

## Inspection and Test Plan for Power Cable

No.	Inspection and Test Plan	Reference Document	Acceptance Criteria	Verifying Document	Activity By			Remark
					Manuf.	TPI	Client	
1	Pre-Inspection Meeting	Spec.	Spec.	MOM	H	H	H	-
<b>Before Manufacturing</b>								
2	DWG, Design, Calculation Document	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	DWG, Calculation book	H	R	A	-
3	Power Cable Conductor Resistance Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
4	Power Cable Withstand Voltage Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
5	Power Cable Insulation Resistance Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
6	Power Cable Discharge Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
7	Power Cable Tensile Strength and Elongation Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
8	Power Cable Aging Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	

9	Power Cable Heat Shock Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
10	Power Cable Heat Distortion Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
11	Power Cable Flame Resistance Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
<b>Materials</b>								
12	Raw Material Inspection	ASTM	ASTM	Original Material Certificates	H	H	-	-
13	Review of Certificates	ASTM	ASTM	Certificates	H	H	-	-
14	Material Identification	ASTM	ASTM	Report	H	H	-	
<b>During Fabrication</b>								
15	Fabrication Inspection	DWG/Spec	DWG/Spec	Report	H	SW	-	

16	Configuration Inspection for Cable Type, Number of Conductors, Conductor Size, Conductor Color Coding, Insulation Type and size, Fillers, Water Stoppers, Armour, Shield, Outer diameter, Other Specified Elements/Dimensions and Cable Identification	DWG/Spec	DWG/Spec	DWG/Spec	H	SW	-	
17	Drum Inspection for Labeling, Sealing, Lagging Drum quantity and Conformance of quantity	DWG/Spec	DWG/Spec	Report				
18	Power Cable Conductor Resistance Test	Procedure	Procedure	Report	H	H	-	
19	Power Cable Withstand Voltage Test	Procedure	Procedure	Report	H	H	-	
20	Power Cable Insulation Resistance Test	Procedure	Procedure	Report	H	H	-	
21	Power Cable Discharge Test	Procedure	Procedure	Report	H	H	-	

22	Power Cable Tensile Strength and Elongation Test	Procedure	Procedure	Report	H	H	-	
23	Power Cable Aging Test	Procedure	Procedure	Report	H	H	-	
24	Power Cable Heat Shock	Procedure	Procedure	Report	H	H	-	
25	Power Cable Heat Distortion	Procedure	Procedure	Report	H	H	-	
26	Power Cable Flame Resistance Test	Procedure	Procedure	Report	H	H	-	
<b>Final Inspection</b>								
27	Final Visual & Dimensional Check	DWG	DWG	Report	H	H	-	-
28	Check of Final Book	Spec.	Spec.	DWG/ P.O	H	R	-	
<b>Documentation</b>								
29	Inspection Reports	Spec./DWG	Spec./DWG	Report	H	R	-	-
30	NCR	Spec./DWG	Spec./DWG	Report	H	R	-	-
31	Review Final Data Report	Spec./DWG	Spec./DWG	Report	H	R	-	-
<b>Pre-Shipment Inspection</b>								
32	Preservation and Packing	Spec.	Spec.	Report	H	H	-	-
33	Marking	Spec.	Spec.	Report	H	H	-	-

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34	Loading Inspection	Spec.	Spec.	Report	H	H	-	-
35	Shipping Document Control	Procedure	Spec.	Packing List	H	H	-	-

## Abbreviations:

H: Hold Point = Hold on the production till TPI Inspector performs inspection and supervise the required test

W: Witness Point = Manufacture shall notify client and TPI Inspector but there is no hold on the production;  
Client can waive this inspection based on his discretion and informs TPI Inspector accordingly.

R: Document Review = Review means Review document, which includes of material test certificates, WPS, PQR, NDT Procedures and etc.

A: Approval

SW: Spot Witness = for items with spot witness manufacture shall notify TPI inspector as fulfilling the monitoring;  
For example one random visit for whole UT tests or one or two visits for whole surface preparation works for painting.

MOM: Minute of Meeting

P.O: Purchase Order

for more information review following articles:

<http://www.inspection-for-industry.com/third-party-inspection-for-power-cable.html>

<http://www.inspection-for-industry.com/inspection-and-test-plan-for-power-cable.html>