



New era. New power. DC power.

DC contactors and connectors
for a sustainable future

Powering Possibility

With Eddicy, we are setting new market standards for the direct connection of renewable energy sources, energy storage, and electrical consumers - without the energy losses that occur when converting direct current (DC) to alternating current (AC) and vice versa.

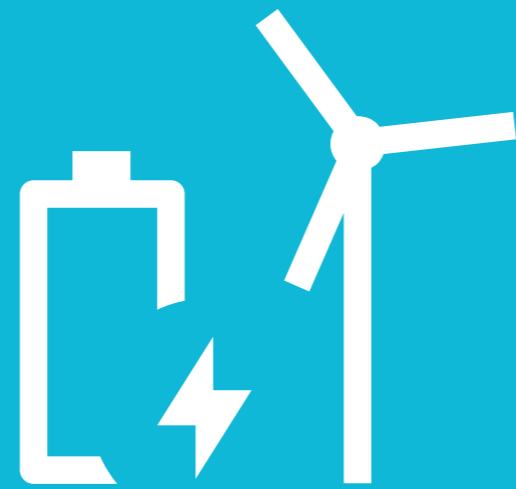
Our expertise in switching and controlling direct current makes us also the ideal partner for shaping the future of e-mobility. Our products play an important role in the safety circuit, reducing charging times and enabling a level of performance equivalent to that of internal combustion engines.

















eddicy

A Schaltbau Brand

The transition to a climate-neutral and sustainable economy is one of the most significant challenges of our time. That's why we create future-oriented products with the highest standards of safety and reliability for switching, connecting, controlling, and protecting DC applications in the fields of energy and e-mobility.



<p>Automotive</p> 	<p>High-voltage management for the mobility of tomorrow</p>	<p>Commercial Vehicles</p> 	<p>Transforming commercial transportation</p>
<p>Intralogistics</p> 	<p>Future-proofing intralogistics</p>	<p>Aviation</p> 	<p>Sustainable solutions for the aviation industry</p>
<p>Heavy Duty</p> 	<p>Electrifying heavy duty equipment</p>	<p>Marine</p> 	<p>Decarbonization on the water</p>
<p>Agriculture</p> 	<p>Sustainability from farm to fork</p>	<p>Specialty Vehicles</p> 	<p>Electromobility off the beaten track</p>

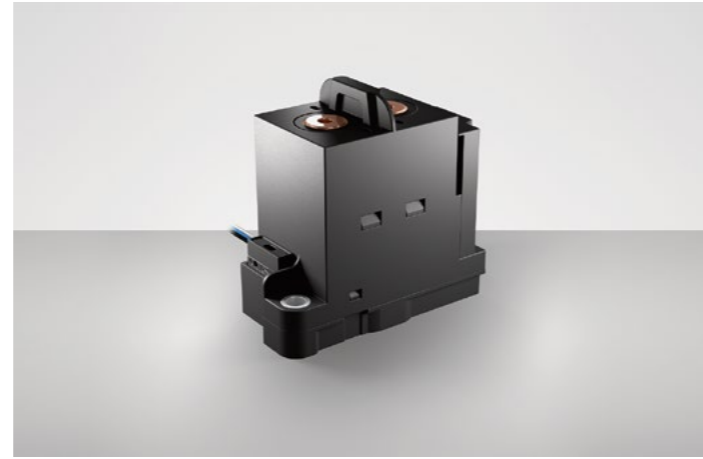
<p>EV Charging</p> 	<p>Easy, safe, and fast charging of electric vehicles</p>	<p>Energy Storage</p> 	<p>Ensuring the safety of energy storage systems</p>
<p>Power Conversion</p> 	<p>More energy efficiency for renewables</p>	<p>Test Benches</p> 	<p>Ensuring safe battery solutions</p>
<p>Data Centers</p> 	<p>Security for your data</p>	<p>DC Microgrids</p> 	<p>New standard for green production</p>

Certified product safety for energy and e-mobility

Certified product safety is a crucial aspect for confidence in the quality and reliability of products. Independent certification bodies test products for conformity and safety standards, and numer-

ous approvals are available for the series shown in this brochure - please enquire about which certifications are available for your desired product.





Compact single-pole NO contactors for AC and DC up to 1,500 volts rated insulation voltage. Making current up to 6,000 amps; conventional thermal current up to 500 amps; short-time current up to 6,000 amps.

Compact 1-pole NO contactors for DC up to 1,500 volts rated insulation voltage, continuous currents up to 350 amps and high making and short-time currents.

Features

- Compact dimensions - high rated insulation voltage up to 1,500 volts
- High thermal continuous current of up to 500 amps
- High making capacity up to 6,000 amps
- High short-time current-carrying capacity up to 6,000 amps
- Full bidirectionality - safe switching of high currents and voltages, regardless of the current direction
- Auxiliary switch with mirror contact function according to IEC 60947-4-1, annex F

- Compact dimensions - high rated insulation voltage up to 1,500 volts
- High thermal continuous current of up to 350 amps
- High breaking capacity up to 1.5 megawatts max. and full bidirectionality - safe disconnection of high power loads
- 3 versions: Coil control with energy-saving PWM module, economical high-efficiency drive or special version as precharge contactor
- Auxiliary switch with mirror contact function according to IEC 60947-4-1, annex F

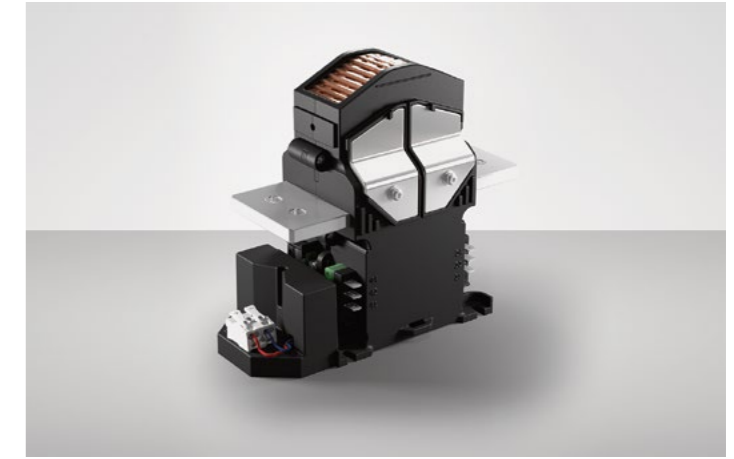
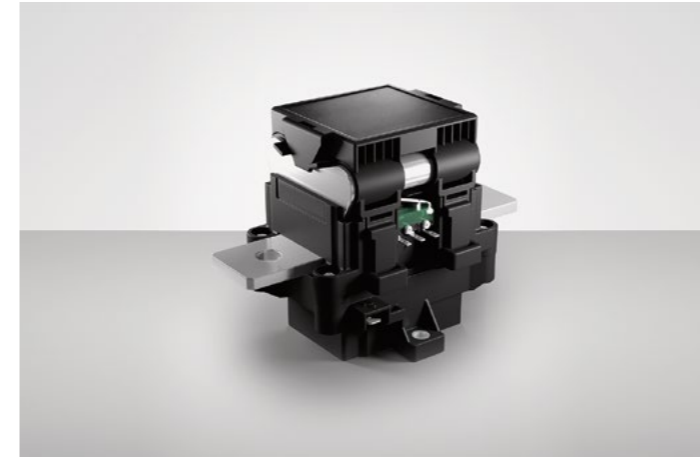
Applications

DC solutions for charging stations, battery test benches, photo-voltaic, UPS and maritime applications

DC solutions for charging stations, battery test benches, photo-voltaic and UPS applications

Specifications

Series	C300	C303
Type of voltage	DC bi-directional	DC bi-directional
Main contact Configuration	1x NO	1x NO
Rated operating voltage U_e	1,000 V	1,000 V
Rated insulation voltage U_i	1,000 V	1,500 V
Rated impulse withstand voltage U_{imp}	8 kV	8 kV
Pollution degree	PD3	PD2
Overvoltage category	OV3	OV2
Conv. free air thermal current I_{th}	500 A @ 70° C	350 A
Rated short-time withstand current I_{cw}	6,000 A @ t = 20 ms	---
Aux. contact number, configuration	1x, NC	1x Snap-action switch S880, SPDT
Mirror contact function	•	•
Magnetic drive	Monostable	Monostable
Coil voltage U_s (operating range)	12 ... 24 V DC (10.5 ... 36 V DC)	12 ... 24 V DC (9 ... 32 V DC), 24 V DC (20.4 ... 26.4 V DC)
Coil control	PWM	PWM or high efficiency drive



Compact single-pole NO contactors for AC and DC up to 1,500 volt rated insulation voltage. Making current up to 2,500 amps; conventional thermal current up to 500 amps; short-time current up to 3,000 amps.

Compact single-pole NO contactors for DC up to 1,800 volts rated insulation voltage. Making current up to 3,000 amps; conventional thermal current up to 1,000 amps; short-time current up to 4,500 amps.

Features

- Compact dimensions - high rated insulation voltage up to 1,500 volts
- High thermal continuous current of up to 500 amps
- High making capacity up to 2,500 amps
- High short-time current-carrying capacity up to 3,000 amps
- Full bidirectionality - safe switching of high currents and voltages, regardless of the current direction
- Auxiliary switch with mirror contact function according to IEC 60947-4-1, annex F

- Compact dimensions - high rated insulation voltage up to 1,800 volts
- High thermal continuous current of up to 1,000 amps
- High making capacity up to 3,000 amps and an excellent breaking capacity
- Low energy consumption and low heating thanks to sophisticated coil saving circuit
- Full bidirectionality - reliable disconnection of high power ratings
- Auxiliary switch with mirror contact function according to IEC 60947-4-1, annex F

Applications

Charging stations, energy storage systems, industrial DC grids and photovoltaic plants, test systems

Charging stations, energy storage systems, industrial DC grids and photovoltaic plants, test systems

Specifications

Series	C310K - C310A - C310S	C320K - C320S
Type of voltage	DC bi-directional / AC, $f \leq 60$ Hz	DC bi-directional / AC, $f \leq 60$ Hz
Main contact Configuration	1x NO	1x NO
Rated operating voltage U_e	C310K/C310A: 1,000 V@PD3 / 1,500 V@PD2 / C310S: 60 V@PD3	C320K: 1,500 V / C320S: 60 V
Rated insulation voltage U_i	1,000 V@PD3 / 1,500 V@PD2	1,800 V
Rated impulse withstand voltage U_{imp}	10 kV	10 kV
Pollution degree	PD2 / PD3	PD3
Overvoltage category	OV3	OV3
Conv. free air thermal current I_{th}	150 / 300 / 500 A @ 85° C	1,000 A @ 60° C
Rated short-time withstand current I_{cw}	3,000 A @ 1 s	4,500 A @ 100 ms
Aux. contact number, configuration	2x Snap-action switch S880 max., SPDT	4x Snap-action switch S870, SPDT
Mirror contact function	•	• (max. 2)
Magnetic drive	Monostable	Monostable
Coil voltage U_s (operating range)	12 ... 24 V DC (9.5 ... 36 V DC) / 48 V DC (33.6 ... 60 V DC)	24 / 48 V DC
Coil control	PWM	Impuls 0.1 ... 0.5 s max. ---
		PWM



Schaltbau's compact bi-directional DC contactors C800 series for auto motive applications in the modern mobility industry. They switch high power in a small space and have a making capacity of up to 6,000 amps.

C801 interlock contactors enable 800 volt electric vehicles with two battery banks of 400 volts each to charge quickly and safely at 400 volt charging stations. For this purpose, both battery banks are configured during the charging process so that they are charged in parallel.

Features

- Compact dimensions - High rated insulation voltage up to 1,000 volts
- High continuous thermal current up to 500 amps and high short-time withstand current rating of up to 6,000 amps
- High making capacity I_{cm} of up to 6,000 amps, due to high contact forces and burn-off resistant silver contacts
- Full bi-directionality - reliable switching of high performances, regardless of the current direction
- Auxiliary switch with mirror contact function according to IEC 60947-4-1, annex F

- Universal, flexible and resource-efficient - Schaltbau-Interlock contactors enable powerful 800 volt e-vehicles to charge quickly and easily even at 400 volt charging stations
- NO position with a patented mechanical locking mechanism and extremely high shock resistance
- Compact dimensions - High rated insulation voltage up to 1,000 volts
- High continuous thermal current up to 250 amps
- High short-time withstand current rating up to 16,000 amps

Applications

DC solutions for e-automotives: electric cars, electric buses, electric commercial vehicles and special vehicles

DC solutions for e-automotives: electric cars, electric buses, electric commercial vehicles and special vehicles

Specifications

Series	C800	C801
Type of voltage	DC bi-directional	DC bi-directional
Main contact Configuration	1x NO	1x NO
Rated operating voltage U _e	1,000 V	1,000 V
Rated insulation voltage U _i	1,000 V	1,000 V
Rated impulse withstand voltage U _{imp}	2,5 kV	2,5 kV
Pollution degree	PD3	PD3
Overvoltage category	OV3	---
Conv. free air thermal current I _{th}	500 A	250 A
Rated short-time withstand current I _{cw}	6,000 A @ t = 20 ms	16,000 A @ t < 5 ms
Aux. contact number, configuration	2x Snap-action switch S880 max., SPDT	---
Mirror contact function	•	---
Magnetic drive	Monostable	Monostable
Coil voltage U _s	12 / 24 V DC	12 ... 36 V DC
Coil control	PWM or external coil circuit	PWM, current controlled



Compact 1-pole DC NO contactors for uni-directional switching of battery voltages up to 80 volts. Four sizes for continuous currents of up to 60, 100, 150 and 250 amps.

Compact 1-pole DC NO contactors for uni-directional switching of battery voltages up to 48 volts. Four sizes for continuous currents of up to 60, 100, 150 and 250 amps.

A combination of a DC line contactor and a manual cut-off switch, fuses and an optional horn in an all-in-one device.

Features

- Compact, rugged design: DC contactors in 4 standard sizes
- Optimised for the requirements of industrial trucks
- Permanent-magnetic blowout for high DC power ranges
- Double-break contacts
- Extra wide coil tolerance

- Compact, rugged design: DC contactors in 4 standard sizes
- Optimised for the requirements of industrial trucks
- Double-break contacts
- Closed contact housing
- Extra wide coil tolerance

- Compact design
- Emergency stop switch with rugged snap mechanism
- Battery contactor with main fuse, optional
- Magnetic blowout
- Double-break contacts
- Optional horn and fuses
- Standard EN 1175

Applications

Stationary/mobile DC applications: Battery chargers, lifting platforms and intralogistics applications

Stationary/mobile DC applications: Battery chargers, lifting platforms and intralogistics applications

Intralogistics applications: Battery-powered industrial trucks, forklift trucks and reach trucks, pedestrian-controlled vehicles

Specifications

Series	C100/80 .. /120 .. /200 .. /320	C110B/80 .. /120 .. /200 .. /300	C130/180 - C130/250
Type of voltage	DC uni-directional	DC bi-directional	DC uni-directional
Main contact Configuration	1x NO	1x NO	1x NO
Rated operating voltage U _e	80 V	48 V	C130/180: 24 V / C130/250: 80 V
Rated insulation voltage U _i	150 V	80 V	150 V
Rated impulse withstand voltage U _{imp}	2,5 kV	1,5 kV	2,5 kV
Pollution degree	PD3	PD3	PD3
Overvoltage category	OV3	OV3	OV3
Conv. free air thermal current I _{th}	60 A - 100 A - 150 A - 250 A	60 A - 100 A - 150 A - 250 A	C130/180: 180 A / C130/250: 250 A
Rated short-time withstand current I _{cw}	400 A - 800 A - 1,500 A - 2,000 A @ 100 ms	400 A - 800 A - 1,500 A - 1,800 A @ 100 ms	1,500 A @ t < 100 ms
Aux. contact number, configuration	1x, CO (optional)	---	1x, NC, 1x NO (C130/250 only)
Mirror contact function	•	---	---
Magnetic drive	Monostable	Monostable	Monostable
Coil voltage U _s (operating range)	24 V DC (16.8 ... 26.4 V DC) 48 V DC (33.6 ... 52.8 V DC)	24 V DC (19.2 ... 26.4 V DC) 48 V DC (38.4 ... 52.8 V DC)	C130/180: 24 V DC (16.8 ... 26.4 V DC) C130/250: 48 V DC (33.6 ... 52.8 V DC)
Coil control	---	---	---



Rugged industrial connectors from the M1 and M3 series have a modular design and are dust and pressurised water-tight. They offer a wide range of options for the individual and cost-effective realisation of your application.

Robust 7- and 10-pole audio connectors NF07 and NF10 specially designed for use in communications engineering. Shock and vibration-resistant spring-loaded contacts and a high protection class ensure sealing even when not coupled.

Features

- M1 Contact arrangement: 4+PE, 6+PE
M3 Contact arrangement: 6+PE, 5+3+PE, 12+PE, 7+7+PE
- High-quality machined contacts: Silver or gold plated, crimp connection
- Modular plug connector with robust housings made of impact-resistant plastic
- Functional threaded coupling with protection degree IP67/IP69K (when mated/unmated only with closed protection cap)

- Robust housing made of stainless steel and non magnetic materials
- High degree of protection: Plugs and receptacles sealed to IP68 even when not mated
- Hard gold plated spring-loaded contacts with self-cleaning faces. Resistant to shock and vibration
- Connector orientations via bayonet track in the housing. A maximum of 5 colour-coded codings are available
- Excellent shielding attenuation properties against electro-magnetic influences, HF influences and pulse frequencies

Applications

Industrial connectors for mining, shipbuilding, power plant construction, machinery, transport and environmental technology or the food industry.

Audio connectors for communication systems, measurement and control technology, audio and video technology applications

Specifications

Series	M1 - M3	NF07 - NF10
Number of contacts	M1: 4+PE - 6+PE M3: 6+PE - 5+3+PE - 12+PE - 7+7+PE	7 - 10
Orientations	2 coding positions	NF07: 4 coding positions, NF10: 5 coding positions
Rated voltage	400 V max., depending on contact arrangement	50 V
Rated current	M1: 16 A M3: 16 A, 32A, 50 A, depending on contact arrangement	2,5 A
Contacts Finish Terminal type	Silver / gold Crimp	Gold Solder
Mechanical endurance Operating cycles	5,000	5,000
Coupling	Threaded coupling	Bayonet coupling



Modern charging connectors with an optimised main contact system: The solid power contacts carry high currents with minimal self-heating and have extremely low contact resistances for a long service life.

Schaltbau's robust HV connectors feature solid power and signal contacts and are suitable for a wide range of high-current applications.

Features

- High-quality, solid power contacts for a permanently high current carrying capacity
- Mechanical safety in harsh everyday use with integrated locking and strain relief
- Arc prevention when plugging and unplugging the connector
- Modular connectors, are intermateable with commercially available charging connectors according to EN 1175 and DIN VDE 0623-589 with a comparable design

- Wide power range: voltages up to 1,000 volts and continuous thermal currents up to 470 amps
- Rugged housing with one-handed operation thanks to the sliding mechanism on the handle of the socket housing for effortless and safe locking and unlocking of the plug in the socket
- Feedback plug inserted: Optional switching element in the socket housing signals a correctly plugged-in connector
- Solid power contacts for different connection cross-sections up to 95 mm² and 4 universally applicable signal contacts
- IP69K-certified sealing

Applications

Forklift trucks, automatic guided vehicles, autonomous mobile robots, mobile and stationary chargers for lithium-ion, dry and wet batteries

Battery swapping for construction machinery and mining trucks as well as charging connector in agricultural vehicles and maritime applications

Specifications

Series	LV80/120 - LV160/250 - LV320/400 - LV500	HV
Number of contacts	2 main contacts 2 pilot contacts, optional: air tube and 2 aux. contacts	2 main contacts + PE 2 + 2 signal contacts
Orientations	Keying: charger/vehicle plug, battery socket Voltage: 24 V, 36 V, 48 V, 72 V, 80 V, 96 V	1 coding position 1x feedback contact in socket shell, optional
Rated voltage Main contacts Pilot/aux/signal contacts	150 V DC 150 V DC	1,000 V DC 60 V DC
Rated current Main contacts Pilot/aux/signal contacts	500 A max. @ AWG 4/0 20 A max. @ 2.5 mm ²	470 A max. @ 95 mm ² 50 A max. @ 6 mm ²
Contacts Finish Terminal type	Silver-plated Main contacts: w/ crimping, aux./pilot contacts: crimping	Silver, signal contacts gold optional Crimp
Mechanical endurance Operating cycles	> 5,000	> 10,000
Coupling	Safety interlock	Sliding interlock (handle)

We enable electrification for a sustainable future

Schaltbau is a global technology leader specializing in contactors, connectors, switches, and electrical devices.

As pioneers of electrification, Schaltbau has been championing safety on rail for generations. Building on nearly a century of rail experience, with our sub-brand Eddicy we also create future-oriented products and solutions with the highest standards of safety and reliability to switch, connect, control and protect DC applications in energy and e-mobility.

Headquartered in Germany, Schaltbau has a worldwide presence with 12 production and sales sites on all major continents.

Find out more on www.schaltbau.com.