

# 501-152032-2

2018Nov06 Rev A

# CCJ (Crown Clip Junior) Power Cable Assembly

#### 1. INTRODUCTION

#### 1.1. Purpose

Testing was performed on TE CCJ (Crown Clip Junior) Power Cable Assembly to determine its conformance to the requirement of Product Specification.

#### 1.2. Scope

This report covers the temperature rise performance of CCJ Power Cable Assembly. Qualification Test was performed at the TE China Test Lab at Oct. 2018, with No.TP-18-02850

#### 1.3. Conclusion

TE Crown Clip Junior Power Cable Assembly conformed to temperature rise performance requirements of Product Specification 108-152029.

1.4. Test Specimens CCJ Power Cable Assembly.

#### 1.5. Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

- Temperature: 25±10°C
- Relative Humidity: 50±25% RH

#### 2. SUMMARY OF TESTING

2.1. Temperature Rise vs Current

Temperature rise not exceed 30° C at 200A current loading with 4 AWG#8 wire.



Figure 1. Temperature rise vs current curve

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Temperature Measurement (T) Unit: (°C)							
Current		Troom					
Unit:(A)	1#	2#	3#	4#	1-100111		
80	26.05	26.35	25.9	27.2	21.65		
150	34.65	37.05	34.1	38.1	21.85		
180	41	43.85	40.15	46.85	23		
220	49	53.5	48.05	57.1	23.05		
ΔR	4.4	4.7	4.25	5.55	/		
	12.8	15.2	12.25	16.25			
	18	20.85	17.15	23.85			
	25.95	30.45	25	34.05			

### Table 1. Test sample 1 temperature measurement

# Table 2. Test sample 2 temperature measurement

Temperature Measurement (T) Unit: (°C)								
Current		Troom						
Unit:(A)	1#	2#	3#	4#	1-100111			
80	26.55	27.55	26.05	27	22			
150	34.65	37.85	33.25	36.75	22.1			
180	39.9	44.5	38.05	42.8	22.25			
220	47.65	54.35	45.15	51.95	22.35			
ΔR	4.55	5.55	4.05	5	/			
	12.55	15.75	11.15	14.65				
	17.65	22.25	15.8	20.55				
	25.3	32	22.8	29.6				

# Table 3. Test sample 3 temperature measurement

Temperature Measurement (T) Unit: (°C)								
Current		Troom						
Unit:(A)	1#	2#	3#	4#	I-room			
80	25.8	26.7	26.7	27.2	21.85			
150	33.15	36.05	36.45	37.55	22			
180	38.3	42.2	41.95	44.45	22.1			
220	44.6	51	49.35	55.55	22.45			
ΔR	3.95	4.85	4.85	5.35				
	11.15	14.05	14.45	15.55	/			
	16.2	20.1	19.85	22.35	/			
	22.15	28.55	26.9	33.1				



# 3. TEST METHOD

# 3.1. Temperature Rise vs Current

Stabilize at a single current level until 3 readings at 5 minutes intervals are within 1  $^\circ\,$  C. Test with all adjacent power contact energized. Test Condition: EIA-364-70, Method II.



Figure 2. Test samples

Figure 3. Temperature measurement points

