

TEST CERTIFICATE

Issued to: EAE Elektrik Asansör End.
Insaat San. ve Tic. A.S.
Akçaburgaz Mahallesi 119, Sokak No: 10
34510 Esenyurt / İstanbul
Turkey

For the product: Low-voltage busbar trunking system

Trade name: EAE

Type/Model: KOA 02-II

Ratings: I_{nc} 250 A at 50 Hz, U_i 1000 V, U_{imp} 12 kV, I_{cw} 15 kA – 1 s
For more details see annex

Manufactured by: EAE Elektrik Asansör End.
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34510 Esenyurt / İstanbul
Turkey

Subject: Design verification

Requirements: IEC 61439-6: 2012
Clauses: 10.2, 10.3, 10.4, 10.5, 10.9, 10.10, 10.11 and Annex BB, CC, and DD

Remarks: Busbar trunking system consists of flange, joint and straight lengths

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in report no. 2172186.02-INC, dated 12 January 2015.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Arnhem, 12 January 2015

Number: 2172186.101

DEKRA Certification B.V.



F.S. Strikwerda
Certification Manager

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Overview of product evaluation according to IEC 61439-6:

IEC 61439-6 Clause	Clause description	Tested ratings	Results
10.2	Strength of material and parts		
10.2.2	Resistance to corrosion	Severity test A: indoor	Pass
10.2.3	Properties of insulating materials		
10.2.3.1	Verification of thermal stability of enclosures	Cover of tap-off facility	Pass
10.2.3.2	Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Insulating materials retaining current-carrying parts in position: 960 °C Other insulating materials: 650 °C	Pass
10.2.6	Mechanical impact	IK 09	Pass
10.2.7	Marking		Pass
10.2.101	Ability to withstand mechanical loads		
10.2.101.1	Test procedure for a straight busbar trunking unit	Heavy loads	Pass
10.2.101.2	Test procedure for a joint	Heavy loads	Pass
10.2.101.3	Resistance of the enclosure to crushing	Heavy loads	Pass
10.3	Degree of protection of assembly	IP55	Pass
10.4	Clearances and creepage distances	Clearances > 14 mm, based on U _{imp} = 12 kV; Creepage distances > 16 mm, based on U _i = 1000 V, pollution degree 3, material group IIIa.	Pass
10.5	Protection against electric shock and integrity of protective circuits		
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Earth resistance < 0,1 Ω	Pass
10.5.3	Short-circuit withstand strength of the protective circuit	9 kA - 0,1 s	Pass
10.9	Dielectric properties		
10.9.2	Power-frequency withstand voltage	U _i 1000 V	Pass
10.9.3	Impulse withstand voltage	U _{imp} 12 kV	Pass
10.10	Verification of temperature rise		
10.10.2.3.5	Test of a BT run	250 A	Pass
10.11	Short-circuit withstand strength	low 15 kA - 1 s (3-phase) low 9 kA - 1 s (neutral)	Pass

IEC 61439-6 Clause	Clause description	Tested ratings			Results
Annex BB	Phase conductor characteristics X : R ₂₀ : R : Z ₂₀ : Z = Z ₍₁₎ = Z ₍₂₎ :	[μΩ/m] 158 238 309 286 347			Pass
Annex CC	Fault-loop zero-sequence impedances X _{(0)bx} : R _{(0)bx} : R _{(0)bx} : Z _{(0)bx} : Z _{(0)bx} :	Phase to Neutral [μΩ/m] 852 1078 1414 1374 1651	Phase to Earth [μΩ/m] 918 1588 2083 1834 2277	Pass	
Annex DD	Fault-loop resistances and reactances X _{bxx} : R _{b20xx} : R _{bxx} :	Phase to Phase [μΩ/m] 308 475 623	Phase to Neutral [μΩ/m] 418 496 651	Phase to PE [μΩ/m] 461 777 1019	Pass

Product details:

Busbars	3-phase	6 x 25 mm Aluminium conductor
	Neutral	6 x 25 mm Aluminium conductor
	PE	trunking enclosure

Note: The operational current ratings above are given at 50 Hz, operational currents current at 50 Hz are applicable to 60 Hz for rated currents up to and including 800 A (IEC 61439-1 clause 10.10.2.3.1).