



## TEST REPORT

Report Reference 74293-M18ONEHCCT60AI

Issue Date 2022/08/04

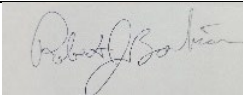

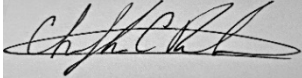
This is to certify that representative samples when crimped as specified comply with the connector requirements of UL486A-486B for the tests conducted.

[See Page 3 of this report for Test Combinations]

Representative Samples Compression cable lugs, DIN 46329

Compression Connector Manufacturer Gustav Klauke GmbH

Compression Tool *Milwaukee Tool*<sup>®</sup> 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
2021/07/16- 2021/10/11; 2021/07/23- 2021/10/26; 2022/01/27 – 2022/04/07; 2022/03/18 - 2022/05/04	Milwaukee Tool 13135 W. Lisbon Rd. Brookfield, WI 53005	Current-cycling, UL486A-486B clause 9.2 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**

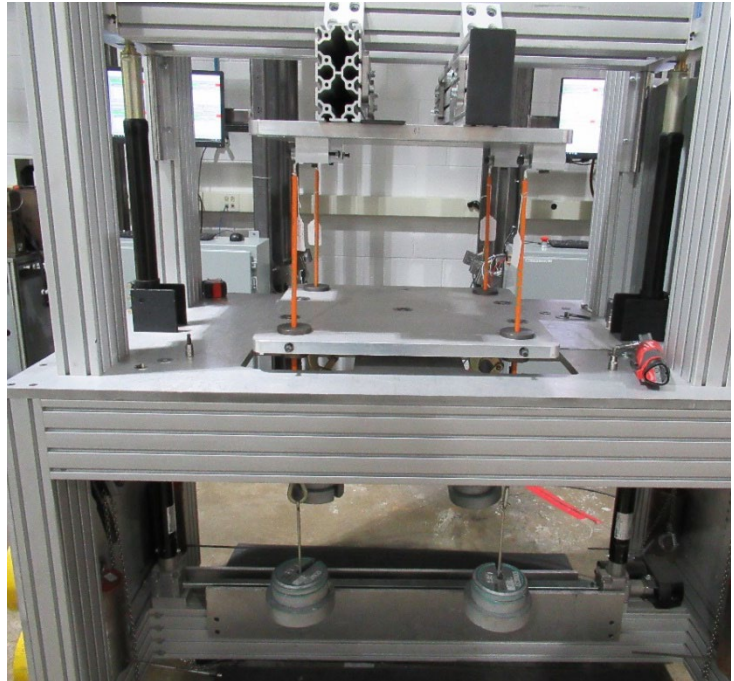
Four samples of each test combination were constructed for each test.

Test	Milwaukee Tool Crimp Tool designation	Klauke Connector designation	Class 2 Aluminum conductor	Number of crimps
			nominal cross-sectional area	
Current-cycling and Static-heating Sequence	Model M18ONEHCCT60	203R10	16 mm <sup>2</sup>	4
		204R10	25 mm <sup>2</sup>	4
		206R12	50 mm <sup>2</sup>	5
		210R20	150 mm <sup>2</sup>	6
		213R20	300 mm <sup>2</sup>	8

**Test Setups**



**Current-cycling Fixture**



**Secureness Fixture**



**Pullout Fixture**

**Test Conditions**

Klauke Connector designation	Class 2 Aluminum conductor	Current-cycling	Static-heat	Secureness	Pullout
	nominal cross-sectional area	Test Current, A	Test Current, A	Weight, lb	Force applied, lb
203R10	16 mm <sup>2</sup>	115	83.5	11.75	57
204R10	25 mm <sup>2</sup>	147	105	15	77
206R12	50 mm <sup>2</sup>	239	172	25	117
210R20	150 mm <sup>2</sup>	486	347	38	270
213R20	300 mm <sup>2</sup>	754	536	50	446.5

**Results**

The results of the testing were considered satisfactory. No connector exceeded 125°C or ± 10 stability factor during the Current-cycling test and 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<sup>2</sup>, 25 mm<sup>2</sup>, 50 mm<sup>2</sup>, 150 mm<sup>2</sup> and 300 mm<sup>2</sup>) we declare that the compression cable lugs comply with the connector requirements as specified in UL 486A-486B clauses 9.2 and 9.3.

**Attachments**

Connector drawing and manufacturers published installation instructions.

- End of Test Report -