中国认可
国际互认
检测
TESTING
CNAS L0153

No. DY263178

# TEST REPORT

| | |
|---|---|
| **Name of product** | Voltage detecting and indicating system |
| **Type Specification** | DXN8D-12/Q54S |
| **Applicant** | Jiangshan Xinyuan Electrical Co., Ltd. |
| **Testing category** | Type tests |



GUANGDONG TESTING INSTITUTE OF PRODUCT QUALITY SUPERVISION

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3. **The electronic report shall be valid on that it is issued within the validity period of the e-signed certificate and it is not shown to have been modified or updated. Any partial photocopy of the test report is not allowed without written permission of the testing institute.**

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5. **The result of the commission test is only corresponding to the sample(s).**

6. **The test result and test report shall not be used as improper or illegal propaganda.**

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No. DY263178

# Guangdong Testing Institute of Product Quality Supervision

# TEST REPORT

Validity check



| | | | |
|---|---|---|---|
| Name of product | Voltage detecting and indicating system | Date of manufacturing / expiry | 3-1~3-3: 2026-08-14/ _____ |
| Type, Specification, Trade mark, Class | DXN8D-12/Q54S | Batch No. | 3-1: 260814001, 3-2: 260814002, 3-3: 260814003, |
| Applicant | Jiangshan Xinyuan Electrical Co., Ltd. | No. of testing / sampling plan | YYJ26/001392/ _____ |
| Address of applicant | No.2-1 Huiyuan Road, Shanhai Cooperation Zone, Jiangshan | Testing category | Type tests |
| Inspected unit | _____ | Location of sampling | _____ |
| Manufacturer | Jiangshan Xinyuan Electrical Co., Ltd. | Basic quantity of sampling | _____ |
| Address of Manufacturer | No.2-1 Huiyuan Road, Shanhai Cooperation Zone, Jiangshan | Way of sample incoming Personnel performing sending / sampling | Sample delivery |
| Quantity of sample | 3 | Date of receipt of sample / sampling | 2026-08-18/ _____ |
| Status of sample | Good condition | Date(s) of performance of tests | 2026-08-21 to 2026-10-16 |
| Testing reference | IEC 62271-213:2021 High-voltage switchgear and controlgear-Part 213:Voltage detecting and indicating system | | |
| Judgment reference | The requirements provided by the client | | |
| Conclusion | **The samples were tested according to the testing standard and product technical specification. All items were tested positive.**<br>Official testing stamp of the institute<br>Date of issue: 2026-10-16 | | |
| Notes | _____ | | |

Approved by: 李旭 Reviewed by: 黄宗盛 Tested by: 梅志威

## Catalogue


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| Test items and results summary | | |
|---|---|---|
| **No.** | **Test items** | **Test results** |
| 1 | Inspection | Complied |
| 2 | Lightning impulse voltage test | Complied |
| 3 | Power-frequency voltage test | Complied |
| 4 | Maximum current of coupling element | Complied |
| 5 | Conditions on testing points | Complied |
| 6 | Indication of VDIS | Complied |
| 7 | Clear perceptibility of visual indication | Complied |
| 8 | Phase shift | Complied |
| 9 | Response time | Complied |
| 10 | Non response to DC voltage | Complied |
| 11 | Connecting leads | Complied |
| 12 | Temperature dependence of indication | Complied |
| 13 | Voltage limiting element | Complied |
| 14 | Degree of protection (IP code) | Complied |
| 15 | Damp heat | Complied |
| 16 | Insulation resistance under pollution | Complied |
| 17 | Composite temperature/humidity cyclic test | Complied |
| 18 | Vibration | Complied |
| 19 | Mechanical impact (IK code) | Complied |
| 20 | Electrostatic discharge | Complied |
| 21 | Radiated electromagnetic fields | Complied |

## The technical data of the main components in the test product

| | |
|---|---|
| 1. Coupling system | |
| Rated voltage ($U_r$) | 12kV |
| Rated short-duration power-frequency withstand voltage | 42kV |
| Rated lightning impulse withstand voltage | 75kV |
| Nominal voltage ($U_n$) | 12kV |
| 2. Indicator | |
| Auxiliary power supply voltage | DC24/DC48V |
| Rated frequency | 50/60Hz |
| Degree of protection | Testing points:IP2X |

NOTE The technical data of major components above were provided by the client.

## Photos of test objects



Appearance

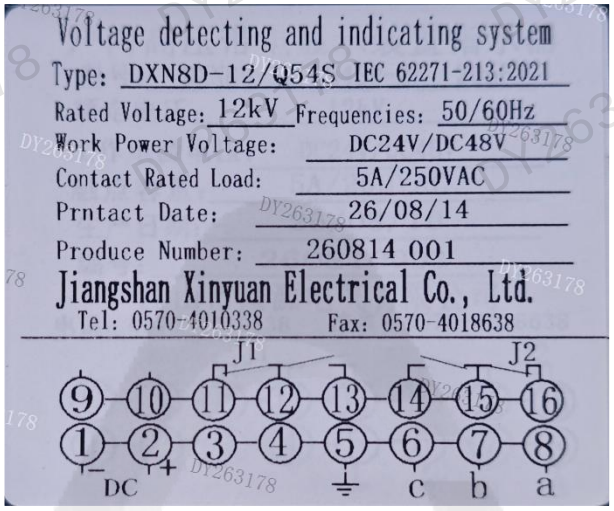



Indicator

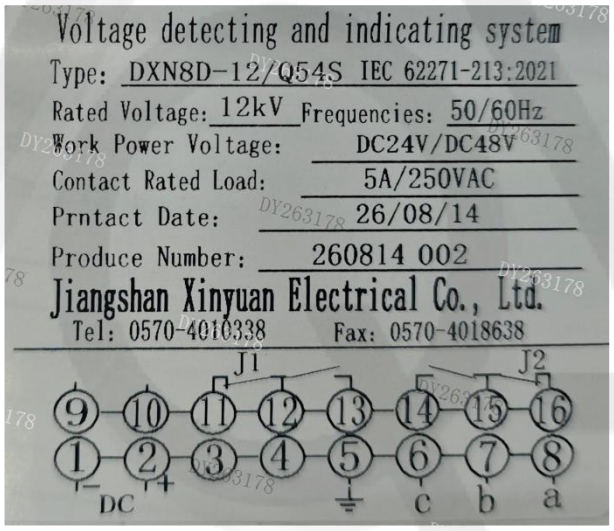



Interface

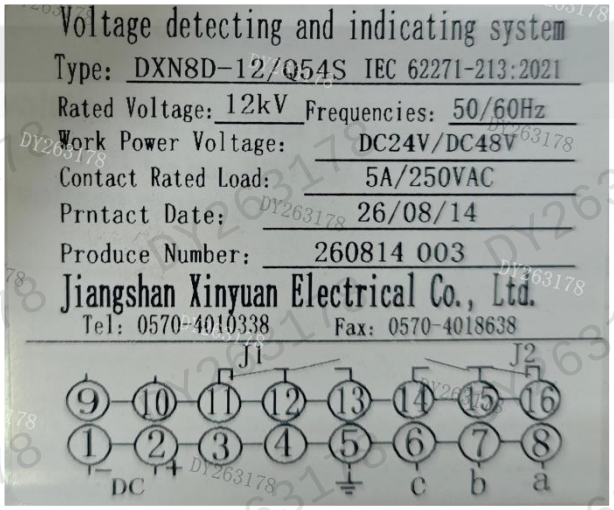
## Photos of test objects




Nameplate of test object 3-1




Nameplate of test object 3-2




Nameplate of test object 3-3

## Inspection

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| A VDIS shall include for each phase: a coupling system, a voltage limiting element, an indicator, a testing point, a connecting lead, a connecting point(as an option). | Complied | | |
| Each testing point shall have an earthing socket-outlet at a distance between the axes of the earthing socket-outlet and phase socket-outlet of (14 ± 0.1) mm. | (13.99~14.01)mm | (13.98~14.02)mm | (13.99~14.02)mm |
| Marking shall be legible and permanent. | Complied | | |

## Lightning impulse voltage test

| Sample number | Voltage applied to | Earthed terminal | Expected voltage (peak) (kV) | Application number | Positive | | Negative | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Measured voltage (peak) (kV) | Discharge number | Measured voltage (peak) (kV) | Discharge number |
| 3-1 | A | BCFP | 75 | 3 | 74.2~75.6 | 0 | 74.5~75.9 | 0 |
| | B | ACFP | 75 | 3 | 74.5~75.4 | 0 | 74.4~75.4 | 0 |
| | C | ABFP | 75 | 3 | 74.4~75.5 | 0 | 74.5~75.6 | 0 |
| | A | BCF | 75 | 3 | 74.3~75.6 | 0 | 74.2~75.0 | 0 |
| | B | ACF | 75 | 3 | 74.5~74.8 | 0 | 75.2~75.7 | 0 |
| | C | ABF | 75 | 3 | 74.6~75.1 | 0 | 74.4~74.8 | 0 |
| 3-2 | A | BCFP | 75 | 3 | 75.0~75.8 | 0 | 74.8~75.2 | 0 |
| | B | ACFP | 75 | 3 | 75.2~75.9 | 0 | 74.9~75.3 | 0 |
| | C | ABFP | 75 | 3 | 74.1~75.3 | 0 | 74.2~75.6 | 0 |
| | A | BCF | 75 | 3 | 75.1~75.9 | 0 | 74.1~74.9 | 0 |
| | B | ACF | 75 | 3 | 75.2~75.6 | 0 | 74.6~74.8 | 0 |
| | C | ABF | 75 | 3 | 74.7~75.4 | 0 | 74.6~75.1 | 0 |
| 3-3 | A | BCFP | 75 | 3 | 74.8~75.8 | 0 | 75.4~75.7 | 0 |
| | B | ACFP | 75 | 3 | 74.4~75.3 | 0 | 75.3~75.6 | 0 |
| | C | ABFP | 75 | 3 | 74.8~75.6 | 0 | 74.5~75.5 | 0 |
| | A | BCF | 75 | 3 | 75.3~75.6 | 0 | 74.2~75.4 | 0 |
| | B | ACF | 75 | 3 | 74.8~75.3 | 0 | 74.3~75.6 | 0 |
| | C | ABF | 75 | 3 | 74.2~75.2 | 0 | 74.5~75.2 | 0 |

| Relative humidity | 69% | Temperature | 29.5℃ | Atmospheric pressure | 100.3kPa |
|---|---|---|---|---|---|
| Atmospheric correction factor | $K_t$= 0.959 | | Altitude correction factor | | $K_a$=1.000 |

Condition of the test object before the test: Normal.

NOTE 1 A, B, C-----high voltage terminals; F----- enclosure and frame; P----- testing points and connecting points.
NOTE 2 Expected voltage = Rated short-duration power-frequency withstand voltage×Kt×Ka, make $K_t$=1.000 during the test.

## Power-frequency voltage test

| Sample number | Voltage applied to | Earthed terminal | Power frequency voltage dry tests for 1min | | | |
|---|---|---|---|---|---|---|
| | | | Expected voltage (r.m.s.) (kV) | Measured voltage (r.m.s.) (kV) | Application number | Discharge number |
| 3-1 | A | BCFP | 42 | 42.1 | 1 | 0 |
| | B | ACFP | 42 | 42.2 | 1 | 0 |
| | C | ABFP | 42 | 42.3 | 1 | 0 |
| | A | BCF | 42 | 42.2 | 1 | 0 |
| | B | ACF | 42 | 42.2 | 1 | 0 |
| | C | ABF | 42 | 42.3 | 1 | 0 |
| 3-2 | A | BCFP | 42 | 42.1 | 1 | 0 |
| | B | ACFP | 42 | 42.3 | 1 | 0 |
| | C | ABFP | 42 | 42.0 | 1 | 0 |
| | A | BCF | 42 | 42.1 | 1 | 0 |
| | B | ACF | 42 | 42.3 | 1 | 0 |
| | C | ABF | 42 | 42.3 | 1 | 0 |
| 3-3 | A | BCFP | 42 | 42.1 | 1 | 0 |
| | B | ACFP | 42 | 42.3 | 1 | 0 |
| | C | ABFP | 42 | 42.0 | 1 | 0 |
| | A | BCF | 42 | 42.2 | 1 | 0 |
| | B | ACF | 42 | 42.3 | 1 | 0 |
| | C | ABF | 42 | 42.1 | 1 | 0 |

| Relative humidity | 69% | Temperature | 29.5°C | Atmospheric pressure | 100.3kPa |
|---|---|---|---|---|---|
| Atmospheric correction factor | $K_t$= 0.959 | | Altitude correction factor | | $K_a$=1.000 |

Condition of the test object before the test: Normal.

NOTE 1 A, B, C-----high voltage terminals; F----- enclosure and frame; P----- testing points and connecting points.
NOTE 2 Expected voltage = Rated short-duration power-frequency withstand voltage×Kt×Ka, make $K_t$=1.000 during the test.

## Maximum current of coupling element

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| When the main circuit is energised at its rated voltage, the maximum current through the coupling element shall not exceed 1 mA. | 0.05mA | 0.05mA | 0.05mA |

## Conditions on testing points

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| Frequency: 50Hz | | | |
| The main circuit shall be connected to a voltage source. The pole of the testing point of the VDIS carrying the voltage signal shall be earthed through an impedance of $X_{c\,max}$: 2.4 MΩ and an ammeter. The voltage shall be increased until a current of $I_{t\,min}$: 1.67 μA is reached. That equivalent threshold voltage shall be recorded as $U_{et1}$.<br><br>The test is considered as passed if the voltage $U_{et1}$ equals or exceeds $U_{t\,min}$, where $U_{t\,min}$ is 10 % of $U_n$ or of $U_{n\,max}$. | $X_c$: 2.4 MΩ | | |
| | $I_t$: 1.67 μA | | |
| | $U_{et1}$: 1.25kV | $U_{et1}$: 1.25kV | $U_{et1}$: 1.25kV |
| The main circuit shall be connected to a voltage source. The pole of the testing point of the VDIS carrying the voltage signal shall be earthed through an impedance of $X_{c\,min}$: 2.0 MΩ and an ammeter. The voltage shall be increased until a current of $I_{t\,max}$: 2.50 μA is reached. That voltage shall be recorded as $U_{et2}$. After that, the test voltage shall be increased up to 120 % of $U_n$ or of $U_{n\,max}$.<br><br>The test is considered as passed if the voltage $U_{et2}$ is lower than or equal to $U_{t\,max}$, where $U_{t\,max}$ is 45 % of $U_n$ or of $U_{n\,min}$, and the current remains higher than $I_{t\,max}$ in the voltage range from $U_{et2}$ to 1.2 $U_n$ or 1.2 $U_{n\,max}$. | $X_c$: 2.0 MΩ | | |
| | $I_t$: 2.50 μA | | |
| | $U_{et2}$: 1.44kV | $U_{et2}$: 1.44kV | $U_{et2}$: 1.44kV |
| | The current remains higher than $I_{t\,max}$ in the voltage range from $U_{et2}$ to 1.2 $U_n$. | | |
| Frequency: 60Hz | | | |
| The main circuit shall be connected to a voltage source. The pole of the testing point of the VDIS carrying the voltage signal shall be earthed through an impedance of $X_{c\,max}$: 2.0 MΩ and an ammeter. The voltage shall be increased until a current of $I_{t\,min}$: 2.00 μA is reached. That equivalent threshold voltage shall be recorded as $U_{et1}$.<br><br>The test is considered as passed if the voltage $U_{et1}$ equals or exceeds $U_{t\,min}$, where $U_{t\,min}$ is 10 % of $U_n$ or of $U_{n\,max}$. | $X_c$: 2.0 MΩ | | |
| | $I_t$: 2.00 μA | | |
| | $U_{et1}$: 1.25kV | $U_{et1}$: 1.25kV | $U_{et1}$: 1.25kV |
| The main circuit shall be connected to a voltage source. The pole of the testing point of the VDIS carrying the voltage signal shall be earthed through an impedance of $X_{c\,min}$: 1.7 MΩ and an ammeter. The voltage shall be increased until a current of $I_{t\,max}$: 2.94 μA is reached. That voltage shall be recorded as $U_{et2}$. After that, the test voltage shall be increased up to 120 % of $U_n$ or of $U_{n\,max}$.<br><br>The test is considered as passed if the voltage $U_{et2}$ is lower than or equal to $U_{t\,max}$, where $U_{t\,max}$ is 45 % of $U_n$ or of $U_{n\,min}$, and the current remains higher than $I_{t\,max}$ in the voltage range from $U_{et2}$ to 1.2 $U_n$ or 1.2 $U_{n\,max}$. | $X_c$: 1.7 MΩ | | |
| | $I_t$: 2.94 μA | | |
| | $U_{et2}$: 1.45kV | $U_{et2}$: 1.45kV | $U_{et2}$: 1.44kV |
| | The current remains higher than $I_{t\,max}$ in the voltage range from $U_{et2}$ to 1.2 $U_n$. | | |

## Indication of VDIS

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| The voltage shall be increased until the indication "voltage present" appears. The applied line-to-earth voltage $U_{et}$ shall be registered. | 1.89kV | 1.92kV | 1.90kV |
| The test is considered as passed, if the voltage $U_{et}$ is in the range of 10 % of $U_n$ to 45 % of $U_n$ in three-phase systems, and if the indication "voltage present" is given in the voltage range from $U_{et}$ to 1.2 $U_n$. | Complied | | |
| Additionally, in the case of repetitive indication, it shall be verified, that the frequency of repetition is equal to or higher than 1 Hz in the voltage range from 45 % to 120 % of the nominal voltage $U_n$. | Always indication/ Complied | | |

## Clear perceptibility of visual indication

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| External light source: 10 lx ± 1 lx. | 10 lx | | |
| The test is considered as passed, when each of the three observers has perceived all indications without doubt or error. | Complied | | |
| External light source: 1 000 lx ± 100 lx. | 1036 lx | | |
| The test is considered as passed, when each of the three observers has perceived all indications without doubt or error. | Complied | | |

## Phase shift

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| The testing point shall be connected to a load impedance and a series connected measuring resistor. The load impedance shall be in the range of $X_c$. The measuring resistor shall not exceed $X_c$ min/ 100. The test voltage at the live part shall be set at 0.6 $U_n$ and rated frequency. The phase angle between the voltage of the live part and the voltage at the measuring resistor shall be determined considering the phase rotation of the measuring resistor.The test is considered as passed, if the phase difference created by all elements constituting the VDIS, between the voltage of the main circuit and the voltage at the testing points, shall not exceed more than 5° in normal operating conditions.<br>NOTE The test requirements was provided by the client. | $X_c$: 2.4 MΩ<br>Measuring resistor: 4 kΩ<br>Test frequency: 50 Hz | | |
| | Test voltage: 7.2 kV<br>Phase difference: 1.2° | Test voltage: 7.2 kV<br>Phase difference: 1.0° | Test voltage: 7.2 kV<br>Phase difference: 1.2° |
| | $X_c$: 2.0 MΩ<br>Measuring resistor: 4 kΩ<br>Test frequency: 50 Hz | | |
| | Test voltage: 7.2 kV<br>Phase difference: 0.9° | Test voltage: 7.2 kV<br>Phase difference: 1.0° | Test voltage: 7.2 kV<br>Phase difference: 1.1° |
| | $X_c$: 2.0 MΩ<br>Measuring resistor: 4 kΩ<br>Test frequency: 60 Hz | | |
| | Test voltage: 7.2 kV<br>Phase difference: 1.2° | Test voltage: 7.2 kV<br>Phase difference: 0.9° | Test voltage: 7.2 kV<br>Phase difference: 1.0° |
| | $X_c$: 1.7 MΩ<br>Measuring resistor: 4 kΩ<br>Test frequency: 60 Hz | | |
| | Test voltage: 7.2 kV<br>Phase difference: 1.3° | Test voltage: 7.2 kV<br>Phase difference: 1.2° | Test voltage: 7.2 kV<br>Phase difference: 1.2° |

## Response time

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| The test voltage shall be set to a value equal to 45 % of $U_n$. | 5.42kV | | |
| The test voltage shall be switched on and off five times. | 5 times | | |
| The duration of the on and off periods shall be varied and be at least of 3 s duration. | >3s | | |
| The indicator shall indicate the change of the state of the voltage within 1 s. | 963ms | 964ms | 957ms |

## Non response to DC voltage

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| The DC voltage applied shall have a value equivalent to 2 $U_n$. | DC+24kV | | |
| A duration of at least 10 s. | >10s | | |
| The test is considered as passed, if the indication "voltage present" does not appear for longer than 1 s. | "voltage present" does not appear/ Complied | | |
| Repeated with reverse polarity after earthing of the live part: | | | |
| The DC voltage applied shall have a value equivalent to 2 $U_n$. | DC-24kV | | |
| A duration of at least 10 s. | >10s | | |
| The test is considered as passed, if the indication "voltage present" does not appear for longer than 1 s. | "voltage present" does not appear/ Complied | | |

| Connecting leads | | | |
|---|---|---|---|
| | | | |
| Test requirements | Test records and remarks | | |
| | 3-1 | 3-2 | 3-3 |
| Precondition: | | | |
| Temperature: 70℃ | (70.0~70.4)℃ | | |
| Duration: 6h | 6 h | | |
| Tensile: | | | |
| Force: 50N | 50 N | | |
| Duration: 1 min | 1 min | | |
| The test is considered as passed if there is no apparent damage and neither the lead nor the screen (if present) is broken and neither the connecting lead is extracted from the fixed part of the connection. | Complied | | |

## Temperature dependence of indication

| Test requirements | Test records and remarks | | |
|---|---|---|---|
| | 3-1 | 3-2 | 3-3 |
| In the first test run: | | | |
| Temperature: -25℃ | (-25.1~-25.0)℃ | | |
| Duration: 16h | 16 h | | |
| The test is considered as passed, if the VDIS is working properly according to conditions on testing points and indication shall pass. | Complied | | |
| In the second test run: | | | |
| Temperature: +40℃ | (+40.0~+40.1)℃ | | |
| Duration: 16h | 16 h | | |
| The test is considered as passed, if the VDIS is working properly according to conditions on testing points and indication shall pass. | Complied | | |

## Voltage limiting element

| Test requirements | Test records and remarks<br>3-2 |
|---|---|
| The test is considered as passed, when flashover, breakdown or limitation has occurred at the voltage limiting element by observing a rapid change of voltage or current, and the test voltage shall not be higher than 90 V AC before breakdown and shall not be higher than 60 V RMS after breakdown. | Before breakdown: 85.3 V<br>After breakdown: 59.4 V |

## Degree of protection (IP code)

| Test requirements | | Test records and remarks |
|---|---|---|
| | | 3-2 |
| Testing points:IP2X | A hinged test finger with a diameter of 12mm and a length of 80mm should have sufficient clearance with hazardous components. | Complied |
| | A spherical object specimen with a diameter of 12.5mm shall not completely enter the shell. | Complied |

## Damp heat

| Test requirements | Test records and remarks |
|---|---|
| | 3-2 |
| – temperature: 40 ℃ ±2 ℃;<br>– relative humidity: 93 % ±3 %;<br>– test duration: 96 h.<br>The test is considered as passed, if the VDIS has no damage and is working properly according to the test for indication of VDIS. | (39.5~40.4) ℃<br>92.4%~93.5%<br>96 h<br><br>Complied |

## Insulation resistance under pollution

| Test requirements | Test records and remarks |
|---|---|
| | 3-2 |
| – temperature: 35 ℃ ±2 ℃; | 35 ℃ |
| – salt concentration: 5 % ±1 %; | 5 % |
| – pH: between 6.5 and 7.2; | 6.8 |
| – duration: 3 h. | 3 h |
| The insulation resistance during and after the test shall not be lower than 20MΩ. | >200MΩ |

## Composite temperature/humidity cyclic test

| Test requirements | Test records and remarks<br>3-1 |
|---|---|
| – low temperature: -10 ℃ ±2 K; | (-10.2~-10.0) ℃ |
| – high temperature: + 40 ℃ ±2 K; | (+39.9~+40.2) ℃ |
| – relative humidity: 93 % ±3 %; | 93.2%~93.4% |
| – cycle time: 24 h; | 24 h |
| – number of cycles: 21. | 21 |
| The test is considered as passed, if the VDIS has no damage and is working properly according to the test for indication of VDIS. | Complied |

## Vibration

| Test requirements | Test records and remarks |
|---|---|
| | 3-2 |
| – frequency sweep: 10 Hz to 150 Hz (sinusoidal);<br>– amplitude sweep: ±0.15 mm( 10 Hz to 58 Hz);<br>– acceleration sweep: 2.0 g( 58 Hz to 150 Hz);<br>– sweep time: 1 octave/min;<br>– dwell time: 3.5 h (each direction);<br>– orientation: all directions (x / y / z axis);<br>– number of cycles: 10.<br>The test is considered as passed, if the VDIS has no damage and is working properly according to the test for indication of VDIS after the test. | 10 Hz to 150 Hz (sinusoidal)<br>±0.15 mm( 10 Hz to 58 Hz)<br>2.0 g( 58 Hz to 150 Hz)<br>1 octave/min<br>3.5 h (each direction)<br>all directions (x / y / z axis)<br>10<br><br>Complied |

## Mechanical impact (IK code)

| Test requirements | Test records and remarks |
|---|---|
| | 3-2 |
| All accessible parts of the VDIS and the separable indicator shall respect an impact level of IK07. | Complied |

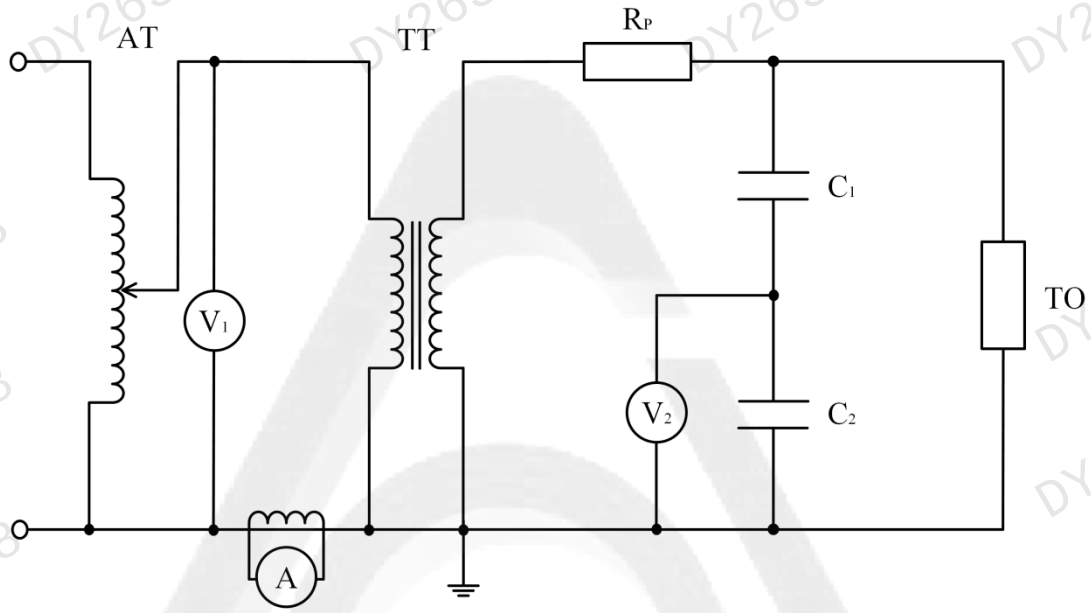
## Electrostatic discharge

| Test requirements | Test records and remarks |
|---|---|
| | 3-3 |
| Test level: 3; | Level 3 |
| Classification: B; | Complied |
| Test location: Pilot lamp and enclosure(in air 8kV),coupling plate(contact 6 kV); | Contact : ±6 kV, in air: ±8kV |
| The test is considered as passed, if the VDIS is working properly according to the test for indication of VDIS after the test. | Complied |

## Radiated electromagnetic fields

| Test requirements | Test records and remarks |
|---|---|
| | 3-3 |
| Test level: 3;<br>Field strength: 10V/m;<br>Frequency range: 80 MHz to 3GHz;<br>Classification: B.<br>The test is considered as passed, if the VDIS is working properly according to the test for indication of VDIS after the test. | Level 3<br>10V/m<br>80 MHz ~ 3GHz<br>Complied<br><br>Complied |

## Test circuit of lightning impulse voltage test




AT：调压器(Voltage regulator)

TT：工频试验变压器(Power frequency transformer)

$R_P$：保护电阻(Protective resistor)

$V_1$：电压表(Voltmeter)　　A：电流表(Ammeter)

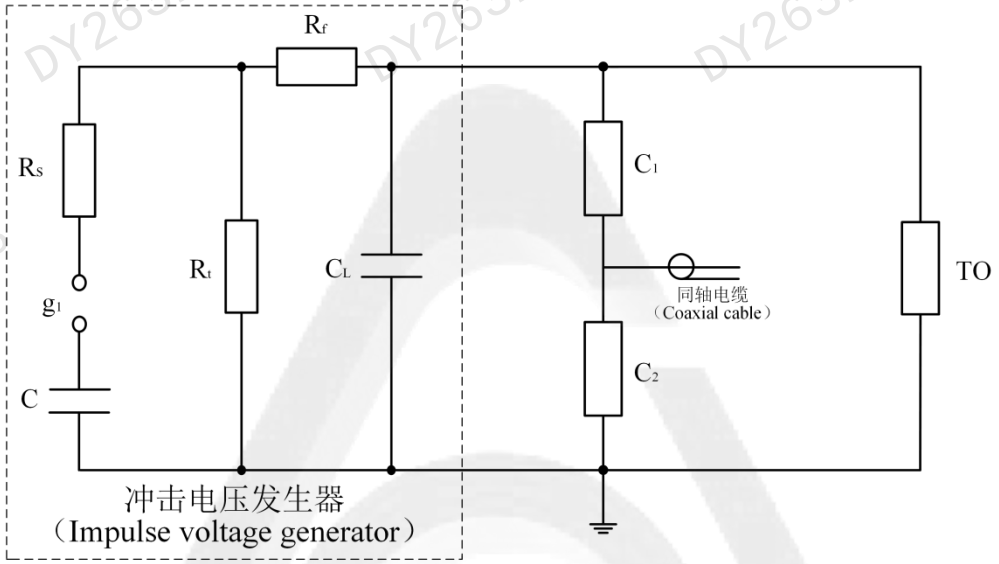
$C_1$：分压器高压臂(HV arm capacitor)

$C_2$：分压器低压臂(LV arm capacitor)

$V_2$：峰值电压表(Peak voltmeter)

TO：试品(Test object)

## Test circuit of power-frequency voltage test




C：发生器电容(Generator capacitor)

$R_s$：内部串联电阻(Internal series resistor)

$R_t$：波尾电阻(Tail resistor)

$C_1$、$C_2$：分压器高、低压臂电容(Voltage divider capacitor)

$g_1$：放电球隙(Discharge gap)

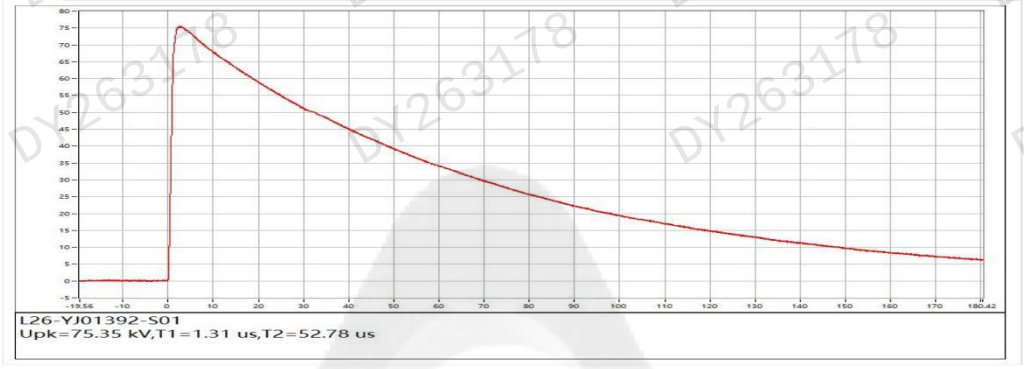
$R_f$：波头电阻(Front resistor)

$C_L$：负载电容(Load capacitor)

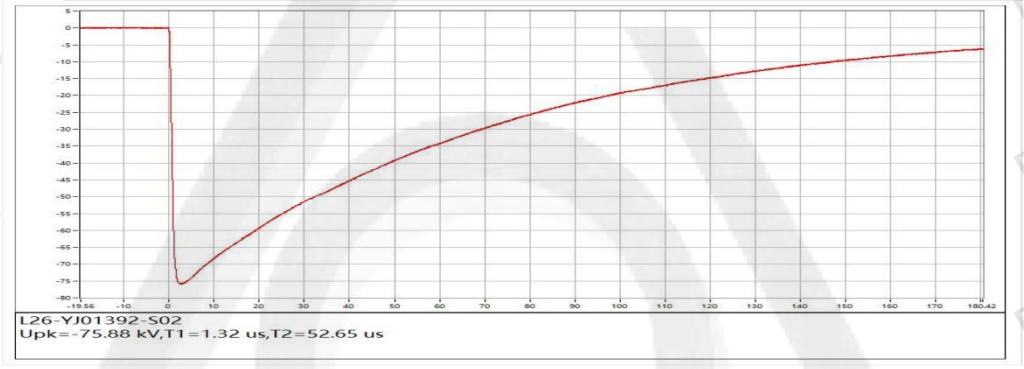
TO：试品(Test object)

## Typical oscillograms of Lightning impulse voltage test

Testing points and connecting points are connected to the earth of the installation:

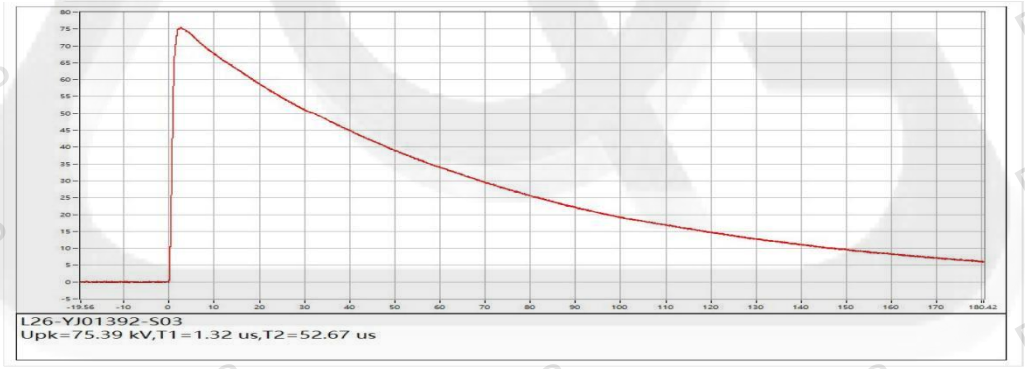



(75kV positive) L26-YJ1392-S01




(75kV negative) L26-YJ1392-S02

Testing points and connecting points are not connected to the earth of the installation:




(75kV positive) L26-YJ1392-S03




(75kV negative) L26-YJ1392-S04

Notes:

1.Testing location/ address: No.68, XiHu East Road, ShiLong Town, Dongguan City, Guangdong Province, China No.10, Science Avenue,Science city,Huang pu Di strict,Guang zhou,Guang dong,china ( Radiated electromagnetic fields)

2.Address of applicant: No.2-1 Huiyuan Road, Shanhai Cooperation Zone, Jiangshan

3.Environmental conditions (if applicable):

Temperature (24.6~33.5) ℃, Relative humidity 43%~73%, Other ———

4.Sampling procedure (if applicable): ———

5.The interpretation of the deviation(s) from standard method(s) (if applicable): ———

6.The interpretation of the measurement uncertainty of the result(s) (if applicable): ———

7.Subcontract items and subcontractor (if applicable): ———

广东产品质量监督检验研究院

GUANGDONG TESTING INSTITUTE OF PRODUCT QUALITY SUPERVISION

**Guangdong Testing Institute of Product Quality Supervision (In Short GQI), also called Guangzhou Electrical Safety Testing Institute, Guangdong Testing and Certification Institute, was set up in September, 1983. It is a public institution affiliated to Guangdong Administration for Market Regulation (Administration for Intellectual Property).**

**GQI is a legal third party institute specializing in product testing, inspection and certification;it is subordinate to Guangdong Administration for Market Regulation (Administration for Intellectual Property); it is a national-level testing and inspecting organization accredited by China National Accreditation Service for Conformity Assessment (CNAS); it is an international CB testing laboratory recognized by International Electrotechnical Commission System for Conformity Assessment Schemes for Electrotechnical Equipment and Components(IECEE); it is the national compulsory CCC testing organization designated by Certification and Accreditation Administration of the People's Republic of China(CNCA).**

**GQI currently undertakes commitment of 10 national testing and inspection centers, which are:**

- China National Quality Testing and Inspection Center for Safety of Electrical Products
- China National Quality Testing and Inspection Center for Furniture (Guangdong)
- China National Quality Testing and Inspection Center for Smart Grid Transmission and Distribution Equipment (Guangdong)
- China National Quality Testing and Inspection Center for Paintings and Dopes (Guangdong)
- China National Quality Testing and Inspection Center for Food (Guangdong)
- China National Quality Testing and Inspection Center for Machinery Safety
- China National Quality Testing and Inspection Center for Fire Fighting Products (Guangdong)
- China National Quality Testing and Inspection Center for Solar Energy Photovoltaic Products (Guangdong)
- China National Quality Testing and Inspection Center for Cables and Wires (Guangdong)
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