High Voltage Contactor

Table of Contents

ZCG10 Ceramic Sealed High Voltage Contactor

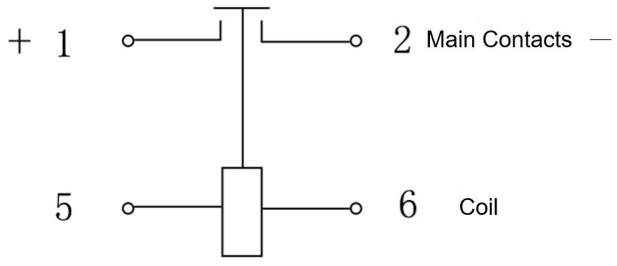
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as install
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc

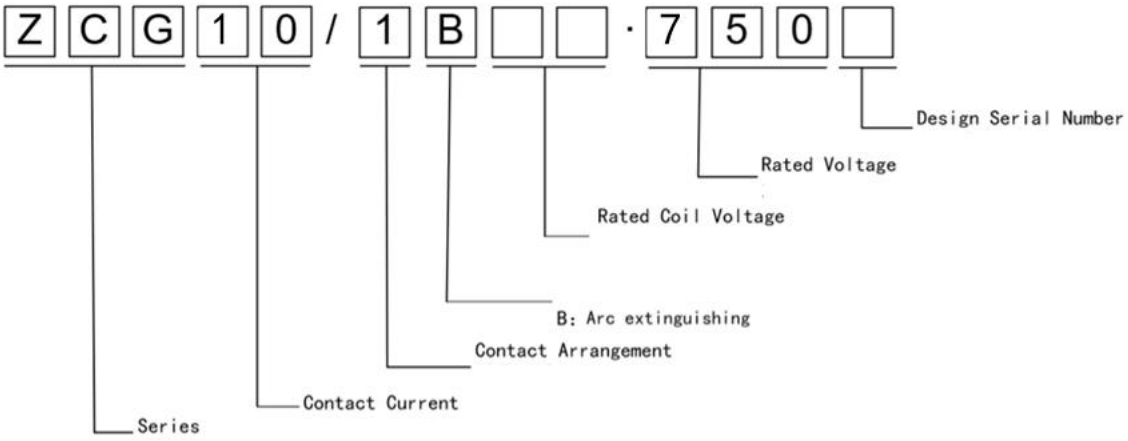
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

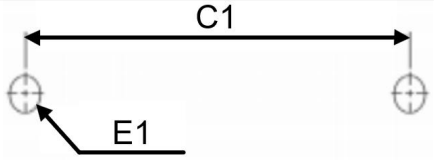


Part Number Coding System

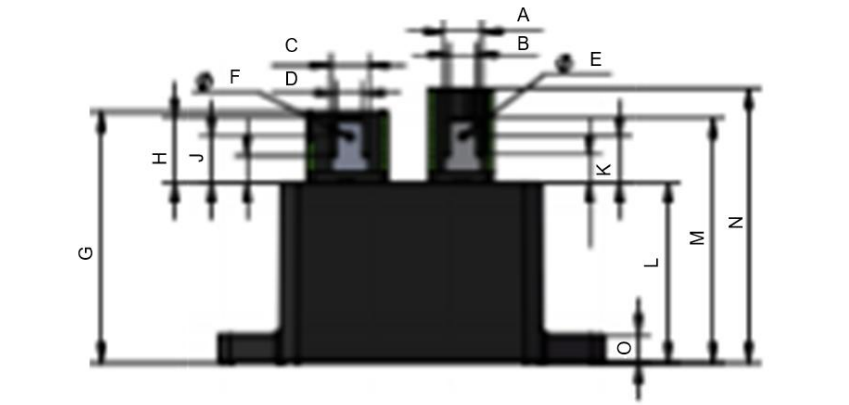


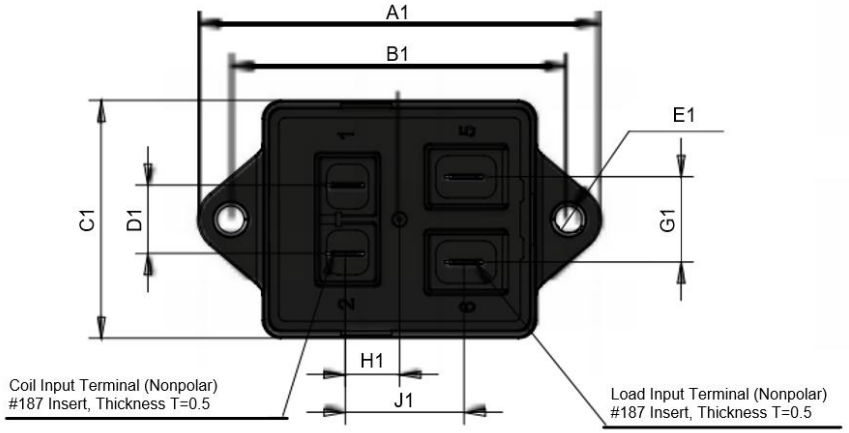
Outline Dimensions

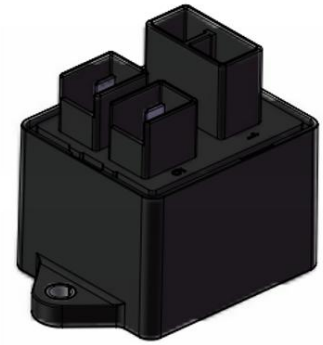
Main Body Installation Size



ZCG10/1B□ • 750







Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	6.2	6.5	6.8
B	4.5	4.8	5.1
C	6.2	6.5	6.8
D	4.5	4.8	5.1
ØE		1.2	
ØF		1.2	
G	39.6	44.1	44.6
H	10.7	11.2	11.7
J	7.7	8.0	8.3
K	7.8	8.1	8.4
L	31.5	31.7	32.2
M	42.5	43.0	43.5
N	47.7	48.2	48.7
O	4.7	5.0	5.3
A1	66.0	66.8	67.6
B1	55.7	55.9	61.1
C1	38.5	39.0	39.5
D1	10.8	11.3	11.8
2×ØE1		4.5	
G1	13.6	14.1	14.6
H1	8.3	8.6	8.9
J1	19.1	19.6	20.1

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG10/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	2.6W
ZCG10/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ(6V DC/20A)
Rated Current		10A
Short-on Current		15A:30min
		80A:10s
Maximum Switching Current		100A(750V DC)
Maximum Breaking Current		50A(450V DC,≥1times)
Dielectric Strength	Contact&Coil	3000V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ(1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^5 Time
		750V DC	7.5×10^4 Time
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500)Hz	
	Damaging Impact Resistance	4G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈140g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG20 High Voltage DC Contactor(Open Structure)



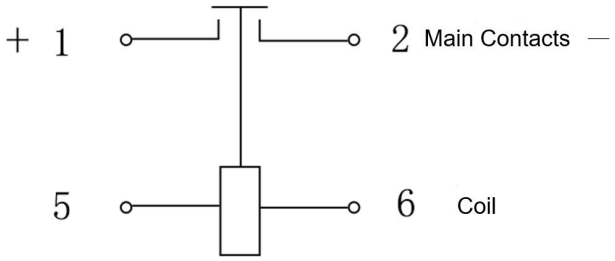
Performance Advantage

- Compliance with the RoHS requirements
- Permanent Magnet Magnetic Blow-out
- Coil connection nonpolarity requirements
- 20A 85℃ Long-term work is achievable
- Small size, lightweight, safe and reliable

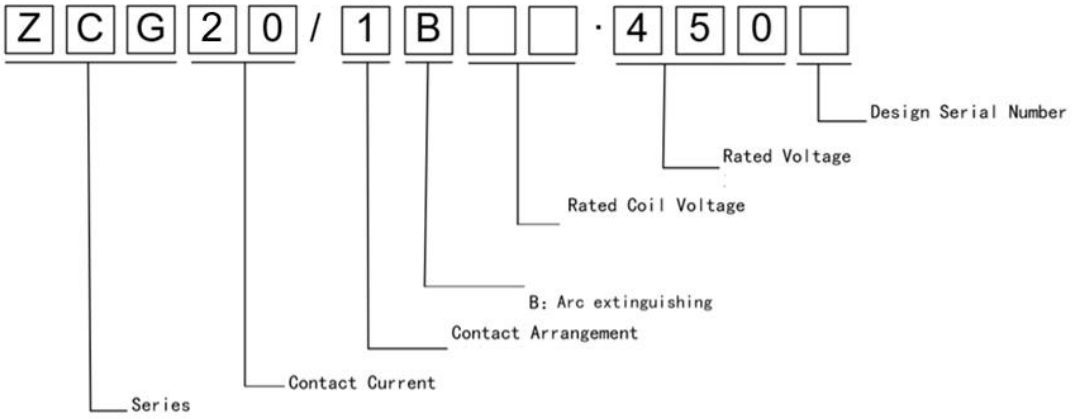
Applications

- PCB board
- Air conditioning equipment
- Charging pile equipment
- Pre-charging of new energy vehicle

Schematic Diagram

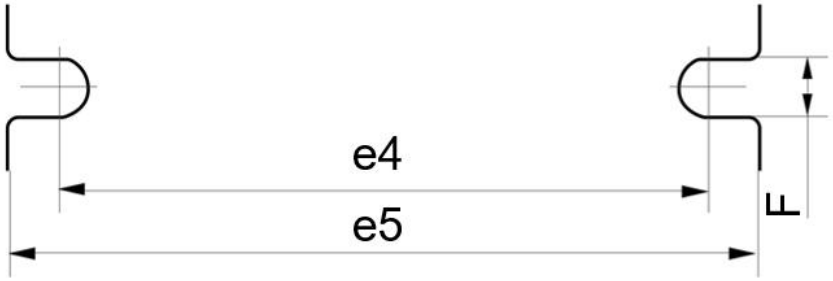


Part Number Coding System

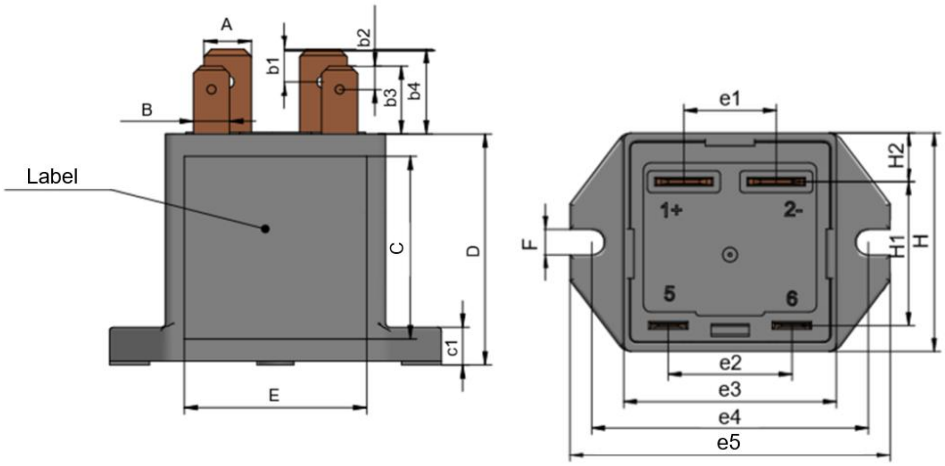


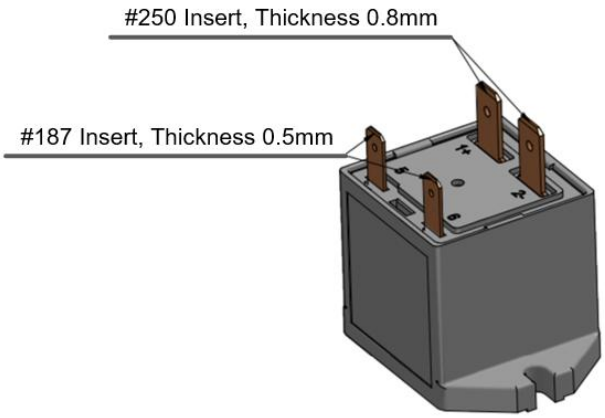
Outline Dimensions

Main Body Installation Size



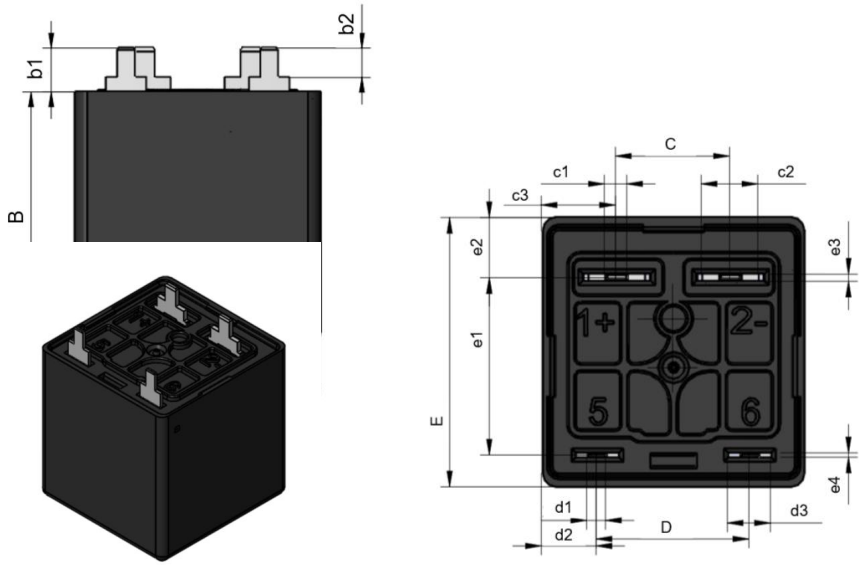
ZCG20/1B□ • 450





Symbol	Dimensions Millimeters	
	Min.	Max.
A	6.0	6.6
B	4.5	5.1
b1	4.0	4.6
b2	2.8	3.4
b3	8.7	9.3
b4	10.7	11.7
C	23.7	24.7
c1	4.7	5.3
D	29.9	30.9
E	23.7	24.7
e1	12.2	13.2
e2	16.5	17.5
e3	28.7	29.7
e4	37.5	38.5
e5	43.7	44.3
2×F	3.5	
H	29.5	30.5
H1	19.3	20.3
H2	6.4	7.0

ZCG20/1B□ • 450A



Symbol	Dimensions Millimeters	
	Min.	Max.
A	28.7	29.7
B	29.6	30.6
b1	4.7	5.3
4×b2	3.2	3.8
C	12.2	13.2
2×c1	2.2	2.8
2×c2	6.0	6.6
c3	7.95	8.55
D	16.5	17.5
2×d1	1.8	2.4
d2	5.8	6.4
2×d3	4.5	5.1
E	29.5	30.5
e1	19.25	20.25
e2	6.4	7.0
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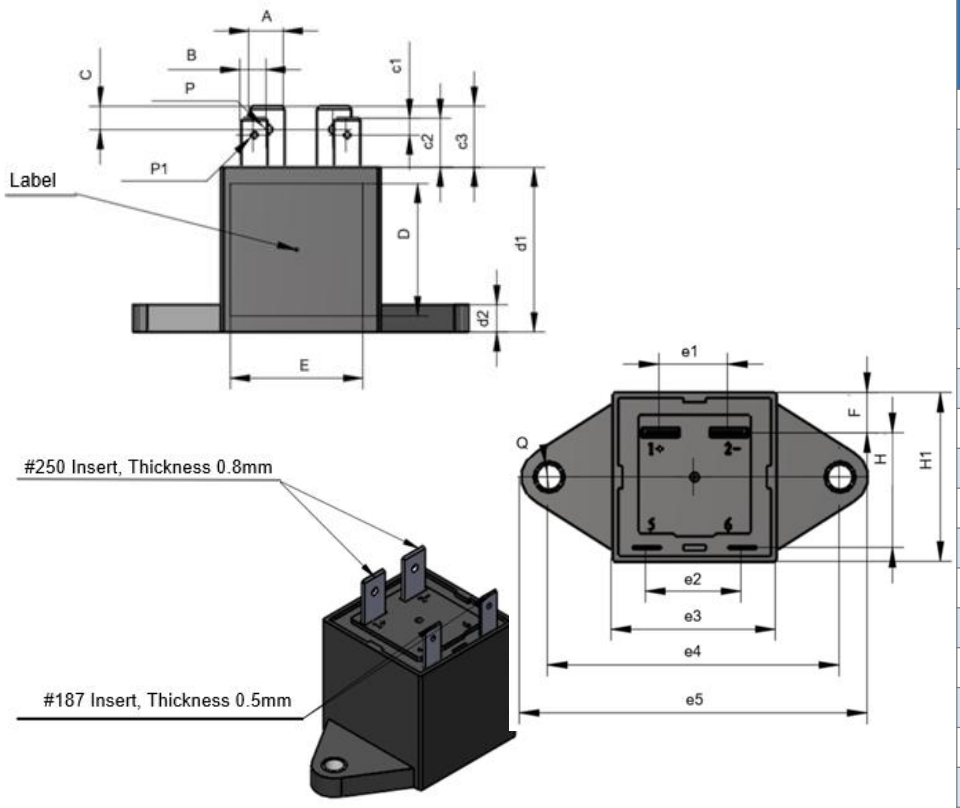
e4	0.2	0.8

ZCG20/1B□ • 450B



Symbol	Dimensions Millimeters	
	Min.	Max.
2×A	6.0	6.6
2×B	4.5	5.1
2×C	4.0	4.6
2×c1	2.8	3.4
2×c2	8.7	9.3
2×c3	10.7	11.7
D	23.7	24.7
d1	29.6	30.6
d2	4.7	5.3
E	23.7	24.7
e1	12.2	13.2
e2	16.5	17.5
e3	28.7	29.7
e4	51.1	52.7
e5	61.0	62.6
F	6.4	7.0
H	19.3	20.3
H1	29.5	30.5
2×Ø P	1.8	
2×Ø P1	1.2	
2×Ø Q	4.5	

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG20/1B12 • 450	12VDC	1PST NO	⩽9VDC	⩾1VDC	≈3W
ZCG20/1B24 • 450	24VDC	1PST NO	⩽18VDC	⩾2VDC	
ZCG20/1B12 • 450A	12VDC	1PST NO	⩽9VDC	⩾1VDC	
ZCG20/1B24 • 450A	24VDC	1PST NO	⩽18VDC	⩾2VDC	
ZCG20/1B12 • 450B	12VDC	1PST NO	⩽9VDC	⩾1VDC	
ZCG20/1B24 • 450B	24VDC	1PST NO	⩽18VDC	⩾2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		⩽10mΩ(at 1A)
Rated Current		20A
Short-on Current		20A:Constant current
		80A:30s
		120A:10s
Maximum Switching Voltage		750V DC
Maximum Switching Current		50A(450V DC,Above 1 Time)
Maximum Switching Power		9kW
Dielectric Strength	Contact&Coil	3000V AC/1min
	Between Contact	2500V AC/1min
Insulation Resistance	Contact&Coil	Min:1000MΩ(1kV DC)
	Between Contact	
Operate Time		⩽30ms
Bouncing Time		⩽5ms
Release Time		⩽10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	Switching:6×10^3 Times(20A)
			Switching:2×10^4 Times(10A)
			Connect:7.5×10^4 Times(20A)
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	5G(10~500)Hz	
	Damaging Impact Resistance	5G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈55g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG20 Ceramic Sealed High Voltage Contactor

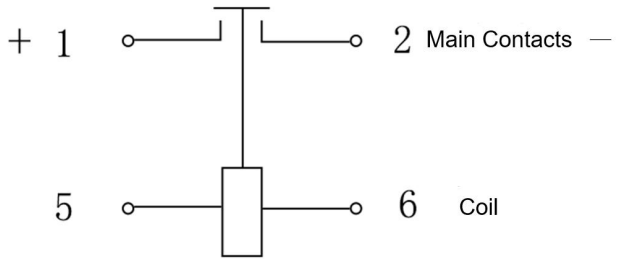
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

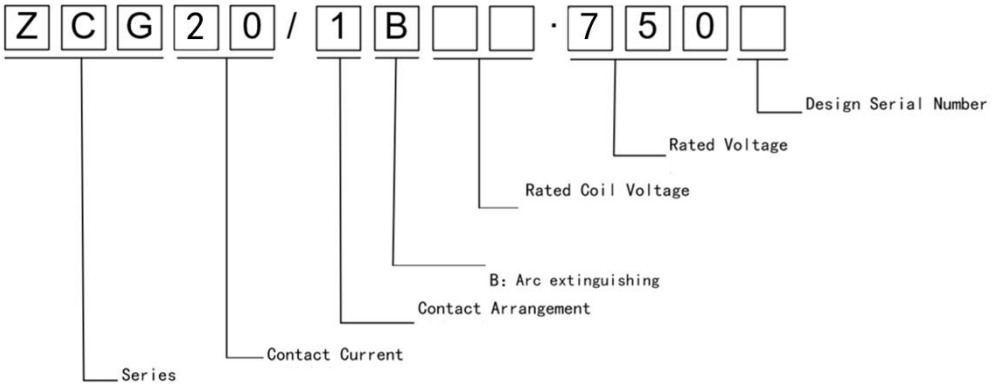
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

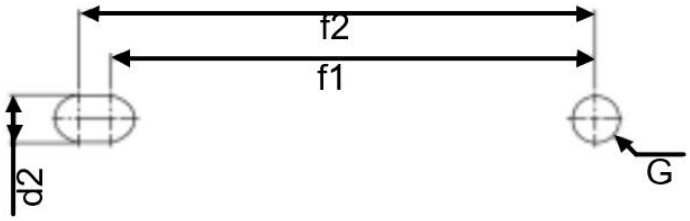


Part Number Coding System

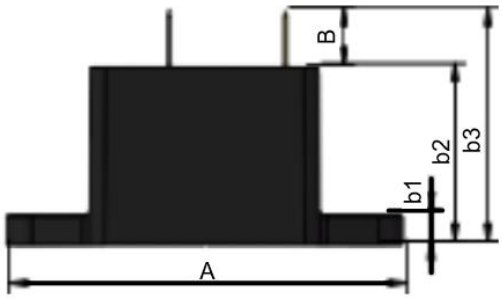


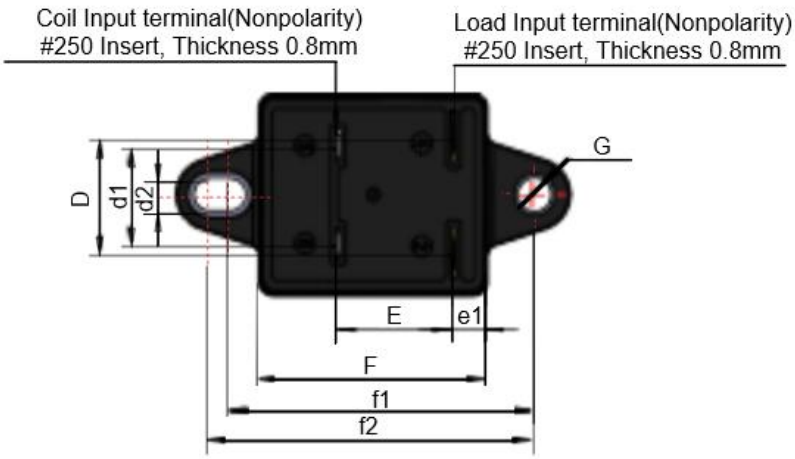
Outline Dimensions

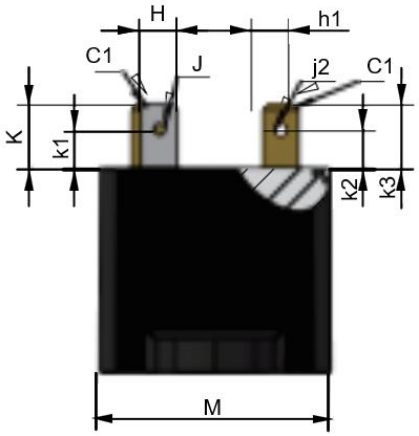
Main Body Installation Size



ZCG20/1B□ • 750







Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	77.2	78.0	78.8
B	10.6	11.1	11.6
b1	4.9	5.2	5.5
b2	34.5	35.0	35.5
b3	45.6	46.1	46.6
D	22.0	22.5	23.0
d1	18.5	19.0	19.5
d2	5.8	6.1	6.4
E	22.3	22.8	23.3
e1	6.4	6.7	7.0
F	44.5	45.0	45.5
f1	59.7	60.0	60.3
f2	63.7	64.0	64.3
ØG		6.1	
H	6.0	6.3	6.6
h1	6.0	6.3	6.6
2×ØJ		2	
2×Øj2		2	
K	10.4	10.9	11.4
k1	6.1	6.4	6.7
k2	6.2	6.5	6.8
k3	10.5	11.0	11.5
M	39.3	39.8	40.3

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG20/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	2.6W
ZCG20/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ(6V DC/20A)
Rated Current		20A
Short-on Current		30A:30min
		160A:10s
Maximum Switching Current		200A(750V DC)
Overload Cut Off		50Times(60A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	3200V AC
Insulation Resistance	Contact&Coil	Min:1000MΩ(1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^5 Times
		750V DC	7.5×10^4 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500Hz)	
	Damaging Impact Resistance	4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈150g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

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♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

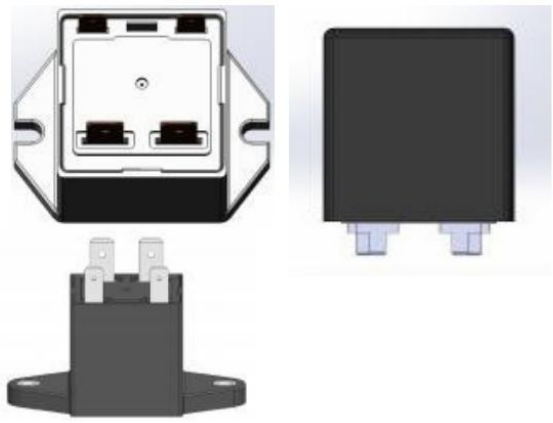
♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG40 High Voltage DC Contactor(Open Structure)

Performance Advantage

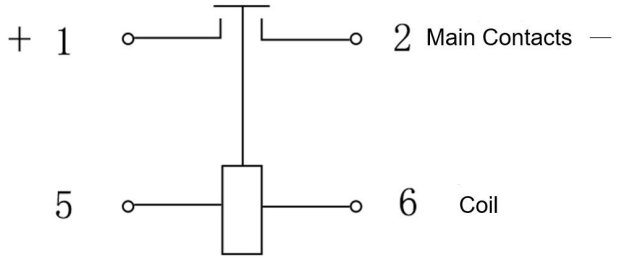
- Compliance with the RoHS requirements
- Permanent Magnet Magnetic Blow-out
- Coil connection nonpolarity requirements
- 40A 85℃ Long-term work is achievable
- Small size, lightweight, safe and reliable



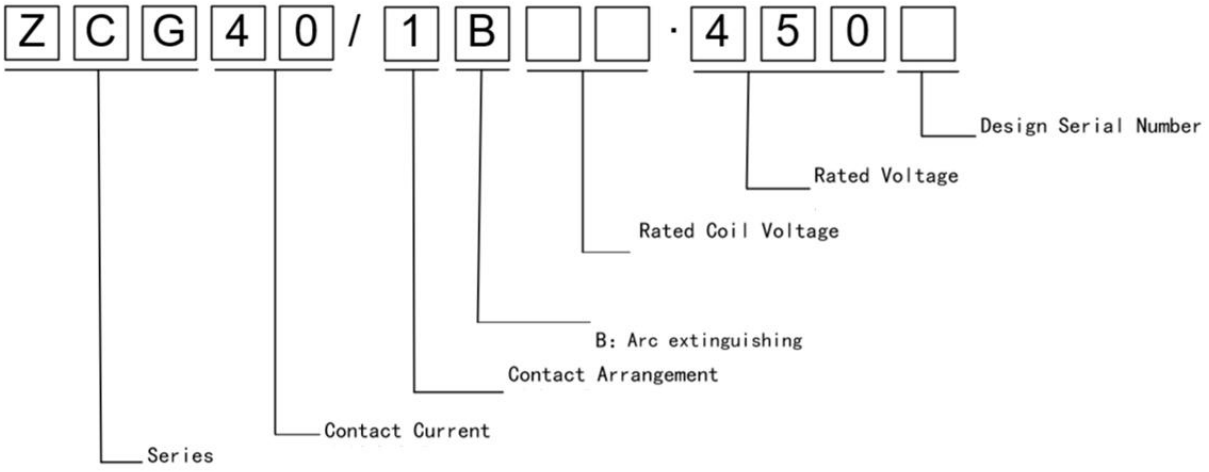
Applications

- PCB board
- Air conditioning equipment
- Charging pile equipment
- Pre-charging of new energy vehicle

Schematic Diagram

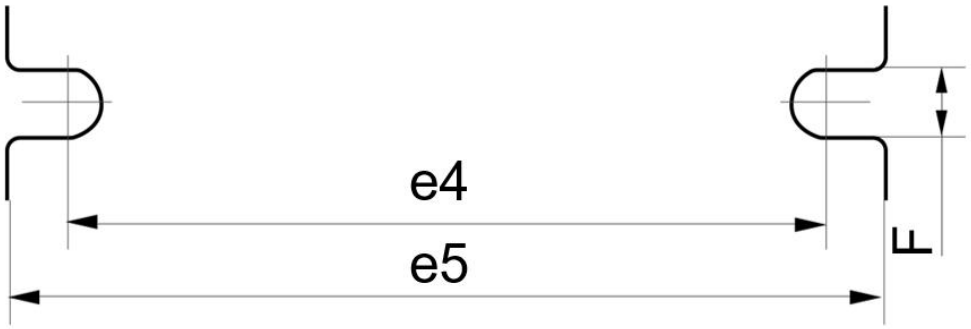


Part Number Coding System

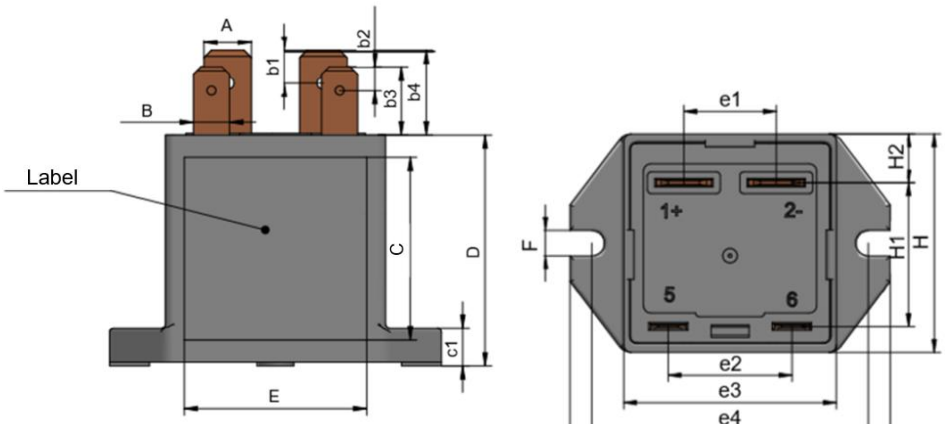


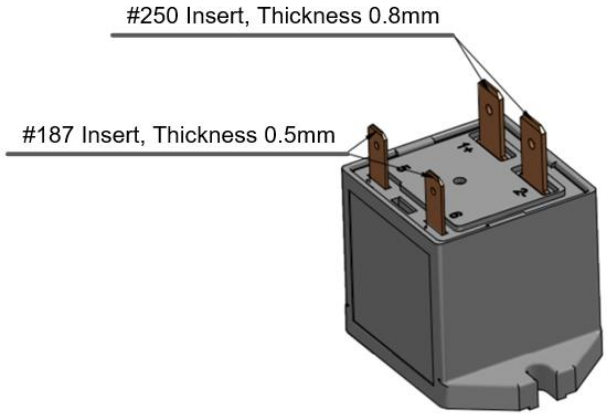
Outline Dimensions

Main installation Size



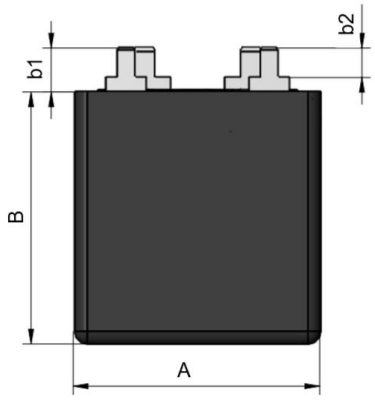
ZCG40/1B□ • 450

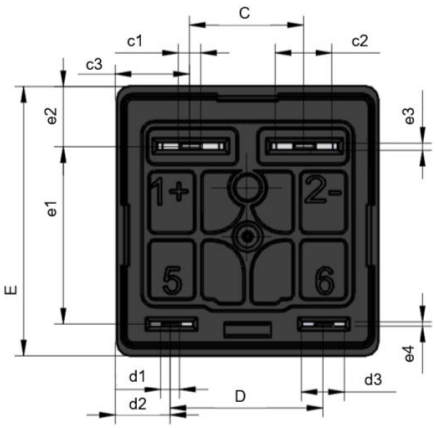


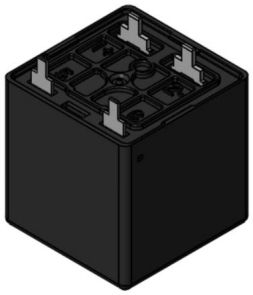


Symbol	Dimensions	
	Millimeters	
	Min.	Max.
A	6.0	6.6
B	4.5	5.1
b1	4.0	4.6
b2	2.8	3.4
b3	8.7	9.3
b4	10.7	11.7
C	23.7	24.7
c1	4.7	5.3
D	29.9	30.9
E	23.7	24.7
e1	12.2	13.2
e2	16.5	17.5
e3	28.7	29.7
e4	37.5	38.5
e5	43.7	44.3
2×F	3.5	
H	29.5	30.5
H1	19.3	20.3
H2	6.4	7.0

ZCG40/1B□ • 450A

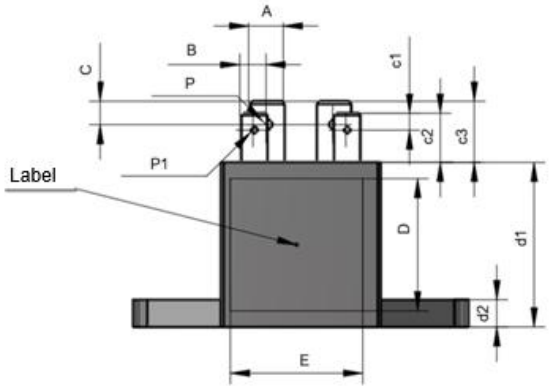


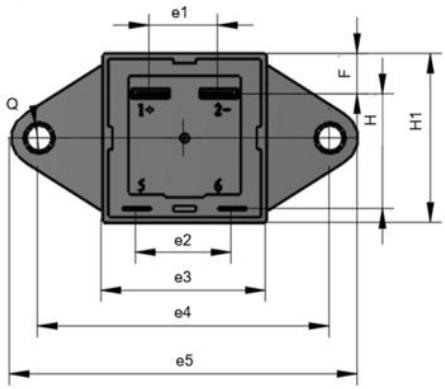


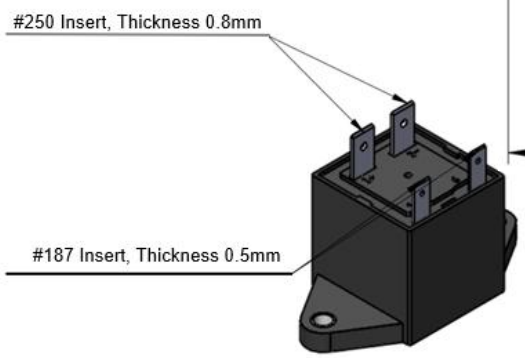


Symbol 符号	Dimensions 尺寸 Millimeters 毫米	
	Min.最小	Max.最大
A	28.7	29.7
B	29.6	30.6
b1	4.7	5.3
4×b2	3.2	3.8
C	12.2	13.2
2×c1	2.2	2.8
2×c2	6.0	6.6
c3	7.95	8.55
D	16.5	17.5
2×d1	1.8	2.4
d2	5.8	6.4
2×d3	4.5	5.1
E	29.5	30.5
e1	19.25	20.25
e2	6.4	7.0
e3	0.5	1.1
e4	0.2	0.8

ZCG40/1B□ • 450B







Symbol	Dimensions Millimeters	
	Min.	Max.
2×A	6.0	6.6
2×B	4.5	5.1
2×C	4.0	4.6
2×c1	2.8	3.4
2×c2	8.7	9.3
2×c3	10.7	11.7
D	23.7	24.7
d1	29.6	30.6
d2	4.7	5.3
E	23.7	24.7
e1	12.2	13.2
e2	16.5	17.5
e3	28.7	29.7
e4	51.1	52.7
e5	61.0	62.6
F	6.4	7.0
H	19.3	20.3
H1	29.5	30.5
2×Ø P	1.8	
2×Ø P1	1.2	
2×Ø Q	4.5	

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG40/1B12 • 450	12VDC	1PST NO	≤9VDC	≥1VDC	≈3W
ZCG40/1B24 • 450	24VDC	1PST NO	≤18VDC	≥2VDC	
ZCG40/1B12 • 450A	12VDC	1PST NO	≤9VDC	≥1VDC	
ZCG40/1B24 • 450A	24VDC	1PST NO	≤18VDC	≥2VDC	
ZCG40/1B12 • 450B	12VDC	1PST NO	≤9VDC	≥1VDC	
ZCG40/1B24 • 450B	24VDC	1PST NO	≤18VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤10mΩ(at 1A)
Rated Current		40A
Maximum Switching Voltage		750V DC
Maximum Switching Current		50A(450V DC,≥1 Time)
Minimum Available Load		6V DC/1A
Short-on Current		60A:1h
		80A:20min
		160A,30s
		240A,10s
Dielectric Strength	Contact&Coil	3000V AC/1min
	Between Contact	2500V AC/1min
Insulation Resistance	Contact&Coil	Min:1000MΩ(1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		≤5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V	Switching :1×10^3 Times(40A)
			Switching :1×10^4 Times(10A)
			Connect:7.5×10^4 Times(35A)
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	5G(10~500)Hz	
	Damaging Impact Resistance	5G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈55g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG40 Ceramic Sealed High Voltage Contactor

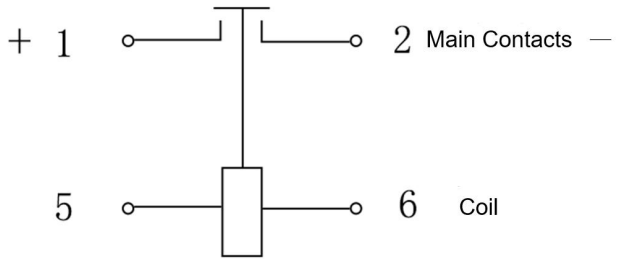
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

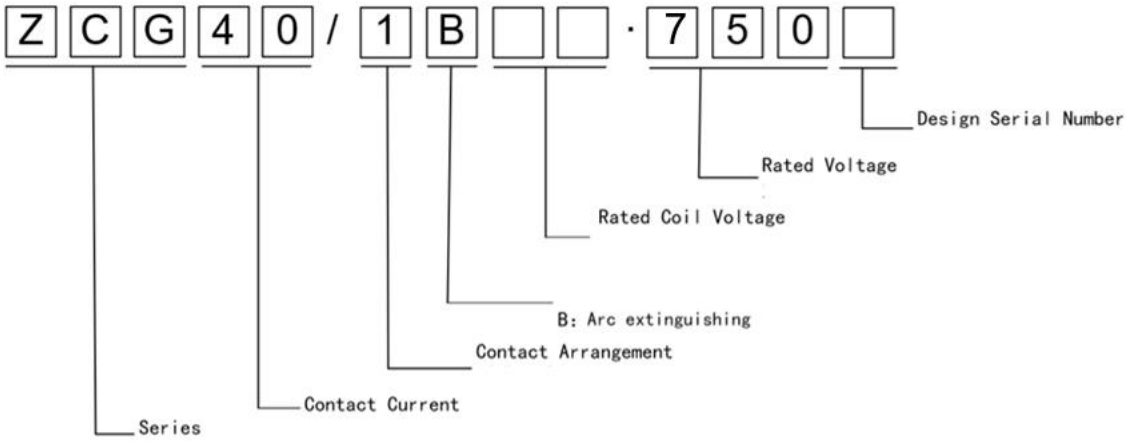
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

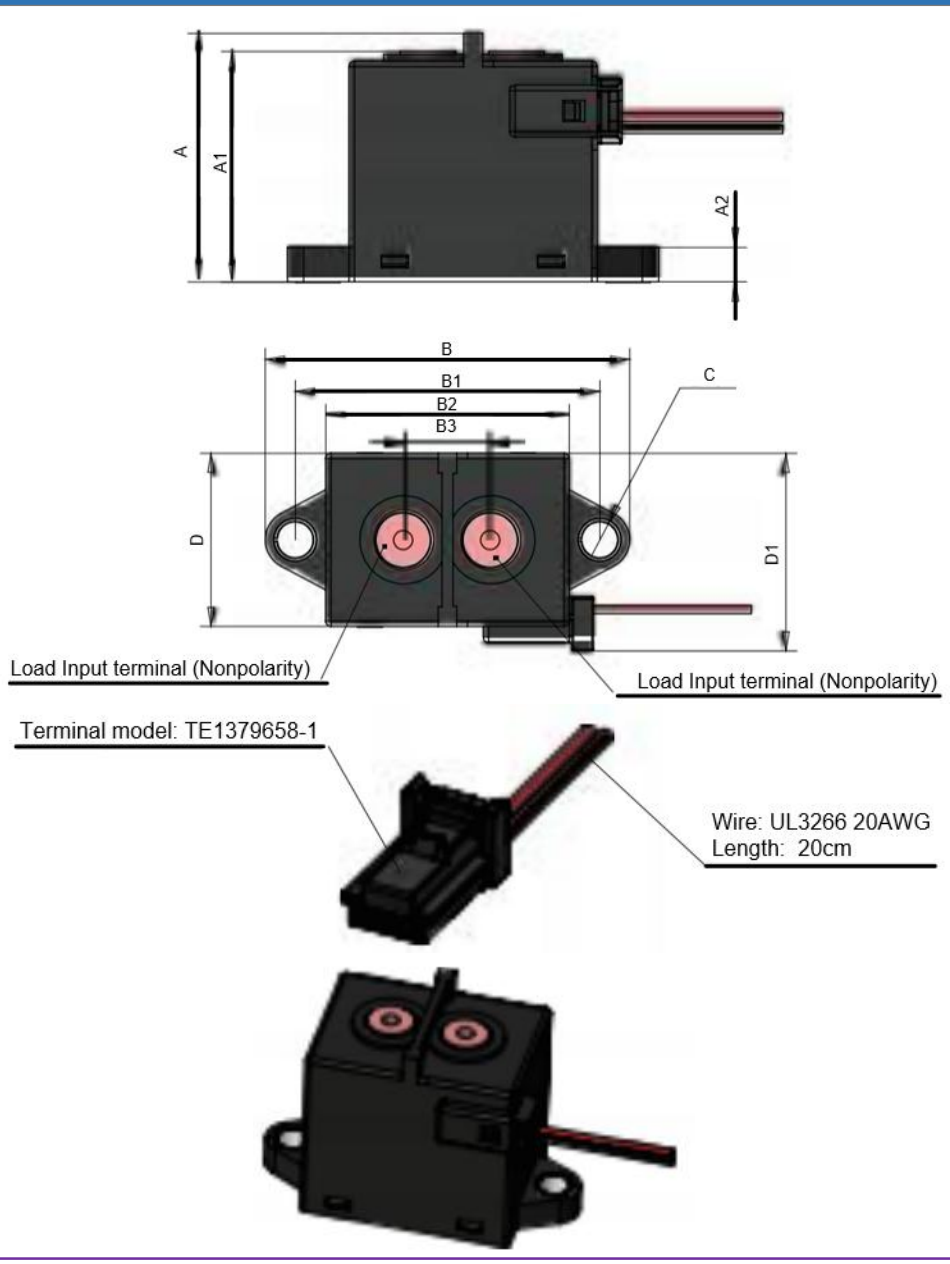


Part Number Coding System



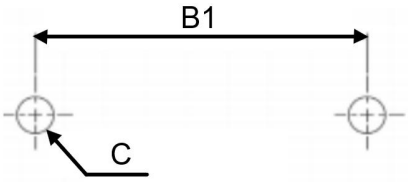
Outline Dimensions

ZCG40/1B□ • 750



Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	47.0	47.5	48
A1	41.0	41.5	42.0
A2	5.9	6.2	6.5
B	66.2	67.0	67.8
B1	55.8	56.0	56.2
B2	44.3	44.8	45.3
B3	15.5	16.0	16.5
2×ØC	5.8	6.1	6.4
D	32.1	32.6	33.1
D1	36.5	37.0	37.5

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG40/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	3W
ZCG40/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ (6V DC/20A)
Rated Current		40A
Short-on Current		60A:30min
		320A:10s
Maximum Switching Current		400A(750V DC)
Overload Cut Off		100 Times(80A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^5 Time(Breaking)
		750V DC	7.5×10^4 Time(Breaking)
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500)Hz	
	Damaging Impact Resistance	4G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈160g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

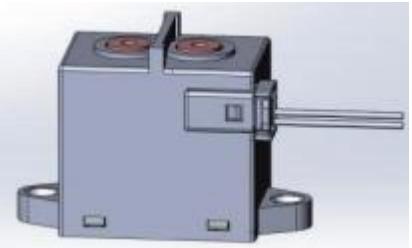
♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG50 Ceramic Sealed High Voltage Contactor

Performance Advantage

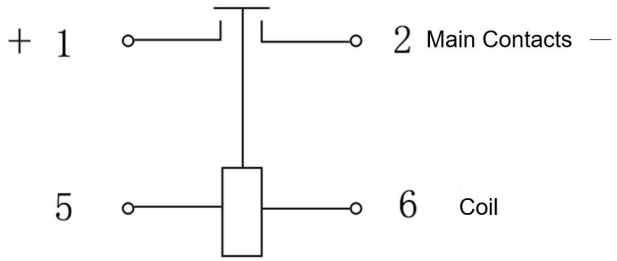


- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

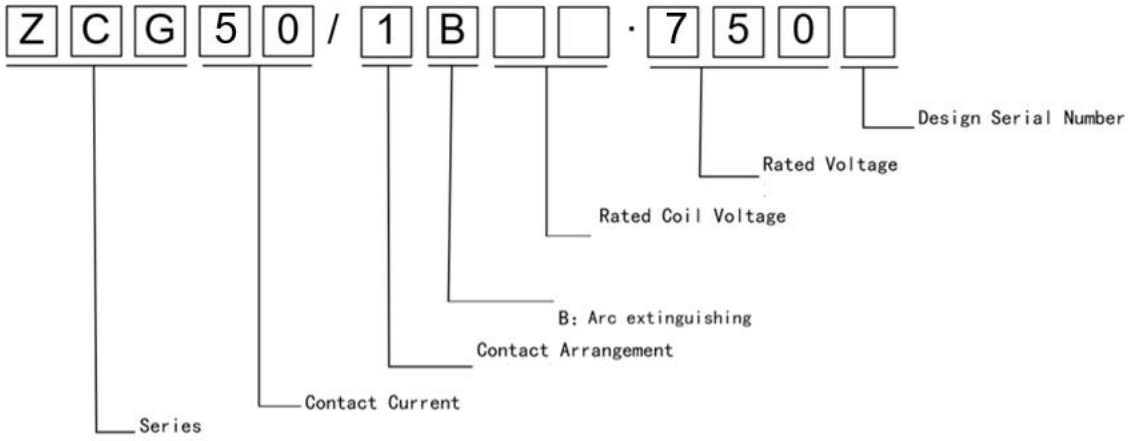
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

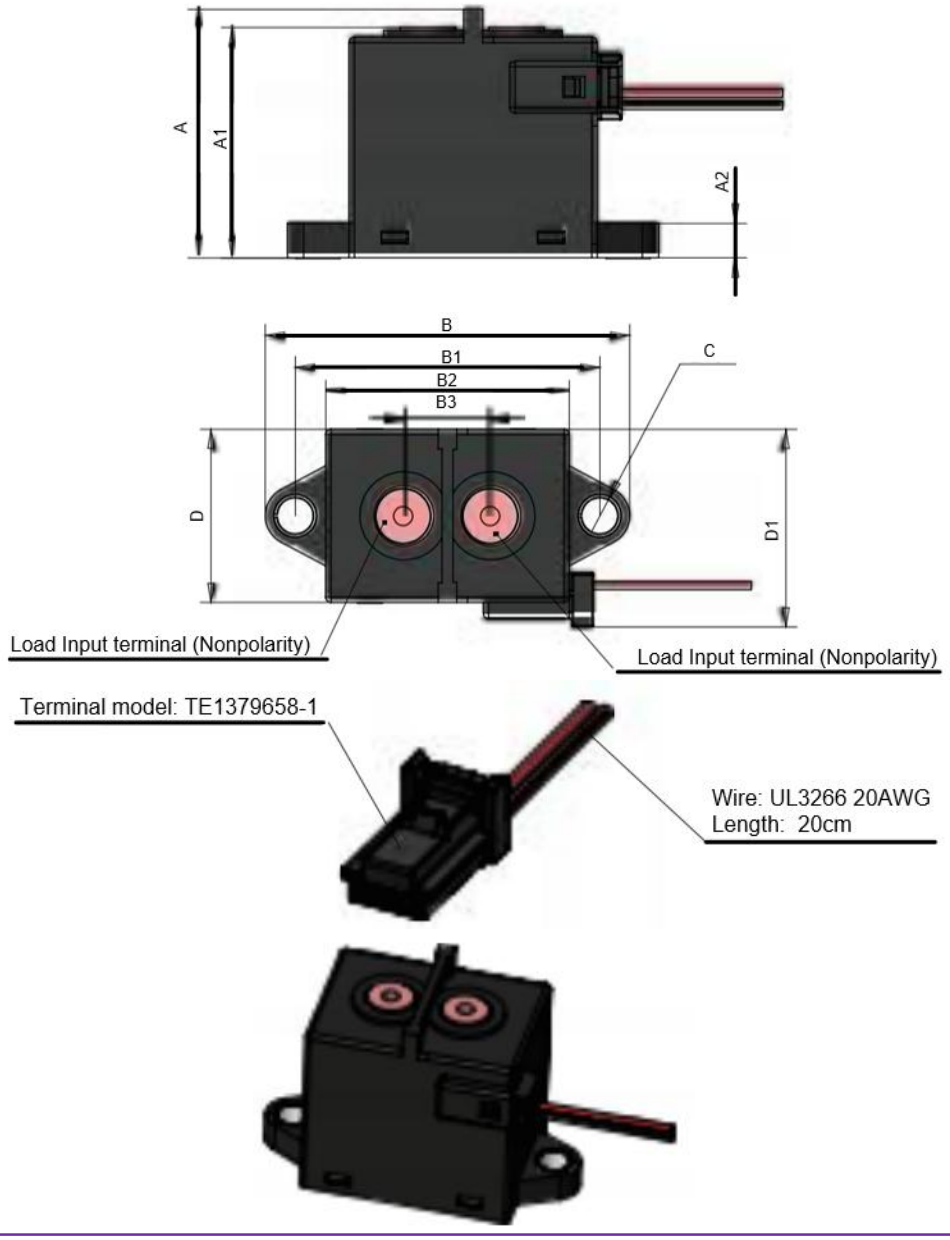


Part Number Coding System



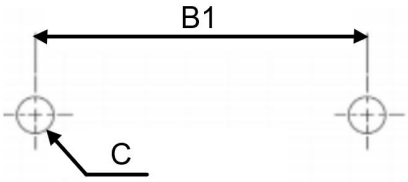
Outline Dimensions

ZCG50/1B☐ • 750



Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	47.0	47.5	48
A1	41.0	41.5	42.0
A2	5.9	6.2	6.5
B	66.2	67.0	67.8
B1	55.8	56.0	56.2
B2	44.3	44.8	45.3
B3	15.5	16.0	16.5
2×ØC	5.8	6.1	6.4
D	32.1	32.6	33.1
D1	36.5	37.0	37.5

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG50/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	3W
ZCG50/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤5mΩ(6V DC/20A)
Rated Current		50A
Short-on Current		75A:30min
		400A:10s
Maximum Switching Current		500A(750V DC)
Overload Cut Off		100Times(80A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ(1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	7.5×10^4 Times(Breaking)
		750V DC	2×10^4 Times(Breaking)
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500)Hz	
	Damaging Impact Resistance	4G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈160g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG100 Ceramic Sealed High Voltage Contactor

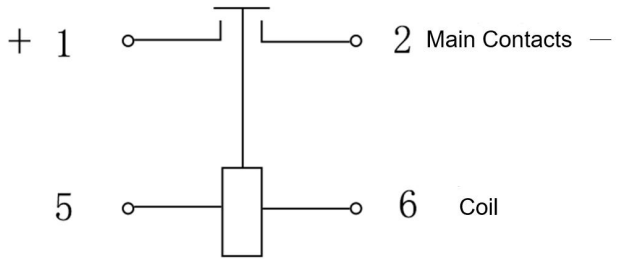
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

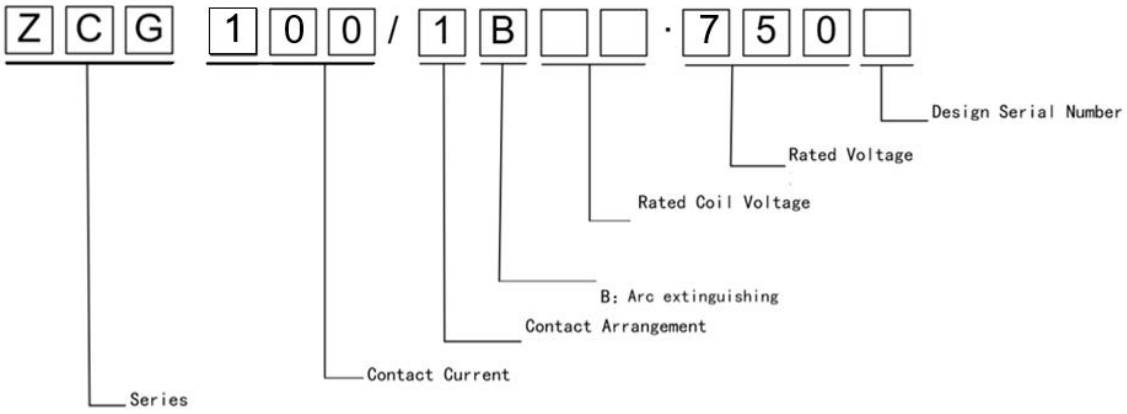
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

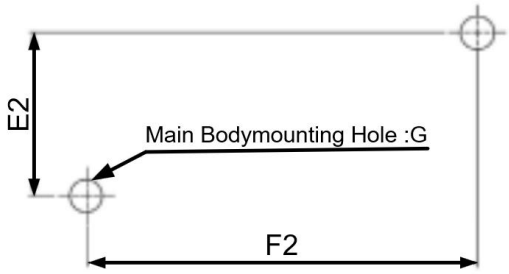


Part Number Coding System

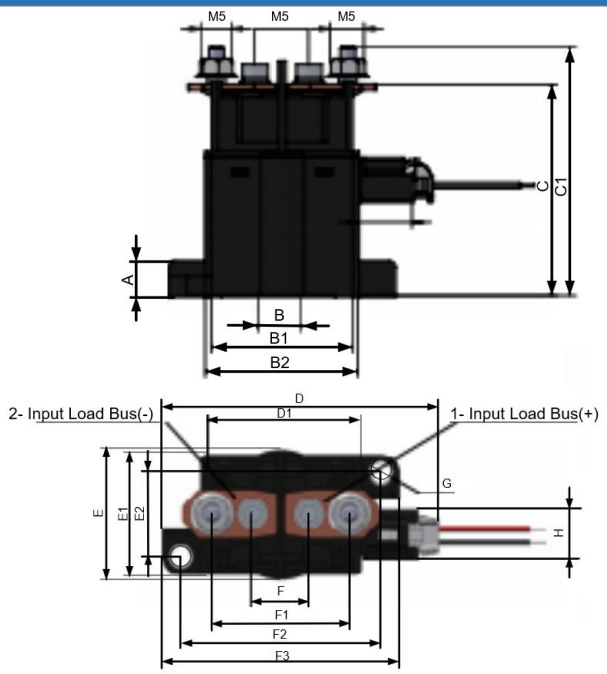


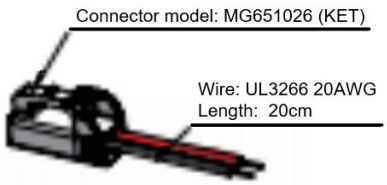
Outline Dimensions

Main Body Installation Size



ZCG100/1B□ • 750





Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	10.9	11.4	11.9
B	13.7	14.2	14.7
B1	47.3	47.8	48.3
B2	51.0	51.8	52.6
C	69.2	70.0	70.8
C1	78.2	79.0	79.8
D	87.2	88.0	88.8
D1	51.0	51.8	52.6
E	41.0	41.5	42.0
E1	38.5	39.0	39.5
E2	26.3	26.5	26.7
F	17.5	18.0	18.5
F1	44.5	45.0	45.5
F2	63.8	64.0	64.2
F3	75.7	76.5	77.3
2×ØG		6.0	
H	15.5	16.0	16.5

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG100/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	4.5W
ZCG100/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ (6V DC/20A)
Rated Current		100A
Short-on Current		150A:30min
		160A:10s
Maximum Switching Current		1000A(750V DC)
Overload Cut Off		100Times(200A/750V DC)
Reverse Cut-Off		1000Times(100A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^5 Time
		750V DC	6×10^3 Time
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500)Hz	
	Damaging Impact Resistance	4G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈410g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

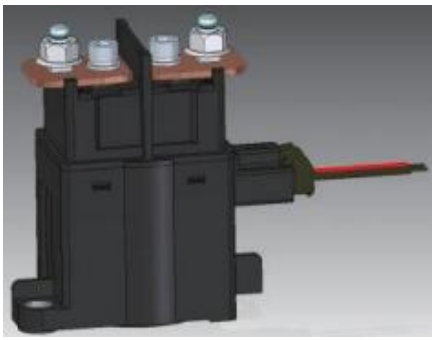
♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG150 Ceramic Sealed High Voltage Contactor

Performance Advantage

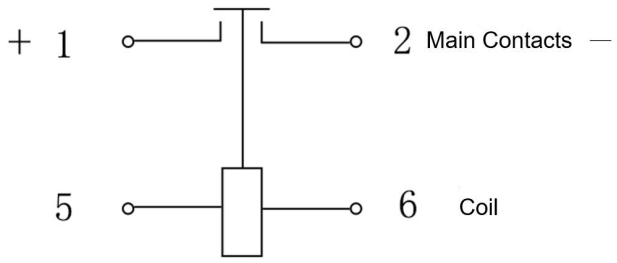


- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

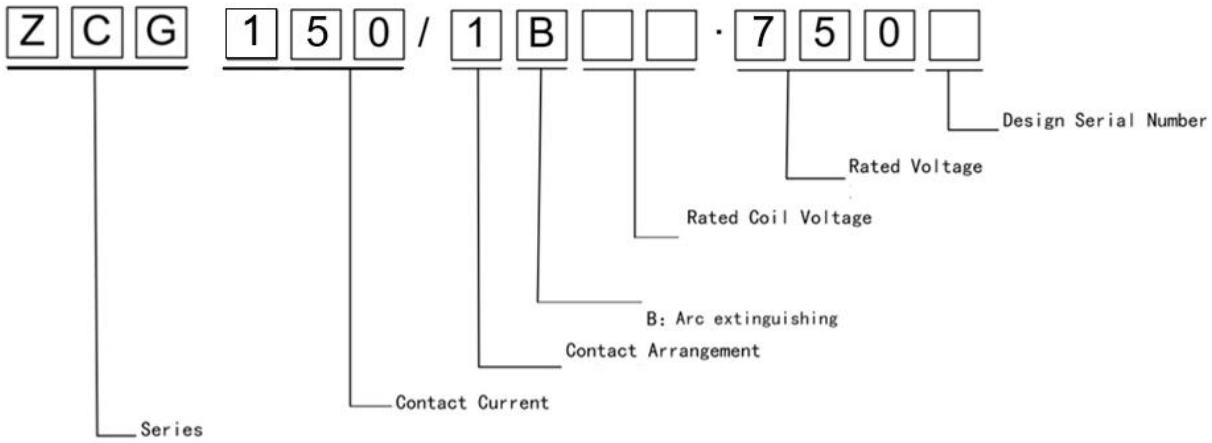
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

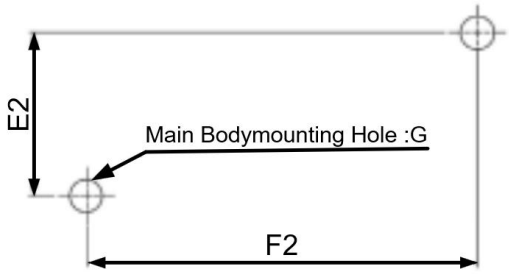


Part Number Coding System

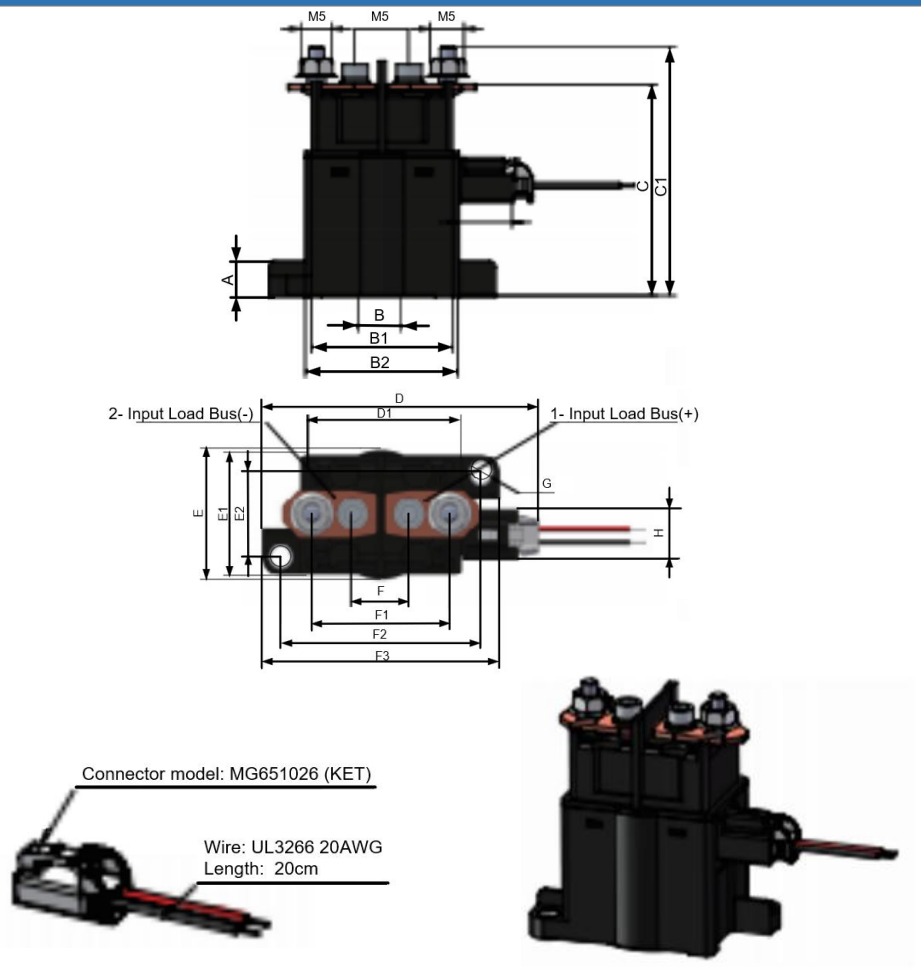


Outline Dimensions

Main Body Installation Size



ZCG150/1B□ • 750



Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	10.9	11.4	11.9
B	13.7	14.2	14.7
B1	47.3	47.8	48.3
B2	51.0	51.8	52.6
C	69.2	70.0	70.8
C1	78.2	79.0	79.8
D	87.2	88.0	88.8
D1	51.0	51.8	52.6
E	41.0	41.5	42.0
E1	38.5	39.0	39.5
E2	26.3	26.5	26.7
F	17.5	18.0	18.5
F1	44.5	45.0	45.5
F2	63.8	64.0	64.2
F3	75.7	76.5	77.3
2×ØG		6.0	
H	15.5	16.0	16.5

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG150/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	6W
ZCG150/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤3mΩ(6V DC/20A)
Rated Current		150A
Short-on Current		225A:30min
		1200A:10s
Maximum Switching Current		1500A(750V DC)
Overload Cut Off		300Times(300A/750V DC)
Reverse Cut-off		1000Times(150A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ(1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		≤5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V	1×10^4 Times
		750V	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500)Hz	
	Damaging Impact Resistance	4G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈403g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG200 Ceramic Sealed High Voltage Contactor

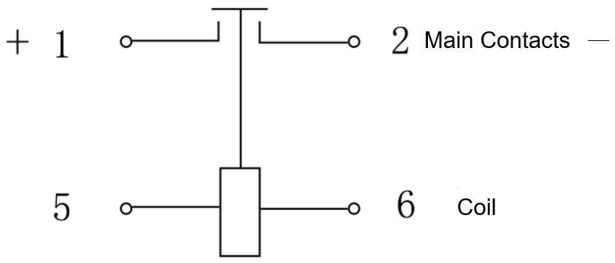
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

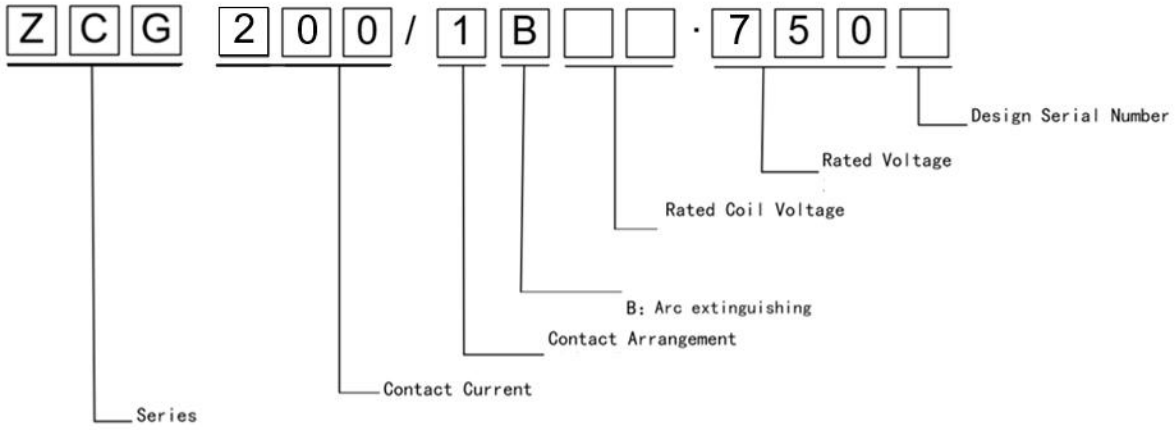
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

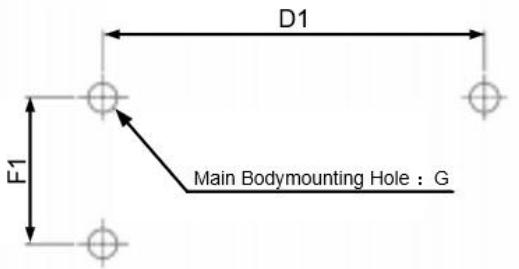


Part Number Coding System

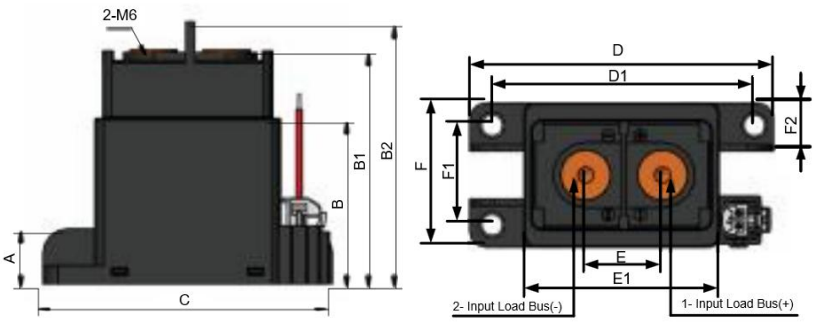


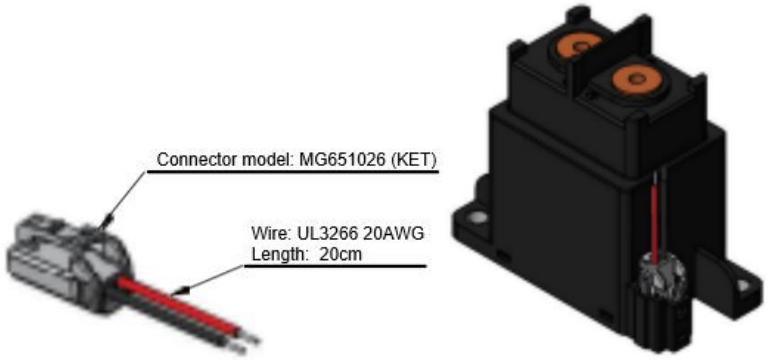
Outline Dimensions

Main Body Installation Size



ZCG200/1B□ • 750





Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	16.5	17.0	17.5
B	53.2	54.0	54.8
B1	75.7	76.5	77.3
B2	84.7	85.5	86.3
C	94.2	95.0	95.8
D	94.2	95.0	95.8
D1	81.8	82.0	82.2
E	23.5	24.0	24.5
E1	60.2	61.0	61.8
F	44.5	45.0	45.5
F1	30.8	31.0	31.2
F2	14.5	15.0	15.5
3×ØG	5.8	6.1	6.4

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG200/1B12 • 750	12VDC	1PST NO	≤9VDC	≥1VDC	7.5W
ZCG200/1B24 • 750	24VDC	1PST NO	≤18VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ (6V DC/20A)
Rated Current		200A
Short-on Current		300A:10min
		1600A:10s
Maximum Switching Current		2000A(750V DC)
Overload Cut Off		300Times(400A/750V DC)
Reverse Cut-off		1000Times(200A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤50ms
Bouncing Time		<5ms
Release Time		≤20ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500Hz)	
	Damaging Impact Resistance	4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈523g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG250 Ceramic Sealed High Voltage Contactor

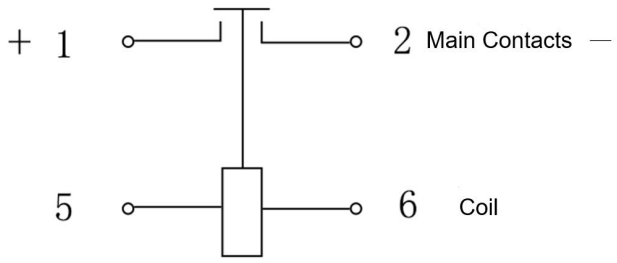
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

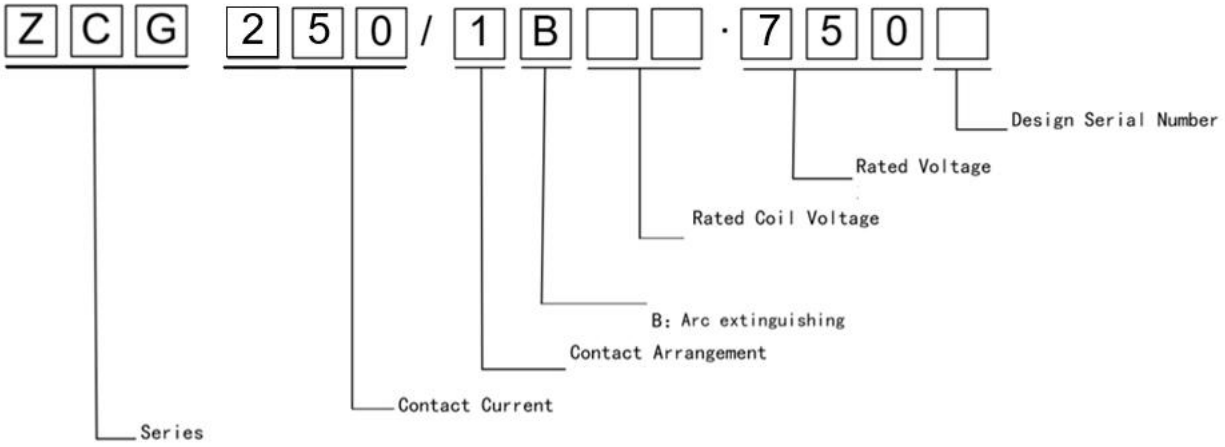
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

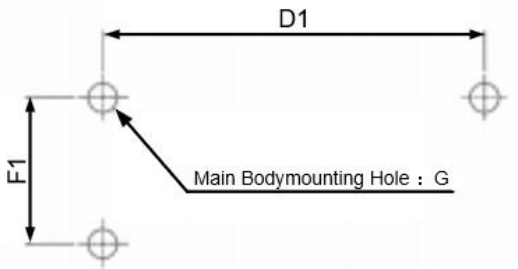


Part Number Coding System

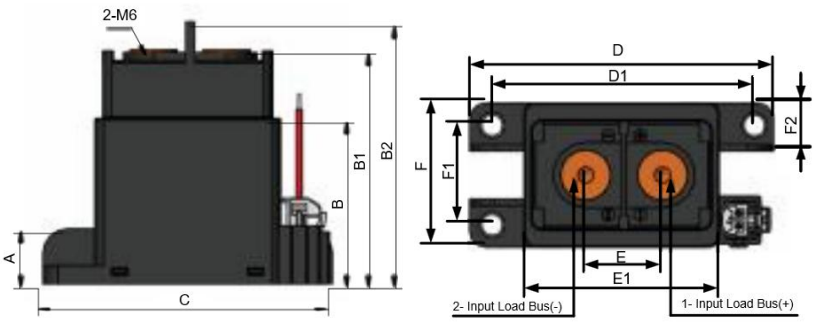


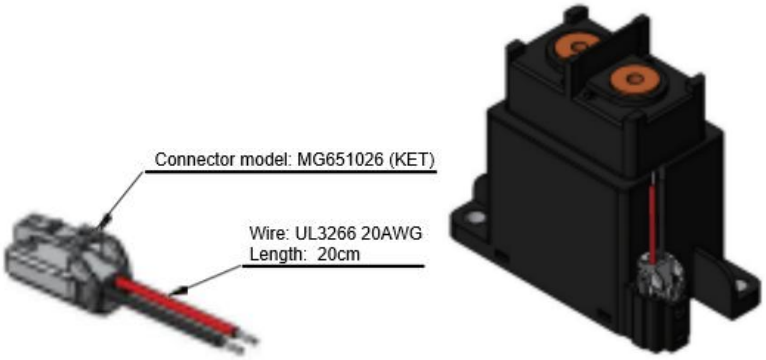
Outline Dimensions

Main Body Installation Size



ZCG250/1B□ • 750





Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	16.5	17.0	17.5
B	53.2	54.0	54.8
B1	75.7	76.5	77.3
B2	84.7	85.5	86.3
C	94.2	95.0	95.8
D	94.2	95.0	95.8
D1	81.8	82.0	82.2
E	23.5	24.0	24.5
E1	60.2	61.0	61.8
F	44.5	45.0	45.5
F1	30.8	31.0	31.2
F2	14.5	15.0	15.5
3×ØG	5.8	6.1	6.4

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCG250/1B12 • 750	12VDC	1PST NO	≤9VDC	≥1VDC	7.5W
ZCG250/1B24 • 750	24VDC	1PST NO	≤18VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ (6V DC/20A)
Rated Current		250A
Current tolerance		250A;Continuous Operating
		375A:10min
Maximum Switching Current		2000A(350V DC)
Overload Cut Off		50Times(400A/450V DC)
Reverse Cut-off		1000Times(200A/450V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤50ms
Bouncing Time		<5ms
Release Time		≤20ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	6×10^3 Times
		750V DC	3×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500Hz)	
	Damaging Impact Resistance	4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈600g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG300 Ceramic Sealed High Voltage Contactor

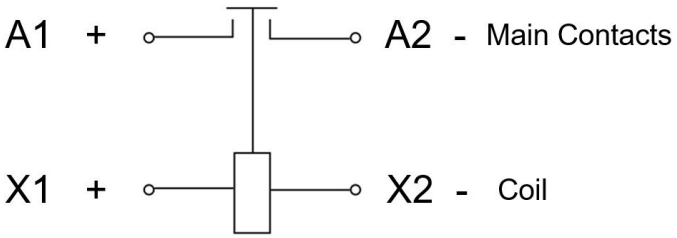
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

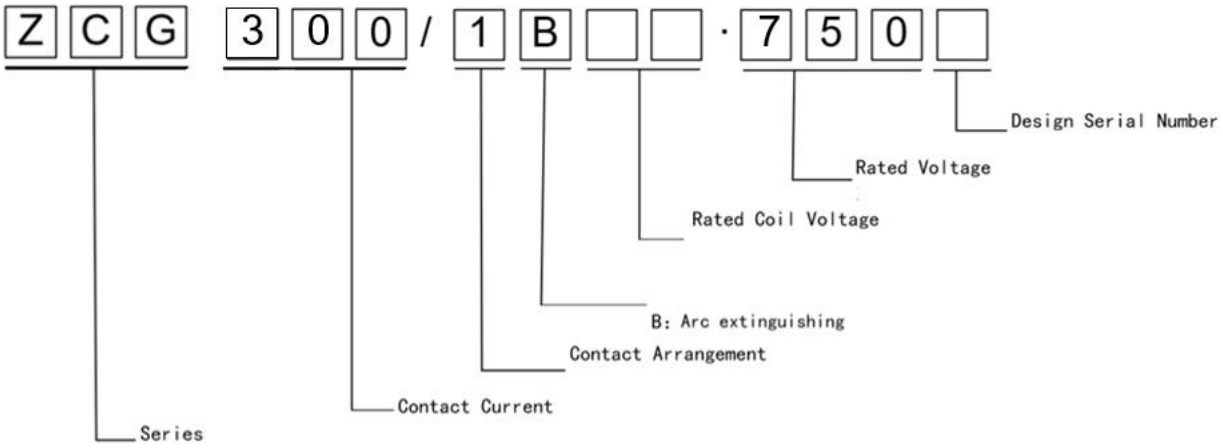
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

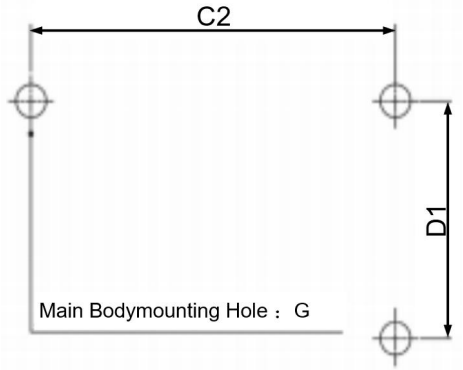


Part Number Coding System

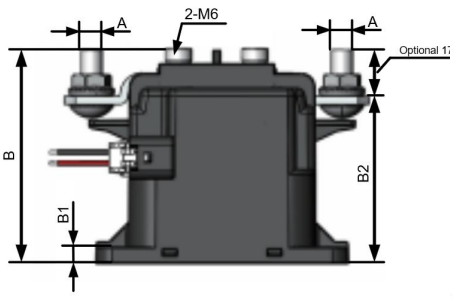


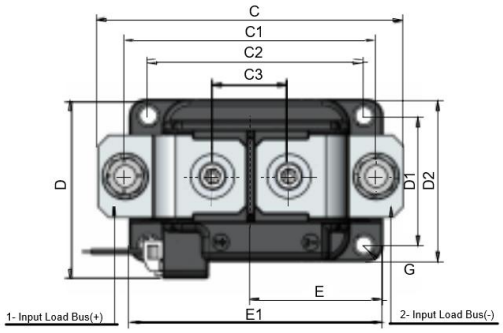
Outline Dimensions

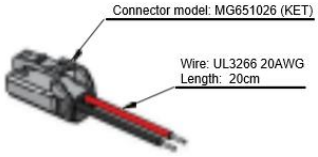
Main Body Installation Size

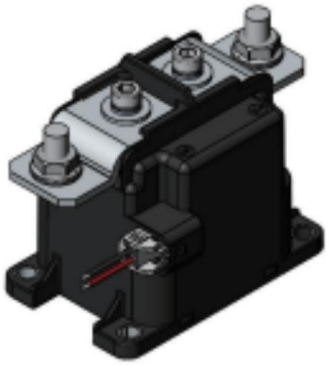


ZCG300/1B□ • 750









Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	7.7	8.0	8.3
B	77.8	78.6	79.4
B1	5.9	6.2	6.5
B2	60.2	61.0	61.8
C	111.2	112.0	112.8
C1	91.2	92.0	92.8
C2	78.7	79.0	79.3
C3	27.5	28.0	28.5
D	64.3.	65.1	65.9
D1	46.7	47.0	47.3
D2	58.2	59.0	59.8
E	48.0	48.5	49.0
E1	92.2	93.0	93.8
3×ØG	5.8	6.1	6.4

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power	Holding Power
ZCG300/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	45W	4W
ZCG300/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC		

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ (6V DC/20A)
Rated Current		300A
Short-on Current		400A:10min
		600A:1s
Maximum Switching Current		2500A(320V DC)
Overload Cut Off		300 Times(600A/750V DC)
Reverse Cut-off		100 Times(300A/750V DC)
Dielectric Strength	Contact&Coil	3000V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500Hz)	
	Damaging Impact Resistance	4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈800g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG400 Ceramic Sealed High Voltage Contactor

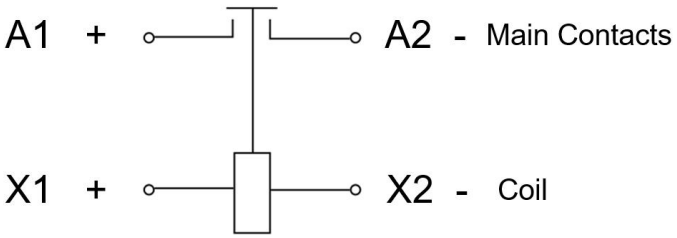
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

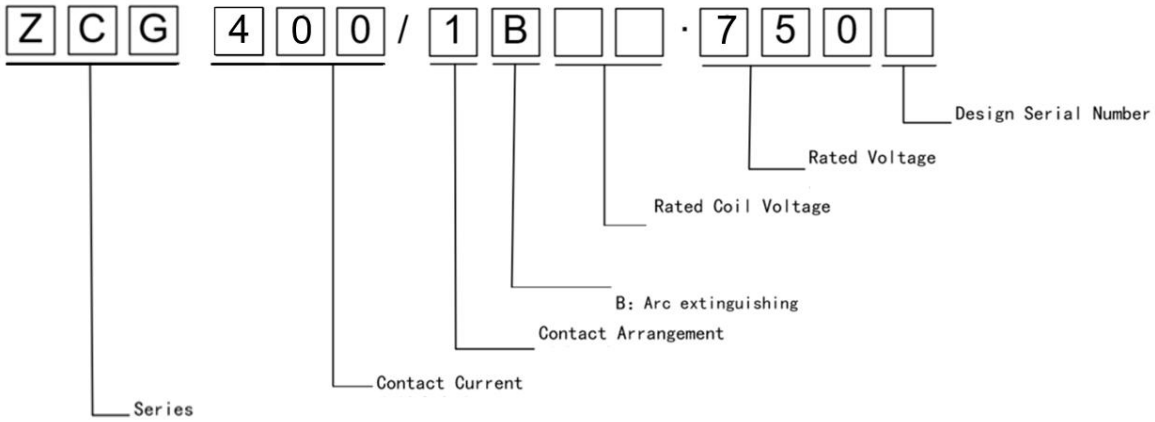
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

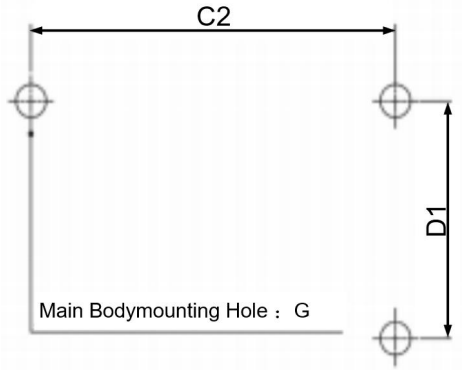


Part Number Coding System

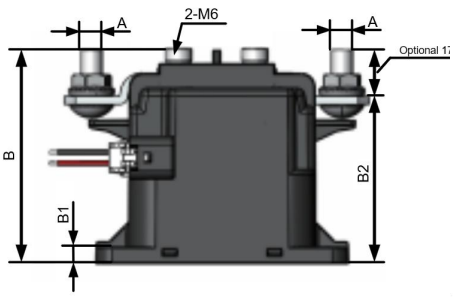


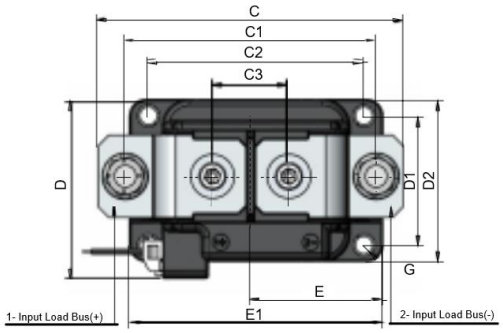
Outline Dimensions

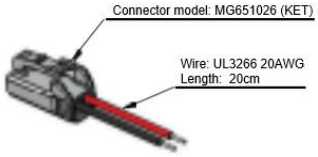
Main Body Installation Size

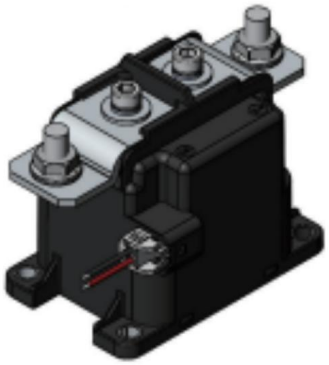


ZCG400/1B□ • 750









Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	7.7	8.0	8.3
B	77.8	78.6	79.4
B1	5.9	6.2	6.5
B2	60.2	61.0	61.8
C	111.2	112.0	112.8
C1	91.2	92.0	92.8
C2	78.7	79.0	79.3
C3	27.5	28.0	28.5
D	64.3.	65.1	65.9
D1	46.7	47.0	47.3
D2	58.2	59.0	59.8
E	48.0	48.5	49.0
E1	92.2	93.0	93.8
3×ØG	5.8	6.1	6.4

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power	Holding Power
ZCG400/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	45W	4W
ZCG400/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC		

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤3mΩ (6V DC/20A)
Rated Current		400A
Short-on Current		600A:30min
		3200A:10s
Maximum Switching Current		4000A(750V DC)
Overload Cut Off		300 Times(800A/750V DC)
Reverse Cut-off		100 Times(400A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤30ms
Bouncing Time		<5ms
Release Time		≤20ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500Hz)	
	Damaging Impact Resistance	4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈800g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG500 Ceramic Sealed High Voltage Contactor

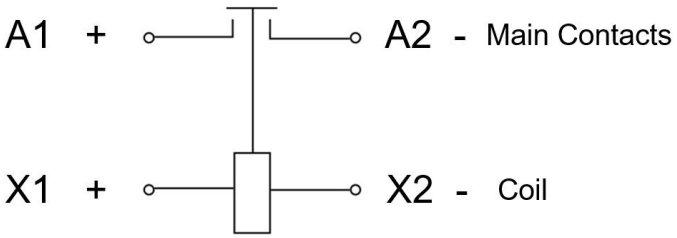
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

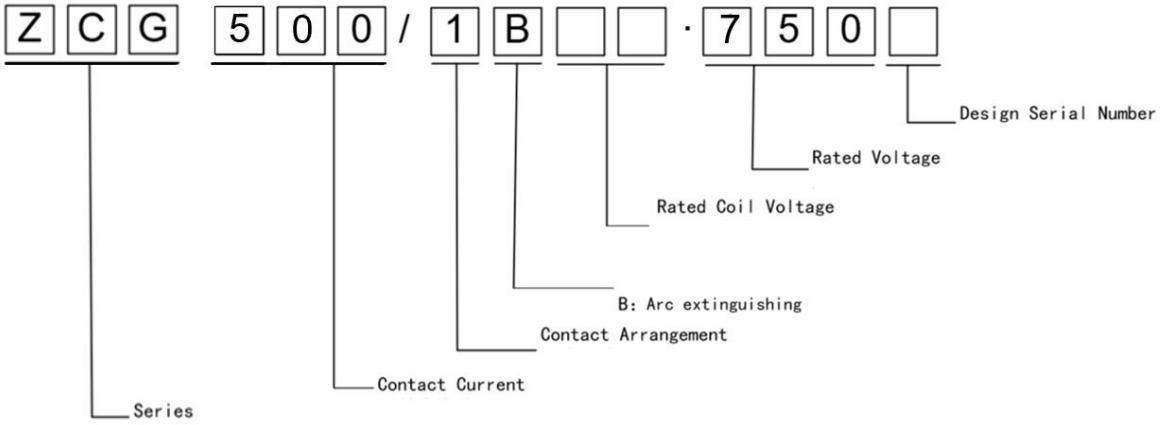
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

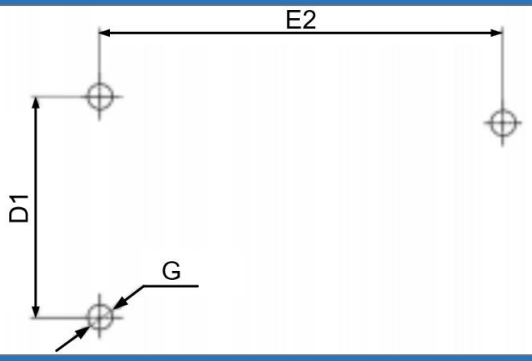


Part Number Coding System

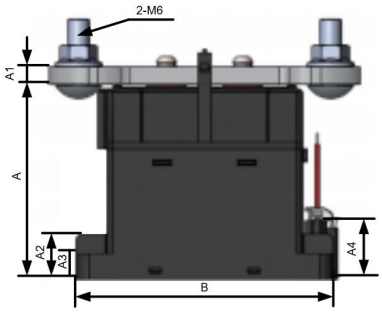


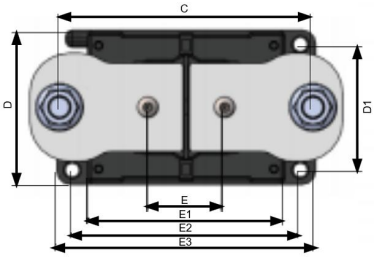
Outline Dimensions

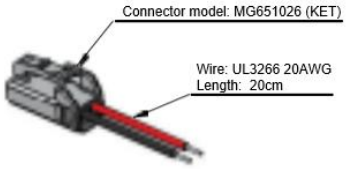
Main Body Installation Size

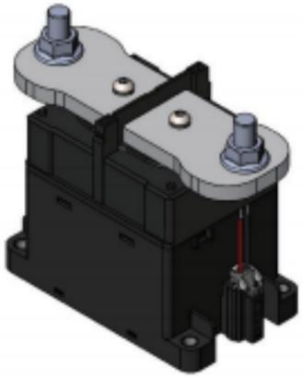


ZCG500/1B□ • 750









Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	88.7	89.5	89.3
A1	7.7	8.0	8.3
A2	20.5	21.0	21.5
A3	11.5	12.0	12.5
A4	26.5	27.0	27.5
B	119.2	120.0	120.8
C	114.8	115.6	116.4
D	69.2	70.0	70.8
D1	56.7	57.0	57.3
E	35.5	35.0	35.5
E1	89.2	90.0	90.8
E2	103.7	104.0	104.3
E3	117.2	118.0	118.8
3×ØG	5.3	5.4	5.5

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power	Holding Power
ZCG500/1B12 • 750	12VDC	1PST NO	≤9DC	≥1.2VDC	50W	5W
ZCG500/1B24 • 750	24VDC	1PST NO	≤18VDC	≥2.4VDC		

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Voltage Drop		≤2mΩ (at 20A)
Rated Current		500A
Short-on Current		500A:Continuous Operating
		750A:15min
		1500A:20s
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1000V DC)
	Between Contact	
Operate Time		≤35ms
Bouncing Time		<10ms
Release Time		≤20ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	1500V DC 200A	1×10^3 Times
		750V DC 500A	1×10^3 Times
Vibration Resistance		20G	
Impact Resistance		4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~95% R.H.	
Weight		≈1.3Kg	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG600 Ceramic Sealed High Voltage Contactor

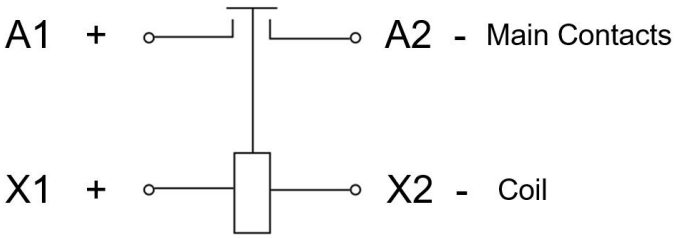
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

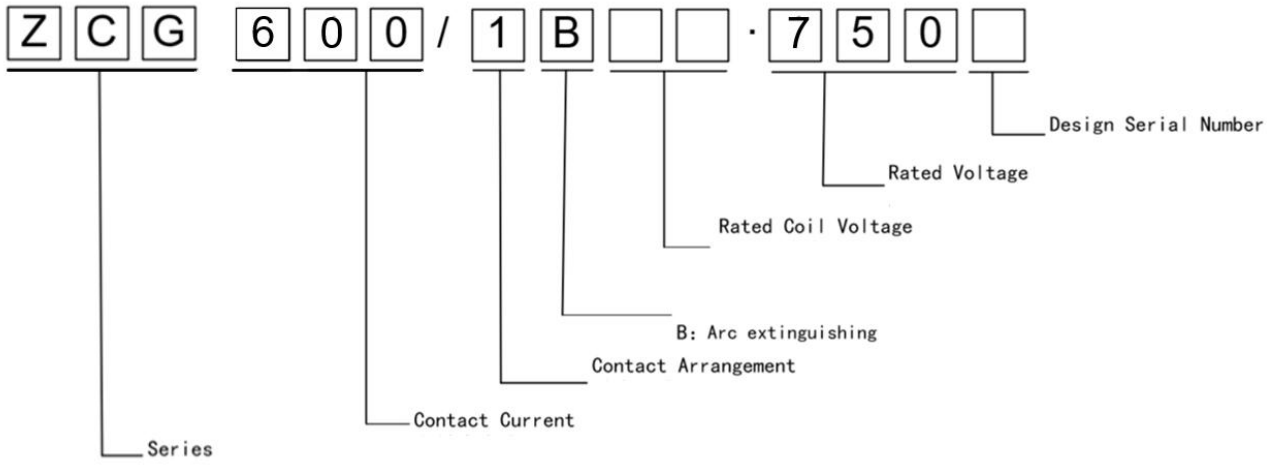
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

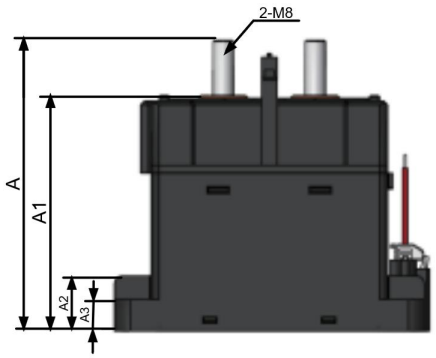


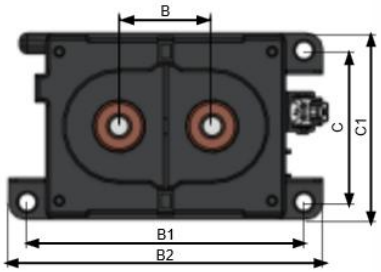
Part Number Coding System

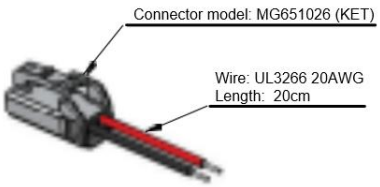


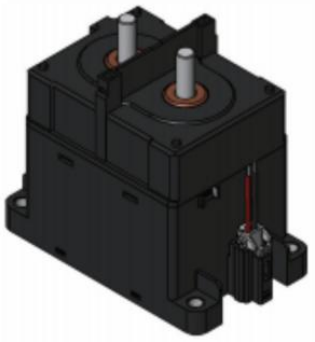
Outline Dimensions

ZCG600/1B□ • 750



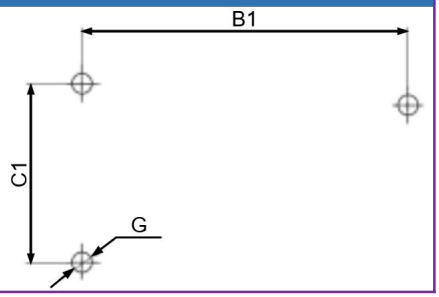






Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	109.7	110.5	111.3
A1	88.7	89.5	90.3
A2	20.5	21.0	21.5
A3	11.5	12.0	12.5
B	34.5	35.0	35.5
B1	103.7	104.0	104.3
B2	117.2	118.0	118.8
C1	56.7	57.0	57.3
C2	69.0	70.0	70.8
3×ØG	6.3	6.4	6.5

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power	Holding Power
ZCG600/1B12 • 750	12VDC	1PST NO	≤9DC	≥1.2VDC	50W	10W
ZCG600/1B24 • 750	24VDC	1PST NO	≤18VDC	≥2.4VDC		

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Voltage Drop		≤0.3V Max.(at 600A)
Rated Current		600A
Maximum Switching Voltage		1000V DC
Maximum Switching Current		2500A(800V DC)1 Times
Maximum Switching Power		600KW
Short-on Current		600A:Continuous Operating
		800A:20min
		1000A:5min
Dielectric Strength	Contact&Coil	4000V DC 1min
	Between Contact	4000V DC 1min
Insulation Resistance	Contact&Coil	Min:1000MΩ(1000V DC)
	Between Contact	
Operate Time		≤50ms
Bouncing Time		≤30ms
Release Time		<10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life(Breaking)	750V DC 600A	1×10^3 Times
	Capacitive Load	600A Constant Current	3×10^3 Times
		1200A 750V DC Impact	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈1.3Kg	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH50 Ceramic Sealed High Voltage Contactor

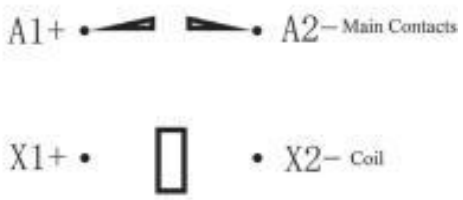
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

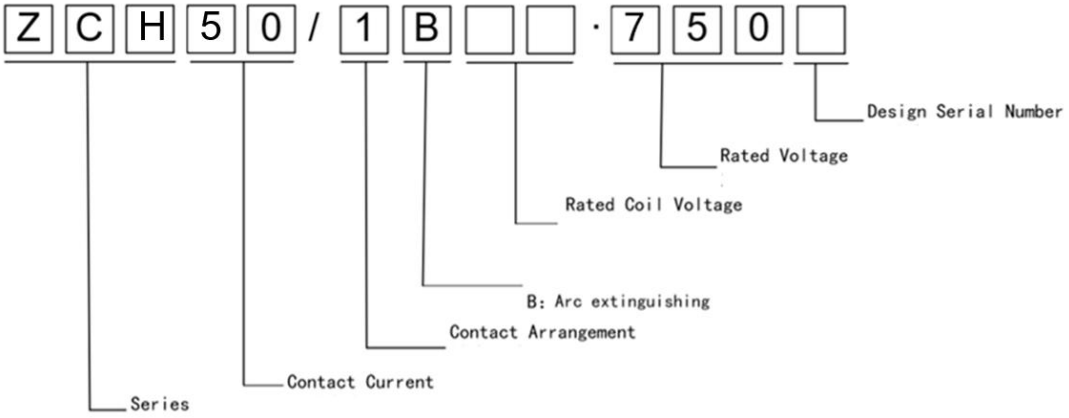
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

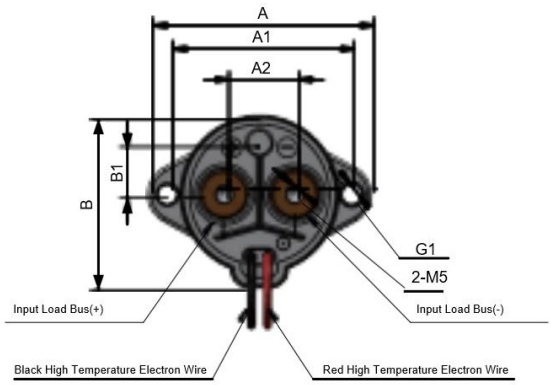


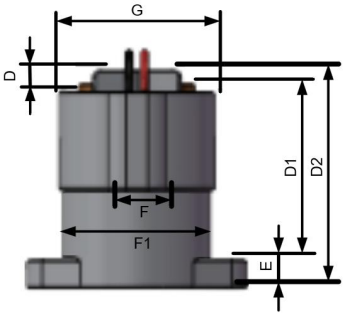
Part Number Coding System



Outline Dimensions

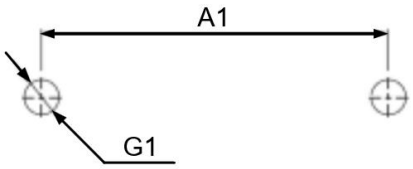
ZCH50/1B□ • 750





Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	57.7	56.5	57.3
A1	46.1	46.4	46.7
A2	17.3	17.8	18.3
B	43.0	43.5	44.0
B1	12.5	13.0	13.5
D	5.4	5.7	6.0
D1	51.8	52.6	53.4
D2	55.2	56.0	56.8
F	14.1	14.6	15.1
F1	37.3	37.8	38.3
E	7.3	7.6	7.9
ØG	40		
2×ØG1	4.5		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCH50/1B12 • 750	12VDC	1PST NO	≤8.4DC	≥1VDC	5.5W
ZCH50/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤2mΩ (6V DC/20A)
Rated Current		50A
Short-on Current		75A:30min
		400A:10s
Maximum Switching Current		500A(750V DC)
Overload Cut Off		50 Times(150A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤25ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500Hz)	
	Damaging Impact Resistance	4G(10~500Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈220g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH100 Ceramic Sealed High Voltage Contactor

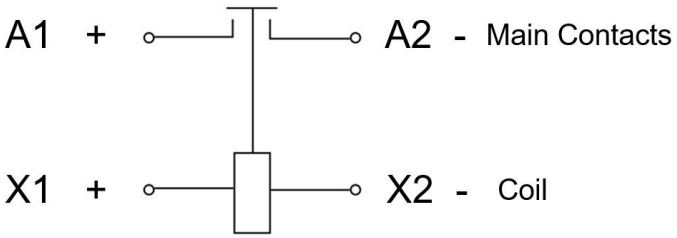
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

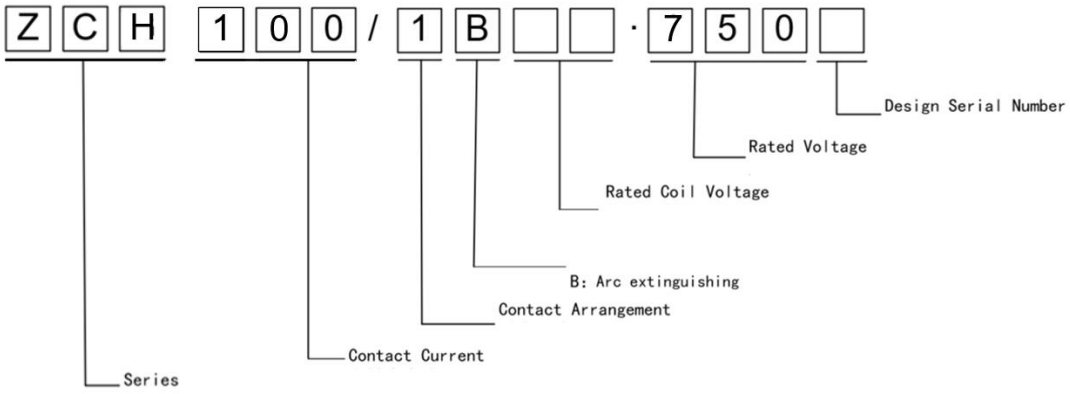
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

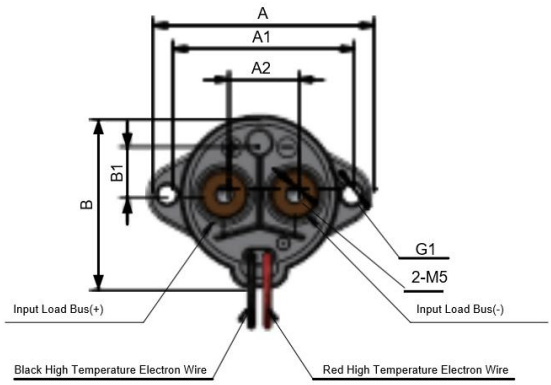


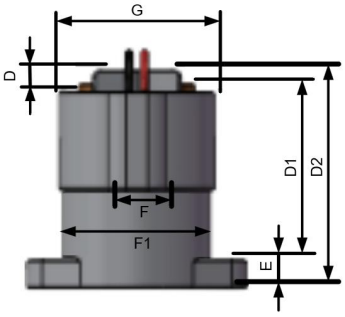
Part Number Coding System



Outline Dimensions

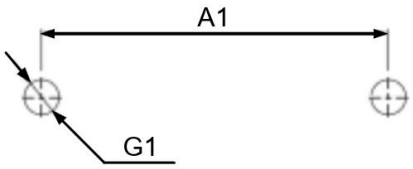
ZCH100/1B□ • 750





Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	57.7	56.5	57.3
A1	46.1	46.4	46.7
A2	17.3	17.8	18.3
B	43.0	43.5	44.0
B1	12.5	13.0	13.5
D	5.4	5.7	6.0
D1	51.8	52.6	53.4
D2	55.2	56.0	56.8
F	14.1	14.6	15.1
F1	37.3	37.8	38.3
E	7.3	7.6	7.9
ØG	40		
2×ØG1	4.5		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Main Contact Form	Pull-in Voltage	Release Voltage	Rated Power
ZCH100/1B12 • 750	12VDC	1PST NO	≤8.4VDC	≥1VDC	5.5W
ZCH100/1B24 • 750	24VDC	1PST NO	≤16.8VDC	≥2VDC	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤2mΩ (6V DC/20A)
Rated Current		100A
Short-on Current		150A:30min
		800A:10s
Maximum Switching Current		1000A(750V DC)
Overload Cut Off		50Times(200A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤25ms
Bouncing Time		<5ms
Release Time		≤10ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 Times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Time
		750V DC	6×10^3 Time
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	4G(10~500)Hz	
	Damaging Impact Resistance	4G(10~500)Hz	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈220g	

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH150 Ceramic Sealed High Voltage Contactor

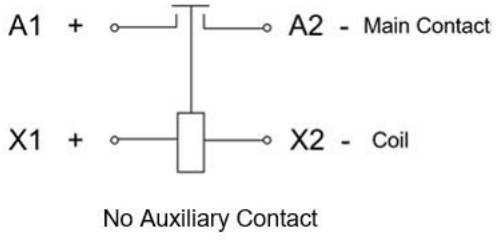
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

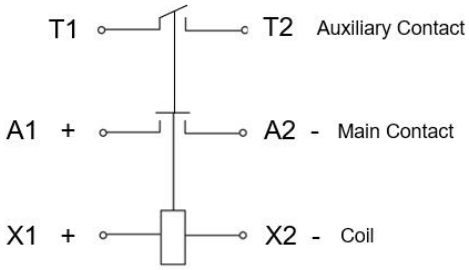
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

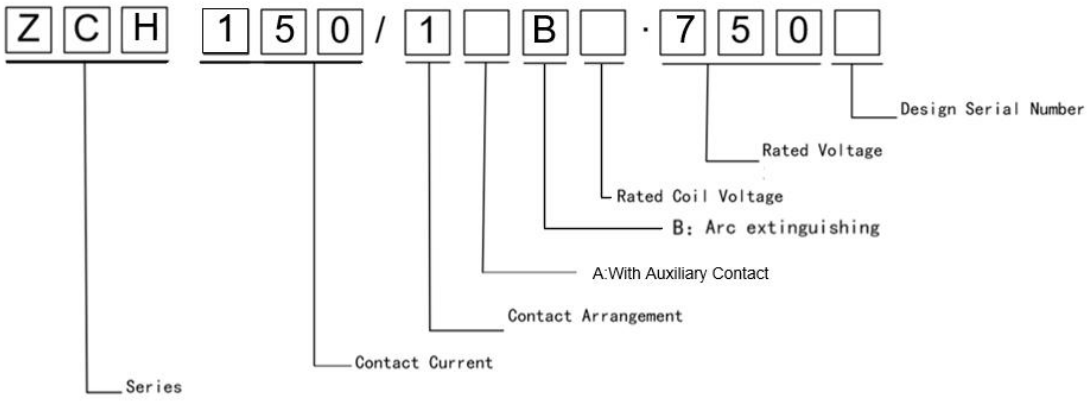


No Auxiliary Contact



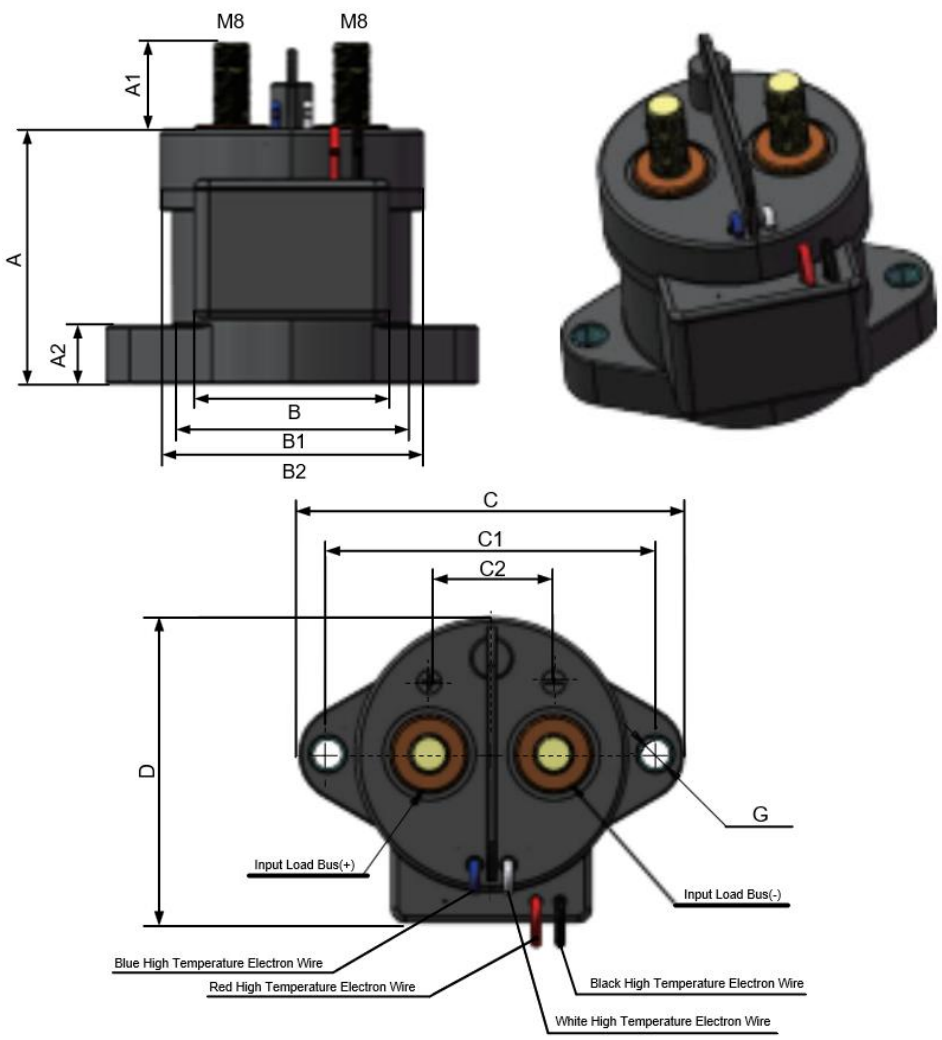
With Auxiliary Contact

Part Number Coding System



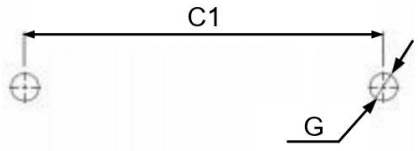
Outline Dimensions

ZCH150/1□B□ • 750(With Auxiliary)



Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	55.0	55.8	56.6
A1	17.0	17.5	18.0
A2	12.1	12.6	13.1
B	41.5	42.0	42.5
B1	51.0	51.8	52.6
B2	56.2	57.0	57.8
C	79.6	80.4	81.2
C1	68.1	68.4	68.7
C2	24.5	25.0	25.5
D	62.9	63.7	64.5
2×ØG	6		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCH150/1ABA • 750	9-36VDC	Yes	≤9V	≥3V	45W (Starting Power) 4W (Holding Power)
ZCH150/1BA • 750	9-36VDC	No	≤9V	≥3V	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤1.5mΩ (6V DC/20A)
Rated Current		150A
Short-on Current		225A:30min
		1200A:10s
Maximum Switching Current		1500A(750V DC)
Overload Cut Off		50Times(300A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤40ms
Bouncing Time		<5ms
Release Time		≤25ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	20G(80~2000Hz)	
	Damaging Impact Resistance	20G(80~2000Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈460g	

Auxiliary Contact Specification

Parameters		Value
Contact Form		1 Normally Open
Model		D2FSeries
Contact	Specification	Cross Bar Structure
	Material	Silver Alloy
	Interval Time(Standard Values)	0.25mm
Minimum Available Load		DC5V 100mA
Insulation Resistance		Above 100MΩ
Contact Resistance(Starting Value)		Below 30MΩ
Withstand Voltage	Same Class Terminals	AC600V 50/60Hz 1min
	Charged metal parts & Ground	AC1500V 50/60Hz 1min
	Non-charged metal parts & Terminals	AC1500V 50/60Hz 1min
Vibration	Malfunction	Frequency10~55Hz Double-Amplitude 1.5mm
Impact	Durability	Max 1000m/s^2
	Malfunction	Max 300 m/s^2
Lifetime	Mechanical	1×10^6 Times(60Times/min)
	Electrical	3×10^4 Times(30Times/min)

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH200 Ceramic Sealed High Voltage Contactor

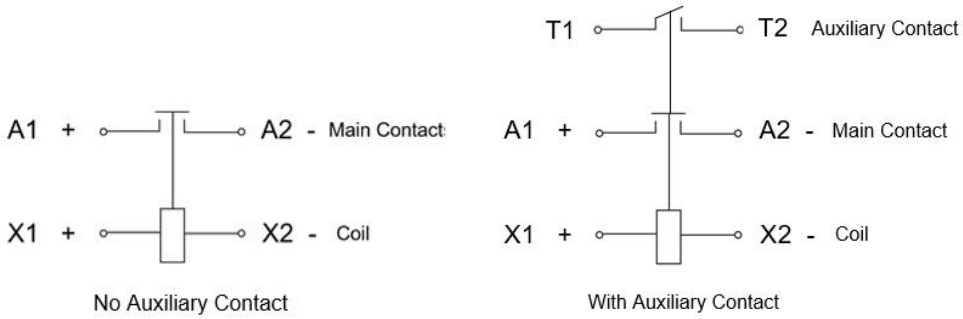
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

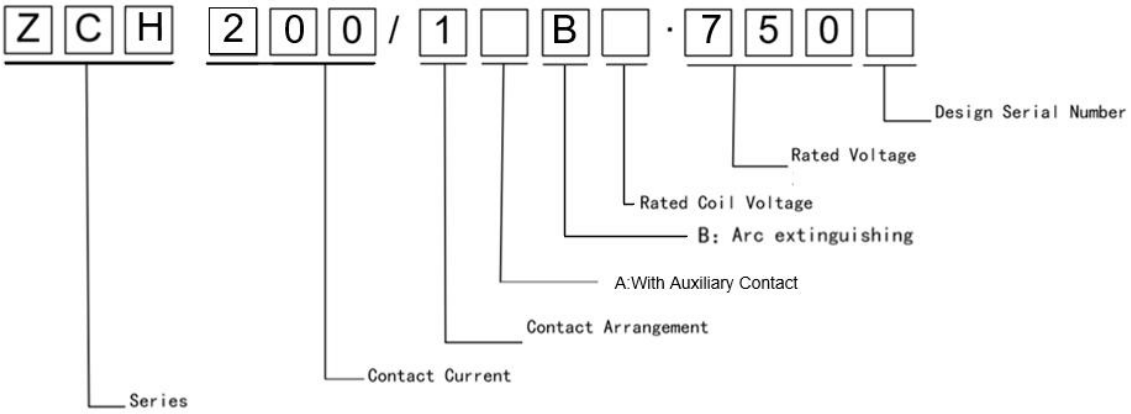
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

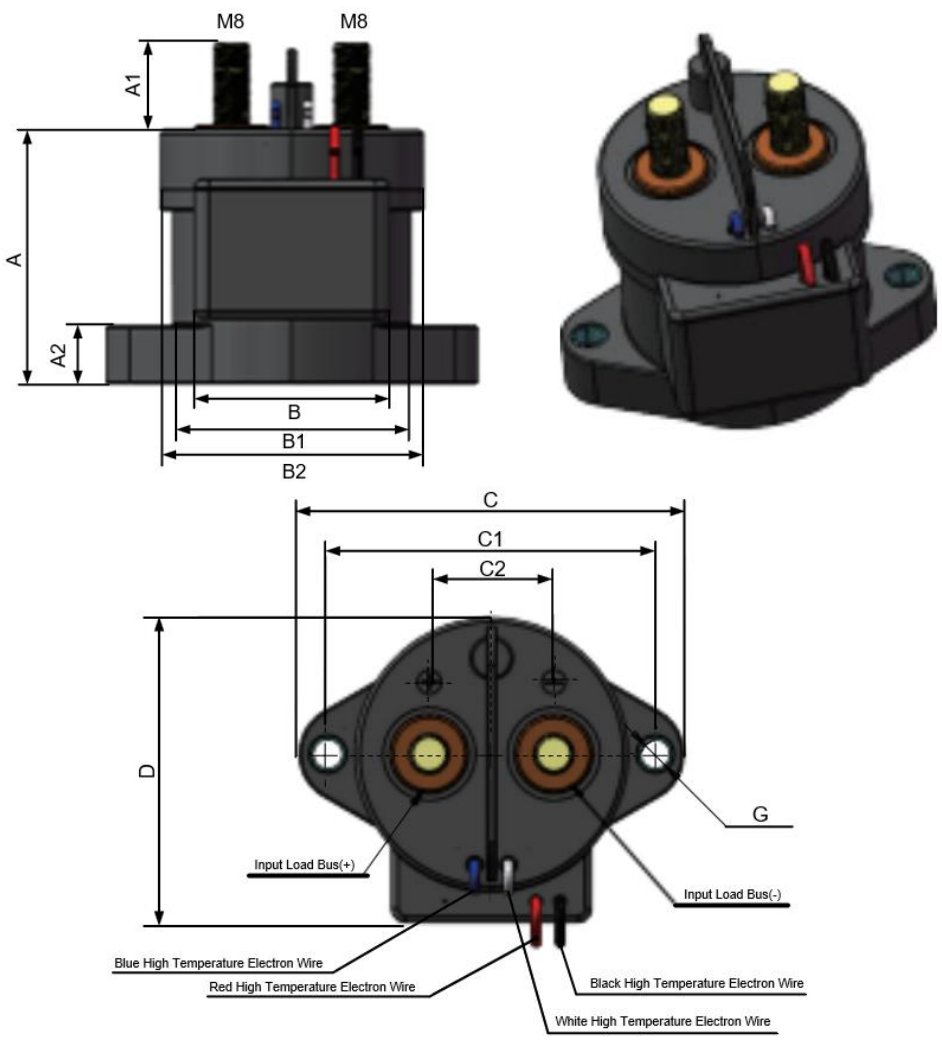


Part Number Coding System



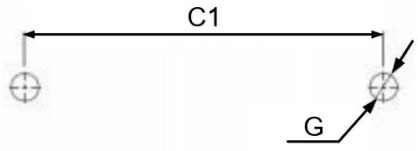
Outline Dimensions

ZCH200/1□B□ • 750(With Auxiliary)



Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	55.0	55.8	56.6
A1	17.0	17.5	18.0
A2	12.1	12.6	13.1
B	41.5	42.0	42.5
B1	51.0	51.8	52.6
B2	56.2	57.0	57.8
C	79.6	80.4	81.2
C1	68.1	68.4	68.7
C2	24.5	25.0	25.5
D	62.9	63.7	64.5
2×ØG	6		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCH200/1ABA • 750	9-36VDC	Yes	≤9V	≥3V	45W (Starting Power) 4W (Holding Power)
ZCH200/1BA • 750	9-36VDC	No	≤9V	≥3V	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤1.5mΩ (6V DC/20A)
Rated Current		200A
Short-on Current		300A:30min
		1600A:10s
Maximum Switching Current		2000A(750V DC)
Overload Cut Off		50Times(400A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤40ms
Bouncing Time		<5ms
Release Time		≤25ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	20G(80~2000Hz)	
	Damaging Impact Resistance	20G(80~2000Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈460g	

Auxiliary Contact Specification

Parameters		Value
Contact Form		1 Normally Open
Model		D2FSeries
Contact	Specification	Cross Bar Structure
	Material	Silver Alloy
	Interval Time(Standard Values)	0.25mm
Minimum Available Load		DC5V 100mA
Insulation Resistance		Above 100MΩ
Contact Resistance(Starting Value)		Below 30MΩ
Withstand Voltage	Same Class Terminals	AC600V 50/60Hz 1min
	Charged metal parts & Ground	AC1500V 50/60Hz 1min
	Non-charged metal parts & Terminals	AC1500V 50/60Hz 1min
Vibration	Malfunction	Frequency10~55Hz Double-Amplitude 1.5mm
Impact	Durability	Max 1000m/s^2
	Malfunction	Max 300 m/s^2
Lifetime	Mechanical	1×10^6 Times(60Times/min)
	Electrical	3×10^4 Times(30Times/min)

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH250 Ceramic Sealed High Voltage Contactor

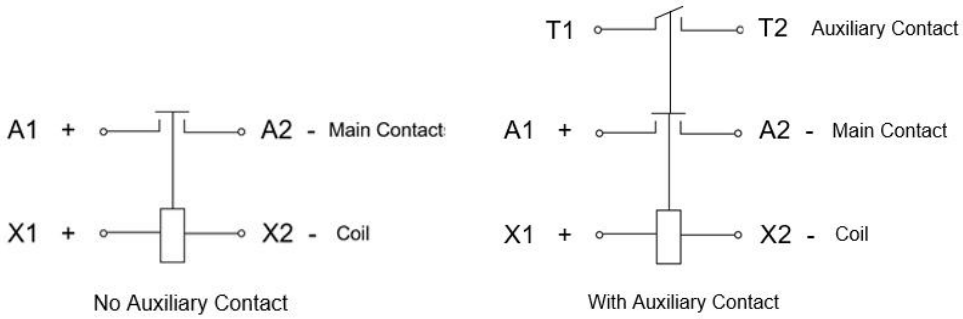
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

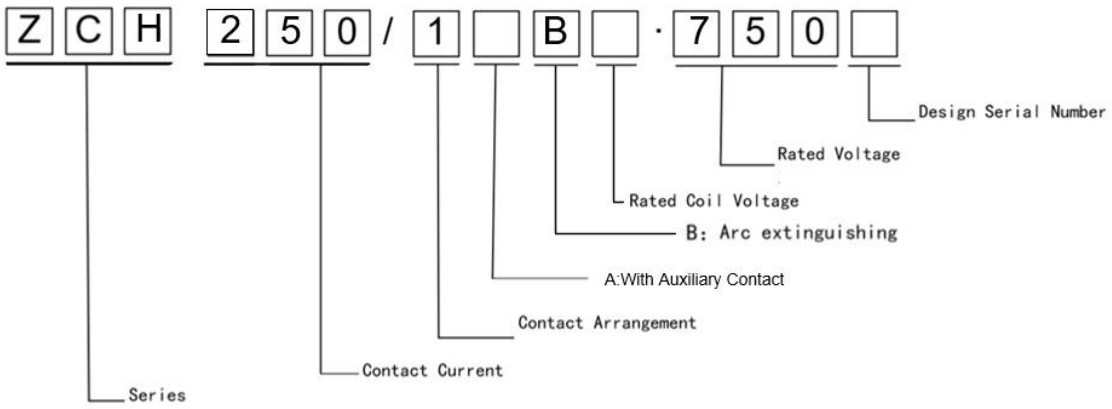
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

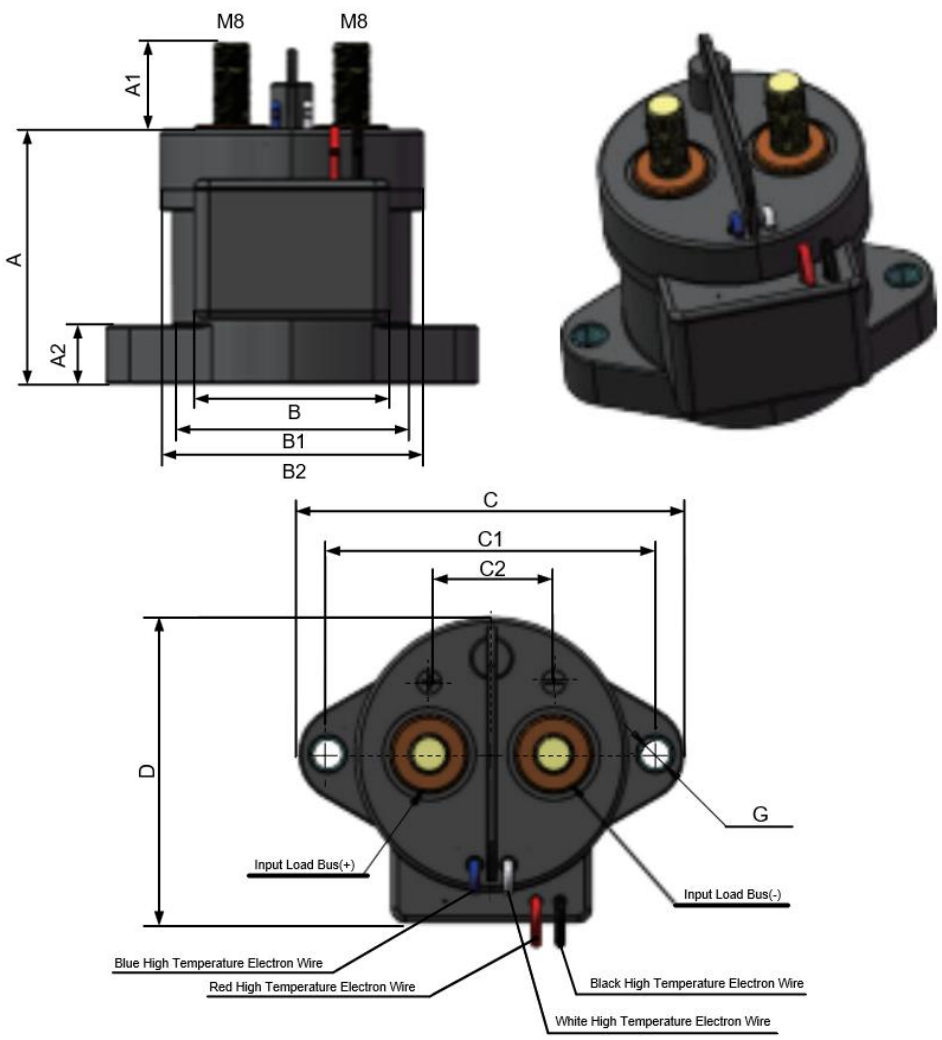


Part Number Coding System



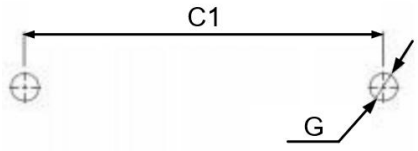
Outline Dimensions

ZCH250/1□B□ • 750(With Auxiliary)



Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	55.0	55.8	56.6
A1	17.0	17.5	18.0
A2	12.1	12.6	13.1
B	41.5	42.0	42.5
B1	51.0	51.8	52.6
B2	56.2	57.0	57.8
C	79.6	80.4	81.2
C1	68.1	68.4	68.7
C2	24.5	25.0	25.5
D	62.9	63.7	64.5
2×ØG	6		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCH250/1ABA • 750	9-36VDC	Yes	≤9V	≥3V	45W (Starting Power) 4W (Holding Power)
ZCH250/1BA • 750	9-36VDC	No	≤9V	≥3V	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤1.5mΩ (6V DC/20A)
Rated Current		250A
Short-on Current		375A:30min
		2000A:10s
Maximum Switching Current		2500A(750V DC)
Overload Cut Off		50Times(500A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤40ms
Bouncing Time		<5ms
Release Time		≤25ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V DC	1×10^4 Times
		750V DC	6×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	20G(80~2000Hz)	
	Damaging Impact Resistance	20G(80~2000Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈460g	

Auxiliary Contact Specification

Parameters		Value
Contact Form		1 Normally Open
Model		D2FSeries
Contact	Specification	Cross Bar Structure
	Material	Silver Alloy
	Interval Time(Standard Values)	0.25mm
Minimum Available Load		DC5V 100mA
Insulation Resistance		Above 100MΩ
Contact Resistance(Starting Value)		Below 30MΩ
Withstand Voltage	Same Class Terminals	AC600V 50/60Hz 1min
	Charged metal parts & Ground	AC1500V 50/60Hz 1min
	Non-charged metal parts & Terminals	AC1500V 50/60Hz 1min
Vibration	Malfunction	Frequency10~55Hz Double-Amplitude 1.5mm
Impact	Durability	Max 1000m/s^2
	Malfunction	Max 300 m/s^2
Lifetime	Mechanical	1×10^6 Times(60Times/min)
	Electrical	3×10^4 Times(30Times/min)

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH300 Ceramic Sealed High Voltage Contactor

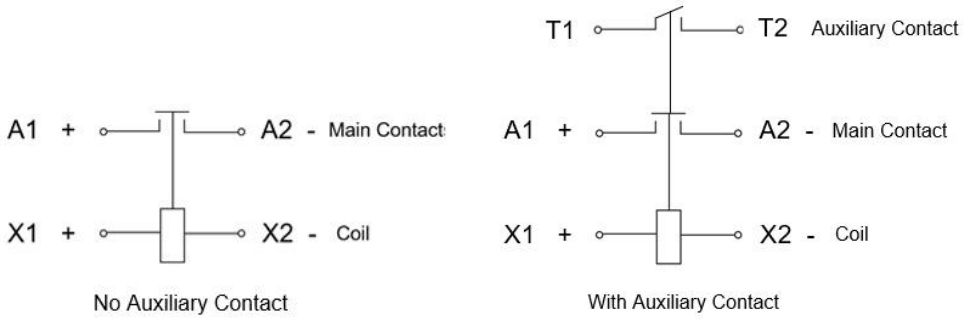
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

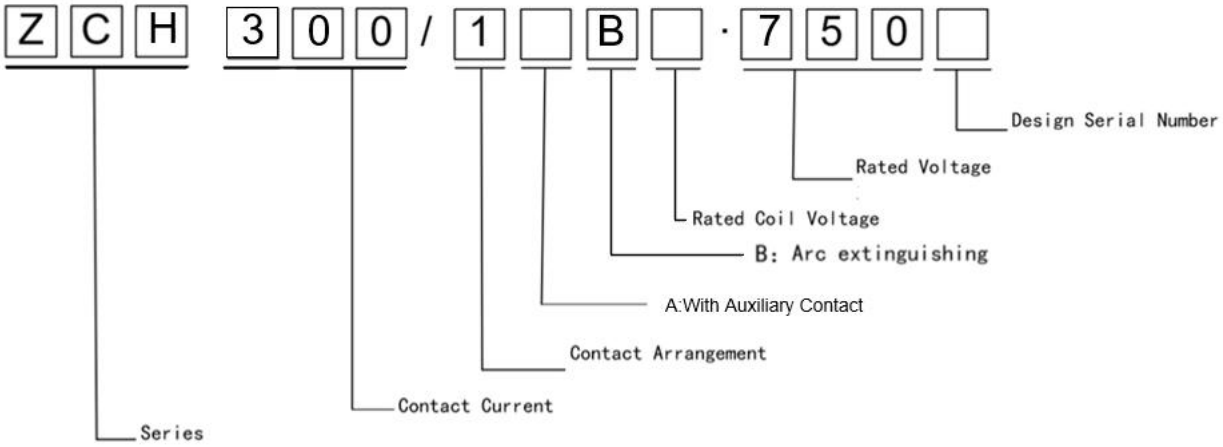
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

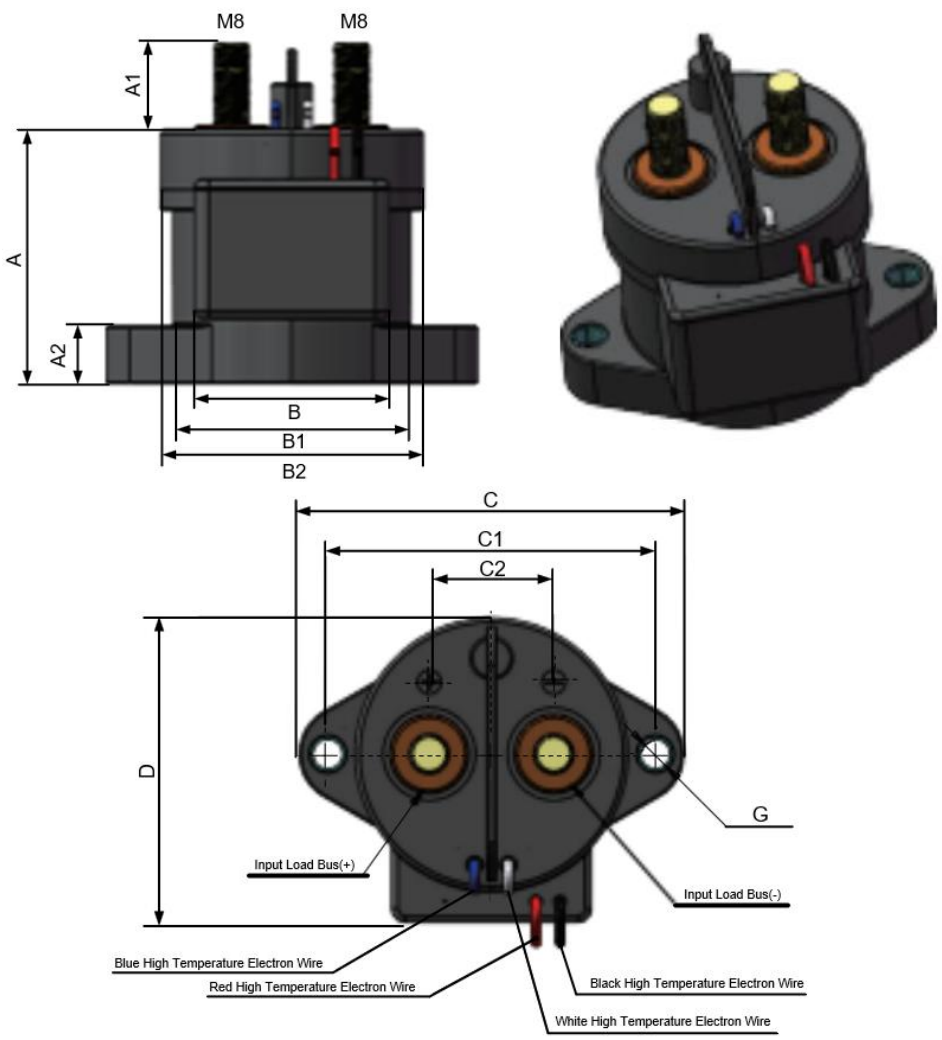


Part Number Coding System



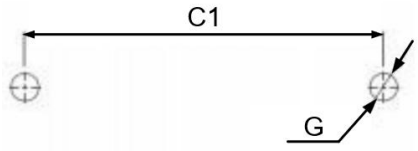
Outline Dimensions

ZCH300/1☐B☐ • 750(With Auxiliary)



Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	55.0	55.8	56.6
A1	17.0	17.5	18.0
A2	12.1	12.6	13.1
B	41.5	42.0	42.5
B1	51.0	51.8	52.6
B2	56.2	57.0	57.8
C	79.6	80.4	81.2
C1	68.1	68.4	68.7
C2	24.5	25.0	25.5
D	62.9	63.7	64.5
2×ØG	6		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCH300/1ABA • 750	9-36VDC	Yes	≤9V	≥3V	45W (Starting Power) 4W (Holding Power)
ZCH300/1BA • 750	9-36VDC	No	≤9V	≥3V	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤1.5mΩ (6V DC/20A)
Rated Current		300A
Short-on Current		450A:30min
		2400A:10s
Maximum Switching Current		3000A(750V DC)
Overload Cut Off		50Times(600A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤40ms
Bouncing Time		<5ms
Release Time		≤25ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V DC	6×10^3 Times
		750V DC	3×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	20G(80~2000Hz)	
	Damaging Impact Resistance	20G(80~2000Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈460g	

Auxiliary Contact Specification

Parameters		Value
Contact Form		1 Normally Open
Model		D2FSeries
Contact	Specification	Cross Bar Structure
	Material	Silver Alloy
	Interval Time(Standard Values)	0.25mm
Minimum Available Load		DC5V 100mA
Insulation Resistance		Above 100MΩ
Contact Resistance(Starting Value)		Below 30MΩ
Withstand Voltage	Same Class Terminals	AC600V 50/60Hz 1min
	Charged metal parts & Ground	AC1500V 50/60Hz 1min
	Non-charged metal parts & Terminals	AC1500V 50/60Hz 1min
Vibration	Malfunction	Frequency10~55Hz Double-Amplitude 1.5mm
Impact	Durability	Max 1000m/s^2
	Malfunction	Max 300 m/s^2
Lifetime	Mechanical	1×10^6 Times(60Times/min)
	Electrical	3×10^4 Times(30Times/min)

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCH350 Ceramic Sealed High Voltage Contactor

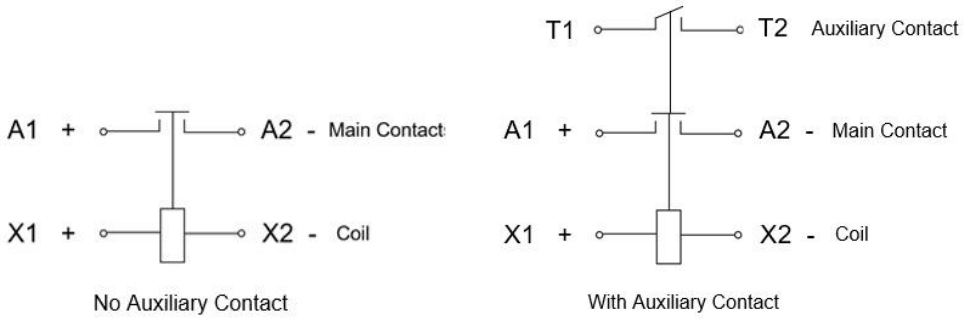
Performance Advantage

- Compliance with the RoHS requirements
- The seal of the product contact part complies with the IP67 requirements
- Permanent Magnet Magnetic Blow-out, Load terminal is no polarity
- High-voltage DC cut-off
- Small size, lightweight, safe and reliable
- Contactors can be customized according to customer requirements, such as installation location, etc
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

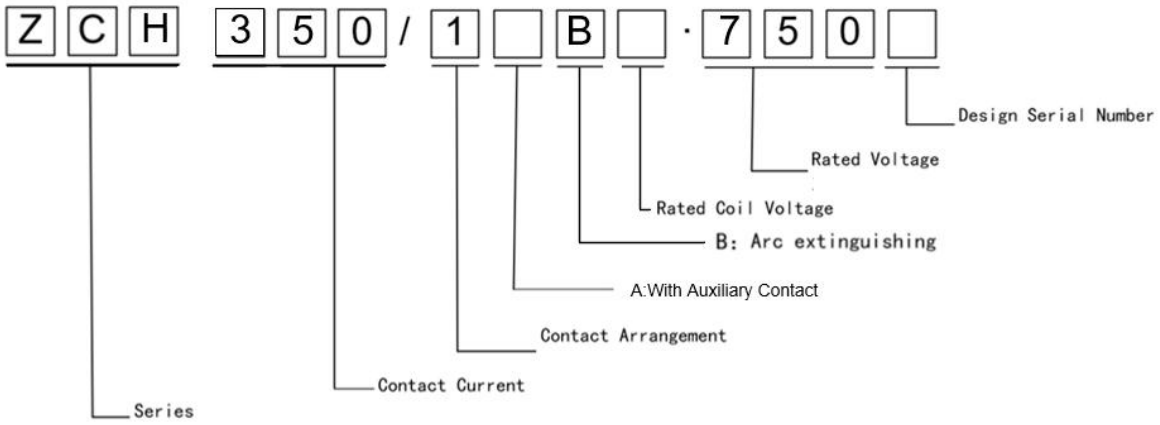
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

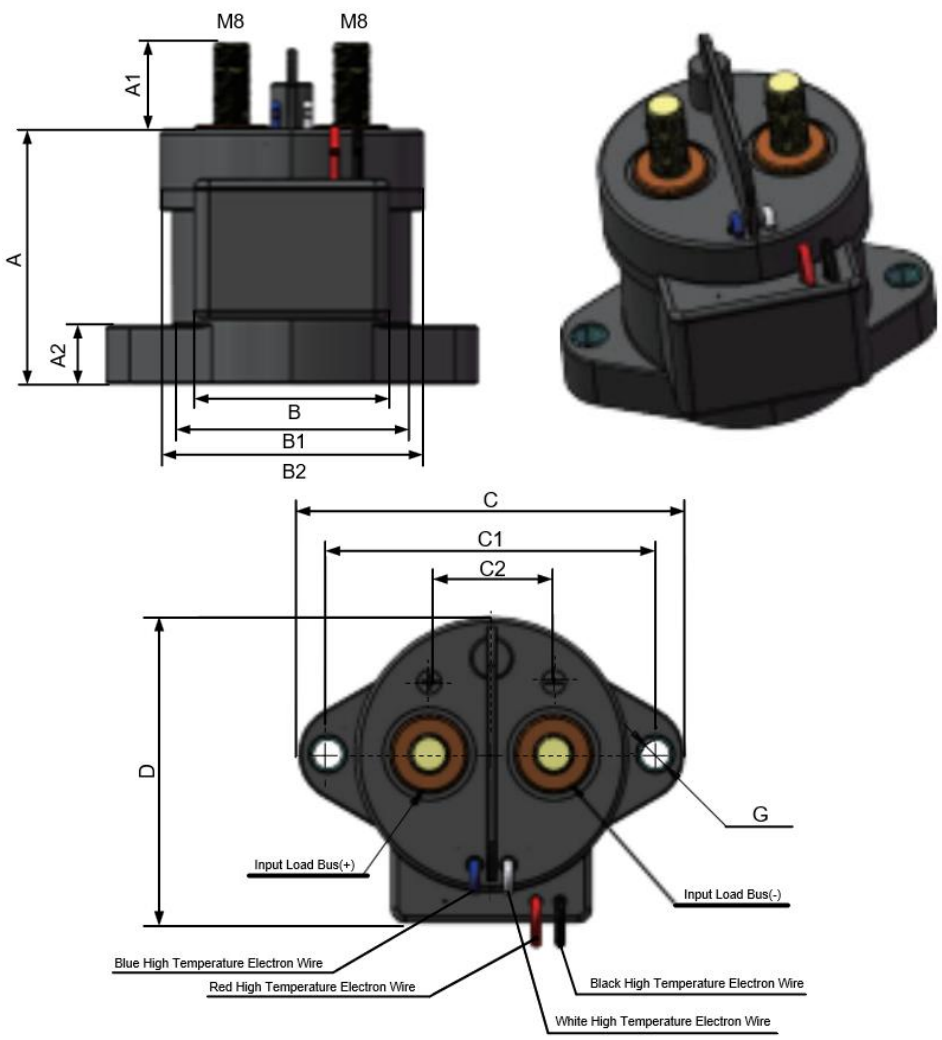


Part Number Coding System



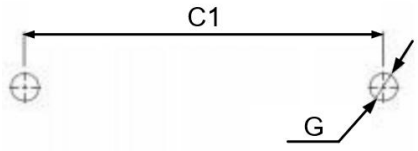
Outline Dimensions

ZCH350/1☐B☐ • 750(With Auxiliary)



Symbol	Dimension		
	Millimeters		
	Min.	Typ.	Max.
A	55.0	55.8	56.6
A1	17.0	17.5	18.0
A2	12.1	12.6	13.1
B	41.5	42.0	42.5
B1	51.0	51.8	52.6
B2	56.2	57.0	57.8
C	79.6	80.4	81.2
C1	68.1	68.4	68.7
C2	24.5	25.0	25.5
D	62.9	63.7	64.5
2×ØG	6		

Main Body Installation Size



Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCH350/1ABA • 750	9-36VDC	Yes	≤9V	≥3V	45W (Starting Power) 4W (Holding Power)
ZCH350/1BA • 750	9-36VDC	No	≤9V	≥3V	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤1.5mΩ (6V DC/20A)
Rated Current		350A
Short-on Current		525A:30min
		2800A:10s
Maximum Switching Current		3500A(750V DC)
Overload Cut Off		50Times(700A/750V DC)
Dielectric Strength	Contact&Coil	3500V AC
	Between Contact	
Insulation Resistance	Contact&Coil	Min:1000MΩ (1kV DC)
	Between Contact	
Operate Time		≤40ms
Bouncing Time		<5ms
Release Time		≤25ms

Reliability

Capability		Value	
Lifetime	Mechanical Life	2×10^5 times	
	Electrical Life (Resistive Load)	450V DC	3×10^3 Times
		750V DC	2×10^3 Times
Impact Resistance	Functional Impact Resistance	20G	
	Damaging Impact Resistance	50G	
Vibration Resistance	Functional Impact Resistance	20G(80~2000Hz)	
	Damaging Impact Resistance	20G(80~2000Hz)	
Operating Environment	Temperature	-40℃~+85℃	
	Humidity	5%~85% R.H.	
Weight		≈460g	

Auxiliary Contact Specification

Parameters		Value
Contact Form		1 Normally Open
Model		D2FSeries
Contact	Specification	Cross Bar Structure
	Material	Silver Alloy
	Interval Time(Standard Values)	0.25mm
Minimum Available Load		DC5V 100mA
Insulation Resistance		Above 100MΩ
Contact Resistance(Starting Value)		Below 30MΩ
Withstand Voltage	Same Class Terminals	AC600V 50/60Hz 1min
	Charged metal parts & Ground	AC1500V 50/60Hz 1min
	Non-charged metal parts & Terminals	AC1500V 50/60Hz 1min
Vibration	Malfunction	Frequency10~55Hz Double-Amplitude 1.5mm
Impact	Durability	Max 1000m/s^2
	Malfunction	Max 300 m/s^2
Lifetime	Mechanical	1×10^6 Times(60Times/min)
	Electrical	3×10^4 Times(30Times/min)

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI50 Epoxy Sealed High Voltage Contactor

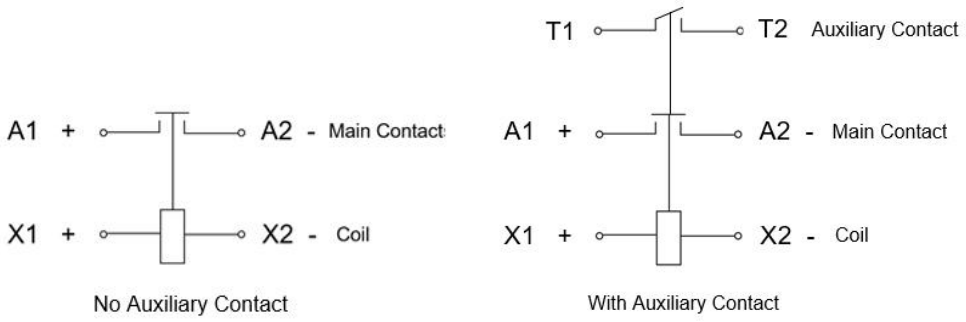
Performance Advantage

- Main contact has no polarity and can be switched with bidirectional load;
- No arc leakage risk with sealed structure;
- 800A 85℃ Prolonged carrying current capacity;
- Contact room is filled with protective gas to effectively prevent the oxidation and burn loss of the contact,Contact with IP67 protection degree requirements.

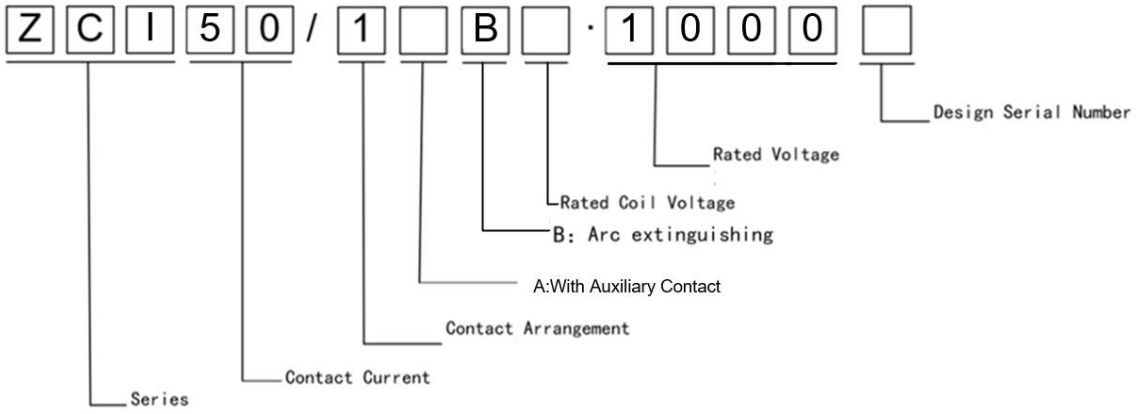
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

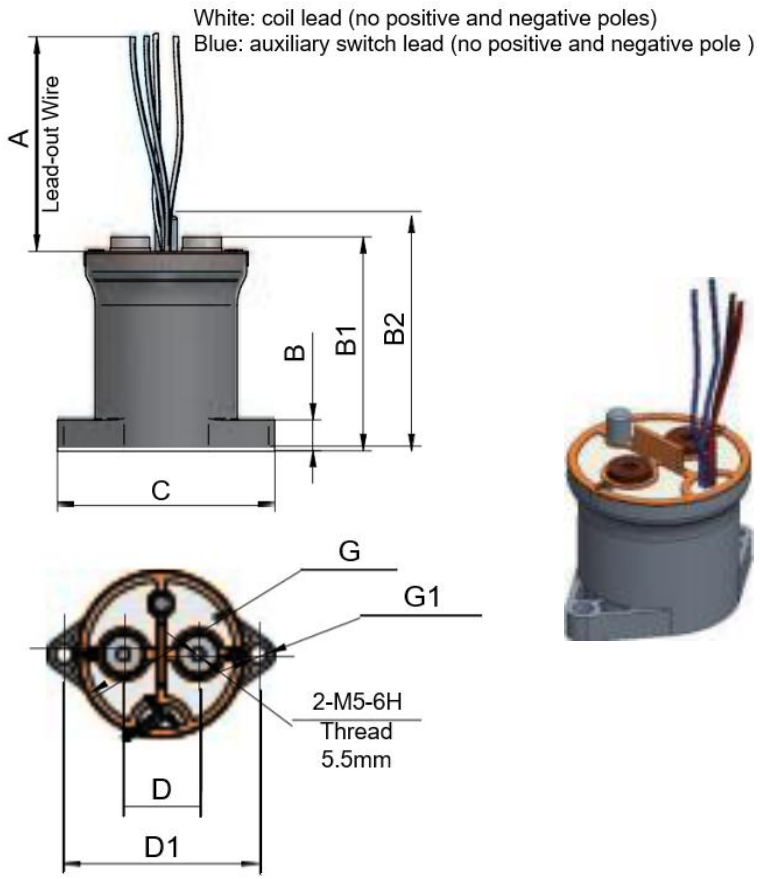


Part Number Coding System



Outline Dimensions

ZCI50/1□B□ • 1000(With Auxiliary)



Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	390	400	410
B	7.3	7.6	7.9
B1	52.1	52.9	53.7
B2	57.3	58.1	58.9
C	53.0	53.8	54.6
D	17.3	17.8	18.3
D1	45.7	46.2	46.7
ØG	39.9		
2×ØG1	4.6		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI50/1ABA • 1000	9-36VDC	Yes	≤9V	≥5V	20W (Starting Power) 4W (Holding Power)
ZCI50/1BA • 1000	9-36VDC	No	≤9V	≥5V	

Contact Specifications

Parameters		Value
Contact Arrangement		1H
Contact Resistance		≤1mΩ (6V DC/20A)
Maximum Switching Voltage		1000V DC
Maximum Breaking Current		500A,200V DC 1Times
Short-on Current		50A:30s
		150A:30s
		250A:10s
Maximum Switching Current		100A(750V DC)
Overload Cut Off		100Times(40A/750V DC)
Dielectric Strength	Between Contact	2200V AC,≤1mA
	Contact&Coil	1500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: ≥100MΩ (1000V DC) Life Finality: ≥50MΩ (1000V DC)
	Contact&Coil	
Operate Time		30ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	200000Times
	Electrical Life (Resistive Load)	2000Times(750V DC, 50A)
		1000 Times(1000V DC, 50A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		53.8×39.5×50.1
Weight		≈150g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI50 Epoxy Sealed High Voltage Contactor

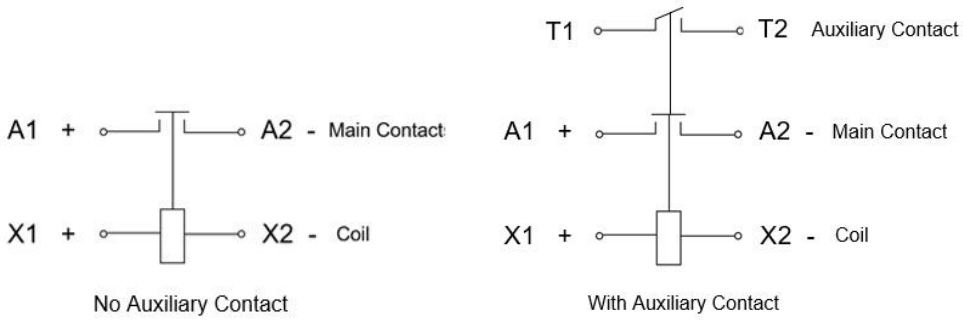
Performance Advantage

- Contact connection and coil connection both no polar requirements;
- This series can be operated in explosive and harmful environment as Epoxy sealed-Epoxy resin sealed structure and coil & contact will not oxidation and pollution;
- Compliance with the RoHS requirements and more beneficial to human health and environmental protection; •Small size, lightweight, Easy installation;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability

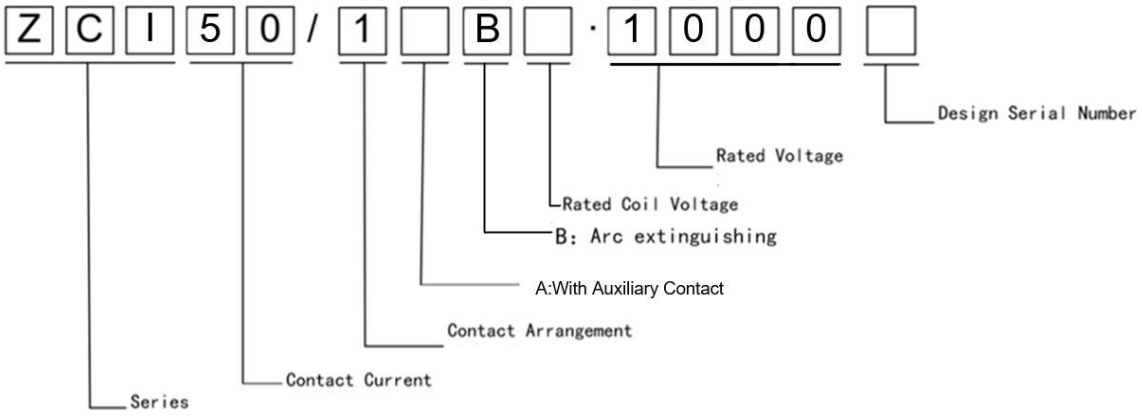
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

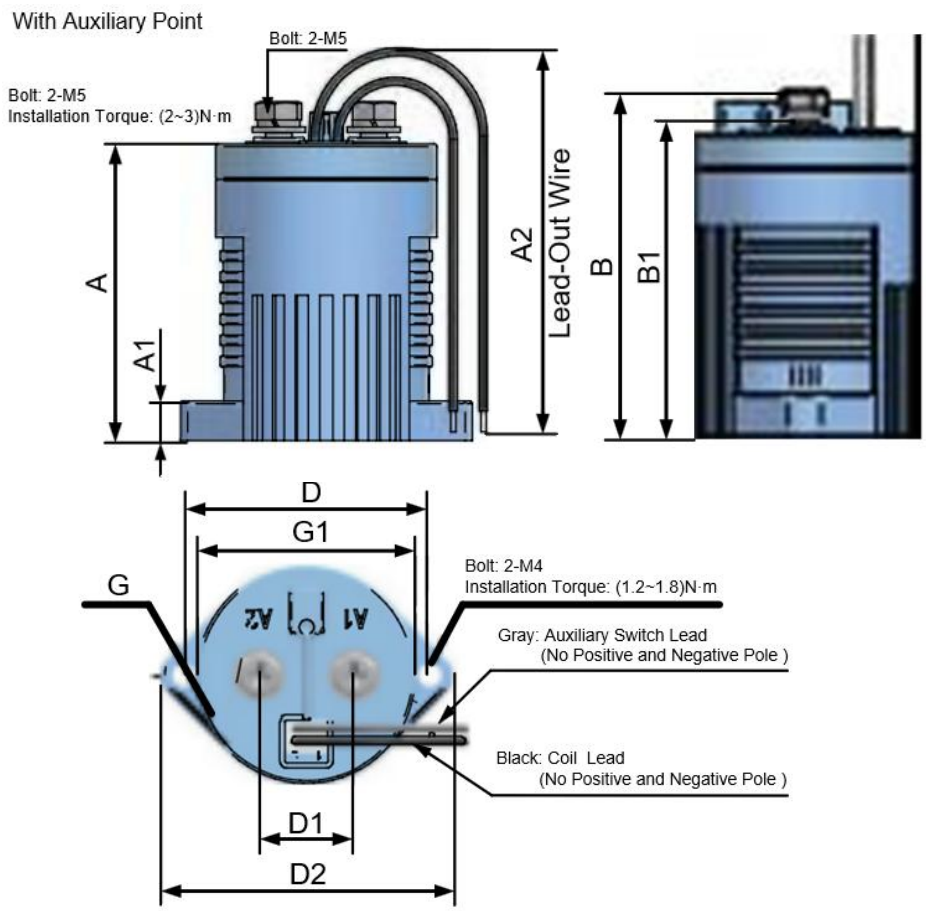


Part Number Coding System



Outline Dimensions

ZCI50/1□B□ • 1000(With Auxiliary)



Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	55.5	56.3	57.1
A1	7.2	7.5	7.8
A2	350	400	450
B	63.5	64.5	65.5
B1	56.6	57.4	58.2
D	45.9	46.4	46.9
D1	17.7	18.0	18.3
D2	54.8	55.3	55.8
ØG	41.9		
2×ØG1	4.5		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI50/1AB12 • 1000W	12VDC	Yes	⩽9V	⩾1.2V	6W
ZCI50/1B12 • 1000W		No			
ZCI50/1AB24 • 1000W	24VDC	Yes	⩽18V	⩾2.4V	
ZCI50/1B24 • 1000W		No			

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC/20A)
Maximum Switching Voltage		12~1000V DC
Maximum Switching Current		1000A,320V DC 1Times
Short-time power Current		50A,Continuous Operating
		130A,60min
		180A,5min
		300A,30s
Dielectric Voltage Resistance	Between Contact	3500V AC,⩽1mA
	Contact&Coil	3500V AC,⩽1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		25ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	300000Times
	Electrical Life (Resistive Load)	2000Times(1000V DC, 50A)
		3000 Times(750V DC, 50A)
		5000 Times(500V DC, 50A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		55×42×64
Weight		≈230g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI100 Epoxy Sealed High Voltage Contactor

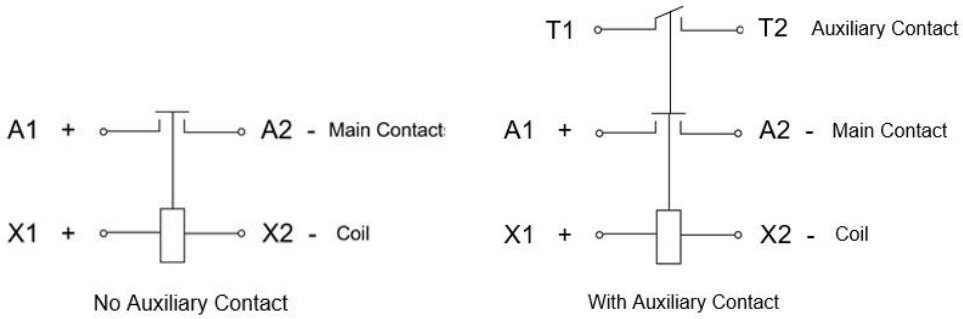
Performance Advantage

- Compliance with the RoHS requirements;
- The seal of the product contact part complies with the IP67 requirements;
- Strong anti-interference and anti-explosion capability;
- High-voltage DC cut-off;
- Small size, lightweight, safe and reliable;
- Contactors can be customized according to customer requirements, such as installation location, etc;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

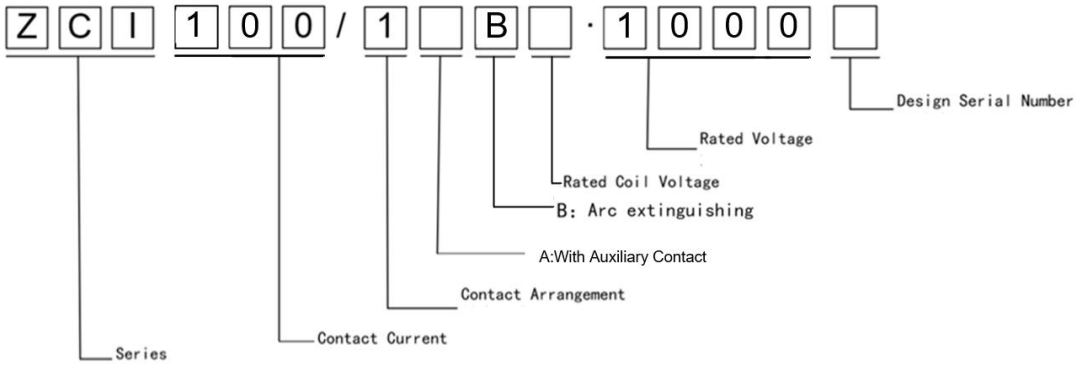
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

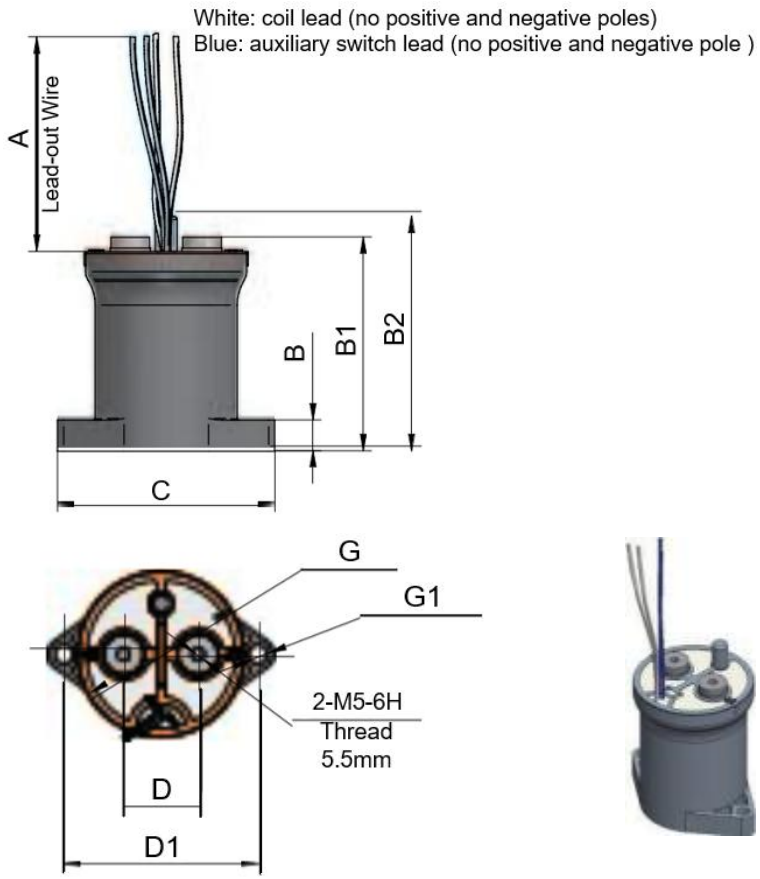


Part Number Coding System



Outline Dimensions

ZCI100/1☐B☐ • 1000(With Auxiliary)



Symbol	Dimension Millimeters		
	Min.	Typ.	Max.
A	390	400	410
B	7.3	7.6	7.9
B1	52.1	52.9	53.7
B2	57.3	58.1	58.9
C	53.0	53.8	54.6
D	17.3	17.8	18.3
D1	45.7	46.2	46.7
ØG	39.9		
2×ØG1	4.6		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI100/1AB12 • 1000	12VDC	Yes	≤9V	≥1.2V	6W
ZCI100/1AB24 • 1000	24VDC	Yes	≤18V	≥2.4V	
ZCI100/1B12 • 1000	12VDC	No	≤9V	≥1.2V	
ZCI100/1B24 • 1000	24VDC	No	≤18V	≥2.4V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		1mΩ(6V DC/20A)
Maximum Switching Voltage		1000V DC
Maximum Switching Current		600A,320V DC 1Times
Short-time power Current		100A,Continuous Operating
		160A,10min
		180A,1min
		300A,30s
Dielectric Voltage Resistance	Between Contact	2500V AC,≤1mA
	Contact&Coil	1500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ(1000V DC) Electrical Life Finality:50MΩ(1000V DC)
	Contact&Coil	
Operate Time		30ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	200000Times
	Electrical Life	6000Times(750V DC, 100A)
		1000 Times(1000V DC,100A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		50×40×60
Weight		≈200g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI100 Epoxy Sealed High Voltage Contactor

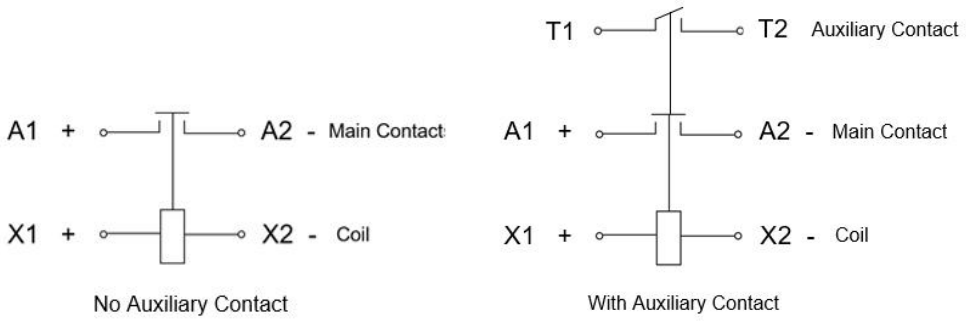
Performance Advantage

- Contact connection and coil connection both no polar requirements;
- This series can be operated in explosive and harmful environment as Epoxy sealed-Epoxy resin sealed structure and coil & contact will not oxidation and pollution;
- Compliance with the RoHS requirements and more beneficial to human health and environmental protection;
- Small size, lightweight, Easy installation;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

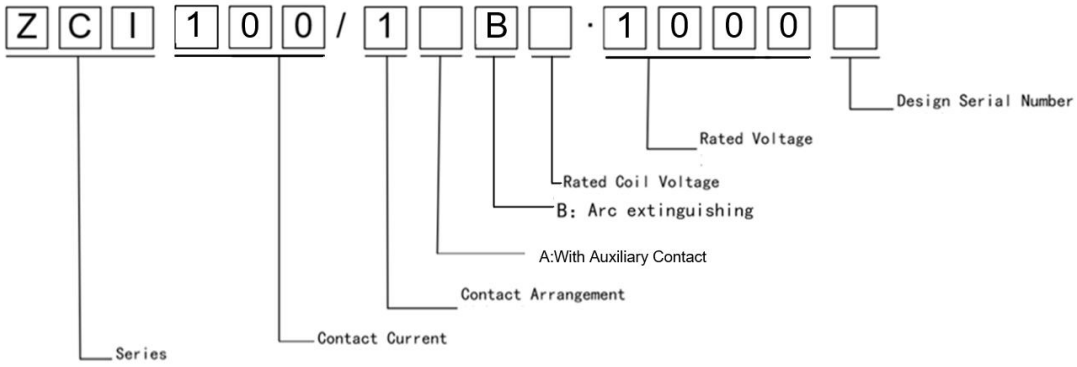
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

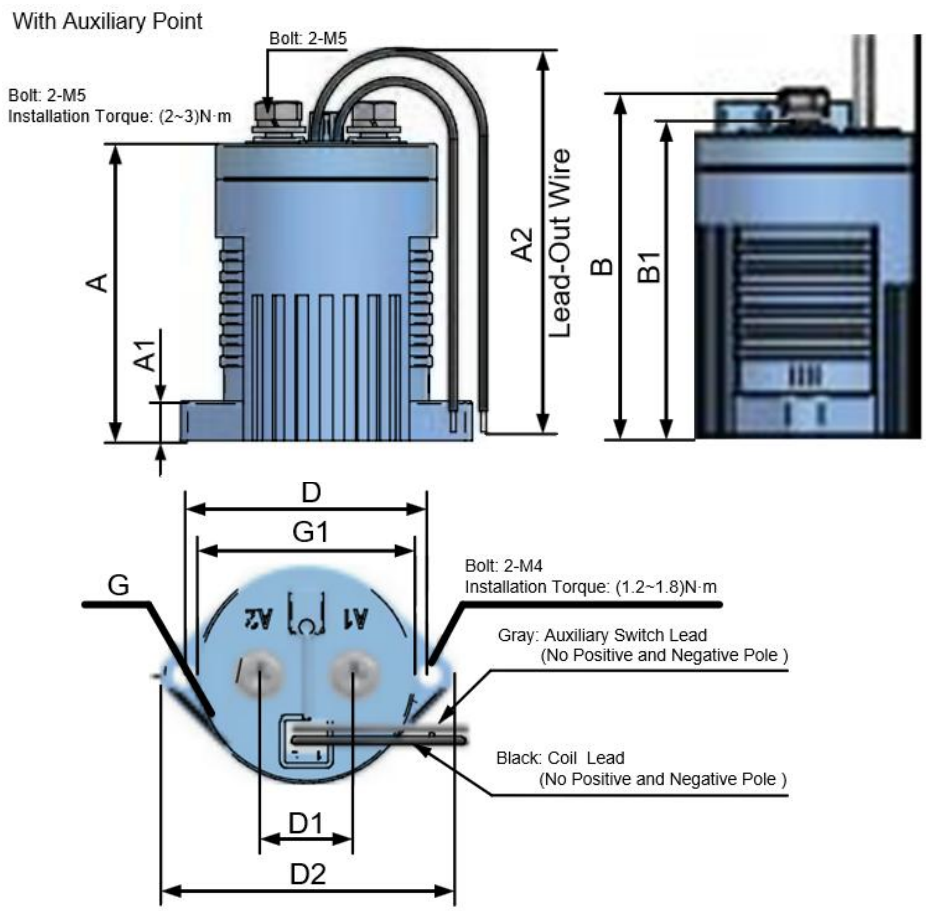


Part Number Coding System



Outline Dimensions

ZCI100/1□B□ • 1000(With Auxiliary)



Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	55.5	56.3	57.1
A1	7.2	7.5	7.8
A2	350	400	450
B	63.5	64.5	65.5
B1	56.6	57.4	58.2
D	45.9	46.4	46.9
D1	17.7	18.0	18.3
D2	54.8	55.3	55.8
ØG	41.9		
2×ØG1	4.5		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI100/1AB12 • 1000W	12VDC	Yes	⩽9V	⩾1.2V	6W
ZCI100/1B12 • 1000W		No			
ZCI100/1AB24 • 1000W	24VDC	Yes	⩽18V	⩾2.4V	
ZCI100/1B24 • 1000W		No			

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1000V DC
Maximum Switching Current		1000A,320V DC 1Times
Short-time power Current		100A,Continuous Operating
		130A,60min
		180A,5min
		300A,30s
Dielectric Voltage Resistance	Between Contact	3500V AC,⩽1mA
	Contact&Coil	3500V AC,⩽1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		25ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	300000Times
	Electrical Life	1000Times(1000V DC, 100A)
		1500 Times(750V DC,100A)
		5000 Times(500V DC,100A)
Impact	Stability	50G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		55×42×64
Weight		≈230g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

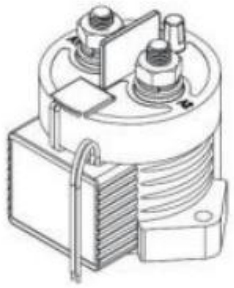
♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI150 Epoxy Sealed High Voltage Contactor

Performance Advantage

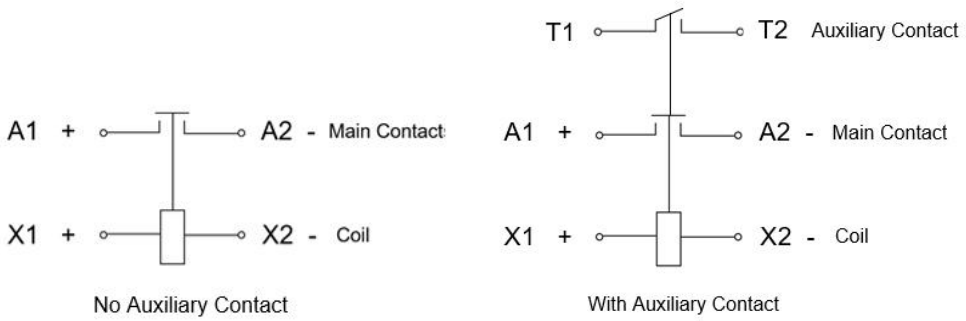


- Contact connection and coil connection both no polar requirements;
- This series can be operated in explosive and harmful environment as Epoxy sealed-Epoxy resin sealed structure and coil & contact will not oxidation and pollution;
- Efficient coil: Built-in energy saving coil, Holding power only 1.7~2.0W. Reverse electromotive force is 0V, No coil electromagnetic counter force;
- Compliance with the RoHS requirements and more beneficial to human health and environmental protection;
- Small size, lightweight, Easy installation;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

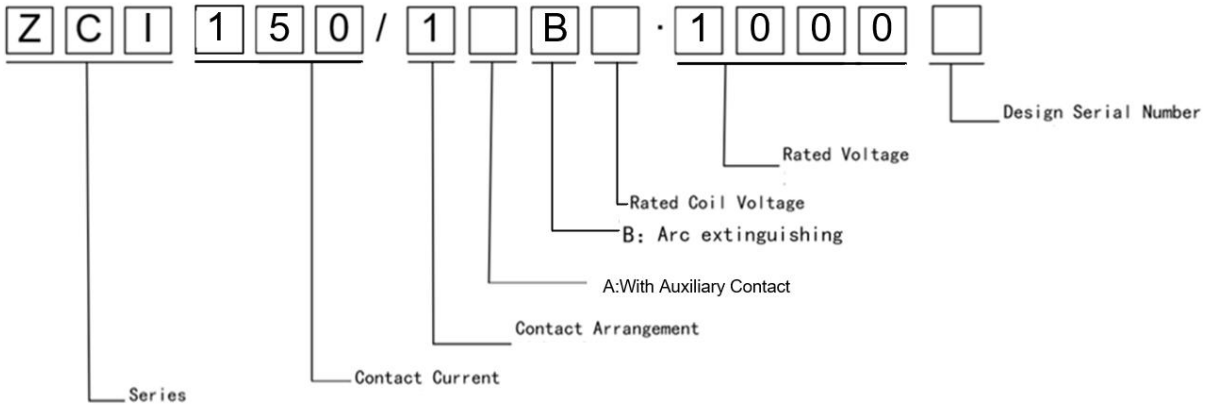
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

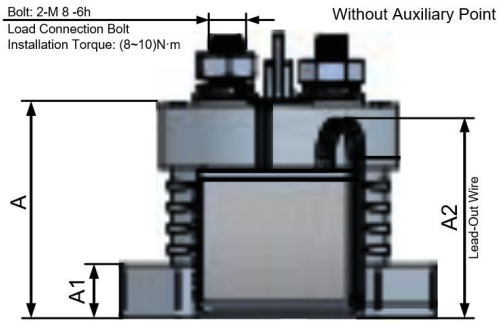


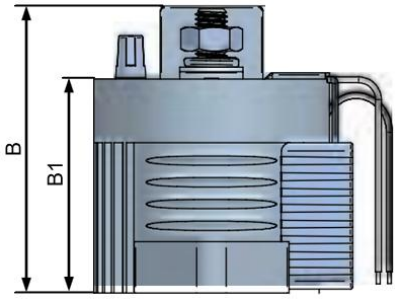
Part Number Coding System

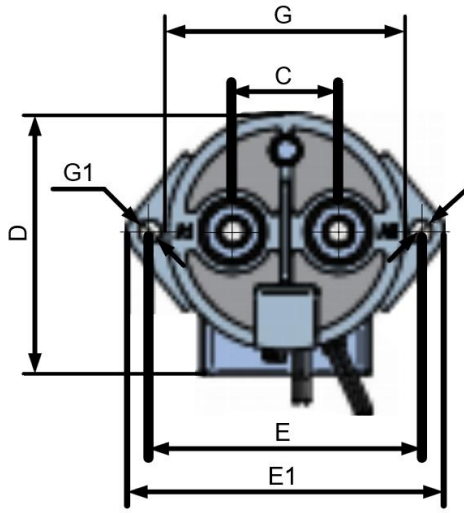


Outline Dimensions

ZCI150/1BA • 1000(No Auxiliary)



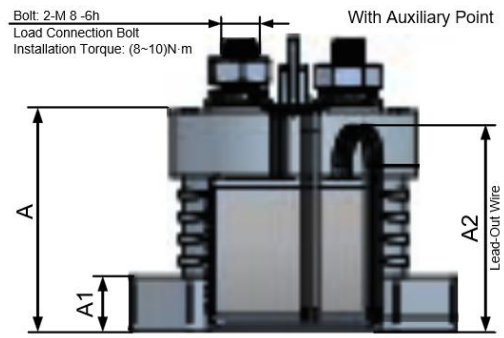


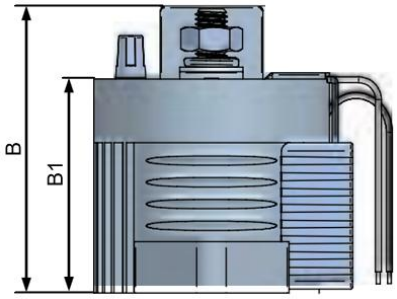


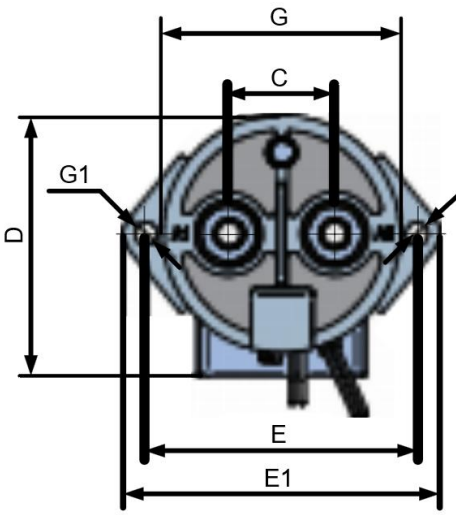
Black: Coil Lead ×2

Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

ZCI150/1ABA • 1000(With Auxiliary)







Black: Coil Lead ×2

Gray: Auxiliary Lead ×2

Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI150/1ABA • 1000W	9-36VDC	Yes	≤9.5V	≥3.6V	45W(Starting) 2W(Holding)
ZCI150/1BA • 1000W	9-36VDC	No	≤9.5V	≥3.6V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1000V DC
Maximum Switching Current		1500A,320V DC 1Times
Short-time power Current		150A,Continuous Operating
		200A,60min
		300A,5min
		400A,1min
Dielectric Voltage Resistance	Between Contact	3500V AC,≤1mA
	Contact&Coil	3500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		30ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	300000Times
	Electrical Life	10000Times(1000V DC, 150A)
		15000 Times(750V DC,150A)
		20000 Times(500V DC,150A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		80×65.5×73.5
Weight		480g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

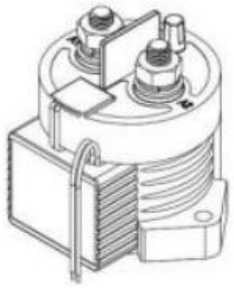
♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI200 Epoxy Sealed High Voltage Contactor

Performance Advantage

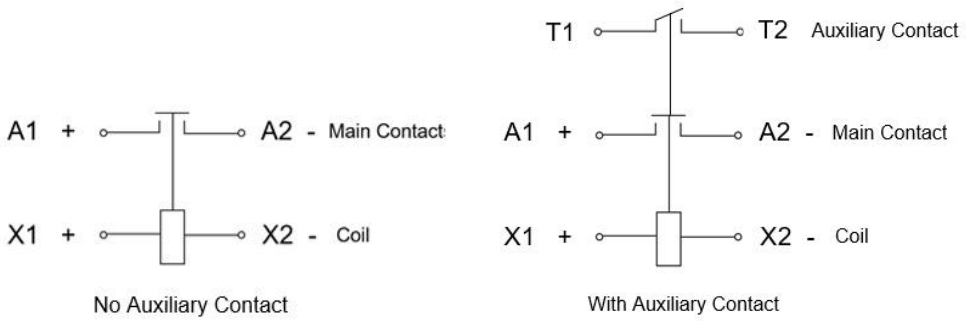


- Contact connection and coil connection both no polar requirements;
- This series can be operated in explosive and harmful environment as Epoxy sealed-Epoxy resin sealed structure and coil & contact will not oxidation and pollution;
- Efficient coil: Built-in energy saving coil, Holding power only 1.7~2.0W. Reverse electromotive force is 0V, No coil electromagnetic counter force;
- Compliance with the RoHS requirements and more beneficial to human health and environmental protection;
- Small size, lightweight, Easy installation;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

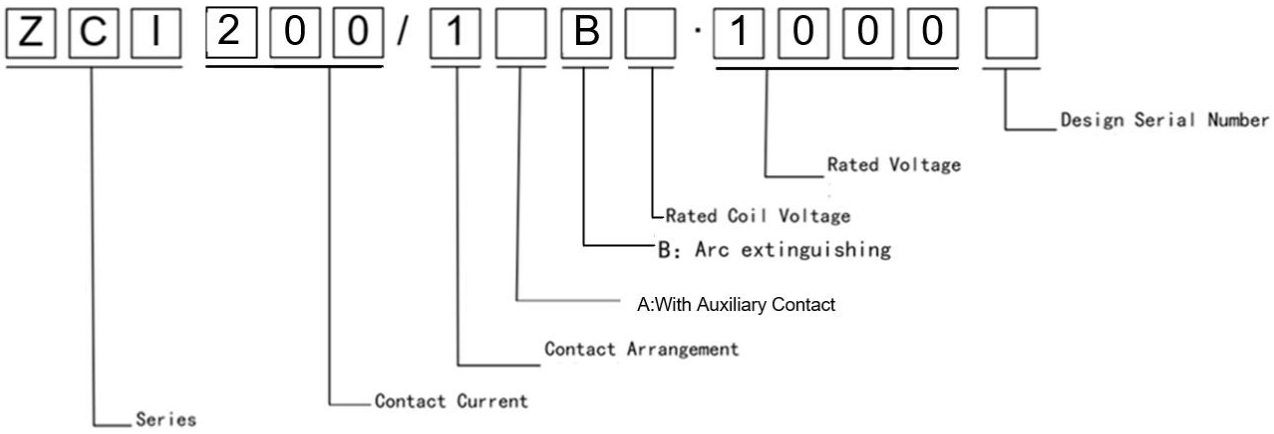
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

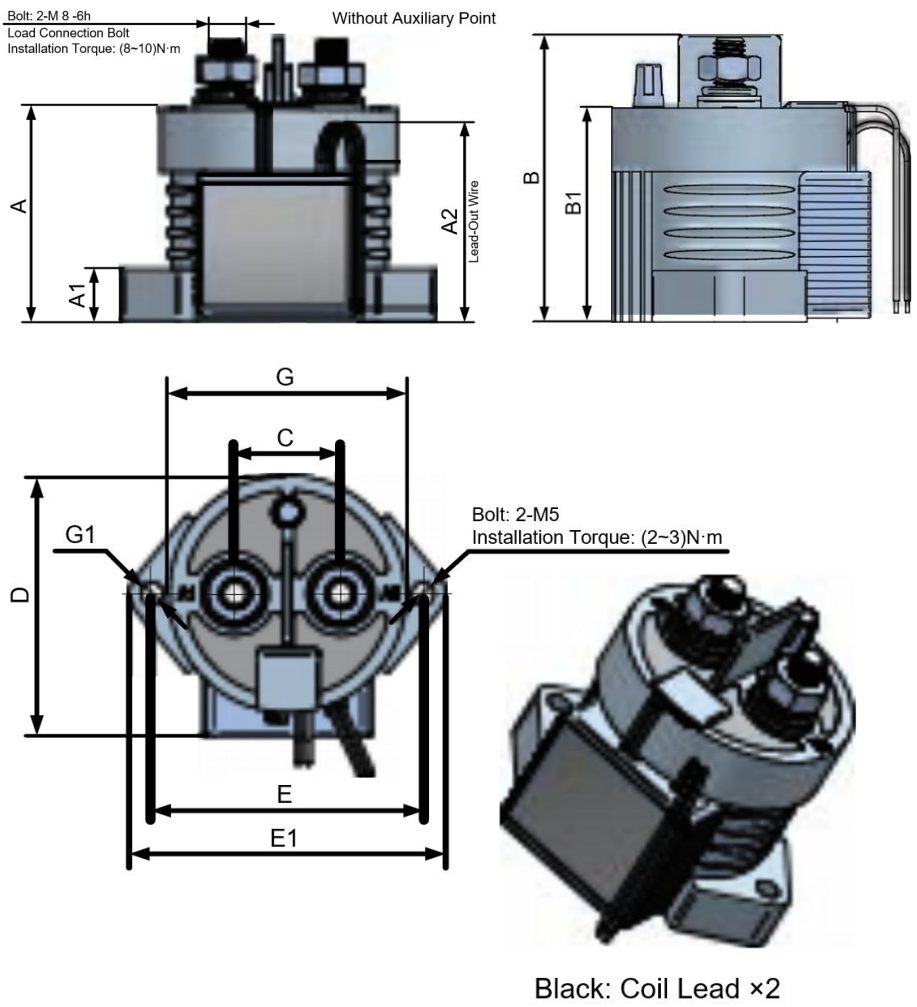


Part Number Coding System



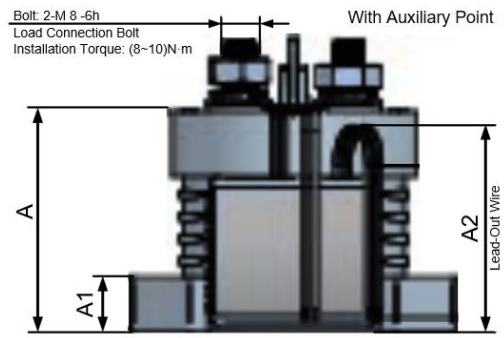
Outline Dimensions

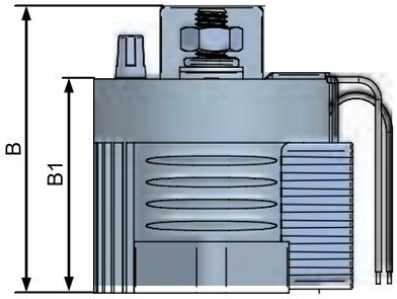
ZCI200/1BA • 1000(No Auxiliary)

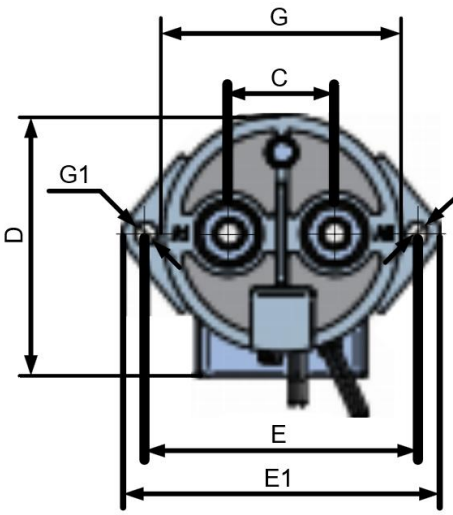


Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

ZCI200/1ABA • 1000(With Auxiliary)







Black: Coil Lead ×2

Gray: Auxiliary Lead ×2

Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI200/1ABA • 1000W	9-36VDC	Yes	⩽9.5V	⩾3.6V	45W(Starting) 2W(Holding)
ZCI200/1BA • 1000W	9-36VDC	No	⩽9.5V	⩾3.6V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1000V DC
Maximum Switching Current		2000A,320V DC 1Times
Short-time power Current		200A,Continuous Operating
		400A,60min
		500A,5min
		600A,1min
Dielectric Voltage Resistance	Between Contact	3500V AC,⩽1mA
	Contact&Coil	3500V AC,⩽1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		30ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	300000Times
	Electrical Life	5000Times(1000V DC, 200A)
		10000 Times(750V DC,200A)
		15000 Times(500V DC,200A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		80×65.5×73.5
Weight		480g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

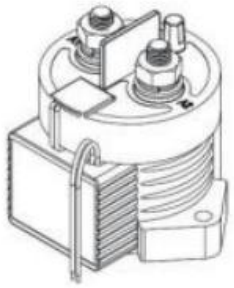
♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI250 Epoxy Sealed High Voltage Contactor

Performance Advantage

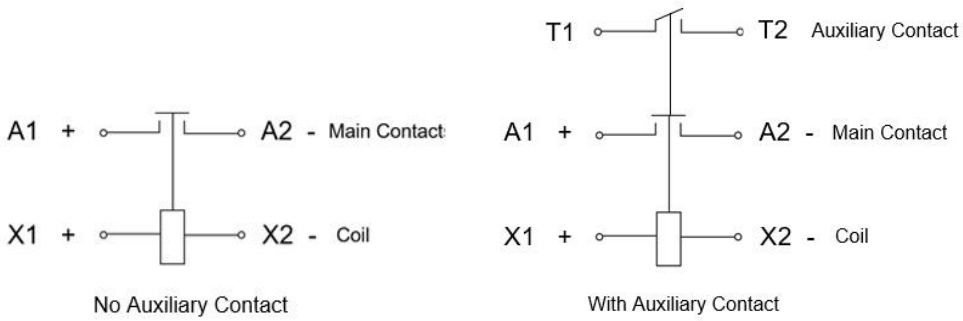


- Contact connection and coil connection both no polar requirements;
- This series can be operated in explosive and harmful environment as Epoxy sealed-Epoxy resin sealed structure and coil & contact will not oxidation and pollution;
- Efficient coil: Built-in energy saving coil, Holding power only 1.7~2.0W. Reverse electromotive force is 0V, No coil electromagnetic counter force;
- Compliance with the RoHS requirements and more beneficial to human health and environmental protection;
- Small size, lightweight, Easy installation;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

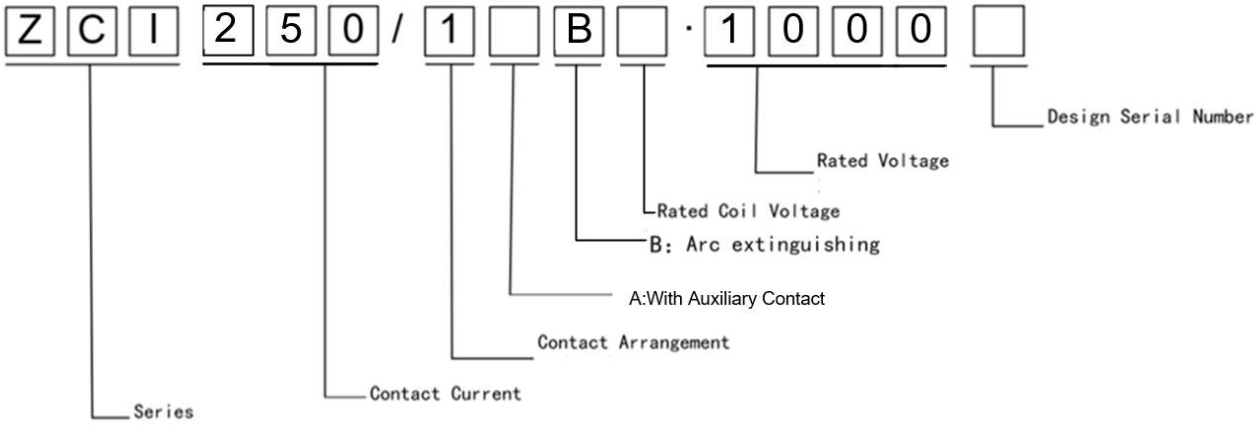
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

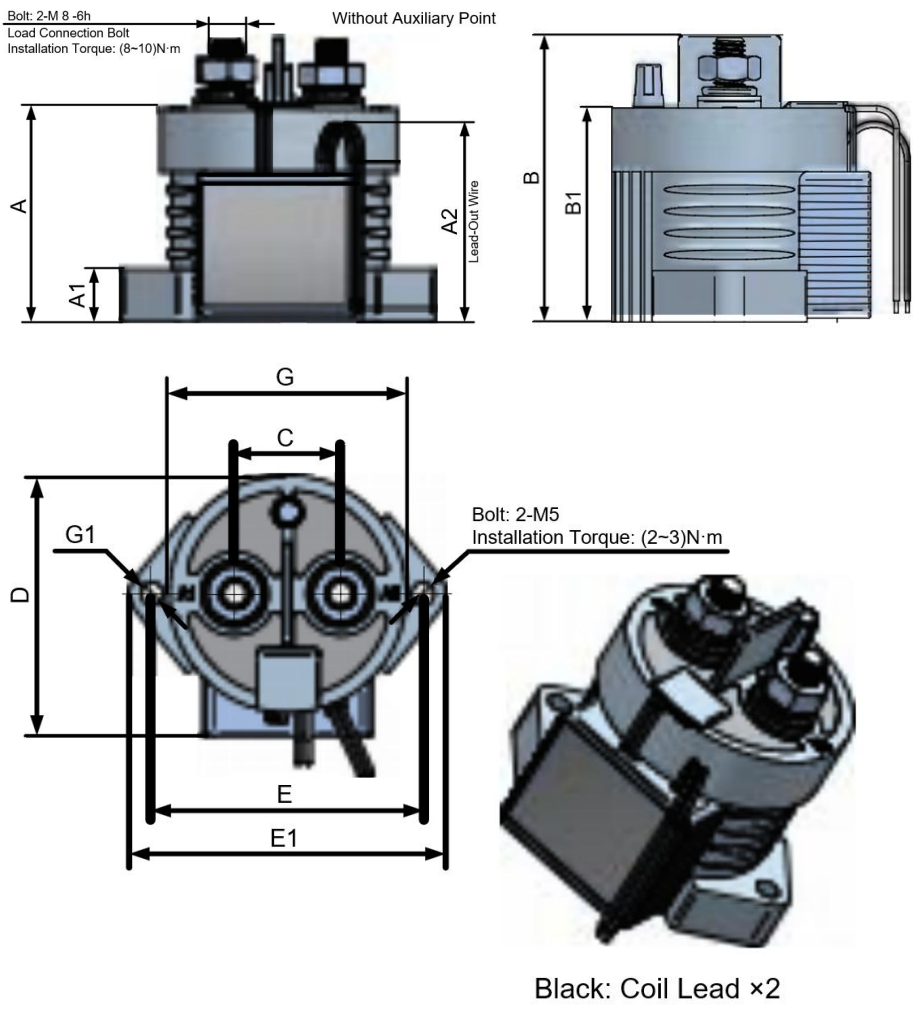


Part Number Coding System



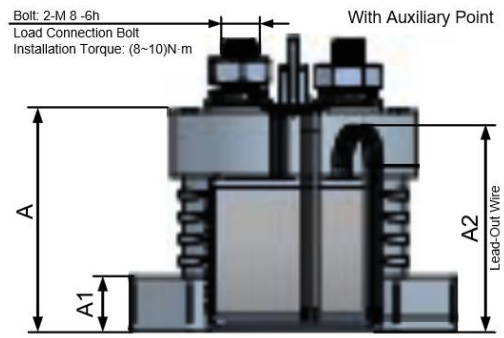
Outline Dimensions

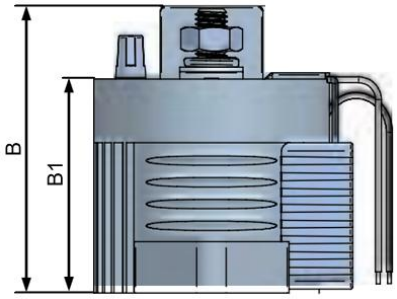
ZCI250/1BA • 1000(No Auxiliary)

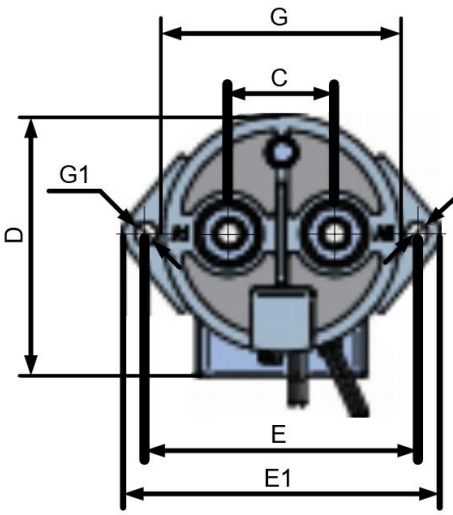


Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

ZCI250/1ABA • 1000(With Auxiliary)







Black: Coil Lead ×2

Gray: Auxiliary Lead ×2

Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI250/1ABA • 1000W	9-36VDC	Yes	≤9.5V	≥3.6V	45W(Starting) 2W(Holding)
ZCI250/1BA • 1000W	9-36VDC	No	≤9.5V	≥3.6V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1000V DC
Maximum Switching Current		2000A,320V DC 1Times
Short-time power Current		250A,Continuous Operating
		400A,60min
		500A,5min
		600A,1min
Dielectric Voltage Resistance	Between Contact	3500V AC,≤1mA
	Contact&Coil	3500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		30ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	300000Times
	Electrical Life	3000Times(1000V DC, 250A)
		5000 Times(750V DC,250A)
		8000 Times(500V DC,250A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		80×65.5×73.5
Weight		480g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

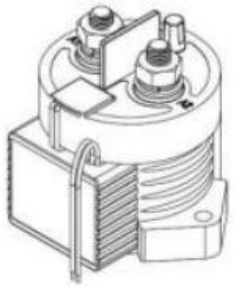
♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI300 Epoxy Sealed High Voltage Contactor

Performance Advantage

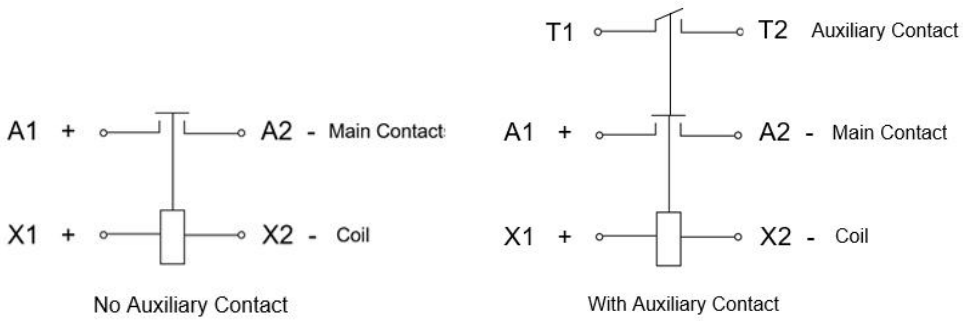


- Contact connection and coil connection both no polar requirements;
- This series can be operated in explosive and harmful environment as Epoxy sealed-Epoxy resin sealed structure and coil & contact will not oxidation and pollution;
- Efficient coil: Built-in energy saving coil, Holding power only 1.7~2.0W. Reverse electromotive force is 0V, No coil electromagnetic counter force;
- Compliance with the RoHS requirements and more beneficial to human health and environmental protection;
- Small size, lightweight, Easy installation;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

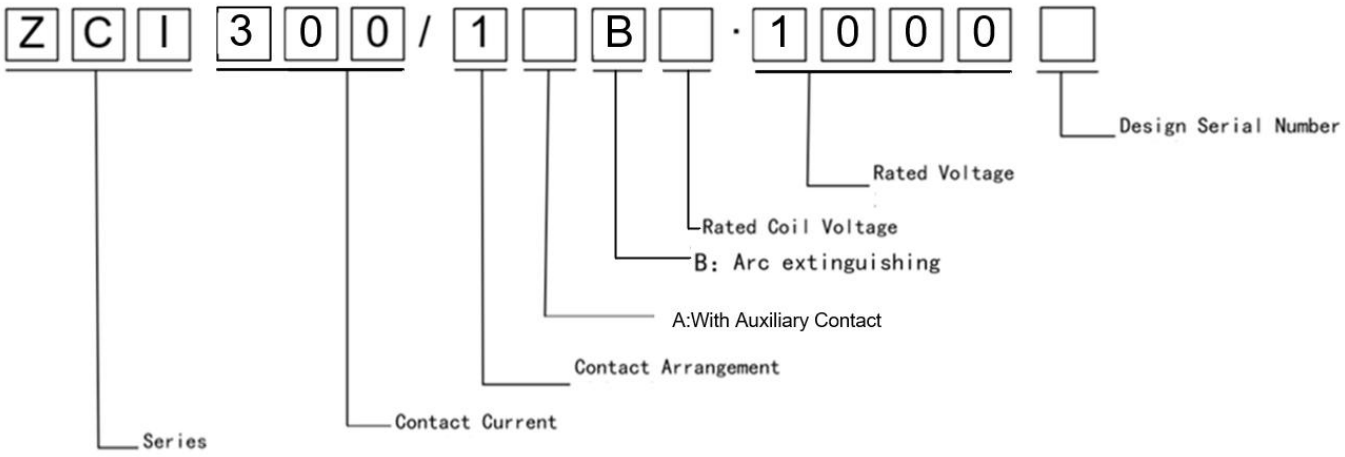
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

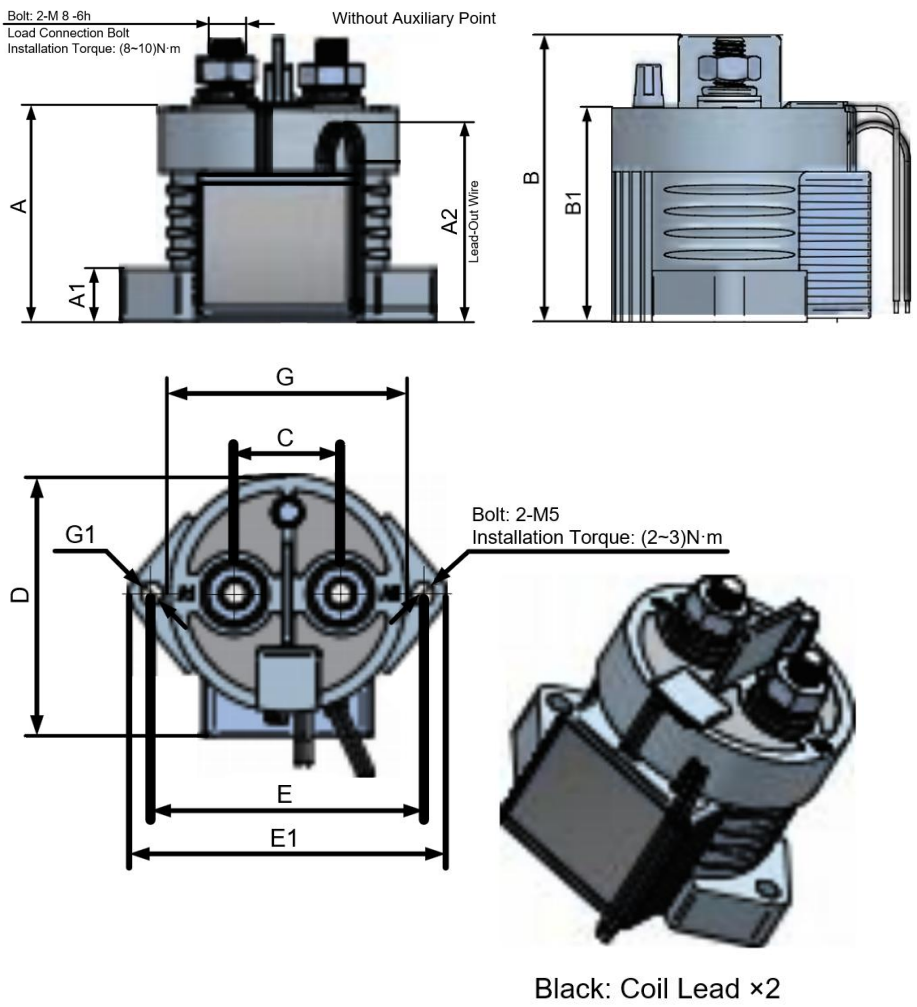


Part Number Coding System



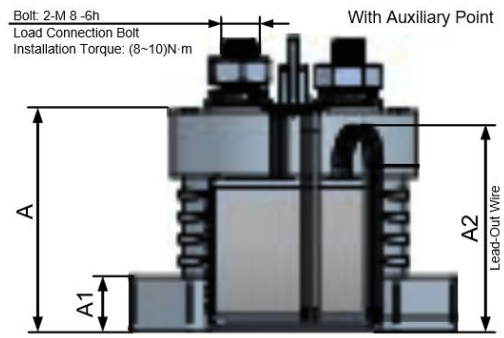
Outline Dimensions

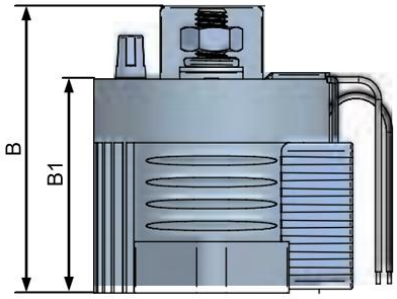
ZCI300/1BA • 1000(No Auxiliary)

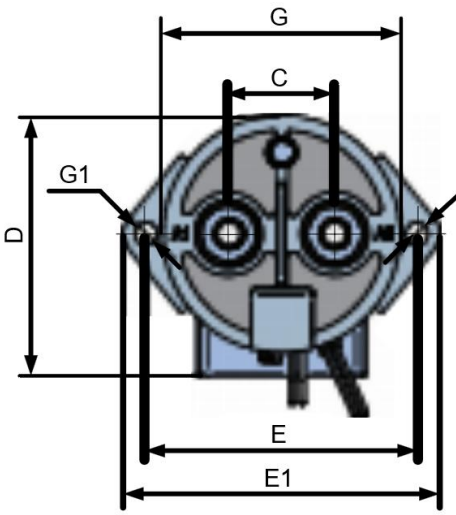


Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

ZCI300/1ABA • 1000(With Auxiliary)







Black: Coil Lead ×2

Gray: Auxiliary Lead ×2

Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	53.4	54.2	55.0
A1	12.5	13.0	13.5
A2	350	400	450
B	71	72	73
B1	55.2	56.0	56.8
C	26.5	26.8	27.1
D	65.0	65.5	66.0
E	67.8	68.3	68.8
E1	79.5	80.0	80.5
ØG	59..8		
2×ØG1	5.7		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI300/1ABA • 1000W	9-36VDC	Yes	≤9.5V	≥3.6V	45W(Starting) 2W(Holding)
ZCI300/1BA • 1000W	9-36VDC	No	≤9.5V	≥3.6V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1000V DC
Maximum Switching Current		2000A,320V DC 1Times
Short-time power Current		300A,Continuous Operating
		400A,60min
		500A,5min
		600A,1min
Dielectric Voltage Resistance	Between Contact	3500V AC,≤1mA
	Contact&Coil	3500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		30ms
Release Time		10ms
Callback Time		5ms

Reliability

Capability		Value
Lifetime	Mechanical Life	300000Times
	Electrical Life	3000Times(1000V DC, 300A)
		5000 Times(750V DC,300A)
		8000 Times(500V DC,300A)
Impact	Stability	20G
	Strength Grade	50G
Vibration		10G(10~500) Hz1/2Sine Wave
Operating Environment	Temperature	(-40~85)℃
	Humidity	(5~95) %R.H.
Protection Degree		IP67
Outline Dimension		80×65.5×73.5
Weight		480g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI600 Epoxy Sealed High Voltage Contactor

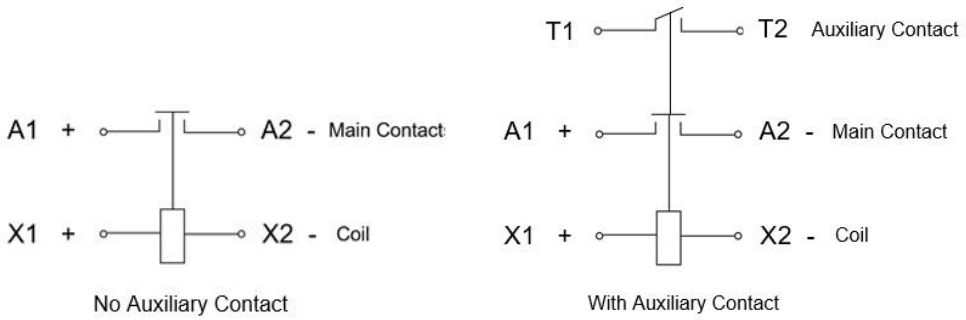
Performance Advantage

- Contact connection and coil connection both no polar requirements;
- Main contact has no polarity and can be switched with bidirectional load;
- No arc leakage risk with sealed structure;
- 600A 85℃ Prolonged carrying current capacity;
- Contact room is filled with protective gas to effectively prevent the oxidation and burn loss of the contact ,Contact with IP67 protection degree requirements.

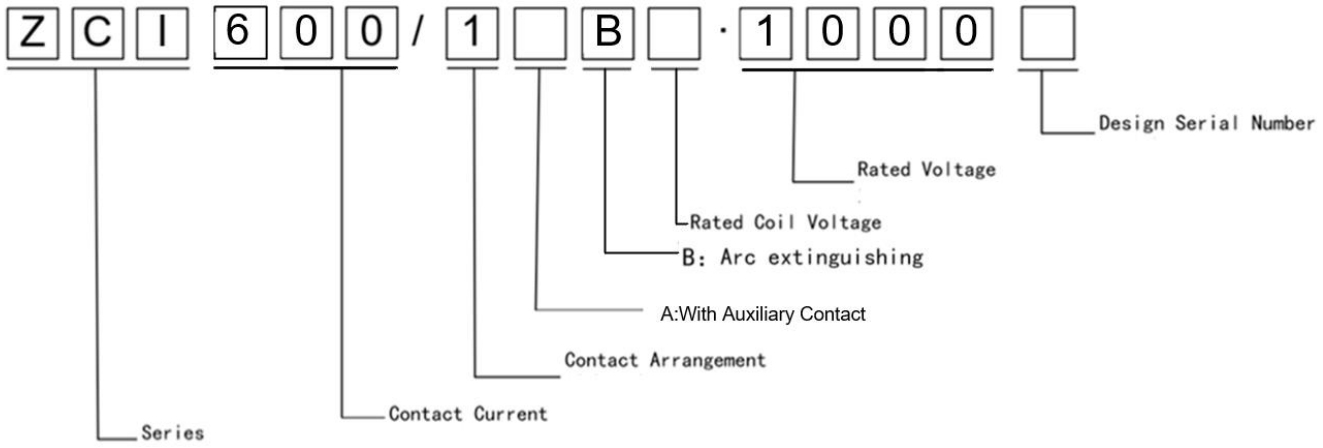
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

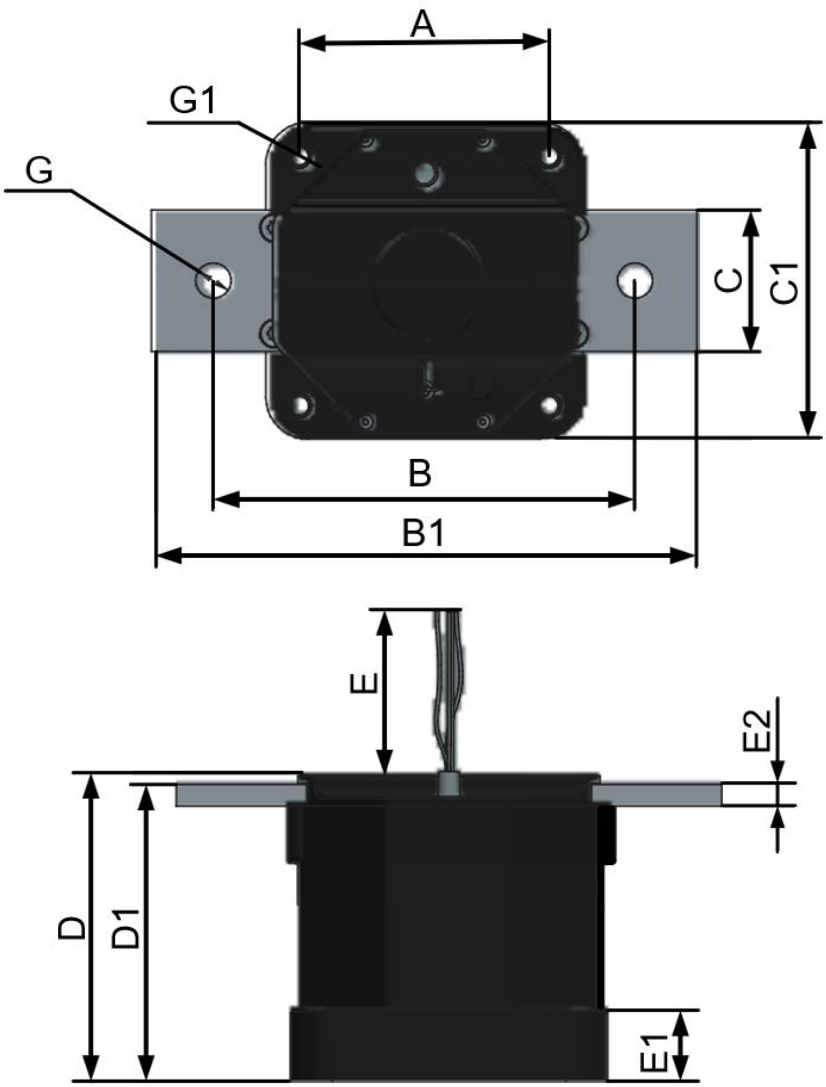


Part Number Coding System



Outline Dimensions

ZCI600/1□B□ • 1000



Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A		89.8	
B	150.8	151.6	152.4
B1	195.3	196.1	196.9
C	50.0	50.8	51.6
C1	113.0	113.8	114.6
D	108.6	109.4	110.2
D1	105.7	106.5	107.3
E	380	400	420
E1	24.5	25.0	25.5
E2	7.74	7.94	8.24
2×ØG	6.67	6.80	6.93
4×ØG1	12.45	12.70	12.95

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI600/1AB12 • 1000	12VDC	Yes	≤9V	≥1.2V	64W(Starting) 9W(Holding)
ZCI600/1AB24 • 1000	24VDC	Yes	≤18V	≥2.4V	
ZCI600/1B12 • 1000	12VDC	No	≤9V	≥1.2V	
ZCI600/1B24 • 1000	24VDC	No	≤18V	≥2.4V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1500V DC
Maximum Switching Current		2500A,400V DC 1Times
Short-time power Current		600A,Continuous Operating
		800A,10min
		1500A,20s
		6000A,2ms
Dielectric Voltage Resistance	Between Contact	5000V AC,≤1mA
	Contact&Coil	2500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		100ms
Release Time		70ms
Callback Time		25ms

Reliability

Capability		Value
Lifetime	Mechanical Life	100000Times
	Electrical Life	5000Times(1500V DC, 400A)
		5000 Times(1200V DC,500A)
		1000 Times(1000V DC,600A)
Impact		10GPeak Value,11ms1/2Sine Wave
Vibration		10GPeak Value, 500-2000HZ
Operating Environment	Temperature	(-55~85)℃
	Humidity	(5~95) %R.H.
Outline Dimension		196×114×110
Weight		≈4Kg

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1 Normally Open+1 Normally Closed
Maximum Load	30V DC 2A,125V AC 3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI600 Epoxy Sealed High Voltage Contactor

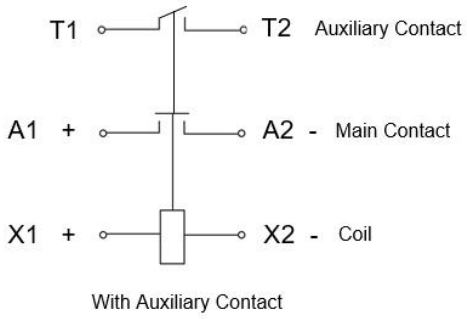
Performance Advantage

- Compliance with the RoHS requirements;
- The seal of the product contact part complies with the IP67 requirements;
- Strong anti-interference and anti-explosion capability;
- High-voltage DC cut-off;
- Small size, lightweight, safe and reliable;
- Contactors can be customized according to customer requirements, such as installation location, etc;
- The contacts are sealed in a epoxy sealed cavity and filled with gas with high cooling arc capability.

Applications

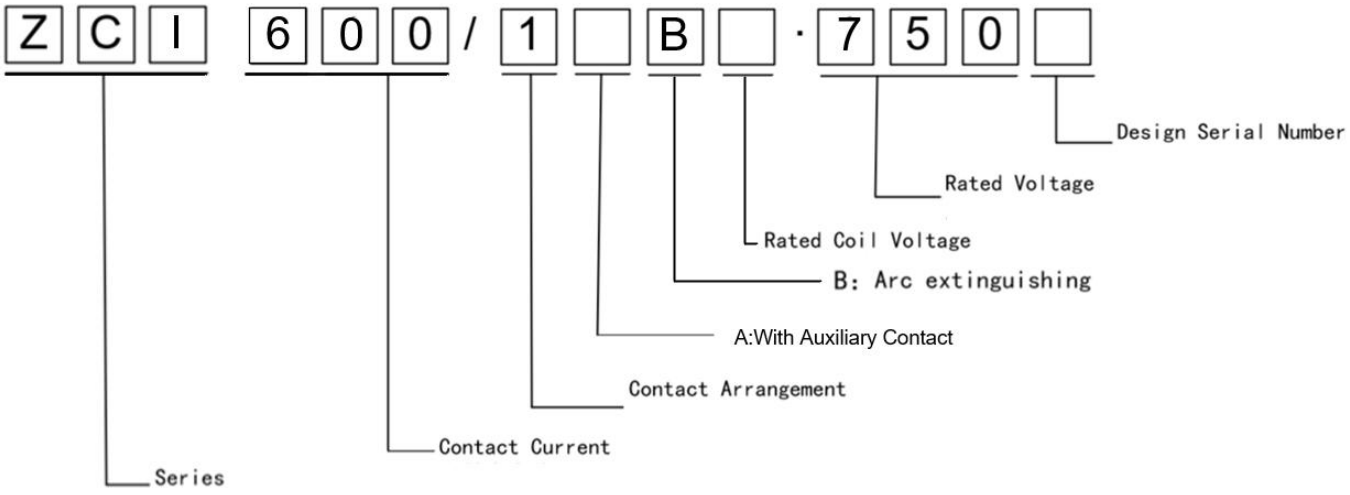
- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram



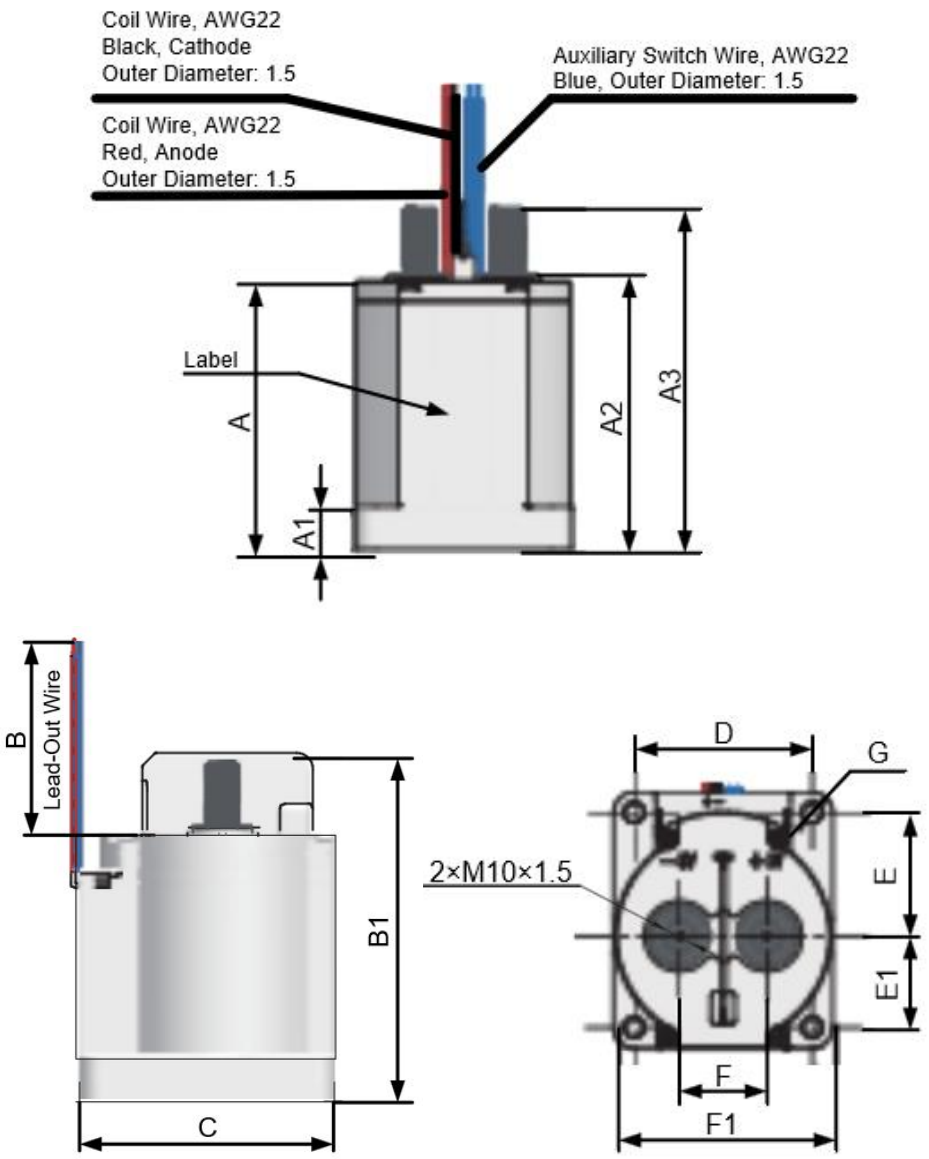
With Auxiliary Contact

Part Number Coding System



Outline Dimensions

ZCI600/1□B□ • 750



Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A	80.2	81.0	81.8
A1	12.3	12.8	13.3
A2	82.2	83.0	83.8
A3	102.2	103.0	103.8
B	390	400	410
B1	103.7	104.5	105.3
C	77.3	78.1	78.9
D	53.3	54.1	54.9
E	37.25	37.75	38.25
E1	27.35	27.85	28.35
F	26.0	26.5	27.0
F1	65.8	66.6	67.4
4×ØG	5.8		

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI600/1AB12 • 750	12VDC	Yes	≤9V	≥1.2V	45.6W(Starting) 6W(Holding)
ZCI600/1AB24 • 750	24VDC	Yes	≤18V	≥2.4V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		≤30mΩ(6V DC,20A) (Typical Value 1mΩ)
Load Voltage		12~1000V DC
Maximum Switching Current		2500A,320V DC 1Times
Short-time power Current		600A,Continuous Operating
		700A,600s
		1500A,20s
Dielectric Voltage Resistance	Between Contact	3500V AC,≤10mA
	Contact&Coil	3500V AC,≤10mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ(1000V DC) Electrical Life Finality:50MΩ(1000V DC)
	Contact&Coil	
Operate Time		40ms Max
Release Time		20ms Max
Callback Time		5ms Max

Reliability

Capability		Value
Lifetime	Mechanical Life	200000Times
	Electrical Life	6000Times(450V DC, 600A)
		1000 Times(750V DC,600A)
		Breaking100 Times(1000V DC,600A Pure Resistance)
Impact		20GPeak Value,11ms,1/2Sine Wave(Energized Coil)
Vibration		20GPeak Value,80~2000Hz,Sine Wave
Operating Environment	Temperature	(-55~85)℃
	Humidity	(5~95) %R.H.
Outline Dimension		66.6×78.1×104.5
Weight		888g

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1H
Maximum Load	30V DC 2A,125V AC 3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI800 Epoxy Sealed High Voltage Contactor

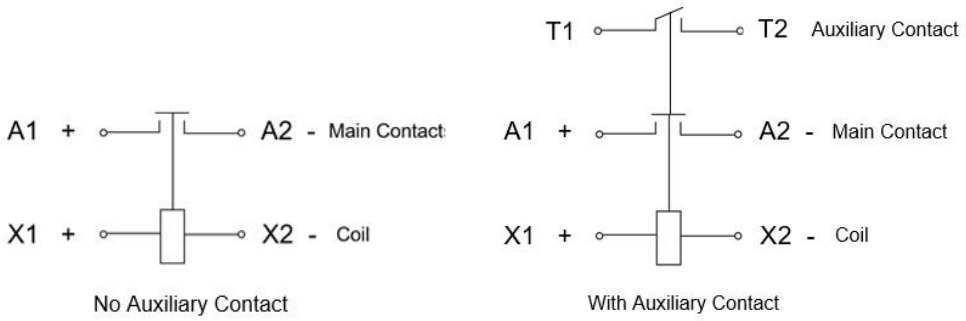
Performance Advantage

- Main contact has no polarity and can be switched with bidirectional load;
- No arc leakage risk with sealed structure;
- 800A 85℃ Prolonged carrying current capacity;
- Contact room is filled with protective gas to effectively prevent the oxidation and burn loss of the contact ,Contact with IP67 protection degree requirements.

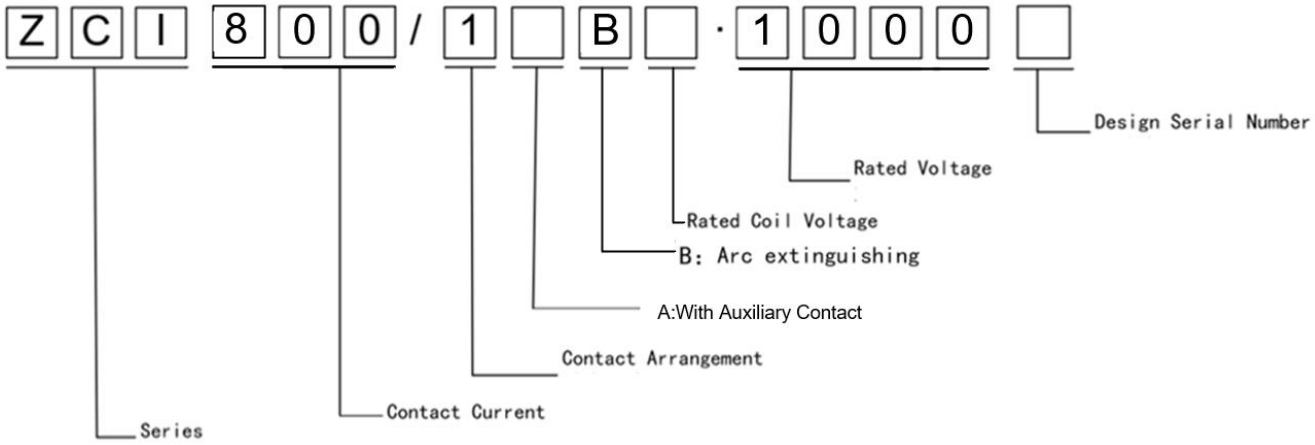
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

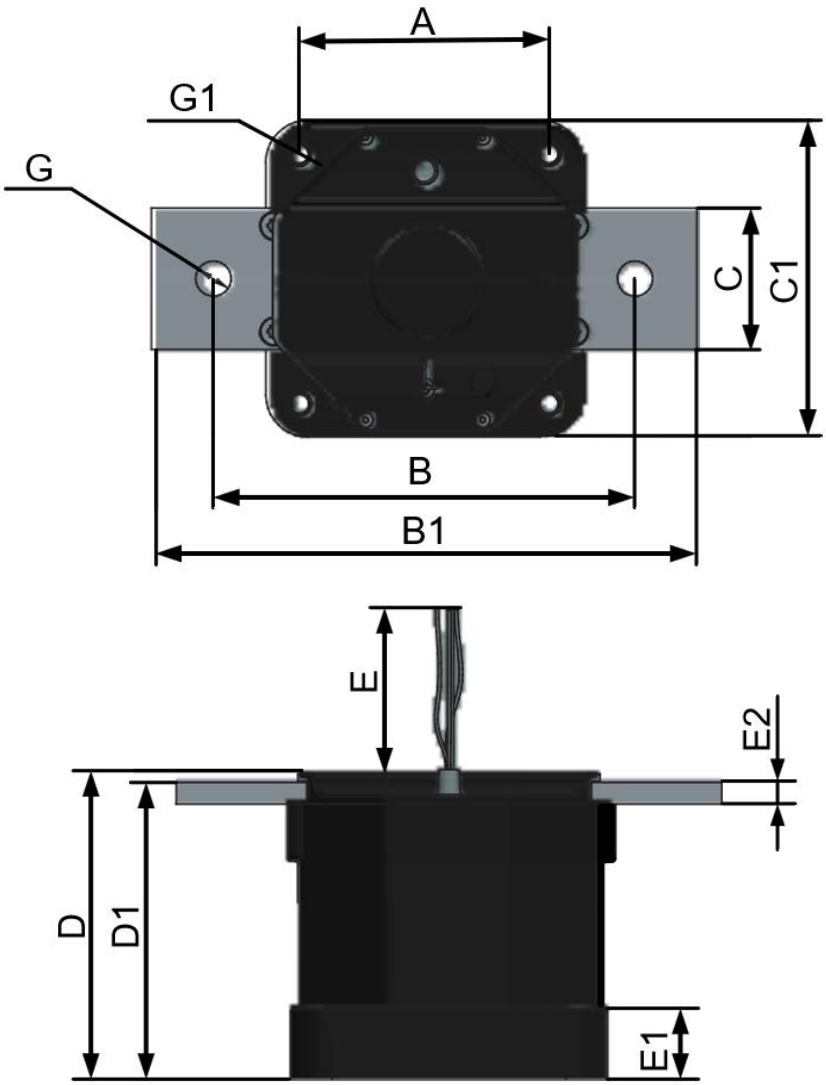


Part Number Coding System



Outline Dimensions

ZCI800/1□B□ • 1000



Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A		89.8	
B	150.8	151.6	152.4
B1	195.3	196.1	196.9
C	50.0	50.8	51.6
C1	113.0	113.8	114.6
D	108.6	109.4	110.2
D1	105.7	106.5	107.3
E	380	400	420
E1	24.5	25.0	25.5
E2	7.74	7.94	8.24
2×ØG	6.67	6.80	6.93
4×ØG1	12.45	12.70	12.95

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Rated Power
ZCI800/1AB12 • 1000	12VDC	Yes	≤9V	≥1.2V	64W(Starting) 9W(Holding)
ZCI800/1AB24 • 1000	24VDC	Yes	≤18V	≥2.4V	
ZCI800/1B12 • 1000	12VDC	No	≤9V	≥1.2V	
ZCI800/1B24 • 1000	24VDC	No	≤18V	≥2.4V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ(6V DC,20A)
Maximum Switching Voltage		1500V DC
Maximum Switching Current		4000A,400V DC 1Times
Short-time power Current		800A,Continuous Operating
		1600A,10s
		6000A,50ms
		8000A,2ms
Dielectric Voltage Resistance	Between Contact	5000V AC,≤1mA
	Contact&Coil	2500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ(1000V DC) Electrical Life Finality:50MΩ(1000V DC)
	Contact&Coil	
Operate Time		100ms
Release Time		70ms
Callback Time		25ms

Reliability

Capability		Value
Lifetime	Mechanical Life	100000Times
	Electrical Life	5000Times(1500V DC, 400A)
		5000 Times(1200V DC,500A)
		5000 Times(1000V DC,600A)
		1000 Times(1000V DC,800A)
Impact		10GPeak Value,11ms1/2Sine Wave
Vibration		10GPeak Value, 500-2000HZ
Operating Environment	Temperature	(-55~85)℃
	Humidity	(5~95) %R.H.
Outline Dimension		196×114×110
Weight		≈4Kg

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1 Normally Open+1 Normally Closed
Maximum Load	30V DC 2A,125V AC 3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCI1000 Epoxy Sealed High Voltage Contactor

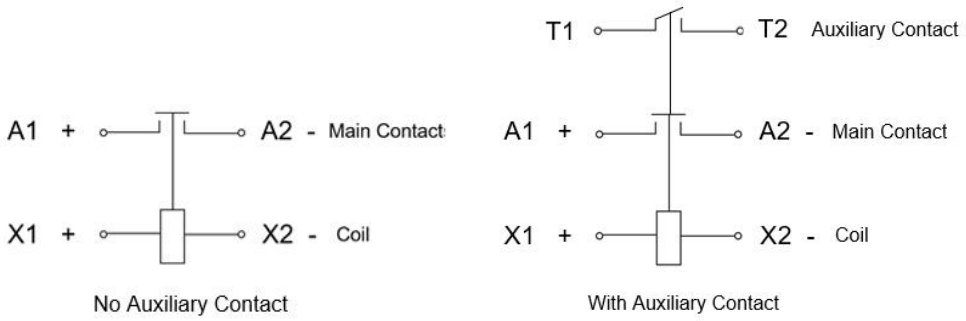
Performance Advantage

- Main contact has no polarity and can be switched with bidirectional load;
- No arc leakage risk with sealed structure;
- 1000A 85℃ Prolonged carrying current capacity;
- Contact room is filled with protective gas to effectively prevent the oxidation and burn loss of the contact ,Contact with IP67 protection degree requirements.

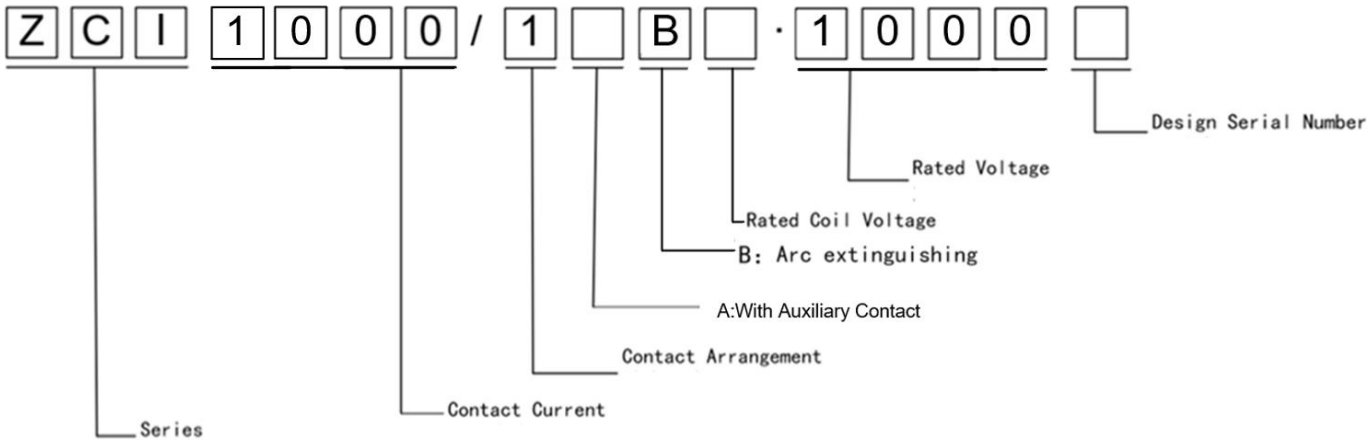
Applications

- Battery charging
- High-power DC equipment,
- Renewable energy storage
- General industrial equipment and other occasions
- Fuel cell & solar energy system
- New energy related infrastructure
- New energy vehicles
- Hybrid electric vehicles

Schematic Diagram

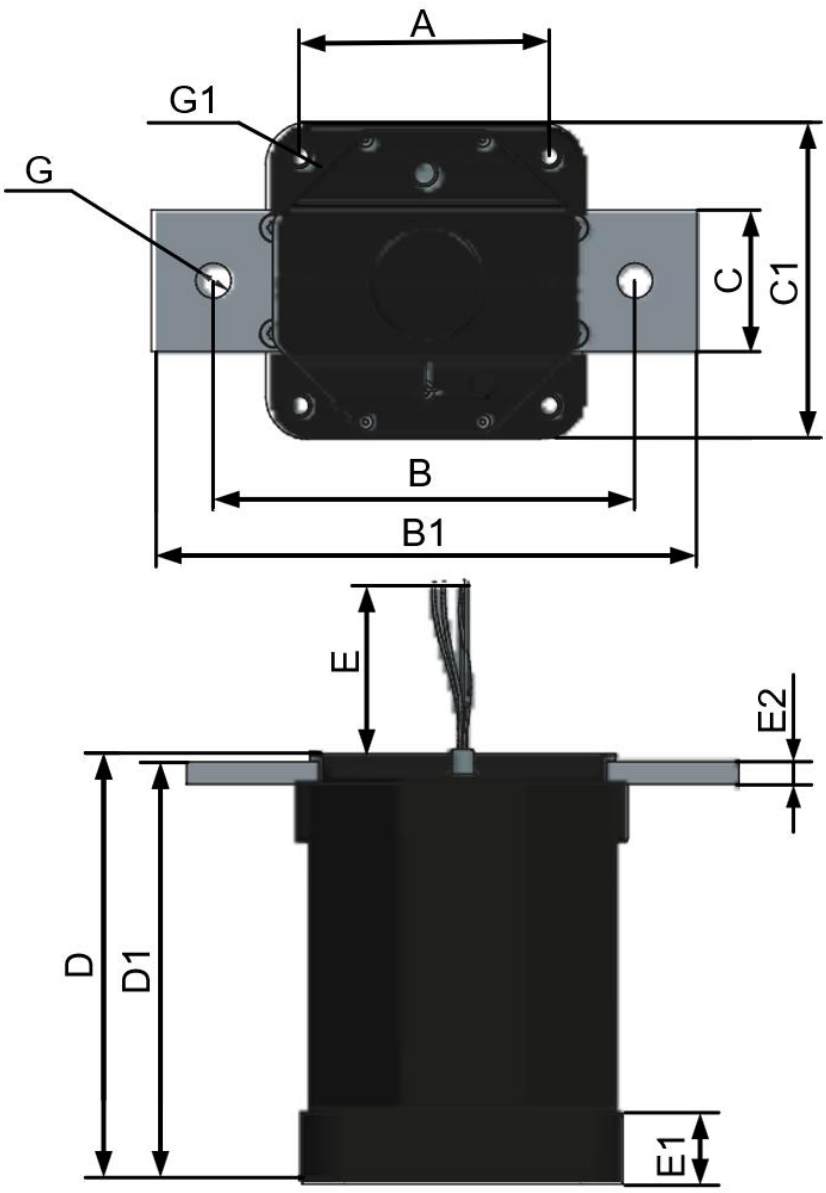


Part Number Coding System



Outline Dimensions

ZCI1000/1□B□ • 1000



Symbol	Dimensions Millimeters		
	Min.	Typ.	Max.
A		89.8	
B	150.8	151.6	152.4
B1	195.3	196.1	196.9
C	50.0	50.8	51.6
C1	113.0	113.8	114.6
D	152.3	153.1	153.9
D1	149.4	150.2	151.0
E	360	380	400
E1	24.5	25.0	25.5
E2	7.74	7.94	8.24
2×ØG	6.67	6.80	6.93
4×ØG1	12.45	12.70	12.95

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage	Coil Power Consumption
ZCI1000/1AB12 • 1000	12VDC	Yes	≤9V	≥1.2V	15.1W
ZCI1000/1AB24 • 1000	24VDC	Yes	≤18V	≥2.4V	
ZCI1000/1B12 • 1000	12VDC	No	≤9V	≥1.2V	
ZCI1000/1B24 • 1000	24VDC	No	≤18V	≥2.4V	

Contact Specifications

Parameters		Value
Contact Form		1H
Contact Resistance		0.5mΩ (6V DC,20A)
Maximum Switching Voltage		12~1500V DC
Maximum Switching Current		5000A,400V DC 1Times
Short-time power Current		1000A,Continuous Operating
		2000A,10s
		8000A,5ms
		10000A,1ms
Dielectric Voltage Resistance	Between Contact	5000V AC,≤1mA
	Contact&Coil	2500V AC,≤1mA
Insulation Resistance	Between Contact	Initial Condition: 100MΩ (1000V DC) Electrical Life Finality:50MΩ (1000V DC)
	Contact&Coil	
Operate Time		100ms
Release Time		70ms
Callback Time		25ms

Reliability

Capability		Value
Lifetime	Mechanical Life	100000Times
	Electrical Life	5000Times(1500V DC, 400A)
		5000 Times(1200V DC,500A)
		1000 Times(1000V DC,1000A)Pure Resistance
Impact		10GPeak Value,11ms1/2Sine Wave
Vibration		10GPeak Value, 500-2000HZ
Operating Environment	Temperature	(-55~85)℃
	Humidity	(5~95) %R.H.
Outline Dimension		196×114×153
Weight		≈5Kg

Auxiliary Contact Specification

Parameters	Value
Auxiliary Contact Form	1 Normally Open+1 Normally Closed
Maximum Load	30V DC 2A,125V AC 3A
Minimum Load	8V DC 0.1A
Contact Resistance	<0.1 Ω

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.

ZCG100/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

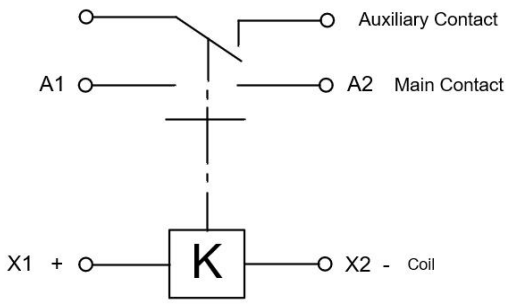
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

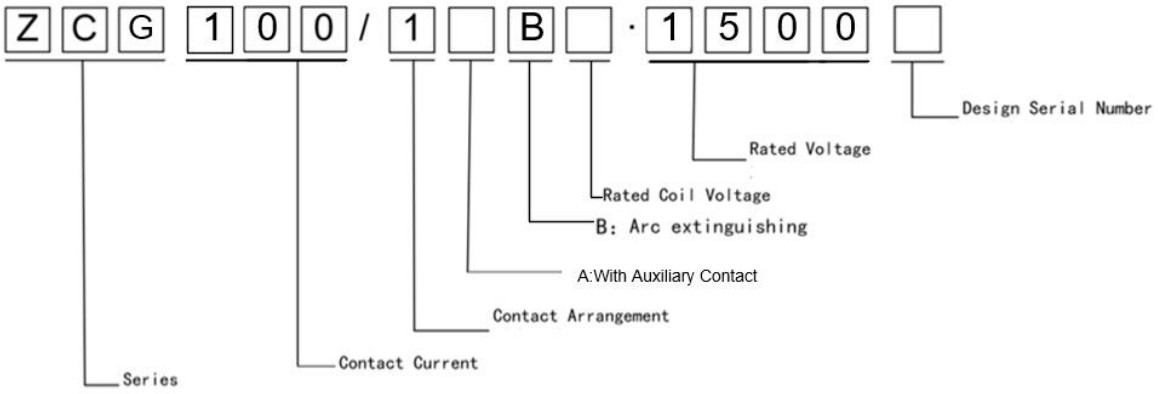
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

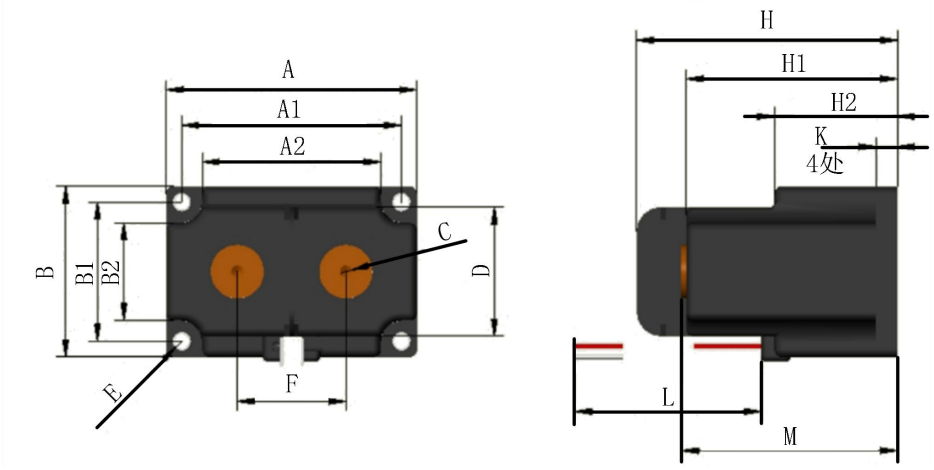


Part Number Coding System



Outline Dimensions

ZCG100/1□B□ • 1500



Symbol	Dimensions	
	Millimeters	
	Min.	Max.
A	103.4	104.6
A1	90.7	91.3
A2	73.7	74.3
B	69.5	70.5
B1	56.7	57.3
B2	40	
C	2-M6	
D	52.7	53.3
E	4-Φ6.5	
F	44.8	45.2
H	107.4	108
H1	87.2	87.8
H2	50.7	51.3
K	9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG100/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		100A
(20±5)℃ Cold-state Max. Starting Current		2A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	3000Times
	100A,1000V DC	6000Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.

ZCG200/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

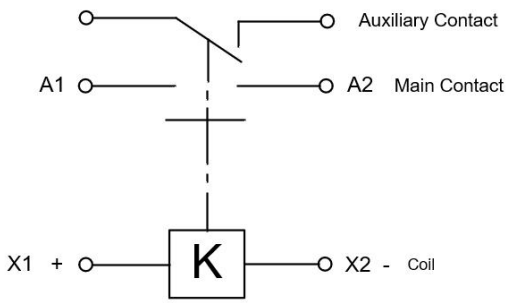
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

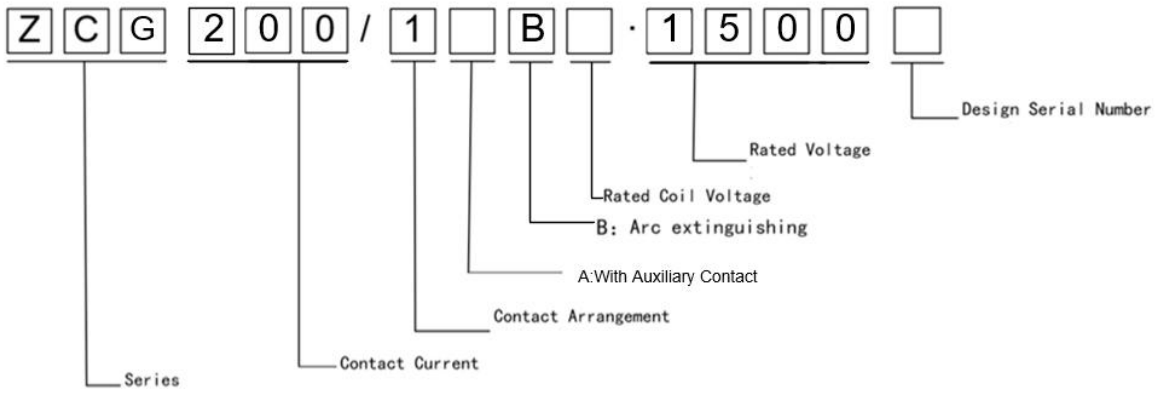
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

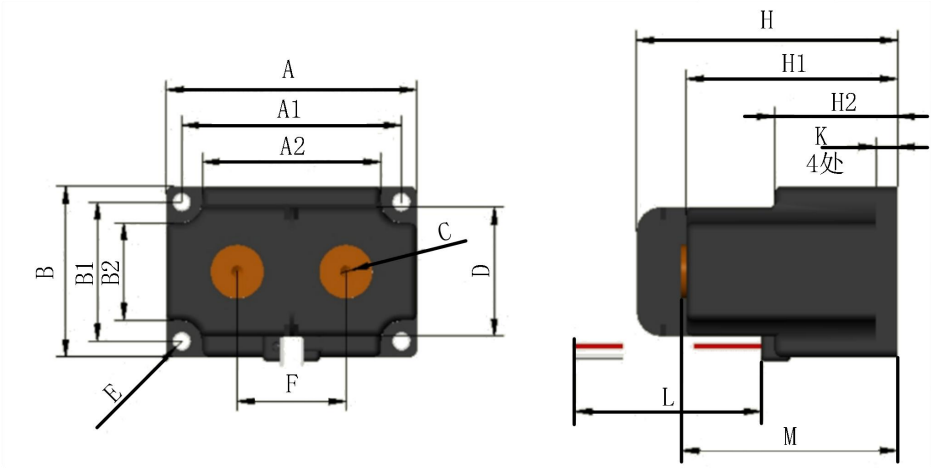


Part Number Coding System



Outline Dimensions

ZCG200/1□B□ • 1500



Symbol	Dimensions	
	Millimeters	
	Min.	Max.
A	103.4	104.6
A1	90.7	91.3
A2	73.7	74.3
B	69.5	70.5
B1	56.7	57.3
B2	40	
C	2-M6	
D	52.7	53.3
E	4-Φ6.5	
F	44.8	45.2
H	107.4	108
H1	87.2	87.8
H2	50.7	51.3
K	4-Φ9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG200/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		200A
(20±5)℃ Cold-state Max. Starting Current		2A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	500Times
	100A,1000V DC	3000Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.

ZCG250/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

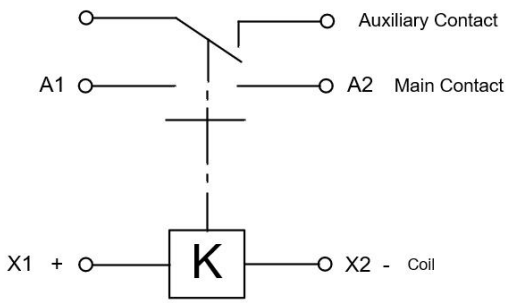
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

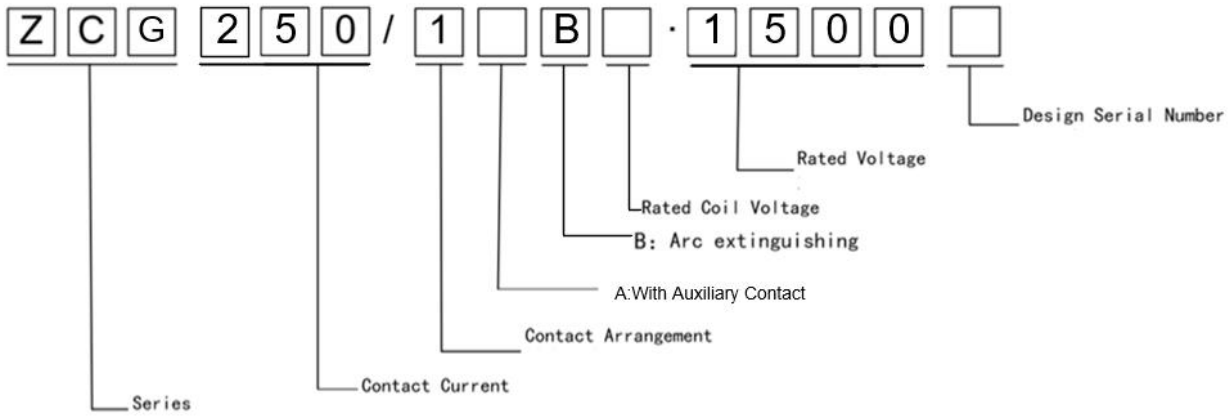
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

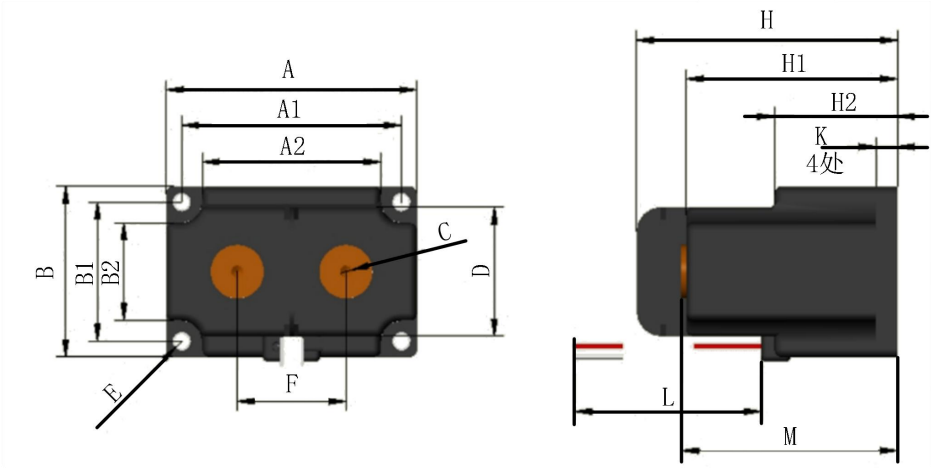


Part Number Coding System



Outline Dimensions

ZCG250/1□B□ • 1500



Symbol	Dimensions	
	Millimeters	
	Min.	Max.
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F	44.8	45.2
H	107.4	108
H1	87.2	87.8
H2	50.7	51.3
K	4-Φ9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG250/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		250A
(20±5)℃ Cold-state Max. Starting Current		2.5A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	200Times
	100A,1000V DC	1500Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.

ZCG350/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

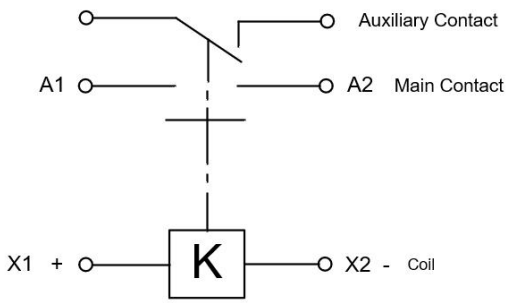
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

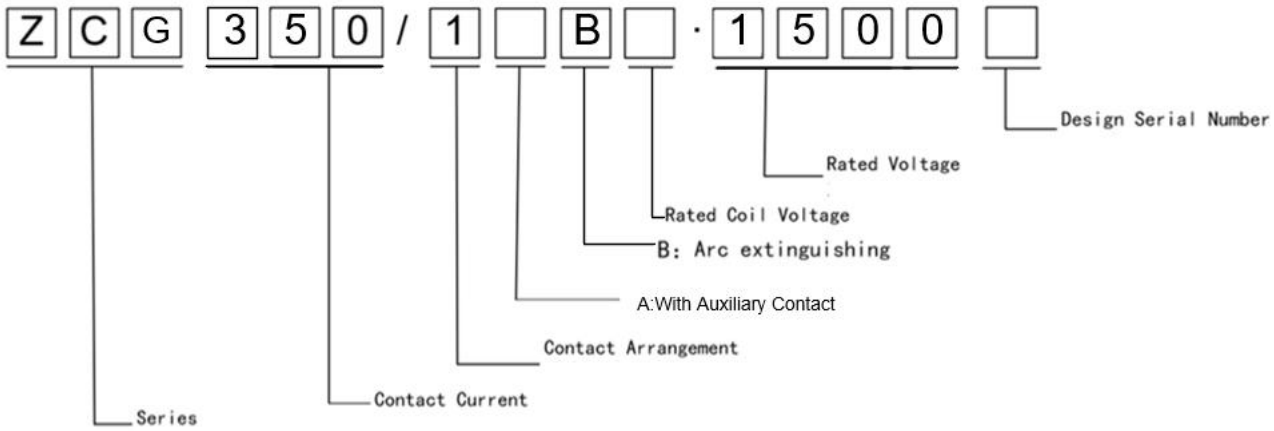
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

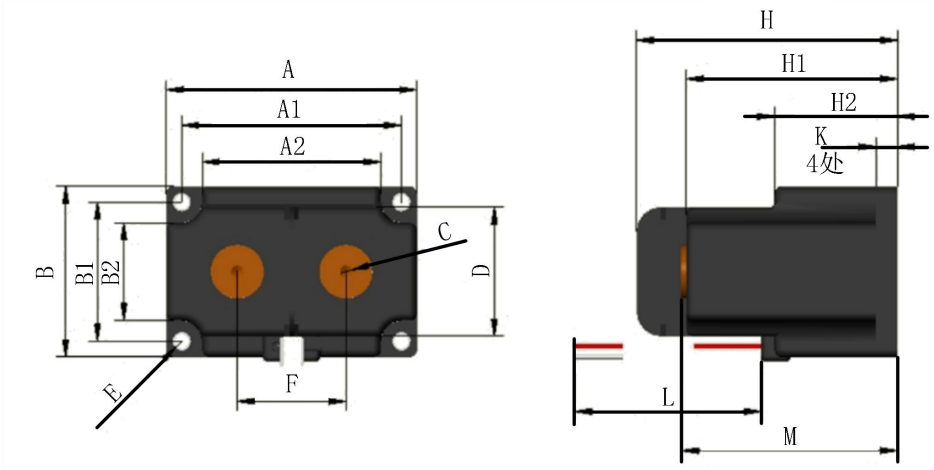


Part Number Coding System



Outline Dimensions

ZCG350/1□B□ • 1500



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H	107.4	108
H1	87.2	87.8
H2	50.7	51.3
K	4-Φ9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG350/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		350A
(20±5)℃ Cold-state Max. Starting Current		2.5A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	200Times
	100A,1000V DC	1500Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.

ZCG400/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

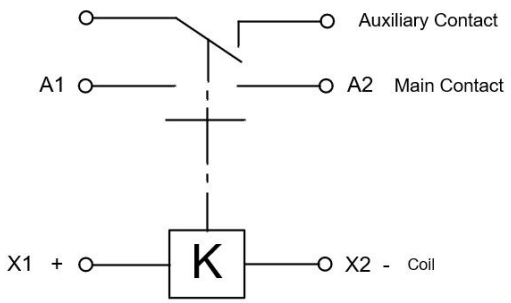
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

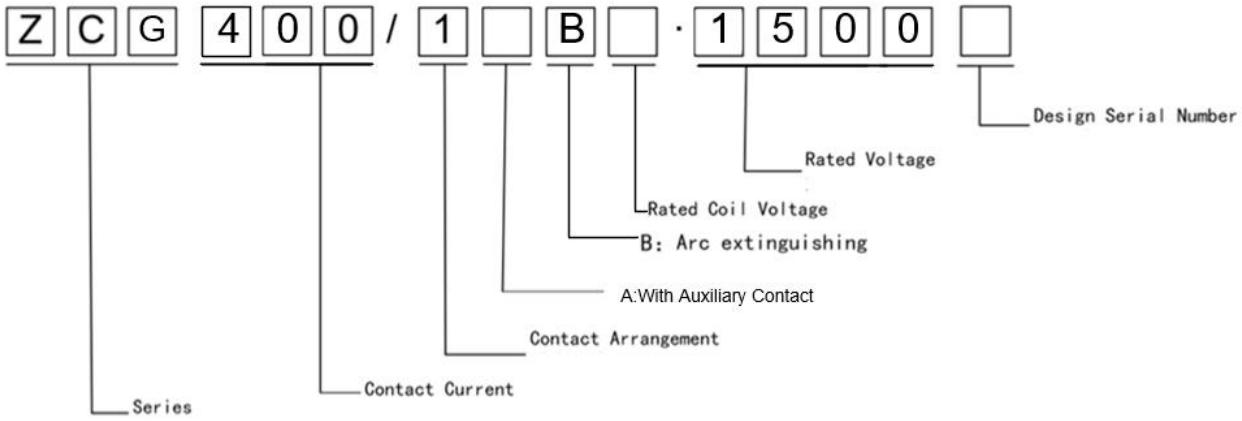
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

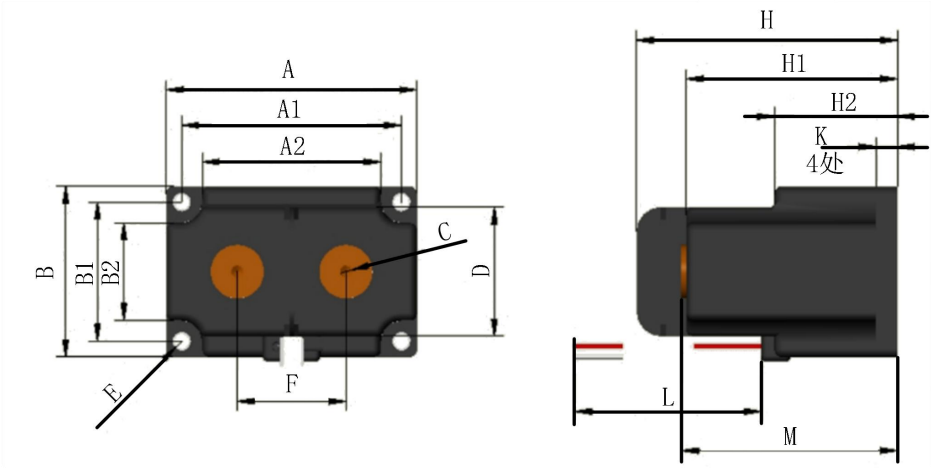


Part Number Coding System



Outline Dimensions

ZCG400/1□B□ • 1500



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H1	87.2	87.8
H2	50.7	51.3
K	4-Φ9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG400/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		400A
(20±5)℃ Cold-state Max. Starting Current		2.5A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	200Times
	100A,1000V DC	1000Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.

ZCG500/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

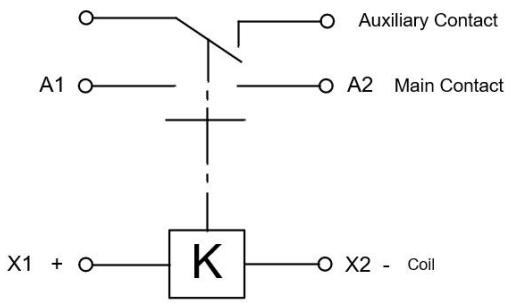
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

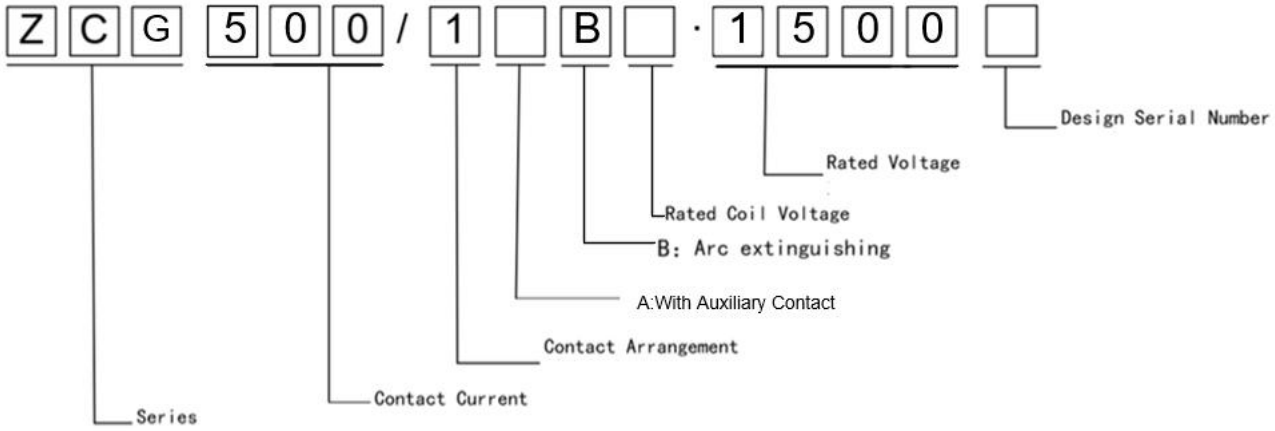
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

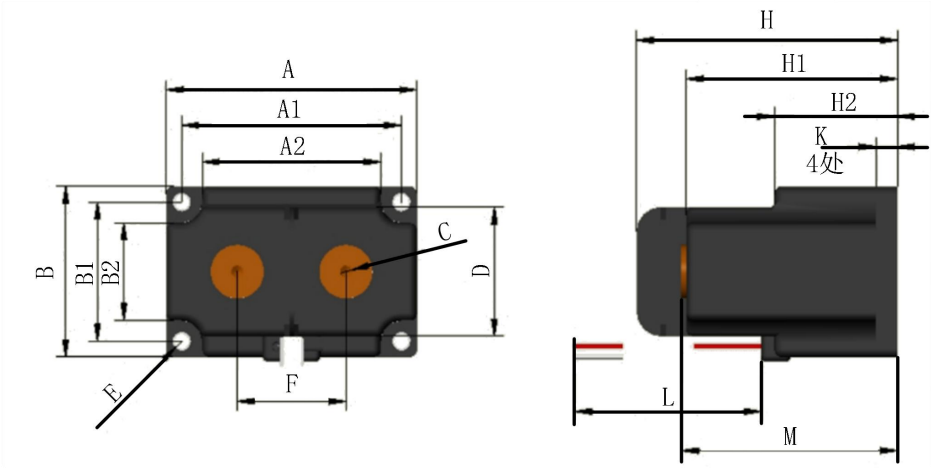


Part Number Coding System



Outline Dimensions

ZCG500/1□B□ • 1500



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H	107.4	108
H1	87.2	87.8
H2	50.7	51.3
K	4-Φ9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG500/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		500A
(20±5)℃ Cold-state Max. Starting Current		2.5A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	10Times
	100A,1000V DC	500Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

♦ Scope of specifications: Operations above specifications should be avoided, including but not limited to coil ratings, main contact ratings, and electrical lifespan exceeding specifications.To avoid abnormal heating, smoke, fire and other accidents

♦ When using an inductive load with L/R > 1ms, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded and the continuity may be poor.

♦ When operating without adding a load, the contact resistance may increase. Please be aware.

♦ Installation and maintenance: The installation of the relay should be firm and reliable. Abnormal connections can easily cause accidents such as overheating and fire. When installing the busbar, please.Do not apply excessive load to the terminals, otherwise it may cause faults in the on-off performance. When powered on, before installation, maintenance, and troubleshooting, the power supply to the relay, connectors, sockets, and other connecting parts should be cut off in advance.

♦ For repeated actions of relays, the interval time between their actions should be fully considered. To avoid misoperation, it is recommended to set the time between the two actions of the contactor.The interval should be greater than 0.1s.

♦ Please make sure to correctly install according to the polarity requirements indicated on each product casing or shown in the table below. Connecting the terminals in the opposite direction may cause accidents such as relay overheating and fire

♦ Wiring, busbar, etc., please refer to: 40A: nominal cross-sectional area above 16mm^2;

♦ It is strictly prohibited to place the product in an environment that exceeds the temperature range of the product for a long time. Product usage environment: temperature -40 ℃~85 ℃, humidity 5%~95% RH.

♦ Do not use if dropped.

ZCG600/1AB24 • 1500

Ceramic Sealed High Voltage Contactor

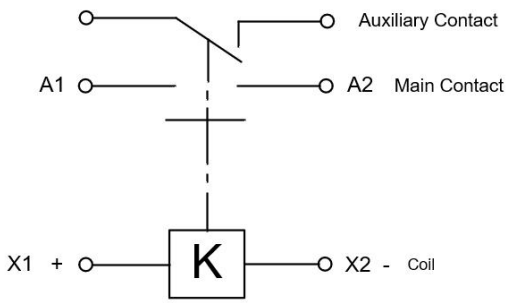
Performance Advantage

- Compliance with the RoHS requirements;
- Small size, lightweight, safe and reliable;
- Contact with IP67 protection degree requirements;
- Strong anti-interference and anti-explosion capability;
- The contacts are sealed in a ceramic cavity and filled with gas with high cooling arc capability;
- Permanent Magnet Magnetic Blow-out,High-voltage DC cut-off, contact terminal no polarity requirement,coil terminal has polarity requirements.

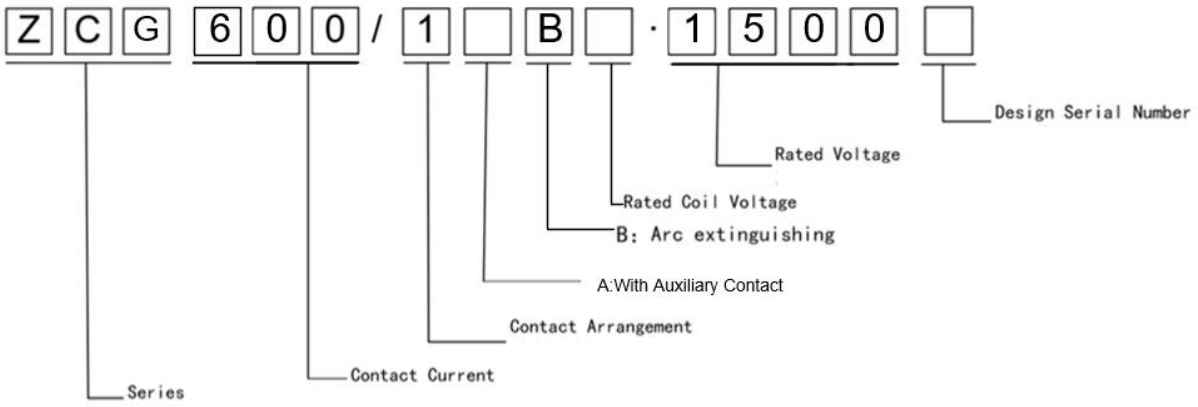
Applications

- Energy Storage
- High Voltage Frequency Converter
- Battery Charging System
- High-power DC Equipment
- General Industrial Equipment and Other Occasions
- Fuel Cell & Solar Energy System
- New Energy Related Infrastructure
- New Energy Vehicles
- Hybrid Vehicles

Schematic Diagram

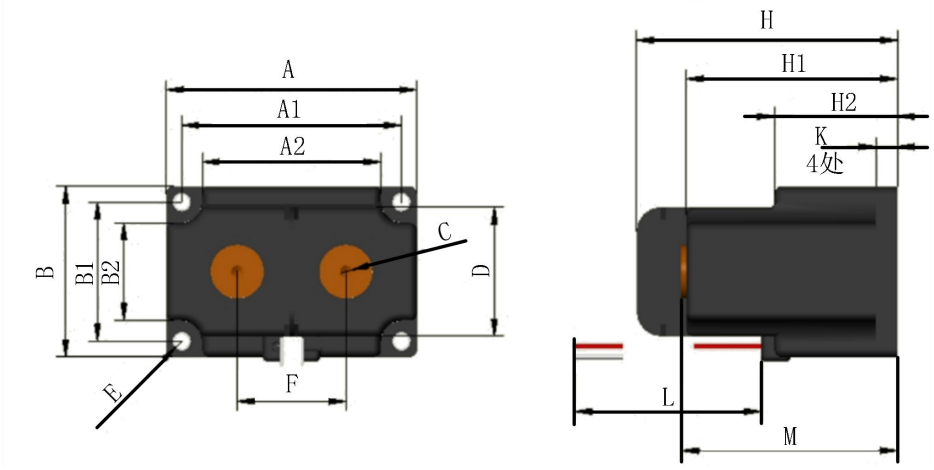


Part Number Coding System



Outline Dimensions

ZCG600/1□B□ • 1500



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H1	87.2	87.8
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K	4-Φ9	
L	290	310
M	89.1	89.7

Maximum Rating and Characteristics

Part Number	Coil Rated Voltage	Auxiliary Contact	Pull-in Voltage	Release Voltage
ZCG600/1AB24 • 1500	24VDC	Yes	≤16.8V	≥2.4V

Contact Specifications

Parameters		Value
Contact Form		1 Normally Open(Normally Open with Auxiliary Contact）
Rated Contact Circuit Voltage		1500V
Rated Contact Circuit Current		600A
(20±5)℃ Cold-state Max. Starting Current		2.5A
(20±5)℃ Cold-state Max. Holding Current		0.3A
(20±5)℃ Coil Resistance		/
Coil Voltage Fluctuation Range		±5%
Contact Resistance(mΩ)		≤ 0.5(Under 20A)
Insulation Resistance	Contact&Coil	1000MΩ(1500V DC)
	Between Contact	
Insulation Dielectric Strength	Contact&Coil	4000V AC
	Between Contact	
1000VAC(Valid Value),50Hz,1min NO Arcing-over、 No Breakdown	Operate Time	50ms
	Release Time	30ms
Contact Break Max. Bounce Time		5ms

Reliability

Capability		Value
Coil Heat Resistance Degree		F Degree
Max Switching Current	2000A,1000V DC	1Times
Electrical Life	100A,1500V DC	5Times
	100A,1000V DC	200Times
Mechanical Life		200000
Operating Form		Long Term Form
Using Type		DC-1
Ambient Temperature		(-40~+85)℃
Relative Humidity		(5~85) %R.H.
Installation Form		Arbitrary Installation

Application Note

- Specification range: Avoid operation and use above specification, including but not limited to coil rating, main contact rating and electrical life. To avoid abnormal fever phenomenon, smoke, fire and other accidents.
- When using L / R> 1ms induced load (L load) , please parallel with surge devices. If no, electrical life may be shorten and breaking may be poor.
- Note that the contact resistance may rise when moving without loading.
- Installation and maintenance: contactor installation should be firm and reliable. Contactor overheating and fire accidents are easily caused by abnormal connection. When installing the bus, do not apply an excessive load to the terminal, as it may cause a failure of on-off performance. When energized, before installation, maintenance and troubleshooting, the power supply of contactor and connector, socket and other connections should be cut off in advance.
- Terminal tightening condition: screw locking torque for each part, please control within the specified range described below. Range may be damage, M6 nut: 6N·m~8N·m(External load installation） .
- Please do not place the contactor in the environment beyond the temperature use range for a long time. Contactor use environment: Temperature-40℃ ~85℃ , Humidity is 5%~85%R.H.
- Coil terminal connection: coil terminal has positive and negative wiring requirements .
- Do not use the contactor after it accidentally falls to the ground.