

Test report no.: <i>Prüfbericht-Nr.:</i>	KR23FBBT 001	Order No.: <i>Auftragsnr.:</i>	156159033 10	Page 1 of 19 Seite 1 von 19
Client reference no.: <i>Kunden-Referenz-Nr.:</i>	2089345	Order date: <i>Auftragsdatum:</i>	2023-11-22	
Client: <i>Auftraggeber:</i>	DONGSEO ELECTRIC CO. 163, Heyri-ro, Tanhyeon-myeon, Paju-si, Gyeonggi-do 10858 Republic of Korea			
Test item: <i>Prüfgegenstand:</i>	Terminal block			
Identification / Type no.: <i>Bezeichnung / Typ-Nr.:</i>	DSTB-10S, DSTB-10SW, DSTB-15S ¹⁾			
Order content: <i>Auftrags-Inhalt:</i>	TUV Bauart mark			
Test specification <i>Prüfgrundlage:</i>	EN 60947-7-1:2009 use in conjunction with EN 60947-1:2007+A1:2011+A2:2014			
Date of sample receipt: <i>Wareneingangsdatum:</i>	2023-11-22			
Test sample no.: <i>Prüfmuster-Nr.:</i>	N/A (Proto type)			
Testing period: <i>Prüfzeitraum:</i>	2023-11-22 - 2023-11-27			
Place of testing: <i>Ort der Prüfung:</i>	Standard labs ²⁾			
Testing laboratory: <i>Prüflaboratorium:</i>	TÜV Rheinland Korea Ltd.			
Test result*: <i>Prüfergebnis*:</i>	Pass			
tested by: <i>geprüft von:</i>		authorized by: <i>genehmigt von:</i>		
Date: 2023-12-05 <i>Datum:</i>	Ji-Young Choi	Issue date: 2023-12-05 <i>Ausstellungsdatum:</i>	Hyun-Sung Park	
Position / Stellung:	Expert/Sachverständige(r)	Position / Stellung:	Expert/Sachverständige(r)	
Other: <i>Sonstiges:</i>	1) See page 4 for details 2) #401, MV Tech Bldg 46, LS-ro 91beon-gil, Dongan-gu, Anyang-si, Gyeonggido, Republic of Korea			
Condition of the test item at delivery: <i>Zustand des Prüfgegenstandes bei Anlieferung:</i>	Test item complete and undamaged Prüfmuster vollständig und unbeschädigt			
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
<p>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark. <i>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</i></p>				

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Remarks
Anmerkungen

- | | |
|----------|--|
| 1 | <p>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.
Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</p> <p><i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.
Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i></p> |
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| 3 | <p>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</p> <p><i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i></p> |
| 4 | <p>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</p> <p><i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i></p> |

<p>TEST REPORT IEC / EN 60947-7-1 Low-voltage switchgear and controlgear Part 7: Ancillary equipment Section One: Terminal blocks for copper conductors</p>	
Report Reference No.	KR23FBBT 001
Date of issue.....	See cover page
Total number of pages	See cover page
CB/CCA Testing Laboratory	See cover page
Address	See cover page
Applicant's name	See cover page
Address	See cover page
Test specification:	
Standard	See cover page
Test procedure	N/A
Non-standard test method.....	N/A
Test Report Form No.	IEC60947_7_1B
Test Report Form(s) Originator	DEKRA Certification B.V.
Master TRF.....	Dated 2015-10
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Test item description	Terminal block
Trade Mark	 <small>DONGSEO ELECTRIC CO</small>
Manufacturer	DONG SEO ELECTRIC CO.
Model/Type reference	DSTB-10S, DSTB-10SW, DSTB-15S
Ratings	See page 4
Factory location	Same as client

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

N/A

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

All related clauses

Testing location:

 Standard labs
 #401, MV Tech Bldg 46, LS-ro 91beon-gil, Dongan-gu, Anyang-si, Gyeonggido, Republic of Korea

Type designations:

Model	U_i	I_{th}	U_{imp}	Rated cross-sectional area (mm ²)	Rated connecting capacity (mm ²)	Type of clamping unit	Diameter of thread (mm)
DSTB-10S	250 V	10 A	2.5 kV	1.0	0.5 - 0.75 - 1.0	Screw type	3.0
DSTB-10SW	250 V	10 A	2.5kV	1.0	0.5 - 0.75 - 1.0	Screw type	3.0
DSTB-15S	380 V	15 A	4kV	1.5	0.75 - 1.0 - 1.5	Screw type	3.5

- This product is an assembling terminal block.
- All tests were performed for each model. (DSTB-10S, DSTB-10SW, DSTB-15S)

Copy of marking plate:


Test item particulars	
Particulars: test item vs. test requirements	
- method of fixing	Fixing screw
- number of poles	2 - 20
- type of clamping units	Screw type
- ability to receive conductors	Prepared conductor (Ring terminal)
- number of terminals on terminal assembly	1
- rated cross-section (mm ²)	1.0 / 1.0 / 1.5
- rated connecting capacity (mm ²)	0.5 – 0.75 – 1.0 / 0.5 – 0.75 – 1.0 / 0.75 – 1.0 – 1.5
- rated insulation voltage (Ui)	250 V / 250 V / 380 V
- rated impulse withstand voltage (Uimp)	2.5 kV / 2.5 kV / 4.0 kV
- Conventional free air thermal current (Ith)	10A / 10A / 15A
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	2023-11-22
Date (s) of performance of tests	2023-11-22 - 2023-11-27
General remarks:	
<p>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. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a point is used as the decimal separator.</p>	
General product information:	
Screw terminal block for use with prepared conductor (Ring terminal)	

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict

5.1	MARKING		P
	Terminal block shall be marked with:		P
	- manufacturer's name or trademark	DONG SEO ELECTRIC CO.	P
	- type designation	See page 4	P
5.2	The following information shall be stated by the manufacturer if applicable, e.g. in the manufacturer's data sheet, or his catalogue or on the packing unit:		P
	- manufacturer's claim for compliance with EN 60947-7-1		P
	- rated cross-section	See page 5	P
	- rated connecting capacity	See page 5	P
	- rated insulation voltage (U _i)	See page 5	P
	- rated impulse withstand voltage (U _{imp})	See page 5	P
	- conventional free air thermal current (I _{th})	See page 5	P
	- service conditions if different from those of Cl.6.		N/A

7.	CONSTRUCTION		P
7.1	Constructional requirements		P
7.1.1	Clamping units		P
7.1.1.1	All parts of clamping units which maintain contact and carry current shall be of metal having adequate mechanical strength		P
	Clamping units connections shall be such that necessary contact pressure is maintained		P
	Clamping units shall be so constructed that the conductor is clamped between suitable surfaces without damage to the conductor and terminal		P
	Clamping units shall not allow the conductor to be displaced or to be displaced themselves in a manner detrimental to the operation of equipment and the insulation voltage shall not be reduced below the rated value		P

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	Clamping units shall allow the conductor to be connected by means ensuring that a reliable mechanical linkage and electrical contact is properly maintained		P
	Clamping units shall be able to withstand the forces that can be applied through the connected conductors		P
	Contact pressure is not transmitted through insulation materials		P
7.1.2	Mounting		P
	Terminal blocks shall be provided with means that allow them to be securely attached to a rail or a mounting surface (see 8.3.2)	DIN Rail	P
7.1.3	Clearances and creepage distances		P
	For clearances and creepage distances see 8.4.2	See table 8.4.2	P
7.1.4	Terminal identification and marking:		P
	- terminals intended exclusively for the neutral conductor		N/A
	- other terminals		P
	- terminal blocks shall have provision, or at least space, for identification marks or numbers for each terminal or terminal assembly to be related to the circuit of which it is to form a part		P
	- For the identification of the terminal block the colour combination green-yellow is not allowed		N/A
7.1.5	Resistance to abnormal heat and fire		P
	Needle flame test for insulation materials of terminal blocks (see 8.5)	No burning.	P
7.1.6	Rated cross-section and rated connecting capacity		P

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict

	Terminal blocks are so designed that conductors of the rated cross-section and/or the rated connecting capacity can be accepted	See 8.3.3.4	P
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8	TESTS		P
8.3	Verification of mechanical characteristics		P
8.3.2	Attachment of the terminal block on its support		P
	mounting rail	Aluminium Rail	—
	Tightening torque (Nm)	0.6 / 0.6 / 0.8	—
	steel pin diameter (mm)	1.0	—
	force (N)	1	—
	During the test, no terminal block shall work free from its rail or support, nor suffer any other damage	No work free, No damage.	P
8.3.3	Mechanical properties of clamping units		P
8.3.3.1	Test of mechanical strength of clamping units		P
8.2.4.1	Mechanical strength of clamping units (EN 60947-1)		P
	rated cross-section of a rigid conductor (mm ²)	1.0 / 1.0 / 1.5	—
	diameter of thread (mm)	3 / 3 / 3.5	—
	torque (Nm)	0.6 / 0.6 / 0.8	—
	5 times on 2 clamping units at the centre terminal block out of 5 terminal blocks		P
	Voltage drop before and after mechanical strength test		P
	rated cross-section of a rigid conductor (mm ²)	1.0 / 1.0 / 1.5	—
	test current (A) d.c.	1.35 / 1.35 / 1.75	—
	voltage drop (mV) before mechanical strength test not exceeding 3.2 mV	0.55 / 0.60 / 0.61	P
	If the measured value exceeds 3.2 mV, the voltage drop is determined on each individual clamping unit separately, which shall not exceed 1.6 mV		N/A

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	voltage drop (mV) after mechanical strength test not exceeding 150% of the value measured before mechanical strength test :	0.64 / 0.50 / 0.54	P
	minimum cross-section of a flexible conductor (mm ²).....:	Evaluated only rated cross-section.	—
	test current (A) d.c.:		—
	voltage drop (mV) before mechanical strength test not exceeding 3.2 mV		N/A
	If the measured value exceeds 3.2 mV, the voltage drop is determined on each individual clamping unit separately, which shall not exceed 1.6 mV		N/A
	voltage drop (mV) after mechanical strength test not exceeding 150 % of the value measured before mechanical strength test.....:		N/A
8.3.3.2	Testing for damage to and accidental loosening of conductors of a terminal block (flexion test)		P
	conductor of the smallest cross-section (mm ²).....:	0.5 / 0.5 / 0.75	—
	number of conductors of the smallest cross-section	1	—
	torque (Nm)	0.6 / 0.6 / 0.8	—
	diameter of bushing hole (mm)	6.5	—
	height between the equipment and the platen (mm)	260	—
	mass at the conductor(s) (kg)	0.3 / 0.3 / 0.4	—
	135 continuous revolutions: the conductor shall neither slip out of the terminal nor break near the clamping unit		P
	Pull-out test		P
	force (N)	20 / 20 / 30	—
	1 min, the conductor shall neither slip out of the terminal nor break near the clamping unit		P

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	conductor of the rated cross-section (mm ²)	1.0 / 1.0 / 1.5	—
	number of conductors of the rated cross-section :	1	—
	torque (Nm)	0.6 / 0.6 / 0.8	—
	diameter of bushing hole (mm)	6.5	—
	height between the equipment and the platen (mm)	260	—
	mass at the conductor(s) (kg)	0.4	—
	135 continuous revolutions: the conductor shall neither slip out of the terminal nor break near the clamping unit		P
	Pull-out test		P
	force (N)	35 / 35 / 40	—
	1 min, the conductor shall neither slip out of the terminal nor break near the clamping unit		P
	conductor of the largest cross-section (mm ²)	No larger cross-section than rated	—
	number of conductors of the largest cross-section:		—
	torque (Nm)		—
	diameter of bushing hole (mm)		—
	height between the equipment and the platen (mm)		—
	mass at the conductor(s) (kg)		—
	135 continuous revolutions: the conductor shall neither slip out of the terminal nor break near the clamping unit		N/A
	Pull-out test		N/A
	force (N)		—
	1 min, the conductor shall neither slip out of the terminal nor break near the clamping unit		N/A
	conductor of the largest or smallest cross-section (mm ²)		—

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	number of conductors of the largest or smallest cross-section.....:		—
	torque (Nm).....:		—
	diameter of bushing hole (mm).....:		—
	height between the equipment and the platen (mm).....:		—
	mass at the conductor(s) (kg).....:		—
	135 continuous revolutions: the conductor shall neither slip out of the terminal nor break near the clamping unit		N/A
	Pull-out test		N/A
	force (N).....:		—
	1 min, the conductor shall neither slip out of the terminal nor break near the clamping unit		N/A
8.3.3.4	Verification of rated cross section and rated connecting capacity		P
	One conductor of the two next smaller cross-sections can be unhindered and connected in each clamping unit of one terminal block (up to 35 mm ²)	0.5 / 0.5 / 0.75	P
8.4.2	Verification of clearances and creepage distances		P
	Conductor type and conductor cross-section	Stranded, 1.0 / 1.0 / 1.5	—
	Conductor end length (mm)	Prepared conductor	—
	Type of support	Rail with fixing screw	—
8.4.2.2	Clearances		P
	Case A (mm).....:	See table 8.4.2	P
	Case B (mm).....:		
	Measured (mm).....:		
	Rated impulse withstand voltage U _{imp} (kV)	2.5 / 2.5 / 4.0	P
8.4.2.3	Creepage distances:		P
	- pollution degree.....:	3	—
	- comparative tracking index (V).....:	175	—

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	- material group	IIIa	—
	- rated insulation voltage U_i (V)	250 / 250 / 380	—
	- minimum creepage distances (mm)	See table 8.4.2	—
	- measured creepage distances (mm)	See table 8.4.2	—
8.4	Verification of electrical characteristics		P
8.4.3	Dielectric tests		P
	Dielectric test, U_{imp} indicated:		P
	- five terminal blocks connected with unfavourable cross-section (mm ²) / type / conductor end length (mm)		—
	- rated impulse withstand voltage (kV)	See page 5	—
	- test U_{imp} main circuits (kV)	2.5 kV / 2.5 kV / 4.0 kV	P
	Dielectric test, U_{imp} not indicated:		N/A
	- five terminal blocks connected with unfavourable cross-section (mm ²) / type / conductor end length (mm):		—
	- rated insulation voltage (V)	250 / 250 / 380	—
	- test voltage for 5 sec (V)	1500 / 1500 / 1890	P
8.4.5	Temperature-rise test		P
	Temperature-rise conditions:		P
	- test current (A)	See table 8.4.5	—
	- cross-section of the conductor (mm ²)	See table 8.4.5	—
	- torque (Nm)	See table 8.4.5	—
	- temperature-rise does not exceed 45 K	See table 8.4.5	P
	Voltage drop before and after temperature-rise test:		P
	- test current (A) d.c.	See table 8.4.5	—
	- voltage drop (mV) before temperature-rise test not exceeding 3.2 mV	See table 8.4.5	P

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	If the measured value exceeds 3.2 mV, the voltage drop is determined on each individual clamping unit separately, which shall not exceed 1.6 mV		N/A
	- voltage drop (mV) after temperature-rise test not exceeding 150 % of the value measured before temperature-rise test.....:	See table 8.4.5	P
8.4.6	Short-time withstand current test		P
	- rated cross-section of the conductor (mm ²)	1.0 / 1.0 / 1.5	—
	- torque (Nm).....:	0.6 / 0.6 / 0.8	—
	- test current (A)	120 / 120 / 180	—
	- duration of the test current (s)	1	—
	At the end of the test, continuity shall exist on the test sample assembly and the terminal blocks shall not show any cracking, breakage or other critical damage		P
	Voltage drop before and after short-time withstand current test		P
	- test current (A) d.c.:	1.35 / 1.35 / 1.75	—
	- voltage drop (mV) before short-time withstand current test not exceeding 3.2 mV	See table 8.4.6	P
	If the measured value exceeds 3.2 mV, the voltage drop is determined on each individual clamping unit separately, which shall not exceed 1.6 mV		N/A
	- voltage drop (mV) after short-time withstand current test not exceeding 150 % of the value measured before short-time withstand current test:	See table 8.4.6	P
8.4.7	Ageing test (for screwless-type terminal blocks only)		N/A
	Maximum ambient temperature (°C).....:		—
	Rated cross-section rigid or stranded < 10 mm ² solid, > 10 mm ² stranded (mm ²).....:		—
	Test current (A) according 8.4.5		—

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	Heating cabinet is increased, in each cycle to (°C):		—
	Test current (A) d.c. for measurement of the voltage drop		—
	Voltage drop after 0 cycles:		N/A
	- requirement: $\leq 3.2\text{mV}$ (mV)		N/A
	If the measured value exceeds 3.2 mV, the voltage drop is determined on each individual clamping unit separately, which shall not exceed 1.6 mV		N/A
	Voltage drop after the 24 th cycle:		N/A
	- requirement: 4.8 mV (mV)		N/A
	Voltage drop after the 48 th cycle		N/A
	- requirement: $\leq 4.8\text{ mV}$ or 1.5 times the value measured after the 24 th cycle (mV).....:		N/A
	Voltage drop after the 72 nd cycle:		N/A
	- requirement: $\leq 4.8\text{ mV}$ or 1.5 times the value measured after the 24 th cycle (mV)		N/A
	Voltage drop after the 96 th cycle:		N/A
	- requirement: $\leq 4.8\text{ mV}$ or 1.5 times the value measured after the 24 th cycle (mV).....:		N/A
	Voltage drop after the 120 th cycle:		N/A
	- requirement: $\leq 4.8\text{ mV}$ or 1.5 times the value measured after the 24 th cycle (mV)		N/A
	Voltage drop after the 144 th cycle:		N/A
	- requirement: $\leq 4.8\text{ mV}$ or 1.5 times the value measured after the 24 th cycle (mV).....:		N/A
	Voltage drop after the 168 th cycle:		N/A
	- requirement: $\leq 4.8\text{ mV}$ or 1.5 times the value measured after the 24 th cycle (mV).....:		N/A
	Voltage drop after the 192 nd cycle:		N/A

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	- requirement: ≤ 4.8 mV or 1.5 times the value measured after the 24 th cycle (mV).....:		N/A
	Pull-out test		N/A
	force (N)		—
	1 min, the conductor shall neither slip out of the terminal nor break near the clamping unit		N/A
8.5	Verification of thermal characteristics is checked by the needle flame test.	Test temperature: 700 °C	P
	Before the test, the terminal blocks are stored for 24 h in an atmosphere having a temperature between 15°C and 35°C and a relative humidity between 45% and 75%	Preconditioning: 24 h, 25 °C, 60 % R.H.	P
	The flame is applied for 10 s. for insulation walls <1 mm and / or an area < 100 mm ² , the flame is applied for 5 s.	>100 mm ² , 5 s	P
	The terminal blocks are considered to have passed the test if the duration of burning is < 30s in case of ignition. Moreover, the tissue paper on the pinewood board shall not ignite if burning or glowing particles fall from the terminal block.	No burning.	P
8.6	Verification of EMC characteristics		N/A
	Subclause 8.4 of EN 60947-1 applies with the following addition:		N/A
8.6.1	Immunity		N/A
	Terminal blocks within the scope of this standard are not sensitive of electromagnetic disturbances and therefore no immunity tests are necessary.		N/A
8.6.2	Emission		N/A

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict
	Terminal blocks within the scope of this standard do not generate electromagnetic disturbances and therefore no emission tests are necessary.		N/A

IEC 60947-7-1			
Clause	Requirement – Test	Result - Remark	Verdict

Table 8.4.2	Verification of clearances and creepage distances									P
Location	Ui (V)	OC	Uimp	PD	Clearance		MG	Creepage distance		-
					Req.	Meas.		Req.	Meas.	
DSTB-10S	250 V	III	2.5 kV	3	1.5 mm	4.25 mm	IIIa	4.0 mm	4.25 mm	P
DSTB-10SW	250 V	III	2.5 kV	3	1.5 mm	4.25 mm	IIIa	4.0 mm	4.25 mm	P
DSTB-15S	380 V	III	4 kV	3	3.0 mm	8.33 mm	IIIa	6.3 mm	8.33 mm	P

OC: Overvoltage category, PD: Pollution degree, MG: Material group, Req.: Required, Meas: Measured

Table 8.4.3	Dielectric Strength			P
Model	Test voltage and between	Test potential applied (V)	Breakdown / flashover (Yes / NO)	
DSTB-10S DSTB-10SW	Pole – Pole	1500	No	
	Live part – outside	1500	No	
	Live part – mounting support	1500	No	
DSTB-15S	Pole – Pole	1890	No	
	Live part – outside	1890	No	
	Live part – mounting support	1890	No	

Table 8.4.5	Temperature rise test					P
Model	Cross-sectional area (mm ²)	Test current (A)	Torque (Nm)	Measured temp. (K)	Limit (K)	-
DSTB-10S	1.0 mm ²	13.5	0.6	15.7	45	P
DSTB-10SW	1.0 mm ²	13.5	0.6	14.1	45	P
DSTB-15S	1.5 mm ²	17.5	0.8	21.5	45	P
Model	Voltage drop (mV) after temperature rise test					
		Test current	Required	Measured		-
DSTB-10S	Before	1.35 A	3.20 mV	0.38 mV		P
	After	1.35 A	0.57 mV	0.52 mV		P
DSTB-10SW	Before	1.35 A	3.20 mV	0.37 mV		P
	After	1.35 A	0.56 mV	0.41 mV		P

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Clause	Requirement – Test	Result - Remark		Verdict

DSTB-15S	Before	1.75 A	3.20 mV	0.56 mV	P
	After	1.75 A	0.84 mV	0.57 mV	P

Table 8.4.6	Short-time withstand current test				P
Model	Rated cross-sectional area (mm)	Test current (A)	Torque (Nm)		-
DSTB-10S	1.0	120 / s	0.6		P
DSTB-10SW	1.0	120 / s	0.6		P
DSTB-15S	1.5	180 / s	0.8		P
Model	Voltage drop (mV) after temperature rise test				-
		Test current	Required	Measured	
DSTB-10S	Before	1.35 A	3.20 mV	0.55 mV	P
	After	1.35 A	0.83 mV	0.64 mV	P
DSTB-10SW	Before	1.35 A	3.20 mV	0.60 mV	P
	After	1.35 A	0.90 mV	0.50 mV	P
DSTB-15S	Before	1.75 A	3.20 mV	0.61 mV	P
	After	1.75 A	0.92 mV	0.54 mV	P

TABLE: Critical components information					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
Terminal block (Plastic)	LG CHEM LTD	PC1200	V-2, Min. thickness 0.5 mm	UL94	UL / E67171

Measurement Equipment List:

No.	Category	Maker	Type/Model	Serial No.	Calibration Valid Date
1	Torque Wrench	Tohnich	DB25N	327077F	2024-05-09
2	Electronic Load	Dae Gil Electronic	EL-800NS	EL800NS-2806303	2024-06-26
3	Hybrid Recorder	Yokogawa	DR230	7700GD785	2024-06-26
4	Voltage Withstanding Tester	Kikusui	TOS5051	DJ001291	2024-06-26
5	Digital Multi Meter	METRA	23S	NC1168	2024-06-26
6	Digimatic Calipers	Mitutoyo	500-181-30	15395988	2024-06-28
7	Clamp On Tester	YOKOGAWA	CL255	TKC6318	2024-06-28
8	Digital Oscilloscope	Tektronix	TDS 3034	B013363	2024-06-26

END OF TEST REPORT