



2011000708Z



(2017年国认监发字(134)号)

## Special Equipment Type Test Report

Report No. T3-F39-11-050

**Category of Equipment:** Safety Protection Component  
**Type of Equipment:** Traction Machine  
**Name of Product:** Permanent Magnet Synchronous Gearless Traction Machine  
**Model of Product:** WYT-T  
**Applicant:** Shenyang Bluelight Drive Technology Co., Ltd.  
**Manufacturer:** Shenyang Bluelight Drive Technology Co., Ltd.



National Elevator Inspection and Testing Center

# NOTICE

1. Each type test certificate issued by National Elevator Inspection and Testing Center (abbreviation NETEC) is corresponding to one type test report. The issue of type test certificate is based on the test conclusions of type test report.
2. Type test report is invalid without stamping the *Test Report Specialized Stamp* or issue date.
3. Type test certificate is invalid without stamping the *Test Report Specialized Stamp* or issue date.
4. Type test report is invalid without signatures of chief test, verification and approval.
5. Type test report or certificate can not be reproduced except in full, without written approval of NETEC.
6. Type test report or certificate including annex is invalid if altered.
7. NETEC is only responsible for the test items and test conclusions of the sample. The test results and test conclusions just indicate sample status at the time of test. Applicant is responsible for the authenticity of the information and technical documents of the sample.
8. Different opinions about type test report or certificate should be reported to NETEC within 15 days since receiving of type test report and certificate. NETEC will refuse after the time.
9. Type test report and certificate are invalid from the issue date. The term of validity is according to *TSG T7001 Rules for Type Test of Elevators(tyout)* promulgated by *General Administration of Quality Supervision Inspection and Quarantine of the People's Republic of China*.
10. It should be subject to the Chinese version, while the English version is for reference only.

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Name of product		Permanent magnet synchronous gearless traction machine						
Model of product		WYT-T						
Serial No. of sample		2011030769		Production date		2011-06-13		
Main technical parameter	Rated speed		2.00m/s		Rated output torque		765Nm	
	Motor rated power		15.4kW		Allowed radial load of traction sheave		3500kg	
	Suspension ratio		2:1		Mode of wrapping		Single	
Applicant	Name		Shenyang Blueight Drive Technology Co., Ltd.					
	Address		No.37 Shiji Road, Hunnan New District, Shenyang, Liaoning					
Manufacturer	Name		Shenyang Blueight Drive Technology Co., Ltd.					
	Address		No.37 Shiji Road, Hunnan New District, Shenyang, Liaoning					
Receiving date			/		Sample No.		/	
Test date			2011-06-16		Sample state		No abnormal	
Test category			Type test		Test item		All application items	
Test place			Shenyang Blueight Drive Technology Co., Ltd.					
Test condition			Comply with requirements					
Test basis			<i>Rules for Type Test of Elevators (Type1)</i> <i>Rule for Type Test of LRT Traction Machine (Type1)</i> <i>EN 81-1:1998 Safety Rules for the Construction and Installation of Lifts- Part 1: Electric Lifts</i>					
Test conclusion			<p>The type test is certificated.</p> <p style="text-align: right;">issue date: </p>					
Note			Issued date of the Chinese version: July 5, 2011					

Reported by: 王永格

Verified by: 周晓明

Issued by: 王衡

## SAMPLE'S MAIN TECHNICAL PARAMETERS AND CONFIGURATION

Model and name	WYT-T Permanent magnet synchronous gearless traction machine				
Applicable environment	Indoor		Structure type of traction machine	Permanent magnet synchronous gearless	
Rated speed	2.00m/s		Rated output torque	765N·m	
Rated load	1150kg		Allowed radial load of traction sheave	3500kg	
Mode of wrapping	Single		Suspension ratio	2:1	
Manual emergency operating device			Releasing brake handle, handwinding wheel		
Motor	Model	WYT-T2.0E	Rated rotate speed	1920r/min	
	Rated power	15.4kW	Rated current	32.7A	
	Rated voltage	380V	Insulation grade	F	
	Rated frequency	50Hz	Protection degree	IP41	
	Duty	S <sub>2</sub>	Allowed start times	240F/h	
	Structure type		Permanent magnet synchronous outer rotor		
	Mode of overload protection		Over-heat protection		
	Manufacturer		Shenyang Blueight Drive Technology Co., Ltd.		
Gear reducer	Structure type	/	Reduction gear ratio	/	
	Reduction steps	/	Center distance	/	
	Lubricating oil	/			
Traction sheave	Number of grooves	5	Type of grooves	Semi-circular undercut grooves	
	Diameter of ropes	10mm	Heat treatment	Anneal or aging treatment	
	Pitch diameter of traction sheave	400mm	Mode of wrapping	Single	
Brake	Model	BLB-A10110R	Action position	Acting on traction sheave	
	Structure type	Two sets, block type	Diameter of brake sheave	500mm	
	Rated voltage	DC 110V	Insulation grade	B	
Applicable driving system	Speed control mode	AC variable frequency control			
	Speed-controller	Frequency inverter			
	Feedback device of speed	Rotary encoder			

## Test items and test results

No.	Items No.	Test items	Test results	Conclusions	
1	1.1	Fastening and welding	Comply with requirements	Pass	
2	1.2	Assembly of all parts	Comply with requirements	Pass	
3	1.3	Paint marking	Comply with requirements	Pass	
4	2.1	Ratio of pitch diameter of traction sheave (D) to diameter of traction ropes (d)	D = 400mm d = 10mm D/d = 40	Pass	
5	2.2	Material of traction sheave and hardness deviation of groove (B)	Material: GT600-3 1. HB230 2. HB230 3. HB235 4. HB228 5. HB10	Pass	
6	2.3	Precision of groove of traction sheave	Working surface roughness	Ra6.3μm	Pass
7			Working surface run-out in normal direction of the surface	0.14mm	
8			Working surface run-out in radial direction of the pitch-circle	0.08mm	
9	2.4	Average gaps between the brakes and the brake sheave	0.24mm	Pass	
10		Working surface roughness of brake sheave	Ra3.2μm		
11		Axial run-out of brake sheave working surface	0.08mm		
12	3.1	Manual brake release device when emergency	Comply with requirements	Pass	
13	3.2	Requirements for the belt transmission	/	/	
14	3.3	Connection mode of braked components	Comply with requirements	Pass	
15	3.4	Pressure mode of the brake shoe or pad	Comply with requirements	Pass	
16	3.5	To hold off the brake shall require a continuous flow of current	Comply with requirements	Pass	
17	3.6	Minimum activating voltage of the brake	Rated voltage: DC 110V Activating voltage: DC 99V 32.9%U <sub>rated</sub>	Pass	
18		Maximum release voltage of the brake	Rated voltage: DC 110V Release voltage: DC 35V 32.7%U <sub>rated</sub>		
19		Delay-time of activating	0.60s		

No.	Item No.	Test items		Test results	Conclusions
20	3.7	Withstand voltage test of brake coil		Comply with requirements	Pass
21	3.8	All the mechanical components shall be installed in two sets		Comply with requirements	Pass
22	4	Manual means of emergency operation		Comply with requirements	Pass
23	5	Protection for traction sheave		Comply with requirements	Pass
24	6	Torque vibration		/	/
25	7	Speed		Rated speed: 2.00m/s Test speed: 192r/min Speed: 2.01m/s 100.5% <sub>rated</sub>	Pass
26	8	No-load running noise		Noise dB(A): Front: 60.2    Back: 59.8 Left: 60.5    Right: 60.9 Upside: 60.0 Background: 43.0	Pass
27	9	Fault-free running and temperature rise	Oil temperature	/	Pass
28			Stator winding temperature rise	Stator winding temperature rise: 72.0K Before test-running Air temperature: 20.5°C Stator winding coil resistance: 0.889Ω After test-running Air temperature: 21.6°C Stator winding coil resistance: 1.145Ω	
29			Brake coil temperature rise and highest temperature	Brake coil temperature rise: 60.4K Brake coil highest temperature: 82.0°C Before test-running Air temperature: 20.5°C Brake coil resistance: 60.4Ω After test-running Air temperature: 21.6°C Brake coil resistance: 60.6Ω	
30	10	Machine efficiency		No doubt about flies, without testing	/
31	11.1	Special precaution for the lift in the outdoor environment		/	/
32	11.2	Special precaution for the explosion protection lift		/	/

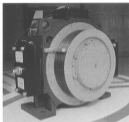
**NETEC**

National Elevator Inspection  
and Testing Center

**Type Test Report**

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Appendix Sample photo





## Certificate of Type Test for Special Equipment

No. TX F390-003-11 0050

Applicant's name and address:	Shenyang Bluelight Drive Technology Co., Ltd. No.37 Shiji Road, Hunnan New District, Shenyang, Liaoning
Manufacturer's name and address:	Shenyang Bluelight Drive Technology Co., Ltd. No.37 Shiji Road, Hunnan New District, Shenyang, Liaoning
Name of product (Type of equipment):	Permanent magnet synchronous gearless traction machine (traction machine)
Model and specifications:	WYT-T Rated speed: 2.00m/s (suspension ratio: 2:1) Rated power: 15.4kW
Configuration of product:	See annex
Type test report No.:	T3-F39-11-050
This certificate is valid for products of the models and specifications below (without change of the product configuration):	
Rated speed: not more than 2.00m/s (suspension ratio: 2:1)	
Rated power: not more than 15.4kW	
After type test, this product is accord with the Rules of Type Test of Elevators (tryout) and EN 81-1:1998.	

Issue date:

Issued date of the Chinese version: July 5, 2011

### NETEC

National Elevator Inspection and Testing Center

**Note:**

1. This certificate is to confirm the products on type and the tested sample on conformity, only valid for the products that are in conformance with the tested sample mentioned above.
2. The holder of this certificate has responsibilities to ensure that the products conform to the requirements of the codes and regulations, and to ensure that the products are consistent with the tested sample mentioned above.





## Annex

### Configuration of Traction Machine

No. TX F390-003-11 0050

Structure type of machine	Permanent magnet synchronous gearless	Structure type of motor	Permanent magnet synchronous outer rotor
Center distance of gear reducer	/	Structure type of gear reducer	/
Structure type of brake	Two sets, block type	Applicable environment	Indoor

Issue date:

Issued date of the Chinese version: July 5, 2014

