CNAS L0454

2011000708Z

(2011)国认监认字(134)号

Special Equipment Type Test Report

Report No. TGH 05.12002

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.

NETEC

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

Type Test Report

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	10.3kW	Allowed radial load of traction sheave	55500N
	Suspension ratio	2:1	Mode of wrapping	Single
Applicant	Name: Shenyang Bluelight Drive Technology Co., Ltd.			
	Address: No.37 Shili Road, Hunnan New District, Shenyang, Liaoning			
Manufacturer	Name	Shenyang Bluelight Drive Technology Co., Ltd.		
	Address	No.37 Shili Road, Hunnan New District, Shenyang, Liaoning		
Receiving date	/		Sample No.	/
Test date	2012.01.16		Sample state	New but normal
Test category	Type test		Test item	All application item
Test place	Shenyang Bluelight Drive Technology Co., Ltd.			
Test condition	Ambient temperature: 16.6 ℃-19.5 ℃, relative humidity: 72.8%, Voltage: 390V			
Test basis	*Rules for Type Test of Elevators (tryout),* *Rule for Type Test of Lift Traction Machine (tryout)* *EN 81-1:1998 Safety Rules for the Construction and Installation of Lifts-Part 1: Electric Lifts*			
Test conclusion	The type test is certificated.			
Note	Issued date after the Chinese version: Jan 31, 2012			

Issue date: 2012.2.1

Reported by: Verified by: Issued by:

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	2.5m/s	Rated output torque	735N·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		

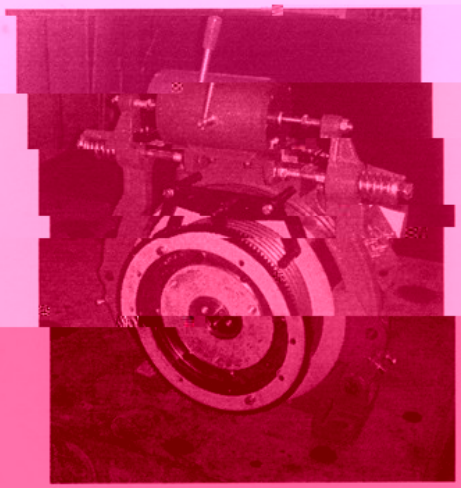
Motor	Model	WYT-S2.5F	Rated rotate speed	240r/min
	Rated power	19.2kW	Rated current	40A
	Rated voltage	380V	Insulation grade	F
	Rated frequency	40Hz	Protection degree	IP41
	Duty	S_5	Allowed start times	240F/h
	Structure type	Permanent magnet synchronous outer rotor		
	Mode of over-load protection	Over heat protection		
Gear reducer	Manufacturer	Shenyang Blue Light Drive Technology Co., Ltd		
	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
Acting on traction	Model	DZE	Action mode	

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 selected ropes (d)	D = 400mm d = 10mm D/d = 40	Pass
5	2.2	Material and hardness of traction sheave	Material: QT600-3 3: HBZ40 4: HBZ36 5: HB10	Pass
6		Working surface roughness	Ra6.3μm	
7	2.3	Precision of traction sheave	Working surface run-out in normal direction of the pitch-circle	0.06mm
8			Working surface run-out in radial direction of the pitch-circle	0.02mm
9	2.4	Brake sheave	Average gaps between the brakes and the brake sheave	0.20mm
10			Working surface roughness of brake sheave	Ra3.2μm
11			Average run-out of brake sheave working surface	0.02mm
12	3.1	Manual brake release device when emergency	Comply with requirements	Pass
13		Requirements for the transmission	Comply with requirements	Pass
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	Technical characteristics of the brake coil under a continuous power current	Comply with requirements	Pass
17		Minimum activating voltage of the brake	Rated voltage: AC 220V Activating voltage: AC 145V 65.9%U_{rated}	Pass
18		Maximum release voltage of the brake	Rated voltage: AC 220V Release voltage: AC 105V 47.7%U_{rated}	Pass
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	3.8.3	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		Oil temperature	/	/
28		Stator winding temperature rise	Stator winding temperature rise: 56.4K 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	Pass
29	9	Fault-free running and temperature rises	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	Pass
30	10	Machine efficiency	/	/
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	Shenyang Bluelight Drive Technology Co., Ltd.

Configuration as provided in annex

Testing test report no.: TS-F390-12-0002

This certificate is valid for products of the models and specifications below

(without change of the

Annex

Configuration of Traction Machine

No.TYX2330000312000002

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: 2023.11.16

Issued date of the Chinese version: Jan. 31, 2023