

IEC 61850 Certificate Level A¹

Ref No: 20TC200378

Issued to:
Youho Electric Co., Ltd.
217, Hwahap-ro, Gwangjeok-myeon, Yangju-si,
Gyeonggi-do, Republic of Korea

For the client system:
YH-EPM-2000 CLIENT
Software version: 1.0
Firmware version: 1.0

Issued by:
Korea Electrotechnology Research Institute
111, Hanggaul-ro, Sangnok-gu, Ansan-si, Gyeonggi-do, 15588, Republic of Korea

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 1.2.3 with client system's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in <YH-EPM-2000, v.1.0>", "Model Implementation Conformance Statement for the IEC 61850 interface in <YH-EPM-2000, v.1.0>", "TISSUES Implementation Conformance Statement for the IEC 61850 interface in <YH-EPM-2000, v.1.0>" and product's extra information for testing "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in <YH-EPM-2000, v.1.0>".

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

1 Basic Exchange (21/22)	13 Time Synchronization (2/4)
2 Data Sets (5/9)	14 File Transfer (5/8)
6 Buffered Reports (20/22)	

This Certificate includes a summary of the test results as carried out at KERI in Republic of Korea with UniCA IED simulator version 5.29.06, TMW Anvil 3.8.0.0 and UniCA 61850 analyzer version 5.31.00. This document has been issued for information purposes only, and the original paper copy of the KERI report: 20TC200378 will prevail.

The test has been carried out on one single specimen of the client system as referred above and submitted to KERI by Youho Electric Co., Ltd. The manufacturer's production process has not been assessed. This Certificate does not imply that KERI has approved any product other than the specimen tested.

Republic of Korea, May 20, 2020.



D. J. Lee
Executive Director
High Voltage Evaluation Division



S. P. Ahn
Technical Manager

Level A – Independent Tester with certified ISO 17025 Quality System

² TPCL - Test procedures change list

Applicable Test Procedures from the UCA International Users Group Device Test Procedures for Client System with IEC 61850-8-1 interface, version 1.1 with TPCL version 1.2.3

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7, cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrvN1, cSrvN3, cSrvN4, cSrvN5, cSrvN6
2: Data Sets		cDs1, cDs2, cDs5, cDsN1a, cDsN1b
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr12, cBrN2, cBrN3, cBrN7, cBrN8, cBrN9	cBr1, cBr2, cBr6, cBr7, cBr13, cBrN1, cBrN4
13: Time sync	cTm1	cTmN1
14: File transfer	cFt1, cFt2, cFt3, cFtN1, cFtN2	