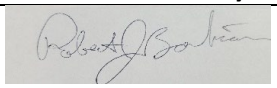
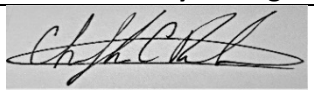
TEST REPORT

Report Reference	74293-M18ONEHCCT60CuKL
Issue Date	2022/08/04

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, DIN 46235
Compression Connector Manufacturer	Gustav Klauke GmbH
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: 2022/08/04	**Date: 2022/08/05**	**Date: 2022/08/05**

Summary

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

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

Test Dates	Test Laboratory	Tests conducted
2021/09/10; 2021/09/15 - 2021/09/17; 2021/09/21; 2021/10/06; 2021/10/07; 2021/10/13; 2021/10/15	Milwaukee Tool 13135 W. Lisbon Rd. 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.

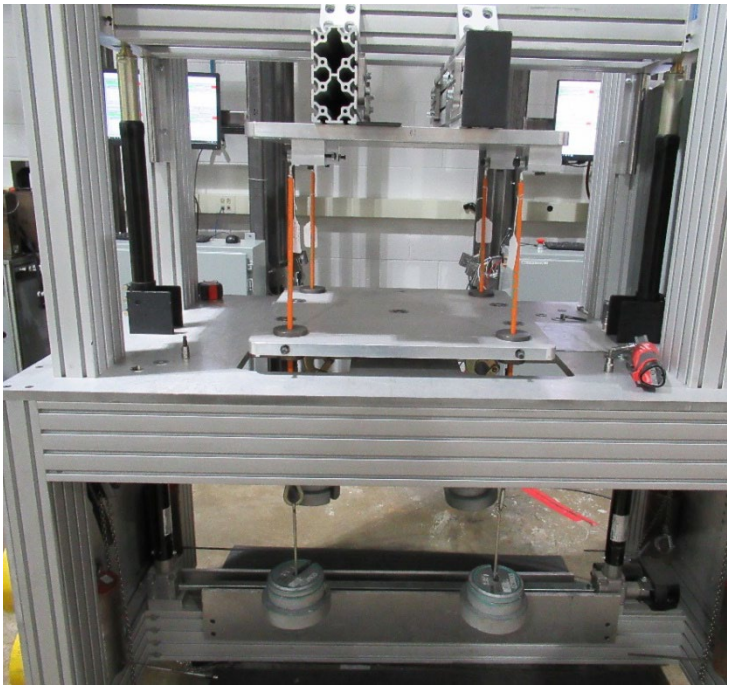
Test Combinations

Four samples of each test combination were constructed.

Test	Milwaukee Tool Crimp Tool designation	Klauke Connector designation	Klauke Sleeve designation	Fine Wire Cu Conductor, Class 5 & Class 6 nominal cross-sectional area	Number of crimps
Static-heating Sequence	Model M18ONEHCCT60	101R8	N/A	6 mm^2	2
		106R16	VHD50	50 mm^2	3
		110R20	VHD150	150 mm^2	4
		113R20	VHD300	300 mm^2	5

Test Setups

Current-cycling Fixture



Secureness Fixture

Pullout Fixture

Test Conditions

Klauke 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
101R8	6 mm^2	5.75	54.7	82
106R16	50 mm^2	50	219	234.5
110R20	150 mm^2	76	442	540
113R20	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 6 mm^2, 50 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.

Attachments

Connector drawing and manufacturers published installation instructions.

- End of Test Report -