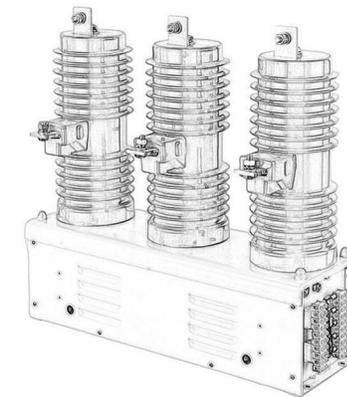
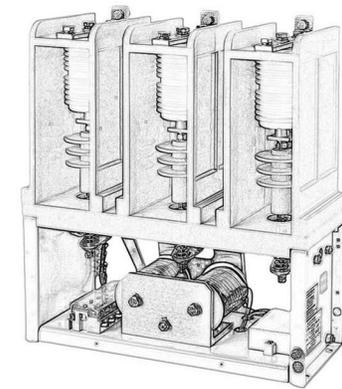
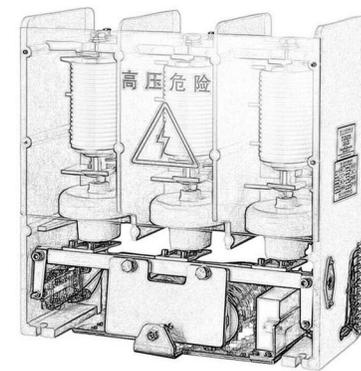


浙里,光尽其所能

Here, The Light Did What It Could



版权所有 ©2024浙光电子有限公司, 保留一切权利
All Rights Reserved 2024 ZheGuang Electronic Co.,Ltd.

Web/网址: www.cnzge.com
Fax/传真: 0577-6266 2878
E-mail/邮箱: cnzge@cnzge.com
Whatsapp: +86 180 6628 9668
No. 261, Wei19 Road, Yueqing Economic Development Zone, Wenzhou City, Zhejiang Province, China
地址: 中国浙江省温州市乐清市经济开发区纬十九路261号



I Vacuum contactor

PRODUCT MANUAL

YUGUANG TECHNOLOGY CO.,LTD.
ZHEGUANG ELECTRONIC CO.,LTD.

Here The Light Did What It Could
浙里,光尽其所能



Company Profile



The company has a number of outstanding engineering and technical personnel, with a spacious purification production area. With a strong technical force, a full range of technology testing equipment. In the spirit of pragmatism, innovation, efficiency and win-win, the company has achieved a series of impressive achievements and outstanding performance. Over the years, the company has adhered to the principle of "professionalism and sincere service". The company's products are strictly implemented in relevant national and international standards. In recent years, the products are widely used in domestic transmission and distribution, metallurgy, chemical, mining, building urban and rural transformation and other supporting projects. Products are exported to many countries and regions in Southeast Asia, and are trusted and welcomed by customers.

The company wholeheartedly cooperates with domestic and foreign merchants to jointly develop domestic and foreign markets for a better future!

企业资质

QUALIFICATIONS



目录 / CONTENTS

CKG4-□/12FD 高压真空接触器	01-02
CKG4-□/12FC 高压真空接触器	03-04
CKG4-□/12F□B□□ 高压真空接触器	05-06
CKG4-□/12□□□ 高压真空接触器	07-08
CKG4-□/12X□□ 高压真空接触器	09-10
CKG4-□/12XF□ 高压真空接触器	11-12
CKG4-□/12-2 高压真空接触器	13-14
CKG4-□/12M-□ 高压真空接触器	15-18
CKG3-□/7.2 高压真空接触器	19-20
CKG4-800/12□□ 高压真空接触器	21-22
CKG4-1000-1250/12 高压真空接触器	23-24
JCZ5-□/12□ 高压真空接触器	25-26
JCZ5-□/7.2 高压真空接触器	27-28
JCZ1-□/12□□□ 高压真空接触器	29-30
CZ1-□/12F□□ 高压真空接触器	31-32
CZ1-□/12GF□□ 高压真空接触器	33-34
CZ1-630/40.5FC 高压真空接触器	35-36
CZ7-□/12GF□□ 高压真空接触器	37-38
CZ7-□/15F□□ 高压真空接触器	39-40
CZ7-630/40.5F□ 高压真空接触器	41-42
ZNJ-12□/630 高压真空接触器	43-44
CZ1-1600-2500/1.14□□ 低压真空接触器	45-46
CZ3-1600-2500/2□ 低压真空接触器	47-50
CKJ5-1000-1250/1.14 低压真空接触器	51-52
CKJ20-630-800/1.14□ 低压真空接触器	53-54
CKJ1-250/1.14 低压真空接触器	55-56
CKJ1-160/1.14 低压真空接触器	57-58
ZND-12□/630-20U 高压真空断路器	59-60

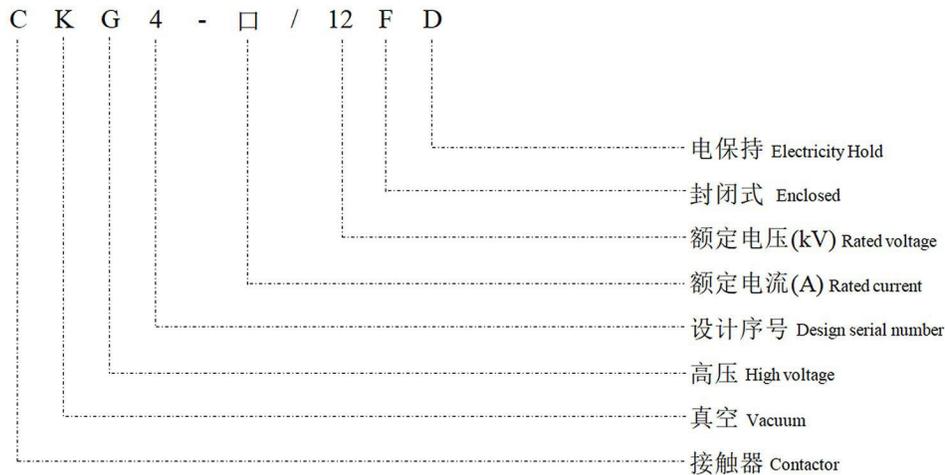


概述
Overview

CKG4-12F系列封闭式高压真空接触器，既解决了原CKG4系列单元框架的缺点，又优化了JCZ5弹跳的不稳定性。尤其在真空灭弧室的性能及安装上做了较大的改良，吸收掉了合闸到位时的反作用力，使接触器合闸弹跳缩小到0~2ms。加大了灭弧室终端压力，使关合能力大于GB14808 Ac4的关合标准，更适合用于容性负载的设备，使弹跳引起的过电压和过电流大为减少。本款开关适用于交流50/60Hz，额定工作电压至12kV，工作电流至630A的电力系统中使用的户内装置，用来开断、关合电气设备的负载回路。具有防腐蚀、防烧损、耐高温、关合性能强、弹跳小、使用寿命长等特点，是替代CKG和JCZ这些老系列的优选产品。

The CKG4-12F series enclosed high-voltage vacuum contactor not only solves the shortcomings of the original CKG4 series unit framework, but also optimizes the instability of JCZ5 bounce. Especially in the performance and installation of vacuum arc extinguishing chambers, significant improvements have been made, absorbing the reaction force when closing in place, reducing the contactor closing bounce to 0-2ms. The terminal pressure of the arc extinguishing chamber has been increased, making the closing capacity greater than the closing standard of GB14808 Ac4, which is more suitable for equipment with capacitive loads and greatly reduces overvoltage and overcurrent caused by bouncing. This switch is suitable for indoor devices used in power systems with AC 50/60Hz, rated working voltage up to 12kV, and working current up to 630A. It is used to open and close the load circuit of electrical equipment. Featuring corrosion resistance, burn resistance, high temperature resistance, strong closing performance, low bounce, and long service life, it is the preferred product to replace the old series such as CKG and JCZ.

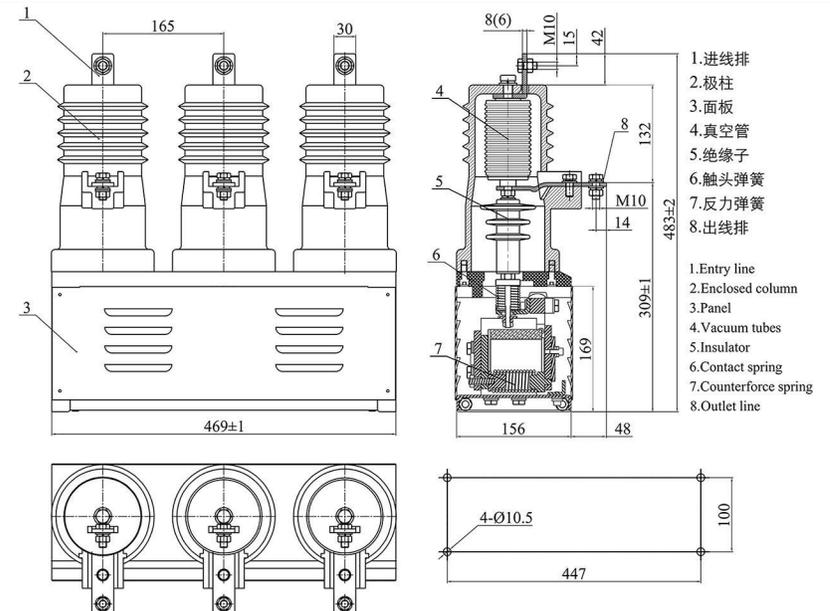
型号的组成及代表意义
The type and composition of representative significance



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
主回路电阻 Main circuit resistance	μΩ	≤80
合闸同期性 Closing synchronism	ms	≤2
触头合闸弹跳时间 Contact closing bounce time	ms	≤2
额定电流下操作频率 Operating frequency at rated current	次/小时 Times hour	300/h
机械寿命 Mechanical life	万次 Ten thousand times	50
电寿命 Electrical life	万次 Ten thousand times	25

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该封闭式永磁保持高压真空开关主要适用于10kV预付费计量箱，真空灭弧室封装在极柱式绝缘筒内，磁控机构采取单稳态双线圈，内设分闸弹簧，当合闸完成时，由永磁铁实现保持。本开关主要用来开断、关合负荷电流，开断和关合10倍的短路电流，具有关合能力强、弹跳小、使用寿命长等优点。

The closed magnetic control high-voltage vacuum switch is mainly applicable to 10kV prepaid metering box. The vacuum arc extinguishing chamber is encapsulated in pole type insulating cylinder. The magnetic control mechanism adopts monostable double coil with opening spring inside. When closing is completed, it is maintained by permanent magnet. This switch is mainly used to turn on and off the load current, which is 10 times the short-circuit current. It has the advantages of strong closing ability, small bounce, long service life and so on.

型号的组成及代表意义
The type and composition of representative significance

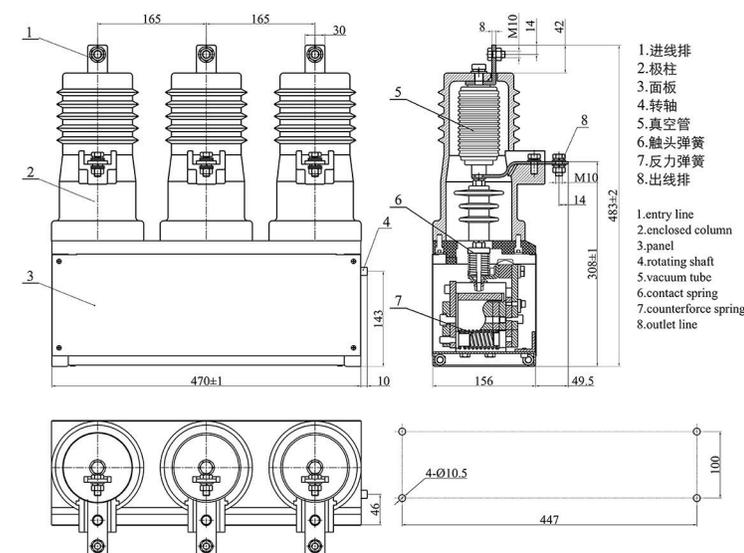
C K G 4 - □ / 12 F C

- 永磁保持 Permanent magnet retention
- 封闭式 Enclosed
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 高压 High voltage
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	5.5±0.5	
超行程 Overtravel	mm	≥1.5	
主回路电阻 Main circuit resistance	μΩ	≤80	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

CKG4-12F系列高压真空接触器是专为投切背对背电容器组而设计，其主电路绝缘体结构采取极柱封闭式，既解决了原CKG4系列单元框架的缺点，又优化了JCZ5弹跳的不稳定性。尤其在真空灭弧室及操动机构的性能上做了较大的改良，吸收掉了合闸到位时的反作用力，使接触器合闸弹跳缩小到0~2ms，极大的降低了由此给设备造成的损害。加大了灭弧室终端压力，使关合能力大于GB14808 Ac4的关合标准，特别适用于高压电容无功补偿装置中。

该高压真空开关经国家权威机构验证，通过了C2级容性负载型式试验，能可靠投切背对背至200A的电容器组。本开关具有防污染、耐高温、关合性能强、速度快、弹跳小、使用寿命长等特点，应用于交流50Hz，额定工作电压至12kV，工作电流至630A的电力系统中使用的户内装置，用来开断、关合电气设备的负载回路。

The CKG4-12F series high-voltage vacuum contactor is designed specifically for switching back to back capacitor banks. Its main circuit insulation structure adopts a pole closed structure, which not only solves the shortcomings of the original CKG4 series unit framework, but also optimizes the instability of JCZ5 bounce. Especially in the performance of the vacuum arc extinguishing chamber and operating mechanism, significant improvements have been made, absorbing the reaction force when closing in place, reducing the contactor closing bounce to 0-2ms, greatly reducing the damage caused to the equipment. The terminal pressure of the arc extinguishing chamber has been increased, making the closing capacity greater than the closing standard of GB14808 Ac4, especially suitable for high-voltage capacitor reactive power compensation devices.

This high-voltage vacuum switch has been verified by national authoritative institutions and has passed the C2 level capacitive load type test. It can reliably switch back to back capacitor banks up to 200A. This switch has the characteristics of pollution prevention, high temperature resistance, strong closing performance, fast speed, small bounce, and long service life. It is used as an indoor device in power systems with AC 50Hz, rated working voltage up to 12kV, and working current up to 630A. It is used to open and close the load circuit of electrical equipment.

型号的组成及代表意义
The type and composition of representative significance

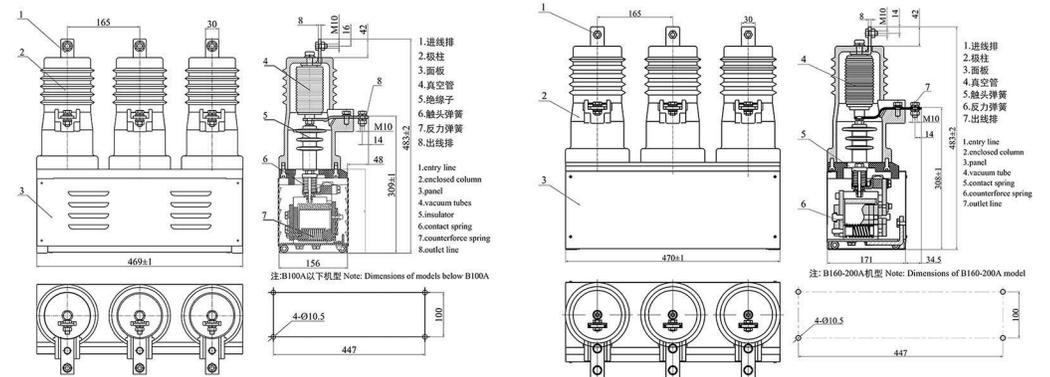
C K G 4 - □ / 12 F □ □ B □ K



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定单个电容器开断电流 Individual capacitor breaking current	A	160-300	
额定背靠背电容器组开断电流 Back-to-back capacitor bank breaking current	A	80-200	
额定开距 The rated contact gap	mm	6±0.5 (7±0.5)	
超行程 Overtravel	mm	≥1.5	
合闸时间(电保持) Closing time (electrical holding)	ms	≤110	
分闸时间(电保持) Opening time (permanent magnet holding)	ms	≤90	
合闸时间(永磁保持) Closing time (permanent magnet holding)	ms	≤60	
分闸时间(永磁保持) Opening time (permanent magnet holding)	ms	≤40	
快速式机型分闸时间 Quick type machine opening time	ms	≤15	
触头合闸弹跳时间 Contact closing bounce time	ms	≤2	
合闸同期性 Closing synchronism	ms	≤2	
主回路电阻 Main circuit resistance	μΩ	≤80	
额定电流下操作频率 Operating frequency at rated current	电保持 Electricityhold	次/小时 Times/hour	300/h
	永磁保持 Permanent magnet		120/h
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4		10
机械寿命 Mechanical life		万次 Ten thousand times	50

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

本款单元框架式高压真空接触器是80年代初开发的产品。被广泛应用于交流50Hz，额定工作电压12kV，额定工作电流至630A的电力系统中使用的户内装置，用来频繁开断、关合交流高压电动机、变压器电气控制设备的负载回路。降低容量后，可用于容性负载回路。

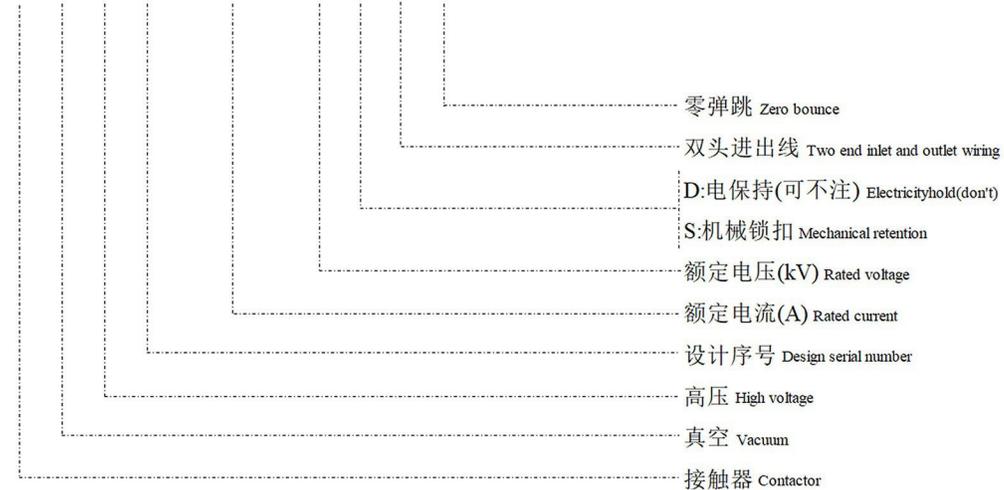
CKG4-12L零弹跳机型(专利产品)，是为了避免因弹跳给开关设备造成的危害，我们研发了防弹跳机构，吸收掉了合闸到位时的反作用力，从而使接触器的弹跳为零，使弹跳引起的重燃弧、过电压和过电流大为减少，特别适用于高压电容无功补偿装置中。

This unit frame type high-voltage vacuum contactor was developed in the early 1980s. It is widely used as an indoor device in power systems with AC 50Hz, rated working voltage of 12kV, and rated working current up to 630A. It is used to frequently open and close the load circuit of AC high-voltage motors and transformer electrical control equipment. After reducing the capacity, it can be used for capacitive load circuits.

The CKG4-12L zero bounce model (patented product) is designed to avoid the harm caused by bouncing to switching equipment. We have developed an anti bounce mechanism that absorbs the reaction force when closing in place, thereby making the bouncing of the contactor zero, greatly reducing the reignition arc, overvoltage, and overcurrent caused by bouncing. It is particularly suitable for high-voltage capacitor reactive power compensation devices.

型号的组成及代表意义
The type and composition of representative significance

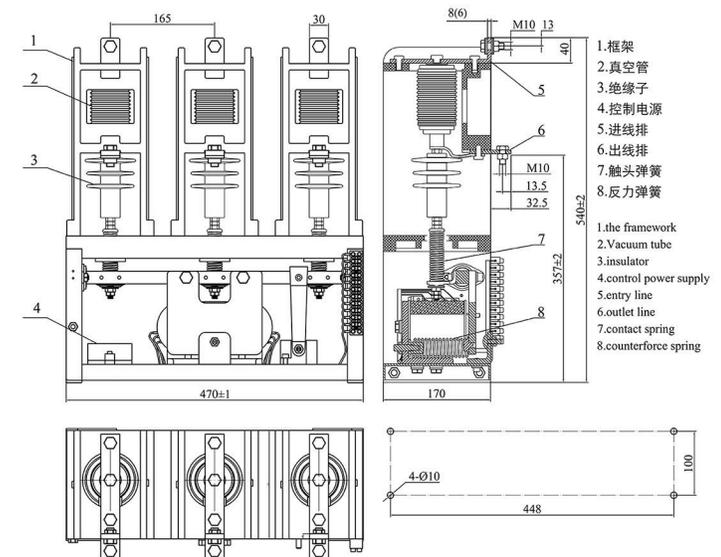
C K G 4 - □ / 12 □ T L



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
合闸同期性 Closing synchronism	ms	≤2
机械寿命 Mechanical life	万次 Ten thousand times	50(每10万次需更换机械锁扣) 50(Mechanical latches to be replaced every 100,000 times)
电寿命 Electrical life	AC3	万次 Ten thousand times
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





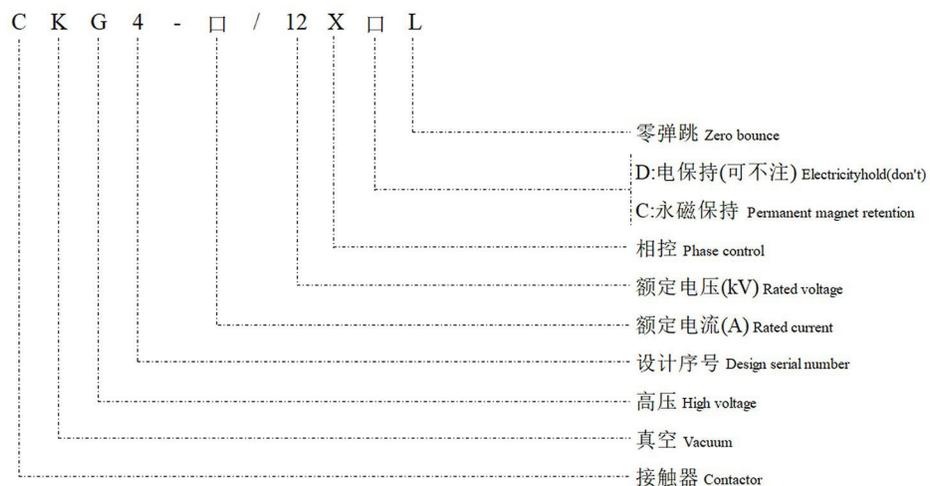
概述
Overview

本款相控高压真空接触器，在三相电路中可按需分相投切，适用于交流50Hz，额定工作电压至12kV，额定工作电流至630A的电气控制设备中，用来开断、关合电控设备的负载回路。

该相控真空开关为三相整体式结构，三相位均配置了独立的操动机构，实现了对三相电路中分别按需投切，既可单相分投，亦可同步操作。该开关的设计，既减小了原柜体内安装多个单相真空开关的占用空间，且安装更方便。其主体的操动机构采用了自主开发的新一代快速直动式，更具有分断能力强、速度快、弹跳小、易维护等优点。

This phase controlled high-voltage vacuum contactor can be switched on and off as needed in three-phase circuits. It is suitable for electrical control equipment with AC 50Hz, rated working voltage up to 12kV, and rated working current up to 630A. It is used to open and close the load circuit of electrical control equipment. The phase controlled vacuum switch is a three-phase integrated structure, with independent operating mechanisms configured for each three-phase position, achieving on-demand switching in the three-phase circuit. It can be switched on or off in either single-phase or synchronous operation. The design of this switch not only reduces the space occupied by installing multiple single-phase vacuum switches in the original cabinet, but also makes installation more convenient. The operating mechanism of its main body adopts a self-developed new generation of fast direct action, which has advantages such as strong breaking ability, fast speed, small bounce, and easy maintenance.

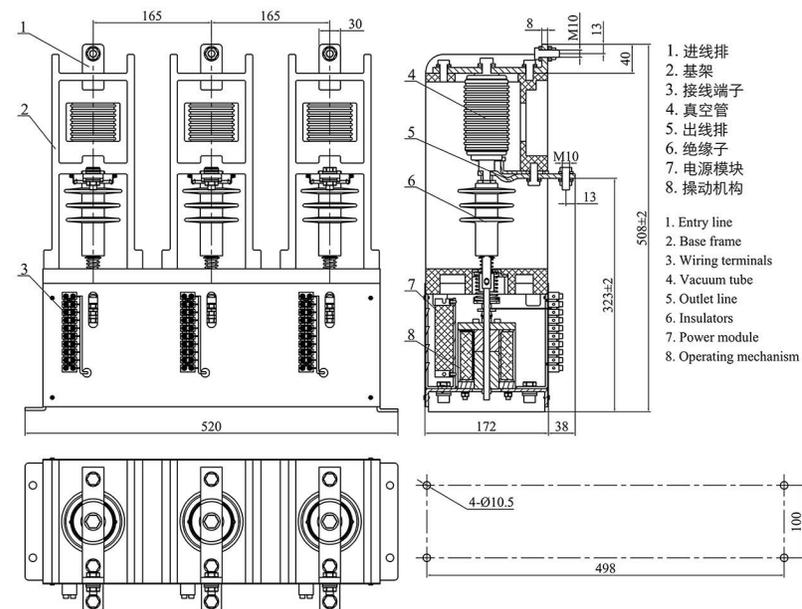
型号的组成及代表意义
The type and composition of representative significance



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	5.5±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤3 (相分控时无同期性) No synchronization during phase separation control	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

本款封闭式相控高压真空接触器，在三相电路中可按需分相投切，适用于交流50Hz，额定工作电压至12kV，额定工作电流至630A的电气控制设备中，用来开断、关合电控设备的负载回路。

该相控真空开关为极柱封闭式结构，三相位均配置了独立的操动机构，实现了对三相电路中分别按需投切，既可单相分投，亦可同步操作。该开关的设计，既减小了原柜体内安装多个单相真空开关的占用空间，且安装更方便。其主体的操动机构采用了自主开发的新一代快速直动式，更具有防污染、防腐蚀、速度快、弹跳小、分断能力强、使用寿命长等优点。

This enclosed phase controlled high-voltage vacuum contactor can be switched on and off as needed in three-phase circuits. It is suitable for electrical control equipment with AC 50Hz, rated working voltage up to 12kV, and rated working current up to 630A. It is used to open and close the load circuit of electrical control equipment. The phase controlled vacuum switch is a pole closed structure, with independent operating mechanisms configured for each three-phase position, achieving on-demand switching in the three-phase circuit. It can be operated in both single-phase switching and synchronous operation. The design of this switch not only reduces the space occupied by installing multiple single-phase vacuum switches in the original cabinet, but also makes installation more convenient. The operating mechanism of its main body adopts a self-developed new generation of fast direct action, which has advantages such as pollution prevention, corrosion prevention, fast speed, small bounce, strong breaking ability, and long service life.

型号的组成及代表意义
The type and composition of representative significance

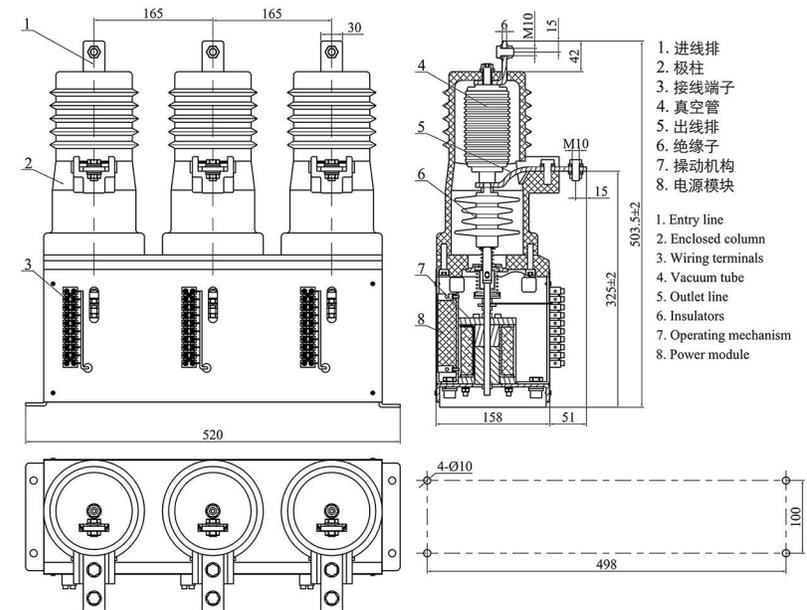
C K G 4 - □ / 12 X F □

- D:电保持(可不注) Electricity hold (don't)
- C:永磁保持 Permanent magnet retention
- 封闭式 Enclosed
- 相控 Phase control
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 高压 High voltage
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
合闸同期性 Closing synchronism	ms	≤3 (相分控时无同期性) No synchronization during phase separation control
机械寿命 Mechanical life	万次 Ten thousand times	50
电寿命 Electrical life	AC3	25
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

12kV-2极高压真空接触器广泛应用于交流50Hz，额定工作电压12kV，额定工作电流至630A的二相电力系统中使用的户内装置，用来频繁开断、关合电气控制设备的负载回路。

12kV-2 extreme high voltage vacuum contactors are widely used as indoor devices in two-phase power systems with AC 50Hz, rated working voltage of 12kV, and rated working current up to 630A. They are used to frequently open and close the load circuit of electrical control equipment.

型号的组成及代表意义
The type and composition of representative significance

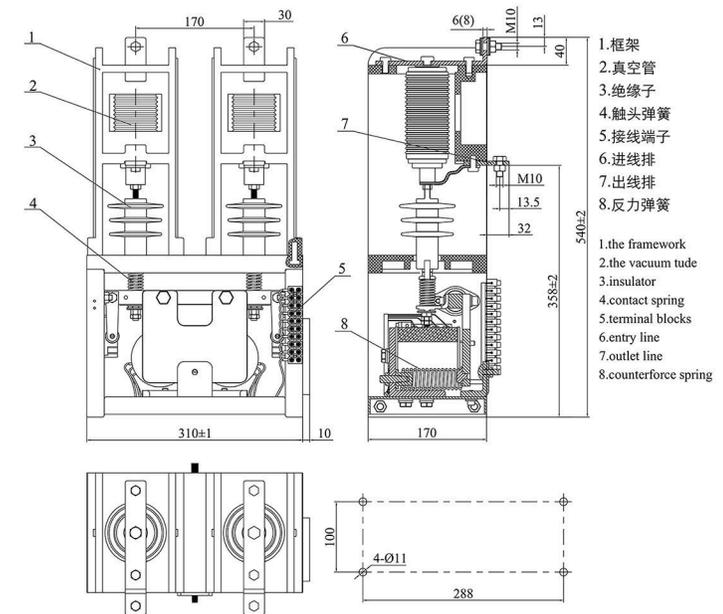
C K G 4 - □ / 12 - 2

- 电极数 Number of electrodes
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 高压 High voltage
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	5.5±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

机械联锁型高压真空接触器应用于交流50Hz，额定工作电压至12kV，额定工作电流至630A的高压用电设备进行控制和频繁操作。具有机械寿命长、可靠性高、故障率小、关合性能强等优点。

本开关主要用于矿用提升机电控设备正反转柜，两台真空接触器之间加装机械联锁轴后可实现机械互锁，同时也可以实现电气联锁，为换向提供双重安全保护。

Mechanical interlocking high-voltage vacuum contactors are used for control and frequent operation of high-voltage electrical equipment with AC 50Hz, rated working voltage up to 12kV, and rated working current up to 630A. It has advantages such as long mechanical life, high reliability, low failure rate, and strong closing performance.

This switch is mainly used for the forward and reverse conversion cabinets of mining hoist electrical control equipment. After installing a mechanical interlocking shaft between two vacuum contactors, mechanical interlocking can be achieved, and electrical interlocking can also be achieved, providing dual safety protection for switching.

型号的组成及代表意义
The type and composition of representative significance

C K G 4 - □ / 12 M - □

3/4/5: 电极数 Number of electrodes

机械联锁 Mechanical interlock

额定电压(kV) Rated voltage

额定电流(A) Rated current

设计序号 Design serial number

高压 High voltage

真空 Vacuum

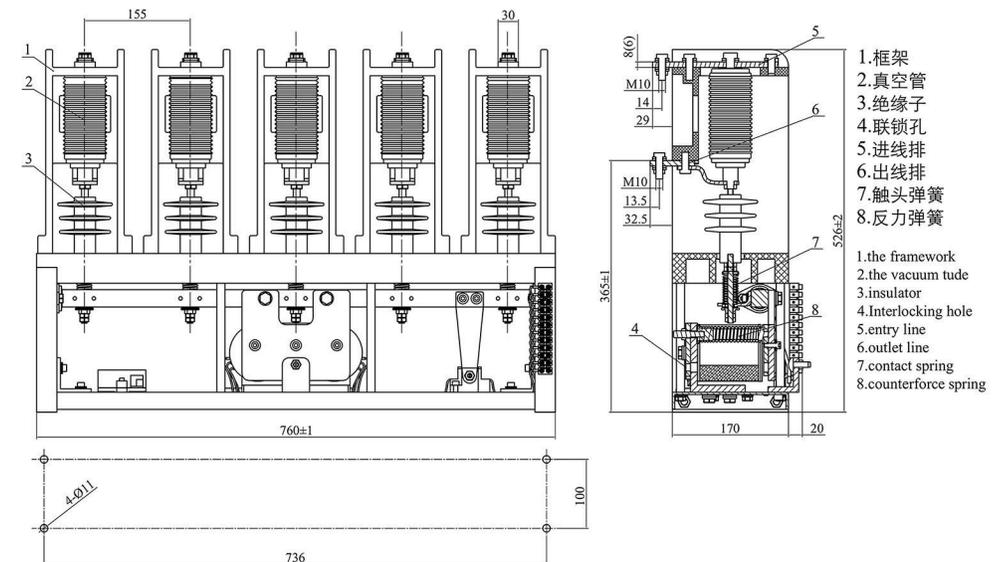
接触器 Contactor

主要技术参数
Main technical parameters

CKG4-160-630/12M-5 高压真空接触器 High voltage vacuum contactor

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	5.5±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)

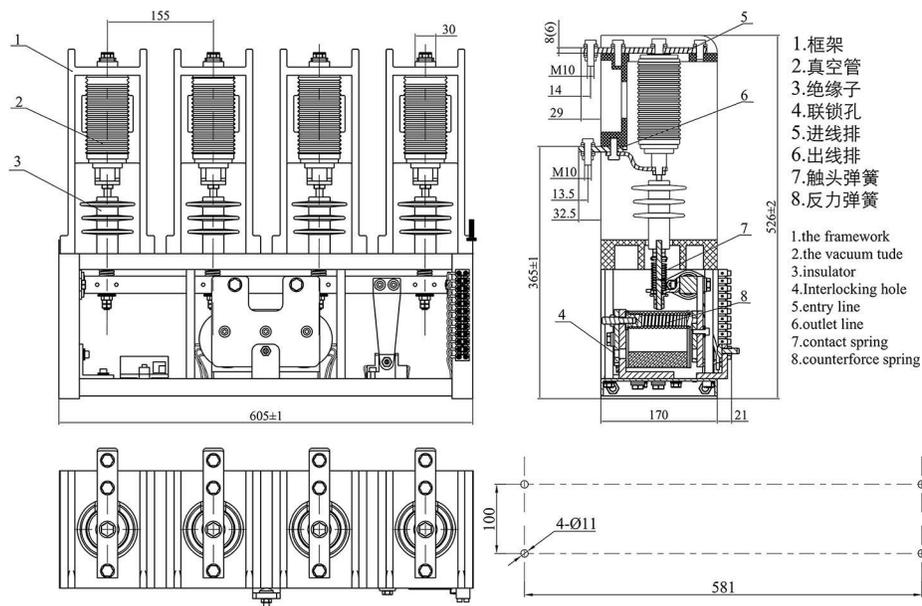


主要技术参数
Main technical parameters

CKG4-160-630/12M-4 高压真空接触器 High voltage vacuum contactor

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
合闸同期性 Closing synchronism	ms	≤2
机械寿命 Mechanical life	万次 Ten thousand times	50
电寿命 Electrical life	AC3	25
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)

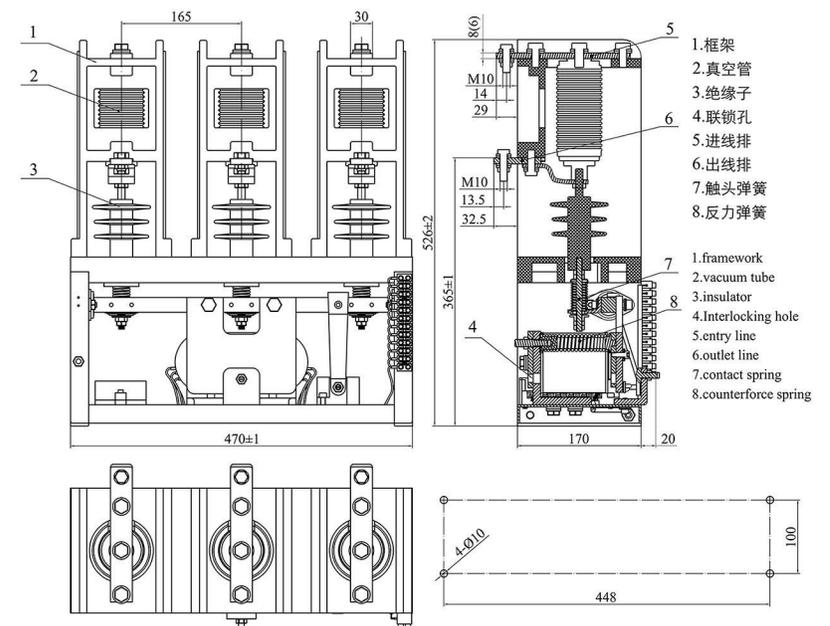


主要技术参数
Main technical parameters

CKG4-160-630/12M-3 高压真空接触器 High voltage vacuum contactor

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
合闸同期性 Closing synchronism	ms	≤2
机械寿命 Mechanical life	万次 Ten thousand times	50
电寿命 Electrical life	AC3	25
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





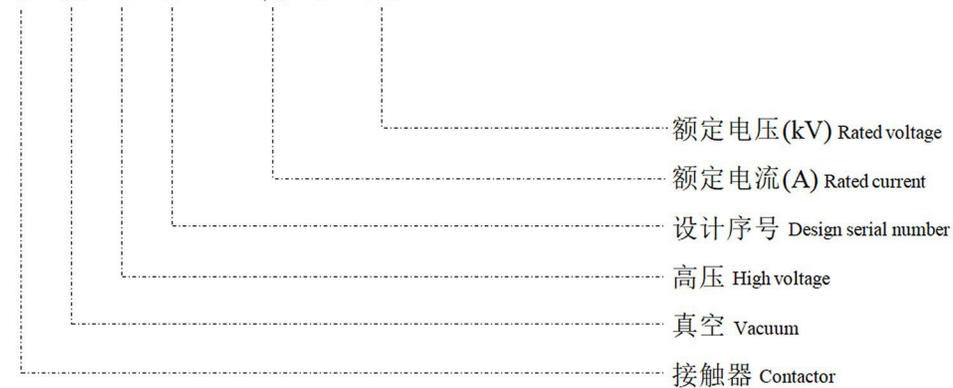
概述
Overview

该产品是70年代中期开发的产品，适用于交流50Hz，额定工作电压至7.2kV，额定工作电流至630A的电力系统中使用的户内装置。用来频繁开断、关合高压用电设备的负载回路。

This product was developed in the mid-1970s and is suitable for indoor use in power systems with AC 50Hz, rated working voltage up to 7.2kV, and rated working current up to 630A. Used to frequently open and close the load circuit of high-voltage electrical equipment.

型号的组成及代表意义
The type and composition of representative significance

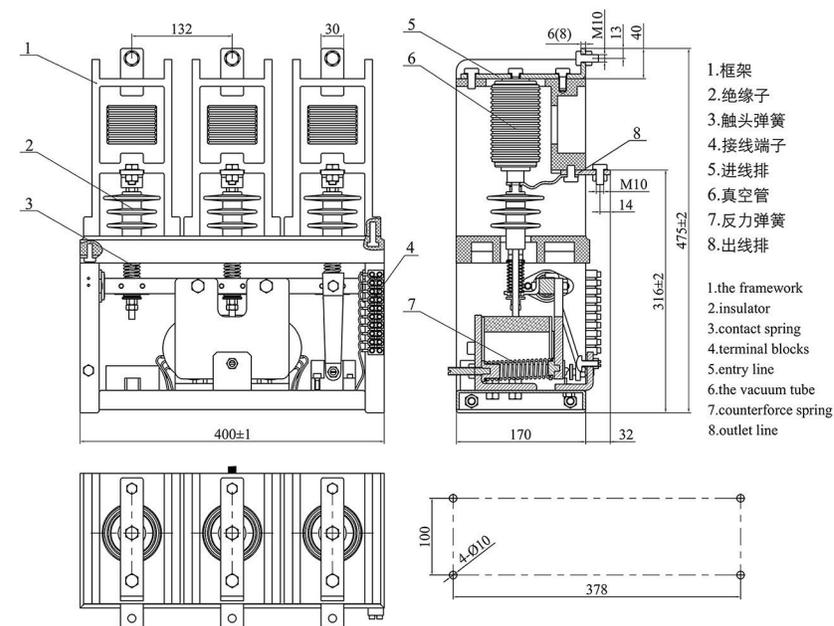
C K G 3 - □ / 7.2



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	7.2	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	32	
雷电冲击耐压 Lightning impulse withstand voltage	kV	60	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	4±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)



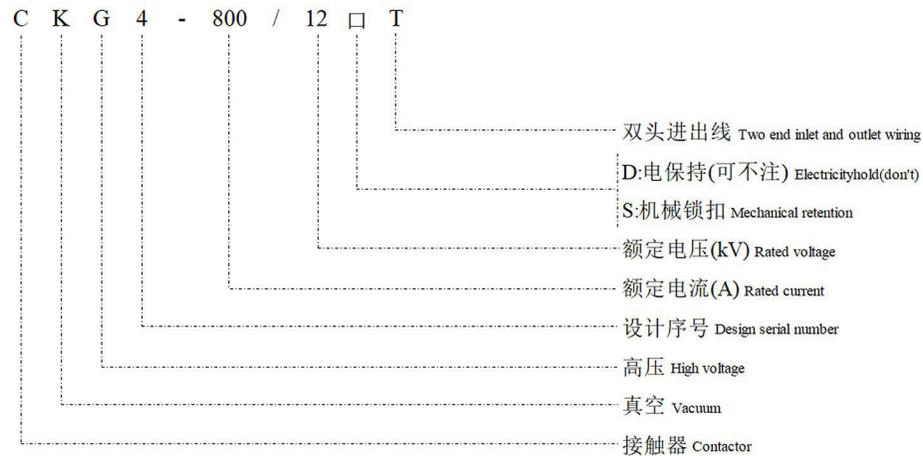


概述
Overview

该高压真空接触器适用于交流50Hz，额定工作电压至12kV，工作电流至800A的电力系统中使用的户内装置。用来开断、关合交流高压电动机、变压器的负载回路。本开关具有关合能力强、机械寿命长、故障率小、易维护等优点。

This high-voltage vacuum contactor is suitable for indoor devices used in power systems with AC 50Hz, rated working voltage up to 12kV, and working current up to 800A. Used to open and close the load circuit of AC high-voltage motors and transformers. This switch has the advantages of strong closing ability, long mechanical life, low failure rate, and easy maintenance.

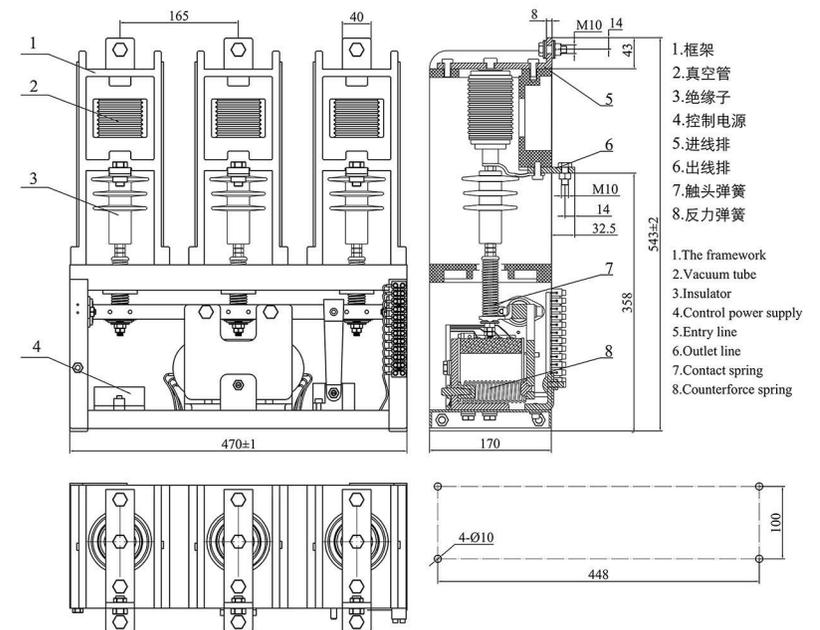
型号的组成及代表意义
The type and composition of representative significance



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	800	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	kA	5.04	
额定关合能力 The rated closing capacity	kA	6.3	
额定短时耐受电流 Rated short-time resistance current	kA	6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	16	
过载耐受电流 Overload withstand current	kA	9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	6±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50(每10万次需更换机械锁扣) 50(Mechanical latches to be replaced every 100,000 times)	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





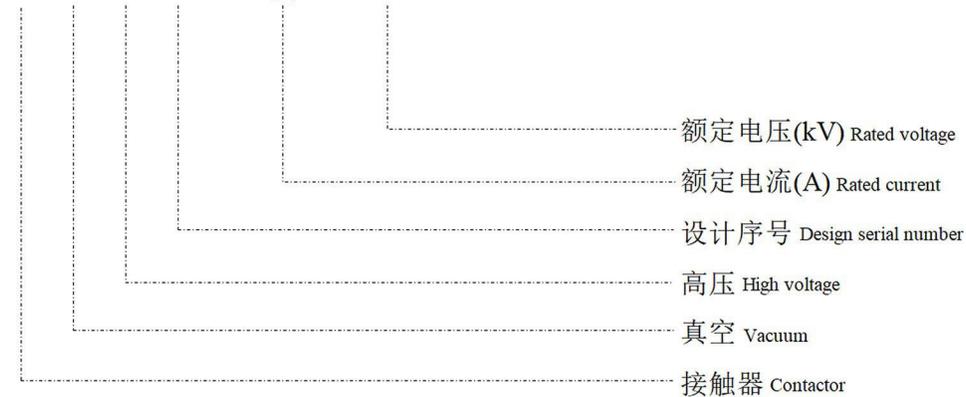
概述
Overview

该高压真空接触器适用于交流50Hz，额定工作电压至12kV，工作电流至1250A的电力系统中使用的户内装置。用来开断、关合交流高压电动机、变压器的负载回路。本开关具有关合能力强、机械寿命长、故障率小、易维护等优点。

This high-voltage vacuum contactor is suitable for indoor devices used in power systems with AC 50Hz, rated working voltage up to 12kV, and working current up to 1250A. Used to open and close the load circuit of AC high-voltage motors and transformers. This switch has the advantages of strong closing ability, long mechanical life, low failure rate, and easy maintenance.

型号的组成及代表意义
The type and composition of representative significance

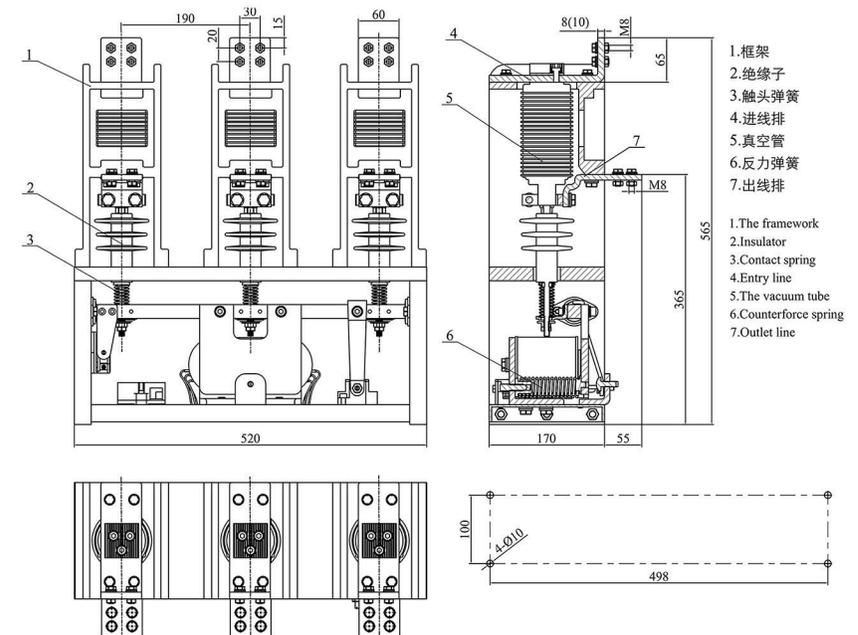
C K G 4 - □ / 12



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	1000、1250	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	kA	5.04	
额定关合能力 The rated closing capacity	kA	6.3	
额定短时耐受电流 Rated short-time resistance current	kA	6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	16	
过载耐受电流 Overload withstand current	kA	9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	6±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

本款整体结构式真空接触器系三相户内高压开关控制设备，应用于交流50Hz，额定工作电压12kV，额定工作电流至630A的电力系统中使用的户内装置，可对高压用电设备进行控制和频繁操作，具有关合能力强、故障率小、使用寿命长等优点。常与F-C柜配套使用，降低容量后，可用于容性负载回路，也广泛应用于高压电容无功补偿装置中。

This whole structured vacuum contactor three-phase indoor high voltage switch control equipment, applied to ac 50 hz, rated working voltage of 12 kv, rated current 630 a indoor device used in power system, to control high voltage electrical equipment and frequent operation, with the strong ability, the failure rate of small, long life and other advantages. Often used with F-C cabinet, reduced capacity, can be used for capacitive load loop, also widely used in high voltage capacitor reactive power compensation device.

型号的组成及代表意义
The type and composition of representative significance

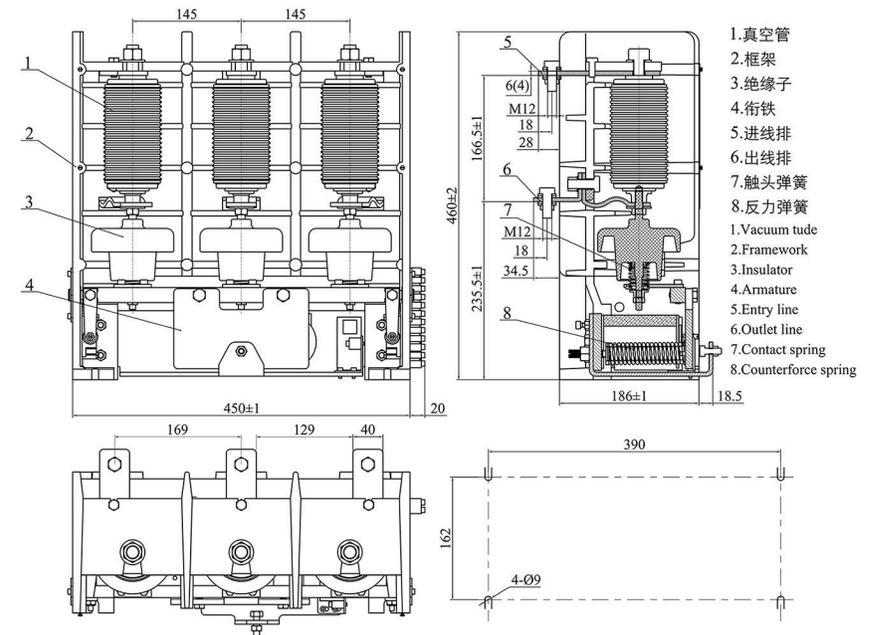
J C Z 5 - □ / 12 □

- D:电保持(可不注) Electricityhold(don't)
- S:机械锁扣 Mechanical retention
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 真空 Vacuum
- 接触器 Contactor
- 交流 AC

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	6±0.5
超行程 Overtravel	mm	≥1.5
合闸同期性 Closing synchronism	ms	≤2
机械寿命 Mechanical life	万次 Ten thousand times	50(每10万次需更换机械锁扣) 50(Mechanical latches to be replaced every 100,000 times)
电寿命 Electrical life	AC3	万次 Ten thousand times
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

本款整体结构式真空接触器系三相户内高压开关控制设备，应用于交流50Hz，额定工作电压7.2kV，额定工作电流至630A的电力系统中使用的户内装置，可对高压用电设备进行控制和频繁操作，具有关合能力强、故障率小、使用寿命长等优点。常与F-C柜配套使用，降低容量后，可用于容性负载回路，也广泛应用于高压电容无功补偿装置中。

This whole structured vacuum contactor three-phase indoor high voltage switch control equipment, applied to ac 50 hz, rated working voltage of 12 kv, rated current 630 a indoor device used in power system, to control high voltage electrical equipment and frequent operation, with the strong ability, the failure rate of small, long life and other advantages. Often used with F-C cabinet, reduced capacity, can be used for capacitive load loop, also widely used in high voltage capacitor reactive power compensation device.

型号的组成及代表意义
The type and composition of representative significance

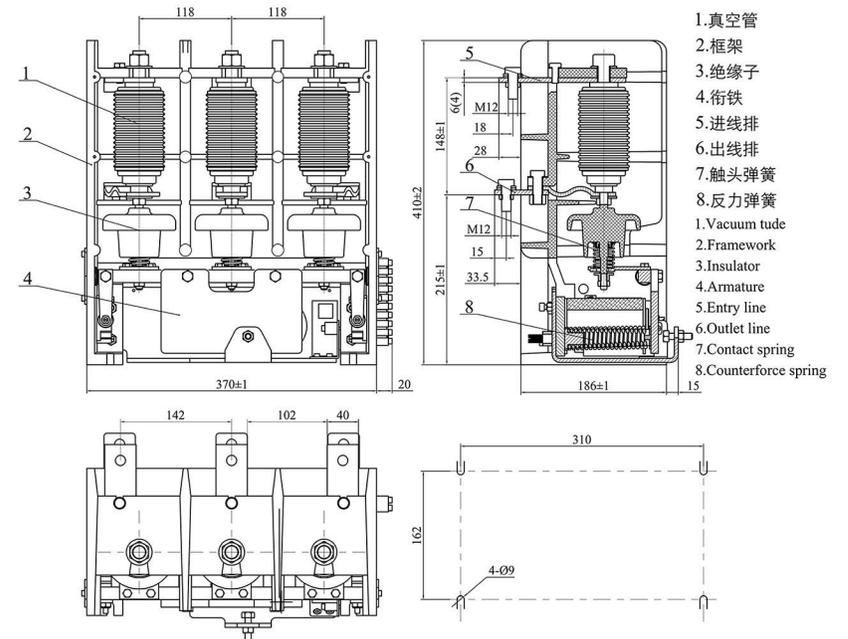
J C Z 5 - □ / 7.2

- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 真空 Vacuum
- 接触器 Contactor
- 交流 AC

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	7.2	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	32	
雷电冲击耐压 Lightning impulse withstand voltage	kV	60	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	4±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)



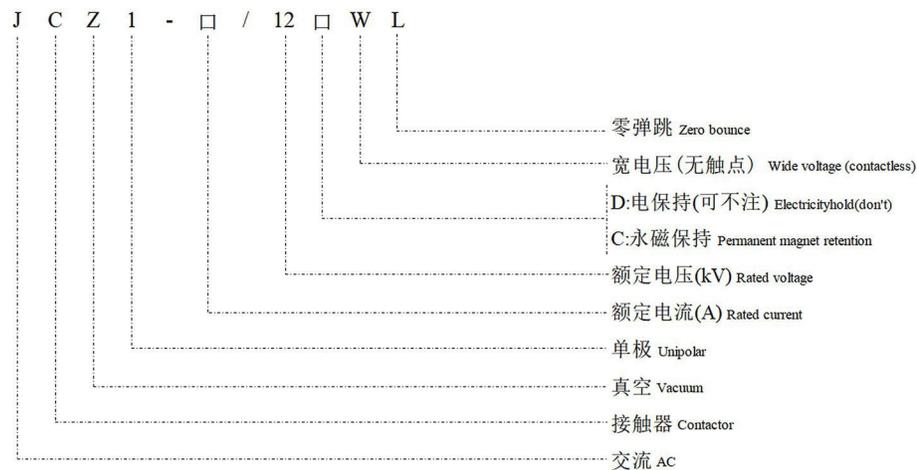


概述
Overview

本款单极真空接触器适用于交流50Hz，额定工作电压至12kV，额定工作电流至630A的单相电力系统中使用的户内装置，供远距离开断、关合电气设备的负载回路。常用于消弧、消谐回路中作为接地主开关使用。特别适用于控制炼制多晶硅还原炉的电气设备中。

This type of monopole vacuum contactor is suitable for indoor device used in single-phase power system with AC 50Hz, rated working voltage up to 12kV, rated working current up to 630A, for remote opening and closing of load loop of electrical equipment. It is often used as a host switch in arc elimination and harmonic elimination circuit. It is especially suitable for controlling the electrical equipment of the refining polysilicon reduction furnace.

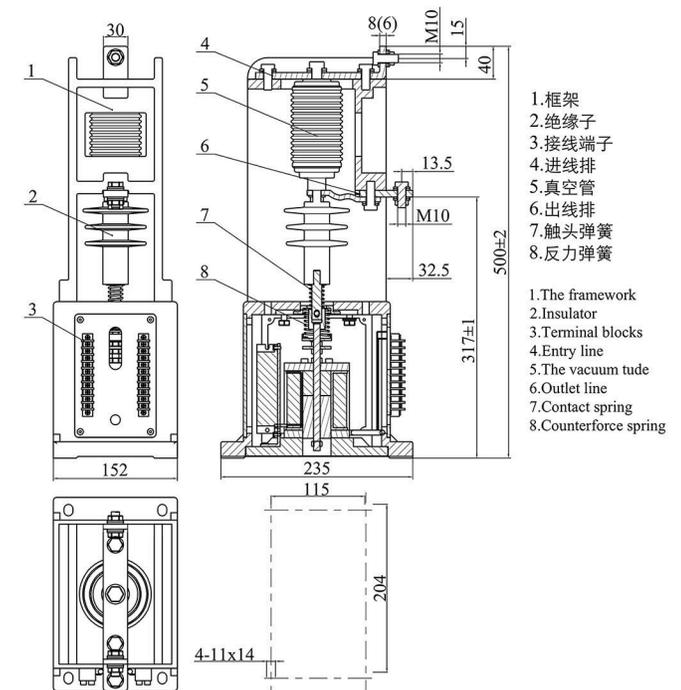
型号的组成及代表意义
The type and composition of representative significance



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
机械寿命 Mechanical life	万次 Ten thousand times	50
	电寿命 Electrical life	万次 Ten thousand times
	AC3	10
	AC4	

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该单极高压真空接触器广泛应用于额定工作电压至12kV，额定工作电流至630A的单相电力系统中使用的户内装置，供远距离开断、关合及频繁启动和控制高压用电设备的负载回路。具有关合能力强、弹跳小、稳定性高、故障率小、使用寿命长、防污染腐蚀等优点。

The monopole high-pressure vacuum contactor is widely used as indoor device in single-phase power system with rated working voltage up to 12kV and rated working current up to 630A. It can be used for remote opening, closing, frequent starting and controlling the load loop of high-voltage electrical equipment. It has the advantages of strong fitting ability, small bounce, high stability, small failure rate, long service life, anti-pollution corrosion and so on.

型号的组成及代表意义
The type and composition of representative significance

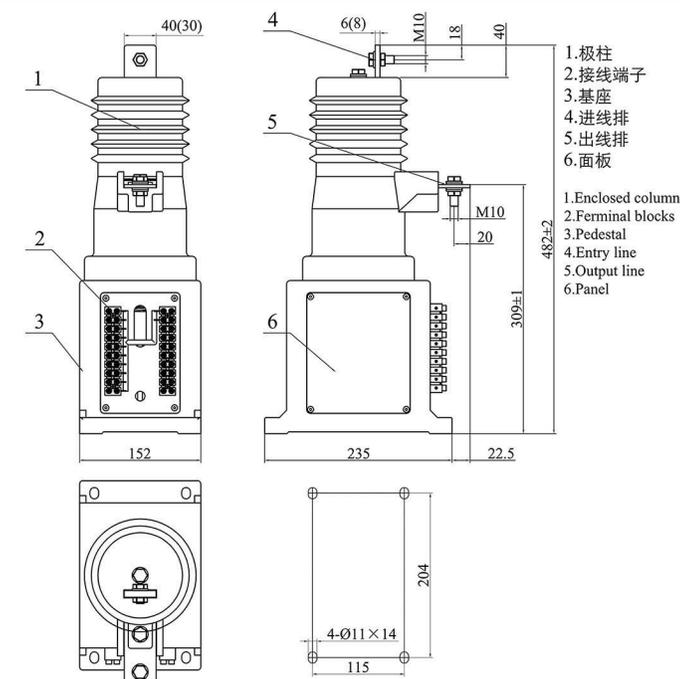
C Z 1 - □ / 12 F □ □ W

- 宽电压(无触点) Wide voltage (contactless)
- D:电保持(可不注) Electricity hold (don't)
- C:永磁保持 Permanent magnet retention
- 封闭式 Enclosed
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 单极 Unipolar
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	5.5±0.5
超行程 Overtravel	mm	≥1.5
机械寿命 Mechanical life	万次 Ten thousand times	50
电寿命 Electrical life	AC3	25
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

本款高原型单极高压真空接触器，是针对高海拔地区对高压电器产品的特殊要求而设计，安装海拔高度可达3500米。本开关应用于额定工作电压至12kV，额定工作电流至630A的单相电力系统中使用的户内装置，供远距离开断、关合及频繁启动和控制高压用电设备的负载回路。

The Plateau type monopole high voltage vacuum contactor is designed for the special requirements of high voltage electrical products in high altitude areas. The installation altitude can reach 3500 meters. The switch is used as an indoor device in single-phase power system with rated working voltage up to 12kV and rated working current up to 630A. It can be used for remote switching, closing, frequent starting and controlling the load loop of high-voltage electrical equipment.

型号的组成及代表意义
The type and composition of representative significance

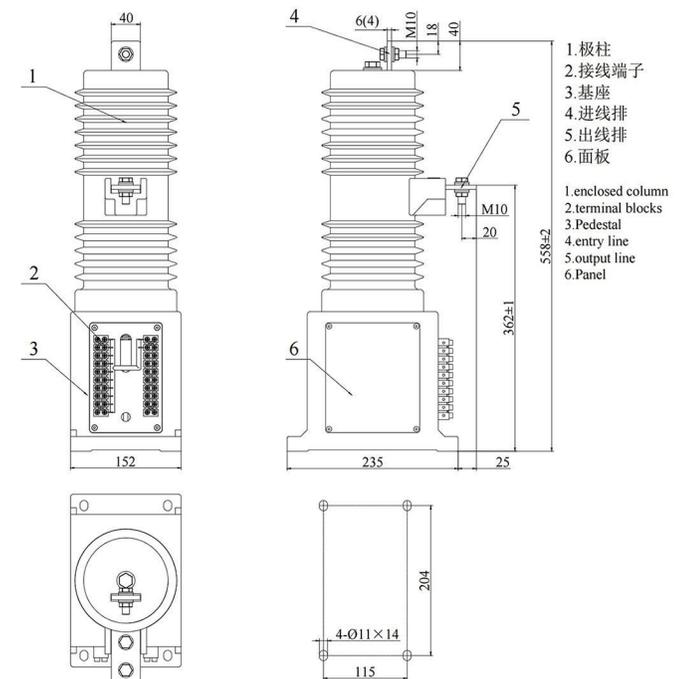
C Z 1 - □ / 12 G F □ W

- 宽电压(无触点) Wide voltage (contactless)
- D:电保持(可不注) Electricity hold (don't)
- C:永磁保持 Permanent magnet retention
- 封闭式 Enclosed
- 高原型 Plateau type
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 单极 Unipolar
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	160、250、400、630
工频耐压 Power frequency withstand voltage	kV	42
雷电冲击耐压 Lightning impulse withstand voltage	kV	75
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	6±0.5
超行程 Overtravel	mm	≥1.5
机械寿命 Mechanical life	万次 Ten thousand times	50
电寿命 Electrical life	AC3	25
	AC4	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述 Overview

该单极高压真空接触器适用于交流50/60Hz，额定工作电压至40.5kV，额定工作电流至630A的单相电力系统中使用的户内装置，供直接或远距离开断、关合及启动和控制高压用电设备的负载回路。本开关具有分合能力强、弹跳小、稳定性高、使用寿命长等优点。

The single pole high-voltage vacuum contactor is applicable to indoor devices used in single-phase power systems with AC 50/60Hz, rated working voltage of 40.5kV and rated working current of 630A, which are used to directly or remotely open, close, start and control the load circuit of high-voltage electrical equipment. This switch has the advantages of strong opening and closing ability, small bounce, high stability, and long service life.

型号的组成及代表意义 The type and composition of representative significance

C Z 1 - 630 / 40.5 F C

永磁保持 Permanent magnet retention

封闭式 Enclosed

额定电压(kV) Rated voltage

额定电流(A) Rated current

单极 Unipolar

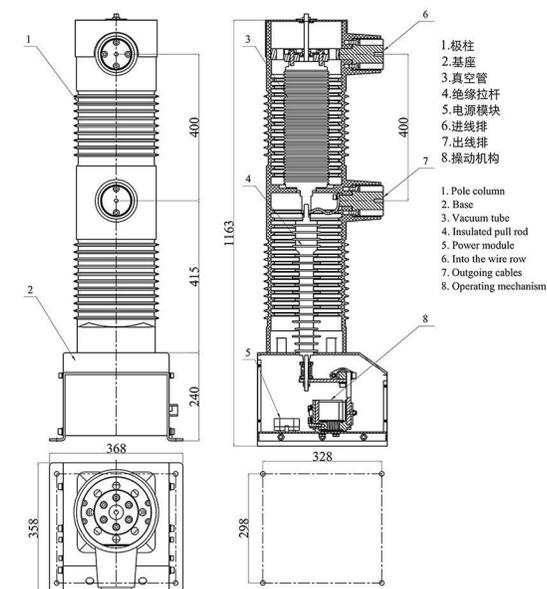
真空 Vacuum

接触器 Contactor

主要技术参数 Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	40.5	
额定电流 Rated current	A	630	
工频耐压 Power frequency withstand voltage	kV	95	
雷电冲击耐压 Lightning impulse withstand voltage	kV	185	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 16	
过载耐受电流 Overload withstand current	kA	15Ie 9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	17±1	
超行程 Overtravel	mm	≥3	
合闸时间 Closing time	ms	≤80	
分闸时间 Break-brake time	ms	≤40	
触头终压力 Contact terminate pressure	N	850±50	
主回路电阻 Main circuit resistance	μΩ	≤100	
工频耐压 Power frequency withstand voltage	控制回路 Control loop	kV	2
	辅助回路 Auxiliary loop	kV	2
机械寿命 Mechanical life	万次 Ten thousand times	10	
电寿命 Electrical life	AC3 万次 Ten thousand times	2	

外形及安装尺寸(mm) Appearance and installation dimensions (mm)





概述 Overview

本款高原型高压真空接触器，是针对高海拔地区对高压电气产品的特殊要求而设计，安装海拔高度可达3500米。本开关应用于额定工作电压至12kV，额定工作电流至630A的电力系统中使用的户内装置，供远距离开断、关合及频繁启动和控制高压用电设备的负载回路。

This high-altitude high-voltage vacuum contactor is designed for the special requirements of high-voltage electrical products in high-altitude areas, and can be installed at an altitude of up to 3500 meters. This switch is used as an indoor device in power systems with a rated working voltage of 12kV and a rated working current of 630A, for long-distance opening, closing, frequent starting, and control of high-voltage electrical equipment load circuits.

型号的组成及代表意义 The type and composition of representative significance

The type and composition of representative significance

C Z 7 - □ / 12 G F □ W



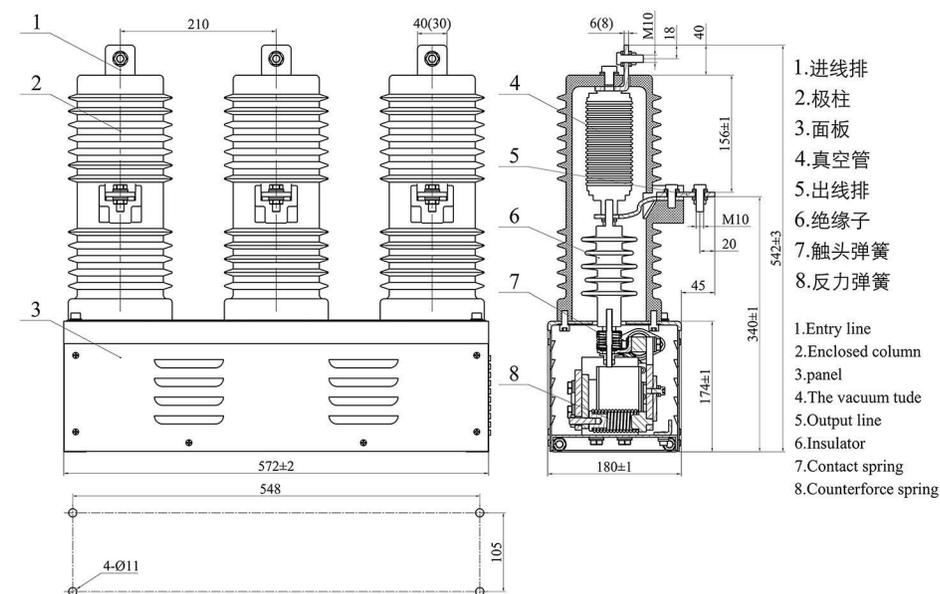
主要技术参数 Main technical parameters

Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	6±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤3	
主回路电阻 Main circuit resistance	μΩ	≤100	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm) Appearance and installation dimensions (mm)

Appearance and installation dimensions (mm)





概述
Overview

该高压真空接触器适用于交流50/60Hz，额定工作电压至15kV，工作电流至630A的电力系统中使用的户内装置，供远距离开断、关合及频繁启动和控制高压用电设备的负载回路。降低容量后，可用于容性负载回路。

This high-voltage vacuum contactor is suitable for indoor devices used in power systems with AC 50/60Hz, rated working voltage up to 15kV, and working current up to 630A. It is used for long-distance breaking, closing, frequent starting, and control of load circuits of high-voltage electrical equipment. After reducing the capacity, it can be used for capacitive load circuits.

型号的组成及代表意义
The type and composition of representative significance

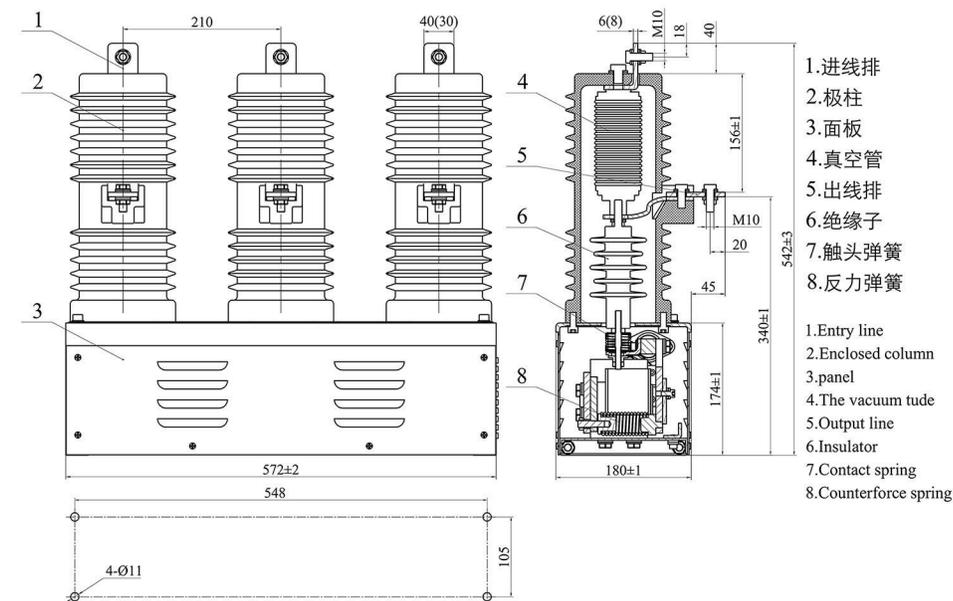
C Z 7 - □ / 15 F □ □ W

- 宽电压(无触点) Wide voltage (contactless)
- D:电保持(可不注) Electricity hold (don't)
- C:永磁保持 Permanent magnet retention
- 封闭式 Enclosed
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	15	
额定电流 Rated current	A	160、250、400、630	
工频耐压 Power frequency withstand voltage	kV	50	
雷电冲击耐压 Lightning impulse withstand voltage	kV	88	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6、2.5、4、6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4、6.3、10、16	
过载耐受电流 Overload withstand current	kA	15Ie 2.4、3.8、6、9.45	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
额定开距 The rated contact gap	mm	6±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤3	
主回路电阻 Main circuit resistance	μΩ	≤100	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该高压真空接触器应用于交流50/60Hz，额定工作电压至40.5kV，额定工作电流至630A的电力系统中使用的户内装置，供直接或远距离开断、关合及启动和控制高压用电设备的负载回路。

This high-voltage vacuum contactor is suitable for indoor devices used in power systems with AC 50/60Hz, rated working voltage up to 40.5kV, and rated working current up to 630A. It is used for direct or remote opening, closing, starting, and controlling the load circuit of high-voltage electrical equipment.

型号的组成及代表意义
The type and composition of representative significance

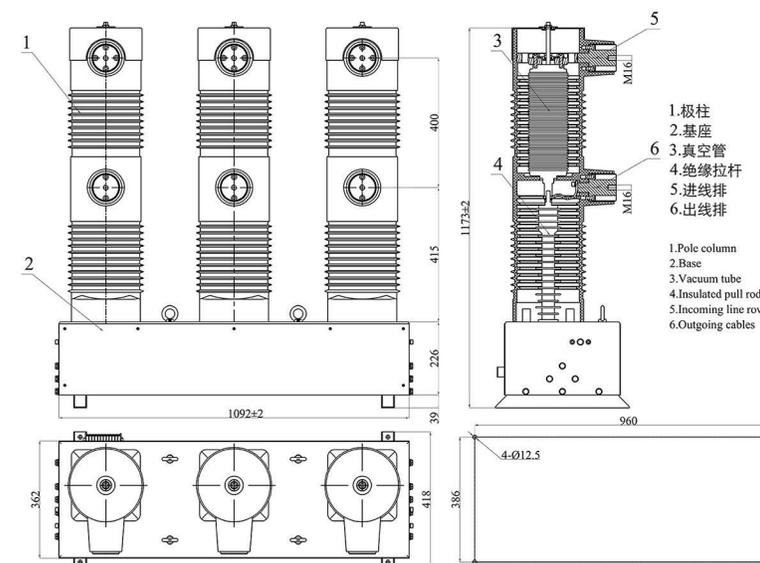
C Z 7 - 630 / 40.5 F □

- D:电保持(可不注) Electricityhold(don't)
- C:永磁保持 Permanent magnet retention
- 封闭式 Enclosed
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	40.5
额定电流 Rated current	A	630
工频耐压 Power frequency withstand voltage	kV	95
雷电冲击耐压 Lightning impulse withstand voltage	kV	185
额定开断能力 The rated breaking capacity	A	8Ie 25次 times
额定关合能力 The rated closing capacity	A	10Ie 100次 times
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 6.3
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 16
过载耐受电流 Overload withstand current	kA	15Ie 9.45
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times
额定开距 The rated contact gap	mm	17±1
超行程 Overtravel	mm	≥3
合闸同期性 Closing synchronism	ms	≤3
触头终压力 Contact terminate pressure	N	850±50
主回路电阻 Main circuit resistance	μΩ	≤100
控制回路工频耐压 Control circuit withstand voltage	kV	2
机械寿命 Mechanical life	万次 Ten thousand times	10
电寿命 Electrical life	AC3 万次 Ten thousand times	2

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

本高压真空接触器适用于三相交流50/60Hz, 额定工作电压至12kV, 额定工作电流至630A的电力系统中使用的户内真空开关, 用于开断、关合交流高压电动机、变压器的负载回路, 工矿企业动力设备的控制和保护单元。降低容量后, 可用于无功补偿的容性负载回路。

本产品是公司开发的新一代高压真空开关, 可立式或卧式安装, 也可安装在手车上与限流熔断器组成可移开式的组合电器。本开关主回路部分设计在由树脂注塑的绝缘极柱内, 这种结构能有效的防止外力冲击, 及污秽环境因素对真空灭弧室与主回路绝缘的影响, 具有耐高温、防腐蚀、关合性能强、弹跳小、使用寿命长等优点, 特别适用于高压软起电设备装置中。

This high-voltage vacuum circuit breaker is suitable for indoor vacuum switches used in three-phase AC 50/60Hz, rated working voltage up to 12kV, and rated working current up to 630A power systems. It serves as a protection and control unit for power grid equipment and industrial and mining enterprise power equipment. It is used to open and close load circuits of AC high-voltage motors and transformers, as well as control and protection units for power equipment in industrial and mining enterprises. This product is a new generation high-voltage vacuum switch developed by the company, which can be installed vertically or horizontally, or can be installed on a handcart to form a movable circuit breaker. Especially involving an electric repulsion compensation mechanism with a U-shaped coil, which separates the normal load closing ability from the short-circuit closing ability to achieve. Therefore, the operating mechanism only needs to be designed and manufactured according to the required parameters for normal load opening and closing. 85% of the terminal pressure required for short-circuit closing capacity is provided by the electric repulsion compensation mechanism, which reduces the power and volume of the operating mechanism and meets the requirements for miniaturization of circuit breakers. This switch control mechanism has a simple structure, is maintenance free, can be operated frequently, and has a mechanical life of up to 300000 times. It has the advantages of strong closing performance, low failure rate, high reliability, and long service life. It is suitable for high-voltage soft starting electrical control equipment devices.

型号的组成及代表意义
The type and composition of representative significance

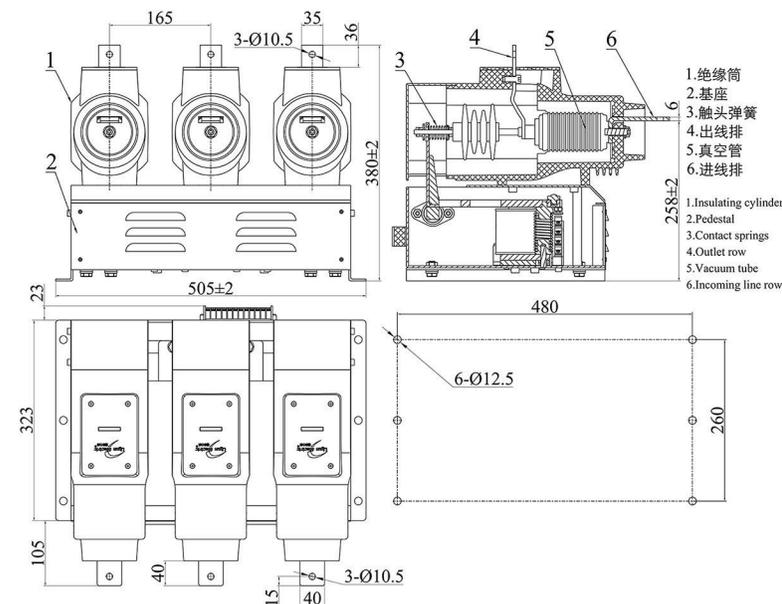
Z N J - 12 □ / 630

- 额定电流(A) Rated current
- D:电保持(可不注) Electricity hold(don't)
- C:永磁保持 Permanent magnet retention
- 额定电压(kV) Rated voltage
- 接触器 Contactor
- 户内 Indoor
- 真空 Vacuum

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	12	
额定电流 Rated current	A	630	
工频耐压 Power frequency withstand voltage	kV	42	
雷电冲击耐压 Lightning impulse withstand voltage	kV	75	
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流(热稳定电流) Rated short-term withstand current (thermal stability current)	kA	10Ie 6.3	
额定峰值耐受电流(动稳定电流) Rated peak withstand current (dynamic stable current)	kA	25Ie 16	
峰值耐受电流时间 Peak withstand current time	S	2	
额定开距 The rated contact gap	mm	5.5±0.5	
超行程 Overtravel	mm	≥1.5	
主回路电阻 Main circuit resistance	μΩ	≤80	
合闸时间 Closing time	ms	≤60	
分闸时间 Opening time	ms	≤40	
合闸同期性 Closing synchronism	ms	≤2	
触头合闸弹跳时间 Contact closing bounce time	ms	≤2	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4		10
机械寿命 Mechanical life	万次 Ten thousand times		50

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述

Overview

该单相低压真空接触器，适用于交流50Hz、额定电压至1.14kV、额定工作电流1600-2500A的电力系统中，供直接或远距离接通和分断主电路用，也广泛应用于低压电容无功补偿装置中。本开关具有关合能力强、弹跳小、稳定性高、故障率小、使用寿命长等优点。

This single-phase low-voltage vacuum contactor is suitable for power systems with AC 50Hz, rated voltage up to 1.14kV, and rated working current up to 1600 to 2500A. It is used to directly or remotely connect and disconnect the main circuit, and is also widely used in low-voltage capacitor reactive power compensation devices. This switch has the advantages of strong closing ability, small bounce, high stability, low failure rate, and long service life.

型号的组成及代表意义

The type and composition of representative significance

C Z 1 - □ / 1.14 □ W

- : 宽电压(无触点) Wide voltage (contactless)
- D: 电保持(可不注) Electricity hold (don't)
- C: 永磁保持 Permanent magnet retention
- 1.14: 额定电压(kV) Rated voltage
- : 额定电流(A) Rated current
- Z: 单极 Unipolar
- 1: 真空 Vacuum
- C: 接触器 Contactor

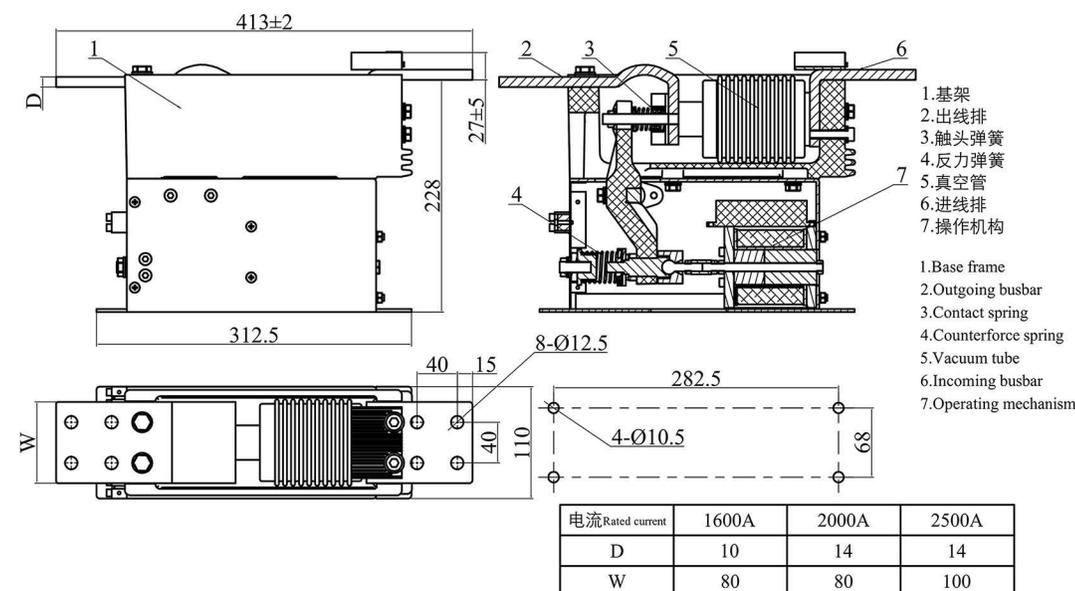
主要技术参数

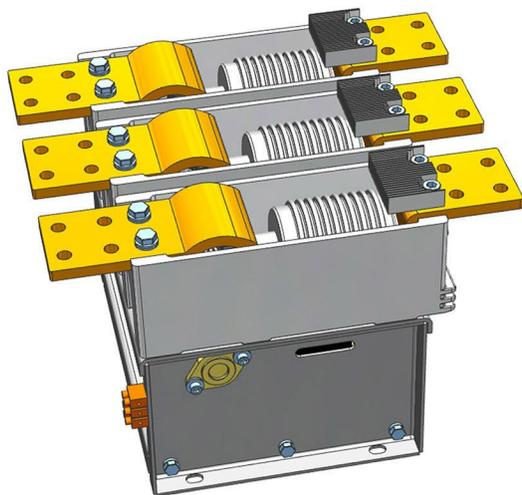
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	1.14	
额定电流 Rated current	A	1600、2000、2500	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	7000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	kA	4Ie (AC2)	
额定关合能力 The rated closing capacity	kA	4Ie (AC2)	
过载耐受电流 Overload withstand current	kA	10	
额定开距 The rated contact gap	mm	3.5±0.5	
超行程 Overtravel	mm	≥2	
合闸弹跳 Closing bounce	ms	≤2	
合闸时间 Closing time	ms	≤60	
分闸时间 Break-brake time	ms	≤40	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC2 万次 Ten thousand times	25	

外形及安装尺寸(mm)

Appearance and installation dimensions (mm)





概述
Overview

该低压真空接触器，适用于交流50Hz、额定电压至2kV、额定工作电流1600-2500A的电力系统中，供直接或远距离接通和分断主电路用，也广泛应用于低压电容无功补偿装置中。本开关具有关合能力强、弹跳小、稳定性高、故障率小、使用寿命长等优点。

This low-voltage vacuum contactor is suitable for power systems with AC 50Hz, rated voltage up to 2kV, and rated working current up to 1600 to 2500A. It is used to directly or remotely connect and disconnect the main circuit, and is also widely used in low-voltage capacitor reactive power compensation devices. This switch has the advantages of strong closing ability, small bounce, high stability, low failure rate, and long service life.

型号的组成及代表意义
The type and composition of representative significance

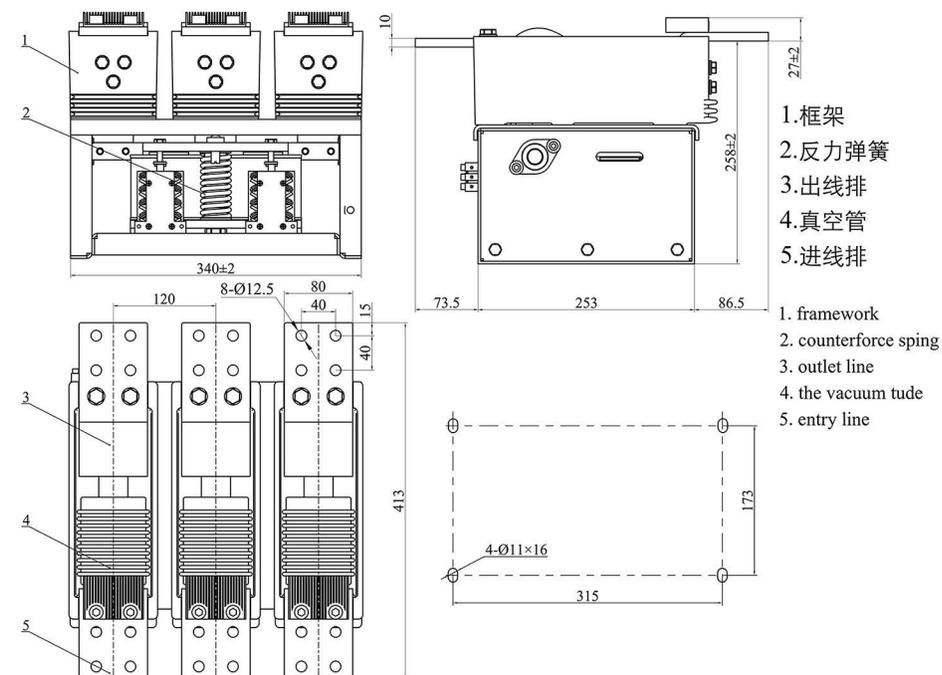


主要技术参数
Main technical parameters

CZ3-1600/2□ 低压真空接触器 Low voltage vacuum contactor

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	2	
额定电流 Rated current	A	1600	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	7000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	kA	4Ie (AC2)	
额定关合能力 The rated closing capacity	kA	4Ie (AC2)	
过载耐受电流 Overload withstand current	kA	10	
额定开距 The rated contact gap	mm	3.5±0.5	
超行程 Overtravel	mm	≥2	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC2 万次 Ten thousand times	25	

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)



主要技术参数

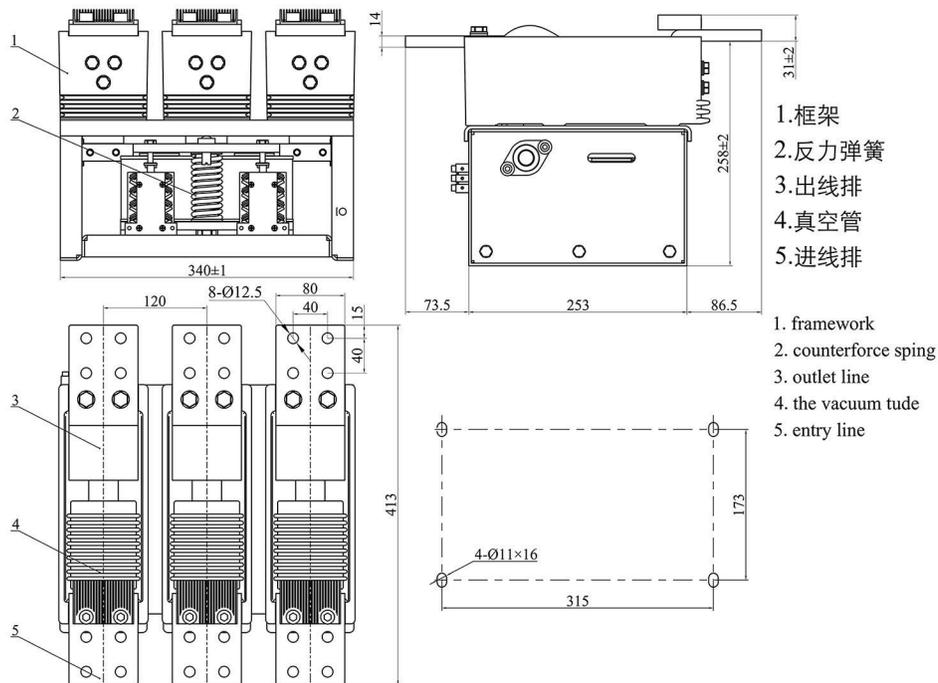
Main technical parameters

CZ3-2000/2口 低压真空接触器 Low voltage vacuum contactor

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	2	
额定电流 Rated current	A	2000	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	7000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	kA	4Ie (AC2)	
额定关合能力 The rated closing capacity	kA	4Ie (AC2)	
过载耐受电流 Overload withstand current	kA	10	
额定开距 The rated contact gap	mm	3.5±0.5	
超行程 Overtravel	mm	≥2	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC2 万次 Ten thousand times	25	

外形及安装尺寸(mm)

Appearance and installation dimensions (mm)



主要技术参数

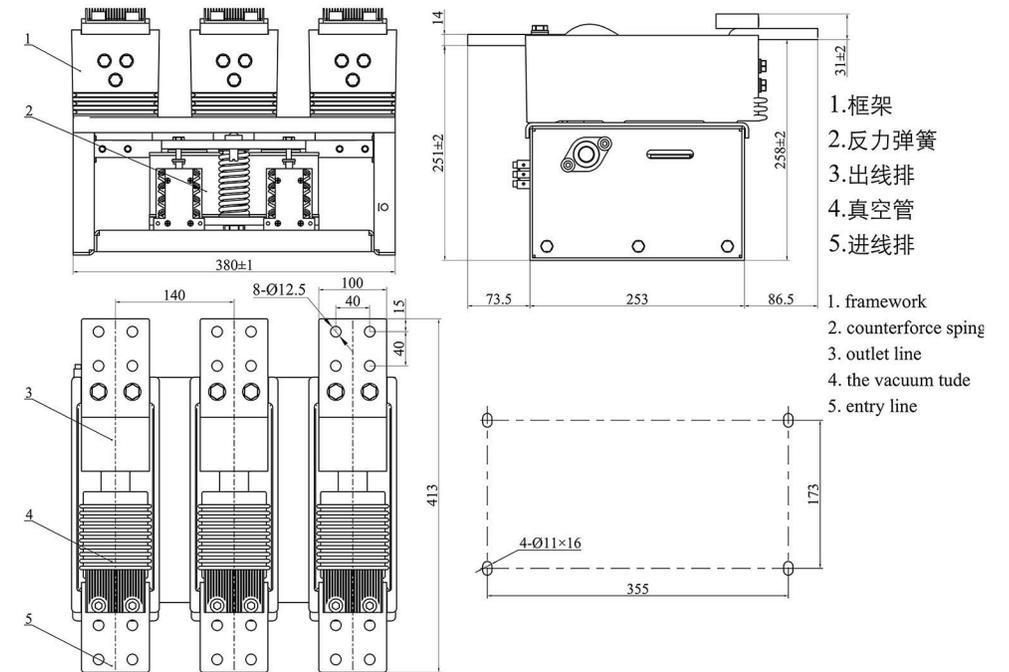
Main technical parameters

CZ3-2500/2口 低压真空接触器 Low voltage vacuum contactor

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	2	
额定电流 Rated current	A	2500	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	7000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	kA	4Ie (AC2)	
额定关合能力 The rated closing capacity	kA	4Ie (AC2)	
过载耐受电流 Overload withstand current	kA	10	
额定开距 The rated contact gap	mm	3.5±0.5	
超行程 Overtravel	mm	≥2	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC2 万次 Ten thousand times	25	

外形及安装尺寸(mm)

Appearance and installation dimensions (mm)





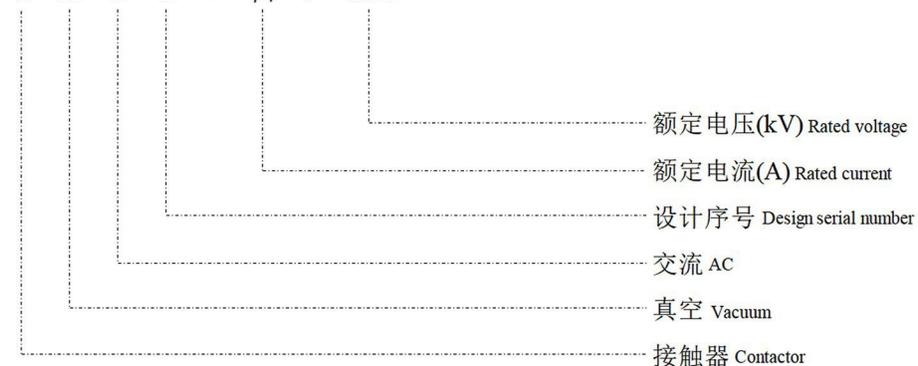
概述
Overview

该低压真空接触器，主要用于交流50Hz、额定电压至1.14kV、额定工作电流至1250A的电力系统中，供远距离接通和分断电路，及频繁的起动和控制交流电动机之用。本开关具有关合能力强、机械寿命长、故障率小、易维护等优点。

This low-voltage vacuum contactor is mainly used in power systems with AC 50Hz, rated voltage up to 1.14kV, and rated working current up to 1250A, for long-distance connection and disconnection of circuits, as well as frequent starting and control of AC motors. This switch has the advantages of strong closing ability, long mechanical life, low failure rate, and easy maintenance.

型号的组成及代表意义
The type and composition of representative significance

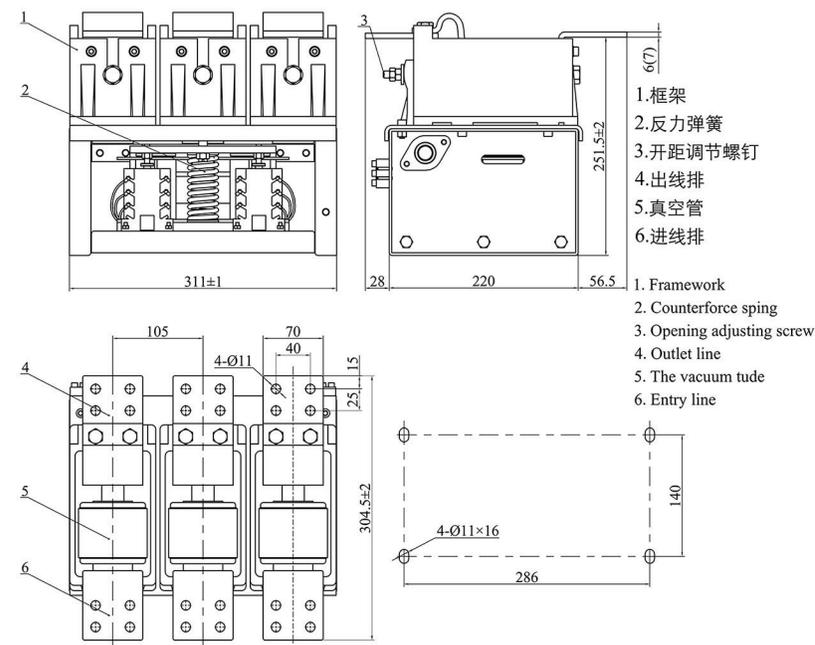
C K J 5 - □ / 1.14



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	1.14	
额定电流 Rated current	A	1000、1250	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	7000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	kA	5	
额定关合能力 The rated closing capacity	kA	6.3	
极限分断电流 Rated short-time resistance current	kA	6.3	
额定短时耐受电流 Rated short-time resistance current	kA	6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	16	
过载耐受电流 Overload withstand current	kA	9.45	
额定开距 The rated contact gap	mm	3±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
电寿命 Electrical life	AC3	万次 Ten thousand times	25
	AC4	万次 Ten thousand times	10

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该低压真空接触器广泛应用于交流50Hz、额定电压至1.14kV、额定工作电流至800A的电力系统中，供远距离接通和分断电路，及频繁的起动和控制交流电动机。并适宜与各种保护装置组成真空电磁起动器。

This low-voltage vacuum contactor is widely used in power systems with AC 50Hz, rated voltage up to 1.14kV, and rated working current up to 800A, for long-distance connection and disconnection of circuits, as well as frequent starting and control of AC motors. And it is suitable to form a vacuum electromagnetic starter with various protective devices.

型号的组成及代表意义
The type and composition of representative significance

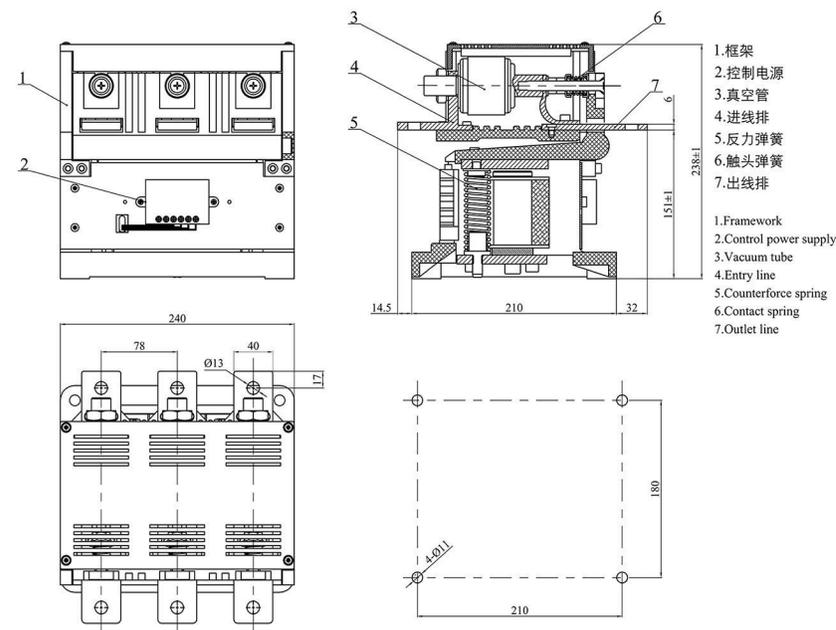
C K J 20 - □ / 1.14 □

- D:电保持(可不注) Electricity hold (don't)
- C:永磁保持 Permanent magnet retention
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 设计序号 Design serial number
- 交流 AC
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	1.14	
额定电流 Rated current	A	630、800	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	6000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 6.3	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 16	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
过载耐受电流 Overload withstand current	kA	9.45	
额定开距 The rated contact gap	mm	2.5±0.5	
超行程 Overtravel	mm	≥1.5	
合闸同期性 Closing synchronism	ms	≤2	
机械寿命 Mechanical life	万次 Ten thousand times	50	
	电寿命 Electrical life	万次 Ten thousand times	25
	AC3	25	
	AC4	10	

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该低压单极真空接触器，适用于交流50Hz，额定工作电压至1140V，额定工作电流至250A的电力系统中，供直接或远距离接通和分断主电路用。因触头在高真空环境下工作，因此具有电弧不外露，体积小，重量轻，维护周期长等优点。特别适宜于组成各种路灯控制装置及工作于油田、化工等场合。

This low-voltage single pole vacuum contactor is suitable for power systems with AC 50Hz, rated working voltage up to 1140V, and rated working current up to 250A, for direct or remote connection and disconnection of main circuits. Due to the high vacuum environment in which the contact operates, it has the advantages of not exposing the arc, small size, light weight, and long maintenance cycle. Especially suitable for composing various street light control devices and working in oil fields, chemical industries, and other occasions.

型号的组成及代表意义
The type and composition of representative significance

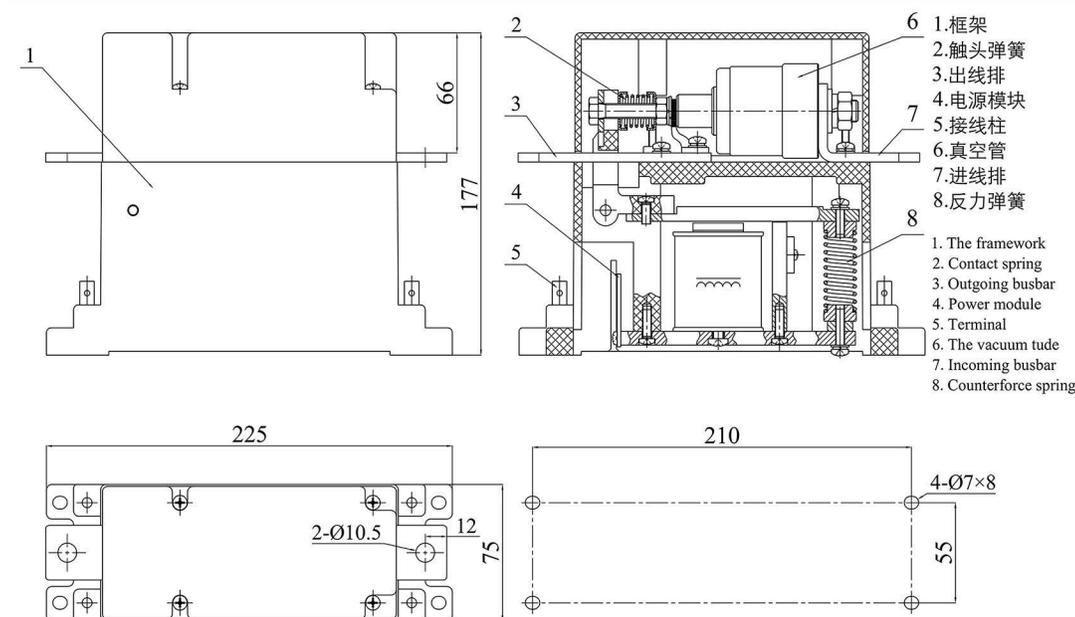
C K J 1 - 250 / 1.14

- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 单极 Unipolar
- 交流 AC
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	1.14	
额定电流 Rated current	A	250	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	6000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 2.5	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 6.3	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
过载耐受电流 Overload withstand current	kA	15Ie 3.8	
额定开距 The rated contact gap	mm	2±0.5	
超行程 Overtravel	mm	≥1	
机械寿命 Mechanical life	万次 Ten thousand times	50	
	电寿命 Electrical life	万次 Ten thousand times	25
	AC3	10	
	AC4	10	

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该低压单极低压真空接触器，适用于交流50Hz，额定工作电压至1140V，额定工作电流至160A的电力系统中，供直接或远距离接通和分断主电路用。因触头在高真空环境下工作，因此具有电弧不外露，体积小，重量轻，维护周期长等优点。特别适宜于组成各种路灯控制装置及工作于油田、化工等场合。

This low-voltage single pole low-voltage vacuum contactor is suitable for power systems with AC 50Hz, rated working voltage up to 1140V, and rated working current up to 160A, for direct or remote connection and disconnection of main circuits. Due to the high vacuum environment in which the contact operates, it has the advantages of not exposing the arc, small size, light weight, and long maintenance cycle. Especially suitable for composing various street light control devices and working in oil fields, chemical industries, and other occasions.

型号的组成及代表意义
The type and composition of representative significance

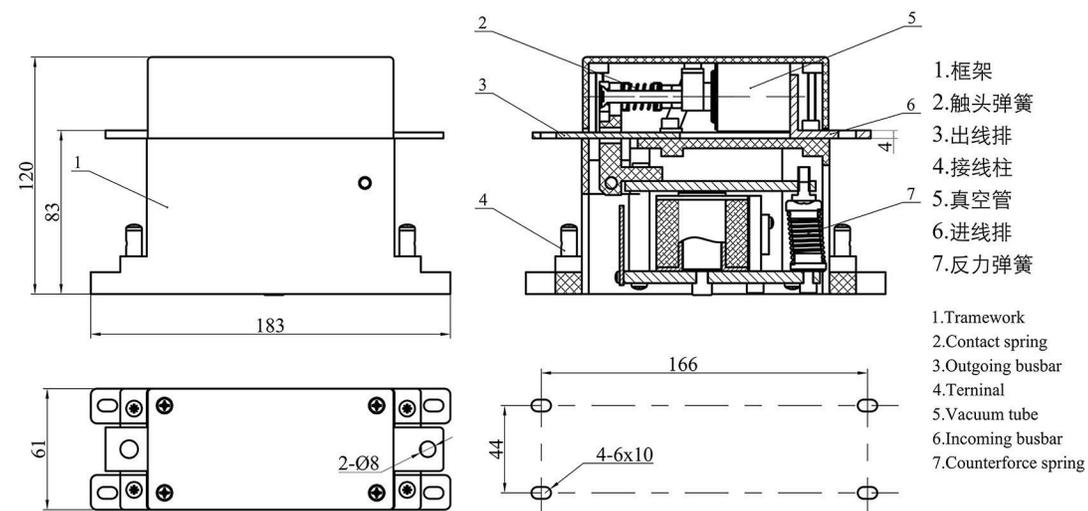
C K J 1 - 160 / 1.14

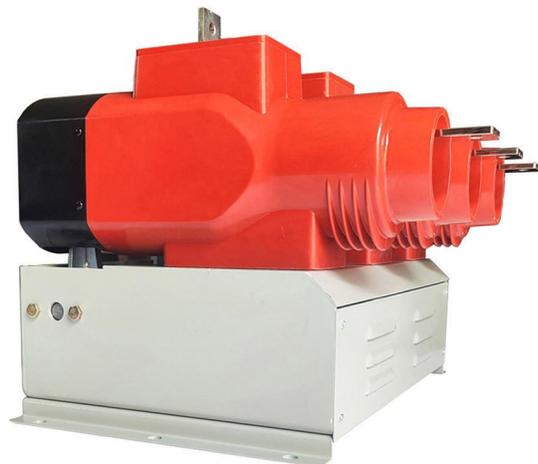
- 额定电压(kV) Rated voltage
- 额定电流(A) Rated current
- 单极 Unipolar
- 交流 AC
- 真空 Vacuum
- 接触器 Contactor

主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter	
额定电压 Rated voltage	kV	1.14	
额定电流 Rated current	A	160	
工频耐压 Power frequency withstand voltage	真空断口 vacuum fracture	V	6000
	相-相/相-地 phase to phase, phase to ground	V	4200
额定开断能力 The rated breaking capacity	A	8Ie 25次 times	
额定关合能力 The rated closing capacity	A	10Ie 100次 times	
额定短时耐受电流 Rated short-time resistance current	kA	10Ie 1.6	
额定峰值耐受电流 Rated current peak tolerance	kA	25Ie 4	
短路电流开断和关合 Short circuit current breaking and closing	A	10Ie O-180s-CO-180s-CO 1次 times	
过载耐受电流 Overload withstand current	kA	15Ie 2.4	
额定开距 The rated contact gap	mm	2±0.5	
超行程 Overtravel	mm	≥1	
机械寿命 Mechanical life	万次 Ten thousand times	50	
	电寿命 Electrical life	万次 Ten thousand times	25
	AC3		10
	AC4		

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)





概述
Overview

该高压真空断路器适用于三相交流50/60Hz，额定工作电压至12kV，额定工作电流至630A的电力系统中使用的户内真空开关，作为电网设备、工矿企业动力设备的保护和控制单元。

本产品是公司开发的新一代高压真空开关，可立式或卧式安装，也可安装在手车上组成移开式断路器。尤其涉及一种带有U字形的电动斥力补偿机构，把正常的负荷关合能力与短路关合能力分离开来实现。因此操纵机构只需按正常负荷分合的需要参数设计来制造，短路关合能力需要的终端压力的85%由电动斥力补偿机构来提供，减小了操纵机构的功率和体积，达到了断路器小型化的要求。本开关操纵机构结构简单，免维护，可频繁操作，且机械寿命高达30万次，具有关合性能强、故障率小、可靠性高、使用寿命长等优点。

This high-voltage vacuum circuit breaker is suitable for indoor vacuum switches used in three-phase AC 50/60Hz, rated working voltage up to 12kV, and rated working current up to 630A power systems. It serves as a protection and control unit for power grid equipment and industrial and mining enterprise power equipment.

This product is a new generation high-voltage vacuum switch developed by the company, which can be installed vertically or horizontally, or can be installed on a handcart to form a movable circuit breaker. Especially involving an electric repulsion compensation mechanism with a U-shaped coil, which separates the normal load closing ability from the short-circuit closing ability to achieve.

Therefore, the operating mechanism only needs to be designed and manufactured according to the required parameters for normal load opening and closing. 85% of the terminal pressure required for short-circuit closing capacity is provided by the electric repulsion compensation mechanism, which reduces the power and volume of the operating mechanism and meets the requirements for miniaturization of circuit breakers. This switch control mechanism has a simple structure, is maintenance free, can be operated frequently, and has a mechanical life of up to 300000 times. It has the advantages of strong closing performance, low failure rate, high reliability, and long service life.

型号的组成及代表意义
The type and composition of representative significance

Z N D - 12 □ / 630 - 20 U



主要技术参数
Main technical parameters

名称 name	单位 unit	参数 parameter
额定电压 Rated voltage	kV	12
额定电流 Rated current	A	630
额定频率 Rated frequency	Hz	50/60
额定工频耐受电压(1分钟) Rated power frequency withstand voltage (1 minute)	kV	42
额定雷电冲击耐受电压(峰值) Rated lightning impulse withstand voltage (peak)	kV	75
额定峰值耐受电流(动稳定电流) Rated peak withstand current (dynamic stable current)	kA	50
额定短时耐受电流(热稳定电流) Rated short-term withstand current (thermal stability current)	kA	20
额定短路关合电流(峰值) Rated short-circuit making current (peak)	kA	50
额定短路开断电流 Rated short-circuit breaking current	kA	20
额定短路持续时间 Rated short-circuit duration	S	4
额定短路电流开断次数 Rated short-circuit current breaking frequency	次 Times	30
额定开距 Rated opening distance	mm	8±0.5
超行程 Overtavel	mm	≥2
合闸时间 Closing time	ms	≤60
分闸时间 Opening time	ms	≤40
合闸同期性 Closing synchronism	ms	≤2
触头合闸弹跳时间 Contact closing bounce time	ms	≤2
主回路电阻 Main circuit resistance	μΩ	≤65
控制回路工频耐压 Power frequency voltage resistance of control loop	kV	2
控制电压 Control voltage	V	AC/DC 220
额定电流下操作频率 Operating frequency at rated current	电保持 Electricity hold 永磁保持 Permanent magnet	次/小时 Times/hour
		300/h
		120/h
相间中心距 Center to center distance between phases	mm	165(150 /180 /210)
电寿命 Electrical life	万次 Ten thousand times	20
机械寿命 Mechanical life	万次 Ten thousand times	30

外形及安装尺寸(mm)
Appearance and installation dimensions (mm)

