

**Report Number: J230220001-1**

# EN 1154:1996/A1:2002/AC:2006

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## TESTING OF Controlled Door Closing Devices

A report to:

Guangdong Jinlian'an  
Technology Co., Ltd.

Issue Date:	2023/12/20
Revised Date:	—
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## CONTENTS

CONTENTS	Page	2
TEST CONCLUSIONS	Page	3
SIGNATURES	Page	5
TEST DETAILS	Page	6
TEST SAMPLE DESCRIPTION AND ASSESSMENT	Page	7
TEST RESULTS	Page	8
PRODUCT DRAWING(S)	Page	14
PRODUCT PHOTO(S)	Page	15
REVISION HISTORY	Page	16

## TEST CONCLUSIONS

**Product:** Concealed Door Closer  
**Manufactured by:** Guangdong Jinlian'an Technology Co., Ltd.  
**Model:** J-080, J-081

have been tested in accordance with:  
EN 1154:1996/A1:2002/AC:2006 Building Hardware — Controlled door closing devices  
by KAS Quality Service (Guangzhou) Co., Ltd. which is an IAS accredited Testing  
Laboratory (NO. TL-827).  
At Chenziwei, Xinsha Village Committee, Muzhou Town, Xinhui District, Jiangmen,  
Guangdong 529143, China.

### Summary of Test Result

Clause	Description	Compliance
<b>5.1</b>	<b>Product information</b>	<b>Pass</b>
<b>5.2</b>	<b>Performance</b>	<b>Pass</b>
5.2.1	General	Pass
5.2.2	Durability	Pass
5.2.3	Closing moment	Pass
5.2.4	Opening moment	Pass
5.2.5	Efficiency	Pass
5.2.6	Closing time	Pass
5.2.7	Angles of operation	Pass
5.2.8	Overload performance	Pass
5.2.9	Temperature dependence	Pass
5.2.10	Fluid leakage	Pass
5.2.11	Damage	Pass
5.2.12	Latch control (optional)	Pass
5.2.13	Backcheck (optional)	NA
5.2.14	Delayed closing	NA
5.2.15	Adjustable closing force (optional)	NA
5.2.16	Zero position (for double action door closers only)	NA
5.2.17	Corrosion resistance	Pass
5.2.18	Fire/smoke door suitability	NA
<b>8</b>	<b>Marking</b>	<b>NA</b>

No inferences can be made regarding performance against other requirements of this standard.  
NOTES.

These tests are covered by the Laboratory IAS accreditation schedule.

Tests marked "NA" were not applicable to the type of device under test.

Tests marked "NT" were not applied to the device under test.

When determining the test result, measurement uncertainty has been considered.

Decision rule for statement(s) of conformity is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) of ILAC G8: 09/2019.

## TEST CONCLUSIONS

**Product:** Concealed Door Closer  
**Manufactured by:** Guangdong Jinlian'an Technology Co., Ltd.  
**Model:** J-080, J-081

**Classification achieved**

Category of use	Durability	Door Closer power size	Fire resistance	Safety	Corrosion resistance
3	8	3	0	1	2

Detail "Classification" information listed as following:

First digit (Category of use): Grade 3 – For closing doors from at least 105° open;

Second digit (Durability): Grade 8 – 500,000 test cycles;

Third digit (Door Closer power size): Grade 3 – With a power size 3;

Fourth digit (Suitability for use on fire/smoke doors): Grade 0 – No suitable use on fire-resistant doors;

Fifth digit (Safety): Grade 1 – All door closers are required to satisfy the Essential Requirement of safety in use;

Sixth digit (Corrosion resistance and temperature): Grade 2 – Moderate corrosion resistance: 48h.

## SIGNATURES

Tests performed by:

*Frank Feng*

Name: Frank Feng  
Date: 20-Dec-23  
Title: Project Engineer  
KAS Quality Service

Report authorised by:

Name: Credy Chen  
Date: 20-Dec-23  
Title: Technical Manager  
KAS Quality Service

## TEST DETAILS

### Applicant Information

Applicant Name: Guangdong Jinlian'an Technology Co., Ltd.

Applicant Address: New Central District of Jinli Town, Gaoyao District, Zhaoqing City

### Sample Information

Product: Concealed Door Closer

Trade Mark: /

Model and/or type reference: J-080, J-081

Manufacturer: Guangdong Jinlian'an Technology Co., Ltd.

Manufacturer Address: New Central District of Jinli Town, Gaoyao District, Zhaoqing City

Sample ID: S230220001-01~06

Date of receipt of test item: 2023/09/25

Situation of receipt samples: Good

### Testing Information

Standard: EN 1154:1996/A1:2002/AC:2006

Non-standard method or requirement: /

Rating(s): 

3	8	3	0	1	2
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Testing Laboratory name: KAS Quality Service (Guangzhou) Co., Ltd.

Address: Chenziwei, Xinsha Village Committee, Muzhou Town, Xinhui District, Jiangmen, Guangdong 529143, China.

Date (s) of performance of tests: 2023/9/26 ~ 2023/11/20

Other reports to be used in conjunction with this report: /

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## TEST SAMPLE DESCRIPTION AND ASSESSMENT

General product information:

Concealed door closer, full mechanical test based on slide arm mounting according to manufacturer's instruction.

Model No.	Body Material	Body Size	Speed Valve	Latch control	Back Check	Delay Action	Double action	Hold open	Power size
J-080	Aluminum	230 x 62 x 32mm	Yes	Yes	No	No	No	Yes	3
J-081	Aluminum	230 x 59 x 32mm	Yes	Yes	No	No	No	Yes	3

### Assessment:

These products have same materials and similar construction except for the door closer body casing. These products have undergone the same manufacturing process. Designs of these products are same. So the model 'J-080' has been chosen as representative test model for all models.

## TEST RESULTS

Test procedure: Sample A - Operation at extremes of temperature      Test sample No.: 

S	2	3	0	2	2	0	0	0	1	-	0	1
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Model: J-080      Power Size: 3

Req. Clause	Test Clause	Requirement Details	Result	P = PASS F = FAIL
5.1	7.2.1	Product information A door closer manufactured to this standard shall be supplied with clear, detailed instructions for its installation, regulation and maintenance, which shall include any limitations of opening angle. Where a door closer is recommended for fitting in other than a standard application, these instructions shall clearly define the door closer power size for each application of fitting position stated.	limitations of opening angle: 145° Refer to installation instruction	P
8	7.2.1	Marking		
8.1	7.2.1	Each door closer and separately supplied accessory manufactured to this standard shall be marked with the following: a) the manufacturer's name or trademark, or other means of identification; b) product model identification; c) the classification according to Clause 4; d) the number of this European Standard; e) the year and week of manufacture. In the case of concealed door closers, the above information shall be readily visible after removal of the cover plate. For accessories (where there may be insufficient space to provide the information given in the clause), only item a) is mandatory. Accessories claiming compliance with Annex A, shall be marked with the information a) to e) above. In preferential order the information shall be placed: 1) on the product itself; or 2) on a label attached to it; or 3) on the installation instructions; or 4) on its packaging.	No marking	NA
5.2.9	7.2.2	Temperature dependence A set closing time of 5 seconds at an ambient temperature of 20°C, shall not increase to more than 25 seconds or decrease to less than 3 seconds when tested at -15°C and 40°C :	Grade 3, Door mass: 60 kg Closing time: At 20 °C: 5"00 At -15 °C: 23"12 At 40 °C: 4"88	NA
5.2.16	7.2.3	Zero position (for double action door closers only) The amount of free play at the zero position of a new door closer shall not exceed 3 mm, and after 500,000 test cycles shall not exceed 6 mm :	The specimen was not double action door closer	NA



## TEST RESULTS

Test procedure: Sample B - Mechanical performance and durability

Test sample No.: 

S	2	3	0	2	2	0	0	0	1	-	0	2
---	---	---	---	---	---	---	---	---	---	---	---	---

  
Model: J-080                      Power Size: 3

Req. Clause	Test Clause	Requirement Details	Result	P = PASS F = FAIL				
5.2.15	7.1.2	Adjustable closing force (optional) If provided with an adjustable closing function, the door closer shall comply with the performance at both the minimum and maximum power settings claimed by manufacture :	Fixed power size 3	NA				
5.2	Performance							
	Table 1							
	Door closer Power size	Closing moment				Opening moment 0° to 60°	Door closer efficiency 0° to 4°	
		0° to 4°		88° to 92°	Any other angle			
		Nm min.	Nm max	Nm min.	Nm min.	Nm max.	% min.	
		1	9	< 13	3	2	26	50
		2	13	< 18	4	3	36	50
		3	18	<26	6	4	47	55
		4	26	< 37	9	6	62	60
	5	37	<54	12	8	83	65	
6	54	< 87	18	11	134	65		
7	87	< 140	29	18	215	65		
N/A	7.3.1 7.3.3	Pre-cycle Conduct a total of 5 000 pre-cycles.	Followed	P				
5.2.3	7.3.4.1	Closing moment After 5 000 pre-cycles the measured closing moments shall be not less than the value stated in Table 1 :	Power Size 3, Door mass: 60 kg After 5 000 pre-cycles, closing moment: 0° to 4°: 20.56 Nm 88° to 92°: 18.85 Nm Any other angle: 14.11 Nm	P				
5.2.4	7.3.4.1	Opening moment After 5 000 pre-cycles the maximum measured opening moment shall be not more than the value stated in Table 1 for the particular power size of closer being tested:	Power Size 3, After 5 000 pre-cycles, opening moment: 0° to 60°: 46.24 Nm	P				
5.2.5	7.3.4.2	Efficiency After 5000 pre-cycles the measured efficiency shall be not less than value stated in Table 1:	Power Size 3, After 5 000 pre-cycles, opening moment: 0° to 4°: 34.32 Nm efficiency= 59.91%	P				
5.2.6	7.3.4.3	Closing time After 5000 pre-cycles, the closing time, from a door opening angle of 90 degree, shall be capable of adjustment to 3 seconds or less, and 20 seconds or more.	After 5 000 test cycles, the adjusted time: Time min.: 1"28 Time max.: >20s	P				

## TEST RESULTS

Test procedure: Sample B - Mechanical  
performance and durability

Test sample No.: 

S	2	3	0	2	2	0	0	0	1	-	0	2
---	---	---	---	---	---	---	---	---	---	---	---	---

  
Model: J-080 Power Size: 3

Req. Clause	Test Clause	Requirement Details	Result	P = PASS F = FAIL
5.2.7	N/A	Angles of operation The door closer shall permit the test door to open according to its grade, and on closing, shall control the door from a minimum angle of 70 degree :	Maximum opening angle: 145° Control angle: 110°	P
5.2.8	7.3.4.4	Overload performance The door closer shall be capable of withstanding the closing overload tests :	Applied 21 kg overload weight 10 times, no damage or deformation or fluid leakage, function normal after 5 000 pre-cycles.	P
5.2.12	N/A	Latch control (optional) Accelerated closing shall be effective over a maximum range of 15 degree from the closed position, and shall be adjustable :	Have a latch control valve, latch control could be adjustable to enable accelerated closing control angle from 0 to 15°.	P
5.2.14	7.3.4.5	Delay closing (optional) The delay time shall not be less than 20 seconds. The delay zone shall not extend below the 65 degree open position. The moment required to override manually the delay action shall not exceed 150 Nm. The delay time at the conclusion of 500 test cycles shall be between 10 seconds to 30 seconds :	No delayed closing function	NA
5.2.13	7.3.5.2	Backcheck (optional) The door closer shall be capable of arresting the test door before 90 degree position :	No backcheck function	NA
5.2.2	7.3.1	Durability The door closer shall be able to close a test door conforming to 6.1.1 and 6.2 from an opening angle of 90°, for a minimum of 500, 000 test cycles :	Initial setting close time from 90° to 0°: 4"86	—
5.2.6	7.3.6.1 7.3.6.3	Closing time After 500,000 test cycles, the closing time, from a door opening angle of 90 degree, shall be capable of adjustment to 3 seconds or less, and 20 seconds or more. After 500,000 test cycles, the closing time set at 5000 test cycles shall not have increased by more than 100%, or decreased by more than 30 % :	After 500, 000 test cycles: The closing time: 4"31 The adjusted time: Time min.: 1"33 Time max.: >20s	P

## TEST RESULTS

Test procedure: Sample B - Mechanical  
performance and durability

Test sample No.: 

S	2	3	0	2	2	0	0	0	1	-	0	2
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Model: J-080 Power Size: 3

Req. Clause	Test Clause	Requirement Details	Result	P = PASS F = FAIL
5.2.3	7.3.6.2	Closing moment After 500,000 test cycles the measured closing moments shall be not less than the value stated in Table 1:	After 500,000 test cycles, closing moment: 0° to 4°: 20.75 Nm 88° to 92°: 19.25 Nm Any other angle: 13.52 Nm	P
5.2.5	7.3.6.2	Efficiency After 500,000 test cycles the measured efficiency shall be not less than value stated in Table 1:	After 500,000 test cycles, opening moment: 0° to 4°: 29.71 Nm efficiency= 69.84%	P
5.2.8	7.3.6.4	Overload performance The door closer shall be capable of withstanding the closing overload tests :	Applied 21 kg overload weight 10 times, no damage or deformation or fluid leakage, function normal after 500,000 cycles.	P
5.2.14	7.3.5.2	Delay closing (optional) After 500 000 cycles, the delay time shall not be less than 20 seconds.	No delayed closing function	NA
5.2.10	N/A	Fluid leakage Throughout the test programme there shall be no leakage of fluid from the door closer:	No leakage	P
5.2.11	N/A	Damage Throughout the test programme there shall be no damage to the door closer or its arms that would adversely affect its performance to this standard:	No damage	P
5.2.16	7.3.6.6	Zero position (for double action door closers only) The amount of free play at the zero position of door closer after subject 500,000 test cycles shall not exceed 6 mm:	The specimen was not double action door closer	NA

## TEST RESULTS

Test procedure: Sample C - Corrosion  
Resistance

Test sample No.: 

S	2	3	0	2	2	0	0	0	1	-	0	3
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Model: J-080 Power Size: 3

Req. Clause	Test Clause	Requirement Details	Result	P = PASS F = FAIL
5.2.17	7.4.2	Corrosion resistance Measure closing moment prior to the test.	Closing moment: 0° to 4°: 20.72 Nm 88° to 92°: 17.23 Nm Any other angle: 15.10 Nm	P
	7.4.3	The requirement shall be according to EN 1670. The acceptance conditions of EN 1670 shall be met for all surfaces of the door closer which are visible:	Grade 2, After 48h corrosion test, No visible corrosion occurs to all surfaces of the door closer	
	7.4.4	The closing moment of the door closer shall be not less than 80% of the closing moment measured prior to the test.	After 48h corrosion test, closing moment: 0° to 4°: 20.66 Nm 88° to 92°: 17.42 Nm Any other angle: 14.83 Nm	

## TEST RESULTS

Test procedure: Fire-resistant

Test sample No.: 

S	2	3	0	2	2	0	0	0	1	-	N	A
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Model: J-080

Req. Clause	Requirement Details	Result	P = PASS F = FAIL
5.2.18	Fire/smoke door suitability A door closer for use on a fire/smoke door assembly shall meet the necessary requirements of Annex A :	No evidence shows suitable use on fire-resistant door or smoke-control doors.	NA

## PRODUCT DRAWING(S)

注释:  
二款机型绿色标示为外形数量相同, 红色标示为外形数量不相同部分。

序号	名称	材料	数量
1	机壳	ADC12	★1
2	齿轮	20钢	★1
3	齿轮垫片	铁	★2
4	滚针轴承	轴承钢	★2
5	中盖动静封面	丁腈胶	★2
6	中盖动静封面	丁腈胶	★1
7	中盖	ADC12	★1
8	锁芯轴套	轴承钢	★4
9	锁芯轴套动静封面	丁腈胶	★4
10	销轴	铁	★1
11	弹簧	60钢	★1
12	活塞	20钢	★1
13	密封圈	不锈钢	★1
14	单向阀	轴承钢	★1
15	单向阀钢珠	铁	★1
16	锁芯动静封面	丁腈胶	★2
17	锁芯	轴承钢	★2
18	机壳	冷扎铁板	★1
19	机壳连接螺栓	不锈钢	★2
20	支臂连接螺栓-A	铁	★1
21	支臂连接螺栓-B	不锈钢	★1
22	支臂	冷扎铁板	★1
23	支臂连接螺栓-C	不锈钢	★1
24	滑轨	6063铝	★1
25	滑轨端盖	ABS	★2
26	滑轨勾爪	尼龙	★1
27	支臂连接螺母	轴承钢	★1
28	销钉	铁	★2
29	滑套	铁	★1
30	螺套	铁	★1
31	小弹簧	60钢	★1
32	螺母	铁	★1
33	固定勾爪	铁	★1
34	固定块	ADC12	★1
35	固定螺栓	铁	★1
36	液压油	广研润滑油	70g

**广东金连安科技有限公司**

名称	设计	材料	数量	备注
J-080	制图			单位: 毫米
编号	审核	比例		
日期	确认	材料		
		部门		

名称: J-080 圆形隐藏式闭门器BOM图

设计: 制图

审核: 比例

确认: 材料

日期: 2022-11-12

部门: 材料

J-080

注释:  
二款机型绿色标示为外形数量相同, 红色标示为外形数量不相同部分。

序号	名称	材料	数量
1	机壳	ADC12	★1
2	齿轮	20钢	★1
3	齿轮垫片	铁	★2
4	滚针轴承	轴承钢	★2
5	中盖动静封面	丁腈胶	★2
6	中盖动静封面	丁腈胶	★2
7	中盖	ADC12	★2
8	锁芯轴套	轴承钢	★4
9	锁芯轴套动静封面	丁腈胶	★4
10	销轴	铁	★1
11	弹簧	60钢	★1
12	活塞	20钢	★1
13	密封圈	不锈钢	★1
14	单向阀	轴承钢	★1
15	单向阀钢珠	铁	★1
16	锁芯动静封面	丁腈胶	★2
17	锁芯	轴承钢	★2
18	机壳	冷扎铁板	★1
19	机壳连接螺栓	不锈钢	★2
20	支臂连接螺栓-A	铁	★1
21	支臂连接螺栓-B	不锈钢	★1
22	支臂	冷扎铁板	★1
23	支臂连接螺栓-C	不锈钢	★1
24	滑轨	6063铝	★1
25	滑轨端盖	ABS	★2
26	滑轨勾爪	尼龙	★1
27	支臂连接螺母	轴承钢	★1
28	销钉	铁	★2
29	滑套	铁	★1
30	螺套	铁	★1
31	小弹簧	60钢	★1
32	螺母	铁	★1
33	固定勾爪	铁	★1
34	固定块	ADC12	★1
35	固定螺栓	铁	★1
36	液压油	广研润滑油	70g

**广东金连安科技有限公司**

名称	设计	材料	数量	备注
J-081	制图			单位: 毫米
编号	审核	比例		
日期	确认	材料		
		部门		

名称: J-081 方形隐藏式闭门器BOM图

设计: 制图

审核: 比例

确认: 材料

日期: 2022-11-12

部门: 材料

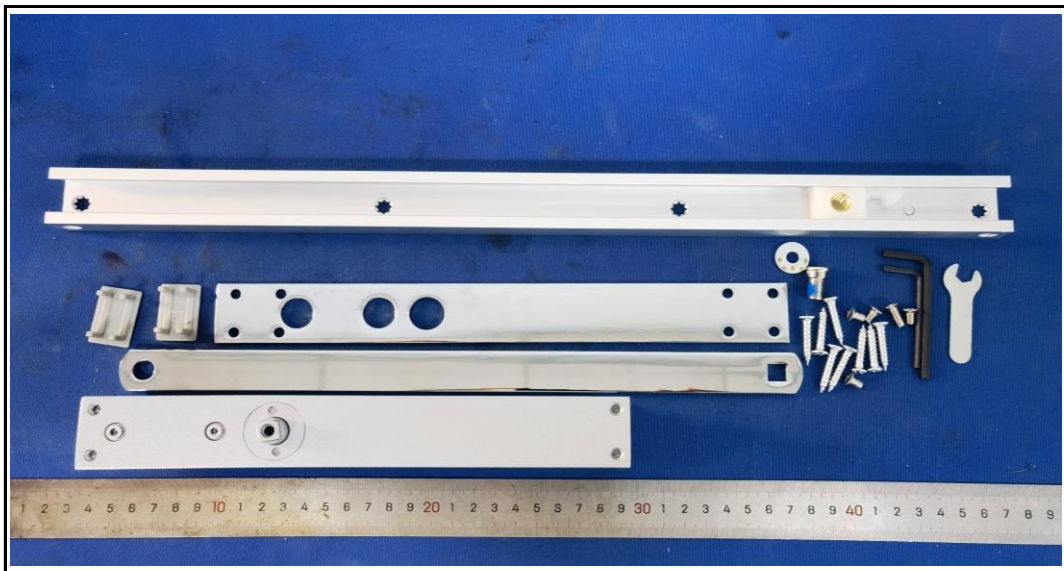
J-081



## PRODUCT PHOTO(S)



J-080



J-081

## REVISION HISTORY

Revision No.	Date	Changes	Author	Reviewer
Original	2023/12/20	First issue	Frank Feng	Credy Chen

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The End of Report