sewage pumps	3/3	2	20/03/2020
0024758	Electric Submersible sewage pumps	1/3	5	15/12/2021
0024758	Electric Submersible sewage pumps	2/3	3	15/12/2021
0024758	Electric Submersible sewage pumps	3/3	0	15/12/2021
0038127	Electric pump motor-pump plate drawing for Ex motor-pump	2	I	28/04/2020
0023047	Warning PVC-plate for motor-pump	1	B	11/01/1996
0020239	Warning PVC-plate for feeding cables	1	E	09/07/2003
056b-001	Explosion risk analysis type	4	B	10/03/2020
0038267	Flame arrester	1	A	21/07/2021
0042079	Hydraulic section drawing	3	B	05/07/2021
0044918	Hydraulic section drawing	1	-	14/12/2021
0021827	Varnish specification	1/3	7	21/02/2006
0021827	Varnish specification	2/3	1	21/02/2006

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Title:	Description:	Pages:	Rev:	Date:
0021827	Varnish specification	3/3	0	21/02/2006
0022562	Caprari submersible pump K-Ex series	1/3	6	09/12/2020
0022562	Caprari submersible pump K-Ex series	2/3	7	19/12/2022
0022562	Caprari submersible pump K-Ex series	3/3	1	09/12/2020
0042490	KCW065F..+002141N3	1	-	30/11/2020
0042491	KCW065F..+002141N3	1	-	30/11/2020
0022563	Electric motors component list	2	7	11/12/2020
0042492	Free internal volume	3	-	03/02/2020
0044908	Free internal volume	3	-	11/02/2020
K..040_K..065_K.. .080_K..100_K..1 50_K..200_99664 9R_0725	SUBMERSIBLE ELECTRIC PUMPS FOR SEWAGE K 040/ K 200- USE AND MAINTENANCE INSTRUCTIONS	164	9966 49/R	-/07/2025
K..065F_K..T040 F_996679J_0725	SUBMERSIBLE ELECTRIC PUMPS FOR SEWAGE K 065 / K T040 - USE AND MAINTENANCE INSTRUCTIONS	130	9966 79 / J	-/07/2025
K..100_K..150_K.. .200_K..250_996 684O_0725	SUBMERSIBLE ELECTRIC PUMPS FOR SEWAGE K 100 / K 250 - USE AND MAINTENANCE INSTRUCTIONS	172	9966 84 / O	-/07/2025
Targhetta adesiva ATEX attenzione	VFD WARNING NAMEPLATE	1	-	04/07/2025

One copy of all documents is kept in TÜV Italia files.

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