01

Features

The GVC series high-performance vacuum contactors (hereinafter referred to as "contactors") are designed for power network systems with alternating current of 50–60 Hz, rated main circuit voltage of 1.14–2 kV, and rated main circuit current ranging from 1000 A to 2000 A. They are suitable for remote switching, frequent starting, and control of AC motors, transformers, and capacitor banks. Constructed with a fully enclosed structure, high-capacity heat dissipation, and high-performance components, these contactors offer exceptional mechanical stability, extended service life, and maintenance-free operation. They are particularly ideal for applications such as railways, locomotives, control cabinets, wind power systems, photovoltaic high-power inverters, ore heating furnaces and short-network compensation devices, where they serve as main AC switches. With an outstanding cost-performance ratio, the GVC series represents an optimal alternative to imported products.

Normal Operating Conditions

The ambient air temperature ranges from -25°C to 45°C, and the altitude does not exceed 2000 meters. The relative humidity of the air shall not exceed 50% when the maximum temperature is +70°C; higher relative humidity is allowed at lower temperatures. For example, when the monthly average minimum temperature of the wettest month is +25°C, the monthly average maximum humidity shall be 75%, and frost formation on the product surface caused by temperature changes shall be taken into account.

Technical Parameters

1. Poles in main circuit: GVC1 is single-pole, GVC2 is two-pole;
2. Control power supply voltage: AC or DC 110V, 220V, 380V; customization is also available according to user requirements;
3. Control circuit mode: The electric latching type adopts a direct electromagnetic system; the permanent magnet type is maintained by a permanent magnet mechanism;
4. Number of auxiliary circuit contacts: For GVC1, the electromagnetic type has 2NO and 1NC contacts, and the permanent magnet type has 1NO and 1NC contact; for GVC2, the electromagnetic type has 2NO and 1NC contacts, and the permanent magnet type has 1 NO and 1NC contact; customization is also available according to user requirements;
5. The rated heating current of the auxiliary switch contacts is ⩽ 5A.

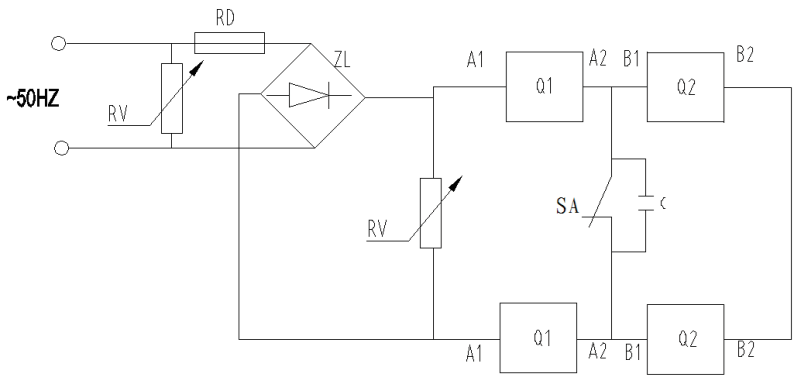
http://www.greegoo.com
Peter@greegoo.com

Table 1 Technical Parameters of GVC Series Vacuum Contactors

Technical Characteristics / Mode1 / Parameter Name	1000/ 1.14～2	1250/ 1.14～2	1600/ 1.14～2	2000/ 1.14～2
Rated Voltage of Main Circuit（KV）	1.14~2	1.14~2	1.14~2	1.14~2
Rated Voltage of Main Circuit（A）	1000	1250	1600	2000
Making Capacity（A/100 operations）	8000	10000	12500	16000
Breaking Capacity（A/100 operations）	6000	8000	10000	12500
Ultimate Breaking Capacity（A/3 operations）	8000	10000	10000	12500
Mechanical Life (10,000 operations)	100	100	100	100
Electrical Life（AC3）(10,000 operations)	20	20	20	20
Electrical Life（AC4）(10,000 operations)	5	5	5	5
Power Frequency Withstand Voltage of Main Circuit（Break）（KV）	10	10	10	10
Power Frequency Withstand Voltage of Control Circuit（KV）	2.5	2.5	2.5	2.5
Rated Operating Frequency AC3(operations/h)	300	300	300	300
Rated Operating FrequencyAC4(operations/h)	120	120	120	120
Contact Distance（mm）	4±0.5	4±0.5	4±0.5	4±0.5
Overtravel（mm）	1.5±0.5	1.5±0.5	1.5±0.5	1.5±0.5
Main Circuit Contact Resistance（uΩ）	⩽80	⩽80	⩽60	⩽40
Simultaneity（ms）	⩽2 （for GVC2 only）			

Secondary Control and Wiring Schematic Diagram

1、Schematic Diagram of Control Circuit for GVC Series Vacuum Contactor (Electromagnetic Type)



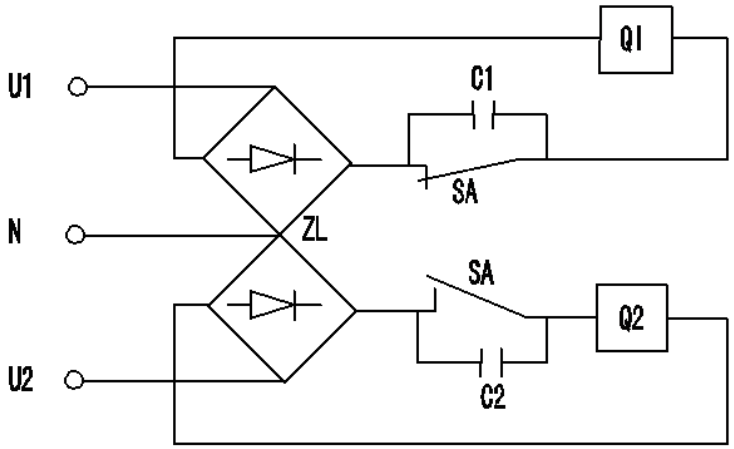
ZL Rectifier Bridge　Q1 Starting Coil　Q2 Holding Coil　X1 Terminal Block

C Absorption Capacitor　RD Fuse　RV Varistor/MOV　SA Auxiliary Switch

http://www.greegoo.com
Peter@greegoo.com

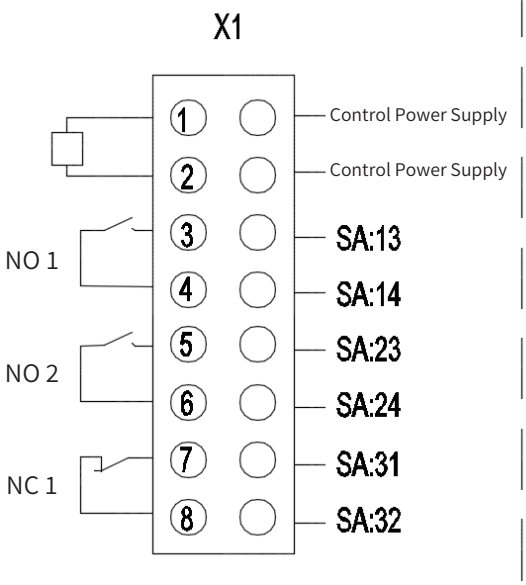
03

2、Schematic Diagram of Control Circuit for GVC Series Vacuum Contactors (Permanent Magnet Type)

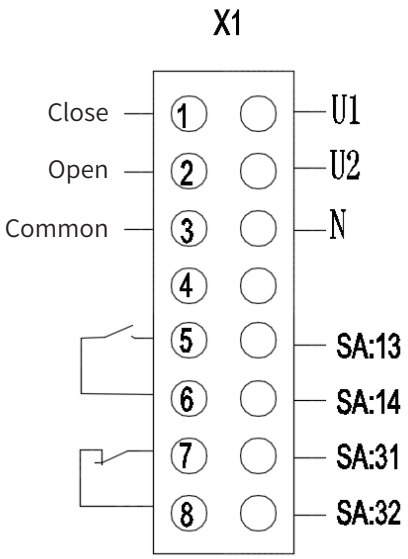


ZL Rectifier Bridge SA Auxiliary Switch C Arc-Extinguishing Capacitor
Q1 Closing Coil Q2 Opening Coil

Secondary Wiring Terminal Diagram:



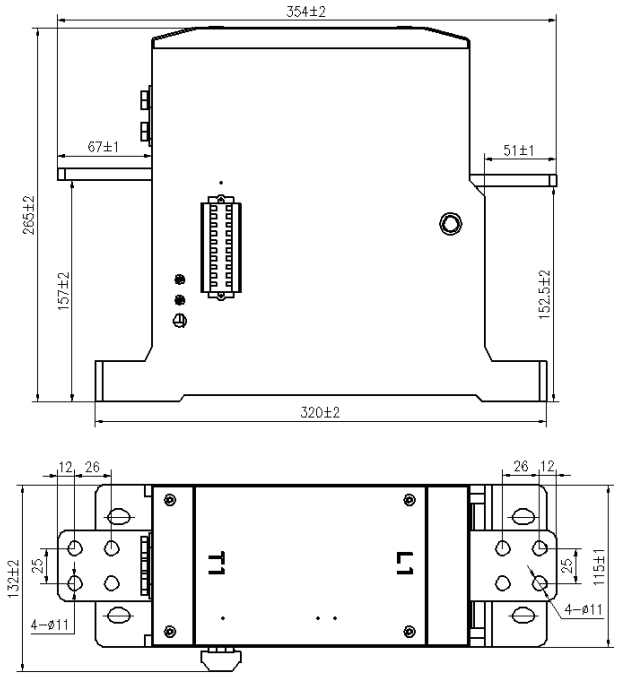
GVC series Electromagnetic Type



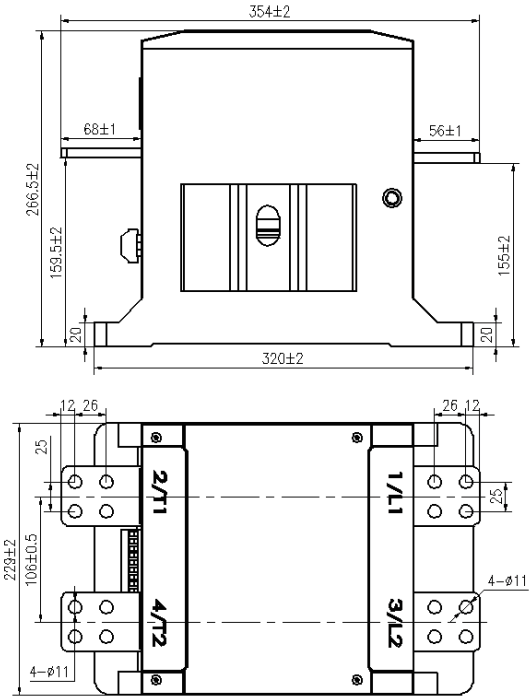
GVC series Permanent Magnet Type

http://www.greegoo.com
Peter@greegoo.com

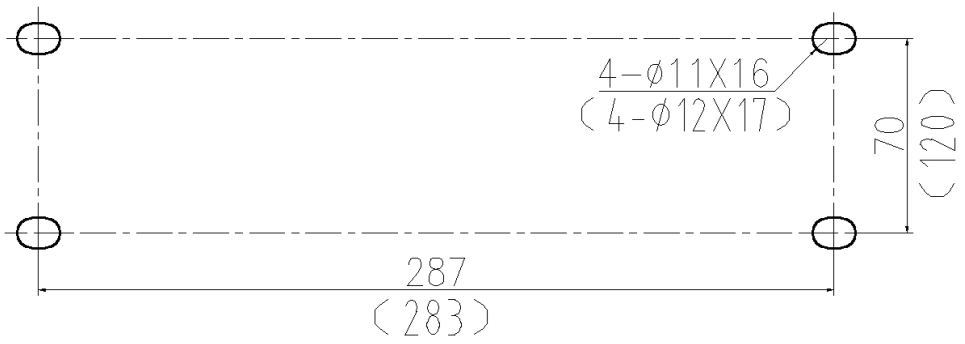
GVC Series Vacuum Contactor Outline Dimensions and Installation Schematic Diagram



GVC1 Vacuum Contactor Outline Dimensions Diagram



GVC2 Vacuum Contactor Outline Dimensions Diagram



GVC1 (GVC2 in the bracket) Vacuum Contactor Mounting Dimension Drawing

GVC Series Vacuum Contactor Copper Bar Configuration Table

Rated Current of Main Circuit	Copper Bar Dimensions
1000A	8x50
1250A	10x50
1600A	10x60
2000A	10x65

http://www.greegoo.com
Peter@greegoo.com