






TEST REPORT IEC 61008-1 Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) Part 1: General rules	
Report Number.....	64.105.23.31016.01 Attachment no.1
Date of issue	2023-09-22
Total number of pages.....	73
Name of Testing Laboratory preparing the Report.....	TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch 5F, Communication Building, 163 Pingyun Rd, Huangpu West Ave., 510656 Guangzhou, People's Republic of China
Applicant's name	NEXBLUE SRL
Address	RUE DE LONDERS 17, 1050 IXELLES, BRUXELLES, BELGIUM
Test specification:	
Standard.....	IEC 61008-1:2010 (Third Edition) +A1:2012 +A2:2013 used in conjunction with IEC 61008-2-2:1990 (First Edition)
Test procedure.....	Test report
Non-standard test method.....	N/A
Test Report Form No.....	IEC61008_1H
Test Report Form(s) Originator	OVE
Master TRF	Dated 2015-11
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Test item description : Residual direct current detecting device		
Trade Mark : NEXBLUE		
Manufacturer : Same as applicant		
Model/Type reference : RDC-PD of NB1620A		
Ratings : RDC-PD of NB1620A: 32A, 230/400±10% V~ 50Hz, 3P+N+PE, IΔdc: 6mA, IΔn: 30mA, Detail information of product see "general product information"		
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	Testing Laboratory:	TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
	Testing location/ address :	TÜV SÜD Testing Center, D1 building, No. 63 Chuangqi Road, Shilou Town, Panyu District, Guangzhou 511447, China
<input checked="" type="checkbox"/>	Associated Testing Laboratory:	-
	Testing location/ address :	-
	Tested by (name, function, signature)	Guihua Yuan (Project handler) 
	Approved by (name, function, signature) ..	Martin Ma (Designated reviewer)  
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	-
	Testing location/ address :	-
	Tested by (name, function, signature)	-
	Approved by (name, function, signature) ..	-
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	-
	Testing location/ address :	-
	Tested by (name + signature).....	-
	Witnessed by (name, function, signature) .	-
	Approved by (name, function, signature) ..	-
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	-
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	-
	Testing location/ address :	-
	Tested by (name, function, signature)	-
	Witnessed by (name, function, signature) .	-
	Approved by (name, function, signature) ..	-
	Supervised by (name, function, signature) :	-

**List of Attachments (including a total number of pages in each attachment):**

See Attachment no.2 Photo doc. of 64.105.23.31016.01 for details.

Summary of testing:**Tests performed (name of test and test clause):**

This report as the attachment of the main report for RCD type A function, just is considered IEC 61008-1:2010+A1:2012+A2:2013 concerning RDC-PD integrated in RCCB function.

The test results in this report are positive.

Detail information of tests, as below:

Test sequence		Clause or subclause	Test (or inspection)
A		6	Marking
		8.1.1	General
		8.1.2	Mechanism
		9.3	Indelibility of marking
		8.1.3	Clearance and creepage distances (external parts only)
		9.15	Trip-free mechanism
		9.4	Reliability of screws, current-carrying parts and connections
		9.5	Reliability of terminals for external conductors
		9.27	Strain on the conductors
		9. 13	Resistance to heat
		9.14	Resistance to abnormal heat and to fire
B		9.7	Test of dielectric properties
		9.8	Temperature rise
		9.20	Resistance of insulation against impulse voltages
		9.22.2	Reliability at 40 C
		9.23	Ageing of components
C		9.10	Mechanical and electrical endurance
D	D0	9.9	Residual operating characteristics
	D1	9.17	Behaviour in the case of failure of the line voltage
		9.19	Unwanted tripping, Behaviour in the case of surge currents
		9.21	DC components
		9.11.2.3 a) b)	Performance at IΔm
		9.16	Test device
		9.18	Non-operating current under overcurrent conditions
E		9.11.2.4 a)	Coordination at Inc
		9.11.2.2	Performance at Im
F		9.11.2.4 b)	Coordination at Im

Testing location:

For clause 9.10, 9.11, 9.19, 9.23, 9.22:

Zhejiang Testing & Inspection Institute for Mechanical and Electrical Products Quality

4F, Building1, No.125
Miaohouwang Road, Binjiang District, Hangzhou, Zhejiang, China

For others:

TÜV SÜD Certification and Testing (China) Co., Ltd.
Guangzhou Branch

TÜV SÜD Testing Center, D1 building, No. 63 Chuangqi Road, Shilou Town, Panyu District, Guangzhou 511447, China

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	9.11.2.4 c)	Coordination at $I\Delta c$
G	9.22.1	Reliability (climatic test)


Remark:
The clearances between live parts which are separated when the main contacts are in the open position of RDC-PD in IEC 61008-1 is 4mm, and it will be considered in the standard IEC 62955 as 3mm.



Summary of compliance with National Differences (List of countries addressed):
None


☒ **The product fulfils the requirements of IEC 62955:2018.**

Remark: In this report, 64.105.23.31016.01 Attachment no.1 is considered IEC 61008-1:2010+A1:2012+A2:2013 concerning RDC-PD integrated in RCCB function.

Copy of marking plate

Product: NexBlue Edge
NexBlue SRL Model No.: NB1620A SN: AXCFAAXXXX 

IP54 · -30 °C to +50 °C $I\Delta n=30mA$, $I\Delta dc=6mA$  **NEXBLUE** 

230/400VAC (±10%) · 50Hz · 32A · 3P+N+PE  2023-02-15

Rue de Londres 17 · 1050 Ixelles · Bruxelles · Belgium

Test item particulars	RDC-PD
Classification of RCCBs functionally dependent on the line voltage.....	Yes
Opening automatically in case of failure of the line voltage:	
- reclosing automatically when the line voltage is restored.....	N/A
- not reclosing automatically when the line voltage is restored.....	Yes
Not opening automatically in case of failure of the line voltage:	
- able to trip in a hazardous situation arising on failure of line voltage	Yes
- not able to trip in a hazardous situation arising on failure of line voltage	N/A
Type of RCCB:	
- type AC.....	No
- type A	Yes
- independent of the line voltage.....	N/A
- dependent on the line voltage	Yes
- without time delay.....	Yes
- with time delay: type S	No
- enclosed	No
- unenclosed.....	Yes, integral part of the charging system
- IP number	IP00 (integral part of the charging system)
- for fixed installation	Yes
- for mobile installation	No
Number of poles	3P+N+PE
Ambient air temperature (°C).....	-30 °C ~ +50 °C
Method of mounting.....	Fixed
Method of connection.....	Not associated with the mechanical mounting (integral part of the charging system)
Rated residual operating current (A)	30mA
Rated current (A)	32A
Rated voltage (V).....	400V ~
Rated impulse withstands voltage (U_{imp}).....	4000V
Nature of supply	~
Rated frequency (Hz).....	50Hz
Rated making and breaking capacity (A)	500A
Rated residual making and breaking capacity (A)	500A
Rated conditional short-circuit current (A)	1000A
Rated conditional residual short-circuit current (A).....	1000A
Type of terminal	Screw-type terminals



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	2023-06-13
Date (s) of performance of tests	2023-06-13 to 2023-08-22
General remarks:	
"(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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	SCUD ENERGY TECHNOLOGY CO., LTD Room 44, 23 rd Floor, Building 1, New Drug Innovation Center, Yaoxi Road 10, Nanyu Town, Minhou County, Fuzhou City, Fuzhou Province, China
General product information: RDC-PD of NB1620A is an integral part of the charging system. The rating of RDC-PD as following, 230/400(±10%)V~, 50Hz, 3P+N+PE, 32A I _{Δn} =30mA, I _{Δdc} =6mA, I _m =500A, I _{Δm} =500A, I _{nc} =1000A, I _{Δc} =1000A	