



IEC 61850 Certificate Level A¹



No. ZE 14 10 89431 003

Issued to:

Voith Hydro Holding GmbH & Co. KG
Alexanderstr. 11
D-89510 Heidenheim
Germany

For the client system:

HyCon Controller Version 1.0.57
Hardware: Siemens Simatic S7-modular
Embedded Controller (s7-mEC)EC31

Issued by:

TÜV SÜD Product Service GmbH
Communication Protocols
Barthstrasse 16
D-80339 Munich
Germany

Certification Mark:



This certification mark can only be used for the product defined above.

The client system has not shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1 Communication networks and systems in substations.

The conformance test has been performed according to IEC 61850-10 and UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2.2 with client system's protocol, model and technical issue implementation conformance statements: "HyCon Controller Communication Conformance (Chapter PICS)", "HyCon Controller Communication Conformance (Chapter MICS)", "HyCon Controller Communication Conformance (Chapter TICS)" and product's extra information for testing: "HyCon Controller Communication Conformance (Chapter PIXIT)".

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

1 Basic Exchange (20/22)	12a Direct Control (5/7)
2 Data Sets(6/9)	12b SBO Control (6/9)
2+ Data Set Definition (2/4)	12c Enhanced Direct Control (5/7)
5 Unbuffered Reporting (16/18)	12d Enhanced SBO Control (6/9)
	13 Time Synchronization (4/4)

This certificate includes a summary of the test results as carried out at TÜV SÜD Product Service GmbH in Germany with Anvil version 3.5.61.0 and Wireshark version 1.10.3. This document has been issued for information purposes only, and the original paper copy of the TÜV SÜD Product Service GmbH test report: No. 713046067-TR01, version 1.1 will prevail.

Munich, 23.10.2014

Antonello Gaviano
Technical Certifier

Albi Kospiri
Test Engineer

Publication of this document is allowed. Publication in total or in part and/or reproduction in whatever way of the contents of the above mentioned report(s) is not allowed unless permission has been explicitly given either in the report(s) or by previous letter.

1 Level A - Independent Test lab with certified ISO 17025 Quality System
2 TPCL - Test procedures change list

No. ZE 14 10 89431 003

Applicable Test Procedures from the UCA International Users Group Test Procedures version 1.1 with TPCL version 1.2.2:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs2, cDs3, cDs5, cDsN1a, cDsN1b, cDsN2
2+: Data Set Definition	cDs6, cDsN4	
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRpN2, cRpN3, cRpN7, cRpN8	cRp1, cRp2, cRp6, cRp7 cRpN1, cRpN4
12a: Direct control	cCtl4, cCtlN1, cDOs1, cDOs2	cCtl1
12b: SBO control	cCtl4, cCtlN1, cSBOs1, cSBOs2, cSBOs3	cCtl1
12c: Enhanced Direct Control	cCtl4, cCtlN1, cDOes1, cDOes2	cCtl1
12d: Enhanced SBO control	cCtl4, cCtlN1, cSBOes1, cSBOes2, cSBOes3	cCtl1
13: Time sync	cTm1	cTm2, cTmN1, cTmN2

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 25.02.2010) /
Accreditations / notifications (as of 2010-02-25)

Deutschland / Germany

Geräte- und Produktsicherheitsgesetz (GPSG) /
Equipment and Product Safety Act (GPSG)

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 90/396/EWG
- 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 90/396/EEC
- 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 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 IECCE /
NCB in the CB Scheme of IECCE
- ExCB im IECEx-Scheme des IECCE /
ExCB in the IECEx Scheme of IECCE
- TÜV SÜD Product Service Mark für Produkte / TÜV SÜD
Product Service Mark for products DAP-ZE-1213.00
- Zertifizierung von QMS / Certification of
QMS TGA-ZM-08-93-00
- Zertifizierung von QMS gemäß / Certification of QMS according to
(DIN) EN ISO 13485 / ISO 13485