



**TEST REPORT**  
**IEC 61810-1**  
**Electromechanical elementary relays**

**Report Number** .....: 64.100.17.03069.01

**Date of issue** .....: 2017-11-14

**Total number of pages** .....: 68

**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** .....: Guangxi Ramway Technology Co.,Ltd

**Address** .....: No.9, Xingyu Road, High-Tech Zone 54300 Wuzhou, Guangxi  
PEOPLE'S REPUBLIC OF CHINA

**Test specification:**

**Standard** .....: IEC 61810-1:2015 (Fourth Edition)

**Test procedure** .....: TUV Bauart mark

**Non-standard test method** .....: N/A

**Test Report Form No.** .....: IEC61810\_1D

**Test Report Form(s) Originator** .....: VDE Prüf- und Zertifizierungsinstitut GmbH  
VDE Testing and Certification Institute

**Master TRF** .....: 2016-06

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**Test item description** .....: Relays (Bistable relay)

**Trade Mark** .....: Ramway

**Manufacturer** .....: Guangxi Ramway Technology Co.,Ltd  
No.9, Xingyu Road, High-Tech Zone 54300 Wuzhou, Guangxi  
PEOPLE'S REPUBLIC OF CHINA

**Ratings** .....: Rated voltage(s) of the coil: DC6V, DC9V, DC12V, DC24V  
Load circuit rating: See General product information



Electrical operating cycles: 10 000 cycles;  
Mechanical operating cycles: 100 000 cycles;  
Ambient temperature range: -40°C to +85°C



<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>Testing Laboratory:</b>	TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
<b>Testing location/ address</b> ..... :		5F, Communication Building, 163 Pingyun Rd, Huangpu Ave. West Guangzhou 510656 P. R. China
<input type="checkbox"/>	<b>Associated Testing Laboratory:</b>	-
<b>Testing location/ address</b> ..... :		-
<b>Tested by (name, function, signature)..... :</b>		Anna Wang 
<b>Approved by (name, function, signature) .. :</b>		Martin Ma 
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	-
<b>Testing location/ address</b> ..... :		-
<b>Tested by (name, function, signature)..... :</b>		-
<b>Approved by (name, function, signature) .. :</b>		-
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	-
<b>Testing location/ address</b> ..... :		-
<b>Tested by (name + signature)..... :</b>		-
<b>Witnessed by (name, function, signature) . :</b>		-
<b>Approved by (name, function, signature) .. :</b>		-
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	-
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	-
<b>Testing location/ address</b> ..... :		-
<b>Tested by (name, function, signature)..... :</b>		-
<b>Witnessed by (name, function, signature) . :</b>		-
<b>Approved by (name, function, signature) .. :</b>		-
<b>Supervised by (name, function, signature) :</b>		-



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

Attachment no.1: Photo documentation (17pages).

**Summary of testing:**

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

1. The submitted samples were found to comply with the requirements of EN 61810-1 and partial test of EN62055-31 (clause7.9 and annex C).
2. The following relays DS908A, DS908B, DS908C and DS908E with 24V coil supply were subjected to a full test of EN 61810-1:2015 and partial test of EN62055-31:2005 (clause7.9 and annex C).
3. Other coil supply 6V, 9V, 12V of the relays DS908A, DS908B, DS908C and DS908E were subjected to the test of clause 9 of EN 61810-1:2015.
4. Clearance and creepage distance were checked on 6V, 9V relays of models DS908A, DS908B, DS908C and DS908E.

Remark: Regarding to the heating test of EN 61810-1, test voltage of the coil was specified by the manufacture, for details see appendix table 5.0.

**Testing location:**

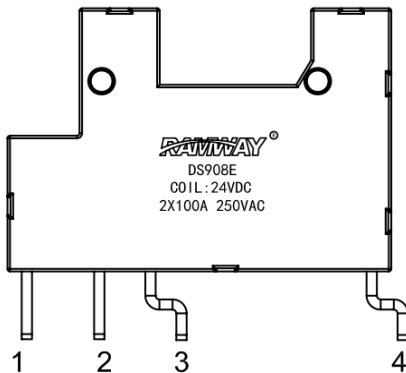
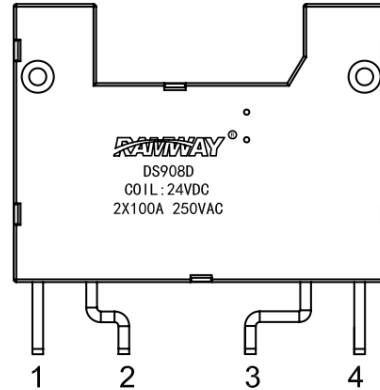
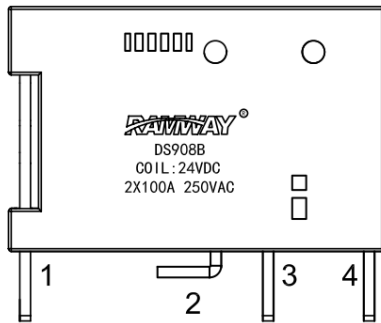
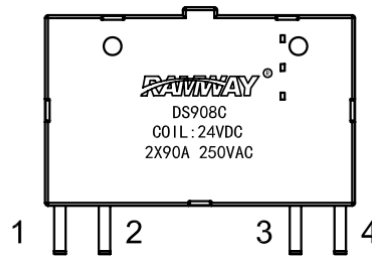
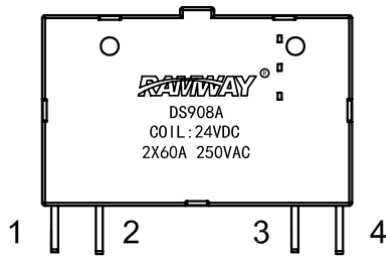
Zhejiang Fang Yuan Electric Equipment Test Co., Ltd.  
NO. 400 Guangqiong Road, JiaXing City, Zhejiang Province, China

**Summary of compliance with National Differences (List of countries addressed):**

The European standard EN 61810-1:2015 is identical to IEC 61810 1:2015 (Fourth Edition).

**The product fulfils the requirements of EN 61810-1:2015 (Fourth Edition).**

Copy of marking plate:



Remark: The marking plates of other models is the same as above except coil voltage.



<b>Test item particulars</b> .....	Relays (Bistable relay)
<b>Classification of installation and use</b> .....	Built-in
<b>Supply Connection</b> .....	Welding
<b>Possible test case verdicts:</b>	
- 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)
<b>Testing</b> .....	
<b>Date of receipt of test item</b> .....	2017-08-08
<b>Date (s) of performance of tests</b> .....	2017-08-08 to 2017-11-10
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. 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.	
<b>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</b>	
1. Test report of IEC61810-1:2015 can refer to this report (Page 8 – 31). 2. Test report of Clause 7.9 & Annex C of EN 62055-31:2005 can refer to this report (Page 32 – 68).	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1-2:</b>	
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"/> <b>Yes</b> <input checked="" type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies) ...:</b> Guangxi Ramway Technology Co.,Ltd No.9, Xingyu Road, High-Tech Zone 54300 Wuzhou, Guangxi PEOPLE'S REPUBLIC OF CHINA	



**General product information:**

DS908A, DS908B, DS908C and DS908D/DS908E relays are bistable relays. All models provide basic insulation between the coil circuit and the contact circuit.

DS908A, DS908B, DS908C and DS908D/DS908E relays have the same insulation materials.

Utilisation category for DS908A, DS908B, DS908C and DS908D/DS908E are all UC3;

The structure of the model DS908D and DS908E is the same except the terminals and enclosures. Model DS908E as the represent model were subject to do the tests of EN 61810-1 and Annex C of EN 62055-31.

**Load circuit rating**

Type of relay	Type of load	Rated currents of the contacts (A)	Rated voltage(s) of the contacts (VAC)	Electric endurance (cycles)
DS908A	Resistive load	60	250	10000
DS908B	Resistive load	100	250	10000
DS908C	Resistive load	90	250	10000
DS908D/ DS908E	Resistive load	100	250	10000

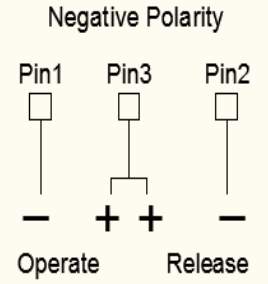
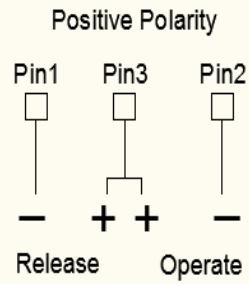
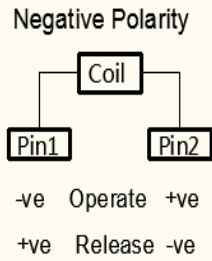
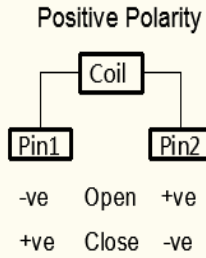
**Coil data table**

Type of relay	Rated voltage(s) of the coil (VDC)	Coil resistance $\pm 10\%$ ( $\Omega$ )		Operate/ release voltage (VDC)	Rated power of the coil (W)
		Single winding	Double winding		
DS908A	6	16	2x8	4.2	2.25
	9	36	2x18	6.3	2.5
	12	54	2x27	8.4	2.6
	24	200	2x100	16.8	2.9
DS908B	6	12	2x6	4.2	3.0
	9	18	2x9	6.3	4.5
	12	32	2x16	8.4	4.5
	24	128	2x64	16.8	4.5
DS908C	6	16	2x8	4.2	2.3
	9	36	2x18	6.3	2.3
	12	54	2x27	8.4	2.7
	24	200	2x100	16.8	2.9
DS908D/ DS908E	6	17	2x9	4.2	2.1
	9	20	2x10	6.3	4.1
	12	34	2x17	8.4	4.2
	24	135	2x68	16.8	4.3

**Coil connection diagram**

Single winding

Double windings





<b>General product information:</b>	
Nominal values of type version .....	N/A
Number of poles .....	2
Kind of contact .....	Make contacts
Contact material .....	AgSnO <sub>2</sub>
Rated contact voltage .....	250VAC
Rated contact current .....	60A for DS908A; 90A for DS908C; 100A for DS908B, DS908D and DS908E.
Electrical endurance .....	10 000 cycles
Coil voltage .....	DC6V, DC9V, DC12V, DC24V, DC48V
<b>General matters:</b>	
Mounting.....	Any position
Mounting distance .....	50 mm
Insulation group according to IEC 60664-1 ....	IIIa
Thermal class (coil) according to IEC 60085 ..	Class B
Max. allowable steady-state temperature of the insulation materials	135 °C
Ambient temperature .....	from: -40 °C to: +85 °C
Type of interruption .....	<input type="checkbox"/> Micro-interruption <input checked="" type="checkbox"/> Micro disconnection <input type="checkbox"/> Full disconnection
Relays technology classification .....	<input type="checkbox"/> RT 0 Unenclosed relay <input checked="" type="checkbox"/> RT I Dust protected relay <input type="checkbox"/> RT II Flux proof relay <input type="checkbox"/> RT III Wash tight relay <input type="checkbox"/> RT IV Sealed relay <input type="checkbox"/> RT V Hermetically sealed relay



IEC 61810-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>6</b>	<b>GENERAL PROVISIONS FOR TESTING</b>		—
	Test procedure .....		
	<input checked="" type="checkbox"/> A 3 samples Group mounting		—
	<input type="checkbox"/> B 1 sample Single mounting		—
<b>7</b>	<b>DOCUMENTATION AND MARKING</b>		—
<b>7.1</b>	<b>Data</b>	see Table 1.0	P
<b>7.2</b>	<b>Additional data (manual operation)</b>	see Table 2.0	N/A
<b>7.3</b>	<b>Marking</b>		—
	The data of 1a) and 1b) according to Table 4 shall be marked on the relay so that they are legible and durable	1a) back-and-forth / 15 s distilled water	P
		1b) back-and-forth / 15 s petroleum spirit	P
<b>7.4</b>	<b>Symbols -</b> according to Table 7		P



IEC 61810-1			
Clause	Requirement + Test	Result - Remark	Verdict
8	<b>HEATING</b>		—
8.1	<b>Requirements</b>		—
	Insulation class according to IEC 60085		—
	Coil wires – class ..... : <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Y – 90 °C  <input type="checkbox"/> A – 105 °C              Existing designs <input type="checkbox"/> A – 120 °C  <input type="checkbox"/> E – 120 °C              Existing designs <input type="checkbox"/> E – 135 °C  <input checked="" type="checkbox"/> B – 130 °C              Existing designs <input type="checkbox"/> B – 145 °C  <input type="checkbox"/> F – 155 °C  <input type="checkbox"/> H – 180 °C              Existing designs <input type="checkbox"/> H – 175 °C  <input type="checkbox"/> 200 (N) – 200 °C              Existing designs <input type="checkbox"/> 195 °C  <input type="checkbox"/> 220 (R) – 220 °C              Existing designs <input type="checkbox"/> 215 °C  <input type="checkbox"/> 250 (C) – 250 °C           </div> <div style="width: 45%;">             Winding: 89.6°C               See appended table 5.0 for detail           </div> </div> <p><b>or</b>            when the coil temperature is measured by the thermocouple method, the values for maximum temperature shall be reduced by 20 K</p>		—
	Test procedure ..... : <input type="checkbox"/> Test all coil voltages of the same construction  <input checked="" type="checkbox"/> Test the coil voltage with the maximum coil power consumption	Relays with 24V coil	—







IEC 61810-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>8.2</b>	<b>Test set-up</b>		—
	Test arrangement - according to Annex E		—
	Torque in case of screw terminals: 2/3 of the value according to IEC 60999-1	2.0 Nm	—
	Ambient temperature = max. operating temperature	85 °C	—
	Rated coil voltage x 1,1 or U <sub>2</sub>	<input type="checkbox"/> 1.1 x Rated coil voltage	—
	PWM or other methods of coil power reduction	<input type="checkbox"/> U <sub>2</sub>	—
	Bistable relays	<input type="checkbox"/> stated by the manufac.	—
		<input checked="" type="checkbox"/> stated by the manufac.	—
Max. contact current	60A for DS908A; 90A for DS908C; 100A for DS908B and DS908E.	—	
Temperature rise test	see Table 4.0	N/A	
	see Table 5.0	P	
<b>8.3</b>	<b>Test procedure</b>		—
	<input type="checkbox"/> Relays with make contacts <input type="checkbox"/> Relays with break contacts (two step testing)	Bistable relays stated by the manufac.	—
<b>8.4</b>	<b>Terminals</b>		—
<b>8.4.1</b>	<b>General test conditions</b>		—
	Fine wire thermocouples or equivalent temperature sensors	<input checked="" type="checkbox"/> Fine wire thermocouples <input type="checkbox"/> .....	—
<b>8.4.2</b>	<b>Solder terminals</b>		—
	Electrical connections according to Table 12		—
	Terminal temperature according to	max.: °C	—
	Table 6 No. 5.j	measured: °C	N/A
<b>8.4.3</b>	<b>Flat quick-connect terminations</b>		—
	Electrical connections according to Table 10		—
	Connectors according to IEC 61210	.....	—
	Temperature rise max. 45 K	measured: K	N/A
	alternatively measured without the temperature rise influence of the relay contacts	measured: K	N/A
	According to IEC 61210 absolute temperature	max.: °C	—
	is limited by the female connector	measured: °C	N/A



IEC 61810-1					
Clause	Requirement + Test	Result - Remark			Verdict
<b>8.4.4</b>	<b>Screw and screwless type terminals</b>				—
	Electrical connections according to Table 10				—
	Temperature rise max. 45 K	measured:		K	N/A
	alternatively measured without the temperature rise influence of the relay contacts	measured:		K	N/A
<b>8.4.5</b>	<b>Alternative termination types</b>				—
	Electrical connections according to Table 8				—
	Temperature rise max. 45 K	measured:		K	N/A
	alternatively measured without the temperature rise influence of the relay contacts	measured:		K	N/A
<b>8.4.6</b>	<b>Sockets</b>				—
	Steady-state temperature for the interconnections between relay and socket	max.:		°C	—
	is limited by the connection as well as by the insulation materials of both relay and socket adjacent to the connection	measured:		°C	N/A
<b>9</b>	<b>BASIC OPERATING FUNCTION</b>				—
<b>9.1</b>	<b>General test conditions</b>				—
	Test arrangement and preconditioning according to Table 11 and/or Table 12				—
	Test procedure .....: <input checked="" type="checkbox"/> Test all coil voltages of the same construction <input type="checkbox"/> Test the coil voltages with the min. and max. magnetomotive force (or ampere turns)				— —
<b>9.2</b>	<b>Operate (monostable relays)</b>				—
<b>9.2.1</b>	<b>Operate with (constant) coil voltage</b>				—
	Test mode I, II and III Class 1: $\leq 80\%$ according to clause 5.3.1 and Fig. A4	Applied test mode:		N/A	
	Test mode I, II and III Class 2: $\leq 85\%$ according to clause 5.3.1 and Fig. A4	Applied test mode:		N/A	
	Test mode I, II and III Deviate from class 1 or 2 according to clause 5.3.1 and Fig. A3	Operative range:	%	N/A	
	Test mode IV and V According to clause 5.3.2 and Fig. A5	U <sub>1</sub>	V	N/A	
	Releasing function				—



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Clause	Requirement + Test	Result - Remark	Verdict
	DC: $\geq 5\%$ (Test mode I, II and III)		N/A
	DC: $\geq 10\%$ (Test mode IV and V)		N/A
	AC: $\geq 15\%$ (Test mode I, II, III, IV and V)		N/A
<b>9.2.2</b>	<b>Operate with PWM and /or other operating methods</b>		—
	Test mode II and III Steady state coil voltage as specified by the manufacturer	Applied test mode: $U_N$ V	N/A
	Test mode II and III 110 % of the steady state coil voltage until thermal equilibrium is reached	Applied test mode: $U_{110\%}$ V	N/A
	Releasing function		—
	DC: $\geq 5\%$ (Test mode II and III)		N/A
	DC: $\geq 10\%$ (Test mode II and III)		N/A
	AC: $\geq 15\%$ (Test mode II and III)		N/A
<b>9.3</b>	<b>Operate/Reset (bistable relays)</b>		—
	Operate	Class 1: 80% rated coil voltage	P
	Reset	Class 1: 80% rated coil voltage	P
<b>10</b>	<b>DIELECTRIC STRENGTH</b>		—
<b>10.1</b>	<b>Preconditioning</b>		—
	Dry heat 55 °C / 48 h		P
	Damp heat 25 °C / 48 h rel. humidity 91 ... 95 %		P
<b>10.2</b>	<b>Dielectric strength</b>		—
	Depending on the voltage for the circuit under consideration, the insulation is subjected to ...	a.c. test voltage	P
		d.c. test voltage	N/A
	Functional insulation	1500 V	P
	Basic insulation	1500 V	P
	Basic insulation (Test procedure B)	V	N/A
	Supplementary insulation	V	N/A
	Reinforced insulation	V	N/A
	Micro-disconnection	500 V	P
	Full-disconnection	V	N/A
<b>10.3</b>	<b>Special cases for test procedure B</b>		—
	Depending on the voltage for the circuit under	a.c. test voltage	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	consideration, the insulation is subjected to ...	d.c. test voltage	N/A
	a) For relays rated not more than 50 V	V	N/A
	b) For relays rated 51 V to 600 V	V	N/A
	c) For relays rated 51 V to 250 V (pollution deg. 2)	V	N/A
	d) For relays rated 601 V to 1 500 V	V	N/A
<b>11</b>	<b>ELECTRICAL ENDURANCE</b>		—
<b>11.1</b>	<b>General test conditions</b>		—
	Procedure and test sequence according to Table 15		—
	Test procedure: <input checked="" type="checkbox"/> Group mounting (under Annex E conditions) <input type="checkbox"/> PCB relays mounted on PCB (connecting wires according to Table 10) <input type="checkbox"/> Single mounting		— — —
	Provided with manual operations ≥ 100 x On / Off		N/A
<b>11.2</b>	<b>Overload and endurance test</b>		—
	Test sequence: <input checked="" type="checkbox"/> Without overload test <input type="checkbox"/> With overload test		— —
<b>11.3</b>	<b>Failure and malfunction criteria</b>		—
	Electrical parameters and results	see Table 7.0	P
<b>11.4</b>	<b>Final dielectric test</b>		—
	Test procedure: <input checked="" type="checkbox"/> 75 % of the value for functional insulation <input type="checkbox"/> Basic insulation requirements (not applicable for existing designs) <input type="checkbox"/> For existing designs 75 % of the initial values defined within IEC 61810-1:2008		— — —
	Dielectric strength of clause 10.2 (or clause 10.3 for IEC 61810-1:2008)		P



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Clause	Requirement + Test	Result - Remark		Verdict
<b>12</b>	<b>Mechanical endurance</b>			—
	Test arrangement - According to Annex E and Table 5			—
	Coil voltage (rated value)	24VDC		—
	Influence quantity according to clause 4 / Table 1			—
	Cycles / h	1800/h		—
	Cycles	100 000		—
	Rated voltage of contact load	1	V	—
	Rated current of contact load	100	mA	—
	Requirements after the mechanical endurance test	Malfunction max. 0.1 %		P
<b>13</b>	<b>CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION</b>			—
<b>13.1</b>	<b>General provisions</b>			P
	Conditions according to IEC 60664-1	Measurements: see Table 8.0		P
	Conditions according to IEC 60664-5	see Enclosure #		N/A
	Conditions according to IEC 60664-3	see Enclosure #		N/A
	Conditions according to IEC 60664-4	see Enclosure #		N/A
<b>13.2</b>	<b>Clearances and creepage distances</b>			—
	Clearances according to Table 14	Measurements: see Table 8.0		P
	Creepage distances according to Table 16	Measurements: see Table 8.0		P
	In single failure condition, basic insulation shall remain	Check the design of the relay		N/A
	Proof tracking index at least PTI 175	Measurements: see Table 6.0		P
	Proof tracking index for existing constructions at least PTI 100	Measurements: see Table 6.0		N/A
<b>13.3</b>	<b>Solid insulation</b>			—
	Dielectric test according to clause 10.3	1500	V	P
	Distance through insulation for supplementary insulation: $\geq 1$ mm			N/A
	Distance through insulation for reinforced insulation: $\geq 1$ mm			N/A
	<b>OPTIONAL THIN LAYERS</b>			—



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Clause	Requirement + Test		Verdict
	2 layers for supplementary insulation		N/A
	Dielectric test on each layer		N/A
	3 layers for reinforced insulation		N/A
	Dielectric test on 2 layers		N/A
<b>13.4</b>	<b>Accessible surfaces</b>		—
	Manual operating means shall be basic insulated		N/A
<b>13.5</b>	<b>Solid insulation in the coil assembly as part of the insulation coordination</b>		—
	Dielectric test according to clause 10.3		V
	Coil bobbin provides at least basic insulation: Thickness $\geq 0.33$ mm		N/A
	Coil bobbin provides at least basic insulation: Thickness $\leq 0.33$ mm (all tests described in a) to d) have to be performed)		N/A
<b>14</b>	<b>TERMINATIONS</b>		—
<b>14.2</b>	<b>Screw terminals and screwless terminals</b>		—
	Tests according to IEC 60999-1		see Enclosure #
<b>14.3</b>	<b>Flat quick-connect terminations</b> according to IEC 61210		—
	Size: <input type="checkbox"/> 2,8 mm <input type="checkbox"/> 4,8 mm <input type="checkbox"/> 6,3 mm <input type="checkbox"/> 9,5 mm		Dimensions: Measurements: see Table 3.0
	Deviating dimensions to IEC 61210 - insertion and withdrawal forces - clause 9.1		see Enclosure #
	Stability - according to IEC 61210 - clause 9.2		N/A
<b>14.4</b>	<b>Solder terminals</b>		—
<b>14.4.1</b>	<b>Resistance to soldering heat</b>		—
	After test:	The relays shall comply with the requirements of Clause 9 (operate and release)	N/A
		The solder terminals shall not have worked loose nor have displaced impairing further use or let them not comply with clause 13	N/A
<b>14.4.2</b>	<b>Solder pins</b>		—



IEC 61810-1						
Clause	Requirement + Test			Result - Remark		Verdict
	Test Tb Method 1A:	(Solder bath 260 °C / 5s) according to IEC 60068-2-20				N/A
<b>14.4.3</b>	<b>Terminals for surface mounting (SMD)</b>					—
	Tests according to IEC 61760-1 clause 7.2		see Enclosure #			N/A
<b>14.4.4</b>	<b>Other solder terminals (e.g. soldering plugs)</b>					—
	Test Tb Method 1A:	(Solder bath 260 °C / 5s) according IEC 60068-2-20				N/A
	or Test Tb Method 2:	(Soldering iron 350 °C / 10s) according IEC 60068-2-20				N/A
<b>14.5</b>	<b>Sockets</b>					—
	Sockets shall comply with the requirements and tests of IEC 61984 "Temperature rise of terminals max. 45 K"		see Enclosure #			N/A
<b>14.6</b>	<b>Alternative termination types</b>					—
	Other termination types are permitted insofar as they are not in conflict with this standard and comply with their relevant IEC standard		Welding			P
<b>15</b>	<b>SEALING</b>					—
	Relay technology classification		see: General product information			—
	Sealing test for RT III (Test Qc, Method 2) according to IEC 60068-2-17					N/A
	Deviation from the standard (e.g. immersion time)		see: General product information			N/A
	Appropriate test for RT IV and RT V according to IEC 60068-2-17 selected by the manufacturer					N/A
<b>16</b>	<b>HEAT AND FIRE RESISTANCE</b>					—
	Glow-wire test		see Table 6.0			P
	Ball pressure test		see Table 6.0			P
	Needle flame test		see Table 6.0			N/A
	<b>TABLE: 1.0 [Data]</b>					
	Required relay data					
	1 Identification data					
	No.	Data	Notes	Place of indication	Remark	Verdict



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Clause	Requirement + Test			Result - Remark	Verdict
<b>TABLE: 1.0 [Data]</b>					
1a	Manufacturer's name, identification code or trade mark		Relay	See "copy of marking plate"	P
1b	Type designation	It shall be unambiguous and ensure identification of the product by respective documentation	Relay	See "copy of marking plate"	P
1C	Date of manufacture	May be coded if specified in the documentation	Relay (preferred) or package	package	P
<b>2 Coil data</b>					
No.	Data	Notes	Possible places of indications	Remark	Verdict
2a	Rated coil voltage, or rated coil voltage range, or operative range of the coil voltage	Values of the limits or class (see clause 5.2), including coil power reduction	<input checked="" type="checkbox"/> Relay <input checked="" type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet		P
2b	Frequency for AC		<input type="checkbox"/> Relay <input type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet	DC coil	N/A
2c	Coil resistance		<input type="checkbox"/> Relay <input checked="" type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	Refer to coil data table of general product information	P

<b>TABLE: 1.0 [Data]</b>					
<b>3 Contact data</b>					
No.	Data	Notes	Possible places of indications	Remark	Verdict
3a	Contact load(s)	- Type - Current - Voltage - Schematics (see Table 16)	<input checked="" type="checkbox"/> Relay <input checked="" type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	See "copy of marking plate"	P
3b	Number of cycles for electrical endurance		<input checked="" type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction	10 000 cycles	P

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Clause	Requirement + Test			Result - Remark		Verdict
<b>TABLE: 1.0 [Data]</b>						
				sheet		
3c	Frequency of operation			<input checked="" type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet	720/h	P
3d	Duty factor			<input checked="" type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet	25%	P
3e	Number of cycles for mechanical endurance			<input checked="" type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	100 000	P
3f	Contact material(s)			<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	AgSnO <sub>2</sub>	P
3g	Type of interruption	Micro-interruption, micro dis-connection, full disconnection		<input checked="" type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet	micro dis-connection	P

TABLE: 1.0 [Data]						
4 Insulation data						
No.	Data	Notes	Possible places of indications		Remark	Verdict
4a	Type of insulation (depending on the application of the relay)	Functional, basic, reinforced, double insulation	<input checked="" type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet		Basic insulation	P
4b	Deviation from standard dimensioning	According to options a) to c) of 13.1	<input type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet			N/A
4c	Pollution degree	Of relays environment	<input checked="" type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet		2	P
4d	Impulse withstand voltage(s)	For all circuits	<input checked="" type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet		4000V	P
4e	Rated insulation	For all circuits	<input checked="" type="checkbox"/> Catalogue		250V	P



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Clause	Requirement + Test	Result - Remark	Verdict

TABLE: 1.0 [Data]			
	voltage(s)	<input checked="" type="checkbox"/> Instruction sheet	

TABLE: 1.0 [Data]					
5 General data					
No.	Data	Notes	Possible places of indications	Remark	Verdict
5a	Test procedure	A (Group mounting); B (Single mounting)	<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	A	P
5b	Ambient temperature range		<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	-40°C to +85°C	P
5c	Categories of environmental protection (RT)		<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	RT I	P
5d	Mounting position	If applicable	<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	Any	P
5e	Data to permit suitable connection of the relay	Including polarity	<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet		P
5f	Accessories	If essential for the relay performance	<input type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet		N/A
5g	Data concerning earthing or grounding of metal parts	If applicable	<input type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet		N/A
5h	Duty restrictions	If any	<input type="checkbox"/> Catalogue <input type="checkbox"/> Instruction sheet		N/A
5i	Mounting distance	See Annex B	<input type="checkbox"/> Catalogue <input checked="" type="checkbox"/> Instruction sheet	50mm	P



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Clause	Requirement + Test	Result - Remark			Verdict
<b>TABLE: 1.0 [Data]</b>					
5j	Maximum permitted steady-state temperature of the terminals	See clause 8.1 and/or Table 6.0	Manufacturer documentation	135°C	P
5k	Resistance to soldering heat	Including reference to the test procedure	Manufacturer documentation		N/A

<b>TABLE: 2.0 [Additional data for manual operation]</b>					N/A

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IEC 61210		A [mm]	B min. [mm]	C [mm]	D [mm]	E [mm]	F [mm]	J [°]	M [mm]	N [mm]	# min. [mm]	## min. [mm]	P [mm]	Q min. [mm]	<b>TABLE: 3.0 [NOMINAL SIZE]</b>				
2.8x0.5	Dimple detent	0.6 0.3	7.0	0.54 0.47	2.9 2.7	1.8 1.3	1.3 1.1	12 8	1.7 1.4	1.4 1.0	0.076	○ 0.076 □ 0.13	1.4 0.3	8.1					
	Hole	0.6 0.3	7.0	0.54 0.47	2.9 2.7	1.8 1.3	1.3 1.1	12 8				0.076	1.4 0.3	8.1					
2.8x0.8	Dimple detent	0.6 0.3	7.0	0.84 0.77	2.9 2.7	1.8 1.3	1.3 1.1	12 8	1.7 1.4	1.4 1.0	0.076	○ 0.076 □ 0.13	1.4 0.3	8.1					
	Hole	0.6 0.3	7.0	0.84 0.77	2.9 2.7	1.8 1.3	1.3 1.1	12 8				0.076	1.4 0.3	8.1					
4.8x0.5	Dimple detent	0.9 0.6	6.2	0.54 0.47	4.8 4.6	2.8 2.3	1.5 1.3	12 8	1.7 1.4	1.5 1.2	0.076	○ 0.076 □ 0.13	1.7 0.6	7.3					
	Hole	0.9 0.6	6.2	0.54 0.47	4.9 4.67	3.4 3.0	1.5 1.3	12 8				0.076	1.7 0.6	7.3					
4.8x0.8	Dimple detent	1.0 0.7	6.2	0.84 0.77	4.8 4.6	2.8 2.3	1.5 1.3	12 8	1.7 1.4	1.5 1.2	0.076	○ 0.076 □ 0.13	1.8 0.7	7.3					
	Hole	1.0 0.6	6.2	0.84 0.77	4.9 4.67	3.4 3.0	1.5 1.3	12 8				0.076	1.8 0.7	7.3					
6.3x0.8	Dimple detent	1.0 0.7	7.8	0.84 0.77	6.4 6.2	4.1 3.6	2.0 1.6	12 8	2.5 2.2	2.0 1.8	0.076	○ 0.076 □ 0.13	1.8 0.7	8.9					
	Hole	1.0 0.5	7.8	0.84 0.77	6.4 6.2	4.7 4.3	2.0 1.6	12 8				0.076	1.8 0.7	8.9					
9.5x1.2	Hole	1.3 0.7	12.0	1.23 1.17	9.6 9.4	5.5 4.5	2.0 1.7	14 6				0.076	2.0 1.0	13.1					
Measured values															# = Depth of dimple detent				
															## = Tolerance to centerline				
2.8x0.5	<input type="checkbox"/>	Hole													Dimple detent	<input type="checkbox"/>	Round	<input type="checkbox"/>	Rectangular
2.8x0.8	<input type="checkbox"/>	Hole													Dimple detent	<input type="checkbox"/>	Round	<input type="checkbox"/>	Rectangular
4.8x0.5	<input type="checkbox"/>	Hole													Dimple detent	<input type="checkbox"/>	Round	<input type="checkbox"/>	Rectangular
4.8x0.8	<input type="checkbox"/>	Hole													Dimple detent	<input type="checkbox"/>	Round	<input type="checkbox"/>	Rectangular
6.3x0.8	<input type="checkbox"/>	Hole													Dimple detent	<input type="checkbox"/>	Round	<input type="checkbox"/>	Rectangular
9.5x1.2	<input type="checkbox"/>	Hole																	



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Clause	Requirement + Test	Result - Remark	Verdict

TABLE: 4.0 [Heating]			AC - Coils		
Type designation .....					
Kind of contacts .....			Mounting distance ..... mm		
Ambient temperature ..... min. °C			Test voltage- coil ..... 1,1 x U <sub>N</sub>		
Ambient temperature [ t <sub>2</sub> ] ..... max. °C			Wire cross section ..... mm <sup>2</sup>		
Coil insulation. .... max. °C			Coil consumption ..... VA		
Terminal temperature [ t <sub>T</sub> ] ..... max. °C			Tolerance [ Coil ] ..... ± %		
Housing temperature [ t <sub>H</sub> ] ..... max. °C			Contact - rated current ..... A		
Operate voltage [ U <sub>O</sub> ] ..... ≤ %			Release [ U <sub>R</sub> ] ..... ≥ 15 %		
Kind of termination.....					

Reference value t <sub>1</sub>					t <sub>min.</sub>	t <sub>max.</sub>					Verdict
Coil (U <sub>N</sub> )	t <sub>1</sub>	R <sub>1</sub>	I <sub>coil</sub>	P <sub>coil</sub>	U <sub>R</sub> (15%)	t <sub>2</sub>	R <sub>2</sub>	t <sub>T</sub> / t <sub>H</sub>	U <sub>O</sub>	ϑ	
V	°C	Ω	mA	VA	≥ [ V ]	°C	Ω	°C	≤ [ V ]	°C	

								/				
								/				
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IEC 61810-1							
Clause	Requirement + Test				Result - Remark		Verdict
<b>TABLE: 5.0 [Heating]</b>				<b>DC - Coils</b>			
Type designation .....: DS908A							
Kind of contacts .....: 2A or 2B				Mounting distance .....: 50 mm			
Ambient temperature .....: min. -40 °C				Test voltage- coil .....: <input type="checkbox"/> U <sub>2</sub> <input type="checkbox"/> 1.1 x U <sub>N</sub> See Remark for detail			
Ambient temperature [ t <sub>2</sub> ] .....: Max. 85 °C				Wire cross section .....: 35 mm <sup>2</sup>			
Coil insulation. ....: max. 130 °C				Coil consumption .....: 2.9 W			
Terminal temperature [ t <sub>T</sub> ] .....: max. 109.8 °C				Tolerance [ Coil ] .....: ± 10 %			
Housing temperature [ t <sub>H</sub> ] .....: max. 87.7 °C				Contact - rated current.....: 60 A			
Operate voltage [ U <sub>O</sub> ] .....: ≤ 80 %				Release [ UR1 ] : > - % Reset [ UR2 ] : ≤ 80 %			
Kind of termination.....: Welding							
Coil voltage (V)	Contact terminal temperature (°C)				Housing temperature (°C)	Coil temperature (°C)	Verdict
	Terminal 1	Terminal 2	Terminal 3	Terminal 4			
24	108.6	109.2	109.8	108.2	87.7	89.0	P
24	107.8	107.6	108.4	106.6	87.2	88.6	P
24	108.2	106.6	109.2	107.7	87.2	88.8	P
Remark: Test voltage of the coil is rated coil voltage specified by the manufacture. The pulse width of the test voltage should be 50 ms or longer to ensure that the relay have changed to “operate” state. And then disconnect the supply of the coil. The duration of the supply of the coil should not be more than 1 minute in order not to damage the coil.							

<b>TABLE: 5.0 [Heating]</b>				<b>DC - Coils</b>			
Type designation .....: DS908B							
Kind of contacts .....: 2A or 2B				Mounting distance .....: 50 mm			
Ambient temperature .....: min. -40 °C				Test voltage- coil .....: <input type="checkbox"/> U <sub>2</sub> <input type="checkbox"/> 1.1 x U <sub>N</sub> See Remark for detail			
Ambient temperature [ t <sub>2</sub> ] .....: Max. 85 °C				Wire cross section .....: 35 mm <sup>2</sup>			
Coil insulation. ....: max. 130 °C				Coil consumption .....: 4.5 W			
Terminal temperature [ t <sub>T</sub> ] .....: max. 111.2 °C				Tolerance [ Coil ] .....: ± 10 %			
Housing temperature [ t <sub>H</sub> ] .....: max. 88.3 °C				Contact - rated current.....: 100 A			



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Clause	Requirement + Test				Result - Remark		Verdict
Operate voltage [ U <sub>o</sub> ].....: ≤ 80 %				Release [ UR1 ] : > - %		Reset [ UR2 ] : ≤ 80 %	
Kind of termination.....: Welding							
Coil voltage (V)	Contact terminal temperature (°C)				Housing temperature (°C)	Coil temperature (°C)	Verdict
	Terminal 1	Terminal 2	Terminal 3	Terminal 4			
24	110.4	108.2	111.2	109.1	88.3	89.2	P
24	111.0	110.1	110.8	109.8	87.8	89.4	P
24	110.4	109.2	109.8	108.6	88.0	89.6	P
Remark: Test voltage of the coil is rated coil voltage specified by the manufacture. The pulse width of the test voltage should be 50 ms or longer to ensure that the relay have changed to “operate” state. And then disconnect the supply of the coil. The duration of the supply of the coil should not be more than 1 minute in order not to damage the coil.							

TABLE: 5.0 [Heating]				DC - Coils			
Type designation .....: DS908C							
Kind of contacts .....: 2A or 2B				Mounting distance .....: 50 mm			
Ambient temperature.....: min. -40 °C				Test voltage- coil .....: <input type="checkbox"/> U <sub>2</sub> <input type="checkbox"/> 1.1 x U <sub>N</sub> See Remark for detail			
Ambient temperature [ t <sub>2</sub> ].....: Max. 85 °C				Wire cross section .....: 35 mm <sup>2</sup>			
Coil insulation. ....: max. 130 °C				Coil consumption .....: 2.9 W			
Terminal temperature [ t <sub>T</sub> ] .....: max. 110.1 °C				Tolerance [ Coil ] .....: ± 10 %			
Housing temperature [ t <sub>H</sub> ] .....: max. 88.2 °C				Contact - rated current.....: 90 A			
Operate voltage [ U <sub>o</sub> ].....: ≤ 80 %				Release [ UR1 ] : > - %			
				Reset [ UR2 ] : ≤ 80 %			
Kind of termination.....: Welding							
Coil voltage (V)	Contact terminal temperature (°C)				Housing temperature (°C)	Coil temperature (°C)	Verdict
	Terminal 1	Terminal 2	Terminal 3	Terminal 4			
24	109.1	108.8	108.3	110.1	88.2	88.3	P
24	107.7	109.4	108.3	107.6	87.7	88.5	P
24	109.2	108.6	107.8	109.2	88.2	88.2	P
Remark: Test voltage of the coil is rated coil voltage specified by the manufacture. The pulse width of the test voltage should be 50 ms or longer to ensure that the relay have changed to “operate” state. And then disconnect the supply of the coil. The duration of the supply of the coil should not be more than 1 minute in order not to damage the coil.							



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Clause	Requirement + Test				Result - Remark		Verdict
<b>TABLE: 5.0 [Heating]</b>				<b>DC - Coils</b>			
Type designation .....: DS908E							
Kind of contacts .....: 2A or 2B				Mounting distance ..... : 50 mm			
Ambient temperature .....: min. -40 °C				Test voltage- coil .....: <input type="checkbox"/> U <sub>2</sub> <input type="checkbox"/> 1.1 x U <sub>N</sub> See Remark for detail			
Ambient temperature [ t <sub>2</sub> ].....: Max. 85 °C				Wire cross section ..... : 35 mm <sup>2</sup>			
Coil insulation. ....: max. 130 °C				Coil consumption ..... : 4.3 W			
Terminal temperature [ t <sub>T</sub> ] .....: max. 112.2 °C				Tolerance [ Coil ] ..... : ± 10 %			
Housing temperature [ t <sub>H</sub> ] .....: max. 88.3 °C				Contact - rated current..... : 100 A			
Operate voltage [ U <sub>0</sub> ].....: ≤ 80 %				Release [ UR1 ] : > - % Reset [ UR2 ] : ≤ 80 %			
Kind of termination.....: Welding							
Coil voltage (V)	Contact terminal temperature (°C)				Housing temperature (°C)	Coil temperature (°C)	Verdict
	Terminal 1	Terminal 2	Terminal 3	Terminal 4			
24	108.7	106.8	110.1	109.2	87.9	88.4	P
24	109.3	112.2	107.8	110.6	88.3	88.3	P
24	107.3	111.8	109.2	110.4	87.6	88.5	P
Remark: Test voltage of the coil is rated coil voltage specified by the manufacture. The pulse width of the test voltage should be 50 ms or longer to ensure that the relay have changed to “operate” state. And then disconnect the supply of the coil. The duration of the supply of the coil should not be more than 1 minute in order not to damage the coil.							



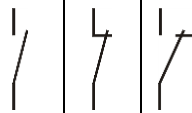
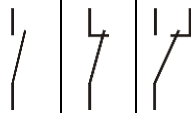
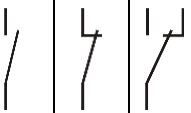
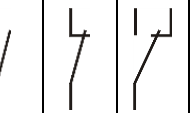
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<b>TABLE: 6.0 [Heat and fire resistance]</b>				<b>Electromechanical elementary relays</b>																		
<b>Specimen</b>				<b>IEC 60695-2-11 Glow-wire test [ 60 sec ]</b>						<b>IEC 60112: Tracking test</b>				<b>IEC 60695-10-2 Ball-pressure test</b>			<b>IEC 60695-11-5 Needle-flame test</b>					
<i>Part / Designation</i>	<i>Material / Trade name</i>	<i>Material-thickness</i>	<i>Colour</i>		<i>Start</i>	<i>End</i>	<i>Height</i>	<i>Ignition of tissue paper</i>	<i>Result</i>	<i>PTI Test-solution [ A ]</i>	<i>CTI</i>	<i>PTI Test-solution [ B ]</i>	<i>Result</i>		<i>Measured</i>	<i>Required</i>	<i>Result</i>	<i>Burning-duration</i>	<i>Start</i>	<i>End</i>	<i>Ignition of tissue paper</i>	<i>Result</i>
		mm		°C	sec	sec	mm							°C	mm	mm		sec	sec	sec		
Bobbin/ enclosure	PBT E202G30 SHINKONG SYNTHETIC FIBERS CORP	3.0	Black	850	0.32	32.20	45	No	P	175	-	N/A	P	135	1.2	2.0	P	-	-	-	-	-
Card	PA46 K-F46 S6/A NAT DSM ENGINEERING PLASTICS INC		Black	850	0.33	32.22	45	No	P	175	-	N/A	P	135	1.4	2.0	P	-	-	-	-	-
Support	PA66 A7064, NANJING DELLON ENGINEERING PLASTICS CO LTD		Natural	850	0.29	32.01	40	No	P	175	-	N/A	P	135	1.2	2.0	P	-	-	-	-	-
Bobbin/ Plastic material of magnetic steel combination	PBT E202G30 SHINKONG SYNTHETIC FIBERS CORP		White	850	0.30	31.59	40	No	P	175	-	N/A	P	135	1.2	2.0	P	-	-	-	-	-



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Clause	Requirement + Test	Result - Remark	Verdict

**TABLE: 7.0 [Electrical parameters and results]**

Inspection lot [each three specimen under test for procedure A] .....	1			2			3			4		
Type designation .....	DS908A			DS908B			DS908C			DS908E		
coil rated voltage .....	<input type="checkbox"/> AC <input checked="" type="checkbox"/> DC 24 V			<input type="checkbox"/> AC <input checked="" type="checkbox"/> DC 24 V			<input type="checkbox"/> AC <input checked="" type="checkbox"/> DC 24 V			<input type="checkbox"/> AC <input checked="" type="checkbox"/> DC 24 V		
Material of the contact .....	AgSnO <sub>2</sub>			AgSnO <sub>2</sub>			AgSnO <sub>2</sub>			AgSnO <sub>2</sub>		
Ambient Temperature .....	85 °C			85 °C			85 °C			85 °C		
Schematics for contact loading according Tab 13 .....	c			c			c			c		
Kind of contacts .....												
Number of contacts .....	2	N/A	N/A	2	N/A	N/A	2	N/A	N/A	2	N/A	N/A
Number of cycles .....	10000			10000			10000			10000		
Cycles per hour.....	720 / h			720 / h			720 / h			720 / h		
ON/OFF.....	1.25 s/ 3.75 s			1.25 s/ 3.75 s			1.25 s/ 3.75 s			1.25 s/ 3.75 s		
Rated voltage .....	<input checked="" type="checkbox"/> AC <input type="checkbox"/> DC 250 V			<input checked="" type="checkbox"/> AC <input type="checkbox"/> DC 250 V			<input checked="" type="checkbox"/> AC <input type="checkbox"/> DC 250 V			<input checked="" type="checkbox"/> AC <input type="checkbox"/> DC 250 V		
Overload making current (50 cycles) .....	- A			- A			- A			- A		
Overload breaking current (50 cycles) .....	- A			- A			- A			- A		
Inrush current .....	- A			- A			- A			- A		
Rated making current .....	60 A			100 A			90 A			100 A		
Rated breaking current .....	60 A			100 A			90 A			100 A		
Power factor..... (AC) :	cos φ	1.0		cos φ	1.0		cos φ	1.0		cos φ	1.0	
Time factor..... (DC) :	- ms			- ms			- ms			- ms		
Dielectric test according to clause 11.4:												
Contact(s) – coil .....	AC	1125 V		AC	1125 V		AC	1125 V		AC	1125 V	
Open contact(s) .....	AC	375 V		AC	375 V		AC	375 V		AC	375 V	
Contact(s) – Contact(s) .....	AC	1125 V		AC	1125 V		AC	1125 V		AC	1125 V	
Verdict .....	P			P			P			P		
Remarks .....	- Test current:60.7A			Test current:102A			Test current:90.6A			Test current:102A		



IEC 61810-1			
Clause	Requirement + Test	Result - Remark	Verdict

**TABLE: 8.0 [Clearances / Creepage distances]**

Type designation .....	DS908A, DS908B, DS908C, DS908D, DS908E			
Rated voltage / V .....	250V	Pollution degree.....	2	
Rated impulse voltage / V... :	4kV	Insulation material group .....	IIIa	
	Clearance [mm]		Creepage distance [mm]	
	Required	Measured	Required	Measured
<b>Basic insulation</b>				
Contact(s) – coil	3.0	>3.6	2.5	>3.0
Contact(s) / coil - case	-	-	-	-
Contact(s) - Contact(s) (only multipole relays)	3.0	>3.6	2.5	>3.0
Terminals of opposite polarity	0.2	>0.3	0.5	>0.6
<b>Supplementary insulation</b>				
Contact(s) – coil	-	-	-	-
Contact(s) / coil - case	-	-	-	-
Contact(s) - Contact(s) (only multipole relays)	-	-	-	-
<b>Double insulation</b>				
Contact(s) – coil	-	-	-	-
Contact(s) / coil - case	-	-	-	-
Contact(s) - Contact(s) (only multipole relays)	-	-	-	-
<b>Reinforced insulation</b>				
Contact(s) – coil	-	-	-	-
Contact(s) / coil – top surface of case	-	-	-	-
Contact(s) - Contact(s) (only multipole relays)	-	-	-	-
<b>Full disconnection</b>				
Across open contacts	-	-	-	-
<b>Functional insulation</b>				
Terminals of relay coils	0.2	>0.3	0.5	>0.6
Terminals of load circuit	3.0	>3.6	2.5	>3.0



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
<b>7</b>	<b>Electrical requirements</b>		-
	Comply with the relevant electrical requirements of IEC 62052-11 and IEC 62053-21, where referenced and augmented herein.		P
	Shall be mounted as for normal service, including in a specified matching socket where applicable.		P
	The load switch shall be in the closed position for each of these tests, unless otherwise specified.		P
<b>7.9</b>	<b>Load switching</b>		-
7.9.1	The load switch shall be considered as an integral part of the payment meter and each test shall be performed on the payment meter as a complete unit.		N/A
	The supply input terminals and the load output terminals of the payment meter shall be taken to be the effective terminals of the load switch.		P
	Load switching utilisation category shall be marked on the label of the payment meter as UC1, UC2, UC3, or UC4 in accordance with the relevance of 7.9.3 or 7.9.4.	UC3	P
<b>Annex C</b>	<b>Performance requirements for payment meters with load switching utilisation categories UC2, UC3 and UC4</b>		-
<b>C.1</b>	<b>Load switching capabilities:</b>		-
	Payment meters with load switching category UC2, UC3 or UC4 shall have the following properties:	UC3	-
	- a) capable of making and breaking negligible currents of specified values;		P
	- b) capable of making, breaking and carrying rated currents of specified values;		P
	- c) capable of making into fault currents with specified value and under specified conditions;		P
	- d) capable of carrying short-circuit currents of specified value for a specified time period and under specified conditions;		P
	- e) not required to provide safety isolation properties in the open contact position. These are requirements for the installation mains isolation switch;		P
	- f) not required to break overload currents or short-circuit currents. These are requirements for fuses and circuit breakers that are normally used to protect the installation.		P
<b>C.2</b>	<b>Normal operation</b>		-



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	The load switch shall be		-
	- Operable to interrupt the supply to the load circuit when available credit expires.	#1 Sample	P
	- Operable to restore the supply to the load circuit when available credit is replenished, but only under manual control;		N/A
	The test is carried out under the following conditions:		-
	- payment meter in normal operating condition		P
	- load a small amount of available credit		P
	- supply voltage at, or just above, the lowest value of the rated operating voltage range	250VAC	P
	- current in the load circuit at $I_c$ and $PF = 1,0$	DS908A: 60A; DS908B: 100A; DS908C: 90A; DS908E: 100A, and $PF=1.0$	P
	Wait until the available credit expires and check for compliance with the following requirements:		-
	- the load switch shall interrupt the supply to the load circuit;		P
	- the load switch shall operate on the first attempt;		P
	- there shall be no evidence of sticking of the contacts		P
	- there shall be no change in any of the memory registers in the payment meter, except for those that are expected to change		P
	Where a load switch has a mechanical actuating lever for manually closing or opening the contacts, then perform each test when the lever is held in the following positions:		N/A
	- when pushing the lever in the direction for closing of the contacts, then hold the lever at the nearest point where the load switch contacts have just made contact		N/A
	- the contacts are placed under the greatest pressure during the closing operation		N/A
	- the lever is in its normal resting position after the contacts have closed		N/A
<b>C.3</b>	<b>Electrical endurance</b>		<b>P</b>
	The test shall be carried out on a new sample under the following conditions:		-
	- payment meter in normal operating condition;	#4 Sample	P
	- room temperature at reference conditions;		P
	- 1 m length cable with current carrying capacity of $I_c$ ;	DS908A: 60A; DS908B: 100A; DS908C: 90A; DS908E: 100A;	-



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	- supply voltage at Uc;	250VAC	P
	- load current at Ic and PF = 1,0;	DS908A: 60 A, 1.0 DS908B: 100A, 1.0 DS908C: 90A, 1.0 DS908E: 100A, 1.0	P
	- Number of operating cycles equal to 5 000, with 10 s make time and 20 s break time.		P
	Repeat the test using the same sample, but with the following changes:		-
	- Load current at Ic and PF = 0,5 inductive.	DS908A: 60A, 0.52 DS908B: 100A, 0.52 DS908C: 90A, 0.49 DS908E: 100A, 0.51	P
	During and after the test the following requirements shall be met:		-
	- The load switch shall show no signs of malfunction, sticking of contacts or reluctance to latch;		P
	- the contacts shall open on the first attempt;		P
	the requirements of C.7: test for minimum switched current;		P
C.7	Minimum switched current		P
	The test is carried out under the following conditions:		-
	- payment meter in normal operating condition;		P
	- test voltage at Uc;	250VAC	P
	- Test current at minimum switched current value and PF = 1,0;	1.0A	P
	- 10 operating cycles at approximately 10s closed and 20 s open.		P
	The following requirements shall be met:		-
	- Test current shall successfully conduct each time the contacts are in the closed position;		P
	- Test current shall successfully break each time the contacts are in the open position.		P
	the requirements of 7.3 and its subclauses: test for power consumption;		P
7.3	The measurement of power consumption in the voltage and current circuits shall be determined as given in 7.1 of IEC 62053-21.		P
7.3.1	Voltage circuits		N/A



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	The active and apparent power consumptions in each phase of a direct-connected payment meter at reference voltage, reference temperature, and reference frequency shall not exceed 3 W and 10 VA, including the auxiliary power supply consumption.		N/A
	When a polyphase meter is operated on only one or two phases, the total consumption of the meter in each of those phases shall not exceed these same amounts.		N/A
	Short-term increases in consumption due to the reading/writing of a token or the operation of a switch are permitted. Where the meter is fitted with a token carrier acceptor and the token carrier can be retained in the payment meter, then these power consumption requirements shall also be met with a normal token carrier retained in the meter in quiescent operation		N/A
7.3.2	Current circuits		P
	The apparent power taken by each current circuit of a direct-connected payment meter at maximum current, reference frequency, and reference temperature shall not exceed a value in VA equivalent to 0,08 % of $U_n$ in volts multiplied by 100 % of $I_{max}$ in amperes	DS908A: Required: $\leq 12.0VA$ ; Measured: 4.58VA. DS908B: Required: $\leq 20.0VA$ ; Measured: 6.42VA. DS908C: Required: $\leq 18.0VA$ ; Measured: 5.97VA. DS908E: Required: $\leq 20.0VA$ ; Measured: 6.52VA.	P
	These values include consideration of the load switch.		P
	the requirements of C.8: test for dielectric strength		P
C.8	Dielectric strength		P
	When the load switch contacts are in the open condition, it shall present a minimum level of isolation between the supply input and load output terminals.		P
	Perform the test under the following conditions:		-
	- with the load switch contacts in the open position;		P
	- the payment meter in the non-operating condition;		P
	- between input circuits grouped and output circuits grouped;		P
	- impulse test voltage at 1 kV peak;		P
	- a.c. test voltage at 2 kV r.m.s.		P



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	- The impulse voltage test shall be carried out first and the a.c. voltage test afterwards.		P
	- Apply the impulse voltage test as given in 7.3.2 of IEC 62052-11,		P
	- Apply the a.c. voltage test as given in 7.4 of IEC 62053-21,		P
	During and after the test the following requirements shall be met:		-
	- there shall be no flash-over, disruptive discharge or puncture;		P
	- It shall operate correctly and there shall be no change in any of the memory registers.		P
	It shall operate correctly and there shall be no change in any of the memory registers, except for those that are expected to change.		P
<b>C.4</b>	<b>Line to load voltage surge withstand</b>		-
	The payment meter shall be able to withstand simulated lightning induced common mode voltage surges as might be expected in a typical domestic installation, while the load switch contacts are in the open position.		P
	All current carrying phase and neutral input terminals are grouped and connected together; and all current carrying phase and neutral output terminals are grouped and connected together. All other terminals are connected to a safety ground reference.		P
	Perform the test in accordance with IEC 61000-4-5 under the following conditions:		-
	- with load switch contacts in open position;		P
	- payment meter in the non-operating mode;		P
	- between the group of input terminals and the group of output terminals;		P
	- ambient temperature at reference conditions;		P
	- relative humidity at 40 % to 60 %;		P
	- atmospheric pressure at 80 kPa to 106 kPa;		P
	- cable length between surge generator and payment meter at 1m;		P
	- open circuit voltage of generator at 20 kV (1,2/50 $\mu$ s);		P
	- prospective short circuit current of 250 A peak;		P
	- generator source impedance of 80 $\Omega$ ;		P
	- 5 positive and 5 negative impulses;		P



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	- repetition rate not faster than 1 impulse per minute;		P
	During and after the test the following requirements shall be met:		-
	- it is permitted for flashover and disruptive discharge to occur during the test		P
	- shall be no permanent damage to any part of the payment meter		P
	- it shall operate correctly and there shall be no change in any of the memory registers.		P
<b>C.5</b>	<b>Fault current making capacity</b>		-
	Perform the test on a new payment meter sample under the following conditions:		-
	- climatic conditions at reference values;		P
	- payment meter in the normal operating condition;		P
	- voltage source at $U_c$ ;	250VAC	P
	- 3 pre-fusing operating cycles at $I_c$ and $PF=1,0$ at 10 s intervals;	DS908A: 60A; DS908B: 100A; DS908C: 90A; DS908E: 100A, and $PF=1.0$	P
	- prospective test current at 2,5 kA r.m.s. for utilisation category UC2;		N/A
	- prospective test current at 3 kA r.m.s. for utilisation category UC3;		P
	- prospective test current at 4,5 kA r.m.s. for utilisation category UC4;		N/A
	- power factor of test current shall be inductive in accordance with Table 16 of IEC 61008-1;	0.87	P
	- frequency at reference value;	50Hz	P
	- current tolerance +5 % –0 %;	See table C.5	P
	- voltage tolerance +5 % –5 %;	See table C.5	P
	- power factor tolerance +0,00 –0,05.	See table C.5	P
	Cause the payment meter to close the load switch contacts into the above prospective test current and to remain in the closed position.		P
	The test current shall be maintained to flow up to the first zero point crossing of the current, at which point, the test equipment shall disconnect the voltage source.		P
	Repeat the test 3 times on the same sample with a minimum delay of 1 min between each test.		P



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	Plot a graph of the voltage and the test current waveform during each test and verify that the test was executed as is required.	See table C.5	P
	During and after the test the following requirements shall be met:		-
	- contacts shall open on the first attempt after each make cycle;		P
	- the load switch shall show no signs of malfunction, sticking or welding of contacts or reluctance to latch;		P
	the requirements of C.7: test for minimum switched current;		P
C.7	Minimum switched current		P
	The test is carried out under the following conditions:		-
	- payment meter in normal operating condition;		P
	- test voltage at $U_c$ ;	250VAC	P
	- Test current at minimum switched current value and $PF = 1,0$ ;	1.0A	P
	- 10 operating cycles at approximately 10s closed and 20 s open.		P
	The following requirements shall be met:		-
	- Test current shall successfully conduct each time the contacts are in the closed position;		P
	- Test current shall successfully break each time the contacts are in the open position.		P
	the requirements of 7.3 and its subclauses: test for power consumption;		P
7.3	The measurement of power consumption in the voltage and current circuits shall be determined as given in 7.1 of IEC 62053-21.		P
7.3.1	Voltage circuits		N/A
	The active and apparent power consumptions in each phase of a direct-connected payment meter at reference voltage, reference temperature, and reference frequency shall not exceed 3 W and 10 VA, including the auxiliary power supply consumption.		N/A
	When a polyphase meter is operated on only one or two phases, the total consumption of the meter in each of those phases shall not exceed these same amounts.		N/A



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	Short-term increases in consumption due to the reading/writing of a token or the operation of a switch are permitted. Where the meter is fitted with a token carrier acceptor and the token carrier can be retained in the payment meter, then these power consumption requirements shall also be met with a normal token carrier retained in the meter in quiescent operation		N/A
7.3.2	Current circuits		P
	The apparent power taken by each current circuit of a direct-connected payment meter at maximum current, reference frequency, and reference temperature shall not exceed a value in VA equivalent to 0,08 % of $U_n$ in volts multiplied by 100 % of $I_{max}$ in amperes	DS908A: Required: $\leq 12.0VA$ ; Measured: 4.40VA. DS908B: Required: $\leq 20.0VA$ ; Measured: 6.17VA. DS908C: Required: $\leq 18.0VA$ ; Measured: 5.44VA. DS908E: Required: $\leq 20.0VA$ ; Measured: 6.24VA.	P
	the requirements of C.8: test for dielectric strength		P
<b>C.8</b>	<b>Dielectric strength</b>		<b>P</b>
	When the load switch contacts are in the open condition, it shall present a minimum level of isolation between the supply input and load output terminals.		P
	Perform the test under the following conditions:		-
	- with the load switch contacts in the open position;		P
	- the payment meter in the non-operating condition;		P
	- between input circuits grouped and output circuits grouped;		P
	- impulse test voltage at 1 kV peak;		P
	- a.c. test voltage at 2 kV r.m.s.		P
	- The impulse voltage test shall be carried out first and the a.c. voltage test afterwards.		P
	- Apply the impulse voltage test as given in 7.3.2 of IEC 62052-11,		P
	- Apply the a.c. voltage test as given in 7.4 of IEC 62053-21,		P
	During and after the test the following requirements shall be met:		-
	- there shall be no flash-over, disruptive discharge or puncture;		P



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	- It shall operate correctly and there shall be no change in any of the memory registers.		P
	it shall operate correctly and there shall be no change in any of the memory registers, except for those that are expected to change.		P
<b>C.6</b>	<b>Short-circuit current carrying capacity</b>		<b>P</b>
	The payment meter shall withstand simulated short-circuit currents as may be experienced under short-circuit conditions in a payment meter installation.		P
	Test 1 shall be carried out on a new payment meter sample under the following conditions:		-
	- climatic conditions at reference values;	#2 Sample	P
	- payment meter in the normal operating condition;		P
	- voltage source at $U_c$ ;	250VAC	P
	- 3 pre-fusing operating cycles at $I_c$ and $PF = 1,0$ at 10 s intervals;		P
	- prospective test current at 4.5 kA r.m.s. for utilisation category UC2;		N/A
	- prospective test current at 6 kA r.m.s. for utilisation category UC3;		P
	- prospective test current at 10 kA r.m.s. for utilisation category UC4;		N/A
	- power factor of test current shall be inductive in accordance with Table 16 of IEC 61008-1;	0.68	P
	- test switch closing at zero voltage crossover;		P
	- test switch opening at the first subsequent zero voltage crossover, thus remaining in the closed position for one half cycle of the supply voltage;		P
	- frequency at reference value;	50Hz	P
	- current tolerance +5 % –0 %;	See table C.6	P
	- voltage tolerance +5 % –5 %;	See table C.6	P
	- Power factor tolerance +0,00 –0,05.	See table C.6	P
	Repeat the test 3 times on the same sample with a minimum delay of 1min between each test.		P
	Plot a graph of the voltage and the test current waveform during each test and verify that the test was executed as is required.	See table C.6	P
	During and after the test the following requirements shall be met:		-



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	- it is permissible that the contacts may weld or burn away;	Contacts weld	P
	- the surroundings of the payment meter shall not be endangered;		P
	- protection against indirect contact shall remain assured;		P
	Test 2 shall be carried out on a new sample under the following conditions:		-
	the same conditions as for Test 1 shall apply, except that	#3 Sample	P
	the prospective test current shall be 2,5 kA r.m.s. for utilisation category UC2, 3 kA r.m.s. for utilisation category UC3 and 4,5 kA r.m.s. for utilisation category UC4.	3kA, PF=0.87	P
	During and after the test the following requirements shall be met:		-
	- the load switch shall show no signs of malfunction, sticking or welding of contacts or reluctance to latch;		P
	- contacts shall open on the first attempt;		P
	the requirements of C.7: test for minimum switched current;		P
C.7	Minimum switched current		P
	The test is carried out under the following conditions:		-
	- payment meter in normal operating condition;		P
	- test voltage at Uc;	250VAC	P
	- Test current at minimum switched current value and PF = 1,0;	1.0A	P
	- 10 operating cycles at approximately 10s closed and 20 s open.		P
	The following requirements shall be met:		-
	- Test current shall successfully conduct each time the contacts are in the closed position;		P
	- Test current shall successfully break each time the contacts are in the open position.		P
	the requirements of 7.3 and its subclauses: test for power consumption;		P
7.3	The measurement of power consumption in the voltage and current circuits shall be determined as given in 7.1 of IEC 62053-21.		P
7.3.1	Voltage circuits		N/A



EN 62055-31			
Clause	Requirement + Test	Result – Remark	Verdict
	The active and apparent power consumptions in each phase of a direct-connected payment meter at reference voltage, reference temperature, and reference frequency shall not exceed 3 W and 10 VA, including the auxiliary power supply consumption.		N/A
	When a polyphase meter is operated on only one or two phases, the total consumption of the meter in each of those phases shall not exceed these same amounts.		N/A
	Short-term increases in consumption due to the reading/writing of a token or the operation of a switch are permitted. Where the meter is fitted with a token carrier acceptor and the token carrier can be retained in the payment meter, then these power consumption requirements shall also be met with a normal token carrier retained in the meter in quiescent operation		N/A
7.3.2	Current circuits		P
	The apparent power taken by each current circuit of a direct-connected payment meter at maximum current, reference frequency, and reference temperature shall not exceed a value in VA equivalent to 0,08 % of $U_n$ in volts multiplied by 100 % of $I_{max}$ in amperes	DS908A: Required: $\leq 12.0VA$ ; Measured: 4.35VA. DS908B: Required: $\leq 20.0VA$ ; Measured: 6.12VA. DS908C: Required: $\leq 18.0VA$ ; Measured: 5.48VA. DS908E: Required: $\leq 20.0VA$ ; Measured: 6.02VA.	P
	the requirements of C.8: test for dielectric strength		P
<b>C.8</b>	<b>Dielectric strength</b>		<b>P</b>
	When the load switch contacts are in the open condition, it shall present a minimum level of isolation between the supply input and load output terminals.		P
	Perform the test under the following conditions:		-
	- with the load switch contacts in the open position;		P
	- the payment meter in the non-operating condition;		P
	- between input circuits grouped and output circuits grouped;		P
	- impulse test voltage at 1 kV peak;		P
	- a.c. test voltage at 2 kV r.m.s.		P
	- The impulse voltage test shall be carried out first and the a.c. voltage test afterwards.		P



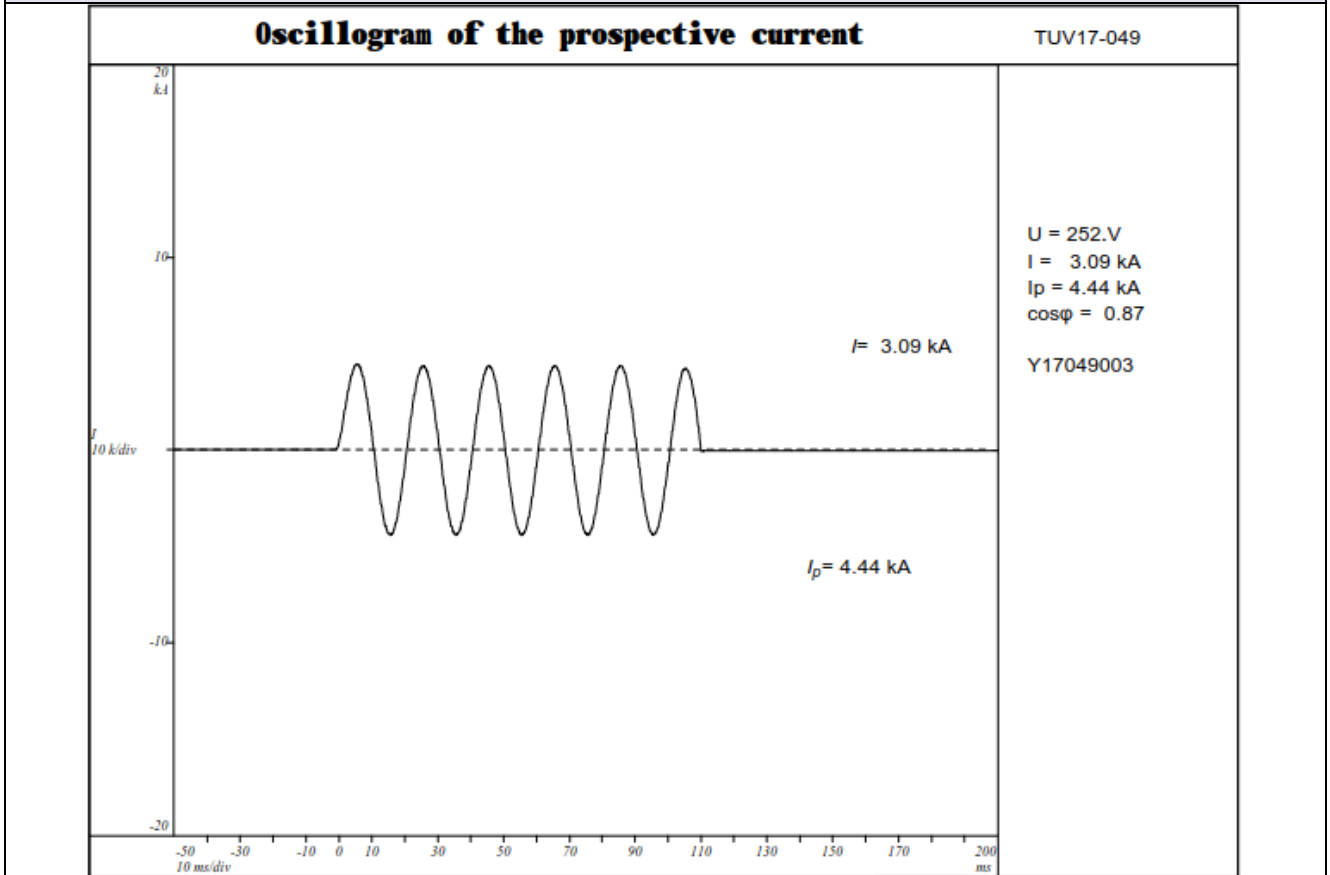
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	During and after the test the following requirements shall be met:		-																																																													
	- there shall be no flash-over, disruptive discharge or puncture;		P																																																													
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C.9	Sequence of tests		P																																																													
	<b>Table C.2 – Test sequence and sample plan</b>		P																																																													
	<table border="1"> <thead> <tr> <th>Test number</th> <th>Test clause</th> <th>Sample A</th> <th>Sample B</th> <th>Sample C</th> <th>Sample D</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>C.2 Normal operation</td> <td>*</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>C.3 Electrical endurance</td> <td></td> <td></td> <td></td> <td>*</td> </tr> <tr> <td>3</td> <td>C.4 Line to load voltage surge withstand</td> <td>*</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>C.5 Fault current making capacity</td> <td>*</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>C.6 Short-circuit current carrying capacity Test 1</td> <td></td> <td>*</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>C.6 Short-circuit current carrying capacity Test 2</td> <td></td> <td></td> <td>*</td> <td></td> </tr> <tr> <td>7</td> <td>C.7 Minimum switched current</td> <td>*</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>8</td> <td>7.3 and 7.3.2 Power consumption in current circuits</td> <td>*</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>9</td> <td>C.8 Dielectric strength</td> <td>*</td> <td>*</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>NOTE 1 The * in the table indicates that the particular test should be performed on the particular sample, but the sequence of the tests shall always follow the same order as the test number sequence. For example: sample A shall be subjected to test numbers 1, 3, 4, 7, 8 and 9, in that specific order.</p> <p>NOTE 2 Tests 1 and 3 may alternatively be performed on any one of the Samples B, C or D, prior to performing the tests indicated in the table.</p> <p>NOTE 3 Sample C might not be required, depending on the result of test 5 on Sample B (see NOTE 3 of Clause C.6)</p>	Test number	Test clause	Sample A	Sample B	Sample C	Sample D	1	C.2 Normal operation	*				2	C.3 Electrical endurance				*	3	C.4 Line to load voltage surge withstand	*				4	C.5 Fault current making capacity	*				5	C.6 Short-circuit current carrying capacity Test 1		*			6	C.6 Short-circuit current carrying capacity Test 2			*		7	C.7 Minimum switched current	*	*	*	*	8	7.3 and 7.3.2 Power consumption in current circuits	*	*	*	*	9	C.8 Dielectric strength	*	*	*	*			
Test number	Test clause	Sample A	Sample B	Sample C	Sample D																																																											
1	C.2 Normal operation	*																																																														
2	C.3 Electrical endurance				*																																																											
3	C.4 Line to load voltage surge withstand	*																																																														
4	C.5 Fault current making capacity	*																																																														
5	C.6 Short-circuit current carrying capacity Test 1		*																																																													
6	C.6 Short-circuit current carrying capacity Test 2			*																																																												
7	C.7 Minimum switched current	*	*	*	*																																																											
8	7.3 and 7.3.2 Power consumption in current circuits	*	*	*	*																																																											
9	C.8 Dielectric strength	*	*	*	*																																																											

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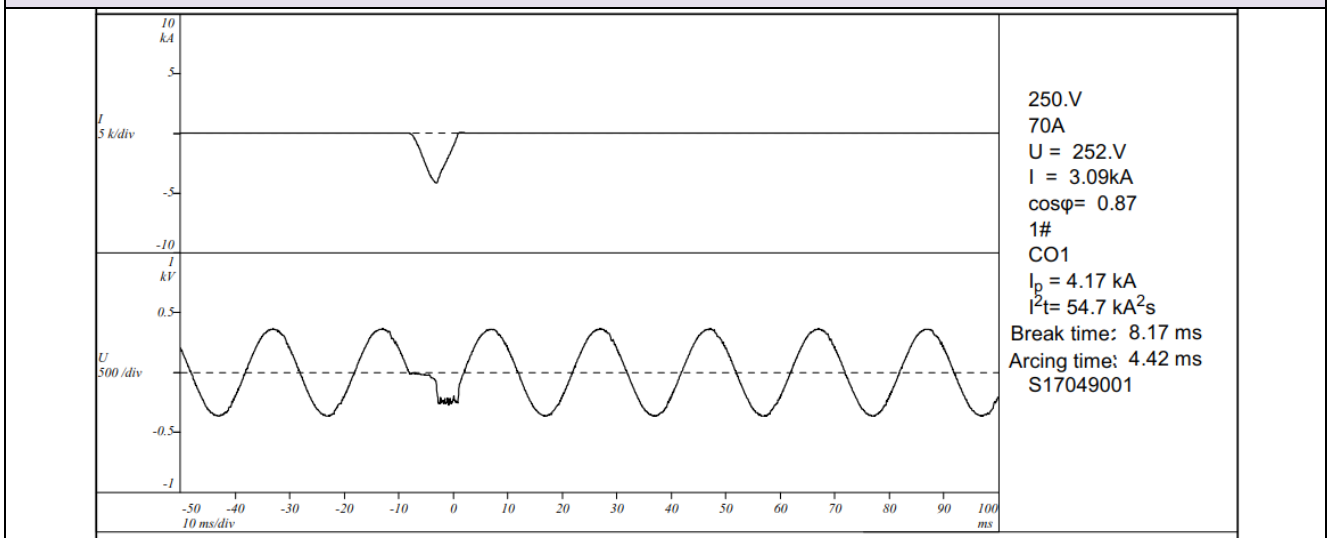
Clause	Requirement + Test	Result – Remark	Verdict
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**Table C.5 for DS908A**

Prospective test current (3.0kA)



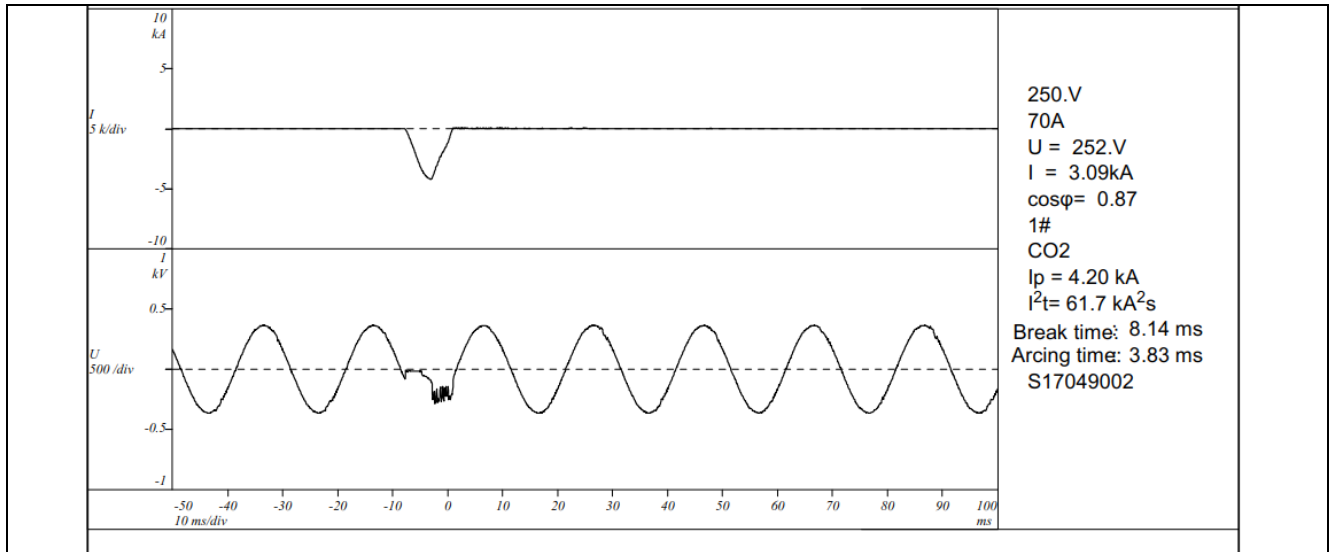
First time- Fault current making capacity



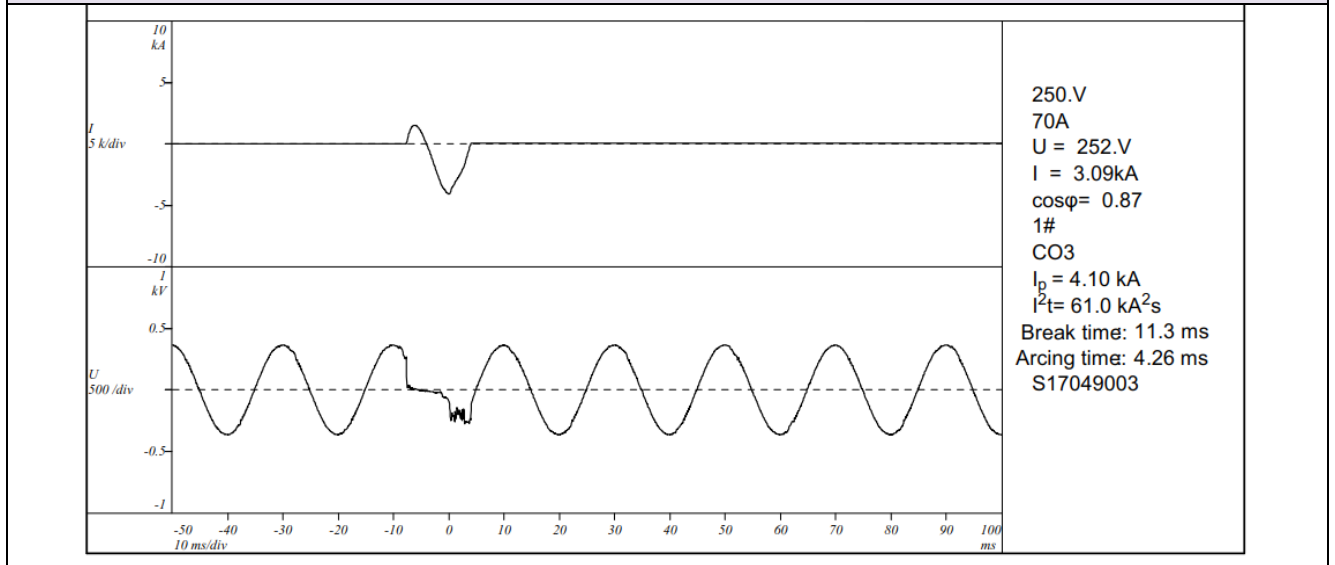
Second time - Fault current making capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Fault current making capacity**

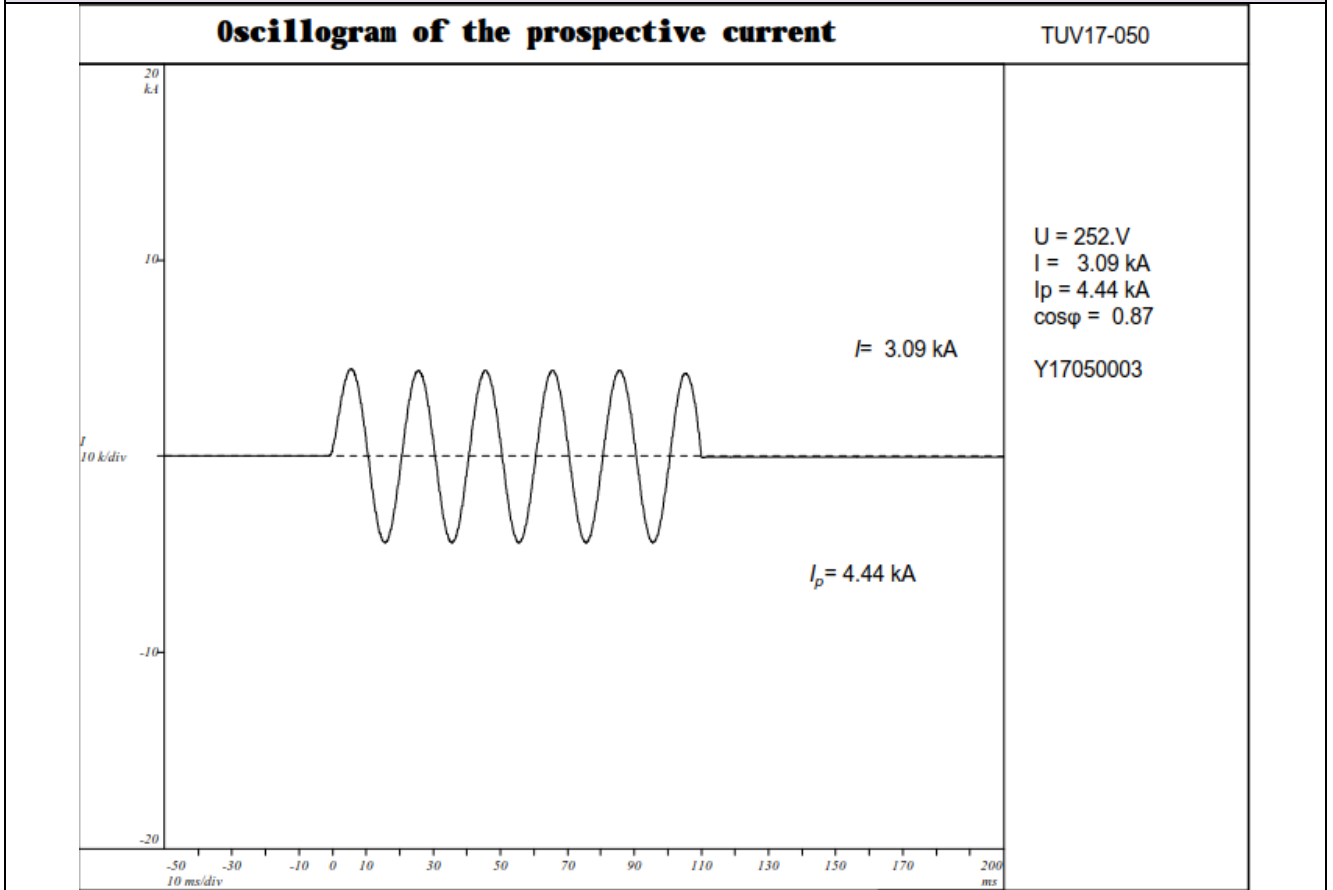


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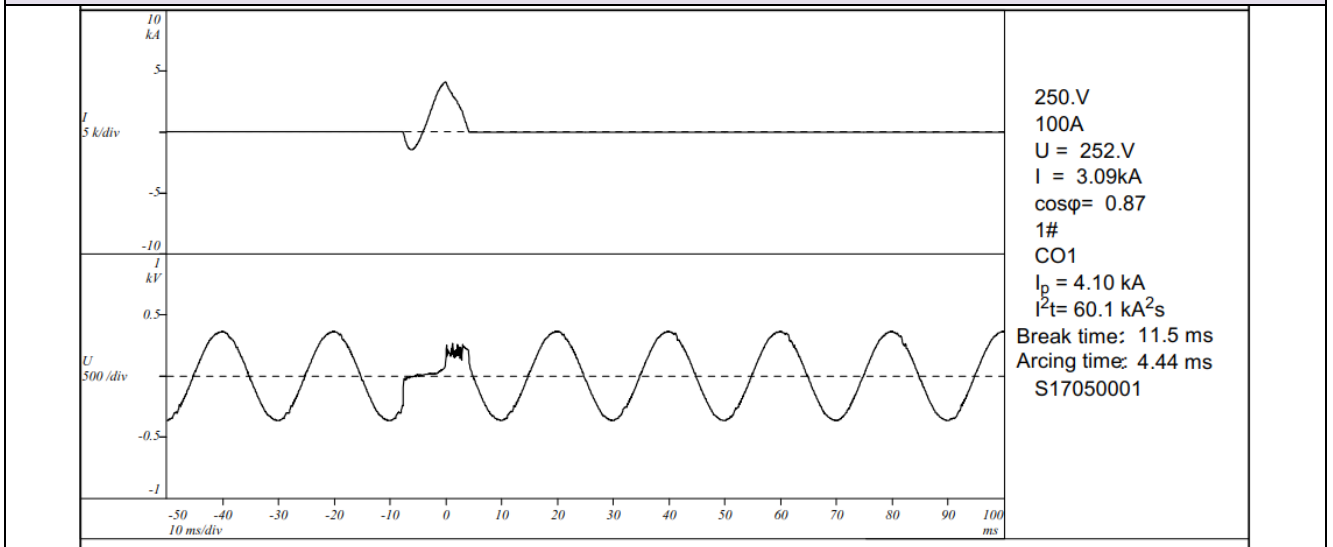
Clause	Requirement + Test	Result – Remark	Verdict
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**Table C.5 for DS908B**

Prospective test current (3.0kA)



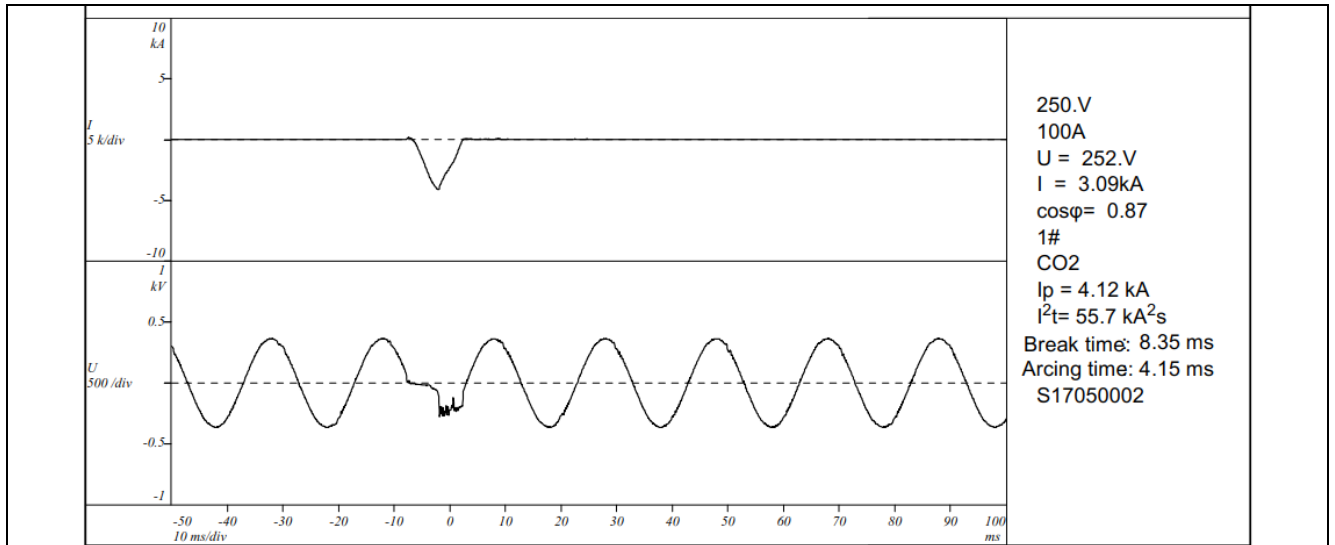
First time- Fault current making capacity



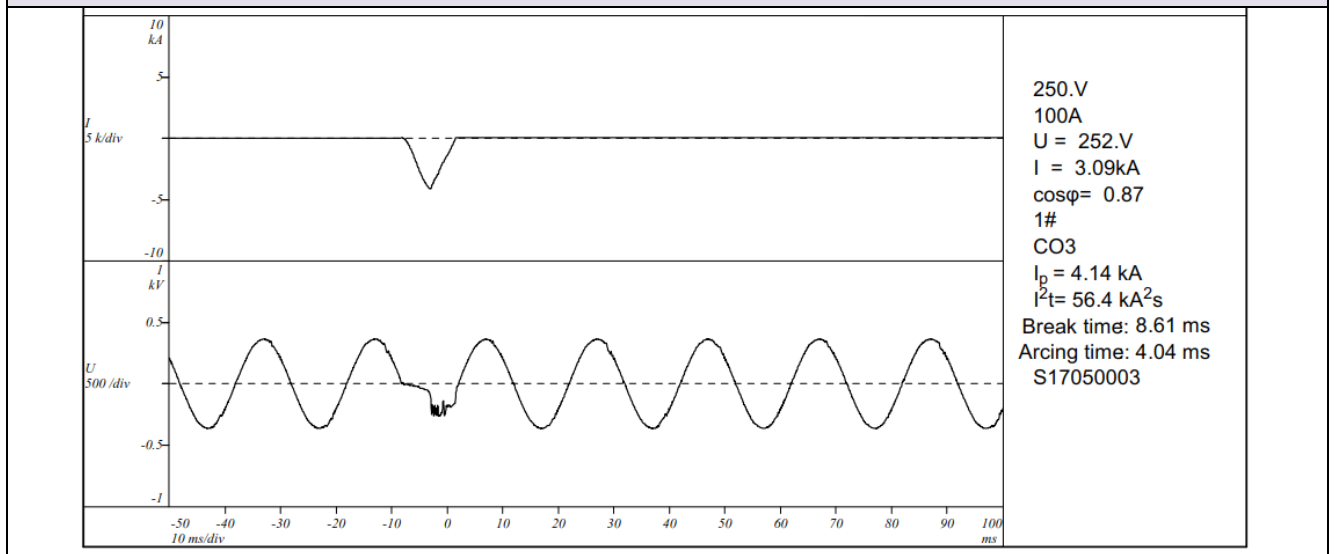
Second time - Fault current making capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Fault current making capacity**



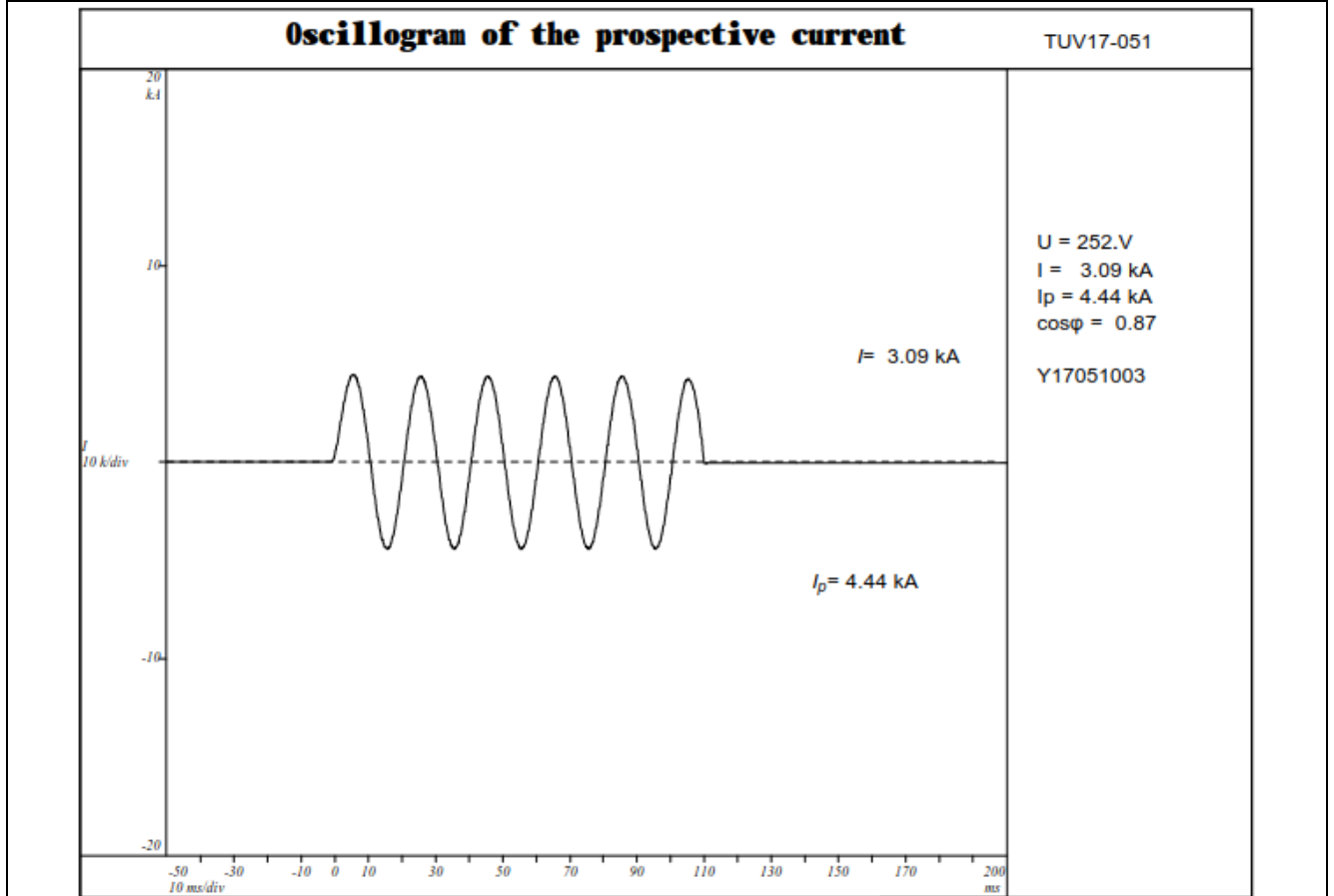


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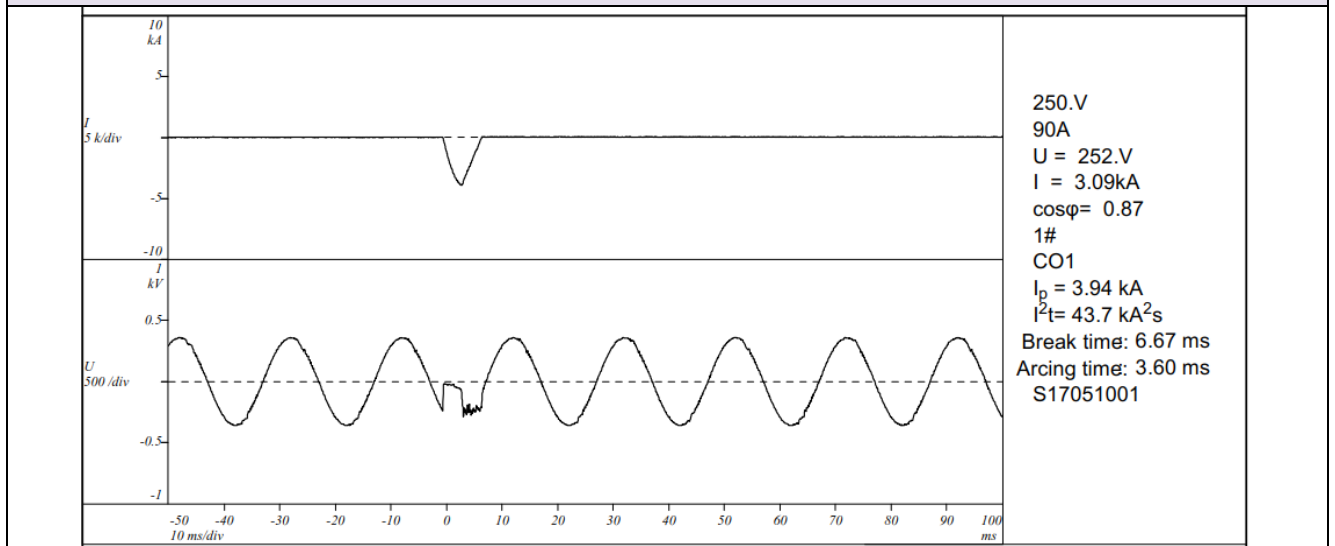
Clause	Requirement + Test	Result – Remark	Verdict
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Table C.5 for DS908C

Prospective test current (3.0kA)



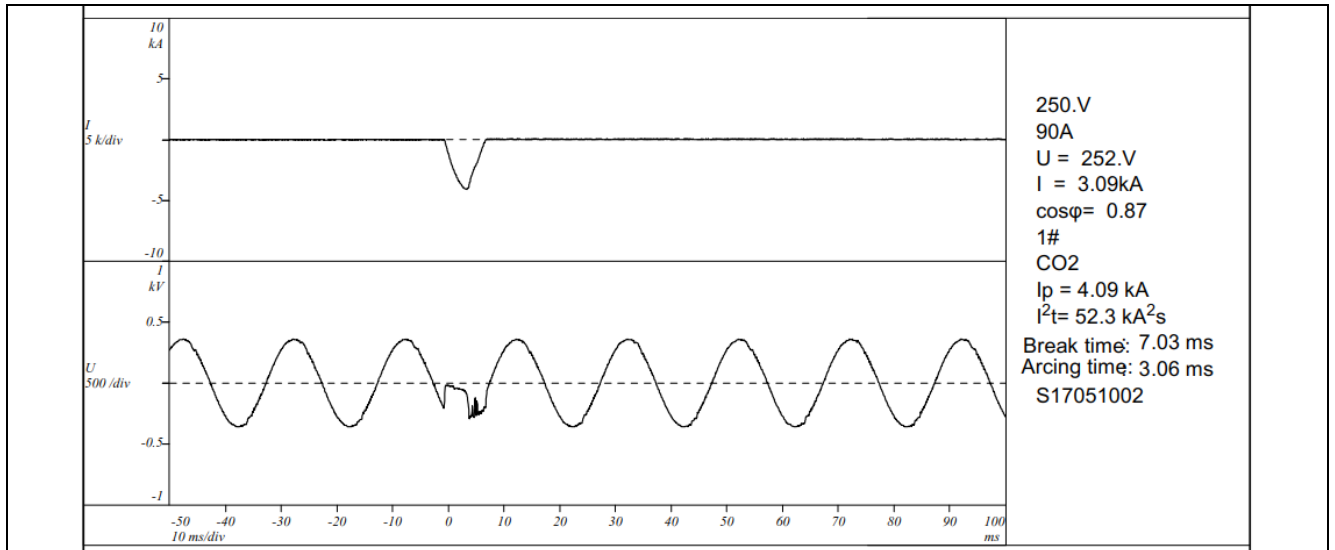
First time- Fault current making capacity



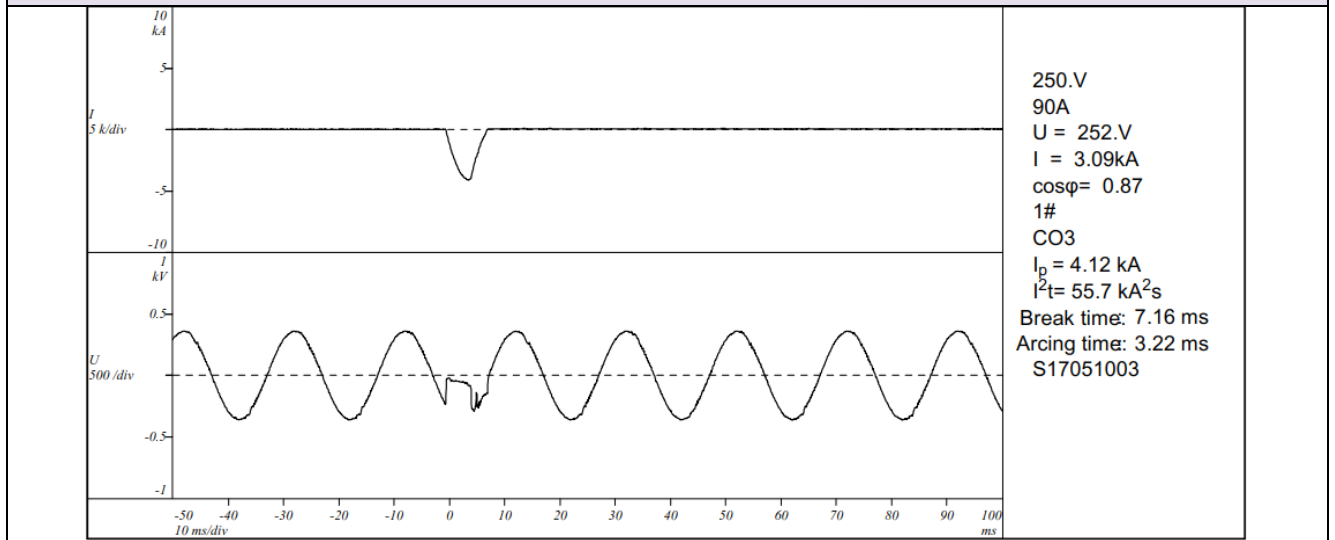
Second time - Fault current making capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Fault current making capacity**



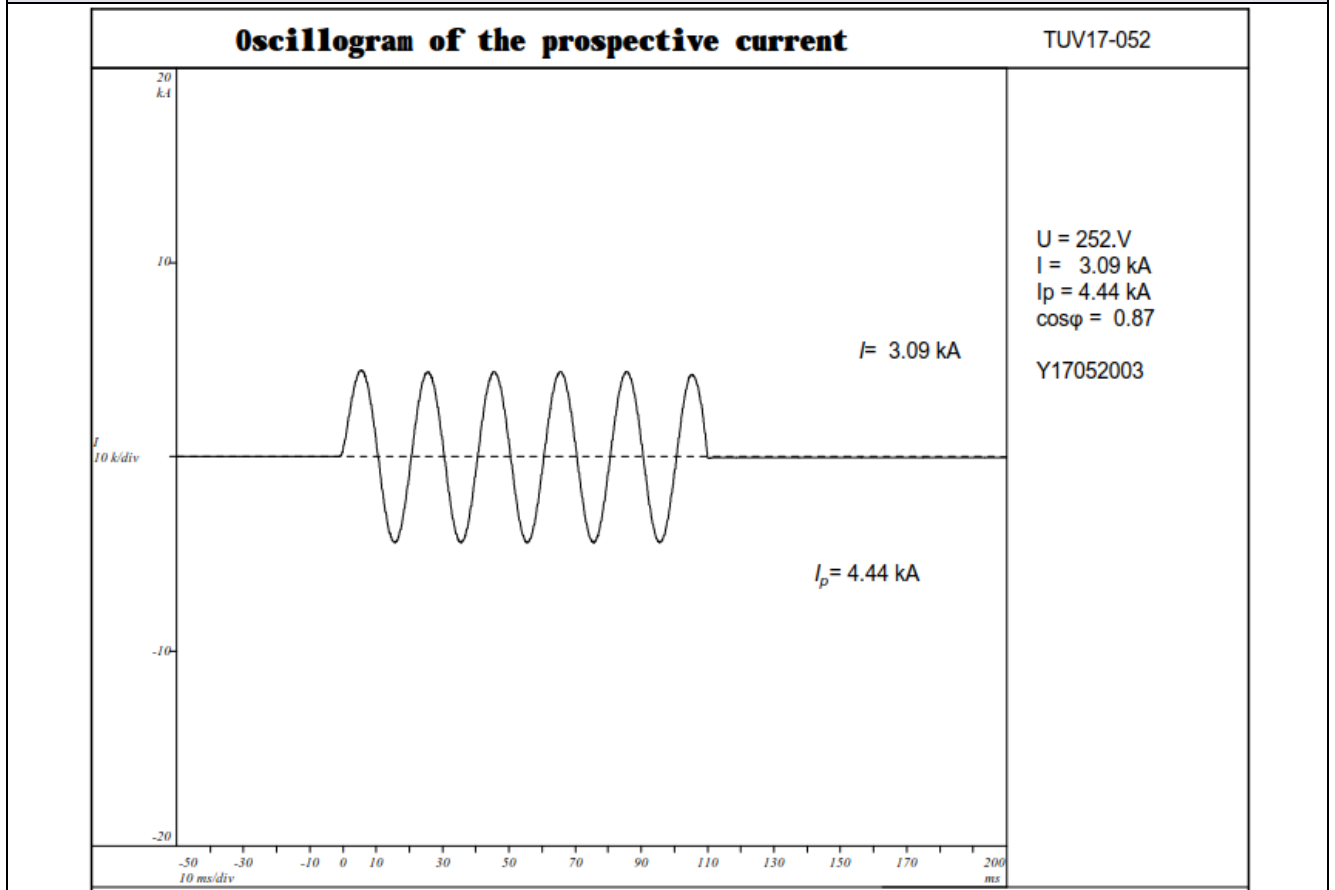


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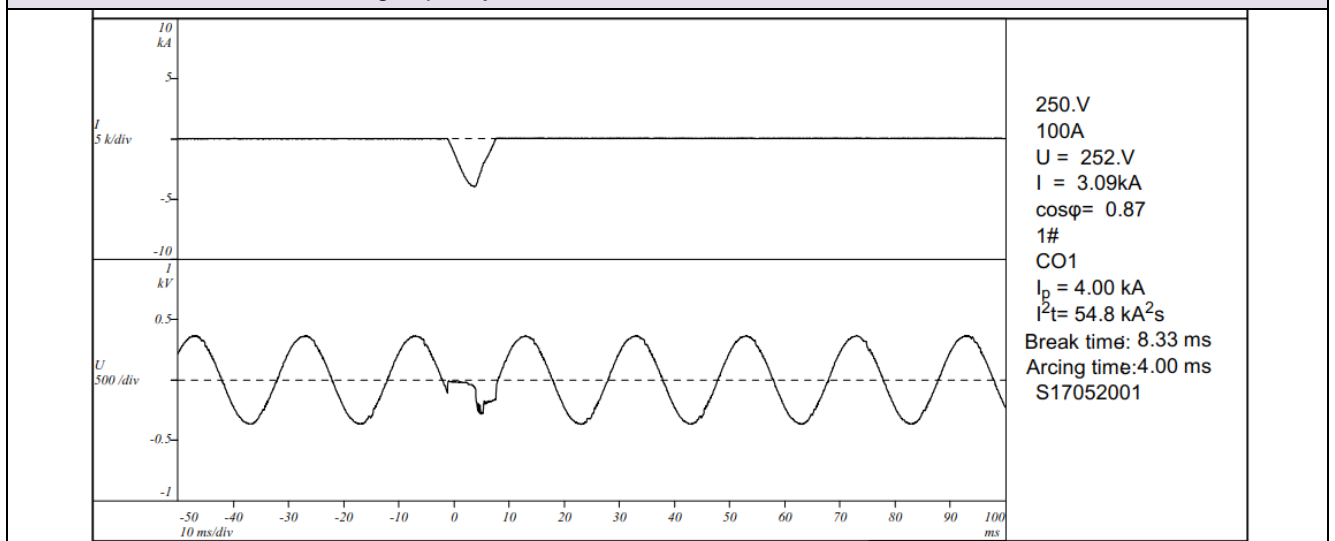
Clause	Requirement + Test	Result – Remark	Verdict
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Table C.5 for DS908E

Prospective test current (3.0kA)



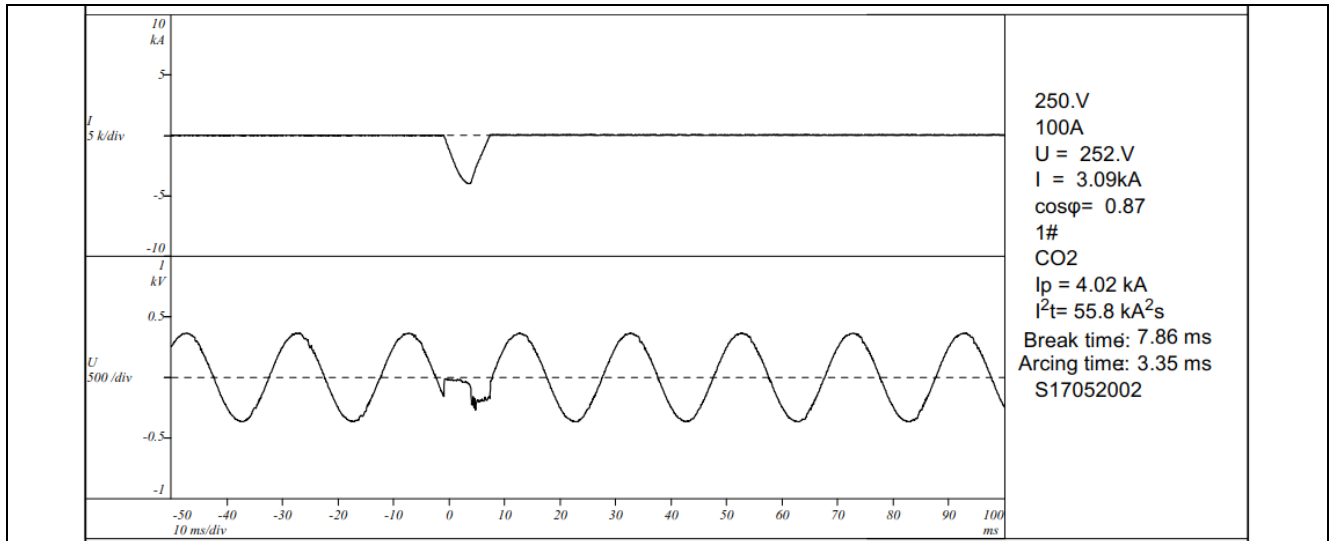
First time- Fault current making capacity



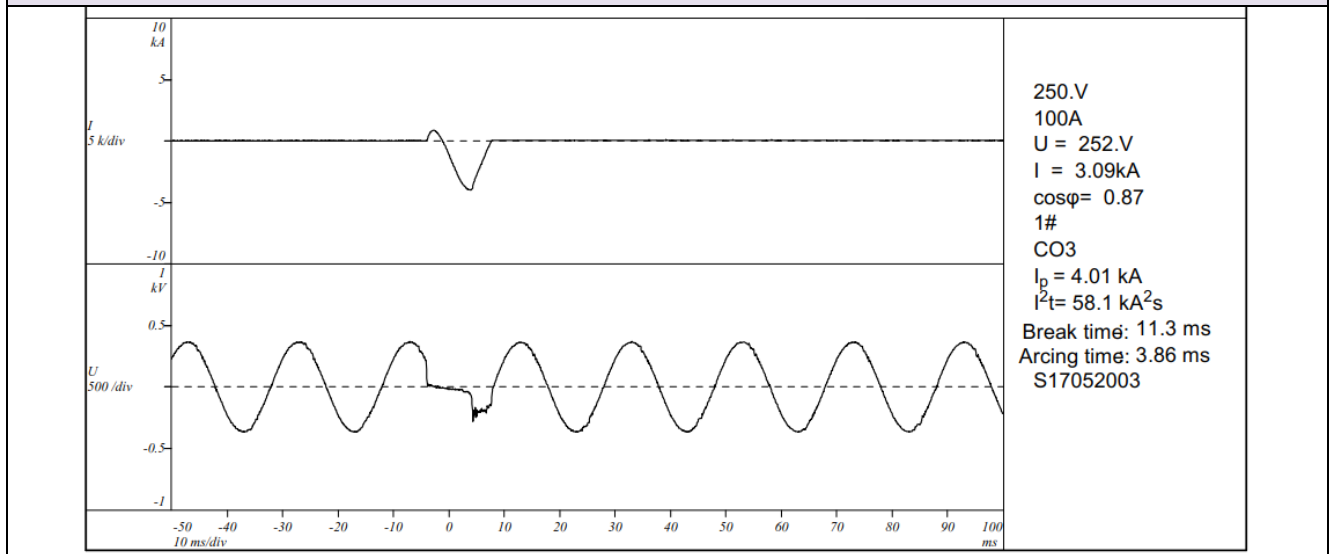
Second time - Fault current making capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Fault current making capacity**



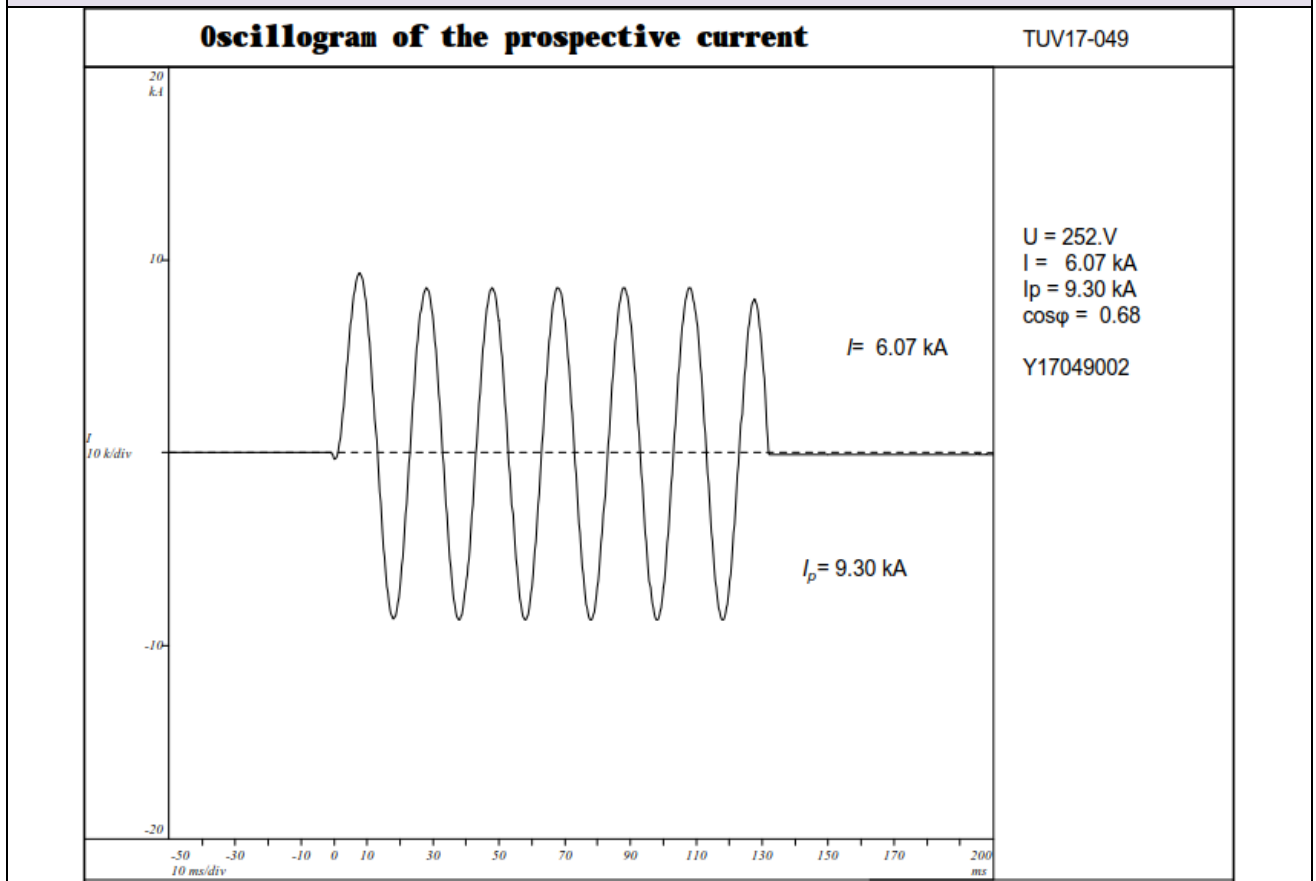


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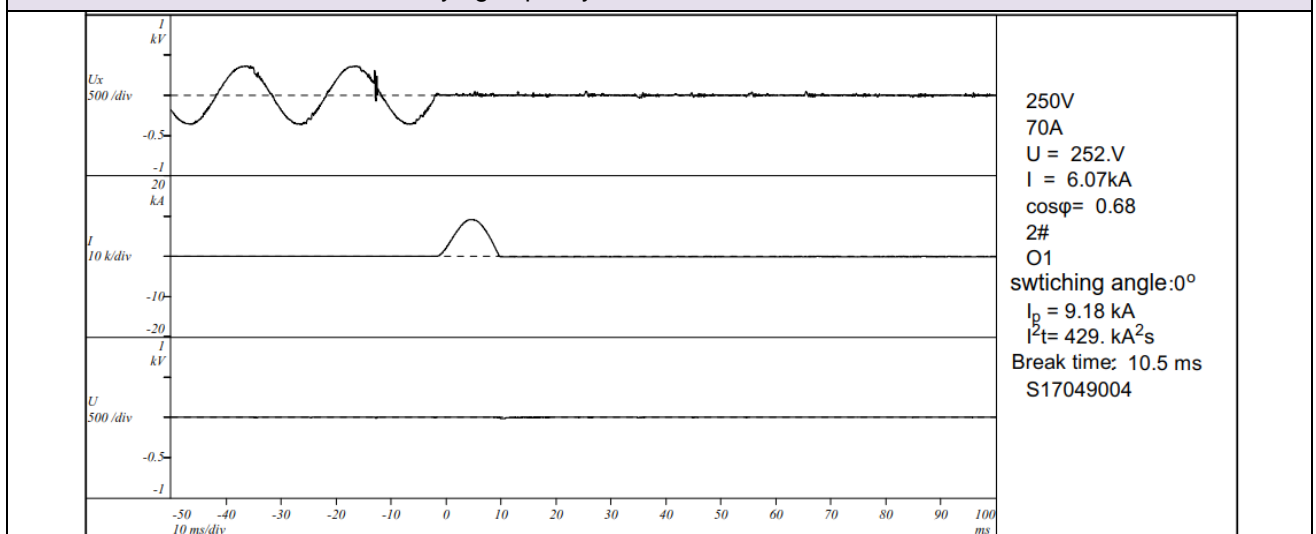
Clause	Requirement + Test	Result – Remark	Verdict
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Table C.6 for DS908A, test 1

EVE-RP06-120S224 - Prospective test current (6.0kA)



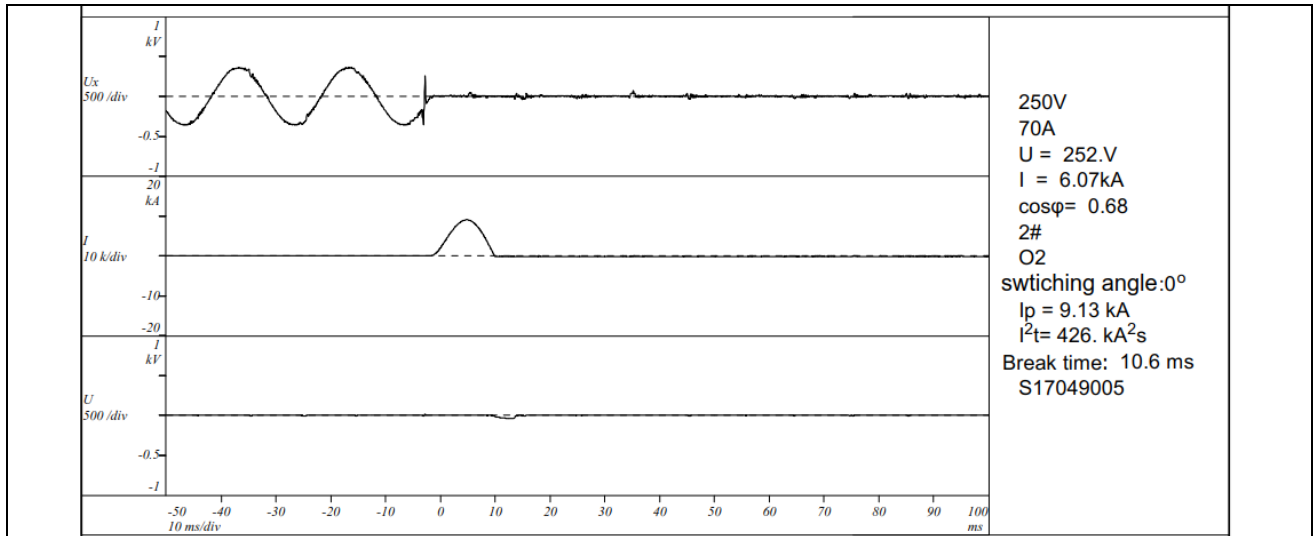
First time - Short-circuit current carrying capacity



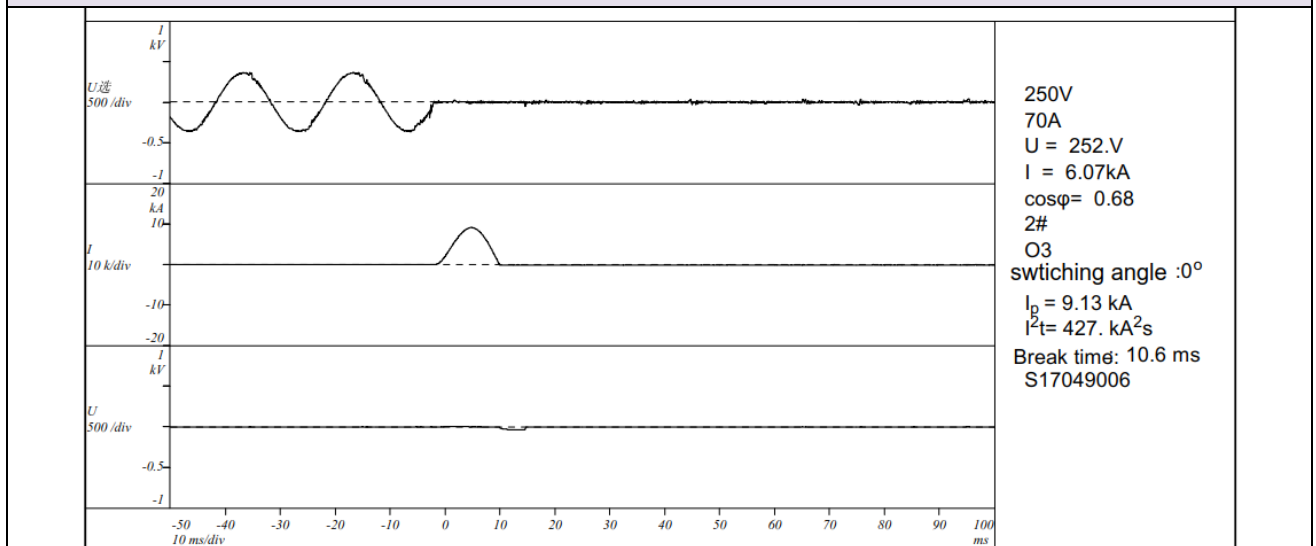
Second time - Short-circuit current carrying capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

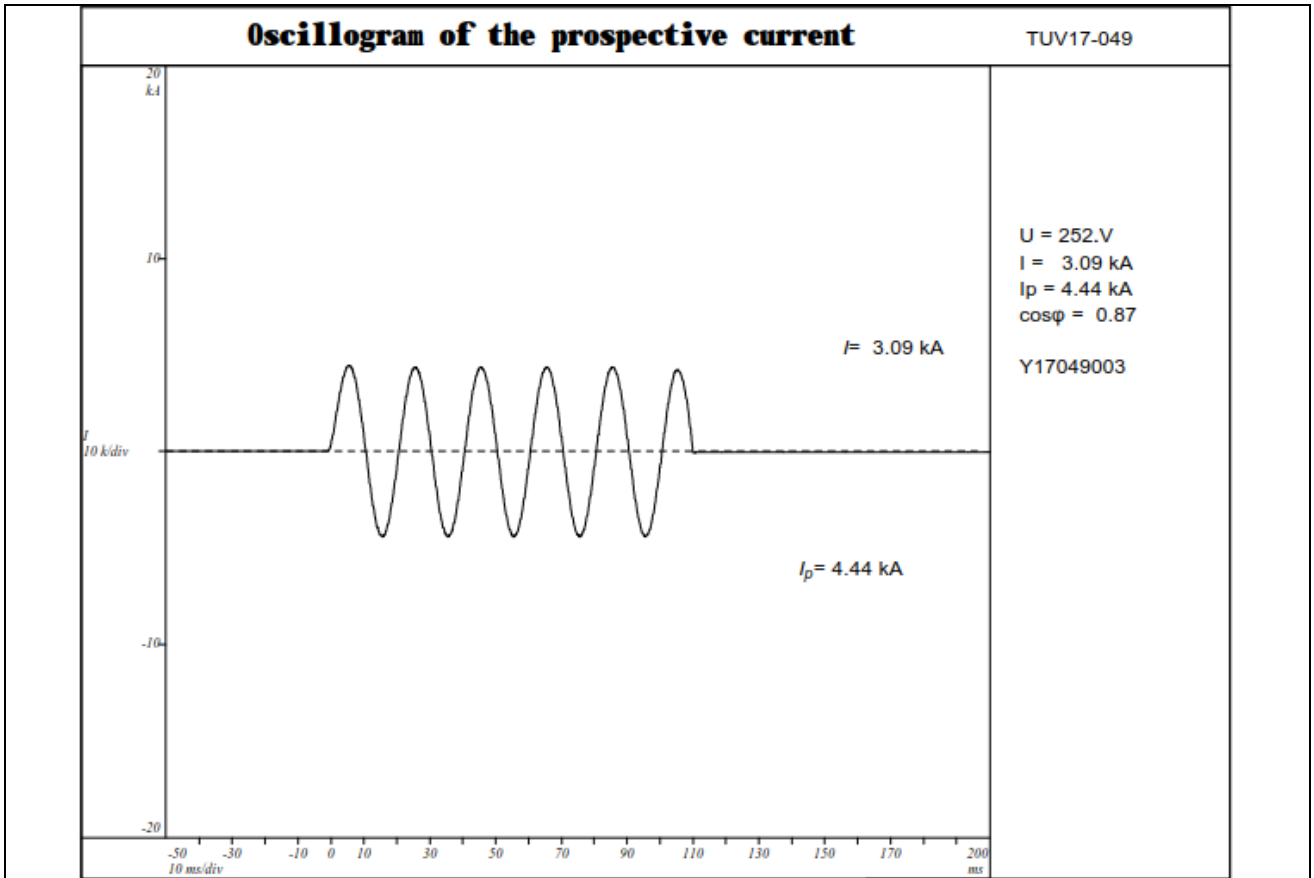


**Table C.6 for DS908A, test 2**

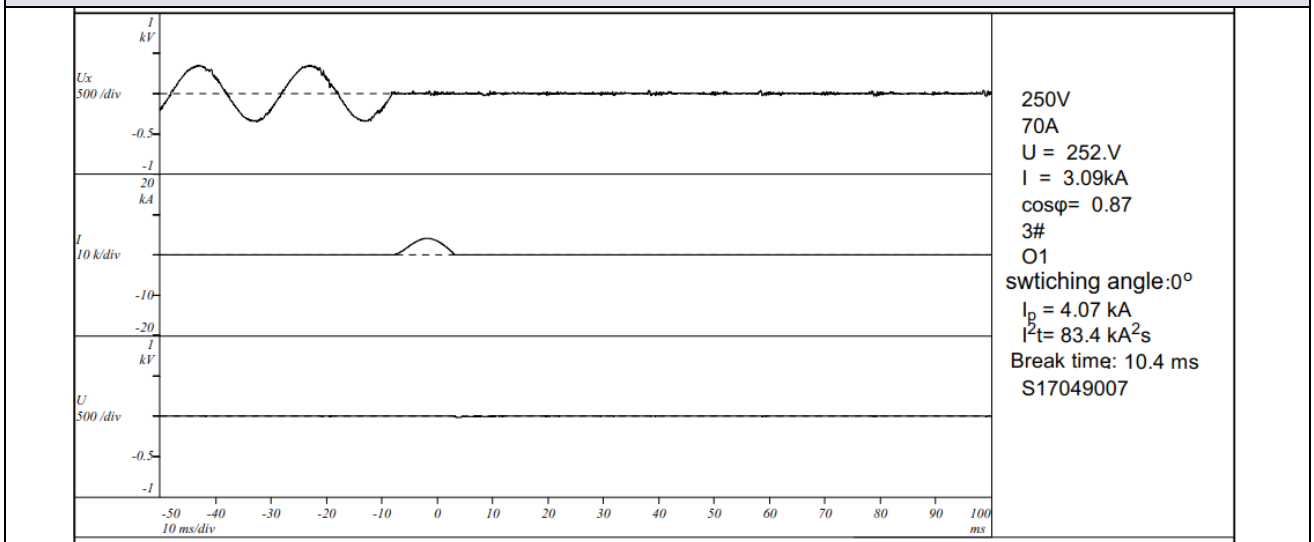
EVE-RP06-120S209 - Prospective test current (3.0kA)

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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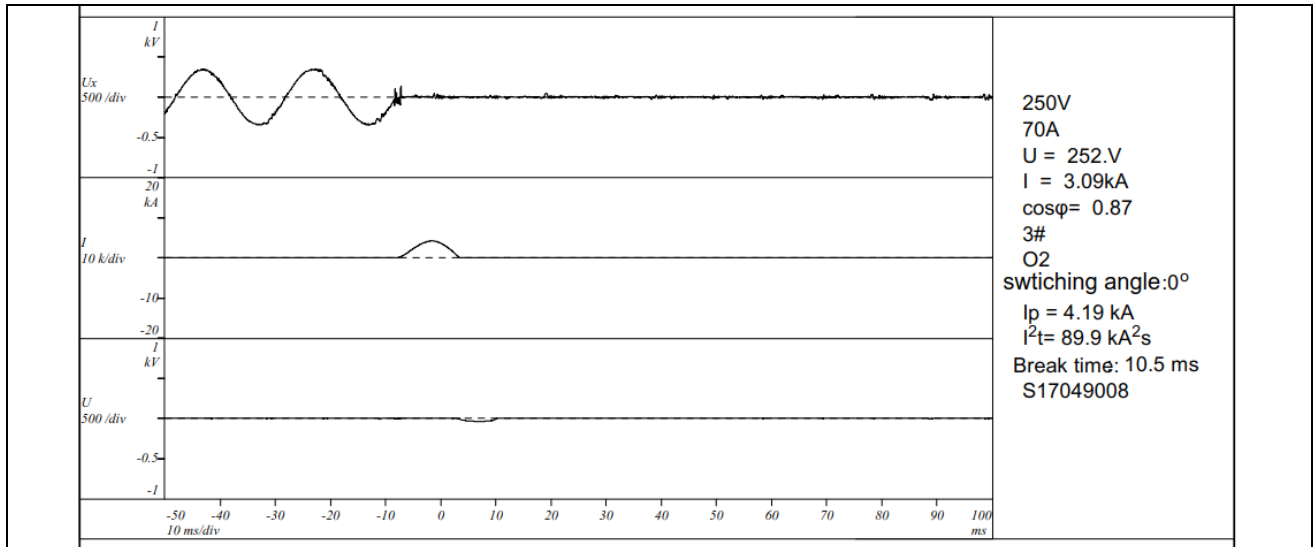
**First time - Short-circuit current carrying capacity**



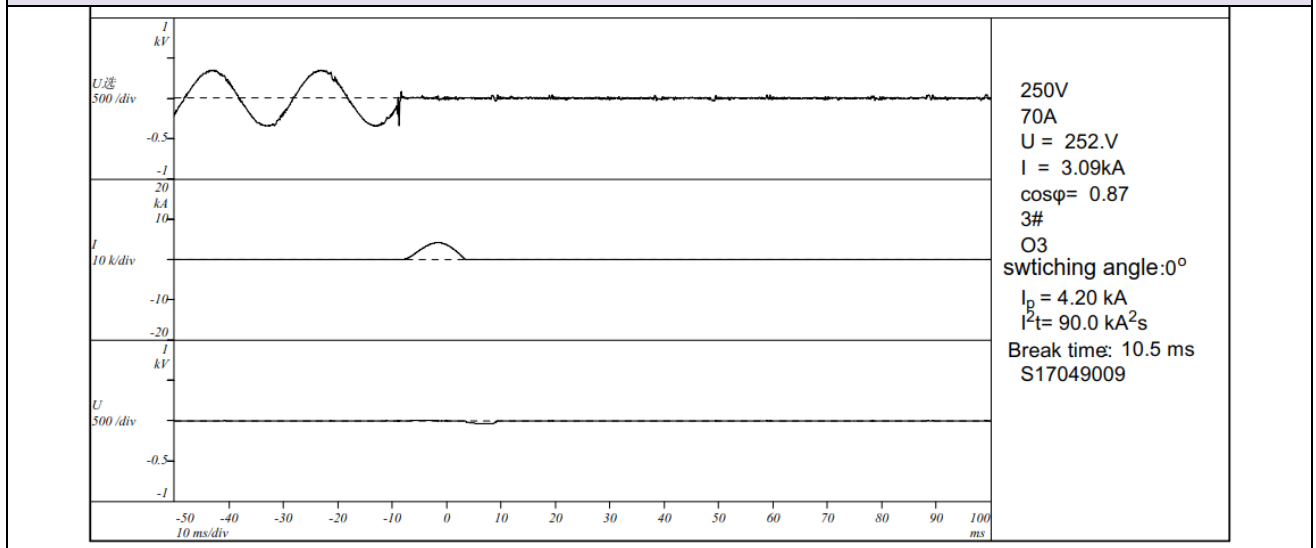
**Second time - Short-circuit current carrying capacity**

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

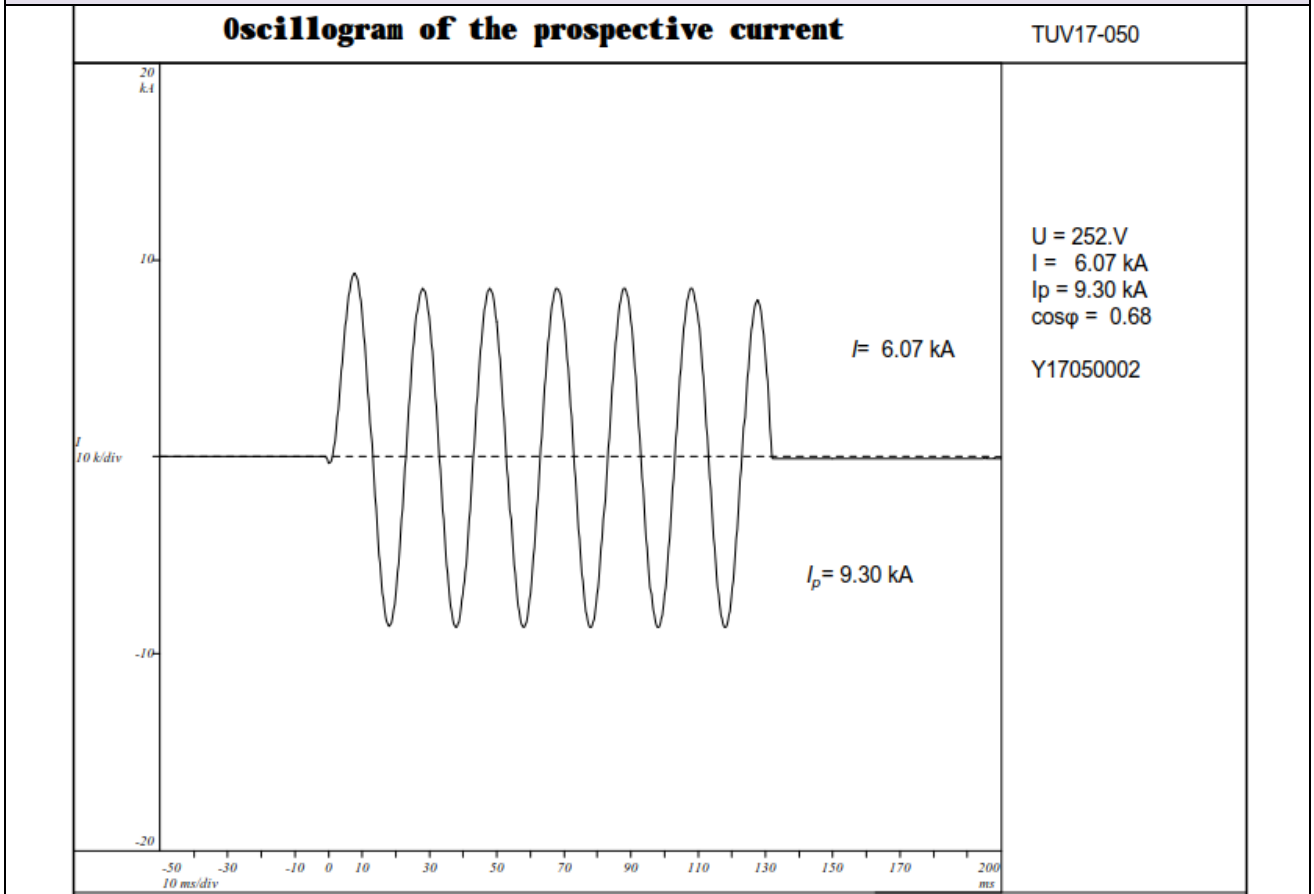


**EN 62055-31**

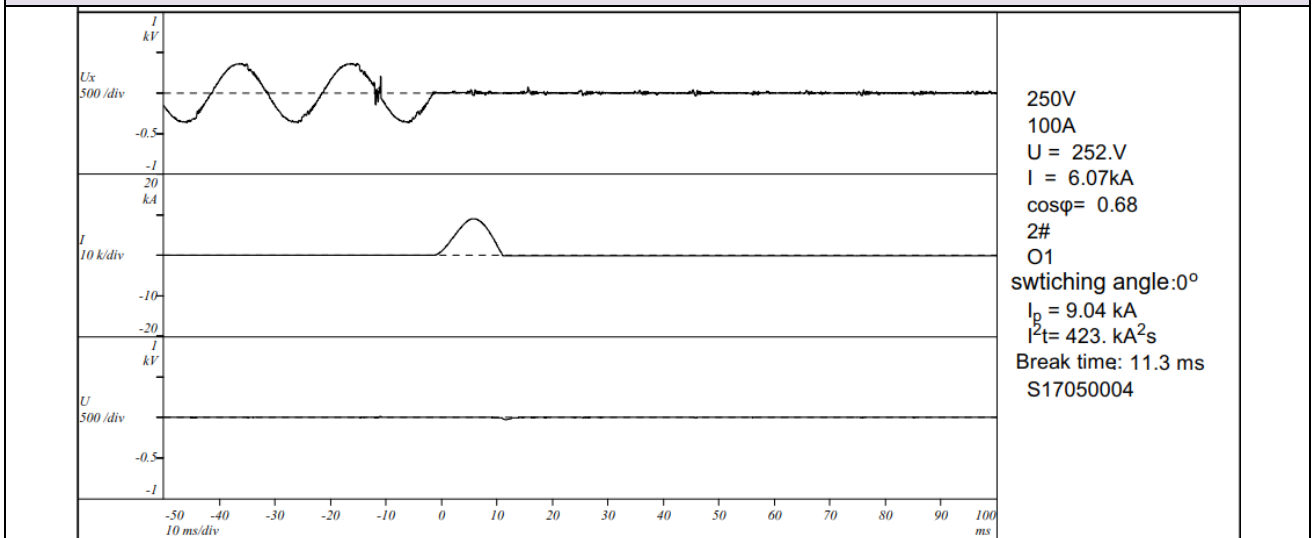
Clause	Requirement + Test	Result – Remark	Verdict
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**Table C.6 for DS908B, test 1**

EVE-RP06-120S224 - Prospective test current (6.0kA)



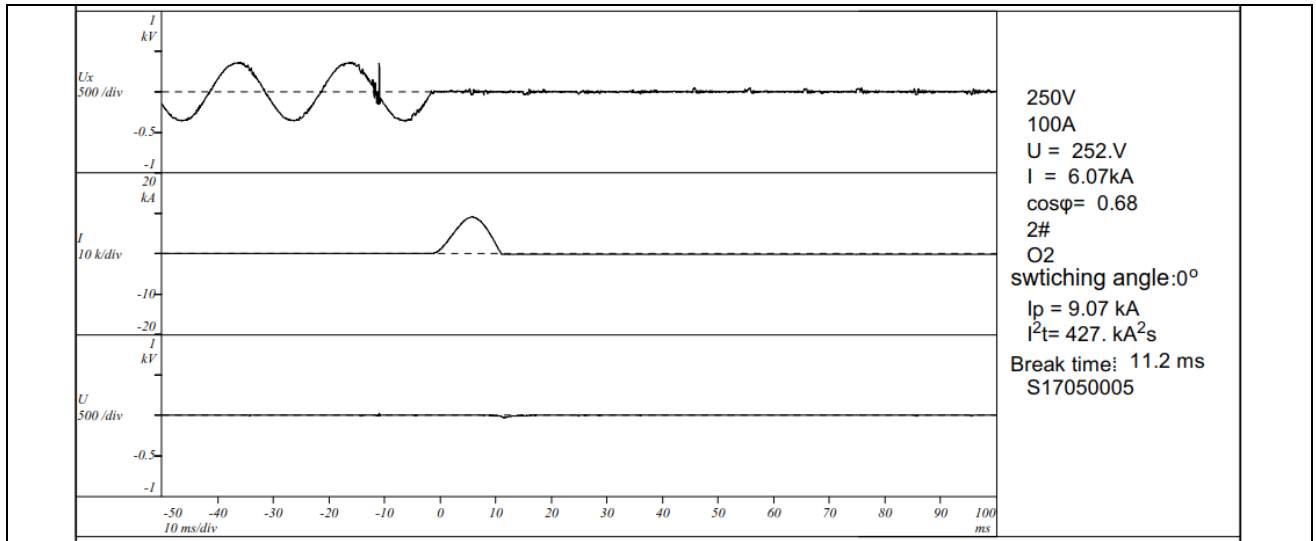
**First time - Short-circuit current carrying capacity**



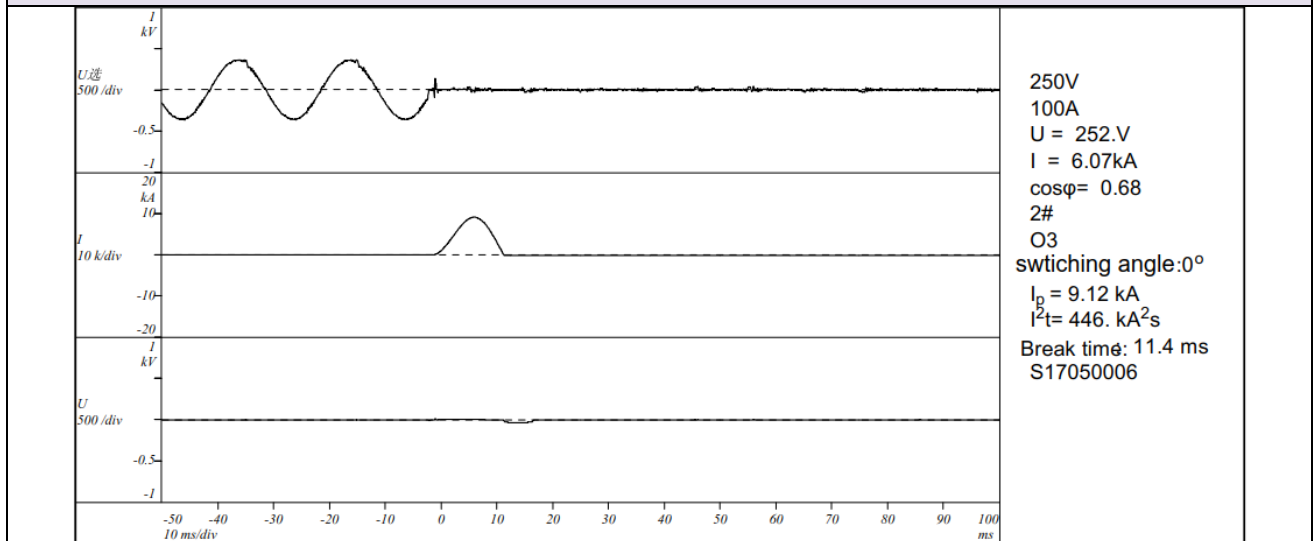
**Second time - Short-circuit current carrying capacity**

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

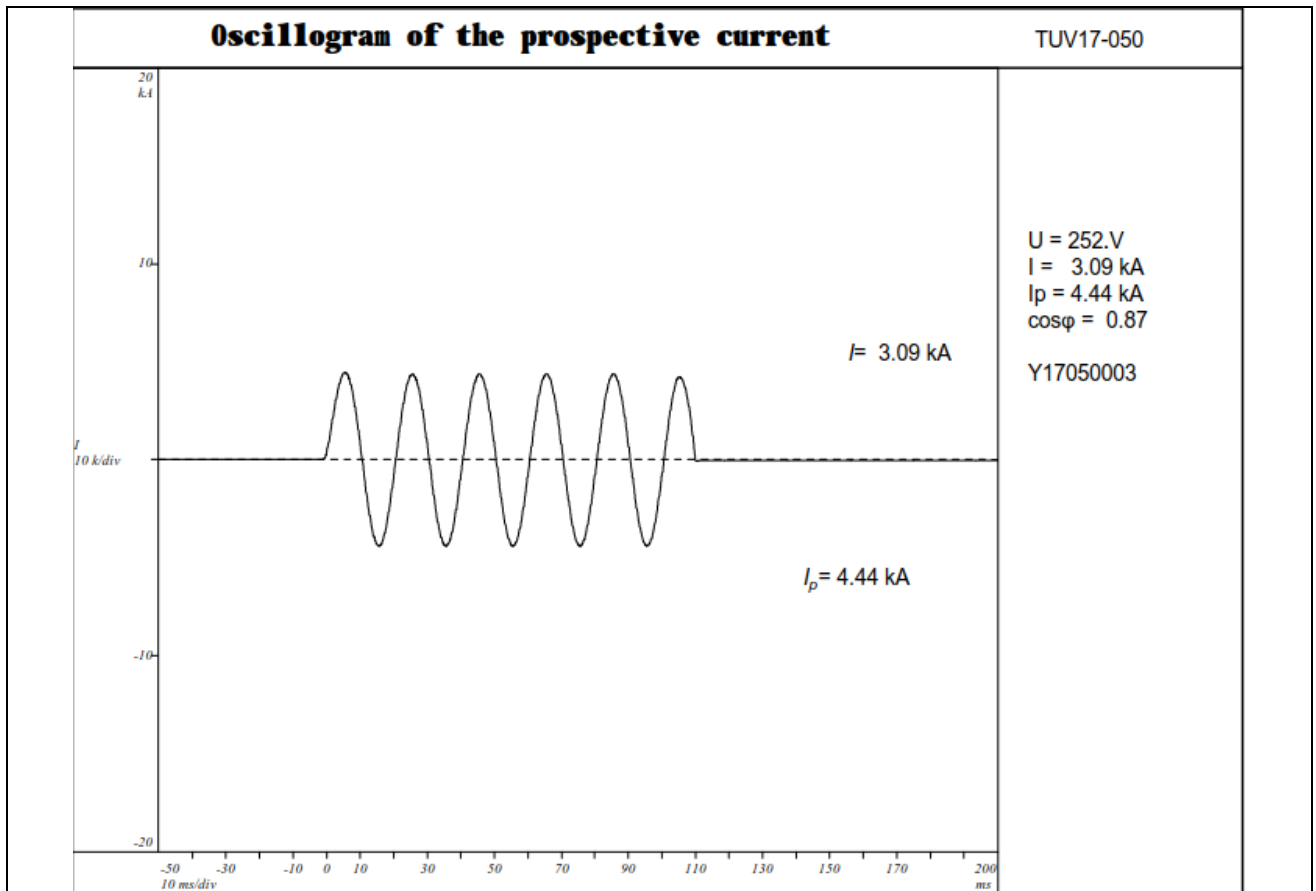


**Table C.6 for DS908B, test 2**

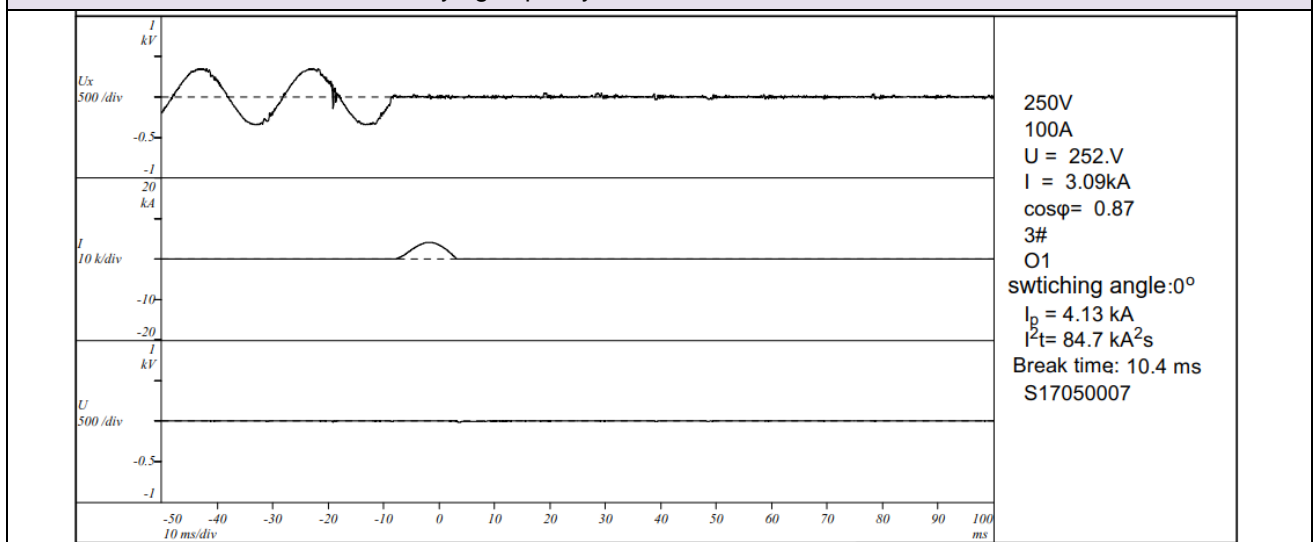
EVE-RP06-120S209 - Prospective test current (3.0kA)

EN 62055-31

Clause	Requirement + Test	Result – Remark	Verdict
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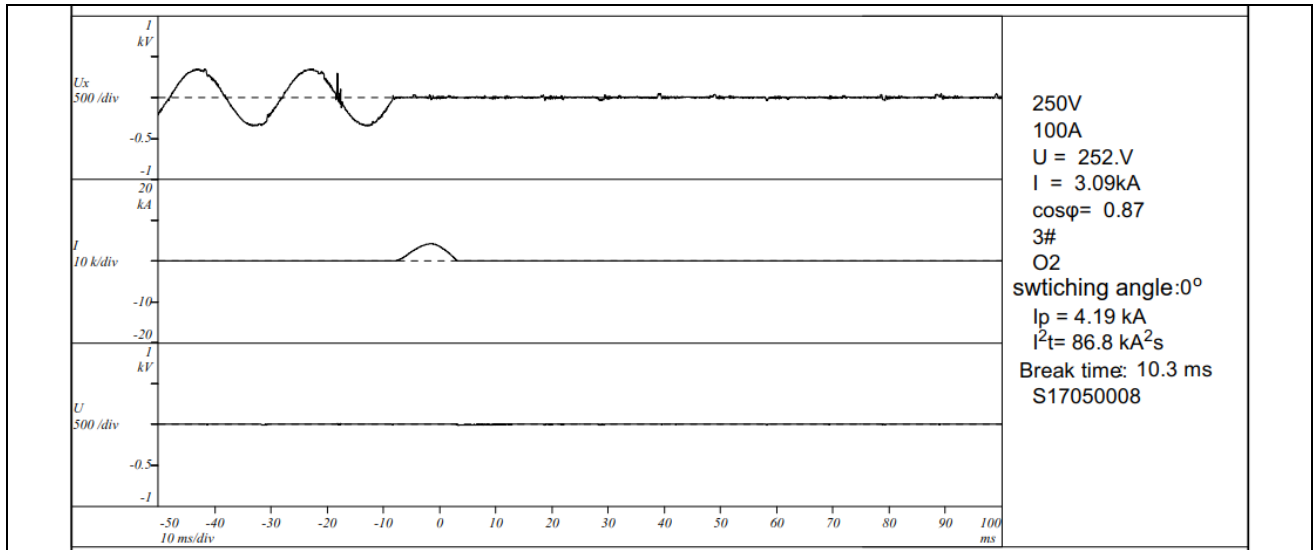
First time - Short-circuit current carrying capacity



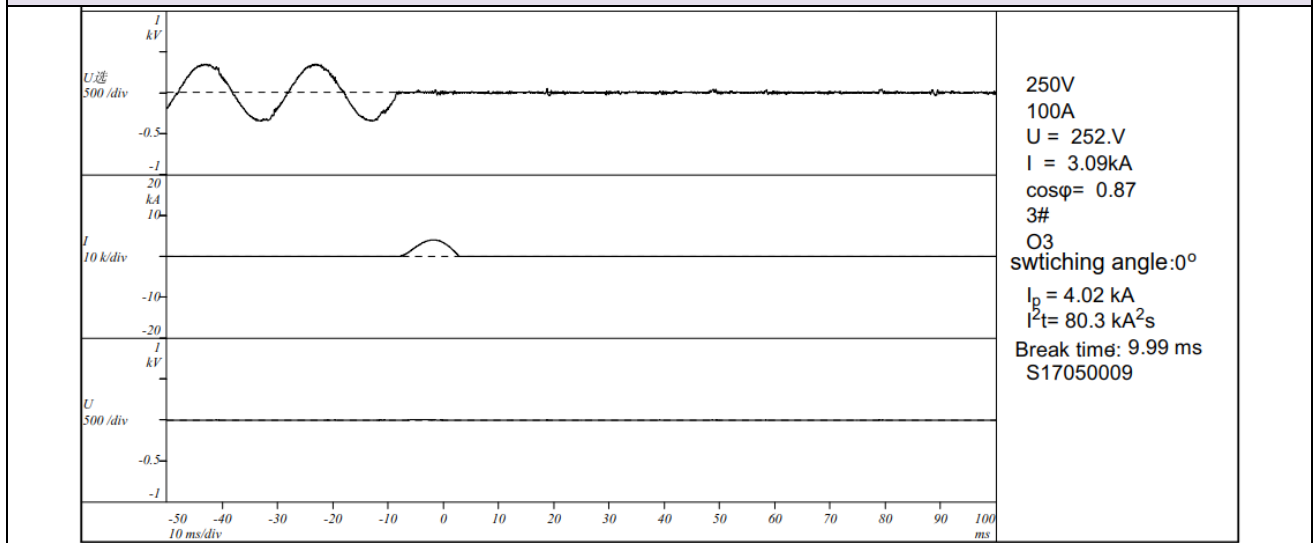
Second time - Short-circuit current carrying capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

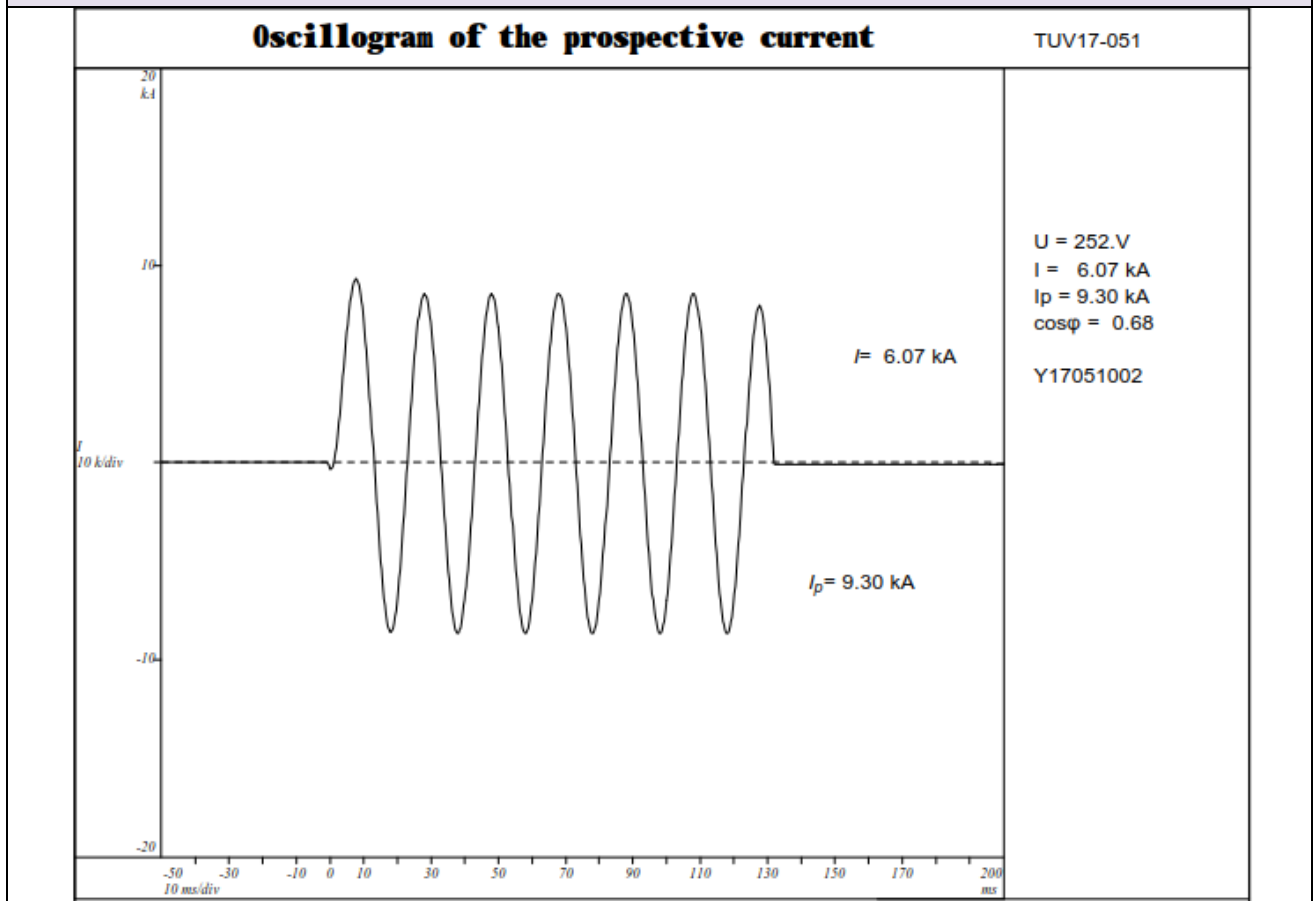


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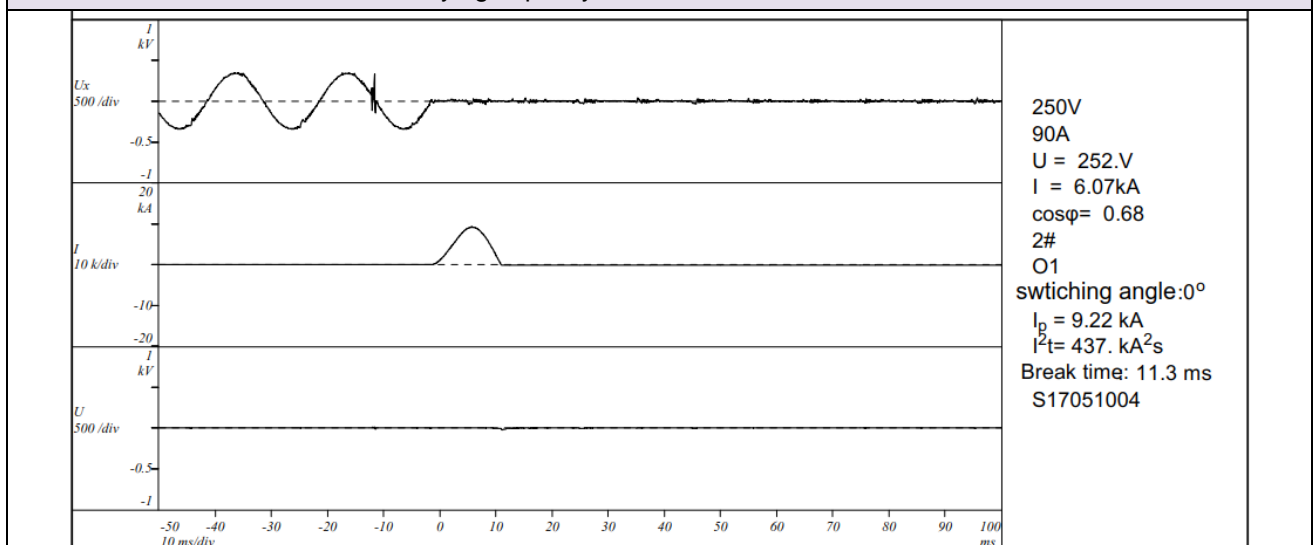
Clause	Requirement + Test	Result – Remark	Verdict
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**Table C.6 for DS908C, test 1**

EVE-RP06-120S224 - Prospective test current (6.0kA)



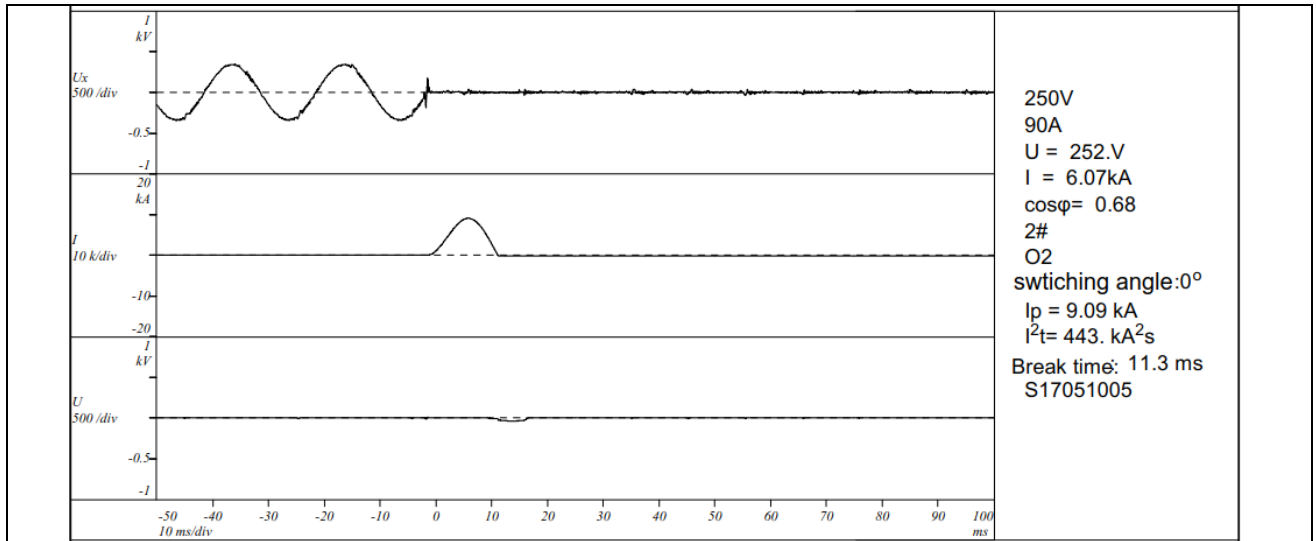
**First time - Short-circuit current carrying capacity**



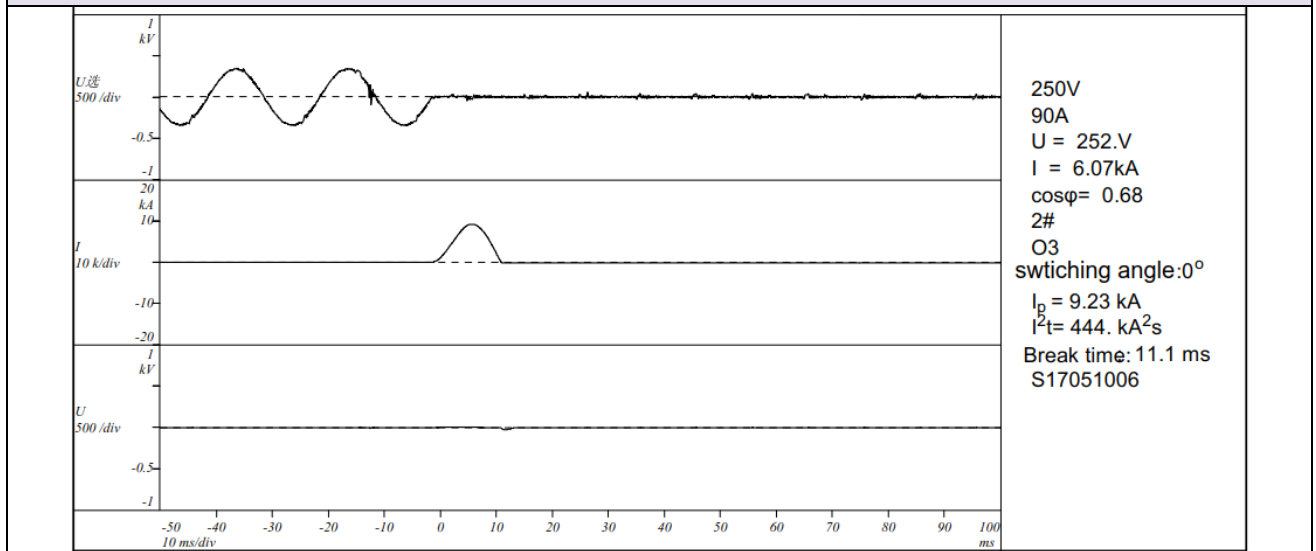
**Second time - Short-circuit current carrying capacity**

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

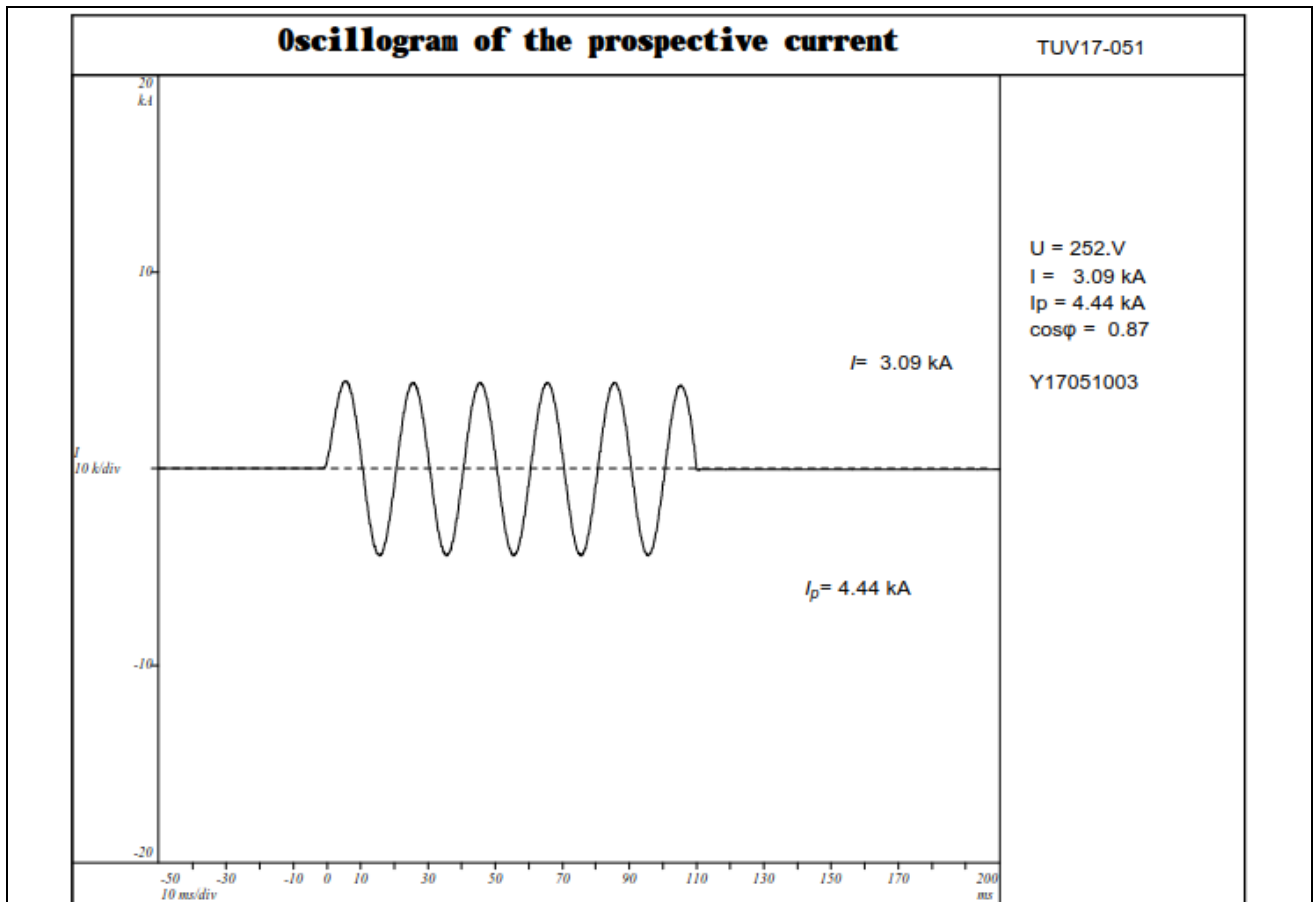


**Table C.6 for DS908C, test 2**

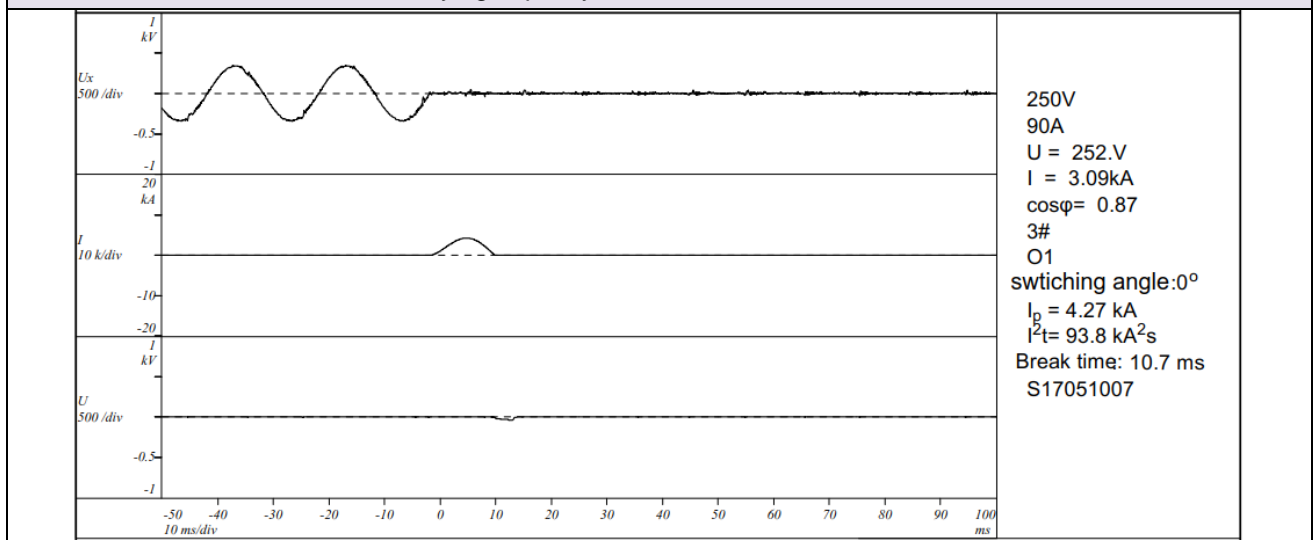
EVE-RP06-120S209 - Prospective test current (3.0kA)

EN 62055-31

Clause	Requirement + Test	Result – Remark	Verdict
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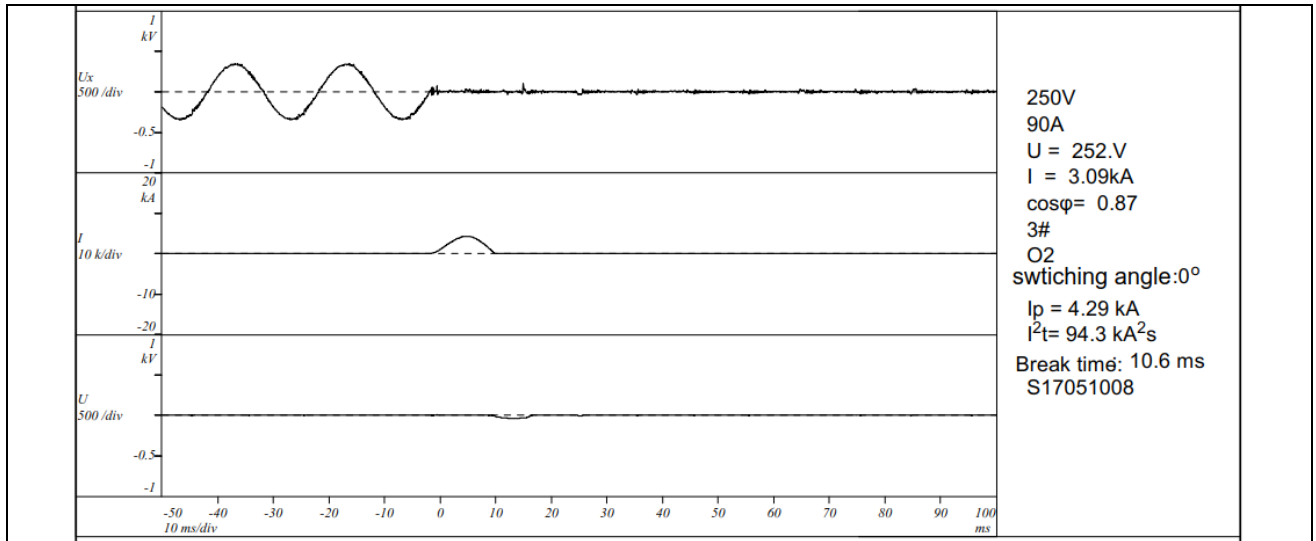
First time - Short-circuit current carrying capacity



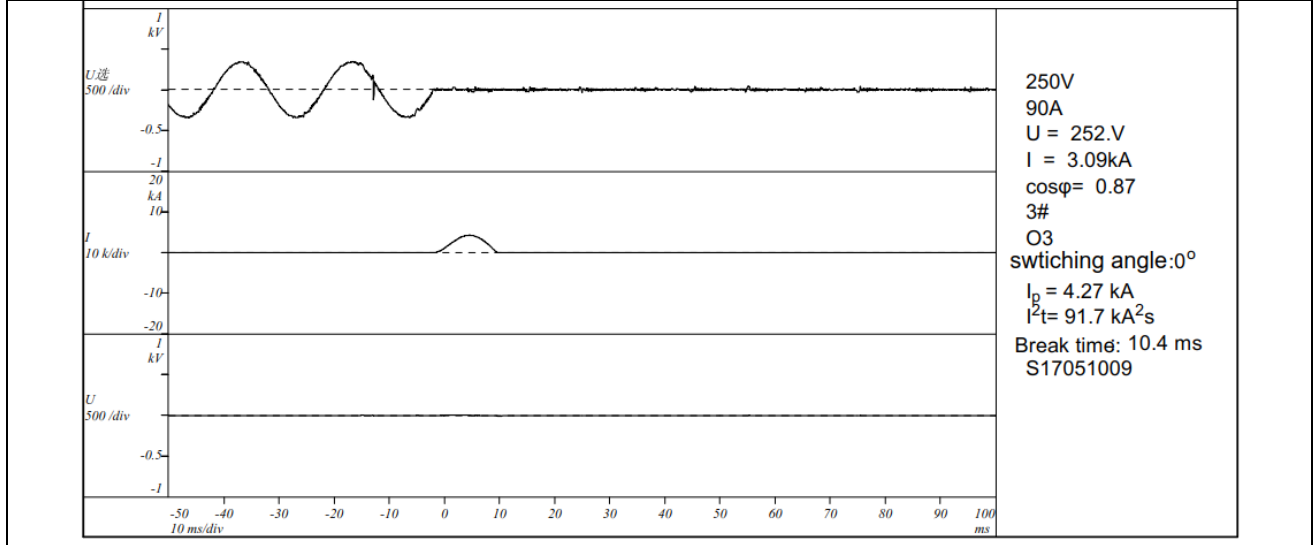
Second time - Short-circuit current carrying capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**



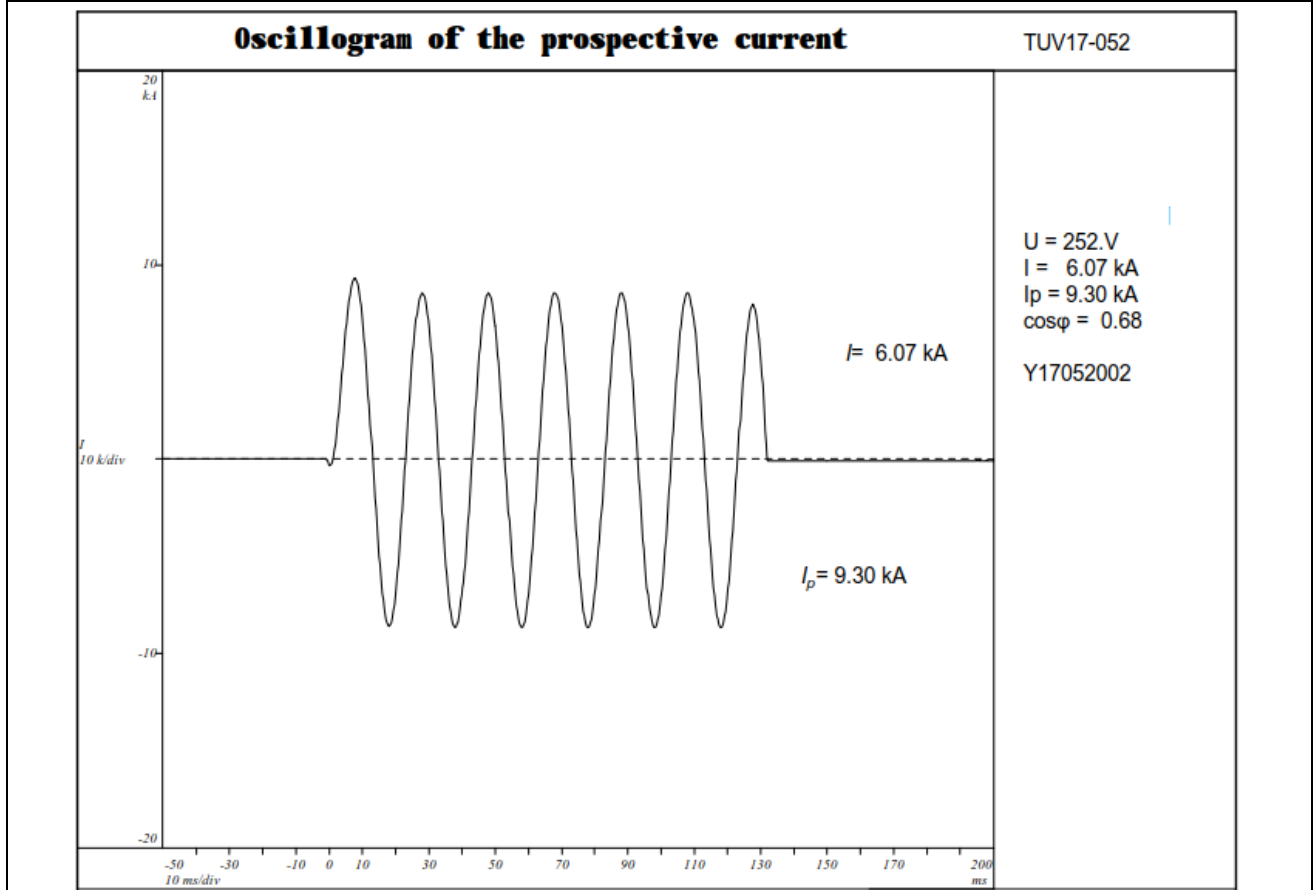


EN 62055-31

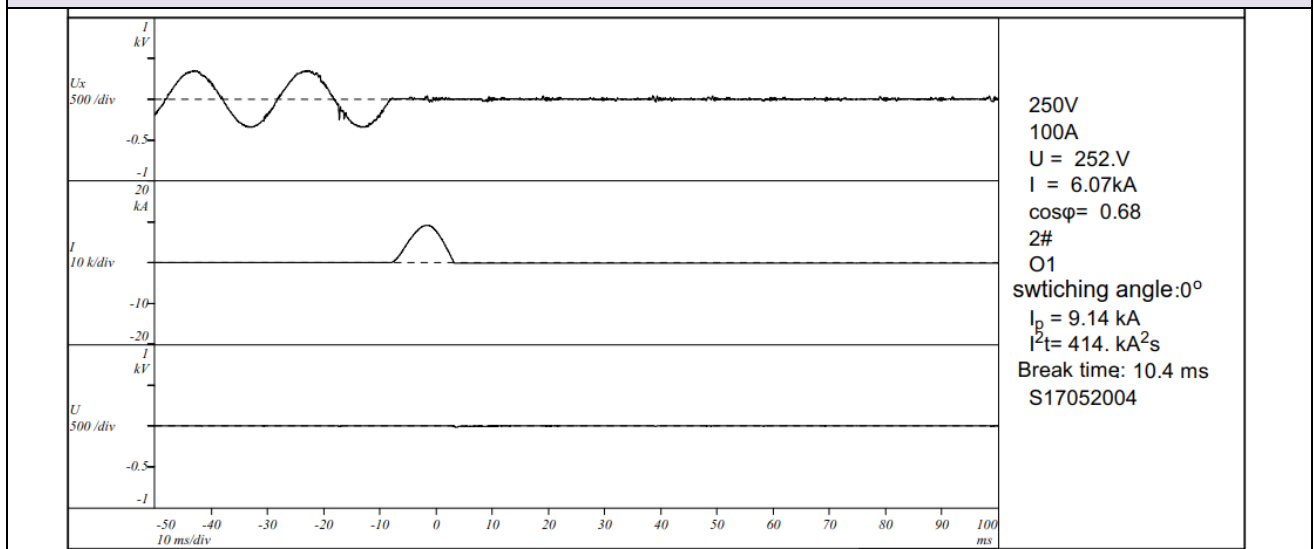
Clause	Requirement + Test	Result – Remark	Verdict
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Table C.6 for DS908E, test 1

EVE-RP06-120S224 - Prospective test current (6.0kA)



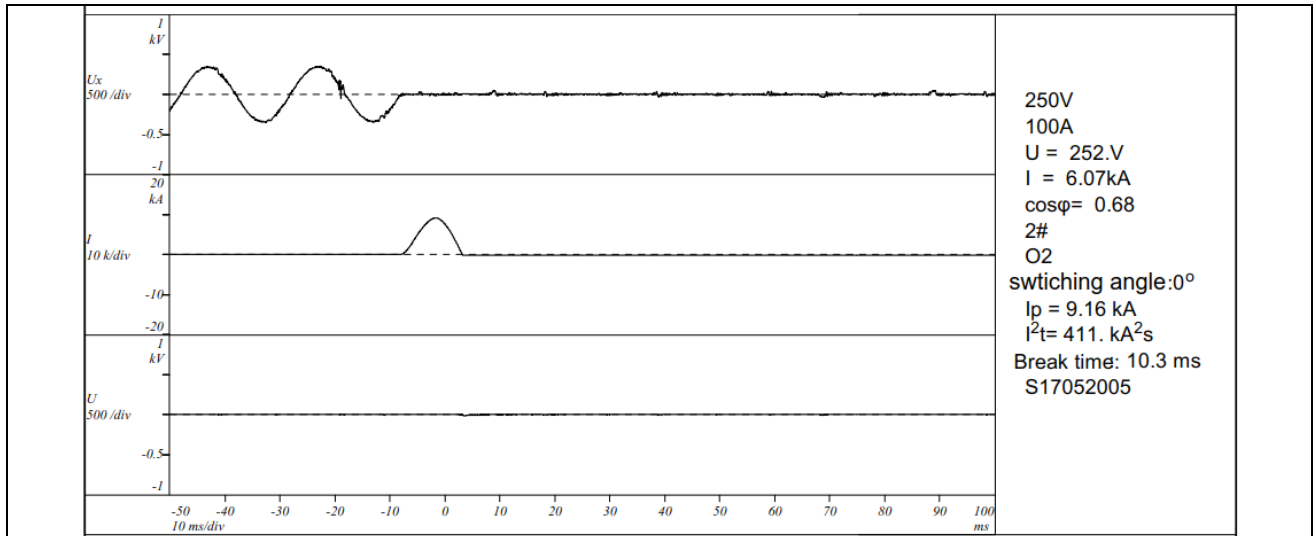
First time - Short-circuit current carrying capacity



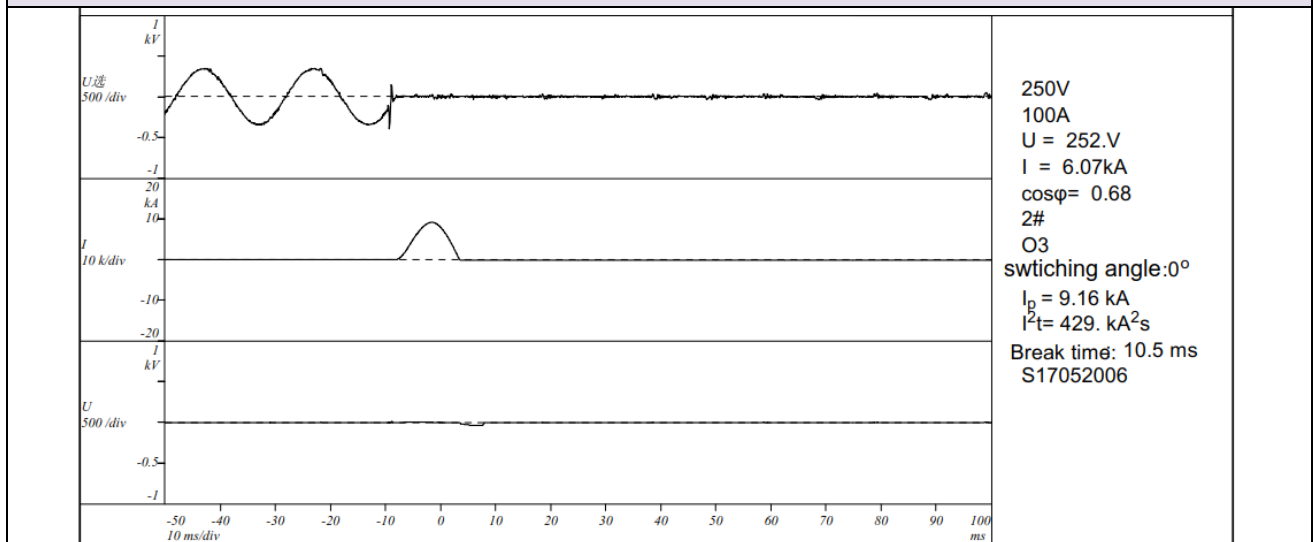
Second time - Short-circuit current carrying capacity

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

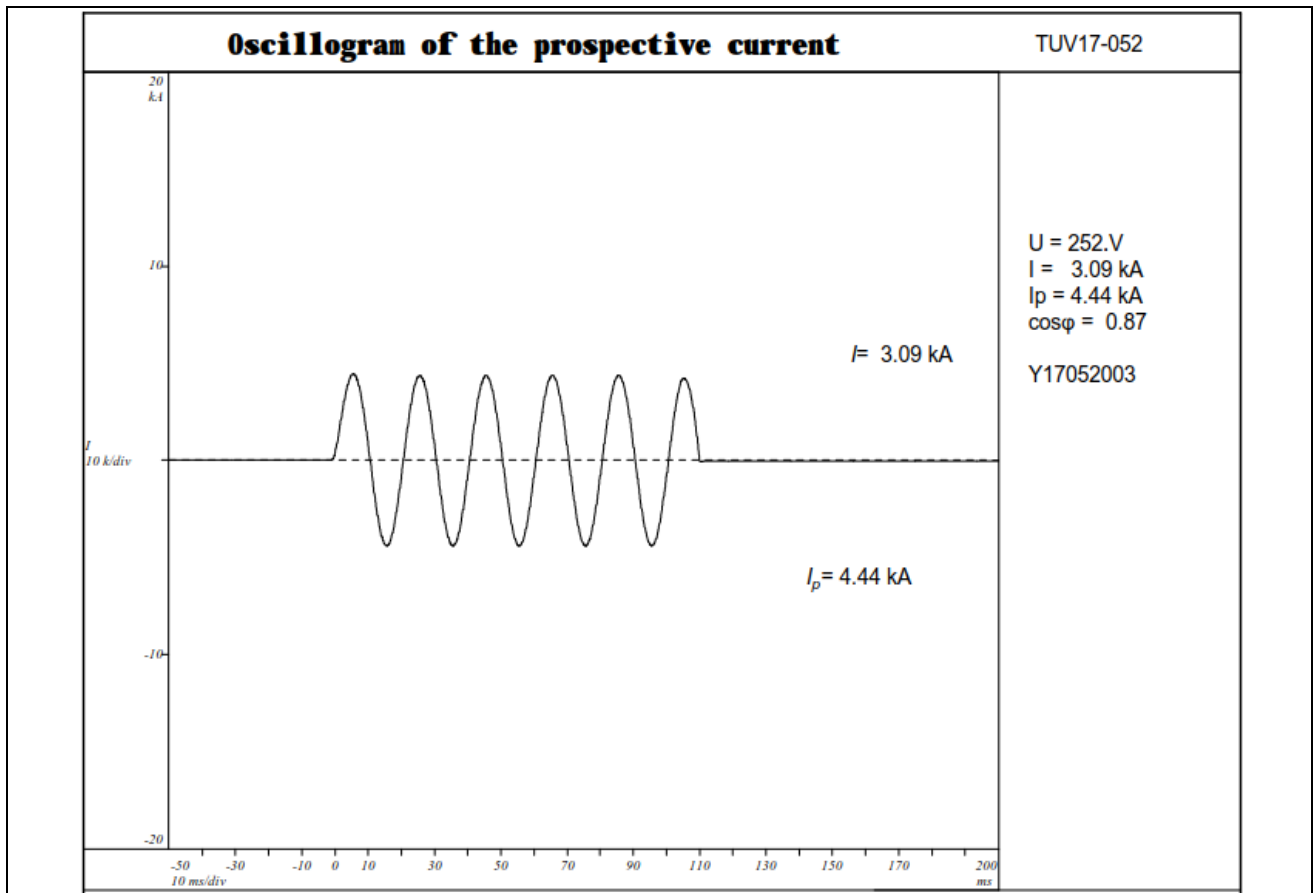


**Table C.6 for DS908E, test 2**

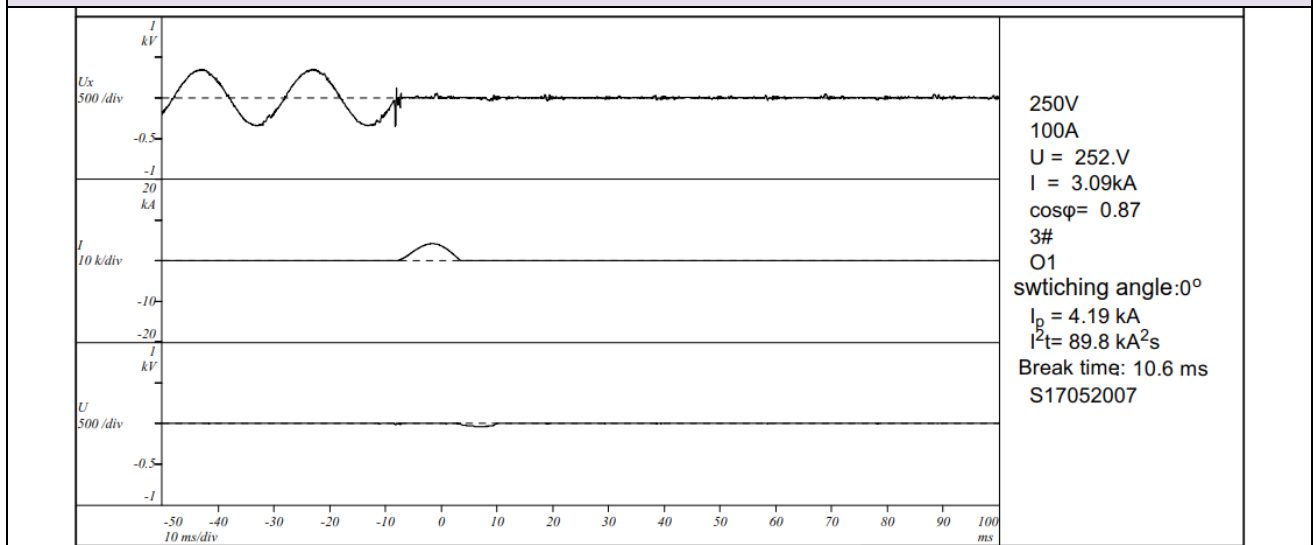
EVE-RP06-120S209 - Prospective test current (3.0kA)

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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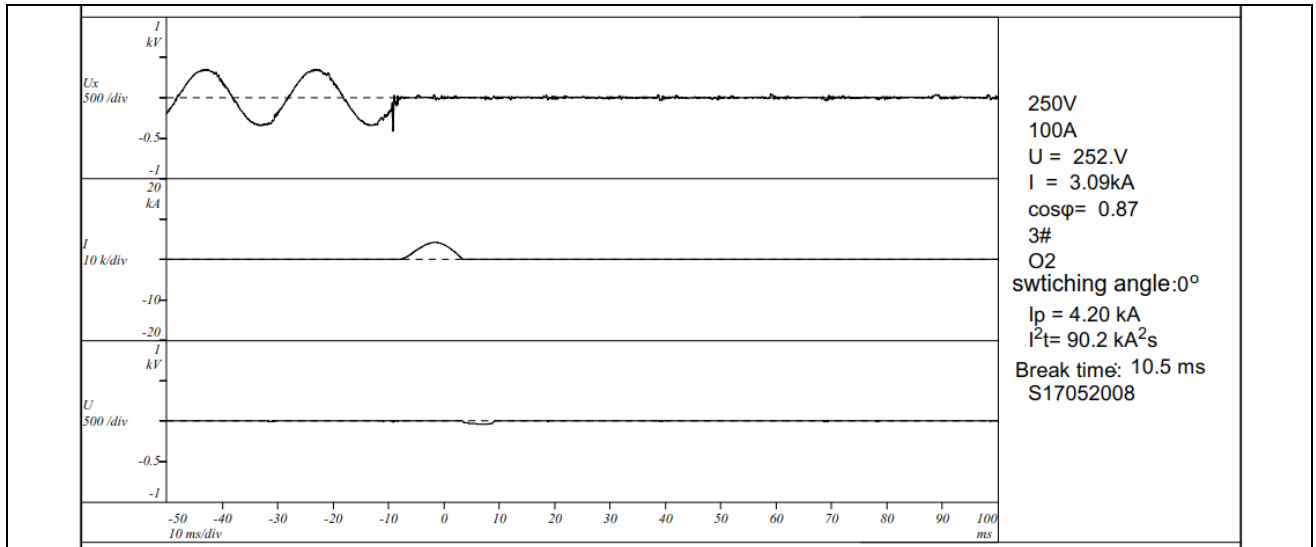
**First time - Short-circuit current carrying capacity**



**Second time - Short-circuit current carrying capacity**

**EN 62055-31**

Clause	Requirement + Test	Result – Remark	Verdict
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**Third time - Short-circuit current carrying capacity**

