TEST REPORT

Report Reference	71507-2020M18HDCT
Issue Date	2020/02/28

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	Gustav Klauke GmbH
Compression Tool	*Milwaukee Tool®* Battery-operated Cable Crimper Model M18HDCT

Test Conducted by:	Results Reviewed by:	Test Laboratory Manager:
Robert Barbian	Denise Schwager	Kristopher Erlandson
Test Engineer	Sr. Regulatory Engineer	Technical Supervisor
Date: 3/24/20	Date: 2020/03/25	Date: 3- 25 -2020

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
2019/05/08 through 2020/02/27	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. One crimp was applied to 25 mm^2, 50 mm^2, 120 mm^2 and 240 mm^2 sizes and two crimps were applied to the 300 mm^2 size.

Testing

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

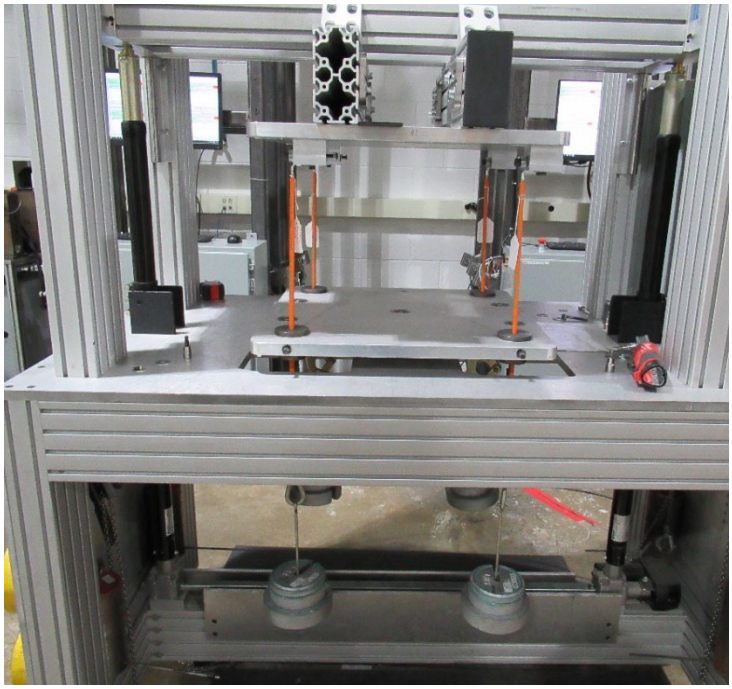
Test Combinations

Test	Milwaukee Tool Crimp Tool designation	Klauke Connector designation	Fine Wire Conductor, Class 5 & Class 6 nominal cross-sectional area
Static-heating Sequence	Model M18HDCT	704F12	25 mm^2
		706F10	50 mm^2
		709F14	120 mm^2
		712F14	240 mm^2
		713F14	300 mm^2 (Class 6 only)

Test Setups

Current-cycling Fixture

Secureness Fixture



Pullout Fixture

Test Conditions

Klauke Connector designation	Fine Wire Conductor, Class 5 & Class 6 nominal cross-sectional area	Number of Crimps	Secureness Weight, lb	Static-heat Test Current, A	Pullout Force applied, lb
704F12	25 mm^2	1	30	145	160
706F10	50 mm^2	1	50	230	250
709F14	120 mm^2	1	60	405	500
712F14	240 mm^2	1	100	620	800
713F14	300 mm^2 (Class 6 only)	2	100	690	900

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 25 mm^2, 50 mm^2, 120 mm^2, 240 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 -