LVT Test Laboratuvarları Ltd. Şti.
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Saray Modern Keresteciler Sanayi Sitesi 4.Cadde No:9
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AB-0341-T
20-1781-R1-N1-2
09-12

DENEY RAPORU
Test Report

Müşteri *Client*	:	STERİLMED MEDİCAL ELE. ELEK. OTO. İNŞ. GIDA SAN. VE DIŞ TİC. LTD. ŞTİ.
Adres *Address*	:	BAŞKENT ORGANİZE SANAYİ BÖLGESİ 18. CADDE NO: 43 MALIKÖY SİNCAN / ANKARA
İmalatçı *Manufacturer*	:	STERİLMED MEDİCAL ELE. ELEK. OTO. İNŞ. GIDA SAN. VE DIŞ TİC. LTD. ŞTİ.
Deney Numunesi *Test Sample*	:	SM-DWD-8 (YIKAMA DEZENFEKSİYON CİHAZI)
Marka *Trade Mark*	:	STERİLMED
Deney Metodu *Test Method*	:	TS EN 61010-1:2012 – A1:2019 – A1/AC:2019
Deney Tarihi *Date of Test*	:	10.08.2020 – 20.08.2020
Toplam Sayfa Sayısı *Total Number of Pages*	:	113
Basım Tarihi *Date of Issue*	:	04.09.2020

Deney laboratuvarı olarak faaliyet gösteren LVT Test Laboratuvarları Ltd. Şti. TÜRKAK' tan AB-0341-T numarası ile IEC/ISO TS EN 17025:2017 standardına göre akredite edilmiştir.
LVT Test Laboratuvarları Ltd. Şti. accredited by TÜRKAK under registration number AB-0341-T for IEC/ISO 17025:2017 as test laboratory.

Türk Akreditasyon Kurumu (TÜRKAK) deney raporlarının tanınması konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanınma antlaşmasını imzalamıştır.
The Turkish Accreditation Agency (TÜRKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreements (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports

Deney ve / veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (talep halinde) ve deney metotları, bu raporun tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir.
The test and / or measurements results, the uncertainties (if required) with confidence probability and test methods are given on the following pages which are part of this report.

Mühür *Seal*	**Deney Sorumlusu** *Person in Charge of Test*	**Laboratuvar Müdürü** *Head of Testing Laboratory*
	Abdurrahman YAMAN	Cahit GÖKSEL

Rapor detaylarını karekod ile kontrol edebilirsiniz.
You can check the report details via QR code.

Digitally signed by Morozov Maria
Date: 2024.02.29 17:02:25 EET
Reason: MoldSign Signature
Location: Moldova

Digitally signed by Lungu Ion
Date: 2024.02.29 17:00:03 EET
Reason: MoldSign Signature
Location: Moldova

İçindekiler *Contents*

1. Numunelerin Tanımı *Definition of the Samples* : Yıkama ve dezenfeksiyon cihazı.

1.1 SM-DWD-8 (YIKAMA DEZENFEKSİYON CİHAZI) **(20-1781-R1-N1)**

Numune Kabul Tarihi *Date of Receive*		:	10.08.2020
Numune Seri No *Serial No*		:	SM-DWD-8-2020-001-1
Tip *Type*		:	-
Kutup Sayısı *Number of Poles*		:	Three-phase
Beyan Gerilimi *Rated Voltage*	U_n	:	380V
Beyan Akımı *Rated Current*	I_n	:	60A (installed current)
Beyan Frekans *Rated Frequency*	f_n	:	50Hz
Beyan Koruma Derecesi *Rated Degree of Protection*	IP	:	-
Numune Boyutları *Dimensions of the Sample*	mm	:	See documentary of client.
Numune Ağırlığı *Weight of the Sample*	kg	:	-
Cihaz – Malzeme Listesi *Device – Component List*		:	See documentary of client.

2. Deney Sonuçları *Test Results* : Deney sonuçları, müşteri tarafından laboratuvara teslim edilen ve sadece deneyi yapılan numuneye aittir.
The test results only belong to the tested sample(s) delivered to the laboratory by client.

Numune *Sample*	Uygulanan Deney *Applied Test*	Sonuç *Result*
SM-DWD-8 (YIKAMA DEZENFEKSİYON CİHAZI)	TS EN 61010-1:2012 – A1:2019 – A1/AC:2019	OLUMLU *PASSED*

3. Çevre Şartları *Environmental Conditions*

3.1 Ortam Sıcaklığı *Ambient Temperature* : (25±3) °C

3.2 Ortam Nemi *Ambient Moisture* : (46±3) %Rh

4. Deney Metodundan Sapma, Ekleme ve Çıkarmalar *Deviations, Additions & Cutbacks from the Test Method* : Deneyler; standart deney metoduna göre uygulanmıştır.
Tests were made according to the clauses of the relevant standards.

5. Şartnamelere Uygunluk (Gerekli Hallerde) *Conformity to Specifications (If Necessary)* : -

6. Dağıtım Bilgileri *Distribution Information* : STERİLMED MEDİCAL ELE. ELEK. OTO. İNŞ. GIDA SAN. VE DIŞ TİC. LTD. ŞTİ.

7. **Açıklama** *Explanation* : -

8. **Ölçüm Belirsizliği** *Uncertainty of Measurement* : Detaylar aşağıdaki tabloda verilmiştir. *The details are mentioned table below.*

Beyan edilen genişletilmiş ölçüm belirsizliği, standart belirsizliğin k=2 olarak alınan genişletme katsayısı ile çarpımı sonucunda bulunan değerdir ve % 95 oranında güvenilirlik sağlamaktadır.
The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2 which for a normal distribution corresponds to a coverage probability of approximately 95 %.

Deney bilgisi *Test details*	**Cihaz kodu** *Device code*	**Ölçülen değer** *Measured value*	**Ölçüm belirsizliği** *Measurement uncertainty*
Ambient Temperature	LC349	General	± 4,62% ± 2,73Rh
Temperature Rise	LC5	See Table 10	± 2,61% ± 1,43%
Mains Supply	LC4	See Table 5.1.3	± %0,84
Current Measurements	LC332	General	± %0,96
Voltage Measurements	LC332	General	± %0,19
Bonding impedance of permanently connected equipment	LC85	See Table 6.5.2.5	± %3,97

9. Deney Uygulamaları:
Test Applications

TEST REPORT IEC 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use Part 1: General requirements	
Test specification:	
Standard .....:	IEC 61010-1:2010
Test procedure .....:	Type Test
Non-standard test method .....:	N/A
Test Report Form No.....:	IEC61010_1M
Test Report Form(s) Originator:	VDE Testing and Certification Institute
Master TRF.....:	2018-08-16

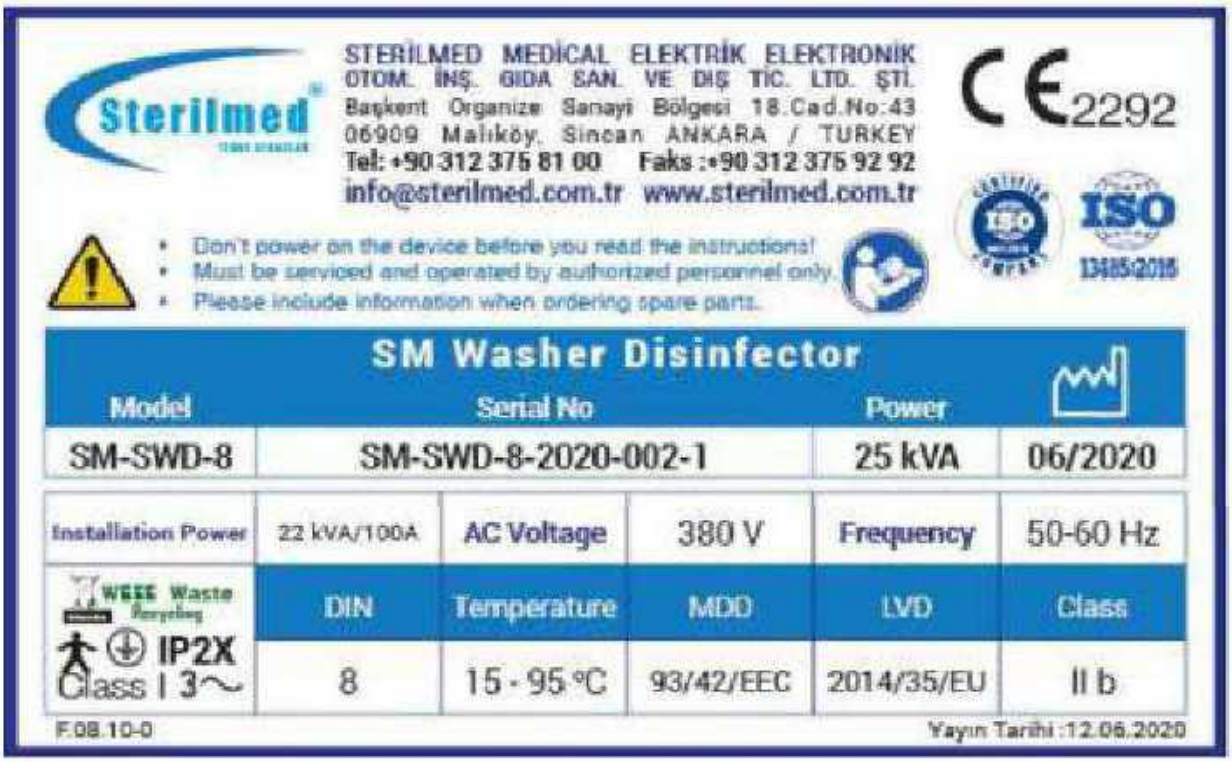
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory.
The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.




UYARI!
ELEKTRİK ÇARPMA RİSKİ! SERVİS VERMEDEN ÖNCE ANA ŞALTERDEN GÜCÜ KAPATINIZ.
WARNING!
HAZARD ELECTRICAL SHOCK! CLOSE MASTER SWITCH BEFORE SERVICING.
Güvenlik açısından, teknik personel dışında cihaz kapaklarını açmayınız! Cihaza müdahale etmeyiniz!
For safety reasons, do not open the device covers except for technical personal! Do not interfere with the device!
ELEKTRİK TEHLİKESİ
ELECTRICAL HAZARD
ON / OFF
EMERGENCY
STOP
SterilMed
FRAGILE
PLEASE HANDLE WITH CARE
THANK YOU
DO NOT FREEZE
HANDLE WITH CARE
DO NOT STACK
USE NO HOOKS
DO NOT TUMBLE


ÜRÜNÜ FORKLİFT İLE
BU NOKTADAN KALDIRINIZ
LIFT THE PRODUCT FORM THIS
POINT WITH THE FORKLIFT.

Test item particulars:	
Type of item ..... :	~~Measurement / Control~~ / Laboratory
Description of equipment function ..... :	Washing and Disenfection Machine
Connection to MAINS supply ..... :	Permanent ~~/ Detachable cord set / Non detachable cord set / None / Battery operated~~
Overvoltage category..... :	~~II~~ / III / ~~IV~~
POLLUTION DEGREE ..... :	II
Means of protection..... :	Class I (PE connected) / ~~Class II (isolated)~~
Environmental conditions..... :	Normal / ~~Extended (Specify):~~
For use in wet locations ..... :	Yes / ~~No~~
Equipment mobility..... :	~~Portable / Hand-held~~ / Floor standing / ~~Fixed / Built-in~~
Operating conditions ..... :	~~Continuous / Short-time~~ / Intermittent
Overall size of equipment (W x D x H) ..... :	See documentary of client
Mass of equipment (kg) ..... :	-
Marked degree of protection to IEC 60529 ..... :	N/A
Classification of installation and use..... :	
Supply Connection ..... :	Permanent three-phase connection.
..... :	
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	
Date of receipt of test item.....:	10.08.2020
Date (s) of performance of tests .....:	10.08.2020 – 20.08.2020

P:Passed, F:Fail, N/A:Not Applicaple

IEC 61010-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	**TESTS**		P
4.4	Testing in SINGLE FAULT CONDITIONS	See below;	P
4.4.1	Fault tests	The following requirements applied. a) Examination of the equipment and its circuit diagram show the fault conditions, which are liable to result in HAZARDS and which, therefore, applied. b) Fault tests made as specified for checking conformity, unless it can demonstrated that no HAZARD could arise from a particular fault condition. c) The equipment operated under the least favourable combination of reference test conditions (see 4.3). These combinations may be different for different faults and they recorded for each test. (see Form A.1)	P
4.4.2	Application of SINGLE FAULT CONDITIONS	See below;	P
4.4.2.1	SINGLE FAULT CONDITIONS not covered by 4.4.2.2 to 4.4.2.14	Fault conditions include those specified in 4.4.2.2 to 4.4.2.14. They applied only one at a time and applied in turn in any convenient order. Multiple simultaneous faults not applied unless they are a consequence of an applied fault. (see Form A.1)	—
4.4.2.2	PROTECTIVE IMPEDANCE	The protective impedance formed with a single component that meets the requirements, not need to short-circuit.	N/A
4.4.2.3	PROTECTIVE CONDUCTOR	Permanently connected equipment. No need to interrupt. (see Form A.6)	N/A
4.4.2.4	Equipment or parts for short-term or intermittent operation	Heaters, motors, electromagnetic devices and heaters in the equipment operated continuously.	P
4.4.2.5	Motors	See below;	—
	– stopped while fully energized		N/A

	– prevented from starting	ZF-400SX model pump, prevented from starting.	P
	– one phase interrupted (multi-phase)	One supply phase of BL040001013 blower motor inturrapted while motor operating at its intended full load.	P
4.4.2.6	Capacitors	Capacitor of ZF-400SX model pump short-circuitted.	P
4.4.2.7	MAINS transformers	No mains transformer used. All secondary circuit supplied from certified power supplies.	N/A
4.4.2.7.2	Short circuit	(see Form A.39)	N/A
4.4.2.7.3	Overload	(see Form A.26B and A.40)	N/A
4.4.2.8	Outputs	No outputs present in equipment.	N/A
4.4.2.9	Equipment for more than one supply	Equipment is not designed to be operated from more than one type of supply.	N/A
4.4.2.10	Cooling	There is no cooling systems. (see Form A.26A)	—
	– air holes closed		N/A
	– fans stopped		N/A
	– coolant stopped		N/A
	– loss of cooling liquid		N/A
4.4.2.11	Heating devices	See below;	P
	– timer overridden	Heating devices continuously operated. See 4.4.2.4.	P
	– temperature controller overridden	No temperature controller can adjusted. Only timer can be override.	N/A
4.4.2.12	Insulation between circuits and parts	No insulation that is below the level specified for basic insulation.	N/A
4.4.2.13	Interlocks	No interlocks.	N/A
4.4.2.14	Voltage selectors	No voltage selector.	N/A
4.4.3	Duration of tests	The equipment operated until further change because of the applied fault is unlikely. (see Form A.1)	—
4.4.4	Conformity after application of fault conditions	After the application of single faults checked as, no accessible conductive parts have become hazardous live, by performing a voltage test. (see Form A.1; A.6, A.18)	P

5	MARKING AND DOCUMENTATION		–
5.1.1	Required equipment markings	Equipment bear markings as specified in 5.1.2 to 5.2.	—
	– visible from the exterior; or	Markings are visible from exterior.	P
	– visible after removing cover or opening door		N/A
	– visible after removal from a rack or panel		N/A
	Not put on parts which can be removed by an operator		P
	Letter symbols (IEC 60027) used	Graphical symbols explained in the documentation. See page 6 of User's Manual.	P
	Graphic symbols (IEC 61010-1: Table 1) used	Graphical symbols explained in the documentation. See page 6 of User's Manual.	P
5.1.2	Identification	See below;	P
	Equipment is identified by:		—
	a) Manufacturer's or supplier's name or trademark	Sterilmed	P
	b) Model number, name or other means	Model SM-DWD-8	P
	Manufacturing location identified	STERİLMED MEDİCAL ELEKTRİK ELEKTRONİK OTOM. İNŞ. GIDA SAN. VE DIŞ TİC. LTD. ŞTİ. Başkent Organize Sanayi Bölgesi 18 Cad No:43 06909 Malıköy Sincan ANKARA / TURKEY Tel: +90 312 375 81 00 Faks:+90 312 375 92 92 info@sterilmed.com.tr www.sterilmed.com.tr	P
5.1.3	MAINS supply	See below;	P
	Equipment is marked as follows:		—
	a) Nature of supply:	3~	—
	1) a.c. RATED MAINS frequency or range of frequencies .....:	Frequency | 50-60 Hz	—
	2) d.c. with symbol 1 .....:	AC mains.	—
	b) RATED supply voltage(s) or range.....:	AC Voltage | 380 V	—
	c) Max. RATED power (W or VA) or input current .....:	Installation Power | 22 kVA/100A	—
	The marked value not less than 90 % of the maximum value	(see Form A.2)	P
	If more than one voltage range:	No more than one voltage range.	—
	Separate values marked; or		N/A
	Values differ by less than 20 %	(see Form A.2)	N/A

	d) OPERATOR-set for different RATED supply voltages:	No voltage adjustment.	—
	Indicates the equipment set voltage		N/A
	Portable equipment indication is visible from the exterior		N/A
	Changing the setting changes the indication		N/A
	e) Accessory MAINS socket-outlets accepting standard MAINS plugs are marked:	Permanently connected equipment.	—
	With the voltage if it is different from the MAINS supply voltage ..... :		—
	For use only with specific equipment		N/A
	If not marked for specific equipment it is marked with:		—
	The maximum rated current or power; or		N/A
	Symbol 14 with full details in the documentation		N/A
5.1.4	Fuses	No fuse that can repleaced by operator.	N/A
	Operator replaceable fuse marking (see also 5.4.5) ..... :		—
5.1.5	TERMINALS, connections and operating devices	See below;	P
5.1.5.1	General		—
	Where necessary for safety, indication of purpose of TERMINALS, connectors, controls and indicators marked		P
	If insufficient space, symbol 14 used	Not used.	N/A
	Push-buttons and actuators of emergency stop devices and indicators:	See below;	—
	– used only to indicate a warning of danger; or		N/A
	– the need for urgent action	Emergency stop button need for urgent action.	P
	– coloured red	Emergency stop button coloured red.	P
	– coded as specified in IEC 60073	Coloured red for emergencies.	P
	Supplementary means of coding provided, if meaning of colour relates (see IEC 60073):	No supplementary means of coding necessary.	—
	– to safety of persons; or		N/A
	– safety of the environment		N/A
5.1.5.2	TERMINALS	See below;	—
	MAINS supply TERMINAL identified	Mains supply terminals indentified as L1, L2, L3.	P
	Other TERMINAL marking:	See blow;	—
	a) FUNCTIONAL EARTH TERMINALS (symbol 5 used)	No functional earth.	N/A

	b) PROTECTIVE CONDUCTOR TERMINALS:	See below;	—
	Symbol 6 is placed close to or on the TERMINAL; or	Symbol 6 placed on the terminal.	P
	Part of appliance inlet		N/A
	c) TERMINALS of control circuits (symbol 7 used)	No terminals for control circuits.	N/A
	d) HAZARDOUS LIVE TERMINALS supplied from the interior	No hazardous live terminals that supplied from the interior.	N/A
	Standard MAINS socket outlet; or		N/A
	RATINGS marked; or		N/A
	Symbol 14 used		N/A
5.1.6	Switches and circuit breakers	See below;	P
	If disconnecting device, off position clearly marked	Position of state of circuit breaker clearly marked.	P
	If push-button used as power supply switch:	No push button used as power supply switch.	—
	– symbol 9 and 15 used for on-position		N/A
	– symbol 10 and 16 used for off-position		N/A
	– pair of symbols 9, 15 and 10, 16 close together		N/A
5.1.7	Equipment protected by DOUBLE INSULATION or REINFORCED INSULATION	Protected by basic insulation.	N/A
	Protected throughout (symbol 11 used)		N/A
	Only partially protected (symbol 11 not used)		N/A
5.1.8	Field-wiring TERMINAL boxes	No field-wiring terminal boxes or compartment exceed 60°C in normal conditions.	N/A
	If TERMINAL or ENCLOSURE exceeds 60 °C:	(see Form A.26A)	—
	Cable temperature RATING marked .....:		—
	Marking visible before and during connection or beside TERMINAL		N/A
5.2	Warning markings	See below;	P
	Visible when ready for NORMAL USE		P
	Are near or on applicable parts		P
	Symbols and text correct dimensions and colour:		—
	a) symbols min 2,75 mm and text 1,5 mm high and contrasting in colour with background		P
	b) symbols and text moulded, stamped or engraved in material min. 2,0 mm high and	No markings that moulded, stamped or engraved in material.	N/A
	0,5 mm depth or raised if not contrasting in colour		N/A
	If necessary marked with symbol 14		N/A

	Statement to isolate or disconnect if access by using a tool to HAZARDOUS LIVE parts is permitted	No part that can be accessible hazardous live voltage.	N/A
5.3	Durability of markings	Conformity checked by performing the following test for durability of markings on the outside of the equipment. The markings rubbed by hand, without undue pressure, for 30 s with a cloth soaked with each specified cleaning agent (or, if not specified, with 70 % isopropyl alcohol). After the above treatment the markings are clearly legible and adhesive labels not have worked loose or become curled at the edges.	P
	The required markings remain clear and legible in NORMAL USE	(see Form A.3)	P
5.4	Documentation	See below;	P
5.4.1	General		P
	Equipment is accompanied by documentation for safety purposes for OPERATOR or RESPONSIBLE BODY		P
	Safety documentation for service personnel authorized by the manufacturer		P
	Documentation necessary for safe operation is provided in printed media or	Printed media avaliable. KK 02 / 2020 examined.	P
	in electronic media if available at any time	Electronic media not avaliable at any time in web but can be acquired via contact with manufacturer.	N/A
	Documentation includes:	See below;	—
	a) intended use	See page 9 of User's Manual.	P
	b) technical specification	See page 18 of User's Manual.	P
	c) name and address of manufacturer or supplier	See page 3 of User's Manual.	P
	d) information specified in 5.4.2 to 5.4.6	See page 13 of User's Manual.	P
	e) information to mitigate residual RISK (see also subclause 17)	See pages 10-11 of User's Manual.	P
	f) accessories for safe operation of the equipment specified	See Installation section of User's Manual.	P
	g) guidance provided to check correct function of the equipment, if incorrect reading may cause a HAZARD from harmful or corrosive substances of HAZARDOUS live parts	No such hazard could occur.	P
	h) instructions for lifting and carrying	See page 26 of User's Manual.	

	Warning statements and a clear explanation of warning symbols:	See page 6 of User's Manual.	—
	– provided in the documentation; or	Mentioned in documentation.	P
	– information is marked on the equipment	See above.	N/A
5.4.2	Equipment ratings	See below;	P
	Documentation includes:		—
	a) Supply voltage or voltage range .....:	See page 13 of User's Manual.	—
	Frequency or frequency range .....:	380VAC – 50/60Hz	—
	Power or current rating .....:	63A for installation fuse.	—
	b) Description of all input and output connections in accordance to 6.6.1 a)	See page 15 of User's Manual.	P
	c) RATING of insulation of external circuits in accordance to 6.6.1 b)	No special accessories required.	N/A
	d) Statement of the range of environmental conditions (see 1.4)	See page 9 of User's Manual.	P
	e) Degree of protection (IEC 60529)	IP2X	P
	f) If impact rating less than 5 J:	Impact rating not less than 5J.	—
	IK code in accordance to IEC 62262 marked; or		N/A
	symbol 14 of table 1 marked, with		N/A
	RATED energy level and test method stated		N/A
5.4.3	Equipment installation	Documentation includes instructions for installation.	P
	Documentation includes instructions for:		—
	a) assembly, location and mounting requirements	See page 12 of User's Manual.	P
	b) protective earthing	See page 13 of User's Manual.	P
	c) connections to supply	See page 13 of User's Manual.	P
	d) PERMANENTLY CONNECTED EQUIPMENT:	See page 15 of User's Manual.	—
	1) Supply wiring requirements	See page 13 of User's Manual.	P
	2) If external switch or circuit-breaker, requirements and location recommendation	See page 13 of User's Manual.	P
	e) ventilation requirements	See page 15 of User's Manual.	P
	f) special services (e. g. air, cooling liquid)	No special requirements.	N/A
	g) instructions relating to sound level	Not required.	N/A
5.4.4	Equipment operation	See below;	P
	Instructions for use include:		—
	a) identification and description of operating controls	See page 19-23 of User's Manual.	P
	b) positioning for disconnection	See page 19-23 of User's Manual.	P
	c) instructions for interconnection	No interconnection.	N/A

	d) specification of intermittent operation limits	No limits for intermittent operation.	N/A
	e) explanation of symbols used	See page 6 of User's Manual.	P
	f) replacement of consumable materials	See page 13 of User's Manual.	P
	g) cleaning and decontamination	See page 25 of User's Manual.	P
	h) listing of any poisonous or injurious gases and quantities	No poisonous or injurious gases.	N/A
	i) RISK reduction procedures relating to flammable liquids (see 9.5)	No flammable liquids.	N/A
	j) RISK reduction procedures relating burn from surfaces permitted to exceed limits of 10.1	No surfaces that exceed limits of 10.1.	N/A
	Additional precautions for IEC 60950 conforming equipment in regard to moistures and liquids	No equipment conforming to IEC 60950 is used.	N/A
	A statement about protection impairment if used in a manner not specified by the manufacturer	User's manual include "the device shall be used according to the User's Manual" statement.	P
5.4.5	Equipment maintenance and Service	See below;	P
	Instructions for RESPONSIBLE BODY include:		—
	Instructions sufficient in detail permitting safe maintenance and inspection and continued safety:		—
	Instruction against the use of detachable MAINS supply cord with inadequate rating	Permanent connection required.	N/A
	Specific battery type of user replaceable batteries	No replaceable batteries used.	N/A
	Any manufacturer specified parts	See page 25 of User's Manual.	P
	Rating and characteristics of fuses	See page 13 of User's Manual.	P
	Instructions include following subjects permitting safe servicing and continued safety:		—
	a) product specific RISKS may affect service personnel	See page 10 of User's Manual.	P
	b) protective measures for these RISKS	See page 10-11 of User's Manual.	P
	c) verification of the safe state after repair	Service and repair carried by manufacturer. There is no requirements for User.	N/AA
5.4.6	Integration into systems or effects resulting from special conditions	No integration required. All conditions specified from User's Manual.	P
	Aspects described in documentation		P

6	**PROTECTION AGAINST ELECTRIC SHOCK**		P
6.1	General	(see Form A.14 and A.15)	P
6.1.1	Requirements	See below;	P
	Protection against electric shock maintained in NORMAL CONDITION and SINGLE FAULT CONDITION		P
	ACCESSIBLE parts not HAZARDOUS LIVE		P
	Voltage, current, charge or energy below the limits in NORMAL CONDITION and in SINGLE FAULT CONDITION between:		—
	ACCESSIBLE parts and earth		P
	two ACCESSIBLE parts on same piece of the equipment within a distance of 1,8 m		P
	Conformity is checked by the determination of 6.2 and 6.3 followed by the tests of 6.4 to 6.11		P
6.1.2	Exceptions	No exeptions.	N/A
	Following HAZARDOUS LIVE parts may be ACCESSIBLE to an OPERATOR:		—
	a) parts of lamps and lamp sockets after lamp removal	No removable lamp.	N/A
	b) parts to be replaced by OPERATOR only by the use of tool and warning marking	No replaceable parts.	N/A
	Those parts not HAZARDOUS LIVE 10 s after interruption of supply	(see Form A.5)	N/A
	Capacitance test if charge is received from internal capacitor	(see Form A.4 and A.5)	N/A
6.2	Determination of ACCESSIBLE parts	(see Form A.4)	
6.2.1	General	See below;	P
	Unless obviously determination of ACCESSIBLE parts as specified in 6.2.2 to 6.2.4	Determination of whether a part is ACCESSIBLE made as specified in 6.2.2 to 6.2.4 in all positions of NORMAL USE.	P
6.2.2	Examination	Test fingers and pins applied without force unless a force specified. Parts are considered ACCESSIBLE if they can be touched with any part of a test finger or test pin, or if they could be touched in the absence of a covering which not considered to provide suitable insulation (see 6.9.1).	P
	– with jointed test finger (as specified B.2)	The jointed test finger applied in every possible position.	P

	– with rigid test finger (as specified B.1) and a force of 10 N	If a part could become ACCESSIBLE by applying a force, the rigid test finger applied with a force of 10 N.	P
6.2.3	Openings above parts that are HAZARDOUS LIVE	No openings above.	N/A
	– test pin with length of 100 mm and 4 mm in diameter applied		N/A
6.2.4	Openings for pre-set controls	No openings for pre-set controls.	N/A
	– test pin with length of 100 mm and 3 mm in diameter applied		N/A
6.3	Limit values for ACCESSIBLE parts	All accessible parts grounded no accessible parts that have voltage difference between part and protective earth.	N/A
6.3.1	Levels in NORMAL CONDITION	(see Form A.5)	—
	a) Voltage limits less than 33 V r.m.s. and 46,7 V peak or 70 V d.c.		N/A
	for WET LOCATIONS voltage limits less than 16 V r.m.s. and 22,6 V peak or 35 V d.c.		N/A
	Voltages are not HAZARDOUS LIVE the levels of:		—
	b) Current less than 0,5 mA r.m.s. for sinusoidal, 0,7 mA peak non-sinusoidal or mixed frequencies or 2 mA d.c. when measured with measuring circuit A.1 or A.2 if less than 100 Hz		N/A
	for WET LOCATIONS measuring circuit A.4 used		N/A
	70 mA r.m.s. when measured with circuit A.3 for higher frequencies		N/A
	or		—
	c) Levels of capacitive charge or energy less:		—
	1) 45 µC for voltages up to 15 kV peak or d.c. or line A of Figure 3		N/A
	2) 350 mJ stored energy for voltages above 15 kV peak or d.c.		N/A
6.3.2	Levels in SINGLE FAULT CONDITION	(see Form A.6)	—
	a) Voltage limits less than 55 V r.m.s. and 78 V peak or 140 V d.c.		N/A
	for WET LOCATIONS voltage limits less than 33 V r.m.s. and 46,7 V peak or 70 V d.c.		N/A
	Voltages are not HAZARDOUS LIVE the levels of:		—
	b) Current less than 3,5 mA r.m.s. for sinusoidal, 5 mA peak non-sinusoidal or mixed frequencies or 15 mA d.c. when measured with measuring circuit A.1 or A.2 if less than 100 Hz		N/A

	for WET LOCATIONS measuring circuit A.4 used		N/A
	500 mA r.m.s. when measured with circuit A.3 for higher frequencies		N/A
	or		—
	c) Levels of capacitive charge or energy less line B of Figure 3		N/A
6.4	Primary means of protection	See below;	P
6.4.1	ACCESSIBLE parts prevented from being HAZARDOUS LIVE by one or more of following means:	Accessible parts prevented from becoming hazardous live by enclosure and basic insulation.	—
	a) ENCLOSURES or PROTECTIVE BARRIERS (see 6.4.2)		P
	b) BASIC INSULATION (see 6.4.3)		N/A
	c) Impedance (see 6.4.4)		P
6.4.2	ENCLOSURES or PROTECTIVE BARRIERS	(see Form A.15 and A.16)	—
	– meet rigidity requirements of 8.1	See clause 8.1	P
	– meet requirements for BASIC INSULATION, if protection is provided by insulation		P
	– meet requirements of 6.7 for CREEPAGE and – CLEARANCES between ACCESSIBLE parts and – HAZARDOUS live parts, if protection is provided by – limited access		N/A
6.4.3	BASIC INSULATION	(see Form A.15 and A.16)	—
	– meet CLEARANCE, CREEPAGE DISTANCE and solid – insulation requirements of 6.7	See clause 6.7.	P
6.4.4	Impedance	(see Form A.12 and A.15)	—
	Impedance used as primary means of protection meets all of following requirements:		—
	a) limits current or voltage to level of 6.3.2	(see Form A.6)	N/A
	b) RATED for maximum WORKING VOLTAGE and the amount of power it will dissipate		N/A
	c) CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of BASIC INSULATION of 6.7	(see Form A.15)	N/A
6.5	Additional means of protection in case of SINGLE FAULT CONDITION	Primary means of protection adequate of protection in case of single fault.	P
6.5.1	ACCESSIBLE parts are prevented from becoming HAZARDOUS live by the primary means of protection and supplemented by one of:	See below;	—
	a) PROTECTIVE BONDING (see 6.5.2)	Protective bonding used as additional means of protection.	P
	b) SUPPLEMENTARY INSULATION (see 6.5.3)		N/A

	c) automatic disconnection of the supply (see 6.5.5)		N/A
	d) current- or voltage-limiting device (see 6.5.6)	Circuit breaker used.	P
	Alternatively one of the single means of protection is used:		—
	e) REINFORCED INSULATION (see 6.5.3)		N/A
	f) PROTECTIVE IMPEDANCE (see 6.5.4)		N/A
6.5.2	PROTECTIVE BONDING	(see Form A.7, A.8, A.9, A.10 or A.11)	P
6.5.2.1	ACCESSIBLE conductive parts, may become HAZARDOUS LIVE in SINGLE FAULT CONDITION:		—
	Bonded to the PROTECTIVE CONDUCTOR TERMINAL; or	Bonded to protective conductor terminal.	P
	Separated by conductive screen or barrier bonded to PROTECTIVE CONDUCTOR TERMINAL		N/A
6.5.2.2	Integrity of PROTECTIVE BONDING	See below;	—
	a) PROTECTIVE BONDING consists of directly connected structural parts or discrete conductors or both; and withstands thermal and dynamic stresses	Comply.	P
	b) Soldered connections:	No soldered connection.	—
	Independently secured against loosening		N/A
	Not used for other purposes		N/A
	c) Screw connections are secured	Comply.	P
	d) PROTECTIVE BONDING not interrupted; or	Comply.	P
	exempted as removable part carries MAINS SUPPLY input connection	No removable parts that carries mains supply input connection.	N/A
	e) Any movable PROTECTIVE BONDING connection specifically designed, and meets 6.5.2.4	Comply.	P
	f) No external metal braid of cables used (not regarded as PROTECTIVE BONDING)	Comply.	P
	g) IF MAINS SUPPLY passes through:	No such connection	—
	Means provided for passing protective conductor;		N/A
	Impedance meets 6.5.2.4		N/A
	h) Protective conductors bare or insulated, if insulated, green/yellow	Green-and-yellow insulated conductor used.	P
	Exceptions:	No exceptions.	—
	1) earthing braids;		N/A
	2) internal protective conductors etc.;		N/A
	Green/yellow not used for other purposes		N/A
	TERMINAL suitable for connection of a PROTECTIVE CONDUCTOR, and meets 6.5.2.3	See clause 6.5.2.3.	P

6.5.2.3	PROTECTIVE CONDUCTOR TERMINAL	See below;	—
	a) Contact surfaces are metal	Comply.	P
	b) Appliance inlet used	Not used.	N/A
	c) For rewirable cords and PERMANENTLY CONNECTED EQUIPMENT, PROTECTIVE CONDUCTOR TERMINAL is close to MAINS supply TERMINALS	Comply.	P
	d) If no MAINS supply is required, any PROTECTIVE CONDUCTOR TERMINAL:	Equipment required connection to the mains.	—
	Is near terminals of circuit for which protective earthing is necessary		N/A
	External if other terminals external		N/A
	e) Equivalent current-carrying capacity to MAINS supply TERMINALS	(see Form A.7)	P
	f) If plug-in, makes first and breaks last	No plug in type conductor used.	N/A
	g) If also used for other bonding purposes, PROTECTIVE CONDUCTOR:	Not used for other bonding purposes.	—
	Applied first;		N/A
	Secured independently;		N/A
	Unlikely to be removed by servicing		N/A
	h) PROTECTIVE CONDUCTOR of measuring circuit:	Not contain.	—
	1) Current RATING equivalent to measuring circuit TERMINAL;		N/A
	2) PROTECTIVE BONDING: not interrupted by any switch or interrupting device		N/A
	i) FUNCTIONAL EARTH TERMINALS allow independent connection	Comply.	P
	j) If a binding screw used for PROTECTIVE CONDUCTOR TERMINAL:	Not contain.	—
	Suitable size for bond wire		N/A
	Not smaller than M 4		N/A
	At least 3 turns of screw engaged		N/A
	Passes tightening torque test	(see Form A.8)	N/A
	k) Contact pressure not capable being reduced by deformation of materials	Comply.	P
6.5.2.4	Impedance of PROTECTIVE BONDING of plug-connected equipment	(see Form A.9)	—
	Impedance between PROTECTIVE CONDUCTOR TERMINAL and each ACCESSIBLE part where PROTECTIVE BONDING is specified, is:	Permanently connected equipment.	—
	– less than 0,1 Ohm; or		N/A

	– less than 0,2 Ohm if equipment is provided with non-detachable cord		N/A
6.5.2.5	Bonding impedance of PERMANENTLY CONNECTED EQUIPMENT	(see Form A.10)	—
6.5.2.6	Transformer PROTECTIVE BONDING screen	Not contain.(see Form A.11)	—
	Transformer provided with screen for PROTECTIVE BONDING:		—
	screen bonding consists of directly connected structural parts or discrete conductors or both; and withstands thermal and dynamic stresses (see 6.5.2.2 a)		N/A
	screen bonding with soldered connection (see 6.5.2.2 b) is:		N/A
	– Independently secured against loosening		N/A
	– Not used for other purposes		N/A
6.5.3	SUPPLEMENTARY and REINFORCED INSULATION		N/A
	Meet CLEARANCE, CREEPAGE DISTANCE and solid insulation requirements of 6.7		N/A
6.5.4	PROTECTIVE IMPEDANCE	(see Form A.12)	N/A
	Limits current or voltage to level of 6.3.1 in NORMAL and to level of 6.3.2 in SINGLE FAULT CONDITION		N/A
	CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of DOUBLE or REINFORCED INSULATION of 6.7	(see Form A.15)	N/A
	The PROTECTIVE IMPEDANCE consists of one or more of the following:	(see TABLE 1 and Form A.12)	—
	a) appropriate single component suitable for safety and reliability for protection, it is:		—
	1) RATED twice the maximum WORKING VOLTAGE		N/A
	2) resistor RATED for twice the power dissipation for maximum WORKING VOLTAGE		N/A
	b) combination of components		N/A
	Single electronic device not used as PROTECTIVE IMPEDANCE		N/A
6.5.5	Automatic disconnection of the supply		N/A
	a) RATED to disconnect the load within time specified in Figure 2		N/A
	b) RATED for the maximum load conditions of the equipment		N/A
6.5.6	Current- or voltage-limiting devices	(see Form A.12)	P
	Device complies with all of:	See below;	—

	a) RATED to limit the current or voltage to the level of 6.3.2	(see Form A.6)	P
	b) RATED for the maximum WORKING VOLTAGE; and	Comply.	P
	RATED for the maximum operational current if applicable	Comply.	P
	c) CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of SUPPLEMENTARY INSULATION of 6.7	(see Form A.14, A.15)	P
6.6	Connections to external circuits	No connection to external circuit.	N/A
6.6.1	Connections do not cause ACCESSIBLE parts of the following to become HAZARDOUS LIVE in NORMAL CONDITION or SINGLE FAULT CONDITION:		—
	– the external circuits		N/A
	– the equipment		N/A
	Protection achieved by separation of circuits; or		N/A
	short circuit of separation does not cause a HAZARD		N/A
	Instructions or markings for each terminal include:		—
	a) RATED conditions for TERMINAL		N/A
	b) Required RATING of external circuit insulation		N/A
6.6.2	TERMINALS for external circuits		N/A
	TERMINALS which receive a charge from an internal capacitor are not HAZARDOUS LIVE after 10 s of interrupting supply connection	(see Form A.5)	N/A
6.6.3	Circuits with terminals which are HAZARDOUS LIVE		N/A
	These circuits are:		—
	Not connected to ACCESSIBLE conductive parts; or		N/A
	Connected to ACCESSIBLE conductive parts, but are not MAINS CIRCUITS and have one TERMINAL contact at earth potential		N/A
	No ACCESSIBLE conductive parts are HAZARDOUS LIVE		N/A
6.6.4	ACCESSIBLE terminals for stranded conductors		N/A
	No RISK of accidental contact because:		—
	– Located or shielded		N/A
	– Self-evident or marked whether or not connected to ACCESSIBLE conductive parts		N/A
	ACCESSIBLE TERMINALS will not work loose		N/A
6.7	Insulation requirements	(see Form A.14)	P
6.7.1	The nature of insulation	See below;	—

6.7.1.1	Insulation between ACCESSIBLE parts or between separate circuits consist of CLEARANCES, CREEPAGE DISTANCES and solid insulation if provided as protection against a HAZARD	Comply.	P
6.7.1.2	CLEARANCES	Comply.	—
	Required CLEARANCES reflecting factors of 6.7.1.1	(see Form A.14 and A.15)	P
	Equipment rated for operating altitude greater than 2000 m correction factor of Table 3 of 61010-1 applied	Up to 2000m.	N/A
6.7.1.3	CREEPAGE DISTANCES	Comply.	—
	Required CREEPAGE DISTANCES reflecting factors of 6.7.1.1 a) to d)	(see Form A.14 and A.15)	N/A
	CTI material group reflected by requirements	IIIb assumed.	P
	CTI test performed	Not performed.	N/A
6.7.1.4	Solid insulation	Comply	—
	Required solid insulation reflecting factors of 6.7.1.1 a) to d)	(see Form A.14 and A.15)	P
6.7.1.5	Requirements for insulation according to type of circuit	(see Form A.14 and A.15)	—
	a) 6.7.2 MAINS circuits of OVERVOLTAGE CATEGORY II up to nominal supply voltage of 300 V	Category III device.	N/A
	b) 6.7.3 secondary circuits separated from circuits defined in a) by transformer	Not contain.	N/A
	c) K.1 MAINS circuits of OVERVOLTAGE CATEGORY III and IV or OVERVOLTAGE CATEGORY II over 300 V	Comply.	P
	d) K.2 secondary circuits separated from circuits defined in c) by transformer	Not contain.	N/A
	e) K.3 circuits having one or more of:		—
	1) maximum TRANSIENT OVERVOLTAGE is limited to known level below the level of MAINS CIRCUIT		N/A
	2) maximum TRANSIENT OVERVOLTAGE above the level of MAINS CIRCUIT		N/A
	3) WORKING VOLTAGE is the sum of more than one circuit or a mixed voltage		N/A
	4) WORKING VOLTAGE includes recurring peak voltage, may include non-sinusoidal or non-periodic waveform		N/A
	5) WORKING VOLTAGE with a frequency above 30 kHz		N/A
6.7.2	Insulation for MAINS CIRCUITS of OVERVOLTAGE CATEGORY II with a nominal supply voltage up to 300 V		N/A
6.7.2.1	CLEARANCES and CREEPAGE DISTANCES	(see Form A.14 and A.15)	—
	Values for MAINS CIRCUITS of Table 4 are met		N/A

	Coatings to achieve reduction to POLLUTION DEGREE 1 comply with requirements of Annex H		N/A
6.7.2.2	Solid insulation		—
6.7.2.2.1	Withstands electrical and mechanical stresses in normal use and all RATED environmental conditions of 1.4		N/A
	Equipment passed voltage tests of 6.8.3 with values of Table 5	(see Form A.18)	N/A
	Complies as applicable:		—
	a) ENCLOSURE or PROTECTIVE BARRIER of Clause 8		N/A
	b) moulded and potted parts requirements of 6.7.2.2.2		N/A
	c) inner layers of printed wiring boards requirements of 6.7.2.2.3		N/A
	d) thin-film insulation requirements of 6.7.2.2.4		N/A
6.7.2.2.2	Moulded and potted parts	No molded or potted parts.	—
	Conductors between same two layers are separated by at least 0,4 mm after moulding is completed		N/A
6.7.2.2.3	Inner insulating layers of printed wiring boards	Certified component used.	—
	Separated by at least 0,4 mm between same two layers		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness of insulation is at least 0,4 mm		N/A
	b) insulation is assembled of minimum two separate layers, each RATED for test voltage of Table 5 for BASIC INSULATION		N/A
	c) insulation is assembled of minimum two separate layers, where the combination is rated for test voltage of Table 5 for REINFORCED INSULATION		N/A
6.7.2.2.4	Thin-film insulation	No thin film insulation used.	—
	Conductors between same two layers are separated by applicable CLEARANCES and CREEPAGE DISTANCE of 6.7.2.1		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness through the insulation at least 0,4 mm		N/A
	b) insulation is assembled of min two separate layers, each RATED for test voltage of Table 5 for BASIC INSULATION		N/A
	c) insulation is assembled of min three separate layers, where the combination of two layers passed voltage tests of 6.8.3 with values of Table 5 for REINFORCED INSULATION	(see Form A.18)	N/A
6.7.3	Insulation for secondary circuits derived from MAINS CIRCUITS of OVERVOLTAGE CATEGORY II up to 300 V		N/A

6.7.3.1	Secondary circuits where separation from MAINS CIRCUITS is achieved by a transformer providing:		—
	– REINFORCED INSULATION		N/A
	– DOUBLE INSULATION		N/A
	– screen connected to the PROTECTIVE CONDUCTOR TERMINAL		N/A
6.7.3.2	CLEARANCES	Comply.	—
	a) meet the values of Table 6 for BASIC INSULATION and SUPPLEMENTARY INSULATION; or		N/A
	twice the values of Table 6 for REINFORCED INSULATION		N/A
	or		—
	b) pass the voltage tests of 6.8 with values of Table 6;	(see Form A.18)	—
	with following adjustments:		—
	1) values for reinforced insulation are 1,6 times the values for basic insulation	Considered.	P
	2) if operating altitude is greater than 2000 m values of CLEARANCES multiplied with factor of Table 3	Up to 2000m.	N/A
	3) minimum CLEARANCE is 0,2 mm for POLLUTION DEGREE 2 and 0,8 mm for POLLUTION DEGREE 3	Considered.	P
6.7.3.3	CREEPAGE DISTANCES	Comply.	—
	Based on WORKING VOLTAGE meets the values of Table 7 for BASIC and SUPPLEMENTARY INSULATION	Comply.	P
	Values for REINFORCED INSULATION are twice the values of BASIC INSULATION	Considered.	P
	Coatings to achieve reduction to POLLUTION DEGREE 1 comply with requirements of Annex H	PD2.	N/A
6.7.3.4	Solid insulation	See below;	—
6.7.3.4.1	Withstands electrical and mechanical stresses in normal use and all RATED environmental conditions of 1.4	Comply.	—
	a) Equipment passed voltage test of 6.8.3.1 for 5 s with VALUES of Table 6 for BASIC and SUPPLEMENTARY INSULATION	Comply. (see Form A.18)	P
	values for REINFORCED INSULATION are 1,6 times the values of BASIC INSULATION	Considered.	P
	b) if WORKING VOLTAGE exceeds 300 V, equipment passed voltage test of 6.8.3.1 for 1 min with a test voltage of 1,5 times working voltage for BASIC or SUPPLEMENTARY INSULATION	Comply. (see Form A.18)	P
	value for REINFORCED INSULATION are twice the WORKING VOLTAGE	Considered.	P
	Complies as applicable:		—

	1) ENCLOSURE or PROTECTIVE BARRIER of Clause 8	Comply.	P
	2) moulded and potted parts requirements of 6.7.3.4.2	Not contain.	N/A
	3) inner layers of printed wiring boards requirements of 6.7.3.4.3	Certified component. See certified component list.	N/A
	4) thin-film insulation requirements of 6.7.3.4.4	Certified component. See certified component list.	N/A
6.7.3.4.2	Moulded and potted parts	Not contain.	—
	Conductors between same two layers are separated by applicable distances of Table 8		N/A
6.7.3.4.3	Inner insulation layers of printed wiring boards	Certified component. See certified component list.	—
	Separated by at least by applicable distances of Table 8 between same two layers		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness at least applicable distance of Table 8		N/A
	b) insulation is assembled of minimum two separate layers, each RATED for test voltage of Table 6 for BASIC INSULATION		N/A
	c) insulation is assembled of min two separate layers, where the combination is RATED for 1,6 times the test voltage of Table 6		N/A
6.7.3.4.4	Thin-film insulation	Certified component. See certified component list.	—
	Conductors between same two layers are separated by applicable CLEARANCES and CREEPAGE DISTANCE of 6.7.3.2 and 6.7.3.3		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness at least applicable distance of Table 8		N/A
	b) insulation is assembled of min. two separate layers, each RATED for test voltage of Table 6 for BASIC INSULATION		N/A
	c) insulation is assembled of min. three separate layers, where the combination of two layers passed voltage tests with 1,6 time values of Table 6:	(see Form A.18)	—
	a.c. test of 6.8.3.1; or		N/A
	d.c. test of 6.8.3.2 for circuits stressed only by d.c. voltages		N/A
6.8	Procedure for dielectric strength tests	Considered. (see Form A.14 and A.18)	P

6.9	Constructional requirements for protection against electric shock	See below;	P
6.9.1	If a failure could cause a HAZARD:	No failure could hazard. Tested in fault conditions.	—
	a) security of wiring connections		N/A
	b) screws securing removable covers		N/A
	c) accidental loosening		N/A
	d) CLEARANCES and CREEPAGE DISTANCES not reduced below the values of basic insulation by loosening of parts or wires		N/A
6.9.2	Insulating materials	See below;	P
	Material not to be used for safety relevant insulation:		—
	a) easily damaged materials not used	Not used.	P
	b) non-impregnated hygroscopic materials not used	Not used.	P
6.9.3	Colour coding	See below;	P
	Green-and-yellow insulation shall not be used except:	Green-and-yellow insulation only used below.	—
	a) protective earth conductors;	Comply.	P
	b) PROTECTIVE BONDING conductors;	Comply.	P
	c) potential equalization conductors;	Not contain.	N/A
	d) functional earth conductors	Not contain.	N/A
6.10	Connection to MAINS supply source and connections between parts of equipment	See below;	N/A
6.10.1	MAINS supply cords	Not contain. Permanent connection.	—
	RATED for maximum equipment current (see 5.1.3 c)		N/A
	Cable complies with IEC 60227 or IEC 60245		N/A
	Heat-resistant if likely to contact hot parts		N/A
	Temperature RATING (cord and inlet) ..... :		—
	Green/yellow used only for connection to PROTECTIVE CONDUCTOR TERMINALS		N/A
	Detachable cords with IEC 60320 MAINS connectors:		—
	Conform to IEC 60799; or		N/A
	Have the current RATING of the MAINS connector		N/A
6.10.2	Fitting of non-detachable MAINS supply cords	Not contain. Permanent connection.	—
6.10.2.1	Cord entry		—
	a) inlet or bushing with a smoothly rounded opening; or		N/A
	b) insulated cord guard protruding >5 D (diameter)		N/A

6.10.2.2	Cord anchorage		—
	Protective earth conductor is the last to take the strain		N/A
	a) cord is not clamped by direct pressure from a screw		N/A
	b) knots are not used		N/A
	c) cannot push the cord into the equipment to cause a HAZARD		N/A
	d) no failure of cord insulation in anchorage with metal parts		N/A
	e) not to be loosened without a tool		N/A
	f) cord replacement does not cause a HAZARD and method of strain relief is clear		N/A
	Push-pull and or torque test	(see Form A.19)	N/A
6.10.3	Plugs and connectors		N/A
	MAINS supply plugs, connectors etc., conform with relevant specifications		N/A
	If equipment supplied at voltages below 6.3.2.a) or from a sole source:		—
	Plugs of supply cords do not fit MAINS sockets above rated SUPPLY voltage		N/A
	MAINS type plugs used only for connection to MAINS supply		N/A
	Plug pins which receive a charge from an internal capacitor	(see Form A.5)	N/A
	Accessory MAINS socket outlets:		—
	a) marking if accepts a standard MAINS supply plug (see 5.1.3e)		N/A
	b) input has a protective earth conductor if outlet has EARTH TERMINAL CONTACT		N/A
6.11	Disconnection from supply source	See below;	P
6.11.1	Disconnects all current-carrying conductors	Equipment equipped with three-phase circuit breaker, which disconnect the equipment from each supply source at ones.	P
6.11.2	Exceptions	No exception.	N/A
6.11.3	Requirements according to type of equipment	See below;	—
6.11.3.1	PERMANENTLY CONNECTED EQUIPMENT and multi-phase equipment		P
	Employs switch or circuit-breaker	Employs circuit breaker.	P
	If switch or circuit-breaker is not part of the equipment, documentation requires:	Circuit breaker is part of the equipment.	—
	a) switch or circuit-breaker to be included in building installation		N/A

	b) suitable location easily reached		N/A
	c) marking as disconnecting for the equipment		N/A
6.11.3.2	Single-phase cord-connected equipment	Multi-phase equipment.	N/A
	Equipment is provided with one of the following:		—
	a) switch or circuit-breaker		N/A
	b) appliance coupler (disconnectable without tool)		N/A
	c) separable plug (without locking device)		N/A
6.11.4	Disconnecting devices	See below;	P
6.11.4.1	Disconnecting device part of equipment	Circuit breaker is part of the equipment.	P
	Electrically close to the SUPPLY	Comply. See test photographs.	P
	Power-consuming components not electrically located between the supply source and the disconnecting device	Comply. There is no component between supply and disconnector except EMI filter.	P
	Except electromagnetic interference suppression circuits permitted to be located on the supply side of the disconnecting device	See above.	P
6.11.4.2	Switches and circuit-breakers	See below,	P
	When used as disconnection device:	Circuit breaker used as disconnection device.	—
	Meets IEC 60947-1 and IEC 60947-3	Comply. See critical components list.	P
	Marked to indicate function ..... :	Marked.	—
	Not incorporated in MAINS cord	Comply.	P
	Does not interrupt PROTECTIVE EARTH CONDUCTOR	Comply.	P
6.11.4.3	Appliance couplers and plugs	Not contain.	N/A
	Where an appliance coupler or separable plug is used as the disconnecting device (see 6.11.3.2):		—
	Readily identifiable and easily reached by the operator		N/A
	Single-phase portable equipment cord length not more than 3 m		N/A
	PROTECTIVE EARTH CONDUCTOR connected first and disconnected last		N/A
7	**PROTECTION AGAINST MECHANICAL HAZARDS**		P
7.1	Equipment does not cause a mechanical HAZARD in NORMAL nor in SINGLE FAULT CONDITION	Considered.	P
	Conformity is checked by 7.2 to 7.7	See 7. To 7.7.	P
7.2	Sharp edges	See below;	P
	Easily touched parts are smooth and rounded	Easily touched parts smooth and rounded.	P

	Do not cause injury during NORMAL USE and	Comply.	P
	Do not cause injury during SINGLE FAULT CONDITION	Comply.	P
7.3	Moving parts	See below;	P
7.3.1	HAZARDS from moving parts limited to a tolerable level with the conditions specified in 7.3.2 and 7.3.5	Considered.	P
	RISK assessment in accordance with 7.3.3 carried out	Considered.	P
7.3.2	Exceptions	No exception.	N/A
	Access to HAZARDOUS moving parts permitted under following circumstances:		—
	a) obviously intended to operate on parts or materials external of the equipment		N/A
	inadvertent touching of moving parts minimized by equipment design (e .g. guards or handles)		N/A
	b) If OPERATOR access is unavoidable outside NORMAL USE following precautions have been taken:		—
	1) access requires TOOL		N/A
	2) statement about training in the instructions		N/A
	3) warning markings on covers prohibiting access by untrained OPERATORS		N/A
	or symbol 14 with full details in documentation		N/A
7.3.3	RISK assessment for mechanical HAZARDS to body parts	No hazard caused by moving parts.	N/A
	RISK is reduced to a tolerable level by protective measures as specified in table 12		N/A
	Minimum protective measures:		—
	A. Low level measures		N/A
	B. Moderate measures		N/A
	C. Stringent measures		N/A
7.3.4	Limitation of force and pressure	No contact pressure caused by moving parts. (see Form A.20)	N/A
	Following levels are met in NORMAL and SINGLE FAULT CONDITION:		—
	Continuous contact pressure below 50 N / cm² with force below 150 N		N/A
	Temporary force below 250 N for an area at least of 3 cm² for a maximum duration of 0,75 s		N/A
7.3.5	Gap limitations between moving parts	Moving parts not accessible while equipment is working. (see Form A.20)	N/A
7.3.5.1	Access normally allowed		—

	If levels of 7.3.4 exceeded and body part may be inserted minimum gap as specified in table 13 assured in NORMAL and in SİNGLE FAULT CONDİTİON		N/A
7.3.5.2	Access normally prevented		—
	Maximum gap as specified in table 14 assured in NORMAL and in SİNGLE FAULT CONDİTİON		N/A
7.4	Stability	Seee below;	P
	Equipment not secured to building structure is physical stable	Not secured.	P
	Stability maintained after opening of drawers etc. by automatic means, or	Compliance checked by following tests.	P
	warning marking requires the application of means		N/A
	Compliance checked by following tests as applicable:		—
	a) 10° tilt test for other than handheld equipment	Equipment tilted in each direction to an angle of 10 °from its normal position. Stability maintained.	P
	b) multi-directional force test for equipment exceeds height of 1 m and mass of 25 kg	The force is 250 N applied to all surfaces in directions which could cause the equipment to topple. Stability maintained.	P
	c) downward force test for floor-standing equipment	800 N applied downwards at the point of maximum moment to: 1) all horizontal working surfaces; 2) other surfaces providing an obvious ledge and which are not more than 1 m above floor level. Stability maintained.	P
	d) overload test with 4 times maximum load for castor or support that supports greatest load		N/A
	e) castor or support that supports greatest load removed from equipment		N/A
7.5	Provisions for lifting and carrying	See page 26 of User's manual.	P
7.5.1	Equipment more than 18 kg:		—
	Has means for lifting or carrying; or		N/A
	Directions in documentation		P
7.5.2	Handles and grips	No handles or grips.	—
	Handles or grips withstand four times weight		N/A
7.5.3	Lifting devices and supporting parts	There is no parts for lifting. Equipped with wheels.	—
	RATED for maximum load; or		N/A
	tested with four times maximum static load		N/A
7.6	Wall mounting	Floor standing.	N/A

	Mounting brackets withstand four times weight		N/A
7.7	Expelled parts	No such hazard.	N/A
	Equipment contains or limits the energy		N/A
	Protection not removable without the aid of a tool		N/A
8	**RESISTANCE TO MECHANICAL STRESSES**		P
8.1	Equipment does not cause a HAZARD when subjected to mechanical stresses in NORMAL USE	See below;	P
	Normal protection level is 5 J	Comply.	P
	Levels below 5 J but not less than 1 J are acceptable if all of following criteria are met:		—
	a) lower level justified by RISK assessment of manufacturer		N/A
	b) equipment installed in its intended application is not easily touched		N/A
	c) only occasional access during NORMAL USE		N/A
	d) IK code in accordance to IEC 62262 marked or symbol 14 used with full information in the documentation		N/A
	for non-metallic ENCLOSURES rated below 2 °C ambient temperature value chosen for minimum RATED temperature		N/A
	impact energies between IK values, the IK code marked for nearest lower value		N/A
	Conformity is checked by performing following tests:		—
	1) static test of 8.2.1	Comply.	P
	2) impact test of 8.2.2 with 5 J except for HAND-HELD EQUIPMENT		N/A
	if impact energy not selected to 5 J alternate method of IEC 62262 used		N/A
	3) drop test of 8.3.1 or 8.3.2 except for FIXED EQUIPMENT and equipment with mass over 100 kg	Comply.	P
	Equipment RATED with an impact rating of IK 08 that obviously meets the criteria		N/A
	After the tests inspection with following results:		—
	– HAZARDOUS LIVE parts above the limits of 6.3.2 not ACCESSIBLE		N/A
	– insulation pass the voltage tests of 6.8	(see Form A.30)	N/A
	i) no leaks of corrosive and harmful substances	Comply.	P
	ii) ENCLOSURE shows no cracks resulting in a HAZARD	Comply.	P
	iii) CLEARANCES not less than their permitted values	Comply.	P
	iv) insulation of internal wiring remains undamaged	Comply.	P

	v) PROTECTIVE BARRIERS not damaged or loosened	Comply.	P
	vi) No moving parts exposed, except permitted by 7.3	Comply.	P
	vii) no damage which could cause spread of fire	Comply.	P
8.2	ENCLOSURE rigidity test	See below;	P
8.2.1	Static test	(see Form A.21A)	P
	– 30 N with 12 mm rod to each part of ENCLOSURE	Comply.	P
	– in case of doubt test conducted at maximum RATED ambient temperature	No doubt.	N/A
8.2.2	Impact test	(see Form A.21A)	N/A
	Impact applied to any part of ENCLOSURE causing a HAZARD if damaged		N/A
	Impact energy level and corresponding IK code ..... :		—
	Non-metallic ENCLOSURES cooled to minimum RATED ambient temperature if below 2 °C		N/A
8.3	Drop test	(see Form A.21B)	P
8.3.1	Other than HAND-HELD and DIRECT-PLUG-IN EQUIPMENT	See below;	P
	Tests conducted with a drop height or angle of..... :	30°	—
8.3.2	HAND-HELD and DIRECT-PLUG-IN EQUIPMENT		—
	Non-metallic ENCLOSURES cooled to minimum RATED ambient temperature if below 2 °C		N/A
	Drop test conducted with an height of 1 m		N/A
9	**PROTECTION AGAINST THE SPREAD OF FIRE**		P
9.1	No spread of fire in NORMAL and SINGLE FAULT CONDITION	See below;	P
	MAINS supplied equipment meets requirements of 9.6 additionally	Considered.	P
	Conformity is checked by minimum one or a combination of the following (see Figure 11):	(see Form A.22)	—
	a) SINGLE FAULT test of 4.4; or	Conformity checked by testing in the single fault conditions. (see Form A.1)	P
	b) Application of 9.2 (eliminating or reducing the sources of ignition); or		N/A
	c) Application of 9.3 (containment of fire within the equipment)		N/A
9.2	Eliminating or reducing the sources of ignition within the equipment		N/A
	a) 1) Limited-energy circuit (see 9.4); or		N/A
	b) 2) BASIC INSULATION provided for parts of different potential; or	(see Form A.14 and A.18)	N/A
	Bridging the insulation does not cause ignition	(see Form A.1)	N/A

	c) Surface temperature of liquids and parts (see 9.5)		N/A
	d) No ignition in circuits designed to produce heat	(see Form A.1)	N/A
9.3	Containment of the fire within the equipment, should it occur		N/A
9.3.1	Spread of fire outside equipment reduced to a tolerable level if:		—
	a) Energizing of the equipment is controlled by an OPERATOR held switch		N/A
	b) ENCLOSURE is conform with constructional requirements of 9.3.2; and		N/A
	Requirements of 9.5 are met		N/A
9.3.2	Constructional requirements		—
	a) Connectors and insulating material have flammability classification V-2 or better	(see TABLE 1 or Form A.23)	N/A
	b) Insulated wires and cables are flame retardant (VW-1 or equivalent)	(see TABLE 1 or Form A.23)	N/A
	c) ENCLOSURE meets following requirements:	(see Form A.22)	—
	1) Bottom and sides in arc of 5 ° (see Figure 13) to non-limited circuits (9.4) meets:		—
	i) no openings; or		N/A
	ii) perforated as specified in table 16; or		N/A
	iii) metal screen with a mesh; or		N/A
	iv) baffles as specified in Figure 12		N/A
	2) Material of ENCLOSURE and any baffle or flame barrier is made of:		—
	Metal (except magnesium); or		N/A
	Non-metallic materials have flammability classification V-1 or better	(see TABLE 1 or Form A.22)	N/A
	3) ENCLOSURE and any baffle or flame barrier have adequate rigidity		N/A
9.4	Limited-energy circuit	(see Form A.24)	N/A
	a) Potential not more than 30 r.m.s. and 42,4 V peak, or 60 V dc		N/A
	b) Current limited by one of following means:		—
	1) Inherently or by impedance (see table 17); or		N/A
	2) Overcurrent protective device (see table 18); or		N/A
	3) A regulating network limits also in SINGLE FAULT CONDITION (see table 17)		N/A
	c) Is separated by at least BASIC INSULATION		N/A
	Fuse or a nonadjustable electromechanical device is used		N/A

9.5	Requirements for equipment containing or using flammable liquids		N/A
	Flammable liquids contained in or specified for use with equipment do not cause spread of fire	(see Form A.25)	N/A
	RISK is reduced to a tolerable level:		—
	a) The temperature of surface or parts in contact with flammable liquids is 25 °C below fire point		N/A
	b) The quantity of liquid is limited		N/A
	c) Flames are contained within the equipment		N/A
	Detailed instructions for RISK-reduction provided		N/A
9.6	Overcurrent protection	See below;	P
9.6.1	MAINS supplied equipment protected		P
	BASIC INSULATION between MAINS parts of opposite polarity provided	(see Form A.14 and A.15)	P
	Devices not in the protective conductor		P
	Fuses or single-pole circuit-breakers not fitted in neutral (multi-phase)		P
9.6.2	PERMANENTLY CONNECTED EQUIPMENT		P
	Overcurrent protection device:	Circuit breaker used as overcurrent protection device.	—
	Fitted within the equipment; or		P
	Specified in manufacturer's instructions		N/A
9.6.3	Other equipment		—
	Protection within the equipment		N/A
10	**EQUIPMENT TEMPERATURE LIMITS AND RESISTANCE TO HEAT**		P
10.1	Surface temperature limits for protection against burns		P
	Easily touched surfaces within the limits in NORMAL and in SINGLE FAULT CONDITION:	(see Form A.26A)	—
	– at an specified ambient temperature of 40 °C	Ambient temperature raised by the difference to 40°C	P
	– for equipment rated above 40 °C ambient temperature limits not exceeded raised by the difference to 40 °C		P
	Heated surfaces necessary for functional reasons exceeding specified values:	No such parts.	—
	– Are recognizable as such by appearance or function; or		N/A
	– Are marked with symbol 13		N/A
	– Guards are not removable without tool		N/A
10.2	Temperatures of windings	Comply.	P

	Limits not exceeded in:	Comply. (see Form A.26B)	—
	NORMAL CONDITION	Comply.	P
	SINGLE FAULT CONDITION	Comply.	P
10.3	Other temperature measurements	Considered.	
	Following measurements conducted if applicable:	(see Form A.26A)	—
	a) Value of 60 °C of field-wiring terminal box not exceeded		P
	b) Surface of flammable liquids and parts in contact with this liquids	No flammable liquids present.	N/A
	c) Surface of non-metallic ENCLOSURES	Metalic enclosure.	N/A
	d) Parts made of insulating material supporting parts connected to MAINS supply		P
	e) Terminals carrying a current more than 0,5 A		P
10.4	Conduct of temperature tests		P
10.4.1	Tests conducted under reference test conditions and manufacturer's instructions	Maximum temoerature rise determined by measuring the temperature rise under reference test conditions and adding this rise to 40°C. (see Form A.26A)	P
10.4.2	Temperature measurement of heating equipment		N/A
	Tests conducted in test corner	(see Form A.26A)	N/A
10.4.3	Equipment intended for installation in a cabinet or wall		N/A
	Equipment built in as specified in installation instructions	(see Form A.26A)	N/A
10.5	Resistance to heat		P
10.5.1	Integrity of CLEARANCE and CREEPAGE DISTANCES	Comply. (see Form A.16)	P
10.5.2	Non-metallic ENCLOSURES	(see Form A.27)	N/A
	Within 10 min after treatment:		—
	Equipment subjected to suitable stresses of 8.2 and 8.3 complying with criteria of 8.1		N/A
10.5.3	Insulating material		P
	a) Parts supporting parts connected to MAINS supply	Terminals tested.	P
	b) TERMINALS carrying a current more than 0,5 A		P
	Examination of material data; or		N/A
	in case of doubt:		P
	1) Ball pressure test; or	(see Form A.28)	P
	2) Vicat softening test of ISO 306	(see Form A.29)	N/A

11	**PROTECTION AGAINST HAZARDS FROM FLUIDS**		N/A
11.1	Protection to OPERATORS and surrounding area provided by EQUIPMENT	No hazard from fluids.	N/A
	All fluids specified by manufacturer considered		N/A
11.2	Cleaning	(see Form A.30)	N/A
11.3	Spillage	(see Form A.30)	N/A
11.4	Overflow	(see Form A.30)	N/A
11.5	Battery electrolyte		N/A
	Battery electrolyte leakage presents no HAZARD		N/A
11.6	Specially protected equipment	(see Form A.30)	N/A
11.7	Fluid pressure and leakage		N/A
11.7.1	Maximum pressure.....:	(see Form A.31)	—
	Maximum pressure of any part does not exceed P_{RATED}		N/A
11.7.2	Leakage and rupture at high pressure		—
	Fluid-containing parts subjected to hydraulic test if.... :	(see Form A.31)	—
	a) product of pressure and volume > 200 kPal; and		N/A
	b) pressure > 50 kPa		N/A
	Parts of refrigerating systems meets pressure-related requirements of IEC 60335-24 or IEC 60335-2-89		N/A
11.7.3	Leakage from low-pressure parts	(see Form A.32)	N/A
11.7.4	Overpressure safety device		N/A
	Does not operate in NORMAL USE		N/A
	a) Connected as close as possible to parts intended to be protected		N/A
	b) Easy access for inspection, maintenance and repair		N/A
	c) Adjustment only with TOOL		N/A
	d) No discharge towards person		N/A
	e) No HAZARD from deposit of discharged material		N/A
	f) Adequate discharge capacity		N/A
	No shut-off valve between overpressure safety device and protected parts		N/A
12	**PROTECTION AGAINST RADIATION, INCLUDING LASER SOURCES, AND AGAINST SONIC AND ULTRASONIC PRESSURE**		P
12.1	Equipment provides protection	No hazards from radiation. Only sound pressure considered.	N/A
12.2	Equipment producing ionizing radiation	Equipment not produce ionizing radiation.	N/A

12.2.1	Ionizing radiation	(see Form A.33)	N/A
12.2.1.1	Equipment meets the following requirements:		—
	a) if intended to emit radiation meets requirements of 12.2.1.2; or		N/A
	tested, classified and marked in accordance to IEC 60405		N/A
	b) if only emits stray radiation meets requirements of 12.2.1.3		N/A
12.2.1.2	Equipment intended to emit radiation		—
	Effective dose rate of radiation measured ..... :		—
	If dose rate exceeds 5 µSv/h marked with the following:		—
	a) symbol 17 (ISO 361)		N/A
	b) abbreviations of the radionuclides ..... :		—
	c) with maximum dose at 1 m; or..... :		—
	with dose rate value between 1 µSv/h and 5 µSv/h in m ..... :		—
12.2.1.3	Equipment not intended to emit radiation	(see Form A.34)	—
	Limit for unintended stray radiation of 1 µSv/h at any easily reached point kept ..... :		—
12.2.2	Accelerated electrons		—
	Compartments opened only by the use of a TOOL		N/A
12.3	Ultraviolet (UV) radiation	UV radiation not produced by equipment.	N/A
	No unintentional HAZARDOUS escape of UV radiation:		—
	– checked by inspection; and		N/A
	– evaluation of RISK assessment documentation		N/A
12.4	Microwave radiation	Microwave radiation not produced by equipment.	N/A
	Power density does not exceed 10 W/m^2 ..... :		N/A
12.5	Sonic and ultrasonic pressure	See below;	P
12.5.1	Sound level	Sound level measured. (see Form A.35)	—
	No HAZARDOUS sound emission	Comply.	P
	Maximum sound pressure level measured and calculated for maximum sound power level as specified in ISO 3746 or ISO 9614-1	Comply.	P
	Instruction describes measures for protection	No protection required.	N/A
12.5.2	Ultrasonic pressure	(see Form A.36)	N/A
	Equipment not intended to emit ultrasound does not exceed limit of 110 dB between 20 kHz and 100 kHz		N/A

	Equipment intended to emit ultrasound:		N/A
	Outside useful beam does not exceed limit of 110 dB between 20 kHz and 100 kHz		N/A
	If inside useful beam above values exceeded:		—
	Marked with Symbol 14 of table 1		N/A
	and following information in the documentation:		—
	a) dimensions of useful beam		N/A
	b) area where ultrasonic pressure exceed 110 dB		N/A
	c) maximum sound pressure inside beam area		N/A
12.6	Laser sources	No laser sources.	N/A
	Equipment meets requirements of IEC 60825-1		N/A

13	**PROTECTION AGAINST LIBERATED GASES AND SUBSTANCES, EXPLOSION AND IMPLOSION**		N/A
13.1	Poisonous and injurious gases and substances	Equipment not contain or produce poisonous or injurious gases and substances.	N/A
	No poisonous or injurious gases or substances liberated in NORMAL CONDITION		N/A
	Attached data/test reports demonstrate conformity		N/A
13.2	Explosion and implosion		N/A
13.2.1	Components		N/A
	Components liable to explode:		—
	Pressure release device provided; or		N/A
	Apparatus incorporates operator protection (see also 7.7)		N/A
	Pressure release device:		—
	Discharge without danger		N/A
	Cannot be obstructed		N/A
13.2.2	Batteries and battery charging	(see Form A.37)	—
	If explosion or fire HAZARD could occur:		—
	Protection incorporated in the equipment; or		N/A
	Instructions specify batteries with built-in protection		N/A
	In case of wrong type of battery used:		—
	No HAZARD; or		N/A
	Warning by marking and within instructions		N/A
	Equipment with means to charge rechargeable batteries:		—

	Warning against the charging of non-rechargeable batteries; and		N/A
	Type of rechargeable battery indicated; or		N/A
	Symbol 14 used		N/A
	Battery compartment design		N/A
	Single component failure		N/A
	Polarity reversal test		N/A
13.2.3	Implosion of cathode ray tubes		N/A
	If maximum face dimensions > 160 mm ..... :		—
	Intrinsically protected and correctly mounted; or		N/A
	ENCLOSURE provides protection:		N/A
	If non-intrinsically protected:		—
	Screen not removable without TOOL		N/A
	If glass screen, not in contact with surface of tube		N/A
14	**COMPONENTS AND SUBASSEMBLIES**		P
14.1	Where safety is involved, components and subassemblies meet relevant requirements	Where safety involved, componets and subassemblies meet relevant standard's requirements. (see TABLE 1)	P
14.2	Motors	See below;	P
14.2.1	Motor temperatures		P
	Does not present a HAZARD when stopped or prevented from starting; or	Comply. (see Form A.1; A.26B)	P
	Protected by over-temperature or thermal protection device conform with 14.3		N/A
14.2.2	Series excitation motors		N/A
	Connected direct to device, if overspeeding causes a HAZARD		N/A
14.3	Overtemperature protection devices		N/A
	Devices operating in a SINGLE FAULT CONDITION	(see Form A.38)	N/A
	a) Reliable function is ensured		N/A
	b) RATED to interrupt maximum current and voltage		N/A
	c) Does not operate in NORMAL USE		N/A
	If self-resetting device used to prevent a HAZARD, protected part requires intervention before restarting		N/A
14.4	Fuse holders		N/A
	No access to HAZARDOUS LIVE parts		N/A

14.5	MAINS voltage selecting devices	No mains voltage selecting devices.	N/A
	Accidental change not possible		N/A
14.6	MAINS transformers tested outside equipment	(see Form A.39 and A.40)	N/A
14.7	Printed circuit boards		N/A
	Data shows conformity with V-1 of IEC 60695-11-10 or better; or		N/A
	Test shows conformity with V-1 of IEC 60695-11-10 or better	(see Form A.23)	N/A
	Not applicable for printed wiring boards with limited-energy circuits (9.4)		N/A
14.8	Circuits or components used as TRANSIENT OVERVOLTAGE limiting devices		N/A
	Test conducted between each pair of MAINS SUPPLY TERMINALS	(see Form A.41)	N/A
	No HAZARD resulting from rupture or overheating of the component:		—
	– no bridging of safety relevant insulation		N/A
	– no heat to other parts above the self-ignition points		N/A

15	**PROTECTION BY INTERLOCKS**		N/A
15.1	Interlocks are designed to remove a HAZARD before OPERATOR exposed	Equipment not contain interlocks.	N/A
15.2	Prevention of reactivation		N/A
15.3	Reliability		N/A
	Single fault unlikely to occur; or		N/A
	Cannot cause a HAZARD		N/A
16	**HAZARDS RESULTING FROM APPLICATION**		P
16.1	REASONABLY FORESEEABLE MISUSE	See below;	P
	No HAZARDS arising from settings not intended and not described in the instructions	Comply	P
	Other cases of REASONABLY FORESEEABLE MISUSE addressed by RISK assessment	Comply.	P
16.2	Ergonomic aspects	See risk assasment.	P
	Factors giving rise to a HAZARD the RISK assessment is reflecting those aspects:		—
	a) limitation of body dimensions		P
	b) displays and indicators		P
	c) accessibility and conventions of controls		P
	d) arrangement of TERMINALS		P

17	**RISK ASSESSMENT**		P
	RISK assessment conducted, if HAZARD might arise and not covered by Clauses 6 to 16	Comply.	P
	TOLERABLE RISK achieved by iterative documented process covering the following:	See below;	—
	a) RISK analysis	See risk assessment document.	P
	Identifies HAZARDS and estimates RISK		P
	b) RISK evaluation	Comply.	P
	Plan to judge acceptability of resulting RISK level based on the estimated severity and likelihood of a RISK	Comply.	P
	c) RISK reduction	Comply.	P
	Initial RISK reduced by counter measures;		P
	Repeated RISK evaluation without new RISKS introduced		P
	RISKS remaining after RISK assessment addressed in instructions to RESPONSIBLE BODY:	Risks remained after assessment addressed in User's manual.	—
	Information contained how to mitigate these RISKS		P
	Following principles in methods of RISK reduction applied by manufacturer in given order:		—
	1) RISKS eliminated or reduced as far as possible	Comply.	P
	2) Protective measures taken for RISKS that cannot be eliminated	Comply.	P
	3) User information about residual RISK due to any defect of the protective measures	Comply.	P
	Indication of particular training is required		P
	Specification of the need for personal protective equipment		P
	Conformity checked by evaluation of the RISK assessment documentation	Considered.	P
ANNEX F	**ROUTINE TESTS**		N/A
	Manufacturer 's declaration		N/A
ANNEX H	**QUALIFICATION OF CONFORMAL COATINGS FOR PROTECTION AGAINST POLLUTION**		N/A
H.1	General		N/A
	Conformal coatings meet the requirements of Clause H.2 and H.3.		N/A
H.2	Technical properties		N/A
	Technical properties of conformal coatings are suitable for the intended application. In particular:		—
	a) Manufacturer indicate that it is a coating for PWBs;		N/A

	b) RATED operating temperature include the temperature range of the indicated application;		N/A
	c) CTI, insulation resistance and dielectric strength are suitable for the intended application;		N/A
	d) Coating have adequate UV resistance, if it is exposed to sunlight;		N/A
	e) Flammability RATING of the coating is at least the required flammability RATING of the applied PWB.		N/A
H.3	Qualification of coatings	(see Form A.42)	N/A
	Coating complies with the conformity requirements.		N/A
ANNEX K	**INSULATION REQUIREMENTS NOT COVERED BY CLAUSE 6.7**	**(see Form A.15 and A.18)**	N/A

4.4	TABLE: Testing in SINGLE FAULT CONDITION – Results			Form A.1	P
Test subclause	Fault No.	Fault description	Td 4.4.3 (NOTE)	How was test terminated Comments	Meets 4.4.4
4.4.2.4	1	Continuous operation of motors.	-	Motors operated continuously. No damage, no hazard.	P
4.4.2.5	2	Circulation pump prevented from starting.	-	Equipment operated normally. No damage, no hazard.	P
4.4.2.5	3	One supply phase of blower interrupted at a time while the blower is operating at its intended full load.	-	After interruption blower continiued operating then after 5 minutes stopped working. No damage, no hazard.	P
4.4.2.6	4	Capacitor in the circulation pump short-circuitted.	-	Equipment operated normally. No damage, no hazard.	P

NOTE Td = Test duration in hh:mm:ss
Record dielectric strength test on Form A.18 and temperature tests on Form A.26A and or A.26B.
Record in the comments column for each test whether carried out during or after SINGLE FAULT CONDITION.

Supplementary information:

5.1.3c)	TABLE: MAINS supply		Form A.2	P
	Marked rating.....:	380	V	—
	Phase .....:	3		—
	Frequency .....:	50	Hz	—
	Current .....:	-	A	—
	Power .....:	-	W	—
	Power .....:	25k	VA	—

Test No.	Voltage [V]	Frequency [Hz]	Current [A]	Power [W]	Power [VA]	Comments
1	380	50	3.54MAX	748	756	Marked value not less than 90% of the maximum value.

NOTE – Measurements are only required for marked ratings.

Supplementary information:

5.3	TABLE: Durability of markings	Form A.3	P

Marking method (see NOTE)	Agent
1) Adhesive label	A Water
2) Ink printed	B Isopropyl alcohol 70%
3) Laser marked	C (specify agent)
4) Film-coated (plastic foil control panel)	D (specify agent)
5) Imprinted on plastic (moulded in)	E (specify agent)

NOTE – Where applicable include print method, label material, ink or paint type, fixing method, adhesive and surface to which marking is fixed.

Marking location	Marking method (see above)
Identification (5.1.2)	2
MAINS supply (5.1.3)	2
Fuses (5.1.4)	2
Terminals and operating devices (5.1.5.2)	2
Switches and circuit breakers (5.1.6)	2
Double/reinforced equipment (5.1.7)	N/A
Field wiring Terminal boxes (5.1.8)	2
Warning marking (5.2)	2
Battery charging (13.2.2)	2

Method	Test agent	Remains legible	Label loose	Curled edges	Comments
		Verdict	Verdict	Verdict	
2	IPA	Legible	Not loose	No curled edges	Comply.

Supplementary information:

6.2	TABLE: List of ACCESSIBLE parts	Form A.4	P
6.1.2	Exceptions		—
6.2	Determination of ACCESSIBLE parts		—

Item	Description	Determination method (NOTE 5)	Exception under 6.1.2 (NOTE 4)
1	Main body parts.	Inspection	-
2	HMI screen	Inspection	-
3	Emergency button	Inspection	-
4	Cover	Inspection	-

NOTE 1 – Test fingers and pins are to be applied without force unless a force is specified (see 6.2.2)
NOTE 2 – Special consideration should be given to inadequate insulation and high voltage parts (see 6.2)
NOTE 3 – Parts are considered to be ACCESSIBLE if they could be touched in the absence of any covering which is not considered to provide suitable insulation (see 6.4).
NOTE 4 – Capacitor test may be required (see Form A.5).
NOTE 5 – The determination methods are:
V = visual; R = rigid test finger; J = jointed test finger; P3 = pin 3 mm diameter; P4 = pin 4 mm diameter.

Supplementary information:

6	TABLE: Values in NORMAL CONDITION													Form A.5	N/A
6.1.2	Exceptions							11.2	Cleaning and decontamination						—
6.3.1	Values in NORMAL CONDITION (see NOTE 1)							11.3	Spillage						—
6.6.2	Terminals for external circuit							11.4	Overflow						—
6.10.3	Plugs and connections														—

Item	Voltage			Current				Capacitance		10 s / 5 s test (NOTE)			Comments
(see Form A.4)	V r.m.s.	V peak	V d.c.	Test circuit A1/A2/A3	mA r.m.s.	mA peak	mA d.c.	µC	mJ	V	µC	mJ	

NOTE – A 10 s test is specified in 6.1.2 a) b). A. 5 s test is specified in 6.10.3. The capacitance level versus voltage below the limits given from figure 3 of IEC 61010-1.

Supplementary information:
All accesibble conductive parts are grounded or not operated hazardous voltages.

6.3.2	TABLE: Values in SINGLE FAULT CONDITION												Form A.6	N/A

Item	Subclause and	Voltage			Transient (see NOTE)		Current				Capacitance	Comments
(see Form A.4)	fault No. (see Form A.1)	V r.m.s.	V peak	V d.c.	V	s	Test circuit A1/A2/A3	mA r.m.s.	mA peak	mA d.c.	µF (see NOTE)	

NOTE – Transient voltages must be below the limits given from Figure 2 and the capacitance below the limits from figure 3 of IEC 61010-1.

Supplementary information:
All accesibble conductive parts are grounded or not operated hazardous voltages.

6.5.2.2	TABLE: Cross-sectional area of bonding conductors	Form A.7	P
Conductor location	CROSS-SECTIONAL AREA [mm²]		Verdict
All bonding conductors.	4		P

Supplementary information:

6.5.2.3	TABLE: Tightening torque test	Form A.8	N/A
Conductor location	Size of screw	Tightening torque [Nm]	Verdict

Supplementary information:

6.5.2.4	TABLE: Bonding impedance of plug connected equipment			Form A.9	N/A
ACCESSIBLE part under test	Test current [A]	Voltage attained after 1 min [V]	Calculated resistance (Maximum 0,1 or 0,2 Ω) [Ω] (NOTE 1)		Verdict

NOTE 1 – For none-detachable power cord the impedance between protective conductor plug pin of MAINS cord and each ACCESSIBLE part shall not exceed 0,2 Ohm.

Supplementary information:

6.5.2.5	TABLE: Bonding impedance of permanently connected equipment		Form A.10	P
ACCESSIBLE part under test	Test current [A]	Voltage attained after 1 min (maximum 10 V) [V]		Verdict
Accessible conductive parts	25	0.65		Comply

Supplementary information:

6.5.2.6	TABLE: Transformer PROTECIVE BONDING screen			Form A.11	N/A
ACCESSIBLE part under test	Test current (see NOTE) [A]	Voltage attained after 1 min (maximum 10 V) [V]	Calculated resistance (maximum 0,1 Ω) [Ω]		Verdict

NOTE – Test current must be twice the value of the overcurrent protection means of the winding. Test is specified in 6.5.2.6 a) or b).

Supplementary information:

6.5.4	TABLE: protective impedance							Form A.12	N/A
A single component									
Component	Location	Measured		Calculated	Rated		Verdict	Comments	
		Working voltage [V]	Current [A]	Power dissipation [W]	Working voltage [V]	Power dissipation [W]			

A combination of components		
Component	Location	Comments

NOTE – A PROTECTIVE IMPEDANCE shall not be a single electronic device that employs electron conduction in a vacuum, gas or semiconductor.

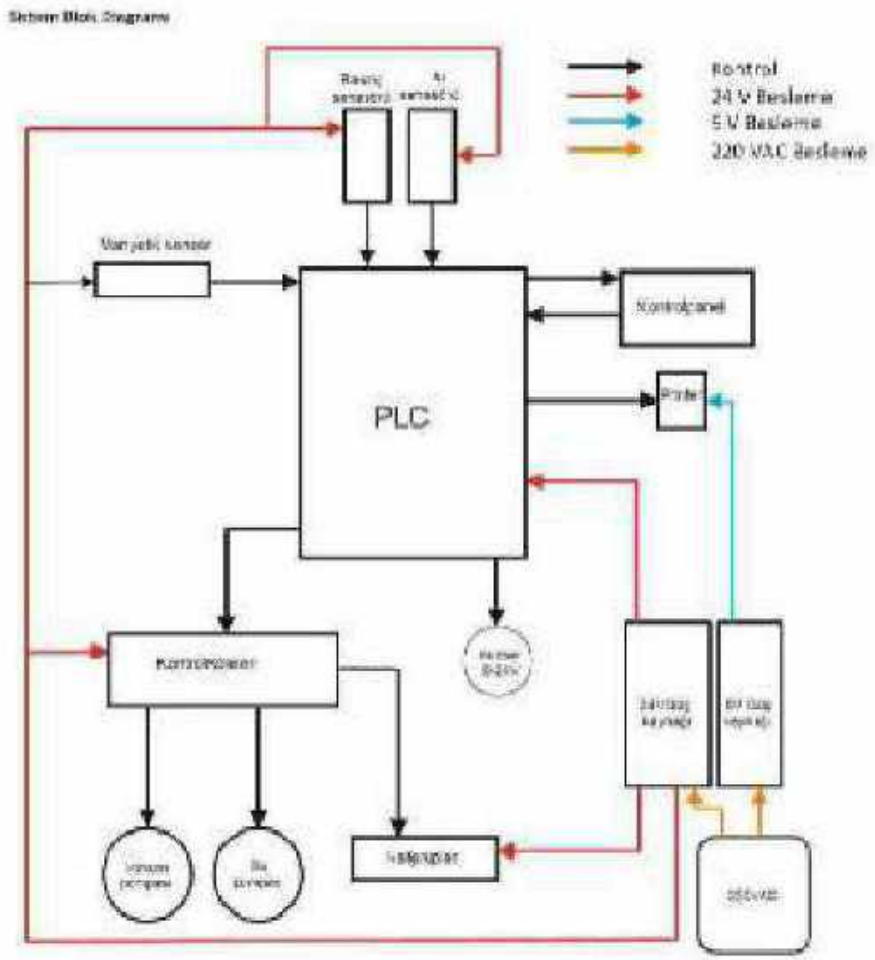
Supplementary information:

6.5.6	TABLE: Current- or voltage-limiting device						Form A.13	
Component	Location	Measured		Rated		Verdict	Comments	
		Working voltage [V]	Current [A]	Working voltage [V]	Current [A]			
Siemens MCB	Mains Input	400	63	230	3.54	P	Comply.	

Supplementary information:

6.7	TABLE: Insulation requirements- Block diagram of system	Form A.14	P

INSULATION DIAGRAM



6.7	TABLE: Insulation requirements- Block diagram of system				Form A.14	P
Pollution degree ..... :			Overvoltage category .....:			
Area	Location	Insulation type (NOTE 1)	WORKING VOLTAGE RMS [V]	Peak [V]	Frequency [kHz]	Test voltage (NOTE 2) [V]	Comments (NOTE 3)
A							
B							
C							
D							
E							
F							

NOTE 1 – Type of insulation:
BI = BASIC INSULATION
DI = DOUBLE INSULATION
PI = PROTECTIVE IMPEDANCE
RI = Reinforced INSULATION
SI = Supplementary INSULATION
see also Form A.15 for further details

NOTE 2 - Types of voltage
Peak impulse test voltage (pulse)
r.m.s.
d.c.
peak

NOTE 3 - OVERVOLTAGE CATEGORIES or POLLUTION DEGREES which differ should be shown under "Comments"

Supplementary Information:
See insulation diagram.

6.7	TABLE: Insulation requirements- Clearances and Creepages			Form A.15	N/A
6.2.2	Examination	6.5.4	Protective impedance		—
6.4.2	ENCLOSURES and protective barriers	6.5.6	Current- or voltage-limiting device		—
6.4.4	Impedance	9.6.1	BASIC INSULATION between opposite polarity		—

Area	Location (See Form A.14)	Insulation type (NOTE 1)	WORKING VOLTAGE (NOTE 2)			Clearance		Creepage		CTI	Verdict	Comments
			RMS [V]	Peak [V]	Frequency [kHz]	Required [mm]	Measured [mm]	Required [mm]	Measured [mm]			
A												
B												
C												
D												
E												
F												

NOTE 1 – refer to Form A.14 for type of insulation shown in the insulation diagram
NOTE 2 - to be used for definition of required insulation (see Form A.14)

Input supply voltage.....:		V		Hz

Supplementary information:
Compliance checked by electric strength test.

6.7	**TABLE: Insulation requirements- Clearances and Creepages**			**Form A.16**	N/A
6.4.2	ENCLOSURES or PROTECTİVE BARRİERS	9.6.1	Overcurrent protection basic insulation between MAİNS parts		—
8	Mechanical resistance to shock and impact	10.5.1	Integrity of CLEARANCES and CREEPAGE distances		—

Area	Location (See Form A.14)	Insulation type	Mechanical tests (NOTE)					Test at max.	Measured after test (if required)		Verdict	Comments
			Applied force	Rigidity (8.2)		Drop (8.3)		RATED ambient	Clearance	Creepage distance		
			N	Static (8.2.1)	Impact (8.2.2)	Normal (8.3.1)	Hand-held/ Plug-in	(10.5.1)	mm	mm		
A												
B												
C												
D												
E												
F												

NOTE – Refer to Form A.18 for dielectric strength tests following the above tests.

Supplementary information:
Compliance checked by electric strength test.

6.7.2.2.2	TABLE: Reliability of potted components	Form A.17 (optional)	N/A
14.1 b)	Components and subassemblies		

Temperature Cycling Test	
Manufacturer ..... :	
Type ..... :	
Construction ..... :	
Potting compound ..... :	
CREEPAGE distances measured ..... :	
CLEARANCES measured ..... :	
Thickness through insulation ..... :	
Adhesive test Pass/Fail ..... :	
Test temperature T °C ..... :	

Cycles at U= AC 500 V				Leakage current (500 V) mA			
Number of cycles	Date			68 h / 125 °C	1 h / 25 °C	2 h / 0 °C	1 h / 25 °C
1. Cycle from		to					
2. Cycle from		to					
3. Cycle from		to					
4. Cycle from		to					
5. Cycle from		to					
6. Cycle from		to					
7. Cycle from		to					
8. Cycle from		to					
9. Cycle from		to					
10. Cycle from		to					

After Cycling Test :		
Humidity conditioning	48 h	
Requirements for dielectric strength (s. insulation diagram)	Test voltage V r.m.s	Verdict
Basic insulation _____ V r.m.s.		
Supplementary insulation _____ V r.m.s.		
Reinforced insulation _____ V r.m.s.		

NOTE - to be used for evaluation of components containing insulation through solid insulation, when the component standard require thermal cycling test. Ref Clause 14.1 and Figure 15, option b)

Supplementary information:

6.8	**TABLE: Dielectric strength tests**				**Form A.18**	P
4.4.4.1 b)	Conformity after application of SINGLE FAULT CONDITIONS[1]					P
6.4	Primary means of protection[2]					P
6.6	Connections to external circuits					N/A
6.7.	Insulation requirements[2] (see Annex K)					P
6.10.2	Fitting of non-detachable MAINS supply cords[1]					N/A
9.2 a) 2)	Eliminating or reducing the sources of ignition within the equipment					N/A
9.4 c)	Limited-energy circuit					N/A
9.6.1	Overcurrent protection basic insulation between MAINS - parts					P
	Test site altitude .....:				760m	—
	Test voltage correction factor (see table 10).....:				N/A	—
Location or references from Forms A.1 and A.14	Clause or sub-clause	Humidity	Working voltage	Test voltage	Comments (NOTE)	Verdict
		Yes/No	V	r.m.s./peak/ d.c.		
L-PE	For all above	Yes	230	1500V	-	P
L2-PE		Yes	230	1500V	-	P
L3-PE		Yes	230	1500V	-	P
N-PE		Yes	230	1500V	-	P
L1-Thermoplastic Pars		Yes	230	3000V	-	P
L2-Thermoplastic Pars		Yes	230	3000V	-	P
L3-Thermoplastic Pars		Yes	230	3000V	-	P

[1] Record the fault, test or treatment applied before the dielectric strength test. [2] Humidity preconditioning required.
NOTE: Test duration may be recorded.

Supplementary information:

6.10.2	TABLE: Cord anchorage					Form A.19	N/A
Location	Mass [kg]	Pull [N]	Verdict	Torque [Nm]	Verdict	Comment	
Dielectric strength test for 1 min. (6.8.3.1).....:			V r.m.s.				
Supplementary information:							

7.	TABLE: Protection against mechanical HAZARDS		Form A.20	N/A
7.3.4	Limitation of force and pressure			—
7.3.5	Gap limitations between moving parts			—

Part / Location	Clause 7.3.4		Clause 7.3.5.1								Clause 7.3.5.2			Verdict	Comments
	Continuous	Temporary	Minimum gaps [mm]								Maximum gaps [mm]				
	Contact pressure max. 50 N /cm² @ max. 150 N	max. 250 N / 3 cm² @ max. 0,75 s	Torso 500	Head 300	Leg 180	Foot 120	Toes 50	Arm 120	Hand 100	Finger 25	Head 120	Foot 35	Finger 4		
Supplementary information:															

8.2	**ENCLOSURE rigidity test**		**Form A.21A**	
8.2.1	Static test			
	Material of enclosure.....:	Metal / non-metallic		—
	Preparation for the test:			—
	Operated at ambient temperature.....:	40 ° C	2 h	—
Location		Comments		Verdict
1)Door		-		P
2)Cover		-		P
3)				
4)				
Supplementary information:				
8.2.2	**Dynamic test**			N/A
	Material of enclosure.....:	Metal / non-metallic		—
	Corresponding IK-code .....:			—
	Preparation for the test:			—
	Cooled to (temperature).....:	° C		—
Location		Comments		Verdict
1) Top				
2) Side left / right				
3) Bottom				
Supplementary information:				

8.3	**Drop test**		**Form A.21B**	P
8.3.1	Other equipment			
Location	Raised up to		Comments	—
	[mm]	30 °		—
1)All corner of equipmetn	-	30°	No damage, no hazard.	P
2)				
3)				
4)				

Supplementary information:

8.3.2	Hand-held EQUIPMENT and direct plug-in equipment		N/A
	Material of enclosure .....:	Metal / non-metallic	—
	Preparation for the test:		—
	Cooled to (temperature) .....:	° C	—
Location		Comments	Verdict
1) Side			
2) Edge			
3) Corner			

Supplementary information:

9	TABLE: Protection against the spread of fire		Form A.22	P
Item	Source of HAZARD or area of the equipment considered (circuit, component, liquid etc.)	Protection Method (9.1 a, b or c)	Protection details	Verdict
-	-	-	-	-

Supplementary information:
Method a tested in single fault condition.

9.3.2	**TABLE: Constructional requirements**	**Form A.23**	N/A
14.7	Printed circuit boards		

Material tested ..... :		—
Generic name ..... :		—
Material manufacturer ..... :		—
Type ..... :		—
Colour ..... :		—
Conditioning details ..... :		—

		Sample					
		1	2	3	4	5	6
Thickness of specimen	mm						
Duration of flaming after first Application	s						
Duration of flaming plus glowing After second application	s						
Specimen burns to holding clamp	Yes/No						
Cotton ignited	Yes/No						
Sample result	Pass/Fail						

Supplementary information:

9.4	TABLE: Limited-energy circuit					Form A.24	N/A
Item or Location (see Form A.22)	9.4 a)	9.4 b) Current limitation (NOTE)		9.4 c)	Decision	Comments	
	Maximum potential in circuit voltage r.m.s./d.c. [V]	Maximum available current [A]	Overload protection after 120 s [A]	Circuit separation	Yes/No		
NOTE – Maximum values see Tables 17 and 18 of IEC 61010-1							
Supplementary information:							

9.5	TABLE: Requirements for equipment containing or using flammable liquids	Form A.25	N/A
Type of liquid	9.5 Flammable liquids		Verdict
	b) Quantity	c) Containment	
Supplementary information:			

10.	TABLE : Temperature Measurements	Form A.26A	P
10.1	Surface temperature limits – ~~NORMAL CONDITION and~~ / or SINGLE FAULT CONDITION		P
10.2	Temperature of windings – ~~NORMAL CONDITION and~~ / or SINGLE FAULT CONDITION		P
10.3	Other temperature measurements		

Operating conditions:	Circulation sequence.		
Frequency ..... :	50 Hz	Test room ambient temperature (ta) ...:	25 °C
Voltage..... :	380 V	Test duration .....:	1 h 0 min

Part / Location	t_m [°C]	t_c [°C]	t_{max} [°C]	Verdict	Comments
Siemens 5SL6340-7MB	42.9	57.9	*		
Meanwell EDR 120-24	45.1	60.1	*		
Siemens Sirius 3RV2011	40.0	55.0	*		
Scheneider IC60N	41.0	56.0	*		
Siemens 3TF42-10	42.1	57.1	*		
Terminal PYK 2.5	38.1	53.1	60		
Terminal PYK 2.5	36.3	51.3	60		
Indoor Temperature	44.4	59.4	*		
Intermotor 180W Motor	32.7	47.7	105		
Greenco 2RB Blower	28.9	43.9	105		
LGB ZF-400 Circulation Pump	94.9	109.9	150		
HMI Screen	32.2	47.2	70		
Emergency Stop	29.9	44.9	70		
On-Off	28.5	43.5	70		
Glass	61.3	76.3	80		
Enclosure	27.5	42.5	65		
Printer	30.7	45.7	70		
Container	32.2	47.2	65		

NOTE 1 - t_m = measured temperature
t_c = t_m corrected (t_m–t_a+ **40 °C** or max. RATED ambient)
t_{max} = maximum permitted temperature
NOTE 2 - see also 14.1 with reference to component operating conditions
NOTE 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary
NOTE 4 - see Form A.26B for details of winding temperature measurements

Supplementary information:

10.	TABLE : Temperature Measurements	Form A.26A	P
10.1	Surface temperature limits – ~~NORMAL CONDITION and~~ / or SINGLE FAULT CONDITION		P
10.2	Temperature of windings – ~~NORMAL CONDITION and~~ / or SINGLE FAULT CONDITION		P
10.3	Other temperature measurements		

Operating conditions:	Drying sequence.		
Frequency ..... :	50 Hz	Test room ambient temperature (ta) ...:	25 °C
Voltage..... :	380 V	Test duration .....:	1 h 10 min

Part / Location	t_m [°C]	t_c [°C]	t_{max} [°C]	Verdict	Comments
Siemens 5SL6340-7MB	42.6	57.6	*		
Meanwell EDR 120-24	50.7	65.7	*		
Siemens Sirius 3RV2011	47.0	62.0	*		
Scheneider IC60N	48.3	63.3	*		
Siemens 3TF42-10	50.9	56.9	*		
Terminal PYK 2.5	43.5	58.5	60		
Terminal PYK 2.5	43.8	58.8	60		
Indoor Temperature	45.9	60.9	*		
Intermotor 180W Motor	41.0	56.0	105		
Greenco 2RB Blower	40.0	55.0	150		
LGB ZF-400 Circulation Pump	45.0	60.0	105		
HMI Screen	36.6	51.6	70		
Emergency Stop	32.1	47.1	70		
On-Off	31.7	46.7	70		
Glass	44.5	59.5	80		
Enclosure	41.2	56.2	65		
Printer	34.9	49.9	70		
Container	37.6	52.6	65		

NOTE 1 - t_m = measured temperature
t_c = t_m corrected (t_m–t_a+ **40 °C** or max. RATED ambient)
t_{max} = maximum permitted temperature
NOTE 2 - see also 14.1 with reference to component operating conditions
NOTE 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary
NOTE 4 - see Form A.26B for details of winding temperature measurements

Supplementary information:

10.2	**TABLE: Temperature of windings** **Resistance method Temperature Measurements**	**Form A.26B**	N/A
4.4.2.7	MAINS transformers		
14.2.1	Motor temperatures		

Operating conditions...:									
Frequency .....:	Hz	Test room ambient temperature (ta1/ta2) :					/	°C (initial / final)	
Voltage.....:	V	Test duration .....:					h	min	
Part / Designation	Rcold [Ω]	Rwarm [Ω]	Current [A]	t_r [K]	t_c [°C]	t_{max} [°C]	Verdict	Comments	

NOTE 1- R_{cold} = initial resistance
t_r = temperature rise
t_{max} = maximum permitted temperature
R_{warm} = final resistance
t_c = t_r corrected ($t_c = t_r - \{t_{a2} - t_{a1}\} + [40\ °C$ or max RATED ambient$]$)
NOTE 2 - Indicate insulation class (IEC 60085) under comments (optional)
NOTE 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary

Supplementary information:

10.5.2	TABLE: Resistance to heat of non-metallic ENCLOSURES		Form A.27	N/A
	Test method used:			—
	Non-operative treatment ..... :	[ ]		
	Empty ENCLOSURE ..... :	[ ]		
	Operative treatment ..... :	[ ]		
	Temperature during tests ..... :			—

Description	Material	Comments	Verdict

Dielectric strength test (6.8) ..... :		V r.m.s./peak/d.c.	

NOTE – Within 10 minutes of the end of treatment suitable tests in acc. to 8.2 and 8.3 must be conducted and pass criteria of 8.1.

Supplementary information:

10.5.3	**TABLE: Insulating Materials**		**Form A.28**	N/A
10.5.3 1)	Ball-pressure test			N/A
	Max. allowed impression diameter ..... :	2 mm		—

Part	Test temperature [°C]	Impression diameter [mm]	Verdict

Supplementary information: Certified components used.

10.5.3 2)	**Vicat softening test (ISO 306)**		**Form A.29**	N/A

Part	Vicat softening temperature [°C]	Thickness of sample [mm]	Verdict

Supplementary information:

8	**TABLE: Mechanical resistance to shock and impact**	**Form A.30**	N/A
11	**Protection against HAZARDS from fluids**		

Voltage tests can be carried out once after performing the tests of clause **8** and clause **11**. However, if voltage tests are carried out separately after each set of tests, two forms can be used.

	Clause 8 tests				Clause 11 tests							
Location (see Form A.14)	Static (8.2.1) 30 N	Impact (8.2.2)	Normal (8.3.1)	Handheld Plug-in	Cleaning (11.2)	Spillage (11.3)	Overflow (11.4)	IEC 60529 (11.6)	Working voltage [V]	Test voltage [V]	Verdict	Comments

NOTE – Use r.m.s., d.c. or peak to indicate the used test voltage.

Supplementary information:

11.7.2	TABLE: Leakage and rupture at high pressure				Form A.31	N/A
Part	Maximum permissible working pressure [MPa]	Test pressure [MPa]	Leakage Yes / No	Deformation Yes / No	Burst Yes / No	Comments

NOTE – see also Annex G with requirements for USA and Canada.

Supplementary information:

11.7.3	Leakage from low-pressure parts		Form A.32	N/A
Part	Test pressure [MPa]	Leakage Yes / No	Comments	

Supplementary information:

12.2.1	**TABLE: Ionizing radiation**	**Form A.33**	N/A
12.2.1.2	Equipment intended to emit radiation		

Locations tested	Measured values [µSv/h]	Verdict	Comments

Supplementary information:

12.2.1.3	Equipment not intended to emit radiation	**Form A.34**	N/A
	Max. allowed effective dose rate at 100 mm.....:	1 µSv/h	—

Locations tested	Measured values [µSv/h]	Verdict	Comments

Supplementary information:

12.5.1	TABLE: Sound level	Form A.35	P

Locations tested	Measured maximum sound pressure level dB(A)	Calculated maximum sound power level
At operator's normal position and at bystanders' positions	73.6	$L_P = L_W - \lvert 10.\log(\frac{Q}{4\pi r^2})\rvert$ = 65.7dB
a)		
b)		
c)		
d)		
e)		
f)		
Supplementary information:		

12.5.2	Ultrasonic pressure	Form A.36	N/A

Locations tested	Measured values		Comments
	[dB]	[kHz]	
At operator's normal position			
At 1 m from the ENCLOSURE			
a)			
b)			
c)			
d)			
e)			
NOTE – No limit is specified at present, but a limit of 110 dB above the reference pressure value of 20 µPa is under consideration for applicable frequencies between 20 kHz and 100 kHz.			

13.2.2	**TABLE: Batteries**	**Form A.37**	N/A
	Battery load and charging circuit diagram:		
	Battery type..... :		—
	Battery manufacturer/model/catalogue No..... :		—
	Battery ratings..... :		—
	Reverse polarity instalment test		

Single component failures	Verdict	
Component	Open circuit	Short circuit

Supplementary information:

14.3	TABLE: Overtemperature protection devices	Form A.38	N/A

Reliability test			
Component	Type (NOTE)	Verdict	Comments

NOTE:
NSR = non-self-resetting (10 times)
NR = non-resetting (1 time)
SR = self-resetting (200 times)

Supplementary information:

4.4.2.7	TABLE: MAINS transformer				Form A.39	N/A
4.4.2.7.2	Short circuit					
14.6	MAINS transformers tested outside equipment					
Type .....:						—
Manufacturer.....:						—
Test in equipment						
Test on bench						
Test repeated inside equipment (see 14.6)						
Optional – Insulation class (IEC 60085) of the lowest rated winding .....:						—
Winding identification						
Type of Protector for winding (NOTE 1)						
Elapsed time						
Current, A primary						
secondary						
Winding temperature, °C primary						
(see NOTE 2) secondary						
Tissue paper / cheesecloth OK ? (Pass / Fail)						
Voltage tests (see NOTE 3)						
Primary to secondary	_____ V ____					
Primary to core	_____ V ____					
Secondary to secondary	_____ V ____					
Secondary to core	_____ V ____					
Verdict						

NOTE 1: Primary fuse - PF / ( ) A
Secondary fuse - SF / ( ) A
Overtemperature protection - OP / ( ) °C
Impedance protection - Z

NOTE 2: Indicate method of measurement - TC = with thermocouple
- R = resistance method
If resistance method is used, record resistance in cold and warm condition in FormA.26B.

NOTE 3: Record the voltage applied and the type of voltage (r.m.s. / d.c. / peak) and for results use NB = no breakdown or B = breakdown

Supplementary information:

4.4.2.7	**TABLE: MAINS transformer**				**Form A.40**	N/A
4.4.2.7.3	Overload tests (for MAINS transformers)					
14.6	MAINS transformers tested outside equipment					
Type ..... :						—
Manufacturer ..... :						—
Test in equipment						
Test on bench						
Test repeated inside equipment (see 14.6)						
Optional – Insulation class (IEC 60085) of the lowest rated winding ..... :						—

Winding identification				
Type of Protector for winding (NOTE 1)				
Elapsed time				
Current, A primary				
secondary				
Winding temperature, °C primary				
(see NOTE 2) secondary				
Tissue paper / cheesecloth OK ? (Pass / Fail)				
Voltage tests (see NOTE 3)				
Primary to secondary _____ V ____				
Primary to core _____ V ____				
Secondary to secondary _____ V ____				
Secondary to core _____ V ____				
Verdict				

NOTE 1: Primary fuse - PF / ( ) A
Secondary fuse - SF / ( ) A
Overtemperature protection - OP / ( ) °C
Impedance protection - Z

NOTE 2: Indicate method of measurement TC = with thermocouple
R = resistance method
If resistance method is used, record resistance in cold and warm condition in FormA.26B.

NOTE 3: Record the voltage applied and the type of voltage (r.m.s. / d.c. / peak) and for results use **NB** = no breakdown or B = breakdown

Supplementary information:

14.8	TABLE: Transient overvoltage limiting devices									Form A.41	N/A
Component / Designation	Overvoltage Category	MAINS voltage [V rms]	Test voltage [V]	t_m [°C]	t_c [°C]	t_{max} [°C]	Rupture Yes / No	Circuit breaker tripped	Verdict	Comments	
Test room ambient temperature ....:		°C									

NOTE - t_m = measured temperature
t_c = t_m corrected ($t_m - t_a$ + **40 °C** or max.
t_{max} = maximum permitted temperature
Conformity is checked by applying 5 positive and 5 negative impulses with the applicable impulse withstand voltage, spaced up to 1 min apart.

Supplementary information:

Annex H	TABLE: Qualification of conformal coating for protection against pollution	Form A.42	N/A

Technical properties		
Manufacturer		—
Type		—
Meet requirements of ANSI / UL 746E	[yes / no]	
Manufacturer declaration of coating material	[yes / no]	
Operating temperature of coating	[ ] °C	
Comparative tracking index (CTI)	[ ]	
Insulation resistance	[ ] Ω	
Dielectric strength	[ ] V	
UV resistance (if required)	[yes / no]	
Flammability rating		
Preparation of the test specimens conducted	[yes / no]	

Item	Test conditioning	Parameter	Td	Samples						Verdict	Comments
			h	1	2	3	4	5	6		
1	Scratch resistance										
	Visual inspection										
2	Cold		24								
3	Dry heat		48								
4	Rapid temp. change										
5	Damp heat		24								
6	Adhesion of coating	5 N									
	Visual inspection										
7	Humidity		48								
8	Insulation resistance	>= 100 Ω									
	Visual inspection										

NOTE Td = Test duration time

Supplementary information:

	TABLE: Additional or special tests conducted	Form A.43	N/A
Clause and name of test	Test type and condition	Observed results	—
Supplementary information:			

TABLE 1: - List of components and circuits relied on for safety					P
Application/function	Manufacturer / trademark (NOTE 1)	Type / model	Technical data (NOTE 2)	Standard	Mark(s) of conformity evidence of acceptance (NOTE 3 and 4)
Circulation Pump	LGB Pump	ZF-400 SX	-	EN 62233:2009 EN 60335-1:2013 EN 50581:2013	Decleration of Conformity
Blower	GREENCO	2RB 510-7AT26	-	EN 60335-2-41:2003	Certificate of Compliance ISET: IT041616GC160616
Peristatic Pump	Seko	PPR0007A1000	-	EN 60335-2-41	Decleration of Conformity
Pressure Switch	Beck	930.8X	-	EN 60079-11:2012	Decleration of Conformity
Water Heater	HOT STAR	220V-3KW	-	EN 60335-2-6:2003	Decleration of Conformity
Drying Heater	HOT STAR	(220V-4KW) (Ø50 x 200)	-	EN 60335-2-6:2003	Decleration of Conformity
Approximation Sensor	SICK	IME12-06BPSZC0K	-	UL 508	Certificate of Compliance UL: 20170214-E238799
Door Motor	INTERMOTOR	180 W - 27 d/d - 24 V	-	EN 60034-1:2010	Decleration of Conformity
Analog Module	PANASONIC	AFP0R-AD8	-	EN 61131-2:2007	Decleration of Conformity
PLC	PANASONIC	AFP0R-C32MP	-	EN 61131-2:2007	Decleration of Conformity
PT100	WEIDMÜLLER	847301 MCZ PT 100/3 CLP 0..200C	-	EN 50178:1997	Decleration of Conformity
PSU	MEANWELL	EDR-120-24	-	UL 61010-1 UL 61010-2-201	Certificate of Compliance UL: E215312
MCB	SIEMENS	3*63A C KA	-	DIN EN 60898-1	Decleration of Conformity
MCB	SIEMENS	3*25A C 6KA	-	DIN EN 60898-1	Decleration of Conformity
Motor Protective Switch	SIEMENS	1X10A	-	DIN EN 60947-2:2010 DIN EN 60947-4-1:2014 DIN EN 60947-5-1:2010	Decleration of Conformity
Contactor	SIEMENS	3RV2011-1GA10 SIRIUS MKŞ	-	DIN EN 60947-4-1:2014 DIN EN 60947-5-1:2010	Decleration of Conformity

TABLE 1: - List of components and circuits relied on for safety					P
Application/function	Manufacturer / trademark (NOTE 1)	Type / model	Technical data (NOTE 2)	Standard	Mark(s) of conformity evidence of acceptance (NOTE 3 and 4)
Terminal	KLEMSAN	PYK 2,5	-	EN 60947-7-1:2009 EN 60947-7-2:2009 EN 60947-7-3:2009 EN 63000:2008	Decleration of Conformity
Cable Tray	PLASTIM	PDK 2580	-	EN 50085-2-3:2010 EN 50085-2-3:2005	Certificate of Compliance TUV: 27133017 001
Cable	HES ELEKTRİK	H05VV-F	-	TS 9758 HD 21.3.S3:1997 EN 50523-2-31 EN 50525-2-31:2011 VDE 0281 EN 50525-2-31 IEC 60227 BS 6004	Decleration of Conformity
Emergency Stop	EMAS	B200EE	-	TS EN 60947-5-1:2006	Certificate of Compliance TSE: 004597-TSE-05/02
On-Off	OPAŞ	YKL301016	-	TS EN 60947-3:2008	Decleration of Conformity

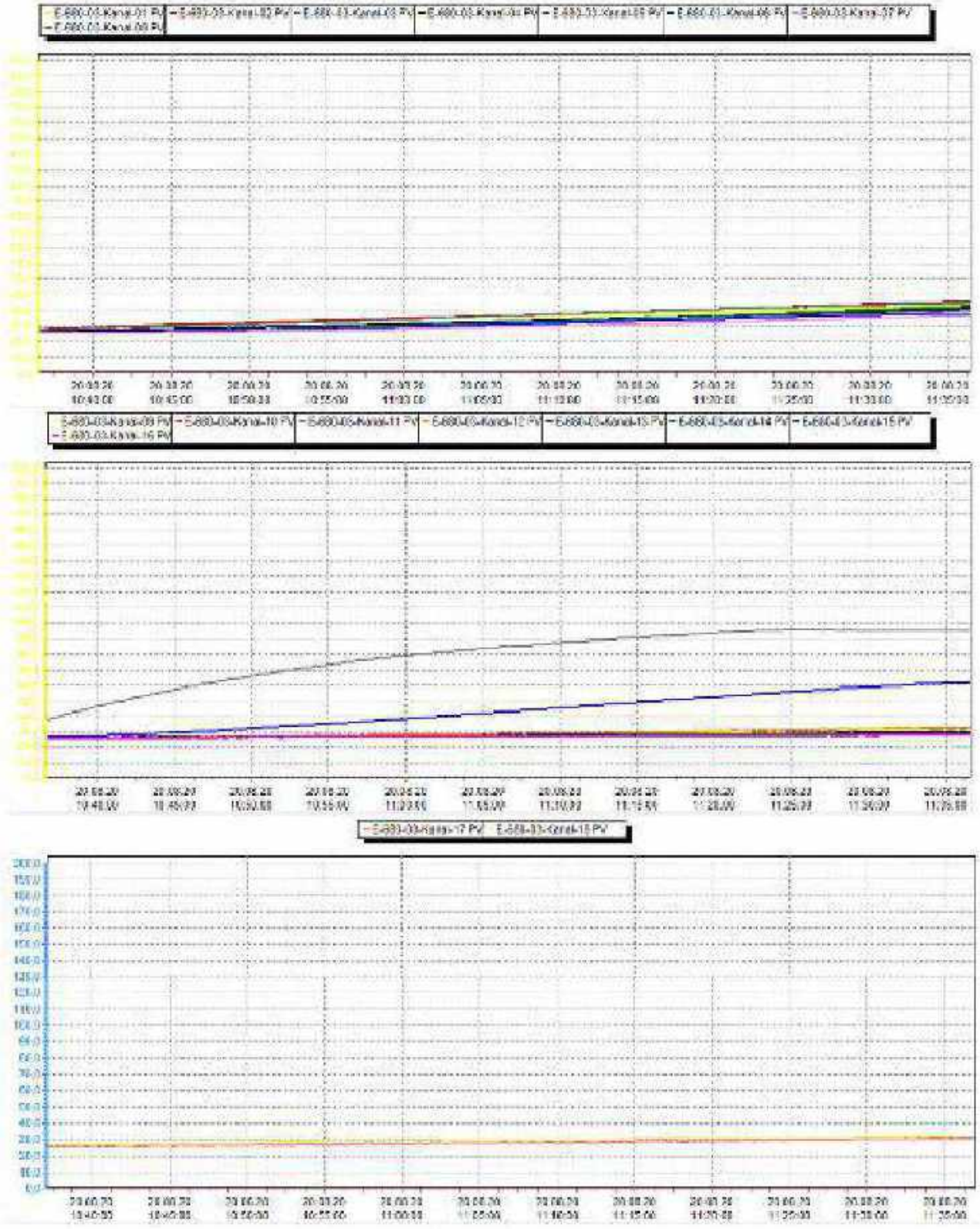
NOTE → 1 List all different manufacturers of the above components
→ 2 May include electrical, mechanical values
→ 3 List licence no or method of acceptance
→ 4 asterisk indicates mark assuring agreed level of surveillance

10. Deney ve Ölçüm Bilgileri:
Test And Measuring Arrangement

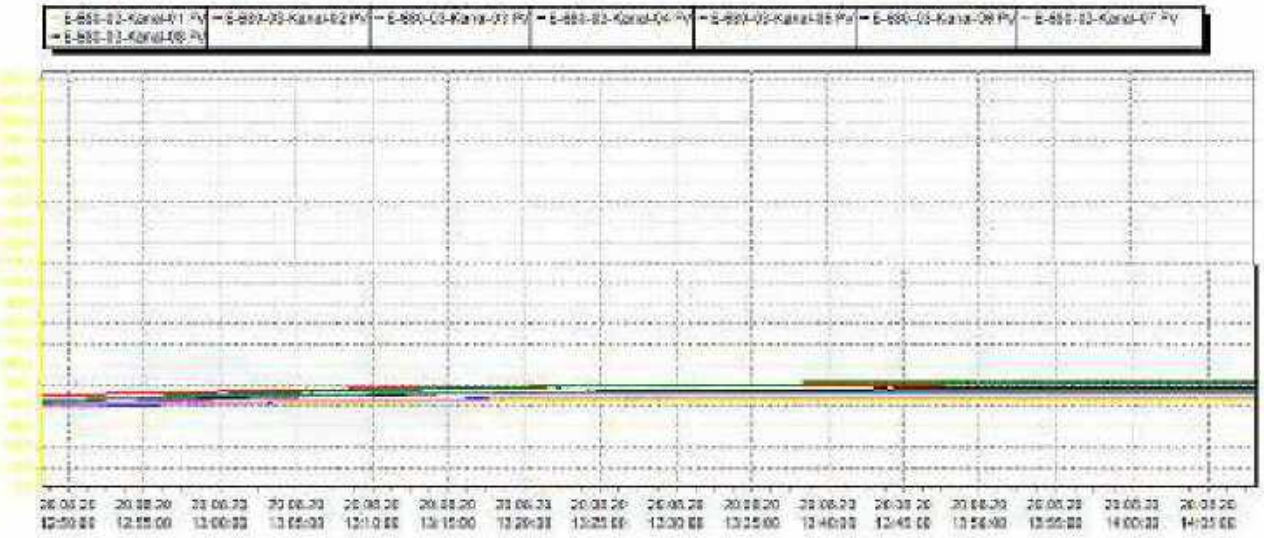
Cihaz *Device*	**İmalatçı** *Manufacturer*	**Seri No. / Kod** *Serial No / Code*	**Sertifika No** *Certificate No*	**Kalibrasyon Bitiş Tarihi** *Calibration Due Date*
Humidity & Temp. Recorder	CEM	LC349	20KD0071	January/2021
Data Logger	ELIMKO	LC5	19SC1280	October/2020
Portable Variac	VARSAN	LC380	19EL1052	October/2020
Digital Caliper	ACCUD	LC365	20BY0033	January/2021
Humiditiy Cabinet	LVT	LC324	19SC1578	December/2020
Test Finger	-	LC205	17M1856	No need to calibrate.
Newtonmeter	NK-500	LC204	1920913	September/2020
Thermal Camera	FLUKE	LC256	20EL0104	January/2021
Multimeter	FLUKE	LC332	19EL3518	November/2020
Oscilloscope	RIGOL	LC30	20EL0955	April/2021
CE Multitester	METREL	LC85	19EL40389	December/2020
Meter (10M)	SOYKAN	LC224	1920918	September/2020
Power Meter	METREL	LC4	E203143	April/2021

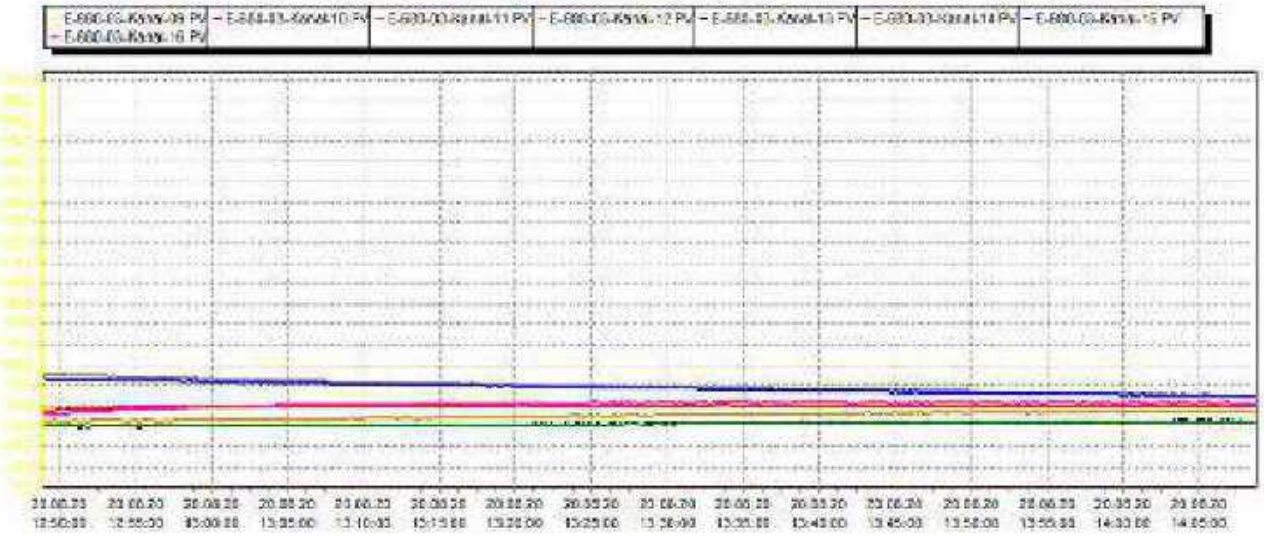
11. Deney Osilogramları:
Test Oscillograms

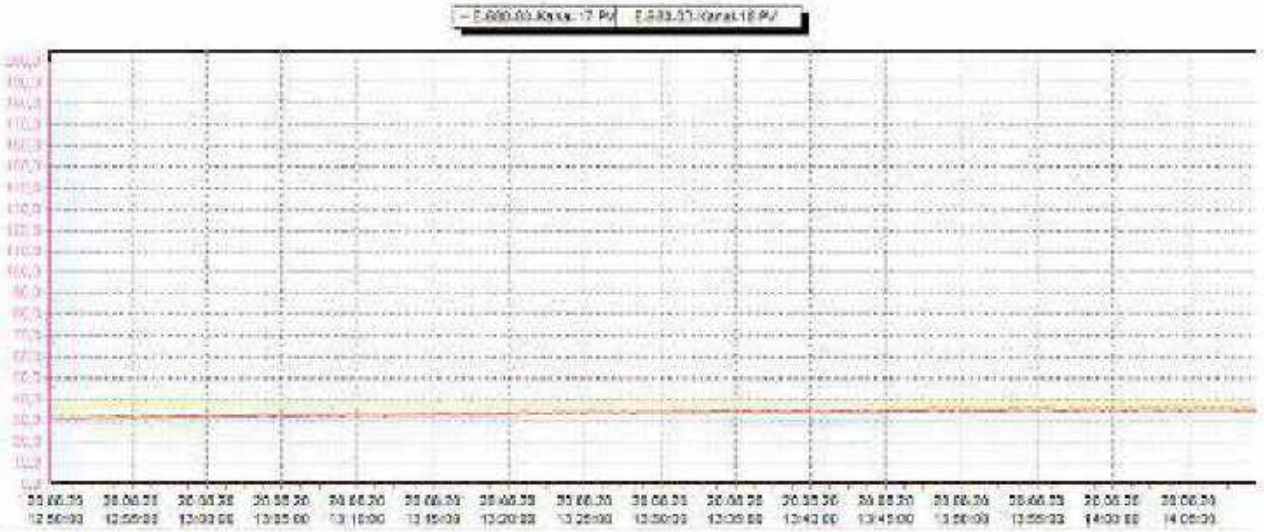
Test 1 – Temperature Rise Measurement



Test 2 – Temperature Rise Measurement



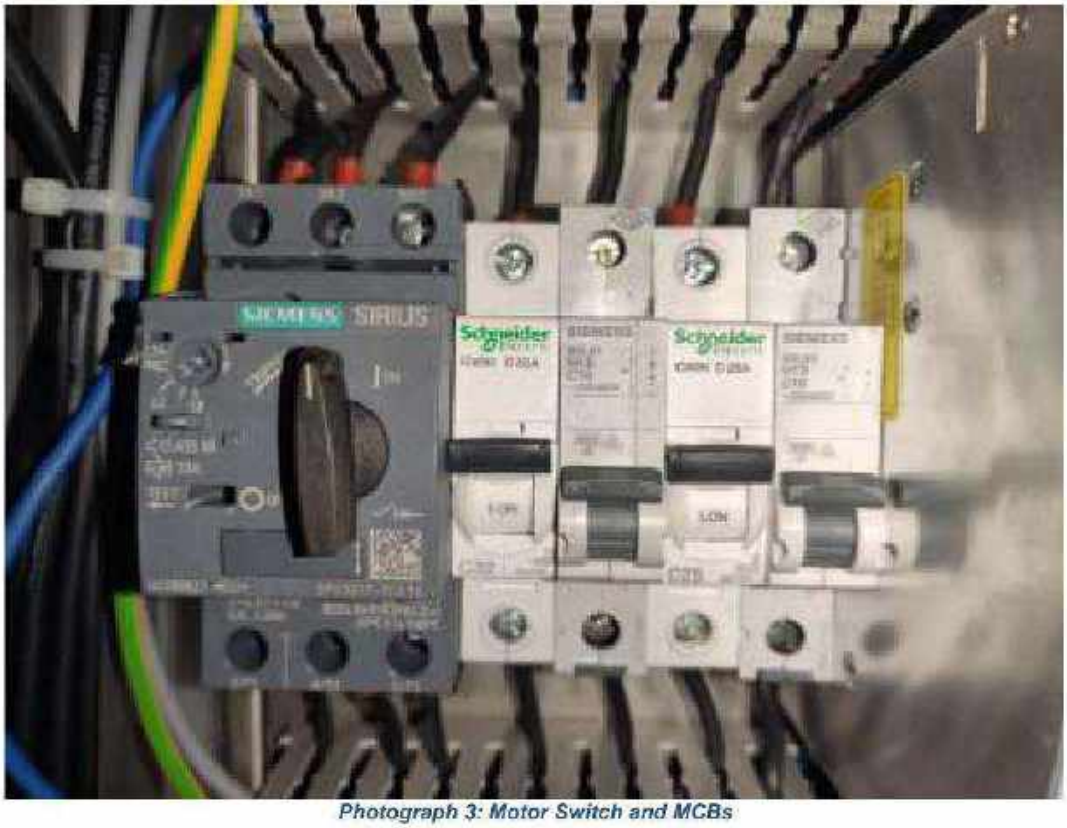




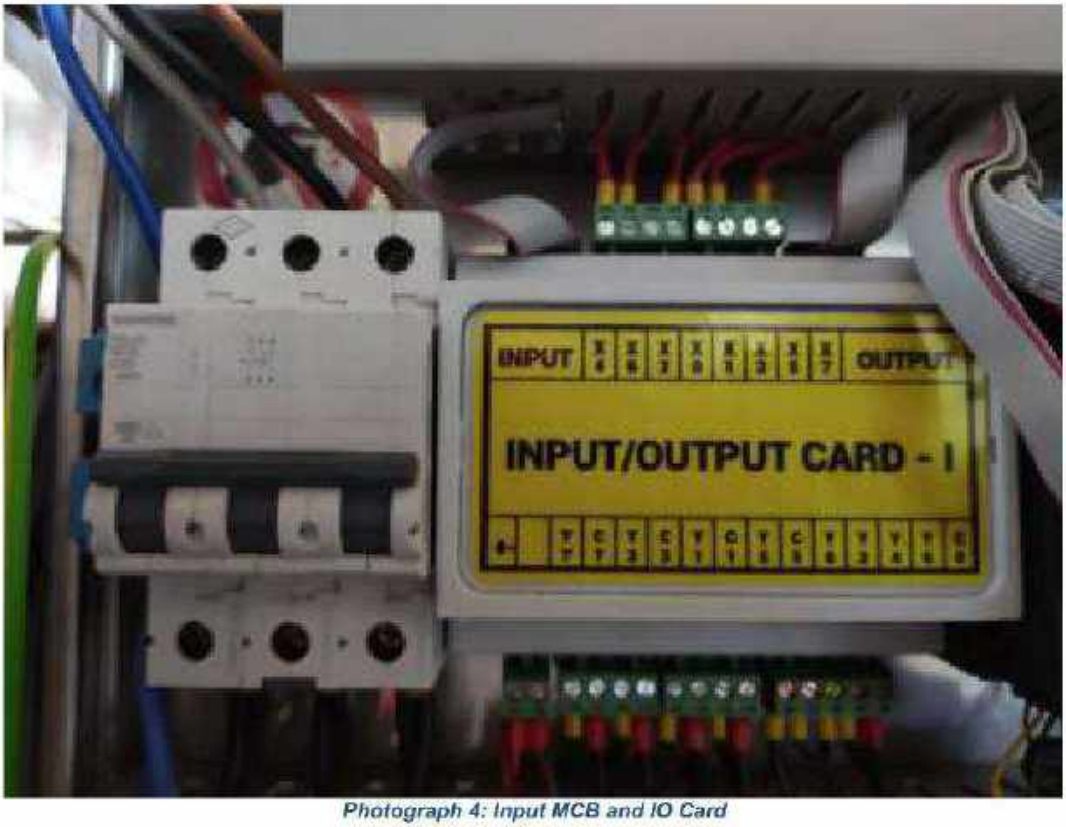
12. Deney Fotoğrafları:
Test Photographs

Photograph 1: Overall enclosure (Front and back)

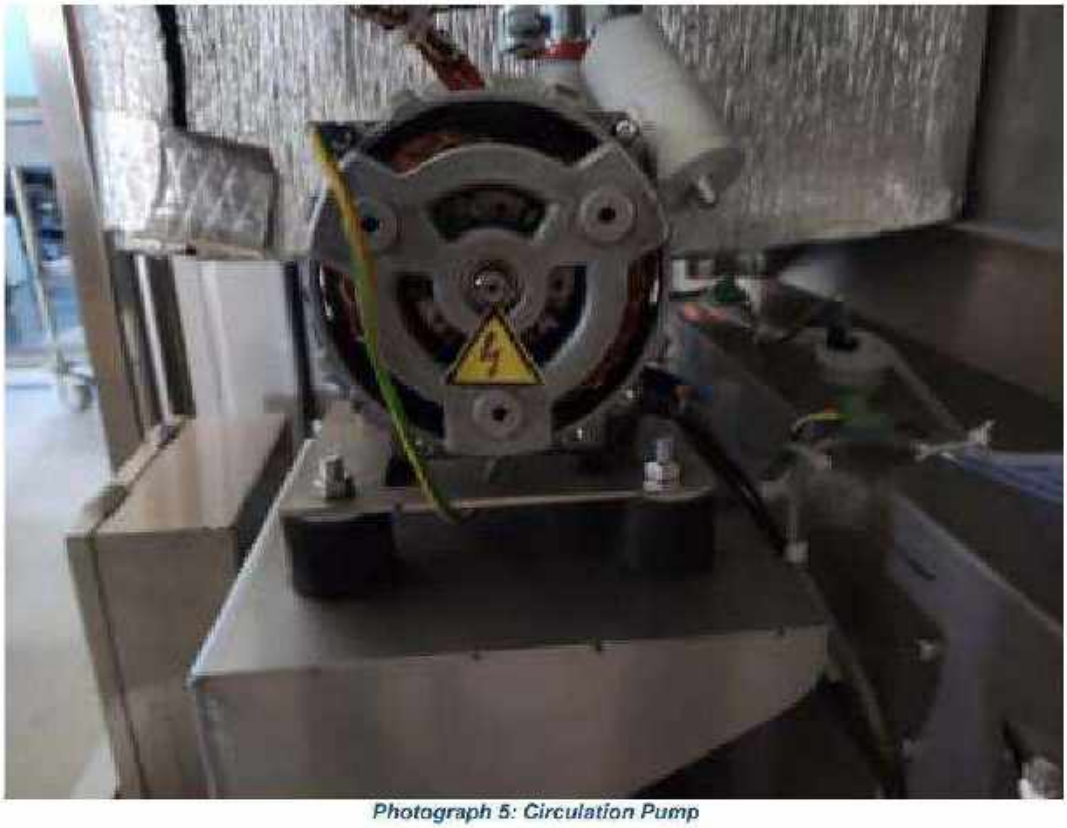
Photograph 2: Overall enclosure (Side covers open)



Photograph 3: Motor Switch and MCBs



Photograph 4: Input MCB and IO Card



Photograph 5: Circulation Pump

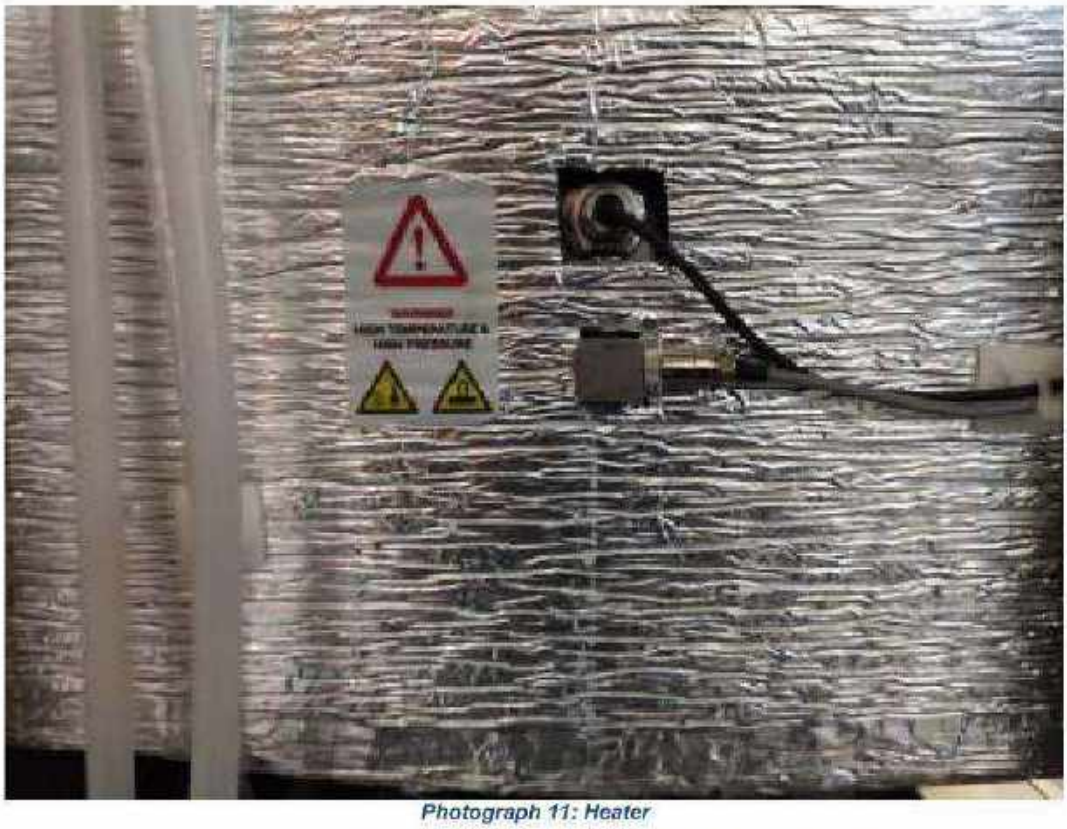
Photograph 5: PSU

Photograph 7: Valve

Photograph 8: Contactor

Photograph 9: Terminals

Photograph 10: EMI Filter



Photograph 11: Heater

Photograph 12: Miscellaneous Components

Photograph 13: Dielectric Strength Test

Photograph 14: Continuity Test

Photograph 15: Working Voltages Measurement

Photograph 15: Temperature Rise Test

13. Firma Dokümanları:
Documentary of Client

DICHIARAZIONE DI CONFORMITA'
DECLARATION OF CONFORMITY

CE

Il sottoscritto, rappresentante il seguente costruttore
The undersigned, representative of the following manufacturer

LGB Elettropompe s.r.l.
Via Romania 7 Padova - Italy

DICHIARA che l'apparecchiatura descritta in appresso:
DECLARES that the product:
Descrizione
Description
Codice: **ZF650-SX 230/400/50/3~ K1480-K0**
Code

è conforme alle disposizioni legislative che traspongono le seguenti direttive:
- **direttiva 2014/30 CE (Direttiva EMC)**
- **direttiva 2014/35 CE (Direttiva Bassa Tensione)**
- **direttiva 2011/65 UE (Direttiva RoHS)**

is in accordance with the following Directives:
- ***2014/30 EC Directive (EMC Directive)***
- ***2014/35 EC Directive (Low Voltage Directive)***
- ***2011/65 EU Directive (RoHS Directive)***

e che sono state applicate tutte le norme e/o specifiche tecniche di seguito indicate
and that all the following standards have been applied

EN 55014-1:2006 + A1:2010 + A2:2012
EN 61000-3-2:2013 + A1:2009 + A2:2009
EN 61000-3-3:2014
EN 55014-2:1998 + A1:2002 + A2:2009

EN 62233:2008

EN 60335-1:2013 + A1:2004 + A2:2006 + A11:2015 + A12:2006 + A13:2009 + A14:2012 + A15:2012

EN 50581:2012

Ultime due cifre dell'anno in cui è affissa la marcatura CE 14
Last two figures of the year of the CE marking

Luogo/Place Padova - ITALY Data / *Date 13/03/2016*

Firma AD Loghetto Giorgio

Sign

ISTITUTO SERVIZI EUROPEI TECNOLOGICI

ISET S.r.l.

Sede Legale e Uffici
Via [illegible] – 46024 Moglia (MN)
Tel. [illegible]
[illegible] www.[illegible]

Cap. soc. i.v. € 10.200,00
Cod. Fisc. e P.IVA [illegible]
Reg. Imprese [illegible]
REA [illegible]

CERTIFICATE OF COMPLIANCE

Certificado de Conformidade - Сертификат соответствия - Konformitätserklärung

1) ***APPLICANT:*** Zhejiang Greenco Industry Co., Ltd. Danya Industrial Zone, Zeguo Town, Wenling City, Zhejiang, China	2) ***CERTIFICATE NO.:*** IT041616GC160616 ***TCF(S) NO.:*** GL-160516
3) ***WITH REFERENCE TO EC DIRECTIVE APPLIED:*** Machinery Directive 2006/42/EC Low Voltage Directive 2014/35/EU Electromagnetic Compatibility 2014/30/EU ***HARMONIZED STANDARDS APPLIED:*** EN ISO 12100:2010, EN 60034-1: 2010, EN 60335-2-41:2003+A1:2004+A2:2010, EN 55014-1:2006+A1:2009+A2:2011, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013	4) ***CERTIFICATION ISET MARK:*** ISTITUTO SERVIZI EUROPEI TECNOLOGICI

5) ***PRODUCT CHARACTERISTICS:*** Side Channel Blower

MODEL(S): 2RB 0.., 2RB 1.., 2RB 2.., 2RB 3.., 2RB 4.., 2RB 5.., 2RB 6.., 2RB 7.., 2RB8.., 2RB 9..,
3RB 250..,3RB350..,3RB 550..,3RB 750..,4RB 2.., 4RB 3.., 4RB 4.., 4RB 5.., 4RB 6..

REMARK: *CE marking and EC declaration are duties of the manufacturer before the putting into service of its product on market. The verification has been carried out on voluntary application of the manufacturer based only on the documents prepared and provided by the manufacturer itself. The manufacturer is responsible to maintain the internal production control to ensure the compliance of the product. ISET declines any liability with reference to any other document, product or test report that hasn't been submitted to evaluation.*

6) ***DATE OF ISSUE:*** 16/06/2016 ***DATE OF EXPIRE:*** 15/06/2021

CERTIFICATION MANAGER:

ISTITUTO SERVIZI EUROPEI TECNOLOGICI ISET S.R.L

SEKO S.p.A.
Via Salaria, Km. 92,200 - [illegible] Rieti (RI) – Italy
Tel. [illegible] - Fax [illegible] – E-mail: info@seko.com – Internet: www.seko.com

"CE" CONFORMITY DECLARATION (EN COPY)

Seko S.p.A. declares that the following Peristaltic pumps:

- Type INJECTOR, models PPRH301 - PPSH302,
- Type DYNAMIK, models NPA – NPR – NPT – NRT – NPM – SKC – SKD – SKT – SKL – SKP – SKS.
- models PR – PA – PRT – PM – PRW – PE – PS – PG – PP – NBM – NBR – NKC – NKD – NKT – NKH – NKL – NKM – NKN – NKP – NKT – NPA – NPE – NPG – NPM – NPR – NRT – P2R – PAC – PBB – PBE – PBM – PBR – PDI – PBL – PBM – PER – PET – PPB – PPC – PSE – PSG.

Are compliant with the following directives:

- 2006/95/CE – LVD – this is a directive concerning the approach of the laws of the Member States relating to electrical material designed to be used within some voltage limits
- 2006/42/CE – MAC – this is a directive concerning machines
- 2004/108/CE – EMC – this is a directive concerning the approach of the laws of the Member States relating to the electromagnetic compatibility.
- 2011/65/EU – ROHS – Of the European parliament and of the council of 08 june 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

To make these Peristaltic pumps compliant with the above-mentioned directives, the following harmonised standards have been applied

Directive	Standards		
	Residential	Commercial	Industrial
MAC 2006/95/CE	EN 809	EN 809	EN 809
LVD 2006/95/CE	EN 60335-2-41	EN 60335-2-41	EN 60335-2-41
EMC 2004/108/CE	EN 61000-6-1 EN 61000-6-3	EN 61000-6-1 EN 61000-6-3	EN 61000-6-2 EN 61000-6-4

The peristaltic pumps, including their parts and accessories are built to the requirements of the directive 2011/65/EU, Annex II, with particular reference to the limitation of the following substances.
Lead (Pb); Mercury (Hg); Cadmium (Cd); Hexavalent chromium (Cr VI); Polybrominated biphenyls (PBB); Polybrominated diphenyl ethers (PBDE).

The person authorised to compile the technical file of the machine is the legal representative of Seko S.p.A. domiciled at the registered office of the company.

Rieti, 24/08/2011

EU-Konformitätserklärung
EU-Declaration of Conformity

Beck GmbH
Druckkontrolltechnik
Ferd. Steinbeis-Str. 4
71144 Steinenbronn
Germany

entsprechend der Explosionsschutzrichtlinie 2014/34/EU:
Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen
in accordance with ATEX- Directive 2014/34/EU:
Equipment and protective systems intended for use in potentially explosive atmospheres

Name des Herstellers: *Name of manufacturer:*	Beck GmbH Druckkontrolltechnik
Anschrift des Herstellers: *Manufacturer's address:*	Ferdinand-Steinbeis Str 4, 71144 Steinenbronn, Germany
Produktbezeichnung: *Product description:*	Differenzdruckwächter für gasförmige Medien *Differential Pressure Switch for gaseous media*
Modell: *Model:*	Baureihe 930... EX series 930 ... EX

Zur Beurteilung der Erzeugnisse hinsichtlich der Richtlinie wurden benannte Stellen miteinbezogen. Für die Verwendung in explosionsgefährdeten Bereichen wurde folgende EG Baumusterprüfbescheinigung von der notifizierten Stelle mit der Kennnummer 0158 ausgestellt:
The product has been assessed and tested by a notified body. For the application in explosive atmospheres the notified body with identification number 0158 certified this in the EC type examination certificate

BVS 06 ATEX E 141 X und Nachträge 1,2,3

0158: DEKRA EXAM GmbH Dinnendahlstrasse 9 D-44809 Bochum

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit:
The essential health and safety requirements are met in conformity with:

EN 60079-0 :2012+ A11:2013	Allgemeine Bestimmungen *General requirements*
EN 60079-11:2012	Eigensicherheit „i" *Intrinsic safety „i"*

Das Produkt wird unter einem Qualitätssicherungssystem -Produktion (Anhang IV der Richtlinie) hergestellt. Dies ist durch die notifizierte Stelle der Kennnummer **0123** anerkannt worden:
The product is manufactured under the module-related quality assurance (Annex IV of the directive). This was certified by the notified body with the identification number 0123:

EX2A 17 10 29084 006

0123: TÜV SÜD Product Service GmbH Ridlerstraße 65 D-80339 München

Kennzeichnung des Geräts:
Marking of the product
Zusätzliche Informationen:
Additional information:

II 3G Ex ic IIB T4 Gb
II 2D Ex tb IIIB T135°C Db

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien, beinhaltet jedoch keine Zusicherung von Eigenschaften. Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.
This declaration confirms only the accordance with the above mentioned directive and do not assure any other characteristics. The manual and security advice of the product has to be kept in mind.

Steinenbronn, im September 2019

(Hans-Peter Funk)
Geschäftsführer-Marketing & Vertrieb
Managing director

(Ralph Weiß)
Explosionsschutzbeauftragter
Authorised ATEX-representative

CE

HOT STAR UYGUNLUK BEYANI

CE

Ev ve benzeri yerlerde kullanılan elektrikli cihazlar, sabit ocaklı fırınlar, ocaklar, fırınlar ve benzeri cihazlar için elektrikli rezistans

Models: FB-11 ,FK-18 , FM-31, FA-33 , FA-35, FD-36

Üretici: Hot Star Dayanıklı Tüketim Malları Otomotiv Tekstil Gıda Petrol Ürünleri İnş. San. Ve Tic. Ltd. Şti.

Adres: Esenboğa yolu 10. Km. No:4 Pursaklar ANKARA

Yukarıda modelini belirttiğimiz elektrikli cihazlar için üretilmiş elektrikli rezistansların, düşük voltaj direktiflerinde belirtilen sağlık ve güvenlik şartlarına uygun olarak üretildiğini beyan ve taahhüt ederiz.

İlgili direktifler ve standartlar aşağıda belirtilmiştir:

Direktifler:
Avrupa Konseyi Direktifi 2006/95/EEC – Düşük Voltaj Direktifi

Harmonize Standartlar:
EN 60335-2-6:2003+A1:2005 **Ev ve benzeri yerlerde kullanılan elektrikli cihazlar için Bölüm 2-6: Sabit ocaklı fırınlar, ocaklar, fırınlar ve benzeri cihazlar için özel kurallar**

Üreticinin İletişim Adresi:
Hot Star Dayanıklı Tüketim Malları
Otomotiv Tekstil Gıda Petrol Ürünleri
İnş. San. Ve Tic. Ltd. Şti.
Adres: Esenboğa yolu 10. Km. No:4 Pursaklar ANKARA

Tel:(0312)328.40.00
Fax:(0312)328.40.01

Şirket Müdürü
Mehmet KARAKUŞ
17.12.2010

HOT STAR DAYANIKLI TÜKETİM GIDA PETROL TEKSTİL LTD. ŞTİ.

CERTIFICATE OF COMPLIANCE

Certificate Number	20170214-E238799
Report Reference	E238799-20090325
Issue Date	2017-FEBRUARY-14
Issued to:	Sick AG ERWIN-SICK-STRASSE 1 79183 WALDKIRCH GERMANY
This is to certify that representative samples of	PROGRAMMABLE CONTROLLERS See AddendumPage
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	Industrial Control Equipment, UL 508 PROCESS CONTROL EQUIPMENT, CSA C22.2 No. 142-M1987
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Page 1 of 2

İNTER MOTOR
[illegible]

[illegible]

CE

AT UYGUNLUK BEYANI

İNTER MOTOR SANAYİ VE TİCARET LTD. ŞTİ.
Ankara Asfaltı No: 25/A Ulucak 35735 Kemalpaşa / İZMİR

Tel: [illegible]
Faks: [illegible]
Web: [illegible]
E-mail: [illegible]

[illegible]

Ürün Tanımı: [illegible]
Model: [illegible]
Marka: [illegible]

[illegible]

Standart(lar): [illegible]
Yönetmelik(ler): [illegible]
Rapor(lar): [illegible]

İmza sahibi: [illegible]
Yayın tarihi: [illegible]
Kaşe ve İmza:

[illegible]

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

TSE

BELGE NUMARASI	004597-TSE-0502
BELGENİN İLK VERİLİŞ TARİHİ	20.06.2006
BELGENİN SON GEÇERLİLİK TARİHİ	15.06.2020
BELGE SAHİBİ KURULUŞUN ADI	EMAS ELEKTROTEKNİK MAKİNA SANAYİ VE TİCARET ANONİM ŞİRKETİ
BELGE SAHİBİ KURULUŞUN ADRESİ	İKİTELLİ OSB MAH/SEMT ATATÜRK BLV. İ.O.S.B İŞHANI NO:50/A BAŞAKŞEHİR İSTANBUL/TÜRKİYE
ÜRETİM YERİ ADI	EMAS ELEKTROTEKNİK MAKİNA SANAYİ VE TİCARET ANONİM ŞİRKETİ
ÜRETİM YERİ ADRESİ	İKİTELLİ OSB MAH. ATATÜRK BULVARI İ.O.S.B SİTESİ DIŞ KAPI NO:50 İÇ KAPI NO:A BAŞAKŞEHİR/İSTANBUL İSTANBUL / TÜRKİYE
İPTAL EDİLEN BELGE NUMARASI (Varsa)	004597-TSE-0501
TESCİLLİ TİCARİ MARKASI	EMAS
İLGİLİ TÜRK STANDARDI	TS EN 60947-5-1 : 17.01.2006
BELGE KAPSAMI	

Sınır kesiciler
L51, L52 tipi Ue:240 V AC, 50 Hz, Ie:3A AC 15 IP66
L61, L66, L67 tipi Ue:240 V AC, 50 Hz, Ie:3A AC 15 IP67
L1, L2, L3, L5 tipi Ue:240 V AC, 50 Hz, Ie:3A AC 15 IP66
Start kumanda butonları
Ue:250 V AC, 50 Hz, Ie:4A AC 15 IP20
Ue:240 V AC, 50 Hz, Ie:1.5A AC 15 IP20 (26.12.2018 K.D.)
Stop kumanda butonları
Ue 250 V AC, 50 Hz, Ie:4A AC 15 IP20
Ue:240 V AC, 50 Hz, Ie:1.5 A AC 15 IP20 (26.12.2018 K.D.)
Start Stop kumanda butonları
Ue 250 V AC, 50 Hz, Ie:4A AC 15 IP20

[illegible]
18.10.2019
Belgelendirme Merkezi Başkanı Adına
BERNA YAVUZ ÇETİNKAYA
TSE İSTANBUL BELGELENDİRME MÜDÜRÜ V.

[illegible]

1/3

CE

CERTIFICATE OF CONFORMITY

Mar. 03, 2017

No: WD-EE-L-170031-00

Congratulation ! Wendell Electrical Test Laboratory declare that the below representative model(s) for your product(s) has been evaluated and determined to comply with the required criteria levels in the Standard(s).

The test record, data evaluation, EUT configurations, measured procedures of specified in the standard as indicated in test report (No.: WD-EE-R-170031-00). The test data evaluation in the test report relate only to the EUT sample(s) and test item(s).

Equipment: HMI (Human Machine Interface)

Model Name: MT8071iP, MT8071iP

Brand Name: Weintek, EasyView, Weinview

Applicant: Weintek Labs., Inc.

Address: 3F., No. 910, Zhongzheng Rd., Zhonghe Dist., New Taipei City, Taiwan

Standard(s): **EMC Directive of 2014/30/EU**

EN 55032: 2012 +AC: 2013, Class A
CISPR 32: 2012

Nick Lin

Nick Lin / Authorized Signatory

Wendell Industrial Co., Ltd

Wendell Electronic Test Laboratory

[illegible], No. 155, [illegible] Road, [illegible] District 231, New Taipei, Taiwan

TEL: [illegible] FAX: +886 2 2917 3732

UL Product iQ™

NMTR.E215312 - POWER CIRCUIT AND MOTOR-MOUNTED APPARATUS

Power Circuit and Motor-mounted Apparatus

See General Information for Power Circuit and Motor-mounted Apparatus

MEAN WELL ENTERPRISES CO LTD E215312
NO 28 WUQUAN 3RD RD
WUGU DISTRICT
NEW TAIPEI CITY, 24891 TAIWAN

Power supplies Model(s): DR-120-12, DR-120-24, DR-120-48, DR-45-05, DR-45-12, DR-45-15, DR-45-24, DR-480-24, DR-480-48, DR-480S-24, DR-480S-48, DR-75-12, DR-75-24, DR-75-48, DRP-240-24, DRP-240-48, DRP-480-24, DRP-480-48, DRP-480S-24, DRP-480S-48, DRT-240-24, DRT-240-48, DRT-480-24, DRT-480-[illegible], DRT-480-48, DRT-960-24, DRT-960-48, DRT-960P-24, DRT-960P-48, MDR-10-12, MDR-10-15, MDR-10-24, MDR-10-5, MDR-100-12, MDR-100-24, MDR-100-48, MDR-20-12, MDR-20-15, MDR-20-24, MDR-20-5, MDR-40-12, MDR-40-[illegible], MDR-40-24, MDR-40-48, MDR-40-5, MDR-60-12, MDR-60-24, MDR-60-48, MDR-60-5, SDR-120-12, SDR-120-24, SDR-120-48

Power supply redundancy modules Model(s): DR-RDN20

Switching power supplies Model(s): DR-RDN20-48, MDR-20-12, MDR-20-15, MDR-20-24, MDR-20-5, SDR-240-24, SDR-240-48, SDR-480-24, SDR-480-[illegible], SDR-480-48, SDR-480P-24, SDR-480P-48, SDR-75-12, SDR-75-24, SDR-75-48, TDR-960-24, TDR-960-48, TDR-960-48, WDR-120-12, WDR-120-24, WDR-120-48, WDR-240-24, WDR-240-48

Switching power supplies, open type Model(s): LDR-120-24, LDR-120-X and NDR-120-X, where X=12, 24 or 48

LDR-75-X and NDR-75-X where X=12, 24 or 48, HDR-15-x where x can be 5, 12, 15, 24 or 48, NDR-240-24, NDR-240-48, NDR-480-24, NDR-480-48, SDR-960-24, SDR-960-48, WDR-240-24, WDR-240-48

Switching Power Supply Model(s): HDR-150-12, HDR-150-15, HDR-150-24, HDR-150-12-48

TDR-240-24 and TDR-240-48

Investigated to ANSI/UL 61010-1, ANSI/UL 61010-2-201

Switching power supplies, open type Model(s): WDR-60-12, WDR-60-24, WDR-60-48, WDR-60-5

Investigated to ANSI/UL 508

Din-Rail Switching power supplies, open type Model(s): HDR-100-x, where x can be 12, 15, 24 or 48, HDR-100-xN, where x can be 12, 15, 24 or 48

Switching power supplies, open type Model(s): HDR-30-x, where x can be 5, 12, 15, 24 or 48

HDR-60-x where x can be 5, 12, 15, 24 or 48.

TDR-480-24 and TDR-480-48

x: X=12, 24 or 48

Last Updated on 2019-11-12

AT UYGUNLUK BEYANI
(EU DECLARATION OF CONFORMITY)

HES Hasılar Elektrik San. ve Tic. A.Ş.
İmalatçı Mah. Hes Cad. No:22 38210 Kayseri/TÜRKİYE

Yukarıda ismi ve adresi belirtilen firmamız, aşağıda belirtilen ürünlerimizin tamamının ilgili standartlara ve Avrupa Parlamentosu ve Konseyinin 8 Haziran 2011 tarihli, 2011/65/EU direktifi/direktiflerinin gereklerini karşılayan belgelere uygun olarak üretildiğini beyan etmektedir.
Our company named and located at above address is declaring all the following our products have been manufactured with respect to those mentioned standards and documents will meet the necessities of 2011/65/EU of the European Parliament and of the Council of 8 June 2011 directive / We declare that the directives are built to meet the requirements.

MAMÜLÜN ADI, TİPİ, MODELİ, SERİ NO:
PRODUCT NAME, TYPE, MODEL&SERIAL NUMBER
Kablolar PVC(polivinil klorür) yalıtımlı. Beyan gerilimi en çok 450/750 volt olan. Bölüm 3: Sabit tesisat için tek damarlı kılıfsız kablolar
Cables - PVC(polyvinylchloride) insulated cables, rated voltages up to 450/750 volt, chapter 3: single core, non-sheathed cables for fixed installations.

H05V-U(NYA), H05V-K(NYAF), CU/PVC, 300/500 V
H05V-U(NYA), H05V-K(NYAF), CU/PVC, 300/500 V
U: Som İletken
U : solid conductor
K: Bükülgen İletken
K: Fine stranded flexible conductor

H07V-U(NYA), H07V-R(NYA), H07V-K(NYAF), CU/PVC, 450/750 V
H07V-U(NYA), H07V-R(NYA), H07V-K(NYAF), CU/PVC, 450/750 V
U: Som İletken
U : solid conductor
R: Örgülü Rijit İletken
R: Rigid stranded conductor
K: Bükülgen İletken
K: Fine stranded flexible conductor

STANDARTLAR:
RELATED STANDARDS
TS 9758 HD 21.3.S3 1997 - TS 9758 HD 21.3.S3/A1 2004 - TS 9758 HD 21.S3/A2 2010
TS EN 50525-2-31
EN 50525-2-31 2011
VDE 0281
DIN EN 50525-2-31
IEC 60227
BS 6004
BS EN 50525-2-31

KULLANILDIĞI YERLER:
APPLICATIONS
Sabit tesislerde, dağıtım panolarında, kuru ve kapalı yerlerde sıva altı veya sıva üstünde
boru içinde kullanılır.
Used in dry, covered and fixed installations, as well as in distribution panels made of plastic tubes, on and under plaster.

YAPISI:
STRUCTURE:
1- Bükülgen Bakır İletken, Bir veya Çok Telli Bakır İletken
1- wires figured as solid, stranded and fine stranded flexible conductors
2- PVC İzole (70° C)
2- PVC insulation (70° C)

01.09.2013

HES Hasılar Elektrik Sanayi ve Ticaret A.Ş.

İbrahim GÜVEN
Kalite Müdürü
Quality Manager

TÜVRheinland

CERTIFICATE

of Conformity
Low Voltage Directive 2014/35/EU

Registration No.: AN 60115744 0001

Report No.: 27133017 001

Holder: PLASTİM ELEKTRİK MALZEMELERİ İMALAT SAN. TİC. LTD. ŞTİ.
PERPA ELEKTROKENT A BLOK KAT:2 NO:37
34384 OKMEYDANI/ISTANBUL
Türkiye

Product: Cable trunking systems
Cable Trunking System

Identification: PCXXY/ X=16,25,40,60,80,120
Y= 10,40,60,80, refer to test report for details
Trade Mark: plastim
Ratings: UL94 (V0), refer to test report for technical details.
Standards: EN 50085-2-1:2015, EN 50085-1:2005+ A1
Sample No.: Eng. Sample

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Certification Body

Sahyra Ghalib

Date 01.12.2016

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE

SERTİFİKA NO: KCUS 110
Certificate No

UYGUNLUK BEYANI
DECLARATION OF CONFORMITY

Üretici Adı ve adresi / *Manufacturer's*

Klemsan

Elektrik Elektronik San.ve Tic.A.Ş.
Kızılözüm Mah.Kemalpaşa Kızılözüm Cad.No:15 , 35730 Kemalpaşa, İzmir - TURKEY

Ürün Grubu / *Product Classification*
Aksesuarlar / *Accessories*

Ürün Tipi / *Type Designation*
IZUK–UK–TKO Tip Üst ve Tarak Köprüler / *IZUK–UK–TKO Type Cross and Comb Connectors*
Ürün kapsamı için sayfa 2 ve 3'e bakınız. / *Refer to attachment pages 2 and 3 for products covered.*

İlgili AT Direktifi /
The designated product meets the essential safety requirements of the EU-Directives
Alçak Gerilim Direktifi 2014/35/AT – RoHS Direktifi 2015/863 EU
Low Voltage Directive 2014/35/EU – RoHS Directive 2015/863 EU

Adı geçen ürün serilerimizin bu hükümlerin yerine getirilmesinde aşağıda belirtilen standartlar kullanılmıştır; / *The conformity with the provisions of this directive is proved by the compliance with the following standards:*

EN 61984:2009	**TS EN 61984:2011**
EN 60695-11-5:2015	**TS EN 60695-11-5:2005**
EN 60695-2-10:2013	**TS EN 60695-2-10:2013**
EN 60947-1:2007/AZ:2014	**TS EN 60947-1/AZ:2016**
TS EN IEC 63000:2019	

Bu belge ile yukarıda adı geçen ürün serilerinin belirli gerilim sınırları dâhilinde kullanılmak üzere hazırlanan Alçak Gerilim Direktifi (LVD) İle ilgili Yönetmelikte (2014/35/AT) belirtilen temel koruma hükümlerini sağladığını ve RoHS Direktifi (2015/863/EU) hükümleri ile uyumlu olduğunu beyan ederiz. / *We hereby declare that, above product series meet with the essential safety requirements mentioned in the EU Directives 2014/35/EU (LVD) and 2015/863/EU (RoHS).*

Kalite Güvence Müdürü / *Quality Assurance Manager*
Mustafa KAVA
İzmir - 07.05.2019

Erklärung Nr.: 3310.01
Declaration No.: 3310.01

SIEMENS

EG-Konformitätserklärung
EC-Declaration of Conformity

ASLI GİBİDİR

Siemens AG / DF CP

DE-92220 Amberg

erklären in alleiniger Verantwortung, daß das (die) Produkt(e)

Schütze und Zubehör
Contactors and Accessories

3TF30 / 3TF31 / 3TF32 / 3TF33 / 3TF34 / 3TF35
3TF40 / 3TF41 / 3TF42 / 3TF43 / 3TF44/ 3TF45 /
3TF46 / 3TF47 / 3TF48 / 3TF49
3TF50 / 3TF51 / 3TF52 / 3TF53 / 3TF54 / 3TF55 /
3TF56 / 3TF57

Zubehör
Accessories

3TX74

Diese Konformitätserklärung entspricht der DIN EN ISO/IEC 17050 "Konformitätsbewertung - Konformitätserklärungen von Anbietern".

This Declaration of Conformity is suitable to the DIN EN ISO/IEC 17050 "Conformity assessment- Supplier's declaration of Conformity".

mit folgenden Europäischen Richtlinien übereinstimmt (übereinstimmen):

Niederspannungsrichtlinie Nr.: 2006/95/EG
Low Voltage Directive No.: 2006/95/EC

EMV Richtlinie Nr.:2004/108/EG
EMC Directive No.:2004/108/EC

Dies wird nachgewiesen durch die Einhaltung folgender Normen:

DIN EN 60947-4-1:2014
DIN EN 60947-5-1:2010

Datum der CE-Zeichen Anbringung / Affixing date of CE-Mark: 2020

Amberg, 2015-09-18

i.V.
DF CP R&D V Mr. Schweiger

i.V.
DF CP R&D EU Mr. Koppmann

Formular: March 20[illegible]

Erklärung Nr.: / *Declaration No.:* **2953.05**

SIEMENS

EG-Konformitätserklärung
EC-Declaration of Conformity

Wir / *We*

Siemens AG / DF CP

Name des Herstellers / *manufacturer's name*

DE-92220 Amberg

Anschrift / *address*

erklären in alleiniger Verantwortung, daß das (die) Produkt(e)
[illegible]

Leistungsschalter und Zubehör
Circuit Breaker and Accessories

3RV2.1, 3RV2.2, 3RV2.3, 3RV29

Diese Konformitätserklärung entspricht der DIN EN ISO/IEC 17050 "Konformitätsbewertung - Konformitätserklärungen von Anbietern".

This Declaration of Conformity is suitable to the DIN EN ISO/IEC 17050 "Conformity assessment - Supplier's declaration of Conformity".

Bezeichnung, Typ oder Modell, Los-, Chargen- oder Serien-Nr., möglichst Herkunft und Stückzahl
[illegible]

mit folgenden Europäischen Richtlinien übereinstimmt (übereinstimmen):
[illegible]

Niederspannungsrichtlinie Nr.: 2006/95/EG
Low Voltage Directive No.: 2006/95/EC

EMV Richtlinie Nr.: 2004/108/EG
EMC Directive No.: 2004/108/EC

Dies wird nachgewiesen durch die Einhaltung folgender Norm(en):
[illegible]

DIN EN 60947-2: 2010
DIN EN 60947-4-1: 2014
DIN EN 60947-5-1: 2010

Titel und/oder Nr. sowie Ausgabedatum der Norm(en) oder der anderen normativen Dokumente
[illegible]

Datum des CE-Zeichens / *affixing date of CE Mark*: 2009

Amberg, 2015-08-05
Ort und Datum / *Place and date*

i.V. DF CP R&D V Mr. Schwieger

i.V. DF CP R&D EN Mr. Kopomaa

Name und Unterschrift oder gleichwertige Kennzeichnung des Befugten
[illegible]

Formular: March 2015

OPAŞ
PAKET ŞALTERİ

AB/CE İŞARETİ - UYGUNLUK BEYANI

Belge No / Ay.Yıl	: 00228 / 01.2010	Tarih	: 17.01.2010
		Firma Yetkilisi	: Zafer OĞUZ
		İmza	:

İmalatçı :
OPAŞ Paket Şalt. Sağ. Sis. Tic. Ltd. Şti.

Ürün Tanımı :
Pano üstü - içi monte edilebilir veya plastik kutu içinde aksesuarlarıyla birlikte Yük ve Kumanda Devresi Şalterleri

Tip :
NPT3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
NKL3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
NGT3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
NET3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
YPT3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
YKL3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
YGT3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
YET3 010, 016, 020, 025, 032, 040, 050, 063, 080, 100, 115, 125
YPM3 005, 006, 010

Tanımlanan Ürünler aşağıdaki Avrupa Normlarının talimatlarına uygundur :

Sayı :

		Yayın Tarihi
TS EN 60947-3/6.4.2004	TS EN 60947-3/A2/12.6.2007	Ocak 2007
VDE 0660-200		Ağustos 2003
IEC 60947-3/6.4.2004	IEC 60947-3/A2/12.6.2007	Ocak 2007

Metin :
Belirli Gerilim Aralığında (Alçak Gerilim Talimatları) kullanımına mahsus Elektrik Kumanda Elemanları

Bu Talimatlara uygunlukla ilgili diğer bilgiler Ek-1,2,3,4,5,6'da verilmiştir.

OPAŞ Paket Şalterleri Sağ. Sis. San. ve Tic. Ltd. Şti.
Cumhuriyet Mahallesi Huzur Sokak No:5/A
Çayırova-Kocaeli/Türkiye
Tel : 0262 6582351 Fax : 0262 6582354
www.opascompany.com info@opaspako.com

Panasonic

Declaration of Conformity
Document Number: DSX-PLC01-01

Manufacturer

Name	: Panasonic Industrial Devices SUNX Co., Ltd.
Address	: 2431-1 Ushiyama-cho, Kasuga, Aichi 486-0901, JAPAN

Object of Declaration (A)

Product Name	: Programmable Controller
Trade Name	: Panasonic
Model Number	: FP0R Series

CE Requirements

This declaration of conformity is issued under the sole responsibility of manufacturer. The object of the declaration described above is in conformity with the requirements of the following EU legislation and harmonized standards:

Council Directive(s)	: 2014/30/EU	EMC	(B)
	2014/35/EU	LVD	
	2011/65/EU	RoHS	

Harmonized Standard(s) (C)
EN 61131-2: 2007, EN 60601: 2012

Additional Information (D)

19 Aug., 2016 Masayuki Hattori
Date of issue / Signature

Masayuki Hattori / Assistant Director
Printed Name / Title

20 April 2016
Date of issue / Signature

Niels Erdmann
Authorized Representative
Panasonic Testing Centre
Panasonic Marketing Europe GmbH
Winsbergring 15, 22525 Hamburg, Germany

Weidmüller

EU-Konformitätserklärung
EU Declaration of Conformity

Gegenstand der Erklärung
Object of the declaration

Hersteller / Manufacturer

Anschrift / Address

Gegenstand der Erklärung / Object of the declaration

Die vorstehend beschriebene Maschine erfüllt alle einschlägigen Bestimmungen der folgenden Richtlinien:
The object of the declaration described above is in conformity with the relevant provisions of the following directives:

		Richtlinie / Directive	gültig ab / valid from	gültig bis / valid to	Fundstelle / reference
☒	Niederspannungsrichtlinie (LVRL) / Low Voltage Directive (LVD)	2014/35/EU	19.4.2016		L 96/357
	Prüfung der CE-Konformität durch / Conformity CE marking tested by	45			
☒	Elektromagnetische Verträglichkeit (EMV) / Electromagnetic Compatibility (EMC)	2014/30/EU	19.4.2016		L 96/79
☐	Funkanlagen und Telekommunikationsendeinrichtungen (R&TTE) / Radio and Telecommunication Terminal Equipment (R&TTE) / Radio Equipment Directive (RED)	1999/5/EG / 2014/53/EU			L 91/10
☐	Maschinenrichtlinie (MRL) / Machinery Directive (MD)	2006/42/EG			L 157/24
☐	ATEX-Richtlinie (ATEX) / ATEX Directive (ATEX)	94/9/EG / 2014/34/EU	19.4.2016		L 96/309

Normenbezeichnung (Ausgabedatum) der angewandten harmonisierten Normen / Designation (date of publication) of the harmonized standards applied

Seite 1 von 2 / Page 1 of 2

SIEMENS

EU-Konformitätserklärung / *EU Declaration of Conformity*

Nr. / No. 002014 / PMI MCB (incl. Anhang 1 / Annex 1)

Produktbezeichnung *Product identification*	Leitungsschutzschalter / Miniature Circuit Breaker 5SC2..0-2YA
Hersteller *Manufacturer*	Siemens AG Energy Management, Low Voltage and Products (EM LP)
Anschrift *Address*	Siemensstr. 10, 93055 Regensburg, Germany

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

Niederspannungsrichtlinie:

2006/95/EG [illegible] (bis 19.04.2016)

2014/35/EU [illegible] (ab 20.04.2016)

EMV-Richtlinie:

2004/108/EG [illegible] (bis 19.04.2016)

2014/30/EU [illegible] (ab 20.04.2016)

[illegible] Anhang [illegible]

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation.

Low Voltage Directive:

2006/95/EC Directive of the European Parliament and of the Council of 12 December 2006 [illegible] (until 19.04.2016)

2014/35/EU Directive of the European Parliament and of the Council [illegible] (from 20.04.2016)

EMC Directive:

2004/108/EC Directive of the European Parliament and of the Council of 15 December 2004 [illegible] (until 19.04.2016)

2014/30/EU Directive of the European Parliament and of the Council of 26 February 2014 [illegible] (from 20.04.2016)

[illegible] Annex [illegible]

Anbringung der CE-Kennzeichnung / *Affixing of the CE-marking*: 97

Unterzeichnet für und im Namen von / *Signed for and on behalf of*

Siemens Aktiengesellschaft

Regensburg Ort / *place*	08.03.2016 Datum der Ausstellung / *Date of issue*
Burkhardt F. Name / *name*	Unterschrift / *signature*
Product Development & Manufacturing [illegible] Funktion / *function*	

[illegible] Name / *name*	Unterschrift / *signature*
Quality Management / EHS Funktion / *function*	

[illegible]

[illegible]

[illegible]

SIEMENS 2703.05

EU-Konformitätserklärung / *EU Declaration of Conformity*

Produktbezeichnung: *Product identification*	Überwachungsrelais / Monitoring Relay *3UG4 / 3UG32 / 3UL2*
Hersteller: *Manufacturer*	Siemens AG, DF CP
Anschrift: *Address*	DE-92220 Amberg

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:

Niederspannungsrichtlinie:

2014/35/EU [illegible] vom 26. Februar 2014 [illegible] Amtsblatt der EU L96, 29.03.2014, S. 357–374

EMV-Richtlinie:

2014/30/EU [illegible] vom 26. Februar 2014 [illegible] der EU L96, 29.03.2014, S. 79–106

RoHS-Richtlinie:

2011/65/EU [illegible] vom 8. Juni 2011 [illegible] Amtsblatt der EU L 174, 1.07.2011, S. 88–110

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Low Voltage Directive:

2014/35/EU Directive of the European Parliament and of the Council of 26 February 2014 [illegible] Official Journal of the EU L96, 29.03.2014, p. 357–374

EMC Directive:

2014/30/EU Directive of the European Parliament and of the Council of 26 February 2014 [illegible] Official Journal of the EU L96, 29.03.2014, p. 79–106

RoHS Directive:

2011/65/EU Directive of the European Parliament and of the Council of 8 June 2011 [illegible] Official Journal of the EU L 174, 1.07.2011, p. 88–110

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien, ist jedoch keine Beschaffenheits- oder Haltbarkeitsgarantie. Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.

This declaration is an attestation of conformity with the indicated Directives, but does not imply any assurance of quality or durability. The safety instructions of the accompanying product documentation shall be observed.

[illegible]

[illegible]