Ground Fault Circuit Interrupters Stats and Facts



FACTS

The main types of injuries: electrocution (fatal), electric shock, burns, and falls and occur in various ways:

1. Direct contact with exposed energized conductors or circuit parts. When electrical current travels through our bodies, it can interfere with the normal electrical signals between the brain and our muscles (e.g., heart may stop beating properly, breathing may stop, or muscles may spasm).
2. When the electricity arcs (jumps, or “arcs”) from an exposed energized conductor or circuit part (e.g., overhead power lines) through a gas (such as air) to a person who is grounded (that would provide an alternative route to the ground for the electrical current).
3. Thermal burns including burns from heat generated by an electric arc, and flame burns from materials that catch on fire from heating or ignition by electrical currents or an electric arc flash. Contact burns from being shocked can burn internal tissues while leaving only very small injuries on the outside of the skin.
4. Thermal burns from the heat radiated from an electric arc flash. Ultraviolet (UV) and infrared (IR) light emitted from the arc flash can also cause damage to the eyes.
5. An arc blast can include a potential pressure wave released from an arc flash.

STATS

The Bureau of Labor Statistics shows in between 2017 and 2019.

- Electrical contractors represented the highest rate of any sub-sector, with 115 electrocutions out of 364 for the entire sector.
- Electricians suffered 105 electrocutions, the highest of any occupation.
- Workers aged 35 to 44 had the highest occurrence of electrocution of any age group at 28.3%.
- Workers less than 25 years old experienced the highest rate among full-time workers of electrocutions at 1.2 per 100,000.

- Main cause of death among electrical workers is contact with live electrical equipment and wiring.