



175057-1 Stress Relief/ 41802/ 3-520132-2

1. INTRODUCTION

1.1 Purpose

This is a product qualification test. The purpose of this test is to evaluate the performance of current cycling. Testing was performed on below products to determine its compliance with the requirements.

1.2 Scope

This report covers the electrical performance of the 175057-1 stress relief; 41802; 3-520132-2 current cycling report. Testing was performed at TE Connectivity Shanghai Electrical Test Laboratory (Building ID 554) between 2024-04-12 and 2024-06-07. The associated test number is TP-24-03531.

1.3 Conclusion

The items listed in Clause 1.5 conformed to performance requirements of criteria described in Clause 2 with exceptions as noted in the test files.

The testing results are only responsible for the specimens tested.

1.4 Test Specimens

Specimens with the following part numbers were used for test:

Table with 7 columns: Test Group, Set Group Name, Category, Part No., Part Rev., Description, Qty. (pcs). It lists six test specimens for Test Group 1, including details on set group names, categories (Terminal/Others), part numbers, revisions, descriptions, and quantities.

1.5 Test Sequence

Test or Examination	Test Group (a)
	1
Current Cycling	Test Sequence (b)
	1

Note: a). Test group defined per customer requirement.

b). Numbers indicate sequence in which tests are performed.

1.6 Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

Temperature: 15 °C to 35 °C

Relative Humidity: 25% to 75%

2. SUMMARY OF TESTING

Test Group	SN (c)	Set Group Name	Test Item	Qty. (pcs)	Test Result				Requirement	Conclusion
					Max.	Min.	Avg.	Unit		
1	1	SG1_41802 Customer's relay Tab_1P_test (24 <sup>th</sup> cycle)	Current Cycling	12	64.5	48.1	56.6	°C	85 °C Max.	Meet Spec.
		SG1_41802 Customer's relay Tab_1P_test (500 <sup>th</sup> cycle)	Current Cycling	12	65.3	47.4	57.7	°C	85 °C Max.	Meet Spec.
		SG1_41802 Customer's relay Tab_1P_test (500 <sup>th</sup> Cycle-24 <sup>th</sup> Cycle)	Current Cycling	12	3.2	-2.7	1.1	°C	15 °C Max.	Meet Spec.
		SG3_175057-1 (Stress relief), Customer's relay Tab_1P_test (24 <sup>th</sup> cycle)	Current Cycling	12	89.4	42.0	62.9	°C	85 °C Max.	Not Meet Spec.
		SG3_175057-1 (Stress relief), Customer's relay Tab_1P_test (500 <sup>th</sup> cycle)	Current Cycling	12	97.1	41.7	66.9	°C	85 °C Max.	Not Meet Spec.
		SG3_175057-1 (Stress relief), Customer's relay Tab_1P_test (500 <sup>th</sup> Cycle-24 <sup>th</sup> Cycle)	Current Cycling	12	12.1	-0.6	4.0	°C	15 °C Max.	Meet Spec.
		SG4_3-520132-2, Customer's relay Tab_1P_test (24 <sup>th</sup> cycle)	Current Cycling	12	73.5	45.6	60.6	°C	85 °C Max.	Meet Spec.
		SG4_3-520132-2, Customer's relay Tab_1P_test (500 <sup>th</sup> cycle)	Current Cycling	12	76.9	45.5	61.4	°C	85 °C Max.	Meet Spec.
		SG4_3-520132-2, Customer's relay Tab_1P_test (500 <sup>th</sup> Cycle-24 <sup>th</sup> Cycle)	Current Cycling	12	10.3	-3.7	0.8	°C	15 °C Max.	Meet Spec.

Note: c). SN indicates Sequence Number.

### 3. TEST METHODS


No.	Test Item	Test Procedure	Test Standard
3.1	Current Cycling	The specimen sets shall complete 500 continuous cycles of current-on and current-off operations, each cycle of operation shall consist of 45 min on and 15min off. Test Current: 30 A.	UL 310 The Ninth Edition-2019

### 4. VALIDATION


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