



LED TECHNOLOGIES PTY LTD

12 Brand Drive, Thomastown, VIC, AUSTRALIA 3074

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Reliability Test Report

Model Name: BC series

Date Received: 01 , Feb , 2012

Date Tested: 01 , Feb , 2012

Basis for standard: IEC 60529

Laboratory personnel:

Laboratory personnel:

The test(s) shown in the attachment were conducted according to the indicating procedures. we assume full responsibility the accuracy and completeness of these test and vouch for the qualifications of all personnel performing them.

Note:

1. This report will be invalid if reproduced whole or in part.
2. This report refers only to the specimen(s) submitted, and is invalid if used separately.
3. This report is only valid with the examination seal and signature of this institutes.
4. The tested submitted(s) will only be preserved for thirty days from the fate issued, if the applicant.

Item of determined result:

IP Code Level Test: IP 67

Report number: RE010201-01SR

Manager: Randy.Hung

Tester : CM.Chen



LED TECHNOLOGIES PTY LTD

IP Code Level Test

Model Name	BCC1	Test Date	01 , Feb , 2012
Test place	Min Hsiang Corporation of Reliability Lab.	Environment Temperatation	25°C±5°C;RH60%±5%
Name of test equipment	Bucket	Model of test equipment	-
Basis for standard	IEC-60925	Quantity	1 Pcs

Test Condition	<p>IP5X or IP6X 1.Dust test for first characteristic numerals 5 and 6 The test is made using a dust chamber incorporating the basic principles 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 50 μm and the nominal width of a gap between wires 75 μm. The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.</p> <p>2.Category I enclosures: The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole shall be in the vicinity of the vulnerable parts. If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole. If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site. The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer. If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h. If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed. The enclosure shall be deemed category I, whether reductions in pressure below the atmospheric are or not</p> <p>IPX7 1.the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water; 2.the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water; 3.the duration of the test is 60min 4.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p> <p>IPX8 1.immersion beyond 1 m 2.the duration of the test is 60min 3.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p>
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Determined Standard

level	Object size protected against	Effective against	determine	level	Protected against	Details	determine
0	-		-	0	not protected		-
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part	-	1	dripping water	Dripping water (vertically falling drops) shall have no harmful effect.	-
2	>12.5 mm	Fingers or similar objects	-	2	dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.	-
3	>2.5 mm	Tools, thick wires, etc.	-	3	spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	-
4	>1 mm	Most wires, screws, etc.	-	4	splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.	-
5	dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact	-	5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.	-
6	dust tight	No ingress of dust; complete protection against contact	●	6	powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.	-
				7	immersion up to 1 m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	●
				8	immersion beyond 1 m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. NOTE: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.	-

Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> NG <input type="checkbox"/> Self-determination
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IP Code Level Test

Model Name	BC1000	Test Date	01 , Feb , 2012
Test place	Min Hsiang Corporation of Reliability Lab.	Environment Temperatation	25°C±5°C;RH60%±5%
Name of test equipment	Bucket	Model of test equipment	-
Basis for standard	IEC-60925	Quantity	1 Pcs

Test Condition	<p>IP5X or IP6X</p> <p>1.Dust test for first characteristic numerals 5 and 6</p> <p>The test is made using a dust chamber incorporating the basic principles 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 50 μm and the nominal width of a gap between wires 75 μm. The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.</p> <p>2.Category I enclosures:</p> <p>The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard,this hole shall be in the vicinity of the vulnerable parts.</p> <p>If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole, If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site.</p> <p>The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer.</p> <p>If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h.</p> <p>If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed. The enclosure shall be deemed category I,whether reductions in pressure below the atmospheric are or not</p>
	<p>IPX7</p> <p>1.the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water;</p> <p>2.the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water;</p> <p>3.the duration of the test is 60min</p> <p>4.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p> <p>IPX8</p> <p>1.immersion beyond 1 m</p> <p>2.the duration of the test is 60min</p> <p>3.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p>

Determined Standard

level	Object size protected against	Effective against	determine	level	Protected against	Details	determine
0	-		-	0	not protected		-
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part	-	1	dripping water	Dripping water (vertically falling drops) shall have no harmful effect.	-
2	>12.5 mm	Fingers or similar objects	-	2	dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.	-
3	>2.5 mm	Tools, thick wires, etc.	-	3	spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	-
4	>1 mm	Most wires, screws, etc.	-	4	splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.	-
5	dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact	-	5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.	-
6	dust tight	No ingress of dust; complete protection against contact	●	6	powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.	-
/				7	immersion up to 1 m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	●
				8	immersion beyond 1 m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. NOTE: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.	-

Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> NG <input type="checkbox"/> Self-determination
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IP Code Level Test

Model Name	BC1200	Test Date	01 , Feb , 2012
Test place	Min Hsiang Corporation of Reliability Lab.	Environment Temperatation	25°C±5°C;RH60%±5%
Name of test equipment	Bucket	Model of test equipment	-
Basis for standard	IEC-60925	Quantity	1 Pcs

Test Condition	<p>IP5X or IP6X</p> <p>1.Dust test for first characteristic numerals 5 and 6</p> <p>The test is made using a dust chamber incorporating the basic principles 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 50 μm and the nominal width of a gap between wires 75 μm. The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.</p> <p>2.Category I enclosures:</p> <p>The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole shall be in the vicinity of the vulnerable parts.</p> <p>If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole. If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site.</p> <p>The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer.</p> <p>If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h.</p> <p>If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed. The enclosure shall be deemed category I, whether reductions in pressure below the atmospheric are or not</p>
	<p>IPX7</p> <p>1.the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water;</p> <p>2.the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water;</p> <p>3.the duration of the test is 60min</p> <p>4.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p> <p>IPX8</p> <p>1.immersion beyond 1 m</p> <p>2.the duration of the test is 60min</p> <p>3.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p>

Determined Standard

level	Object size protected against	Effective against	determine	level	Protected against	Details	determine
0	-		-	0	not protected		-
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part	-	1	dripping water	Dripping water (vertically falling drops) shall have no harmful effect.	-
2	>12.5 mm	Fingers or similar objects	-	2	dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.	-
3	>2.5 mm	Tools, thick wires, etc.	-	3	spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	-
4	>1 mm	Most wires, screws, etc.	-	4	splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.	-
5	dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact	-	5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.	-
6	dust tight	No ingress of dust; complete protection against contact	●	6	powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.	-
/				7	immersion up to 1 m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	●
				8	immersion beyond 1 m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. NOTE: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.	-

Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> NG <input type="checkbox"/> Self-determination
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IP Code Level Test

Model Name	BC400	Test Date	01 , Feb , 2012
Test place	Min Hsiang Corporation of Reliability Lab.	Environment Temperatation	25°C±5°C;RH60%±5%
Name of test equipment	Bucket	Model of test equipment	-
Basis for standard	IEC-60925	Quantity	1 Pcs

Test Condition	<p>IP5X or IP6X 1.Dust test for first characteristic numerals 5 and 6 The test is made using a dust chamber incorporating the basic principles 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 50 μm and the nominal width of a gap between wires 75 μm. The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.</p> <p>2.Category I enclosures: The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole shall be in the vicinity of the vulnerable parts. If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole. If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site. The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer. If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h. If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed. The enclosure shall be deemed category I, whether reductions in pressure below the atmospheric are or not</p> <p>IPX7 1.the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water; 2.the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water; 3.the duration of the test is 60min 4.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p> <p>IPX8 1.immersion beyond 1 m 2.the duration of the test is 60min 3.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p>
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Determined Standard

level	Object size protected against	Effective against	determine	level	Protected against	Details	determine
0	-		-	0	not protected		-
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part	-	1	dripping water	Dripping water (vertically falling drops) shall have no harmful effect.	-
2	>12.5 mm	Fingers or similar objects	-	2	dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.	-
3	>2.5 mm	Tools, thick wires, etc.	-	3	spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	-
4	>1 mm	Most wires, screws, etc.	-	4	splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.	-
5	dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact	-	5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.	-
6	dust tight	No ingress of dust; complete protection against contact	●	6	powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.	-
				7	immersion up to 1 m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	●
				8	immersion beyond 1 m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. NOTE: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.	-

Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> NG <input type="checkbox"/> Self-determination
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LED TECHNOLOGIES PTY LTD

IP Code Level Test

Model Name	BC600	Test Date	01 , Feb , 2012
Test place	Min Hsiang Corporation of Reliability Lab.	Environment Temperation	25°C±5°C;RH60%±5%
Name of test equipment	Bucket	Model of test equipment	-
Basis for standard	IEC-60925	Quantity	1 Pcs

Test Condition	<p>IP5X or IP6X</p> <p>1.Dust test for first characteristic numerals 5 and 6</p> <p>The test is made using a dust chamber incorporating the basic principles 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 50 μm and the nominal width of a gap between wires 75 μm. The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.</p> <p>2.Category I enclosures:</p> <p>The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole shall be in the vicinity of the vulnerable parts.</p> <p>If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole. If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site.</p> <p>The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer.</p> <p>If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h.</p> <p>If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed. The enclosure shall be deemed category I, whether reductions in pressure below the atmospheric are or not</p>
	<p>IPX7</p> <p>1.the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water;</p> <p>2.the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water;</p> <p>3.the duration of the test is 60min</p> <p>4.the water temperature does not differ from that of the equipment by more than 5K. However, a modified requirement is energized and/or its parts in motion</p> <p>IPX8</p> <p>1.immersion beyond 1 m</p> <p>2.the duration of the test is 60min</p> <p>3.the water temperature does not differ from that of the equipment by more than 5K. However, a modified requirement is energized and/or its parts in motion</p>

Determined Standard

level	Object size protected against	Effective against	determine	level	Protected against	Details	determine
0	-		-	0	not protected		-
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part	-	1	dripping water	Dripping water (vertically falling drops) shall have no harmful effect.	-
2	>12.5 mm	Fingers or similar objects	-	2	dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.	-
3	>2.5 mm	Tools, thick wires, etc.	-	3	spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	-
4	>1 mm	Most wires, screws, etc.	-	4	splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.	-
5	dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact	-	5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.	-
6	dust tight	No ingress of dust; complete protection against contact	●	6	powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.	-
/				7	immersion up to 1 m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	●
				8	immersion beyond 1 m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. NOTE: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.	-

Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> NG <input type="checkbox"/> Self-determination
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IP Code Level Test

Model Name	BC800	Test Date	01 , Feb , 2012
Test place	Min Hsiang Corporation of Reliability Lab.	Environment Temperatation	25°C±5°C;RH60%±5%
Name of test equipment	Bucket	Model of test equipment	-
Basis for standard	IEC-60925	Quantity	1 Pcs

Test Condition	<p>IP5X or IP6X 1.Dust test for first characteristic numerals 5 and 6 The test is made using a dust chamber incorporating the basic principles 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 50 μm and the nominal width of a gap between wires 75 μm. The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. It shall not have been used for more than 20 tests.</p> <p>2.Category I enclosures: The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole shall be in the vicinity of the vulnerable parts. If it is impracticable to make a special hole, the suction connection shall be made to the cable inlet hole. If there are other holes (for example, more cable inlet holes or drain-holes) these shall be treated as intended for normal use on site. The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer. If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h. If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed. The enclosure shall be deemed category I, whether reductions in pressure below the atmospheric are or not</p> <hr/> <p>IPX7 1.the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water; 2.the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water; 3.the duration of the test is 60min 4.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p> <p>IPX8 1.immersion beyond 1 m 2.the duration of the test is 60min 3.the water temperature does not differ from that of the equipment by more than 5K. However,a modified requirement is energized and/or its parts in motion</p>
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Determined Standard

level	Object size protected against	Effective against	determine	level	Protected against	Details	determine
0	-		-	0	not protected		-
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part	-	1	dripping water	Dripping water (vertically falling drops) shall have no harmful effect.	-
2	>12.5 mm	Fingers or similar objects	-	2	dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.	-
3	>2.5 mm	Tools, thick wires, etc.	-	3	spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	-
4	>1 mm	Most wires, screws, etc.	-	4	splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.	-
5	dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact	-	5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.	-
6	dust tight	No ingress of dust; complete protection against contact	●	6	powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.	-
				7	immersion up to 1 m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	●
				8	immersion beyond 1 m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. NOTE: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.	-

Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> NG <input type="checkbox"/> Self-determination
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