



Type examination certificate

Certificate no.: ESV 819

Certification office: TÜV SÜD Industrie Service GmbH
Westendstr. 199
80686 München – Germany

**Applicant/
certificate holder:** WARNER Electric Europe
7, rue de Champfleür
BP 20095
49124 St. Barthélemy D'Anjou - France

Date of application: 2011-02-02

Manufacturer of the test sample: WARNER Electric Europe
7, rue de Champfleür
BP 20095
49124 St. Barthélemy D'Anjou - France

Product: Braking element acting on the shaft of the traction sheave, as a part of the protection device against unintended car movement

Type: ERS VAR07 SZ300/_ _ _

Test laboratory: TÜV SÜD Industrie Service GmbH
Prüflaboratorium für Produkte der Fördertechnik
Prüfbereich Aufzüge und Sicherheitsbauteile
Westendstr. 199
80686 München – Germany

**Date and
number of the test report:** 2011-05-27
ESV 819

Examination basis: EN 81-1:1998 + A3:2009 (D), issue December 2009

Result: The safety component conforms to the requirements of examination basis for the respective scope of application stated on page 1 - 2 of the annex to this type examination certificate

Date of issue: 2011-05-30

Certification office for products of conveyor systems
Lifts and safety components


Christian Rührmeyer



Annex to the type-examination certificate no. ESV 819 dated 2011-05-30

1 Scope of application

1.1 Nominal brake torques and response times with relation to a brand-new brake element

Minimum nominal brake torque * [Nm]	Maximum nominal brake torque * [Nm]	Maximum response times ** [ms]		
		t ₁₀	t ₅₀	t ₉₀
2 x 240 = 480		160	193	225
	2 x 300 = 600	150	180	210

Interim values can be interpolated

Explanations:

* **Nominal brake torque:**

Brake torque assured for installation operation by the safety component manufacturer.

** **Response times:**

t_x time difference between the drop of the braking power until establishing X% of the nominal brake torque, t₅₀ optionally calculated $t_{50} = (t_{10} + t_{90})/2$ or value taken from the examination recording

1.2 Assigned execution features

Type of powering / deactivation	Continuous current / continuous current end
Brake control	Serial or parallel
Maximum air gap	0.65 mm
Damping elements	NO
Overexcitation	NO
Maximum tripping speed	500 rpm

2 Conditions

- 2.1 The above mentioned safety component represents only part of a protective equipment against unintended movement of the elevator car. Only in combination with a detecting and triggering component (two separate components also possible), which must be subjected to an own type examination, can the system created fulfil the requirements for a safety component in accordance with Annex F.8, EN 81-1:1998+A3:2009 (D).
- 2.2 The safety component is used in combination with the brake device as part of the ascending car over-speed protection means and as a drive brake.
- 2.3 The installer of a lift must create an examination instruction in accordance with D.2 p) of EN 81-1:1998+A3:2009 (D) for lift(s) to fulfil the overall concept, add it to the lift documentation and provide any necessary tools or measuring devices, which allow a safe examination (e.g., with closed shaft doors).
- 2.4 The dimension configuration of the lift system must be designed as regards the brake torques in such a way that the permissible value of deceleration does not exceed 1 g_n in either direction. Excluded are decelerations, which are caused by an instantaneous roller safety gear up to a rated speed of the lift system of 0.63 m/s for instance.
- 2.5 The traction and its variance must be taken into account as regards its braking distance (transferable power / torque) and included in the calculation.

Note: The English text is a translation of the German original. In case of any discrepancy, the German version is valid only.



- 2.6 For installer of a lift, the compliance of the component with the type examined component and the assured nominal brake torques and response times must be confirmed in writing (e.g., type plate and/or supplement in the declaration of conformity).
- 2.7 The information evaluation for self-monitoring must prevent an operational starting of the lift in the event of a fault.
- 2.8 According to the norm requirements, the brake element of the protective device must impact directly on the traction sheave or on the same shaft in the immediate vicinity of the traction sheave.
If the brake element does not impact in the immediate vicinity of the traction sheave on the same shaft, on which the traction sheave is also arranged, a deviation from the norm exists. A failure of the shaft in the area between the traction sheave and the brake element must be ruled out using corresponding construction designs and sufficient measurements. The manufacturer of the entire drive must prove the sufficient safety of the connection brake element – shaft and traction sheave – shaft as well as the shaft itself in calculations. This proof must be added to the technical documentation of the lift.

3 Remarks

- 3.1 As part of the type examination, it was detected that the brake element has a redundant design and that the correct function is monitored by sensors.

The examination of compliance with all requirements under Section 12.4 (EN 81-1:1998+A3:2009 (D)), deterioration of the brake torques/breaking forces due to wear and tear and the operation-related change of the drive capability are not part of this type examination.

This type examination refers to the partial requirements for the protection device against unintended car movement only according to EN 81-1:1998+A3:2009 (D), Section 9.11.
- 3.2 In order to provide identification, information about the basic design and functioning and to show the environmental conditions and connection requirements, drawing with the relevant latest identification from the associated EC type examination certification ABV 819/X is to be enclosed with the type-examination certificate and the annex thereto.
- 3.3 The EC type-examination certificate may only be used in connection with the pertinent annex and the list of the authorized manufacturers (according to enclosure). This enclosure shall be updated and re-edited following information of the certificate holder.



Industrie Service

**Enclosure of type-examination certificate
no. ESV 819 dated 2011-05-30**

Authorised manufacturers – production sites (stated: 2011-05-30):

WARNER Electric Europe

7, rue de Champfleur
BP 20095
49124 St. Barthelemy D'Anjou - France

Altra Industrial Motion Shenzhen Co. Ltd.

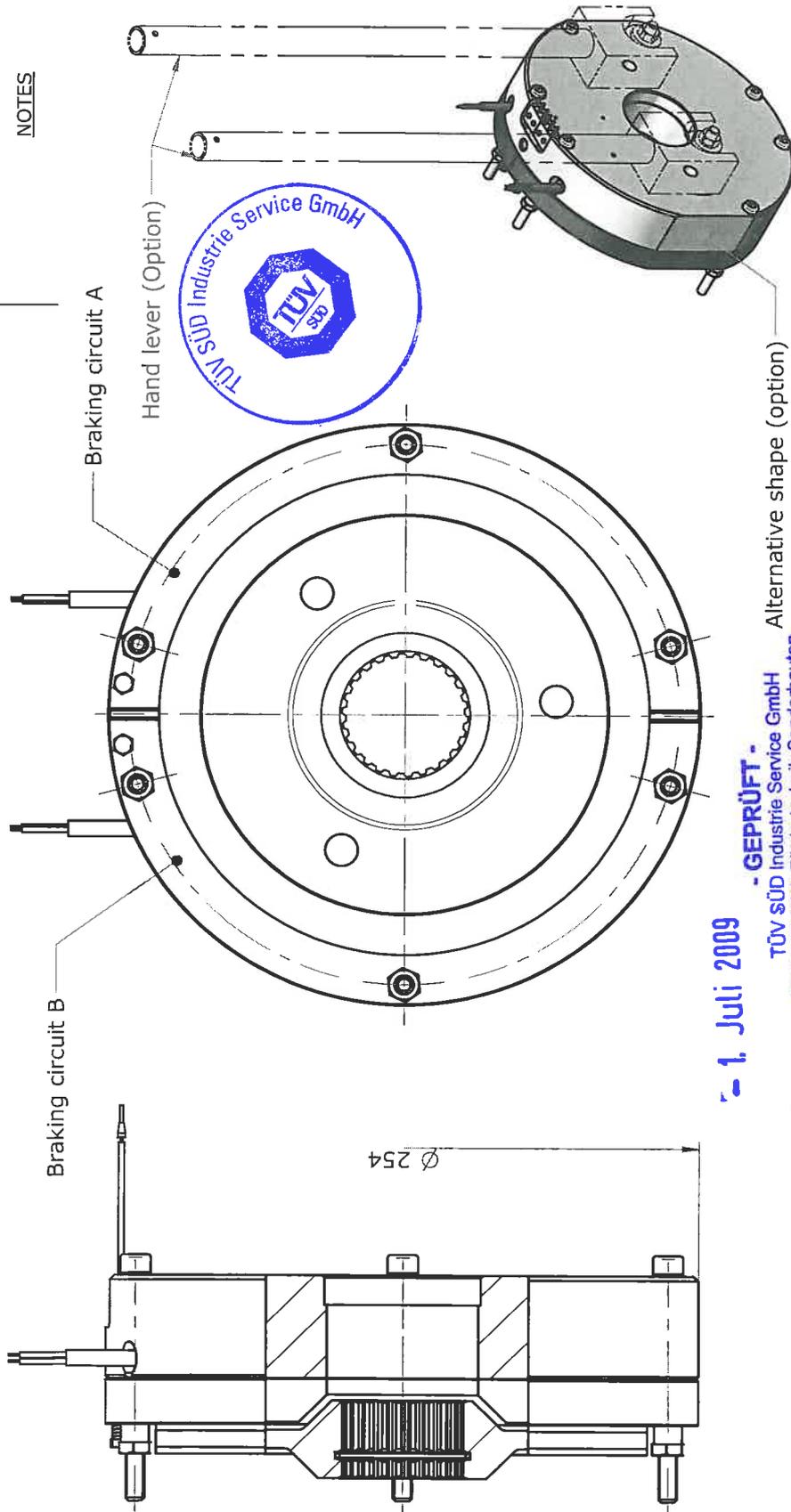
Dabo Industry Zone
18 Huanzhen Road
Bogang County, Shajing Town
Baoan District, Shenzhen City
518104 Guangdong province - China (PRC)

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Base: Letter of Co. WARNER Electric Europe dated 2011-02-02

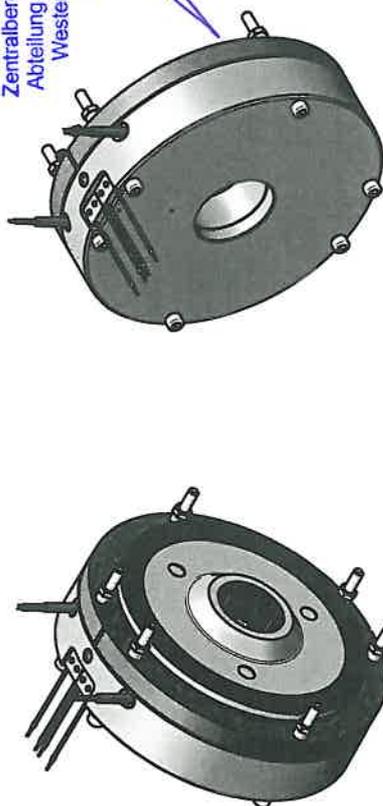
Les cotes sans indication de tolérances sont des cotes nominales.
 Untoleranced dimensions are nominal dimensions.

NOTES



- 1. Juli 2009

- GEPRÜFT -
 TÜV SÜD Industrie Service GmbH
 Zentralbereich Fördertechnik-Sonderbauten
 Abteilung Aufzüge und Sicherheitsbauteile
 Westendstr. 199, D-80689 München
 Der Sachverständige



TUV DIFFUSION

Client/customer:		Customer ref :	
Ms (Nm) :		Dimensions in mm	
Md (Nm) :		Manual/Notice :	
n Md (min-1) :		SM	
n max (min-1) :		Mass :	
U (Vdc) :		Scale:	1 : 1
P20°C (W) :		Insulation class (°C):	
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Type: ERS VAR07 SZ300/300		Design: Electromagnetic brake	
Type: Frein électromagnétique		Design: Electromagnetic brake	
Type: ERS VAR07 SZ300/300		Type: Electromagnetic brake	
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