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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GA 1051-2013

**Dedicated safes for guns and ammunition
(English Translation)**

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1 Scope

This standard specifies the classification, grading, marking, technical requirements, test methods, inspection rules, etc. of dedicated safes for guns and ammunition.

This standard applies to dedicated safes for storing guns or/and ammunition, that are legally equipped and configured. It is the technical basis for the design, manufacturing, inspection, acceptance, certification evaluation of dedicated safes for guns and ammunition.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB 10409 Burglary resistant safes

GB/T 15211-1994 Environmental testing for alarm systems

GB 16796-2009 Safety requirements and test methods for security

GB/T 16810-2006 Tests and requirements for fire resistance of record protection containers

GB/T 17626.2-2006 Electromagnetic compatibility (EMC) - Testing and measurement techniques - Electrostatic discharge immunity test

GB/T 17626.3-2006 Electromagnetic compatibility - Testing and measurement techniques - Radiated radio-frequency electromagnetic field immunity test

GA/T 73-1994 Thief resistant mechanical locks

GA 374-2001 Thief resistant electronic locks

GA 701 General specifications of burglary resistant fingerprint locks

5.4.3.1 The anti-burglary fingerprint lock, which is configured on the dedicated safe, shall meet the relevant requirements of GA 701, for the function, power supply, environmental adaptability, electromagnetic compatibility, safety, stability.

5.4.3.2 For the performance requirements of the anti-burglary fingerprint lock, which is configured on the dedicated safe: when the false acceptance rate is 0.001%, the false rejection rate shall be less than or equal to 3%.

5.5.1 Requirements for human-machine interface

5.5.1.1

It shall have a man-machine operation interface, which can be independent keyboard operation or touch screen operation.

5.5.1.2

It shall have a man-machine display interface, which shall be able to display the date, time, power status, self-check status, network connection status, data download status, etc. in real time.

5.5.2 Identification requirements

5.5.2.1

It shall have the identification function of fingerprint or other biometric technology.

5.5.2.2

The fingerprint module identification indicator shall meet the requirements of 5.4.3.2.

5.5.2.3

The identification indicators of other biometric technologies shall meet the requirements of relevant standards.

5.5.3 authority management requirements

It shall have hierarchical authority management functions.

5.5.4 Alarm requirements

5.5.4.1

The smart safe shall be able to alarm in time, when the following situations occur:

- Unusual opening of safe door;
- Unusual collection of guns/ammunition;
- Guns/ammunitions not returned on time;
- The safe door unlocked over time;
- The smart safe powered off;
- Safe door opened by standby mode.

5.5.4.2

The on-site sound and light alarm shall be activated, when the smart safe alarms. Under the network connection state, it shall have the remote alarm function.

5.5.4.3

After the on-site alarm is activated, only authorized administrators shall be allowed to cancel the alarm.

5.5.5 Emergency opening requirements

In an emergency, it shall be possible for two persons to open all electric locks, at once, through specific authorization instructions.

5.5.6 Information record requirements

5.5.6.1

It shall be able to automatically record the normal operation information of the smart safe. The normal operation information shall at least include personnel addition/deletion information, safe door opening and closing information, gun and ammunition access information, emergency opening information, alarm release information.

5.5.6.2

It shall be able to automatically record the alarm information of the smart safe.

5.5.6.3

It shall automatically save at least 5000 latest operation information records. All records shall not be manually modified or deleted. After the operation information storage area is full, it shall be able to automatically cover it cyclically. When the power supply is abnormal or power failure, the basic information of the system and the recorded operating information shall not be lost.

5.5.6.4

All recorded operating information shall be able to be downloaded, through the data interface (USB interface, network interface, etc.). The data download shall have download

pointer signs and download authority restrictions.

5.5.7 Networking requirements

5.5.7.1

It shall have remote networking capabilities.

5.5.7.2

When the smart safe is networked, it shall be able to upload operating information (operation information, abnormal information, etc.) and gun/ammunition status information, to the networked management platform, to achieve centralized storage of operating information AND real-time monitoring of status information.

5.5.10.2 When the AC power supply changes within the range of 85% ~ 110% of the rated voltage, the smart safe shall work normally, without adjustment.

When the standby power (DC) voltage changes within the range of 90% ~ 110% of the rated value, the smart safe shall be able to work normally.

5.5.10.3 The AC power supply shall be able to automatically charge the standby power supply. When the backup power supply (DC) voltage drops to the rated end value, there shall be protective measures, to avoid over-discharge. The standby power supply shall be fixedly installed inside the safe.

5.5.10.4 When the AC power supply is cut off, the standby power supply shall be able to support continuous work, for more than or equal to 8 h. It shall be able to support more than or equal to 8 normal operations during this period.

5.5.10.5 The AC power interface shall be installed in a relatively concealed position AND equipped with a locking device.

5.5.11.1 Electric strength

For smart safes, which are powered by AC 220 V, BETWEEN the power plug or power lead-in terminal AND the shell, or BETWEEN bare metal parts of the shell, it shall be able to withstand the electric strength test, which has an effective test voltage of 1.5 kV and a duration of 1 min. There shall be no breakdown or arcing.

5.5.11.2 Insulation resistance

The insulation resistance, BETWEEN the power plug or power lead-in terminal of the smart safe AND the bare metal parts of the shell, shall be greater than or equal to 100 Mohm under normal environmental conditions; OR greater than or equal to 10 Mohm, under damp heat conditions.