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# SAFETY TEST REPORT

## MEASUREMENT AND TEST REPORT

For

Shenzhen Karsun Access Technology Co.,Ltd.	
F1- F3 , Building A2, Silicon Valley Power Digital Industrial Park, Guanlan Street, Longhua, Shenzhen, Guang Dong, China.518000	
<b>Models:</b>	JS-STM010
<b>Additional model:</b>	JS-STM002 , JS-STM003 , JS-STM004 , JS-STM005 , JS-STM006 , JS-STM010 , JS-STM011 , JS-STM019 , JS-STM020 , JS-STM029 , JS-STM039 , JS-STM066 , JS-STM188 , JSTD8141-21 , JSTD8163-22 , JSTD8132-21, JS-AB01, JS-AB02, JS-STM055, JS-STM051, JS-STM-8142, JS-STM8161
<b>Equipment Type:</b>	High Speed Gate
<b>Test Standard:</b>	EN IEC 62368-1:2018
<b>Report Number:</b>	GBT5020673656
<b>Test Date:</b>	2025-09-15 to 2025-09-23
<b>Prepared By:</b>	<b>Guangdong Baotong Quality Inspection Co.,Ltd.</b> Room 802,Building 22,CIMC Intelligent Manufacturing Center,No.15.Shunye West Road,Xingtan,Shunde District,Foshan,Guangdong.China
<b>Date of issue</b>	2025-09-23

Tested by: *Uved*Reviewer: *shdwg*Approved: *barw*

EMC TEST REPORT	
<b>Applicant</b>	
name.....:	Shenzhen Karsun Access Technology Co.,Ltd.
Address.....:	F1- F3 , Building A2, Silicon Valley Power Digital Industrial Park, Guanlan Street, Longhua, Shenzhen, Guang Dong, China.518000
<b>Test specification:</b>	
Standard.....:	EN IEC 62368-1:2018
Test procedure.....:	Type Test
Non-standard test method.....:	N/A
<b>Test item</b>	
Description.....:	High Speed Gate
Model and/or type reference.....:	See page 1
Additional model.....:	See page 1
Trade mark .....	Karsun
Rated voltage .....	/
Manufacturer .....	Shenzhen Karsun Access Technology Co.,Ltd.
Address .....	F1- F3 , Building A2, Silicon Valley Power Digital Industrial Park, Guanlan Street, Longhua, Shenzhen, Guang Dong, China.518000
<b>Test item particulars</b>	
Classification of installation and use:	N/A
Supply Connection.....:	N/A
<b>Possible test case verdicts</b>	
- test case does not apply to the test object :	N(.A)
- test object does meet the requirement :	P(Pass)
- test object does not meet the requirement :	F(Fail)

**Summary of testing:**

The product has been tested according to standard  
EN IEC 62368-1:2018

- Maximum ambient temperature: +25°C
- Tested for moderate conditions

**Copy of marking plate**

High Speed Gate

Model:JS-STM002, JS-STM003, JS-STM004, JS-STM005, JS-STM006, JS-STM010, JS-STM011, JS-STM019, JS-STM020, JS-STM029, JS-STM039, JS-STM066, JS-STM188, JSTD8141-21, JSTD8163-22, JSTD8132-21, JS-AB01, JS-AB02, JS-STM055, JS-STM051, JS-STM-8142, JS-STM8161

Rating(s): 220-240V~, 50/60Hz, 30W, Class I



No.	Test Item	Test Requirement	Test Result - Description	Judgment
1.	Appearance Inspection	The equipment's exterior surface is flat, clean, free of defects such as burrs, flash, sand holes, air bubbles, etc., and free from damage such as scratches, abrasions, deformation, breakage, rust, corrosion, etc., with no traces of leakage or exudate, and no sharp protrusions, edges, or corners. The interior of transparent materials has no obvious voids, bubbles, flow lines, or embedded impurities. The surfaces of plating and coating layers show no traces of repair, no embedded or adhered impurities, and no phenomena such as cracks, blistering, or surface peeling.	Compliant	Qualified
2.	Marking Inspection	Equipment markings include the following content: Product name, model/specification; Manufacturer's name or trademark; For barrier-type equipment, safety warning words or symbols to prevent hand pinching; For outdoor equipment, safety warning words or symbols to prevent burns; Dangerous voltage marking, safety grounding marking.	Compliant	Qualified
		Markings should include the following content: Nature and polarity of the power supply; Rated voltage of the power supply; Nature and function of the terminals; Rated power of the equipment.	Compliant	Qualified
		Markings on the equipment are not easily erased, and their durability against rubbing complies with the requirements of GB 16796-2009 clause 5.3.2.	Compliant	Qualified
3.	Structure and Material Inspection	The main body steel material is SUS304. The body has a sturdy installation structure. The housing has an anti-tamper structure: opening the housing requires special tools.	Compliant	Qualified
		The thickness of the steel side panel material should be $\geq 1.2\text{mm} \pm 0.12\text{mm}$ . The thickness of the steel top cover material should be $\geq 1.5\text{mm} \pm 0.12\text{mm}$ .	Side panel thickness: 1.2mm; Top cover thickness: 1.5mm	Qualified
		The barrier part uses acrylic material with a thickness of $\geq 14\text{mm}$ , which is not easily broken	14mm	Qualified

		and is less likely to cause injury.		
		The barrier part moves flexibly without any blockage.	Compliant	Qualified
4.	Passageway Dimension Inspection	Length 1400mm × Width 300mm × Height 980mm; The passageway barrier plate is made of plastic acrylic or organic glass.	Compliant	Qualified
5.	Equipment Enclosure Protection Level Test	Outdoor equipment: IP54	Compliant	Qualified
6.	Enclosure Protection Level Test Against External Mechanical Impacts	The personnel passage detection part and indication part of the equipment body enclosure meet IK04 requirements. Other surfaces meet IK07 requirements. After the test, the equipment shows no obvious mechanical damage or deformation and can operate normally.	Compliant	Qualified
7.	Warning Function Check	The equipment provides a warning when one of the following situations occurs: -- No permission-to-pass signal is received, but the equipment detects a person entering the passageway. -- A permission-to-pass signal is received, but the equipment detects a person entering the passageway in the reverse direction. -- The equipment's startup self-test fails. -- The barrier part does not operate to the correct position. -- The actual time a person takes to pass through the passageway exceeds the set allowed passage time. When the equipment is in a warning state, it can be set to not accept permission-to-pass commands. Standard fire-fighting port: upon receiving a fire signal, the gate remains open.	Compliant	Qualified
8.	Permission-to-Pass / Prohibition-to-Pass Function Check	Corresponding status displays corresponding permission-to-pass and prohibition-to-pass indicators. After receiving a manual operation or an input signal for permission-to-pass/prohibition-to-pass from the access control system, the equipment enters the permission-to-pass/prohibition-to-pass state. In the prohibition-to-pass state, upon receiving a permission-to-pass signal and switching to the permission-to-pass state, the equipment automatically returns to the prohibition-to-pass state under the following conditions: -- When a person is detected to have passed through the	Compliant	Qualified

		<p>passageway in the specified direction within the allowed passage time. -- When no person is detected in the passageway after the allowed passage time has expired. Supports setting of entry and passage times; can be set to remain continuously in permission-to-pass state/prohibition-to-pass state. The equipment has a passage indication function; passage direction can be set to unidirectional or bidirectional simultaneously. When the gate opens, if reverse passage is attempted, the gate closes and the passage machine alarms.</p>		
9.	Emergency Release Function Check	<p>The equipment can be in a non-barrier state after a power failure or malfunction.</p>	Compliant	Qualified
10.	Anti-Tailgating Function Check	<p>The equipment should have an anti-tailgating function: The equipment has anti-tailgating detection, with a minimum effective detection spacing of <math>\leq 100\text{mm}</math>, and adjustable sensitivity. When the test sample receives only a permission-to-pass command and is in the permission-to-pass state, two testers enter the passageway in the same direction with an interval of <math>\leq 100\text{mm}</math>. Or, when the number of people allowed by this permission-to-pass command are passing in front, followed by a person not allowed to pass, with an interval of <math>\leq 100\text{mm}</math> between them. Equipment with anti-tailgating function warns of tailgating events (in tailgating mode, forced closing can be set).</p>	Compliant	Qualified
11.	Auto-Reset Function Check	<p>The equipment has an auto-reset function (after the gate opens, if no passage occurs within the set time, the system automatically locks), and the passage time is adjustable.</p>	Compliant	Qualified
12.	Visual/Auditory Indication Function Check	<p>The equipment provides different visual/auditory indications for its working status, operations, and results. Standby is indicated by a blue light, entry/exit permission-to-pass by green, prohibition-to-pass/warning by red. Auditory indication during warning should be distinctly different from other indications. With volume adjusted to maximum, the voice output function is normal.</p>	Compliant	Qualified
13.	Voice Prompt / Voice Broadcast	<p>The equipment has voice prompt or voice broadcast functions, and can play different voice</p>	Compliant	Qualified

	Function Check	types or custom voice content according to different events. Supports more than 45 selectable voice types.		
14.	Climbing Capture Function Check	The equipment has a climbing capture function, enabling image capture of personnel illegally entering.	Compliant	Qualified
15.	Climbing Alarm Function Check	When the gate is closed, if a person climbs over to pass through the passageway, the passage machine alarms.	Compliant	Qualified
16.	Overtime No-Passage Alarm Check	After the gate opens, if no passage occurs within the set passage time, the gate closes.	Compliant	Qualified
17.	Motor Performance Check	The motor uses a DC brushless servo motor, has a power-on self-test function, low failure rate, long service life, and supports over 10 million normal passages continuously.	Compliant	Qualified
18.	Infrared Passage Logic Check	There are many types of infrared passage logic available for free selection, with 5 types of infrared logic to choose from: 3-pair, 4-pair, 6-pair, 8-pair, all with independent infrared logic.	Compliant	Qualified
19.	Infrared Function Abnormality Alarm Test	If the infrared transmitter/receiver pair is misaligned or the infrared function is abnormal, the passage machine alarms.	Compliant	Qualified
20.	Self-Test Function Check	The equipment has self-test functions for control, drive, barrier, and visual/auditory indication parts, with corresponding actions or indications. The equipment has a self-test function, detectable fault types include infrared fault, limit switch fault, motor fault, etc.	Compliant	Qualified
21.	Factory Reset Function Check	The equipment has a function to restore factory default settings.	Compliant	Qualified
22.	Opening/Closing Time Check	< 1s	0.5s	Qualified
23.	Response Time Check	< 0.1s	0.09s	Qualified
24.	Allowed Entry Time Check	The equipment's allowed entry time should be within the range of 2S (inclusive) to 60S (inclusive), and should be adjustable.	Compliant	Qualified
25.	Allowed Passage Time Check	The equipment's allowed passage time should be within the range of 2S (inclusive) to 60S (inclusive), and should be adjustable.	Compliant	Qualified
26.	Passage Speed	Passage speed is 20-50 persons/min	Compliant	Qualified
27.	Door Opening Speed Test	Enterprise Technical Requirement: The wing opening/closing speed supports 100 levels of adjustment.	100 levels adjustable	Qualified

		The fastest opening speed is 0.25s.	0.25s	Qualified
28.	Noise Check	Maximum noise value is 53.1dB(A)	53.1dB(A)	Qualified
29.	Auditory Indication Sound Pressure Check	Auditory indication sound pressure is within the range of 60dB(A) to 90dB(A), and should be adjustable.	Compliant	Qualified
30.	Visual Indication Check	Indicator lights should be clearly visible within a 22.5° viewing angle in front of the equipment at a distance of 3m. Displayed symbols or text should be readable within a 22.5° viewing angle in front of the equipment at a distance of 0.8m.	Compliant	Qualified
31.	Power Supply Voltage Adaptation Range Test	AC: 110V~220V	Compliant	Qualified
32.	Interface Plug/Unplug Stress Test	Interface plug/unplug is reliable, with no breakage or structural deformation.	Compliant	Qualified
33.	Communication Control Interface Check	The equipment has switch signal input interfaces.	Compliant	Qualified
		The equipment can support one or more communication interfaces, RS485/232/422, Ethernet interface, and can provide real-time gate working status to third-party platforms.	Compliant	Qualified
34.	Safety Check	For outdoor equipment, the enclosure and barrier parts use materials with poor thermal conductivity, or adopt thermal insulation protection measures, or use treatment processes that reduce the surface thermal conductivity of the equipment. During testing, no destructive discharge, breakdown, or flashover shall occur; and leakage current shall not exceed 3.5mA.	Compliant	Qualified
		Opening the equipment body enclosure should have protective measures to avoid injury from equipment components. For AC-powered products with metal enclosures, the metal enclosure must be grounded.	Compliant	Qualified
		During the movement of the equipment's barrier part, if a person is detected in the movement area of the passage barrier part, the barrier part stops moving or automatically moves to the permission-to-pass state.	Compliant	Qualified
		The product manual clearly states that after equipment installation, the equipment	Compliant	Qualified

		management party can mark corresponding passage safety signs, and should remind the elderly and children to pass under supervision.		
		In case of fire or other emergencies requiring evacuation, the gate can be opened with one click via an open button or power-off switch.	Compliant	Qualified
		In case of any power supply interruption or failure, other gates can continue to work.	Compliant	Qualified
35.	Surge Immunity Test	AC power line: Line-to-line $\pm 2\text{kV}$ ; Line-to-ground $\pm 4\text{kV}$ ; Number of surges applied per polarity: 20 times. Other power/signal lines: Line-to-ground: $\pm 4\text{kV}$ ; Number of surges applied per polarity: 5 times. During the test, the equipment shall not produce false actions or false warnings. After the test, the equipment can operate normally.	Compliant	Qualified
36.	Conducted Immunity Test	3V, Level B; Pre-test at 10V, Level B.	Compliant	Qualified
37.	Conducted Emission Test	Level B. The product is placed in a shielded room according to standard requirements and operates in maximum emission state. Tests the conducted disturbance along the power line and communication line to the outside.	Compliant	Qualified
38.	Conducted Emission Test	Level 3. The product is placed in a shielded room according to standard requirements and operates in maximum emission state. Voltage method tests the conducted disturbance along the power line to the outside.	Compliant	Qualified
39.	Radiated Emission Test	Level A. Test frequency: 30MHz-1GHz, 1GHz-6GHz. Antenna height: 1m-4m.	Compliant	Qualified
40.	Electrical Fast Transient/Burst Immunity Test	Power line $\pm 2\text{kV}$ , Level B; Pre-test $\pm 4\text{kV}$ , Level B. Test duration: 2min. During the test, the equipment shall not produce false actions or false warnings. After the test, the equipment can operate normally.	Compliant	Qualified
41.	Voltage Dips and Short Interruptions Immunity Test	Voltage dips, short interruptions, and voltage variation immunity test. a) Voltage interruption, 0.5 cycle, 1 time, Level A. b) Voltage dip 0% $U_t$ , 250 cycles, 1 time, Level C. c) Voltage dip 40% $U_t$ , 5 cycles, 1 time, Level A. d) Voltage dip 70% $U_t$ , 25 cycles, 1 time, Level A. Requirement: During the test, the EUT may experience temporary loss or degradation of function or performance, but it shall recover automatically after the disturbance ceases, without operator intervention.	Compliant	Qualified

42.	Electrostatic Discharge Immunity Test	Air discharge level: 2KV, 4KV, and 8KV. Contact discharge level: 6KV. Number of discharges per discharge level and polarity at each discharge location: 10 times. During the test, the equipment shall not produce false actions or false warnings. After the test, the equipment can operate normally.	Compliant	Qualified
43.	Insulation Resistance Test	The insulation resistance between the equipment's power supply circuit and the enclosure should be $\geq 100M\Omega$ .	101M $\Omega$	Qualified
44.	Leakage Current Test	$\leq 5mA$ (AC, peak).	4mA	Qualified
45.	Protective Earth Terminal Test	The connection between the equipment and AC power supply adopts a method where the working neutral line and the protective earth line are strictly separated, i.e., the TN-S system. The equipment shall have a protective earth terminal, which shall have a well-conductive direct connection to accessible conductive parts, with a contact resistance not $> 0.1\Omega$ . External terminal fool-proof test: Incorrect mating cannot be inserted, and no electrical connection is made.	0.08 $\Omega$	Qualified
46.	Temperature Rise Test	Under normal operating conditions, the surface temperature of the sample's enclosure shall not exceed 80°C.	70°C	Qualified
47.	Electric Strength Test	1.5KV, 1min, no breakdown or flashover.	Compliant	Qualified
48.	Protection Against Electric Shock for Accessible Parts Test	The equipment is equipped with a protective earth terminal or connection, reliably connecting accessible conductive parts to the earth terminal or connection of the output socket.	Compliant	Qualified
49.	Protection Against Pinching for Accessible Parts Test	The equipment is configured with 6 pairs of infrared detection, has infrared anti-pinch function, and the infrared anti-pinch working mode supports no less than two optional modes. After the gate opens, if a person passes within the set passage time and stops before reaching the anti-pinch infrared position, the gate does not close, and an alarm is prompted simultaneously.	Compliant	Qualified
50.	Motor Lock Test	When the gate is closing, apply external force to prevent it from closing fully; the motor should not burn out over an extended period.	Compliant	Qualified
51.	Lock Test -	If poor contact in the interface cable causes	Compliant	Qualified

	Interface Cable Abnormality	motor lock, it should not burn out the mainboard or components.		
52.	Startup Self-Test Function	After power-on, the equipment performs a self-test. If the test fails, audible and visual prompts are given.	Compliant	Qualified
53.	Entry/Exit Passage Setting	Set whether passage is allowed on both sides (entry and exit) of the gate.	Compliant	Qualified
54.	Entry/Exit Opening Duration	Set the duration after the gate opens with no one passing, after which the gate automatically closes.	Compliant	Qualified
55.	Entry/Exit Memory Function	Enable or disable the memory function for entry/exit passage. Typically used for card-swipe opening: when one person swipes a card but hasn't passed yet, whether to remember other people's swipes. "Prohibit" means the second swipe is only valid after the first person passes; "Allow" means the number of people allowed to pass continuously equals the number of swipes.	Compliant	Qualified
56.	Delayed Closing Duration	Used to set how long after a person normally passes through the gate before it closes.	Compliant	Qualified
57.	Gate Working Mode Setting	Set the opening method: infrared opening, or card/face recognition opening.	Compliant	Qualified
58.	Gate Reliability Test	The wing gate undergoes 10 million open/close cycle tests.	Compliant	Qualified
59.	High Temperature Test	Indoor (+55±2)°C, 48h.	—	Qualified
		Indoor (+70±2)°C, 48h.	Compliant	Qualified
60.	Passage Width	The net passage width can meet the requirement of 550mm-600mm for passing people and vehicles.	Compliant	Qualified
61	Low Temperature Test	Indoor (-10±3)°C, 48h	—	Qualified
62		Indoor (-25±3)°C, 48h	Compliant	Qualified
63	Constant Damp Heat Test	(90±3)% RH, (+50±2)°C, 48h	Compliant	Qualified
64	Temperature Cycling Test	60°C (2H), -20°C (2H), 5°C/min, 30 cycles	Compliant	Qualified
65	Salt Spray Test	5%, 48h	Compliant	Qualified
66	Mean Time Between Failures (MTBF)	10 million open/close cycles	Compliant	Qualified
67	Passage Scenario	Configured with ≥6 pairs of infrared sensors to meet identification requirements for adults,	6 pairs	Qualified

		children, pets, non-motor vehicles, or luggage		
68	Passage Voice Setting	Set the voice prompt to be played when passing from the left/right side	Compliant	Qualified
69	Passage Speed	1. Gate normally open state: $\geq 55$ persons/minute 2. Gate normally closed state: $\geq 45$ persons/minute	Compliant	Qualified

\*\*\*\*\*END OF REPORT\*\*\*\*\*

