



PRODUCT CERTIFICATION

No.: CSFS22.00351

NAME AND ADDRESS OF THE APPLICANT

Shanghai CITEL Electronics CO., LTD.
4F, Block B, No. 521 Kanghua Road, Kangqiao Industrial Zone, Pudong New Area, Shanghai

NAME AND ADDRESS OF THE MANUFACTURER

CCSH Manufacturing CO., LTD.
No. 499, Kangyi Road, Kangqiao Industrial Zone, Pudong, Shanghai

NAME AND ADDRESS OF THE FACTORY

CCSH Manufacturing CO., LTD.
No. 499, Kangyi Road, Kangqiao Industrial Zone, Pudong, Shanghai

PRODUCT TRADEMARK



NAME, MODEL AND SPECIFICATON

DLC series Surge Protectors

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

IEC 61508-1: 2010, IEC 61508-2: 2010

**This is to certify that the products mentioned above have met
the requirement of certification rules:**

**SITIIAS-RJ03-02 A/4: Implemented rules for certification of functional safety products
Product information detailed in the attachment.**

CERTIFICATION MODE

Type test + Initial industry inspection + Supervision after obtaining the certificate

Date of Issued: Sep .8, 2023

Date of expiry: Aug. 31, 2027

Date of original certification: Sep. 8, 2023

**Validity of this certificate is subject to positive result of the regular follow up inspection
by issuing certification body until the expiry date. The specific information of this certificate
can be inquired through the official website of the issuing authority.**



中国认可
产品
PRODUCT
CNAS C214-P

Authorized by: 

Date: Sep , 8 , 2023

**Shanghai Inspection and Testing Institute of
Instrumentation and Automation Systems Co.,Ltd.**

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PRODUCT CERTIFICATION ATTACHMENT

No.: CSFS22.00351

Product: Surge Protectors **Model:** DLC series

Description: DLC series Surge Protectors: DLC-06D3,DLC-06DBC,DLC-24D3,DLC-24DBC, DLC-06D3G,DLC-24D2.

Safety function: Surge protectors pass analog or digital signals.

Standards: IEC 61508-1:2010 Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General Requirements
IEC 61508-2:2010 Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems

Safety Integrity Level (SIL) : According to IEC 61508: 2010, the hardware safety integrity level is determined via route 2_H. DLC series Surge Protectors belongs to Type A safety related element. In low demand operation mode, the safety integrity level reaches SIL 3 when its HFT (Hardware Fault Tolerance) = 0.

Model	DLC-06D3 DLC-06DBC DLC-06D3G DLC-24D3 DLC-24DBC	DLC-24D2
λ_{total}	18.5	18.5
λ_{NE}	9.75	9.45
λ_S	2.1	0
λ_{DU}	6.65	9.05
λ_{DD}	0	0
$PFD_{avg} (T_1=1Y)$	2.91×10^{-4}	3.96E-04
SIL(HFT=0)	3	3
Note: The failure rate unit is FIT, 1FIT=1×10 ⁻⁹ /h.		

Specification: Proof test and routine inspection should be performed according to Safety Manual.

- Note:**
- 1、 Test Report Numbered J23-095-RZ-CJ is the supporting document of this certificate. This certificate is valid only for products that are consistent with the certification documents and samples approved by SITIiAS. The documents are kept by SITIiAS.
 - 2、 Name and address of the applicant change from “Room 509, 88 Shangke Road, Zhangjiang, Pudong New Area, Shanghai” to “4F, Block B, No. 521 Kanghua Road, Kangqiao Industrial Zone, Pudong New Area, Shanghai”.
 - 3、 Added DLC-06D3G and DLC-24D2 to the DLC series.

Shanghai Inspection and Testing Institute of Instrumentation and Automation Systems Co., Ltd.

Sep.08, 2023