



1. **EC-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in
potentially explosive atmospheres
Directive 94/9/EC**
3. Reference: **VTT 12 ATEX 053X Issue 2**
4. Equipment: **Safe Disconnection Function for converter drive**

Certified types: **ACS880 +Q971
ACS880 +Q971 +Q973 (FSO-12)
ACS880 +Q971 +Q972 (FSO-21)
ACS880 +Q971 +Q972 +L521 (FSO-21 & FSE-31)**
5. Applicant: **ABB Oy Drives
Hiomotie 13
FIN-00381 Helsinki
Finland**
6. Manufacturers: **ABB Oy Drives
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FIN-00381 Helsinki
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**ABB Oy Drives
Drives Service
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FI-01530 Vantaa
Finland**

7. This equipment or protective system and any acceptable variations thereto are specified in the schedule and possible supplement(s) to this Certificate and the documents therein referred to.
8. VTT Expert Services Ltd, notified body number 0537, in accordance with Article 9 of the Council Directive 94/9/EC of March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmospheres given in Annex II to the Directive
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 50495 (2010)**
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 EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
12. The marking of the equipment or protective system shall include the following:



II (2) GD

Espoo, 1.3.2016
VTT Expert Services Ltd



Kari Koskela
Expert



Risto Sulonen
Product Manager

13. **Schedule**

14. **EC-TYPE EXAMINATION CERTIFICATE VTT 12 ATEX 053X Issue 2**

15. Description

Thermal protection is based on ATEX-compliant protection relay. The relay monitors a sensor circuit, and activates the SIL 3 certified "Safe Torque Off" (STO)-function which is integrated in the standard drive as an internal hardware-solution. Power that can cause rotation is not applied to the motor. The safety related part of the adjustable speed electrical power drive system PDS (SR) will not provide energy to the motor which can generate torque.

16. Documents

FSO-xx+ACS880 Safety data in ATEX-Certified Safe Disconnection Function, doc 3AXD10000113948, rev D
Certificate No.SLA-0055/10, V. 1.1 by TÜV Nord
Certificate No. SEBS-A.161334/16 V 1.0 by TÜV Nord
Certificate No.SEBS-A.102621/15 V1.0 by TÜV Nord

17. Special conditions for safe use

The drive themselves are to be installed outside potentially explosive atmospheres (article 1, section 2 of the Directive). All manufacturer's instructions shall be followed.

18. Essential Health and Safety Requirements

Assessment using standard referred in point 9 have confirmed compliance with the Directive 94/9/EC, Annex II and particular point 1.5.

Certificate history

Issue	Date	Comment
-	3.5.2013	Prime certificate
1	15.10.2014	Adding safety functions module FSO-12 and deleting two type designations covered by another certificate.
2	1.3.2016	The introduction of new manufacturing places and a new safety functions module FSO-21

Espoo, 1.3.2016

VTT Expert Services Ltd



Kari Koskela
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