

Inspection and Test Plan for Control Panel

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	-
Before Manufacturing								
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	WPS&PQR	ASME IX	ASME IX	Welding Book	H	R	A	-
4	Welder Qualification Certificates	ASME IX	ASME IX	Certificates	H	R	-	-
5	NDT procedures	ASME V	ASME V	Procedures	H	R	A	-
6	NDE Personnel Certificates	ASME IX	ASME IX	Certificates	H	R	-	-
7	Control Panel Insulation Resistance Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
8	Control Panel Withstand Voltage Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
9	Control Panel Mechanical Operational Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
10	Painting Procedure	SSPC	SSPC	Procedure	H	R	A	-
Materials								

11	Raw Material Inspection	ASTM	ASTM	Original Material Certificates	H	H	-	-
12	Review of Certificates	ASTM	ASTM	Certificates	H	H	-	-
13	Material Identification	ASTM	ASTM	Report	H	H	-	
During Fabrication								
14	Assembly Inspection	DWG	DWG	Report	H	SW	-	
15	Welding Inspection for Required Welding Components	WPS	WPS	Report	H	SW	-	
16	Checking of Outline Dimensions, Interface Dimensions, Busbar Dimensions and Clearances and other Specified Dimensions	DWG	DWG	Report	H	SW	-	
17	Tightness/Torque of Terminals and Degree of Protection	DWG/Spec	DWG/Spec	Report	H	SW	-	

18	Inspection to Confirm that all Instruments, Compartments, Control Switches etc. are Correctly Rated and are Correctly Located, with Specified Labeling.	DWG/Spec	DWG/Spec	Report	H	SW	-	
19	Insulation Resistance Test	Procedure	Procedure	Report	H	H	-	
20	Withstand Voltage Test (Dielectric Test)	Procedure	Procedure	Report	H	H	-	
21	Mechanical Operational Test	Procedure	Procedure	Report	H	H	-	
Final Inspection								
22	Final Visual & Dimensional Check	DWG	DWG	Report	H	H	-	-
23	Surface Preparation and Painting	Procedure	Procedure	Report	H	W	-	-
24	Check of Final Book	-	Spec.	DWG/ P.O	H	R	-	
Documentation								
25	Inspection Reports	Spec./DWG	Spec./DWG	Report	H	R	-	-
26	NCR	Spec./DWG	Spec./DWG	Report	H	R	-	-
27	Review Final Data Report	Spec./DWG	Spec./DWG	Report	H	R	-	-
Pre-Shipment Inspection								
28	Preservation and Packing	Spec.	Spec.	Report	H	H	-	-

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29	Marking	Spec.	Spec.	Report	H	H	-	-
30	Loading Inspection	Spec.	Spec.	Report	H	H	-	-
31	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-control-panel.html>

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