

Certificate of Constancy of Performance

0359-CPR-000554



Appendix to Certificate of Constancy of Performance 0359-CPR-000554

Model Ref: Refer to Table A1 for model number and variant details.

Table A1. Product description for single axis hinges from Amsun Architectural Hardware.

Model No. ^a	Dimensions			Material ^b	Finish
	L(mm)	W(mm)	T (mm)		
AM111	102	76	3.0	SS201	Satin
AM112	102	76	3.0	SS201	Polished
AM113	102	76	3.0	SS201	PVD
AM121	102	76	3.0	SS304	Satin
AM122	102	76	3.0	SS304	Polished
AM123	102	76	3.0	SS304	PVD
AM221	102	89	3.0	SS304	Satin
AM222	102	89	3.0	SS304	Polished
AM223	102	89	3.0	SS304	PVD
AM321	102	102	3.0	SS304	Satin
AM322	102	102	3.0	SS304	Polished
AM323	102	102	3.0	SS304	PVD
AM421	114	102	3.0	SS304	Satin
AM422	114	102	3.0	SS304	Polished
AM423	114	102	3.0	SS304	PVD
AM521	114	114	3.0	SS304	Satin
AM522	114	114	3.0	SS304	Polished
AM523	114	114	3.0	SS304	PVD
AM621	114	102	3.5	SS304	Satin
AM622	114	102	3.5	SS304	Polished
AM623	114	102	3.5	SS304	PVD
AM711	114	114	3.5	SS201	Satin
AM712	114	114	3.5	SS201	Polished
AM713	114	114	3.5	SS201	PVD
AM721	114	114	3.5	SS304	Satin
AM722	114	114	3.5	SS304	Polished
AM723	114	114	3.5	SS304	PVD

Notes.

- a. Five knuckles 2 Ball Bearings butt hinges
- b. European Designation (EN) Austenitic Stainless Steel 1.4372 and 1.4301 (EN10088-1:2014 List of stainless steels)

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Issue 02

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Supporting test reports for this certificate are as follows:

Table A2. Mechanical test reports & product classification for single axis hinges from Amsun Architectural Hardware.

Test Report	Models	Product Classification							
		4	7	6	1 ^a	1	4	0	13
170511079GZU-001	AM111	4	7	6	1 ^a	1	4	0	13
	AM711	4	7	6	1 ^a	1	4	0	13
Model numbers assessed as having same performance: AM112, AM113, AM121, AM122, AM123, AM221, AM222, AM223, AM321, AM322, AM323, AM421, AM422, AM423, AM521, AM522, AM523, AM621, AM622, AM623, AM712, AM713, AM721, AM722, AM723									

Table A3. Fire test report(s) for single axis hinges from Amsun Architectural Hardware. ^{b, c}

Test Report	Model tested	Test Method	Fire Resistance (minutes)	
			Integrity (E)	Insulation(I)
170511079GZU-001	AM711	EN 1634-1: 2014	115	115
Model numbers assessed as having same performance: AM111, AM112, AM113, AM121, AM122, AM123, AM221, AM222, AM223, AM321, AM322, AM323, AM421, AM422, AM423, AM521, AM522, AM523, AM621, AM622, AM623, AM712, AM713, AM721, AM722, AM723				

Notes.

- a. Digit 4 grade “1” was based on fire resistance test (refer to Table A3).
- b. The single axis hinges shall be installed in accordance with the installation instructions for the product(s).
- c. This certificate of constancy of performance refers to the requirements for the product(s) described under the CPR. There may be other European Directives, where requirements need to be declared before CE marking can be affixed by the manufacturer or their authorised representative

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Table A4. EN 1935 Annex ZA for Amsun Architectural Hardware.

Product:	Single-axis hinges: Refer to Table A1 for model and variant details.	
Intended uses:	On fire/smoke compartmentation doors fitted with door closing devices (to enable such doors to close reliably and thus achieve self closing in the event of fire)	
Requirement / characteristic	Requirement clauses in this European Standard	Results
Self closing	5.1 Initial friction torque	Less than 4,0 Nm with door mass 120 kg
	5.2 static Load - Load deformation	Pass with a displacement under load: - Lateral < 4 mm; - Vertical < 2 mm And a residual displacement after unloading: - Lateral < 0,2 mm; - Vertical < 0,3 mm
	5.2 static Load - Overload	Pass
	5.3 Shear strength	Pass No breakage and cracking Lateral deformation under loading < 3 mm Additional lateral and vertical displacement after unloading < 1 mm
	5.6 Hinges for use on fire-resistant and/or smoke-control doors	Grade 1: suitable for use on fire/smoke resistant door assemblies
Durability	5.4 Durability	Pass (200,000 cycles) Maximum wear: - Lateral < 0,2 mm - Vertical < 1 mm Maximum frictional torque: - After 20 cycles and completion of 200,000 cycles less than 4,0 Nm.
	5.5 Corrosion resistance	Grade 4, Neutral Salt Spray (NSS) – 240 hours
Dangerous substances	Note 1 of ZA 1	No dangerous substances declared for this product/intended use

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