

TEST RECORD NO. 1

SAMPLES:

A sample of the **Concealed** Mounted Type Door Closer, Model F6203G as indicated below and constructed as described herein, was submitted by the manufacturer for examination and test.

The Model F6203G was used for test purposes and considered representative of the applicable function range.

The test of the assembly was conducted at Suzhou Fuerda Industry Co. Ltd's facility, Suzhou, Jiangsu, China under the witness of a UL representative as part of the WTDP.

GENERAL:

Test results relate only to the items tested.

The following tests were conducted.

Closing Force Test:	UL 228, Section 15
Closing Time and Closing Force:	CAN/ULC-S133-07, Section 4.2.4 - 4.2.5
Opening Force Test:	CAN/ULC-S133-07, Section 4.2.6
Cycling Endurance Test:	UL 228, Section 15
Endurance:	CAN/ULC-S133-07, Section 4.2.7

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in the Standard for Door Closers-Holders, With or Without Integral Smoke Detectors, UL 228, Fifth Edition, contains revisions through and including November 20, 2008 and the Canadian National Standards for Standard Method of Tests for Door Closers Intended for Use With Swinging Doors, CAN/ULC-S133-07, Second Edition, dated January, 2007.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in the Standard for Door Closers-Holders, With or Without Integral Smoke Detectors, UL 228, Fifth Edition, contains revisions through and including November 20, 2008 and the Canadian National Standards for Standard Method of Tests for Door Closers Intended for Use With Swinging Doors, CAN/ULC-S133-07, Second Edition, dated January, 2007 and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

TEST RECORD NO. 2

Test results relate only to items tested.

Project No. 4787133896

For the results of the evaluations and tests conducted on samples and tests assemblies including the swinging fire door closer, Model F1916, refer to the report issued 2008-08-04 under Test Record No.2 of Section 7 of File R25111, Project No. 4787133896.

Test Record Summary:

The results of this investigation indicate that the product evaluated comply with the applicable requirements of the Standards, Positive Pressure Fire Tests of Door Assemblies, ANSI/UL10C, Second Edition, dated January 26, 2009, revised date February 13, 2015 and Standard Method for Fire Tests of Door Assemblies, CAN/ULC-S104, Fourth Edition revised on August, 2015 and therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by:
Wilson Wang
Project Engineer

Reviewed by:
Matthew Schumann
Engineering Leader

TEST RECORD NO. 3

Test results relate only to items tested. The evaluation herein was conducted under project 4787375481.

PRODUCTS COVERED:

Swinging Fire Door Closer - Model 1003-REC.

ENGINEERING CONSIDERATIONS:

This investigation was initiated for the purpose of adding the models of swinging fire door closer, model 1003-REC.

No fire, hose stream or cycling endurance testing for the swinging fire door closer of above models since it is identical to Listed model F6203G except for the model name.

Therefore, UL Follow-Up Service Procedure File R25111 Volume 1, Section 11 will be revised accordingly.

Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements of the Standards, "Positive Pressure Fire Tests of Door Assemblies," ANSI/UL10C (Second Edition, dated February 13, 2015), "Door Closers-Holders, With or Without Integral Smoke Detectors," UL228 (Fifth Edition, revised November 20, 2008) and "Standard Method of Tests for Door Closers Intended for Use with Swinging Doors", CAN/ULC-S133-07, (Second Edition, dated January 2007), and therefore, such products are judged eligible to bear UL's Marks as described on the Conclusion page of this Report.

Test Record by:

Wilson Wang
Project Engineer
Fire Protection Department

Reviewed by:

Matthew Schumann
Engineering Leader
Fire Protection Department

TEST RECORD NO. 4

Test results relate only to items tested. The evaluation herein was conducted under project 4787815841.

PRODUCTS COVERED:

Swinging Door Closer - Model F6203G, 1003-REC.

ENGINEERING CONSIDERATIONS:

This investigation was initiated for the purpose of correction of the error of Test Record 2 of this volume and file, removing the fire rating for the models of swinging door closer, F6203G, 1003-REC since the concealed mounting method may change the fire performance of a Certified Fire Door.

Therefore, UL Follow-Up Service Procedure File R25111 Volume 1, Section 11 will be revised accordingly.

Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements of the Standards, "Positive Pressure Fire Tests of Door Assemblies," ANSI/UL10C (Third Edition, dated June 9, 2016), "Door Closers-Holders, With or Without Integral Smoke Detectors," UL228 (Fifth Edition, revised November 20, 2008) and "Standard Method of Tests for Door Closers Intended for Use with Swinging Doors", CAN/ULC-S133-16, (Third Edition, dated February 2016), and therefore, such products are judged eligible to bear UL's Marks as described on the Conclusion page of this Report.

Test Record by:

Wilson Wang
Project Engineer
Fire Protection Department

Reviewed by:

Jaehoon Chung
Senior Project Engineer
Fire Protection Department

Test results relate only to items tested. The evaluation herein was conducted under Project 4787972609.

TEST SAMPLE(S) :

The objective of this investigation was to add fire rating to listed door closer, Models F6203G, 1003-REC, C6000.

TESTS:

Test Name	Standard/Paragraph	Representative Standard
Fire Endurance	ANSI/UL 10C/11	ANSI/UL 10B
Hose Stream	ANSI/UL 10C/12	ANSI/UL 10B

ENGINEERING STUDY:

Testing on model F6203G was deemed representative of the Model 1003-REC, C6000 since the 1003-REC is identical to Model F6203G except for Model name, C6000 contains same body material, hydraulic oil as model F6203G but less hydraulic oil than model F6203G.

TEST RECORD SUMMARY:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the standards noted below and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Standard	Title	Edition or Publication Date	Revision Date
ANSI/UL 10C	Positive Pressure of Fire Tests of Door Assemblies	Third	June 9, 2016
ANSI/UL 10B	Fire Tests of Door Assemblies	Tenth	February 16, 2015

Based on the test results, the door closers were found to be suitable for use on the pair/single swinging-type fire door assembly up to 3 hour locations. The UL Follow-Up Service Procedure File R25111 Volume 1, Section 11 will be revised, accordingly.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC or any authorized licensee of UL.

INDEX OF ILLUSTRATIONS:

Description	Reference
Data Supplement	DS1
Exposed Surface of the Test Assembly, Pre-Test	I-1
Unexposed Surface of the Test Assembly, Pre-Test	I-2
Furnace Temperature Graph	I-3
Furnace Pressure Graph	I-4
Exposed Surface of Test Assembly, Post-Fire, Pre-Hose Stream Test	I-5
Unexposed Surface of Test Assembly, Post-Fire, Pre-Hose Stream Test	I-6
Exposed Surface of the Test Assembly, Post Hose Stream Test	I-7
Unexposed Surface of the Test Assembly, Post Hose Stream Test	I-8

Test Record by:

Wilson Wang
Senior Project Engineer

Reviewed by:

Matthew Schumann
Engineering Leader

CONCLUSION:

A sample of the products covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample investigated by UL and does not signify the product described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the UL Listing Mark on such products, which comply with UL's Follow-Up Service Procedure and any other application requirements of UL. The Listing Mark of UL on the product, or the UL symbol on the product and the Listing Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Listing and Follow-Up Service.

This Report is intended solely for the use of UL and the Applicant for establishment of UL certification coverage of the product under UL's Follow-Up Service. Any use of the Report other than to indicate that the sample of the product covered by the Report has been found to comply with UL's applicable requirements is not authorized and renders the Report null and void. UL shall not incur any obligation or liability for any loss, expense, or punitive damages, arising out of or in connection with the use or reliance upon the contents of this Report to anyone other than the Applicant as provided in the agreement between UL and Applicant. Any use or reference to UL's name or certification mark by anyone other than the Applicant in accordance with the agreement is prohibited without the express written approval of UL. Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by:
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