

Test Verification of Conformity

On the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the essential requirements of the referenced specifications at the time the tests were carried out.

Applicant Name & Address : GUANGDONG BE-TECH SECURITY SYSTEMS CO., LTD.
No. 17, Keyuan 3 Road, Ronggui, Shunde High-tech Zone,
Foshan, Guangdong, P.R.China

Product(s) Tested : Electronic Lock

Ratings and principal characteristics : Grade 2

Model(s) : G1

Brand name :  BE-TECH 必达

Relevant Standard(s) / Specification(s) : ANSI/BHMA A156.25 - 2007

Verification Issuing Office Name & Address : Same as Legal Entity

Verification/Report Number(s) : GZ09110560-2

NOTE 1: This verification is part of the full test report(s) and should be read in conjunction with it.

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Signature

Name: Baud Qiu
Position: Manager
Date: February 1, 2010

Intertek Report No. GZ09110560-2
EVALUATION
OF
Electronic Lock G1 Grade 2
FOR
GUANGDONG BE-TECH SECURITY SYSTEMS CO., LTD.
No. 17, Keyuan 3 Road, Ronggui, Shunde High-tech Zone,
Foshan, Guangdong, P.R.China

TEST STANDARD:

Per product's specifications, using the following standard as a guideline: ANSI/BHMA A156.25-2007 American National Standard for Electrified Locks Devices

SAMPLES:

Samples were identified by the client as Electronic Lock G1 Grade 2, full indoor type with Low Volt Stand Alone(6.4VDC), samples were received in good condition on November 13, 2009 and December 20, 2009, which manufactured by GUANGDONG BE-TECH SECURITY SYSTEMS CO., LTD.

TEST DATES:

From November 13, 2009 to January 20, 2010

RESULTS: Compliant

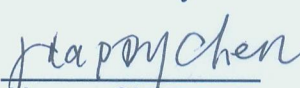
Clause	Test Description	Test Results
6.1	ANSI/BHMA A 156.13-2005	Compliant
6.3	UL 1034 Tests	Compliant
6.4	Operational Tests	Compliant

The attached summary and data are results of the product testing and evaluation.

Report Prepared By:


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Reviewed By:


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Test Results summary (UL1034 Section)

REQUIRED TEST	UL1034 Section	COMMENTS	REMARK
Installation and Operating	4	Compliant	
General (Product assembly)	5.1	Compliant	
General (Electrical protecton)	5.2	Not applicable	Low Volt Stand Alone type
Protection of Service Personnel	6	Not applicable	Low Volt Stand Alone type
Production Line Grounding Continuity	60	Not applicable	Low Volt Stand Alone type
Enclosures	7	Not applicable	Low Volt Stand Alone type
Corrosion Protection	9	Compliant	
General Field Wiring	10	Not applicable	Low Volt Stand Alone type
Cord Connected Products	11	Not applicable	Low Volt Stand Alone type
Permanently Connected	12	Not applicable	Low Volt Stand Alone type
Grounding	13	Not applicable	Low Volt Stand Alone type
General Internal Wiring	14	Not applicable	Low Volt Stand Alone type
Wiring Methods	15	Not applicable	Low Volt Stand Alone type
Seperation of Circuits	16	Not applicable	Low Volt Stand Alone type
Bonding for Grounding	17	Not applicable	Low Volt Stand Alone type
General Mounting of Components	18	Compliant	
Over-current Protection	19	Not applicable	Low Volt Stand Alone type
Switches	21	Not applicable	No switches on the part
Transformers & Coils	22	Compliant	
General Spacings	23	Not applicable	Low Volt Stand Alone type
Test Voltages	25.3	Not applicable	Low Volt Stand Alone type
Inputs	27	Not applicable	Low Volt Stand Alone type
Humidity	34	Compliant	
Leakage Current (cord connected)	35	Not applicable	Low Volt Stand Alone type
Electric Shock Current	36	Not applicable	Low Volt Stand Alone type
Polymeric Materials	44	Not applicable	Low Volt Stand Alone type
Battery Replacement	45	Compliant	
Strain Relief	46	Not applicable	Low Volt Stand Alone type
Mechanical Strength for Enclosures	48	Compliant	
Special Terminal Assemblies	49	Compliant	
Panic Hardware	57	Not applicable	Not intend use on panic doors
Emergency Exit Requirements	58	Compliant	
Accessory Equipment	63	Not applicable	No Accessory equipments
Salt Spray Corrosion	51	Not applicable	Full indoor type
Rain	52	Not applicable	Full indoor type
Dust	53	Not applicable	Full indoor type

Test Results summary (A156.25 Section)

REQUIRED TEST	A156.25 Section	COMMENTS	REMARK
Operation	6.4.1	Compliant	
Under-voltage Operation	6.4.2	Compliant	
Over-voltage Operation (Ext. power only)	6.4.3	Not applicable	Low Volt Stand Alone type
Coil Over-voltage (Ext. power only)	6.4.4	Not applicable	Low Volt Stand Alone type
Slam Cycle	6.4.5	Compliant	
Variable Ambient Temperature Cycle	6.4.6	Compliant	
Material Evaluation Tests	6.4.7	Compliant	
ESD	6.4.8	Not applicable	Low Volt Stand Alone type
RF Immunity	6.4.9.1	Compliant	
EFT Immunity	6.4.9.2	Compliant	
Enclosure Temperature	6.4.9.3	Not applicable	Low Volt Stand Alone type
	6.4.10	Not applicable	Low Volt Stand Alone type

Operation Test:

Compliant

Tested to ANSI/BHMA A156.25 Clause 6.4.1

Method

- a) Set the electrified locking device as necessary into the door in a secured mode by a signal from its intended input or controlling device.
- b) Unlock the electrified locking device by a signal from its intended input or controlling device and activate mechanically so the door is released to open.
- c) Open the door until the locking or latching mechanism is clear of the strike.
- d) Using the test apparatus close the door to the latched position or if functionally required project the dead bolt to its locked position.
- e) After the intended unlocked period, confirm that the electrified locking device has returned the door to the secured mode.

Results

The sample was connected to a 6.4V D.C. source. The sample did operate as intended.

Under-voltage operation Test:

Compliant

Tested to ANSI/BHMA A156.25 clause 6.4.2

Method

The sample was mounted to a test fixture and then connected to a voltage source of 85% of its marked rated voltage.

The sample was connected to a 5.4V (6.4V X 85%)DC source and then subjected to a functions of normal operation.

Results

The sample was connected to a 5.4V D.C. source. The sample did operate as intended.

Over-voltage operation Test:Not applicable

Tested to ANSI/BHMA A156.25 clause 6.4.3

Method

The sample was mounted to a test fixture as specified in UL 1034 clause 25.4 and then connected to a voltage source of 110% of it's marked rated voltage.

The sample was connected to a 7.0V (6.4V X 110%)DC source.

The sample was then subjected to a functions of normal operation.

Results

Not applicable for Low Volt Stand Alone type.

Coil Over-voltage Test:Not applicable

Tested to ANSI/BHMA A156.25 clause 6.4.4

Method

Connected to a voltage source of 125% of it's marked rated voltage.

The coil was connected to a 8.0V (6.4V X 125%)DC source for 24 hours.

The sample was then subjected to a functions of normal operation.

Results

Not applicable for Low Volt Stand Alone type.

Slam Cycle Test:Compliant

Tested to ANSI/BHMA A156.25 clause 6.4.5.

Method

The sample was mounted to a test fixture, using a size 3 overhead door closer specified in ANSI/BHMA A156.4, with a closing speed of 2.5 seconds from 90 degrees.

The sample was then cycled to 10000 times.

Results

The product did operate as intended after 10000 times of slam cycle test.

Variable Ambient Temperature Test:Compliant

Tested to ANSI/BHMA A156.25 clause 6.4.6

Method

Subject a sample to the high temperature specified below for 4 hours in a non condensing humidity environment. Return the sample to the chamber and subject it to low temperature for 4 hours. After the High Temperature Test and the Low Temperature Test allow the lock to stabilize in 21+/-2 degrees C room temperature for 2 hours minimum.

	Low Temperature	High Temperature
Full indoor	32 dgrees F (0 °C)	120 dgrees F (49 °C)
Full outdoor	-31 dgrees F (-35 °C)	151 dgrees F (66 °C)

Results

Intended to full indoor use. The product did operate as intended after variable ambient temperature test.

Cycle Test:Compliant

Tested to ANSI/BHMA A156.25 clause 6.4.7

Method

The product is to be mounted in accordance with 5.4 and using the procedure in 6.4.1 operate it for 400k cycles (50% of the cycle requirements specified by the locking device applicable standard listed in 4.1.

Results

The product did operate as intended after 400 000 cycles of test.

Dielectric Voltage Withstand Test:Not applicable

Tested to ANSI/BHMA A156.25 clause 6.4.8.1

Method

An externally powered electrified locking device shall withstand, without insulation breakdown an application of a 40 -70 hertz essentially sinusoidal alternating potential as follows:

1) between all active components and enclosures, and 2) between active components of circuits operating at different potentials or different frequencies, after any electrical connection between the circuits has been disconnected (de-energized), the RMS potential shall be 1000 volts plus twice the highest rated voltage applied at the rate of approximately 200 volts per minute until the test value is reached, then held at that value for one minute.

Results

Not applicable for Low Volt Stand Alone type.

Inductive Kickback Test:Not applicable

Tested to ANSI/BHMA A156.25 clause 6.4.8.2

Method

Connect the electrified lock through a switch to a power supply of the rated voltage. If designated to operate at more than one voltage, configure the lock for the highest operating voltage.

Use a storage oscilloscope with a minimum single-shot bandwidth of 200 megahertz with a ten mega-ohm probe set to trigger on the falling edge of the supply voltage measured at the lock. Open the switch and record the captured trace. The peak voltage shall not exceed ± 92 volts

Results

Not applicable for Low Volt Stand Alone type.

Electrostatic Discharge:Compliant

Tested to ANSI/BHMA A156.25 clause 6.4.9.1----IEC61000-4-2 level 4.

Method

Use ESD simulator to setup the condition specified in the standard.

To see if the lock operate as intended or any loss/error of function.

Results

Type of Discharge	Applied Voltage (KV)	No. of Discharge	Result
Direct Contact Discharge	8	20	Pass
Direct Air Discharge	15	20	Pass
Indirect Discharge (HCP)	8	20	Pass
Indirect Discharge (VCP)	8	20	Pass

Electromagnetic Immunity:

Compliant

Tested to ANSI/BHMA A156.25 clause 6.4.9.2 IEC 61000-4-3 level 2.

Method

Use radiated electromagnetic apparatus to setup the condition specified in the standard.
To see if the lock operate as intended or any observable change.

Results

Frequency (MHz)	Field Strength (V/m)	Surface	Step size	Result
80-1000	3	Front	1%	Pass
		Left	1%	Pass
		Right	1%	Pass
		Back	1%	Pass

Electromagnetic Immunity:

Not applicable

Tested to ANSI/BHMA A156.25 clause 6.4.9.3 IEC 61000-4-4 level 2.

Method

Use radiated electromagnetic apparatus to setup the condition specified in the standard.
To see if the lock operate as intended or any observable change.

Results

Not applicable for Low Volt Stand Alone type.

Enclosure Temperature Rise Test:

Not applicable

Tested to ANSI/BHMA A156.25 clause 6.4.10.

Method

The product was mounted to the test door, and the door was operated 6 hours continuously

Results

Not applicable for Low Volt Stand Alone type.

APPENDIX A

Test Summary From Report No. GZ09110560-1
ANSI/BHMA A156.13-2005 "American National Standard Mortise Locks and Latches".

RESULTS: Compliant

Subsection	Test Description	Test Results
9.0	Operational Tests	Compliant
10.0	Security Tests	Compliant
11.0	Cycle Tests	Compliant
13.0	Material Evaluation Tests	Compliant

APPENDIX B

PRODUCT PHOTO

Outlook



Components

