


IP CODE Report EN 60529 Degrees of protection provided by enclosures	
Report Reference No.....:	20ITC0917138-11
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Applicant	SHENZHEN ITOONER TECHNOLOGY CO., LTD
Address	Building 2&Building 3(The 3rd and 4th Floor) GangZai Road,Shangxing Community,Xinqiao Street,Baoan District, Shenzhen, Guangdong, China
Standard	EN 60529:1991+A1:2000+A2:2013
Test procedure:	IP65
Procedure deviation	N.A.
Non-standard test method	N.A.
Type of test object	AI Waterproof PoE Switch
Trademark	N/A
Manufacturer	SHENZHEN ITOONER TECHNOLOGY CO., LTD
Address	Building 2&Building 3(The 3rd and 4th Floor) GangZai Road,Shangxing Community,Xinqiao Street,Baoan District, Shenzhen, Guangdong, China
Model/type reference	GNT-P4804F6,GNT-P9808F6, GNT-P9828F6,GNT-P4803F6,GNT-P4815F6 GNT-P4816F6,GNT-P1008F6
IP CODE:	IP65
Test Result	P(Pass)



Possible test case verdicts :
test case does not apply to the test object: N(.A.)
test object does meet the requirement: P(ass)
test object does not meet the requirement: F(ail)

General remarks:	
"(see remark #)" refers to a remark appended to the report.	Attached with: Photo
"(see appended table)" refers to a table appended to the report.	
Throughout this report a comma is used as the decimal separator.	
The test results presented in this report relate only to the object tested.	
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EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict
5	Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral		P
5.1	Protection against access to hazardous parts		P
	First characteristic numeral is 6 Protected against access to hazardous parts with a wire. The access probe of 1,0 mm shall not penetrate		P
5.2	Protection against access solid foreign objects		P
	First characteristic numeral is 6 Dust-tight No ingress of dust		P
6	Degrees of protection against ingress of water indicated by the second characteristic numeral		P
	Second characteristic numeral is 5 Protected against water jets Water projected in jets against the enclosure from any direction shall have no harmful effects	Water projected in jets against the enclosure from any direction shall have no harmful effects	P
10	Marking		P
	The requirements for marking shall be specified in the relevant product standard. Where appropriate, such a standard should also specify the method of marking which is to be used when - one part of an enclosure has a different degree of protection to that of another part of the same enclosure; - the mounting position has an influence on the degree of protection; -the maximum immersion depth and time are indicated.		P
11	General requirements for tests		P
11.1	Atmospheric conditions for water or dust Tests: Temperature range: Relative humidity: 25% to 75% Air pressure: 15 °C to 35 °C 86 kPa to 106 kPa (860 mbar to 1 060 mbar).		P
11.2	Test samples The tests specified in this standard are type tests.		P
12	Tests for protection against access to hazardous parts indicated by the first characteristic numeral		P
12.1	Access probes The test wire of 1,0 mm shall not penetrate and adequate clearance shall be kept		P
12.2	Test conditions		P

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Clause	Requirement - Test	Result - Remark	Verdict
	<p>For tests on low-voltage equipment, a low-voltage supply (of not less than 40 V and not more than 50 V) in series with a suitable lamp should be connected between the probe and the hazardous parts inside the enclosure. Hazardous live parts covered only with varnish or paint, or protected by oxidation or by a similar process, are covered by a metal foil electrically connected to those parts which are normally live in operation.</p> <p>The signal-circuit method should also be applied to the hazardous moving parts of high-voltage equipment. Internal moving parts may be operated slowly, where this is possible.</p>		
12.3	Acceptance conditions: The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts.		P

13	Tests for protection against solid foreign objects indicated by the first characteristic numeral		P
13.1& 13.2	Test means & Test conditions Test means and the main test conditions are given in Table VII		P
13.3	Acceptance conditions for first characteristic numerals 1,2,3,4 The protection is satisfactory if the full diameter of the probe specified in Table VII does not pass through any opening.		N
13.4	Dust test for first characteristic numerals 5 and 6 The test is made using a dust chamber incorporating the basic principles shown in figure 2 whereby the powder circulation pump may be replaced by other means suitable to maintain the talcum powder in suspension in a closed test chamber. The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50µm and the nominal width of a gap between wires 75µm. The amount of talcum powder to be used is 12kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.		P

14	Tests for protection against water indicated by the second characteristic numeral		P
14.1	Test means & Test conditions Test means and the main test conditions are given in Table VIII		P
14.2	Test conditions		P
14.2.5	Test for second characteristic numeral 5 with the 6.3mm nozzle The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as shown in figure 6. The conditions to be observed are as follows:		P

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Clause	Requirement - Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> - internal diameter of the nozzle: 6.3mm - delivery rate: 12.5l/min ±5% - water pressure: to be adjusted to achieve the specified delivery rate - core of the substantial stream: circle of approximately 40 mm diameter at 2.5mm distance from nozzle - test duration per square meter of enclosure surface area likely to be sprayed: 1 min - minimum test duration: 3 min - distance from nozzle to enclosure surface: between 2.5m and 3m 		
14.3	<p>Acceptance conditions</p> <p>After testing in accordance with the appropriate requirements of 14.2.5 the enclosure shall be inspected for ingress of water.</p> <p>It is the responsibility of the relevant Technical Committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any.</p> <p>In general, if any water has entered, it shall not:</p> <ul style="list-style-type: none"> -be sufficient to interfere with the correct operation of the equipment or impair safety; - deposit on insulation parts where it could lead to tracking along the creepage distances; - reach live parts or windings not designed to operate when wet; - accumulate near the cable end or enter the cable if any. <p>If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment.</p> <p>For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.</p>		P

TEST PHOTO



Photo.1



***** END OF REPORT *****