


Test Report - Products
Prüfbericht - Produkte

Test report no.: Prüfbericht Nr.:	AU248W7F 001	Order No.: Auftrags-Nr.:	252106386	Page 1 of 5 Seite 1 von 5
Client Reference No.: Kunden-Referenz-Nr.:	2132550	Order date: Auftragsdatum:	2024-03-21	
Client: Auftraggeber:	AGM ELECTRICAL SUPPLIES 3/52-54 Parramatta Rd, Croydon NSW 2132			
Test item: Prüfgegenstand:	RCBO			
Identification/ Type No.: Bezeichnung / Typ-Nr.	Brand DL model DR8L-40			
Order content: Auftrags-Inhalt:	Electrical safety testing			
Test specification: Prüfgrundlage:	ESV "Additional testing and verification requirements for RCBOs" Version 4.0 – last updated July 1st, 2019			
Date of sample receipt: Wareneingangsdatum:	2024-03-21			
Test sample No.: Prüfmuster-Nr.:	A003683689-001 and 002			
Testing period: Prüfzeitraum:	2024-03-22			
Place of testing: Ort der Prüfung:	TÜV Rheinland Australia			
Testing laboratory: Prüflaboratorium:	TÜV Rheinland Australia			
Test result*: Prüfergebnis*:	Pass			
tested by: geprüft von:	authorized by: / genehmigt von:			
Date: 2024-03-25 Datum:	<u>Keith Jiang</u>	Issue Date: 2024-03-25 Ausstellungsdatum:	<u>Keivan Mohammadi</u>	
Position / Stellung:	Project Engineer	Position / Stellung:	Senior Project Manager	
Other / Sonstiges:				
Condition of the test item at delivery: Zustand des Prüfgegenstandes bei Anlieferung:	Test item complete and undamaged			
* 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				
This test report only relates to the a. m. 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. 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.				

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Remarks

1	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.
2	As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.
3	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.
4	Reporting of results herein is in accordance with NATA recommendations taking into account U of M. (a) For minimum limits - Where measurement is on the limit or above the limit it is deemed to comply. Where measurement is below the limit it is deemed not to comply. (b) For maximum limits - Where measurement is on the limit or below the limit it is deemed to comply. Where measurement is above the limit it is deemed not to comply.
5	For reporting of results the estimated uncertainty for measurement taken into account at 95% confidence level.
6	This test report is based on assessment and tests applied to the specific test item(s) as submitted by the client. TÜV Rheinland Australia disclaims any and all responsibility or obligation for any other item.

History of revision:

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Product description

1	Product details:	Brand DL model DR8L-40 , RCBO, 240V, 50Hz, C32, 30mA, type A, 6kA
2	Dimensions / Weight:	88.2x73.5x17.7 mm/ 139.8 g
3	Operating elements:	N/A
4	Equipment / Accessories:	N/A
5	Used materials:	N/A
6	Other:	Test sample(s), as well sample information, description, product details and intended usage was provided by customer.
7	Test sample obtaining:	<input checked="" type="checkbox"/> Sending by customer <input type="checkbox"/> Sampling by TÜV Rheinland Group <input type="checkbox"/> others:
8	Model Variations:	N/A

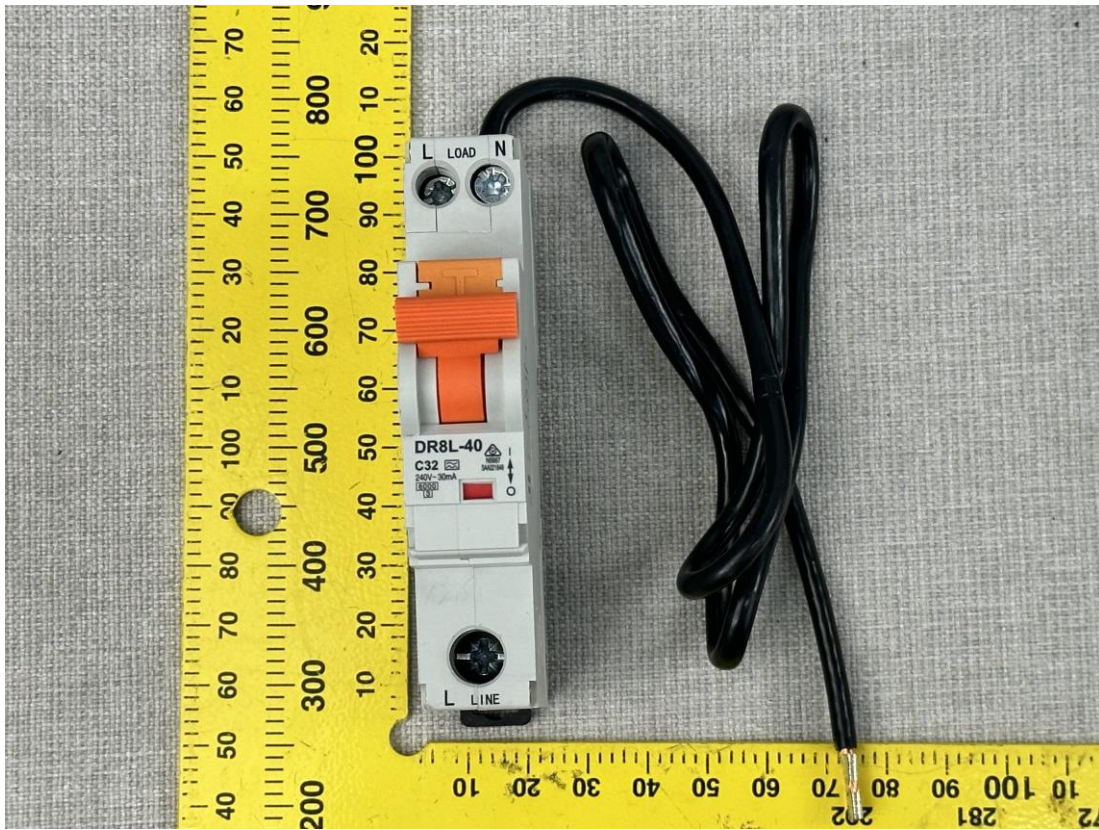
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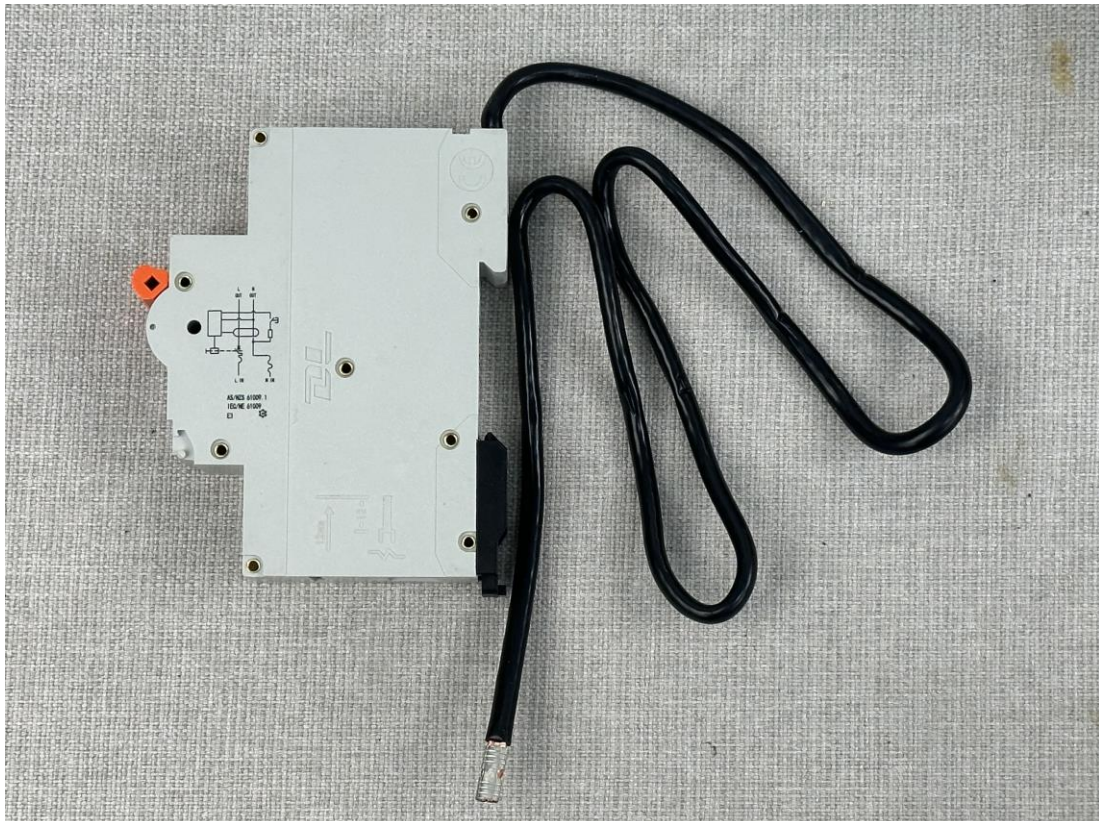
Additional testing and verification requirements for RCBOs"

Clause	Requirements - Tests	Measuring results - Remarks	Result
1	The RCBO in the closed position is to be set up as per the circuit diagram below to have 240V applied on both L and N terminals. The link between the terminals shall be as short as practicable. The variable resistor R value is reduced so that adequate residual current is passed through the circuit until the RCBO trips. This current is applied for 60 seconds.	Test sample tripped at 21.1mA	P
2	If the RCBO can be reset, the RCBO is setup as per test (1), however the variable resistor is disconnected from the circuit. The RCBO is closed and the test button is pressed and released.	RCBO reset, test button pressed and released, test sample tripped	P
3	If the RCBO can be reset, step 2 is repeated but the test button is held down for 10 seconds.		P
4	If the RCBO trips then step 2 is repeated.		P
Verification requirements			
	After these tests a verification of the operating characteristics under residual current conditions of the RCBOs is to be performed by the test set out in clause 9.9.1.2 a), of AS/NZS 61009:2015. The RCBO is required to comply with clause 9.9.1.2 a), of AS/NZS 61009:2015, any damage to the test button or its circuits is ignored.		P
	a) Verification of the correct operation in case of a steady increase of the residual current		P
	The test switches S1 and S2 and the RCBO being in the closed position, the residual current is steadily increased, starting from a value not higher than 0.2 $I_{\Delta n}$, trying to attain the value of $I_{\Delta n}$ within 30 s, the tripping current being measured each time.		P
	All five measured values shall be situated between $I_{\Delta no}$ and $I_{\Delta n}$.	15<limit<30, measured tripping time was 22.7mA	P

Photo documentation



Test item - Top view



Test item-Side view

End of test report