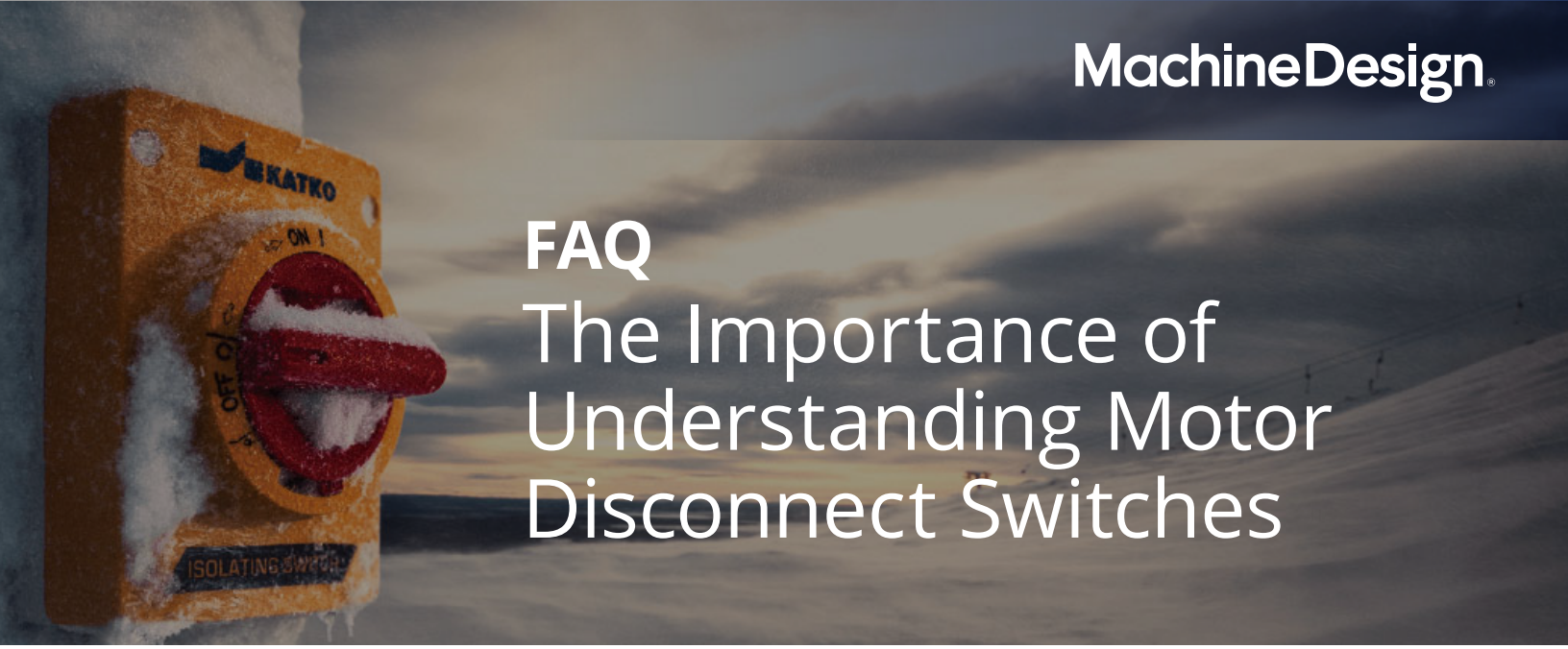


FAQ
The Importance of Understanding Motor Disconnect Switches

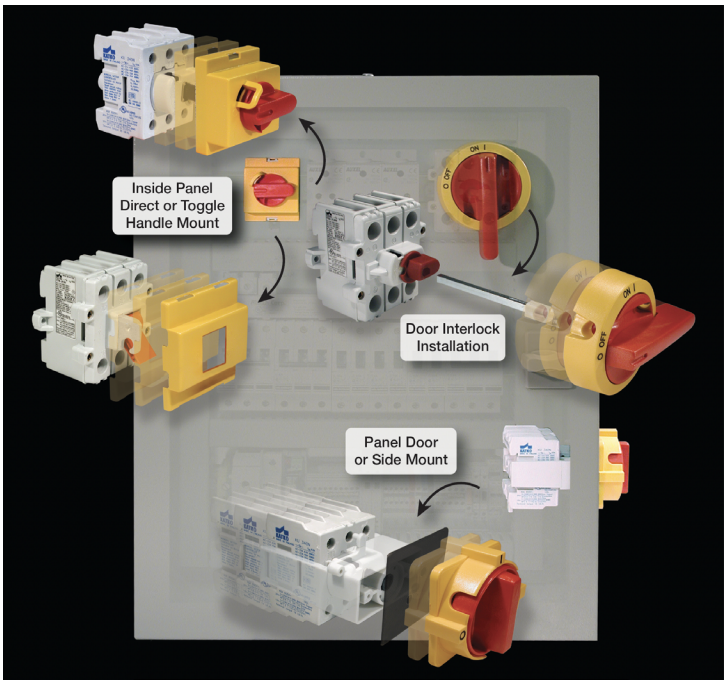
Q: What is the major purpose for using motor disconnect switches?

A: Motor disconnect switches are an important part of a system's safety protocol for electrical equipment that needs robust protection for both the equipment and personnel. These devices are used to make it easy for manufacturers to disconnect and reconnect power so that operators are able to work safely downstream of the switch—with absolutely no concern about coming in contact with live voltage or power. Besides being used to open and close the motor circuits when repair or maintenance is needed, disconnect switches can be used for lockout/tagout purposes to keep equipment shut down and isolated until proper restart sequences are completed. Disconnect switches also allow operators to access a control panel without being exposed to the line-side voltage. In fact, with today's safety regulations, manufacturers are required to include a local—and visible—disconnect switch for motors and equipment.

Q: What components make up a disconnect switch?

A: Disconnect switches are made of wired contacts connected to an actuator of some type, whether a handle or toggle. An enclosure protects the contacts from environmental hazards anywhere from dust and dirt to water and moisture. The handle or toggle allows users to engage and disengage the electrical contacts without opening the distribution enclosure or motor controller. Locking the switch in the disconnect position is often required so that power cannot be turned on accidentally.

Q: What options are available for mounting in different applications?



Be sure to work with a company that offers multiple options for mounting your disconnect switch so that you can adapt quickly and easily to any application.

A: Mounting is an important part of selecting the right disconnect switch because some applications have limited space to work with. Options to consider include a door interlock installation where the switch is placed on the back panel and the shaft is inserted into the disconnect switch and stays with the switch, with the panel door open and the door interlock handle on the outside of the panel door. For a panel door mount or side mount application, the switch itself is located on the inside of the door bracket while the handle

is on the outside of the door or side panel. Then, there is a standard inside panel application with direct handle or toggle operated switch. Note which of these mounting methods are ones you might wish to have a locking capability for in order to best protect personnel and equipment.

Q: What specifications can be considered for general use of a disconnect switch?

A: Applications vary quite a bit, but you'll find that 16A to 150A/600V should take care of most of your needs. You will have to consider the size of the manufacturer's solution since many pieces of equipment built today have less real estate available for such devices. This is why companies like Altech have focused on compact designs, such as their UL 508, which is one of the smallest 80A disconnect switches on the market.

Q: What else might I consider when looking for the right disconnect switch?

A: We suggest that you look for a switch mechanism that is digitally controlled—that is, the switch mechanism speed is independent from the operator speed. For example, Altech's UL 98 disconnect switches operate regardless of how slow the handle moves. At a certain point the switch goes from off to on or vice versa. Also, when considering a disconnect switch, look for a manufacturer who uses the same design for either direct or extended handle units. Be sure that the manufacturer you choose also has a comprehensive range of accessories including a variety of door mounting kits and fuse holders. Another consideration, depending on your application would be the materials the disconnect switch is made out of. Look for a company that offers different enclosures such as aluminum, sheet metal, stainless steel and polycarbonate enclosed disconnect switches.

Q: What certifications will I need to consider when selecting a disconnect switch?

A: The National Electrical Code (NEC) says that a disconnect switch must be located in sight from all motors or manufacturing equipment, not more than 50 feet from the equipment it controls. UL listings are also required for the electrical mechanisms of disconnect switches. Altech disconnect switches have been designed and manufactured in accordance with EN 60947-l, EN 60947-3, IEC 60947-1, IEC 60947-3, Low Voltage Directive 2006/95/EY, and UL60947-4-1 (formerly UL508).