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DELTA Test Report



TEST Reg. no. 19

4 days of Damp Heat, steady state of Galaxy VM 200 kVA UPS Single 400-400 V

Performed for Schneider Electric IT Denmark ApS

DANAK-19/14722

Project no.: T209076

Page 1 of 13

including 2 annexes

14 November 2014

DELTA

Venlighedsvej 4
2970 Hørsholm
Denmark

Tel. (+45) 72 19 40 00

Fax (+45) 72 19 40 01

www.delta.dk

Title 4 days of Damp Heat, steady state of Galaxy VM 200 kVA
UPS Single 400-400 V

Test object Galaxy VM 200 kVA UPS Single 400-400 V

Report no. DANAK-19/14722

Project no. T209076

Test period 5 – 10 September 2014

Client Schneider Electric IT Denmark ApS
Silcon Allé 1
6000 Kolding
Denmark

Contact person Mr. Claus Aabjerg Andersen
Mobile: +45 72 19 02 86
E-mail: Claus.Andersen@schneider-electric.com


Manufacturer Schneider Electric IT Denmark ApS
Silcon Allé 1
6000 Kolding

Specifications 400 VAC, 50 Hz, 3 ph, (Δ or Y), min 32 A upstream fusing
required.
Dimensions (H x B x D, mm): 1970 x 1002 x 854. 724 kg

Results No malfunctions were detected. The criteria for compliance
are listed in Annex 2.

Test personnel Aksel Madsen

Date 14 November 2014

Project manager 
Aksel Madsen, B.Sc. Eng. Mech.
DELTA

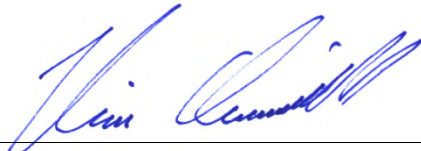
Responsible 
Kim A. Schmidt, B.Sc.M.E.
DELTA

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1. Summary of test

1.1 Test requirements

The following tests were carried out as agreed with the client.

Test	Test method
4 days of +40 °C / 93 %RH	IEC 60068-2-78:2012, Test Cab

1.2 Conclusion

Neither malfunctions nor mechanical damages were detected.

The test results relate to the objects tested only.

2. Test objects

2.1 Test objects

Test object No. 1

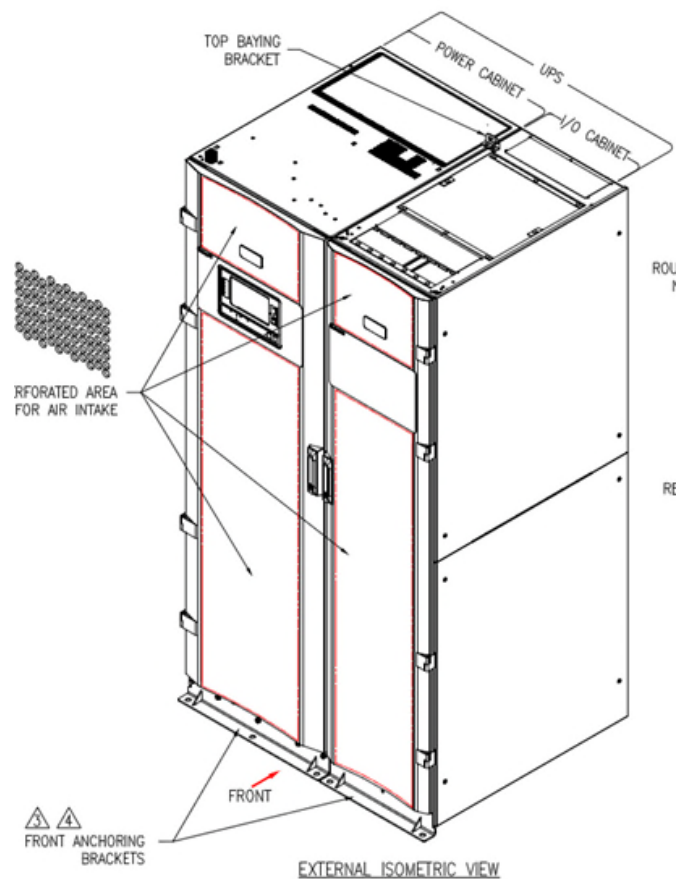
Name of test object	GVMSB200KHS consisting of two cabinets bayed together: IO cabinet Power cabinet
Model / type	Galaxy VM 200 kVA UPS Single 400
Part no.	-
Serial no.	-
Manufacturer	Schneider Electric IT Denmark ApS Silcon Allé 1 6000 Kolding
Supply voltage	400 VAC, 50 Hz, 3 ph, (Δ or Y), min 32 A upstream fusing required
Comments	



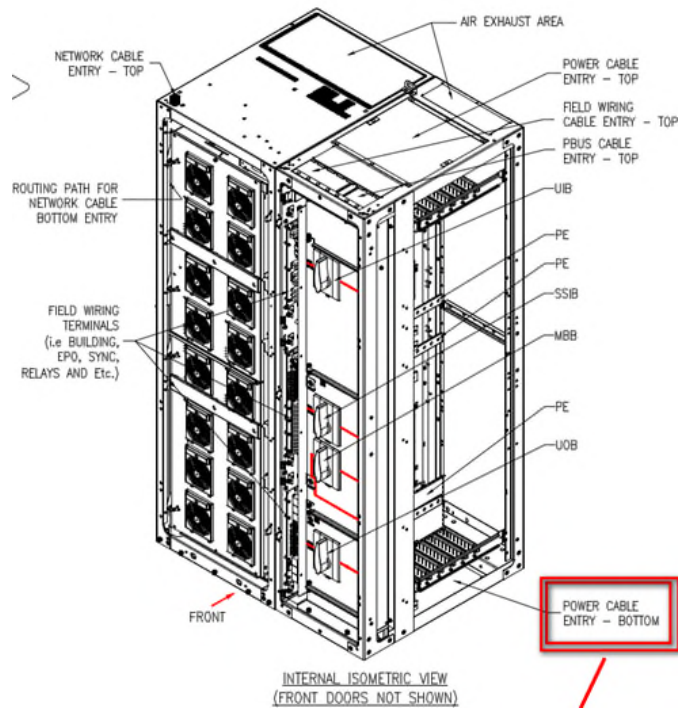
2.2 Auxiliary equipment

Auxiliary equipment 2.1 and 2.2

Name of test object	IO cabinet and Power cabinet
Model / type	-
Part no.	IO cabinet: OG-GVM1225KG Power cabinet: OG-VMPB200K225D
Serial no.	IO cabinet: ID1329000154 Power cabinet: ID1324000003
Manufacturer	Schneider Electric - India
Supply voltage	-
Comment	



External view of Power cabinet and IO cabinet



Internal view of Power cabinet and IO cabinet

3. General test conditions

3.1 Test setup

See photo of test setup at page 5.

3.2 Functional test and visual inspection

A functional test was performed by the client before and after the test. The functional test was carried out in accordance with the functional test procedure provided by the client. See Annex 2.

Before and after the test, the test object was inspected for mechanical damages.

3.3 Standard environment

Normal environmental condition:

Temperature	:	15 °C - 35 °C
Humidity	:	25 %RH - 75 %RH
Air pressure	:	86 kPa - 106 kPa (860 mbar – 1060 mbar)
Power supply voltage	:	$U_{nom.} \pm 3 \%$

4. Test and results

4.1 Test summary

The following tests were carried out as agreed with the client.

Test object	
GVMSB200KHS consisting of two cabinets bayed together: IO cabinet and Power cabinet	OK

4.2 Damp Heat, Steady state

Specifications

IEC 60068-2-6:2007, Test Cab

Test method

Severity and procedure

Test condition range : 40 °C ± 2 °C, 93 %RH ± 3 %RH

Test period : 4 days

The test object is energised and in normal operational mode during the exposure.

A visual inspection is performed after the exposure.

Results

No malfunction was observed before or after the exposure and of the test according to the client.

No mechanical damages or deteriorations were visual observed before or after to the test.

Annex 1

List of instruments

List of instruments

NO.	DESCRIPTION	MANUFACTURER	TYPE NO.
EVFGT-26	CLIMATIC CHAMBER	DELTA	VKF50

Annex 2
Functional test procedure
(Provided by the client)

Functional test during exposure

Before the test

Start up the unit and verify:

- Display function & Mimic function
- Inverter operation
- Requested bypass
- Service bypass

Criteria for compliance

What are the acceptance criteria for your test object(s)?

During exposure the test object shall maintain all functions within its specification. Please, give below the parameters that are of importance for the function and parameters that shall be observed during test.

General

The test object shall not become dangerous or unsafe as a result of the application of the tests.

The test object shall continue to operate as intended during the test.

At the end of the test verify

- Display function & Mimic function
- Inverter operation
- Requested bypass
- Service bypass