



TEST REPORT

Test Report # 19A-001558-3-S2 Date of Report Issue: April 26, 2019
 Date of Sample Received: April 18, 2019 Pages: Page 1 of 9

TEST REPORT IEC 60529 Degrees of protection provided by enclosure(IP code)	
Report Reference No.....:	19A-001558-3-S2
Technical Manager (+ signature)..:	<i>Kevin Lee</i>
Date of issue.....:	2019.04.25
Testing Laboratory.....:	HANGZHOU ASIAINSPECTION TESTING TECHNOLOGY CO., LTD
Address.....:	5/F A2 Building No. 1213 Huoju South Road Puyan Street Binjiang District Hangzhou China
Applicant's name.....:	Mid Ocean Brands B.V.
Address.....:	7/F,Kings Tower,111 King Lam Street,Cheung Sha Wan,Kowloon,Hong Kong
Test specification:	
Standard.....:	IEC 60529 :1989+A1 :1999+A2 :2013
Test procedure.....:	IPX6
Non-standard test method.....:	N/A
Test Report Form No.....:	RC-PSNB-R913/02
TTRF Originator.....:	AI
Master TRF.....:	2014-1
Test item description.....:	Waterproof bag
Trade Mark.....:	N/A
+Manufacturer.....:	100396
Address.....:	--
Model/Type reference.....:	MO8787
Ratings.....:	--
Tested result(s)	PASS
Test item particulars:	
Method of supply cord attachment.....:	N/A
Duty conditions.....:	IPX6
Degree of protection.....:	N/A



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The test result(s) and conclusion(s) in this report relate to the sample(s) tested as described herein.
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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: 2019.4.18
 Date(s) of performance of test: 2019.4.19-2019.4.23

General remarks:

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 testing laboratory.
 "(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 is used as the decimal separator.
 Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods.
 The test report is only used for scientific research, teaching or internal quality control.
 †Revised information and supersedes the previous report no. 19A-001558-3-S1 date: 2019.04.25

General product information:

The product covered in this report is Waterproof bag.

Summary of testing:

After tested, several drop of water entered in the sample. According to requirements of applicant, the test result is pass.





IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict
11	General requirements for tests		
11.1	Atmospheric conditions for water or dust tests:		P
	Temperature range: 15°C to 35°C	20°C	P
	Relative humidity: 25% to 75%	R.H. 60%	P
	Air pressure: 86 kPa to 106 kPa (860 mbar to 1 060 mbar).	101kPa	P
11.2	Test samples		P
	The tests specified in this standard are type tests.		P
	Unless otherwise specified in a relevant product standard, the test samples for each test shall be in a clean and new condition, with all parts in place and mounted in the manner stated by the manufacturer.		P
	The relevant product standard shall specify details such as:		N/A
	—the number of samples to be tested;		N/A
	—conditions for mounting, assembling and positioning of the samples, for example by the use of an artificial surface (ceiling, floor or wall);		N/A
	— the pre-conditioning, if any, which is to be used;		N/A
	—whether to be tested energized or not;		N/A
	—whether to be tested with its parts in motion or Not.		N/A
11.3	Application of test requirements and interpretation of test results		P
	The application of the general requirements for tests and the acceptance conditions for equipment containing drain-holes or ventilation openings is the responsibility of the relevant Technical Committee.		N/A
	In the absence of such specification the requirement of this standard shall apply.		N/A
	The interpretation of test results is the responsibility of the relevant Technical Committee.		N/A
	In the absence of a specification the acceptance conditions of this standard shall at least apply.		P
11.4	Combination of test conditions for the first characteristic numeral		N/A
	Designation with a first characteristic numeral implies that all test conditions are met for this Numeral.		N/A





IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict
11.5	Empty enclosures		N/A
	If the enclosure is tested without equipment inside, detailed requirements shall be indicated by the enclosure manufacturer in his instructions for the arrangement and spacing of hazardous parts or parts which might be affected by the penetration of Foreign objects or water.		N/A
	The manufacturer of the final assembly shall ensure that after the electrical equipment is enclosed the enclosure meets the declared degree of protection of the final product.		N/A

14	Tests for protection against water indicated by the second characteristic numeral		
14.1	Test means		P
	The test means and the main test conditions are given in Table 8.		P
14.2	Test conditions		P
	During the tests for IPX1 to IPX6 the water temperature should not differ by more than 5 K from the temperature of the specimen under test.		P
	For IPX7 and IPX9 details of the water temperature are given in 14.2.7 and 14.2.9 respectively.		N/A
14.2.1	Test for second characteristic numeral 1 with the drip box		N/A
	The test is made with a device which produces a uniform flow of water drops over the whole area of the enclosure.		N/A
	The turntable on which the enclosure is placed has a rotation speed of 1 r/min and the eccentricity is approximately 100mm.		N/A
	The enclosure under test is placed in its normal operating position under the drip box, the base of which is larger than that of the enclosure. Except for enclosures designed for wall or ceiling mounting, the support for the enclosure under test should be smaller than the base of the enclosure.		N/A
	An enclosure normally fixed to a wall or ceiling is fixed in its normal position of use to a wooden board having dimensions which are equal to those of that surface of the enclosure which is in		N/A





IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict
	contact with the wall or ceiling when the enclosure is mounted as in normal use.		
	The duration of test is 10 min.		N/A
14.2.2	Test for second characteristic numeral 2 with the drip box		N/A
	The dripping device is the same as specified in 14.2.1 adjusted to provide the water flow rate specified in Table 8.		N/A
	The table on which the enclosure is placed does not turn as in the case of the test for the second characteristic numeral 1.		N/A
	The enclosure is tested for 2,5 min in each of four fixed positions of tilt. These positions are 150 on either side of the vertical in two mutually perpendicular planes.		N/A
	The total duration of the test is 10 min		N/A
14.2.3	Test for second characteristic numeral 3 With oscillating tube or spray nozzle		N/A
	a) Conditions when using the test device as in Figure 4 (oscillating tube):		N/A
	The total flow rate is adjusted as specified in Table 9 and is measured with a flow meter.		N/A
	The oscillating tube is provided with spray holes over an arc of 60° either side of the centre point. The support is not perforated.		N/A
	The enclosure to be tested is placed at the centre point of the semicircle. The tube is caused to oscillate through an angle of 120°, 60° on either side of the vertical, the time for one complete oscillation (2 x 120°) being about 4 s and the test duration being 5 min. The enclosure is then turned through an horizontal angle of 90° and the test is continued for a further 5 min.		N/A
	b) Conditions when using the test device as in Figure 5 (spray nozzle):		N/A
	The counterbalanced shield is in place for this test		N/A
	The water pressure is adjusted to give the specified delivery rate. The pressure to achieve this delivery rate will be in the range of 50 kPa to 150 kPa. It should be kept constant during the		N/A





IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict
	test		
	The test duration is 1 min/m ² of the calculated surface area of the enclosure (excluding any mounting surface), with a minimum duration of 5min.		N/A
14.2.4	Test for second characteristic numeral 4 with oscillating tube or spray nozzle		N/A
	a)The oscillating tube has spray holes over the whole 180°of the semicircle. The total flow rate is adjusted as specified in Table IX and measured with a flow meter.		N/A
	The tube is caused to oscillate through an angle of almost 360°, 180°on either side of the vertical, the time for one complete oscillation (2 x 360°) being about 12 s.		N/A
	The duration of the test is 10 min.		N/A
	b)The counterbalanced shield is removed from the spray nozzle and the enclosure is sprayed from all practicable directions.		N/A
	The rate of water flow and the spraying time per unit area are as specified in 14.2.3.		N/A
14.2.5	Test for second characteristic numeral 5 with the 6,3 mm nozzle		N/A
	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.		N/A
	The condition to be observed are as follows:		N/A
	— internal diameter of the nozzle:6,3 mm;		N/A
	— delivery rate: 12,5L/min ± 5%;		N/A
	— water pressure: to be adjusted to achieve the specified delivery rate;		N/A
	— core of the substantial stream: circle of approximately 40mm diameter at 2,5m distance from nozzle;		N/A
	— test duration per square metre of enclosure surface area likely to be sprayed: 1 min;		N/A
	— minimum test duration:3min;		N/A
	— distance from nozzle to enclosure surface:between 2,5m and 3m		N/A
14.2.6	Test for second characteristic numeral 6	IPX6	P





IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict
	with the 12,5 mm 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.		P
	The conditions to be observed are as follows:		--
	— internal diameter of the nozzle: 12,5mm;		P
	— delivery rate:100L/min ± 5%;		P
	— water pressure:to be adjusted to achieve the specified delivery rate;		P
	— core of the substantial stream: circle of approximately 120mm diameter at 2,5 m distance from nozzle;		P
	— test duration per square metre of enclosure surface area likely to be sprayed: 1 min;		P
	— minimum test duration: 3 min;		P
	— distance from nozzle to enclosure surface: between 2,5 m and 3 m.		P
14.2.7	Test for second characteristic numeral 7: temporary immersion between 0,15 m and 1 m		N/A
	The test is made by completely immersing the enclosure in water in its service position as specified by the manufacturer so that the following conditions are satisfied:		N/A
	a)the lowest point ofenclosures with a height less than 850 mm is located 1 000 mm below the Surface of the water;		N/A
	b) the highest point of enclosures with a height equal to or greater than 850 mm is located 150 mm below the surface of the water;		N/A
	c) the duration of the test is 30 min;		N/A
	d) the water temperature does not differ from that of the equipment by more than 5 K.		N/A
14.2.8	Test for second characteristic numeral 8: continuous immerswn subject to agreement		N/A
	Unless there is a relevant product standard, the test conditions are subject to agreement between Manufacturer and user,but they shall be more severe than those prescribed in 14.2.7 and they shall take account of the condition that the enclosure will be continuously immersed in actual		N/A





IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict
	use.		
14.2.9	Test for second characteristic numeral 9 by high pressure and temperature water jetting (IEC 60529/A2)		N/A
	The test is made by spraying the enclosure with a stream of water from a standard test nozzle as shown in Figures 7, 8 and 9. (IEC 60529/A2)		N/A
	The set-up for measuring the impact force of the water jet is given in Figure 10. (IEC 60529/A2)		N/A
14.3	Acceptance conditions		P
	After testing in accordance with the appropriate requirements of 14.2.1 to 14.2.9 the enclosure shall be inspected for ingress of water.	Several drop of water entered in the sample	P
	It is 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.		N/A
	In general,if any water has entered,it shall not:		N/A
	—be sufficient to interfere with the correct operation of the equipment or impair safety;		N/A
	—deposit on insulation parts where it could lead to tracking along the creepage distance;		N/A
	—reach live parts or windings not designed to operate when wet;		N/A
	— accumulate near the cable end or enter the cable if any.		N/A
	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.		N/A
	For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.		N/A





SAMPLE PHOTO:



-End Report-

