

**APPLICATION FOR LOW VOLTAGE DIRECTIVE  
On Behalf of****China Leadshine Technology Co., Ltd.  
For  
Stepper Motor Drive  
Model No.:****3DM2283、3DM2283\*\*\*、3DM2283-\*、3DM2283-\*\*、  
3DM2283-\*\*\*、3DM2283-\*\*-\*\*、3DM2283-\*\*\*-\*\*、  
3DM2283-\*\*\*-\*\*\*****(\* will be letter A to Z or 0 to 9 states, different software  
version)****Prepared for :** China Leadshine Technology Co., Ltd.  
11/F, Block A3, iPark No.1001 Xueyuan Blvd., Nanshan District  
Shenzhen, China.**Prepared By :** Centre Testing International Group Co., Ltd.  
Hongwei Industrial Zone, Bao' an 70 District,  
Shenzhen, Guangdong, China**Date of Test:** Jun.04, 2021 to Jun.10, 2021**Date of Report:** Aug.19, 2021**Report Number:** EED31N802449

<b>TEST REPORT</b> <b>IEC 61800-5-1</b> <b>Adjustable speed electrical power drive systems – Part 5-1:</b> <b>Safety requirements – Electrical, thermal and energy</b>	
Report Number.....	EED31N802449
Tested by (name + signature).....	Arno Liu 
Reviewed by (name + signature)....	Tom Xiao 
Approved by (name + signature)....	Jack Cao 
Date of issue.....	Aug.19, 2021
Total number of pages.....	32 pages
Name of Testing Laboratory preparing the Report.....	Centre Testing International Group Co., Ltd.
Applicant's name.....	China Leadshine Technology Co., Ltd.
Address.....	11/F, Block A3, iPark No.1001 Xueyuan Blvd., Nanshan District Shenzhen, China.
<b>Test specification:</b>	
Standard.....	IEC 61800-5-1: 2007; AMD1:2016
Test procedure.....	CE-LVD
Non-standard test method.....	N/A
Test Report Form No.....	IEC61800_5_1C
Test Report Form(s) Originator.....	SGS Fimko Ltd.
Master TRF.....	Dated 2018-05-18
Test item description.....	Stepper Motor Drive
Trade Mark.....	 
Manufacturer.....	China Leadshine Technology Co., Ltd. 11/F, Block A3, iPark No.1001 Xueyuan Blvd., Nanshan District Shenzhen, China.
Model/Type reference.....	3DM2283、3DM2283***、3DM2283-*、3DM2283-**、 3DM2283-***、3DM2283-**-**、3DM2283-***-**、 3DM2283-***-*** (Remark: * will be letter A to Z or 0 to 9, states different software version)
Ratings.....	Input: 176-253V~, 50/60Hz Output: 0-230Vac, 12.5A, 2000W.



Check No.: 7639190421

**List of Attachments (including a total number of pages in each attachment):**

Attachment No.: 1, European Group Differences and National Differences, 1 page

Attachment No.: 2, Photos, 5 pages

**Summary of testing:**

**Tests performed (name of test and test clause):**

EN 61800-5-1:2007+A1:2017, see all pass clauses.

**Testing location:**

Centre Testing International Group Co., Ltd.  
Hongwei Industrial Zone, Bao'an 70 District,  
Shenzhen, Guangdong, China

**Summary of compliance with National Differences (List of countries addressed):**

The product fulfils the requirements of EN 61800-5-1:2007+A1:2017.

Copy of marking plate:

On the enclosure:



Marking of 3DM2283



Marking of 3DM2283

Remark:

- 1, The marking of other models is identical with above except for trade mark, model designation, S/N number and version number.
- 2, The above mark is the minimum requirements of the safety standard. For the final production, the additional marks which do not give rise to misunderstanding may be added.

<b>Test item particulars</b> ..... :															
<b>Equipment under test</b> .....	<input type="checkbox"/> PDS <input type="checkbox"/> CDM <input checked="" type="checkbox"/> BDM <input type="checkbox"/> Other:														
<b>Equipment location</b> .....	<input type="checkbox"/> stand alone <input checked="" type="checkbox"/> for building-in (open type)														
<b>Mains supply overvoltage category (OVC)</b> .....	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV														
<b>Reduction of OVC for basic insulation used</b> .....	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, by: protect earth														
<b>Supply earthing systems and system voltage (V)</b> :	<table border="0"> <tr> <td>Supply earthing system</td> <td>System voltage</td> </tr> <tr> <td><input checked="" type="checkbox"/> TN-S, TN-C, TN-CS, TT (not corner earthed)</td> <td>230VAC</td> </tr> <tr> <td><input type="checkbox"/> TN-S, TT (corner earthed)</td> <td>/</td> </tr> <tr> <td><input type="checkbox"/> TN-C (middle point earthed)</td> <td>/</td> </tr> <tr> <td><input type="checkbox"/> IT (not corner referenced)</td> <td>/</td> </tr> <tr> <td><input type="checkbox"/> IT (corner referenced)</td> <td>/</td> </tr> <tr> <td><input type="checkbox"/> other:</td> <td>/</td> </tr> </table>	Supply earthing system	System voltage	<input checked="" type="checkbox"/> TN-S, TN-C, TN-CS, TT (not corner earthed)	230VAC	<input type="checkbox"/> TN-S, TT (corner earthed)	/	<input type="checkbox"/> TN-C (middle point earthed)	/	<input type="checkbox"/> IT (not corner referenced)	/	<input type="checkbox"/> IT (corner referenced)	/	<input type="checkbox"/> other:	/
Supply earthing system	System voltage														
<input checked="" type="checkbox"/> TN-S, TN-C, TN-CS, TT (not corner earthed)	230VAC														
<input type="checkbox"/> TN-S, TT (corner earthed)	/														
<input type="checkbox"/> TN-C (middle point earthed)	/														
<input type="checkbox"/> IT (not corner referenced)	/														
<input type="checkbox"/> IT (corner referenced)	/														
<input type="checkbox"/> other:	/														
<b>DVC D circuits/terminals (other than mains)</b> .....	No such parts /														
<b>DVC C circuits/terminals (other than mains)</b> .....	L1, L2, P+, BR, N1, U, V, W port and internal circuits which is connected are DVC C.														
<b>DVC B circuits/terminals</b> .....	No such parts														
<b>DVC A circuits/terminals</b> .....	CN1, CN4, CN5, CN7 ports and LED display circuit														
<b>Potential free circuits/terminals (voltage, OVC)</b> ....	OVC II														
<b>Class of equipment</b> .....	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class 0 <input type="checkbox"/> Class III														
<b>Pollution degree</b> .....	<input type="checkbox"/> PD 1: <input checked="" type="checkbox"/> PD 2: <input type="checkbox"/> PD 3: <input type="checkbox"/> PD 4:														
<b>IP protection classes</b> .....	IP20														
<b>Ambient temperature during operation (°C) with/without derating</b> .....	25														
<b>Liquid cooling temperature during operation (°C) with/without derating</b> .....	Not liquid cooling														
<b>Maximum operation altitude (m)</b> .....	1000														
<b>Altitude of test laboratory (m)</b> .....	<500														
<b>Other particulars</b> .....	N/A														
<b>Motor overload and overtemperature protection ..</b>	<input type="checkbox"/> Thermal or electronic overload relay <input type="checkbox"/> Electronic motor overload protection with thermal memory retention <input type="checkbox"/> Electronic motor overload protection with speed sensivity <input type="checkbox"/> Monitoring and automatic reduction of motor current based on thermal sensor in or on motor <input type="checkbox"/> Embedded motor thermal protection disconnecting the motor <input checked="" type="checkbox"/> None														
<b>Possible test case verdicts:</b>															



- 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..... : May 24, 2021

Date (s) of performance of tests..... : June 4, 2021 to June 10, 2021

**General remarks:**

"(See Enclosure #)" refers to additional information appended to the report.  
 "(See appended table)" refers to a table appended to the report.

Throughout this report a  comma /  point is used as the decimal separator.

When differences exist; they shall be identified in the General product information section.

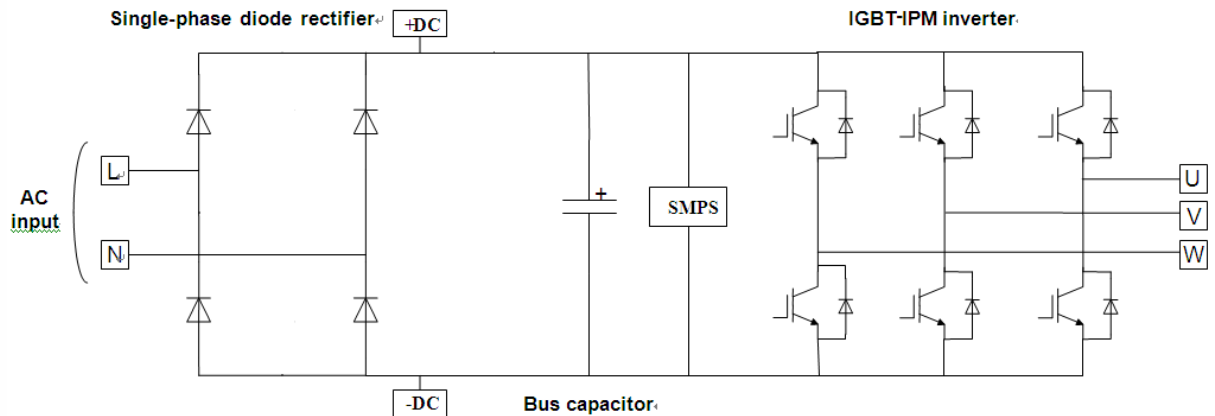
Name and address of factory (ies)..... : China Leadshine Technology Co., Ltd.  
 11/F, Block A3, iPark No.1001 Xueyuan Blvd.,  
 Nanshan District Shenzhen, China.

**General product information and other remarks:**

**Product Description:**

It generates a variable output voltage and frequency required to run an AC motor over a range of desired speeds.

The AC Servo Drive circuits comprise of an input single-phase diode rectifier, DC link capacitors, a switch mode power supply (SMPS) and an IPM inverter stage.



A range of input/output connections is provided to enable the user to control the motor from a variety of control sources and to monitor the behaviour of the drive.

The AC voltage, usually of fixed frequency, supplied to the drive is rectified by a diode rectifier and smoothed by the DC bus capacitors to create a DC voltage.

The inverter stage then converts this DC voltage back into AC having specific voltage and frequency, as required to drive the motor.

The inverter is controlled by pulse width modulated (PWM) signals that are derived from a microprocessor control circuit.

The r.m.s. voltage of the fundamental of the output can be up to but not exceed the input voltage.

**Technical Considerations:**

The AC Servo Drive is an inverter for building-in class II equipment use within BDM (basic drive module) to adjust the speed of motor, it shall be used with isolating transformer.

**For installation, commissioning and maintenance, must be appeared below minimum safety information in manual:**

Before installing, running-in and maintaining the AC Servo Drive, user must read through the User Manual carefully. In addition, do not installing, running-in and maintaining the Controller until you have fully understood safety precautions.

Hazardous voltage and electronic shock exists on each circuits and interface when AC Servo Drive is powered up or running and checking and maintaining can only be done after AC power is cut off and wait for at least 5 minutes

For AC Servo Drive, installing, commissioning and maintaining by a trained and qualified professional person / qualified electrical engineer.

Maintenance personnel should take off all metal jewellery before carrying out maintenance or internal measurements. Suitable clothes and tools must be used.

Location for indoor use, preventing the AC Servo Drive exposed under direct sunlight, dust, corrosive, flammable gases, oil mist, water vapor, dripping or salt etc, not install at the combustible, explosive, corrosive gas and liquid location.

**Model difference:**

All models are identical except for model name and use different Interface connectors and version of software.

After evaluation ,all the test is done on model 3DM2283

The AC Servo Drive should connect to protective earth, when it's installed on end system.

IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>4</b>	<b>PROTECTION AGAINST ELECTRIC SHOCK, THERMAL, AND ENERGY HAZARDS</b>		P
<b>4.1</b>	<b>General</b>		P
<b>4.2</b>	<b>Fault conditions</b>		P
<b>4.3</b>	<b>Protection against electric shock</b>		P
4.3.1	Decisive voltage classification		P
4.3.1.1	Use of decisive voltage class (DVC) .....		P
4.3.1.2	Limits of DVC		P
4.3.1.3	Requirements for protection		P
4.3.1.4	Circuit evaluation		P
4.3.1.4.1	General		P
4.3.1.4.2	A.C. working voltage		P
4.3.1.4.3	D.C. working voltage		P
4.3.1.4.4	Pulsating working voltage		N/A
4.3.2	Protective separation .....	Functional insulation on opposite input live part. Basic insulation on live part and protective bonding or earth. Reinforce or double insulation between DVC C and DVC A.	P
4.3.3	Protection against direct contact	Built-in product, overall should be considered in end use system.	P
4.3.3.1	General		P
4.3.3.2	Protection by means of insulation of live parts	Earthed chassis is separated from live parts by basic insulation. Reinforce or double insulation between DVC C and DVC A.	P
4.3.3.3	Protection by means of enclosures and barriers	Build-in component consider in end system, according installation instruction will install closed electrical operation areas.	N/A
4.3.4	Protection in case of direct contact		N/A
4.3.4.1	General		N/A
4.3.4.2	Protection using DVC A .....	DVC C for L1, L2, U, V, W, BR, N1, P+ ports and internal circuits which is connected. DVC A for CN1, CN4, CN5, CN7 ports and internal	N/A



IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.4.3	Protection by means of protective impedance		N/A
4.3.4.4	Protection by means of using limited voltages		N/A
4.3.5	Protection against indirect contact		P
4.3.5.1	General .....	Defined as protective class I which meet requirements of 4.3.5.2, 4.3.5.3 and 4.3.5.3.2	P
4.3.5.2	Insulation between live parts and accessible conductive parts	See appended table 5.2.2.1	P
4.3.5.3	Protective bonding circuit		P
4.3.5.3.1	General	Except protective chassis, other Part circuits see sub-clause 4.3.4.3 to 4.3.4.4	P
4.3.5.3.2	Rating of protective bonding .....	See appended table 5.2.3.9 and sub-clause 4.3.5.4	P
4.3.5.3.3	Protective bonding impedance		N/A
4.3.5.4	Protective earthing conductor .....	A metal screw terminal connecting copper on PCB used for grounding of this product, test result refer to clause 5.2.3.9.	P
4.3.5.5	Means of connection for the protective earthing conductor		P
4.3.5.5.1	General		P
4.3.5.5.2	Touch current in case of failure of protective earthing conductor .....	See appended table 5.2.3.5	P
4.3.5.6	Special features in equipment for protective class II		N/A
4.3.6	Insulation		P
4.3.6.1	General		P
4.3.6.1.1	Influencing factors		P
4.3.6.1.2	Pollution degree .....	2	P
4.3.6.1.3	Overvoltage category .....	I (Combined with external isolating transformer used)	P
4.3.6.1.4	Supply earthing systems .....	TN (TN-C, TN-S, TN-C-S) TT	P
4.3.6.1.5	Insulation voltages		P
4.3.6.2	Insulation to the surroundings		P
4.3.6.2.1	General		P
4.3.6.2.2	Circuits connected directly to the supply mains .....		N/A
4.3.6.2.3	Circuits not connected directly to the supply mains .....	OVC II considered	P

IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.6.2.4	Insulation between circuits .....	Considered, basic between CN3/CN4 and live parts.	P
4.3.6.3	Functional insulation		P
4.3.6.4	Clearance distances	See appended table 5.2.2.1.	P
4.3.6.4.1	Determination		P
4.3.6.4.2	Electric field homogeneity		N/A
4.3.6.4.3	Clearance to conductive enclosures .....	See sub-clause 5.2.2.5.	P
4.3.6.5	Creepage distances	See appended table 5.2.2.1.	P
4.3.6.5.1	General		P
4.3.6.5.2	Materials .....	IIIa	P
4.3.6.6	Coating		N/A
4.3.6.7	PWB spacings for functional insulation .....	Comply with 4.3.6.4 and 4.3.6.5	N/A
4.3.6.8	Solid insulation	See appended table 4.3.6.8.	P
4.3.6.8.1	General		P
4.3.6.8.2	Requirements for electrical withstand capability		P
4.3.6.8.2.1	Basic or supplementary insulation		N/A
4.3.6.8.2.2	Double and reinforced insulation		P
4.3.6.8.2.3	Functional insulation		N/A
4.3.6.8.3	Thin sheet or tape material		P
4.3.6.8.3.1	General		P
4.3.6.8.3.2	Material thickness not less than 0,2 mm		N/A
4.3.6.8.3.3	Material thickness less than 0,2 mm		P
4.3.6.8.3.4	Compliance		P
4.3.6.8.4	Printed wiring boards (PWBs)		P
4.3.6.8.4.1	General		P
4.3.6.8.4.2	Use of coating materials		N/A
4.3.6.8.5	Wound components		P
4.3.6.8.6	Potting materials		N/A
4.3.6.9	Insulation requirements above 30 kHz	< 30 kHz	N/A
4.3.7	Enclosures		P
4.3.7.1	General .....	Earthed metal enclosure and plastic enclosure, see cl. 4.4.3, 5.2.2.5.3, 5.2.2.4.	P
4.3.7.2	Cast metal .....	6.4 mm thickness min.	P
4.3.7.3	Sheet metal .....		N/A
4.3.8	Wiring and connections		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.8.1	General		P
4.3.8.2	Routing		N/A
4.3.8.3	Colour coding	Built-in component considered in the end system.	N/A
4.3.8.4	Splices and connections		P
4.3.8.5	Accessible connections		P
4.3.8.6	Interconnections between parts of the PDS		N/A
4.3.8.7	Supply connections		N/A
4.3.8.8	Terminals		P
4.3.8.8.1	Construction requirements		P
4.3.8.8.2	Connecting capacity		P
4.3.8.8.3	Connection		P
4.3.8.8.4	Wire bending space for wires 10 mm <sup>2</sup> and greater .....	Built-in component considered in the end system	N/A
4.3.9	Output short circuit requirements .....	See appended table 5.2.3.6	P
4.3.10	Residual current-operated protective (RCD) or monitoring (RCM) device compatibility	Built-in component considered in the end system	N/A
4.3.11	Capacitor discharge .....	Built-in component considered in the end system	N/A
4.3.12	Access conditions for high-voltage PDS		N/A
<b>4.4</b>	<b>Protection against thermal hazards</b>		P
4.4.1	Minimizing the risk of ignition	See appended table 1.	P
4.4.2	Insulating materials		P
4.4.2.1	General	See appended table 5.2.3.8.	P
4.4.2.2	Material requirements	See cl. 5.2.5.1, 5.2.5.2 and appended table 1.	P
4.4.3	Flammability of enclosure materials	See appended table 1.	P
4.4.4	Temperature limits		P
4.4.4.1	Internal parts		P
4.4.4.2	External parts of CDM		N/A
4.4.5	Specific requirements for liquid cooled PDS	Not liquid cooled	N/A
4.4.5.1	Coolant	No such part	N/A
4.4.5.2	Design requirements		N/A
4.4.5.2.1	Corrosion resistance		N/A
4.4.5.2.2	Tubing, joints and seals		N/A
4.4.5.2.3	Provision for condensation		N/A
4.4.5.2.4	Leakage of coolant		N/A

IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.4.5.2.5	Loss of coolant		N/A
4.4.5.2.6	Conductivity of coolant		N/A
4.4.5.2.7	Insulation requirements for coolant hoses		N/A
4.4.6	Motor overload and over temperature protection		N/A
4.4.6.1	Means of protection		N/A
4.4.6.2	CDM/BDM with electronic motor overload protection		N/A
4.4.6.3	CDM/BDM with electronic motor overload protection with thermal memory retention		N/A
4.4.6.4	CDM/BDM with electronic motor overload protection which is speed sensitive		N/A
4.4.6.5	CDM/BDM providing monitoring and automatic reduction of motor current by means of thermal sensors		N/A
<b>4.5</b>	<b>Protection against energy hazards</b>		P
4.5.1	Electrical energy hazards .....	See clause 4.3.11, 5.2.3.7 and 4.2, 4.3.6.4, 5.2.2.2, 5.2.3.6, 5.2.4	P
4.5.2	Mechanical energy hazards	Built-in component considered in the end system	N/A
4.5.2.1	General		N/A
4.5.2.2	Critical torsional speed		N/A
4.5.2.3	Transient torque analysis		N/A
4.5.3	Acoustic noise emission		N/A
<b>4.6</b>	<b>Protection against environmental stresses</b>	Built-in component considered in the end system	N/A
<b>5</b>	<b>TEST REQUIREMENTS</b>		P
<b>5.1</b>	<b>General</b>		P
5.1.1	Test objectives and classification .....	Type tests	P
5.1.2	Selection of test samples .....	See product general information.	P
5.1.3	Sequence of tests		P
5.1.4	Earthing conditions .....	Neutral to earth; line to earth; neutral to earth through high impedance; isolated (not earthed)	P
5.1.5	Compliance	Verified by suitable examination, visual inspection, and/or measurement.	P
5.1.6	Test Overview		—



IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>5.2</b>	<b>Test specifications</b>		P
5.2.1	Visual inspections (type test, sample test and routine test)	Type tests	P
5.2.2	Mechanical tests		P
5.2.2.1	Clearance and creepage distances (type test)	See appended table 5.2.2.1.	P
5.2.2.2	PWB short-circuit test (type test)	See appended table 5.2.2.2.	P
5.2.2.3	Non-accessibility test (type test) .....		N/A
5.2.2.4	Enclosure integrity test (type test) .....		N/A
5.2.2.5	Deformation tests	Built-in component considered in the end system	N/A
5.2.2.5.1	General		N/A
5.2.2.5.2	Deflection test (type test) .....		N/A
5.2.2.5.3	Impact test (type test), temperature (°C) .....		N/A
5.2.3	Electrical tests		P
5.2.3.1	Impulse voltage test (type test and sample test)	See appended table 5.2.3.1.	P
5.2.3.2	A.C. or d.c. voltage test (type and routine test)	See appended table 5.2.3.2.	P
5.2.3.2.1	Purpose of test		P
5.2.3.2.2	Value and type of test voltage		P
5.2.3.2.3	Performing the voltage test		P
5.2.3.2.4	Duration of the a.c. or d.c. voltage test		P
5.2.3.2.5	Verification of the a.c. or d.c. voltage test		P
5.2.3.3	Partial discharge test (type test, sample test)	See appended table 5.2.3.3.	P
5.2.3.4	Protective impedance (type test and routine test) :		P
5.2.3.5	Touch current measurement (type test)	See appended table 5.2.3.5.	P
5.2.3.6	Short-circuit test and Breakdown of components test (type tests)		P
5.2.3.6.1	General		P
5.2.3.6.2	Test configuration		P
5.2.3.6.2.1	Supply voltage and current		P
5.2.3.6.3	Short-circuit test	See appended table 5.2.3.6.3.	P
5.2.3.6.3.1	Load conditions		P
5.2.3.6.3.2	Short-circuit between phase terminals of power outputs		P
5.2.3.6.3.3	Short-circuit between phase terminals of power output and protective earth		P
5.2.3.6.4	Breakdown of components test	See appended table 5.2.3.6.4.	P
5.2.3.6.4.1	Load conditions		P



IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.2.3.6.4.2	Application of short-circuit or open-circuit		P
5.2.3.6.5	Test sequence		P
5.2.3.6.6	Pass criteria		P
5.2.3.7	Capacitor discharge (type test) .....	Built-in component considered in the end system	N/A
5.2.3.8	Temperature rise test (type test)	See appended table 5.2.3.8.	P
5.2.3.9	Protective bonding (type test and routine test)	See appended table 5.2.3.9.	P
5.2.4	Abnormal operation tests	See appended table 5.2.4.	P
5.2.4.1	General		P
5.2.4.2	Test duration		P
5.2.4.3	Pass criteria		P
5.2.4.4	Loss of phase (type test)	See appended table 5.2.4.4.	N/A
5.2.4.5	Cooling failure tests (type tests)	See appended table 5.2.4.5.	P
5.2.4.5.1	General		N/A
5.2.4.5.2	Inoperative blower motor		P
5.2.4.5.3	Clogged filter		N/A
5.2.4.5.4	Loss of coolant		N/A
5.2.5	Material tests	Approved plastic enclosure used, see appended table 1	N/A
5.2.5.1	High current arcing ignition test (type test)		N/A
5.2.5.2	Glow-wire test (type test)		N/A
5.2.5.3	Hot wire ignition test (type test – alternative to Glow-wire test)		N/A
5.2.5.4	Flammability test (type test)		N/A
5.2.6	Environmental tests (type tests)		N/A
5.2.6.1	General		N/A
5.2.6.2	Acceptance criteria		N/A
5.2.6.3	Climatic tests		N/A
5.2.6.3.1	Dry heat test (steady state)		N/A
5.2.6.3.2	Damp heat test (steady state)		N/A
5.2.6.4	Vibration test (type test)		N/A
5.2.7	Hydrostatic pressure test (type test and routine test) .....	No coolant or liquid.	N/A
5.2.8	Electronic motor overload protection test (type test)	See appended Table 5.2.8.	N/A
5.2.8.1	General requirements		N/A
5.2.8.2	Test set-up		N/A
5.2.8.3	Pass criteria		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.2.8.4	CDM/BDM electronic motor overload protection test (type test)		N/A
5.2.8.5	CDM/BDM electronic motor thermal memory retention shutdown test (type test)		N/A
5.2.8.6	CDM/BDM electronic motor thermal memory retention loss of power test (type test)		N/A
5.2.8.7	CDM/BDM electronic motor thermal speed sensitivity test (type test)		N/A
5.2.9	Circuit functionality evaluation (routine and/or sample test)		N/A
<b>6</b>	<b>INFORMATION AND MARKING REQUIREMENTS</b>		P
<b>6.1</b>	<b>General</b>		P
<b>6.2</b>	<b>Information for selection</b>	See appended table 6, part 6.2.	P
<b>6.3</b>	<b>Information for installing and commissioning</b>	See appended table 6, part 6.3.	P
6.3.1	General		P
6.3.2	Mechanical considerations		N/A
6.3.3	Environment		P
6.3.4	Handling and mounting		P
6.3.5	Motor and driven equipment		P
6.3.5.1	Motor selection		P
6.3.5.2	Motor integrated sensors		P
6.3.5.3	Critical torsional speeds		N/A
6.3.5.4	Transient torque analysis		N/A
6.3.6	Connections		P
6.3.6.1	General		P
6.3.6.2	Interconnection and wiring diagrams		P
6.3.6.3	Conductor (cable) selection		P
6.3.6.4	Terminal capacity and identification .....		P
6.3.6.5	Protection requirements		P
6.3.6.6	Earthing		P
6.3.6.7	Protective earthing conductor current		N/A
6.3.6.8	Special requirements		N/A
6.3.7	Overcurrent and short-circuit protection		P
6.3.8	Motor overload protection and overtemperature protection		P
6.3.8.1	CDM/BDM not incorporating internal electronic motor overload and overtemperature protection		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.3.8.2	CDM/BDM incorporating internal electronic motor overload and overtemperature protection		N/A
6.3.9	Commissioning		P
<b>6.4</b>	<b>Information for use</b>	See appended table 6, part 6.4.	P
6.4.1	General		P
6.4.2	Adjustment		P
6.4.3	Labels, signs and signals		P
6.4.3.1	General		P
6.4.3.2	Isolators		N/A
6.4.3.3	Visual and audible signals		P
6.4.3.4	Hot surfaces		P
6.4.3.5	Equipment marking		P
<b>6.5</b>	<b>Information for maintenance</b>	See appended table 6, part 6.5.	P
6.5.1	General		P
6.5.2	Capacitor discharge		N/A
6.5.3	Auto restart/bypass connection		P
6.5.4	PT/CT connection		N/A
6.5.5	Other hazards		N/A
Annex A	Examples of protection in case of direct contact		—
Annex B	Examples of overvoltage category reduction		—
Annex C	Measurement of clearance and creepage distances		P
Annex D	Altitude correction for clearances		—
Annex E	Clearance and creepage distance determination for frequencies greater than 30 kHz		—
Annex F	Cross-sections of round conductors		—
Annex G	Guidelines for RCD compatibility		—
Annex H	Symbols referred to in this part of IEC 61800		—

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Clause	Requirement + Test	Result - Remark	Verdict

1	TABLE: List of materials and components separately evaluated					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
PCB	Huizhou Glorysky Electronics Co., Ltd	FR4	V-0,130°C	UL796	UL(E257384)	
Alternative (报 备)	EXPRESS Electronics (Qing Yuan) Ltd.	FR-4	V-0 130°C	UL796	E123995	
	Shenzhen Jove Enterprise Ltd .	FR4	V-0 130°C	UL796	UL(E232940)	
	Shenzhen Shenkai Electronics Co., Ltd	FR4	V-0 130°C	UL796	UL(E319204)	
DC Fan	Shenzhen Huaxia Hengtai Electronic Co Ltd	直流风扇 8015 12V/130mA± 10% 华夏恒泰 RoH	---	---	UL E254715	
Input wire of DC Fan	SHENZHEN CITY DE XING LONG ELECTRIC CO LTD	UL1007 24#	---	---	E328945	
	SHENZHEN SHUNJI A ELECTRICAL TECHNOLOGY CO LTD	---	---	---	E490463	
Terminal block	DEGSON Electronics Co., Ltd,	栅栏端子 DG25R-B-07P- 13-12A(H) 高正 RoHS	300V 15A	---	UL E228872	
Isolation opto-coupler (U6/U7/U20)	Lite-On Technology Corporation	LTV-817(X)-B	VISO 5000Vrms	DIN EN 60747-5-5 (0884-5):2015-11; EN 60747-5-5:2011; A1:2015 IEC 60747-5-5:2007 IEC 60747-5-5:2007/AMD1:2013	VDE (40015248)	
Alternative	Shanghai MagnTek Microelectronics Inc.	MT9223CT-20BR5	VISO 2400Vrms	---	UL	

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Clause	Requirement + Test			Result - Remark	Verdict
Transformer	WEIMEI ELECTRONICS FACTORY DONG GUAN CITY	高频变压器 DM1182专用 EE19-ALS31 9PIN RoHS 惟 美	1.6mH	---	---
-Magnetic wire	HUNAN XINXIN CABLE CO.,LTD. TAI-1 COPPER (GUANZHOU) CO LTD HUIZHOU CITY DENGGAODA ELECTROTEC H CO.,LTD.	2UEW 130°C	---	---	E205311 E234896 E253843
-insulation tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO.,LTD.	CT-280	---	---	E165111
-Bobbin	CHANG CHUN PLASTICS CO., LTD.	T375J 94V-0 PHENOLIC	---	---	E59481
Fase	Hollyland (China) Electronic Technology Co., Ltd.	玻璃保险管 52NM 15A/250V 带引 脚 速断型 RoHS 宁利	15A/250V	---	UL E156471 PSE JET2489- 31003-1034B
Varistor	Thinking Electronic Industrial Co., Ltd.	压敏电阻 470V D14mm TVR14471KSY RoHS 东莞为勤	470V D14mm	UL 1449	E314979
X capacitor	JYH CHUNG ELECTRONICS CO LTD	X2电容 220nF ±10% 275V RoHS JEC	220nF ±10% 275V	---	UL E187963
Inductance	WEIMEI ELECTRONICS FACTORY DONG GUAN CITY	共模电感 XD201410 φ 0.8 16.5Ts 15mH RoHS 惟 美	---	---	---



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Clause	Requirement + Test			Result - Remark		Verdict
-Magnetic wire	HUNAN XINXIN CABLE CO.,LTD. TAI-1 COPPER (GUANZHOU) CO LTD HUIZHOU CITY DENGGAODA ELECTROTECH CO.,LTD.	2UEW 130°C	---	---	E205311 E234896 E253843	
-Heat shrinkable casing	CHANGYUAN ELECTRONICS (SHENZHEN)CO LTD DONGGUAN QUANTAI ELECTRONICS CO.,LTD SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	UL TUBE	---	---	E180908 E227336 E203950	
<b>Functional insulation</b>						
--	--	--	--	--	--	
<b>Basic/supplementary insulation</b>						
--	--	--	--	--	--	
<b>Reinforced insulation</b>						
--	--	--	--	--	--	
Supplementary information: The flammable resistance should be considered in the end system according standard requirements.						

5.2.2.1	TABLE: General selection and information of supply earthing systems for clearance distances					N/A
Network systems	TN-S, TN-C, TN-CS, TT (not corner earthed)	TN-S, TT (corner earthed)	TN-C (middle point earthed)	IT (not corner referenced)	IT (corner referenced)	
Rated voltage (V)	230	N/A	N/A	N/A	N/A	
Max. altitude (m)	1000	N/A	N/A	N/A	N/A	
System voltage for impulse / TOV (V)	230	N/A	N/A	N/A	N/A	

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Clause	Requirement + Test						Result - Remark				Verdict
	BI/SI	RI	BI/SI	RI	BI/SI	RI	BI/SI	RI	BI/SI	RI	
Rated Impulse voltage (kV)	2,5	4,0	--	--	--	--	--	--	--	--	--
Temporary overvoltage (V rms / V peak)	1500/2120	1800/2550	--	--	--	--	--	--	--	--	--
Clearance (mm)	1,5	3,0	--	--	--	--	--	--	--	--	--
Test impulse voltage for clearance (kV)	2,5	4,0	--	--	--	--	--	--	--	--	--
Supplementary information: /											

5.2.2.1		TABLE: Working voltage measurements for clearance and creepage distances										N/A
Condition	Between	TN-S, TN-C, TN-CS, TT (not corner earthed)		TN-S, TT (corner earthed)		TN-C (middle point earthed)		IT (not corner referenced)		IT (corner referenced)		
		peak	rms	peak	rms	peak	rms	peak	rms	peak	rms	
1	Live parts and protective earth(BI)	325	230	--	--	--	--	--	--	--	--	
2	Live parts and secondary circuit(RI)	564	261									
3	Different polarities(FI)	325	230									
IT network, simulated impedance ( $\Omega$ )..... :				N/A								
Supplementary information: N/A												
Condition #:												

5.2.2.1		TABLE: Clearances and creepage distances								P
clearance cl and creepage distance cr at/between:	PWB layer	CTI (V)	U peak (V)	U rms (V)	Req. cl (mm)	Meas. cl (mm)	Req. cr (mm)	Meas. cr (mm)		
<b>Sub-assembly / PWB / part</b>										
<b>General</b>										
--	--	--	--	--	--	--	--	--	--	
<b>Functional insulation</b>										
L to N	--	<400	325	230	1,5	3.0	2,3	3.0		
<b>Basic / supplementary insulation</b>										
L /N to PE	--	<400	325	230	1,5	3.5	2,3	3.5		

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Clause	Requirement + Test				Result - Remark				Verdict
Live parts to accessible metal enclosure	--	<400	325	230	1,5	3,0	2,3	3,0	
<b>Reinforced insulation</b>									
Live parts to accessible plastic enclosure	--	<400	325	230	3,0	6.2	4,6	6.2	
<b>After deflection and impact test:</b>									
--	--	--	--	--	--	--	--	--	--
Supplementary information: Altitude: 1000m									
4.3.6.8 5.2.3.1 5.2.3.2 5.2.3.3	<b>TABLE: Solid insulation Impulse voltage test A.C. or d.c. voltage test Partial discharge test</b>								<b>P</b>
<b>Test voltage applied between:</b>				<b>DTI (mm)</b>	<b>Impulse test (kV, circuit)</b>	<b>Electric strength test (VAC, VDC, s)</b>	<b>Partial discharge test (V)</b>	<b>Result</b>	
<b>Functional insulation (circuit characteristics)</b>									
--	--	--	--	--	--	--	--	--	--
<b>Basic / supplementary insulation</b>									
Between Live parts and protective earth / chassis on terminal	N/A	4000	1500	N/A	P				
<b>Reinforced insulation</b>									
Between Live parts and plastic enclosure	N/A.	6000	3000	N/A	P				
Between live part and interface CN1, CN2, CN3, CN4, CN5 and CN10 ports	N/A	2500	3000	N/A	P				
One insulation tape(T1)	N/A.	2500	3000	N/A	P				
Margin tape(T1)	N/A	2500	3000	N/A	P				
<b>After deflection and impact test:</b>									
--	--	--	--	--	--	--	--	N/A	
<b>After dry heat test:</b>									
--	--	--	--	--	--	--	--	N/A	
<b>After damp heat test:</b>									
--	--	--	--	--	--	--	--	N/A	
<b>After vibration test:</b>									
--	--	--	--	--	--	--	--	N/A	
<b>After hydrostatic pressure test:</b>									
--	--	--	--	--	--	--	--	N/A	
Supplementary information: /									

IEC 61800-5-1								
Clause	Requirement + Test						Result - Remark	Verdict
5.2.3.5	<b>TABLE: Touch current measurement</b>							N/A
<b>Single phase equipment</b>								
<b>L – N TN-S, TN-C, TN-CS, TT (not corner earthed) Figure 6</b>	<b>L – L TN-C, TT (middle point earthed) Figure 7</b>	<b>L – L TN, TT (not corner earthed) Figure 8</b>	<b>L – N IT (not corner referenced) Figure 9</b>	<b>L – N IT (corner referenced) Figure 9</b>	<b>L – L IT (not corner referenced) Figure 10</b>	<b>L – L IT (corner referenced) Figure 10</b>	<b>Limit for 50 Hz (mA)</b>	<b>Limit for 60 Hz (mA)</b>
Live parts/ protective earth	2.47	N/A	N/A	N/A	N/A	N/A	3,5	3,5
<b>Three-phase equipment</b>								
<b>TN-S, TN-C, TN-CS, TT (not corner earthed) Figure 11</b>	<b>IT (star point referenced) Figure 12</b>	<b>IT (corner referenced) Figure 12</b>	<b>TN, TT (corner earthed) Figure 13</b>	<b>TN, TT (middle point earthed) Figure 14</b>	<b>Limit for 50 Hz (mA)</b>	<b>Limit for 60 Hz (mA)</b>		
N/A	N/A	N/A	N/A	N/A	--	--		
Supplementary information: Measurements have been carried out according to figures of IEC 60990.								

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Clause	Requirement + Test	Result - Remark	Verdict

5.2.3.6.3 5.2.3.6.4 5.2.4.4 5.2.4.5 5.2.8	<b>TABLE: Short-circuit test Breakdown of components test Loss of phase test Cooling failure tests Electronic motor overload protection test</b>					P
---	--	--	--	--	--	---

Tested item	Fault (SC, OC, OL)	Supply voltage (V)	PSCC (kA)	Test time (min.)	Test environment (ambient, fuse etc.) and observation	Result
Output U & V	S-C	253	1	15	Protective, unit shutdown, recoverable	P
Output V & W	S-C	253	1	15	Protective, unit shutdown, recoverable	P
Output U & W	S-C	253	1	15	Protective, unit shutdown, recoverable	P
Output U-V-W	S-C	253	1	15	Protected, unit shut down, recoverable, no hazard	P
RMOV5	S-C	253	1	10	F1 disconnected, non-recoverable, no danger	P
CE7	S-C	253	1	10	F1 disconnected, non-recoverable, no danger	P
BR1	S-C	253	1	10	F1 disconnected, non-recoverable, no danger	P
T1 PIN 1-2	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P
T1 PIN 5-6	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P
T1 PIN 9-10	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P
U2 1-2	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P
U2 3-4	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P
D33	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P
CE13	S-C	253	1	10	Protected, unit shut down, recoverable, no hazard	P

Supplementary information: /

<b>5.2.3.8</b>	<b>TABLE: Temperature rise test, thermocouple method</b>							<b>P</b>
	Supply voltage (V)..... :	176	253	--	--	--	--	—
	Supply frequency (Hz) .... :	50	--50	--	--	--	--	—
	Load (V, A) .....	0.73	-0.67	--	--	--	--	—
	Ambient (°C) .....	25	25	--	--	--	--	—



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Clause	Requirement + Test						Result - Remark	Verdict
Thermocouple Location		Temperature measured (°C)						Limit (°C)
Materials, components and internal parts								
CN1	31.5	30.3	--	--	--	--	Ref.	
X capacitor	36.9	35.4	--	--	--	--	Ref.	
RMOV 5	36.4	35.0	--	--	--	--	Ref.	
L1	36.2	34.9	--	--	--	--	125	
CE7	39.8	38.3	--	--	--	--	105	
CE8	38.6	37.2	--	--	--	--	105	
NTC1	61.2	64.5	--	--	--	--	Ref	
C66	36.0	34.4	--	--	--	--	Ref	
L2	46.2	42.8	--	--	--	--	Ref	
U20	57.1	52.5	--	--	--	--	Ref	
TR1 wining	54.1	50.9	--	--	--	--	135	
TR1 bobbin	58.1	54.3	--	--	--	--	Ref.	
L3	53.2	49.8	--	--	--	--	Ref.	
PCB near U1	44.9	42.5	--	--	--	--	130	
PCB near U22	52.1	49.5	--	--	--	--	130	
PCB near BR1	36.9	35.3					130	
PCB near M3	39.8	37.1					130	
Fan winding	43.0	41.7					105	
Metal Enclosure	32.4	30.7					Ref	
Supplementary information: /								

5.2.3.8	TABLE: Temperature rise test, resistance method							N/A
	Test voltage (V).....:							—
	Supply frequency (Hz) .....							—
	Load (V, A) .....							—
Winding	t1 (°C)	r1 (Ω)	t2 (°C)	r2 (Ω)	T (°C)	Limit Tmax (°C)	Insulation class	
Supplementary information:								

5.2.3.9	TABLE: Protective bonding							P
---------	---------------------------	--	--	--	--	--	--	---

IEC 61800-5-1					
Clause	Requirement + Test			Result - Remark	Verdict
<b>Points of application</b>					
	<b>Current (A)</b>	<b>Voltage (V)</b>	<b>Resistance (mΩ)</b>	<b>Test time (min)</b>	<b>Result</b>
PE- Heat sink	30	12	0.002	1	P
<b>After dry heat test:</b>					
--	--	--	--	--	N/A
<b>After damp heat test:</b>					
--	--	--	--	--	N/A
<b>After vibration test:</b>					
--	--	--	--	--	N/A
Supplementary information: /					

5.2.5	TABLE: Material test			N/A
Object / Part No. / Material	Manufacturer / trademark / type designation	Test procedure		Result
--	--	--		N/A
Supplementary information: /				

6	TABLE: Information and marking requirements					P
		Product	Package	Installation	User	Maintenance
6.2	Information for selection					
	- Name or trademark of the manufacturer, supplier or importer .....	P	P	P	P	P
	- Catalogue number or equivalent .....	P	P	P	P	P
	- Input voltage rating .....	P	-	P	P	P
	- Input current rating .....	P	-	P	-	P
	- Input power rating .....	P	-	P	-	P
	- Input frequency .....	P	-	P	-	P
	- Input number of phases .....	P	-	P	-	P
	- Output voltage rating .....	P	-	P	P	P
	- Output current rating .....	P	-	P	-	P
	- Output power rating .....	P	-	P	-	P
	- Output frequency .....	P	-	P	-	P
	- Output number of phases .....	P	-	P	-	P
	- Protective class .....	See 6.3.6.6.				
	- Type of electrical supply system .....	See 6.3.3.				
	- Prospective short-circuit current and protective device characteristics .....	See 6.3.7.				
	- Field supply requirements (if any) .....	See 6.3.3.				

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Clause	Requirement + Test	Result - Remark			Verdict
- Coolant type and design pressure .....	-	-	N/A	-	N/A
- IP rating .....	N/A	-	P	-	P
- Operating and storage environment .....	See 6.3.3.				
- Reference to relevant standards .....	-	-	P	-	-
- Date code or serial number .....	P	-	-	-	-
- Reference to instructions .....	-	-	P	P	P
6.3	Information for installation and commissioning				
6.3.2: Mechanical considerations	-	N/A	N/A	-	N/A
- Dimensional drawing (SI units) .....	-	-	N/A	-	N/A
- Mass (SI units) .....	-	N/A	N/A	-	N/A
- Mounting drawing (SI units) .....	-	-	N/A	-	N/A
6.3.3: Environment (operation, transport, storage) .....	-	-	P	-	P
- Temperature .....	-	-	P	-	P
- Humidity .....	-	-	P	-	P
- Altitude .....	-	-	P	-	P
- Pollution .....	-	-	P	-	P
- Ultra violet light .....	-	-	P	-	P
- Type of electrical supply system .....	-	-	P	-	-
- Field supply requirements (if any) .....	-	-	N/A	-	-
- Other .....	-	-	P	-	-
6.3.4: Handling and mounting .....	-	P	P	-	P
- Packing and unpacking .....	-	P	P	-	P
- Moving .....	-	N/A	N/A	-	N/A
- Lifting .....	-	N/A	N/A	-	N/A
- Strength and rigidity of mounting surface .....	-	N/A	N/A	-	N/A
- Fastening .....	-	P	P	-	P
- Provision of adequate access for operation, adjustment and maintenance .....	-	N/A	N/A	-	N/A
- Warning regarding combustibility if mounting surface exceeds 90 °C .....	-	-	N/A	-	-
6.3.5: Motor and driven equipment			P	P	P
6.3.5.1: Motor selection .....	-	-	P	P	P
6.3.5.2: Motor integrated sensors .....	-	-	P	P	P
6.3.5.3: Critical torsional speeds .....	-	-	N/A	N/A	N/A
6.3.5.4: Transient torque analysis .....	-	-	N/A	N/A	N/A
6.3.6: Connections	P	-	P	P	P
6.3.6.1: General .....	-	-	P	-	P
6.3.6.2: Interconnection and wiring diagrams ..	-	-	P	-	P
6.3.6.3: Conductor (cable) selection .....	-	-	P	-	P

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Clause	Requirement + Test	Result - Remark			Verdict
6.3.6.4: Terminal capacity and identification ...:	P	-	P	-	P
6.3.6.5: Protection requirements .....	-	-	P	P	P
- Protective class 0 .....	N/A	-	N/A	N/A	N/A
- Interface details .....	-	-	P	-	P
- Terminals with protective separation .....	-	-	P	P	P
6.3.6.6: Earthing .....	-	-	P	-	P
- High-voltage PDS: Earthing switch .....	-	-	N/A	-	N/A
- Symbol IEC 60417-5019, PE or green-yellow .....	P	-	-	-	-
- Symbol IEC 6417-5172 for Class II .....	N/A	-	-	-	-
6.3.6.7: Protective earthing conductor current .....	N/A	-	N/A	N/A	N/A
- Symbol ISO 7000-0434 and instruction.....	N/A	-	N/A	-	N/A
- RCD compability .....	-	-	N/A	-	N/A
- RCD/RCM caution notice and marking ISO 7000-0434 .....	N/A	-	-	N/A	-
6.3.6.8: Special requirements .....	-	-	N/A	-	N/A
6.3.7: Overcurrent or short-circuit protection ..:	-	-	P	-	P
- Electronic power output short-circuit protection circuitry conditions .....	-	-	P	-	-
6.3.8: Motor overload protection and overtemperature protection .....	-	-	P	-	P
6.3.8.1: CDM/BDM not incorporating internal electronic motor overload and overtemperature protection .....	-	-	P	-	-
6.3.8.2: CDM/BDM incorporating internal electronic motor overload and overtemperature protection.....	-	-	P	-	P
6.3.9: Commissioning .....	-	-	P	-	-
6.4	Information for use				
6.4.1: General .....	-	-	P	-	P
6.4.2: Adjustment .....	-	-	P	P	P
6.4.3: Labels, signs, and signals .....	P	-	P	P	P
6.4.3.1: General .....	P	-	P	P	P
6.4.3.2: Isolators .....	N/A	-	-	-	-
6.4.3.3: Visual and audible signals .....	P	-	-	P	-
6.4.3.4: Hot surfaces, symbol IEC 60417-5041 .....	N/A	-	-	N/A	-
6.4.3.5: Equipment marking .....	P	-	P	P	P
- Control devices .....	N/A	-	P	P	P
- Indicating devices .....	N/A	-	N/A	N/A	N/A
- Replaceable fuses .....	N/A	-	N/A	N/A	N/A

IEC 61800-5-1					
Clause	Requirement + Test	Result - Remark			Verdict
- Movable connectors .....	N/A	-	N/A	N/A	N/A
- Test points .....	N/A	-	N/A	N/A	N/A
- Polarized devices .....	N/A	-	N/A	N/A	N/A
- Pre-set controls .....	N/A	-	N/A	N/A	N/A
6.5	Information for maintenance				
6.5.1: General.....	-	-	-	P	P
- Maintenance procedures.....	-	-	-	-	P
- Maintenance schedules.....	-	-	-	P	P
- Safety precautions .....	-	-	-	-	P
- Location of live parts accessible during maintenance .....	-	-	-	-	P
- Adjustment procedures .....	-	-	P	P	P
- Repair and replacement procedures .....	-	-	-	-	P
- Other relevant information (e.g. special tools list) .....	-	-	-	P	P
6.5.2: Capacitor discharge .....	N/A	-	N/A	-	N/A
6.5.3: Auto restart/bypass connection .....	-	-	P	P	P
6.5.4: Potential Transformer (PT) / Current Transformer (CT) connection .....	N/A	-	N/A	-	N/A
6.5.5: Other hazards .....	N/A	-	-	-	N/A
Supplementary information: /					



IEC 61800-5-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<b>Attachment No.: 1: National Differences for (country name) or Group Differences</b>		P
	<b>CENELEC COMMON MODIFICATIONS (EN)</b>		P
	No group differences available		-

## Attachment No.: 2 Photos

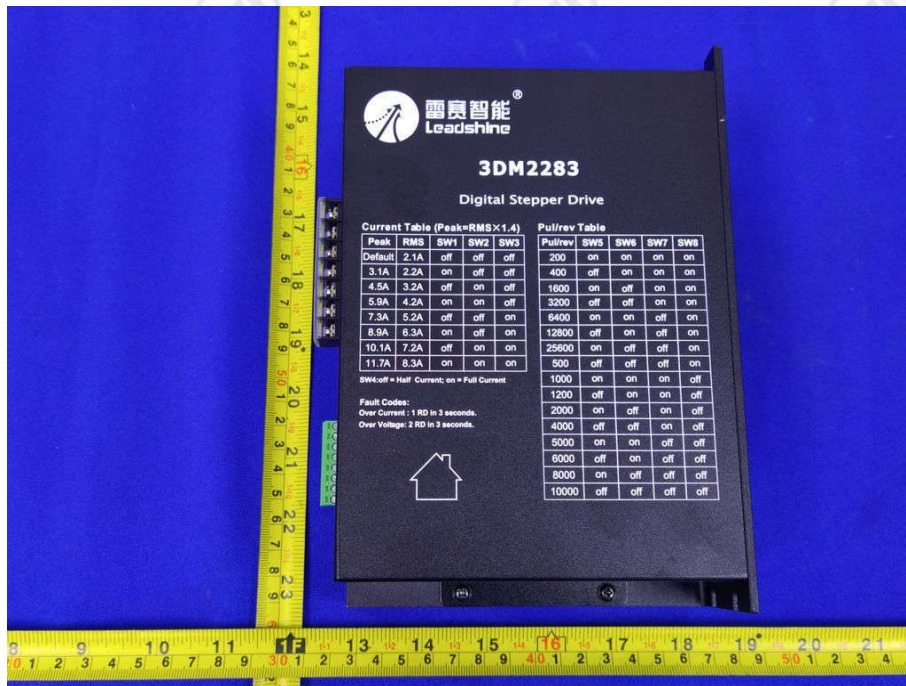


Fig.1 Overall view

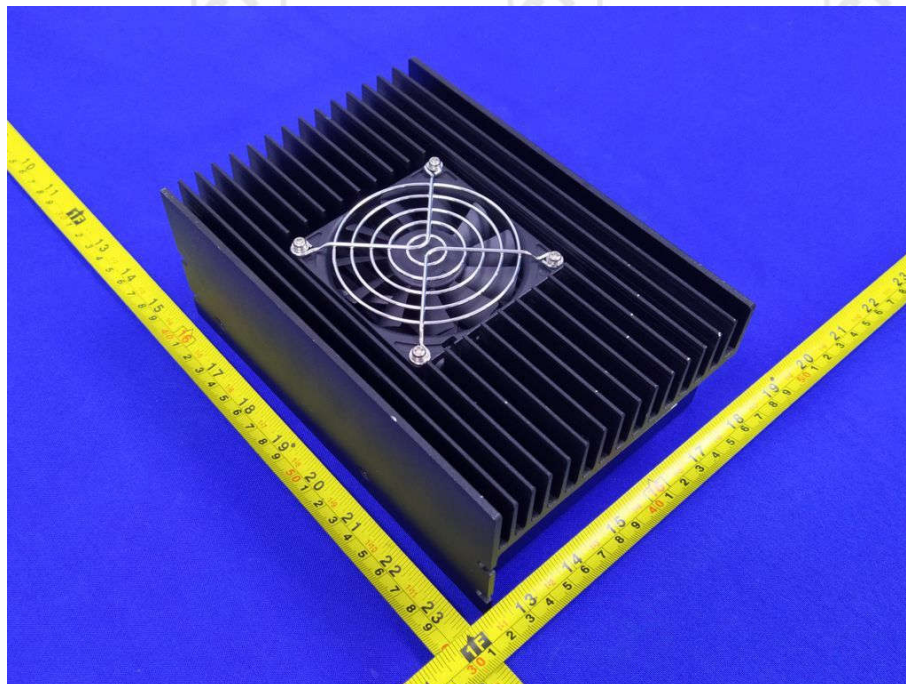


Fig.2 Overall view





Fig.3 Detached view

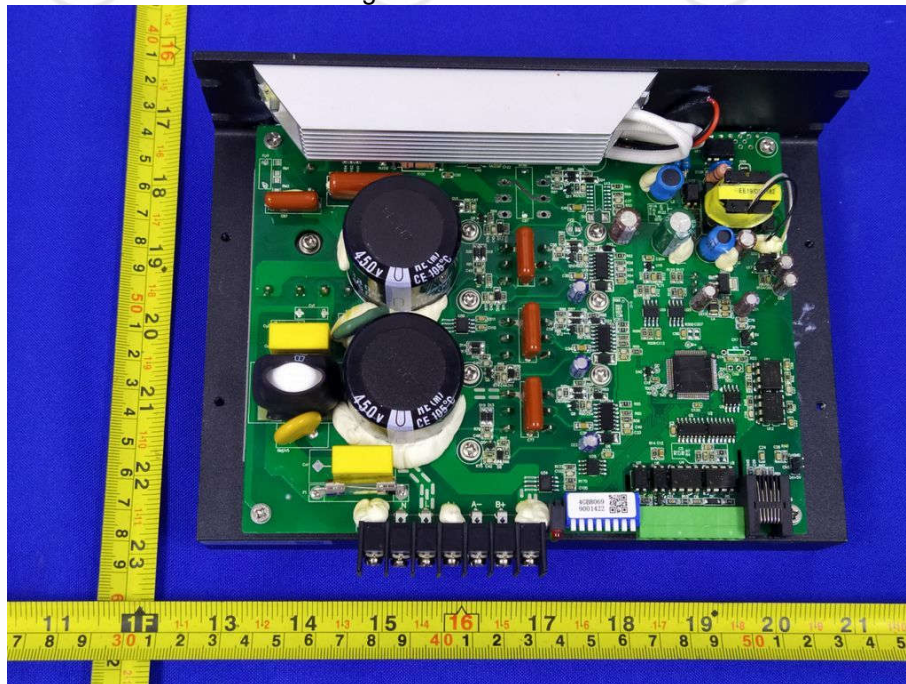


Fig.4 Top view of PCB

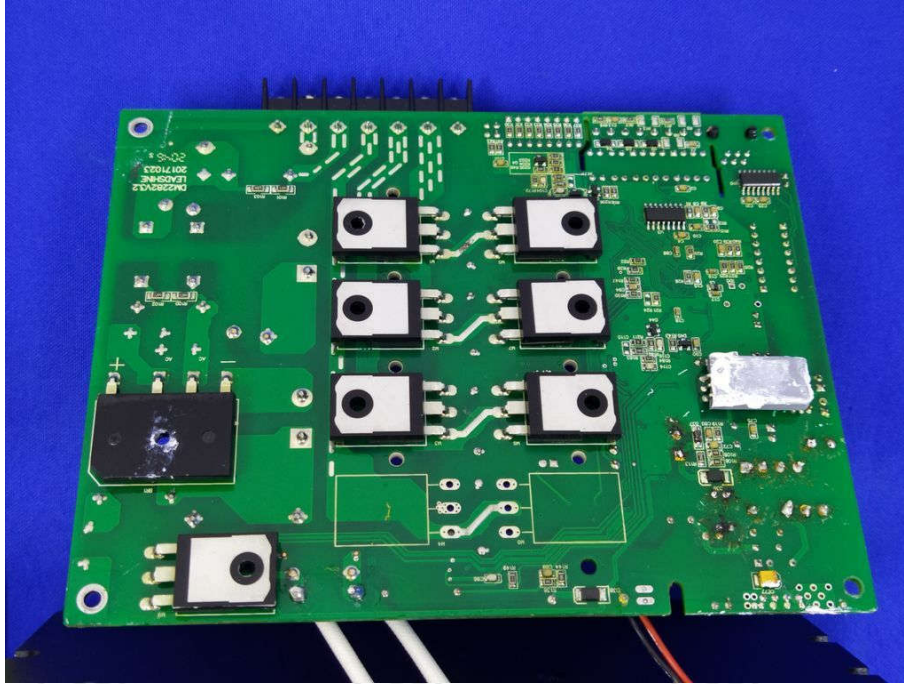


Fig.5 Bottom view of PCB

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

**\*\*\* End of Report \*\*\***

