



1. **EU-TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in  
Potentially explosive atmospheres  
Directive 2014/34/EU**

3. Reference: **VTT 13 ATEX 055X Issue 2**

4. Component: **Range of induction motors**

Certified types: **AMI 400...  
AMI 450...  
AMI 500...**

5. Applicant: **ABB Oy  
Strömbergintie 1  
FI-00380 Helsinki  
Finland**

6. Manufactured by **ABB Oy  
Hiomotie 13  
FI-00380 Helsinki  
Finland**

or

**ABB Electrical Machines Ltd  
No. 380, Tian Xing Road  
Minhang District, Shanghai  
People's Republic of China**

7. This equipment and any acceptable variations thereto are specified in the schedule and possible supplements to this Certificate and the documents therein referred to.

8. VTT Expert Services Ltd, notified body number 0537, in accordance with Article 21 of the Directive 2014/34/EU of February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating



to the design and construction of equipment and protective systems 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. VTT-S-06616-17.

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

**EN 60079-0 (2012)**  
**EN 60079-2 (2014)**  
**EN 60079-7 (2015/2007)**

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, examination and tests of the specified equipment in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of these equipment. These are not covered by this certificate.
12. The marking of the equipment shall be one of the following:



**II 2 G**

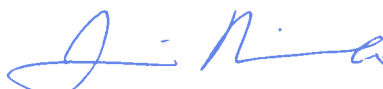
**Ex pxb IIA/IIB/IIC T1-T4 Gb**  
**Ex eb pxb IIA/IIB/IIC T1-T4 Gb**  
**Ex e pxb IIA/IIB/IIC T1-T4 Gb**

Espoo, 11.12.2017

**VTT Expert Services Ltd**



Martti Siirola  
Senior Expert



Jenni Hirvelä  
Expert

13. **Schedule**

14. **EU-TYPE EXAMINATION CERTIFICATE VTT 13 ATEX 055X Issue 2**

15. Description of Equipment

Construction

The range of motor consists of squirrel cage induction motors within welded steel frame with frame sizes corresponding to IEC 400, 450 and 500. The mounting can be horizontal or vertical.

The motor may have a main and/or star point terminal box that is not pressurized. In that case the Type of Protection of the terminal box is part of the marking and may be 'eb' or 'e'.

Auxiliary device options, including the terminal boxes, are listed in Annex A of this Certificate.

The protective gas may be air or nitrogen.

Ratings

|       |                                                 |
|-------|-------------------------------------------------|
| $U_N$ | = Up to 11 500 V                                |
| $P$   | = Up to 4000 kW                                 |
| $f$   | = 50/60 Hz (DOL)                                |
| $n$   | = 0...4500 rpm (in variable speed drive supply) |

Standard Temperature Range of -20°C to +40°C

Non-Standard Temperature within the range of -50°C to +60°C  
(marked on the nameplate)

Purging

$$\text{Purging time} = \frac{n \times V_0 + n_{MTB} \times V_{MTB}}{v'}$$

|           |                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------|
| $V_0$     | The free internal enclosure volume plus the volume displaced by the rotor (motor frame and cooler unit)  |
| $V_{MTB}$ | Enclosure volume of main terminal boxes (pressurized boxes)                                              |
| $n$       | Purging factor for motor enclosure ( $n = 19, 21$ or $22$ according to cooling method and mounting type) |
| $n_{MTB}$ | Purging factor for main terminal boxes ( $n_{MTB} = 6$ )                                                 |
| $v'$      | Minimum purging flow rate (2000 l/min)                                                                   |

16. Report No. VTT-S-06616-17

17. Special conditions for use

Temperature class may vary between T1 - T4 depending of the design and the motor is marked accordingly.

Equipment group may be IIA, IIB or IIC depending of equipment groups of the used auxiliaries and the motor is marked accordingly.

The special conditions in the Certificates of the separately certified auxiliary devices shall be conformed to.

The equipment may present a potential electrostatic charging hazard due to paint; the manufacturer's instructions shall be followed in order to minimize the risk of electrostatic discharge.

The Certificate covers also variable speed drive supply as follows:

- In temperature classes T1-T4 with the converter types ACS 600- , ACS 800- , ACS 880-, ACS 1000-, ACS 2000- , ACS 5000- and ACS 6000-series manufactured by ABB Group Ltd
- In temperature classes T1-T3 with other converter types presuming that the stator windings temperature detectors are used to protect the motor against excessive temperatures.
- All the manufacturer's instructions concerning the speed range and the torque restrictions shall be followed.

18. Essential Health and Safety Requirements

Met by the compliance with the standards EN 60079-0, EN 60079-2 and EN 60079-7.

Certificate history

| Issue | Date       | Report No.     | Comment                                                                                                                                                                                                                                                                                         |
|-------|------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -     | 5.12.2013  | VTT-S-08642-13 | Prime certificate                                                                                                                                                                                                                                                                               |
| 1     | 10.1.2017  | VTT-S-05527-16 | Updated to the latest edition of IEC 60079-2. ACS 880 has been added. Ambient temperature range increased to +60°C. List of auxiliary devices has been updated and included on the certificate. Details in the certificate have been expanded and special condition updated. Documents updated. |
| 2     | 11.12.2017 | VTT-S-06616-17 | Structural changes in grounding and air-water heat exchanger. List of Auxiliary devices has been updated. Document updates.                                                                                                                                                                     |

Espoo, 11.12.2017

**VTT Expert Services Ltd**



Martti Siirola  
Senior Expert



Jenni Hirvelä  
Expert

### List of Auxiliary devices

| Component                                                                                                        | Manufacturer  | Marking                                                                         | ABB standard number or drawing                                                                                                                                               | ATEX / IECEx certificate                                                                                                                                           | Notes |
|------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 3300 XL 8 mm Proximity transducer system for sleeve bearing for measuring vibration, Amplifier, Proximity sensor | Bently Nevada | II 1 G EEx ia IIC T4/T5<br>Class I Zone 0, Class I Div 1<br>Groups ABCD         | PXM XYKPA5                                                                                                                                                                   | BAS 99 ATEX 1101<br>IECEx BAS 04.0055X                                                                                                                             |       |
| Accelerometer for vibration monitoring, type 330400-02-05                                                        | Bently Nevada | II 3 G Ex nA IIC T4 Gc<br>II 3 D Ex tc IIIC T130°C Dc<br>II 1 G Ex ia IIC T4 Ga | PYM 330400EX                                                                                                                                                                 | II 3 G Ex nA IIC T4 Gc<br>II 3 D Ex tc IIIC T130°C Dc<br>IECEx LCI 06.0002X, LCIE 04<br>ATEX 6041X<br>Ex ia IIC T4 Ga<br>IECEx LCI 06.0003X, LCIE 04<br>ATEX 6042X |       |
| Anticondensation heater, type CP... therm D... T...                                                              | Intertec      | II 2 G Ex db IIC T3/T4<br>II 2 D Ex tb IIIC IP65<br>T200°C/T135°C               | None                                                                                                                                                                         | IECEx PTB 07.0052X<br>PTB 02 ATEX 1041 X                                                                                                                           |       |
| Anticondensation heater, type SL... therm D... T...                                                              | Intertec      | II 2 G Ex db IIC T3/T4<br>II 2 D Ex tb IIIC IP65<br>T200°C/T135°C               | REX 50, REX 80 and REX 200                                                                                                                                                   | IECEx PTB 07.0055X<br>PTB 02 ATEX 1116 X                                                                                                                           |       |
| Auxiliary terminal box, equipped, types ZWA EX_ (types Fibox ALNX... and Rose 25...)                             | ABB Oy        | II 2 G Ex e IIC T4 Gb<br>II 2 D Ex tb IIIC T105°C Db<br>IP66                    |                                                                                                                                                                              | IECEx VTT 12.0003X<br>VTT 12 ATEX 013X                                                                                                                             |       |
| Auxiliary terminal box, equipped, types ZWA EX_ (types Fibox ALNX... and Rose 25...)                             | ABB Oy        | II 2 G Ex e ia IIC T4 Gb<br>II 2 D Ex tb IIIC T105°C Db<br>IP66                 |                                                                                                                                                                              | IECEx VTT 12.0004X<br>VTT 12 ATEX 014X                                                                                                                             |       |
| Auxiliary terminal box, equipped, types ZWA EX_ (types Fibox ALNX... and Rose 25...)                             | ABB Oy        | II 2 G Ex ia IIC T4 Gb<br>II 2 D Ex tb IIIC T105°C Db<br>IP66                   |                                                                                                                                                                              | IECEx VTT 12.0005X<br>VTT 12 ATEX 015X                                                                                                                             |       |
| Auxiliary terminal box, equipped, Type DAAM_AUX_                                                                 | ABB Oy        | II 2 G Ex e IIC T4 Gb                                                           | DAAM_AUX200BS<br>DAAM_AUX200SS<br>DAAM_AUX325BS<br>DAAM_AUX325SS<br>DAAM_AUX325BSW<br>DAAM_AUX325SSW<br>DAAM_AUX500BS<br>DAAM_AUX500SS                                       | VTT 06 ATEX 011X                                                                                                                                                   |       |
| Auxiliary terminal box, equipped, Type DAAM_AUX_                                                                 | ABB Oy        | II 2 G Ex e ia IIC T4 Gb                                                        | DAAM_AUX200BS<br>DAAM_AUX200SS<br>DAAM_AUX325BS<br>DAAM_AUX325SS<br>DAAM_AUX325BSW<br>DAAM_AUX325SSW<br>DAAM_AUX500BS<br>DAAM_AUX500SS                                       | VTT 06 ATEX 012X                                                                                                                                                   |       |
| Auxiliary terminal box, equipped, Type DAAM_AUX_                                                                 | ABB Oy        | II 2 G Ex ia IIC T4 Gb                                                          | DAAM_AUX200BS<br>DAAM_AUX200SS<br>DAAM_AUX325BS<br>DAAM_AUX325SS<br>DAAM_AUX325BSW<br>DAAM_AUX325SSW<br>DAAM_AUX500BS<br>DAAM_AUX500SS                                       | VTT 06 ATEX 013X                                                                                                                                                   |       |
| Auxiliary terminal box, equipped, types ZWT1_ (Rose types 34.... or Ensto Cubo X...)                             | ABB Oy        | II 2 G Ex e IIC T4 Gb<br>II 2 D Ex tb IIIC T100°C Db,<br>IP66                   | ZWT1 AMI202012-1BS<br>ZWT1 AMI202012-1SS<br>ZWT1 AMI323220-1BS<br>ZWT1 AMI323220-1SS<br>ZWT1 AMI323223-1BW<br>ZWT1 AMI323223-1SW<br>ZWT1 AMI505020-2BS<br>ZWT1 AMI505020-2SS | IECEx VTT 14.0018X<br>VTT 06 ATEX 011X                                                                                                                             |       |
| Auxiliary terminal box, equipped, types ZWT1_ (Rose types 34.... or Ensto Cubo X...)                             | ABB Oy        | II 2 G Ex e ia IIC T4 Gb<br>II 2 D Ex tb IIIC T100°C Db,<br>IP66                | ZWT1 AMI202012-1BS<br>ZWT1 AMI202012-1SS<br>ZWT1 AMI323220-1BS<br>ZWT1 AMI323220-1SS<br>ZWT1 AMI323223-1BW<br>ZWT1 AMI323223-1SW<br>ZWT1 AMI505020-2BS<br>ZWT1 AMI505020-2SS | IECEx VTT 14.0019X<br>VTT 06 ATEX 012X                                                                                                                             |       |

Certificate without signatures shall not be valid.

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

| Component                                                                                                                              | Manufacturer             | Marking                                                                                                                                                                                                                                                                                             | ABB standard number or drawing                                                                                                                                               | ATEX / IECEx certificate                    | Notes |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------|
| Auxiliary terminal box, equipped, types ZWT1_ (Rose types 34.... or Ensto Cubo X....)                                                  | ABB Oy                   | II 2 G Ex ia IIC T4 Gb<br>II 2 D Ex tb IIIC T100°C Db,<br>IP66                                                                                                                                                                                                                                      | ZWT1 AMI202012-1BS<br>ZWT1 AMI202012-1SS<br>ZWT1 AMI323220-1BS<br>ZWT1 AMI323220-1SS<br>ZWT1 AMI323223-1BW<br>ZWT1 AMI323223-1SW<br>ZWT1 AMI505020-2BS<br>ZWT1 AMI505020-2SS | IECEX VTT 14.0020X<br>VTT 06 ATEX 013X      |       |
| Auxiliary terminal box, stainless steel / steel, type 35... or 36...                                                                   | ROSE Systemtechnik GmbH  | Ex d e ia [ia] mb IIC T6, T5,<br>T4 Gb<br>Ex tb IIIC T 85 °C, T 100 °C,<br>T135 °C Db                                                                                                                                                                                                               | ZWT AISI200x200<br>ZWT AISI300x300<br>ZWT TEFX10581511<br>ZWT TEFX10582511<br>ZWT TEFX10583011<br>ZWT TEFX10591010                                                           | IECEX PTB 07.0060<br>PTB 00 ATEX 1052       |       |
| Auxiliary terminal box, stainless steel equipped, types ZWT TEFX..., (Rose types 34..., Tranberg types 1058 and 1059, and Cooper N-TB) | ABB Oy                   | II 2 G Ex eb IIC T4 Gb<br>II 2 D Ex tb IIIC T100°C Db,<br>IP66<br>ZWT TEFX105...:<br>II 2 G Ex eb IIC T4 Gb                                                                                                                                                                                         | ZWT TEFX34...<br>ZWT TEFXN...<br>ZWT TEFX105...                                                                                                                              | IECEX VTT 17.0006X<br>VTT 11 ATEX 020X      |       |
| Auxiliary terminal box, stainless steel equipped, types ZWT TEFX..., (Rose types 34..., Tranberg types 1058 and 1059, and Cooper N-TB) | ABB Oy                   | II 2 G Ex eb ia IIC T4 Gb<br>II 2 D Ex tb IIIC T100°C Db,<br>IP66<br>ZWT TEFX105...:<br>II 2 G Ex eb ia IIC T4 Gb                                                                                                                                                                                   | ZWT TEFX34...<br>ZWT TEFXN...<br>ZWT TEFX105...                                                                                                                              | IECEX VTT 17.0007X<br>VTT 11 ATEX 021X      |       |
| Auxiliary terminal box, stainless steel equipped, types ZWT TEFX..., (Rose types 34..., Tranberg types 1058 and 1059, and Cooper N-TB) | ABB Oy                   | II 2 G Ex ia IIC T4 Gb<br>II 2 D Ex tb IIIC T100°C Db,<br>IP66<br>ZWT TEFX105...:<br>II 2 G Ex ia IIC T4 Gb                                                                                                                                                                                         | ZWT TEFX34...<br>ZWT TEFXN...<br>ZWT TEFX105...                                                                                                                              | IECEX VTT 17.0008X<br>VTT 11 ATEX 022X      |       |
| Auxiliary terminal box, type NXT                                                                                                       | Cooper Crouse Hinds      | II 2G EEx e II T6/T5 or II 1G<br>EEx ia IIC T6/T5 or II 2 (1) G<br>EEx e (ia) IIC T6/T5<br>II 2D T100°C                                                                                                                                                                                             | None                                                                                                                                                                         | IECEX BKI 08.0010<br>KEMA 99 ATEX 3172X     |       |
| Auxiliary terminal box, type TNCN                                                                                                      | Technor ASA              | Ex eb IIC T4/T5/T6 Gb<br>Ex tD A21 IP66-68 T80°C-<br>110°C                                                                                                                                                                                                                                          | None                                                                                                                                                                         | DNV 2001 OSL ATEX 0176<br>IECEX DNV 09.0004 |       |
| Auxiliary terminal box, types 8125/1 or 8125/2                                                                                         | Stahl                    | Ex d e ia ib [ia Ga] mb IIA,<br>IIB, IIC T6, T5, T4 Gb or<br>Ex db eb ia ib [ia] mb IIA, IIB,<br>IIC T6, T5, T4<br>Ex tb IIIC T80 °C, T95 °C,<br>T130 °C Db or<br>Ex tb IIIC T80 °C, T95 °C,<br>T130 °C                                                                                             | None                                                                                                                                                                         | PTB 00 ATEX 3116<br>IECEX PTB 06.0060       |       |
| Auxiliary terminal box, types GHG 74...                                                                                                | Cooper Crouse-Hinds GmbH | II 2 G /D EEx d e ia/ib m<br>[ia/ib] IIC T4-T6 IP66 T 80°C<br>Ex e* IIC T4 / T5 / T6 Gb<br>Ex tb IIIC T80°C / T95°C Db<br>* Optional the marking can<br>be amplified with the types<br>of protection of the<br>separately certified<br>components, for example<br>"d", "e", "mb" and/or<br>"ia/ib". | None                                                                                                                                                                         | IECEX BVS 12.0071X<br>PTB 99 ATEX 1044      |       |
| Auxiliary terminal box, types GHG 72...                                                                                                | Cooper Crouse-Hinds GmbH | Ex e * IIC T4 / T5 / T6 Gb<br>Ex tb IIIC T80°C / T95°C Db<br>*) Optional the marking can<br>be amplified with the types<br>of protection of the<br>separately certified<br>components, for example<br>"d" and/or "ib".                                                                              | None                                                                                                                                                                         | IECEX BVS 13.0031X<br>PTB 99 ATEX 1044      |       |
| Auxiliary terminal box type 06.***** and 16.*****, types Polyester-KE 06..., Polyester-KE 16..., ROSE 06.12 22 09 and ROSE 06.14 12 00 | ROSE Systemtechnik GmbH  | Ex d e ia [ia] mb IIC T6, T5,<br>T4 Gb<br>Ex tb IIIC T85 °C, T100 °C,<br>T135 °C Db                                                                                                                                                                                                                 | ZWM PE 120x220<br>ZWM PE 270x270                                                                                                                                             | IECEX PTB 08.0004<br>PTB 00 ATEX 1002       |       |
| Blind plug for cable gland, type HSK-V-Ex                                                                                              | Hummel AG                | Ex e IIC Gb<br>Ex ta IIIC Da                                                                                                                                                                                                                                                                        | MRR HSK-EX...                                                                                                                                                                | IECEX BVS 07.0022X<br>BVS 03 ATEX E 298     |       |

Certificate without signatures shall not be valid.

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

| Component                                                                                                                             | Manufacturer                  | Marking                                                                                                                                                                                             | ABB standard number or drawing             | ATEX / IECEx certificate                                                                                                                                                                                                                                                                                         | Notes |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Cable gland, Anamet, Type R... or B...                                                                                                | RCN s.r.l.                    | Ex d I, Ex e I, Ex d IIC Gb, Ex e IIC Gb and Ex tb IIIC Db IP66 or IP66/68                                                                                                                          | MRR ST-EX-                                 | IECEx INE 10.0010X<br>INERIS 06 ATEX 0014X                                                                                                                                                                                                                                                                       |       |
| Cable gland, type 501/414...                                                                                                          | Hawke                         | II 2 G Ex e IIC Gb,<br>Ex d IIC Gb<br>II 2 D Ex tb IIIC Db IP66                                                                                                                                     | MRR MMTH3-...                              | IECEx BAS 06.0013X<br>Baseefa 06 ATEX 0056X                                                                                                                                                                                                                                                                      |       |
| Cable gland, type 501/421                                                                                                             | Hawke                         | II 2 G Ex e IIC Gb,<br>Ex d IIC Gb<br>II 2 D Ex tb IIIC Db IP66                                                                                                                                     | MRR HAW2-...-...                           | IECEx BAS 06.0013X<br>Baseefa 06 ATEX 0056X                                                                                                                                                                                                                                                                      |       |
| Cable gland, type 501/453/Universal                                                                                                   | Hawke                         | II 2 G Ex e IIC Gb,<br>Ex d IIC Gb<br>II 2 D Ex tb IIIC Db IP66                                                                                                                                     | MRR HAW1-...-...                           | (Size Os to F)<br>IECEx BAS 06.0014X<br>Baseefa 06ATEX0057X<br>(Size G to J):<br>IECEx BAS 06.0013X<br>Baseefa 06 ATEX 0056X                                                                                                                                                                                     |       |
| Cable gland, type HSK-K-Ex                                                                                                            | Hummel AG                     | II 2GD EEx e II IP68<br>Ex tD A20 IP68                                                                                                                                                              | MRR PMT-EX-...                             | IECEx BVS 07.0020X<br>DMT 02 ATEX E 047 X                                                                                                                                                                                                                                                                        |       |
| Cable gland, type HSK-M-EMV-Ex 1.616.****.**                                                                                          | Hummel AG                     | II 2G Ex e II<br>II 1D Ex tD A20 IP68                                                                                                                                                               | None                                       | IECEx BVS 07.0019X<br>DMT 03 ATEX E 051 X                                                                                                                                                                                                                                                                        |       |
| Cable gland, type HSK-M-EMV-Ex 1.646.****.**                                                                                          | Hummel AG                     | II 2 G Ex e IIC Gb<br>II 1 D Ex ta IIIC Da                                                                                                                                                          | MRR MMT-EX-...-.../...                     | IECEx KEM 07.0014X<br>KEMA 99 ATEX 6971 X                                                                                                                                                                                                                                                                        |       |
| Dial type analog thermometer for bearing and cooling air, type 822E 6BS                                                               | United Electric Controls      | II 2 G EEx d IIC T6<br>II 2 D T+85°C IP 66<br>Class I, Division 1 and 2,<br>Groups B, C & D<br>Class II, Division 1 and 2,<br>Groups E, F & G<br>Class III<br>Class I, Zone 1, Group IIB +<br>H2 T6 | UCW LK822EX                                | DEMKO 03 ATEX 0305048<br>IECEx UL 03.0001                                                                                                                                                                                                                                                                        |       |
| Drain plug for auxiliary terminal boxes, series 8162...                                                                               | Stahl                         | II 2 G Ex e II<br>II 2 D Ex tD A21 IP66 or IP64<br>Ex eb IIC Gb<br>Ex tb III C Db                                                                                                                   | MRR DPP1                                   | PTB 01 ATEX 1018<br>IECEx PTB 06.0028                                                                                                                                                                                                                                                                            |       |
| Drain plug, type 730                                                                                                                  | Tranberg                      | II 2 G EEx e II                                                                                                                                                                                     | None                                       | IECEx NEM 11.0006<br>NEMKO 02 ATEX 167                                                                                                                                                                                                                                                                           |       |
| Drain plug, type CV                                                                                                                   | Raxton                        | Ex e IIC Gb,<br>Ex tb IIIC Db                                                                                                                                                                       | None                                       | IECEx SIR 09.0096U<br>SIRA 00 ATEX 3074U                                                                                                                                                                                                                                                                         |       |
| Drain plug, types ACDP                                                                                                                | Peppers (manufacturer Redapt) | II 1D 2G Ex eb IIC Gb<br>Ex ta IIIC Da IP66                                                                                                                                                         | MRR DPP-EX...                              | SIRA 09 ATEX 3321X<br>IECEx SIR 09.0132X                                                                                                                                                                                                                                                                         |       |
| Eddy current probe for series 3300, 7200 and 190 for sleeve bearing for measuring vibration, 3300 XL 8 mm Proximity transducer system | Bently Nevada                 | Ex ia IIC T1...T5 Ga<br>Ex nA IIC T1...T5 Gc                                                                                                                                                        | PXM XYKPP5                                 | IECEx BAS 04.0056<br>IECEx BAS 04.0058X<br>BAS 99 ATEX 1099<br>BAS 99 ATEX 3098X                                                                                                                                                                                                                                 |       |
| Fan motors, types M3JP/KP 80-450                                                                                                      | ABB                           | Ex d or Ex de IIC T3 to T6 Gb<br>Ex t IIIC T125°C Db                                                                                                                                                | None                                       | IECEx LCI 04.0029X<br>IECEx LCI 04.0030X<br>IECEx LCI 04.0031X<br>IECEx LCI 04.0009X<br>IECEx LCI 09.0008X<br>IECEx LCI 09.0009X<br>IECEx LCI 04.0011X<br>IECEx LCI 04.0005X<br>IECEx LCI 04.0012X<br>IECEx LCI 04.0006X<br>IECEx LCI 04.0007X<br>IECEx LCI 04.0008X<br>IECEx LCI 04.0032X<br>IECEx LCI 11.0023X |       |
| Flowmeter for air-to-water cooler, type Vortex Flowmeter Model 8800D                                                                  | Rosemount Inc.                | II 1 G Ex ia IIC T4 Ga<br>(-60°C ≤ Ta ≤ +60°C)                                                                                                                                                      | None                                       | IECEx BAS 05.0028X<br>Baseefa05ATEX0084                                                                                                                                                                                                                                                                          |       |
| Incremental encoder, type 841                                                                                                         | Leine & Linde                 | Ex db IIC T6...T4,<br>Ex tb IIIC T85C...T135C                                                                                                                                                       | PXB L&L-EX-...                             | IECEx SP 06.0001X<br>SP 07 ATEX 3635X                                                                                                                                                                                                                                                                            |       |
| Incremental encoder, type EEx OG 9...                                                                                                 | Baumer Hübner GmbH            | II 2 G Ex db eb IIC T5/T6 Gb                                                                                                                                                                        | PXB HÜBNER OG9-1024<br>PXB HÜBNER OG9-2048 | IECEx TUN 11.0021X<br>TUV 02 ATEX 1922 X                                                                                                                                                                                                                                                                         |       |
| Isolating switching amplifier for leakage sensor, types N-132/...                                                                     | Rechner Industrie-elektronik  | II (1) G [Ex ia] IIC<br>II (1) D [Ex ia] IIIC                                                                                                                                                       | PAJ ISA-...-EX                             | IECEx BVS 10.0088X<br>BVS 09 ATEX E 087X                                                                                                                                                                                                                                                                         |       |

| Component                                                                                                         | Manufacturer                  | Marking                                                                                                                    | ABB standard number or drawing                                                  | ATEX / IECEx certificate                                             | Notes |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------|-------|
| Measuring transducer, type TTR200 and TTR300                                                                      | ABB Automation Products GmbH  | II 1 G Ex ia IIC T6 Ga<br>II 2(1) G Ex [ia] ib IIC T6 Gb (Ga)<br>II 2 G (1D) Ex [iaD] ib IIC T6 Gb (Da)                    | None                                                                            | IECEx PTB 09.0014X<br>PTB 05 ATEX 2017X                              |       |
| PD Trac monitoring system                                                                                         | Iris Power                    | Ex nA II T3, Ex nC IIC T3                                                                                                  | None                                                                            | IECEx UL 10.0050X<br>IECEx UL 12.0010X<br>DEMKO 09 ATEX 143404X      | 1     |
| Phase segregated main terminal box, type PSE                                                                      | Quartzelec limited            | II 2 G Ex e IIC Gb<br>Ex tc IIIC IP66 Dc                                                                                   | None                                                                            | IECEx SIR 10.0147U<br>SIRA 03 ATEX 3222 U                            |       |
| Pressure difference switch for condition monitoring of the air filters, type AFS-293                              | Cleveland Controls            |                                                                                                                            | UDA AFS293                                                                      | Has to be connected to Ex i circuit                                  |       |
| Pressure transmitter, Model 3051C                                                                                 | Rosemount                     | II 1 G Ex ia IIC T4 Ga (-60°C ≤Ta ≤+70°C)<br>II 1 D Ex ta IIIC T50°C T50060°C Da IP66                                      | None                                                                            | BAS 97 ATEX 1089X<br>Ex nA: IECEx BAS 09.0077X<br>IECEx BAS 09.0076X |       |
| Proximity transducer PROXPAC for sleeve bearing for measuring vibration, vibration phase angle and rotation speed | Bently Nevada                 | II 1 G EEx ia IIC T5/T6<br>Class I Groups A, B, C, D;<br>Class II Groups E, F, G; Class III; ClassI Div 2 non-incendive    | PXM BN2                                                                         | IECEx BAS04.0055X<br>LCIE 98 ATEX 6011 X                             |       |
| Proximity transducer system for sleeve bearings, probe and extension cable                                        | Bently Nevada                 | II 1 G EEx ia IIC T5                                                                                                       | PXM XYKPC4<br>PXM XYKPP9                                                        | IECEx BAS 04.0056<br>BAS 99 ATEX 1099                                |       |
| Proximity transducer system for sleeve bearings, amplifier                                                        | Bently Nevada                 | II 1 G EEx ia IIC T4/T5                                                                                                    | PXM XYKPA9                                                                      | IECEx BAS04.0055X<br>BAS 99 ATEX 1101                                |       |
| Pt-100 for antifriction bearing, type WTH 280-400                                                                 | H. Heinz Messwiderstände GmbH | II 2 G Ex mb IIC Gb<br>II 2 G Ex ib IIC Gb<br>II 1 G Ex ia IIC Ga                                                          | 3GZF364130-3                                                                    | IECEx IBE 15.0026U<br>IBExU16ATEX1026 U                              |       |
| Pt-100 for antifriction bearing, types PR-SPA-EX-***                                                              | Ephy-Mess GmbH                | II 2G Ex e IIC Gb or<br>2G Ex eb IIC<br>II 2D Ex ta IIIC Da<br>II 2G Ex ia IIC Gb<br>II 2D Ex ia IIIC Db<br>-55°C≤Ta≤175°C | PYR 2PT100...EX<br>PYR PT100...EX                                               | IBExU 14 ATEX 1281 U<br>IECEx IBE 14.0058 U                          |       |
| Pt-100 for antifriction bearing, types SKS 1059616 WT-BAJONETTI-6/XXX-YYY/TDT-4J-KLA-EX                           | SKS Group Oy                  | II 2 G Ex e IIC T6...T3<br>II 2 D Ex tb IIIC<br>T60°C...T200°C Db                                                          | PYR PT100BB5/4ZEX                                                               | VTT 14 ATEX 005X<br>IECEx VTT 14.0003X                               |       |
| Pt-100 for antifriction bearing, types SKS 1059620 2XWT-BAJONETTI-8/XXX-YYY/TDT-4J-KLA-EX                         | SKS Group Oy                  | II 2 G Ex e IIC T6...T3<br>II 2 D Ex tb IIIC<br>T60°C...T200°C Db                                                          | PYR 2PT100BB5/4ZEX                                                              | VTT 14 ATEX 005X<br>IECEx VTT 14.0003X                               |       |
| Pt-100 for sleeve bearing and cooling air, types PR-SPA-EX-***                                                    | Ephy-Mess GmbH                | II 2G Ex e IIC Gb or<br>2G Ex eb IIC<br>II 2D Ex ta IIIC Da<br>II 2G Ex ia IIC Gb<br>II 2D Ex ia IIIC Db<br>-55°C≤Ta≤175°C | PYR 2PT100...EX<br>PYR PT100PG5/4ZEX<br>PYR 2PT100PF5/4ZEX<br>PYR PT100PF5/4ZEX | IBExU 14 ATEX 1281 U<br>IECEx IBE 14.0058 U                          |       |
| Pt-100 for sleeve bearing and cooling air, types SKS 1061957 WT-KAAPELI-6/XXX-YYY/TDT-4J-KLA-EX                   | SKS Group Oy                  | II 2 G Ex e IIC T6...T3 Gb,<br>II 2 D Ex tb IIIC<br>T60°C...T200°C Db                                                      | PYR PT100PF5/4ZEX<br>PYR PT100PG5/4ZEX                                          | VTT 14 ATEX 004X<br>IECEx VTT 14.0002X                               |       |
| Pt-100 for sleeve bearing and cooling air, types SKS 1061961 2XWT-KAAPELI-6/XXX-YYY/TDT-4J-KLA-EX                 | SKS Group Oy                  | II 2 G Ex e IIC T6...T3 Gb,<br>II 2 D Ex tb IIIC<br>T60°C...T200°C Db                                                      | PYR 2PT100PF5/4ZEX<br>PYR 2PT100PG6/4ZEX                                        | VTT 14 ATEX 004X<br>IECEx VTT 14.0002X                               |       |
| Pt-100 for winding fitted in winding end, type PYRA 8G                                                            | H. Heinz Messwiderstände GmbH | II 2 G Ex eb IIC Gb<br>II 2 G Ex ib IIC Gb<br>II 1 G Ex ia IIC Ga                                                          | None                                                                            | IECEx IBE 15.0026U<br>IBExU16ATEX1026 U                              |       |
| Pt-100 for winding fitted in winding end, type PYRA 8K                                                            | H. Heinz Messwiderstände GmbH | II 2 G Ex eb IIC Gb<br>II 2 G Ex ib IIC Gb<br>II 1 G Ex ia IIC Ga                                                          | PYR PT100HA4/4EX<br>PYR PT1000HA4/4EX<br>PYR PT1000HA4/4ZEX                     | IECEx IBE 15.0026U<br>IBExU16ATEX1026 U                              |       |
| Pt-100 for winding, type NWT 200G                                                                                 | H. Heinz Messwiderstände      | II 2 G Ex eb IIC Gb<br>II 2 G Ex ib IIC Gb<br>II 1 G Ex ia IIC Ga                                                          | PYR PT100...EX<br>PYR PT100...EX_A                                              | IECEx IBE 15.0026U<br>IBExU16ATEX1026 U                              |       |
| Pt-100 for winding, type NWT 50C                                                                                  | H. Heinz Messwiderstände      | II 2 G Ex eb IIC Gb<br>II 2 G Ex ib IIC Gb<br>II 1 G Ex ia IIC Ga                                                          | PYR PT100LC3/4ZEX                                                               | IECEx IBE 15.0026U<br>IBExU16ATEX1026 U                              |       |

Certificate without signatures shall not be valid.

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

| Component                                                                                      | Manufacturer            | Marking                                                                                                                                                                                                                                               | ABB standard number or drawing     | ATEX / IECEx certificate                                                          | Notes |
|------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------|-------|
| Pt-100 for winding, types PR-SPA-EX-***                                                        | Ephy-Mess GmbH          | II 2G Ex e IIC Gb or<br>2G Ex eb IIC<br>II 2D Ex ta IIIC Da<br>II 2G Ex ia IIC Gb<br>II 2D Ex ia IIIC Db<br>-55°C≤Ta≤175°C                                                                                                                            | PYR PT100...EX...                  | IBExU 14 ATEX 1281 U<br>IECEx IBE 14.0058 U                                       |       |
| Pt-100 for winding, types S102040...                                                           | Minco                   | II 2 G Ex e IIC Gb<br>II 1 G Ex ia IIC Ga                                                                                                                                                                                                             | PYR PT100...EX                     | IECEx DEK 12.0057 U<br>KEMA 03 ATEX 2240 U                                        |       |
| Purge controller for Ex p machines, types 2XLC... and 5XLC...                                  | Expo Technologies       | Ex [px] II T6<br>Ex [py] II T6<br>Ex [pz] II T6<br>Ex [p] dem IIC T3<br>Ex [pxb] ia IIC T6 Gb<br>Ex [pxb] ia IIC T95°C Db<br>(Ta -60°C to +60°C)                                                                                                      | ZPEXP_PP450_<br>ZPEXP_PP_          | SIRA 01 ATEX 1295X<br>IECEx SIR 07.0027X                                          |       |
| Reducer / Adaptor type 476                                                                     | Hawke                   | II 2 G Ex e IIC Gb<br>II 2 D Ex tb IIC Db IP66                                                                                                                                                                                                        | MRP HAW-...                        | IECEx BAS 11.0037X<br>Baseefa 11 ATEX 0067X                                       |       |
| Roxtec, Cable entry, Cabletransit devices type S... and S...S0...                              | Roxtec International AB | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db                                                                                                                                                                                                              | NLR RM...                          | IECEx NEM 12.0015U<br>Nemko 12 ATEX 1279U                                         |       |
| Self-limiting parallel heating cable HSB 07-5803-..., Anticondensation heater                  | BARTEC Barlian Technic  | Ex e IIC 200 °C (T2), T3, T4<br>Gb<br>Ex tb IIIC T 200 °C, T 195°C, T 130 °C Db                                                                                                                                                                       | None                               | KEMA 02 ATEX 2327 U<br>IECEx KEM 07.0048U                                         |       |
| Anticondensation heater cable, installation, termination plug Plexo H-1S 27-59SK-VH70 001S     | BARTEC Barlian Technic  | Ex e IIC 200 °C (T2), T3, T4<br>Gb<br>Ex tb IIIC T 200 °C, T 195°C, T 130 °C Db                                                                                                                                                                       | None                               | IECEx KEM 09.0083<br>KEMA 08 ATEX0110                                             |       |
| Anticondensation heater cable, installation, Connection plug Plexo H-CN 27-59SH-VH7P 00CN      | BARTEC Barlian Technic  | Ex e IIC 200 °C (T2), T3, T4<br>Gb<br>Ex tb IIIC T 200 °C, T 195°C, T 130 °C Db                                                                                                                                                                       | None                               | IECEx KEM 09.0083<br>KEMA 08 ATEX0110                                             |       |
| Sleeve bearing oil sump heater, Heater type DH..A0... and DH..BO..., type DH_00... is excluded | Elmess                  | Ex d e IIB/IIC Gb or Ex db eb<br>IIB/IIC<br>Ex d IIB/IIC Gb or Ex db<br>IIB/IIC<br>Ex d e ib IIB/IIC Gb or Ex db<br>eb ib IIB/IIC<br>Ex d ib IIB/IIC Gb or Ex db ib<br>IIB/IIC<br>Ex tb IIIC Db or Ex tb IIIC<br>Ex tb ib IIIC Db or Ex tb ib<br>IIIC | RER G1/2E220PT1<br>RER G1/2E220PT2 | IECEx IBE 14.0078U<br>IBExU 13 ATEX 1155U                                         |       |
| Stopping plug, Components in relation with cables entries Type A, AD, B, R, E, U, M, BM, OB    | CAPRI-CODEC SA          | II 2GD EEx e II EEx d IIC                                                                                                                                                                                                                             | None                               | IECEx LCI 08.0035X<br>LCIE 98 ATEX 0001U                                          |       |
| Stopping plug, type 387                                                                        | Hawke                   | II 2 GD Ex e IIC Gb, Ex tb IIIC<br>Db IP66                                                                                                                                                                                                            | None                               | IECEx BAS 06.0029U<br>Baseefa 06 ATEX 0118U                                       |       |
| Stopping plug, type progress...Ex                                                              | AGRO                    | II 2 G Ex e II<br>II 2 D Ex tD A21 IP 68                                                                                                                                                                                                              | None                               | PTB 02 ATEX 1125<br>IECEx SEV 12.0001<br>PTB 02 ATEX 1126 X<br>IECEx SEV 12.0002X |       |
| Stopping plug, types V-Ex 1.297.****.** or V-Ms-VMQ-Ex 1.199.****.**                           | Hummel AG               | Ex e IIC Gb<br>Ex ta IIIC Da                                                                                                                                                                                                                          | MRP PET-EX...,<br>MRP MET-EX...    | IECEx BVS 07.0021<br>DMT 03 ATEX E 049                                            |       |
| Surge voltage arrester for RTD's, type plugtrab                                                | Phoenix Contact         | II 1 G Ex ia IIC T4...T6 Ga<br>II 1 D Ex ia IIIC T85°C...135°C<br>Da                                                                                                                                                                                  | NYA PT4-EX                         | IECEx KEM 10.0063X<br>KEMA 00ATEX1099 X                                           |       |
| Temperature transmitter, type 5335D...                                                         | PR-Electronics          | Ex ia IIC T4-T6 Ga<br>Ex ia IIIC T135°C-T80°C Da                                                                                                                                                                                                      | PYL TM1EX HART                     | IECEx KEM 10.0083<br>KEMA 03ATEX1537X                                             |       |
| Temperature transmitter, type 644 H or 644 R                                                   | Rosemount               | II 1 G Ex ia IIC T4 Ga                                                                                                                                                                                                                                | None                               | IECEx BAS 07.0053X<br>Baseefa12ATEX0101X                                          |       |
| Temperature transmitter, type Model 248                                                        | Rosemount               | II 1 G Ex ia IIC T5/T6 Ga                                                                                                                                                                                                                             | None                               | IECEx BAS 07.0086X<br>Baseefa 03 ATEX 0030X                                       |       |
| Temperature transmitter, type Model 248, 644                                                   | Rosemount               | Ex d IIC T6...T1 Gb;<br>T6...T1:Ta = -50°C to +40°C;<br>T5...T1: Ta = -50°C to +60°C<br>Ex tb IIIC T130C Db<br>Ta = -40°C to +70°C; IP66                                                                                                              | None                               | IECEx FMG 12.0022X<br>FM 12 ATEX 0065X                                            |       |

Certificate without signatures shall not be valid.

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

| Component                                                                                                               | Manufacturer                     | Marking                                                                                                                                                                      | ABB standard number or drawing                                                                      | ATEX / IECEx certificate                                                                                                                    | Notes |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Temperature transmitter, type YTA Series                                                                                | Yokogawa                         | II 1 G Ex ia IIC T4/T5 Ga<br>Ex ia IIC T4 ... T5 Ga<br>Ex ic IIC T4 ... T5 Gc<br>II 1 D Ex iaD                                                                               | None                                                                                                | KEMA 06 ATEX 0191X<br>IECEx KEM 09.0032X                                                                                                    |       |
| Termistor for winding, type B59155-M...                                                                                 | Farell                           | -                                                                                                                                                                            | PYRE 150H<br>PYRE 170H<br>PYRE 110H<br>PYRE 90H<br>PYRE 120H<br>PYRE 130H<br>PYRE 145H<br>PYRE 155H | Has to be connected to Ex i circuit.                                                                                                        |       |
| Termistor for winding, type N-OK/AK ESH...                                                                              | Ephy-Mess GmbH                   | -                                                                                                                                                                            | PYRE 150LC4<br>PYRE 170LC4<br>PYRE 130LC4<br>PYRE 155LC4                                            | Has to be connected to Ex i circuit.                                                                                                        |       |
| Termistor for winding, type TS100646T...                                                                                | Minco                            | -                                                                                                                                                                            | PYRE 150LC4<br>PYRE 170LC4                                                                          | Has to be connected to Ex i circuit.                                                                                                        |       |
| Thermocouple for antifricition bearing                                                                                  | SKS Group Oy                     | -                                                                                                                                                                            | PYR TCAB-K<br>PYR TCAB-T<br>PYR TCAB-J<br>PYR TCAB-E                                                | Has to be connected to Ex i circuit                                                                                                         |       |
| Thermocouple for sleeve bearing and cooling air                                                                         | SKS Group Oy                     | -                                                                                                                                                                            | PYR TCSB-E<br>PYR TCSB-K<br>PYR TCSB-T<br>PYR TCSB-J                                                | Has to be connected to Ex i circuit                                                                                                         |       |
| Water leakage detector for air-to-water cooler, type KAS-40-A12-N-5m art. No. 400200                                    | Rechner Industrie-elektronik     | Ex ia IIC T1 - T6 Ga<br>Ex ia IIIC T101°C Da<br>additionally for type *AS-*O-***-***-***-StEX                                                                                | OXA KAS40A12N-EX                                                                                    | DMT 03 ATEX E 048<br>IECEx BVS 07.0031                                                                                                      |       |
| Velocity transducer for vibration monitoring, type 330500...                                                            | Bently Nevada                    | II 3 G Ex nA IIC T4 Gc<br>II 3 D Ex tc IIIC T130°C Dc<br>II 1 G Ex ia IIC T4 Ga                                                                                              | PYM 330500EX                                                                                        | Ex nA IIC T4 Gc and Ex tc IIIC T130°C Dc: IECEx LCI 06.0002X, LCIE 04 ATEX 6041X<br>Ex ia IIC T4 Ga: IECEx LCI 06.0003X, LCIE 04 ATEX 6042X |       |
| Water flow meter, type H250                                                                                             | Krohne                           | Ex ia II C T6 Gb                                                                                                                                                             | None                                                                                                | IECEx TUR 13.0006X<br>PTB 01 ATEX 2181                                                                                                      |       |
| Pre-start Ventilation System for Ex nA and Ex e machines, type *PV*                                                     | Expo Technologies                | II 2 G Ex e IIC T5 Gb /ET version, II 2 G Ex e ia IIC T5 Gb<br>Low ambient, II 2 G Ex d e mb IIC T3 or T4 Gb<br>Low ambient /ET version, II 2 G Ex d e ia mb IIC T3 or T4 Gb | ZPEXP_PSV_                                                                                          | IECEx SIR13.0030X<br>Sira 13 ATEX 1083X                                                                                                     |       |
| Pt-100 for winding, TSRC-series                                                                                         | Techno Controls                  | II 2 G Ex e IIC Gb                                                                                                                                                           | PYR PT100L...EX...                                                                                  | IECEx DNV 14.0014U<br>DNV-2008-OSL-ATEX-40059U                                                                                              |       |
| Pt-100 for winding fitted in winding end, TSRK-series                                                                   | Techno Controls                  | II 2 G Ex e IIC Gb                                                                                                                                                           | PYR PT100...HA...4EX                                                                                | IECEx DNV 14.0014U<br>DNV-2008-OSL-ATEX-40059U                                                                                              |       |
| Oil level monitor in self-lubricated sleeve bearings, Isolation switching amplifier type K*A*-SR*-Ex*.W.*               | Pepperl + Fuchs                  | II (1) GD [Ex ia Ga] IIC, [Ex ia Da] IIIC<br>[Ex ia Ma] I                                                                                                                    | None                                                                                                | IECEx PTB 11.0031<br>PTB 00 ATEX 2081                                                                                                       |       |
| Surge voltage arrester for RTD's, SD**xxx series                                                                        | Measurement Technology Limited   | Ex ia IIC T4 Ga                                                                                                                                                              | None                                                                                                | IECEx BAS 12.0003X<br>BASEEFA 02 ATEX 0211X                                                                                                 |       |
| Pt-100 with connection head for sleeve bearing and cooling air temperature, Flameproof temperature sensors, Series AS8_ | Minco                            | II 2 G Ex db eb IIC TX Gb                                                                                                                                                    | PYR PT100...D...EX,<br>PYR 2PT100...D...EX                                                          | IECEx TRC 14.0017X<br>TRAC 14 ATEX 0045X                                                                                                    |       |
| Pressure and temperature switches types 120, 121, 122, 820 and 822                                                      | United Electric Controls Company | II 2 G Ex db IIC T6 Gb<br>II 2 D Ex tb IIIC T85°C Db<br>IP66                                                                                                                 | None                                                                                                | IECEx UL 03.0001X<br>DEMKO 09 ATEX 0815573X                                                                                                 |       |
| Temperature transmitter, type: STT 3000..., Model: STT 25...                                                            | Honeywell                        | II 1 G Ex ia IIC T4..T6 Ga<br>Ex tD A21 IP6x T95°C<br>Ex d IIC T5                                                                                                            | None                                                                                                | IECEx LCI 08.0033X<br>LCIE 02 ATEX 6134 X                                                                                                   |       |

Certificate without signatures shall not be valid.

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

| Component                                                                                                                                | Manufacturer                            | Marking                                                                                                                                                       | ABB standard number or drawing                                   | ATEX / IECEx certificate                                   | Notes |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------|-------|
| Main terminal boxes, types DA..._EX and DAXX...EX...                                                                                     | ABB Oy                                  | II 2G Ex e IIC Gb<br>II 3G Ex nA IIC Gc<br>II 2D Ex tb IIIC Db                                                                                                | DA..._EX and DAXX...EX...                                        | IECEx VTT 11.0003U<br>VTT 11 ATEX 025U<br>VTT 11 ATEX 026U |       |
| Main terminal boxes, types E1LISE and E1LISR                                                                                             | ABB S.p.A.                              | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db                                                                                                                      | E1LISE and E1LISR                                                | IECEx CES 13.0020U<br>CESI 03 ATEX 155U                    |       |
| Main terminal boxes, types E1.SGR and E1.SPR                                                                                             | ABB S.p.A.                              | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db                                                                                                                      | E1.SGR and E1.SPR                                                | IECEx CES 14.0007U<br>CESI 03 ATEX 154U                    |       |
| Termistor for winding, type N-OK/AK ESH...                                                                                               | Ephy-Mess GmbH                          | II 2G Ex e IIC Gb or<br>2G Ex eb IIC<br>II 2D Ex ta IIIC Da<br>II 2G Ex ia IIC Gb<br>II 2D Ex ia IIIC Db<br>-55°C≤Ta≤175°C                                    | PYRE 150LC4EX<br>PYRE 170LC4EX<br>PYRE 130LC4EX<br>PYRE 155LC4EX | IBExU 14 ATEX 1281 U<br>IECEx IBE 14.0058 U                |       |
| Surge suppression device type HAW569-CB2C                                                                                                | Endress+Hauser<br>Wetzer GmbH           | Ex d IIC T5 or T6 Gb                                                                                                                                          | None                                                             | IECEx DEK 11.0013X<br>DEKRA 11ATEX0034X                    |       |
| Surge Arrester Type HAW569-DA2B                                                                                                          | Endress+Hauser<br>Wetzer GmbH           | Ex ia [ia Ga] IIC T4 ... T6 Gb                                                                                                                                | None                                                             | IECEx DEK 11.0027X<br>DEKRA 11ATEX0079X                    |       |
| Auxiliary terminal box, stainless steel, Type: TNBCD                                                                                     | Bartec Technor                          | Ex d IIB T4 Gb, Ex d [ia Ga]<br>[ib Gb] [op is Ga] IIB T6-T4<br>Gb<br>Ex t [ia Da] [ib Db] IIB T85°C<br>- T135°C Db                                           | None                                                             | IECEx TUN 12.0014X<br>DNV-2003-OSL-ATEX-0136               |       |
| Drain plug, type 781D                                                                                                                    | CMP Products<br>Limited                 | II 2G Ex d IIC Gb<br>1D Ex ta IIIC Da                                                                                                                         | None                                                             | IECEx SIR 10.0149U<br>SIRA 10 ATEX 1307U                   |       |
| Pt-100 for sleeve bearing and cooling air, types 65, 68, 78, 85, 183, 185 and 1067                                                       | Rosemount                               | Ex d IIC T6...T1 Gb,<br>T6(-50 °C ≤ Ta ≤ +40 °C),<br>T5...T1 (-50 °C ≤ Ta ≤ +60 °C)<br>Ex tb IIIC T130C Db<br>Ta=-40C to +70C, IP66                           | None                                                             | IECEx FMG 12.0022X<br>FM 12 ATEX 0065X                     |       |
| Pt-100 for sleeve bearing and cooling air, type TS...                                                                                    | ABB Automation<br>Products GmbH         | Ex ia IIC T6 Ga, Ex ib IIC T6,<br>Ex ib IIC T6 Ga/Gb                                                                                                          | None                                                             | IECEx PTB 11.0111X<br>PTB 01 ATEX 2200 X                   |       |
| Pt-100 for sleeve bearing and cooling air, type TS... Temperature sensors TSP..., Measuring inserts TSA..., Temperature transmitter TTF3 | ABB Automation<br>Products GmbH         | Ex d IIIC T1 - T6 Ga/Gb                                                                                                                                       | None                                                             | IECEx PTB 12.0039                                          |       |
| NAMUR Inductive proximity sensors - serie Ex IS M**b *ABBAB N 1GD*, _Speed switch                                                        | STEUTE<br>SCHALTGERÄTE<br>GmbH & Co. KG | Ex ia IIB/IIC T6 Ga<br>Ex ia IIIC T85°C Da<br>IP66/IP67/IP68                                                                                                  | None                                                             | IECEx IMQ 14.0001X<br>IMQ 14 ATEX 001                      |       |
| Auxiliary terminal box, types 1058..., 1059... and 1060..., equipped                                                                     | Tranberg                                | Ex d e m ia/ib op pr IIC<br>T6/T5/T4 Gb<br><br>II 2 G Ex d e IIC T4/T5/T6 Gb<br>II 2 G Ex eb T4/T5/T6 IIC<br>II 2 G Ex e mb IIC T4/T5/T6<br>Gb                | None                                                             | IECEx PRE 14.0001<br>Presafe 14 ATEX 4124                  |       |
| Anticondensation heater, FX range of Enclosure Heaters, FXB225, FXB325, FXH225, FXH90, FXS                                               | EXHEAT Limited                          | II 2 G Ex db IIC T4...T3 Gb<br>II 2 D Ex tb IIIC<br>T135°C...T200°C Db                                                                                        | REX 50, REX 80 and REX 200                                       | IECEx ULD 16.0002X<br>DEMKO 16 ATEX 1667X                  |       |
| Pt-100 for sleeve bearing and cooling air, types 65 and 185                                                                              | Rosemount                               | Ex db IIC T6...T1 Gb;<br>T6...T1:Ta = -50°C to +40°C;<br>T5...T1: Ta = -50°C to +60°C<br>Ex tb III C T130C Db<br>Ta = -40°C to +70°C; IP66                    | None                                                             | IECEx FMG 12.0022X                                         |       |
| Seismic transmitter, Types 190501, 330400, 330425, 330500, 330525                                                                        | Bently Nevada                           | Ex ia IIC T4 Ga<br>II 1 G Ex ia IIC T4 Ga                                                                                                                     | None                                                             | IECEx LCI 06.0003X<br>LCIE 07 ATEX 6101 X                  |       |
| Seismic transmitter, Types 190501, 330400, 330425, 330500, 330525                                                                        | Bently Nevada                           | Ex nA IIC T4 Gc<br>II 3 G Ex nA IIC T4 Gc<br>Ex tc III C T130°C Dc                                                                                            | None                                                             | IECEx LCI 06.0002X<br>LCIE 07 ATEX 6102 X                  |       |
| Lockout swith, type 07-3511-*, 07-3512-*, 07-3513-*,07-3514-*,07-3515-*, 07-3516-*                                                       | BARTEC GmbH                             | Ex db eb IIC T6 Gb or<br>Ex db eb ia IIC T6 Gb<br>Ex tb IIIC T80°C Db<br><br>II 2 G D Ex d e IIC T6 Gb<br>II 2 G D Ex d e ia IIC T6 Gb<br>Ex tb IIIC T80°C Db | None                                                             | IECEx CML 14.0029X<br>CML 14 ATEX 3073X                    |       |
| Pressure switch, Series 1950G                                                                                                            | Dwyer<br>Instruments Inc                | Ex d IIB+H2 T6 Gb<br>II2G Ex d IIB+H2 T6 Gb                                                                                                                   | None                                                             | IECEx DEK 11.0092X<br>KEMA 03 ATEX 2402X                   | 2     |
| Pulse Encoder, type EN 42...                                                                                                             | Dynapar<br>Corporation                  | II 2G D Ex ia mb e IIC T4 Gb<br>Ex tb IIIC T119°C Db                                                                                                          | None                                                             | IECEx SIR 15.0051X<br>SIRA 09ATEX5172X                     |       |

Certificate without signatures shall not be valid.

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

| Component                                                                                             | Manufacturer                                      | Marking                                                                                                                                        | ABB standard number or drawing | ATEX / IECEx certificate                                                                                                                                                                                                                                 | Notes |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| pulse encoder, type ISD 37...<br>Optical Encoder Types 2222, 7272, 7273, 2222R, 7272R, 7273R and 4469 | Dynapar Corporation                               | Ex ia IIB T4 Ga                                                                                                                                | None                           | IECEx SIR 15.0107X<br>SIRA 03ATEX2170X                                                                                                                                                                                                                   | 2     |
| Pulse Encoder, type ISA 647_, ISA 648_, IHA 647_ or IHA 648_                                          | Leine & Linde                                     | Ex db IIC T6...T4<br>Ex tb IIIC T85°C                                                                                                          | None                           | IECEx SP 15.0001X<br>SP 15 ATEX 3649X                                                                                                                                                                                                                    |       |
| Pt-100 for sleeve bearing and cooling air, type TS...                                                 | ABB Automation Products GmbH                      | Ex d IIIC T1 - T6 Ga/Gb                                                                                                                        | None                           | IECEx PTB 12.0039                                                                                                                                                                                                                                        |       |
| Cylindrical inductive sensors types NC... and NJ...                                                   | Pepperl & Fuchs                                   | II 1 G Ex ia IIC T6 Ga<br>II 2 G Ex ia IIC T6 Gb                                                                                               | None                           | IECEx PTB 11.0037X<br>PTB 00 ATEX 2048X                                                                                                                                                                                                                  |       |
| Water leakage detector for air-to-water cooler, type 1003, KSR                                        | KSR Heinrich Kübler AG                            | II 1/2 G Ex c ia IIC T3...T6 Ga/Gb<br>II 2 G Ex c d IIC T4...T6 Gb                                                                             | OXA FLOAT 2-EX                 | SEV 11 ATEX 0188                                                                                                                                                                                                                                         |       |
| Flow switch, OXV PLD...                                                                               | Officine Orobiche S.p.A.                          | II 1/2 G Ex d IIC T6, T5 Ga/Gb<br>II 1/2 G Ex d/ib IIC T6, T5 Ga/Gb<br>II 2 G Ex d IIC T6, T5 Gb<br>II 1/2 D Ex ta/tb IIIC T85°C, T100°C Da/Db | OXV PLD-Ex                     | CESI 02 ATEX 126                                                                                                                                                                                                                                         |       |
| Inductive proximity switch, Speed switch, Namur Proximity Switches Types 08317 32... and 08318 32...  | Pulsotronic                                       | II 1 GD EEx ia IIC T6 T 85°C                                                                                                                   | None                           | KEMA 03 ATEX 1495X                                                                                                                                                                                                                                       |       |
| Measuring transducer, type TH 02-Ex and TH 202-Ex                                                     | ABB Automation Products GmbH                      | II 2 G EEx [ia] ib IIC T6                                                                                                                      | None                           | PTB 99 ATEX 2139 X                                                                                                                                                                                                                                       |       |
| Motion Guard, grease batchbox, Type 05-0078-...                                                       | Bartec Componenten and Systeme GmbH               | II 2 G EEx d IIC T6                                                                                                                            | None                           | IBExU 02 ATEX 1065 X                                                                                                                                                                                                                                     |       |
| Proximity transducer system for sleeve bearings, Amplifier, Driver: AD8/50 +DIN                       | Sensonics                                         | II 1G EEx ia IIC T4                                                                                                                            | PXM XYKPA5-ABB                 | TRL 03 ATEX 21041X                                                                                                                                                                                                                                       |       |
| Proximity transducer system for sleeve bearings, Extension cable: AEXC/4.0AO                          | Sensonics                                         | II 1G EEx ia IIC T4                                                                                                                            | PXM XYKPC4-ABB                 | TRL 03 ATEX 21041X                                                                                                                                                                                                                                       |       |
| Proximity transducer system for sleeve bearings, Extension cable: AEXC/4.0UO                          | Sensonics                                         | II 1G EEx ia IIC T4                                                                                                                            | PXM XYKPCU4-ABB                | TRL 03 ATEX 21041X                                                                                                                                                                                                                                       |       |
| Proximity transducer system for sleeve bearings, Probe: AECP04/1.0A210                                | Sensonics                                         | II 1G EEx ia IIC T4                                                                                                                            | PXM XYKPP1-ABB                 | TRL 03 ATEX 21041X                                                                                                                                                                                                                                       |       |
| Proximity transducer system for sleeve bearings, Probe: AECP04/1.0U211 and probe holder               | Sensonics                                         | II 1G EEx ia IIC T4                                                                                                                            | PXM XYKPH1-ABB                 | TRL 03 ATEX 21041X<br>Probe holder box: BAS 98 ATEX 3089U                                                                                                                                                                                                |       |
| Proximity transducer system for sleeve bearings, Probe: AECP04/5.0A010                                | Sensonics                                         | II 1G EEx ia IIC T4                                                                                                                            | PXM XYKPP5-ABB                 | TRL 03 ATEX 21041X                                                                                                                                                                                                                                       |       |
| Water leakage detector for air-to-water cooler, type Series EP type C, S, D                           | Officine Orobiche S.p.A.                          | II 1/2 G Ex d IIC T6, T5 Ga/Gb<br>II 1/2 G Ex d/ib IIC T6, T5 Ga/Gb<br>II 2 G Ex d IIC T6, T5 Gb<br>II 1/2 D Ex ta/tb IIIC T85°C, T100°C Da/Db | OXA FLOAT 3-EX-...             | CESI 02 ATEX 126                                                                                                                                                                                                                                         |       |
| Velocity transducer for vibration monitoring, type 107770...                                          | Bently Nevada                                     | II 3 G EEx nL IIC T4<br>II 1 G EEx ia IIC T4                                                                                                   | PYM 107770EX                   | LCIE 04 ATEX 6041X and LCIE 04 ATEX 6042X                                                                                                                                                                                                                |       |
| Vibration sensor, type MTN/1107ICM8                                                                   | Monitran                                          | II 1 G EEx ia IIB T4                                                                                                                           | None                           | BAS 02 ATEX 1057                                                                                                                                                                                                                                         |       |
| Fan motors, types M3HP 80-400                                                                         | ABB                                               | II 2 G Ex e IIC T3 Gb<br>Ex tb IIIC T85°C...T150°C Db                                                                                          | None                           | LCIE 06 ATEX 6047<br>LCIE 06 ATEX 6048<br>LCIE 06 ATEX 6049<br>LCIE 09 ATEX 3022<br>LCIE 09 ATEX 3023<br>LCIE 01 ATEX 6022<br>LCIE 01 ATEX 6023<br>LCIE 01 ATEX 6024<br>LCIE 02 ATEX 6071<br>LCIE 02 ATEX 6072<br>LCIE 03 ATEX 6022<br>LCIE 04 ATEX 6013 |       |
| Auxiliary terminal box, types GHG 74..., 73..., 72... and 44...                                       | CEAG Sicherheitstechnik GmbH, Cooper Crouse Hinds | II 2 G Ex d e ia/ib m [ia/ib] IIC T4-T6<br>II 2 D Ex tD A21 IP66 T 80°C, T 95°C                                                                | None                           | PTB 99 ATEX 1044                                                                                                                                                                                                                                         |       |

| Component                                                                                                                           | Manufacturer  | Marking                                                                                                            | ABB standard number or drawing | ATEX / IECEx certificate                 | Notes |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------|-------|
| Pt-100 for sleeve bearing and cooling air, types 65 and 185                                                                         | Rosemount     | Ex ia IIC T6                                                                                                       | None                           | IBEx 03 ATEX 1066X                       |       |
| Water leakage detector for air-to-water cooler, Magnetic Float Switch, Level transmitter AF-ADF and AVK-ADF, Level regulator AL-ADF | Kubler France | II 2 G Ex d IIC T6 Gb<br>II 2 D Ex tb IIIC T80C Db<br>Ex d IIC T6<br>Ex tD A21 IP65 T80 °C<br>-40 °C ≤ ta ≤ +55 °C | OXA FLOAT 4-EX                 | TÜV 13 ATEX 7399 X<br>IECEx TUR 09.0002X |       |

**Notes:**

- 1 For Ex pxb motors the termination board has to be installed inside an Ex d box.
- 2 Not suitable for gas group IIC.