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TECTUS ENERGY 3D Adjustable Concealed Hinge 240 x 32mm 200KG - SW168 Bronze Metallic

Variant code: TE640.3D.EGY.AB

The **TECTUS ENERGY 3D Adjustable Hinge** combines a completely concealed hinge system with **permanent energy transfer** for electronic components incorporated into high-performance doors. Designed for **unrebated high-performance heavy-duty doors**, it provides a substantial **200kg load capacity** while allowing electrical power to be transferred discreetly between the frame and door leaf.

The integrated energy transfer system provides a **permanent electrical connection** while maintaining the clean appearance associated with a completely concealed hinge. **Individual connection adapter options** provide flexibility when integrating electronic locks, access control equipment and other compatible electrical door components. The system uses **16 wires with a 0.14mm² wire cross-section** and supports a maximum of **50V and 0.8A**.

Suitable for **timber, steel or aluminium frames**, the hinge also provides comfortable **3D adjustment**, with side adjustment of **+/- 3.0mm**, height adjustment of **+/- 3.0mm** and compression adjustment of **+/- 1.0mm**. **Maintenance-free slide bearings** support smooth operation, while documented quality marks include **CE, IFT, UL and Certifire certification**. The specified function range covers **Smoke Resistance, Soundproof and Burglar Resistance**.

Product Features

- **Permanent energy transfer** between the frame and door leaf
- **Completely concealed hinge system** for a discreet architectural appearance
- Designed for **unrebated high-performance heavy-duty doors**
- Suitable for **timber, steel or aluminium frames**
- **Individual connection adapter options** for flexible system configuration

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- Substantial **load capacity of up to 200kg**
- **240 x 32mm** hinge dimensions
- Comfortable **3D adjustment** for accurate door alignment
- **Side adjustment:** +/- 3.0mm
- **Height adjustment:** +/- 3.0mm
- **Compression adjustment:** +/- 1.0mm
- Features **maintenance-free slide bearings**
- Provides an **opening angle up to 180°**
- **16-wire energy transfer system**
- **CE, IFT, UL and Certifire certified**
- **Function Range:** Smoke Resistance, Soundproof & Burglar Resistance

Product Benefits

- **Permanent energy transfer provides a discreet power connection for compatible electronic components within high-performance doors**
- **200kg load capacity provides substantial support for demanding heavy-duty architectural door installations**
- **Completely concealed construction maintains a clean, flush and minimalist appearance when the door is closed**
- **Individual connection adapter options** provide flexibility when configuring the energy transfer system for different applications
- Energy transfer is integrated without compromising the principal **technical and visual characteristics of the concealed hinge system**
- **3D adjustment** enables accurate side, height and compression alignment after installation
- Compatible with **timber, steel and aluminium frames** for versatile specification
- **Maintenance-free slide bearings** support smooth operation while helping to minimise ongoing servicing requirements
- Suitable for functional door assemblies requiring **Smoke Resistance, Soundproof or Burglar Resistance**, subject to the performance of the complete door assembly

Technical Characteristics

- **Product Type:** 3D Adjustable Concealed

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Heavy-Duty Hinge with Permanent Energy Transfer

- **Energy Transfer:** Permanent
- **Overall Length:** 240mm
- **Door Part Width:** 32mm
- **Frame Part Width:** 32mm
- **Load Capacity:** Up to 200kg
- **Minimum Door Thickness:** 40mm
- **Door Type:** Unrebated High-Performance Heavy-Duty Doors
- **Frame Compatibility:** Timber, Steel & Aluminium
- **Side Adjustment:** +/- 3.0mm
- **Height Adjustment:** +/- 3.0mm
- **Compression Adjustment:** +/- 1.0mm
- **Bearing Type:** Maintenance-Free Slide Bearings
- **Cutter Diameter:** 24mm
- **Collar Ring Diameter:** 30mm
- **Opening Angle:** 180°
- **Wire Cross-Section:** 0.14mm²
- **Number of Wires:** 16
- **Maximum Voltage:** 50V
- **Maximum Current:** 0.8A
- **Connection:** Individual Connection Adapter Options
- **Certification / Quality Marks:** CE, IFT, UL & Certifire
- **Function Range:** Smoke Resistance, Soundproof & Burglar Resistance
- **Classification Standard:** EN 1935 / EAD
- **Classification Code:** 4 7 6 1*1 1 —*2 1 14
- **Load Capacity Basis:** 2 Hinges Per 2000 x 1000mm Door Leaf

Applications

The **TECTUS ENERGY 3D Adjustable Hinge** is designed for **unrebated high-performance heavy-duty doors** requiring a permanent electrical connection between the frame and door leaf. Its combination of **200kg load capacity, permanent 16-wire energy transfer, individual connection adapter options, completely concealed construction and precise 3D adjustment** makes it particularly suitable for sophisticated architectural door systems incorporating compatible **electronic locks, access control equipment and other powered door components**. It can be installed with **timber, steel or aluminium frames** and has a specified function range covering **Smoke Resistance, Soundproof and Burglar Resistance**, subject to the performance and test evidence of the complete door set and assembly.

Property	Value

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Property	Value
Finish	Bronze Metallic
Opening angle (°)	180
Load Capacity (kg)	200
Width Door Part (mm)	32
Width Frame Part (mm)	32
Cutter diameter (mm)	24
Collar ring diameter (mm)	30
Min Door Thickness (mm)	40
Overall Length (mm)	240
Certification	CE, IFT & UKCA
Wire Cross Section	0.14 mm²
Max. Voltage (V)	50
No. of Wires	16
Max. Current (A)	0.8