

# DISCONNECT, TRANSFER, AND LOAD CONTROL DEVICES BUYING GUIDE



## WHAT DO THEY DO?

Disconnect, transfer, and load control devices isolate and control electrical circuits for safety, maintenance, and equipment protection. This guide summarizes the primary functions of these devices used in industrial automation.

### Device Types

- **Manual Transfer Switches:** Allow safe manual changeover between power sources. They provide reliable source selection for backup generators and utility feeds during maintenance or outages.
- **Fused Disconnects:** Combine a switch and overcurrent protection in one enclosure. They protect downstream wiring and equipment from short circuits and overloads.
- **Non-Fused Disconnects:** Provide a simple means to isolate circuits without built-in overcurrent protection. They are used where separate protection devices are already installed or required.
- **Non-Fused DC-Rated Disconnects:** Use contacts specifically constructed for DC circuits to safely isolate photovoltaic, battery, DC control, and other DC applications.

### Topics

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- » [Selection Guide](#)
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- **Motor Disconnects and Controllers:** Integrate starting, stopping, and protection for motors. They offer thermal overload protection, reversing, and manual motor isolation in one device.
- **Enclosed Motor Disconnects:** Provide motor isolation in a weatherproof or dust-tight enclosure. They combine environmental protection with easy access for maintenance and emergency stops.
- **Mechanical Interlocks:** Provide interlocked motor disconnects with a plug-and-socket connection for mobile equipment. They feature an OSHA-compliant lockout/tagout point and integrated safety interlocks to prevent mismatched connections, ensuring the plug cannot be engaged or disengaged under load.
- **Rotary Cam Switches:** Offer multi-position switching for control and selection tasks. They deliver robust, repeatable contact action for motor control, phase selection, and equipment mode changes.

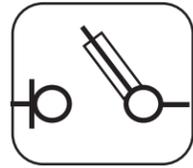
Choose the type that matches your circuit protection or control needs and environment. Proper selection improves safety, uptime, and maintainability.

# APPLICATIONS

Disconnect, transfer, and load control devices protect personnel and equipment, enable safe maintenance, and provide reliable manual control for power distribution and motor circuits in industrial settings. Use the right type for the voltage, fault current, and isolation needs of the application.



**Power Transfer:** Provide a safe, hand-operated method to switch between utility and backup power sources, ensuring orderly transfer and preventing parallel sources.



**Circuit Isolation:** Combine switching and overcurrent protection in one device to isolate circuits and clear faults quickly, simplifying panel design.



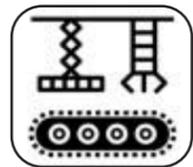
**System Maintenance:** Offer a simple means to isolate equipment when branch circuit overcurrent is handled elsewhere, useful for service and lockout/tagout.



**Battery Powered Systems:** Designed for DC systems and photovoltaic or battery applications, they provide safe isolation where DC arcing characteristics differ from AC.



**Motor Protection:** Combine a disconnecting means with starter and overload protection to control and protect single- and three-phase motors.

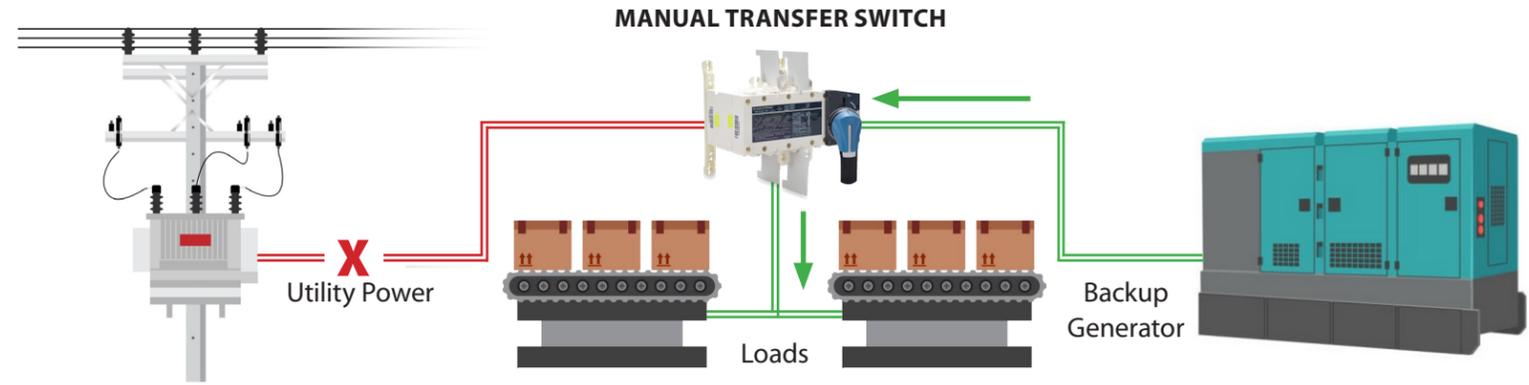


**Machine Control:** Allow seamless changeover from one motor to another with rotary cam transfer switches, while motor reversing switches provide smooth direction changes.

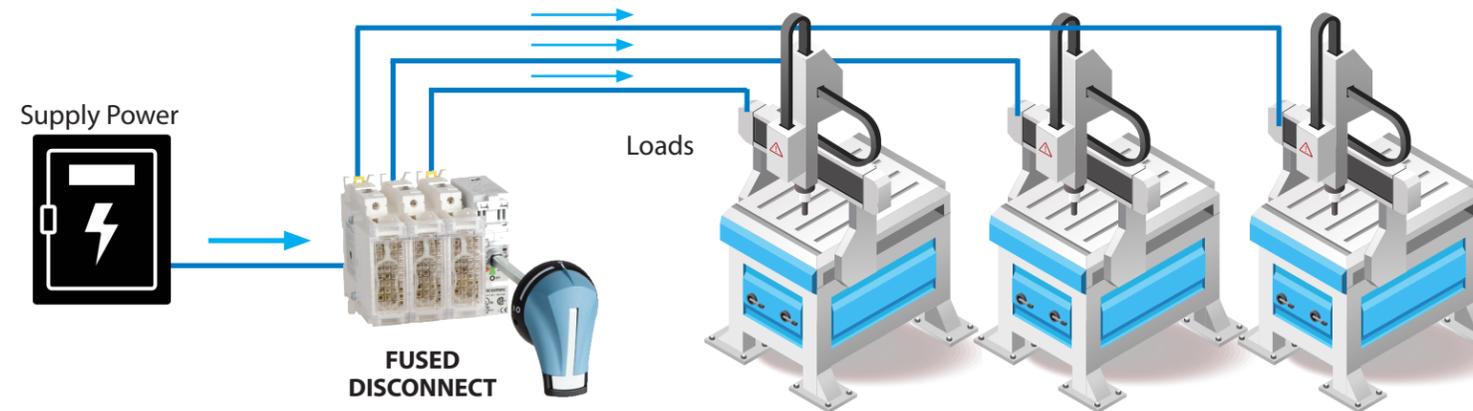
Match device ratings to system voltage, fault current, and application environment, and verify compatibility with listed part numbers to streamline selection and installation.

# APPLICATION EXAMPLES

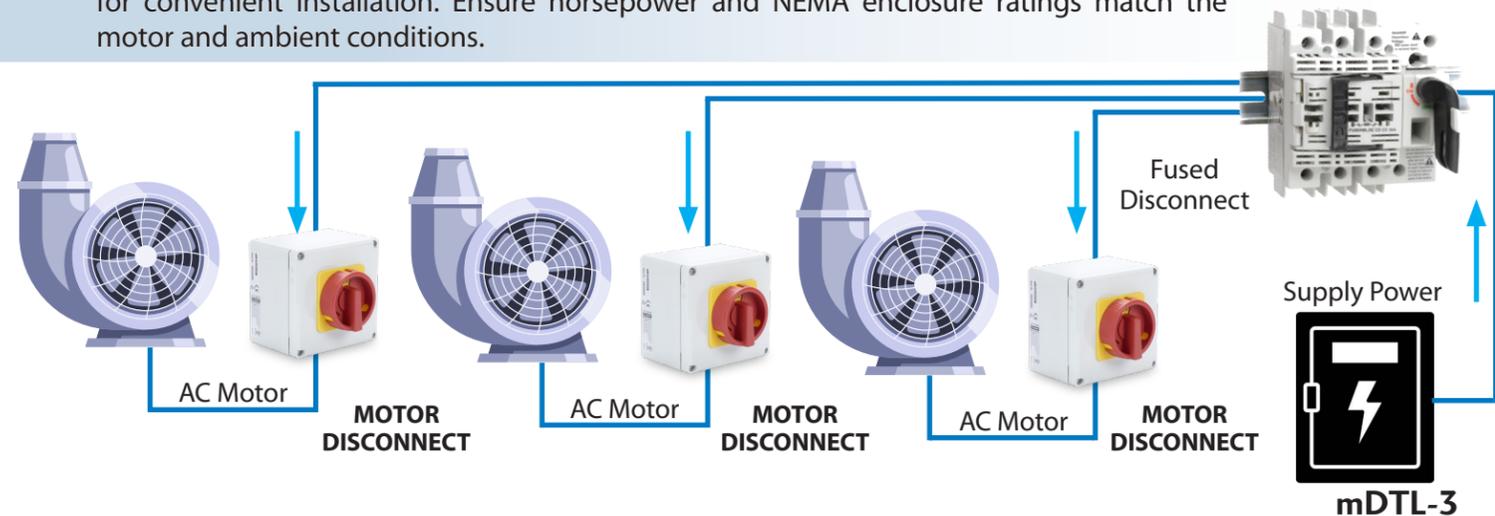
- **Generator Transfer:** Use manual transfer switches to safely switch over from a primary to a backup power source for critical conveyors and motor loads during outages. Choose the correct amperage rating and pole configuration to match the incoming utility and generator circuits.



- **Overcurrent Protection:** Fused motor disconnects provide a disconnecting means and overcurrent protection to quickly clear faults. Select fuse ratings that coordinate with upstream protection devices and meet all motor load requirements.



- **Motor Isolation:** Enclosed manual motor controllers are rated for use as non-fused motor disconnects, providing safe equipment disconnection in a preassembled housing for convenient installation. Ensure horsepower and NEMA enclosure ratings match the motor and ambient conditions.

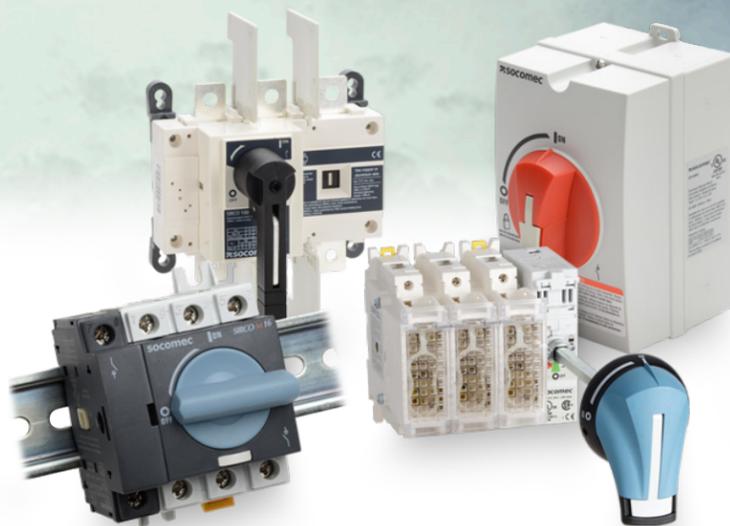


## HOW TO CHOOSE

Select disconnect, transfer, and load control devices by matching function, safety, and duty cycle to your application; focus on voltage, current, enclosure, and control needs. This guide helps prioritize factors quickly for industrial installations.

- 1. Identify Load Type:** Determine whether the load is motor, DC, or general-purpose to select the appropriate rating and switching type.
- 2. Voltage Rating:** Match device voltage to the system (AC or DC); DC-rated disconnects are required for DC circuits to prevent arcing.
- 3. Current Rating:** Size by continuous load plus a safety margin; use devices with an ampacity greater than or equal to the measured load.
- 4. Short-Circuit Capacity:** Verify that the interrupting rating meets the available fault current; fused options provide clear fault protection.
- 5. Fusing Need:** Choose fused disconnects when branch protection is required; select non-fused when upstream protection covers the circuit.
- 6. Motor Control:** For motor applications, select motor disconnects or controllers rated for inrush current and horsepower requirements.
- 7. Enclosure Type:** Select NEMA/IP rated enclosures based on environment — dust, water, or washdown conditions.
- 8. Manual Transfer Needs:** Use manual transfer switches for backup power selection and ensure correct pole configuration.

Balance safety, compliance, and lifecycle costs when choosing disconnects and switches; consult datasheets for part-number specifics. For detailed matching to parts listed, contact AutomationDirect technical support.



- 9. Interlock Requirements:** Add pin and sleeve mechanical interlocks to safely connect and disconnect mobile equipment.
- 10. DC Applications:** Use non-fused DC-rated disconnects for circuits such as photovoltaic, battery, or DC bus systems to ensure safe DC switching.
- 11. Enclosed Motor Disconnects:** Choose enclosed units for outdoor or dirty areas to protect components and provide required lock-out points.
- 12. Operator Access:** Select rotary cam or lever-style operators based on user ergonomics and panel cutout preferences.
- 13. Standards Compliance:** Ensure devices meet UL, IEC, or local codes for safety and application-specific approvals.
- 14. Serviceability:** Favor units with readily available replacement parts and clear labeling for faster maintenance.
- 15. Spare Capacity:** Consider slightly oversized devices for future expansion or additional loads to avoid premature replacement.

## SELECTION GUIDE

Product Line	Core Function	Key Features and Performance	Starting Price
SOCOMEK SIRCOVER	<b>Ultimate Reliability for Power Continuity</b> A robust manual transfer switch engineered for ultimate durability and performance in critical installations.	<ul style="list-style-type: none"> <li>UL 1008 listed, ensuring compliance and reliability</li> <li>Provides dependable switching between primary source and generator/backup power</li> <li>Features three completely isolated positions (1-0-II) for safe maintenance and reliable bypass</li> </ul>	<b>\$523.00</b>
SOCOMEK FUSERBLOC Series	<b>Maximum Circuit Safety and Protection</b> Heavy-duty fusible disconnect switches that deliver complete circuit isolation and superior short-circuit protection.	<ul style="list-style-type: none"> <li>UL 98 rated, capable of handling up to 200 kA SCCR when used with Class CC or Class J fuses</li> <li>Features double-break contacts per pole for maximum maintenance safety</li> <li>Durable, front-operated switches suitable for service entrance and NFPA 79-compliant installations</li> </ul>	<b>\$147.00</b>
SOCOMEK SIRCO Series	<b>Versatile, Non-Fused Isolation for Any Circuit</b> A family of load-break switches providing essential safety and isolation for nearly any electrical circuit in your plant.	<ul style="list-style-type: none"> <li><b>SIRCO M:</b> Compact, flexible AC switch for machine builders; features Positive Break Indication for safe lockout/tagout (LOTO)</li> <li><b>Standard SIRCO:</b> Heavy-duty performance with a proven double-break sliding contact system for high withstand in industrial power distribution</li> <li><b>SIRCO DC:</b> Specialized for solar, battery storage, and high-voltage DC (up to 1000 VDC); UL 98B Listed</li> </ul>	<b>\$71.00</b>
MERZ / BRYANT Motor Controllers	<b>NEC-Compliant Line-of-Sight Disconnect</b> Combines the essential functions of a motor controller and a disconnect into a single, robust device.	<ul style="list-style-type: none"> <li><b>MERZ ML Series:</b> UL UL60947-4-1 / UL508 listed as a Manual Motor Controller and "Suitable as Motor Disconnect" for loads up to 125A</li> <li><b>BRYANT Controllers:</b> Quick-make, slow-break design for reliability; available up to 60A</li> </ul>	<b>\$23.00</b>
BRYANT Pin & Sleeve Mechanical Interlocks	<b>The Definitive All-in-One Safety Solution for Power Terminations</b> A heavy-duty, horsepower-rated disconnect system that strictly enforces a mechanical sequence, eliminating unsafe practices.	<ul style="list-style-type: none"> <li>Prevents connecting or breaking power under load</li> <li>Rugged enclosures boast top-tier NEMA 12/4/4X and IP69K protection ratings</li> <li>Conforms to IEC 60309 international standards with specific color-coding to prevent mismatches</li> </ul>	<b>\$513.00</b>
MERZ Rotary Cam Switches	<b>Intuitive Manual Control and Changeover</b> Combines superior electrical performance with intuitive, manual operation for across-the-line starting/stopping and power source transfer.	<ul style="list-style-type: none"> <li>CSA-rated Manual Motor Controllers</li> <li>Seamlessly switches between two different power sources or loads</li> <li>Executes safe Forward-OFF-Reverse switching to quickly change motor direction</li> </ul>	<b>\$33.00</b>



## MANUAL TRANSFER SWITCHES



### SOCOMEc SIRCOVER UL 1008 MANUAL TRANSFER SWITCH

**STARTING AT \$483.00**

Engineered for ultimate durability and performance, the Socomec SIRCOVER manual transfer switch is the robust solution for your most demanding power applications. With UL 1008 listing, SIRCOVER provides the compliance and reliability that critical installations require, ensuring operational continuity when it matters most.

- UL 1008 rated and built with heavy-duty components to guarantee maximum safety and long-term durability
- Dependable switching functionality between your primary source and generator/backup power supplies
- Features three completely isolated and stable positions (I—0—II), providing guaranteed isolation for safe maintenance and reliable bypass operations
- A high-density, compact design allows for easier integration and maximum space savings within existing panels and enclosures

## DISCONNECTS

### SOCOMEc FUSERBLOC SERIES FUSED DISCONNECTS (30-600 AMPS)

**STARTING AT \$135.00**

Maximize the safety and protection of your critical power circuits with FUSERBLOC series heavy-duty fusible disconnect switches. These disconnects deliver complete circuit isolation and superior short-circuit protection in a compact, installer-friendly package.

- Features double-break contacts per pole, ensuring the fuses are completely isolated when the switch is in the OFF position for maximum maintenance safety
- UL 98 rated and capable of handling up to 200kA Short-Circuit Current Rating (SCCR) when used with Class CC or Class J fuses
- Compact UL 489 model is rated for up to 100kA Short-Circuit Current Rating (SCCR) when used with Class CC or Class J fuses
- Touch-safe fuse covers and line-side shrouding available to guard against accidental contact with live parts
- Durable, front-operated switches, suitable for service entrance, main panels, and NFPA 79-compliant installations



### SOCOMEc SIRCO SERIES NON-FUSED DISCONNECTS (30-600 AMPS AC) (100 OR 250 AMPS DC)

**STARTING AT \$66.00**

The Socomec SIRCO family of load-break switches—including the compact SIRCO M, the heavy-duty SIRCO, and the specialized SIRCO DC—delivers essential safety and isolation for nearly any electrical circuit in your plant.

The SIRCO M series is the ultimate choice for machine builders and control panel manufacturers seeking a compact, flexible, and safety-focused AC switch.

- Easily customize with auxiliary contacts, 4th poles, and neutral modules—all from a single compact body
- DIN-rail, backplate, or door mounting options with operation from the front, left, or right side
- Positive Break Indication provides an absolute visual confirmation that the contacts are open, ensuring a safe lockout/tagout (LOTO) environment
- UL 60947-4-1 / UL 508 and UL 98 listed, with SCCR up to 65kA (with proper fusing)

When your application demands heavy-duty performance and robustness, turn to the standard SIRCO series. These switches are built to handle the rigorous demands of industrial power distribution and critical isolation.

- Features a proven double-break-per-pole sliding contact system for high thermal and dynamic withstand, ensuring a long life in the most demanding environments
- Engineered for safe, on-load switching and isolation of major power circuits up to 600 VAC (or 800 VAC depending on model)
- Designed for severe utilization categories (AC-22, AC-23) and high electrical/mechanical endurance
- Fully visualized disconnection and lockable handles ensure maximum personnel safety during maintenance and service

For solar, battery storage, and high-voltage DC (up to 1000 VDC), the SIRCO DC line is specialized for the unique demands of direct current.

- Advanced internal technology rapidly extinguishes the electric arc generated by DC power, guaranteeing safe and reliable interruption
- Proven performance against severe environmental factors, making them ideal for outdoor and uncontrolled industrial locations
- UL 98B Listed - meets the specific safety standard required for DC disconnects in photovoltaic and energy storage systems



SIRCO M



SIRCO



SIRCO DC



## MERZ MOTOR CONTROLLERS / DISCONNECTS STARTING AT \$23.00

Merz ML series disconnect switches combine two essential functions into one robust device. UL 60947-4-1 / UL 508 listed as both a Manual Motor Controller and explicitly labeled as "Suitable as Motor Disconnect", this single unit satisfies the NEC's requirements for a line-of-sight disconnect and a controller.

- Easily and safely break power to motor loads and other equipment for maintenance
- Engineered to withstand high fault currents and remain operational, protecting your personnel and your equipment
- Fully capable of across-the-line starting and stopping, making them a dependable core for your motor control circuits
- 3-pole open and enclosed models for loads up to 125A

## BRYANT MANUAL MOTOR CONTROLLERS / DISCONNECTS STARTING AT \$52.00

BRYANT manual motor controllers / disconnects are designed to meet the rigorous demands of both a motor controller and a motor disconnect in a single package. The controllers are listed as "Suitable as Motor Disconnect" under UL 60947-4-1 / UL 508, allowing a single unit to satisfy the NEC requirement for a disconnecting means located within the line of sight of the controller.

- Features a quick make, slow break design for reliability and long life
- Available in switch sizes of 30, 40, and 60A up to 600 VAC and in 2-pole and 3-pole configurations
- Enclosed versions feature NEMA 1, 3R, or 4X ratings for indoor and outdoor use
- Toggle switches feature a 10,000A (10 kA) high-fault, short-circuit withstand rating and #10 brass terminal screws and clamping plates for both back or side wiring (depending on model)



## MECHANICAL INTERLOCKS



## BRYANT PIN AND SLEEVE MECHANICAL INTERLOCKS STARTING AT \$513.00

BRYANT pin and sleeve mechanical interlocks are the definitive all-in-one solution that delivers unmatched protection, compliance, and convenience for your most critical motor loads. This heavy-duty, horsepower-rated disconnect system completely eliminates unsafe practices by enforcing a strict, mechanical sequence that prioritizes safety at every step.

- Prevents connecting or breaking power under load; switch cannot be turned ON until the plug is fully engaged, and the plug cannot be removed until the switch is in the OFF position
- Conforms to IEC 60309 international standards, using specific color-coding and keyways to prevent operators from accidentally connecting plugs with mismatched amperage or voltage ratings
- Rugged enclosures boast top-tier protection ratings of NEMA 12/4/4X and IP69K, ensuring they withstand water jets, dust, and corrosive washdown environments
- Provides 10kA SCCR standard and up to 65kA SCCR (on 20A & 30A models with proper fusing), protecting the circuit from massive fault events

## CAM CHANGEOVER SWITCHES



## MERZ ROTARY CAM SWITCHES STARTING AT \$33.00

Merz rotary cam switches combine superior electrical performance with intuitive manual operation, ensuring safety and compliance across your facility. These switches are CSA-rated manual motor controllers (MMCs), making them the ideal choice for across-the-line starting and stopping of motor loads up to 3 poles.

- Seamlessly switch between two different power sources or loads
- Execute safe Forward-OFF-Reverse switching to change the direction of your motor loads quickly
- Beyond motors, these switches are rated for general power circuits, including resistive loads like heaters, offering a versatile solution for industrial power distribution



# DISCONNECT & SWITCH ACCESSORIES

## SPARE PARTS & ACCESSORIES

A wide variety of accessories for disconnects and switches are available, including auxiliary contacts, rotary handle and shaft assemblies, additional poles, terminal shrouds and covers, replacement pin and sleeve disconnect switches, mounting and connection accessories, and terminal lugs.



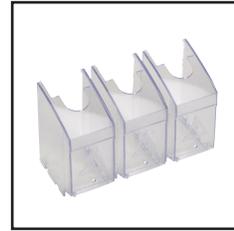
AUX Contacts



Rotary Handles



Additional Poles



Shrouds and Covers



Terminal Lugs

