

ARC FLASH HAZARD PPE CATEGORIES FOR DC SYSTEMS

Equipment – DC Systems	Arc Flash PPE Category	Arc Flash Boundary
Storage batteries, dc switchboards, and other dc supply		
sources		
100 V> Voltage<250 V		
Parameters:		
Voltage: 250 V		
Maximum arc duration and working distance 2 sec @18		
inches		
Short circuit current < 4 kA	1	3 ft.
$4 \text{ kA} \leq \text{short-circuit current} < 7 \text{ kA}$	2	4 ft.
$7 \text{ kA} \le \text{short-circuit current} < 15 \text{ kA}$	3	6 ft.
Storage batteries, dc switchboards, and other dc supply		
sources		
$250 \text{ V} \leq \text{Voltage} \leq 600 \text{ V}$		
Parameters:		
Voltage: 600 V		
Maximum arc duration and working distance 2 sec @18		
inches		
Short-circuit current 1.5 kA	1	3 ft.
$1.5 \text{ kA} \leq \text{short-circuit current} < 3 \text{ kA}$	2	4 ft.
$3 \text{ kA} \leq \text{short-circuit current} < 7 \text{ kA}$	3	6 ft.
$7 \text{ kA} \leq \text{short-circuit current} < 15 \text{ kA}$	4	8 ft.

Note: A conservative value for the DC short circuit current is calculated by 10 times the 1 minute ampere rating of the battery. A more accurate value for the short circuit current can be obtained from the battery manufacturer.