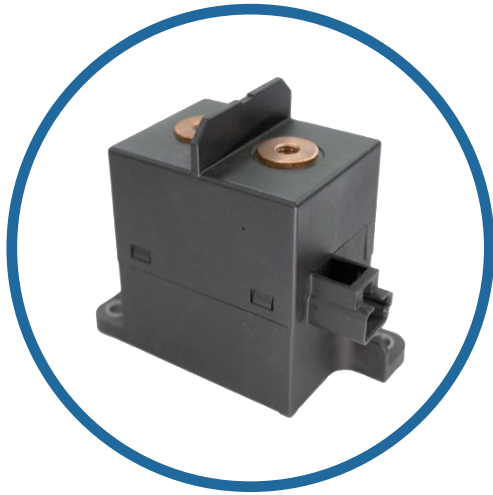


High Voltage DC Contactor

SGX250 250A CERAMIC BI-DIRECTIONAL CONTACTOR



Feature

- Hermetically seal rated to p-&Reduced risk of fire or meltdown in over current conditions.
- Backfilled with gas (primarily hydrogen) to effectively inhibit oxidation, resulting in low and stable contact resistance.
- & R Q W L Q X R X V F X U U H Q W F D U U \ \$ D W p
- High short circuit current withstanding: 8000A, 5ms.
- & R P S O \ Z L W K , (& D Q G 5 R + 6 V W D Q G D

Applications

- Material Handling
- Residential ESS
- ' &) D V W & K D U J L Q J

SPECIFICATIONS

Contact data

Specifications	Data
Contact Arrangement	1 Form A
Contact Resistance	0.5m @ 200A
Rated Load Current	250A(@60mm ² wire)
Rated Switching Voltage	450Vdc / 750Vdc
Rated Switching Power	112.5kW @450Vdc / 187.5kW @750Vdc
Min. Applicable Load	6Vdc, 1A
Max. Switching Voltage	1000Vdc
Max. Switching Power	187.5kW (750Vdc)
Max. Breaking Current	2000A(450Vdc),1cycle

Characteristics

Specifications	Data
Dielectric Strength	Between Open contacts 2600Vac 1min
	Between Coil&Contacts 2600Vac, 1min
Insulation Resistance	1000M at 1000Vdc
Operate Time (at nomi. volt.)	30ms
Release Time (at nomi. volt.)	10ms
Vibration Resistance (sine)	10Hz~500Hz, 49m/s
Shock Resistance	Functional Open: 196m/s) X Q F W L R Q D Ô & O R V H
	Destructive: 490m/s
Ambient Temperature	-40ï 85ï &
Humidity	5% RH~85% RH
Termination	M6 female screw
Mounting	M5 screw
Unit Weight	Approx. 430g
Outline Dimensions	Refer to the drawings



Coil

Nominal Voltage Vdc	Pick-up Voltage Vdc	Drop-out Voltage Vdc	& R L O 3 R Z H U W
12	9	1	~6.0 @ 25°C
24	18	2	

Notes: The values above are conservative values within the temperature range of 0°C to 55°C. The values are for the ambient temperature of the coil.

Endurance

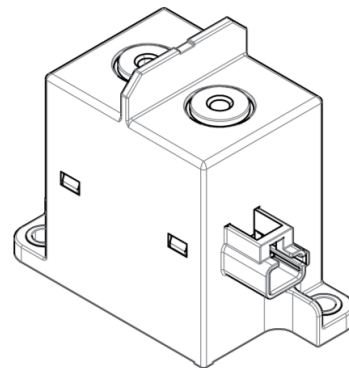
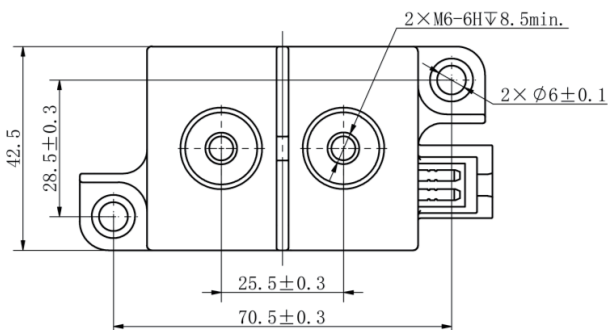
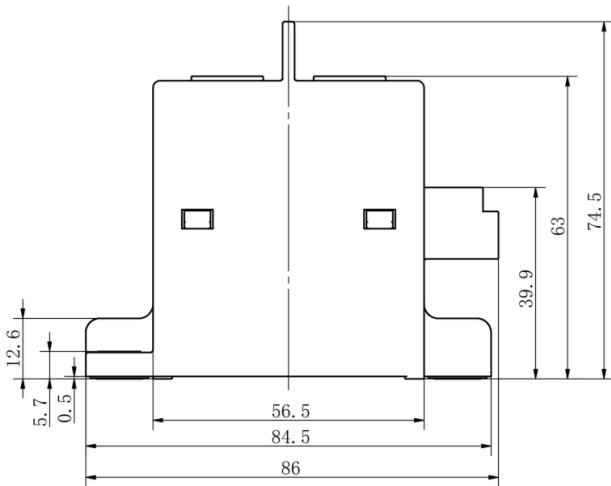
Specifications	Data
Electrical Endurance	Switch on : 7.5x10 ⁴ cycles (20Vdc, 140A)
	Switch off : 1000cycles (450Vdc, 250A)
	Switch off : 200cycles (750Vdc, 250A)
	Switch off : 0.2s on 1cycle (450Vdc, 2000A)
	Switch off : 0.2s on 1cycle (500Vdc, 1800A)
Short Circuit Current	500Vdc, 8000A t 5ms, 1cycle (no smoke, no fire)
Current Endurance	\$ & R Q W
	350A, 8min
	500A, 2min
	900A, 25s
1000A, 20s	
Mechanical endurance	2 x 10 ⁶ cycles, on-off ratio: 0.5s : 0.5s

Notes:

8 QWLO VSHFLDO VWDWHPHQW WKH WHPSHUDWXUH RI HO
& RLO LV QRW FRQQHFWHG WR VXUJH VXSSUHVVRU GXULQJ
the release time of the contactor will be prolonged and the service life will be reduced.

DIMENSIONS

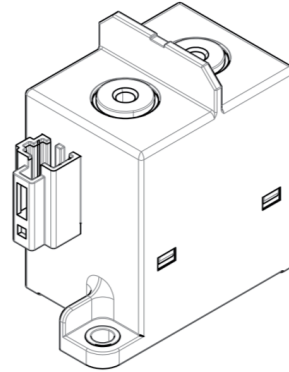
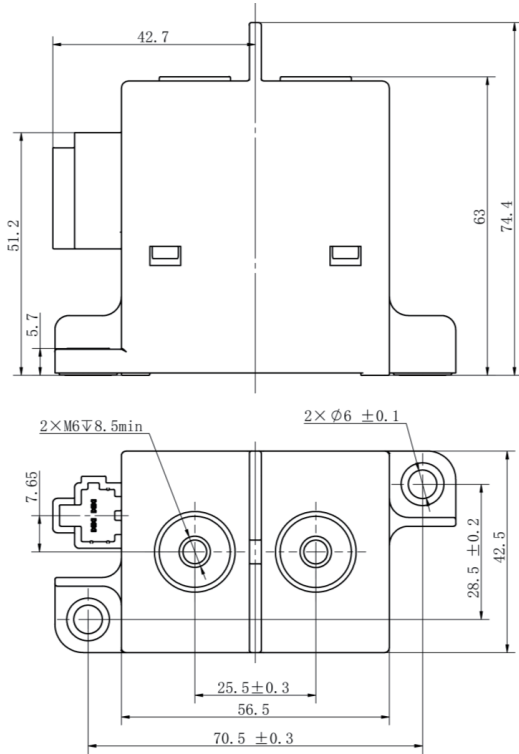
Shape1



General Tolerance	
Outline Dimension	Tolerance
10mm	+0.3mm
10~50mm	+0.6mm
>50mm	+1.0mm

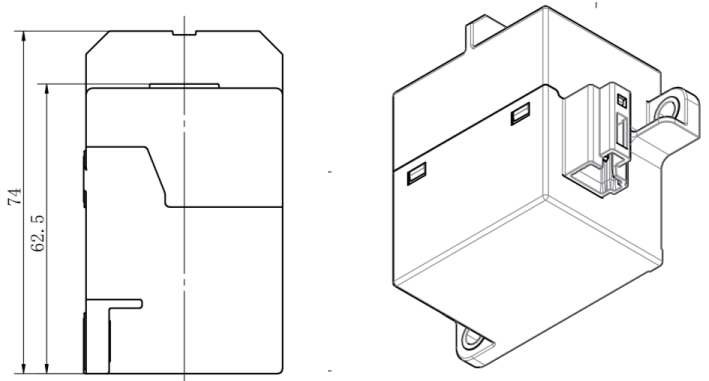
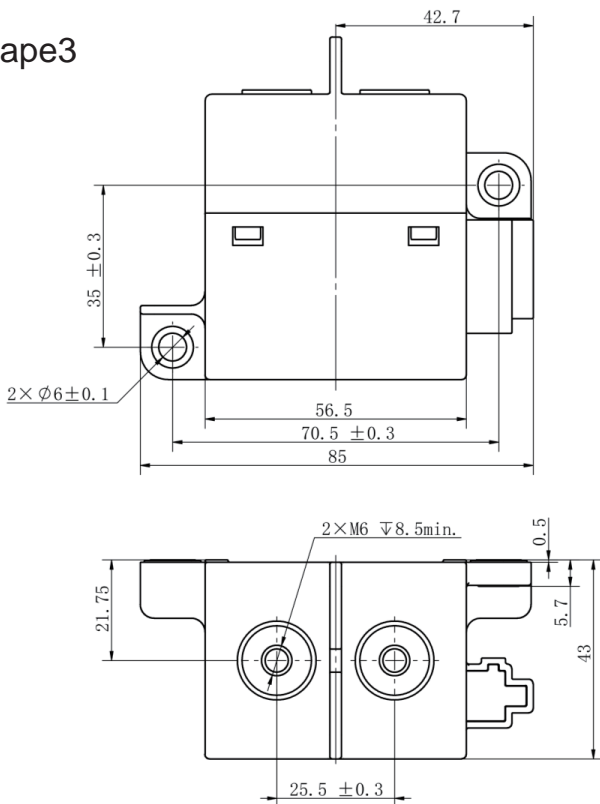


Shape2



General Tolerance	
Outline Dimension	Tolerance
10mm	+0.3mm
10~50mm	+0.6mm
>50mm	+1.0mm

Shape3



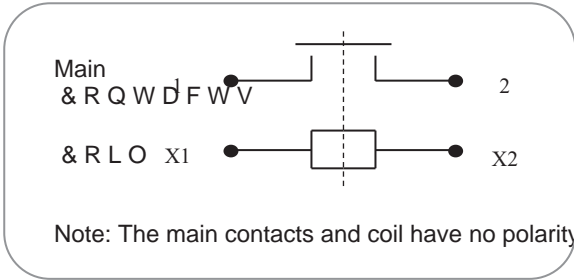
General Tolerance	
Outline Dimension	Tolerance
10mm	+0.3mm
10~50mm	+0.6mm
>50mm	+1.0mm



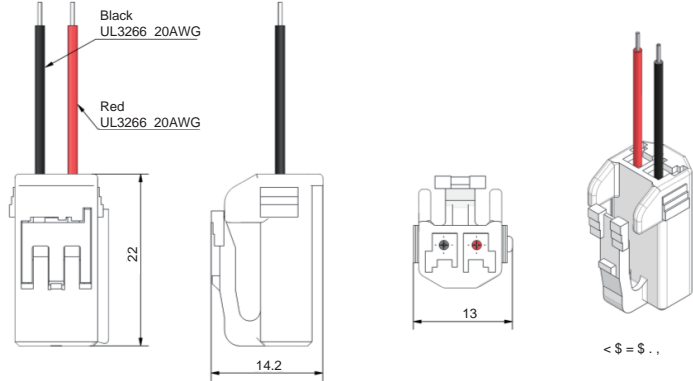


INSTALLATION

Wiring Diagram



Recommended connector



Installation Torque

Load Terminal Installation				
Mode	Depth	Torque	Diameter	Thickness
M6 Screw	7.0mm~8.5mm	6N·m~8N·m	6.0mm~6.5mm	2.0mm~3.0mm

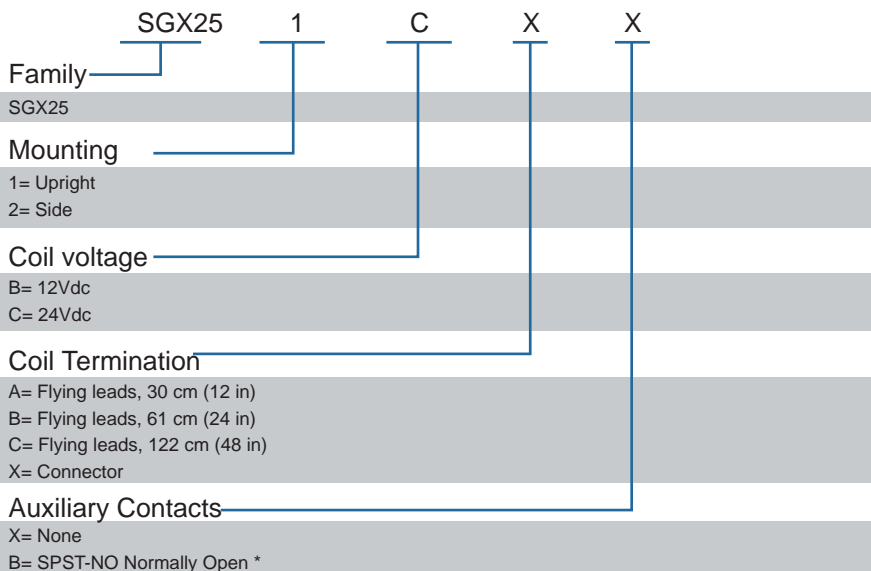
Contactor Installation	
Mode	Torque
M5 Screw	3N·m~4N·m

Note:

When installing the contactor at the load using an electric screwdriver, it is recommended to use a three speed mode: the first stage 35rpm, the second stage (100-150) rpm, and the third stage 35rpm.

ORDERING OPTIONS

Example SGX251CX



Note*:
in development





WARNINGS



5, 6. 2) 0\$7(5, \$/ '\$0\$*(\$1' +27 (1&/2685(

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



+\$ = \$5' 2) (/(&75, & 6+2& . (;3/26,21 25 \$5 &)/\$6+

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

CONTACT US

Sensata Technologies, Inc. ("Sensata") datasheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata datasheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its datasheets or components without notice.

Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com. SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS, SYSTEMS INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

USA
Tel: +1(805) 684 8401
Email: gigavac@sensata.com
Sensata Global Headquarters
Sensata Technologies
250 Pleasant Street
Attleboro, MA 02703
USA
Europe, Middle East & Africa
Sensata Technologies Holland B.V.
Tel: +31(0) 75 750 7500
Tel: +31743578000
Email: gigavac-info-eu@list.sensata.com

Asia Pacific
China
Sensata Technologies China Co.,Ltd.
BM Intercontinental Business Center
30th Floor
100 Yu Tong Road
Shanghai 200070
People's Republic of China
Tel: +8621 2306 1500
Email:contactorasia@list.sensata.com
Japan
Sensata Technologies Japan Ltd.
Shin Yokohama Square Bldg.7F
2-3-12 Shin-yokohama
Kohoku-ku, Yokohama-shi,
Kanagawa 222-0033
Tel: +81 45 277 7001
Email:contactorasia@list.sensata.com