Verification No.: CLZJ24073060649

VERIFICATION OF LVD COMPLIANCE

Applicant:	Zhejiang Changcheng Trading Co., Ltd.
Address of applicant:	DianHou Village, Liushi Town, Yueqing City, Zhejiang, China
Manufacturer:	Changcheng Electrical Group Zhejiang Technology Co., Ltd.
	DianHou Village, Liushi Town, Yueqing City, Zhejiang, China
Product Description:	Modular Socket
Model No.:	TMS-5,AD20-G,AD20-GK,AD21-G,AD21-GK,AD20-F,AD20-FK,AD21-F,AD21-FK,AD20-I,AD20-IK,AD21-I,AD21-IK,AD20-US,AD20-USK,AD21-US,AD21-USK,AD20-S,AD20-SK,AD21-S,AD21-SK,AC30-2P-UN,AC30-2PE-UN,AC30-3M,AC30-3Y

Sufficient samples of the product have been tested and found to be in conformity with

Test Standard:	EN IEC 60309-1:2022, EN IEC 60309-2:2022

As shown in the

Test Report Number(s):	TLZJ24073060649
Date of issue:	August 23, 2024
Date of expiry:	August 22, 2029

Conclusion

This Verification of LVD Compliance has been granted to the applicant based on the results of the TCF, performed by Global Testing Services Co., Ltd. on the sample of the above-mentioned product in accordance with the provisions of the relevant specific standards and the Directive 2014/35/EU. The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives. The affixing of the CE marking presumes in addition that the conditions in annexes III and IV of the Directive are fulfilled.

Approved by: Hermann Weiher

For and on behalf of
Global Testing Services Co., Ltd

GLOBAL TESTING SERVICES CO.,LTD. GTS CERTIFICATION

Global Testing Services Co., Ltd
E-mail:info@gts-lab.com http://www.gts-lab.com
Floor 3rd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.

Technical Construction File

EN IEC 60309-1:2022

Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes- Part 1: General requirements

EN IEC 60309-2:2022

Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes- Part 2: Dimensional compatibility requirements for pin and contact-tube accessories

Report reference No.....:	TLZJ24073060649
Compiled by (+ signature).....:	Stephen Zhang / Test Engineer
Approved by (+ signature).....:	Kosco Vent / Project Manager
Date of issue.....:	August 23, 2024
Reviewing laboratory.....:	Shanghai Global Testing Services Co., Ltd.
Reviewing location.....:	Floor 2nd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.
Applicant.....:	Zhejiang Changcheng Trading Co., Ltd.
Address.....:	DianHou Village, Liushi Town, Yueqing City, Zhejiang, China
Manufacturer.....:	Changcheng Electrical Group Zhejiang Technology Co., Ltd.
Address.....:	DianHou Village, Liushi Town, Yueqing City, Zhejiang, China
Factory.....:	The same as manufacturer
Address.....:	The same as manufacturer
Standard.....:	☒ EN IEC 60309-1:2022, EN IEC 60309-2:2022
Review Report Form No.....:	60309
TRF originator.....:	GTS
Master TRF.....:	Reference No. EN 60309-1, EN 60309-2
Review procedure .....:	GTS
Type of Review object.....:	Modular Socket
Trademark.....:	/
Model/type reference.....:	TMS-5,AD20-G,AD20-GK,AD21-G,AD21-GK,AD20-F,AD20-FK, AD21-F,AD21-FK,AD20-I,AD20-IK,AD21-I,AD21-IK,AD20-US, AD20-USK,AD21-US,AD21-USK,AD20-S,AD20-SK,AD21-S, AD21-SK,AC30-2P-UN,AC30-2PE-UN,AC30-3M,AC30-3Y
Main inspection model.....:	TMS-5 16A
Rating.....:	/

Possible review case verdicts: - review case does not apply to the test object..... : N(.A.) - review object does meet the requirement..... : P(ass) - review object does not meet the requirement.....: F(ail)
General remarks:
"(see remark #)" refers to a remark appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator. The review results presented in this report relate only to the object reviewed. This report shall not be reproduced except in full without the written approval of the third party.

Testing:	
Date of receipt of review item:	July 30, 2024
Date(s) of performance of review:	July 30, 2024 to August 23, 2024

General product information: Modular Socket
Summary of reviewing: This review report includes: Annex I: **2** page(s) of photo documentation.
Copy of marking plate

Modular Socket, Model TMS-5 16A Changcheng Electrical Group Zhejiang Technology Co., Ltd.	CE

EN 60309			
Clause	Requirement – Test	Result - Remark	Verdict
4	General		P
4.1	General requirements		P
	Accessories shall be so designed and constructed that in normal use their performance is reliable and without danger to the user or surroundings.	Pass muster	P
	Unless otherwise stated, the normal use environment in which the devices complying with this standard are normally used is pollution degree 3 according to IEC 60664-1.		P
	If other pollution degrees are needed, creepage and clearance distances have to be in accordance with IEC 60664-1. The comparative tracking index (CTI) value shall be evaluated in accordance with IEC 60112.		N
	Combinations of plugs, socket-outlets, appliance inlets and connectors that are intended for use together shall comply with the requirements of this standard and the relevant standard sheet, if any.		P
4.2	General notes on tests	Pass muster	P
4.2.1	Tests according to this standard are type tests. If a part of an accessory has previously passed tests for a given degree of severity, the relevant type tests shall not be repeated if the severity is not greater. When a part or a component is incorporated in a device or accessory according to IEC 60309 standard, and if this part or component meets an appropriate IEC standard, then no further test(s) or requirement(s) shall be required for this part or component, unless it is being used in a way significantly different from the intent of its own standard.		P
4.2.2	Unless otherwise specified, the samples are tested as delivered and under normal conditions of use, at an ambient temperature of (20 ± 5) °C; the tests are made at rated frequency.		P
4.2.3	Unless otherwise specified, the tests are carried out in the order of the clauses of this standard.		P
4.2.4	Three samples are subjected to all the tests, except if necessary for the tests of 11.1.4 and Clause 29 where, for each clause, one new set of samples is tested. If, however, the tests of Clauses 20, 21 and 22 have to be made with both d.c. and a.c., the tests with a.c. are made on three additional samples.		P
4.2.5	Accessories are deemed to comply with this standard if no sample fails in the complete series of appropriate tests. If one sample fails in a test, that test and those preceding which may have influenced the test result are repeated on another set of three samples, all of which shall then pass the repeated tests.		P

4.2.6	When the tests are carried out with conductors, they shall be copper and comply with IEC 60227, IEC 60228 [clause 2, solid (class 1), stranded (class 2), flexible (class 5)] and IEC 60245-4, as accessories according to this standard are intended to be connected to cables with copper or copper-alloy conductors only.	No conductors	P
4.101	If gauges are used, they shall be of hardened steel, all corners shall be slightly rounded-off with a maximum radius of 0,1 mm, and the surface finish for all measurement surfaces shall be $\sqrt{}^{N8}$ min., if not otherwise specified.		P
	In this standard:		P
	2P + covers both 2P + and 1P + N + and		P
	3P + covers both 3P + and 2P + N + ⏚		P
5	Standard ratings		P
5.1	Preferred rated operating voltage ranges and voltages are: 20 V to 25 V 380 V to 415 V 40 V to 50 V 440 V to 460 V 100 V to 130 V 480 V to 500 V 200 V to 250 V 600 V to 690 V 277 V		P
5.2	Preferred rated currents are given in the following table: **Series I** A: 16, 32, 63, 125, 250 **Series II** A: 20, 30, 60, 100, 200		P
5.101	The standard IP ratings according to IEC 60529 are:		P
	IP44		P
	IP67		P
	IP66/IP67.		N
6	Classification		P
6.1	Accessories are classified:		--
6.1.1	according to purpose: plugs, socket-outlets, connectors, appliance inlets;		--
6.1.2	according to degrees of protection in accordance with IEC 60529		--
6.1.3	according to earthing facilities: – accessories without earthing contact; – accessories with earthing contact;	With earthing contact	--

6.1.4	according to the method of connecting the cable: – rewirable plugs and connectors; – non-rewirable plugs and connectors;	Rewirable	--
6.1.5	according to interlocking facilities: – accessories without interlock, with or without integral switching device; – accessories with mechanical interlock; – accessories with electrical interlock.	With interlock	--
6.1.6	according to the type of terminals – with screw type terminals; – with screwless type terminals; – with insulation piercing terminals.	With screw type terminals	--
6.1.7	according to the type of conductors for screwless type and insulation piercing terminals – for solid conductors only; – for rigid (both solid and stranded) conductors only; – for flexible conductors only; – for rigid (both solid and stranded) and flexible conductors.		N
7	Marking		P
7.1	Accessories shall be marked with:		P
	–rated current(s) in amperes;		P
	–rated operating voltage(s) or range(s) in volts;		P
	–symbol for nature of supply, if the accessory is not intended for both a.c. and d.c., or is intended for a.c. with frequencies other than 50 Hz or 60 Hz, or if the rating is different for alternative current and direct current;		P
	–rated frequency if exceeding 60 Hz;		N
	– either the name or trade mark of the manufacturer or of the responsible vendor;		P
	–type reference, which may be a catalogue number;		P
	–symbol for degree of protection, as applicable;		P
	–symbol indicating the position of the earthing contact or the means used for interchangeability, if any.		P
7.2	When symbols are used, they shall apply the requirements of the stardand.	Pass muster	P
	Marking of degree of protection on plugs and appliance inlets is only valid when in engagement with a complementary accessory or with an attached cap, if any.		P
	For the marking of rated current(s) and rated operating voltage(s) or range(s), figures may be used alone.		P
	The figure for d.c. rated operating voltage, if any, shall then be placed before the figure for the a.c. rated operating voltage, and separated from it by a line or a dash.		N

7.3	For socket-outlets and appliance inlets, the marking for rated current, nature of supply, if necessary, and either the name or trade mark of the manufacturer or the responsible vendor shall be on the main part, on the outside of the enclosure, or on the lid, if any, if the latter cannot be removed without the aid of a tool.	Pass muster	P
	Except for flush-type socket-outlets and appliance inlets, these markings shall be easily discernible when the accessory is mounted and wired as in normal use, if necessary after it has been removed from the enclosure. The marking, if any, for the insulation voltage shall be on the main part; it shall not be visible when the accessory is mounted and wired as in normal use.		P
	The marking for rated operating voltage, type reference, the symbol for degree of protection, if required, and the symbol indicating the position of the earthing contact or the means used for interchangeability, if any, shall be on a place which is visible after installation of the accessory, on the outside of enclosure or on the lid, if any, if the latter cannot be removed without the aid of a tool.		P
	With the exception of the type reference, these markings shall be easily discernible when the accessory is mounted and wired as in normal use.		P
	The marking for rated current, nature of supply, rated operating voltage and the name or trade mark of the manufacturer or the responsible vendor, may be repeated on the lid, if any.		P
7.4	For plugs and connectors, the marking specified in 7.1, with the exception of the marking for insulation voltage, if any, shall be easily discernible when the accessory is wired ready for use.		N/A
	The marking for insulation voltage, if any, shall be on the main part; it shall not be visible when the accessory is mounted and wired as in normal use.		N/A
7.5	For rewirable accessories, the contacts shall be indicated by the symbols:		P
	–for three-phase, the symbols L1, L2, L3, or 1, 2, 3 for the phases, N for neutral, if any, and the symbol ⏚ or ⏚ for earth;		P
	–for two-pole, which may be used for both a.c. and d.c., one symbol for one of the live poles and the symbol ⏚ or ⏚ for earth, if any;		N/A
	–for a period of time the marking R1, S2, T3 may be used instead of L1, L2, L3.		N/A
	These symbols shall be placed close to the relevant terminals; they shall not be placed on screws, removable washers or other removable parts.		P
7.6	Marking shall be indelible and easily legible.	Indelible and easily legible	P

7.7	If, in addition to the marking prescribed, the rated operating voltage is indicated by means of a colour, the colour code shall be as shown in Table 2. An indicating colour, if different from that of the enclosure, shall be used only if it can be easily distinguished.		P
7.8	Accessories with screwless type terminals shall be marked with the length of insulation to be removed before insertion of the conductor into the terminal.		N/A
7.9	Terminals according to 6.1.7 shall be marked as follows:		N/A
	–terminals declared for solid conductors only with the letter(s) “s” or “sol”;		N/A
	–terminals declared for rigid conductors only (both solid and stranded) with the letter “r”		N/A
	–terminals declared for flexible conductors only with the letter “f”;		N/A
	–terminals declared for rigid (both solid and stranded) and flexible conductors need not be marked.		N/A
	This marking shall appear where it is practical on the end product or on the smallest package unit or in the manufacturer’s technical documentation and/or catalogues.		N/A
7.10	For terminals, the connection and disconnection procedures, if necessary, shall be indicated on the product, on the smallest package unit or on the manufacturer’s documentation.	On the manufacturer’s documentation	N/A
8	Dimensions		P
8.1	Accessories shall comply with the appropriate standard sheets, if any. When standard sheets do not exist, accessories shall comply with manufacturer’s specifications.	Pass muster	P
8.2	It shall not be possible to engage plugs or connectors with socket-outlets or appliance inlets having different ratings, or having contact combinations allowing improper connection.		P
	Connection of single-phase or three-phase plugs into three-phase + neutral socket-outlets are permitted where the above conditions are met.		N
8.3	It shall not be possible to make single-pole connections between plugs and socket-outlets or connectors, or between appliance inlets and connectors or socket-outlets.		P
	Plugs and appliance inlets shall not allow improper connections with socket-outlets complying with IEC 60083 or with connectors complying with IEC 60320.		N/A
	Socket-outlets and connectors shall not allow improper connections with plugs complying with IEC 60083 or with appliance inlets complying with IEC 60320.		P

	Improper connections include single-pole connections and other connections which do not comply with the requirements for protection against electric shock.		P
9	Protection against electric shock		P
9.1	Accessories shall be so designed that live parts of socket-outlets and connectors, when they are wired as in normal use, and live parts of plugs and appliance inlets, when they are in partial or complete engagement with the complementary accessories, are not accessible.	Pass muster	P
	In addition, it shall not be possible to make contact between a contact of a plug or appliance inlet and a contact of a socket-outlet or connector while any contact is accessible.		P
9.2	Accessories with earthing contact shall be so designed that:	Pass muster	P
	–when inserting the plug or connector, the earth connection is made before the phase connections and neutral, if any, are made;		P
	–when withdrawing the plug or connector, the phase connections and neutral, if any, are broken before the earth connection is broken.		P
9.3	It shall not be possible to inadvertently assemble the part carrying plug contacts into the enclosure of a socket-outlet or connector.		P
10	Provision for earthing		P
10.1	Accessories with earthing contact shall be provided with an earthing terminal. Metal-clad fixed accessories with an internal earthing terminal can, in addition, be provided with an external earthing terminal, which, except for flush type socket-outlets, shall be visible from the outside.	Pass muster	P
	Earthing contacts shall be directly and reliably connected to the earthing terminals, except that the earthing terminal of socket-outlets incorporated in the output circuit of an isolating transformer shall not be connected.		P
10.2	Accessible metal parts of accessories with earthing contact, which may become live in the event of an insulation fault, shall be reliably connected to the internal earthing terminal(s) by construction.		P
	In no case shall the resistance exceed 0,05 Ω.		P
10.3	Earthing contacts shall be capable of carrying a current equal to that specified for the phase contacts without overheating.		P
10.4	Earthing contacts shall be so shrouded or guarded that they are protected against mechanical damage.		P
11	Terminals and terminations		P
11.1	Common requirements for terminals and terminations		P

11.1.1	Rewirable accessories shall be provided with terminals.	Pass muster	P
	Rewirable plugs and connectors shall be provided with terminals that accept flexible conductors.		P
11.1.2	Non-rewirable accessories shall be provided with soldered, welded, crimped or equally effective permanent connections (terminations).		N
	Connections made by crimping a pre-soldered flexible conductor are not permitted, unless the soldered area is outside the crimping area.		N
11.1.3	Terminals shall allow the conductor to be connected without special preparation.		P
11.1.4	Parts of terminals shall be of a metal having, under conditions occurring in the equipment, mechanical strength, electrical conductivity and resistance to corrosion adequate to intended use.		P
	Current-carrying parts, which may be subjected to mechanical wear, shall not be made of steel provided with an electroplated coating.		P
11.1.5	If the body of an earthing terminal is not part of the metal frame or housing of the accessory, the body shall be of material as prescribed in 11.1.4 for parts of terminals. If the body is part of the metal frame or housing, the clamping means shall be of such material.		P
	If the body of an earthing terminal is part of a frame or housing made of aluminium or aluminium alloy, precautions shall be taken to avoid the risk of corrosion resulting from contact between copper and aluminium or its alloys.		N
11.1.6	Terminals shall be properly fixed to the accessory and shall not loosen when connecting and disconnecting the conductors.		P
	Clamping means shall not serve to fix any other component.		P
11.1.7	Each terminal shall be located in proximity to the other terminals, as well as to the internal earthing terminal, if any, unless there is a sound technical reason to the contrary.		P
11.1.8	Terminals shall be so located or shielded that:		P
	–screws or other parts becoming loose from the terminals, cannot establish any electrical connection between live parts and metal parts connected to the earthing terminal;		P
	– conductors becoming detached from live terminals cannot touch metal parts connected to the earthing terminal;		P
	–conductors becoming detached from the earthing terminal cannot touch live parts.		P

	This requirement applies also to terminals for pilot conductors.		P
11.1.9	When the conductors have been correctly fitted, there shall be no risk of accidental contact between live parts of different polarity or between such parts and accessible metal parts, and, should a wire of a stranded conductor escape from a terminal, there shall be no risk that such a wire emerges from the enclosure.	No risk	P
11.2	Screw type terminals		
11.2.1	Screw type terminals shall allow the proper connection of copper or copper-alloy conductors having nominal cross-sectional areas as shown in Table 3.	Pass muster	P
11.2.2	Screw type terminals shall have appropriate mechanical strength.		P
	Screws and nuts for clamping shall have an ISO thread or a thread comparable in pitch and mechanical strength.		P
11.2.3	Screw type terminals shall be so designed that they clamp the conductor between metal surfaces with sufficient contact pressure and without damaging the conductor.		P
11.2.4	Lug terminals shall be used only for accessories having a rated current of at least 60 A; if such terminals are provided, they shall be fitted with spring washers or equally effective locking means.		P
11.2.5	Clamping screws or nuts of earthing terminals shall be adequately locked against accidental loosening, and it shall not be possible to loosen them without the aid of a tool.		P
11.3	Screwless type terminals		N
11.3.1	Screwless type terminals shall allow the proper connection of copper or copper-alloy conductors having nominal cross-sectional areas as shown in Table 3.		N
11.3.2	Screwless type terminals shall be so designed that they clamp the conductor(s) between metal surfaces, with sufficient contact pressure and without damaging the conductor(s).		N
11.3.3	Screwless type terminals shall have appropriate mechanical strength.		N
11.3.4	The connection or disconnection of conductors shall be made:		N
	–either by the use of a general purpose tool or a convenient integrated device in the terminal, to open it and to assist the insertion or the withdrawal of the conductor(s);		N
	–or by simple insertion.		N

11.3.5	Opening for a tool intended to assist the insertion or disconnection of the conductors, if needed, shall be clearly distinguishable from the opening intended for the conductor.		N
11.3.6	Terminals shall be so designed and constructed that:		N
	–each conductor is clamped individually in a separate independent clamping unit (not necessarily in separate holes);		N
	–during the connection or disconnection, the conductors can be connected or disconnected either at the same time or separately.		N
	It shall be possible to clamp securely any number of conductors up to the maximum provided for.		N
11.3.7	Terminals shall be so designed and constructed that inadequate insertion of the conductor is avoided.		N
11.3.8	Screwless terminals shall be so designed that the connected conductor remains clamped, even if it has been bent during normal installation.		N
11.4	Insulation piercing terminals (IPT)		N
11.4.1	Insulation piercing terminals shall allow the proper connection of copper or copper-alloy conductors having nominal cross-sectional areas as shown in Table 3.		N
11.4.2	Insulation piercing terminals shall be so designed that they clamp the conductor between metal surfaces with sufficient contact pressure and without damaging the conductor.		N
11.4.3	Insulation piercing terminals shall have appropriate mechanical strength.		N
11.4.4	The connection or disconnection of conductors shall be made by the use of a general purpose tool or a convenient integrated device in the terminal to assist the insertion or the withdrawal of the conductors.		N
	The disconnection of a conductor shall require an operation other than a pull on the conductor only. It shall be necessary to take a deliberate action to disconnect it by hand or with a suitable tool.		N
11.4.5	Opening for a tool intended to assist the insertion or disconnection of the conductors, if needed, shall be clearly distinguishable from the opening intended for the conductor.		N
11.4.6	Terminals shall be so designed and constructed that:		N
	– each conductor is clamped individually in a separate independent clamping unit (not necessarily in separate holes); – during the connection or disconnection the conductors can be connected or disconnected either at the same time or separately.		N

	It shall be possible to clamp securely any number of conductors up to the maximum provided for.		N
11.5	Mechanical tests on terminals		P
11.5.1	New terminals are fitted with new conductors and of the minimum and the maximum cross-sectional areas and are tested with the apparatus shown in Figure 15.	Pass muster	P
	Terminals shall not, during this test, damage the conductor in such a way as to render it unfit for further use.	No damage	P
11.5.2	Verification is made successively with conductors of the largest and smallest cross-sectional areas specified in Table 3, using class 1 or class 2 conductors for terminals of socket-outlets or appliance inlets, and class 5 conductors for terminals of plugs or connectors.		P
	During the test, the conductor shall not slip out of the terminal nor shall it break at, or in, the clamping unit.	Not slip out	P
11.6	Voltage drop test for screwless type terminals and for insulation piercing terminals		N
	The test is made with new copper conductors having the minimum and maximum cross-sectional areas according to Table 3 and Table 10.		N
	After this test an inspection by the naked eye, with normal or corrected vision, without additional magnification, shall show no changes obviously impairing further use, such as cracks, deformations or the like.		N
11.7	Tests for insulation piercing terminals transmitting contact pressure via insulating parts		N
11.7.1	Temperature-cycling test		N
11.7.2	Short-time withstand current test		N
	After this test an inspection by the naked eye, with normal or corrected vision, without additional magnification, shall show no change obviously impairing further use, such as cracks, deformations or the like.		N
12	Interlocks		N
12.1	An interlock shall be incorporated in socket-outlets and connectors not complying with the tests for breaking capacity and normal operation according to this standard.		N
	Interlocks shall be linked with the operation of a switching device so that the plug can neither be withdrawn from the socket-outlet or connector while the contacts are alive, nor be inserted while the switching device is in the "ON" position.		N
	Pilot contacts of a socket-outlet or connector used for electrical interlock are permitted to be live when engaged or not engaged with the pilot contacts of the plug or appliance inlet.		N

	Socket-outlets and connectors shall be so designed that, after engagement with any complementary accessory, the interlock operates correctly.		N
	The operation of an interlock shall not be impaired by normal wear of the portion of the plug used for interlocking.		N
	The mechanical switching device for a mechanical interlock may be incorporated in the socket-outlet or connector.		N
12.2	Mechanical switching devices for interlocked a.c. switched socket-outlets or connectors shall comply to IEC 60947-3 with a utilization category of at least AC 22A.		N
	Mechanical switching devices for interlocked d.c. switched socket-outlets or connectors shall comply to IEC 60947-3 with a utilization category according to the application.		N
	Accessories having an integral switching device and operated by the plug need not comply to requirements of IEC 60947-3 but shall comply with clauses 20 and 21 of this standard.		N
12.3	Mechanical switching devices of the interlock shall comply with clause 29, unless already tested to IEC 60947-3 for short-circuit current withstand of at least 10 kA.		N
13	Resistance to ageing of rubber and thermoplastic material		P
	Accessories with enclosures of rubber or thermoplastic material, and parts of elastomeric such as sealing rings and gaskets, shall be sufficiently resistant to ageing		P
	The samples are suspended freely in a heating cabinet, ventilated by natural circulation. The temperature in the cabinet and the duration of the ageing test are: (70 ± 2) °C and 10 days (240 h), for rubber; (80 ± 2) °C and 7 days (168 h), for thermoplastic material.		P
	After the test, the samples shall show no damage which would lead to non-compliance with this standard.	Show no damage	P
	No trace of the cloth shall remain on the sample and the material of the sample shall not stick to the cloth.		P
14	General construction		P
14.1	Accessible surfaces of accessories shall be free from burrs, flashes and similar sharp edges.	Pass muster	P
14.2	Screws or other means for fixing the part carrying the socket-outlet contacts or the part carrying the plug contacts to its mounting surface, in a box or in an enclosure, shall be easily accessible.		P

	These fixings and those which fix the enclosure shall not serve any other purpose except in the case whereby an internal earthing connection is established automatically and in a reliable way by such a fixing.		P
14.3	It shall not be possible for the user to alter the position of the earthing contact, or of the neutral contact, if any, in relation to the means of non-interchangeability of the socket-outlet or connector, or in relation to the means of non-interchangeability of the plug or appliance inlet.		P
14.4	Socket-outlets and connectors when mounted as in normal use and without a plug in position shall ensure the degree of protection specified on its marking.		P
	In addition, when a plug or appliance inlet is fully engaged with the socket-outlet or connector, the lower degree of protection of the two accessories shall be ensured.		N
15	Construction of socket-outlets		P
15.1	Contacts shall be so designed as to ensure adequate contact pressure when completely engaged with the corresponding plug.	Pass muster	P
15.2	The pressure exerted between the socket and plug contacts shall not be so great as to make insertion and withdrawal of the plug difficult. It shall not be possible for the plug to work out of the socket-outlet in normal use.		P
15.3	Socket-outlets shall be so constructed as to permit:		P
	–the conductors to be easily introduced into the terminals and secured therein;		P
	–the correct positioning of the conductors, without their insulation coming into contact with live parts of a polarity different from that of the conductor;		P
	–the covers or enclosures to be fixed easily after c onnection of the conductors.		P
15.4	Enclosures and parts of a socket-outlet providing protection against electric shock shall have adequate mechanical strength; they shall be securely fixed in such a way that they will not work loose in normal use. It shall not be possible to remove these parts without the aid of a tool.		P
15.5	Cable entries shall allow the introduction of the conduit or the protective covering of the cable so as to afford complete mechanical protection.		P
15.6	Insulating linings, barriers and the like shall have adequate mechanical strength and shall be fixed to the metal casing or the body in such a way that either they cannot be removed without being seriously damaged or be so designed that they cannot be replaced in an incorrect position.	Have adequate mechanical strength	P

15.7	When a plug is not engaged, socket-outlets shall be totally enclosed when fitted with screwed conduits, or sheathed cables. Polyvinyl chloride sheated cables are not excluded. The means for achieving total enclosure and that for ensuring the marked degree of protection, if any, shall be securely fixed to the socket-outlet. In addition, when a plug is completely engaged, the socket-outlet shall incorporate means for ensuring the marked degree of protection.		P
15.8	Socket-outlets having rated operating voltages exceeding 50 V shall be provided with an earthing contact.		P
16	Construction of plugs and connectors		N/A
16.1	The enclosure of plugs and connectors shall completely enclose the terminals and the ends of the flexible cable.		N/A
	The construction of rewirable plugs and connectors shall be such that the conductors can be properly connected and the cores kept in place so that there is no risk of contact between them from the point of separation of the cores to the terminals.		N/A
	Accessories shall be so designed that they can only be reassembled so as to ensure the correct relationship between the components as originally assembled.		N/A
16.2	The various parts of a plug or connector shall be reliably fixed to one another in such a way that they will not work loose in normal use. It shall not be possible to dismantle plugs or connectors without the aid of a tool.		N/A
16.3	If an insulating lining is provided, it shall have adequate mechanical strength and shall be secured to the enclosure in such a way that either it cannot be removed without being seriously damaged, or it is so designed that it cannot be replaced in an incorrect position.		N/A
16.4	Plug contacts shall be locked against rotation and shall not be removable without dismantling the plug.		N/A
16.5	Contacts of connectors shall be self-adjusting so as to ensure adequate contact pressure.		N/A
	Contacts other than the earth contact shall be floating.		N/A
	Earth contacts need not be floating provided that they have the necessary resilience in all directions.		N/A
16.6	The pressure exerted by the contacts of connectors on the plug contacts shall not be so great as to make insertion and withdrawal of the plug difficult. It shall not be possible for the plug to work out of the connector in normal use.		N/A

16.7	Plugs shall incorporate means for ensuring the marked degree of protection against humidity when in complete engagement with the complementary accessory.		N/A
	It shall not be possible to dismantle these means without the aid of a tool.		N/A
16.8	Connectors shall be totally enclosed when fitted with a flexible cable as in normal use and when not in engagement with a complementary accessory. In addition, they shall incorporate means for ensuring the marked degree of protection when in complete engagement with the complementary accessory.		N/A
	The means for ensuring the marked degree of protection shall be securely fixed to the connector.		N/A
	Lid springs shall be of corrosion-resistant material, such as bronze, stainless steel or other suitable materials adequately protected against corrosion.		N/A
16.9	Plugs and connectors having rated operating voltages exceeding 50 V shall be provided with earthing contacts.		N/A
16.10	Plugs and connectors shall not have specific means to allow the wiring of more than one cable assembly. Plugs shall not have specific means to allow the plug to be wired to more than one connector or socket-outlet. Connectors shall not have specific means to allow the wiring of more than one plug or appliance inlet.		N/A
16.101	Additional subclause:		N/A
	Pins shall be solid.		N/A
	Compliance is checked by inspection.		N/A
16.102	Plugs rated up to 32 A may incorporate a phase inverting means. These plugs shall comply with the general requirements for plugs and with clause 21 for phase inverters. They shall be delivered with an instruction sheet with the following information: Use class 5 or class 6 flexible conductors only and make sure that the conductors can move to permit operation of the phase inverting means. An integral switching device shall not be used as a phase inverting means. The phase inverting means shall be proconditioned when wired with class 5 cables according to clause 23 by carrying out 1 000 position changing operations.		N/A
17	Construction of appliance inlets		N/A
17.1	Plug-contacts shall be locked against rotation and shall not be removable without the aid of a tool.		N/A

17.2	Appliance inlets shall incorporate means for ensuring the marked degree of protection against humidity when an appropriate connector is completely engaged.		N/A
	It shall not be possible to dismantle these means without the aid of a tool.		N/A
17.3	Appliance inlets having rated operating voltage exceeding 50 V shall be provided with earthing contacts.		N/A
17.4	Appliance inlets shall not have specific means to allow the wiring of more than one connector.		N/A
17.101	Pins shall be solid. Compliance is checked by inspection.		N/A
17.102	shall comply with the general requirements for inlets and clause 21 for phase inverters. They shall be delivered with an instructions sheet with the following information: Use class 5 or class 6 flexible conductors only and make sure that the conductors can move to permit operation of the phase inverting means. For appliance inlets, switches can be used as phase inverting means. Switches shall comply with IEC 60947-3 in a utilisation category of at least AC 22A. The phase inverting means shall be preconditioned when wired with class 5 cables according to clause 23, by carrying out 1 000 position changing operations.		N/A
18	Degrees of protection		P
18.1	Accessories shall have the degrees of protection marked on the products.		P
18.2	Accessories shall be tested in accordance with 18.1 and IEC 60529. When the first characteristic numeral is 5, category 2 shall apply.		P
	For IP X4, the oscillating tube according to 14.2.4a of IEC 60529 shall be used.		N
	Inspection shall show that water has not entered the samples to any appreciable extent and has not reached live parts.		N
	The minimum degree of protection shall be IP23.		N
18.3	Void		N
18.4	Void		N
18.5	All accessories shall be proof against humid conditions which may occur in normal use.		P

	The humidity treatment is carried out in a humidity cabinet containing air with a relative humidity maintained between 91 % and 95 %. The temperature of the air, at all places where samples can be located, is maintained within 1 °C of any convenient value T between 20 °C and 30 °C. The samples are kept in the cabinet for 7 days (168 h).		P
	After this treatment, the samples shall show no damage within the meaning of this standard.	Show no damage	P
19	Insulation resistance and dielectric strength		P
19.1	The insulation resistance and the dielectric strength of accessories shall be adequate.		P
19.2	The insulation resistance is measured with a d.c. voltage of approximately 500 V applied, the measurement being made 1 min after application of the voltage.		P
	The insulation resistance shall be not less than 5 MΩ.		P
19.3	A voltage of substantially sine-wave form, having a frequency of 50 Hz/60 Hz and the value shown in Table 5, is applied for 1 min between the parts.		P
	No flashover or breakdown shall occur during the test.	No flashover or breakdown	P
19.4	Immediately after the test of 19.3, it shall be verified that, for accessories with enclosures of thermoplastic material, the means of providing non-interchangeability have not been impaired.		P
20	Breaking capacity		P
	Accessories without interlock shall have adequate breaking capacity.		P
	During the test, no sustained arcing shall occur.		P
	After the test, the samples shall show no damage impairing their further use and the entry holes for the plug contacts shall not show any serious damage.	Show no damage	P
21	Normal operation		P
	Accessories shall withstand, without excessive wear or other harmful effect, the mechanical, electrical and thermal stresses occurring in normal use.	Pass muster	P
	During the test, the contacts of the accessories shall not be adjusted, lubricated or otherwise conditioned.		P
	During the test, no sustained arcing shall occur.		P
	After the test, the samples shall show:		P
	–no wear impairing the further use of the accessory or of its interlock, if any;		P
	–no deterioration of enclosures or barriers;		P
	–no damage to the entry holes for the plug contacts hat might impair proper working;		P
	–no loosening of electrical or mechanical connections;		P

	–no seepage of sealing compound.		P
	The samples shall then withstand a dielectric strength test made in accordance with 19.3, the test voltage, however, being decreased by 500 V for accessories having an insulation voltage exceeding 50 V.		P
	Lid springs, if any, are tested by completely opening and closing the lid, the number of times the lid is opened being the same as the number of insertions of the plug specified in Table 7.		N
22	Temperature rise		P
	Accessories shall be so constructed that the temperature rise in normal use is not excessive.	Pass muster	P
	The duration of the test is: - 1 h for accessories having a rated current not exceeding 32 A; - 2 h for accessories having a rated current exceeding 32 A but not exceeding 125 A; - 3 h for accessories having a rated current exceeding 125 A.		P
	The temperature rise of terminals shall not exceed 50 K.		P
23	Flexible cables and their connection		N/A
23.1	Plugs and connectors shall be provided with a cable anchorage such that the conductors are relieved from strain, including twisting, where they are connected to the terminals or terminations, and that their covering is protected from abrasion.		N/A
	Cable anchorages shall be so designed that the cable cannot touch accessible metal parts or internal metal parts, for example cable anchorage screws, if these are electrically connected to accessible metal parts, unless the accessible metal parts are connected to the internal earth terminal.		N/A
23.2	Requirements for plugs and connectors		N/A
23.2.1	Non-rewirable plugs and connectors		N/A
	Accessories shall be provided with a flexible cable complying with IEC 60245-4 of one of the types specified in the following table, the nominal cross-sectional area being not less than the value shown.		N/A
	Nominal cross-section: (mm^2)		N/A
	The pilot conductor, if any, shall have a nominal cross-sectional area of at least 1,5 mm^2.		N/A
23.2.2	Rewirable plugs and connectors		N/A
	It all be clear how the relief from strain and the prevention of twisting is intended to be effected.		N/A

	The design of the cable anchorage shall be such that the anchorage or components are properly positioned relative to the accessory when assembled;		N/A
	Cable anchorages shall present no sharp edges to the cable and shall be so designed that the anchorages or their components are not likely to be lost when the enclosure of the accessory and not the cable anchorage is being opened;		N/A
	Makeshift ethods, such as tying the cable into a knot or tying the ends with string, shall not be used;		N/A
	Cable anchorages and cable inlets shall be suitable for the different types of flexible cable which may be connected.		N/A
	Helical metal springs, whether bare or covered with insulating material, are not allowed as cable sleeves.		N/A
23.3	Plugs and connectors provided with a flexible cable are subjected to a pull test in apparatus similar to that shown in Figure 6, followed by a torque test.		N/A
	During the tests, the cable shall not be damaged.		N/A
	After the tests, the cable shall not have been displaced by more than 2 mm. For rewirable accessories, the ends of the conductors shall not have moved noticeably in the terminals; for non-rewirable accessories, there shall be no break in the electrical connections.		N/A
	After the tests, the displacement of the mark on the cable in relation to the sample or the cable anchorage is measured.		N/A
24	Mechanical strength		P
24.1	Accessories shall have adequate mechanical strength.	Pass muster	P
24.2	Blows shall be applied to the samples by means of the impact test apparatus. Annex A gives guidance and description of test apparatus. The test apparatus is shown in Figure 7.		P
24.2.1	Accessories shall have adequate strength to maintain the integrity of the marked degree of protection after being subjected to impact blows occurring in normal use.		P
24.2.2	Five blows shall be applied to each test sample by means of the impact apparatus shown in Figure 7.		P
	The blows shall have an impact energy according to Table 12.		P
24.2.3	Socket outlet and appliance inlet samples shall each be fixed to a rigid mounting board as in normal use, cable entries are left open and fixing screws of covers and enclosures are tightened with a torque equal to two-thirds of that specified in Table 15.		N

	After the test, the samples shall show no damage within the meaning of this standard; in particular, no part shall have become detached or loosened.	Show no damage	P
24.3	Rewirable accessories are fitted with the lightest type of flexible cable of the smallest cross-sectional area for the relevant rating specified in Table 10.		N/A
	After the test, the samples shall show no damage within the meaning of this standard; in particular, no part shall have become detached or loosened.		N/A
24.4	Non-rewirable accessories are subjected to a flexing test in an apparatus similar to that shown in Figure 9.		N/A
	After the test, the samples shall show no damage within the meaning of this standard.		N/A
24.5	Screwed glands are fitted with a cylindrical metal rod having a diameter, in millimetres, equal to the nearest whole number below the internal diameter of the packing, in millimetres. The glands are then tightened by means of a suitable spanner, the force shown in Table 14 being applied to the spanner for 1 min, at a point 25 cm from the axis of the gland.		N/A
	After the test, the glands and the enclosures of the samples shall show no damage within the meaning of this standard.		N/A
25	Screws, current-carrying parts and connections		P
25.1	Connections, electrical or otherwise, shall withstand the mechanical stresses occurring in normal use.	Pass muster	P
	After the test for clamping screws or nuts, the clamping unit shall not have undergone changes that adversely affect its further use.		P
	The shape of the blade of the test screwdriver shall suit the head of the screw to be tested.		P
	The screws and nuts shall not be tightened in jerks.		P
25.2	Screws in engagement with a thread of insulating material and which are operated when connecting up the accessory shall have a length of engagement of at least 3 mm plus one-third of the nominal screw diameter, or 8 mm, whichever is the shorter.		P
	Correct introduction of the screw into the threaded hole shall be ensured.		P
25.3	Electrical connections shall be so designed that the contact pressure is not transmitted through insulating material other than ceramic, pure mica or other material with characteristics no less suitable, unless there is sufficient resiliency in the metallic parts to compensate for any shrinkage or yielding of the insulating material.		P

25.4	Screws and rivets which serve as electrical as well as mechanical connections shall be locked against loosening.			P
25.5	Current-carrying parts, other than terminals, shall be either of:			P
	–copper; –an alloy containing at least 50 % copper; –or other metal no less resistant to corrosion than copper and having mechanical properties no less suitable.	r		P
25.6	Contacts which are subjected to a sliding action in normal use shall be of a metal resistant to corrosion.			N
	Springs ensuring the resiliency of contact tubes shall be of metal resistant to corrosion or be adequately protected against corrosion.			P
26	Creepage distances, clearances and distances through sealing compound			P
26.1	Creepage distances, clearances and distances through sealing compound shall be not less than the values in millimetres shown as follow: (Over 50 up to and including 415 V)			P
	Creepage distance: 1. between live parts of different polarity 2. between live parts and: – accessible metal parts, – earthing contacts, fixing screws and similar devices, – external assembly screws, other than screws which are on the engagement face of plugs and are isolated from the earthing contacts	4 mm		P
	Clearance: 3. between live parts of different polarity 4. between live parts and: – accessible metal parts not listed under item 5, – earthing contacts, fixing screws and similar devices, – external assembly screws, other than screws which are on the engagement face of plugs and are isolated from the earthing contacts 5. between live parts and: – metal enclosures, if not lined with insulating material, – surface on which the base of a socket-outlet is mounted 6. between live parts and the bottom of any conductor recess in the base of a socket-outlet	4 4 6 5		P
	Distance through sealing compound: 7. between live parts covered with at least 2,5 mm of sealing compound and the surface on which the base of a socket-outlet is mounted 8. between live parts covered with at least 2 mm of sealing compound and the bottom of any conductor recess in the base of a socket-outlet	4 4		P

26.2	Sealing compound shall not protrude above the edge of the cavity in which it is contained.		P
27	Resistance to heat, fire and tracking		P
27.1	Accessories shall be sufficiently resistant to heat.	Pass muster	P
27.2	The samples are kept for 1 h in a heating cabinet at a temperature of (100 ± 5) °C.		P
	Marking shall still be easily legible.	Easily legible	P
27.3	Parts of insulating material are subjected to a ball-pressure test by means of the apparatus shown in Figure 10.		P
	After 1 h, the ball is removed and the diameter of the impression measured. For materials which show deformation, this diameter shall not exceed 2 mm.		P
27.4	External parts of insulating material and insulating parts supporting live parts of accessories shall be resistant to abnormal heat and to fire.		P
	The temperature of the tip of the glow-wire is:		P
	(650 ± 10) °C for parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuits in position, even though they are in contact with them.		P
	(850 ± 15) °C for parts of insulating material necessary to retain current-carrying parts and parts of the earthing circuits in position.		P
	The force shall be applied for (30 ± 1) s. Value of the force: 1 N.		P
	The accessories are considered to have withstood the glow-wire test if:		P
	– there is no visible flame and no sustained glowing, or		N
	– flame or glowing of the specimen or of the surroundings extinguish within 30 s after the removal of the glow-wire, and the surrounding parts have not burned away completely. There shall be no permanent ignition of the tissue paper.	No permanent ignition of the tissue paper	P
27.5	Insulating parts supporting live parts shall be of material resistant to tracking.		P
	No flashover or breakdown between electrodes shall occur before a total of 50 drops has fallen.	No flashover or breakdown	P
28	Corrosion and resistance to rusting		P
	Ferrous parts, including enclosures, shall be adequately protected against rusting.	Pass muster	P

	For specific conditions and the provisions for these conditions, special consideration should be given to the product by the manufacturer with regard to resistance to corrosion.		P
	After the parts have been dried for 10 min in a heating cabinet at a temperature of (100 ± 5) °C, their surfaces shall show no signs of rust.	Show no signs of rust	P
29	Conditional short-circuit current withstand test		N
29.1	Socket-outlets and mating plugs shall have the minimum prospective short-circuit current withstand of 10 kA or of a higher value specified by the manufacturer.		N
29.2	Ratings and test conditions		N
	The test is applied to a new socket-outlet and mating plug mounted as in normal use and connected according to the indications of 29.3. The test voltage shall be identical to the rated operating voltage of the socket-outlets and mating plugs tested.		N
29.3	Test-circuit		N
	The connection of the accessories under test shall be made with copper wires having cross-sectional areas as indicated in Table 3, and lengths as short as possible, not exceeding 1 m on either side.		N
29.4	Calibration		N
	The calibration of the test circuit is carried out by placing temporary connections B of negligible impedance as close as reasonably possible to the terminals provided for connecting the accessories under test.		N
29.5	Test procedure		N
	Temporary connections B are replaced by the accessories under test. The circuit is closed on a value of the prospective current at least equal to the conditional short-circuit withstand current of the accessories under test.		N
29.6	Behaviour of the equipment under test		N
	There shall be neither arcing nor flashover between poles, and no melting of the fault detection circuit fuse of the exposed conductive parts.		N
29.7	Acceptance conditions	Pass muster	N
	The accessories shall remain mechanically operable.		N
	Contact welding, such as to prevent an opening operation using normal operating means, is not permitted.		N

	Immediately after the test, the accessories shall comply with a dielectric test in accordance with 19.3 with voltage applied between the parts as indicated in 19.2.1 b) or 19.2.2 b), as applicable.		N
30	Electromagnetic compatibility		N
30.1	Immunity		N
	The operation of accessories within the scope of this standard in normal use is not affected by electromagnetic disturbances.		N
30.2	Emission		N
	Accessories within the scope of this standard are intended for continuous use, in normal use they do not generate electromagnetic disturbances.		N

- End of Review Report -

Type of equipment: Modular Socket
model: TMS-5 16A

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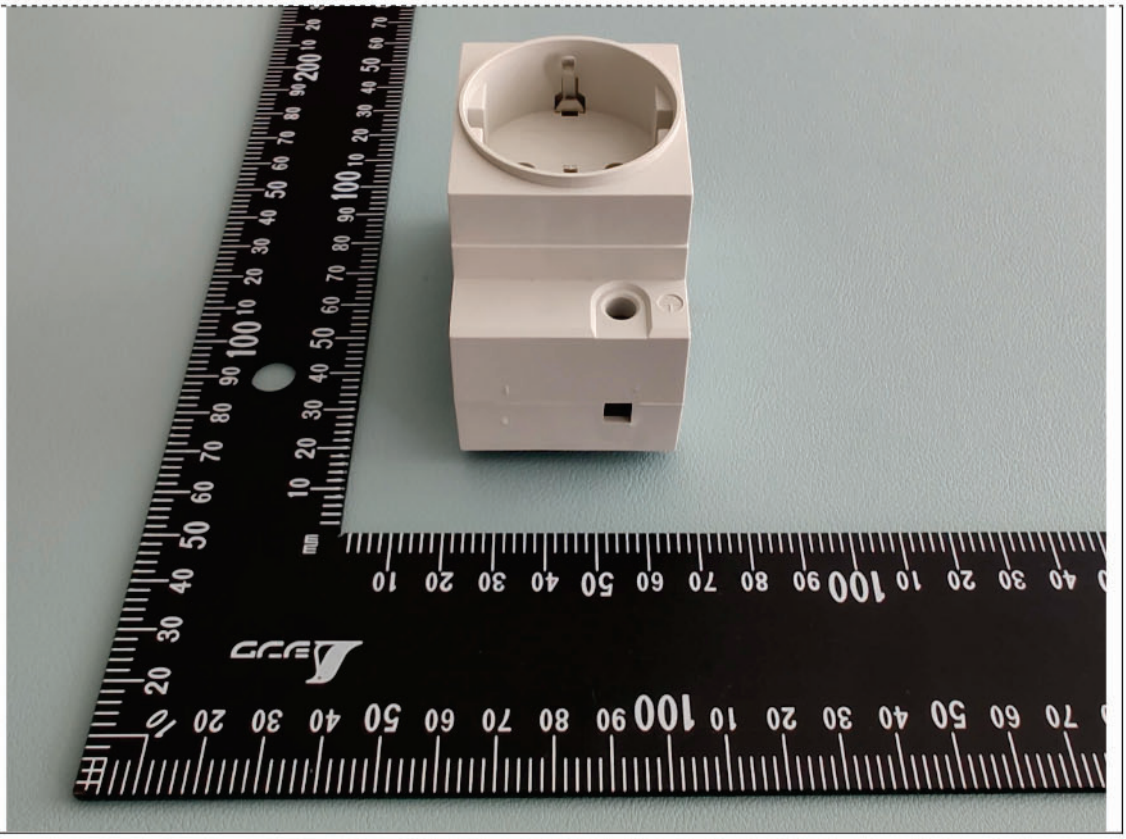

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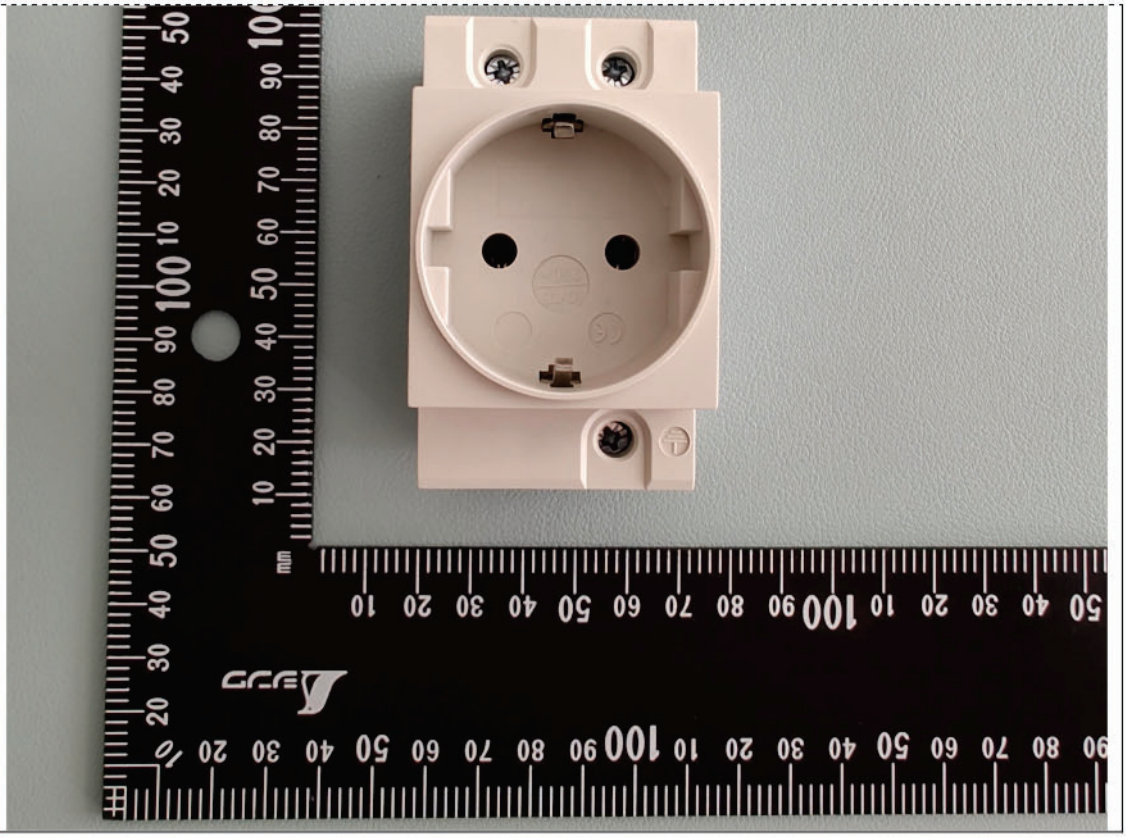

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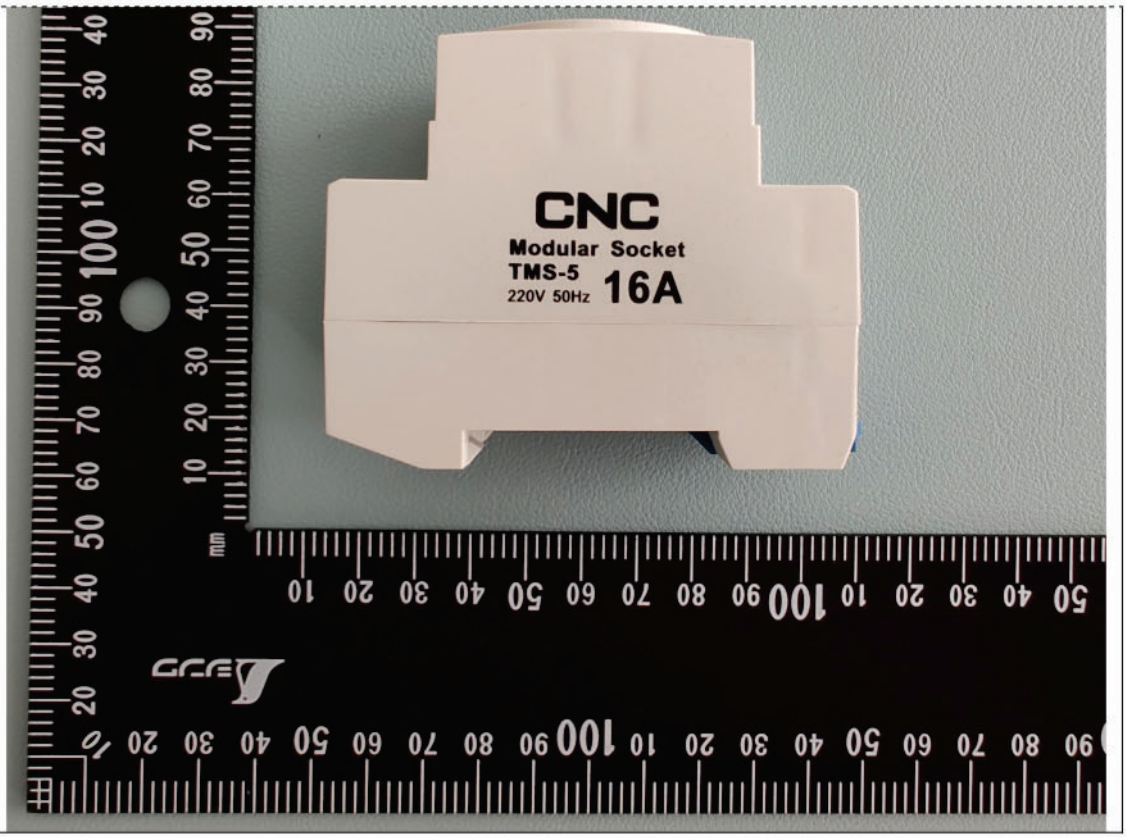

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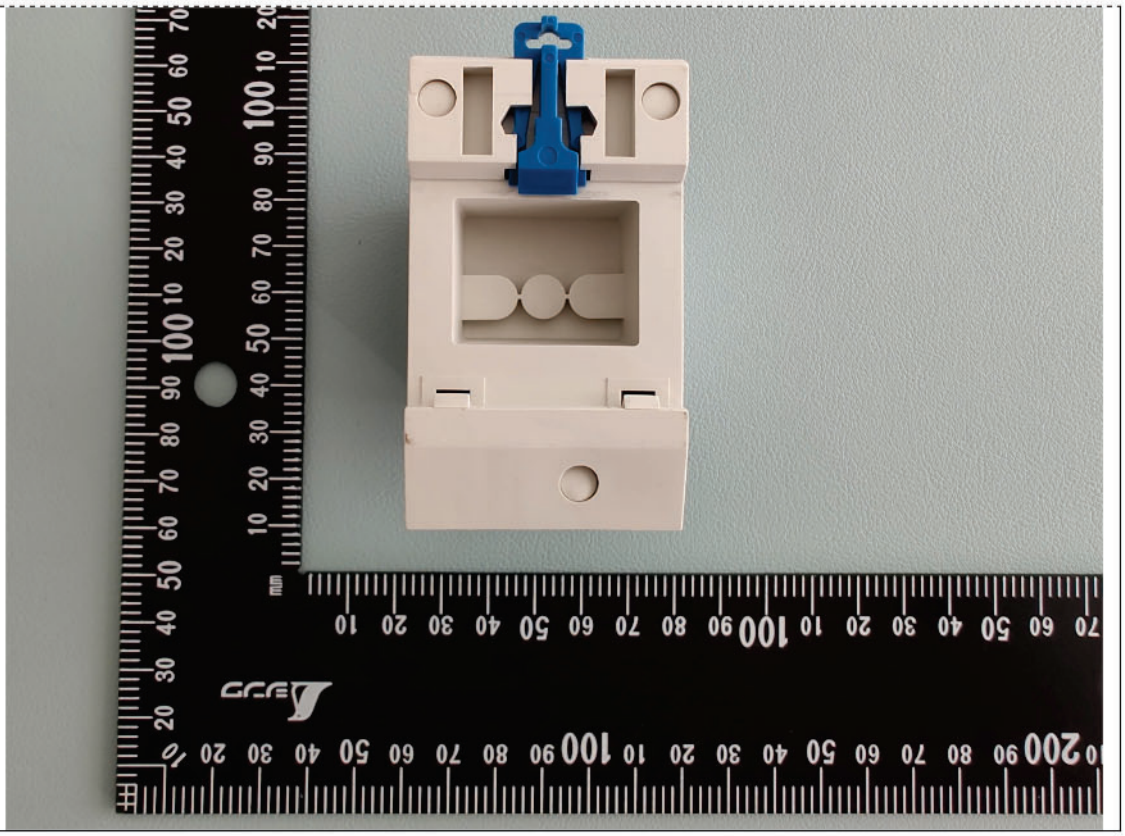

- End of Photo Documentation-

中国合格评定国家认可委员会

实验室认可证书

（注册号：CNAS L13107）

兹证明：

上海世通检测技术服务有限公司

（法人：上海世通检测技术服务有限公司）

上海市闵行区申富路128号D-1栋2楼，201108

符合 ISO/IEC 17025：2017《检测和校准实验室能力的通用要求》（CNAS-CL01《检测和校准实验室能力认可准则》）的要求，具备承担本证书附件所列服务能力，予以认可。

获认可的能力范围见标有相同认可注册号的证书附件，证书附件是本证书组成部分。

生效日期：2020-02-12

截止日期：2026-02-11

中国合格评定国家认可委员会授权人

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China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(Registration No. CNAS L13107)

Shanghai Global Testing Services Co., Ltd.

(Legal Entity: Shanghai Global Testing Services Co., Ltd.)

2/F., Building D-1, No.128, Shenfu Road, Minhang District, Shanghai, China

is accredited in accordance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake the service described in the schedule attached to this certificate.

The scope of accreditation is detailed in the attached schedule bearing the same registration number as above. The schedule forms an integral part of this certificate.

Effective Date：2020-02-12

Expiry Date：2026-02-11

Signed on behalf of China National Accreditation Service for Conformity Assessment

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The validity of the certificate can be checked on CNAS website at http://www.cnas.org.cn/english/findanaccreditedbody/index.shtml.

副本

WIT ASSESSMENT

萬泰認證

质量管理体系认证证书

长城电器集团浙江科技有限公司

地址：浙江省乐清市柳市镇店后村

统一社会信用代码：91330300344153385E
建立的管理体系，按照以下标准评审合格，特发此证。
GB/T19001-2016 / ISO9001:2015

认证范围

智能低压成套电器、低压户外无功综合补偿装置、智能高低压断路器、万能式断路器、交流接触器、电表箱、隔离开关、电流互感器、双电源自动转换开关、高压跌落式熔断器和交流弧焊机（不含辅机具）的设计和生产

证书号：15/24Q10330R30　发证日期：2024年12月20日　有效期至：2028年01月16日
本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）查询。

ISO9001

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C015-M

第一次监审	第二次监审	第三次监审

总经理

初次认证后的第一次监督审核应在认证证书签发日起12个月内进行。此后，监督审核应至少每个日历年（应进行再认证的年份除外）进行一次，且两次监督审核的时间间隔不得超过15个月。
获证组织必须定期接受监督审核并经审核合格此证书方继续有效，每次监督审核合格后，WIT将在本证书上加贴合格标签。
凡认证范围涉及行政许可或国家强制认证要求的，本证书随相关行政许可或国家强制认证证书失效而失效。

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WIT ASSESSMENT

萬泰認證

Quality Management System Certificate

This is to certify that the Management System established by

CNC ELECTRIC GROUP ZHEJIANG TECHNOLOGY CO., LTD.

Address: Dianhou Village, Liushi Town, Yueqing City, Zhejiang Province

Unified Social Credit Code: 91330300344153385E
has been assessed to comply with the requirements of the standard
GB/T19001-2016 / ISO9001:2015

Scope of certification:

Design and production of Intelligent low-voltage complete sets of electrical appliances, Low-voltage outdoor reactive power comprehensive compensation devices, Intelligent high and low voltage circuit breakers, Universal circuit breakers, AC contactors, Meter boxes, Isolation switches, Current transformers and dual power automatic transfer switches, High voltage drop type fuses and AC arc welders (excluding auxiliary tools)

Certificate No.15/24Q10330R30 DATE OF ISSUE:Dec,20,2024 VALID UNTIL: Jan,16,2028

The Certificate information can be inquired on the official website of CNCA (www.cnca.gov.cn).

ISO9001

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国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C015-M

First Surveillance	Second Surveillance	Third Surveillance

General Manager,Wang Xiaodong

The first surveillane after the initial certification shall be conducted within 12 months from the date of issuance of the certificate. Thereafter, the surveillance audit shall be conducted at least once every calendar year (except the year of recertification), and the interval between the two surveillance audits shall not exceed 15 months.
The certification organization must conduct surveillance audit regularly and the registration certificate continues effective after the eligible surveillance audit. The compliance label will be attached to the registration certificate after the eligible surveillance audit.
Where the scope of certification involves administrative licensing or national compulsory certification requirements, this certificate will become invalid with the invalidation of the relevant administrative license or national compulsory certification certificate.

副本

WIT ASSESSMENT

萬泰認證

环境管理体系认证证书

长城电器集团浙江科技有限公司

地址：浙江省乐清市柳市镇店后村

统一社会信用代码：91330300344153385E
建立的管理体系，按照以下标准评审合格，特发此证。

GB/T24001-2016 / ISO14001:2015

认证范围

智能低压成套电器、低压户外无功综合补偿装置、智能高低压断路器、万能式断路器、交流接触器、电表箱、隔离开关、电流互感器、双电源自动转换开关、高压跌落式熔断器和交流弧焊机（不含辅机具）的设计和生产所涉及的环境管理

证书号：15/24E10331R30　　发证日期：2024年12月20日　　有效期至：2028年01月16日

本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）查询。

ISO14001　IAF　CNAS　中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C015-M

第一次监审	第二次监审	第三次监审

总经理

初次认证后的第一次监督审核应在认证证书签发日起12个月内进行。此后，监督审核应至少每个日历年（应进行再认证的年份除外）进行一次，且两次监督审核的时间间隔不得超过15个月。
获证组织必须定期接受监督审核并经审核合格此证书方继续有效，每次监督审核合格后，WIT将在本证书上加贴合格标签。
凡认证范围涉及行政许可或国家强制认证要求的，本证书随相关行政许可或国家强制认证证书失效而失效。

WIT ASSESSMENT

萬泰認證

COPY

Environmental Management System Certificate

This is to certify that the Management System established by

CNC ELECTRIC GROUP ZHEJIANG TECHNOLOGY CO., LTD.

Address: Dianhou Village, Liushi Town, Yueqing City, Zhejiang Province

Unified Social Credit Code: 91330300344153385E

has been assessed to comply with the requirements of the standard

GB/T24001-2016 / ISO14001:2015

Scope of certification:

Environmental management involved in: Design and production of Intelligent low-voltage complete sets of electrical appliances, Low-voltage outdoor reactive power comprehensive compensation devices, Intelligent high and low voltage circuit breakers, Universal circuit breakers, AC contactors, Meter boxes, Isolation switches, Current transformers and Dual power automatic transfer switches, High voltage drop type fuses and AC arc welders(excluding auxiliary tools)

Certificate No.15/24E10331R30 DATE OF ISSUE:Dec,20,2024 VALID UNTIL: Jan,16,2028

The Certificate information can be inquired on the official website of CNCA（www.cnca.gov.cn）.

ISO14001 IAF CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C015-M

First Surveillance	Second Surveillance	Third Surveillance

General Manager,Wang Xiaodong

The first surveillanc after the initial certification shall be conducted within 12 months from the date of issuance of the certificate. Thereafter, the surveillance audit shall be conducted at least once every calendar year (except the year of recertification), and the interval between the two surveillance audits shall not exceed 15 months.

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Hangzhou WIT Assessment Co.,Ltd

Room1301-1308, 1401-1402, 1405-1408, Building 1, International Suncard, No.1750, Jiangdong Avenue, Pinjiang District, Hangzhou, P.R.China, 310052

副本

WIT ASSESSMENT

萬泰認證

职业健康安全管理体系认证证书

长城电器集团浙江科技有限公司

地址：浙江省乐清市柳市镇店后村

统一社会信用代码：91330300344153385E
建立的管理体系，按照以下标准评审合格，特发此证。

GB/T 45001-2020 / ISO45001:2018

认证范围

智能低压成套电器、低压户外无功综合补偿装置、智能高低压断路器、万能式断路器、交流接触器、电表箱、隔离开关、电流互感器、双电源自动转换开关、高压跌落式熔断器和交流弧焊机（不含辅机具）的设计和生产所涉及的职业健康安全管理

证书号：15/24S10332R30　发证日期：2024年12月20日　有效期至：2028年01月16日

本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）查询。

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C015-M

第一次监审	第二次监审	第三次监审

总经理

初次认证后的第一次监督审核应在认证证书签发日起12个月内进行。此后，监督审核应至少每个日历年（应进行再认证的年份除外）进行一次，且两次监督审核的时间间隔不得超过15个月。
获证组织必须定期接受监督审核并经审核合格此证书方继续有效，每次监督审核合格后，WIT将在本证书上加贴合格标签。
凡认证范围涉及行政许可或国家强制认证要求的，本证书随相关行政许可或国家强制认证证书失效而失效。

杭州万泰认证有限公司

COPY

WIT ASSESSMENT

萬泰認證

Occupational Health and Safety Management System Certificate

This is to certify that the Management System established by

CNC ELECTRIC GROUP ZHEJIANG TECHNOLOGY CO., LTD.

Address: Dianhou Village, Liushi Town, Yueqing City, Zhejiang Province

Unified Social Credit Code: 91330300344153385E
has been assessed to comply with the requirements of the standard
GB/T 45001-2020 / ISO45001:2018

Scope of certification:

Occupational health and safety management involved in: Involved in the design and production of Intelligent low-voltage complete sets of electrical appliances, Low-voltage outdoor reactive power comprehensive compensation devices, Intelligent high and low voltage circuit breakers, Universal circuit breakers, AC contactors, Meter boxes, Isolation switches, Current transformers and Dual power automatic transfer switches, High voltage drop type fuses and AC arc welders(excluding auxiliary tools)

Certificate No. 15/24S10332R30 DATE OF ISSUE:Dec,20,2024 VALID UNTIL: Jan,16,2028

The Certificate information can be inquired on the official website of CNCA (www.cnca.gov.cn).

ISO45001

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C015-M

First Surveillance	Second Surveillance	Third Surveillance

Wangxiaodong

General Manager,Wang Xiaodong

The first surveillane after the initial certification shall be conducted within 12 months from the date of issuance of the certificate. Thereafter, the surveillance audit shall be conducted at least once every calendar year (except the year of recertification), and the interval between the two surveillance audits shall not exceed 15 months.

The certification organization must conduct surveillance audit regularly and the registration certificate continues effective after the eligible surveillance audit.The compliance label will be attached to the registration certificate after the eligible surveillance audit.

Where the scope of certification involves administrative licensing or national compulsory certification requirements, this certificate will become invalid with the invalidation of the relevant administrative license or national compulsory certification certificate.

Hangzhou WIT Assessment Co.,Ltd
Room 901, 1306, 1401, 1402, 1405-1408, Building 1, International Software Park, No.1-50 Jiangdong Avenue, Binjiang District, Hangzhou, P.R.China, 310052

WIT ASSESSMENT

萬泰認證

质量管理体系认证证书

长城电器集团浙江科技有限公司

地址：浙江省乐清市柳市镇店后村

统一社会信用代码：91330300344153385E
建立的管理体系，按照以下标准评审合格，特发此证。

GB/T19001-2016 / ISO9001:2015

认证范围

智能低压成套电器、低压户外无功综合补偿装置、智能高低压断路器、万能式断路器、交流接触器、电表箱、隔离开关、电流互感器、双电源自动转换开关、高压跌落式熔断器和交流弧焊机（不含辅机具）的设计和生产

证书号：15/24Q10330R30　发证日期：2024年12月20日　有效期至：2028年01月16日

本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）查询。

ISO9001

IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C015-M

第一次监审	第二次监审	第三次监审

总经理

初次认证后的第一次监督审核应在认证证书签发日起12个月内进行。此后，监督审核应至少每个日历年（应进行再认证的年份除外）进行一次，且两次监督审核的时间间隔不得超过15个月。
获证组织必须定期接受监督审核并经审核合格此证书方继续有效，每次监督审核合格后，WIT将在本证书上加贴合格标签。
凡认证范围涉及行政许可或国家强制认证要求的，本证书随相关行政许可或国家强制认证证书失效而失效。

杭州万泰认证有限公司
浙江省杭州市滨江区长河路[illegible]

WIT ASSESSMENT

萬泰認證

Quality Management System Certificate

This is to certify that the Management System established by

CNC ELECTRIC GROUP ZHEJIANG TECHNOLOGY CO., LTD.

Address: Dianhou Village, Liushi Town, Yueqing City, Zhejiang Province

Unified Social Credit Code: 91330300344153385E
has been assessed to comply with the requirements of the standard
GB/T19001-2016 / ISO9001:2015

Scope of certification:

Design and production of Intelligent low-voltage complete sets of electrical appliances, Low-voltage outdoor reactive power comprehensive compensation devices, Intelligent high and low voltage circuit breakers, Universal circuit breakers, AC contactors, Meter boxes, Isolation switches, Current transformers and dual power automatic transfer switches, High voltage drop type fuses and AC arc welders (excluding auxiliary tools)

Certificate No.15/24Q10330R30 DATE OF ISSUE:Dec,20,2024 VALID UNTIL: Jan,16,2028

The Certificate information can be inquired on the official website of CNCA (www.cnca.gov.cn).

ISO9001

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C015-M

First Surveillance	Second Surveillance	Third Surveillance

Wangxiaodong

General Manager, Wang Xiaodong

The first surveillanc after the initial certification shall be conducted within 12 months from the date of issuance of the certificate. Thereafter, the surveillance audit shall be conducted at least once every calendar year (except the year of recertification), and the interval between the two surveillance audits shall not exceed 15 months.

The certification organization must conduct surveillance audit regularly and the registration certificate continues effective after the eligible surveillance audit.The compliance label will be attached to the registration certificate after the eligible surveillance audit.

Where the scope of certification involves administrative licensing or national compulsory certification requirements, this certificate will become invalid with the invalidation of the relevant administrative license or national compulsory certification certificate.

Hangzhou WIT Assessment Co.,Ltd.
Room1301-1308, 1401-1402, 1405-1408, Building 1, International Science & Technology Venture Building, Binjiang District, Hangzhou, P.R.China, 310053

WIT ASSESSMENT

萬泰認證

环境管理体系认证证书

长城电器集团浙江科技有限公司

地址：浙江省乐清市柳市镇店后村

统一社会信用代码：91330300344153385E

建立的管理体系，按照以下标准评审合格，特发此证。

GB/T24001-2016 / ISO14001:2015

认证范围

智能低压成套电器、低压户外无功综合补偿装置、智能高低压断路器、万能式断路器、交流接触器、电表箱、隔离开关、电流互感器、双电源自动转换开关、高压跌落式熔断器和交流弧焊机（不含辅机具）的设计和生产所涉及的环境管理

证书号：15/24E10331R30　发证日期：2024年12月20日　有效期至：2028年01月16日

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ISO14001

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C015-M

第一次监审	第二次监审	第三次监审

总经理

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获证组织必须定期接受监督审核并经审核合格此证书方继续有效，每次监督审核合格后，WIT将在本证书上加贴合格标签。

凡认证范围涉及行政许可或国家强制认证要求的，本证书随相关行政许可或国家强制认证证书失效而失效。

杭州万泰认证有限公司
浙江省杭州市滨江区江虹路1750号信雅达国际创意中心1幢1301-1308、1401-1402、1405-1408室

WIT ASSESSMENT

萬泰認證

Environmental Management System Certificate

This is to certify that the Management System established by

CNC ELECTRIC GROUP ZHEJIANG TECHNOLOGY CO., LTD.

Address: Dianhou Village, Liushi Town, Yueqing City, Zhejiang Province

Unified Social Credit Code: 91330300344153385E

has been assessed to comply with the requirements of the standard

GB/T24001-2016 / ISO14001:2015

Scope of certification:

Environmental management involved in: Design and production of Intelligent low-voltage complete sets of electrical appliances, Low-voltage outdoor reactive power comprehensive compensation devices, Intelligent high and low voltage circuit breakers, Universal circuit breakers, AC contactors, Meter boxes, Isolation switches, Current transformers and Dual power automatic transfer switches, High voltage drop type fuses and AC arc welders(excluding auxiliary tools)

Certificate No.15/24E10331R30   DATE OF ISSUE:Dec,20,2024   VALID UNTIL: Jan,16,2028

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ISO14001

IAF

CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C015-M

First Surveillance	Second Surveillance	Third Surveillance

Wang Xiaodong

General Manager,Wang Xiaodong

The first surveillance after the initial certification shall be conducted within 12 months from the date of issuance of the certificate. Thereafter, the surveillance audit shall be conducted at least once every calendar year (except the year of recertification), and the interval between the two surveillance audits shall not exceed 15 months.

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WIT ASSESSMENT

萬泰認證

职业健康安全管理体系认证证书

长城电器集团浙江科技有限公司

地址：浙江省乐清市柳市镇店后村

统一社会信用代码：91330300344153385E
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GB/T 45001-2020 / ISO45001:2018

认证范围

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证书号：15/24S10332R30　发证日期：2024年12月20日　有效期至：2028年01月16日

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中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C015-M

第一次监审	第二次监审	第三次监审

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WIT ASSESSMENT

萬泰認證

Occupational Health and Safety Management System Certificate

This is to certify that the Management System established by

CNC ELECTRIC GROUP ZHEJIANG TECHNOLOGY CO., LTD.

Address: Dianhou Village, Liushi Town, Yueqing City, Zhejiang Province

Unified Social Credit Code: 91330300344153385E
has been assessed to comply with the requirements of the standard

GB/T 45001-2020 / ISO45001:2018

Scope of certification:

Occupational health and safety management involved in: Involved in the design and production of Intelligent low-voltage complete sets of electrical appliances, Low-voltage outdoor reactive power comprehensive compensation devices, Intelligent high and low voltage circuit breakers, Universal circuit breakers, AC contactors, Meter boxes, Isolation switches, Current transformers and Dual power automatic transfer switches, High voltage drop type fuses and AC arc welders(excluding auxiliary tools)

Certificate No. 15/24S10332R30 DATE OF ISSUE:Dec,20,2024 VALID UNTIL: Jan,16,2028

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ISO45001

IAF

CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C015-M

First Surveillance	Second Surveillance	Third Surveillance

General Manager,Wang Xiaodong

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Hangzhou WIT Assessment Co.,Ltd.
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