



EU TYPE-EXAMINATION CERTIFICATE

According to Annex IV, Part A of 2014/33/EU Directive

Certificate No.: EU-BD 590

Certification Body of the Notified Body: TÜV SÜD Industrie Service GmbH
Westendstr. 199
80686 Munich - Germany
Identification No. 0036

Certificate Holder: WARNER Electric Europe
7, rue de Champfleur
BP 20095
49124 Saint Barthélemy d'Anjou - France

Manufacturer of the Test Sample: WARNER Electric Europe
7, rue de Champfleur
BP 20095
49124 Saint Barthélemy d'Anjou - France
(Manufacturer of Serial Production – see Enclosure)

Product: Braking device acting on the shaft of the traction sheave, as part of the protection device against overspeed for the car moving in upwards direction and braking element against unintended car movement

Type: Type: ERS VAR08
Size: SZ600/____, SZ1050/____, SZ1700/____

Directive: 2014/33/EU

Reference Standards: EN 81-20:2014
EN 81-50:2014
EN 81-1:1998+A3:2009

Test Report: EU-BD 590 of 2016-02-29

Outcome: The safety component conforms to the essential health and safety requirements of the mentioned Directive as long as the requirements of the annex of this certificate are kept.

Date of Issue: 2016-02-29

Date of Validity: from 2016-04-20

Werner Rau
Werner Rau
Certification Body "lifts and cranes"



Annex to the EU Type-Examination Certificate No. EU-BD 590 of 2016-02-29



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1 Scope of application

1.1 Use as braking device – part of the the protection device against overspeed for the car moving in upwards direction – permissible brake torques and tripping rotary speeds

1.1.1 Permissible brake torques and maximum tripping rotary speeds of the traction sheave when the brake device acts on the shaft of the traction sheave while the car is moving upward

Size	Permissible brake torque [Nm]	Max. tripping rotary speed of the traction sheave [rpm]
SZ600/_ _ _ _	459 - 942	400
SZ1050/_ _ _ _ _	577 - 1101	400
SZ1700/_ _ _ _ _	1001 - 1742	250

1.1.2 Maximum tripping speed of the overspeed governor and maximum rated speed of the lift

The maximum tripping speed of the overspeed governor and the maximum rated speed of the lift must be calculated on the basis of the traction sheave's maximum tripping rotary speed as outlined above taking into account traction sheave diameter and car suspension.

$$v = \frac{D_{TS} \times \pi \times n}{60 \times i}$$

v = Tripping (rated) speed (m/s)
 D_{TS} = Diameter of the traction sheave from rope's centre to rope's centre (m)
 π = 3,14
 n = Rotary speed (rpm)
 i = Ratio of the car suspension

1.2 Use as braking element – part of the protection device against unintended car movement (acting in up and down direction) – permissible brake torques, tripping rotary speeds and characteristics

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

Size	Min. nominal brake torque* [Nm]	Intermediate nominal brake torque* [Nm]	Max. nominal brake torque* [Nm]	Max. tripping rotary speed [rpm]	Maximum response times** [ms]		
					without / with overexcitation		
					t_{10}	t_{50}	t_{90}
SZ600/_ _ _ _	300			400	390	425	460
SZ600/_ _ _ _		500		400	200	240	280
SZ600/_ _ _ _			600	400	190	230	270
SZ1050/_ _ _ _ _			1000	400	125	193	260
SZ1700/_ _ _ _ _		1550		250	70	135	200
SZ1700/_ _ _ _ _			1700	250	70	160	250

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, t_{50} optionally calculated $t_{50} = (t_{10} + t_{90})/2$ or value taken from the examination recording

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1.2.2 Assigned execution features

Size	Type of powering / deactivation	Nominal air gap [mm]	Damping elements / adhesive foil integrated	Overexcitation
SZ600/_ _ _	Continuous current / continuous current end	0.5	yes / yes	no
SZ1050/_ _ _ _	Continuous current / continuous current end	0.6	yes / no	at double non-release voltage
SZ1700/_ _ _ _	Continuous current / continuous current end	0.6	yes / yes	at double non-release voltage

2 Conditions

2.1 Above mentioned safety component represents only a part at the protection device against over-speed for the car moving in upwards direction and unintended car movement. Only in combination with a detecting and triggering component in accordance with the standard (two separate components also possible), which must be subjected to an own type-examination, can the system created fulfil the requirements for a protection device.

2.2 The installer of a lift must create an examination instruction 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).

2.3 The triggering of the braking device is not caused positive mechanically but electrically resp. electromagnetically by interruption of the energy supply to the magnetic coin of the braking device. However, the mechanically engagement of the braking device has to be absolutely guaranteed after the electrical safety device has responded.

In light of the above, the braking device must be made to engage at regular intervals e. g. once daily, so that the anchor plates can be checked for correct closing (e.g. micro switches resp. proximity switch). If the anchor plates do not perform correctly (anchors fail to close) the lift must be kept at standstill.

2.4 Appropriate measures must ensure that it is evident in the machine room whether the braking device has responded in line with its intended use as a safety component (following failure of an item of operating equipment such as breakage of a gearing element or shaft) or whether the response was caused by other reasons (e. g. loss of power supply). It must also have to be provided a instruction sheet how to proceed in emergency operation (moving the car through manual operation or return motion control) after the braking device has responded. Once the braking device has responded in the intended way as a safety component, it should never be possible to move the lift machine via the return motion control.

2.5 The manufacturer of the drive unit must provide calculation evidence that the connection traction sheave – shaft – brake disc and the shaft itself is sufficiently safe, if the brake disc is not a direct component of the traction sheave (e. g. casted on). The shaft itself has to be statically supported in two points.

An evidence must be enclosed with the technical documentation of the lift.

2.6 The setting of the brake torque has to be secured against unauthorized adjustment (e. g. sealing lacquer).

2.7 The respective identification drawing according to the following table shall be included to the EU type-examination certificate for the identification and information of the general construction and operation and distinctness of the approved type:

Size	No. of the identification drawing	Date of stamp
SZ600/_ _ _	1 12 107616	07.02.2012
SZ1050/_ _ _ _	1 12 107138	25.05.2009
SZ1700/_ _ _ _	1 12 106580	29.11.2010

**Annex to the EU Type-Examination Certificate
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2.8 The EU type-examination certificate may only be used in combination with the corresponding annex and enclosure (List of authorized manufacturer of the serial production). The enclosure will be updated immediately after any change by the certification holder.

3 Remarks

3.1 The brake moment effectively adjusted will be marked at the blank after the type designation ERS VAR08 SZXXXX/_ _ _ _.

3.2 Checking whether the requirements as per section 5.9.2.2 of EN 81-20:2014 (D) have been complied with is not part of this type examination.

3.3 Other requirements of the standard, such as reduction of brake moment respectively brake force due to wear or operational caused changes of traction are not part of this type examination.

3.4 This EU type-examination certificate was issued according to the following standards:

- EN 81-1:1998 + A3:2009 (D), Annex F.7 and F.8
- EN 81-20:2014 (D), part 5.6.6.11, 5.6.7.13
- EN 81-50:2014 (D), part 5.7 and 5.8

3.5 A revision of this EU type-examination certificate is inevitable in case of changes or additions of the above mentioned standards or of changes of state of the art.

**Enclosure to the EU Type-Examination Certificate
No. EU-BD 590 of 2016-02-29**



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Authorised Manufacturer of Serial Production – Production Sites (valid from: 2016-01-22):

Company WARNER Electric Europe
Address 7, rue de Champfleür
BP 20095
49124 Saint Barthélemy d'Anjou - France

Company Altra Industrial Motion Shenzhen Co. Ltd.
Address Dabo Industry Zone
18 Huanzhen Road
Bogang County, Shajing Town
Baoan District, Shenzhen City
518104 Guangdong province - China (PRC)

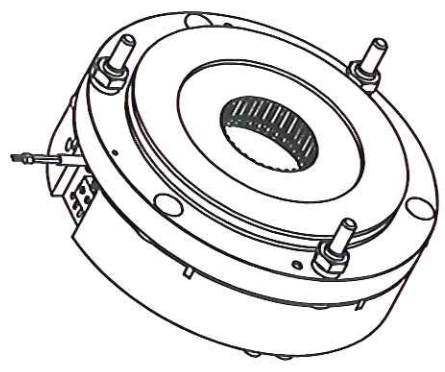
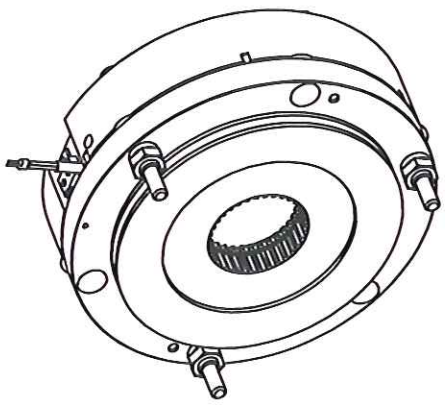
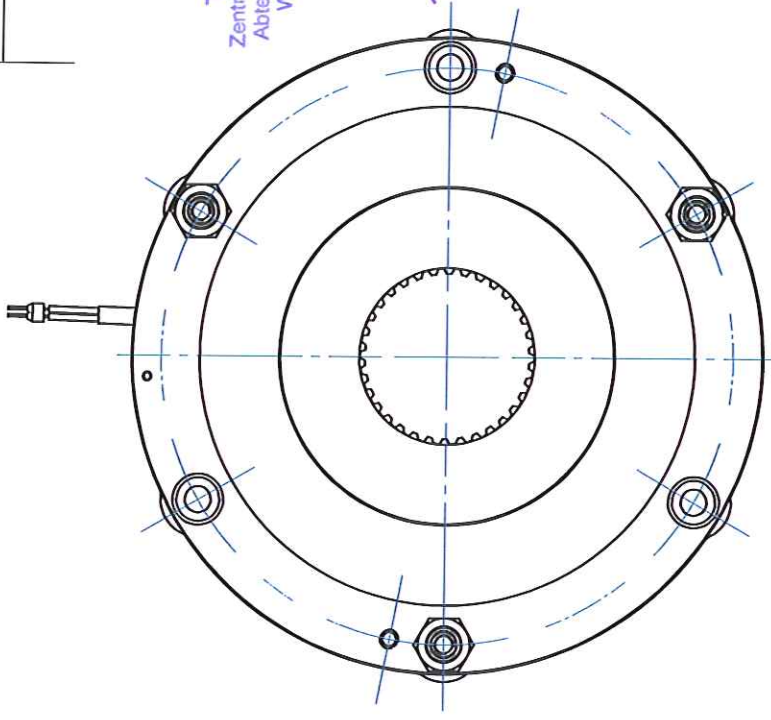
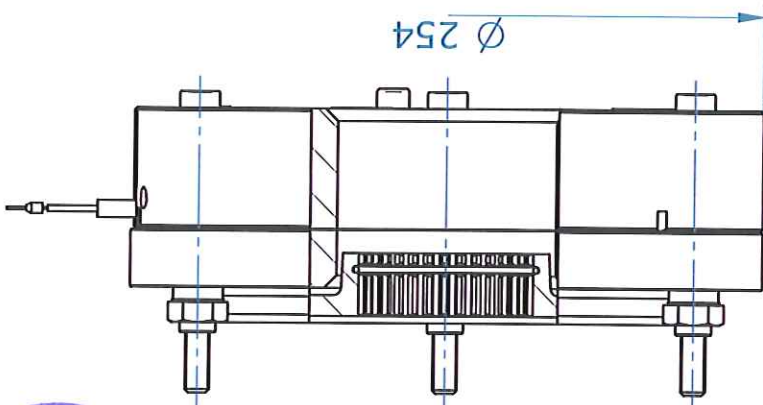
- END OF DOCUMENT -

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

NOTES

07. Feb. 2012

- GEPRÜFT -
 TÜV.sÜD Industrie Service GmbH
 Zentralbereich Fördertechnik-Sonderbauten
 Abteilung Aufzüge und Sicherheitsbauteile
 Westendstr.199, D-80686 München
 Der Sachverständige



TUV DIFFUSION

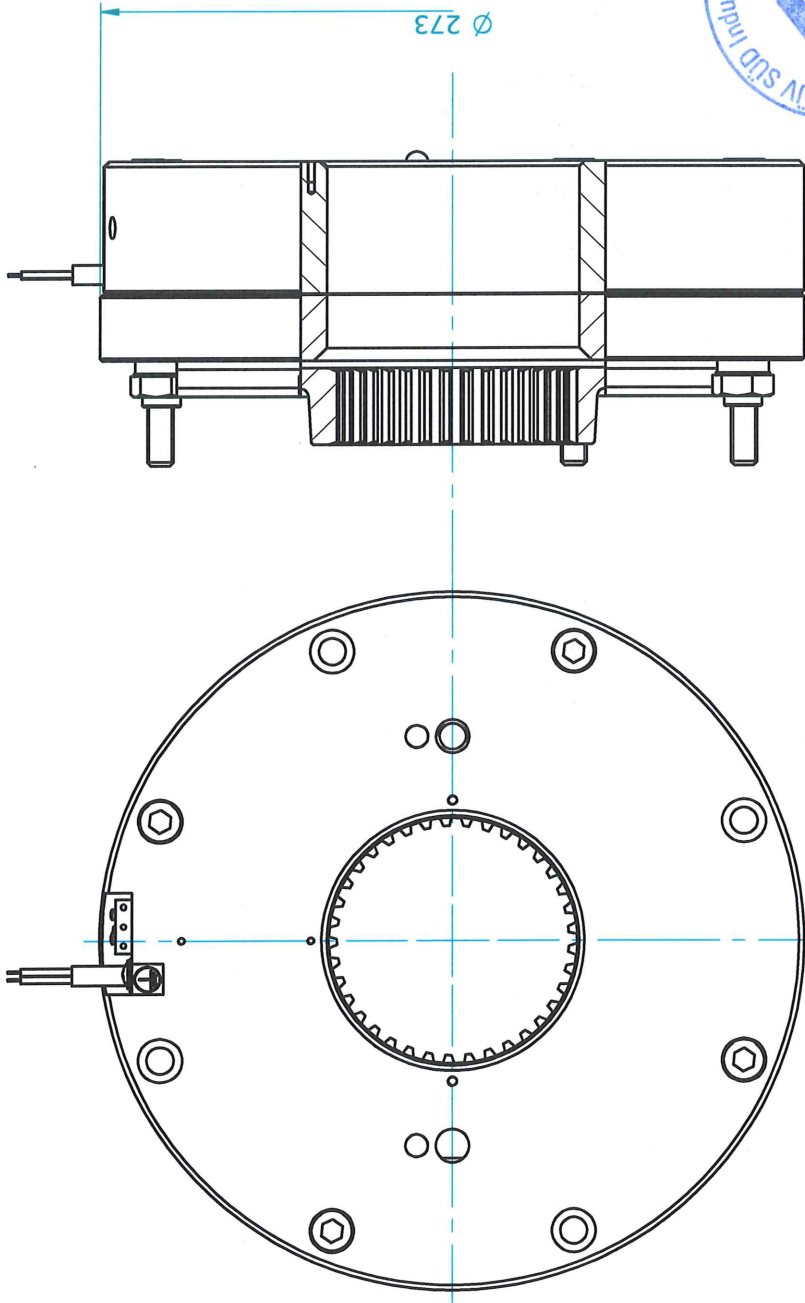
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Mis (Nm) :		Dimensions in mm	
Md (Nm) :		Manual/Notice :	
n Md (min-1) :		SM	
n max (min-1) :		Mass :	25 kg
U (Vdc) :		Scale :	/
P20°C (W) :		Insulation class (°C):	
Ce plan est la propriété de Warner Electric et ne peut être divulgué ni reproduit entièrement ou partiellement, sans autorisation écrite. This document is the property of Warner Electric Europe, it is not to be disclosed or reproduced totally or partially, without written permission.		Design: Frein électromagnétique Electromagnetic brake Type: ERS VAR08 SZ600 / --- N° 1 12 107616	

Drawn : JC Jardin Date: 12-12-11
 Checked: FM Date: 12-11-11

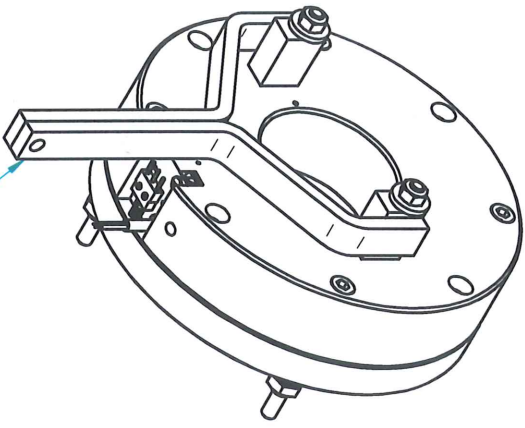
FM	LT	REVISION	DATE	By	Ch.

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

NOTES



Hand lever (option)



25. Mai 2009

- GEPRÜFT -
 TÜV SÜD Industrie Service GmbH
 Zentralbereich Fördertechnik-Sonderbauten
 Abteilung Aufzüge und Sicherheitsbauteile
 Westendstr. 189, D-80686 München
 Der Sachverständige

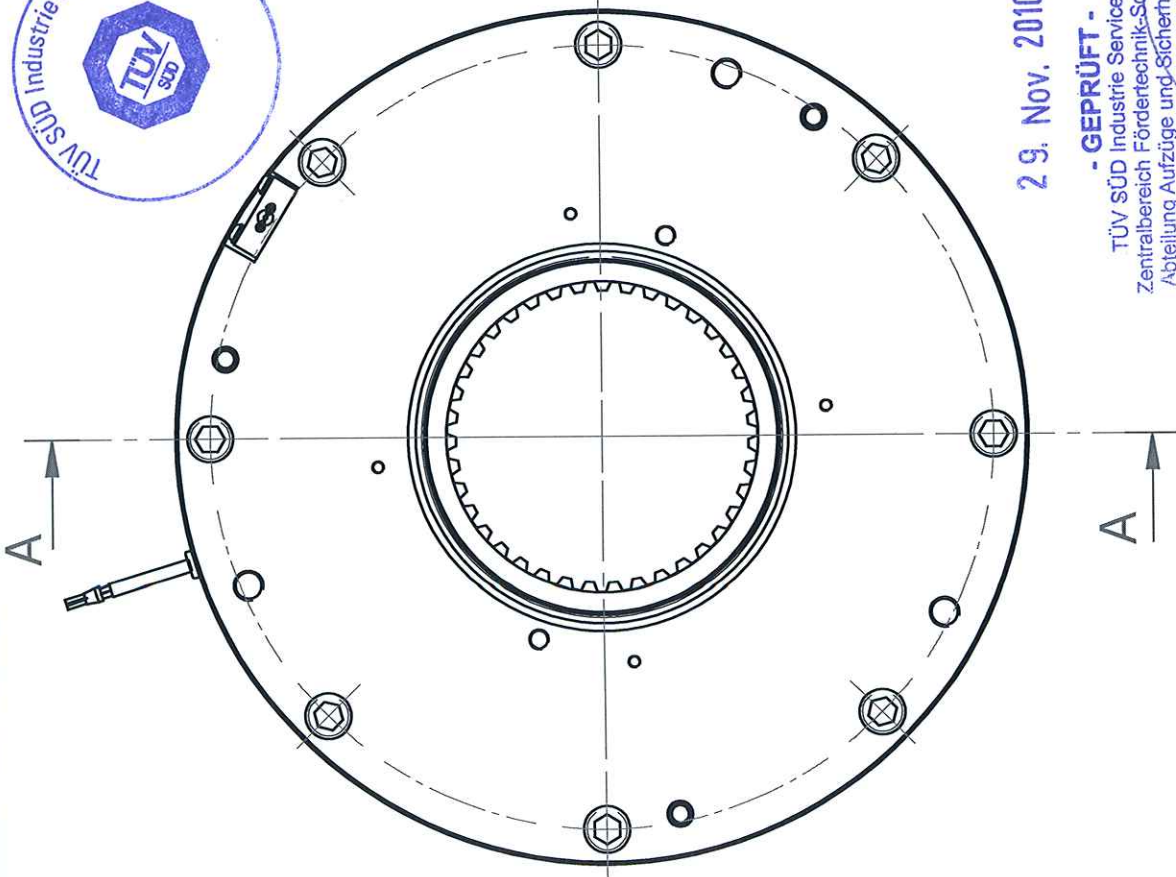
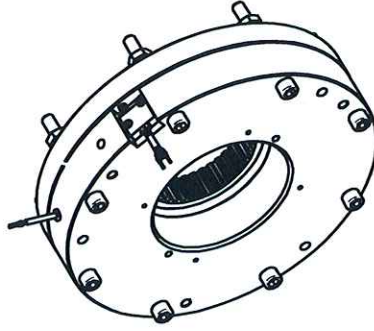
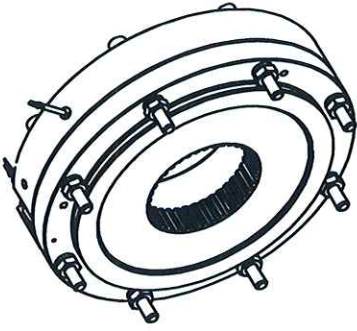
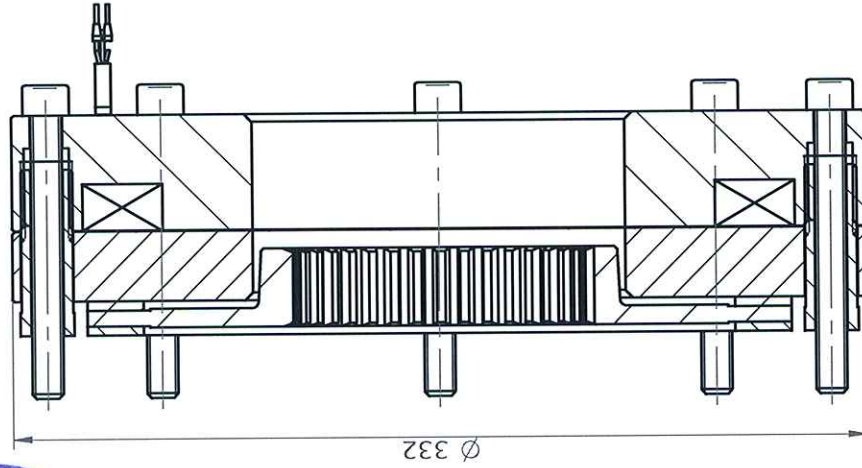
Client/customer:		Customer ref :	FM	LT	REVISION	DATE	By	Ch.
Ms (Nm) :		Dimensions in mm						
Md (Nm) :		Manuel/Notice :						
n Md (min-1) :		SM						
n max (min-1) :		Scale:						
U (Vdc) :		1:1						
P20°C (W) :		Insulation class (°C):						
Ce plan est la propriété de Warner Electric Europe, il ne peut être divulgué ni reproduit entièrement ou partiellement, sans autorisation écrite. This document is the property of Warner Electric Europe, it is not to be disclosed or reproduced totally or partially, without written permission.		Warner Electric Europe Design: Frein électromagnétique Electromagnetic brake Type: ERS VAR08 SZ1050 / --- N° 1 12 107138		Drawn : G. Ferrand Date: 18.09.08 Checked: MP. Date: 18.09.08		CAD SE A3		

SECTION A-A



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

NOTES



29. Nov. 2010

- GEPRÜFT -
 TÜV SÜD Industrie Service GmbH
 Zentralbereich Fördertechnik-Sonderbauten
 Abteilung Aufzüge und Sicherheitsbauteile
 Westendstr. 199, D-80686 München
 Der Sachverständige

TUV Diffusion

Client/customer:	
Ms (Nm) :	
Md (Nm) :	
n Md (min-1) :	
n max (min-1) :	
U (Vdc) :	
P20°C (W) :	
Insulation class (°C):	

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Warner
 Electric
 Europe

Customer ref :	
Dimensions in mm	
Manual/Notice :	
Mass :	
Scale :	/

FM	LT	REVISION	DATE	By	Ch.
			17.11.10	GFE	MP.
Up to date					
Drawn : M. POIRAUD		Date: 21/07/01			
Checked: B. PITTO		Date: 12/07/01			
Frein électromagnétique					
Design:					
Type: ERS VAR08 SZ1700 / ----					
N° 1 12 106580				A	



Industrie Service

TÜV SÜD Industrie Service GmbH · 80684 Munich · Germany

Choose certainty.
Add value.

WARNER Electric Europe
7, rue de Champfleür
49124 St. Barthélemy d'Anjou
France



Your reference/letter of	Our reference/name	Tel.-Extension/E-Mail	Fax-Extension	Date	Page
	IS-FT1-MUC/cr Christian Rührmeyer	+49 89 5791-3450 christian.ruehrmeyer@tuv-sued.de	+49 89 5791-3337	2016-03-21 Warner_Bestätigung_EN81-20_50_160321_en.docx	1 of 3

Fulfillment of requirements concerning type-examinations of ascending car overspeed protection means (ACOP) and protection devices against unintended car movement according to the harmonized standard EN 81-50:2014 (D) by (EC) type-examination certificates according to Directive 95/16/EC

Dear Sirs,

For the products listed below were issued (EC) type-examination certificates according to Directive 95/16/EC. Test basis was the harmonized standard EN 81-1. In the meantime EU type-examination certificates according to Directive 2014/33/EU were issued for the tested products. So far as relevant, additional requirements of the harmonized standard EN 81-20:2014 (D) were taken into consideration.

Type:	(EC) type-examination certificate	EU type-examination certificate
ERS VAR08 Size: SZ600/____, SZ1050/____, SZ1700/____	ABV 590/3, ESV 590/5 ABV 818/1, ESV 818/2 ABV 880, ESV 880	EU-BD 590
ERS VAR09 Size: SZ200/____, SZ800/____, SZ1700/____	ABV 817/1, ESV 817 ABV 729/2, ESV 729/1 ABV 591/5, ESV 591/8 ABV 591/6, ESV 591/9	EU-BD 591

Headquarters: Munich
Trade Register Munich HRB 96 869
VAT ID No. DE129484218
Information pursuant to § 2 [1] DL-InfoV
(Germany) at www.tuv-sud.com/imprint

Supervisory Board:
Karsten Xander (Chairman)
Board of Management:
Ferdinand Neuwieser (CEO),
Dr. Ulrich Klotz, Thomas Kainz

Phone: +49 89 5791-0
Fax: +49 89 5791-1550
www.tuv-sud.com/is



TÜV SÜD Industrie Service GmbH
Niederlassung München
Abteilung Fördertechnik
Westendstrasse 199
80686 Munich
Germany



Industrie Service

ERS VAR09 Size: SZ200/____, SZ600/____, SZ600/____ FZ, SZ800/____, SZ1000/____, SZ1700/____, SZ1700/1200 CH	ABV 817/1, ESV 817 ABV 809/3, NL 11-400-1002-153-01 (R2) ABV 809/2, NL 11-400-1002-153-01 (R1) ABV 729/2, ESV 729/1 ABV 811/2, NL 11-400-1002-153-02 (R2) ABV 591/5, ESV 591/8 ABV 591/6, ESV 591/9 ABV 591/4, ESV 591/6	EU-BD 591/1
ERS VAR10 Size: SZ1010/____, SZ2500/____, SZ5000/____	ABV 592/3, ESV 592/2 ABV 604/3, ESV 604/3 ABV 829/1, ESV 829/1	EU-BD 592
ERS VAR15-02 Size: FT2110/____, FT2110/____ SY	ABV 777/5, ESV 777/5 ABV 777/3, ESV 777/3	EU-BD 777
ERS VAR07 Size: SZ300/____, SZ420/____, SZ600/____, SZ800/____	ABV 819/2, ESV 819/1 ABV 826/2, ESV 826/1 ABV 843/1; ESV 843/1 ABV 844/1, ESV 844/1	EU-BD 819
ERS VAR07 Size: SZ300/____, SZ420/____, SZ420/____ SY, SZ600/____, SZ600/____ SY, SZ800/____, SZ800/____ AZ	ABV 819/2, ESV 819/1 ABV 826/2, ESV 826/1 ABV 843, ESV 843 ABV 843/1; ESV 843/1 ABV 844, ESV 844 ABV 844/1, ESV 844/1	EU-BD 819/1
ERS FENIX 08 Size: 06-____, 10-____	ASBV 905/1 ASBV972	EU-BD 905
ERS FENIX 09 Size: 06-____, 10-____	ASBV 906/1 ASBV 973	EU-BD 906
ERS FENIX 10 Size: 12-____, 20-____	ASBV 907/1 ASBV 974	EU-BD 907

According to the new standard EN 81-50:2014 (D) there are new requirements for the type-examination of the braking devices as part of the ascending car overspeed protection means (ACOP) and against unintended car movement (UCM) respectively the requirements have changed. But these requirements already have been considered in the past. For this reason additional tests were not necessary. The content of the EC type examination certificates was formally adapted. The safety components mentioned above fulfill the requirements of the harmonized standard EN 81-50:2014 (D) already.

For the function as safety component as part of the ascending car overspeed protection means (ACOP) the transitional regulation according to Article 44 of the Directive 2014/33/EU is fully applicable.

In the future protecting devices against unintended car movement (UCM) will be safety components according to Annex III of the Directive 2014/33/EU.

Furthermore according to Article 44 of the Directive 2014/33/EU the making available on the market of safety components for lifts covered by Directive 95/16/EC which are in conformity with that Directive and which were placed on the market before 20 April 2016 shall not be impeded. To avoid problems in the meantime with document NB-L/2015-061 of 2015-07-06 Notified Bodies Lift (NB-Lift) suggested to apply Article 44 for components of protecting devices against unintended car movement (UCM) analogously. A definitive statement of NB-Lift respectively the European Commission is planned, but is pending. After

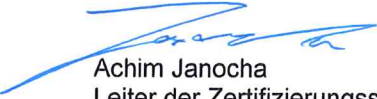


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consideration a transformation of the existing type-examination certificates in EU type-examination certificates is possible.

For this reason, additional formal requirements and due to the validity of the new Lift Directive 2014/33/EU from 2016-04-20, EU type-examination certificates already may be issued, but they are valid from 2016-04-20 only.

Best regards


Achim Janocha
Leiter der Zertifizierungsstelle
für Produkte der Fördertechnik


Christian Rührmeyer
Niederlassung München
Abteilung Fördertechnik

Warner Electric Europe

7, rue Champfleury
B.P. 20095
49182 St Barthélemy d'Anjou

**DECLARATION OF CONFORMITY TO
THE DIRECTIVE 2014/33/EU**



This is to declare that the following safety device listed in appendix III point 2 of the directive 2014/33/EU

Product: **Braking system**

According to the following specification:

Brake type	Part N°	Drawing N°	Voltage (Vdc)	Torque or Tangential Force	EU type examination + NB		T10 (ms)	T90 (ms)
ERS VAR07 SZ420/350 SY	30315184	I-112107260	103/72	2x350Nm	EU-BD819/1	NB0036	95	160
	30315418	I-112107763	103/72	2x350Nm	EU-BD819/1	NB0036	95	160
ERS VAR07 SZ600/550 SY	30315185	I-112107261	103/72	2x550Nm	EU-BD819/1	NB0036	80	135
	30315419	I-112107764	103/72	2x550Nm	EU-BD819/1	NB0036	80	135
ERS VAR08 SZ1700/1700	To Create	I-112108241	180/90	1700Nm	EU-BD590	NB0036	70	250
ERS VAR09 SZ1700/1250	30351931	I-112108213	103/52	2x1250Nm	EU-BD591	NB0036	80	230
ERS VAR09 SZ1700/1700	30315074	I-112106605-R	103/72	2x1700Nm	EU-BD591	NB0036	50	160
ERS VAR10 SZ2500/2500	30343591	I-112108034	180/90	2500Nm	EU-BD592	NB0036	70	170
ERS VAR10 SZ2500/3000	30343588	I-112108036	180/90	3000Nm	EU-BD592	NB0036	70	230
ERS VAR10 SZ5000/5000	30348450	I-112108167	180/90	5000Nm	EU-BD592	NB0036	125	255
ERS VAR15-02 FT2110/2415N SY	30315189	I-112107265	103/72	2415N	EU-BD777	NB0036	70	100
	30315417	I-112107762	103/72	2415N	EU-BD777	NB0036	70	100
ERS FENIX 09 10-1200	30343444	I-112108053	103/72	2x1200Nm	EU-BD906	NB0036	100	185

Warner Electric Europe

7, rue Champfleür

B.P. 20095

49182 St Barthélemy d'Anjou

**DECLARATION OF CONFORMITY TO
THE DIRECTIVE 2014/33/EU**



Year of manufacture : **See brake label**
Manufactured by : **Warner Electric Europe**

That has obtained the UE type examination N° (see table above) by the following notified body :

Notified body (NB)

TÜV SÜD Industrie Service GmbH

Westendstr. 199

D 80686 MÜNCHEN

Covered par the Quality Insurance attestation Module E N°2002/2820/013D delivered by the following body :

AFNOR Certification NB 0333
11 rue Francis de Pressensé
93571, La plaine St Denis Cedex France

**Is compliant with the Directive 2014/33/EU and applied the harmonized standard
EN81-20:2014 and EN81-50:2014**

Function : **Operation Quality Manager**

Name : **Ms Lucie Godicheau**

Date :

29/04/16

Visa :

A handwritten signature in blue ink, appearing to be 'Lucie Godicheau'.

WARNER ELECTRIC EUROPE
CS 20095
49182 ST-BARTHELEMY D'ANJOU CEDEX
Tél. 02 41 21 24 24
Fax. 02 41 21 24 00
E-mail : warnerelectric-eu.com