

DETAILED ARC FLASH & SHOCK EQUIPMENT LABEL SPECIFICATION

REFERENCE NFPA 70E ARTICLE 130.5(H) EQUIPMENT LABELING



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SIGNAL PANE

Includes the Safety Alert Symbol: Indicates a potential personal injury hazard.

Includes the Signal Word: Calls attention to the safety message. (ie. DANGER, WARNING, CAUTION, NOTICE)

INFORMATION PANE

Arc-rated Arc Flash PPE Selection: Select arc flash PPE with an Arc Thermal Performance Value (ATPV) equal to or greater than the incident energy listed.

Arc Flash Boundary: Calculated distance where incident energy is 1.2 cal/cm².

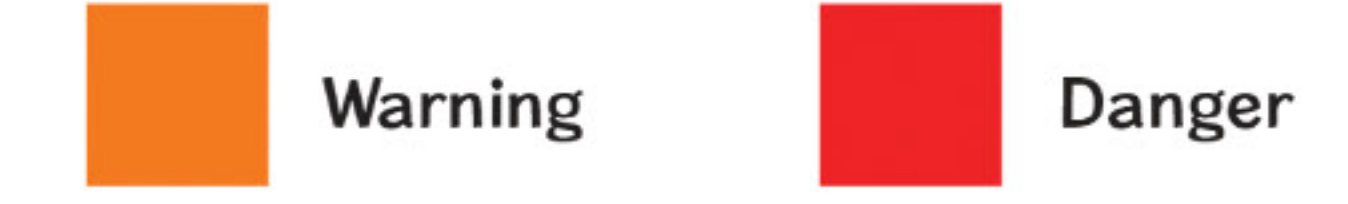
No arc flash PPE required when standing outside the arc flash boundary.

Working Distance: The distance to the face and torso of the Qualified Electrical Work or Task Qualified Worker who is exposed to the arc flash hazard.

Additional Note: Please reference your employer's Electrical Safety Program for specific requirements related to Arc Flash & Shock PPE.

WARNING			
Arc Flash and Shock Hazard			
ARC FLASH PPE		SHOCK PROTECTION	
56.1 cal/cm ² incident energy		480 VAC	
Arc Flash Boundary Working Distance	144 inches 24 inches	RIG Class # Limited Aprch. Boundary Restricted Aprch. Boundary	0 42 inches 12 inches
Reference [Company] Electrical Safety Program For Arc Flash PPE Requirements.		(FOR EXPOSED ENERGIZED CONDUCTORS or CIRCUIT PARTS)	
Equipment: MCC #1 Building, SWGR #1 Protective Device: LOAD SIDE of FB-1 Report #: TWBESC-XXX-YYY-AHA-ZZZ Rev 1.0		Analysis By: TWBESC Date: 2021-01-30 Standard #: IEEE 1584-2018	

WARNING SIGNAL WORD - when incident energy is ≤140.0 cal/cm²
 DANGER SIGNAL WORD - when incident energy is ≥140.1 cal/cm²
 ANSI Z535 DISTINCT COLOURS



MESSAGE PANE

The equipment label applies to arc flash and shock hazards when a worker is exposed related to the energized electrical work task they would perform.

INFORMATION PANE

Shock Protection: Maximum nominal voltage of exposed conductors and circuit parts with inadvertent movement risk.

Rubber Insulating Glove (RIG) Class #: See table at right for complete list of Class #s and voltage ratings.

Limited Approach Boundary: No shock PPE tools or equipment required when inside the Limited Approach Boundary. Unqualified persons must be fully escorted.

Restricted Approach Boundary: Qualified persons only. Qualified persons shall use rubber insulating gloves with leather protectors and other insulating tools when inside the Restricted Approach Boundary.

MINIMUM LABEL REQUIREMENT

WARNING
Arc Flash Hazard

Rubber Electrical Protective Equipment Class #

Class #	Max. Use Voltage AC	Max. Use Voltage DC	Notes:
00	500VAC	750VDC	Leather protector gloves shall be correct Class # and size to match rubber insulating glove. Storage bag needs to be specified to accommodate glove length, stored flat. Vinyl bag with two pockets recommended. Rubber insulating gloves and leather protectors shall be air and visually inspected before use.
0	1000VAC	1500VDC	
1	7500VAC	11250VDC	
2	17000VAC	25500VDC	
3	26500VAC	39750VDC	
4	36000VAC	54000VDC	

Nominal System Voltage Range - Phase to Phase	Limited Approach Boundary - Exposed Fixed Circuit Part	Restricted Approach Boundary (includes inadvertent movement adder)
≤ 30V	Not Specified	Not Specified
50V to 150V	1.0 m (3 ft. 6 in.)	Avoid Contact
151V to 750V	1.0 m (3 ft. 6 in.)	0.31 m (1 ft. 0 in.)
751V to 5kV	1.0 m (3 ft. 6 in.)	0.63 m (2 ft. 1 in.)
5.1kV to 15kV	1.5 m (5 ft. 0 in.)	0.65 m (2 ft. 2 in.)
15.1 kV to 36kV	1.8 m (6 ft. 0 in.)	0.77 m (2 ft. 7 in.)

FOOTER

Equipment: The electrical equipment that the arc flash hazard incident energy analysis has been completed for.

Protective Device: The upstream electrical protective device that the incident energy calculated is based on. Indication if any incident energy reduction method is installed and needs to be verified functional.

Report #: Consulting engineer's P.Eng or PE authenticated report that has been issued.

Analysis By: Engineering consultant's name.

Date: Issued date of equipment labels (validate study is current every 5 years).

Standard: Applicable standard/calculation methodology.

WARNING			
Arc Flash and Shock Hazard			
ARC FLASH PPE		SHOCK PROTECTION	
17.8 cal/cm ² incident energy		600 VAC	
Arc Flash Boundary Working Distance	72 inches 24 inches	RIG Class # Limited Aprch. Boundary Restricted Aprch. Boundary	0 42 inches 12 inches
Reference [Company] Electrical Safety Program For Arc Flash PPE Requirements.		(FOR EXPOSED ENERGIZED CONDUCTORS or CIRCUIT PARTS)	
Equipment: MCC #1 Building, SWGR #1 Protective Device: LOAD SIDE of FB-1, Arc Flash Relay ON Report #: TWBESC-XXX-YYY-AHA-ZZZ Rev 1.0		Analysis By: TWBESC Date: 2021-01-30 Standard #: IEEE 1584-2018	

WARNING			
Arc Flash and Shock Hazard			
ARC FLASH PPE		SHOCK PROTECTION	
26.8 cal/cm ² incident energy		480 VAC	
Arc Flash Boundary Working Distance	72 inches 24 inches	RIG Class # Limited Aprch. Boundary Restricted Aprch. Boundary	0 42 inches 12 inches
Reference [Company] Electrical Safety Program For Arc Flash PPE Requirements.		(FOR EXPOSED ENERGIZED CONDUCTORS or CIRCUIT PARTS)	
Equipment: MCC #1 Building, SWGR #1 Protective Device: LOAD SIDE of FB-1, Maint. Mode ON Report #: TWBESC-XXX-YYY-AHA-ZZZ Rev 1.0		Analysis By: TWBESC Date: 2021-01-30 Standard #: IEEE 1584-2018	

DANGER			
Arc Flash and Shock Hazard			
ARC FLASH PPE		SHOCK PROTECTION	
140.1 cal/cm ² incident energy		480 VAC	
Arc Flash Boundary Working Distance	480 inches 24 inches	RIG Class # Limited Aprch. Boundary Restricted Aprch. Boundary	0 42 inches 12 inches
Reference [Company] Electrical Safety Program For Arc Flash PPE Requirements.		(FOR EXPOSED ENERGIZED CONDUCTORS or CIRCUIT PARTS)	
Equipment: MCC #1 Building, SWGR #1 Protective Device: LINE SIDE of FB-1 Report #: TWBESC-XXX-YYY-AHA-ZZZ Rev 1.0		Analysis By: TWBESC Date: 2020-01-30 Standard #: IEEE 1584-2018	

WARNING
Arc Flash and Shock Hazard
REFER TO [COMPANY] ELECTRICAL MAINTENANCE DEPARTMENT ARC FLASH INCIDENT ENERGY STUDY RESULTS TABLE OR CMMS ASSET RECORD FOR ARC FLASH & SHOCK DATA
CONTACT PHONE: (XXX) XXX-XXXX Building ID, Office ID



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