

High Voltage DC Contactors ECK Series

The ECK series is designed for control in new energy applications. The ECK product line is an advanced and reliable solution for EV charging stations, solar inverters, battery energy storage systems, automated-guided vehicles (AGV) and e-Forklifts, they provide for bi-directional loads, With the hydrogen gas filling and ceramic hermetically sealing technology, they can achieve excellent arc extinguishing, making them safer and reliable. These contactors can be used in 1000VDC system applications.

Product Offerings:



ECK 50B Series

ECK 100B Series

ECK 150 Series

ECK 150B Series

ECK 200 Series

ECK 200B Series

ECK 250 Series

ECK 250B Series

ECK 300B Series

Key benefits:

- Hermetically sealed with ceramic technology
- Switching voltage up to 1000VDC
- Equipped with optional auxiliary contact and smart monitoring for main contact status
- Complies with DC-1 utilization category
- Meets the system upgrade requirement
- High performance in electrical endurance making it suitable for high voltage applications
- Equipped with bi-directional contacts that supports bi-directional load
- CE approved, serving as a global solution for customer projects

Focus Applications:

- Electric Forklifts
- DC converter
- Power Distribution Unit
- EV charging
- Battery Test Equipment

Technical Information

Relay Type		ECK 50B	ECK 100B	ECK 150B	ECK 200B	ECK 250B	ECK 150	ECK 200	ECK 250
Features		<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Supports bi-directional load• Maximum breaking voltage upto 1000 VDC• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Supports bi-directional load• Maximum breaking voltage upto 1000 VDC• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Supports bi-directional load• Built-in economizer, hold power of 1.7 W• Maximum DC breaking current at 1500 A• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-4-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Supports bi-directional load• Built-in economizer, hold power of 1.7 W• Maximum DC breaking current at 2000 A• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-4-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Supports bi-directional load• Built-in economizer, hold power of 1.7 W• Maximum DC breaking current at 2000 A• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-4-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Built-in economizer, hold power 1.7 W• Maximum DC breaking current at 1500 A• Maximum breaking voltage upto 1000 VDC• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-4-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Built-in economizer, hold power 1.7 W• Maximum DC breaking current at 2000 A• Maximum breaking voltage upto 1000 VDC• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-4-1	<ul style="list-style-type: none">• Gas filled, ceramic hermitically sealed• Built-in economizer, hold power 1.7 W• Maximum DC breaking current at 2000 A• Maximum breaking voltage upto 1000 VDC• Auxiliary contact optional• Comply with DC-1 acc. to IEC60947-4-1
Contacts									
Contact arrangement		1 Form X (SPST-NO-DM)							
Continuous carry current DC [A]		100 A	150 A	200 A	500 A	500 A	200 A	500 A	500A
Rated current [A]		50 A	100 A	150 A	200 A	250 A	150 A	200 A	250A
Max. switching voltage [V]		1000 VDC							
Contact resistance max [mΩ]		1.2 mΩ (50 A, after 1min)	0.8 mΩ (100 A, after 1min)	0.4 mΩ (150 A, after 1min)	0.4 mΩ (200 A, after 1min)	0.4 mΩ (250 A, after 1min)	0.4 mΩ (150 A, after 1min)	0.4 mΩ (200A, after 1min)	0.4 mΩ (250A, after 1min)
Main contact polarity		non-polarity					polarity		
Mechanical life		Upto 200,000 cycles		Upto 500,000 cycles					
Auxiliary Contact Data									
Contact form		1 Form A (SPST-NO)							
Contact current, Max		2A, 30VDC							
Contact current, Min		10 mA, 24 VDC							
Coil Data									
Coil type		Single Coil		PWM control					
Coil voltages DC [V]		12, 24, 48		9 - 36					
Steady coil power [W] or Startup/Holding power [W/W]		5.5, 6, 6		43.2 / 1.7					
Max operate voltage DC [V]		16, 32, 63.8		36					
Min release voltage DC [V]		10% Un		3					
Initial Dielectric Strength									
Breakdown voltage [Vrms]	Opened main contacts	4300 Vrms							
	Main contacts-coil								
	Main contact-aux contacts								
General Data									
Ambient temperature [°C]		-40°C to 85°C							
Termination		Screw							
Mounting		Panel mount							
Certifications		UL, TUV, CE, CCC							
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