

ENGINEERING SERVICES AC BOX/ CONTROL PANEL, CABLE HARNESSING

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# **CASE STUDY – AC BOX**

## CASE STUDY – CABLE & HARNESS DESIGN

### Scope of Work:

- CAD Modeling of AC BOX sheet metal component
- CAD Modeling of assembly
- Cable Harness Routings

### Inputs:

- Engineering Requirement Specification
- Load details

#### **Activities:**

- Requirements Gathering and Analyzing
- Concept Design & Detailed Design
- Design Reviews
- Electrical Schematic Design (In E3S) and selection of components as per UL
- Standards
- Enclosure Design and placing electrical components
- Isolation and Power and Control Circuits
- EMC cable terminations at input & outputs
  UG Cable harness Routing and form board creation

## Scope of Work:

- Sheet metal, Interconnect, Schematic and Cable Harness drawings
- Exploded View of Assembly, Bill Of Materials, Test Procedure Instructions
- ◆ UG Electrical Routing and form board creation







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### Scope of Work:

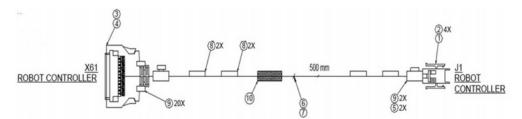
- Create Interconnect, Schematic & Cable Harness Drawing in E3S (Zuken)
- Create wire list and BOM
- Create Spec sheets for Electrical Components

### Inputs:

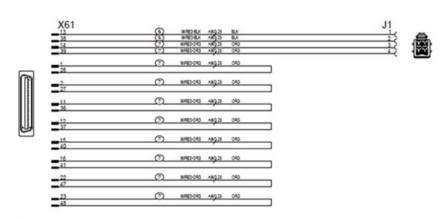
- Redline drawings & hand sketches
- Electrical process flow diagrams
- Input/ Output Details (Source and Load details)

#### **Activities:**

- Analyzing the inputs
- Study the part details from OEM
- Understand the theory and functionality of the schematic diagram
- Selection of components as per UL standards Deliverables
- Interconnect, Schematic & Spec sheets in E3S
- Cable Harness drawings & BOM for manufacturing
- New component spec sheets
- Create components and symbols in E3S library



Cable Harness Drawing in E3 Series



Wire list in E3 Series

