



TEST REPORT

Report Reference 71842-2020M18HCCT

Issue Date 2020/07/23

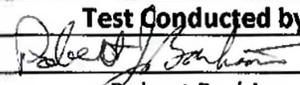
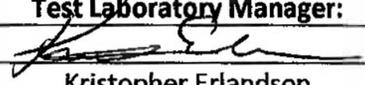
This is to certify that representative samples when crimped as specified successfully completed electrical and mechanical testing.

[See Page 3 of this report for Test Combinations]

Representative Samples Compression cable lugs

Compression Connector Manufacturer Weitkowitz GmbH

Compression Tool *Milwaukee Tool*[®] Battery-operated Cable Crimper Model M18HCCT

Test Conducted by:  Robert Barbian Test Engineer	Results Reviewed by:  Denise Schwager Sr. Regulatory Engineer	Test Laboratory Manager:  Kristopher Erlandson Technical Supervisor
Date: 7/30/20	Date: 2020/08/03	Date: 8/3/2020

Summary

Milwaukee Tool carried out electrical and mechanical type tests on compression connectors manufactured by Weitkowitz GmbH.

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

Test Dates	Test Laboratory	Tests conducted
2020/04/16, 2020/04/28-2020/04/30, 2020/05/06, 2020/05/29, 2020/06/19, 2020/06/22, 2020/07/15	Milwaukee Tool 13135 W. Lisbon Rd. Brookfield, WI 53005	Static-heating Sequence (UL486A-486B, Clauses 7.3, 8.3 and 9.3) Mechanical test (IEC 61238-1-3 Clause 7)

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

The Test Methods of IEC 61238-1-3 and UL486A-486B were followed.

Test Combinations

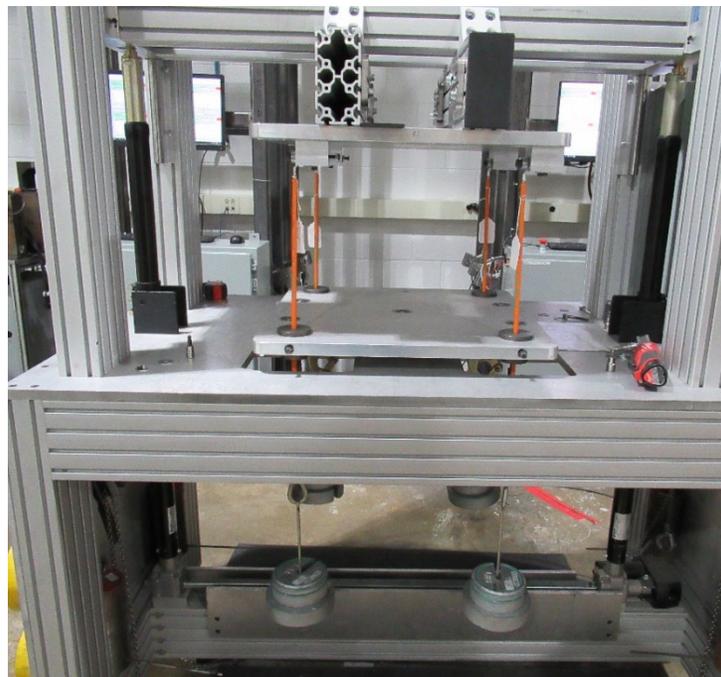
Test	Milwaukee Tool Crimp Tool designation	Weitkowitz Copper Connector designation	Fine Wire Cu Conductor, Class 5 & Class 6
			nominal cross-sectional area
Static-heating Sequence, UL486A-486B and Mechanical Test, IEC 61238-1-3	Model M18HCCT	14218	25 mm ²
		14228	50 mm ²
		14243	120 mm ²
		14257	240 mm ²

Test Setups

Static-heat Fixture



Secureness Fixture



Pullout Fixture



Test Conditions

Test	Weitkowitz Copper Connector designation	Fine Wire Cu Conductor, Class 5 & Class 6	Number of Crimps	Secureness	Static-heat	Pullout
		nominal cross-sectional area		Mass, lb	Test Current, A	Force, lb
Static-heating Sequence UL486A-486B	14218	25 mm ²	2	30	145	160
	14228	50 mm ²	3	50	230	250
	14243	120 mm ²	4	60	405	500
	14257	240 mm ²	5	100	620	800

Test	Weitkowitz Copper Connector designation	Fine Wire Cu Conductor, Class 5 & Class 6	Number of Crimps	Force applied, N
		nominal cross-sectional area		
Mechanical IEC 61238-1-3 Clause 7	14218	25 mm ²	2	1,500
	14228	50 mm ²	3	3,000
	14243	120 mm ²	4	7,200
	14257	240 mm ²	5	14,400

Results

Tests	Weitkowitz Copper Connector designation	Fine Wire Cu Conductor, Class 5 & Class 6	Results	
		nominal cross-sectional area	Secureness and Static-heat	Pullout/ Pull
Static-heating Sequence, UL486A-486B and Mechanical Test, IEC 61238-1-3	14218	25 mm ²	Pass	No slippage/ 0mm
	14228	50 mm ²		
	14243	120 mm ²		
	14257	240 mm ²		

The results of the testing were considered satisfactory. All connections were intact and no connector temperature exceeded 50°C during the Static-heating Sequence test. There was no slippage that exceeded 3 mm after the IEC 61238-1-3 Mechanical test.

Conclusion

After testing of the compression cable lugs (conductor cross sections 25 mm², 50 mm², 120 mm² and 240 mm²) we declare that the compression cable lugs comply with the connector requirements as specified in IEC 61238-1-3, Clause 7.3 and UL486A-486B, Clause 7.3.

Attachments

Connector drawing and manufacturers published installation instructions.

- End of Test Report -