

Prüfbericht-Nr.: <i>Test report no.:</i>	IN24RECJ 001	Auftrags-Nr.: <i>Order no.:</i>	146845757	Seite 1 von 8 Page 1 of 8	
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	2540776	Auftragsdatum: <i>Order date:</i>	2023.10.05		
Auftraggeber: <i>Client:</i>	AP Lanka (Pvt) Ltd. 416/5, Leyland Road, Panagoda, Sri Lanka				
Prüfgegenstand: <i>Test item:</i>	Aluminium Outdoor Free Standing Enclosure - Bolted				
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	MODIK Aluminium Outdoor Free Standing Enclosures				
Auftrags-Inhalt: <i>Order content:</i>	Testing and issue of test report				
Prüfgrundlage: <i>Test specification:</i>	Refer section "Summary of Testing"				
Wareneingangsdatum: <i>Date of sample receipt:</i>	2024.01.03				
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003635944-002				
Prüfzeitraum: <i>Testing period:</i>	IP5X 2024.01.08 & IPX4 2024.01.10				
Ort der Prüfung: <i>Place of testing:</i>	Confidential Business Information				
Prüflaboratorium: <i>Testing laboratory:</i>	Confidential Business Information				
Prüfergebnis*: <i>Test result*:</i>	Refer section "Summary of Testing"				
geprüft / tested by:		Kontrolliert / reviewed by:			
2024.02.06 Tynes T M / Engineer		2024.02.06 Basavant Magadum / Manager			
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>
Sonstiges / This test report consists of 8 pages, including this cover page and following attachment. Other: Attachment 1: Photo Document					
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>			Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * 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					
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>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.</i>					

Confidential Business Information

Prüfbericht-Nr.: **IN24RECJ 001**
Test report no.:

Seite 2 von 8
Page 2 of 8

Anmerkungen
Remarks

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3	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>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
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Prüfbericht-Nr.: IN24RECJ 001
Test report no.:

Seite 3 von 8
Page 3 of 8

Produktbeschreibung
Product description

1	Produktdetails <i>Product details</i>	Aluminium Outdoor Free Standing Enclosure - Bolted
2	Maße / Gewicht <i>Dimensions / Weight</i>	600 x 800 x 350mm
3	Bedienelemente <i>Operating elements</i>	N/A
4	Ausstattung / Zubehör <i>Equipment / Accessories</i>	N/A
5	Verwendete Materialien <i>Used materials</i>	Aluminium
6	Sonstiges <i>Other</i>	Test sample(s), as well sample information, description, product details and intended usage was provided by customer.
7	Prüfmusterbereitstellung: <i>Test sample obtaining:</i>	☒ Sending by customer ☐ Sampling by TÜV Rheinland Group ☐ others:
8	Herstellerin: <i>Manufacturer:</i>	AP Lanka (Pvt) Ltd.
9	Bewertung(en): <i>Rating(s):</i>	N/A

Discipline.....: Electrical Testing

Product Group.....: Environmental Test Facility

General product information and considerations:

The equipment under test is "Aluminium Outdoor Free Standing Enclosure - Bolted".

Prüfbericht-Nr.: IN24RECJ 001
Test report no.:

Seite 4 von 8
Page 4 of 8

Absatz Clause	Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse – Bemerkungen/ Measuring results - Remarks	Ergebnis Result
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Summary of testing:

- Below are the tests performed on “Aluminium Outdoor Free Standing Enclosure - Bolted”.

Clause	Test Description	Reference standard	Remarks
1.1	IP5X	IEC 60529 Edition 2.2 2013-08	Pass
1.2	IPX4		Pass

Physical Check: There is no physical damages observed on the EUT before and after test.

Test Equipment List

Item	Type	Make / Model	Equipment No. / Sl. No.	Calibration due date
01	Dust Chamber	Envisys	G1827637	N/A
02	Stop watch	Selec	G1827565	2024.07.06
03	Measuring Scale	Kristeel	G1827617	2025.01.03
04	Weighing scale	New Technolab Instrument	G1827434	2024.03.01
05	Hygrometer	HTC	G1827792	2024.07.05
06	IPx4 Test Setup	Pego	G1827505	2024.10.11

Prüfbericht-Nr.: IN24RECJ 001			
Test report no.:			
Absatz Clause	Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse – Bemerkungen/ Measuring results - Remarks	Ergebnis Result

Test Specifications for IP5X Test

1.1	First Characteristic numeral – 5X		
Protection against access to hazardous parts			
Test condition		Description	Remark
Test lab ambient temperature/humidity & pressure during test		25.6°C, 68%rh, 902 mbar	-
The Test wire is pushed against or (in case of the test for first characteristic numeral 5) inserted through any openings of the enclosure with the force specified 1 N ± 10 %		Applied to all parts of the EUT and was not accessible through any of the openings	P
Moving parts may be operated slowly, where this is possible		No moving parts	N/A
The test wire of 1.0 mm Ø shall have adequate clearance form hazardous parts.		Not touched any hazardous parts	P
The test wire shall not touch hazardous mechanical parts		No hazardous mechanical parts	N/A
Protection against solid foreign objects			
Test condition		Description	Remark
The protection against the ingress of solid foreign objects implies that the object probes shall not fully penetrate the enclosure		Ingression of solid foreign objects through the EUT enclosure was verified with the following test	-
The test is made using a dust chamber incorporating the basic principles shown in Fig. 2 as per this standard.		Considered	-
The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50 µm and the nominal width of a gap between wires 75 µm.		Considered	-
The amount of talcum powder to be used is 2 kg per cubic meter of the test chamber volume. It shall not have been used for more than 20 tests.		Considered	-
Category 2: Enclosures where no pressure difference relative to the surrounding air is present		Category 2 consideration made	-
The enclosure under test is supported in its normal operating position inside the test chamber, but is not connected to a vacuum pump.		EUT placed inside the Dust Chamber under normal operating orientation	-
Any drain-hole normally open shall be left open for the duration of the test.		No drain hole as part of EUT Construction	-
The enclosure shall be deemed category 1, whether reductions in pressure below the atmospheric pressure are present or not.		Category 2 consideration made	-

Prüfbericht-Nr.: IN24RECJ 001 Test report no.:		Seite 6 von 8 Page 6 of 8	
Absatz Clause	Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse – Bemerkungen/ Measuring results - Remarks	Ergebnis Result

Ingress of dust is not totally prevented (in case of the test for first characteristic numeral 5), but shall not penetrate in a quantity to interfere with the satisfactory operation of the apparatus or to impair safety.	After exposure, the EUT was cleaned before opening the enclosure for the deposited dust on the external surface. No dust ingress observed inside the EUT.	P
The protection is satisfactory if no deposit of dust is observable (in case of the test for first characteristic numeral 6) inside the enclosure at the end of the test.	Refer above row	N/A

Test Specifications for IPX4 Test

1.2	Second Characteristic numeral – X4	
Protection against water using oscillating tube		
Test condition	Description	Remark
Test lab ambient temperature/humidity & pressure	24.5°C, 69%rh, 903 mbar	-
Oscillating tube movement	Up to 170° from Vertical	-
Test duration	10 min	-
Oscillating tube radius	1200 mm	-
Water flow rate	0.07 l/min/nozzle	-
Visual check for water ingress	After exposure, the EUT was gently cleaned before opening the enclosure for the deposited water on the external surface. On opening of enclosure no water ingress observed.	P
Water ingress is sufficient to interfere with the correct operation of the equipment or impair safety	No water ingress observed.	P
Water ingress is deposit on insulation parts where it could lead to tracking along with the creepage distances	No water ingress observed.	P
Water ingress has reached live parts or windings that are not designed to operate when wet	No water ingress observed.	P

Prüfbericht-Nr.: **IN24RECJ 001**
Test report no.:

Seite 7 von 8
Page 7 of 8

Anhang 1: - Fotodokument
Attachment 1 :- Photo Document



EUT Overall View

Prüfbericht-Nr.: **IN24RECJ 001**
Test report no.:

Seite 8 von 8
Page 8 of 8

Anhang 1: - Fotodokument
Attachment 1 :- Photo Document



IP5X Test Observation (No Dust Ingression Observed)



IPX4 Test Observation (No water ingression observed)

End of Test Report