

## IEC 61850 Certificate

## Level A<sup>1</sup> No. D 103683 0002 Rev. 00

Issued to:

Tianjin Keyvia Electric Co., Ltd No. 15 HaitaiFazhanErlu Road, Huayuan Industrial Park (Outer Ring), Binhai Hi-tech Development District, 300392 Tianjin, P. R. China For the server product:

DCP3 Multifunctional Device for DC traction railway

Software Version: 2.0.1

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 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 2.0\_rev5 with the product's protocol, model and technical issue implementation conformance statements: "DPC3\_PICS\_Server\_Ed2\_V1.0", "DPC3\_MICS\_Server\_Ed2\_V1.0", "DPC3\_TICS\_Server\_Ed2\_V1.0" and the product's extra information for testing: "DPC3\_PIXIT\_Server\_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 cases):

- 1 Basic Exchange (23/28)
- 2 Data Sets (4/7)
- 3 Substitution (3/3)
- 4 Setting Group Selection (4/4)
- 4+ Setting Group Definition (12/13)
- 5 Unbuffered Reporting (19/22)
- 6 Buffered Reporting (27/32)

- 9a GOOSE Publish (11/13)
- 9b GOOSE Subscribe (16/18)
- 12a Direct Control (6/17)
- 12d Enhanced SBO Control (11/27)
- 13 Time Synchronization (4/7)
- 14 File Transfer (5/8)

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 SimFlex CS Ed.2 version 3.9 with test suite 3.8 and Wireshark version 3.0.0. This document has been issued for information purposes only, and the original paper copy of the TÜV SÜD report: TR705202010901-00, 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 Tianjin Keyvia Electric Co., Ltd. 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, Sep 18, 2020

Cong WAN G

Technical Certifier

Yifan WANG Test Engineer

Yifan WANG

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



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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0\_rev5

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, 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
3: Substitution	sSub1, sSub2, sSub3	
4: Setting Group Selection	sSg1, sSg3, sSgN1	sSg11
4+: Setting Group Definition	sSg2, sSg4, sSg6, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5	sSg9
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRp15, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr8, sBr10, sBr11, sBr12, sBr15
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop6, sGopN1, sGopN2
9b: GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	
12a Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl13, sCtl16
12d Enhanced SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl16
13 Time sync	sTm1, sTm2, sTmN1	sTm3
14 File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	