Test report no.: *Prüfbericht Nr.:*	AU24BGGI 001	**Order No.:** *Auftrags-Nr.:*	252106509	
Client Reference No.: *Kunden-Referenz-Nr.:*	2569280	**Order date:** *Auftragsdatum:*	2024-05-15	
Client: *Auftraggeber:*	LECO Switchgear Ltd 18/24 Westech Place, 0602 Glen Eden, Auckland, New Zealand			
Test item: *Prüfgegenstand:*	Whole Assembly of the Switchboard			
Identification/ Type No.: *Bezeichnung / Typ-Nr.*	Drawing no. "00000/QUASB/2", Rev C			
Order content: *Auftrags-Inhalt:*	Electrical Safety Testing			
Test specification: *Prüfgrundlage:*	Temperature rise test according to Clause 10.10.2.3.7 of AS/NZS 61439.1:2016 "Low-voltage switchgear and control gear assemblies-Part1: General rules"			

Date of sample receipt: *Wareneingangsdatum:*	2024-05-20
Test sample No: *Prüfmuster-Nr.:*	A003725028-001
Testing period: *Prüfzeitraum:*	2024-05-24 to 2024-05-31
Place of testing: *Ort der Prüfung:*	TÜV Rheinland Australia Pty. Ltd.
Testing laboratory: *Prüflaboratorium:*	TÜV Rheinland Australia Pty. Ltd.
Test result*: *Prüfergebnis*:*	Pass

created by: *erstellt von:*	Gurpreet Singh	**authorized by:** *genehmigt von:*	Shuai Shao
Date: 2024-06-24		**Issue Date:** 2024-09-06	
Position / *Stellung:*	Expert	**Position** / *Stellung:*	Expert

Other / *Sonstiges:*

Rated current of the assembly	800 A
Rated frequency (f_n)	50 Hz
Incoming unit / Rated current (I_{nc})	Schneider NS800N / 800 A
Outgoing unit 1 / Rated current (I_{nc})	Schneider NSX 400F / 375 A
Outgoing unit 2 / Rated current (I_{nc})	Schneider NSX 100F / 100 A
Outgoing unit 3 / Rated current (I_{nc})	Schneider NSX 160F / 160 A
Outgoing unit 4 / Rated current (I_{nc})	Schneider NSX 250F / 250 A
Combination tests	RDF 0.9

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.
V05

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. TUV 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, TUV 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 descripted 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	The decision rule for statements of conformity 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.
5	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.
6	Power supplies used were mains derived a.c. voltage sources of substantially sinusoidal waveform with a nominal frequency of 50 Hz unless otherwise noted.

History of revision:

N/A

AS/NZS 61439.1:2016

Clause	Requirements - Tests	Measuring results - Remarks	Result

1	**Product details:**	Refer to the test item description below.
2	**Dimensions / Weight:**	[W x H x D] (mm): Refer to the drawing
3	**Operating elements:**	N/A
4	**Equipment / Accessories:**	The equipment was tested without any optional accessory or ancillary equipment installed. Hence, this report does not cover parameters that are influenced by the installation of optional accessories or ancillary equipment that might affect safety in the meaning of this standard.
5	**Used materials:**	Refer to the drawing
6	**Other:**	N/A
7	**Test sample obtaining:**	☒ Sending by customer ☐ Sampling by TÜV Rheinland Group ☐ others:

Description of the test item:

The test sample provided is an ASSEMBLY containing 3 tiers (1 to 3) from left to right. Tier 1 contains an incoming circuit comprising of incoming unit feeding the main busbars on the top segment. Tier 2 consists of several outgoing units connected onto a chassis which is fed via the main busbars located in the top segment. The middle compartment of tier 2 contains another outgoing unit of MCCB. Tier 3 is a cable zone. The assembly has external surface doors and internal polycarbonate shielded cover. The external doors are closed and locked using screws. Refer to the drawing “00000/QUASB/ (1 to 4)”, Rev C and photos for more details.

Drawings and technical documents: Documents required from the customer

S. No.	Drawing No./ Documents No.	Rev / Date	Description
1	Mechanical Properties GRP-Profiles Fibrolux GmbH	V 5.10 / NA	Busbar supports
2	Busbar standoff insulators	L-37 / NA	Busbar standoff insulators
3	Declration of conformity for the Outgoing units.	NA / NA	Kentan Busbar Joint Covers Thermal Limits
4	Datasheet P1 Laminate	NA / 30-08-2010	Polycarbonate sheet
5	00000/QUASB/ (1 to 4)	C / 2023-12-04	QUANTUM SWITCHBOARD FOR TYPE TESTING. MANUFACTURED FOR LECO SWITCHGEAR.

Note: All drawings and technical documents are provided by the client, and are not included in the test report.