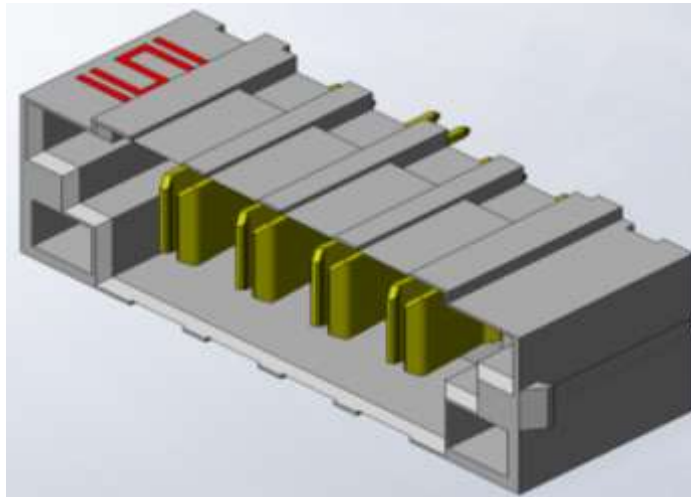
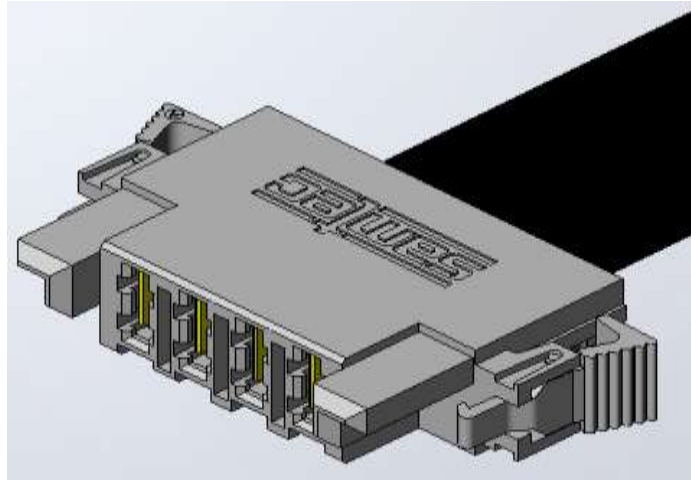




Project Number: Power Test Report		Tracking Code: 111667_ Power Test Report_REV_1 .doc	
Requested by: Neal Patterson		Date: 10/21/2013	Product Rev: 0
Part #: PESS-08-12-L-12.00-DR-NUS-R / PET-08-01-L-VT PESS-08-10-L-12.00-DR-NUS-R / PET-08-01-L-VT PESS-08-12-T-12.00-DR-NUS-R / PET-08-01-T-VT PESS-08-10-T-12.00-DR-NUS-R / PET-08-01-T-VT		Lot #: N/A	Tech: David Lieber Eng: Eric Ming
Part description: PESS\PET			Qty to test: 30
Test Start: 11/20/2010	Test Completed: 12/30/2010		



Power Test Report

PESS\PET

PESS-08-12-L-12.00-DR-NUS-R / PET-08-01-L-VT

PESS-08-10-L-12.00-DR-NUS-R / PET-08-01-L-VT

PESS-08-12-T-12.00-DR-NUS-R / PET-08-01-T-VT

PESS-08-10-T-12.00-DR-NUS-R / PET-08-01-T-VT

CERTIFICATION

All instruments and measuring equipment were calibrated to National Institute for Standards and Technology (NIST) traceable standards according to ISO 10012-1 and ANSI/NCSL 2540-1, as applicable.

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SCOPE

1. Temperature Rise/Current Carrying Capacity
 - 1.1. To determine the amount of current the device under test (DUT) can safely carry over the operating temperature range of the DUT.
 - 1.2. Contact loading will also be addressed in this document which will determine how much current can be carried as the number of energized contacts is varied.
2. Current Cycling
 - 2.1. To determine the performance of the device under test (DUT) when subjected to the power-on/power-off cycling that heats and cools the DUT in normal everyday use.
 - 2.2. Contact loading will set to 100% throughout the test.

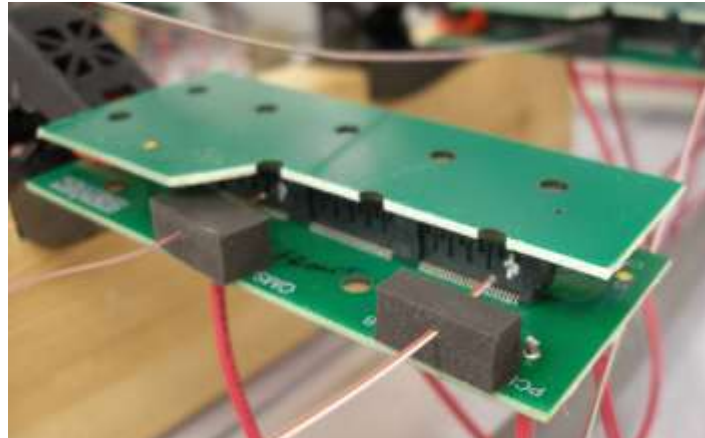
APPLICABLE DOCUMENTS

Standards: EIA Publication 364-70 Temperature Rise
EIA Publication 364-06 Contact Resistance
EIA Publication 364-55 Current Cycling
TLPM-032 Current Carrying Capacity
TLPM-084 Current Cycling
IEC 512-3 Electromechanical Components for Electronic Equipment: Basic Testing Procedures and Measuring Methods, Part 3: Current Carrying Capacity Tests

TEST SAMPLES AND PREPARATION

1. All materials shall be manufactured in accordance with the applicable product specification.
2. All test samples shall be identified and encoded to maintain traceability throughout the test sequences.
3. After soldering, the parts to be used shall be cleaned according to TLWI-0001.
4. All samples shall be visually inspected and cleaned as necessary.
5. Any additional preparation shall be noted in the individual test sequences.
6. Solder Information: Lead Free
7. Re-Flow Time/Temp: See accompanying profile.
8. All products designed to operate mounted on a printed circuits board shall be tested mounted to test boards in accordance with EIA-364-70.

PREPARED TEST SAMPLE

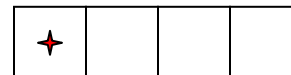


9. The following loading configurations shall be tested for Temperature Rise/Current Carrying Capacity testing of single row connector systems:
- 9.1. One contact energized only
 - 9.2. Two contacts energized adjacent to each other
 - 9.3. Three contacts energized adjacent to each other
 - 9.4. Four contacts energized adjacent to each other
 - 9.5. All contacts energized

✦ Indicates energized contacts

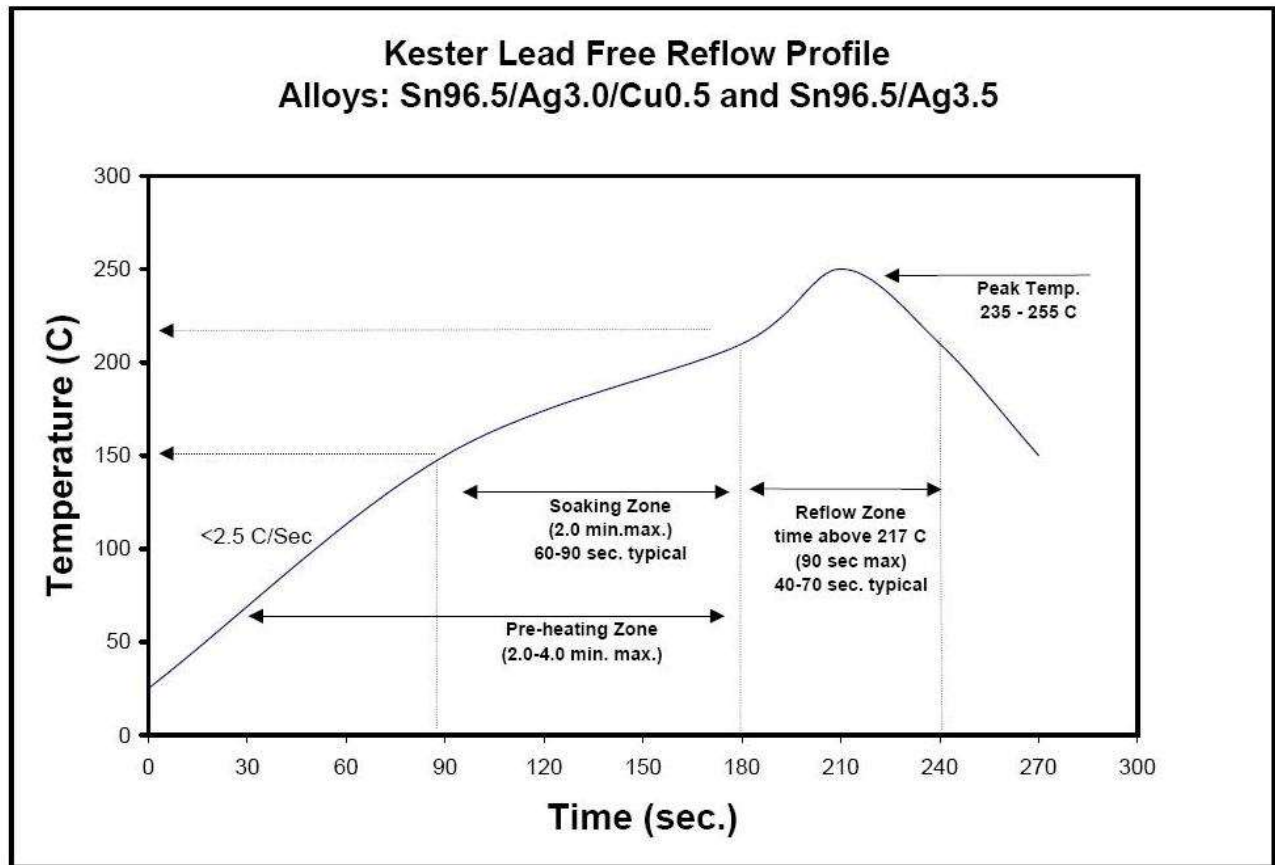
✦ Indicates thermocouple monitored, energized contacts

Test Condition as in 9.1 above



10. For Current Cycling, only 100 % loading will be tested.

OVEN PROFILE (Soldering Parts to Test Boards)





POWER INTEGRITY TEST REPORT

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FLOWCHARTS

Current Carrying Capacity - Single Row

TEST STEP	GROUP A1 3 Mated Assemblies 1 Contact Powered	GROUP A2 3 Mated Assemblies 2 Contacts Powered	GROUP A3 3 Mated Assemblies 3 Contacts Powered
01	CCC	CCC	CCC
TEST STEP	GROUP A4 3 Mated Assemblies 4 Contacts Powered	GROUP A5 3 Mated Assemblies All Contacts Powered	
01	CCC	CCC	

(TIN PLATING) - Tabulate calculated current at RT, 65°C, 75°C and 95°C

after derating 20% and based on 105°C

(GOLD PLATING) - Tabulate calculated current at RT, 85°C, 95°C and 115°C

after derating 20% and based on 125°C

CCC, Temp rise = EIA-364-70

Current Cycling

TEST STEP	GROUP A1 8 Mated Assemblies
01	Current Cycle, 500 cycles

Current Cycle = EIA 364-55, Condition "B", Method #4

Test at Current Listed

Each cycle is 60 minutes

ON time is 45 minutes

OFF time is 15 minutes

Measure at 40 minutes into 45 minute ON time

ON current is 125% of the rated current

TEST PROCEDURES

TEMPERATURE RISE (Current Carrying Capacity, CCC):

11. Thermocouples shall be calibrated in accordance with Samtec documents; TLWI 0003, Thermocouple Welding Procedure and TLWI 0005, Thermocouple Calibration
12. The thermocouples shall be placed at a location to sense the maximum temperature generated during testing.
13. Temperature stability shall be defined as the temperature at which three successive readings, 5 minutes apart, differ not more than 1° C (computer controlled data acquisition). This is the Temperature Rise that the Current Carrying Capacity and De-rating curves are based on.
14. The following loading configurations shall be tested (double for two row systems):
 - 14.1. One contact energized only
 - 14.2. Two contacts energized adjacent to each other
 - 14.3. Three contacts energized adjacent to each other
 - 14.4. Four contacts energized adjacent to each other
 - 14.5. All contacts energized
15. The following loading configurations shall be tested for Temperature Rise/Current Carrying Capacity testing of two row connector systems:
 - 15.1. Two by One contact energized
 - 15.2. Two by Two contacts energized adjacent to each other
 - 15.3. Two by Three contacts energized adjacent to each other
 - 15.4. Two by Four contacts energized adjacent to each other
 - 15.5. All contacts energized
16. Three samples shall be tested for each of the above configurations for a total of eighteen assemblies.
17. Temperature Rise measurements shall be made at 5 different current levels yielding temperature rises in the 10 to 70°C range.
18. The base curve for the Current Rating chart will be derived from the average (maximum) value of three test specimens in accordance with IEC 512-3, Test 5b.

CURRENT CYCLING

1. Samples shall be prepared and tested as above (paragraph 14.5).
2. Current Cycling shall be performed in accordance with EIA-364-55, Test Condition
3. Testing shall be as follows:
 - 3.1. Test Current: TEST CURRENT(125% of 30°C Rating)
 - 3.2. "ON" Time: 45 Minutes
 - 3.3. "OFF" Time: 15 Minutes
 - 3.4. Number of Cycles: 500
 - 3.5. Measurements: 40 minutes into ON cycle
 - 3.5.1. Temperature
 - 3.5.2. Voltage Drop/Contact Resistance
4. Temperature vs. Number of Cycles and Voltage Drop vs. Number of Cycles shall be measured and recorded.



POWER INTEGRITY TEST REPORT

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INITIAL RELEASE

TEST RESULTS

Test Request #111667 (CCC and Current Cycling)

PESS-08-12-L-12.00-DR-NUS-R / PET-08-01-L-VT

CURRENT CARRYING CAPACITY (CCC) RESULTS

Temperature Rise, CCC at a 20% de-rating

- CCC for a 30°C Temperature Rise -----29.7 A per contact with 1 contacts (1 x 1) powered
- CCC for a 30°C Temperature Rise -----25.7A per contact with 2 contacts (1 x 2) powered
- CCC for a 30°C Temperature Rise -----22.2 A per contact with 3 contacts (1 x 3) powered
- CCC for a 30°C Temperature Rise -----21.6 A per contact with 4 contacts (1 x 4) powered
- CCC for a 30°C Temperature Rise -----19.7 A per contact with All contacts (Cable) powered
- CCC for a 30°C Temperature Rise -----19.7A per contact with All contacts (Mate area) powered

CURRENT CYCLING RESULTS

Test Condition: 500 Cycles, 45 minutes ON and 15 minutes OFF

- Test Current -----24.6 Amps
- Contact Resistances, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial
 - Min ----- 1.99 mOhms
 - Max----- 2.17 mOhms
 - Final
 - Min ----- 2.24 mOhms
 - Max----- 2.41 mOhms
- Temperature Change, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial Temperature Change -----32.41°C
 - Final Temperature Change -----32.95°C

Test Request #112528 (CCC and Current Cycling)

PESS-08-10-L-12.00-DR-NUS-R / PET-08-01-L-VT

CURRENT CARRYING CAPACITY (CCC) RESULTS

Temperature Rise, CCC at a 20% de-rating

- CCC for a 30°C Temperature Rise -----34.5 A per contact with 1 contacts (1 x 1) powered
- CCC for a 30°C Temperature Rise -----28.9 A per contact with 2 contacts (1 x 2) powered
- CCC for a 30°C Temperature Rise -----26.3 A per contact with 3 contacts (1 x 3) powered
- CCC for a 30°C Temperature Rise -----24.3 A per contact with 4 contacts (1 x 4) powered
- CCC for a 30°C Temperature Rise -----23.6 A per contact with All contacts (Cable) powered
- CCC for a 30°C Temperature Rise -----22.6A per contact with All contacts (Mate area) powered

CURRENT CYCLING RESULTS

Test Condition: 500 Cycles, 45 minutes ON and 15 minutes OFF

- Test Current -----28.2 Amps
- Contact Resistances, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial
 - Min ----- 0.71 mOhms
 - Max----- 0.83 mOhms
 - Final
 - Min ----- 0.88 mOhms
 - Max----- 1.02 mOhms
- Temperature Change, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial Temperature Change -----30.1 °C
 - Final Temperature Change -----30.2 °C



POWER INTEGRITY TEST REPORT

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INITIAL RELEASE

TEST RESULTS Continued

Test Request #112526 (Current Cycling Only)

PESS-08-12-T-12.00-DR-NUS-R / PET-08-01-T-VT

CURRENT CYCLING RESULTS

Test Condition: 500 Cycles, 45 minutes ON and 15 minutes OFF

- Test Current -----24.6 Amps
- Contact Resistances, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial
 - Min ----- 1.35 mOhms
 - Max----- 1.52 mOhms
 - Final
 - Min ----- 1.36 mOhms
 - Max----- 1.54 mOhms
- Temperature Change, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial Temperature Change -----23.22 °C
 - Final Temperature Change -----23.75 °C

Test Request #112529 (Current Cycling Only)

PESS-08-10-T-12.00-DR-NUS-R / PET-08-01-T-VT

CURRENT CYCLING RESULTS

Test Condition: 500 Cycles, 45 minutes ON and 15 minutes OFF

- Test Current -----28.2 Amps
- Contact Resistances, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial
 - Min ----- 1.4 mOhms
 - Max----- 1.6 mOhms
 - Final
 - Min ----- 1.41 mOhms
 - Max----- 1.64 mOhms
- Temperature Change, Measured 40 minutes into the FIRST and LAST ON cycle
 - Initial Temperature Change -----29.06 °C
 - Final Temperature Change -----29.39 °C



**POWER INTEGRITY TEST
REPORT**

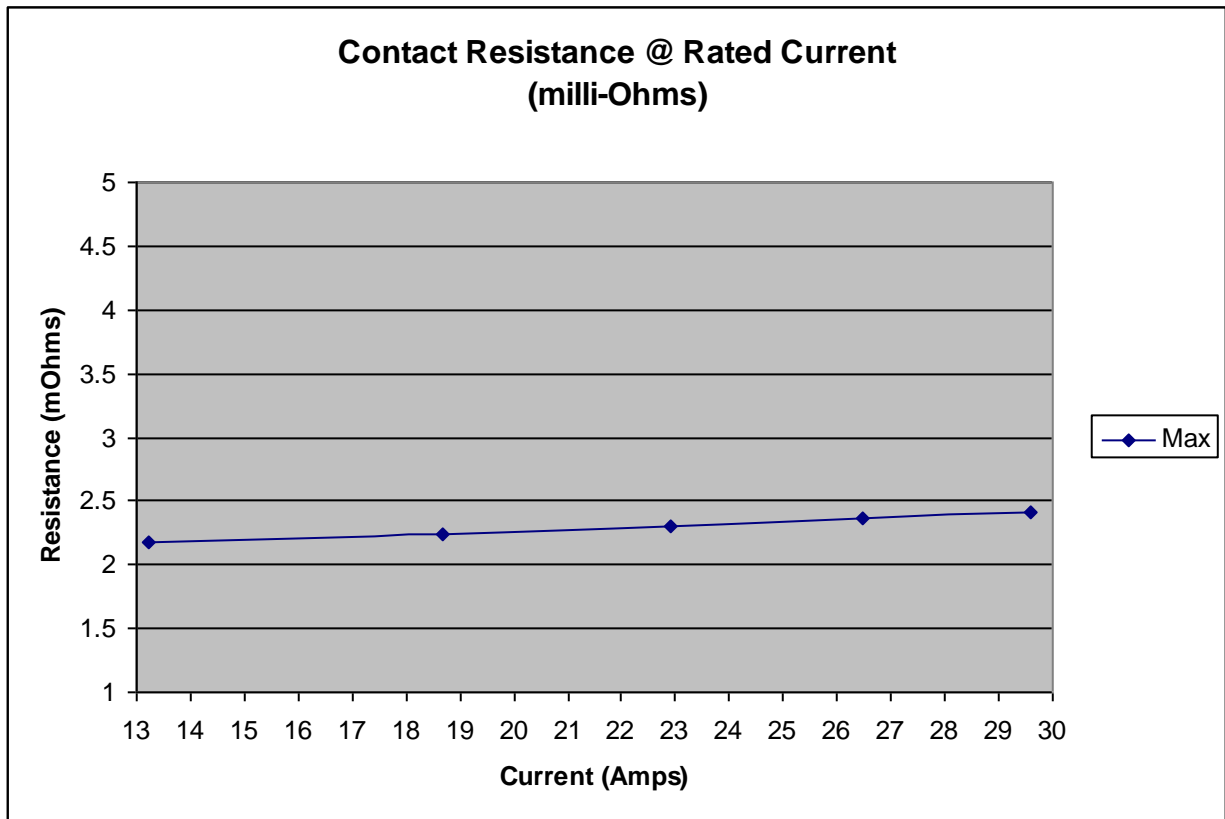
111667_ Power Test
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TEST DATA

Test Request #111667 (CCC and Current Cycling)
PESS-08-12-L-12.00-DR-NUS-R / PET-08-01-L-VT
CONTACT RESISTANCE @ RATED CURRENT - DC Resistance (DCR)

The following data represents the Voltage drop and Contact Resistance at Rated Current for the 100% energized samples:



**CONTACT RESISTANCE DATA
ALL CONTACTS ENERGIZED
(mΩ)**

TEST CURRENT AMPS	13.21	18.68	22.92	26.46	29.58
Min	1.99	2.06	2.12	2.18	2.24
Max	2.17	2.24	2.30	2.36	2.41
Avg	2.05	2.11	2.17	2.23	2.29



POWER INTEGRITY TEST REPORT

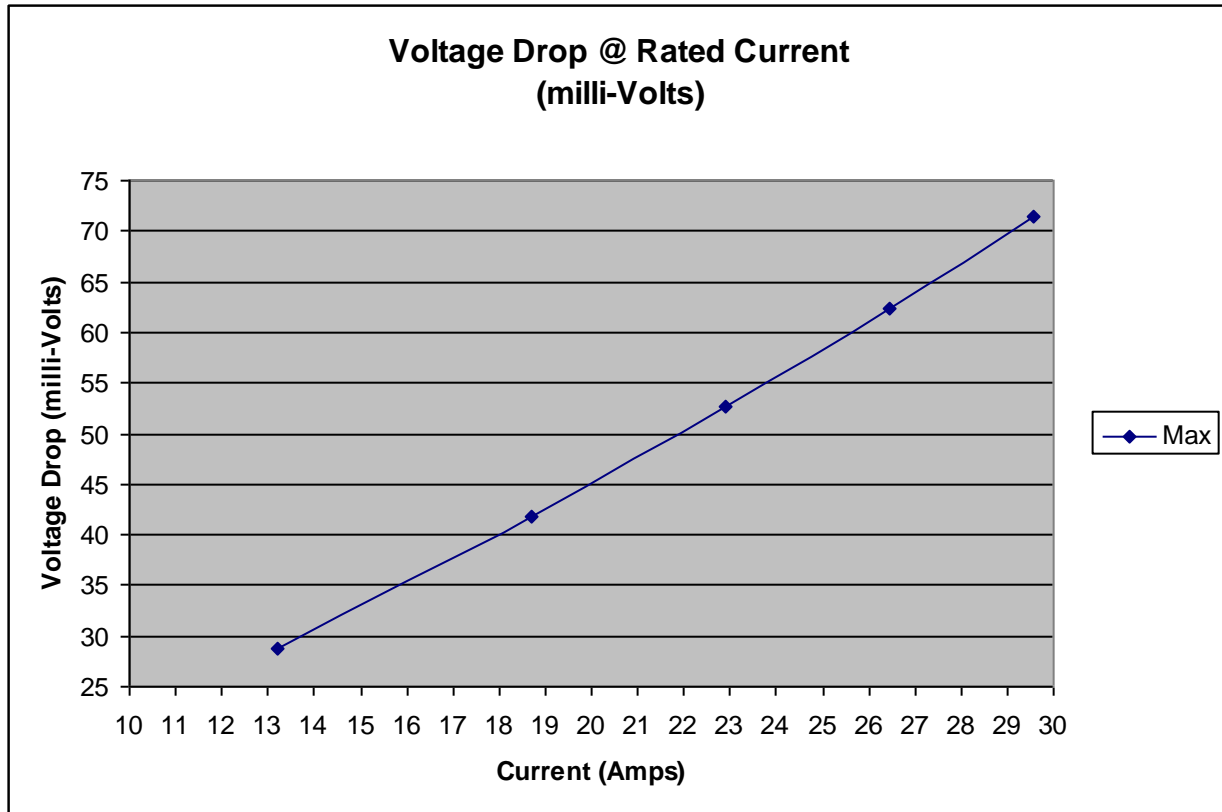
111667_Power Test Report_REV_1.doc

INITIAL RELEASE

TEST DATA

VOLTAGE DROP @ RATED CURRENT

The following data represents the Voltage drop at Rated Current for the 100% energized samples:

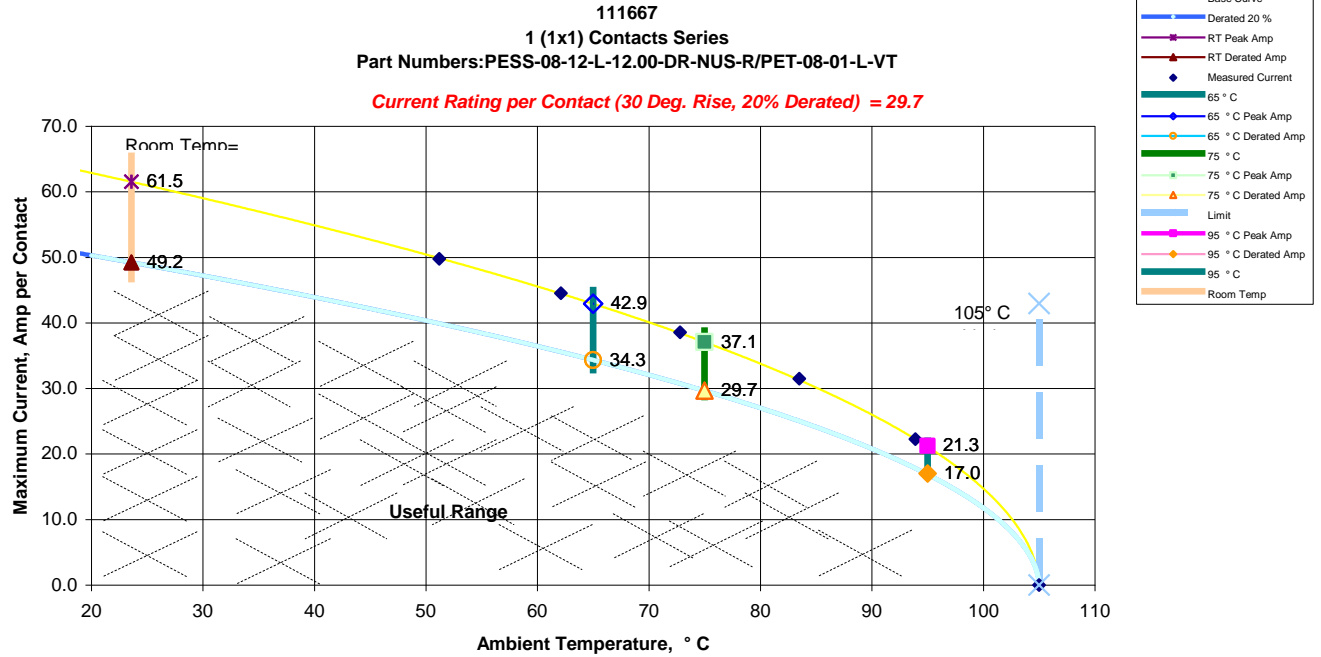


VOLTAGE DROP DATA ALL CONTACTS ENERGIZED (mV)

TEST CURRENT AMPS	13.21	18.68	22.92	26.46	29.58
Min	26.27	38.45	48.58	57.69	66.32
Max	28.67	41.76	52.65	62.36	71.42
Avg	27.28	39.72	50.09	59.38	68.13

TEST DATA

CURRENT CARRYING CAPACITY DATA



TEMPERATURE RISE DATA TWO CONTACT ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	22.25	31.47	38.56	44.5	49.77
Sample 1	10.7	20.4	30.2	40.2	50.4
Sample 2	11.3	22	33.1	44.1	55.2
Sample 3	11.4	22.2	33.3	44.4	55.8
Min	10.7	20.4	30.2	40.2	50.4
Max	11.4	22.2	33.3	44.4	55.8
Avg	11.13	21.53	32.2	42.9	53.8

Single Row Configuration

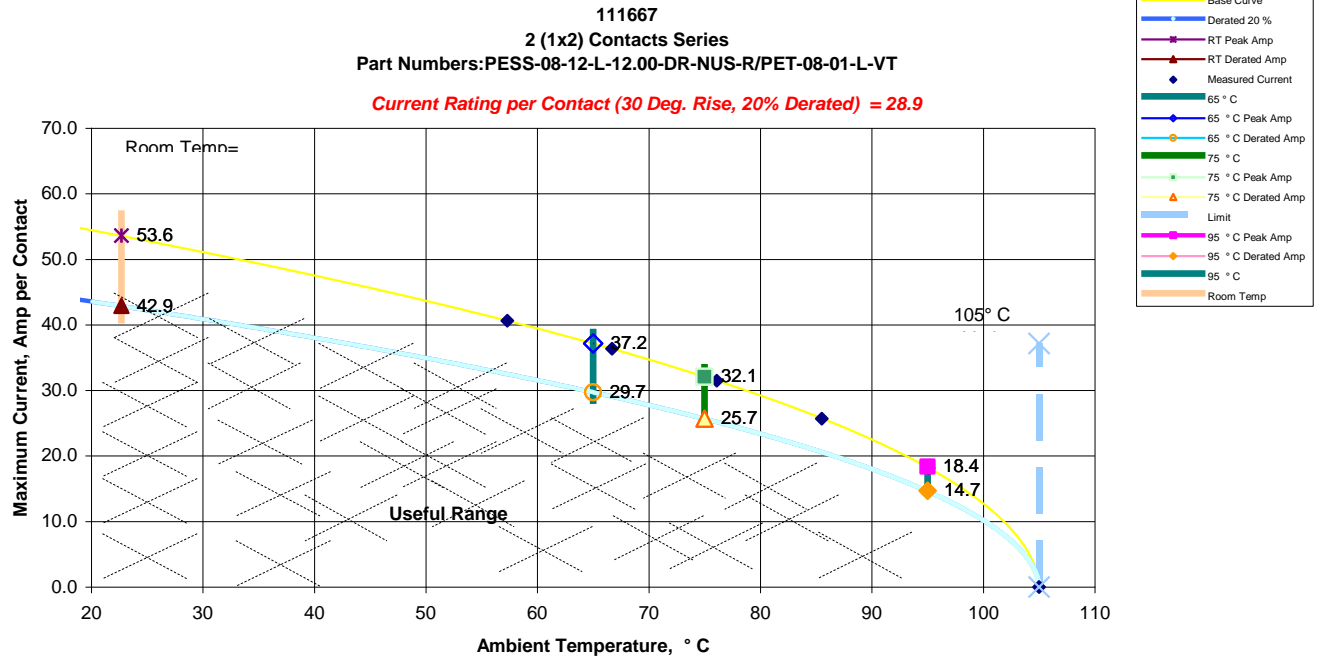
- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts

✦			
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POWER INTEGRITY TEST REPORT

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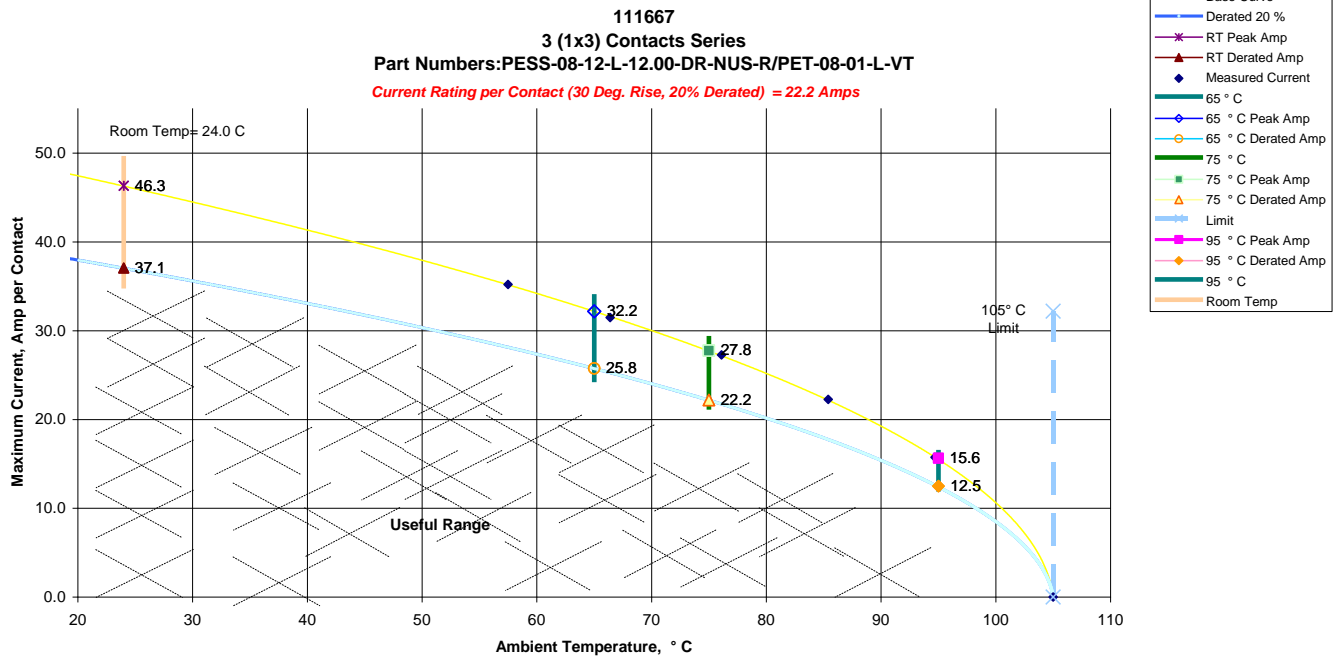
TEMPERATURE RISE DATA FOUR CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	32.6	42.4	52.3	62.1	72
Sample 4	9.4	18.2	26.8	35.4	44.2
Sample 5	10.4	20.6	30.7	40.9	51
Sample 6	10	19.6	29.1	38.6	47.9
Min	9.4	18.2	26.8	35.4	44.2
Max	10.4	20.6	30.7	40.9	51
Avg	9.93	19.47	28.87	38.3	47.7

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts





TEMPERATURE RISE DATA SIX CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	34.3	43.6	53	62.9	72.2
Sample 7	9.9	18.4	26.7	36.8	44.8
Sample 8	10.9	20.9	31.1	40.8	50.4
Sample 9	10.2	19.6	29	38.3	47.4
Min	9.9	18.4	26.7	36.8	44.8
Max	10.9	20.9	31.1	40.8	50.4
Avg	10.33	19.63	28.93	38.63	47.53

Single Row Configuration

✦ Indicates energized contacts

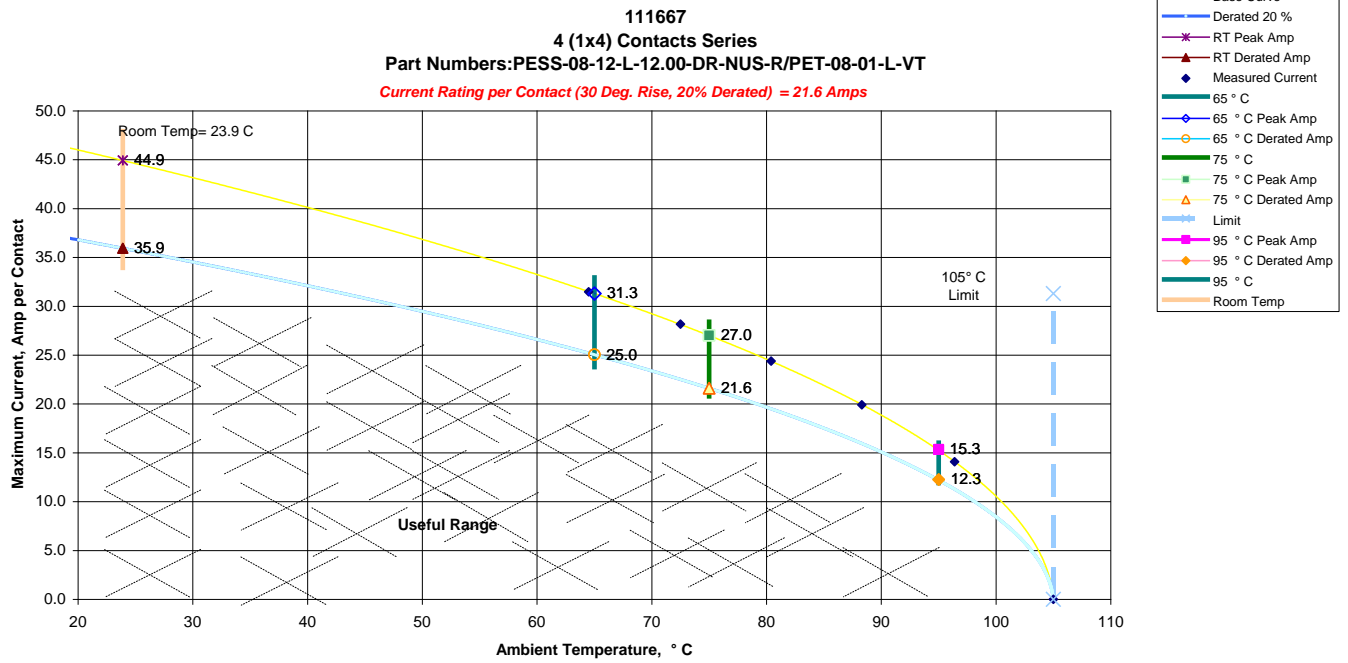
✦ Indicates thermocouple monitored, energized contacts





POWER INTEGRITY TEST REPORT

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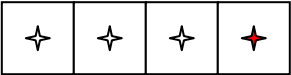


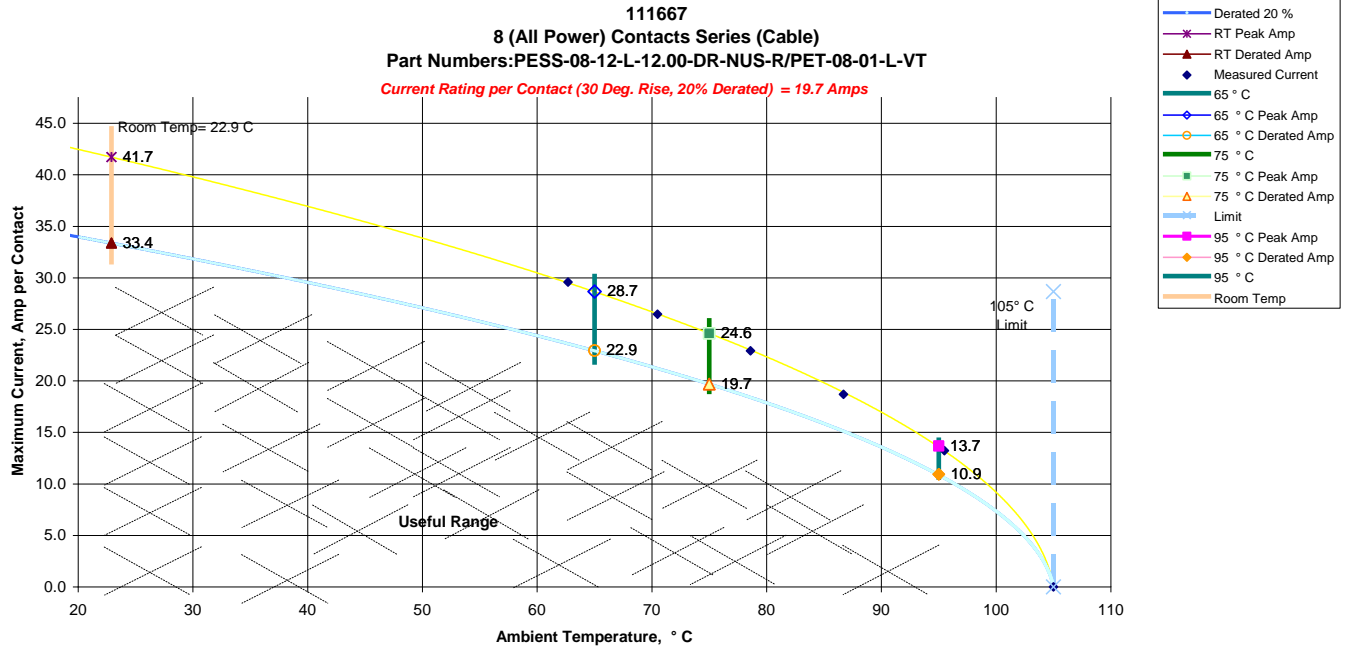
TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	32.5	40.6	48.7	56.8	65
Sample 13	8.6	16.5	24.2	32.1	40.1
Sample 14	8.8	17	25.1	33.2	41.2
Sample 15	8.5	16.5	24.4	32.3	40.3
Min	8.5	16.5	24.2	32.1	40.1
Max	8.8	17	25.1	33.2	41.2
Avg	8.63	16.67	24.57	32.53	40.53

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts



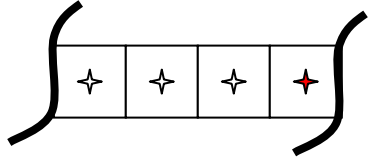


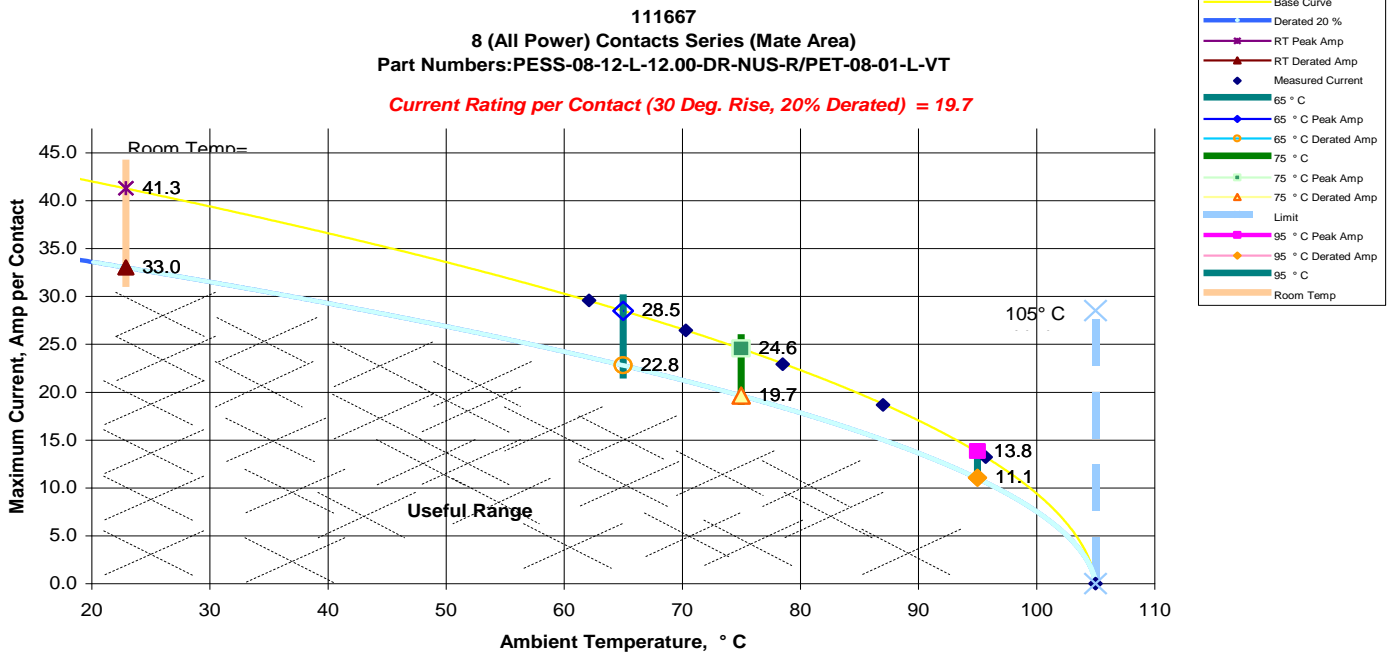
TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	32.4	41.4	49.9	58.4	66.7
Sample 13	9.7	18.7	27	35.2	43.4
Sample 14	9.6	18.4	26.5	34.8	42.7
Sample 15	9.3	17.7	25.8	33.5	40.7
Min	9.3	17.7	25.8	33.5	40.7
Max	9.7	18.7	27	35.2	43.4
Avg	9.53	18.27	26.43	34.5	42.27

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts



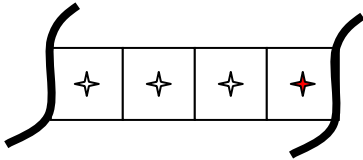


TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	32.2	41.1	50	50	67.3
Sample 13	9.2	18.1	26.6	34.8	43.1
Sample 14	9.1	17.6	25.8	33.9	42
Sample 15	9.5	18.3	27	35.3	43.5
Min	9.1	17.6	25.8	33.9	42
Max	9.5	18.3	27	35.3	43.5
Avg	9.27	18	26.47	34.67	42.87

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts





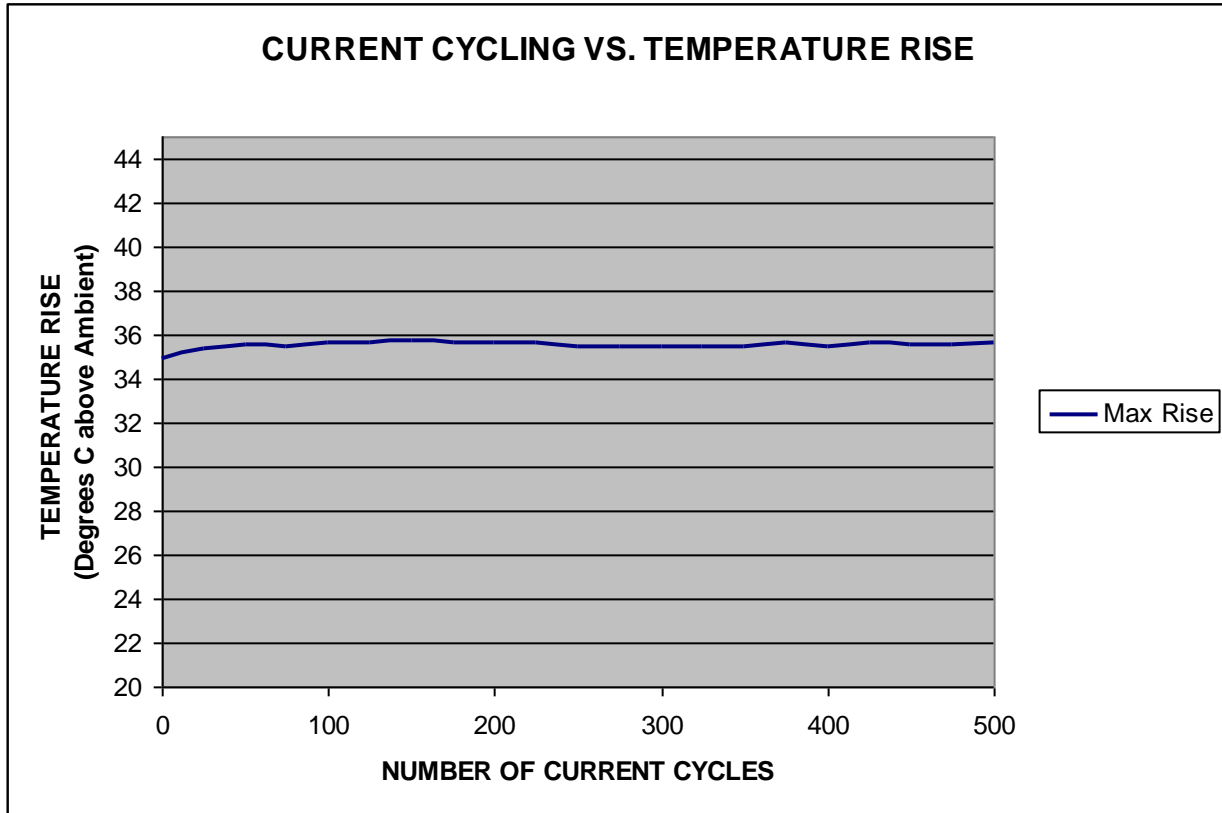
POWER INTEGRITY TEST REPORT

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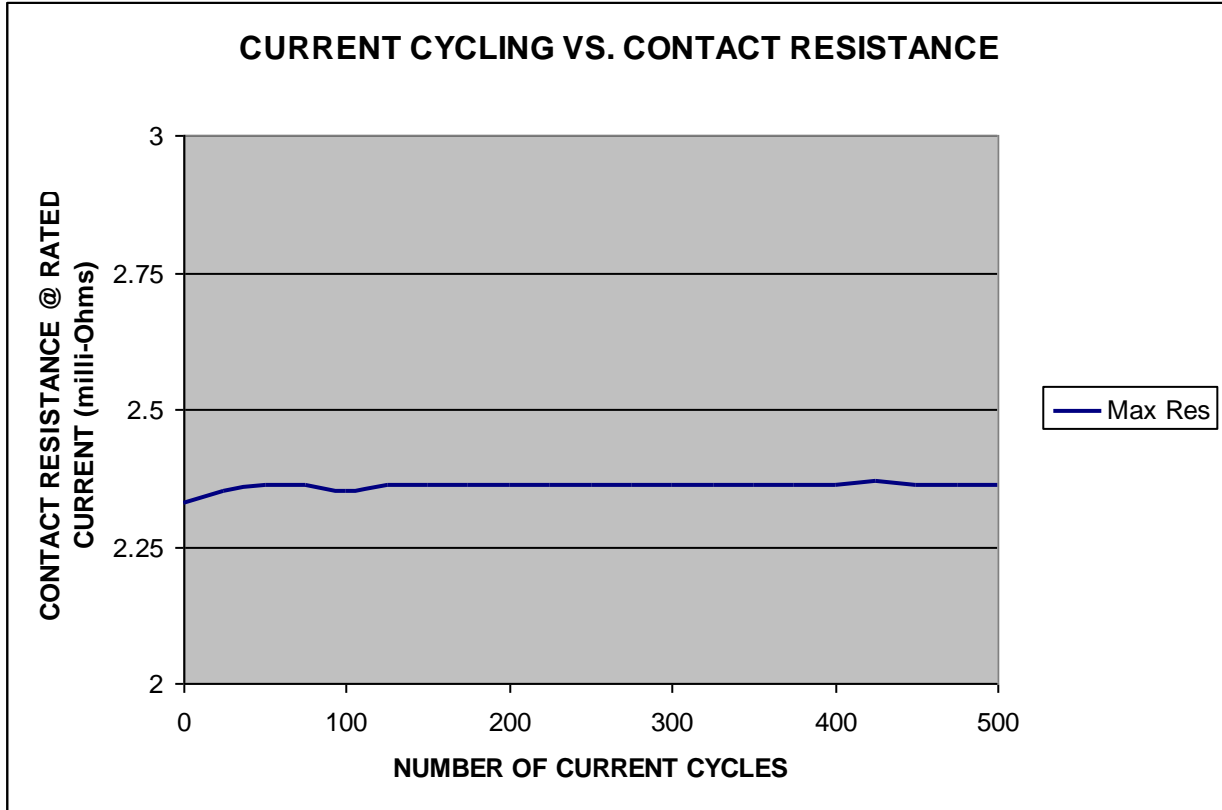
TEST DATA

CURRENT CYCLING DATA:



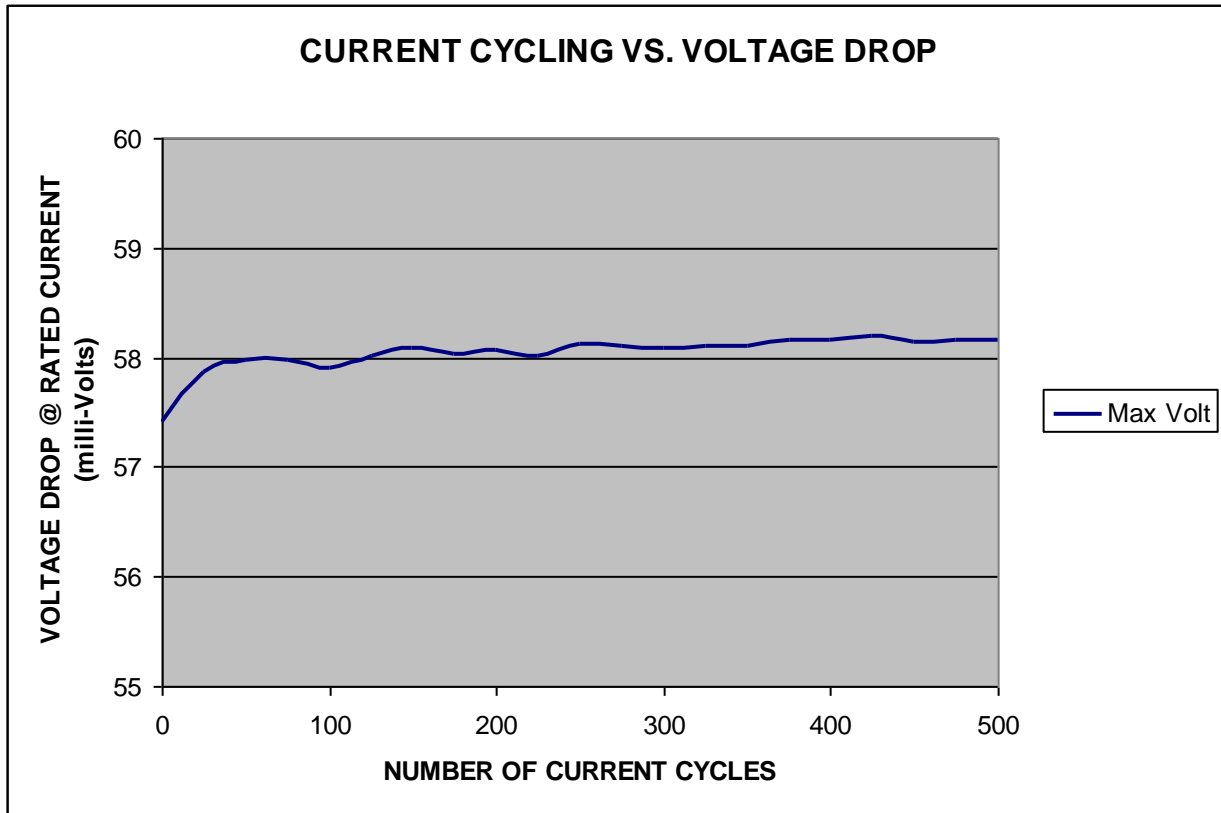
TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	30.4	30.6	30.6	30.6	30.4
Max	34.9	35.5	35.6	35.6	35.6
Avg	32.4	32.8	32.9	32.9	33



**CONTACT RESISTANCE DATA
ALL CONTACTS ENERGIZED
(mΩ)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	2.13	2.15	2.14	2.15	2.15
Max	2.33	2.36	2.35	2.36	2.36
Avg	2.22	2.24	2.23	2.24	2.24



**VOLTAGE DROP DATA
ALL CONTACTS ENERGIZED
(MV)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	52.32	52.79	52.71	52.82	52.81
Max	57.4	57.97	57.91	58.07	58.16
Avg	54.51	55	54.93	55.04	55.05



POWER INTEGRITY TEST REPORT

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INITIAL RELEASE

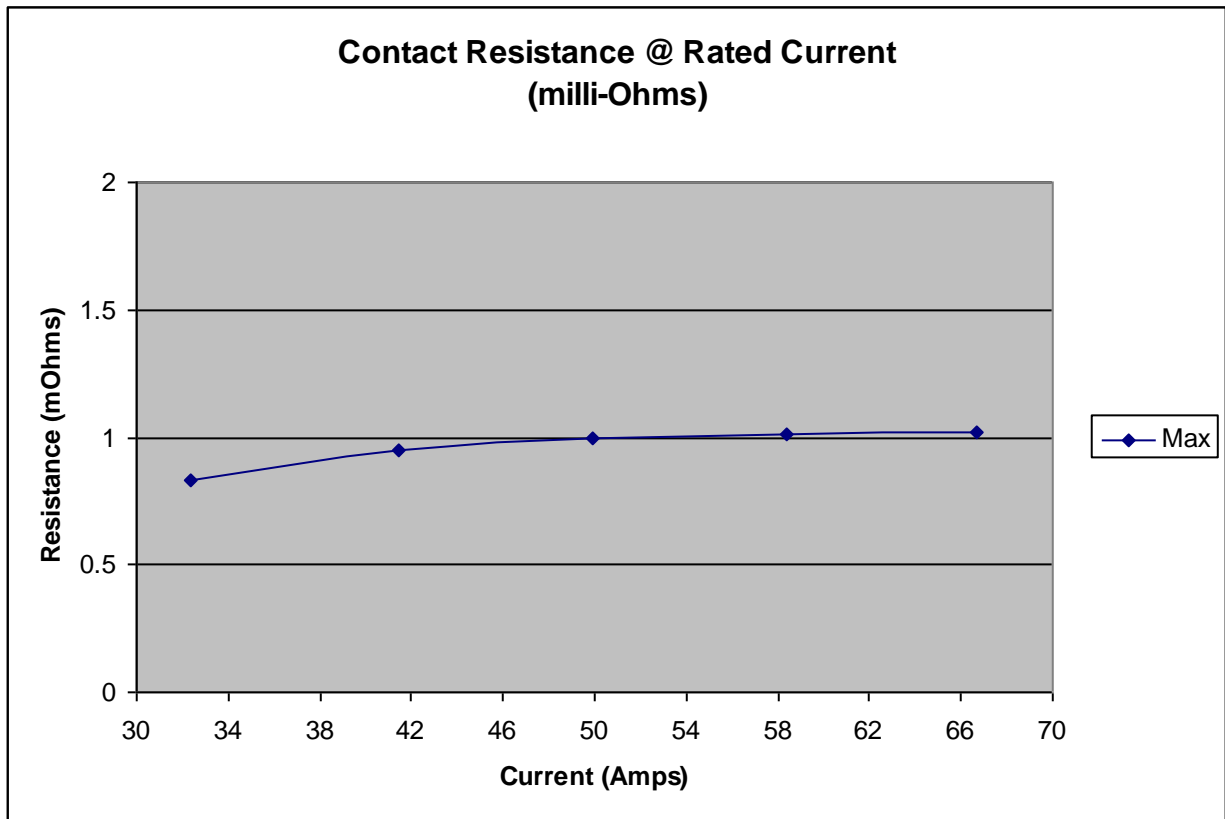
TEST DATA

Test Request #112528 (CCC and Current Cycling)

PESS-08-10- L-12.00-DR-NUS-R / PET-08-01-L-VT

CONTACT RESISTANCE @ RATED CURRENT - DC Resistance (DCR)

The following data represents the Voltage drop and Contact Resistance at Rated Current for the 100% energized samples:



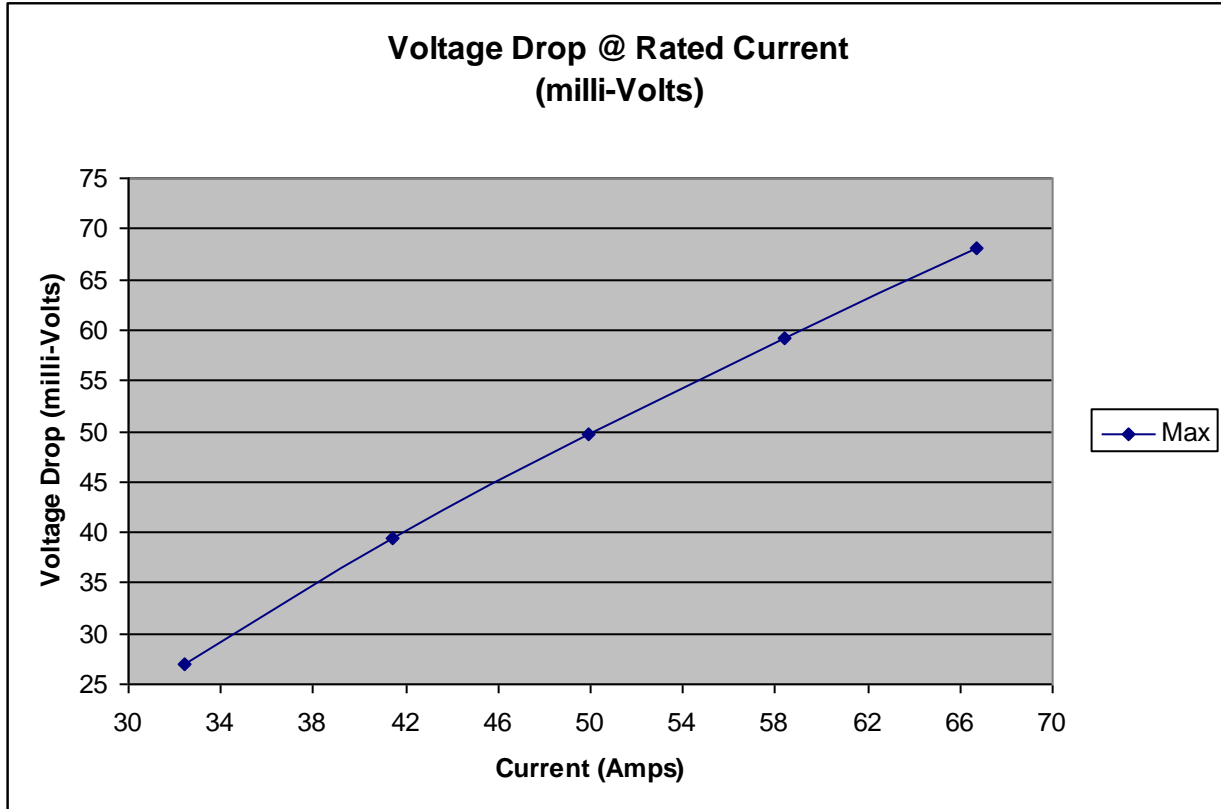
CONTACT RESISTANCE DATA ALL CONTACTS ENERGIZED (mΩ)

TEST CURRENT AMPS	32.4	41.4	49.9	58.4	66.7
Min	0.71	0.82	0.86	0.87	0.88
Max	0.83	0.95	1	1.01	1.02
Avg	0.76	0.87	0.92	0.93	0.94

TEST DATA

VOLTAGE DROP @ RATED CURRENT

The following data represents the Voltage drop at Rated Current for the 100% energized samples:

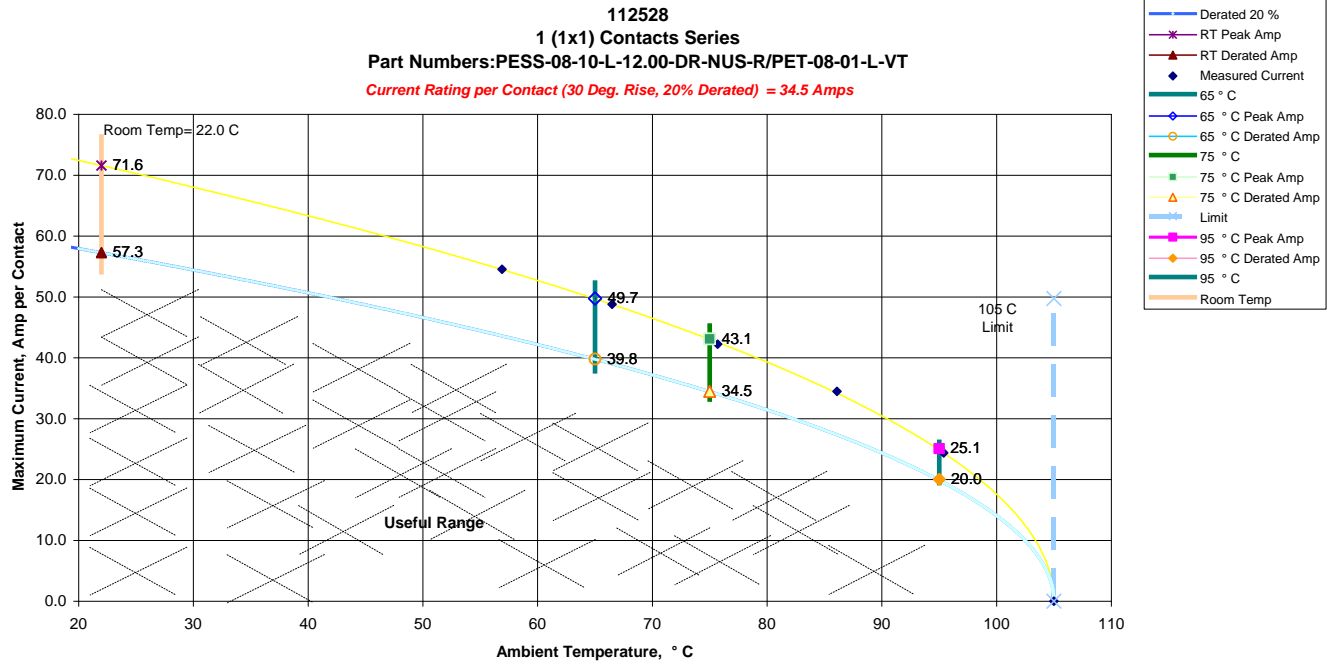


**VOLTAGE DROP DATA
ALL CONTACTS ENERGIZED
(mV)**

TEST CURRENT AMPS	32.4	41.4	49.9	58.4	66.7
Min	23.09	33.78	42.71	50.83	58.61
Max	26.97	39.44	49.72	59.22	68.09
Avg	25.03	36.57	46.23	55.09	63.43

TEST DATA

CURRENT CARRYING CAPACITY DATA

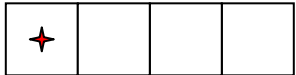


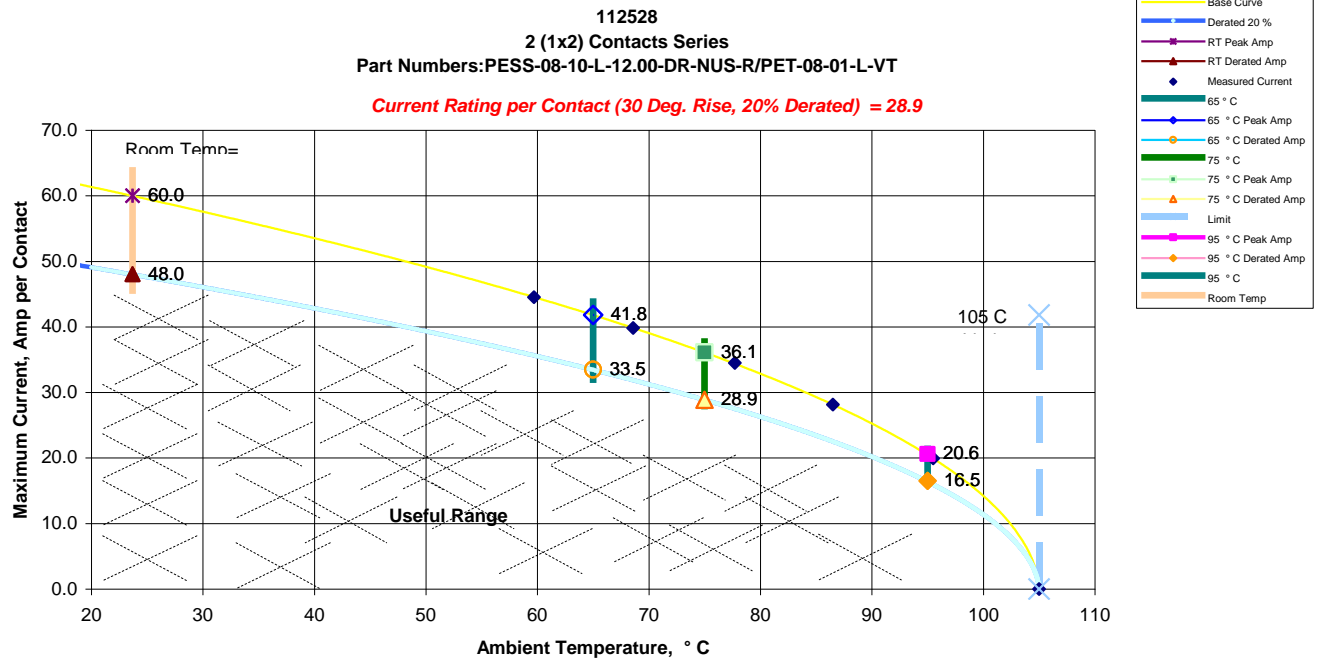
TEMPERATURE RISE DATA TWO CONTACT ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	31.6	41.5	52.7	62.5	72.6
Sample 1	9.2	17.8	29.4	38.6	48
Sample 2	9.8	19.2	29	38	47.3
Sample 3	9.9	19.6	29.4	38.9	48.9
Min	9.2	17.8	29	38	47.3
Max	9.9	19.6	29.4	38.9	48.9
Avg	9.63	18.87	29.27	38.5	48.07

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts

Single Row Configuration





TEMPERATURE RISE DATA FOUR CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	33.2	42.3	51.4	60.8	70.2
Sample 4	9.6	18.6	27.7	36.9	46.2
Sample 5	9.4	18.4	27.1	36.2	44.8
Sample 6	9.5	18.5	27.2	36.1	44.9
Min	9.4	18.4	27.1	36.1	44.8
Max	9.6	18.6	27.7	36.9	46.2
Avg	9.5	18.5	27.33	36.4	45.3

Single Row Configuration

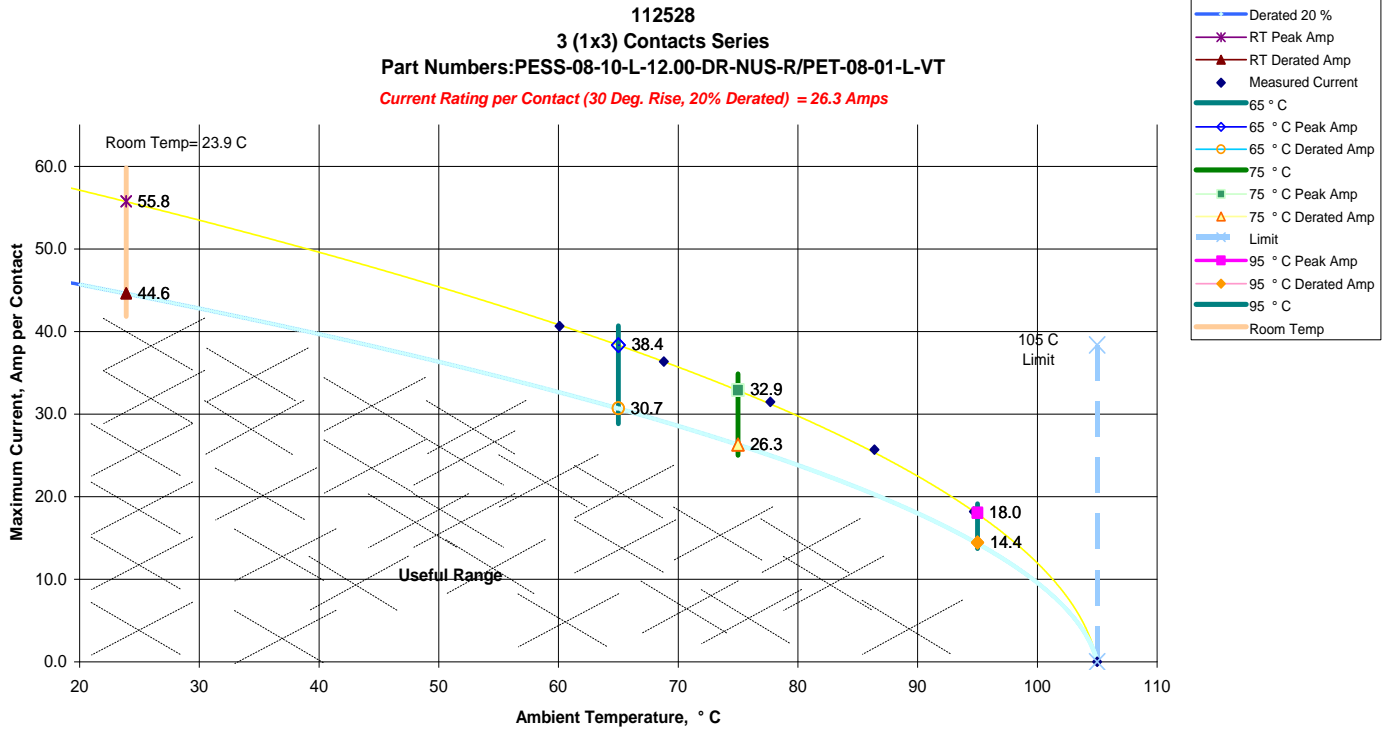
- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts





POWER INTEGRITY TEST REPORT

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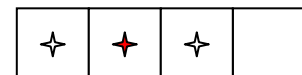


TEMPERATURE RISE DATA SIX CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	34.2	42.6	51.4	60.6	69.5
Sample 7	9.9	18.9	27.8	37.3	46.4
Sample 8	9.9	18.4	27	35.7	44.3
Sample 9	11.2	18.4	27	35.5	44
Min	9.9	18.4	27	35.5	44
Max	11.2	18.9	27.8	37.3	46.4
Avg	10.33	18.57	27.27	36.17	44.9

Single Row Configuration

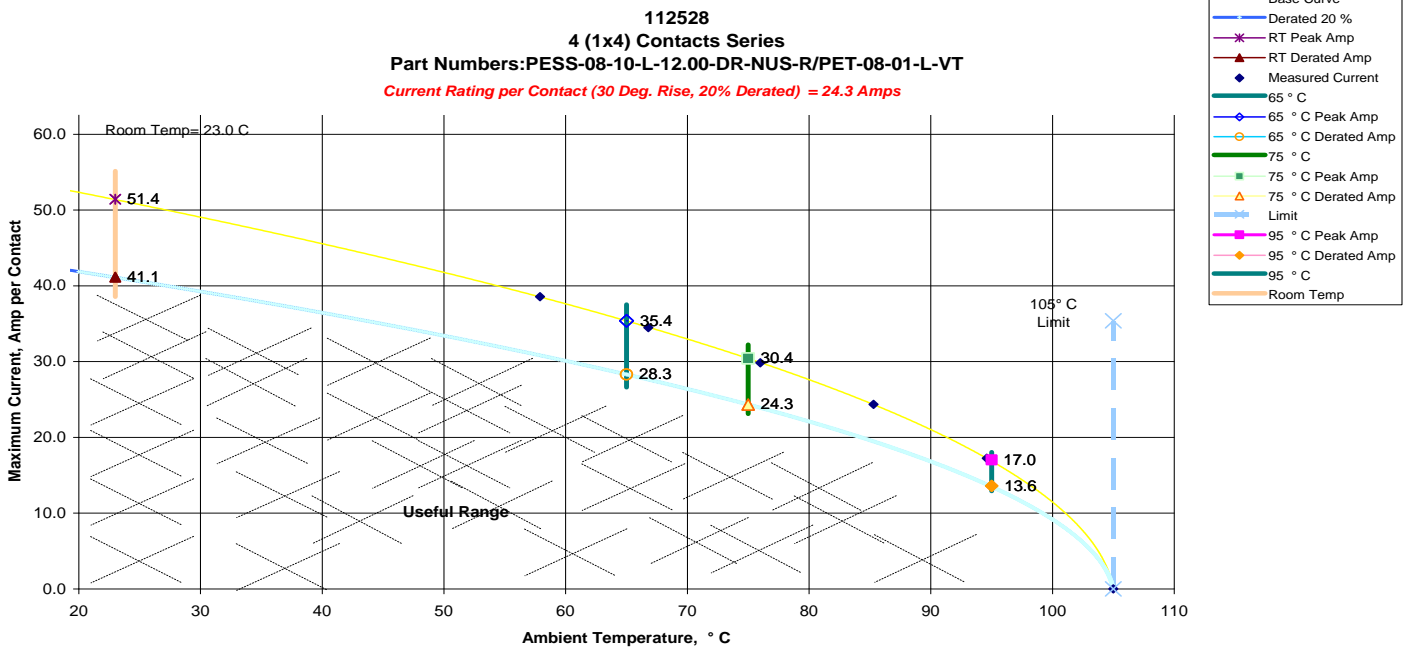
- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts





POWER INTEGRITY TEST REPORT

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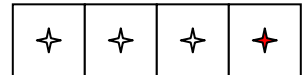


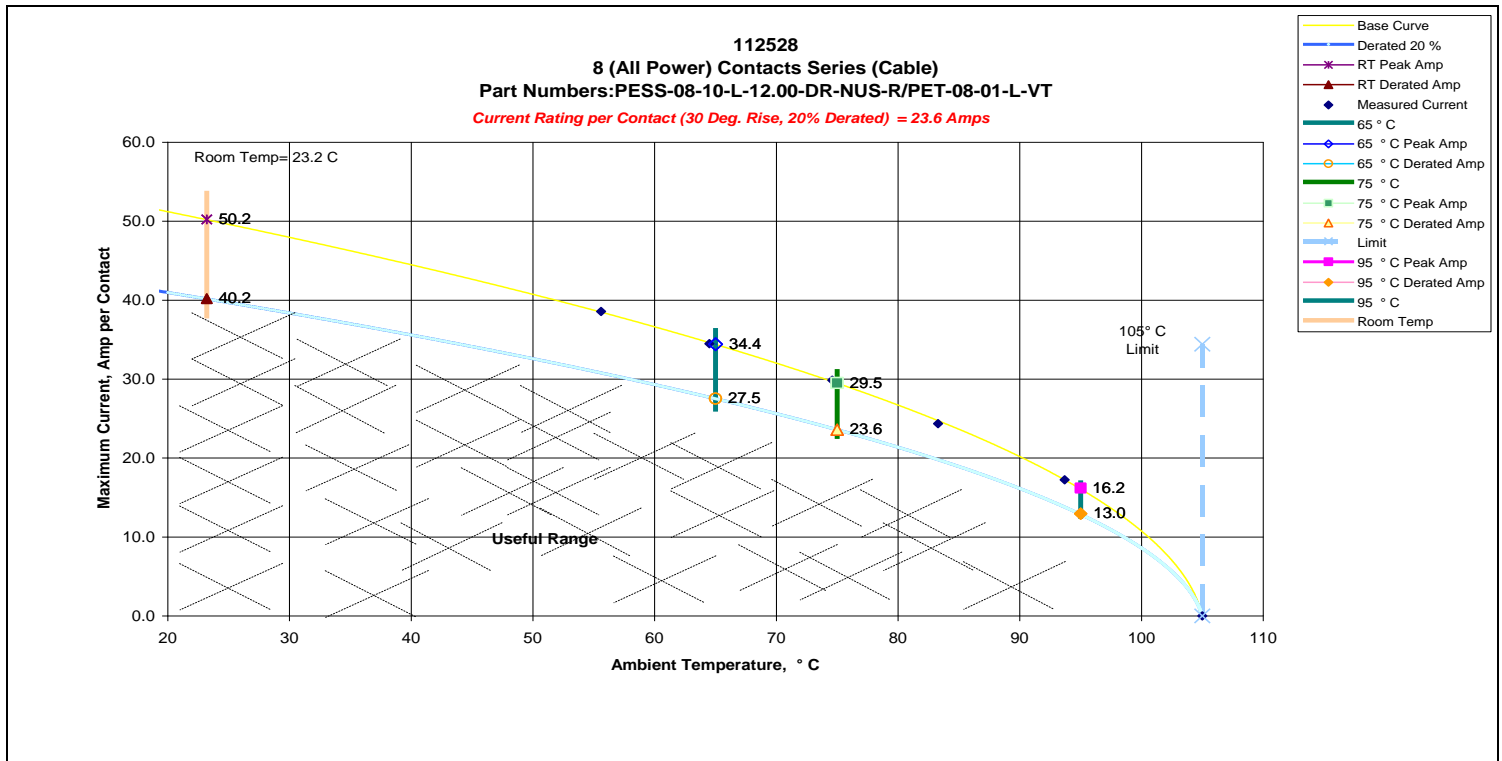
TEMPERATURE RISE DATA EIGHT CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	33.4	43	52.7	62.3	71.8
Sample 10	10.4	19.9	29.6	39.2	48.7
Sample 11	10.5	20	29.6	39.2	48.6
Sample 12	10.2	19.2	27.8	36.1	44
Min	10.2	19.2	27.8	36.1	44
Max	10.5	20	29.6	39.2	48.7
Avg	10.37	19.7	29	38.17	47.1

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts



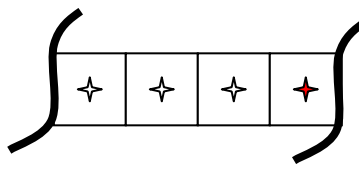


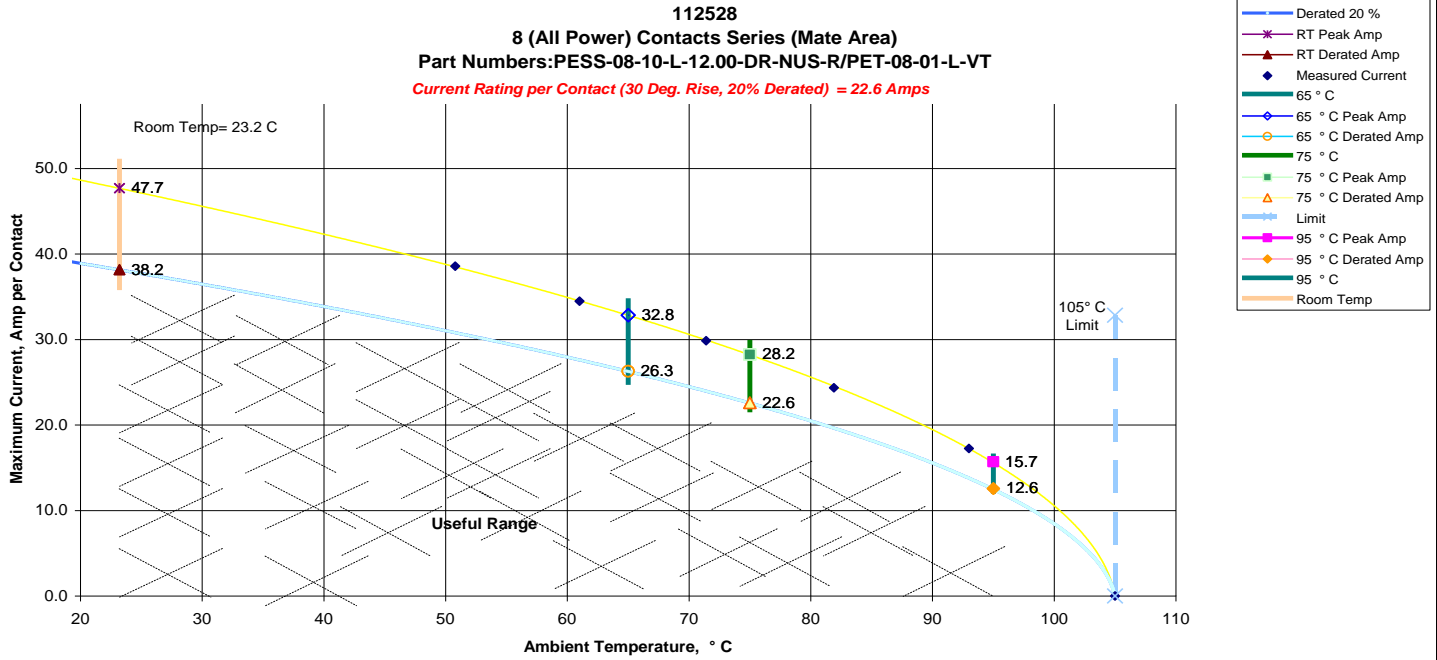
TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	34.5	45.3	54.5	65.3	74.8
Sample 13	11.1	21	29.1	38.7	47.1
Sample 14	11.9	22.9	32.2	42.9	52.6
Sample 15	11	21.3	30	39.9	48.5
Min	11	21	29.1	38.7	47.1
Max	11.9	22.9	32.2	42.9	52.6
Avg	11.33	21.73	30.43	40.5	49.4

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts



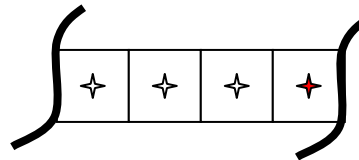


TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

TEST CURRENT AMPS	35.2	46.7	57.7	68.8	79.6
Sample 13	11.5	22.4	32.7	43	53
Sample 14	12.3	23.9	34.7	45.4	56
Sample 15	12.1	23	33.4	43.7	53.5
Min	11.5	22.4	32.7	43	53
Max	12.3	23.9	34.7	45.4	56
Avg	11.97	23.1	33.6	44.03	54.17

Single Row Configuration

- ✦ Indicates energized contacts
- ✦ Indicates thermocouple monitored, energized contacts





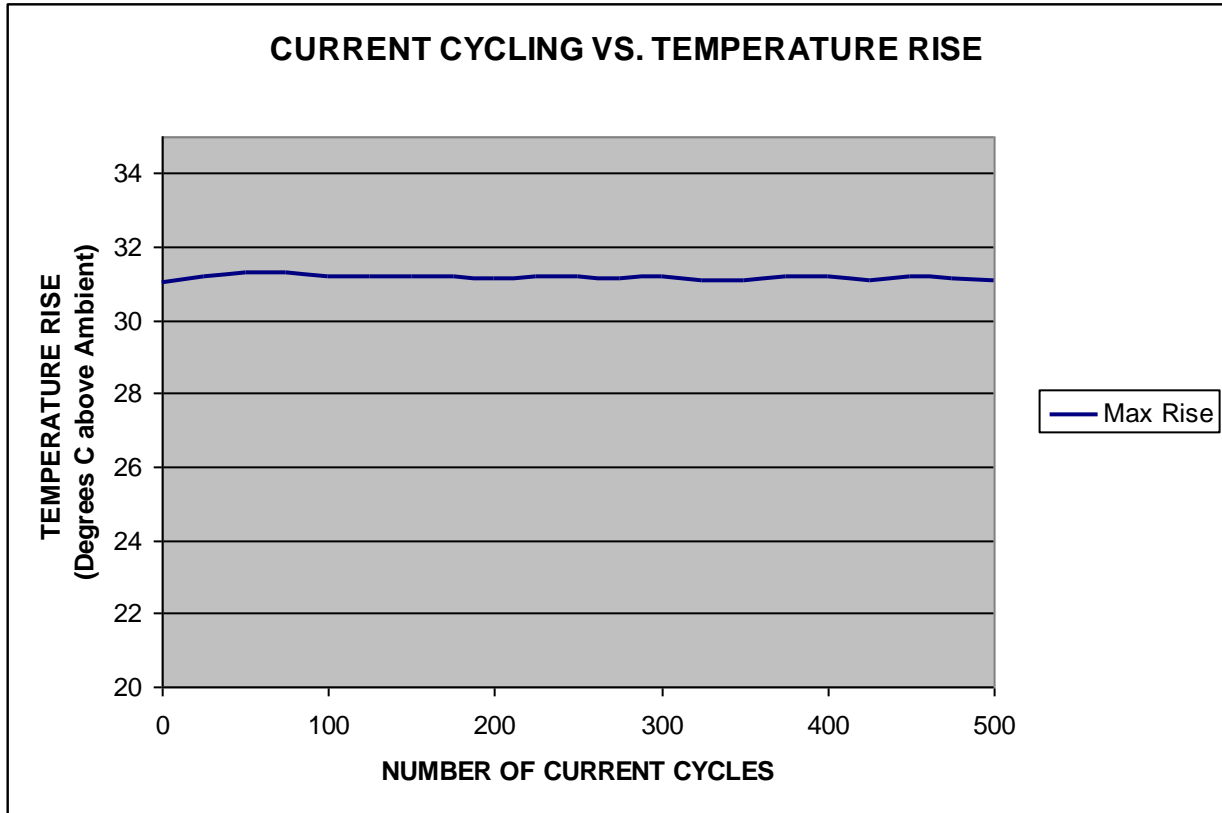
POWER INTEGRITY TEST REPORT

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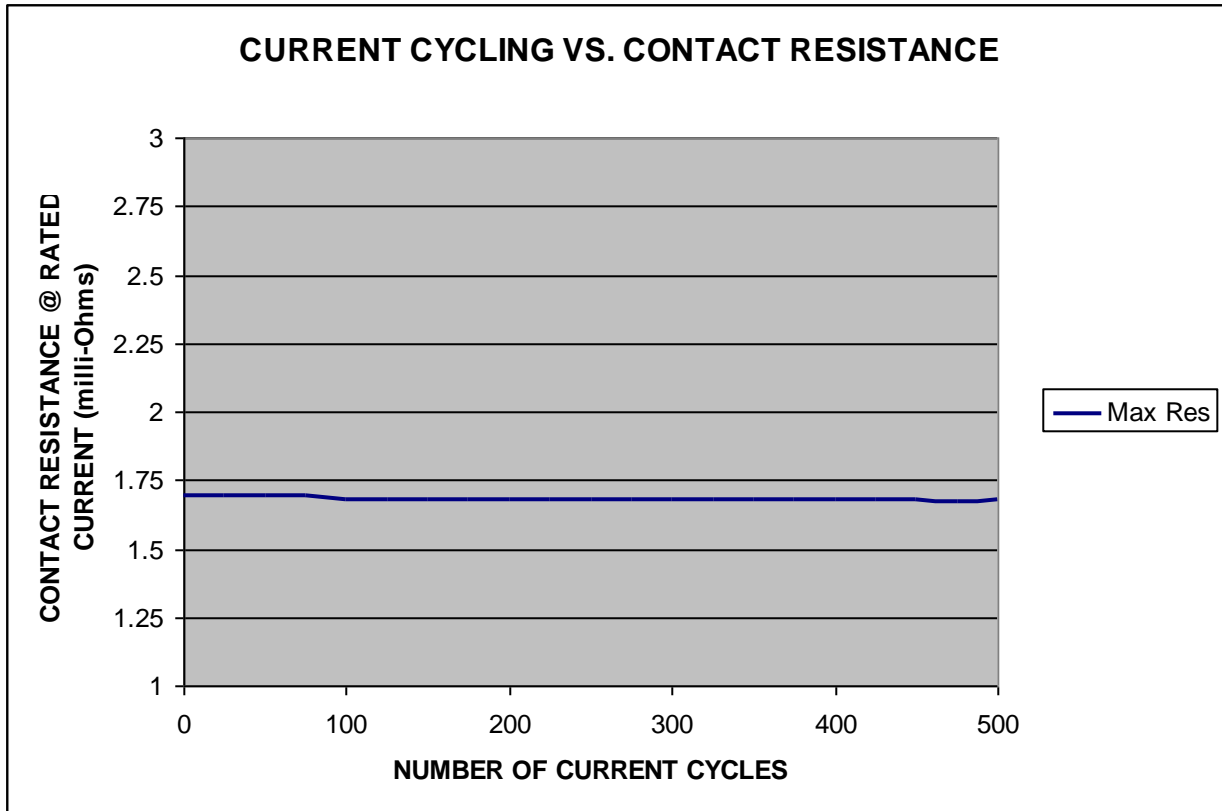
TEST DATA

CURRENT CYCLING:



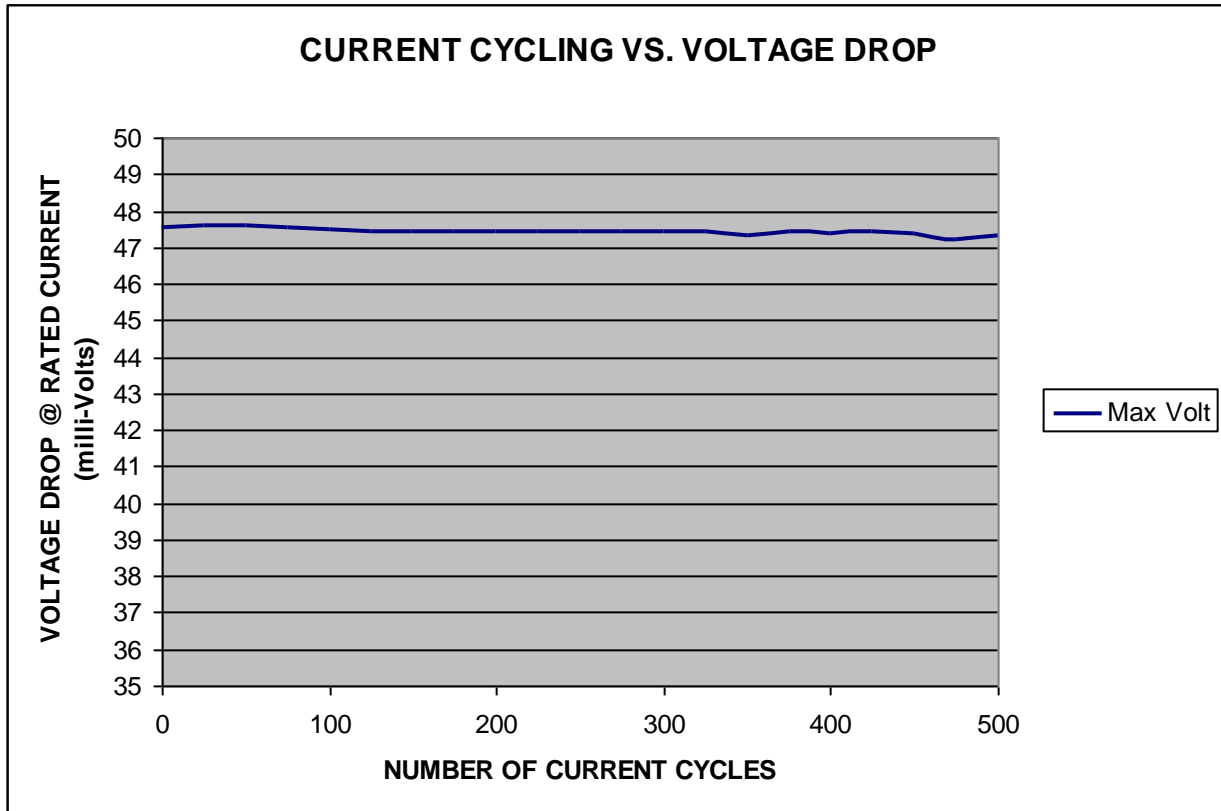
TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	28.6	27.4	27.3	29.2	29.1
Max	31	31.3	31.2	31.1	31.1
Avg	29.8	30	29.8	30.1	30.1



**CONTACT RESISTANCE DATA
ALL CONTACTS ENERGIZED
(mΩ)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	1.44	1.43	1.43	1.43	1.42
Max	1.69	1.69	1.68	1.68	1.68
Avg	1.56	1.56	1.55	1.55	1.55



**VOLTAGE DROP DATA
ALL CONTACTS ENERGIZED
(MV)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	40.57	40.37	40.26	40.2	40.09
Max	47.56	47.57	47.5	47.41	47.32
Avg	43.98	43.97	43.84	43.8	43.72



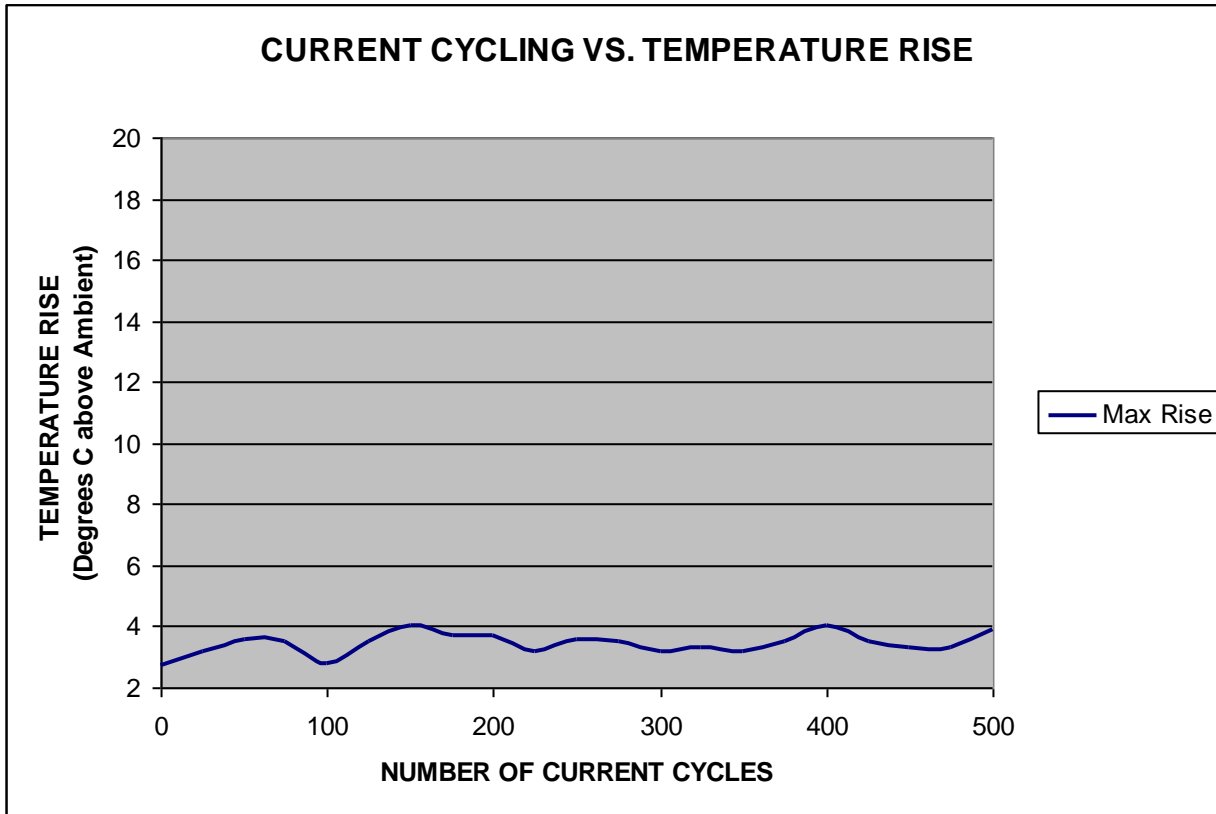
**POWER INTEGRITY TEST
REPORT**

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INITIAL RELEASE

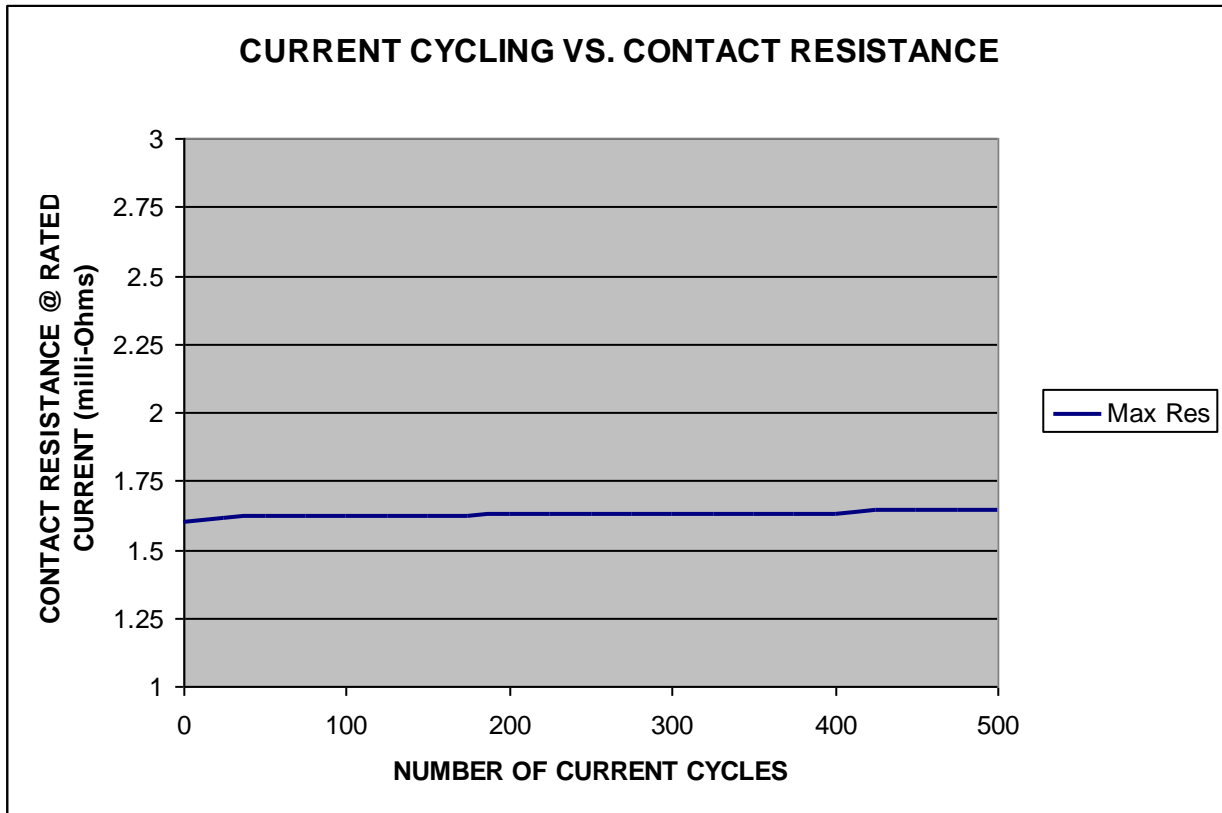
TEST DATA

Test Request #112529 (Current Cycling)
PESS-08-10-L-12.00-DR-NUS-R / PET-08-01-L-VT
CURRENT CYCLING DATA:



**TEMPERATURE RISE DATA
ALL CONTACTS ENERGIZED
(Degrees Celsius above ambient)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	0.4	-0.3	-0.1	-0.1	-0.1
Max	2.7	3.6	2.8	3.7	3.9
Avg	1.7	1.7	1.6	1.9	1.8



**CONTACT RESISTANCE DATA
ALL CONTACTS ENERGIZED
(mΩ)**

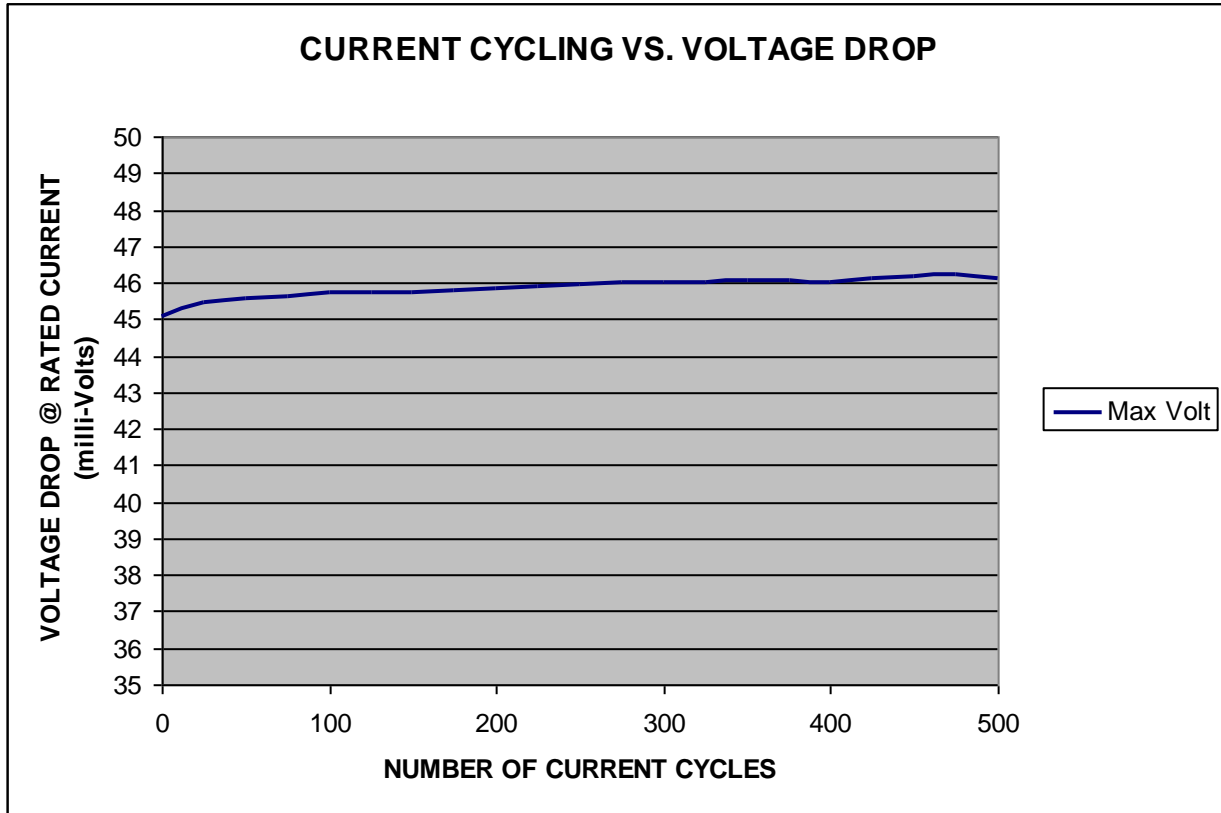
	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	1.4	1.41	1.41	1.41	1.41
Max	1.6	1.62	1.62	1.63	1.64
Avg	1.48	1.49	1.49	1.5	1.5



POWER INTEGRITY TEST REPORT

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VOLTAGE DROP DATA ALL CONTACTS ENERGIZED (MV)

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	39.55	39.79	39.85	39.81	39.84
Max	45.08	45.55	45.74	45.84	46.14
Avg	41.66	42.01	42.14	42.17	42.3



POWER INTEGRITY TEST REPORT

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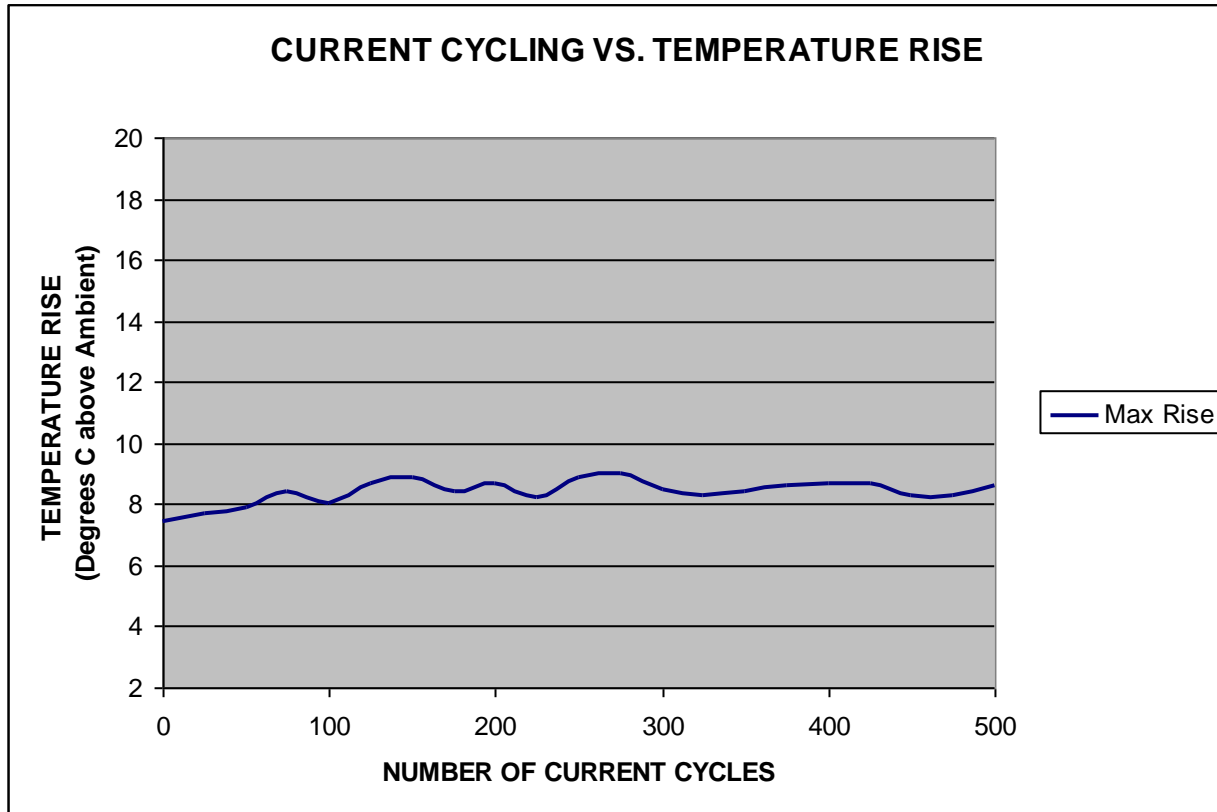
INITIAL RELEASE

TEST DATA

Test Request #112526(urrent Cycling)

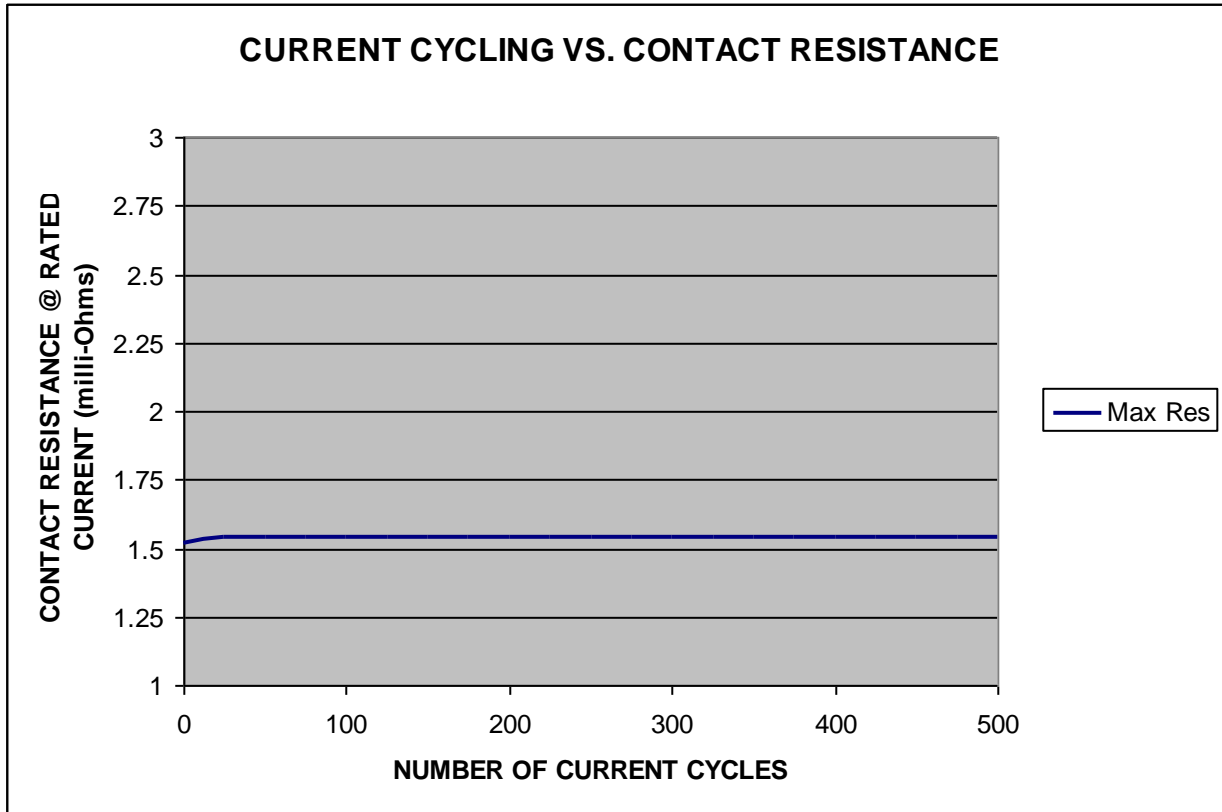
PESS-08-10-L-12.00-DR-NUS-R / PET-08-01-L-VT

CURRENT CYCLING DATA:



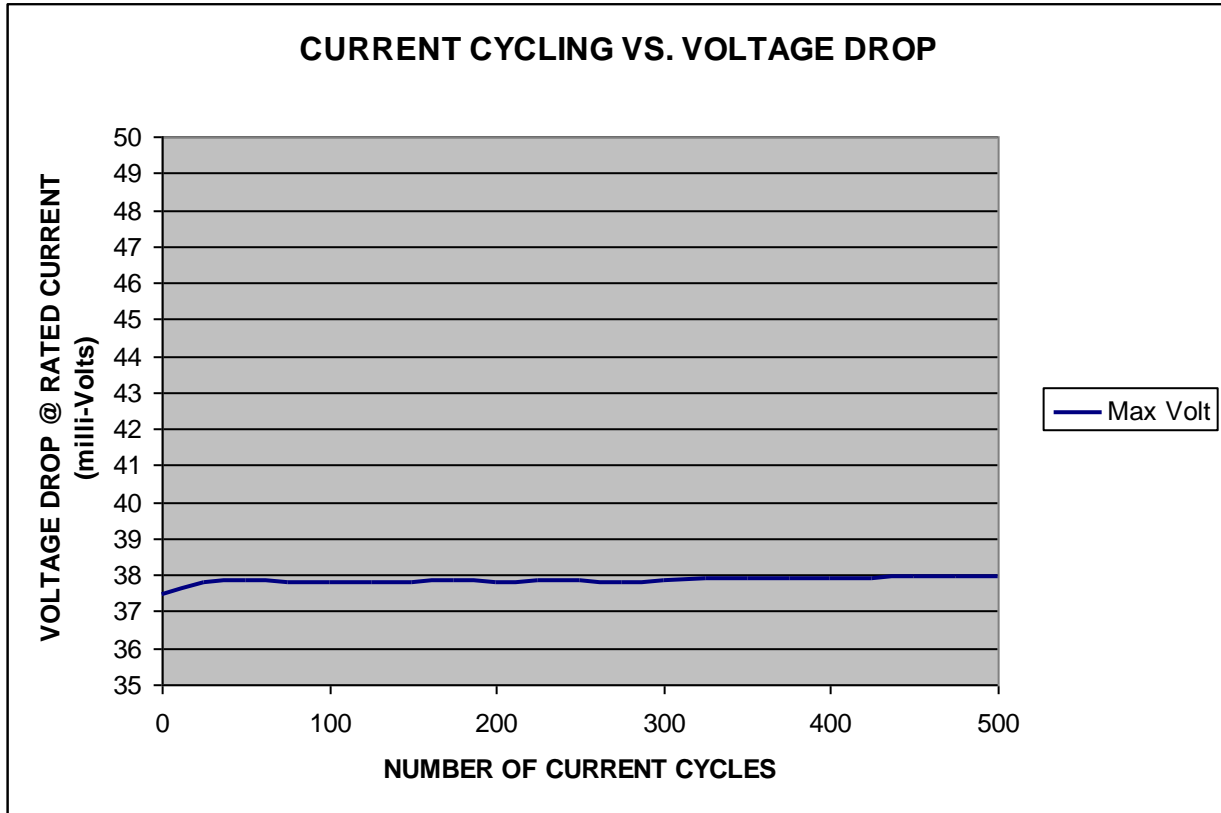
TEMPERATURE RISE DATA ALL CONTACTS ENERGIZED (Degrees Celsius above ambient)

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	-1.5	-1.9	-1.9	-1.9	-1.9
Max	7.4	7.9	8	8.7	8.6
Avg	1.6	1.4	1.4	1.6	1.5



**CONTACT RESISTANCE DATA
ALL CONTACTS ENERGIZED
(mΩ)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	1.35	1.36	1.36	1.36	1.36
Max	1.52	1.54	1.54	1.54	1.54
Avg	1.43	1.44	1.44	1.44	1.44



**VOLTAGE DROP DATA
ALL CONTACTS ENERGIZED
(MV)**

	INITIAL	50 CYCLES	100 CYCLES	200 CYCLES	500 CYCLES
Min	33.13	33.39	33.35	33.34	33.44
Max	37.48	37.84	37.8	37.81	37.93
Avg	35.08	35.39	35.35	35.35	35.47



POWER INTEGRITY TEST REPORT

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EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: MO-04

Description: Multimeter /Data Acquisition System

Manufacturer: Keithley

Model: 2700

Serial #: 0798688

Accuracy: See Manual

... Last Cal: 4/30/2010, Next Cal: 4/30/2011

Equipment #: ACLM-01

Description: Accelerometer

Manufacturer: PCB Piezotronics

Model: 352C03

Serial #: 115819

Accuracy: See Manual

... Last Cal: 07/09/2010, Next Cal: 07/09/2011

Equipment #: ED-03

Description: Event Detector

Manufacturer: Analysis Tech

Model: 32EHD

Serial #: 1100604

Accuracy: See Manual

... Last Cal: 06/04/2010, Next Cal: 06/04/2011