

Low Voltage Single Phase Vacuum Contactor/GVC1-400A/630A

**1.Product descriptions**

GVC1 series vacuum contactor is mainly used for AC 50-60Hz, the main circuit rated voltage 1.14kV, the rated current 400A/630A power network systems for remote making and breaking and frequent starting and control of AC motors, transformers and capacitor banks and other occasions.

The series of vacuum contactor is made of fully enclosed structure, high capacity heat dissipation and high performance component configuration. It has the advantages of stable and reliable mechanical properties, long service life and maintenance. It is especially suitable for locomotive, wind power, variable device used as the main switch side of the switch, cost-effective, is the best alternative to imported products.

2.The use of the environment conditions

2.1 Ambient temperature: $-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$.

2.2 Installation site altitude does not exceed 3000m.

2.3 The relative humidity of the air, the wettest month average monthly maximum relative humidity of 90%, monthly average minimum temperature of 25°C , and taking into account the change of temperature changes on the surface of the product.

2.4 Environment: anhydrous invasion, non-corrosive and flammable gas and excessive vibration occasions.

3.Product Specification

Rated voltage: 1.14kV, rated current: 400A 630A

4.Product Technical Parameter

4.1 Main technical parameter form: see form 1.

4.2 Number of phase: single phase.

4.3 Control voltage: AC/DC110V/220V/380V or could be customized.

4.4 Product type: the electromagnetic holding type.

4.5 Control loop mode: the electromagnetic holding type adopts a direct electromagnetic system, the AC control power supply coils work through the rectifier bridge.

4.6 Auxiliary circuit contacts: 2NO+1NC.

4.7 Auxiliary circuit convention heating current of the auxiliary switch is $\leq 5\text{A}$.

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Form 1: Main technical parameter

Technical parameter	Value	
Main circuit rated voltage (kV)	1.14	1.14
Main circuit rated current (A)	400	630
Main circuit making capacity (A/100times)	4000	6300
Main circuit break-make ability (A/100times)	3200	5000
Ultimate breaking capacity(A/3times)	4500	6300
Mechanical life(Times)	100 0000	100 0000
Electricity life AC3(Times)	20 0000	20 0000
Electricity life AC4(Times)	50000	50000
Power-frequency withstand voltage of the main circuit (fracture)(kV)	15	15
Power-frequency withstand voltage of the control circuit(kV)	2.5	2.5
Rated Operating Frequency AC3 (Times/h)	300	300
Rated Operating Frequency AC4 (Times/h)	120	120
Clearance Between Open Contacts (mm)	2.5±0.5	2.5±0.5
Over travel (mm)	1.5±0.5	1.5±0.5

5.Use and Maintenance

5.1 When using, connect the corresponding control power line to the contactor power Terminal(Pay attention to the nameplate's control power type and voltage).

5.2 The contactor has been adjusted well in the factory, in general no need to adjust again.

5.3 For the newly exchanged vacuum switch tube, the vacuum degree can be checked by the power frequency withstand voltage method. Withstand voltage up to 10kV for 1 minute should no breakdown and no flashover phenomenon. If this condition is not available, could use 5000V megohmmeter to measure the vacuum switch tube insulation resistance. Insulation resistance of new vacuum switch tube should be more than 1000MΩ. Long-term use of vacuum switch tube insulation resistance should be more than 20MΩ (Test must ensure that the vacuum switch tube's appearance is clean and dry).

5.4 If have one of the following cases, should check and adjust vacuum contactor.

- A. After six months since first time using;
- B. In more frequent operation sites, after every 100000 operations;
- C. Find the vacuum switch tube clearance between open contacts is less than 1.5mm, the over travel is less than 0.5 mm;
- D. After replace vacuum switch tube;
- E. Mechanical operation have abnormal.

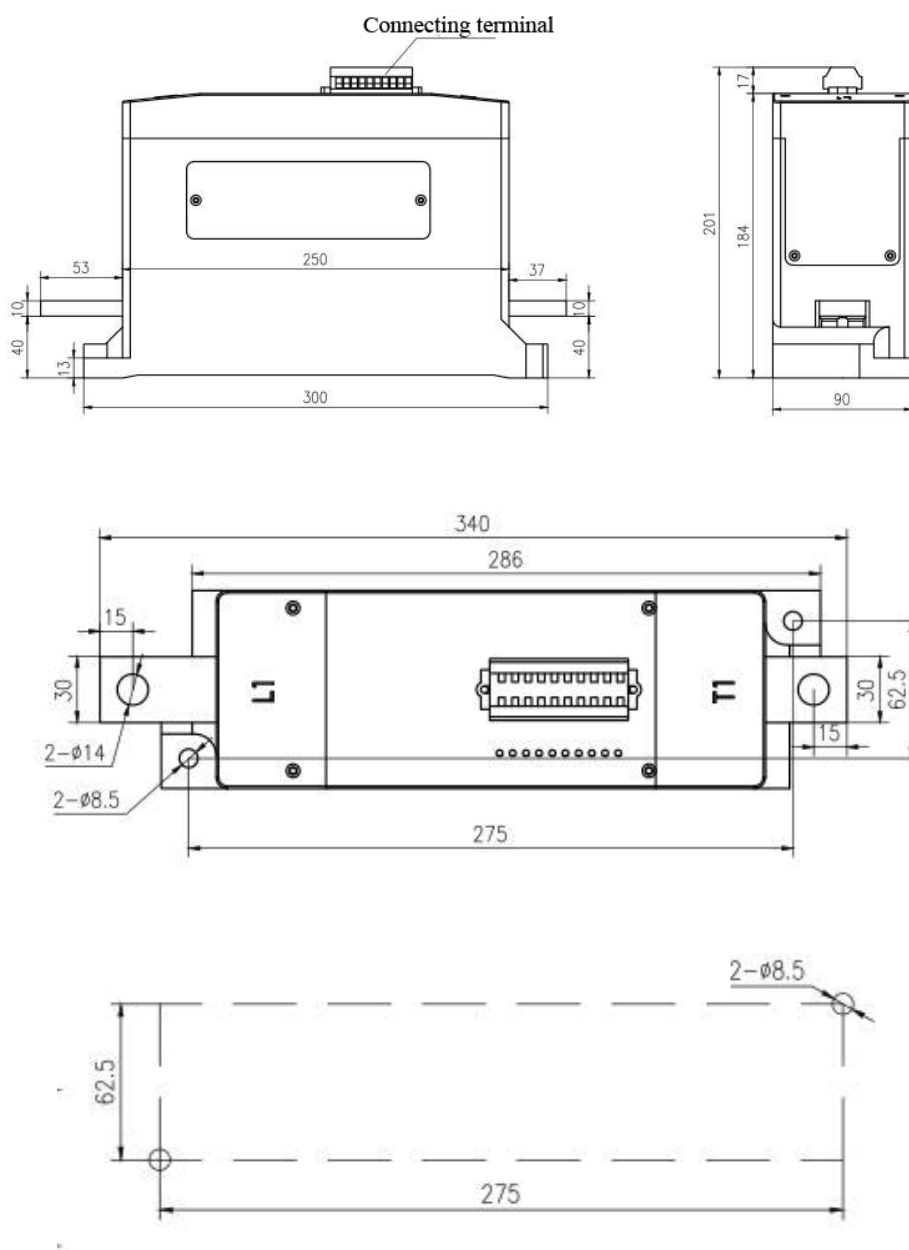
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6.Ordering instructions

When ordering Greegoo product, the buyer must confirm the following information:

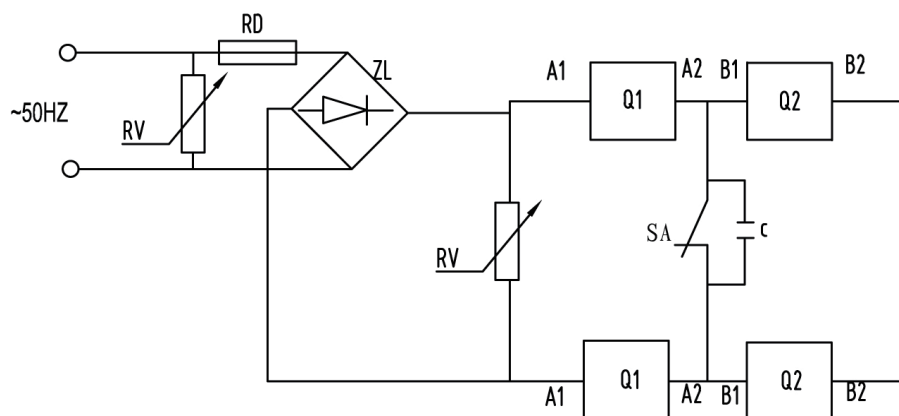
- (1) Product name, model and the specification.
- (2) Rated voltage, rated current and control voltage
- (3) Product quantity.
- (4) Spare parts or another special requirements

7.Product Dimensional Drawing(unit: mm)



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8.GVC1 Series Vacuum Contactor Secondary Circuit Diagram



ZL: Bridge Rectifier Q1:Starting Coil Q2:Keeping Coil
 X1:Connecting Terminal C:Absorption Capacitance RD: Fuse
 RV: Voltage Dependent Resistor SA: Auxiliary Switch

