

Certification No. 1908

This is to certify that the metering equipment identified as:

Type: LY-SM160

Mgmt. Logical Device Name: SAP = 1 is "4C594531303230373737393939393939" (LYE1020777999999)

Manufactured by: JIANGSU LINYANG ENERGY CO.,LTD

has successfully passed the DLMS/COSEM Conformance test, under the following conditions:

- CTT version: CTT 3.0 extended edition, 64bits (108)
- Licensed to: 20161118_Jiangsu_Linyang_Energy_Co_Ltd_Qidong_China (2016/11/18)
- COSEM object definitions file version: Object_defs_v3.0_Released_170127.dat
- Media identifier(s): Abstract, Electricity

Tests	Comm. profile & opening mode	Application contexts	Security features	Date and time	Test Result hash value
Test 1	HDLC, DIRECT_HDLC	LONG_NAMES, LONG_NAMES_WITH _CIPHERING	ACTIVATE_SECURITY_POLICY, GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING, KEY_TRANSFER	21-DEC- 2017 09:08:33	5ABFDE66162E6CF1761AAC988 928A36CACE5D3E99F1312A6F4 F18EB670F15DE2
Test 2	HDLC, MODE_E			20-DEC- 2017 18:31:06	BE1B43403591179E3492A30E2E7 883E769BC7AEF022FCB7639B77 7C828094FFF

The authenticity of the test report(s) has been verified by the DLMS User Association and the metering equipment identified above is listed on its web site at: www.dlms.com.

With this, the manufacturer is entitled to display the DLMS/COSEM Compliant mark – shown below – on its product duly identified and on its product literature.



The test reports are filed by the DLMS UA. Copies are available from the manufacturer.

This Certificate is only valid for the functions successfully tested; see the Summary. The test has been executed on one specimen of the product, as identified by the Management Logical Device Name reported. Results may not be applicable for other test specimens.

Date: Zug, the 21st December 2017



Gyöző Kmety
President

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Summary of features tested for Test 1

This section provides an overview of the features tested, aggregated over all logical devices and Application Associations in one test session. Full information is available in the Test Result.

```
*****  
* Identification *  
*****
```

```
Identification = {  
  Manufacturer = "\JIANGSU LINYANG ENERGY CO.,LTD"  
  FLAGid = "\LYE"  
  Type = "\LY-SM160"  
  IUTisModule = FALSE  
  SerialNr = "\77999999"  
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC  
Dedicated Key= TRUE"  
  Comment = "\Client:Public,Management for Optical HDLC"  
}
```

```
*****  
* Summary *  
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
HDLC	36	0	1	0	35	0
APPL	49	0	10	0	39	0
COSEM	1693	0	10	48	1635	0
SYMSEC	81	0	10	0	71	0

```
Communication profile: HDLC  
Application context names: LONG_NAMES, LONG_NAMES_WITH_CIPHERING  
Security mechanisms: NO_SECURITY, HIGH_LEVEL_SECURITY_GMAC  
ACSE and xDLMS features: ACTION, GET, MULTIPLE_REFERENCES, RLRQ_RLRE  
SERVICE_SPECIFIC_BLOCK_TRANSFER, SET  
Security features: ACTIVATE_SECURITY_POLICY  
GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING  
KEY_TRANSFER  
Logical device(s) found: SAP = 1 is "4C594531303230373737393939393939"  
(LYE1020777999999)  
COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
21, 22, 23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 43  
44, 45, 48, 64, 70, 71, 72, 74  
COSEM classes found but not tested: 47 (2), 100, 122
```

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Summary of features tested for Test 2

This section provides an overview of the features tested, aggregated over all logical devices and Application Associations in one test session. Full information is available in the Test Result.

* Identification *

```
Identification = {
  Manufacturer = "\JIANGSU LINYANG ENERGY CO.,LTD"
  FLAGid = "\LYE"
  Type = "\LY-SM160"
  IUTIsModule = FALSE
  SerialNr = "\77999999"
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC
Dedicated Key= TRUE"
  Comment = "\Client:Public,Management for Optical Mode E"
}
```

* Summary *

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (MODE_E)				
APPL	49	0	10	0	39	0
COSEM	1693	0	10	48	1635	0
SYMSEC	81	0	10	0	71	0

Communication profile: HDLC

Application context names: LONG_NAMES, LONG_NAMES_WITH_CIPHERING

Security mechanisms: NO_SECURITY, HIGH_LEVEL_SECURITY_GMAC

ACSE and xDLMS features: ACTION, GET, MULTIPLE_REFERENCES, RLRQ_RLRE
SERVICE_SPECIFIC_BLOCK_TRANSFER, SET

Security features: ACTIVATE_SECURITY_POLICY
GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING
KEY_TRANSFER

Logical device(s) found: SAP = 1 is "4C594531303230373737393939393939"
(LYE1020777999999)

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20
21, 22, 23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 43
44, 45, 48, 64, 70, 71, 72, 74

COSEM classes found but not tested: 47 (2), 100, 122