TEST REPORT

Report Reference No.	XMT0201901429S/EMC
Applicant:	NIETZ ELECTRIC CO., LTD.
Address:	Room 1208, No. 9 Building, No. 99 TianZhou Road, Xuhui district, Shanghai, China
Sample Name:	Frequency Inverter
Model:	See Annex
Test Type:	NL1000
Standard:	EN IEC 61800-3:2018
Test Period:	Dec.02,2019 to Dec.09,2019
Test Result:	Please refer to next pages
Conclusion:	Based on the performed tests on submitted samples, the results comply with the Electromagnetic Compatibility Directive 2014/30/EU and its subsequent amendments

Tested By: **Reviewed By:**

John Chen - Engineer **Amy Zhang - Lab Manager**

GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The product that is produced by **NIETZ ELECTRIC CO., LTD.**
Test model:**NL1000** or the “EUT" as referred to in this report is a **Frequency Inverter**.

Application model:

See Annex

Difference of the series model:

The appearance is different, but the function is the same.

Objective

In order to meet the EMC requirements approved by CENELEC, the following standards will be cited:

1. EN IEC 61800-3:2018, Adjustable speed electrical power drive systems. EMC requirements and specific test methods

Equipment Modifications

No modification to the EUT was made by XMTEST to make sure the EUT comply with applicable limits.

Note: The test data is only valid for the test sample. There is possible deviation from the original test data for other products

Claus	Requirement-Test	Result-Remark	Verdict

EN IEC 61800-3:2018
Adjustable speed electrical power drive systems.
EMC requirements and specific test methods

1	Scope and object		
	This part of IEC 61800 specifies electromagnetic compatibility (EMC) requirements for power drive systems (PDSs). A PDS is defined in 3.1. These are adjustable speed a.c. or d.c. motor drives. Requirements are stated for PDSs with converter input and/or output voltages (line-toline voltage), up to 35 kV a.c. R.m.s. PDSs covered by this standard are those installed in residential, commercial and industrial locations with the exception of traction applications, and electric vehicles. PDSs may be connected to either industrial or public power distribution networks. Industrial networks are supplied by a dedicated distribution transformer, which is usually adjacent to or inside the industrial location, and supplies only industrial customers. Industrial networks can also be supplied by their own electric generating equipment. On the other hand, PDSs can be directly connected to low-voltage public mains networks which also supply domestic premises, and in which the neutral is generally earthed (grounded).		P
2	Normative references		
	The following referenced documents are indispensable for the application of this document.For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.		P
3	Terms and definitions		
3.1	Definition of the installation and its content		
	Figure 1 shows the major parts of the PDS as defined below and the rest of the installation.		P
3.1.1	basic drive module		
	electronic power converter and related control,connected between an electric supply and a motor. The BDM is capable of transmitting power from the electric supply to the motor and may be capable of transmitting power from the motor to the electric supply. The BDM controls some or all of the following aspects of power transmitted to the motor and motor output		P
3.1.2	complete drive module		
	drive module consisting of, but not limited to, the BDM and extensions such as protection devices, transformers and auxiliaries. However the motor and the sensors which are mechanically coupled to the motor shaft are not included		P
3.1.3	power drive system		
	system consisting of one or more complete drive module(s) (CDM) and a motor or motors. Any sensors which are mechanically coupled to the motor shaft are also part of the PDS; however the driven equipment is not included		P
3.1.4	installation		

	equipment or equipments which include at least both the PDS and the driven equipment		P
3.2	Intended use		
3.2.1	first environment		
	environment that includes domestic premises, it also includes establishments directly connected without intermediate transformers to a low-voltage power supply network which supplies buildings used for domestic purposes		P
3.2.2	second environment		
	environment that includes all establishments other than those directly connected to a lowvoltage power supply network which supplies buildings used for domestic purposes		P
3.2.3	PDS of category C1		
	PDS of rated voltage less than 1 000 V, intended for use in the first environment		P
3.2.4	PDS of category C2		
	PDS of rated voltage less than 1 000 V, which is neither a plug in device nor a movable device and, when used in the first environment, is intended to be installed and commissioned only by a professional		P
3.2.5	PDS of category C3		
	PDS of rated voltage less than 1 000 V, intended for use in the second environment and not intended for use in the first environment		P
3.2.6	PDS of category C4		
	PDS of rated voltage equal to or above 1 000 V, or rated current equal to or above 400 A, or intended for use in complex systems in the second environment		P
3.3	Location, ports and interfaces		
3.3.1	in situ (for test)		
	location where the equipment is installed for its normal use by the end user		P
3.3.2	test site (radiation)		
	a site meeting requirements necessary for correctly measuring, under defined conditions, electromagnetic fields emitted by a device under test		P
3.3.3	port		
	access to a device or network where electromagnetic energy or signals may be supplied or received or where the device or network variables may be observed or measured		P
3.3.4	enclosure port		
	physical boundary of the PDS through which electromagnetic fields may radiate or impinge (see Figure 2)		P
3.3.5	port for process measurement and control		
	input/output (I/O) port for a conductor or cable which connects the process to the PDS		P
3.3.6	power port		
	port which connects the PDS to the power supply which also feeds other equipment		P
3.3.7	main power port		
	power port which feeds the PDS for only the power which, after electrical power conversion, is converted by the motor into mechanical power		P
3.3.8	auxiliary power port		

	power port which feeds only the auxiliaries of the PDS, including the field circuit if any		P
3.3.9	mechanical link		
	mechanical connection between the shaft of the motor of the PDS and the driven equipment of the process		P
3.3.10	signal interface		
	input/output (I/O) connection for a line connecting the basic drive module or complete drive module (BDM/CDM) to another part of the PDS (see Figure 2)		P
3.3.11	power interface		
	connections needed for the distribution of electrical power within the PDS (see Figure 3 and explanation in Clause E.1)		P
3.3.12	PCC, IPC, PC		
	these definitions are given in IEC 61000-2-4 NOTE Briefly: – PCC is the point of common coupling on a public network; – IPC is the in-plant point of coupling; – PC is the point of coupling (for either of these cases).		P
3.4	Components of the PDS		
3.4.1	converter (of the BDM)		
	the unit which changes the form of electrical power supplied by the mains to the form fed to the motor(s) by changing one or more of the voltage, current and/or frequency NOTE 1 The converter comprises electronic commutating devices and their associated commutation circuits. It is controlled by transistors or thyristors or any other power switching semiconductor devices. NOTE 2 The converter can be line-commutated, load-commutated or self-commutated and can consist, for example, of one or more rectifiers or inverters.		P
3.4.2	(electric) motor		
	electric machine intended to transform electric energy into mechanical energy		P
3.4.3	sub-component (of the PDS)		
	for the purposes of this standard, a component of the PDS may be divided in subcomponents,each of them being a physical piece of equipment which can be operated separately with an intrinsic function		P
3.5	Phenomena-related definitions		
3.5.1	voltage deviation		
	difference, generally expressed as a percentage, between the voltage at a given instant at a point in the system, and a reference voltage such as: nominal voltage, a mean value of the operating voltage, declared supply voltage		P
3.5.2	variation of the r.m.s. or peak value of a voltage between two consecutive levels sustained for definite but unspecified durations		
3.5.3	voltage fluctuation		
	series of voltage changes or a continuous variation of the r.m.s. or peak value of the voltage		P
3.5.4	voltage dip		
	sudden reduction of the voltage at a point in an electrical system followed by voltage recovery after a short period of time from a few cycles to a few seconds		P

4	Common requirements		
4.1	General conditions		
	All phenomena, from the emission or immunity point of view, shall be considered individually. The limits are given for conditions which do not consider the cumulative effects of different phenomena.For a realistic assessment of the EMC situation, a typical configuration shall be chosen. The application of tests for evaluation of immunity depends on the particular PDS, its configuration, its ports, its technology and its operating conditions (see annexes).		P
4.2	Tests		
4.2.1	Conditions		
	IEC 60146-1-1 and IEC 61800-2 distinguish between type test, routine test and special test. Unless otherwise stated, all the tests specified in this standard are type tests only. The equipment shall meet the EMC requirements when measured by the test methods specified in this standard. The description of the tests, the test methods, the characteristics of the tests and the test setups are given in the referred standards and are not repeated here. If, however, modifications or additional requirements and information or specific test methods are needed for practical implementation and application of the tests, then they are given in this standard.	Comply with the requirement	P
4.2.2	Test report		
	The test results shall be documented in a test report. The report shall clearly and unambiguously present all relevant information of the tests (for example: load conditions,cable laying, etc.). A functional description and detailed acceptance criteria provided by themanufacturer shall be noted in the test report.Within the test report, the chosen test arrangements shall be justified. A sufficient number of terminals shall be selected to simulate actual operating conditions and to ensure that all relevant types of termination are covered.	Pass muster	P
4.3	Documentation for the user		
	The setting of limits and the structure of this standard are based on the understanding that the installer and user are responsible for following the EMC recommendations of the manufacturer. The manufacturer shall supply the documentation necessary for the correct installation of a BDM, CDM or PDS into a typical system or process in the intended environment. This information includes any emission warnings required by 6.1 and Table 13. It also includes the warnings required by 5.3.2 in the case where the immunity of a BDM, CDM or PDS is not suitable for the second environment.	Comply with the requirement	P
5	Immunity requirements		
5.1	General conditions		
5.1.1	Acceptance criteria (performance criteria)		
	The system performance relates to the functions of the BDM, or of the CDM, or of the PDS as a whole, that are declared by the manufacturer.The sub-component performance relates to the functions of the sub-components of the BDM,or of the CDM, or of the PDS, that are declared by the manufacturer.The sub-		

	component performance may be tested as an alternative instead of the systemperformance to show immunity (see 5.1.2).Although this part of IEC 61800 allows tests on sub-components (components of CDM/BDM),it is not intended to be used for the separate conformity assessment of sub-components. The acceptance criteria shall be used to check the performance of a PDS against external disturbances. From the EMC point of view any installation, according to Figure 1, shall be running properly. Since a PDS is part of the functional sequence of a larger process than the PDS itself, the effect on this process caused by changes in the performance of the PDS is hard to forecast. However, this important aspect for large systems should be covered by an EMC plan (see Annex E).		P
5.1.2	Selection of performance type		
5.1.2.1	General or special system performance		
	The “general system performance” item from Table 1 shall be defined in accordance with the special application and typical configuration of the PDS. It is the responsibility of the manufacturer to select these items. The special system performance, torque-generating behaviour, shall be tested only in cases where it is explicitly defined in the product specification. In this case, the torque generating performance can be directly or indirectly tested. The direct test uses an EMC immune torquemeter to measure torque disturbances. Torque performance can be defined through the ability to keep current or speed constant, within specified tolerances, when a disturbance is applied (see also 5.1.3). Therefore, a test of current performance can be used as an indirect test of torque-generating performance. For EMC assessment, and unless otherwise agreed, the output current of the power converter is deemed to represent torque with sufficient accuracy. As an alternative, the indirect test can use speed performance provided the total inertia is specified.		
5.1.2.2	Sub-component performance		
	Testing of sub-components with sub-component performance should be used in cases when aPDS cannot be put into service on a test site because of limitation on the physical size of thePDS, on the current or rated supply capability or load conditions. In any case, the test set-up shall be immune to the highest level of disturbance applied to the PDS or to the subcomponent under test.Testing of information processing and sensing functions, including optional accessories if any, shall be performed only in cases where the relevant ports or interfaces are available at the PDS. Testing of the sub-component performance, according to Table 1, where the functions exist, is sufficient to determine the compliance with this standard.	Pass muster	P
5.1.3	Conditions during the test		
	The load shall be within the manufacturer’s specification and the actual load shall be noted in the test report.Testing the torque generating behaviour as well as the information processing and sensing functions requires special test equipment with adapted immunity against the parasitic coupling of the test disturbance. It	Comply with the requirement	

	can only be used if the immunity of the test set-up can be proven by reference measurements. The evaluation of the torque disturbance can be performed by a torque transducer or by measurement or calculation of the torque generating current or other indirect techniques; an adapted and immune load shall be available at the test-site. For testing the performance of the information processing or sensing function, suitable equipment shall be available to simulate the data communication or data evaluation. This equipment shall have sufficient immunity to operate correctly during the test.		P
5.2	Basic immunity requirements – low-frequency disturbances		
5.2.1	Common principle		
	The requirements in this subclause shall be used for designing the immunity of a PDS againstlow-frequency disturbances. For the immunity requirements, the manufacturer may demonstrate compliance using either testing, calculation or simulation. Unless otherwise stated, it is sufficient to demonstrate that the power circuit will comply with the required acceptance criterion and that the ratings of input circuits (filters, etc.) will not be exceeded.	Pass muster	P
5.2.2	Harmonics and commutation notches/voltage distortion		
5.2.2.1	Low voltage PDSs – (voltage distortion)		
	The BDM, CDM or PDS shall sustain the immunity levels while meeting the performance criteria given in Tables 23, 24 and 25. It shall be verified that these levels will not cause the ratings for the input circuits (filters, etc.) to be exceeded. Analysis of commutation notches shall be in the time domain. The manufacturer may verify immunity by calculation, simulation, or test, according to 5.2.1. If the chosen verification method is by test, it shall be performed using the PDS with the motor connected. For equipment rated below 16 A per phase, the test method of IEC 61000-4-13 can be applied.	Comply with the requirement	P
5.2.2.2	PDSs of rated voltage above 1 000 V – (voltage distortion)		
5.2.2.2.1	Main power port		
	The PDS or BDM/CDM shall sustain the immunity levels given in Table 3. It shall be verified that these levels will not cause the ratings for the input circuits (filters, etc.) to be exceeded. Analysis of commutation notches shall be in the time domain. The manufacturer may verify immunity by calculation, simulation, or test, according to 5.2.1.	Pass muster	P
5.2.2.2.2	Auxiliary power port		
	The auxiliary power ports of PDSs shall sustain the immunity levels for the second environment given in Tables 23, 24 and 25 while meeting the performance criteria in those tables.	Comply with the requirement	P
5.2.3	Voltage deviations , dips and short interruptions		
5.2.3.1	Low voltage PDSs (voltage deviations)		
	The PDS or BDM/CDM shall sustain the immunity levels given in Table 5. The manufacturer may verify immunity by calculation, simulation, or test, according to 5.2.1.	Pass muster	P
5.2.3.2	PDSs of rated voltage above 1 000 V (voltage deviations)		

5.2.3.2.1	Main power port		
	Main power ports of PDSs shall sustain the immunity levels given in Table 6. The manufacturer may verify immunity by calculation, simulation, or test, according to 5.2.1.	Pass muster	P
5.2.3.2.2	Auxiliary power port		
	The auxiliary power ports of PDSs shall sustain the immunity levels given in Table 7. The manufacturer may verify immunity by calculation, simulation, or test.	Pass muster	P
5.2.4	Voltage unbalance and frequency variations		
5.2.4.1	Low voltage PDSs		
	Definition and assessment of voltage unbalance are explained in B.5.2.		P
5.2.4.2	PDSs of rated voltage above 1 000 V		
5.2.4.2.1	Main power port		
	The PDS or BDM/CDM shall sustain the immunity levels given in Table 9. The manufacturermay verify immunity by calculation, simulation, or test. During verification, the rated load condition shall be used.	Pass muster	P
5.2.4.2.2	Auxiliary power port		
	Definition and assessment of voltage unbalance are explained in B.5.2.The auxiliary power ports of PDSs shall sustain the immunity levels given in Table 10. The manufacturer may verify immunity by calculation, simulation, or test.	Pass muster	P
5.2.5	Supply influences – Magnetic fields		
	Immunity tests according to IEC 61000-4-8 are not required (see A.3.1 for explanation).		P
5.3	Basic immunity requirements – High-frequency disturbances		
5.3.1	Conditions		
	In the following Table 11 and Table 12, the minimum immunity requirements for highfrequency disturbance tests, and acceptance criteria are stated. The acceptance criteria refer to 5.1.1. Explanations are given in Clause A.3.		P
5.3.2	First environment		
	The levels in Table 11 shall be applied to PDSs which are intended to be used in the first environment. If a CDM/BDM is designed to have immunity according to Table 11, it shall include a written warning in the instructions for use which indicates that it is not intended to be used in an industrial installation.	Pass muster	P
5.3.3	Second environment		
	The levels in Table 12 shall be applied to PDSs which are intended to be used in the second environment. This also applies to the low voltage ports, or the low voltage interfaces (power, signal) of PDSs of rated voltage above 1 000 V.	Comply with the requirement	P
6	Emission		
6.1	General emission requirements		
	The measurements shall be made in the operating mode producing the largest emission in the frequency band, while being consistent with the normal application. Table 13 summarises the requirements, according to the classification of the PDS (see 3.2).		P
6.2	Basic low-frequency emission limits		
	Commutation notches are measured on the power ports		

	using an oscilloscope (see B.1.1).They are produced by controlled line-commutated converters (see 2.5.4.1 of IEC 60146-1-1).Where it is known that the input circuit of the PDS does not produce notches or only produces notches of negligible amplitude (for example diode rectifiers), emission of notches need not be considered.		P

APPENDIX A— TEST PHOTOGRAPH

EC Declaration of conformity

Council Directive 2014/30/EU on Electromagnetic Compatibility

NIETZ ELECTRIC CO., LTD.

Room 1208, No. 9 Building, No. 99 TianZhou Road,

Xuhui district, Shanghai, China

Certify that the product described is in conformity with the Directive 2014/30/EU as amended

Product Name:

Frequency Inverter

Item No:

See Annex

The product has been assessed by the application of the following standards:

EN IEC 61800-3:2018

Issue place and date

Company stamp and Signature of authorized personnel

Annex

Model:

NL1000, NL1000 PLUS, NL2000, NZ2000, NZE, NZS, NZ8000, NZ3000, AT10, AT20, AMD, ASW, NZC, NZ21;
NL1000 (models are : NL1000-00R4G2, NL1000-00R7G2, NL1000-01R5G2, NL1000-02R2G2, NL1000-03R7G2, NL1000-00R7G4, NL1000-01R5G4, NL1000-02R2G4, NL1000-03R7G4, NL1000-05R5G4, NL1000-07R5G4, NL1000-011G4, NL1000-015G4, NL1000-018.5G4, NL1000-022G4, NL1000-030G4, NL1000-037G4, NL1000-045G4, NL1000-055G4, NL1000-075G4, NL1000-090G4, NL1000-110G4, NL1000-132G4, NL1000-160G4, NL1000-185G4, NL1000-200G4, NL1000-220G4, NL1000-Keypad) ; NL1000 PLUS (models are : NL1000-00R4G2-PLUS, NL1000-00R7G2-PLUS, NL1000-01R5G2-PLUS, NL1000-02R2G2-PLUS, NL1000-03R7G2-PLUS, NL1000-00R7G4-PLUS, NL1000-01R5G4-PLUS, NL1000-02R2G4-PLUS, NL1000-03G4-PLUS, NL1000-03R7G4-PLUS, NL1000-05R5G4-PLUS, NL1000-07R5G4-PLUS, NL1000-011G4-PLUS, NL1000-015G4-PLUS, NL1000-018.5G4-PLUS, NL1000-022G4-PLUS, NL1000-030G4-PLUS, NL1000-037G4-PLUS, NL1000-045G4-PLUS, NL1000-055G4-PLUS, NL1000-075G4-PLUS, NL1000-090G4-PLUS, NL1000-110G4-PLUS, NL1000-132G4-PLUS, NL1000-160G4-PLUS, NL1000-185G4-PLUS, NL1000-200G4-PLUS, NL1000-220G4-PLUS, NL1000-PLUS-Keypad) ; NL2000 (models are :NL2000-00R4G2, NL2000-00R7G2, NL2000-01R5G2, NL2000-02R2G2, NL2000-00R7G4, NL2000-01R5G4, NL2000-02R2G4, NL2000-03R7G4, NL2000-05R5G4, NL2000-07R5G4, NL2000-011G4, NL2000-015G4, NL2000-018.5G4, NL2000-022G4, NL2000-030G4, NL2000-037G4, NL2000-045G4, NL2000-055G4, NL2000-075G4, NL2000-090G4, NL2000-110G4, NL2000-132G4, NL2000-160G4, NL2000-185G4, NL2000-200G4, NL2000-220G4, NL2000-Keypad) ; NZ2000 (models are : NZ2200-0R25G, NZ2200-00R4G , NZ2200-0R55G , NZ2200-0R75G , NZ2200-01R1G , NZ2200-01R5G , NZ2200-02R2G , NZ2200-03R7G , NZ2400-00R4G , NZ2400-0R75G , NZ2400-01R1G , NZ2400-01R5G , NZ2400-02R2G , NZ2400-03R7G/5R5P , NZ2400-05R5G , NZ2400-7R5P , NZ2400-07R5G/11P , NZ2400-11G/15P , NZ2400-15G/18.5P , NZ2400-18.5G/22P , NZ2400-22G/30P , NZ2400-30G/37P , NZ2400-37G/45P , NZ2400-45G/55P , NZ2400-55G , NZ2400-75P , NZ2400-75G/90P , NZ2400-90G/110P , NZ2400-110G/132P , NZ2400-132G/160P , NZ2400-160G/185P , NZ2400-185G/200P , NZ2400-200G/220P , NZ2400-220G/250P , NZ2400-250G/280P , NZ2400-280G/315P , NZ2400-315G/350P , NZ2400-350G/400P , NZ2400-400G/450P , NZ2400-450G/500P , NZ2000-Keypad) ; NZE (models are : NZE0002T2B , NZE0004T2B , NZE0005T2B , NZE0007T2B , NZE0011T2B , NZE0015T2B , NZE0022T2B , NZE0037T2B , NZE0004T4B , NZE0007T4B , NZE0011T4B , NZE0015T4B , NZE0022T4B , NZE0037T4B , NZE0055T4B , NZE0075T4B , NZE0110T4B , NZE0150T4B , NZE0185T4B , NZE0220T4B , NZE0300T4B , NZE0370T4B , NZE0450T4B , NZE0550T4B , NZE0750T4B , NZE0900T4B , NZE110T4B , NZE132T4B , NZE160T4B , NZE185T4B , NZE200T4B , NZE220T4B , NZE250T4B , NZE280T4B, NZE315T4B, NZE350T4B, NZE400T4B, NZE450T4B, NZE-Keypad) ; NZS (models are : NZS0007T2B , NZS0015T2B , NZS0022T2B , NZS0007T4B , NZS0015T4B , NZS0022T4B , NZS0037T4B , NZS0055T4B , NZS0075T4B , NZS0110T4B , NZS0150T4B , NZS0185T4B , NZS0220T4B , NZS0300T4B , NZS0370T4B, NZS0450T4B, NZS0007T2B-V , NZS0015T2B-V , NZS0022T2B-V , NZS0007T4B-V , NZS0015T4B-V , NZS0022T4B-V , NZS0037T4B-V , NZS0055T4B-V , NZS0075T4B-V , NZS0110T4B-V , NZS0150T4B-V , NZS0185T4B-V , NZS0220T4B-V , NZS0300T4B-V , NZS0370T4B-V, Adapter, NZS-Keypad) ; NZ8000 (models are NZ8200-0R75G , NZ8200-1R5G , NZ8200-2R2G , NZ8200-3R7G/5R5P , NZ8400-0R75G , NZ8400-1R5G , NZ8400-2R2G , NZ8400-3R7G/5R5P , NZ8400-5R5G/7R5P , NZ8400-7R5G/11P , NZ8400-11G/15P , NZ8400-15G/18.5P , NZ8400-18.5G/22P , NZ8400-22G/30P , NZ8400-30G/37P , NZ8400-37G/45P , NZ8400-45G/55P , NZ8400-55G , NZ8400-75G/90P , NZ8400-90G/110P , NZ8400-110G/132P , NZ8400-132G/160P , NZ8400-160G/185P , NZ8400-185G/200P , NZ8400-200G/220P ,NZ8400-220G/250P ,NZ8400-

250G/280P ,NZ8400-280G/315P , NZ8400-315G/350P , NZ8400-350G/400P , NZ8400-400G/450P , NZ8400-450G/500P, NZ8400-500G/560P , NZ8400-560G/630P, NZ8400-630G/710P ,NZ8000-Keypad, PG card) ; NZ3000 (models are: NZ3000-075KY , NZ3000-11KY , NZ3000-15KY , NZ3000-18.5KY , NZ3000-22KY , NZ3000-30KY , NZ3000-37KY , NZ3000-45KY , NZ3000-55KY , NZ3000-75KY , NZ3000-90KY , NZ3000-110KY , NZ3000-132KY , NZ3000-160KY , NZ3000-11GY , NZ3000-15GY , NZ3000-18.5GY, NZ3000-22GY , NZ3000-30GY ,NZ3000-37GY , NZ3000-45GY , NZ3000-55GY , NZ3000-75GY , NZ3000-90GY , NZ3000-110GY , NZ3000-132GY , NZ3000-160GY, NZ3000-Keypad) ; AT10 (models are: AT10-07R5G4, AT10-011G4, AT10-015G4, AT10-018.5G4, AT10-022G4, AT10-030G4, AT10-037G4, AT10-045G4, AT10-055G4, AT10-075G4, AT10-090G4, AT10-110G4, AT10-132G4, AT10-160G4, AT10-185G4, AT10-200G4, AT10-220G4, AT10-250G4, AT10-280G4, AT10-315G4, AT10-Keypad); AT20 (models are: AT20-00R4G2 (V/F), AT20-00R7G2 (V/F), AT20-01R5G2 (V/F), AT20-02R2G2 (V/F), AT20-00R7G4 (V/F), AT20-01R5G4 (V/F), AT20-02R2G4 (V/F), AT20-00R4G2, AT20-00R7G2, AT20-01R5G2, AT20-02R2G2, AT20-03R7G2, AT20-00R7G4, AT20-01R5G4, AT20-02R2G4, AT20-03R7G4, AT20-05R5G4, AT20-07R5P4, AT20-07R5G4, AT20-011G4, AT20-015G4, AT20-018.5G4, AT20-022G4, AT20-030G4, AT20-037G4, AT20-045G4, AT20-055G4, AT20-075P4, AT20-075G4, AT20-090G4, AT20-110G4, AT20-132G4, AT20-160G4, AT20-185G4, AT20-200G4, AT20-220G4, AT20-250G4, PG card, AT20-Keypad) ; AMD (models are: AMD43D-00R4G, AMD43D-00R7G, AMD43D-01R5G, AMD43D-02R2G, AMD43D-03R7G, AMD43D-05R5G, AMD43D-07R5G, AMD43D-011G, AMD43D-015G, AMD43D-018.5G, AMD43D-022G, AMD43D-030G, AMD43D-037G, AMD43D-045G, AMD43D-055G, AMD43D-075G, AMD43D-090G, AMD43D-110G, PG card, AMD43D-Keypad);

ASW (models are: ASW-0R55G2, ASW-00R7G2, ASW-01R1G2, ASW-01R5G2, ASW-02R2G2, ASW-03R7G2, ASW-00R7G4, ASW-01R5G4, ASW-02R2G4, ASW-03R7G4, ASW-05R5G4, ASW-Keypad);

NZC (models are : NZC0055T4B , NZC0075T4B ,NZC0110T4B , NZC0150T4B , NZC0185T4B , NZC0220T4B , NZC0300T4B , NZC0370T4B , NZC0450T4B , NZC0550T4B ,NZC0750T4B , NZC0900T4B , NZC110T4B , NZC132T4B , NZC160T4B , NZC185T4B ,NZC200T4B , NZC220T4B , NZC250T4B , NZC280T4B , NZC315T4B , NZC350T4B, NZC--Keypad) ;

NZ21: (NZ21-0R75G2 , NZ21-01R5G2 , NZ21-02R2G2 , NZ21-0R75G4 , NZ21- 01R5G4 , NZ21-02R2G4 , NZ21-03R7G4, NZ21-Keypad)

Notice

1. This test report shall be invalidation without the cachet of the testing laboratory.
2. This copied report shall be invalidation without sealed the cachet of the testing laboratory.
3. This report shall be invalidation without tester signature.
4. This altered report shall be invalidation.
5. Client shall put forward demurrer within 15 days after received report. The testing laboratory shall refuse disposal if exceeded the time limit.
6. The test results presented in this report relate only to the object tested.
7. This report is only applicable to CE certificate application.