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## IEC 61850 Certificate Level A<sup>1</sup>

## No. ZE 101466 001 R00 A

Issued to:

Camille Bauer Metrawatt AG Aargauerstrasse 7 5610 Wohlen Switzerland

Issued by:

TÜV SÜD Product Service GmbH Communication Protocols Ridlerstrasse 65 D-80339 Munich Germany

For the server product:

PQ3000

SW Version SW version: 1.0

Power Quality and Measurements IED

Certification Mark:



The server product 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 Server Test Procedures version 1.0 with TPCL2 version 1.2.1 with the product's protocol, model and technical issue implementation conformance statements: "CBM PMU IEC 61850 Conformance Statement 004.doc", "CBM PMU IEC 61850 testing: "CBM PMU IEC 61850 Conformance Statement 004.doc".

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):

- Basic Exchange (22/26)
- Data Sets(4/7)
- 2+ Data Set Definition (24/24)
- Unbuffered Reporting (20/21)
- Buffered Reporting (27/30)

- Time Synchronization (3/7)
- File Transfer (7/8)

This certificate includes a summary of the test results as carried out at TÜV SÜD Product Service GmbH in Germany with SimFlex CS Ed.2 2.0 with test suite 2.0-EA11 and Wireshark 2.4.1. This document has been issued for information purposes only, and the original paper copy of the TÜV SÜD Product Service GmbH test report: No. 713134111-TR01, version 1.0 will prevail.

The test has been carried out on one single specimen of the product as referred above. The manufacturer's production process has not been assessed. This certificate does not imply that TÜV SÜD Product Service GmbH has certified or approved any product other than the specimen tested.

Munich, 10.09.2018

Peter Pfisterer **Technical Certifier**  Test Engineer

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<sup>1</sup> Level A - Independent Test lab with certified ISO 17025 Quality System

<sup>2</sup> Test Procedure Change List





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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL version 1.2.1:

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv6, sSrv8, sSrv9, sSrv10, sSrvN1e, sSrvN1f, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
2+: Data Set Definition	sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs11, sDs13, sDs14, sDsN1cd sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10	sDs12, sDsN11, sDsN12
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr15, sBr20, sBr21, sBr22, sBr25. sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr6, sBr7, sBr8, sBr10, sBr11, sBr12
13 Time sync	sTm1, sTm2, sTmN1	
14 File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	sFt2, sFtN1c

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