



Product Service

IEC 61850 Certificate

Level A¹

No. D 17 10 02543 001

Issued to:

Schneider Electric France
8ème rue, 70 Metres ZI Carros, 06510,
Carros CEDEX, FRANCE

For the CLIENT:

BME NOP 0300
Modicon M580 IEC 61850 Ethernet
Communication Module
Software Version: 2.0

Issued by:

TÜV SÜD CERTIFICATION AND TESTING (CHINA) CO., LTD
SHANGHAI BRANCH
Communication Protocols
No.16 Lane 1951 Duhui Road
Shanghai, 201 108,
People's Republic of China

The CLIENT has not been shown to be non-conforming to:
IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1
Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Client Test Procedures version 1.0 with TPCL² 1.0_rev4 with product's protocol, model and technical issue implementation conformance statements: "BME_NOP_0300_PICS_Client_Ed2_V1.0", "BME_NOP_0300_MICS_Client_Ed2_V1.0", "BME_NOP_0300_TICS_Client_Ed2_V1.0" and product's extra information for testing: "BME_NOP_0300_PIXIT_Client_Ed2_V1.0".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test):

| | |
|--------------------------------|-----------------------------------|
| 1 Basic Exchange (14/24) | 9 GOOSE Control Block (2/2) |
| 5 Unbuffered Reporting (19/23) | 12a Direct Control (6/9) |
| 6 Buffered Reporting (24/28) | 12b SBO Control (8/11) |
| | 12c Enhanced Direct Control (6/9) |
| | 12d Enhanced SBO Control (8/11) |
| | 13 Time Synchronization (3/4) |

This Certificate includes a summary of the test results as carried out at TÜV SÜD Certification and Testing (China) Co., Ltd Shanghai Branch in P.R. China with Anvil version 3.9.1.0 and Wireshark version 2.0.4. This document has been issued for information purposes only, and the original paper copy of the TÜV SÜD report: No. 7482143975-TR705001700303, version 1-0 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to TÜV SÜD by Schneider Electric France. The manufacturer's production process has not been assessed. This certificate does not imply that TÜV SÜD has certified or approved any product other than the specimen tested.

Shanghai, October 13, 2017

Shengwu ZENG
Technical Certifier

Cong WANG
Test Engineer

¹ Level A - Independent Test lab with certified ISO/IEC 17025 Quality System

² Test Procedure Change List



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Applicable Test Procedures from the UCA International Users Group Edition 2 Client Test Procedures version 1.0 with TPCL 1.0_rev4

| Conformance Block | Mandatory | Conditional |
|-----------------------------|---|--|
| 1: Basic Exchange | cAss1, cAss2, cAss3, cAssN1, cAssN4, cAssN5, cAssN6 | cAssN7 cSrv5, cSrv7, cSrv10, cSrvN3, cSrvN5, cSrvN6 |
| 5: Unbuffered Reporting | cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRpN2, cRpN5, cRpN6 | cRp2, cRp6, cRp7, cRp13b, cRp18, cRpN1 |
| 6: Buffered Reporting | cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr30, cBr31, cBrN2, cBrN5, cBrN6, cBrN20 | cBr2, cBr6, cBr7, cBr13b, cBr18, cBr32, cBr33, cBrN1 |
| 9: GOOSE control block | cGcb1 | cGcb2 |
| 12a Direct control | cCtl4, cCtl5 cDOs1, cDOs2 | cCtl1, cCtl2 |
| 12b SBO control | cCtl4, cCtl5 cSBOs1, cSBOs2, cSBOs3 | cCtl1, cCtl2 cSBOs4 |
| 12c Enhanced Direct Control | cCtl4, cCtl5 cDOes1, cDOes2 | cCtl1, cCtl2 |
| 12d Enhanced SBO control | cCtl4, cCtl5 cSBOes1, cSBOes2, cSBOes3 | cCtl1, cCtl2 cSBOes4 |
| 13 Time sync | cTm1, cTmN1 | cTm2 |

Zertifizierungsvertrag

Grundlage für die Zertifikatserteilung ist die Prüf- und Zertifizierungsordnung von TÜV SÜD Product Service.

Mit Erhalt des Zertifikates erkennt der Zertifikatsinhaber die jeweils gültige Fassung der Prüf- und Zertifizierungsordnung an (www.tuev-sued.de/ps_regulations) und wird somit Partner im Zertifiziersystem von TÜV SÜD Product Service.

Prinzipielle Voraussetzung für die Gültigkeit des Zertifikates:

- Gültigkeit der zitierten normativen Prüfgrundlage(n) ist gegeben
- und zusätzlich bei Zertifikaten mit Berechtigung zur Verwendung eines Prüfzeichens bzw. bei Zertifikaten für QM-Systeme:
- Voraussetzungen für vorschriftsmäßige Fertigung werden eingehalten.
- Die Fertigungs- bzw. Betriebsstätten werden regelmäßig überwacht.

Certification contract

Certification is based on the TÜV SÜD Product Service Testing and Certification Regulations.

On receipt of the certificate the certificate holder agrees to the current version of the Testing and Certification Regulations (www.tuev-sued.de/ps_regulations) and thus becomes partner in the TÜV SÜD Product Service Certification System.

Requirements for the validity of the certificate in principle:

- Validity of the quoted test standard(s)
- In addition for certificates with the right to use a certification mark and for QM certificates:
- Conditions for an adequate manufacturing are maintained
- Regular surveillance of the facility is performed

Akkreditierungen / Benennungen (Status 14.10.2013) /
Accreditations / notifications (as of 2013-10-14)

Deutschland / Germany

Produktsicherheitsgesetz (ProdSG) /
Product Safety Act (ProdSG)

Europa / Europe

- Niederspannungsrichtlinie 2006/95/EG
- Spielzeugrichtlinie 2009/48/EG
- Richtlinie für aktive medizinische Implantate 90/385/EWG
- Richtlinie für Medizinprodukte 93/42/EWG
- Richtlinie für In-vitro-Diagnostika 98/79/EG
- Richtlinie für Gasverbrauchseinrichtungen 2009/142/EG
- Richtlinie für persönliche Schutzausrüstungen 89/686/EWG
- EMV-Richtlinie 2004/108/EG
- Richtlinie für Sportboote 94/25/EG + 2003/44/EG
- Richtlinie für Maschinen 2006/42/EG
- Richtlinie für Ex-Schutz Geräte 94/9/EG

- Low Voltage Directive 2006/95/EC
- Toys Directive 2009/48/EC
- Directive for Active Implantable Medical Devices 90/385/EEC
- Directive for Medical Devices 93/42/EEC
- Directive on In Vitro Diagnostic Medical Devices 98/79/EC
- Directive for Gas Appliances 2009/142/EC
- Directive for Personal Protective Equipment 89/686/EEC
- EMC Directive 2004/108/EC
- Directive for Recreational Craft 94/25/EC + 2003/44/EC
- Directive for Machinery 2006/42/EC
- Directive for Ex Safe Equipment 94/9/EC

- ENEC Agreement for luminaires, household and IT equipment

USA

- Nationally Recognized Testing Laboratory (NRTL) to 29 CFR 1910.7 by OSHA
- Accredited for FDA 510(k) Third Party Review
- Conformity Assessment Body to the MRA for Medical Devices; FDA QSR Reg Inspections, FDA 510(k) Third Party Review

Asien-Pazifik Region / Asia Pacific

- Recognized Certification Body to Electrical Products (Safety) Regulation; Hong Kong
- Konformitätsbewertungsstelle / Conformity Assessment Body to the MRA for Medical Devices; Australien / Australia
- Konformitätsbewertungsstelle / Conformity Assessment Body to the MRA for Medical Devices; Neuseeland / New Zealand

Weltweit / Worldwide

- NCB im CB-Scheme des IECEE / NCB in the CB Scheme of IECEE
- ExCB im IECEX-Scheme des IECEE / ExCB in the IECEX Scheme of IECEE
- Zertifizierstellen durch DAkkS akkreditiert
DE-ZE-11321-01, DE-ZM-11321-09 und DE-ZM-11321-01.
Certification Bodies accredited by DAkkS
DE-ZE-11321-01, DE-ZM-11321-09 and DE-ZM-11321-01.