

DC CONTACTORS



“ FORKLIFTS “ ELECTRIC CARS “ HYDRAULIC PUMPS “ LOCOMOTIVES “ BUSES “ GENERATOR SETS “ SWITCHGEAR “ GOLF CARTS “ DEFENSE “ HEAT TREATING “ MARINE



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J4600 Series DC Contactors

The AMETEK Switch 46 Series DC Contactors are designed to fit a wide range of applications including electric forklift trucks, DC winches, electric vehicles and the telecommunications industry. The 46 Series has a modular construction design, featuring quick assembly and disassembly with the removal of just two screws. This format offers an easier and more cost effective way to servicing. Various mounting styles offer greater flexibility. With space at a premium, the J4600 design is a requirement. This 100 – 500 AMP contactor is available in coil voltages from 12V through 240VDC, in both continuous and intermittent duty and tested to withstand a mechanical life of 3 million cycles. The truly dependable, low cost AMETEK Switch 46 Series is a high-performance, high-quality, versatile contactor with totally interchangeable contacts.

Available options for the 46 Series:

- Magnetic blow-outs – normally used when switching voltages higher than 48VDC
- Auxiliary switches – available on all J46 Series except JAD, JAV, JBV, JCV and JDA styles; rated 5 AMPS at 28VDC
- Large contacts – used primarily in severe applications such as pump motor switching, suffix “L” denotes large contacts
- Serrated contacts – typically used in applications where contactor does not switch under load
- Enclosed contact housing
- Coil rectifier (ACV coil)
- Mounting brackets
- Coil suppression

Features:

- Compact design
- Stud mount
- Low temperature rise

JA46, JB46 And JC46 SERIES CONTACTOR CONFIGURATIONS	
SERIES	DESCRIPTION
JxA46	SPST, N.O.
JxB46	SPST, N.C.
JxC46	SPDT
JxD46	DPST
JxL46	2X SPST, N.O. on a common bracket
JxM46	DPDT (motor reversing)
JxT46	2X SPDT on a common bracket
JxV46	DPST, N.O., 4 break. (motor reversing)

Model JA 46 DC Contactor

100 - 150 AMP Rating, Coil Voltage 12V to 240VDC

Configuration: SPST, N.O. - I

- Thermal: 125 AMPS
- Resistive Load: 125 AMPS
- Overload: 188 AMPS @ 60VDC MAX
- Inductive Load: 100 AMPS
- Arc Rupture: 800 AMPS @ 96VDC MAX



Model JC 46 DC Contactor

250 - 400 AMP Rating, Coil Voltage 12V to 240VDC

Configuration: SPDT - I

- Thermal: 400 AMPS
- Resistive Load: 400 AMPS
- Overload: 600 AMPS @ 60VDC MAX
- Inductive Load: 300 AMPS
- Arc Rupture: 2500/1200 AMPS @ 48/96VDC MAX



Model JB 46 DC Contactor

150 - 200 AMP Rating, Coil Voltage 12V to 240VDC

Configuration: SPST, N.O.

- Thermal: 200 AMPS
- Resistive Load: 200 AMPS
- Overload: 300 AMPS @ 60VDC MAX
- Inductive Load: 150 AMPS
- Arc Rupture: 1200 AMPS @ 60VDC MAX



Model JD 46 DC Contactor

400 - 500 AMP Rating, Coil Voltage 12V to 240VDC

Configuration: SPST, N.O.

- Thermal: 400 AMPS
- Resistive Load: 400 AMPS
- Inductive Load: 500 AMPS @ 100VDC MAX, 60% Duty Cycle



JEA46 Series Heavy Duty DC Contactor

The JEA Series Contactor is a single pole, single throw, typically open heavy duty DC contactor suited to standby power applications such as telecommunications.

The JEA is fully interchangeable with other leading brands and serviceable with spare kits available for bridges and contacts. While continuous coil types are generally used, intermittent and prolonged use coils are available with this series. Coil voltage ranges from 12V to 240VDC. Closed contactor housings are available to prevent ingress of dust and dirt.

Available options for the 46 Series:

- Auxiliary contacts
- Coil suppression
- Closed contactor housing
- Coil rectifier
- Mounting brackets

Features:

- UL approved
- Compact design
- Bus bar mount
- Low temperature rise

Model JEA 46 DC Contactor

*450 - 600 AMP Rating,
Coil Voltage 12V to 240VDC*

Configuration: SPST N.O.

- Thermal: 600 AMPS
- Resistive Load: 600 AMPS
- Overload: 900 AMPS @ 60VDC MAX
- Inductive Load: 600 AMPS
- Arc Rupture: 2531 AMPS @ 48VDC MAX



J4800 Series DC Contactors

The J48 series is a reduced cost, alternative geometry replacement for our J46 Series. The smaller foot print of the J48 Series permits a more compact system design while the core design uses many of the same reliable switching components as the J46 Series with a reduced coil size.

The J48 Series is comprised of two design models. J48 Series with bus bars are specifically designed for use in Resistive Load applications, particularly the standby power market and telecommunications industry. The J48 Series with studded terminations are designed to fit a wide range of applications including electric forklift trucks, DC winches and electric vehicles as well as for use in the telecommunications industry. Additional applications include emergency lighting systems, welding equipment, commercial and military generator sets, load bank power circuits and battery chargers. For Inductive Load applications, please contact AMETEK Switch to determine which model is best suited for the application. Each contactor is available for mounting in various positions. Coil voltages from 12V to 240VDC, UL approved.

Available options for the 48 Series:

- Auxiliary contacts
- Coil suppression
- Coil rectifier (ACV coil)
- Mounting brackets

Features:

- UL approved
- Compact design
- Bus bar mount
- Low temperature rise

Model JCA 48 DC Contactor

*Up to 60VDC, 250 - 300 AMPS,
Coil Voltage 12V to 240VDC*

Configuration: SPST N.O.

- Thermal: 300 AMPS
- Resistive Load: 300 AMPS
- Overload: 450 AMPS @ 60VDC MAX

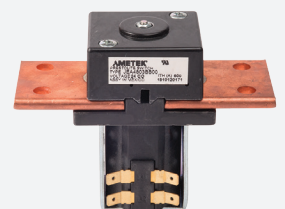


Model JEA 48 DC Contactor

*Up to 60VDC, 350 - 600 AMPS,
Coil Voltage 12V to 240VDC*

Configuration: SPST N.O.

- Thermal: 600 AMPS
- Resistive Load: 600 AMPS
- Overload: 900 AMPS @ 60VDC MAX



J4800 Series DC Contactors (continued)

Model JFA 48 DC Contactor

Up to 60VDC, 650 - 800 AMPS,
Coil Voltage 12V to 240VDC

Configuration: SPST N.O.

- Thermal: 800 AMPS
- Resistive Load: 800 AMPS
- Overload: 1200 AMPS @ 60VDC MAX

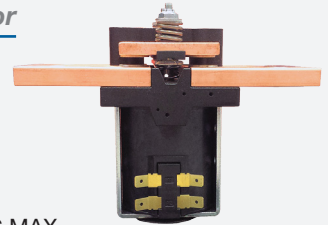


Model JHA 48 DC Contactor

Up to 60VDC, 800 - 1200 AMPS,
Coil Voltage 12V to 240VDC

Configuration: SPST N.O.

- Thermal: 1200 AMPS
- Resistive Load: 1200 AMPS
- Overload: 1800 AMPS @ 60VDC MAX



Model JCA 48 DC Contactor

300 AMP Rating, Coil Voltage 12V to 240VDC

Configuration: SPST N.O.

- Thermal: 300 AMPS
- Arc Rupture: 2500/1500 AMPS @ 48/96VDC



DC Contactors for Standby Power Applications

The J 4300 Open-frame Series DC Contactor provides reliable and economical switching of low voltage AC and DC loads up to 2000 AMPS continuous, for a fraction of the cost of comparable 600V class NEMA and IEC devices. Designed specifically for use in large battery backup systems, welding apparatus, emergency lighting and high current testing equipment, these contactors have established a reputation for durability and reliability unmatched by other manufacturers.

The J 4300 Series offers more of the materials that go into a superior contactor; iron, copper and silver. Whether the current is 1250 or 2000 AMPS, J 4300 contactors have the features necessary to maximize the performance and value of your products.

Model J 43 Open-frame Series DC Contactor

1250 - 2000 AMPS

Features:

- UL approved
- Positive “snap-action” on opening and closing results in less arcing and longer contact life
- Low temperature coils minimize heat produced inside equipment, virtually eliminating the chance of coil failure, even when energized for years
- High contact pressure reduces contact resistance and extends coil life
- Low-mass core design ensures full contactor performance regardless of mounting orientation; upright, horizontal and even upside down

Simple, open frame construction for:

- Easy inspection and service
- Pole configuration flexibility
- Better heat dissipation
- Economical customization
- High standard parts content

Model JKA 43 Open-Frame Series DC Contactor

1250 - 2000 AMPS

Configuration: SPST N.O.

- Thermal: 2000 AMPS
- Resistive Load: 2000 AMPS
- Overload: 3000 AMPS @ 60VDC



MAGNA-Latch™

MAGNA-Latch™ Low Voltage Disconnect Contactors are more compact than traditional low voltage disconnects. Using a permanent magnet, power to the coils close the contact, while a momentary reverse power signal to the coil opens the contact. These contactors use the same bus bars/studs available on traditional electrically held contactors with optional features including special coil voltage, silver or tin-plated bus bars, custom bus bars, mounting studs and nuts in bus bars and additional auxiliary contacts. Also available are screw coil terminals, side mounted feet for horizontal mounting and a rectifier for AC coil operation.

Simple, open frame construction:

- Coil heat is eliminated
- Reduces need for redundant power control
- Designed to remain closed for 20 years
- Fail safe – contacts open or close only when appropriate signal is applied

Model JAY 46 Magnetic Latching Contactor

Up to 60 VDC, 100 - 150 AMPS

Configuration: SPST Latching

- Thermal: 150 AMPS
- Resistive Load: 150 AMPS
- Overload: 225 AMPS @ 60VDC MAX
- Load Termination: Stud

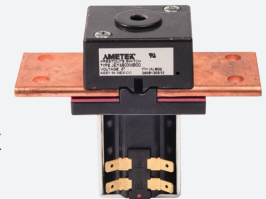


Model JEY 48 Magnetic Latching Contactor

Up to 60 VDC, 350 - 600 AMPS

Configuration: SPST Latching

- Thermal: 600 AMPS
- Resistive Load: 600 AMPS
- Overload: 900 AMPS @ 60VDC MAX
- Load Termination: Bus Bar



Model JBY 46 Magnetic Latching Contactor

Up to 60 VDC, 150 - 200 AMPS

Configuration: SPST Latching

- Thermal: 200 AMPS
- Resistive Load: 200 AMPS
- Overload: 300 AMPS @ 60VDC MAX
- Load Termination: Stud



Model JFY 48 Magnetic Latching Contactor

Up to 60VDC, 650 - 800 AMPS

Configuration: SPST Latching

- Thermal: 800 AMPS
- Resistive Load: 800 AMPS
- Overload: 1200 AMPS @ 60VDC MAX
- Load Termination: Bus Bar



Model JCY 46 Magnetic Latching Contactor

Up to 60 VDC, 250 - 400 AMPS

Configuration: SPST Latching

- Thermal: 400 AMPS
- Resistive Load: 400 AMPS
- Overload: 600 AMPS @ 60VDC MAX
- Load Termination: Stud

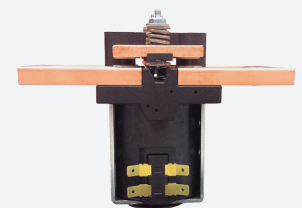


Model JHY 48 Magnetic Latching Contactor

Up to 60VDC, 850 - 1200 AMPS

Configuration: SPST - Latching

- Thermal: 1200 AMPS
- Resistive Load: 1200 AMPS
- Overload: 1800 AMPS @ 60VDC
- Load Termination: Bus Bar

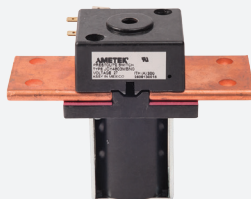


Model JCY 48 Magnetic Latching Contactor

Up to 60VDC, 250 - 300 AMPS

Configuration: SPST Latching

- Thermal: 300 AMPS
- Resistive Load: 300 AMPS
- Overload: 450 AMPS @ 60VDC MAX
- Load Termination: Bus Bar

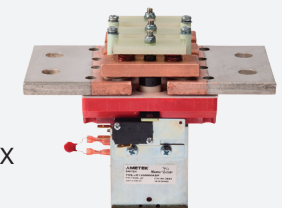


Model JKY 43 Magnetic Latching Contactor

Up to 60VDC, 1250 - 2000 AMPS

Configuration: SPST Latching

- Thermal: 2000 AMPS
- Resistive Load: 2000 AMPS
- Overload: 3000 AMPS @ 60VDC MAX
- Load Termination: Bus Bar



J6000 AC Contactors for Generator Sets and Military

AMETEK Switch J6000 contactors were first designed to meet the environmental requirements of military applications. After thorough testing, the basic design was modified to provide a lower cost contactor for commercial generator set applications.

J6000 explosion-proof contactors are designed for any standard 3-phase load and standard DC ampere loads. The electrical design and construction of JC6000 contactors incorporate the standard AMETEK quality features of our heavy-duty industrial DC contactors.

Features:

- Gasket-sealed and vented, designed to meet environmental requirements of MIL-R-6106
- Contactor for commercial applications is a modified version of the military model
- Various auxiliary configurations available
- Terminal shields included for phase to phase isolation

Model JAG-6000 Contactor

150 AMPS

Configuration: 3PST NO Double Break

- Thermal: 150 AMPS
- Resistive Load: 150 AMPS
- Overload: 1500 AMPS @ 200VAC MAX
- Load Termination: Terminal Studs



Model JCG-6000 Contactor

350 AMPS

Configuration: 3PST NO Double Break

- Thermal: 350 AMPS
- Resistive Load: 350 AMPS
- Overload: 5000 AMPS @ 416 VAC MAX
- Load Termination: Terminal Studs



AMETEK Switch is a designer and manufacturer of high quality contactors for telecommunications equipment, Uninterruptible Power Supplies (UPS) and other high dependency applications.

Standard product lines include DC contactors from 100 to 2000 AMPS, 96-volts contactors, enclosed contactors, emergency battery power disconnects and contactor spares.

Our contactors are UL approved and all manufacturing and production is conducted in our ISO 9001 registered facility under strict quality standards. Rigorous testing ensures optimum reliability of our products.

Around the world, customers turn to AMETEK for reliability in electrical components. Our commitment to producing designed-right, priced-right components has made us a preferred engineering partner with the largest companies in the communications, transportation, aerospace, and defense industries.

Customers can also draw upon our vast library of existing designs to get application specific components for a wide range of industries that are already proven in the field. AMETEK holds numerous quality certifications and preferred supplier awards.

In addition to our line of contactors for telecommunications and UPS systems, AMETEK Switch manufactures a variety of open and enclosed contactors for the following applications:

Forklifts, electric cars, hydraulic pumps, locomotives, buses, generator sets, switchgear, golf carts, defense, welding, heat treating and marine.

For more information, visit our website:
www.ametekswitch.com



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