



## Feature :

- 600 amps rated load
- Ceramic brazing technology is used to prevent arcing leakage, fire and explosion.
- No polarity requirement for load wiring ,the coil has polarity
- RoHS compliant

## Contact Data

Item	Specification		
Contact arrangement	1 Form A		
Rated current	600A		
Contact resistance	≤0.15mΩ (at600A)		
Min.Switching load	6VDC 1A		
Max. Switching voltage	1000VDC		
Max. Breaking current	2000A, (1000VDC, 1 cycle)		
Electrical endurance <sup>(1)</sup>	450VDC	800VDC	1000VDC
	Breaking: 500 cycles (600A, 450VDC)	Breaking: 200 cycles (600A, 800VDC)	Breaking: 100 cycles (600A, 1000VDC)
	600A:persistent		
Current endurance	650A:900s		
	700A:600s		
	800A:300s		
	1000A:90s		
	1500A:45s		
	2000A:30s		
	3000A:15s		
	5000A:1s		
	8000A:.0.05s		
	10000A:0.015s		
	11000A:0.01s		
	12000A:0.005 s		
	14000A:0.003 s		

## Parameters

Item	Specification	
Mechanical endurance	2×10 <sup>5</sup> cycle	
Insulation resistance	1000MΩ(1000VDC)	
Dielectric strength	Between open contacts	3000VAC 1min 1mA
	Between contact and coil	3000VAC 1min 1mA
Operation time (at rated coil voltage)	≤30ms	
Release time (at rated coil voltage)	≤10ms	
Shock resistance	Functional	Closed State: 196m/s <sup>2</sup> (20G) Disconnected state: 98m/s <sup>2</sup> (10G)
	Destructive	490m/s <sup>2</sup> (50G)
Vibration resistance	10Hz~500Hz 49m/s <sup>2</sup> (5G)	
Ambient temperature	-40°C~+85°C	
Ambient humidity	5%~85% RH	
Weight	450g	
External dimension	84.5 x 42.5 x 78.5	

Coil Data

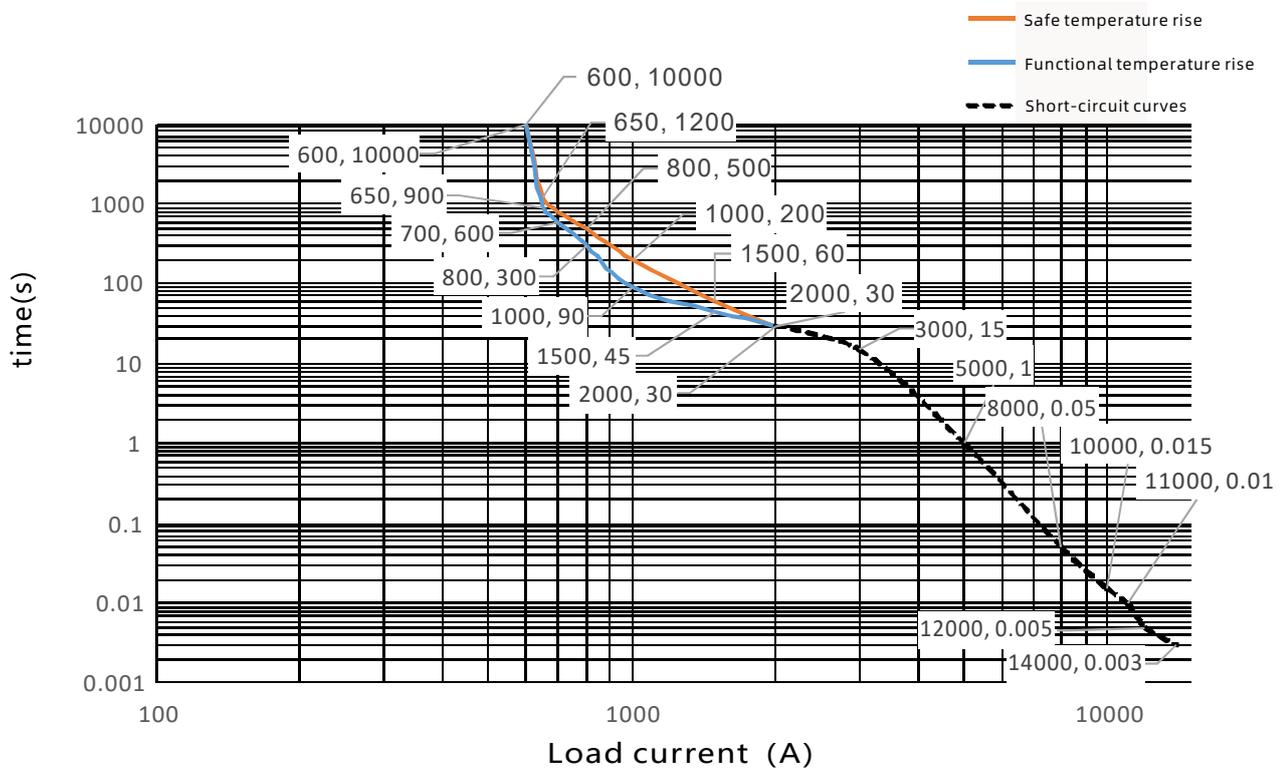
Rated voltage (VDC)	Operation voltage (VDC)	Max. voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (±7%)(Ω)	Operating power (inrush, W)	Operating power (stable, W)
12	12	16	≤9	≤1.0	Starting coil:2.67 Holding coil: 24	60	6
24	24	32	≤18	≤2.0	Starting coil:10.67 Holding coil: 96	60	6

NOTES:

- (1) Unless specified otherwise, ambient temperature:23°C, on:off /0.6s: 5.4s.
- (2) If other types of rated coil voltage is needed, please contact us.

Reference date

Tolerance curve



NOTE:

- (1)The upper limit of safety temperature is 180°C , and the upper limit of functional temperature is 150°C;
- (2)If the product needs to work for a long time, it is recommended that the product temperature should not exceed 150°C. If the safety temperature exceeds 180°C, the relay may be ignited;
- (3)Ambient temperature is 85°C, wire cross sectional area ≥300mm<sup>2</sup>; (Test conditions for this curve)

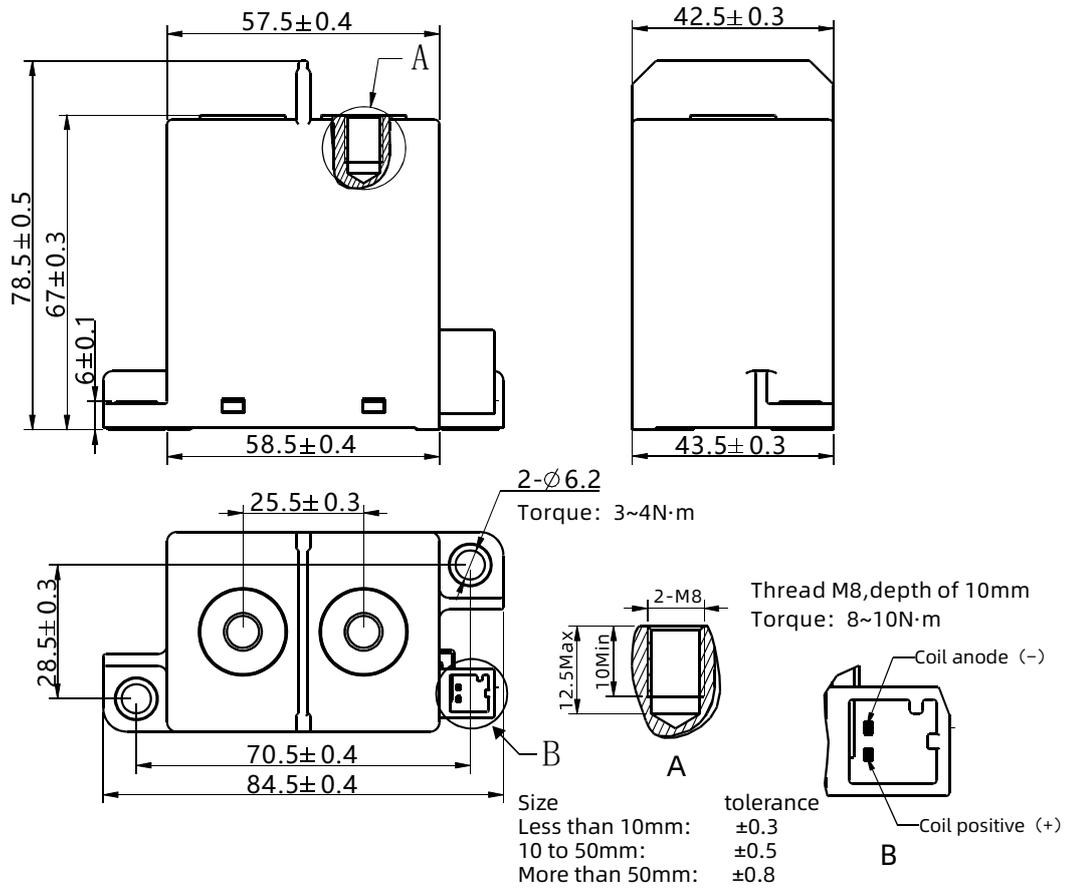
## Ordering Information

## Nomenclature

SEL 600C - □ □ M □ 2	
Customer special code	Nil: No customer special requirement  Numbers or Letters: Customer special requirement
Load connection type	2: internal thread
Coil voltage	12: 12VDC 24: 24VDC
Contact arrangement	M: 1 Form A
Voltage rating	500: 500VDC 800: 800VDC 1000: 1000VDC
Installation	V: vertical installation
Series Code	600C: 600A
Type designation	SEL

Package: 36pcs/box

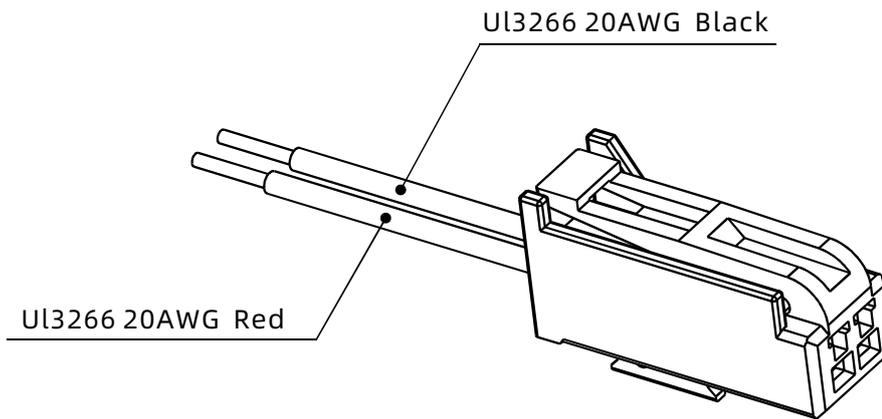
Outline Dimensions



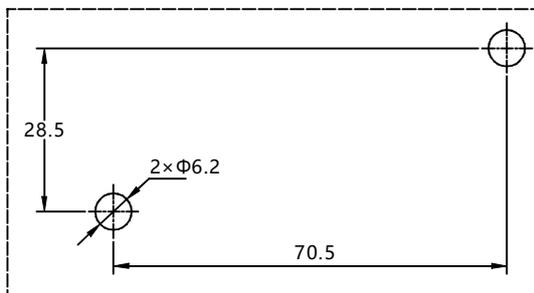
Coil Connection Type

Connectors: 7283-5845(Yazaki)

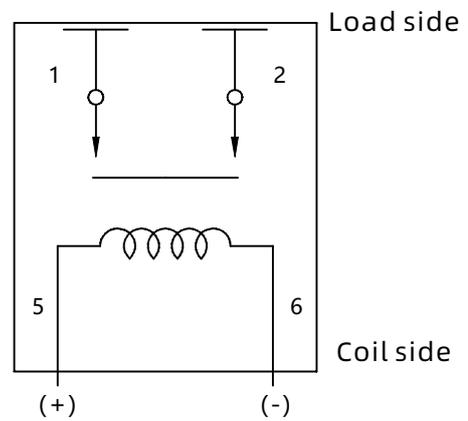
Connectors: 7283-5845(Yazaki)  
 0484 series (THB)  
 3TKA02FW (HL) (not included in the box)



Installation Size Chart



Schematic Diagram



Note: No polarity on load side  
 The coil has polarity

**NOTES:****● Mounting Precautions**

1. By principle, please do not use it when the relay drops on the ground.
2. It's forbidden to use the product at the temperature beyond  $-40\text{ }^{\circ}\text{C} \sim 85\text{ }^{\circ}\text{C}$  for a long time as the relay contacts are sealed and filled with gas and when the contact temperature changes, the gas will break the ceramic sealed chamber.
3. When installing the relay, always use washers to prevent the screws from loosening.
4. Tighten each screw with given torque as suggested. Exceeding the maximum torque may result in screw loose, breakage, etc. When using screws, please make sure the washers are strong enough to prevent the case from deformation.
5. Avoid mounting the relay near strong magnetic fields or a heat generator.

**● Precautions for connection of the load terminals**

1. Please avoid excessive load applied to the product. If the product exceeds the rated range, the performance of the product cannot be guaranteed.
2. Please treat the relay as a product with limited life and replace it when necessary.
3. Be careful that foreign particles or oil attach on the terminals, which will lead to abnormal heating on terminals. And below connectors or conductors with sizes are suggested.

10A	Min. $2\text{mm}^2$ nominal cross-sectional area
20A	Min. $3\text{mm}^2$ nominal cross-sectional area
40A	Min. $10\text{mm}^2$ nominal cross-sectional area
60A	Min. $15\text{mm}^2$ nominal cross-sectional area
100A	Min. $35\text{mm}^2$ nominal cross-sectional area
150A	Min. $45\text{mm}^2$ nominal cross-sectional area
200A	Min. $60\text{mm}^2$ nominal cross-sectional area
250A	Min. $80\text{mm}^2$ nominal cross-sectional area
300A	Min. $100\text{mm}^2$ nominal cross-sectional area
400A	Min. $200\text{mm}^2$ nominal cross-sectional area

**● Precautions for connection of the coil**

1. Please note that when using a diode, the release time will increase and the switching capacity may decrease. We recommend installing a surge protector varistor.
2. The pick-up voltage and drop-out voltage will change with ambient temperature, please use rated voltage to make sure the relay operate reliably. Don't exceed maximum coil voltage.
3. Please do not continuously apply maximum voltage on the coil.
4. The product with PWM, recommend using increase rapidly (phase step power supply mode) to drive the coil.
5. The product with PWM, after 0.1s the coil current automatic switch, please do not repeat switch the coil voltage at  $< 0.1\text{ s}$ , otherwise the Product performance can be not guarantee.

**Disclaimer:**

1. This datasheet is for customer's reference only. Sanyou had tried its best to ensure the information accuracy but impossible to be avoided all the incorrects. The product specification and parameter might be change due to the product improvement. All of specification are subject to change without notice, please refer to the specification and samples.

2. We could not evaluate all the performance and parameters for every possible application. Thus the users should be in a right position to choose the suitable product for their own application. If there is any query, please contact Sanyou for technical service. However it is the users' responsibility to determine which product should be used only.

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