



中国认可
国际互认
检测
TESTING
CNAS L0095

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No GJW2019-5062

TEST REPORT

NAME OF SAMPLE : record STA20 IP65, RED/DUO incl. VRR20, BAT16 and FEM0

CLIENT : agtatec ag

CLASSIFICATION
OF TEST : Commission Test

Vkan Certification & Testing Co., Ltd.



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Name of sample	record STA20 IP65, RED/DUO incl. VRR20, BAT16 and FEM0	Trade mark	/
Client	agtatec ag	Client address	Allmendstrasse 24, 8320 Fehrltorf, Switzerland
Manufacturer	/	Manufacturer address	/
Means of receiving	Sending sample	Receiving date	2019-10-30
Classification of test	Commission Test	Completing date	2019-11-01
Tested according to	IEC 60529:1989+AMD1:1999+AMD2:2013+COR2:2015	Test items	Degrees of protection provided by enclosure (IP65)

Test Conclusion:

According to the standard of IEC 60529:1989+AMD1:1999+AMD2:2013+COR2:2015 Degrees of protection provided by enclosures (IP code).IP65 test has been conducted on the sample. The test results are detailed on pages 5-6.

Conclusion: pass.



2019.11.11

Approved by:Liu Gonggui

Reviewed by: Zhuang Shaohong

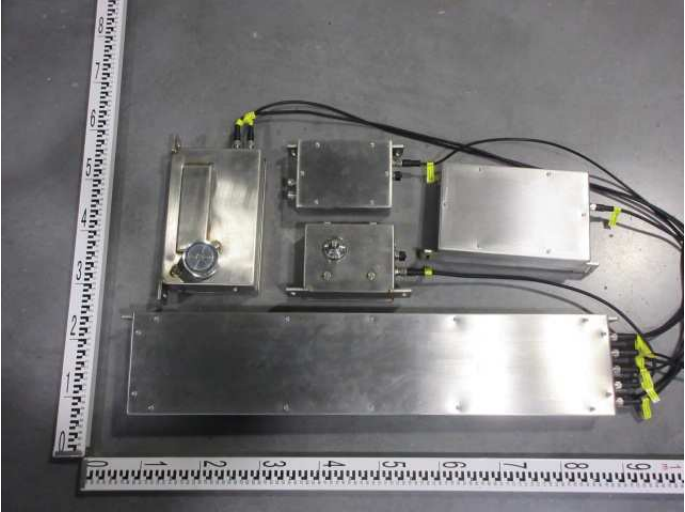
Tested by: Xu Liangna

Signature: *Liu Gonggui*

Signature: *Zhuang Shaohong*

Signature: *Xu Liangna*

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Sample description	1 Basic information :						
	<table border="1"><thead><tr><th>Name of sample</th><th>Type/Model</th><th>Quantity of sample</th></tr></thead><tbody><tr><td>record STA20 IP65,RED/DUO incl.VRR20,BAT16 and FEM0</td><td style="text-align: center;">/</td><td style="text-align: center;">1</td></tr></tbody></table>	Name of sample	Type/Model	Quantity of sample	record STA20 IP65,RED/DUO incl.VRR20,BAT16 and FEM0	/	1
	Name of sample	Type/Model	Quantity of sample				
record STA20 IP65,RED/DUO incl.VRR20,BAT16 and FEM0	/	1					
2 Sample picture:							
							
	Fig 1: Sample						
	3 Other information:						
	/						
Remarks	—						

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Tests Summary				
No	Name of sample	Test item	Test standard	Test details
1	record STA20 IP65, RED/DUO incl. VRR20, BAT16 and FEM0	IP65	IEC 60529:1989+AMD1:1999+ AMD2:2013+COR2:2015	Pages 5-6

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1 Degrees of protection provided by enclosure (IP65)

1.1 General description

According to the standard of IEC 60529:1989+AMD1:1999+AMD2:2013+COR2:2015, test has been conducted.

1.2 Technical requirements

The object probe of 1 mm Φ 80mm length, shall have adequate clearance form hazardous parts.

After test 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.

For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.

1.3 Test results

According to: IEC 60529:1989+AMD1:1999+AMD2:2013+COR2:2015,				
IP Code	Test requirement	Sample No.	Test result	Verdict
IP1X	The object probe, sphere of 50 mm Φ , shall not fully penetrate and have adequate clearance from hazardous parts.	—	—	N
IP2X	The object probe, sphere of 12.5 mm Φ , shall not fully penetrate. The jointed test finger of 12 mm Φ , shall have adequate clearance from hazardous parts.	—	—	N
IP3X	The object probe, sphere of 2.5 mm Φ , shall not penetrate at all and have adequate clearance from hazardous parts.	—	—	N
IP4X	The object probe, sphere of 1 mm Φ , shall not penetrate at all and have adequate clearance from hazardous parts.	—	—	N
IP5X	1. The object probe, sphere of 1 mm Φ , shall not penetrate at all and have adequate clearance from hazardous parts. 2. Ingress of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the apparatus or to impair safety.	—	—	N
IP6X	1. The object probe, sphere of 1 mm Φ , shall not penetrate at all and have adequate clearance from hazardous parts. 2. No ingress of dust.	1-1	The object probe of 1mm Φ does not penetrate the enclosure of the sample. No dust is visible in the enclosure of the sample.	P

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IPX1	In general, if any water has entered, it shall not:	—	—	N
IPX2	● be sufficient to interfere with the correct operation of the equipment or impair safety;	—	—	N
IPX3	● deposit on insulation parts where it could lead to tracking along the creepage distances;	—	—	N
IPX4	● reach live parts or windings not designed to operate when wet;	—	—	N
IPX5	● accumulate near the cable end or enter the cable if any.	1-1	No water is visible in the enclosure of the sample.	P
IPX6	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
IPX7	For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.	—	—	N
IPX8		—	—	N

1.4 Test equipment

№	Type / Model	Equipment name	Next due calibration date
1	V021106	The object probe finger	2020-04-01
2	110314-2	Sand And Dust Test Chamber	2020-06-27
3	1191240	Digital Push & Pull Tester	2020-06-25
4	110125921	Degrees of Waterproof tester	2020-06-26

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1.5 Test pictures

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Fig 2: The object probe of 1mm Φ does not penetrate the enclosure of the sample.



Fig 3: IP6X testing

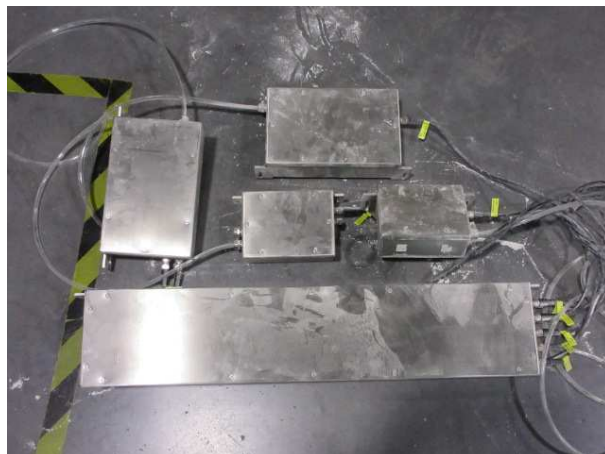


Fig 4: After IP6X test

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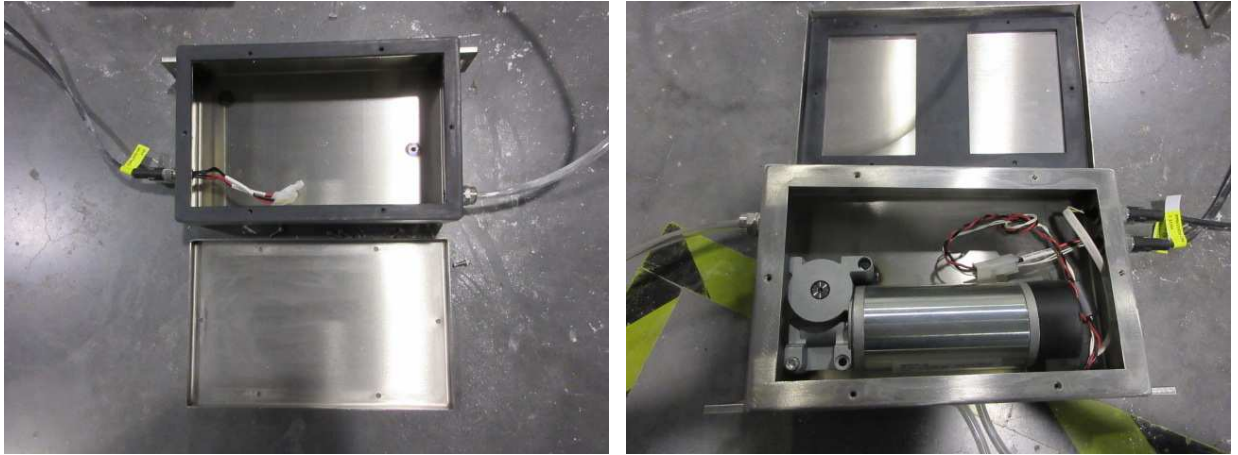


Fig 5: After IP6X test, no dust is visible in the enclosure of the sample

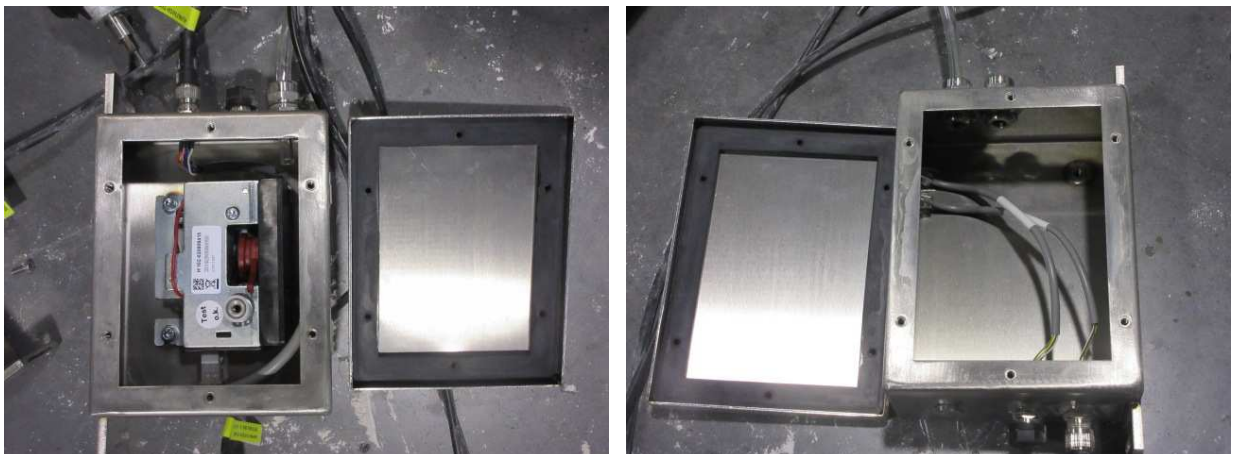


Fig 6: After IP6X test, no dust is visible in the enclosure of the sample



Fig 7: After IP6X test, no dust is visible in the enclosure of the sample

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Fig 8: IPX6 testing



Fig 9: After IPX6 test, no water is visible in the enclosure of the sample



Fig 10: After IPX6 test, no water is visible in the enclosure of the sample

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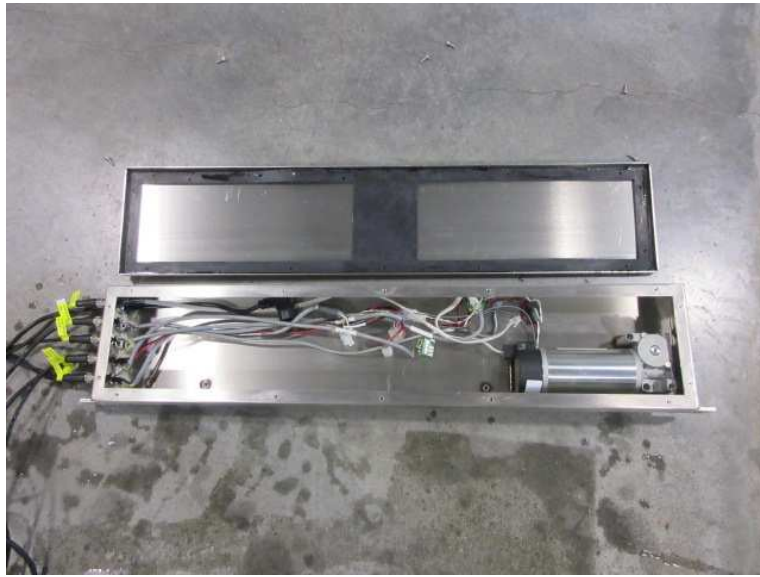


Fig 11: After IPX6 test, no water is visible in the enclosure of the sample

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Important

1. The test report is invalid without the official stamp of CVC;
2. Any photocopies or part photocopies of the test report are forbidden without the written permission from CVC;
3. The test report is invalid without the signatures of Author and Reviewer;
4. The test report is invalid if altered;
5. Objections to the test report must be submitted to CVC within 15 days;
6. Generally, commission test is responsible for the tested samples only;
7. As for the test result, “N” or “—” means “not applicable” , “/ ” means “not testing” , “P” means “pass” , and “F” means “fail”.

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