



2011000708Z



(2011)国认监认字(134)号

Special Equipment Type Test Report

Report No. T3-F39-12-002

Category of Equipment: Safety Protection Component
Type of Equipment: Traction Machine
Name of Product: Permanent Magnet Synchronous Gearless Traction Machine
Model of Product: WYT-S
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 statue 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(tryout)* 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-S				
Serial No. of sample		20118903		Production date		2011.11
Main technical parameter	Rated speed	2.50m/s	Rated output torque	765N·m		
	Motor rated power	19.2kW	Allowed radial load of traction sheave	5500kg		
	Suspension ratio	2:1	Mode of wrapping	Single		
Applicant	Name	Shenyang Bluelight Drive Technology Co., Ltd.				
	Address	No.37 Shiji Road, Hunnan New District, Shenyang, Liaoning				
Manufacturer	Name	Shenyang Bluelight Drive Technology Co., Ltd.				
	Address	No.37 Shiji Road, Hunnan New District, Shenyang, Liaoning				
Receiving date		/		Sample No.		/
Test date		2012-01-16		Sample state		No abnormal
Test category		Type test		Test item		All application items
Test place		Shenyang Bluelight Drive Technology Co., Ltd.				
Test condition		Ambient temperature: 10.6℃~12.5℃, relative humidity: 72.0%, Voltage: 380V				
Test basis		<i>Rules for Type Test of Elevators (tryout)</i> <i>Rule for Type Test of Lift Traction Machine (tryout)</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: 2012.01.16</p>				
Note		Issued date of the Chinese version: Jan. 31, 2012				

Reported by: 李廷玉

Verified by: 何明

Issued by: 李廷玉



SAMPLE'S MAIN TECHNICAL PARAMETERS AND CONFIGURATION

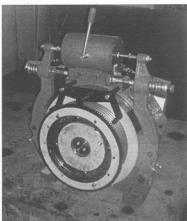
Model and name	WYT-S Permanent magnet synchronous gearless traction machine			
Applicable environment	Indoor	Structure type of traction machine	Permanent magnet synchronous gearless	
Rated speed	2.50m/s	Rated output torque	765N·m	
Rated load	1150kg	Allowed radial load of traction sheave	5500kg	
Mode of wrapping	Single	Suspension ratio	2:1	
Manual emergency operating device		Releasing brake handle, handwinding wheel		
Motor	Model	WYT-S2.5E	Rated rotate speed	240r/min
	Rated power	19.2kW	Rated current	40A
	Rated voltage	380V	Insulation grade	F
	Rated frequency	40Hz	Protection degree	IP41
	Duty	S ₅	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	DZE	Action position	Acting on traction sheave
	Structure type	Two sets, block type	Diameter of brake sheave	500mm
	Rated voltage	AC 220V	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 (δ)		Material: QT600-3 1. HB230 2. HB235 3. HB240 4. HB236 δ : HB10	Pass
6	2.3	Precision of groove of traction sheave	Working surface roughness	Ra6.3 μ m	Pass
7			Working surface run-out in normal direction of the surface	0.06mm	
8			Working surface run-out in radial direction of the pitch-circle	0.02mm	
9	2.4	Average gaps between the brakes and the brake sheave		0.20mm	Pass
10		Working surface roughness of brake sheave		Ra3.2 μ m	
11		Axial run-out of brake sheave working surface		0.02mm	
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: AC 220V Activating voltage: AC145V 65.9%U _{rated}	Pass
18		Maximum release voltage of the brake		Rated voltage: AC 220V Release voltage: AC 105V 47.7%U _{rated}	
19		Delay-time of activating		0.50s	

No.	Items 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: 2.50m/s Test speed: 239.0r/min Speed: 2.503m/s 100.1%V _{rated}	Pass	
26	8	No-load running noise	Noise dB(A): Front: 56.8 Back: 57.0 Left: 57.3 Right: 57.8 Upside: 57.5 Background: 41.0	Pass	
27	9	Fault-free running and temperature rise	Oil temperature	/	Pass
28			Stator winding temperature rise	Stator winding temperature rise: 66.4K Before test-running Air temperature: 12.5℃ Stator winding coil resistance: 0.662Ω After test-running Air temperature: 10.6℃ Stator winding coil resistance: 0.835Ω	
29			Brake coil temperature rise and highest temperature	Brake coil temperature rise: 64.1K Brake coil highest temperature: 74.7℃ Before test-running Air temperature: 12.5℃ Brake coil resistance: 59.6Ω After test-running Air temperature: 10.6℃ Brake coil resistance: 74.6Ω	
30	10	Machine efficiency	No doubt about files, without testing	/	
31	11.1	Special precaution for the lift in the outdoor environment	/	/	
32	11.2	Special precaution for the explosion protection lift	/	/	

Appendix Sample photo





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Certificate of Type Test for Special Equipment

No. TX F390-003-12 0002

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-S Rated speed: 2.50m/s (suspension ratio: 2:1) Rated power: 19.2kW
Configuration of product:	See annex
Type test report No.:	T3-F39-12-002
This certificate is valid for products of the models and specifications below (without change of the product configuration):	
Model: WYT-S Series	
Rated speed: not more than 2.50m/s (suspension ratio: 2:1)	
Rated power: not more than 19.2kW	
After type test, this product is accord with the <i>Rules of Type Test of Elevators (tryout)</i> and <i>EN 81-1:1998</i> .	

Issue date:



Issued date of the Chinese version: Jan. 31, 2012

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 F390-003-12 0002

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: Jan. 31, 2012