

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-15/0672  
of 28 April 2022

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Multi-axis concealed hinges "ISIDOR S05381", "ISIDOR  
S05381.A" or "ISIDOR S05381.B"

Product family  
to which the construction product belongs

Multi-axis concealed hinges "ISIDOR S05381", "ISIDOR  
S05381.A" or "ISIDOR S05381.B"

Manufacturer

CHARMAG SA  
Route de Lully 2  
1470 ETAVAYER-LE-LAC  
SCHWEIZ

Manufacturing plant

CHARMAG SA  
Route de Lully 2  
1470 ETAVAYER-LE-LAC  
SCHWEIZ

This European Technical Assessment  
contains

7 pages including 3 annexes which form an integral part  
of this assessment

This European Technical Assessment is  
issued in accordance with Regulation (EU)  
No 305/2011, on the basis of

EAD 020001-01-0405

This version replaces

ETA-15/0672 issued on 16 December 2020

The European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction shall be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No 305/2011.

## Specific Part

### 1 Technical description of the product

This European Technical Assessment applies to the variable concealed multi-axis hinges mainly made of high-grade steel with the designation "ISIDOR S05381", "ISIDOR S05381.A" or "ISIDOR S05381.B".

Each product consists of three parts, one part a mounting plate for the door frame, one part a mounting plate for the door leaf with segmented plates connected laterally in such a way as to allow the door to swing freely and to maintain the leaf in the same horizontal and vertical plane during the full operational cycle. Between the two mounting plates provide a variable geometry moving axis within a concealed hinge assembly.

The components and the system setup of the product is given in Annexes 1 to 3.

### 2 Specification of the intended use in accordance with the applicable European Assessment Document

The hinges are intended for use on doors of timber and metal. The doors could be made of synthetic materials if there is no requirement on resistance to fire.

They are invisible (concealed) hinges to allow single and double swing door leaves to be mounted flush to its door leaf and frame, forming a flush panel surface when the door is closed, and allowing the door to open to 180°.

The hinges are available for uses on doors with door mass up to 160 kg each door leaf.

The verifications and assessment methods on which this European Technical Assessment is based lead the assumption of working life of the hinges of 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

#### 3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	A1
Resistance to fire	EI <sub>2</sub> 30

#### 3.2 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

English translation prepared by DIBt

### 3.3 General aspects

The verification of durability is part of testing the essential characteristics.

Essential characteristic	Performance
Category of use	Grade 4 - light up to severe duty hinges
Durability	Grade 7 - 200.000 Cycles
Test door mass	Grade 7
Fire resistance	Grade 1
Safety	Grade 1
Corrosion resistance	Grade 4 - very high resistance
Security	Grade 0 - ISIDOR S05381 ISIDOR S05381.B Grade 1 - ISIDOR S05381.A
Hinge grade	Grade 14

### 4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to Decision of the Commission 1999/93/EC (OJ L 29/51 of 26.01.1999 p. 51), as amended by Decision of the Commission 2011/246/EU (Letter of the European commission of 15/10/2004), the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

The system to be applied is: 1

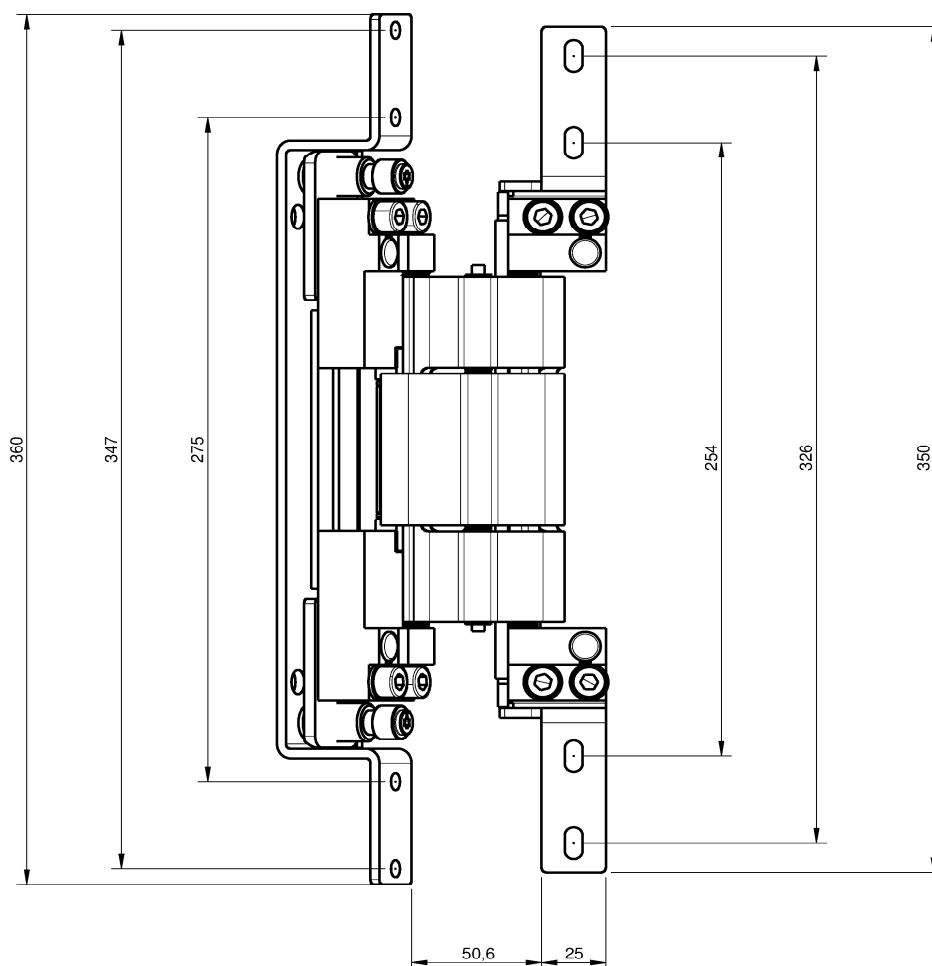
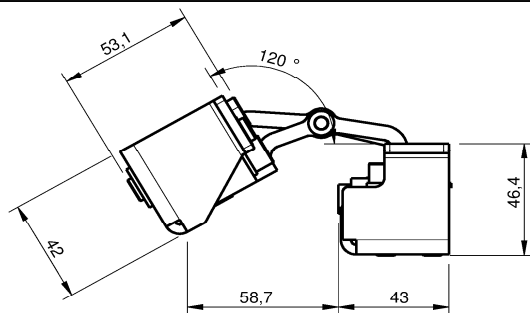
### 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 28 April 2022 by Deutsches Institut für Bautechnik

Christina Pritzkow  
Head of Department (act.)

*beglaubigt:*  
Panneck

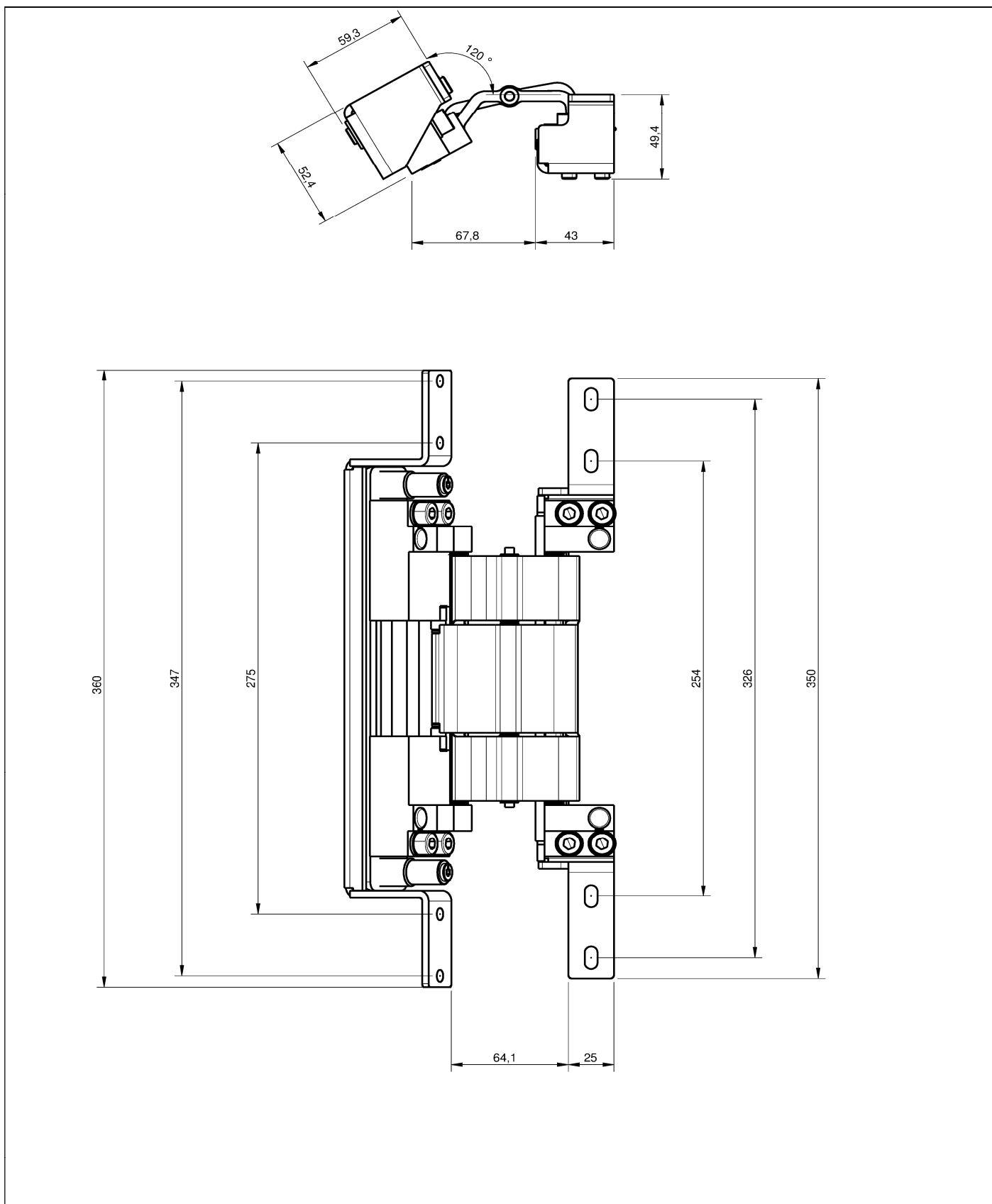


Electronic copy of the ETA by DIBt: ETA-15/0672

Multi-axis concealed hinges "ISIDOR S05381", "ISIDOR S05381.A" or "ISIDOR S05381.B"

Construction "ISIDOR S05381"

Annex 1

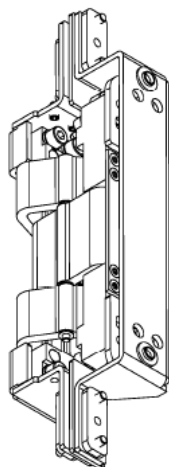


Electronic copy of the ETA by DIBt: ETA-15/0672

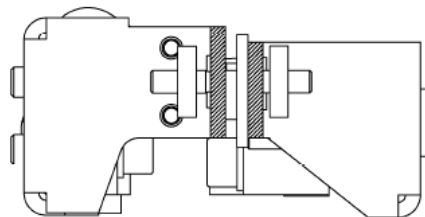
Multi-axis concealed hinges "ISIDOR S05381", "ISIDOR S05381.A" or "ISIDOR S05381.B"

Construction "ISIDOR S05381.A"

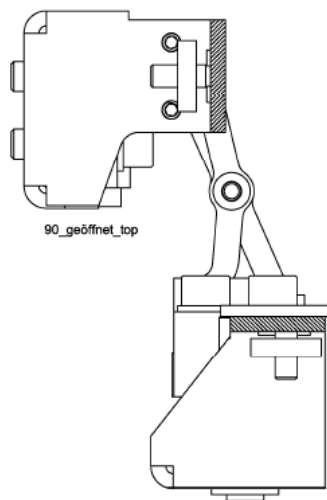
Annex 2



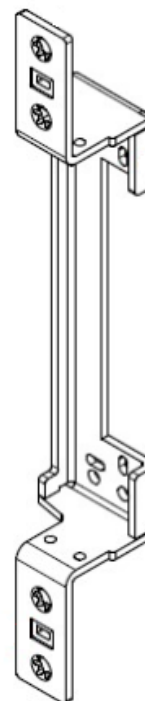
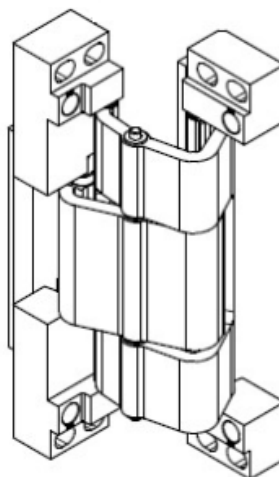
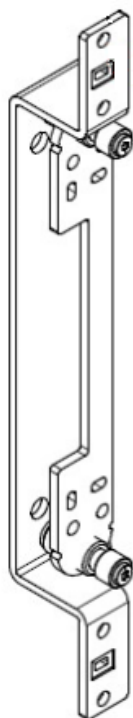
Verdecktes Türband \*6310022



00\_geschlossen



90\_geöffnet\_top



Multi-axis concealed hinges "ISIDOR S05381", "ISIDOR S05381.A" or "ISIDOR S05381.B"

Construction "ISIDOR S05381.B"

Annex 3