



210002349425



中国认可
国际互认
检测
TESTING
CNAS L0454

NETEC
建研检测

Report No. T14-F380-23-146

Special Equipment Type Test Report (Lift)

Category of equipment: Lift safety protection component

Type of equipment: Unintended car movement protection means

Name of product: Traction machine brake

Model of product: DZE

Applicant: Shenyang Bluelight Drive Technology Co., Ltd.

Manufacturer: Shenyang Bluelight Drive Technology Co., Ltd.

Category of type test: First test

Test date: 2023-07-25

NETEC Inspection and Testing (Beijing) Co., Ltd.
National Elevator Inspection and Testing Center

NOTICE

1. Type test report is based on the *Regulation for type tests of lifts* (TSG T7007—2022).
2. *NETEC Inspection and Testing (Beijing) Co., Ltd.* is the impersonal entity of *National Elevator Inspection and Testing Center*, the abbreviation and logo of *NETEC Inspection and Testing (Beijing) Co., Ltd. (National Elevator Inspection and Testing Center)* both are NETEC.
3. Type test report is invalid without signatures of test, verification, approval, without approval certificate of type test institute number or issue date, without stamping the Test Report Specialized Stamp or paging seal.
4. Each type test certificate (hereinafter referred to as the certificate) issued by NETEC is corresponding to at least one type test report with the test conclusion is certificated.
5. Certificate is invalid without stamping the *Test Report Specialized Stamp* or issue date.
6. All contents of the test report and certificate issued by NETEC shall be printed out by computer except for the signature of the person in charge. Handwriting or any alteration is invalid, and any partial copy is also invalid.
7. Type test report is only valid for the sample. Applicant is responsible for the authenticity of the information and technical documents of the sample.
8. Different opinions about type test conclusion should be reported to NETEC in writing within 15 workdays since receiving of type test report or certificate.
9. Paper version of the test report and certificate issued by NETEC in triplicate, NETEC files one, applicant keeps the other two.
10. Type test report and certificate should be subject to the Chinese version, while the English version is for reference only.

Contact Information

Add: 61 Jinguang Ave., Guangyang District, Langfang, Hebei 065000, P.R.China

Tel: +86 316 2311414, +86 13832690550

Fax: +86 316 2057334

Email: netec@bicm.com.cn, netec@chinaelevators.org

[Http://www.netec-china.com](http://www.netec-china.com)

Contents

Lift type test report·····	Page 1
1 Technical parameters and configuration of the sample·····	Page 2
2 Check the technical documents·····	Page 3
3 Check and test the sample·····	Page 4
4 Sample photo·····	Page 6
5 Change information of type test report·····	Page 7



Category of equipment	Lift safety protection component		
Type of equipment	Unintended car movement protection means		
Name of product	Traction machine brake		
Model of product	DZE		
Product number	S23042000	Manufacturing date	2023-04-21
Unified social credit code of applicant	91210112715754447D		
Applicant	Shenyang Bluelight Drive Technology Co., Ltd.		
Address of applicant	NO.37 Shiji Road, Hunnan New District, Shenyang, China		
Unified social credit code of manufacturer	91210112715754447D		
Manufacturer	Shenyang Bluelight Drive Technology Co., Ltd.		
Address of manufacturer	NO.37 Shiji Road, Hunnan New District, Shenyang, China		
Manufacturing address	NO.37 Shiji Road, Hunnan New District, Shenyang, China		
Test place	NETEC		
Receiving date	2023-05-04	Sample number	Y2023-0501
Sample state	No abnormal	Category of type test	First test
Test date	2023-07-25		
Test condition	Ambient temperature: 29.6 °C, relative humidity: 35%, voltage: DC 200 V		
Test basis	Regulation for Type Test of Lifts (TSG T7007—2022) GB/T 7588.1—2020, GB/T 7588.2—2020 EN 81-20:2020, EN 81-50:2020		
Test conclusion	The type test is certificated.		
Reported by: 杨国栋	Approval certificate of type test institute No. TS7610014—2025 Issue date: 2023-08-14		
Verified by: 王红格			
Issued by: 李列			

1 Technical parameters and configuration of the sample

Name of product		Traction machine brake			
Model of product		DZE			
Applicable range	System mass range	1400 kg~7800 kg	Rated load range	450 kg~2000 kg	
	Balance coefficient	0.40~0.50	Car weight range	600 kg~3400 kg	
	Anticipated highest speed before deceleration occurs ^{Note1}	1.32 m/s	Suspension ratio	2:1	
	Type of stopping parts	Traction machine brake	Drive mode	Traction drive	
	Site of action	Traction sheave	Tripping mode	Trigger when losing power	
	Response time	≤200 ms	Response time of detecting subsystem	≤40 ms	
	Response time of power supply device (contactor) equipped with cut-off brake ^{Note2}		≤60 ms		
	Test speed for final inspection		0.25 m/s		
	Range of inclination angle applicable to electric lifts with inclined path		/		
	The distance limit corresponding to the test speed under the condition that the moving distance of the lift car does not more than 0.8 m, 1.0 m and 1.2 m		Not more than 0.8 m	Not considered	
Not more than 1.0 m			≤0.102 m (stopping distance, excluding moving distance before deceleration); Or: ≤0.200 m (including the moving distance within the response time of the cut-off brake power supply device); Or: ≤0.210 m (including the moving distance within the response time of the detecting subsystem and the cut-off brake power supply device).		
Not more than 1.2 m			≤0.126 m (stopping distance, excluding moving distance before deceleration); Or: ≤0.224 m (including the moving distance within the response time of the cut-off brake power supply device); Or: ≤0.234 m (including the moving distance within the response time of the detecting subsystem and the cut-off brake power supply device).		
Trigger device		/			

1 Technical parameters and configuration of the sample (continued)

Stopping elements which acts on the traction sheave or traction sheave shaft only with two support	Name	Traction machine brake	Model	DZE
	Structure type	Brake arm drum type	Number	2 sets
	Material of friction element	Non asbestos rubber sheet carbon fiber		
	Type of elastic element	Helical spring		
	Length of the brake arm lever	535 mm	Leverage ratio	2.97 : 1
	Diameter of brake sheave (disc)	620 mm	Diameter of traction sheave	480 mm
	Rated braking torque	4125 N·m		
	Type and quantity of spring for brake	Material diameter × pitch diameter of spring × free height: 12.0 mm × 55.0 mm × 120.0 mm Number of springs per brake: 1		
<p>Note 1: When calculating the expected maximum speed of the car before deceleration, the distance between the selected detection device and the installed landing station is 0.15 meters, which refers to the distance the car leaves the landing station when unexpected movement is detected.</p> <p>Note 2: Device to cut off the power supply to the brake can be a contactor, a safety circuit containing electronic components, etc.</p>				

2 Check the technical documents

No.	Items No.	Check items	Check results	Conclusion
1	T5.1	Conformity certificate document and relative technical documents	Comply with requirements	Pass
2	T5.2	Major construction parameters	Comply with requirements	Pass
3	T5.3	Applicable range and design documents	Comply with requirements	Pass

3 Check and test the sample

No.	Items No.	Check and test items	Check and test results	Conclusion
1	T6.1	Action site	Acting on traction sheave Comply with requirements	Pass
2	T6.1.1	Stopping subsystem certified for a single mass	/	/
3	T6.1.2	Stopping subsystem certified for different masses	<p>Maximum system mass representing an empty car in up direction: Minimum of highest speed before deceleration occurs is 1.380 m/s. Arithmetic mean value of average deceleration is 3.611 m/s². Maximum deceleration: 4.603 m/s² Arithmetic mean value of stopping distance is 0.286 m Maximum deviation of stopping distance is +3.1%.</p> <p>Maximum response time is 99 ms. Maximum total moving distance: 0.701 m.</p> <p>Maximum system mass representing a car carrying the rated load in down direction: Minimum of highest speed before deceleration occurs is 1.382 m/s. Arithmetic mean value of average deceleration is 2.879 m/s². Arithmetic mean value of stopping distance is 0.355 m. Maximum deviation of stopping distance is -3.7%.</p> <p>Maximum response time is 96 ms. Maximum total moving distance: 0.745 m.</p>	Pass

No.	Items No.	Check and test items	Check and test results	Conclusion
3	T6.1.2	Stopping subsystem certified for different masses	<p>Minimum system mass representing an empty car in up direction: Minimum of highest speed before deceleration occurs is 1.378 m/s. Arithmetic mean value of average deceleration is 4.861 m/s². Maximum deceleration: 9.397 m/s² Arithmetic mean value of stopping distance is 0.237 m Maximum deviation of stopping distance is +2.9%. Maximum response time is 87 ms. Maximum total moving distance: 0.652 m.</p> <p>Minimum system mass representing a car carrying the rated load in down direction: Minimum of highest speed before deceleration occurs is 1.380 m/s. Arithmetic mean value of average deceleration is 4.450 m/s². Arithmetic mean value of stopping distance is 0.269 m. Maximum deviation of stopping distance is -2.2%. Maximum response time is 78 ms. Maximum total moving distance: 0.696 m.</p> <p>No breaking or deformation affecting the function were found after the test. Comply with requirements.</p>	Pass
4	T6.1.3	Reliability test	<p>With test report Comply with requirements</p>	Pass

No.	Items No.	Check and test items	Check and test results	Conclusion
5	T6.1.4	Moving distance corresponding to the test speed	The calculation document complies with requirements Carry out 3 tests with the maximum system mass representing an empty car in up direction. Test speed: 0.25 m/s Maximum speed under test speed condition: 0.489 m/s Maximum stopping distance: 0.058 m (excluding the distance before deceleration) Maximum moving distance: 0.156 m (including the moving distance within the response time of the cut-off brake power supply device) Maximum moving distance: 0.166 m (including the moving distance within the response time of the detecting subsystem and the cut-off brake power supply device) Comply with requirements	Pass
6	T6.2	Nameplate	Comply with requirements	Pass

4 Sample photo



5 Change information of type test report

When the name or address of the applicant and the overseas manufacturer changed, the applicant should submit the change application and the corresponding supporting information to NETEC. After confirmation, NETEC should indicate the change on the attached page “Change information of type test report”, take back the original type test certificate and issue a new one.

