Article 130 – Working On Or Near Live Parts
Reference Table #130.7 (c) (9) (a) Hazard Risk Category Classifications

Task (Assumes Equipment is Energized, and Work Is Done Within the Flash Protection Boundary)	Hazard/Risk Category	V-rated Gloves	V-rated Tools
Panelboards rated 240 V and below – Notes 1 and 3			
Circuit breaker (CB) or fused switch operation with covers on	0	N	N
CB or fused switch operation with covers off	0	N	N
Work on energized parts, including voltage testing	1	Y	Y
Remove/install CBs or fused switches	1	Y	Y
Removal of bolted covers (to expose bare, energized parts)	1	N	N
Opening hinged covers (to expose bare, energized parts)	0	N	N
Panelboards or switchboards rated >240 V and up to 600 V (With molded case or insulated case circuit breakers) – Notes 1 and 3			
CB or fused switch operation with covers on	0	N	N
CB or fused switch operation with covers off	1	N	N
Work on energized parts, including voltage testing	2*	Y	Y
600 V Class Motor Control Centers (MCCs) – Notes 2 (except as indicated) and 3			
CB or fused switch or starter operation with enclosure doors closed	0	N	N
Reading a panel meter while operating a meter switch	0	N	N
CB or fused switch or starter operation with enclosure doors open	1	N	N
Work on energized parts, including voltage testing	2*	Y	Y
Work on control circuits with energized parts 120 V Or below, exposed	0	Y	Y
Work on control circuits with energized parts >120 V, Exposed	2*	Y	Y
Insertion or removal of individual starter “buckets” From MCC – Note 4	3	Y	N
Application of safety grounds, after voltage test	2*	Y	N
Removal of bolted covers (to expose bare, energized Parts) – Note 4	2*	N	N
Opening hinged covers (to expose bare, energized Parts)	1	N	N
600 V Class Switchgear (with power circuit breakers or fused switches) – Notes 5 and 6			
CB or fused switch operation with enclosure doors Closed	0	N	N
Reading a panel meter while operating a meter switch	0	N	N

Task (Assumes Equipment is Energized, and Work Is Done Within the Flash Protection Boundary)	Hazard/Risk Category	V-rated Gloves	V-rated Tools
600 V Class Switchgear (with power circuit breakers or fused switches) – Notes 5 and 6			
CB or fused switch operation with enclosure doors Open	1	N	N
Work on energized parts, including voltage testing	2*	Y	Y
Work on control circuits with energized parts 120 V Or below, exposed	0	Y	Y
Work on control circuits with energized parts >120 V, exposed	2*	Y	Y
Insertion or removal (racking) of CBs from cubicles, Doors open	3	N	N
Insertion or removal (racking) of CBs from cubicles, Doors closed	2	N	N
Application of safety grounds, after voltage test	2*	Y	N
Removal of bolted covers (to expose bare, energized Parts)	3	N	N
Opening hinged covers (to expose bare, energized Parts)	2	N	N
Other 600 V Class (277 V through 600 V, nominal) Equipment – Note 2 and Note 3			
Lighting or small power transformers (600 V, Maximum)	-	-	-
Removal of bolted covers (to expose bare, energized parts)	2*	N	N
Opening hinged covers (to expose bare, energized Parts)	1	N	N
Work on energized parts, including voltage testing	2*	Y	Y
Application of safety grounds, after voltage testing	2*	Y	N
Revenue meters (kW-hour, at primary voltage and Current)	-	-	-
Insertion or removal	2*	Y	N
Cable trough or tray cover removal or installation	1	N	N
Miscellaneous equipment cover removal or installation	1	N	N
Work on energized parts, including voltage testing	2*	Y	Y
Application of safety grounds, after voltage test	2*	Y	N

Task (Assumes Equipment is Energized, and Work Is Done Within the Flash Protection Boundary)	Hazard/Risk Category	V-rated Gloves	V-rated Tools
NEMA E2 (fused contactor) Motor Starters, 2.3 kV Through 7.2 kV			
Contactor operation with enclosure doors closed	0	N	N
Reading a panel meter while operating a meter switch	0	N	N
Contactor operation with enclosure doors open	2*	N	N
Work on energized parts, including voltage testing	3	Y	Y
Work on control circuits with energized parts 120 V Or below, exposed	0	Y	Y
Work on control circuits with energized parts >120 V, Exposed	3	Y	Y
Insertion or removal (racking) of starters from Cubicles, doors open	3	N	N
Insertion or removal (racking) of starters from Cubicles, doors closed	2	N	N
Application of safety grounds, after voltage test	3	Y	N
Removal of bolted covers (to expose bare, energized Parts)	4	N	N
Opening hinged covers (to expose bare, energized Parts)	3	N	N
Metal Clad Swtichgear, 1 kV and Above			
CB or fused switch operation with enclosure doors Closed	2	N	N
Reading a panel meter while operating a meter switch	0	N	N
CB or fused switch operation with enclosure doors Open	4	N	N
Work on energized parts, including voltage testing	4	Y	Y
Work on control circuits with energized parts 120 V Or below, exposed	2	Y	Y
Work on control circuits with energized parts >120 V, Exposed	4	Y	Y
Insertion or removal (racking) or CBs from cubicles, Doors open	4	N	N
Insertion or removal (racking) or CBs from cubicles, Doors closed	2	N	N
Application of safety grounds, after voltage test	4	Y	N
Removal of bolted covers (to expose bare, energized Parts)	4	N	N
Opening hinged covers (to expose bare, energized Parts)	3	N	N
Opening voltage transformer or control power Transformer compartments	4	N	N

Task (Assumes Equipment is Energized, and Work Is Done Within the Flash Protection Boundary)	Hazard/Risk Category	V-rated Gloves	V-rated Tools
Other Equipment I kV and Above			
Metal clad load interrupter switches, fused or unfused	-	-	-
Switch operation, doors closed	2	N	N
Work on energized parts, including voltage testing	4	Y	Y
Removal of bolted covers (to expose bare, energized Parts)	4	N	N
Opening hinged covers (to expose bare, energized Parts)	3	N	N
Outdoor disconnect switch operation (hookstick Operated)	3	Y	Y
Outdoor disconnect switch operation (gang-operated, From grade)	2	N	N
Insulated cable examination, in manhole or other Confined space	4	Y	N
Insulated cable examination, in open area	2	Y	N

Note:
V-rated Gloves are gloves rated and tested for the maximum line-to-line voltage upon which work will be done.

V-rated Tools are tools rated and tested for the maximum line-to-line voltage upon which work will be done.

*2** means that a double-layer switching hood and hearing protection are required for this task in addition to the other Hazard/Risk Category 2 requirements of Table 130.7 (c) (10).

Y = yes (required)

N = no (not required)

Notes:

1. 25 kA short circuit current available, 0.03 second (2 cycle) fault clearing time.
2. 65 kA short circuit current available, 0.03 second (2 cycle) fault clearing time.
3. For < 10 kA short circuit current available, the hazard/risk category required may be reduced by one number.
4. 42 kA short circuit current available, 0.33 second (20 cycle) fault clearing time.
5. 35 kA short circuit current available, up to .5 second (30 cycle) fault clearing time.
6. For < 25 kA short circuit current available, the hazard/risk category required may be reduced by one number.