UCA International Users Group

IEC 61850 Certificate Level A[1]

No. 2023PUCA000001

Issued to:

HangZhou Deruida Electric Co., ltd.
Room 214, floor 2, building 1, No.11, Liangzhan Road,
Renhe street, Yuhang District, Hangzhou City, Zhejiang
Province, China

For the product:

CPD100 DC Traction Power Systems Control
and Protection Relays
software version: 1020 0001

Issued by: **KETOP 开普**

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 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for CPD100 DC Traction Power Systems Control and Protection Relays", "Model Implementation Conformance Statement（MICS） for CPD100 DC Traction Power Systems Control and Protection Relays", "TISSUES Implementation Conformance Statement (TICS) for CPD100 DC Traction Power Systems Control and Protection Relays" and product's extra information for testing: "Protocol Implementation extra Information for Testing (PIXIT) for CPD100 DC Traction Power Systems Control and Protection Relays".

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 (22/26)		9a	GOOSE Publish (13/13)
2	Data Sets (3/7)		9b	GOOSE Subscribe(21/21)
3	Substitution (3/3)		12d	Enhanced SBO Control (12/28)
4	Setting Group Selection (4/4)		13	Time Synchronization (3/7)
4+	Setting Group Definition (13/13)		14	File Transfer (7/8)
5	Unbuffered Reporting (20/23)			
6	Buffered Reporting (28./33)			

This certificate includes a summary of the test results as carried out at Xuchang KETOP Testing Research Institute Co.,Ltd in Xuchang, China with UniGrid Substation Automation V2.1.0 with test suite V2.0.6 and UniCA 61850 Analyzer V6.41.0.0, UniCAsim 61850 GOOSE V2.27.01, UniCAsim SCL checker v3.37.01, This document has been issued for information purposes only, and the original paper copy of the KETOP Lab report: No. JW230128-Protocol will prevail.

The test have been carried out on one single specimen of the product as referred above and submitted to KETOP Lab by HangZhou Deruida Electric Co., ltd. The manufacturer's production process has not been assessed. This certificate does not imply that KETOP Lab has approved any product other than the specimen tested.

Xuchang, Mar 21th, 2023

He Chun
Director of PRTC Department

Liu Desen
Test Engineer

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[1] Level A - Independent Test lab with ISO 17025 Quality System

This certificate is issued in accordance with the laboratory accreditation requirements of the UCA International Users Group. This certificate shall only be reproduced in full and with the express permission of KETOP lab.

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Applicable Test Procedures from the UCA International Users Group Conformance Test Procedures for Server Devices with IEC 61850-8-1 Edition 2 Interface Revision 2.0.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5 sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6 sSrv6, sSrv9, sSrv10, sSrvN1e, sSrvN3
2: Data Sets	sDs1, sDs10a, sDsN1ae	
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	sSg5, sSg9
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16 sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp8, sRp11, sRp12, sRp17, 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	sBr6, sBr7, sBr8, sBr11, sBr12, sBr17
9a: GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop2b, sGop5, sGop6, sGopN1, sGopN2
9b: GOOSE Subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos4, sGos6b, sGos13
12d: Enhanced SBO control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl15, sCtl16
13 Time sync	sTm1, sTm2, sTmN1	
14 File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	sFt2c, sFtN1c

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