INSOLATION ENERGY PV MODULES

Quality Control Systems



Applicable for IEC Certified Products

The quality system is followed in 4 sections in Insolation Energy .

- 1. Incoming Quality Inspection
- 2. In process Quality Inspection
- 3. Final Quality Inspection
- 4. Machine Validation

INCOMING QUALITY INSPECTION

All raw materials are inspected as per Quality Plan of Insolation Energy. The materials are checked for dimensions, Specifications, Quantity, weight, visual as per criteria laid out in Quality Plan of material. The following material are inspected whenever they arrive in the plant as per criteria laid out in Quality Plan:

EVA, Glass, Solar Cell, Backsheet, Interconnect Ribbon, Busbar Ribbon, Anodized Al Frame, Junction box, silicon Sealant, Labels, Packing Boxes, wooden pallets

IN PROCESS QUALITY INSPECTION

The product during manufacturing is inspected at various stages on line for various parameters as per criteria laid out in Quality Plan. These are the stringent inspections performed at various stages so that product produces if of Premium Quality. The following inspections are performed on Product during manufacturing as per Quality Plan:

- 1. Visual Glass Inspection for Spots etc.
- 2. Cell Testing
- 3. Visual inspection of cells
- 4. EVA and backsheet for dimensions
- 5. Ribbon Pull Test
- 6. Gap between Cells
- 7. Gap between strings
- 8. Gap between cells and Glass side edge
- 9. Gap between cells and Glass top edge
- 10. String Polarity
- 11. Bus Bar Location w.r.t. Junction box terminal
- 12. IV testing at Lay up
- 13. EL test before Lamination
- 14. Visual Inspection before Laminator
- 15. Gap between Bus bars
- 16. Gap between Busbar and cells
- 17. Visual Inspection after Lamination
- 18. Frame Inspection after fitment
- 19. Junction Box Assembly Inspection
- 20. Electrical Parameters of Modules
- 21. Leakage current at high voltage
- 22. IR at high voltage
- 23. Wet leakage test
- 24. Module visual Inspection
- 25. Packing Inspection
- 26. Gel Content Test
- 27. Back sheet Pull test
- 28. High Pressure Cooker test

FINAL QUALITY INSPECTION

The Product is inspected before dispatch to customers for visual inspection, packing and electrical parameters. After stringent Quality inspection solar modules are dispatched to customers.

MACHINE VALIDATION

The sun simulator and High Voltage equipment are calibrated in every shift so that machine performs all the testing in accurate manner and product is of specified parameters.

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