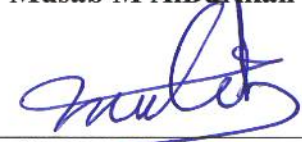
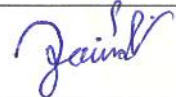


**SPECIFICATIONS FOR WARNING PLATE –
ARC FLASH & SHOCK HAZARD****Issue Date:** 04/2023**Page:** 1 of 6**SEC-04-01 Rev.0****SEC-04-01****REV.0****SPECIFICATIONS
FOR
WARNING PLATE
ARC FLASH & SHOCK HAZARD**

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Project Engineering and Control
Department Manager**Recommended by:****Musab M AlBurikan**
SSD Division Manager

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ARC FLASH & SHOCK HAZARD****Issue Date:** 04/2023**Page:** 2 of 6**SEC-04-01 Rev.0**

No.	Name	Department / Sector	Signature	Date
1	Mohammed M. Saad	Project Engineering & Control		03.04.23
2	Faisal Mehraj Din	Specification & Standards		03.04.2023

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**SPECIFICATIONS FOR WARNING PLATE –
ARC FLASH & SHOCK HAZARD****Issue Date:** 04/2023**Page:** 4 of 6**SEC-04-01 Rev.0****1. SCOPE:**

This specification defines the minimum technical requirements of Arc Flash & Shock Hazards Warning Plate as a safety warning to protect personnel dealing with electrical equipment in electrical distribution networks. Arc Flash & Shock Hazards Warning Plate is a mandatory condition to be used for all distribution equipment in distribution network at Saudi Electricity Company (SEC).

2. CROSS REFERENCES:

This specification shall be read in conjunction with SEC specification No.01-SDMS-01(latest revision), titled “General Requirements For All Equipment/Materials” which shall be considered as an integral part of this standard, also be read in conjunction with SEC purchase order requirements or contract schedules.

3. APPLICABLE CODES AND STANDARDS:

The latest revision of the following codes and standards shall be applicable for the equipment/materials covered in this specification. In case of any deviation, the vendor/manufacturer may propose equipment/material conforming to an alternate code or standard without jeopardizing the requirements of this standard. However, the provision of SEC standard shall supersede the provision of these standards in case of any differences.

3.1 OSHA-NFPA 70E Standard for Electrical Safety in the Workplace.

3.2 IEEE 1584-2018 Guide for Performing Arc-Flash Hazard Calculations

4. DESIGN AND CONSTRUCTION REQUIREMENTS**4.1 General**

4.1.1 Arc Flash & Shock Hazards Warning Plate shall be a single-piece metallic designed for outdoor-use and able to withstand the environmental conditions specified in the latest revision of SEC specification 01- SDMS-01. It shall and able to withstand the effects of direct solar radiation where the temperature of surfaces exposed to direct solar radiation shall be regarded as 75°C.

4.1.2 Dimensions and other physical attributes of the Plate shall be as shown in Figure 1.

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4.1.3 The seals shall be sufficiently durable, strong and reliable so as to prevent accidental breakage and early deterioration (due to weather conditions, chemical reaction, vibration, shock, etc.) in normal use.

4.2 LABEL DESIGN:

4.2.1 Arc Flash & Shock Hazards Warning Plate shall contain the word WARNING in black lettering on a Red background. All labels shall reflect the following information:

1. “Danger” warning sign indicating the presence of “Arc Flash” and “Shock” hazard.
2. Voltage – Purpose is to make known the level of risk associated with the voltage as well as the level of shock protection required.
3. Arc Flash boundary – Purpose to make known the limit distance at which a 3rd degree burn will occur.
4. Incident Energy – Purpose to evaluate the level of arc rated personal protective equipment required for specific equipment.
5. PPE – This will be the minimum level of arc rated personal protective equipment required to work on the specific equipment.
6. Identification Number – Purpose is to ensure that the correct label is affixed onto the correct equipment.

4.2.2 As a maximum, the incident energy, PPE requirement, flash protection boundary and working distance shall be include on the label. Figure 1 is an example of the simplified label.

4.3 LABEL REQUIREMENTS:

- 1) Color: White & Red
- 2) Dimensions: Width=150mm; length=220mm; Gauge=0.1mm
- 3) Printing: Black lettering “WARNING” in English with SEC Monogram & 5-Star Safety Logo.

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5. Arc Flash & Shock Hazards Warning Plate Sample Figure:

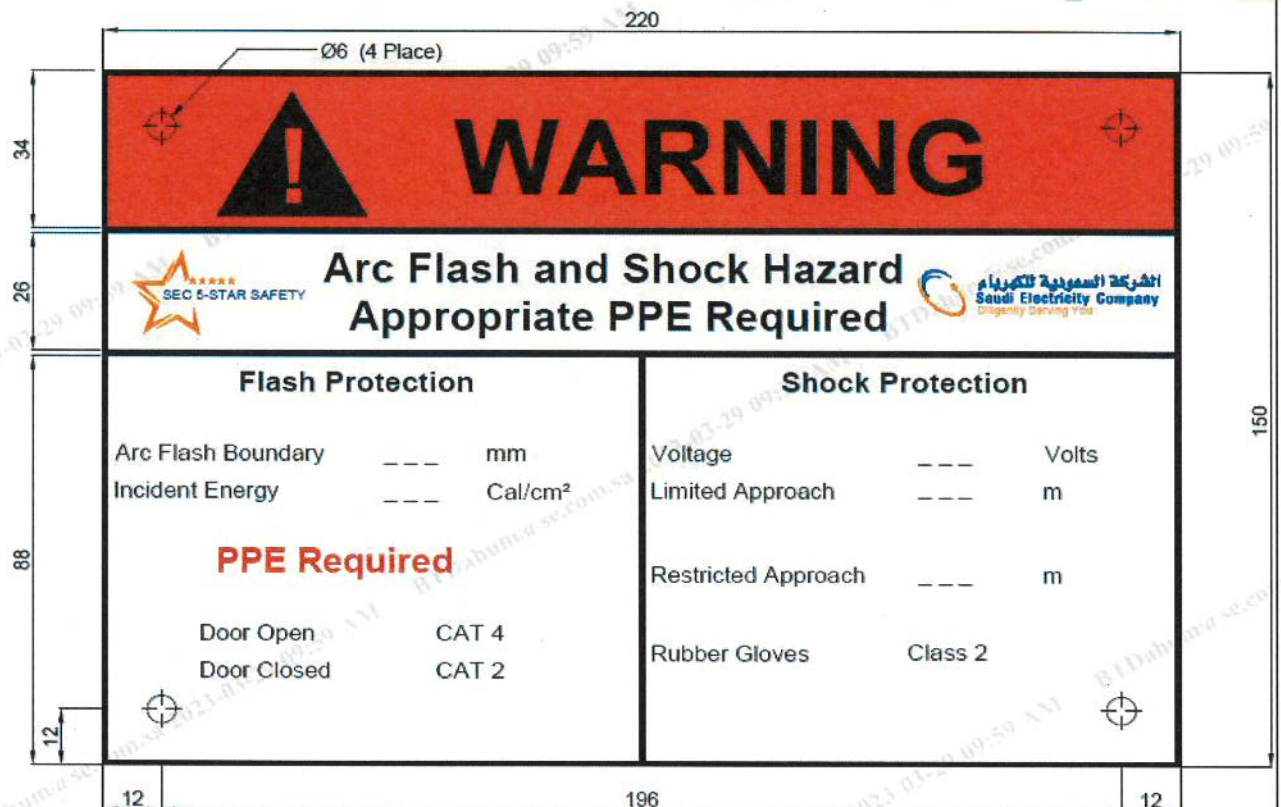


Figure 1. Simplified Label

Note:

1. All dimension are in millimeters.
2. 220mm X 150mm X 1.5mm thick, aluminum plate
3. Size of symbols and lettering shall be proportional to the overall dimension.