

***CERTIFIED
TEST REPORT***

**Faulted Circuit Interrupting Tests on
Type CMU Power Fuses**

*Faulted Circuit Interrupting Tests on
Type CMU Power Fuses*

CERTIFICATION

Statements made and data shown are, to the best of our knowledge and belief, correct and within the usual limits of commercial testing practice. The following report is a true and correct summary of data from tests performed by Powertech High Power Laboratory in Surrey, British Columbia Canada, from November 29 to December 2, 1999 and April 2, 2000. The tests demonstrate the capability of the Cooper Power Systems type CMU Power Fuses to safely interrupt circuits when applied within their assigned ratings.



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INTRODUCTION

The tests detailed in the following report were performed to present the

TESTS TO PROVE 14 kA (symmetrical), 22.5 kA (asymmetrical)
INTERRUPTING CAPABILITY AT 17.1 kV
TO IEEE C37.40-1993, C37.41-1994, C37.46-1981 & C37.47-1981.

for

**TYPE CMU 612005 - 612200, CMU 702003 - 702200,
& CMU 712015 to 712200
POWER FUSES**

Object

To prove the interrupting ability of Cooper Power Systems CMU 612005 - 612200, CMU 702006 - 702200, & CMU 712015 - 712200 Power Fuses.

| | |
|----------------------------------|-----------------------------|
| Maximum Interrupting Current | 14 kA (sym), 22.5 kA (asym) |
| Power Frequency Recovery Voltage | 17.1 kV |
| Frequency | 60 Hz |

Equipment Tested

CMU 702006 Fuses

CMU 712065 Fuses

These fuses are the minimum and maximum ratings of a design family that covers the 3K to 80K, 5E to 80E, and 15SE to 65SE ratings.

CMU 612100 Fuses

CMU 712125 Fuses

These fuses are the minimum and maximum ratings of a design family that covers the 100K & 140K, 100E & 125E, and 80SE to 125SE.

CMU 612150 Fuses

This Fuse does not fit into any of the design families.

CMU 612175 Fuses

CMU 712200 Fuses

These fuses are the minimum and maximum ratings of a design family that covers the 200K, 175E & 200E, and 150SE to 200SE ratings.

Test Arrangement

For 'dropout' tests, each fuse was equipped with a set of S&C end fittings, Cat. # 3095 (comprising one top end fitting and one bottom end fitting). The fuse was tested in a S&C drop-out mounting Cat. # 92123R3.

For 'non-dropout' tests, each fuse was equipped with a set of S&C end fittings, Cat # 3097 (comprising one top fitting and one bottom end fitting and an S&C Silencer, Cat # G-4780R4). The fuse was tested in a S&C pad mount mounting, Cat # 90423.

Test Conditions

Tests were carried out to the requirements of ANSI-IEEE Std C37.40-1993, and IEEE Std C37.41-1994, Tables 2, 3, and 4.

Series 1 tests were carried out 100% of rated maximum voltage, thus eliminating the need to carry out Series 2 tests.

The test circuit was arranged to monitor leakage current on tests on 'non-dropout' tests, and the circuit was opened after the leakage current had been less than 1 mA for 2 min.

| Test # | Fuse Cat. # | Test Series | Sample # | Silencer | Vapp kV | Ipros kA | Vrec kV | Ipk kA | Varc kV | Closing Angle | Melt Time msec. | Melt Time | Clear Time msec. | MW | Kj | Vrec Held sec. | Result |
|--------|-------------|-------------|----------|----------|---------|----------|---------|--------|---------|---------------|-----------------|-----------|------------------|------|-----|----------------|---------|
| 3-10 | CMU 702006 | 1 | 3-10 | N | 17.2 | 14.3 | 17.2 | 35.8 | 26.8 | 0 | 5.4 | 1/0+ | 13.02 | 54.7 | 239 | .5 | Cleared |
| 3-11 | CMU 702006 | 1 | 3-11 | N | 17.2 | 14.3 | 17.2 | 20.4 | 31.2 | 90 | .66 | 2/1+ | 16.3 | 39.3 | 202 | .5 | Cleared |
| 3-12 | CMU 702006 | 1 | 3-12 | N | 17.2 | 14.3 | 17.2 | 30.8 | 28.7 | 140 | .60 | 2/1+ | 15.5 | 43.4 | 192 | .5 | Cleared |
| 3-26 | CMU 702006 | 1 | 3-26 | Y | 17.1 | 14.3 | 17.1 | 36.3 | 40.0 | 0 | 1.2 | 1/0+ | 13.7 | 53.4 | 272 | 120 | Cleared |
| 3-27 | CMU 702006 | 1 | 3-27 | Y | 17.1 | 14.3 | 17.1 | 21.3 | 31.4 | 90 | .4 | 2/0+ | 16.1 | 56.8 | 257 | 120 | Cleared |
| 3-32 | CMU 702006 | 1 | 3-32 | Y | 17.2 | 14.3 | 17.2 | 31.4 | 30.6 | 140 | .55 | 2/0+ | 15.3 | 43.5 | 225 | 120 | Cleared |
| 3-21 | CMU 712065 | 1 | 3-21 | N | 17.2 | 14.3 | 17.2 | 36.6 | 26.1 | 0 | 3.4 | 1/0+ | 13.9 | 26.4 | 160 | .5 | Cleared |
| 3-22 | CMU 712065 | 1 | 3-22 | N | 17.2 | 14.3 | 17.2 | 21.0 | 31.4 | 90 | 2.2 | 2/1+ | 16.3 | 30.4 | 149 | .5 | Cleared |
| 3-23 | CMU 712065 | 1 | 3-23 | N | 17.2 | 14.3 | 17.2 | 31.2 | 26.5 | 140 | 5.9 | 3/2+ | 21.2 | 22.3 | 149 | .5 | Cleared |
| 3-39 | CMU 712065 | 1 | 3-39 | Y | 17.3 | 14.3 | 17.3 | 36.6 | 27.1 | 0 | 3.3 | 1/0+ | 13.8 | 31.6 | 183 | 120 | Cleared |
| 3-40 | CMU 712065 | 1 | 3-40 | Y | 17.3 | 14.3 | 17.3 | 21.1 | 31.2 | 90 | 2.1 | 2/1+ | 16.4 | 26.6 | 130 | 120 | Cleared |
| 3-41 | CMU 712065 | 1 | 3-41 | Y | 17.3 | 14.3 | 17.3 | 31.6 | 25.4 | 140 | 6.0 | 3/1+ | 21.0 | 28.9 | 179 | 120 | Cleared |
| 3-7 | CMU 702100 | 1 | 3-7 | N | 17.2 | 14.3 | 17.2 | 36.4 | 28.0 | 0 | 3.7 | 1/0+ | 13.6 | 45.6 | 247 | .5 | Cleared |
| 3-29 | CMU 702100 | 1 | 3-29 | N | 17.1 | 14.3 | 17.1 | 20.7 | 30.7 | 90 | 2.5 | 2/1+ | 16.1 | 34.8 | 170 | .5 | Cleared |
| 3-30 | CMU 702100 | 1 | 3-30 | N | 17.1 | 14.3 | 17.1 | 31.6 | 29.3 | 140 | 6.5 | 2/0+ | 15.4 | 24.9 | 129 | .5 | Cleared |
| 3-28 | CMU 702100 | 1 | 3-28 | Y | 17.2 | 14.3 | 17.2 | 36.6 | 28.6 | 0 | 3.7 | 1/0+ | 13.4 | 54.9 | 274 | 120 | Cleared |
| 3-34 | CMU 702100 | 1 | 3-34 | Y | 17.2 | 14.3 | 17.2 | 20.6 | 31.4 | 90 | 2.4 | 2/1+ | 16.1 | 36.0 | 173 | 120 | Cleared |
| 3-52 | CMU 702100 | 1 | 3-52 | Y | 17.2 | 14.3 | 17.2 | 31.5 | 29.1 | 140 | 6.4 | 2/0+ | 15.5 | 26.1 | 125 | 120 | Cleared |
| 3-8 | CMU 712125 | 1 | 3-8 | N | 17.2 | 14.3 | 17.2 | 36.6 | 26.8 | 0 | 4.6 | 1/0+ | 13.6 | 33.9 | 247 | .5 | Cleared |
| 3-9 | CMU 712125 | 1 | 3-9 | N | 17.2 | 14.3 | 17.2 | 21.0 | 31.3 | 90 | 8.6 | 2/0+ | 16.4 | 26.4 | 170 | .5 | Cleared |
| 3-31 | CMU 712125 | 1 | 3-31 | N | 17.2 | 14.3 | 17.2 | 31.7 | 25.9 | 140 | 7.7 | 3/1+ | 21.2 | 33.7 | 129 | .5 | Cleared |
| 3-36 | CMU 712125 | 1 | 3-36 | Y | 17.2 | 14.3 | 17.2 | 36.5 | 26.5 | 0 | 4.6 | 1/0+ | 13.7 | 33.7 | 274 | 120 | Cleared |
| 3-37 | CMU 712125 | 1 | 3-37 | Y | 17.2 | 14.3 | 17.2 | 20.9 | 30.2 | 90 | 3.6 | 2/1+ | 16.3 | 26.1 | 173 | 120 | Cleared |
| 3-38 | CMU 712125 | 1 | 3-38 | Y | 17.2 | 14.3 | 17.2 | 31.6 | 28.3 | 140 | 7.5 | 2/0+ | 15.6 | 16.7 | 125 | 120 | Cleared |
| 3-4 | CMU 612150 | 1 | 3-4 | N | 17.2 | 14.3 | 17.2 | 36.2 | 29.1 | 0 | 4.6 | 1/0+ | 13.5 | 50.3 | 280 | .5 | Cleared |
| 3-13 | CMU 612150 | 1 | 3-13 | N | 17.2 | 14.3 | 17.2 | 20.4 | 31.1 | 90 | 3.7 | 2/1+ | 16.4 | 33.1 | 177 | .5 | Cleared |
| 3-14 | CMU 612150 | 1 | 3-14 | N | 17.2 | 14.3 | 17.2 | 31.3 | 28.8 | 140 | 7.7 | 2/1+ | 15.7 | 23.2 | 134 | .5 | Cleared |
| 3-42 | CMU 612150 | 1 | 3-42 | Y | 17.2 | 14.3 | 17.2 | 36.4 | 28.2 | 0 | 4.6 | 1/0+ | 13.5 | 30.7 | 281 | 120 | Cleared |
| 3-43 | CMU 612150 | 1 | 3-43 | Y | 17.2 | 14.3 | 17.2 | 21.1 | 31.2 | 90 | 3.5 | 2/1+ | 16.2 | 35.7 | 186 | 120 | Cleared |
| 3-44 | CMU 612150 | 1 | 3-44 | Y | 17.2 | 14.3 | 17.2 | 31.2 | 26.0 | 140 | 9.2 | 2/0+ | 21.0 | 30.9 | 154 | 120 | Cleared |
| 3-15 | CMU 612175 | 1 | 3-15 | N | 17.2 | 14.3 | 17.2 | 36.2 | 30.6 | 0 | 4.8 | 1/0+ | 13.7 | 67.1 | 356 | .5 | Cleared |
| 3-19 | CMU 612175 | 1 | 3-19 | N | 17.2 | 14.3 | 17.2 | 20.9 | 31.5 | 90 | 3.7 | 2/1+ | 16.0 | 40 | 206 | .5 | Cleared |
| 3-20 | CMU 612175 | 1 | 3-20 | N | 17.2 | 14.3 | 17.2 | 28.9 | 30.4 | 140 | 7.8 | 2/0+ | 15.4 | 35.5 | 184 | .5 | Cleared |
| 3-48 | CMU 612175 | 1 | 3-48 | Y | 17.3 | 14.3 | 17.3 | 36.3 | 29.9 | 0 | 4.8 | 1/0+ | 13.6 | 60.8 | 319 | 120 | Cleared |
| 3-49 | CMU 612175 | 1 | 3-49 | Y | 17.3 | 14.3 | 17.3 | 21.1 | 31.6 | 90 | 3.7 | 2/1+ | 16.1 | 38.2 | 195 | 120 | Cleared |
| 3-50 | CMU 612175 | 1 | 3-50 | Y | 17.3 | 14.3 | 17.3 | 31.5 | 29.8 | 140 | 7.7 | 2/0+ | 15.4 | 38.4 | 187 | 120 | Cleared |
| 3-16 | CMU 712200 | 1 | 3-16 | N | 17.2 | 14.3 | 17.2 | 36.6 | 27.7 | 0 | 6.1 | 1/0+ | 13.6 | 44.9 | 248 | .5 | Cleared |
| 3-18 | CMU 712200 | 1 | 3-18 | N | 17.2 | 14.3 | 17.2 | 20.7 | 30.6 | 90 | 8.5 | 2/0+ | 16.6 | 13.9 | 68 | .5 | Cleared |
| 3-17 | CMU 712200 | 1 | 3-17 | N | 17.2 | 14.3 | 17.2 | 31.7 | 28.6 | 140 | 9.0 | 2/0+ | 15.6 | 23.4 | 119 | .5 | Cleared |
| 3-46 | CMU 712200 | 1 | 3-46 | Y | 17.2 | 14.3 | 17.2 | 36.6 | 28.9 | 0 | 6.0 | 1/0+ | 13.6 | 46.6 | 232 | 120 | Cleared |
| 3-47 | CMU 712200 | 1 | 3-47 | Y | 17.3 | 14.3 | 17.3 | 21.1 | 30.1 | 90 | 7.4 | 2/1+ | 16.6 | 15.6 | 69 | 120 | Cleared |
| 3-44 | CMU 712200 | 1 | 3-44 | Y | 17.2 | 14.3 | 17.2 | 31.2 | 26.0 | 140 | 9.2 | 3/1+ | 21.0 | 30.4 | 211 | 120 | Cleared |

| Test # | Fuse Cat. # | Test Series | Sample # | Silencer | Vapp kV | Ipros kA | Vrec kV | Ipk kA | Varc kV | Closing Angle | Melt Time msec. | Melt Time msec. | Clear Time msec. | MW | Kj | Vrec Held sec. | Result |
|--------|-------------|-------------|----------|----------|---------|----------|---------|--------|---------|---------------|-----------------|-----------------|------------------|------|-----|----------------|---------|
| 5-2 | CMU 702006 | 3 | 5-2 | N | 17.1 | 9.76 | 17.1 | 24.8 | 25.2 | 0 | 0.8 | 1/0+ | 13.6 | 14.6 | 87 | .5 | Cleared |
| 5-3 | CMU 702006 | 3 | 5-3 | N | 17.1 | 9.76 | 17.1 | 14.0 | 30.8 | 90 | 0.7 | 2/1+ | 16.4 | 23.3 | 120 | .5 | Cleared |
| 5-4 | CMU 702006 | 3 | 5-4 | N | 17.1 | 9.76 | 17.1 | 21.4 | 29.7 | 140 | 0.8 | 2/1+ | 15.6 | 15.2 | 87 | .5 | Cleared |
| 5-11 | CMU 702006 | 3 | 5-11 | Y | 17.2 | 9.76 | 17.2 | 24.8 | 26.9 | 0 | 1.3 | 1/0+ | 13.9 | 20.5 | 114 | 120 | Cleared |
| 5-12 | CMU 702006 | 3 | 5-12 | Y | 17.1 | 9.76 | 17.1 | 14.6 | 31.3 | 90 | 0.4 | 2/1+ | 16.3 | 19.1 | 92 | 120 | Cleared |
| 5-13 | CMU 702006 | 3 | 5-13 | Y | 17.2 | 9.76 | 17.2 | 21.3 | 30.0 | 140 | 0.6 | 2/1+ | 15.6 | 17.1 | 93 | 120 | Cleared |
| 5-5 | CMU 712065 | 3 | 5-5 | N | 17.1 | 9.76 | 17.1 | 24.8 | 24.1 | 0 | 3.9 | 1/0+ | 13.8 | 10.3 | 52 | .5 | Cleared |
| 5-6 | CMU 712065 | 3 | 5-6 | N | 17.1 | 9.76 | 17.1 | 14.2 | 30.4 | 90 | 3.0 | 2/1+ | 16.4 | 9.03 | 46 | .5 | Cleared |
| 5-7 | CMU 712065 | 3 | 5-7 | N | 17.1 | 9.76 | 17.1 | 21.4 | 27.3 | 140 | 6.9 | 3/2+ | 21.4 | 7.2 | 49 | .5 | Cleared |
| 5-14 | CMU 712065 | 3 | 5-14 | Y | 17.2 | 9.76 | 17.2 | 25.0 | 23.7 | 0 | 4.0 | 2/1+ | 18.5 | 11.4 | 85 | 120 | Cleared |
| 5-15 | CMU 712065 | 3 | 5-15 | Y | 17.1 | 9.76 | 17.1 | 14.8 | 32.5 | 90 | 2.7 | 3/2+ | 24.6 | 42.1 | 235 | 120 | Cleared |
| 5-16 | CMU 712065 | 3 | 5-16 | Y | 17.1 | 9.76 | 17.1 | 21.4 | 26.7 | 140 | 6.7 | 3/2+ | 21.6 | 7.96 | 54 | 120 | Cleared |
| 5-8 | CMU 702100 | 3 | 5-8 | N | 17.1 | 9.76 | 17.1 | 24.9 | 24.5 | 0 | 4.3 | 1/0+ | 13.9 | 10.9 | 59 | .5 | Cleared |
| 5-9 | CMU 702100 | 3 | 5-9 | N | 17.2 | 9.76 | 17.2 | 12.1 | 36.3 | 90 | 3.3 | 2/1+ | 16.4 | 11.6 | 57 | .5 | Cleared |
| 5-10 | CMU 702100 | 3 | 5-10 | N | 17.2 | 9.76 | 17.2 | 21.6 | 26.1 | 140 | 7.1 | 3/2+ | 21.3 | 14 | 90 | .5 | Cleared |
| 5-17 | CMU 702100 | 3 | 5-17 | Y | 17.1 | 9.76 | 17.1 | 24.9 | 25.5 | 0 | 4.4 | 1/0+ | 13.9 | 13.8 | 74 | 120 | Cleared |
| 5-18 | CMU 702100 | 3 | 5-18 | Y | 17.1 | 9.76 | 17.1 | 14.2 | 31.0 | 90 | 3.3 | 2/1+ | 16.4 | 13.3 | 66 | 120 | Cleared |
| 5-19 | CMU 702100 | 3 | 5-19 | Y | 17.1 | 9.76 | 17.1 | 21.4 | 26.5 | 140 | 7.2 | 3/2+ | 21.4 | 14.4 | 84 | 120 | Cleared |
| 5-20 | CMU 712125 | 3 | 5-20 | N | 17.1 | 9.76 | 17.1 | 25.0 | 23.6 | 0 | 5.7 | 2/1+ | 10.6 | 9.2 | 68 | .5 | Cleared |
| 5-21 | CMU 712125 | 3 | 5-21 | N | 17.1 | 9.76 | 17.1 | 14.2 | 30.8 | 90 | 5.8 | 3/2+ | 24.0 | 12.1 | 67 | .5 | Cleared |
| 5-22 | CMU 712125 | 3 | 5-22 | N | 17.1 | 9.76 | 17.1 | 21.5 | 27.0 | 140 | 8.4 | 3/1+ | 21.4 | 7.5 | 46 | .5 | Cleared |
| 5-32 | CMU 712125 | 3 | 5-32 | Y | 17.1 | 9.76 | 17.1 | 25.0 | 23.6 | 0 | 1.8 | 2/1+ | 5.9 | 8.23 | 63 | 120 | Cleared |
| 5-33 | CMU 712125 | 3 | 5-33 | Y | 17.1 | 9.76 | 17.1 | 14.1 | 31.7 | 90 | 5.0 | 3/2+ | 24.2 | 33.3 | 173 | 120 | Cleared |
| 5-34 | CMU 712125 | 3 | 5-34 | Y | 17.1 | 9.76 | 17.1 | 21.8 | 26.5 | 140 | 8.4 | 3/1+ | 21.3 | 8.5 | 50 | 120 | Cleared |
| 5-23 | CMU 612150 | 3 | 5-23 | N | 17.1 | 9.76 | 17.1 | 24.8 | 25.4 | 0 | 5.4 | 1/0+ | 13.6 | 17.4 | 95 | .5 | Cleared |
| 5-24 | CMU 612150 | 3 | 5-24 | N | 17.1 | 9.76 | 17.1 | 14.5 | 31.7 | 90 | 5.6 | 3/2+ | 25.2 | 40.6 | 235 | .5 | Cleared |
| 5-25 | CMU 612150 | 3 | 5-25 | N | 17.1 | 9.76 | 17.1 | 21.5 | 26.8 | 140 | 8.4 | 3/2+ | 21.4 | 12.6 | 91 | .5 | Cleared |
| 5-35 | CMU 612150 | 3 | 5-35 | Y | 17.2 | 9.76 | 17.2 | 25.0 | 25.6 | 0 | 5.5 | 1/0+ | 14.0 | 16.3 | 91 | 120 | Cleared |
| 5-36 | CMU 612150 | 3 | 5-36 | Y | 17.2 | 9.76 | 17.2 | 14.1 | 30.7 | 90 | 5.0 | 2/1+ | 16.2 | 8.6 | 43 | 120 | Cleared |
| 5-37 | CMU 612150 | 3 | 5-37 | Y | 17.2 | 9.76 | 17.2 | 21.4 | 27.2 | 140 | 8.6 | 3/2+ | 21.2 | 14.1 | 95 | 120 | Cleared |
| 5-26 | CMU 612175 | 3 | 5-26 | N | 17.1 | 9.76 | 17.1 | 24.9 | 26.1 | 0 | 5.6 | 1/0+ | 13.6 | 19.9 | 105 | .5 | Cleared |
| 5-27 | CMU 612175 | 3 | 5-27 | N | 17.1 | 9.76 | 17.1 | 14.0 | 30.9 | 90 | 6.0 | 2/1+ | 16.4 | 11.5 | 54 | .5 | Cleared |
| 5-28 | CMU 612175 | 3 | 5-28 | N | 17.1 | 9.76 | 17.1 | 21.7 | 28.8 | 140 | 9.2 | 2/0+ | 16.0 | 11.9 | 56 | .5 | Cleared |
| 5-38 | CMU 612175 | 3 | 5-38 | Y | 17.2 | 9.76 | 17.2 | 25.0 | 26.7 | 0 | 6.2 | 1/0+ | 14.0 | 21.8 | 113 | 120 | Cleared |
| 5-39 | CMU 612175 | 3 | 5-39 | Y | 17.2 | 9.76 | 17.2 | 13.9 | 31.0 | 90 | 5.8 | 2/1+ | 16.4 | 10.6 | 50 | 120 | Cleared |
| 5-40 | CMU 612175 | 3 | 5-40 | Y | 17.1 | 9.76 | 17.1 | 21.7 | 28.8 | 140 | 8.6 | 2/0+ | 15.5 | 12.4 | 59 | 120 | Cleared |
| 5-29 | CMU 712200 | 3 | 5-29 | N | 17.1 | 9.76 | 17.1 | 25.0 | 24.5 | 0 | 7.8 | 1/0+ | 14.0 | 10.4 | 49 | .5 | Cleared |
| 5-30 | CMU 712200 | 3 | 5-30 | N | 17.1 | 9.76 | 17.1 | 14.1 | 31.8 | 90 | 20.0 | 4/2+ | 33.0 | 22.7 | 116 | .5 | Cleared |
| 5-31 | CMU 712200 | 3 | 5-31 | N | 17.1 | 9.76 | 17.1 | 21.6 | 26.9 | 140 | 11.2 | 3/1+ | 21.5 | 6.5 | 42 | .5 | Cleared |
| 5-41 | CMU 712200 | 3 | 5-41 | Y | 17.2 | 9.76 | 17.2 | 25.0 | 23.7 | 0 | 7.5 | 2/1+ | 18.5 | 10.1 | 72 | 120 | Cleared |
| 5-42 | CMU 712200 | 3 | 5-42 | Y | 17.2 | 9.76 | 17.2 | 14.0 | 31.8 | 90 | 20.1 | 4/2+ | 33.0 | 22.9 | 117 | 120 | Cleared |
| 5-43 | CMU 712200 | 3 | 5-43 | Y | 17.2 | 9.76 | 17.2 | 21.8 | 33.6 | 140 | 11.2 | 4/2+ | 31.3 | 58.6 | 346 | 120 | Cleared |

| Test # | Fuse Cat. # | Test Series | Sample # | Silencer | Vapp kV | Ipros kA | Vrec kV | Ipk kA | Varc kV | Closing Angle | Melt Time msec. | Melt Time msec. | Clear Time msec. | MW | Kj | Vrec Held sec. | Result |
|--------|-------------|-------------|----------|----------|---------|----------|---------|--------|---------|---------------|-----------------|-----------------|------------------|------|----|----------------|---------|
| 6-1 | CMU 702006 | 4 | 6-1 | N | 17.2 | 3.50 | 17.2 | 5.02 | 31.1 | 90 | 1.0 | 2/1+ | 16.4 | 1.8 | 12 | .5 | Cleared |
| 6-2 | CMU 702006 | 4 | 6-2 | N | 17.2 | 3.50 | 17.2 | 5.06 | 32.1 | 90 | 0.8 | 3/2+ | 24.4 | 11.5 | 62 | .5 | Cleared |
| 6-15 | CMU 702006 | 4 | 6-15 | Y | 17.2 | 3.50 | 17.2 | 5.06 | 31.7 | 90 | 1.2 | 3/2+ | 24.4 | 7.1 | 43 | 120 | Cleared |
| 6-16 | CMU 702006 | 4 | 6-16 | Y | 17.1 | 3.50 | 17.1 | 5.01 | 32.1 | 90 | 0.6 | 3/2+ | 41.4 | 10.6 | 58 | 120 | Cleared |
| 6-3 | CMU 712065 | 4 | 6-3 | N | 17.2 | 3.50 | 17.2 | 5.06 | 31.7 | 90 | 12.6 | 4/2+ | 33.2 | 5.2 | 24 | .5 | Cleared |
| 6-4 | CMU 712065 | 4 | 6-4 | N | 17.2 | 3.50 | 17.2 | 5.01 | 32.9 | 90 | 13.0 | 4/2+ | 33.1 | 5.5 | 27 | .5 | Cleared |
| 6-17 | CMU 712065 | 4 | 6-17 | Y | 17.1 | 3.50 | 17.1 | 5.08 | 32.0 | 90 | 12.6 | 5/3+ | 41.1 | 13.8 | 90 | 120 | Cleared |
| 6-18 | CMU 712065 | 4 | 6-18 | Y | 17.1 | 3.50 | 17.1 | 5.04 | 32.0 | 90 | 12.4 | 5/3+ | 41.0 | 13.7 | 83 | 120 | Cleared |
| 6-5 | CMU 702100 | 4 | 6-5 | N | 17.3 | 3.50 | 17.3 | 5.01 | 32.9 | 90 | 20.2 | 5/2+ | 41.6 | 7.4 | 42 | .5 | Cleared |
| 6-6 | CMU 702100 | 4 | 6-6 | N | 17.3 | 3.50 | 17.3 | 4.99 | 31.4 | 90 | 20.4 | 5/2+ | 41.0 | 8.9 | 49 | .5 | Cleared |
| 6-19 | CMU 702100 | 4 | 6-19 | Y | 17.1 | 3.50 | 17.1 | 5.14 | 31.8 | 90 | 20.8 | 5/2+ | 41.6 | 7.4 | 44 | 120 | Cleared |
| 6-20 | CMU 702100 | 4 | 6-20 | Y | 17.1 | 3.50 | 17.1 | 5.20 | 31.2 | 90 | 20.6 | 5/2+ | 41.4 | 7.1 | 39 | 120 | Cleared |
| 6-7 | CMU 712125 | 4 | 6-7 | N | 17.3 | 3.50 | 17.3 | 4.99 | 31.5 | 90 | 61.0 | 10/2+ | 83.0 | 9.5 | 53 | .5 | Cleared |
| 6-8 | CMU 712125 | 4 | 6-8 | N | 17.3 | 3.50 | 17.3 | 5.02 | 31.6 | 90 | 56.8 | 9/1+ | 75.2 | 4.1 | 20 | .5 | Cleared |
| 6-21 | CMU 712125 | 4 | 6-21 | Y | 17.1 | 3.50 | 17.1 | 5.12 | 31.6 | 90 | 56.4 | 10/2+ | 82.8 | 13.2 | 80 | 120 | Cleared |
| 6-22 | CMU 712125 | 4 | 6-22 | Y | 17.1 | 3.50 | 17.1 | 5.10 | 31.7 | 90 | 55.7 | 10/2+ | 83.0 | 13.4 | 84 | 120 | Cleared |
| 6-9 | CMU 612150 | 4 | 6-9 | N | 17.2 | 3.50 | 17.2 | 5.12 | 30.7 | 90 | 48.0 | 8/1+ | 66.6 | 7.3 | 4 | .5 | Cleared |
| 6-10 | CMU 612150 | 4 | 6-10 | N | 17.2 | 3.50 | 17.2 | 5.04 | 32.0 | 90 | 52.0 | 9/2+ | 74.4 | 10 | 57 | .5 | Cleared |
| 6-23 | CMU 612150 | 4 | 6-23 | Y | 17.2 | 3.50 | 17.2 | 5.16 | 32.3 | 90 | 52.0 | 9/2+ | 75.1 | 10.3 | 62 | 120 | Cleared |
| 6-24 | CMU 612150 | 4 | 6-24 | Y | 17.2 | 3.50 | 17.2 | 5.04 | 31.7 | 90 | 52.0 | 9/2+ | 74.9 | 9.2 | 55 | 120 | Cleared |
| 6-11 | CMU 612175 | 4 | 6-11 | N | 17.2 | 3.50 | 17.2 | 5.12 | 31.8 | 90 | 56.8 | 9/2+ | 74.0 | 6.8 | 37 | .5 | Cleared |
| 6-12 | CMU 612175 | 4 | 6-12 | N | 17.2 | 3.50 | 17.2 | 5.18 | 31.5 | 90 | 55.8 | 9/2+ | 74.6 | 8.6 | 47 | .5 | Cleared |
| 6-25 | CMU 612175 | 4 | 6-25 | Y | 17.2 | 3.50 | 17.2 | 5.04 | 31.7 | 90 | 56.9 | 9/2+ | 74.9 | 6.22 | 33 | 120 | Cleared |
| 6-26 | CMU 612175 | 4 | 6-26 | Y | 17.2 | 3.50 | 17.2 | 5.08 | 31.8 | 90 | 56.6 | 9/2+ | 75.1 | 6.79 | 37 | 120 | Cleared |
| 6-13 | CMU 712200 | 4 | 6-13 | N | 17.2 | 3.50 | 17.2 | 5.16 | 32.0 | 90 | 160 | 22/3+ | 184 | 10.1 | 60 | .5 | Cleared |
| 6-14 | CMU 712200 | 4 | 6-14 | N | 17.2 | 3.50 | 17.2 | 5.10 | 31.9 | 90 | 158 | 21/2+ | 175 | 9 | 52 | .5 | Cleared |
| 6-27 | CMU 712200 | 4 | 6-27 | Y | 17.1 | 3.50 | 17.1 | 5.02 | 31.8 | 90 | 158 | 22/3+ | 182 | 11.6 | 77 | 120 | Cleared |
| 6-28 | CMU 712200 | 4 | 6-28 | Y | 17.1 | 3.50 | 17.1 | 5.01 | 30.2 | 90 | 156 | 21/2+ | 175 | 5.3 | 28 | 120 | Cleared |
| 2-5 | CMU 702006 | 5 | 2-5 | N | 17.2 | .477 | 17.2 | .701 | 23.8 | 90 | 4.20 | | 50 | | | .033 | Cleared |
| 2-6 | CMU 702006 | 5 | 2-6 | N | 17.2 | .477 | 17.2 | .698 | 25.0 | 90 | 3.94 | | 50 | | | .5 | Cleared |
| 2-7 | CMU 702006 | 5 | 2-7 | Y | 17.1 | .477 | 17.1 | .698 | 39.7 | 90 | 3.96 | | 58 | | | 120 | Cleared |
| 2-8 | CMU 702006 | 5 | 2-8 | Y | 17.1 | .477 | 17.1 | .683 | 23.8 | 90 | 3.72 | | 50 | | | 120 | Cleared |
| 4-2 | CMU 702006 | 6 | 4-2 | N | 17.2 | .0198 | 17.2 | - | 22.7 | 90 | 1600 | | 1750 | | | .5 | Cleared |
| 4-4 | CMU 702006 | 6 | 4-4 | N | 17.2 | .0198 | 17.2 | - | 22.4 | 90 | 2200 | | 2500 | | | .5 | Cleared |
| 4-5 | CMU 702006 | 6 | 4-5 | Y | 17.1 | .0198 | 17.1 | - | 22.6 | 90 | 2570 | | 2810 | | | 120 | Cleared |
| 4-6 | CMU 702006 | 6 | 4-6 | Y | 17.1 | .0198 | 17.1 | - | 22.9 | 90 | 2650 | | 2750 | | | 120 | Cleared |

Conclusions

The above is a true and correct summary of data obtained from tests performed by:

Powertech High Power Laboratory in Surrey, British Columbia, Canada from October 15 to October 29, 1999. The tests demonstrate the capability of Cooper Power Systems type CMU Power Fuses to safely interrupt circuits when applied within their assigned ratings.

The fuses tested during this test sequence met the requirements of the referenced standards.


COOPER Power Systems

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