

# Certificate

No. 1435.IM.153902/19 V1.0

TÜV NORD Systems GmbH & Co. KG hereby certifies

**ABB Oy**  
Hiomotie 13  
00381 Helsinki  
Finland

that the safety modules

## FSO-12, FSO-21 and FSE-31

as plug-in modules for the industrial drive series ACS880 meets the requirements listed in the following standards:

- IEC 61508 part 1, part 2, part 3: 2010 SIL 3
- IEC 61800-5-2: 2016 SIL 3
- ISO 13849 part 1: 2015 PL e, part 2: 2012
- IEC 62061: 2005 + AMD1: 2012 + AMD2: 2015 SIL<sub>CL</sub> 3

Certification program Leittechnik (SEB-ZE-SEECERT-VA-320-20, Rev. 5.1 / 04.19)

Beneath the integrated "Safe Torque Off (STO)" function within the industrial drive ACS880 series, the additional safety functions "(variable) Safely Limited Speed (SLS)", "Safe Maximum Speed (SMS)", "Safe Stop Emergency (SSE)", "Safe Stop 1 (SS1)", "Prevention Of Unexpected Start-up (POUS)", "Safe Direction (SDI)", "Safe Acceleration Range (SAR)", "Safe Speed Monitor (SSM)" and "Safe Brake Control (SBC)" can be realized with the plug-in safety functions modules FSO-12, FSO-21 and FSE-31.

The whole assembly can be used in safety applications up to SIL 3 according to IEC 61511.


Base of certification is the report 1435.IM.153902/19TB in the valid version.

This certificate entitles the holder to use the pictured safety approved mark.

Valid until: 2025-07-22

File reference: 8117456871

Hamburg, 2020-07-22

  
Bianca Pfuff

