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### DATA SHEET

File No: TR-0118

Customer Name: Cableco Technologies Sample Description: FusionLug vs Ring Lug  
Tested By: James Anthony Sample Part No(s): \_\_\_\_\_  
Test Description: 30 deg rise Sample No(s): \_\_\_\_\_  
Test Specification: UL 1977 Lab Conditions: 21 C  
Specification Rev: \_\_\_\_\_ Test Date: 6/17/2009  
Test Requirements: Evaluate the two sample lugs to determine at what current a 30 deg rise above ambient is achieved.

Equipment Used: Keithly - 2700 Multimeter  
Xantrex 0-600 DC Power Supply  
1/4"x1/2"x12" section of copper 110 were used to connect the lugs in a series circuit.

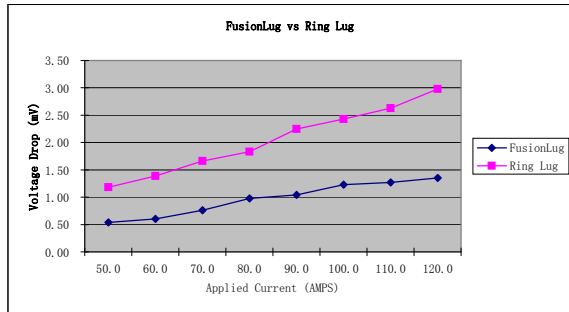
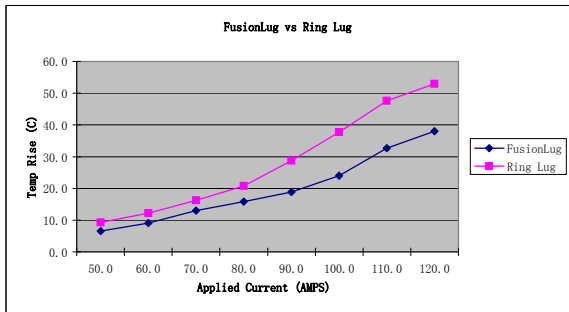
Additional Test Information/Deviations From Specification: Temperature measurement were taken at the junction of the wire and the lug. 1 hour was given between incremental increases in the current.

Measurements are in: Celsius

Results/Summary: The Fusion Lug experienced roughly half the voltage drop and a third of the temp rise when compared to its crimped counterpart.

FusionLug				
Applied Current (A)	Ambient Temp (°C)	Measured Temp (C)	Temp Rise (C)	Voltage Drop (mV)
50.0	21.7	28.3	6.6	0.54
60.0	21.9	31.0	9.1	0.60
70.0	21.5	34.5	13.0	0.76
80.0	21.5	37.3	15.8	0.98
90.0	21.7	40.6	18.9	1.04
100.0	22.0	46.0	24.0	1.23
110.0	22.0	54.7	32.7	1.27
120.0	22.1	60.1	38.0	1.35

Ring Lug				
Applied Current (A)	Ambient Temp (°C)	Measured Temp (C)	Temp Rise (C)	Voltage Drop (mV)
50.0	21.9	31.2	9.3	1.18
60.0	22.0	34.2	12.2	1.39
70.0	21.7	37.9	16.2	1.66
80.0	21.6	42.4	20.8	1.83
90.0	21.9	50.6	28.7	2.25
100.0	22.1	59.8	37.7	2.43
110.0	22.4	70.0	47.6	2.63
120.0	22.4	75.3	52.9	2.98



Voltage Drop (mV)			
Applied Current (A)	FusionLug	Ring Lug	% Difference
50.0	0.54	1.18	54.24%
60.0	0.60	1.39	56.83%
70.0	0.76	1.66	54.22%
80.0	0.98	1.83	46.45%
90.0	1.04	2.25	53.78%
100.0	1.23	2.43	49.38%
110.0	1.27	2.63	51.71%
120.0	1.35	2.98	54.70%

Temp Rise (C)			
Applied Current (A)	FusionLug	Ring Lug	% Difference
50.0	6.6	9.3	29.03%
60.0	9.1	12.2	25.41%
70.0	13.0	16.2	19.75%
80.0	15.8	20.8	24.04%
90.0	18.9	28.7	34.15%
100.0	24.0	37.7	36.34%
110.0	32.7	47.6	31.30%
120.0	38.0	52.9	28.17%