# TEST REPORT

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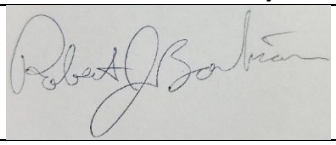
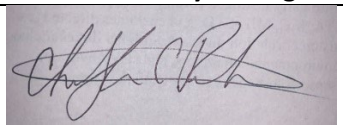
|---|---|
| Report Reference | 74293-M18ONEHCCT60CuEL |
| Issue Date | 2022/09/23 |

This is to certify that representative samples when crimped as specified comply with the connector requirements of UL486A-486B for the tests conducted.

[See Page 3 of this report for Test Combinations]

| | |
|---|---|
| Representative Samples | Compression cable lugs |
| Compression Connector Manufacturer | Elpress |
| Compression Tool | *Milwaukee Tool®* Battery-operated Cable Crimper Model M18 ONEHCCT60 |

| **Test Conducted by:** | **Results Reviewed by:** | **Test Laboratory Manager:** |
|---|---|---|
|  |  |  |
| Robert Barbian | Denise Schwager | Christopher Ritchie |
| Team Lead Eng. Test Lab | Sr. Regulatory Engineer | Manager Engineering Lab |
| **Date: 2022/9/15** | **Date: 2022/09/23** | **Date: 2022/09/23** |

## Summary

Milwaukee Tool carried out type tests according to UL 486A-486B on compression connectors manufactured by Elpress.

Testing was completed in Milwaukee Tool's certified testing laboratory at headquarters in Brookfield, WI.

| Test Dates | Test Laboratory | Tests conducted |
|---|---|---|
| 2022/06/14, 2022/06/15; 2022/06/17, 2022/06/20, 2022/06/24, 2022/06/28 - 2022/06/30; 2022/08/18, 2022/08/19, 2022/08/25 | Milwaukee Tool<br>13135 W. Lisbon Rd.<br>Brookfield, WI 53005 | Static-heating Sequence, UL 486A-486B clause 9.3 |

## Procedure

A summary of the testing methods are as follows:

**Sample Preparation**

- Samples of each combination were prepared in accordance to the applicable standard;
- Tool, connector & conductors were prepared according the chart in "Test Combinations";
- Connectors were crimped according to the manufacturers instructions.

**Testing**

- Testing was completed according to UL 486A-486B.

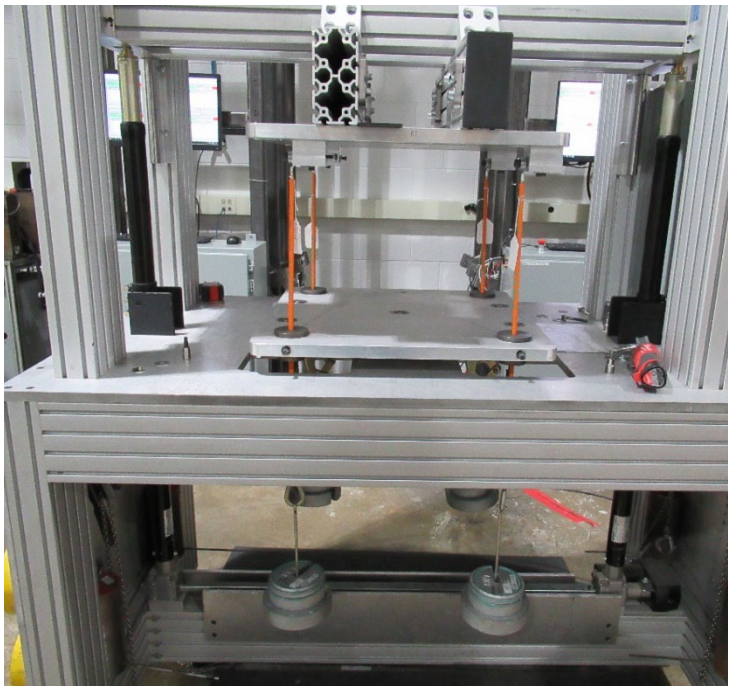
**Test Combinations**

Four samples of each test combination were constructed.

| Test | Milwaukee Tool Crimp Tool designation | Elpress Connector designation | Fine Wire Cu Conductor, Class 5 & Class 6 nominal cross-sectional area | Number of crimps |
|---|---|---|---|---|
| Static-heating Sequence | Model M18ONEHCCT60 | KRF16-12 | 16 $mm^2$ | 1 |
| | | KRF50-16 | 50 $mm^2$ | 2 |
| | | KRF70-16 | 70 $mm^2$ | 2 |
| | | KRF150-20 | 150 $mm^2$ | 3 |
| | | KRF300A-24 | 300 $mm^2$ | 4 |

**Test Setups**

**Current-cycling Fixture**



**Secureness Fixture**

**Pullout Fixture**

## Test Conditions

| Elpress Connector designation | Fine Wire Cu Conductor, Class 5 & Class 6 | Secureness | Static-heat | Pullout |
|---|---|---|---|---|
| | nominal cross-sectional area | Weight, lb | Test Current, A | Force applied, lb |
| KRF16-12 | 16 $mm^2$ | 22 | 105 | 114 |
| KRF50-16 | 50 $mm^2$ | 50 | 219 | 234.5 |
| KRF70-16 | 70 $mm^2$ | 51.5 | 272 | 307.5 |
| KRF150-20 | 150 $mm^2$ | 76 | 442 | 540 |
| KRF300A-24 | 300 $mm^2$ | 100 | 685 | 892.5 |

## Results

The results of the testing were considered satisfactory. All connections were intact and no connector temperature exceeded 50°C during the Static-heat test.

## Conclusion

After testing of the compression cable lugs (conductor cross sections 16 $mm^2$, 50 $mm^2$, 70 $mm^2$, 150 $mm^2$ and 300 $mm^2$) we declare that the compression cable lugs comply with the connector requirements as specified in UL 486A-486B clause 9.3.

## Attachment

Connector drawing and installation instructions.

- End of Test Report -