DC EV RELAY CATALOGUE

Ebusbar Automotive electronics Product Catalog

打造最具竞争力的新能源汽车电子行业品牌

Shenzhen Ebusbar Automotive ElectronicsCo. , LTD

企业简介

ENTERPRISE BRIEF INTRODUCTION

Shenzhen Busbar Automotive Electronics Co., Ltd., a wholly-owned subsidiary of Busbar Group, is a national high-tech enterprise that develops, produces and sells core components of new energy vehicles.

Busbar Automotive Electronics has been developing in the direction of new energy and serving the new energy industry. Its product lines include: high and low voltage DC contactors, electronic locks ；the DC contactor has developed from 10A to 1000A, and some models can meet the working voltage of 1500VDC, and have obtained CCC, UL and CE certification. The products can be widely used in electric vehicles, energy storage, charging, solar energy, wind energy and other new energy fields.

Busbar Automotive Electronics has passed the IATF16949 and ISO9001 quality management system certification. The company's start-up team is an elite from the world's top 500 enterprises. Since the establishment of the team in 2014, the company has continuously introduced experienced talents in the industry to build a team with complementary expertise, strong will, and a spirit of motivation and struggle, and has won many national patents.

Busbar Automotive Electronics has established its own independent laboratory and product research institute, and has cooperated with a number of universities to obtain government financial awards. As one of the earliest enterprises to enter the Chinese EV market, Busbar Automotive Electronics has set up agency partners in the United States, Germany, and South Korea, and successfully cooperated with domestic and foreign customers to complete many influential projects. At present, the company's products have been sold in JUNGHEINRICH, VinFast, NEXEM, EULER MOTORS, Volex, RCT, BYD, LI,NIO,Great Wall Motor,JMC,APTIV, SDLG, Ganfeng Lithium, Yonggui, Carvo Weilai and other well-known customers

DC HIGH VOLTAGE EV RELAY

Features of our products

Busbar HVDC relay is developed for the new energy industry. The product uses high temperature resistant ceramic sealing structure, the contact chamber is filled with hydrogen gas mixture, combined with magnetic blowing arc, it can cut off the load voltage up to 1500VDC； The contact system is sealed in the reducing gas with compact structure, low working noise and high safety, so it is not subject to adverse environmental impact and can be maintained stable continuously, conforming to IP67 standard.

Our strengths

- **Strong R&D team**
  Design and R&D teams from the world's top 500 companies and cooperate with research institutes and Colleges
- **With perfect quality management system**
  IATF16949, ISO9001&14000
- **Advanced production equipment and automated production lines**
  Purification workshop with annual production capacity of 1 million units, 2000m2 and 100,000 grade
- **Advanced and perfect testing equipment**
  600KW Electric Life Test System, Full Series of Environmental Test System
- **With many customer resources**
  Busbar DC relay has cooperated with many well-known customers at home and abroad due to its high cost-performance, long life, energy saving and high actual load capacity.

Field of application

High-voltage DC relay can be widely used in DC high-voltage fields such as electric vehicles, hybrid electric vehicles, fuel cell vehicles, photovoltaic/wind power generation systems, cloud server power supply, battery charging and discharging systems, AGV (unmanned transport vehicle), scenic tour buses, golf carts, medical equipment, construction equipment and construction machinery, ground heating systems, DC voltage power supply control and heavy machinery equipment.

New energy vehicle

Charging field

Photovoltaic Generation System

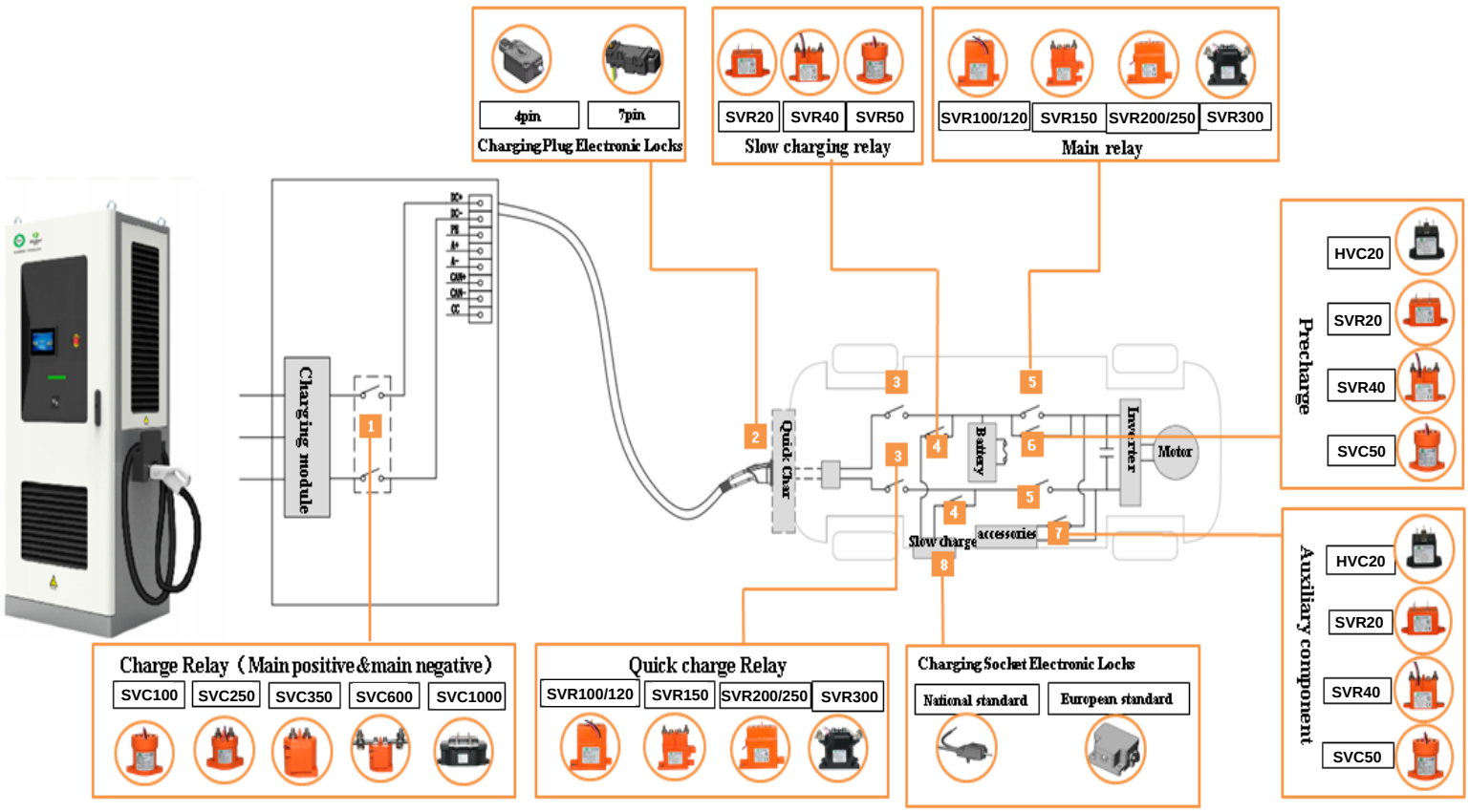
Wind power generation

Cloud server power supply

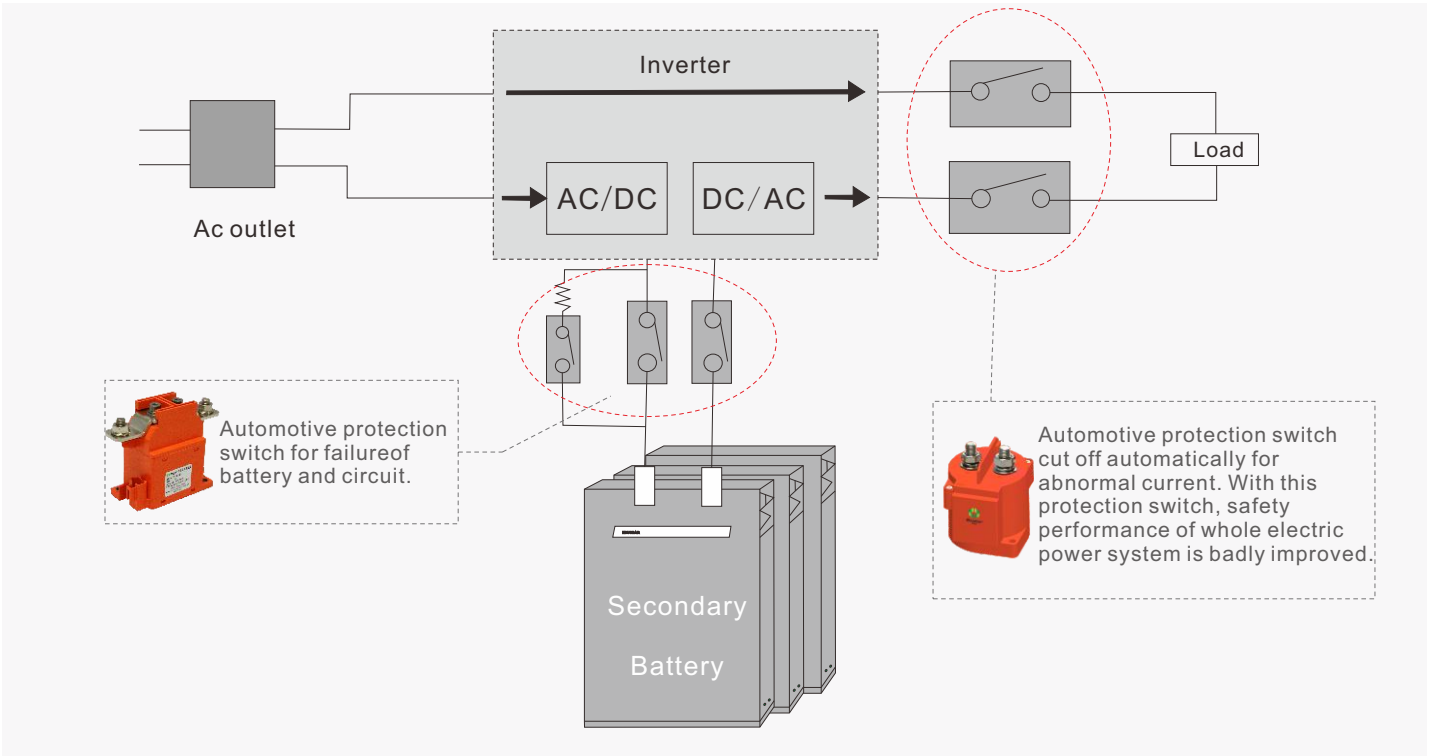
Heavy machinery field

DC HIGH VOLTAGE EV RELAY

Relay applications in the field of electric vehicles



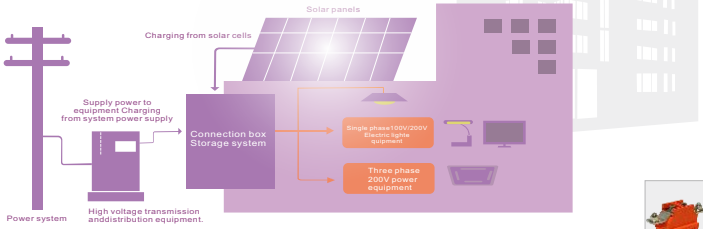
HV RELAY USED IN BATTERY ENERGY STORAGE SYSTEM

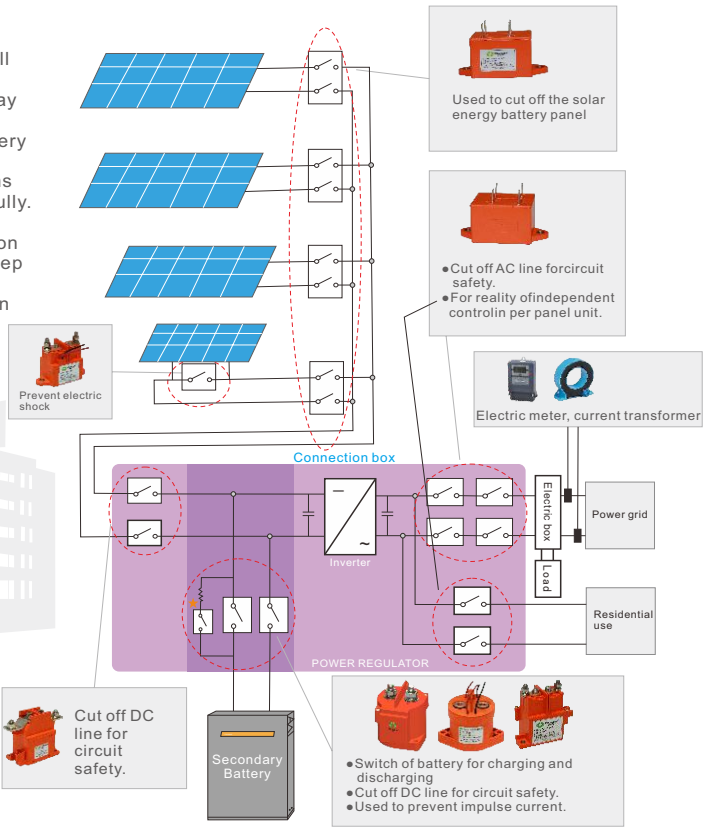


DC HIGH VOLTAGE EV RELAY

HV RELAY USED IN SOLAR POWER SYSTEM

- Solar power system is of high safety with automatic switch that will cut off DC line when happens to fire.
- For maintenance, remote control is available with this voltage relay and cost is reduced accordingly.
- Voltage relay as a automatic switch connecting to secondary battery will cut off circuit automatically when detected failure of current.
- Whole solar power system works in lower efficiency when happens to some failure of accessories and parts or panel is not exposed fully. Through changing lines connection(Connect to efficient circuit automatically) and cutting off certain batteries array(It depends on concrete situation), solar power system with voltage relay can keep working in high-efficiency.
- Panels will stop work in the case of fire with short circuit protection of voltage relay. Fire fighter can inspect and repair system safely (Avoid an electric shock).





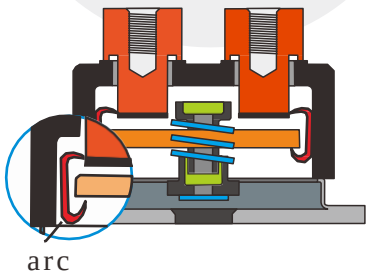
DC HIGH VOLTAGE EV RELAY

Characteristics of high-voltage relay

Although the relay is a small power relay, it can energize DC high voltage and high current. Compared with the traditional DC contactor commonly used in the DC high voltage field, it has the following characteristics:

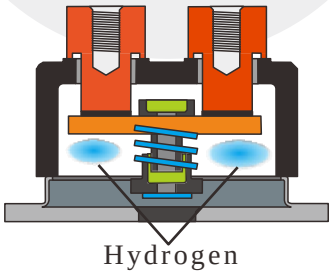
Ceramic seal is adopted, and the arc does not leak out

Safe



The contact cavity is filled with cooling gas to realize short-gap connection and disconnection of DC high voltage

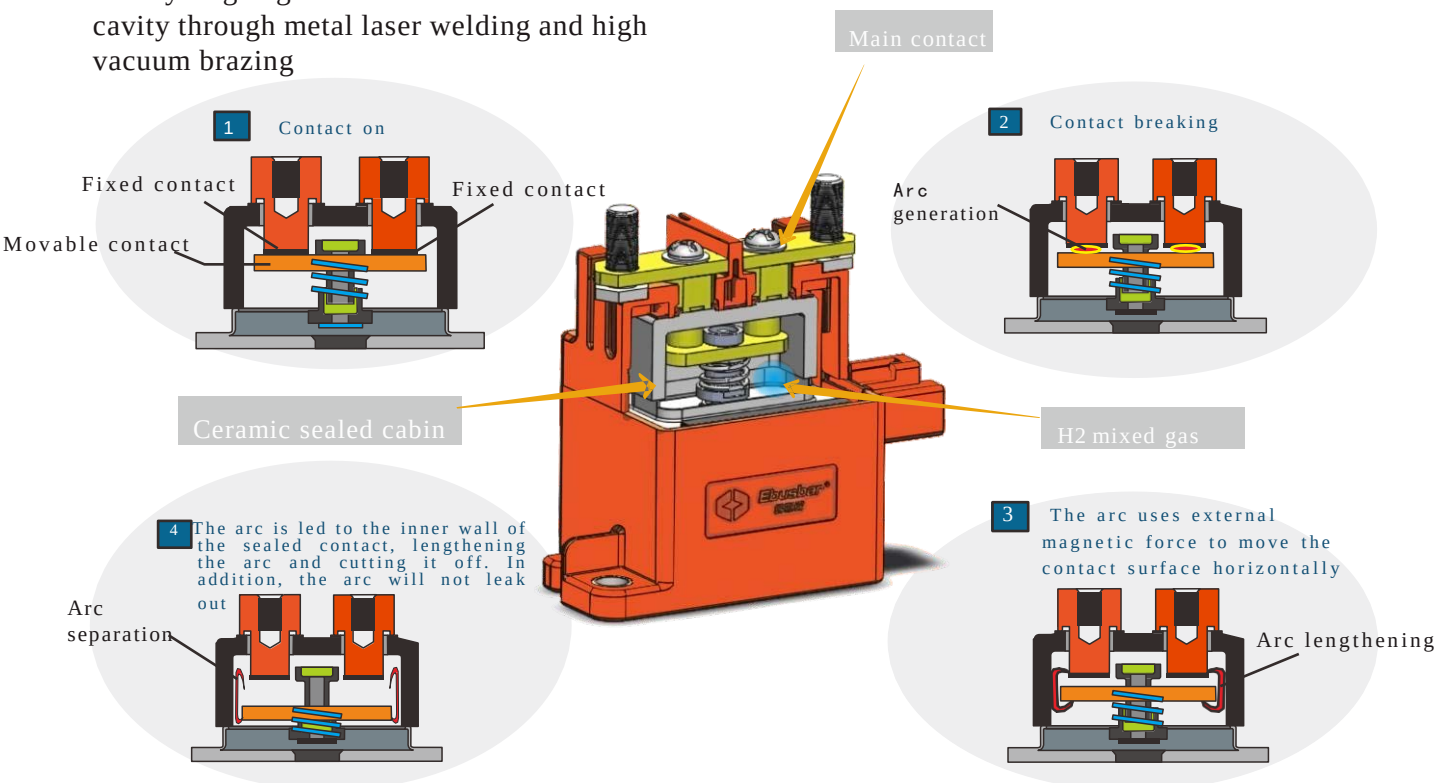
Small-sized



Action description, cut-off mechanism

High voltage relay application

The hydrogen gas mixture is sealed in the ceramic cavity through metal laser welding and high vacuum brazing



Certification

At present, Busbar high-voltage relay products have passed the certification of IATF, CQC, TUV, UL and other professional organizations, and have been widely used in the field of new energy products, and have been highly recognized by customers at home and abroad.

IATF16949 Certification

TÜV NORD

证 书

基于管理体系
IATF 16949:2016
(2016-10-01, 第一版)

已经取得合格应用的证明，证书开始

深圳巴斯巴汽车电子有限公司
坪山区龙田街道竹坑社区兰竹东路8号深圳同力兴实业有限公司1号厂房201
518118 广东省深圳市
中国

范围

继电器和充电座用电子锁的设计与制造

另有外部职能，请参考附件

IATF注册号 No. 0453632
证书登记号 No. 44 115 190142

首发日期 2022-07-12
有效日期 2025-07-11

TÜV NORD CERT GmbH

地点，2022-07-12

此认证是根据IATF（国际汽车工作组）"获得并保持IATF认可的裁判"而进行的。
有效性可通过https://www.tuev-nord.de/de/unternehmen/zertifizierung/zertifikatsdatenbank 验证。

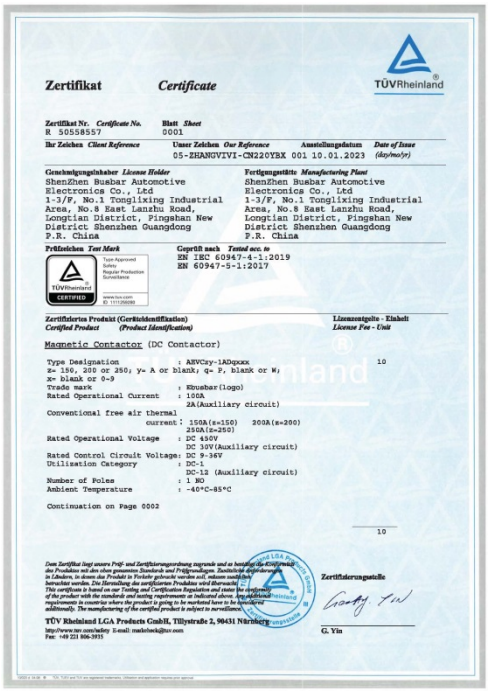
TÜV NORD CERT GmbH
Am TÜV 1
45307 Essen
www.tuev-nord-cert.de

02-IAO-QMC-01021

第一页

A13F201e rev. 01/03.19

CE Certification



Zertifikat Certificate

TÜVRheinland

Zertifikat Nr. Certificate No. R 50558557
Blatt Sheet 0001
Ihr Zeichen Client Reference
Unser Zeichen Our Reference 05-ZHANGYIVI-CN220YBX
Ausstellungsdatum Date of Issue 001 10.01.2023 (dd/mm/yy)

Genehmigungsinhaber License Holder
ShenZhen Busbar Automotive Electronics Co., Ltd
1-3/F, No.1 Tonglixing Industrial Area, No.8 East Lanzhu Road, Longtian District, Pingshan New District Shenzhen Guangdong P.R. China

Fertigungsstätte Manufacturing Plant
ShenZhen Busbar Automotive Electronics Co., Ltd
1-3/F, No.1 Tonglixing Industrial Area, No.8 East Lanzhu Road, Longtian District, Pingshan New District Shenzhen Guangdong P.R. China

Prüfzeichen Test Mark
Geprüft nach Tested acc. to
EN IEC 60947-4-1:2019
EN 60947-5-1:2017

Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product identification)
Lizenzentgelte - Einheit License Fee - Unit

Magnetic Contactor (DC Contactor)

Type Designation : AHVCxy-1ADqxxx
x= 150, 200 or 250; y= A or blank; q= P, blank or W; x= blank or 0~9
Trade mark : Kbusbar(logo)
Rated Operational Current : 100A
2A(Auxiliary circuit)
Conventional free air thermal current : 150A(z=150) 200A(z=200) 250A(z=250)
Rated Operational Voltage : DC 450V
DC 30V(Auxiliary circuit)
Rated Control Circuit Voltage: DC 9-36V
Utilisation Category : DC-1
DC-12 (Auxiliary circuit)
Number of Poles : 1 NO
Ambient Temperature : -40°C-85°C

Continuation on Page 0002

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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Zertifizierungsstelle

G. Yin

UL Certification

CERTIFICATE OF COMPLIANCE

Certificate Number: UL-CA-L492594-51-92907102-1
Report Reference: E492594-20170929
Date: 19-Oct-2022

Issued to: ShenZhen Busbar Automotive Electronics CO LTD
5 Fl No 1 Workship Tonlixing Industrial Park
No 8 Lanzhu East Rd Pingshan Big Industrial Zone
Pingshan New Distirct Shenzhen, Guangdong 518118China

This is to certify that representative samples of: NRNT8 - Switches, Industrial Control Certified for Canada - Component

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

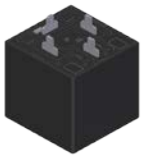
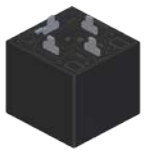
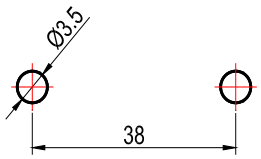
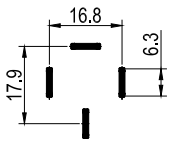
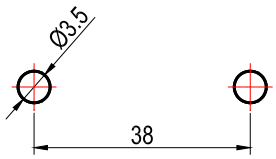
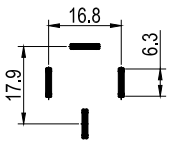
Standard(s) for Safety: CSA C22.2 NO. 60947-1-13, 2nd Ed., Issue Date: 2013-07-31, CSA C22.2 NO. 60947-4-1, 2nd Ed., Issue Date: 2014-04-04, Revised 2018-05

Additional Information: See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

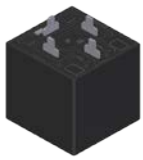
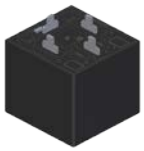
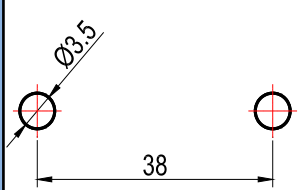
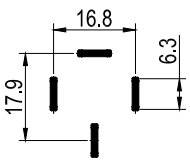
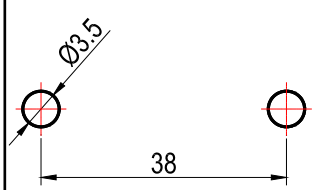
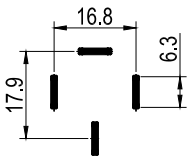
This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.
Look for the UL Recognized Component Mark on the product.

DC HIGH VOLTAGE EV RELAY

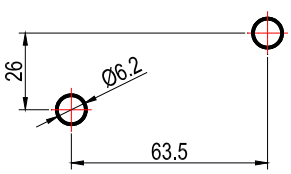
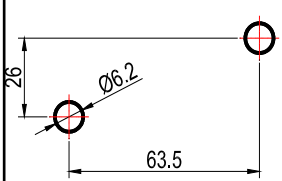
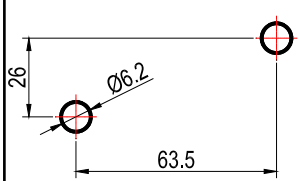
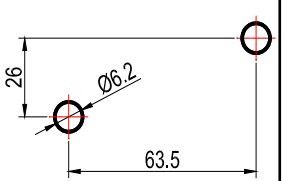
Series		HVC			
Type		HVC10	HVC10	HVC20	HVC20
Product appearance					
Current Rating		10A	10A	20A	20A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		10A 1000VDC	10A 1000VDC	20A 1000VDC	20A 1000VDC
Max.Cut Off		100A (300 VDC) 1 Ops	100A (300 VDC) 1 Ops	200A (300 VDC) 1 Ops	200A (300 VDC) 1 Ops
Short Term Current		15A 1h 20A 20min 40A 30s 60A 10s 100A 0.6s	15A 1h 20A 20min 40A 30s 60A 10s 100A 0.6s	30A 1h 40A 20min 80A 30s 120A 10s 200A 0.6s	30A 1h 40A 20min 80A 30s 120A 10s 200A 0.6s
Contact Arrangement		1A	1A	1A	1A
Auxiliary contact		/	/	/	/
Terminal type		QC	PCB	QC	PCB
Coil drive		Single coil	Single coil	Single coil	Single coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		3W	3W	3W	3W
Contact resistance		≤10mΩ (DC10A)	≤10mΩ (DC10A)	≤10mΩ (DC 30A)	≤10mΩ (DC 30A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	10,000 Ops	10,000 Ops	6,000 Ops	6,000 Ops
	750V / IΔ	3,000 Ops	3,000 Ops	1,000 Ops	1,000 Ops
	1000V / IΔ	1,000 Ops	1,000 Ops	1000V@10A 1,000 Ops	1000V@10A 1,000 Ops
Dielectric strength	Between Open Contacts	2000V AC 60 Sec. 1mA	2000V AC 60 Sec. 1mA	2000V AC 60 Sec. 1mA	2000V AC 60 Sec. 1mA
	Between Contact & Coil	3000V AC 60 Sec.1mA	3000V AC 60 Sec.1mA	3000V AC 60 Sec.1mA	3000V AC 60 Sec.1mA
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		44x30x41.1	30x29.2x35.7	44x30x41.1	30x29.2x35.7
Unit Weight		55g	52g	55g	52g
Mounting Dimensions					

DC HIGH VOLTAGE EV RELAY

Series		HVC			
Type		HVC30	HVC30	HVC40	HVC40
Product appearance					
Current Rating		30A	30A	40A	40A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		30A 1000VDC	30A 1000VDC	40A 1000VDC	40A 1000VDC
Max.Cut Off		300A (300 VDC) 1 Ops	300A (300 VDC) 1 Ops	400A (300 VDC) 1 Ops	400A (300 VDC) 1 Ops
Short Term Current		60A 1h 80A 20min 160A 30s 240A 10s 400A 0.6s	60A 1h 80A 20min 160A 30s 240A 10s 400A 0.6s	60A 1h 80A 20min 160A 30s 240A 10s 400A 0.6s	60A 1h 80A 20min 160A 30s 240A 10s 400A 0.6s
Contact Arrangement		1A	1A	1A	1A
Auxiliary contact		/	/	/	/
Terminal type		QC	PCB	QC	PCB
Coil drive		Single coil	Single coil	Single coil	Single coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		3W	3W	3W	3W
Contact resistance		≤10mΩ（DC 30A)	≤10mΩ（DC 30A)	≤10mΩ（DC 40A)	≤10mΩ（DC 40A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	10,000 Ops	10,000 Ops	10,000 Ops	10,000 Ops
	750V / IΔ	1,000 Ops	1,000 Ops	1,000 Ops	1,000 Ops
Dielectric strength	Between Open Contacts	2000V AC 60 Sec. 1mA	2000V AC 60 Sec. 1mA	2000V AC 60 Sec. 1mA	2000V AC 60 Sec. 1mA
	Between Contact & Coil	3000V AC 60 Sec.1mA	3000V AC 60 Sec.1mA	3000V AC 60 Sec.1mA	3000V AC 60 Sec.1mA
Vibration Resistance		49 m⁄s²{5G}10 to 500Hz(10μS)	49 m⁄s²{5G}10 to 500Hz(10μS)	49 m⁄s²{5G}10 to 500Hz(10μS)	49 m⁄s²{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		44x30x41.1	29.2x30x35.7	44x30x41.1	29.2x30x35.7
Unit Weight		55g	52g	55g	52g
Mounting Dimensions					

FOCUS ON 专注于新能源汽车 NEW ENERGY AUTOMOBILE

DC HIGH VOLTAGE EV RELAY
高压直流继电器

Series		SLV			
Type		SLV100	SLV150	SLV200	SLV250
Product appearance					
Current Rating		100A	150A	200A	250A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		100A 200VDC	150A 200VDC	200A 200VDC	250A 200VDC
Max.Cut Off		1000A (200 VDC) 1 Ops	1500A (200 VDC) 1 Ops	2000A (200 VDC) 1 Ops	2000A (200 VDC) 1 Ops
Short Term Current		200A 20min 400A 30s 1000A 0.6s	200A 20min 400A 30s 1000A 0.6s	300A 5min 400A 30s 800A 100s 1000A 1s	300A 5min 400A 30s 800A 100s 1000A 1s
Contact Arrangement		1A	1A	1A	1A
Auxiliary contact		/	/	/	/
Coil drive		Single coil	Single coil	Single coil	Single coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		4.5W	4.5W	4.5W	4.5W
Contact resistance		≤3 mΩ (DC 100A)	≤3 mΩ (DC 150A)	≤2 mΩ (DC 200A)	≤2 mΩ (DC 250A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	48V / IΔ	30,000 Ops	15,000 Ops	15,000 Ops	10,000 Ops
	72V / IΔ	25,000 Ops	10,000 Ops	10,000 Ops	8,000 Ops
	200V / IΔ	10,000 Ops	5,000 Ops	5,000 Ops	3,000 Ops
	450V / IΔ	1,000 Ops	800 Ops	400 Ops	300 Ops
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA	2500V AC 60 Sec. 1mA	2500V AC 60 Sec. 1mA	2500V AC 60 Sec. 1mA
	Between Contact & Coil	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		75.8x41x68	75.8x41x68	75.8x41x68	75.8x41x68
Unit Weight		300g	300g	300g	300g
Mounting Dimensions					

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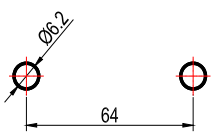
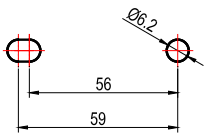
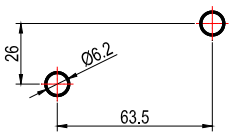
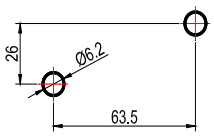
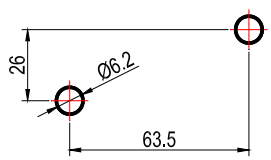
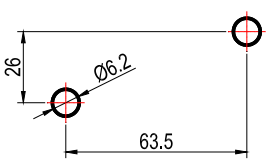
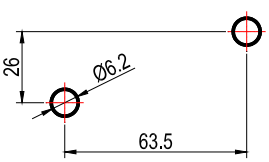
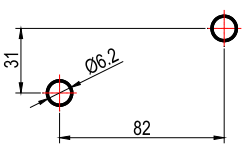
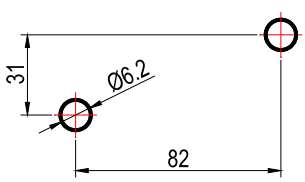
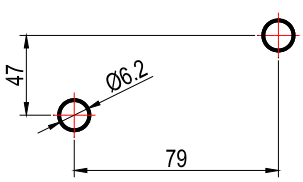
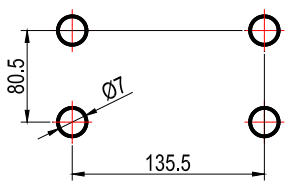
DC HIGH VOLTAGE EV RELAY

Series		SVR			
Type		SVR20	SVR40	SVR100	
Product appearance					
Current Rating		20A	40A	100A	100A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	
Rated switching capacity		20A 1000VDC	40A 1000VDC	100A 1000VDC	
Max.Cut Off		200A 300VDC(1 Ops)	400A 300VDC(1 Ops)	1000A 300VDC(1 Ops)	
Short Term Current		30A 1h 40A 20min 80A 30s 120A 10s 200A 0.6s	60A 1h 80A 20min 160A 30s 320A 2s 400A 0.6s	120A 2h 200A 10min 400A 2min 600A 30s 1000A 0.6s	
Contact Arrangement		1A	1A	1A	
Auxiliary contact		/	/	/	
Coil drive		Single coil	Single coil	Single coil	Single coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	
Coil power consumption		3.6W	3W	4.5W	
Contact resistance		≤10mΩ（DC 20A)	≤10mΩ（DC 40A)	≤1.5mΩ（DC 100A)	
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops	
Electrical Life	450V / IΔ	10,000 Ops	6,000 Ops	6,000 Ops	
	750V / IΔ	1,000 Ops	1,000 Ops	1,000 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	
	Between Contact & Coil	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	
Vibration Resistance		49 m/s^2 {5G} 10 to 500Hz(10μS)	49 m/s^2 {5G} 10 to 500Hz(10μS)	49 m/s^2 {5G} 10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		78x39.2x46	72x32.6x57.7	79.8x40.4x76.2	75.8x41x71.2
Unit Weight		160g	180g	350g	350g
Mounting Dimensions					

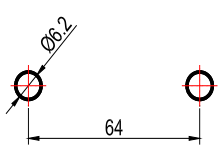
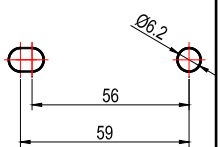
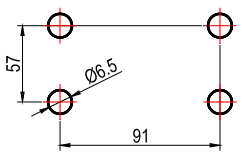
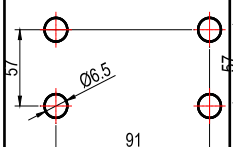
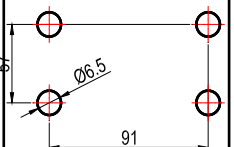
DC HIGH VOLTAGE EV RELAY

Series		SVR			
Type		SVR120	SVR150	SVR200	
Product appearance					
Current Rating		120A	150A	200A	200A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		120A 1000VDC	150A 1000VDC	200A 1000VDC	200A 1000VDC
Max.Cut Off		1200A 300VDC(1 Ops)	1500A 300VDC(1 Ops)	2000A 300VDC(1 Ops)	2000A 300VDC(1 Ops)
Short Term Current		150A 2h 200A 10min 300A 2min 400A 40s 900A 6s	180A 2h 225A 15min 320A 2min 400A 60s 600A 20s 900A 8s	250A 15min 320A 5min 600A 30s 900A 10s	300A 60min 400A 20min 800A 30s 2000A 0.6s
Contact Arrangement		1A	1A	1A	1A
Auxiliary contact		/	/	/	/
Coil drive		Single coil	Single coil	Single coil	Double coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		4.5W	6W	6W	34W （0.12s） keep 4W
Contact resistance		≤1.5mΩ（DC 120A)	≤1.5mΩ（DC 150A)	≤0.5mΩ (DC 200A)	≤0.5mΩ（DC 200A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	6,000 Ops	6,000 Ops	3,000 Ops	6,000 Ops
	750V / IΔ	1,000 Ops	1,000 Ops	500 Ops	1,000 Ops
Dielectric strength	Between Open Contacts	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
	Between Contact & Coil	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		79.8x40.4x76.2	81.7x41.1x84.3	81.7x41.1x84.3	96x45x82
Unit Weight		350g	400g	400g	450g
Mounting Dimensions					

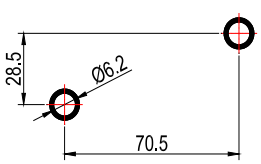
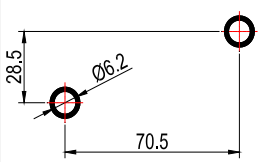
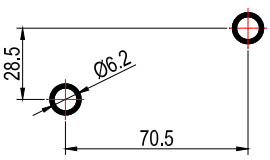
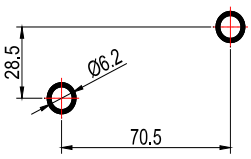
DC HIGH VOLTAGE EV RELAY

Series		SVR		
Type		SVR250	SVR300	SVR1000
Product appearance				
Current Rating		250A	300A	1000A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		250A 1000VDC	300A 1000VDC	1000A 1000VDC
Max.Cut Off		2000A 300VDC(1 Ops)	2000A 300VDC(1 Ops)	2000A 1000VDC(1 Ops)
Short Term Current		375A 60min 500A 20min 1000A 30s 2500A 0.6s	450A 60min 600A 20min 1200A 30s 3000A 0.6s	1500A 140s 2000A 82s 3000A 30s 4000A 18s 10000A 5ms 12000A 2ms
Contact Arrangement		1A	1A	1A
Auxiliary contact		/	/	/
Coil drive		Double coil	Double coil	Double coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		34W （0.12s） keep 4W	34W （0.12s） keep 4W	50W(0.2s) keep 10W
Contact resistance		≤0.5mΩ（DC 250A)	≤0.5mΩ（DC 300A)	≤0.2mΩ（DC 1000A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	6,000 Ops	6,000 Ops	1000V@1000A 50 Ops
	750V / IΔ	1,000 Ops	1,000 Ops	1000V@60A 20,000 Ops
Dielectric strength	Between Open Contacts	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	5000V AC 60 Sec.1mA
	Between Contact & Coil	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	5000V AC 60 Sec.1mA
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport a nd Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		96x45x82	114x59x84	165.6x104.6x132.8
Unit Weight		450g	530g	3450g
Mounting Dimensions				

DC HIGH VOLTAGE EV RELAY

Series		SVRP				
Type		SVR20P	SVR40P	SVR150P	SVR250P	SVR350P
Product appearance						
Current Rating		20A	40A	150A	250A	350A
Min.Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		20A 1000VDC	40A 1500VDC	150A 1500VDC	250A 1500VDC	300A 1500VDC
Max.Cut Off		200A 1000VDC(1 Ops)	400A 1000VDC(1 Ops)	1000A 1500VDC(1 Ops)	1000A 1500VDC(1 Ops)	1000A 1500VDC(1 Ops)
Short Term Current		30A 1h 40A 20min 80A 30s 120A 10s 200A 0.6s	60A 1h 80A 20min 160A 30s 320A 2s 400A 0.6s	200A 10min 300A 60s 1500A 1s	320A 10min 500A 1min 2000A 1s	400A 10min 600A 90s 2000A 1s
Contact Arrangement		1A	1A	1A	1A	1A
Auxiliary contact		/	/	Optional	Optional	Optional
Coil drive		Single coil	Single coil	Double coil	Double coil	Double coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		3.6W	3.6W	50W （0.2s） keep 5W	50W （0.2s） keep 5W	50W （0.2s） keep 5W
Contact resistance		≤10mΩ (DC 20A)	≤10mΩ (DC 40A)	≤0.3mΩ（DC 150A)	≤0.3mΩ（DC 250A)	≤0.3mΩ（DC 350A)
Mechanical Life		2x10^5 Ops	2x10^5 Ops	2x10^5 Ops	2x10^5 Ops	2x10^5 Ops
Electrical Life	1500V/100A	2,000 Ops(450 VDC 20 A)	Toggle：6,000 Ops (1500 VDC 15 A)	2,000 Ops	3,000 Ops	5,000 Ops
	1500V/150A	1,000 Ops(1000 VDC 15 A)	Switch on：10,000 Ops (1500 VDC 40 A)	1,000 Ops	2,000 Ops	3,000 Ops
	1500V/250A	/	/	/	1000V@250A 1,000 Ops	1000V@350A 1,000 Ops
Dielectric strength	Between Open Contacts	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA
	Between Contact & Coil	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA	4000V AC 60 Sec.1mA
Vibration Resistance		49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		78x39.2x46.1	72x32.6x57.7	104x70x107.9	104x70x1079	104x70x107.9
Unit Weight		160g	180g	1050g	1050g	1050g
Mounting Dimensions						

DC HIGH VOLTAGE EV RELAY

Series		ESVR			
Type		ESVR150	ESVR200	ESVR250	ESVR300
Product appearance					
Current Rating		150A	200A	250A	300A
Min. Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		150A 1000VDC	200A 1000VDC	250A 1000VDC	300A 1000VDC
Max.Cut Off		1500A 300VDC(1 Ops)	2000A 300VDC(1 Ops)	2500A 300VDC(1 Ops)	2000A 300VDC(1 Ops)
Short Term Current		180A 2h 225A 15min 320A 2min 400A 60s 600A 20s 900A 8s	250A 15min 320A 5min 600A 30s 900A 10s	350A 8min 500A 2min 900A 25s 1000A 20s	450A 5min 600A 2min 900A 30s 1200A 15s
Contact Arrangement		1A	1A	1A	1A
Auxiliary contact		/	/	/	/
Coil drive		Single coil	Single coil	Single coil	Single coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		6W	6W	6W	6W
Contact resistance		≤0.5mΩ（DC 150A)	≤0.5mΩ（DC 200A)	≤0.5mΩ（DC 250A)	≤0.5mΩ（DC 250A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	3,000 Ops	1,500 Ops	1,000 Ops	1,000 Ops
	750V / IΔ	1,000 Ops	800 Ops	500 Ops	500 Ops
Dielectric strength	Between Open Contacts	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
	Between Contact & Coil	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
Vibration Resistance		49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)	49 m⁄s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		84.5x43.3x67.5	84.5x43.3x67.5	84.5x43.3x67.5	84.5x43.3x67.5
Unit Weight		380g	380g	380g	380g
Mounting Dimensions					

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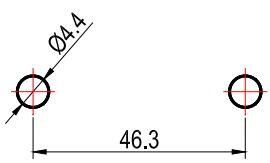
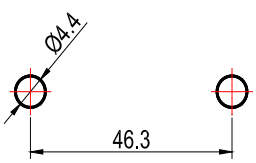
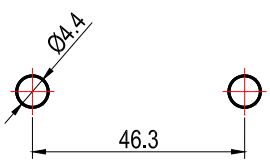
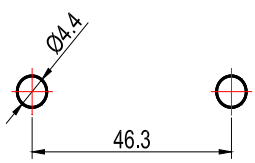
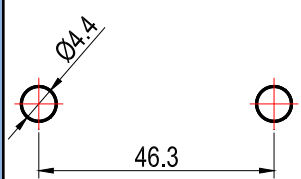
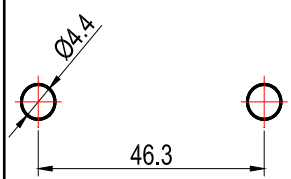
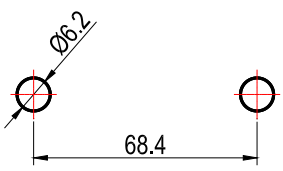
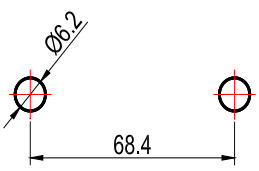
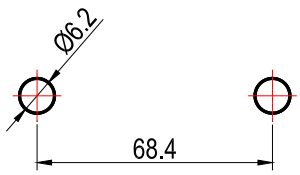
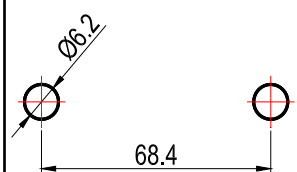
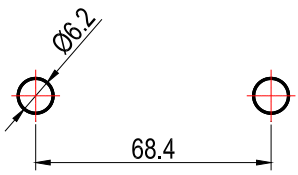
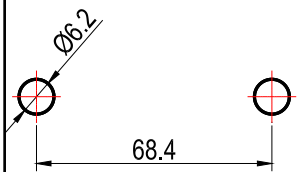
DC HIGH VOLTAGE EV RELAY

Series		SVC			
Type		SVC50		SVC100	
Product appearance					
Current Rating		50A	50A	100A	100A
Min. Switching Capacity		1A 12V DC		1A 12V DC	
Rated switching capacity		50A 1000VDC		100A 1000VDC	
Max.Cut Off		500A 300VDC(1 Ops)		1000A 300VDC(1 Ops)	
Short Term Current		80A 600s 120A 60s 500A 1s		200A 90s 300A 30s 1000A 0.6s	
Contact Arrangement		1A		1A	
Auxiliary contact		Optional		Optional	
Coil drive		Single coil	PWM Type	Single coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC	12VDC/24VDC	9-36V DC
Coil power consumption		5.5W/6W	18W (0.12s） keep 1.7W	5.5W/6W	18W (0.12s） keep 1.7W
Contact resistance		≤1.5mΩ（DC 50A)		≤1.5mΩ（DC 100A)	
Mechanical Life		$2x10^5$ Ops		$2x10^5$ Ops	
Electrical Life	450V / IΔ	6000 Ops		6000 Ops	
	750V / IΔ	1200 Ops		1000 Ops	
	1000V / IΔ	1000 Ops		1000V@50A 1000 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)		49 m/s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		55x39.5x58.5	55x41x57.8	55x39.5x58.5	55x41x57.8
Unit Weight		180g	180g	180g	180g
Mounting Dimensions					

DC HIGH VOLTAGE EV RELAY

Series		SVC			
Type		SVC135		SVC150	
Product appearance					
Current Rating		135A	135A	150A	150A
Min. Switching Capacity		1A 12V DC		1A 12V DC	
Rated switching capacity		135A 1000VDC		150A 1000VDC	
Max.Cut Off		1350A 300VDC(1 Ops)		1500A 300VDC(1 Ops)	
Short Term Current		200A 90s 300A 30s 1000A 0.6s		200A 10min 300A 1min 1000A 1s	
Contact Arrangement		1A		1A	
Auxiliary contact		Optional		Optional	
Coil drive		Single coil	PWM Type	Single coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC	12VDC/24VDC	9-36V DC
Coil power consumption		5.5W/6W	18W (0.12s） keep 1.7W	8W	43.2W (0.12s） keep1.7W
Contact resistance		≤1.5mΩ（DC 135A)		≤0.4mΩ（DC 150A)	
Mechanical Life		$2x10^5$ Ops		$2x10^5$ Ops	
Electrical Life	450V / IΔ	3,000 Ops		6,000 Ops	
	750V / IΔ	1,000 Ops		1,200 Ops	
	1000V / IΔ	1000V@50A 1,000 Ops		1,000 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m⁄s^2{5G}10 to 500Hz(10μS)		49 m⁄s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		55x39.5x58.5	55x41x57.8	80.4x56x73	80.4x60.8x73
Unit Weight		185g	185g	380g	380g
Mounting Dimensions					

DC HIGH VOLTAGE EV RELAY

Series		SVC			
Type		SVC200		SVC250	
Product appearance					
Current Rating		200A	200A	250A	250A
Min. Switching Capacity		1A 12V DC		1A 12V DC	
Rated switching capacity		200A 1000VDC		250A 1000VDC	
Max.Cut Off		2000A 300VDC(1 Ops)		2500A 300VDC(1 Ops)	
Short Term Current		300A 15min 400A 240s 800A 30s 2000A 0.6s		320A 10min 500A 1min 2000A 1s	
Contact Arrangement		1A		1A	
Auxiliary contact		Optional		Optional	
Coil drive		Single coil	PWM Type	Single coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC	12VDC/24VDC	9-36V DC
Coil power consumption		8W	43.2W (0.12s） keep 1.7W	8W	43.2W (0.12s） keep 1.7W
Contact resistance		≤0.4mΩ（DC 200A)		≤0.4mΩ（DC 250A)	
Mechanical Life		$2x10^5$ Ops		$2x10^5$ Ops	
Electrical Life	450V / IΔ	6,000 Ops		6,000 Ops	
	750V / IΔ	1,000 Ops		1,000 Ops	
	1000V / IΔ	500 Ops		300 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)		49 m/s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		80.4x56x73	80.4x60.8x73	80.4x56x73	80.4x60.8x73
Unit Weight		380g	380g	380g	380g
Mounting Dimensions					

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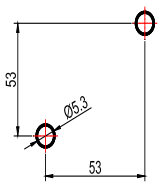
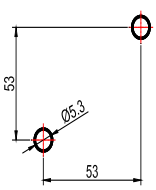
DC HIGH VOLTAGE EV RELAY

Series		SVC			
Type		SVC300		SVC350	
Product appearance					
Current Rating		300A	300A	350A	350A
Min. Switching Capacity		1A 12V DC		1A 12V DC	
Rated switching capacity		300A 1000VDC		350A 1000VDC	
Max.Cut Off		2000A 300VDC(1 Ops)		2000A 300VDC(1 Ops)	
Short Term Current		450A 60min 600A 20min 1200A 30s 3000A 0.6s		450A 60min 600A 20min 1200A 30s 3000A 0.6s	
Contact Arrangement		1A		1A	
Auxiliary contact		Optional		Optional	
Coil drive		Double coil	PWM Type	Double coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC	12VDC/24VDC	9-36V DC
Coil power consumption		30.6W (0.12s） keep 4W	45.6W (0.12s） keep 3W	30.6W (0.12s） keep 4W	45.6W (0.12s） keep 3W
Contact resistance		≤0.4mΩ（DC 300A)		≤0.4mΩ（DC 350A)	
Mechanical Life		2x10^5 Ops		2x10^5 Ops	
Electrical Life	450V / IΔ	3,000 Ops		3,000 Ops	
	750V / IΔ	1,000 Ops		1,000 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m⁄s^2{5G}10 to 500Hz(10μS)		49 m⁄s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		70.7x62.5x77.6		70.7x62.5x77.6	
Unit Weight		550g		550g	
Mounting Dimensions					

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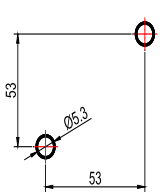
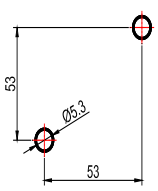
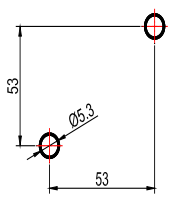
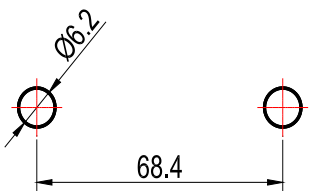
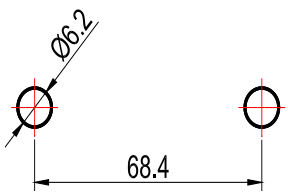
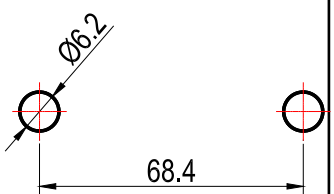
DC HIGH VOLTAGE EV RELAY

Series		SVC			
Type		SVC400		SVC500	
Product appearance					
Current Rating		400A	400A	500A	500A
Min. Switching Capacity		1A 12V DC		1A 12V DC	
Rated switching capacity		400A 1000VDC		500A 1000VDC	
Max.Cut Off		2000A 300VDC(1 Ops)		2000A 300VDC(1 Ops)	
Short Term Current		450A 60min 600A 20min 1200A 30s 3000A 0.6s		600A 60min 800A 20min 1200A 30s 3000A 0.6s	
Contact Arrangement		1A		1A	
Auxiliary contact		Optional		Optional	
Coil drive		Double coil	PWM Type	Double coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC	12VDC/24VDC	9-36V DC
Coil power consumption		30.6W (0.12s） keep 4W	45.6W (0.12s） keep 3W	30.6W (0.12s） keep 4W	45.6W (0.12s） keep 3W
Contact resistance		≤0.4mΩ（DC 400A)		≤0.4mΩ（DC 500A)	
Mechanical Life		$2x10^5$ Ops		$2x10^5$ Ops	
Electrical Life	450V / IΔ	3,000 Ops		450V@400A 3,000 Ops	
	750V / IΔ	500 Ops		450V@400A 500 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)		49 m/s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		70.7x62.5x77.6		70.7x62.5x77.6	
Unit Weight		550g		550g	
Mounting Dimensions					

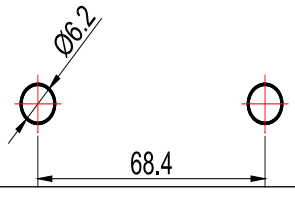
DC HIGH VOLTAGE EV RELAY

Series		**SVC**	
Type		SVC600	
Product appearance			
Current Rating		600A	
Min. Switching Capacity		1A 12V DC	
Rated switching capacity		600A 1000VDC	
Max.Cut Off		2000A 300VDC(1 Ops)	
Short Term Current		800A 20min 1000A 5min 3000A 4s 8000A 0.6s	
Contact Arrangement		1A	
Auxiliary contact		Optional	
Coil drive		Double coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC
Coil power consumption		30.6W (0.12s） keep 4W	45.6W (0.12s) keep 3W
Contact resistance		≤0.4mΩ（DC 600A)	
Mechanical Life		$2x10^5$ Ops	
Electrical Life	450V / 400A	3,000 Ops	
	750V / 400A	500 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m/s^2 {5G} 10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		140.6x71.1x75	
Unit Weight		900g	
Mounting Dimensions			

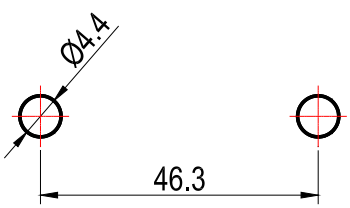
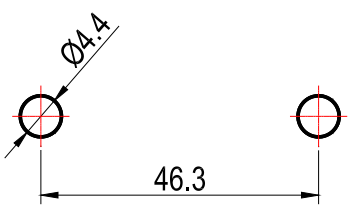
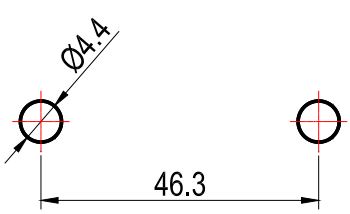
DC HIGH VOLTAGE EV RELAY

Series		ASVC		
Type		ASVC150	ASVC200	ASVC250
Product appearance				
Current Rating		150A	200A	250A
Min. Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		150A 1000VDC	200A 1000VDC	250A 1000VDC
Max.Cut Off		1500A 300VDC(1 Ops)	2000A 300VDC(1 Ops)	2000A 300VDC(1 Ops)
Short Term Current		320A 10min 500A 60s 2000A 1s 5000A 10ms	320A 10min 500A 60s 2000A 1s 5000A 10ms	320A 10min 500A 60s 2000A 1s 5000A 10ms
Contact Arrangement		1A	1A	1A
Auxiliary contact		Optional	Optional	Optional
Coil drive		PWM Type	PWM Type	PWM Type
Coil Rating voltage		9-36V DC	9-36V DC	9-36V DC
Coil power consumption		43.2W (0.12s） keep 1.7W	43.2W (0.12s） keep 1.7W	43.2W (0.12s） keep 1.7W
Contact resistance		≤0.4mΩ（DC 150A)	≤0.4mΩ（DC 200A)	≤0.4mΩ（DC 250A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	6,000 Ops	6,000 Ops	6,000 Ops
	800V / IΔ	/	/	1,000 Ops
	1000V / IΔ	1,000 Ops	1,000 Ops	500 Ops
Dielectric strength	Between Open Contacts	3500V AC 60 Sec. 1mA	3500V AC 60 Sec. 1mA	3500V AC 60 Sec. 1mA
	Between Contact & Coil	3500V AC 60 Sec. 1mA	3500V AC 60 Sec. 1mA	3500V AC 60 Sec. 1mA
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		80.4x56x73	80.4x56x73	80.4x56x73
Unit Weight		380g	380g	380g
Mounting Dimensions				

DC HIGH VOLTAGE EV RELAY

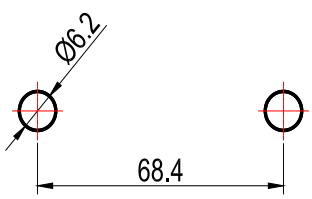
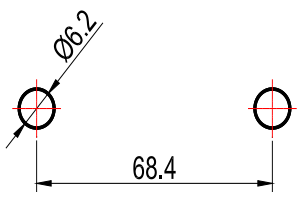
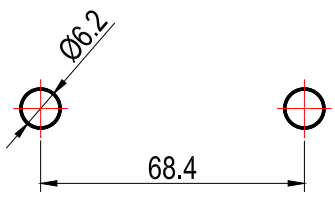
Series		ASVC
Type		ASVC300
Product appearance		
Current Rating		300A
Min. Switching Capacity		1A 12V DC
Rated switching capacity		300A 1000VDC
Max.Cut Off		2000A 300VDC(1 Ops)
Short Term Current		450A 10m in 600A 60s 2000A 1s
Contact Arrangement		1A
Auxiliary contact		Optional
Coil drive		PWM Type
Coil Rating voltage		9-36V DC
Coil power consumption		43.2W(0.12s) keep1.7W
Contact resistance		≤0.4mΩ (DC 150A)
Mechanical Life		$2x10^5$ Ops
Electrical Life	450V / IΔ	3,000 Ops
	750V / IΔ	1,000 Ops
	1000V / 250A	500 Ops
Dielectric strength	Between Open Contacts	3500V AC 60 Sec.1mA
	Between Contact & Coil	3500V AC 60 Sec.1mA
Vibration Resistance		49 m⁄s²{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		80.4x56x73
Unit Weight		380g
Mounting Dimensions		

DC HIGH VOLTAGE EV RELAY

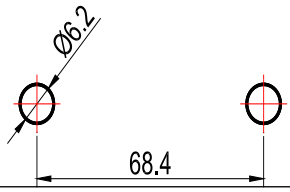
Series		ASVC nonpolarity		
Type		ASVC050	ASVC100	ASVC135
Product appearance				
Current Rating		50A	100A	135A
Min. Switching Capacity		1A 12V DC	1A 12V DC	1A 12V DC
Rated switching capacity		50A 1000VDC	100A 1000VDC	135A 1000VDC
Max.Cut Off		500A 300VDC(1 Ops)	1000A 300VDC(1 Ops)	1000A 300VDC(1 Ops)
Short Term Current		80A 10min 120A 60s 500A 1s	200A 90s 300A 30s 1000A 0.6s	200A 90s 300A 30s 1000A 0.6s
Contact Arrangement		1A	1A	1A
Auxiliary contact		Optional	Optional	Optional
Coil drive		Single coil	Single coil	Single coil
Coil Rating voltage		12VDC/24VDC	12VDC/24VDC	12VDC/24VDC
Coil power consumption		12VDC：5.5W 24VDC：6W	12VDC：5.5W 24VDC：6W	12VDC：5.5W 24VDC：6W
Contact resistance		≤0.5mΩ (DC 50A)	≤0.5mΩ (DC 100A)	≤0.5mΩ (DC 135A)
Mechanical Life		$2x10^5$ Ops	$2x10^5$ Ops	$2x10^5$ Ops
Electrical Life	450V / IΔ	6,000 Ops	6,000 Ops	3,000 Ops
	750V / IΔ	1,200 Ops	1,000 Ops	1,000 Ops
	1000V / 50A	1,000 Ops	1,000 Ops	1,000 Ops
Dielectric strength	Between Open Contacts	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
	Between Contact & Coil	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA	2500V AC 60 Sec.1mA
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)	49 m/s^2{5G}10 to 500Hz(10μS)
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C	5% to 85% R.H. -40°C to+85°C
Outline Dimensions L.W.H(mm)		55x39.5x57.8	55x39.5x57.8	55x39.5x57.8
Unit Weight		180g	180g	180g
Mounting Dimensions				

FOCUS ON NEW ENERGY AUTOMOBILE 专注于新能源汽车

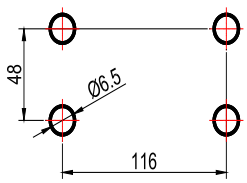
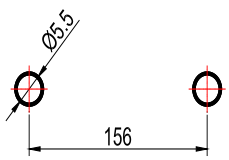
DC HIGH VOLTAGE EV RELAY
高压直流继电器

Series		ASVC nonpolarity					
Type		ASVC150		ASVC200		ASVC250	
Product appearance							
Current Rating		150A		200A		250A	
Min. Switching Capacity		1A 12V DC		1A 12V DC		1A 12V DC	
Rated switching capacity		150A 1000VDC		200A 1000VDC		250A 1000VDC	
Max.Cut Off		1500A 300VDC(1 Ops)		2000A 300VDC(1 Ops)		2000A 300VDC(1 Ops)	
Short Term Current		200A 10min 300A 60s 1000A 1s		300A 10min 400A 60s 2000A 0.6s		320A 10min 500A 60s 2000A 1s	
Contact Arrangement		1A		1A		1A	
Auxiliary contact		Optional		Optional		Optional	
Coil drive		Single coil	PWM Type	Single coil	PWM Type	Single coil	PWM Type
Coil Rating voltage		12/24V DC	9-36V DC	12/24V DC	9-36V DC	12/24V DC	9-36V DC
Coil power consumption		8W	43.2W(0.12s) keep 1.7W	8W	43.2W(0.12s) keep 1.7W	8W	43.2W(0.12s) keep 1.7W
Contact resistance		≤0.4mΩ（DC 150A)		≤0.4mΩ（DC 200A)		≤0.4mΩ（DC 250A)	
Mechanical Life		$2x10^5$ Ops		$2x10^5$ Ops		$2x10^5$ Ops	
Electrical Life	450V / IΔ	6,000 Ops		6,000 Ops		6,000 Ops	
	800V / IΔ	/		/		1,000 Ops	
	1000V / IΔ	1,000 Ops		1,000 Ops		500 Ops	
Dielectric strength	Between Open Contacts	3500V AC 60 Sec. 1mA		3500V AC 60 Sec. 1mA		3500V AC 60 Sec. 1mA	
	Between Contact & Coil	3500V AC 60 Sec. 1mA		3500V AC 60 Sec. 1mA		3500V AC 60 Sec. 1mA	
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)		49 m/s^2{5G}10 to 500Hz(10μS)		49 m/s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C		5% to 95% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		80.4x60.8x73		80.4x60.8x73		80.4x60.8x73	
Unit Weight		380g		380g		380g	
Mounting Dimensions							

DC HIGH VOLTAGE EV RELAY

Series		ASVC nonpolarity	
Type		ASVC300	
Product appearance			
Current Rating		300A	
Min. Switching Capacity		1A 12V DC	
Rated switching capacity		300A 1000VDC	
Max.Cut Off		2000A 300VDC(1 Ops)	
Short Term Current		450A 10min 600A 60s 2000A 1s	
Contact Arrangement		1A	
Auxiliary contact		Optional	
Coil drive		Single coil	PWM Type
Coil Rating voltage		12/24V DC	9-36V DC
Coil power consumption		8W	43.2W(0.12s) keep 1.7W
Contact resistance		≤0.4mΩ (DC 150A)	
Mechanical Life		$2x10^5$ Ops	
Electrical Life	450V / IΔ	3,000 Ops	
	750V / IΔ	1,000 Ops	
	1000V / 250A	500 Ops	
Dielectric strength	Between Open Contacts	3500V AC 60 Sec.1mA	
	Between Contact & Coil	3500V AC 60 Sec.1mA	
Vibration Resistance		49 m⁄s²{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		80.4x60.8x73	
Unit Weight		380g	
Mounting Dimensions			

DC HIGH VOLTAGE EV RELAY

Series		SVC Double combination			
Type		SVC600		SVC1000	
Product appearance					
Current Rating		600A		1000A	
Min. Switching Capacity		1A 12V DC		1A 12V DC	
Rated switching capacity		600A 1000VDC		1000A 1000VDC	
Max.Cut Off		2000A 300VDC(1 Ops）		2000A 300VDC(1 Ops）	
Short Term Current		700A 60min 1000A 30min 3000A 1s 8000A 2ms		3000A 90s 5000A 10s 6000A 1s	
Contact Arrangement		1A		1A	
Auxiliary contact		Optional		Optional	
Coil drive		Single coil	PWM Type	Double coil	PWM Type
Coil Rating voltage		12VDC/24VDC	9-36V DC	12VDC/24VDC	9-36V DC
Coil power consumption		16W	84.6W (0.12s） keep 3.4W	52.8W (0.12s） keep 8W	91.2W (0.12s） keep 6W
Contact resistance		≤0.4mΩ（DC 600A)		≤0.4mΩ（DC 1000A)	
Mechanical Life		2x10^5 Ops		2x10^5 Ops	
Electrical Life	450V	450V@350A 3,000 Ops;450V@600A 100 OPS		450V@400A 3,000 Ops	
	750V	750V@350A 1,000 Ops		750V@400A 1,000 Ops	
Dielectric strength	Between Open Contacts	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
	Between Contact & Coil	2500V AC 60 Sec. 1mA		2500V AC 60 Sec. 1mA	
Vibration Resistance		49 m/s^2{5G}10 to 500Hz(10μS)		49 m/s^2{5G}10 to 500Hz(10μS)	
Conditions for Operation, Transport and Storage		5% to 85% R.H. -40°C to+85°C		5% to 85% R.H. -40°C to+85°C	
Outline Dimensions L.W.H(mm)		138.2x128x64.5		170x138x85	
Unit Weight		900g		1100g	
Mounting Dimensions					

DC HIGH VOLTAGE EV RELAY

The DC relay uses hydrogen with high arc cooling capacity as the medium, has the cutting capacity of DC high voltage, adopts the ceramic sealed explosion-proof structure, and the contact part has the functions of waterproof and anti-oxidation. It can be widely used in electric vehicles, hybrid electric vehicles, fuel cell vehicles, construction machinery, photovoltaic power generation, wind power generation, battery charging and discharging systems, DC voltage power supply control and other DC high voltage fields.

Attention：

1. There are polarity differences at the outgoing end of the relay. Please use it correctly according to the marks on the surface of each product. When the polarity of the connection is reversed, the electrical characteristics promised in this manual will not be guaranteed. Except for non-polar products .
2. The rated values in the contact parameters are the values under resistive load. Under the condition of taking measures, the electrical life may be reduced and the disconnection may be poor. If diodes are used, the cutoff performance may be reduced. Please note.
3. When testing the action voltage of the double-coil relay, the voltage cannot rise slowly. Please drive the coil of the product through the fast rising edge (step power supply mode), otherwise the relay will not act.
4. It is forbidden to put the relay in an environment that exceeds the product temperature range (- 40 ℃~85 ℃) for a long time.
5. Please avoid installing near strong magnetic fields (transformers, magnets) and heating objects.
6. Make sure that the main power line is closest to the outgoing end of the relay, and then install and tighten it in the order of flat washer, spring washer and nut. Incorrect connection sequence may cause serious overheating and lead to melting of the insulation layer of the connecting cable.
7. The screw locking torque of each part shall be controlled within the following specified range. In case of exceeding the range, it may cause damage.

Installation part of outgoing end：

Screws	SVR20	SVR40	SVR100	SVR120	SVR150	SVR200	SVR250	SVR300	SVC50	SVC100	SVC135	SVC150	SVC250	SVC350
M4														
M5		3N.m～4N.m							3N.m～4N.m	3N.m～4N.m	3N.m～4N.m			
M6			6N.m～8N.m	6N.m～8N.m	6N.m～8N.m									
M8						10N.m～12N.m	10N.m～12N.m	10N.m～12N.m				10N.m～12N.m	10N.m～12N.m	10N.m～12N.m

Note:SVC050,SVC100,SVC135 use screws;

Relay installation part：

Screws	SVR20 HVC20	SVR40	SVR100	SVR120	SVR150	SVR200	SVR250	SVR300	SVC50	SVC100	SVC135	SVC150	SVC250	SVC350
M4									2N.m～3N.m	2N.m～3N.m	2N.m～3N.m			
M5														
M6	3N.m～4N.m	3N.m～4N.m	3N.m～4N.m	3N.m～4N.m	3N.m～4N.m	3N.m～4N.m						3N.m～4N.m	3Nm～4N.m	3Nm～4N.m
M8	5N.m～6N.m	5N.m～6N.m	5N.m～6N.m	5N.m～6N.m	5Nm～6Nm	5N.m～6N.m	5N.m～6N.m	5N.m～6N.m				5N.m～6N.m	5N.m～6N.m	5N.m～6N.m

Note:a. The screw strength must meet the requirements of strength grade 8.8 or above; (GB/T70.1)

b. The effective locking thread length must be greater than 5mm;

8. Please avoid adhering grease and other foreign matters on the leading-out end; Please use the following specifications of connecting wire or copper bar (above 150 A), otherwise it may cause abnormal heating at the outgoing end:

P/N	HVC20	SVR20	SVR40	SVR100	SVR120	SVR150	SVR200	SVR250	SVC50	SVC100	SVC135	SVC150	SVC250	SVC350
Nominal cross-sectional area(Min)	3mm²	3mm²	10mm²	35mm²	40mm²	50mm²	95mm²	120mm²	10mm²	35mm²	40mm²	70mm²	120mm²	240mm²

Note : There are shockproof bubble bags in the single packaging box and shockproof foam in the box;

9. In case of accidental fall of the relay, it is recommended not to use it again.
10. Precautions and product specifications are subject to upgrade and change at any time.