

NFPA 70e Arc Flash Table 130.7

Equipment	Arc flash PPE category	Arc-flash boundary
Panelboards or other equipment rated 240 volts and below Parameters: Maximum of 25 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in)	1	485 mm (19 in.)
Panelboards or other equipment rated greater than 240 volts and up to 600 volts Parameters: Maximum of 25 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in)	2	900 mm (3 ft)
600-volt class motor control centers (MCCs) Parameters: Maximum of 65 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in)	2	1.5 m (5 ft)
600-volt class motor control centers (MCCs) Parameters: Maximum of 42 kA available fault current; maximum of 0.33 sec (20 cycles) fault clearing time; minimum working distance 455 mm (18in.)	4	4.3 m (14 ft)
600-volt class switchgear (with power circuit breakers or fused switches) and 600-volt class switchboards Parameters: Maximum of 35 kA available fault current; maximum of 0.5 sec (30 cycles) fault clearing time; minimum working distance 455 mm (18in.)	4	6 m (20 ft)
Other 600-volt class (277 volts through 600 volts, nominal) equipment Parameters: Maximum of 65 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	2	1.5 m (5 ft)

**PPE Category 1: Minimum Arc Rating 4 cal/cm<sup>2</sup>**

PPE CAT 1 represents the lowest level Arc Rated PPE s required. Requiring a single layer of arc-rated PPE, workers need the following clothing:

- **Required Clothing:** Long Sleeve Shirt (or Jacket) and Pants or AR Coverall with a minimum arc rating of 4 cal/cm<sup>2</sup>

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- **Required Face and Head Protection:** Face Shield (with “wrap-around” guarding... i.e. balaclava) or Arc Flash Hood
- **As Needed:** Arc Rated Jacket, Rainwear, Parka, Hard Hat Liner

In addition to AR clothing, the following products are required or to be used as needed:

- **Required Hand Protection:** Heavy-Duty Leather Gloves
- **Additional PPE:** Hard Hat, Eye Protection (Glasses, Goggles), Hearing Protection
- **Footwear:** Leather Footwear (as needed)

### **PPE Category 2: Minimum Arc Rating 8 cal/cm<sup>2</sup>**

PPE CAT 2 can likely be met with a single layer of Arc Rated PPE. Most companies with exposures requiring CAT 1 typically opt for CAT 2 clothing to cover both categories. However, today, the comfort of PPE CAT 1 and 2 is comparable, so it makes more sense to choose CAT 2 clothing.

#### **In PPE CAT 2, workers need the following clothing:**

- **Required Clothing:** Arc Rated Long Sleeve Shirt and Pants or Arc Rated Coverall with a minimum arc rating of 8 cal/cm<sup>2</sup>
- **Required AR Face and Head Protection:** Arc Rated Arc Flash Hood or AR Face Shield, Sock Hood/Balaclava with a minimum arc rating of 8 cal/cm<sup>2</sup>
- **As Needed:** Arc Rated Jacket, Rainwear, Parka, Hard Hat Liner

In addition to AR clothing, the following products are required or to be used as needed:

- **Required Hand Protection:** Heavy-Duty Leather Gloves
- **Additional PPE:** Hard Hat, Eye Protection (Glasses, Goggles), Hearing Protection
- **Footwear:** Leather Footwear (as needed)

Enespro PPE 8 CAL, 12 CAL, and 20 CAL Arc Flash Kits meet NFPA 70E-2018 PPE Cat 1 & 2 and offer breathable comfort, flexibility and durability.

### **PPE Category 3: Minimum Arc Rating 25 cal/cm<sup>2</sup>**

PPE Categories 3 and 4 require additional layers of PPE. Arc flash hoods, rubber insulating gloves & leather protectors, or arc-rated gloves are required. For PPE Category 3, workers need the following clothing:

- **Required Clothing:** Arc Rated Flash Jacket and AR pants or AR coverall with a minimum arc rating of 25 cal/cm<sup>2</sup>

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- **Required AR Face and Head Protection:** Arc Rated Flash Hood with a minimum arc rating of 25 cal/cm<sup>2</sup>
- Required AR Hand Protection: Rubber insulating gloves & leather protectors or arc-rated gloves
- As Needed: Arc Rated Jacket, Rainwear, Parka, Hard Hat Liner

In addition to AR clothing, the following PPE is required:

- **Additional PPE:** Hard Hat, Eye Protection (Glasses, Goggles), Hearing Protection (inserts), Leather Footwear

### **PPE Category 4: Minimum Arc Rating 40 cal/cm<sup>2</sup>**

The final PPE Category requires AR clothing with a minimum rating of 40 cal/cm<sup>2</sup>.

- **Required Clothing:** Arc Rated Flash Jacket and AR pants or AR coverall with a minimum arc rating of 40 cal/cm<sup>2</sup>
- **Required AR Face and Head Protection:** Arc Rated Flash Hood with a minimum arc rating of 40 cal/cm<sup>2</sup>
- **Required AR Hand Protection:** Rubber insulating gloves & leather protectors or arc-rated gloves
- **As Needed:** Arc Rated Jacket, Rainwear, Parka, Hard Hat Liner

In addition to AR clothing, the following PPE is required:

Additional NFPA 70E PPE Requirements: Hard Hat, Eye Protection (Glasses, Goggles), Hearing Protection (inserts), Leather Footwear.