



HEADQUARTER

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GENERAL RELAY SELECTION GUIDE

通用继电器选项手册

ZOMKUN ELECTRONIC

中坤电子

CUSTOMER-ORIENTED, PROUD OF CREATIVITY

COMPANY PROFILE

公司简介

CHANGSHA ZOMKUN ELECTRONIC SCIENCE & TECHNOLOGY CO.LTD

Changsha Zomkun Electronic Science&Technology Co., Ltd. was established in 2011 with a registered capital of 38 million yuan and was listed on NEEQ in May 2016 (code 837534). Zomkun has more than 10,000 square meters (including million-level dust-free workshop) of modern standard workshops and supporting automated production equipment, mainly engaged in relay products, such as magnetic latching relays, power relays, new energy relays, signal relays, automotive relays, etc., which are widely used in electric power, home appliances, security, new energy, automobiles and other fields, with an annual production scale of 120 million.

After years of development, Zomkun's sales mode has gradually switched from OEM/ODM sales to OBM sales. The sales market has expanded from domestic to overseas markets. In recent years, Zomkun has established localized sales offices in Mexico, Hungary and other countries to provide customers with more efficient and convenient services.

Zomkun will insist on the core values of "mutual benefit and win-win", and sustain innovation and never stop. In the future development, on the basis of in-depth exploration of the application market of high-end relay products, Zomkun will further enhance the independent development and innovation capabilities of high-tech products and solutions in the fields of power and electrical, smart home appliances, security, new energy, automobiles, etc., keep improving the core competitiveness of the enterprise, and strive to become a first-class supplier of core components for energy metering, new energy and smart appliance Industries in China.

长沙中坤电子科技有限公司

长沙中坤电子科技有限公司成立于2011年，注册资本3800万元，于2016年5月在新三板上市（代码837534）。中坤拥有超10000平方米（含百万级无尘车间）的现代化标准厂房和配套的自动化生产设备，主营继电器类产品，如磁保持继电器、功率继电器、新能源继电器、信号继电器、汽车继电器等，广泛应用于电力、家电、安防、新能源、汽车等领域，年产能超1.2亿只。

经过多年发展，中坤的销售模式由早期的定制化销售，逐步向品牌化迈进。销售市场从国内，不断扩展到欧美、亚太等海外市场。近年来中坤在墨西哥、匈牙利等国家建立了本土化销售网点，为客户提供更高效、便捷的服务。

中坤将继续以“互利共赢”价值观为指引，持续创新，永不停步。在未来的发展中，中坤将在深入挖掘高端继电器产品应用市场的基础上，进一步提升高新技术产品和解决方案在电力电气、智能家电、安防、新能源、汽车等业务领域的自主开发与创新能力，增强企业的核心竞争能力，力争成为国内一流的面向能源计量、新能源和智能家居产业的核心部件供应商。

BUSINESS CONCEPT

公司理念

Zomkun Mission 中坤使命

Striving to be a global expert of electronic control field.
致力于成为全球电子控制领域的专家

01

Zomkun Vision 中坤愿景

To become a global well-known brand in relay market.
在继电器市场成为全球知名品牌

02

Operational Philosophy 经营思想

Customer First, Market Oriented, Long-term Cooperation through Quality and Innovation.
客户第一，市场为导向，通过质量和创新建立长期合作

03

Quality Policy 质量政策

Pursuit of Excellence, Quality Priority, Customer Satisfaction, Continuous Improvement.
追求卓越，质量至上，客户满意，持续改进

04

Code of Conduct 行为准则

Be cohesive, ambitious, down-to-earth and creative.
团结、进取、求实、创新

05

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BRIEF HISTORY

发展历程



Enterprise Honors 企业荣誉



Production Capability

生产能力

Zomkun has 12,000+ square meters (including million-level dust-free workshop) of modern standard workshops and automated production equipments, with an annual production scale of 200 million in Changsha' s plant. We also have two relay plants in Xiangtan, China and Guanajuato, Mexico. The MES System will be deployed and officially to use in H1 2025.

Zomkun has been keeping upgrading the automatic production rate by introducing new automatic production lines and changing some manual production process by automatic machines. Zomkun also joined the JIT supply chain of some KA customers. Some special production lines have been set up only for some strategic customers to ensure the delivery time and stable quality.



Spare parts Product lines



Automatic Coiling Lines



Inspection and Packing



Dust-free Product lines



Brazing Workshop



Automatic Product Lines

PRODUCTION CAPABILITY

继电器分页索引

系列	快速选型表页序号	型号
Power Relays / 功率继电器		
ZG32F	10	ZG32F
		ZG32F-10A
		ZG32F-16A
ZG33F	11	ZG33F
		ZG33F-10A
		ZG33F-16A
ZG46F	12	ZG46F
		ZG46F-10A
		ZG46F-16A
ZG14F	13	ZG14F
		ZG14F-16A
		ZG14F-16A
ZG3FA	14	ZG3FA
ZG152F		ZG152F
ZG62F		ZG62F
ZG7520	15	ZG7520 (10A/16A)
		ZG115F (1A型)
		ZG115F (1B型)
ZG115F	16	ZG115F (1C型)
		ZG115F (2A型)
		ZG115F (2C型)
ZG105F	17	ZG105F-1
		ZG105FR-2
		ZG105FR-5
ZG102F	18	ZG102F(20A/25A/32A)
ZG161F		ZG161F
		ZG161FQ
ZG165F	19	ZG165F
		ZG165F-40A
		ZK165F-60A
New Energy Relays / 新能源继电器		
ZG165FK	20	ZG165FK
		ZG165FK-40A
		ZK165FK-60A
ZG102FK	21	ZG102FK (20A/25A/32A)
ZG161FK		ZG161FK
ZG46F		ZK17-63
	22	ZK17-125
Signal Relays / 信号继电器		
ZD23	23	ZD23
ZD27		ZD27
ZD3		ZD3
ZD31	24	ZD31
ZD41/ZD41A		ZD41/ZD41A
Automotive Relays / 汽车继电器		
ZQV4	25	ZQV4
ZQV6		ZQV6
ZQV7		ZQV7
ZQV15		ZQV15

R&D Strength 研发实力

R&D and Technological Innovation

Zomkun has been adhering to the concept of "continuous innovation, never stop", constantly improving its technical strength, expanding its business areas, accumulating 65 patents, and obtaining the honorary titles of "Provincial Enterprise Technology Center Certification", "National High-tech Enterprise" and "National Specialized and Special New Little Giant Enterprise". After years of deep cultivation in the power industry, Zomkun has become an "outstanding member of Hunan Instrument Industry Association", "executive director unit of Hunan Instrument Industry Association", and the main drafting unit of the national industry standard of "Magnetic Latching Relay for Electric Energy Meter". In terms of product testing, Zhongkun has gradually established a complete product testing Lab, which can make the standard tests related to CCC, VDE, UL, RoHS, etc.

-  14 R&D Personnel
-  8%+ R&D Expenditure
-  65 Patents



Professional Lab

In terms of product testing, Zomkun has always put the performance and quality of products in the first place, through the establishment of a complete environmental testing laboratory, R & D laboratory, IQC laboratory and material testing laboratory, Zomkun can do the CCC, VDE, UL, RoHS related testing in-house.

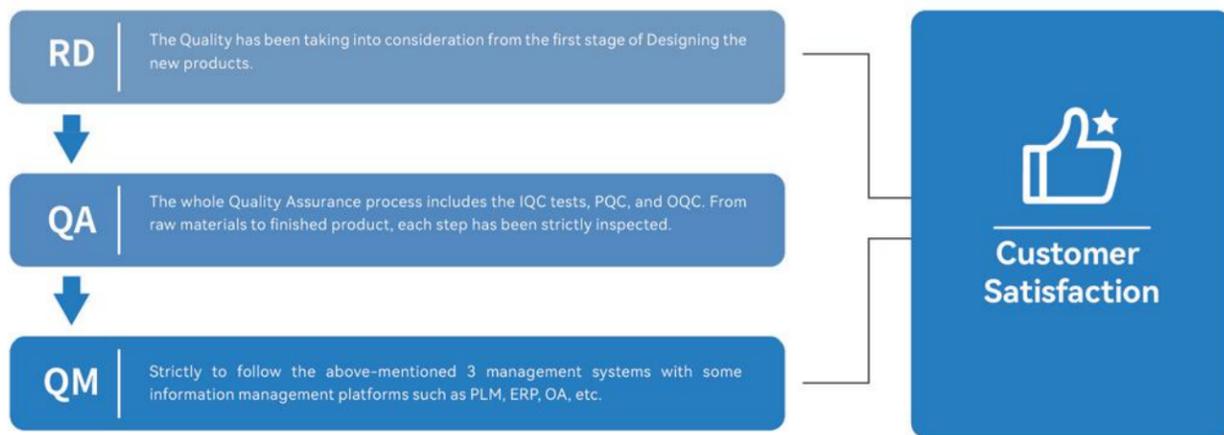


Electric lab

QC&QA STRENGTH 品质保证

Quality Management

Zomkun sticks to the quality policy of "pursuit of excellence, quality first", has a complete quality assurance system, and has been certified with "ISO9001 Quality", "14001 Environment", "19001 Occupational Health and Safety Management System", etc. The products strictly abide by the safety requirements for both domestic and overseas markets, and have passed the certification of CCC, UL, VDE, KEMA, etc.



Certificates



POWER RELAYS

功率继电器



Application industry / 应用行业

Home Appliance
家电

Smart Home
智能家居

Smart Grid
智能电网

New Energy
新能源

Charging Pile
充电桩

EV
电动汽车

Industrial Control
工业控制



中坤型号 Model No.	ZG105F-1	ZG32F-10A	ZG32F-16A	ZG33F
产品图片 Picture				
尺寸 Dimensions LxWxH (mm)	18.2x10.2x15.5	18.2x10.2x15.5	18.2x10.2x15.5	19.8x9.9x15.2
产品特点 Features	<ul style="list-style-type: none"> 额定负载 5A/277VAC Rated Load 5A/277VAC 线圈与触点间介质强度4kV 4KV Between Coil and Contact 耐冲击电压 6kV 6KV Initial Impulse voltage 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	<ul style="list-style-type: none"> 额定负载 10A/277VAC Rated Load 10A/277VAC 线圈与触点间介质强度4kV 4KV Between Coil and Contact 耐冲击电压 6kV 6KV Initial Impulse voltage 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	<ul style="list-style-type: none"> 额定负载 16A/277VAC Rated Load 16A/277VAC 线圈与触点间介质强度4kV 4KV Between Coil and Contact 耐冲击电压 6kV 6KV Initial Impulse voltage 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	<ul style="list-style-type: none"> 额定负载 5A/277VAC Rated Load 5A/277VAC 线圈与触点间介质强度4kV, 断开触点间1kV (1.5kV可选) 4KV Between Coil and Contact, Disconnect between contacts 1kV (1.5kV optional) 耐冲击电压 8kV 8KV Initial Impulse voltage
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	200mW, 450mW	200mW, 450mW	200mW, 450mW	200mW, 400mW
额定电压 Nominal Voltage	5/6/9/12/24VDC	5/6/9/12/24VDC	5/6/9/12/24VDC	3/5/6/9/12/24VDC
触点参数 Contact Parameters				
触点形式 Contact Type	1A	1A	1A	1A, 1B, 1C
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)
触点负载 Contact Load	5A/277VAC 1/3HP 240VAC 1/6HP 277VAC	10A/277VAC 5A/30VDC 1/3HP 240VAC	16A/277VAC TV-8 /250VAC	A型/B型: 10A/125VAC 5A/277VAC; 5A/30VDC C型: NO. 5A/277VAC NC. 3A/277VAC
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
介电强度 Dielectric strength	断开触点间 Disconnect the contact	1kV, 1min	1kV, 1min	1kV, 1min (1.5kV 可选)
	线圈与触点间 Coil & contact	4kV, 1min	4kV, 1min	4kV, 1min
冲击电压(初始) Impulse voltage(initial)	6kV (1.2x50μs)	6kV (1.2x50μs)	6kV (1.2x50μs)	8kV (1.2x50μs)
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	5x10 ⁴ 次	A型/B型: 1x10 ⁵ 次 (5A, 277VAC, 1s通 1s断) C型: 1x10 ⁵ 次 (NO/NC 5A/3A, 277V, 2s通 2s断)
机械寿命 Mechanical Endurance min	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁷ 次	5x10 ⁶ 次
使用温度范围 Ambient Temperature	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 85°C
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板 (PCB plate)	PCB板 (PCB plate)	PCB板 (PCB plate)
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE
重量约 Weight Apprx. (g)	6	6	6	7

中坤型号 Model No.	ZG33F-10A	ZG46F	ZG46F-10A	ZG14F	
产品图片 Picture					
尺寸 Dimensions LxWxH (mm)	19.8x9.9x15.2	20.4x7.0x15.1	20.4x7.0x15.1	29.2x12.8x20.6	
产品特点 Features	<ul style="list-style-type: none"> 额定负载 10A/277VAC Rated Load 10A/277VAC 线圈与触点间介质强度4kV, 断开触点间1kV (1.5kV可选) 4KV Between Coil and Contact, Disconnect between contacts 1kV (1.5kV optional) 耐冲击电压 8kV 8KV Initial Impulse voltage 	<ul style="list-style-type: none"> 7mm 超薄型继电器 7mm ultra-thin type relay 额定负载 5A/277VAC Rated Load 5V/277VAC 线圈与触点间介质强度4kV 4KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 	<ul style="list-style-type: none"> 7mm 超薄型继电器 7mm ultra-thin type relay 额定负载 10A/277VAC Rated Load 10A/277VAC 线圈与触点间介质强度4kV 4KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 	<ul style="list-style-type: none"> 额定负载 10A/277VAC Rated Load 10A/277VAC 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	
线圈参数 Coil Parameters					
线圈功耗 Coil Power(W)	200mW, 400mW	200mW	200mW	540mW, 720mW	
额定电压 Nominal Voltage	3/5/6/9/12/24VDC	5/6/9/12/24VDC	5/6/9/12/24VDC	5/6/9/12/24VDC	
触点参数 Contact Parameters					
触点形式 Contact Type	1A, 1C	1A	1A	1A, 1C	
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	
触点负载 Contact Load	A型: 10A/277VAC 10A/30VDC C型: NO.10A/277VAC NC.3A/277VAC	5A/250VAC 5A/30VDC	10A/277VAC 10A/30VDC	A型: 10A/277VAC 1/4HP 250VA C型: NO. 10A/277VAC NC. 5A/277VAC	
技术参数 Technic Parameters					
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1kV, 1min (1.5kV 可选)	750V, 1min	750V, 1min	1kV, 1min
	线圈与触点间 Coil & contact	4kV, 1min	4kV, 1min	4kV, 1min	5kV, 1min
冲击电压 (初始) Impulse voltage(initial)	10kV (1.2x50μs)	6kV (1.2x50μs)	6kV (1.2x50μs)	6kV (1.2x50μs)	
电气寿命 Electrical Endurance	A型: 1x10 ⁵ 次, 40°C (10A, 277VAC, 1s通 9s断) C型: 1x10 ⁵ 次, 40°C (NO/NC:10A/3A, 277V, 1s通 9s断)	1x10 ⁵ 次, (5A, 250VAC, 1s通 1s断)	3x10 ⁴ 次, (10A, 277VAC, 1s通 9s断)	A型: 1x10 ⁵ 次 (10A, 277VAC, 2s通 2s断) C型: 1x10 ⁵ 次 (NO/NC: 10A/5A, 277V, 1s通 9s断)	1x10 ⁵ 次
机械寿命 Mechanical Endurance min	5x10 ⁶ 次	5x10 ⁶ 次	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁶ 次
使用温度范围 Ambient Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 105°C	-40 ~ 105°C
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed
安装方式 Terminal Type				PCB板 (PCB plate)	PCB板 (PCB plate)
安装尺寸和接线图 Layout and Diagram					
安全认证 Approved Standards	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE	cULus, TUV, CQC	cULus, TUV, CQC
重量约 Weight Apprx. (g)	7	3	3.6	14	14

	ZG14F	ZG33FA	ZG152F	ZG62F	
产品图片 Picture					
产品特点 Features	<ul style="list-style-type: none"> 额定负载 16A/277VAC Rated Load 16A/277VAC 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	<ul style="list-style-type: none"> A型额定负载 15A/277VAC Type A Rated Load 15A/277VAC A型/C型可选 Type A / C is optional A型可带TV-5负载 Type A can carry a TV-5 load 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	<ul style="list-style-type: none"> 额定负载 17A/277VAC Rated Load 17A/277VAC 可带TV-10负载 With a TV-10 load 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	<ul style="list-style-type: none"> 额定负载 17A/277VAC Rated Load 17A/277VAC 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 	
线圈功耗 Coil Power(W)	540mW, 720mW	360mW	360mW	540mW, 720mW	
额定电压 Nominal Voltage	5/6/9/12/24VDC	3/5/6/9/12/24/48/60VDC	3/5/6/9/12/24/48VDC	5/6/9/12/24VDC	
触点形式 Contact Type	1A, 1C	1A, 1C	1A	1A	
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	
触点负载 Contact Load	A型: 16A/277VAC 1/4HP 250VA C型: NO. 16A/277VAC NC. 8A/277VAC	A型: 15A/277VAC; 10A/277VAC 1/4HP 240VAC; TV-5 250VAC C型: NO/NC. 7A/3A, 277VAC; 注: TV-5 指过流测试冲击电流 111A/20ms Note: TV-5 refers to the overload test impact current of 111A/20ms	17A/277VAC 1HP 240VAC; TV-10 注: TV-10, 指过流测试中满足冲击电流 191A/20ms Note: TV-10, which meet the impact current 191A/20ms, in the overload test	20A/125VAC 17A/277VAC	
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1kV, 1min	750V, 1min	1kV, 1min	1kV, 1min
	线圈与触点间 Coil & contact	5kV, 1min	1.5kV, 1min	2.5kV, 1min	5kV, 1min
冲击电压 (初始) Impulse voltage(initial)	10kV (1.2x50μs)	2.5kV (1.2x50μs)	10kV (1.2x50μs)	10kV (1.2x50μs)	
电气寿命 Electrical Endurance	A型: 1x10 ⁵ 次 (16A, 277VAC, 2s通 2s断) C型: 1x10 ⁵ 次 (NO/NC: 16A/8A, 277V, 1s通 9s断)	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次	
机械寿命 Mechanical Endurance min	1x10 ⁶ 次	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁶ 次	
使用温度范围 Ambient Temperature	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 105°C	
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板; A型有 4/5Pin 可选 PCB board; Type A has optional 4/5 Pin	PCB板; A型有 4/5Pin 可选 PCB board; Type A has optional 4/5 Pin	PCB板 (PCB plate)	
安装尺寸和接线图 Layout and Diagram					
安全认证 Approved Standards	cULus, TUV, CQC	cULus, TUV, CQC, VDE	cULus, TUV, CQC	cULus, TUV, CQC	
重量约 Weight Apprx. (g)	14	9	9	16	

中坤型号 Model No.	ZG7520 (10/16A)	ZG115F (1A型)	ZG115F (1B型)	ZG115F (1C型)
产品图片 Picture				
尺寸 Dimensions LxWxH (mm)	23.0x16.1x10.2	28.9x12.6x15.4	28.9x12.6x15.4	28.9x12.6x15.4
产品特点 Features	<ul style="list-style-type: none"> 额定电流 10A, 高负载型16A Rated current of 10A, high load type of 16A 外形高度低 The appearance height is low 适用温度范围 -40 ~ 105°C Operation Ambient Temperature -40~105°C 200mW的高灵敏度类型 High sensitive type of 200 mW 	<ul style="list-style-type: none"> 16A/277V的触点切换能力 16A / 277V contact switching capability 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 引出端子4Pins/6Pins可选 The lead terminal 4 Pins / 6 Pins is optional 	<ul style="list-style-type: none"> 16A/277V的触点切换能力 16A / 277V contact switching capability 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 引出端子4Pins/6Pins可选 The lead terminal 4 Pins / 6 Pins is optional 	<ul style="list-style-type: none"> 16A/277V的触点切换能力 16A / 277V contact switching capability 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 引出端子5Pins/8Pins可选 The lead terminal 5 Pins / 8 Pins is optional
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	200mW	400mW	400mW	400mW
额定电压 Nominal Voltage	5/6/9/12/24VDC	3/5/6/9/12/18/24/48VDC	3/5/6/9/12/18/24/48VDC	3/5/6/9/12/18/24/48VDC
触点参数 Contact Parameters				
触点形式 Contact Type	1A	1A	1B	1C
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)
触点负载 Contact Load	标准型 (normalized form): 10A/250VAC; 10A/30VDC 1/3HP 240VAC 高负载型 (High load type): 16A/250VAC; 10A/30VDC 1/3HP 240VAC	16A/277VAC; 20A/250VAC 1/2HP 120VAC 注: TV-10 250VAC (AgSno2 触点, 过载测试中满足冲击电流 191A/20ms) Note: TV-10 250VAC (AgSno2 contact, meet impact current 191A/20ms. A in overload test)	16A/277VAC; 20A/250VAC	NO. 16A/277VAC; TV-10 250VAC NC. 8A/277VAC; TV-5 250VAC 注: TV-10/-5 负载, 指过载测试中满足冲击电流 191A/111A, 20ms Note: TV-10 / -5 load, refers to the overload test to meet the impact current 191A/111A, 20ms
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1kV, 1min	1kV, 1min	1kV, 1min
	线圈与触点间 Coil & contact	2kV, 1min	5kV, 1min	5kV, 1min
冲击电压 (初始) Impulse voltage(initial)	5kV (1.2x50μs)	10kV (1.2x50μs)	10kV (1.2x50μs)	10kV (1.2x50μs)
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次
机械寿命 Mechanical Endurance min	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁷ 次
使用温度范围 Ambient Temperature	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 105°C
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板, 端子间隔 3.5/5.04mm 两种 PCB plate, terminal interval 3.5/5.04mm two kinds	PCB板, 端子间隔 3.5/5.04mm 两种 PCB plate, terminal interval 3.5/5.04mm two kinds	PCB板, 端子间隔 3.5/5.04mm 两种 PCB plate, terminal interval 3.5/5.04mm two kinds
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards	cULus, TUV, CQC	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE
重量约 Weight Apprx. (g)	14	14	14	14

中坤型号 Model No.	ZG115F (2A型)	ZG115F (2C型)	ZG105F-1	ZG105FR-2
产品图片 Picture				
尺寸 Dimensions LxWxH (mm)	28.9x12.6x15.4	28.9x12.6x15.4	32.0x27.0x20.0	32.5x27.0x20.4
产品特点 Features	<ul style="list-style-type: none"> 2组常开型触点 2 groups of normally open contacts 8A/277V的触点切换能力 8A / 277V contact switching 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 	<ul style="list-style-type: none"> 2组常开型触点 2 groups of normally open contacts 8A/277V的触点切换能力 8A / 277V contact switching 线圈与触点间介质强度5kV 5KV Between Coil and Contact 耐冲击电压10kV 10KV Initial Impulse voltage 	<ul style="list-style-type: none"> 额定电流30A Rated current of 30A 高负载开闭功能, 高耐久性 High load opening and closing function, high durability 线圈与触点间介质强度4kV 4KV Between Coil and Contact 可提供符合IEC60079-15的产品 IEC60079-15 compliant products are available 	<ul style="list-style-type: none"> 额定电流30A Rated current of 30A 高负载开闭功能, 高耐久性 High load opening and closing function, high durability 线圈与触点间介质强度4kV 4KV Between Coil and Contact 可提供符合IEC60079-15的产品 IEC60079-15 compliant products are available
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	400mW	400mW	900mW, 1000mW	900mW, 1000mW
额定电压 Nominal Voltage	3/5/6/9/12/18/24/48VDC	3/5/6/9/12/18/24/48VDC	5/6/9/12/24/48VDC	5/6/9/12/24/48VDC
触点参数 Contact Parameters				
触点形式 Contact Type	2A	2C	1A, 1C	1A, 1C
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)
触点负载 Contact Load	8A/277VAC; 1/4HP 120VAC TV-5 250VAC 注: TV-5 负载, 指过载测试中满足冲击电流 111A/20ms Note: TV-5 load meets the impact current 111A/20ms in the overload test	NO. 8A/277VAC; 1/4HP 120VAC TV-5 250VAC; NC. 4A/277VAC 注: TV-5 负载, 指过载测试中满足冲击电流 111A/20ms Note: TV-5 load meets the impact current 111A/20ms in the overload test	A 型: 30A/250VAC C 型: NO. 20A/250VAC; NC. 10A/250VAC; 2HP 240VAC	A 型: 30A/250VAC C 型: NO. 20A/250VAC; NC. 10A/250VAC; 2HP 240VAC
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1kV(同极), 2.5kV(异极), 1min	1kV, 1min	1.5kV, 1min
	线圈与触点间 Coil & contact	5kV, 1min	5kV, 1min	4kV, 1min
冲击电压 (初始) Impulse voltage(initial)	10kV (1.2x50μs)	10kV (1.2x50μs)	4kV (1.2x50μs)	4kV (1.2x50μs)
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次
机械寿命 Mechanical Endurance min	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁷ 次
使用温度范围 Ambient Temperature	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 85°C	-40 ~ 85°C
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板 (PCB plate)	PCB板 (PCB plate)	PCB板 + 快插端子 PCB plate + Quick plug terminal
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE	cULus, TUV, CQC	cULus, TUV, CQC
重量约 Weight Apprx. (g)	14	14	26	29

中坤型号 Model No.	ZG105FR-5	ZG102F (20A/25A/32A)	ZG161F	ZG161FQ
产品图片 Picture				
尺寸 Dimensions LxWxH (mm)	50.1x27.4x27.7	30.1x15.7x23.3	30.1x15.7x23.3	30.1x15.7x32.8
产品特点 Features	<ul style="list-style-type: none"> 额定电流30A Rated current of 30A 高负载开闭功能, 高耐久性 High load opening and closing function, high durability 线圈与触点间介质强度4kV 4KV Between Coil and Contact 控制开关具有足够的绝缘距离 The control switch has a sufficient insulation distance 	<ul style="list-style-type: none"> 额定电流 20A/25A/32A可选择 The rated current of 20A / 25A / 32A is optional 高负载开闭功能, 高耐久性 High load opening and closing function, high durability 线圈与触点间介质强度4.5kV 4.5KV Between Coil and Contact 可提供符合IEC60079-15的产品 IEC60079-15 compliant products are available 	<ul style="list-style-type: none"> 额定电流 25A Rated current of 25A 高负载开闭功能, 高耐久性 High load opening and closing function, high durability 线圈与触点间介质强度4.5kV 4.5KV Between Coil and Contact 可提供符合IEC60079-15的产品 IEC60079-15 compliant products are available 	<ul style="list-style-type: none"> 额定电流 25A Rated current of 25A 高负载开闭功能, 高耐久性 High load opening and closing function, high durability 线圈与触点间介质强度4.5kV 4.5KV Between Coil and Contact 耐冲击电压10KV 10KV Initial Impulse voltage
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	900mW, 1000mW	900mW	900mW	900mW
额定电压 Nominal Voltage	5/6/9/12/24/48VDC	5/6/9/12/24VDC	5/6/9/12/24VDC	5/6/9/12/24VDC
触点参数 Contact Parameters				
触点形式 Contact Type	1A, 1C	1A	1A	1A
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)
触点负载 Contact Load	A 型: 30A/250VAC C 型: NO. 20A/250VAC; NC. 10A/250VAC; 2HP 240VAC	20A Spec: 20A/250VAC; 2HP/240V 25A Spec: 25A/250VAC; 2HP/240V 32A Spec: 32A/250VAC; 2HP/240V	25A/277VAC 2HP/250V	25A/277VAC 2HP/250V
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1.5kV, 1min	1kV, 1min	1kV, 1min
	线圈与触点间 Coil & contact	4kV, 1min	4.5kV, 1min	4.5kV, 1min
冲击电压(初始) Impulse voltage(initial)	4kV (1.2x50μs)	10kV (1.2x50μs)	10kV (1.2x50μs)	10kV (1.2x50μs)
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次
机械寿命 Mechanical Endurance min	1x10 ⁷ 次	2x10 ⁶ 次	2x10 ⁶ 次	2x10 ⁶ 次
使用温度范围 Ambient Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed
安装方式 Terminal Type	快插端子 + 法兰式 Fast plug terminal + flange type	PCB板 + 快插端子 PCB plate + Quick plug terminal	PCB板 (PCB plate)	PCB板 + 快插端子 PCB plate + Quick plug terminal
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards	cULus, TUV, CQC	cULus, TUV, CQC	cULus, TUV, CQC, VDE	cULus, TUV, CQC, VDE
重量约 Weight Apprx. (g)	32	38	20	30

中坤型号 Model No.	ZG165F	ZG165F-40A	ZG165F-60A
产品图片 Picture			
尺寸 Dimensions LxWxH (mm)	32.0x27.0x20.0	32.0x27.0x20.0	32.0x27.0x20.0
产品特点 Features	<ul style="list-style-type: none"> 额定电流30A Rated current of 30A 线圈与触点间介质强度4kV 4KV Between Coil and Contact 可提供敞开型产品 Open-type products are available 	<ul style="list-style-type: none"> 额定电流40A Rated current of 40A 线圈与触点间介质强度4kV 4KV Between Coil and Contact 密封防水型 Sealed waterproof type 线圈绝缘F等级 Coil insulation is grade F 	<ul style="list-style-type: none"> 额定电流40A (切换) Rated current of 40A (changing-over) 承载电流20A (接通) — 60A (断开) Bearing current 20A (On) - 60A (bearing) -20A (disconnected) 线圈绝缘F等级 Coil insulation is grade F
线圈参数 Coil Parameters			
线圈功耗 Coil Power(W)	1400mW	1400mW	1400mW
额定电压 Nominal Voltage	5/6/9/12/24/48VDC	5/6/9/12/24/48VDC	5/6/9/12/24/48VDC
触点参数 Contact Parameters			
触点形式 Contact Type	1A, 1C	1A, 1C	1A
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)
触点负载 Contact Load	A 型: 30A/250VAC C 型: NO. 30A/240VAC NC. 20A/240VAC	A 型: 40A/250VAC C 型: NO. 30A/240VAC NC. 20A/240VAC	切换: 40A/250VAC Switch: 40A / 250VAC 承载: 20A (接通) — 60A (断开) — 20A (断开) Bearing capacity: 20A (connected) -- 60A (bearing capacity) -- 20A (disconnect)
技术参数 Technic Parameters			
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1kV, 1min	1kV, 1min
	线圈与触点间 Coil & contact	4kV, 1min	4kV, 1min
冲击电压(初始) Impulse voltage(initial)	4kV (1.2x50μs)	4kV (1.2x50μs)	4kV (1.2x50μs)
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次
机械寿命 Mechanical Endurance min	1x10 ⁶ 次	1x10 ⁷ 次	1x10 ⁷ 次
使用温度范围 Ambient Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C
保护结构 Enclosure type	防助焊剂型, 可清洗型, 敞开型 Anti-welding flux type, washable type, open type	防助焊剂型, 可清洗型, 敞开型 Flux-proof, sealed, open type	防助焊剂型, 可清洗型, 敞开型 Flux-proof, sealed, open type
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板 (PCB plate)	PCB板 (PCB plate)
安装尺寸和接线图 Layout and Diagram			
安全认证 Approved Standards	cULus, TUV, CQC	cULus, TUV, CQC	cULus, TUV, CQC
重量约 Weight Apprx. (g)	25	25	25

New Energy Relays

新能源继电器



Application industry / 应用行业

Home Appliance
家电

Solar Power Generation
光伏

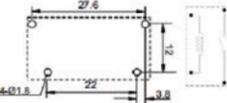
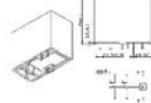
Wind Power Generation
风能

Charging Pile
充电桩

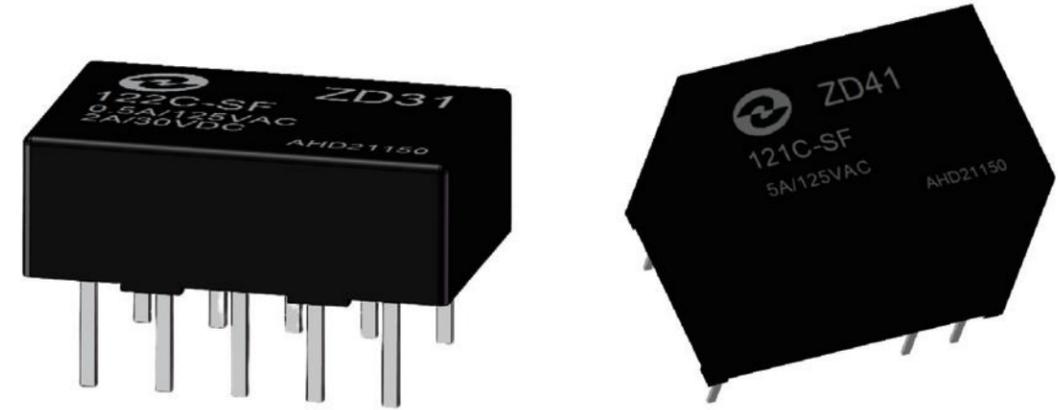
Power Supply Control
电源控制



中坤型号 Model No.	ZG165FK	ZG165FK-40A	ZG165FK-60A	ZG102FK (20A/25A/32A)
产品图片 Picture				
尺寸 Dimensions LxWxH (mm)	32.0x27.0x20.0	32.0x27.0x20.0	32.0x27.0x20.0	30.1x15.7x23.3
产品特点 Features	<ul style="list-style-type: none"> 额定电流30A Rated current of 30A 线圈与触点间介质强度4kV 4KV Between Coil and Contact 可提供敞开型产品 Open-type products are available 触点间隙: 1.8mm(符合欧洲光伏标准VDE0126) Contact clearance: 1.8mm (comply with European PV standard VDE0126) 	<ul style="list-style-type: none"> 额定电流40A Rated current of 40A 线圈与触点间介质强度4kV 4KV Between Coil and Contact 可提供敞开型产品 Open-type products are available 触点间隙: 1.8mm(符合欧洲光伏标准VDE0126) Contact clearance: 1.8mm (comply with European PV standard VDE0126) 	<ul style="list-style-type: none"> 额定电流40A (切换) Rated current of 40A (changing-over) 承载电流20A (接通) — 60A (承载) — 20A (断开) Bearing current 20A (On) — 60A (bearing) — 20A (disconnect) 触点间隙: 1.8mm(符合欧洲光伏标准VDE0126) Contact clearance: 1.8mm (comply with European PV standard VDE0126) 	<ul style="list-style-type: none"> 额定电流 20A/25A/32A可选择 The rated current of 20A / 25A / 32A is optional 适用于光伏发电用逆变器、UPS、充电桩 Suitable for photovoltaic power generation inverter, UPS, charging pile 触点间隙: 1.8mm(符合欧洲光伏标准VDE0126) Contact clearance: 1.8mm (comply with European PV standard VDE0126)
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	1400mW	1400mW	1400mW	1400mW
额定电压 Nominal Voltage	5/6/9/12/24/48VDC	5/6/9/12/24/48VDC	5/6/9/12/24/48VDC	5/6/9/12/24VDC
触点参数 Contact Parameters				
触点形式 Contact Type	1A	1A	1A	1A
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)
触点负载 Contact Load	A 型: 30A/250VAC	A 型: 40A/250VAC	切换: 40A/250VAC Switch: 40A / 250VAC 承载: 20A (接通) — 60A (承载) — 20A (断开) Bearing capacity: 20A (connected) — 60A (bearing capacity) — 20A (disconnect)	20A Spec: 20A/250VAC 25A Spec: 25A/250VAC 32A spec: 32A/250VAC
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
介电强度 Dielectric strength	断开触点间 Disconnect the contact	2.5kV, 1min	2.5kV, 1min	2.5kV, 1min
	线圈与触点间 Coil & contact	4kV, 1min	4kV, 1min	4.5kV, 1min
冲击电压 (初始) Impulse voltage(initial)	4kV (1.2x50μs)	4kV (1.2x50μs)	4kV (1.2x50μs)	10kV (1.2x50μs)
电气寿命 Electrical Endurance	3x10 ⁴ 次	3x10 ⁴ 次	3x10 ⁴ 次	3x10 ⁴ 次
机械寿命 Mechanical Endurance min	2x10 ⁶ 次	2x10 ⁶ 次	2x10 ⁶ 次	2x10 ⁶ 次
使用温度范围 Ambient Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C
保护结构 Enclosure type	防助焊剂型, 可清洗型, 敞开型 Flux-proof, sealed, open type	防助焊剂型, 可清洗型, 敞开型 Flux-proof, sealed, open type	防助焊剂型, 可清洗型, 敞开型 Flux-proof, sealed, open type	防助焊剂型 Flux-proof
安装方式 Terminal Type	PCB 板 (PCB plate)	PCB 板 (PCB plate)	PCB 板 (PCB plate)	PCB 板 + 快插端子 PCB plate + Quick plug terminal
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards	cULus, TUV, CQC	cULus, TUV, CQC	cULus, TUV, CQC	cULus, TUV, CQC
重量约 Weight Apprx. (g)	25	25	25	22

中坤型号 Model No.	ZG161FK	ZK17-63	ZK17-125	
产品图片 Picture				
尺寸 Dimensions L×W×H (mm)	30.1×15.7×23.3	30.0×25.0×16.0	30.0×25.0×16.0	
产品特点 Features	<ul style="list-style-type: none"> 额定电流 25A Rated current of 25A 适用于光伏发电逆变器、UPS、充电桩 Suitable for photovoltaic power generation inverter, UPS, charging pile 触点间距: 1.8mm(符合欧洲光伏标准 VDE0126) Contact clearance: 1.8mm (comply with European PV standard VDE0126) 	<ul style="list-style-type: none"> 带辅助触点的磁保持双稳态继电器 Magnetic-holding bistable relay with auxiliary contacts 80VDC直流负载, 额定电流63A 80VDC DC load, rated current 63A 内置磁钢灭弧功能 Built-in magnetic steel arc extinguishing function 正反脉冲驱动, 脉冲宽度50-200ms Forward and reverse pulse drive with a pulse width of 50-200ms 	<ul style="list-style-type: none"> 带辅助触点的磁保持双稳态继电器 Magnetic-holding bistable relay with auxiliary contacts 80VDC直流负载, 额定电流125A 80VDC DC load, rated current 125A 内置磁钢灭弧功能 Built-in magnetic steel arc extinguishing function 正反脉冲驱动, 脉冲宽度50-200ms Forward and reverse pulse drive with a pulse width of 50-200ms 	
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	1400mW	切换 24W 维持 0	切换 53W 7.7W (灵敏型); 维持 0	
额定电压 Nominal Voltage	5/6/9/12/24VDC	12/24/48/60VDC	12/24/48/60VDC	
触点参数 Contact Parameters				
触点形式 Contact Type	1A	主触点 1A; 辅助触点 1A Main contact 1A; auxiliary contact 1A	主触点 1A; 辅助触点 1A Main contact 1A; auxiliary contact 1A	
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 20mΩ (1A/6VDC)	≤ 1mΩ (20A/6VDC)	
触点负载 Contact Load	33A/277VAC	主触点: 60A/80VDC Main contacts: 60A/80VDC 辅助触点: 1A/6VDC Auxiliary contacts: 1A/6VDC	主触点: 80A/110A/125A, 80VDC Main contacts: 80A/110A/125A, 80VDC 辅助触点: 1A/6VDC Auxiliary contacts: 1A/6VDC	
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	100MΩ (500VDC)	1000MΩ (500VDC)	
介质强度 Dielectric strength	断开触点间 Disconnect the contact	2.5kV, 1min	1.5kV, 1min	主触点间 2kV, 辅助触点间 1kV, 1min
	线圈与触点间 Coil & contact	4.5kV, 1min	1.5kV, 1min	线圈与主触点间 3kV, 与辅助触点间 2kV
冲击电压(初始) Impulse voltage(initial)	10kV (1.2×50μs)			
电气寿命 Electrical Endurance	3×10 ⁴ 次	6×10 ³ 次 (1s 通 9s 断)	主触点: 125A/80VDC, 5000 次; 110A/60VDC, 8000 次; 80A/24VDC, 10000 次 辅助触点: 1A/6VDC, 1×10 ⁵ 次	
机械寿命 Mechanical Endurance min	2×10 ⁶ 次	1×10 ⁶ 次 (1s 通 1s 断)	1×10 ⁶ 次 (1s 通 1s 断)	
使用温度范围 Ambient Temperature	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	
保护结构 Enclosure type	防助焊剂型 Flux-proof	防助焊剂型 Flux-proof	防助焊剂型 Flux-proof	
安装方式 Terminal Type	PCB 板 (PCB plate)	PCB 板 (PCB plate)	PCB 板 (PCB plate)	
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards	cULus, TUV, CQC, VDE			
重量约 Weight Appro. (g)	20	28	28	

Signal Relays 信号继电器



Application industry / 应用行业

Smart Home
智能家居

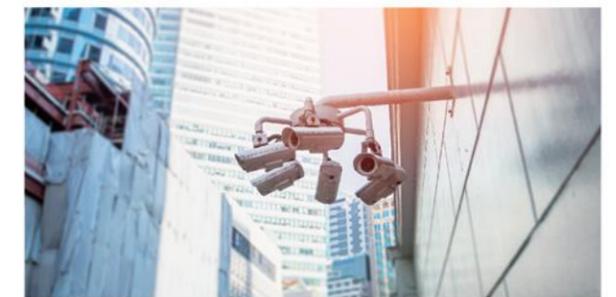
Fire Alarm System
安防系统

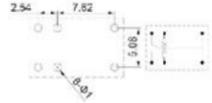
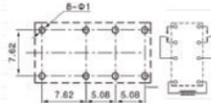
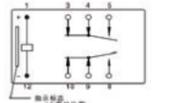
Building Security System
汽车信号控制

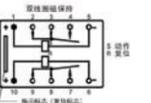
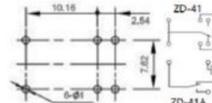
Auto On Board Signal Control System
工业控制

Telecom Equipment
医疗设备

Industrial Control
通信设备

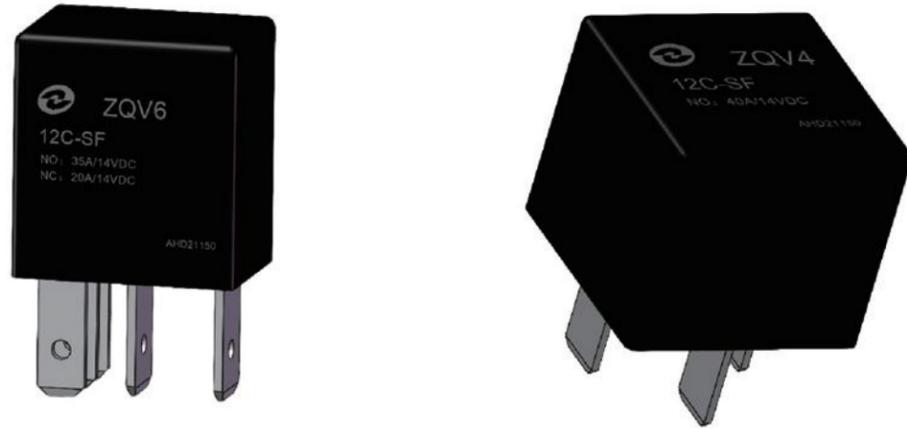


中坤型号 Model No.	ZD23	ZD27	ZD3	
产品图片 Picture				
尺寸 Dimensions LxWxH (mm)	12.5x7.5x10.0	20.2x10.0x11.7	15.3x7.7x9.7	
产品特点 Features	<ul style="list-style-type: none"> 外形小, 重量轻 Small in appearance and light in weight 线圈功耗低, 高灵敏度 The coil has low power consumption and high sensitivity 主要用于通信器材、自动遥控系统和装置等 Mainly used in communication equipment, automatic remote control system and device 	<ul style="list-style-type: none"> 3A超小型信号继电器 3A ultra-compact signal relay 外形小, 重量轻, 适宜密集安装 Small appearance, light weight, suitable for intensive installation 具有两组转换触点形式 Has two sets of conversion contact forms 	<ul style="list-style-type: none"> 触点容量 2A/30VDC Contact capacity is 2A / 30VDC 介质耐压1.5kV, 冲击电压2.5kV。 Medium withstand voltage 1.5kV, impact voltage 2.5kV. 用于通信设备、办公设备、医疗设备、测量仪表、安全报警、探测器等。 Used for communication equipment, office equipment, medical equipment, measuring instruments, safety alarms, detectors, etc. 	
线圈参数 Coil Parameters				
线圈功耗 Coil Power(W)	150mW 200mW	360mW	140mW 200mW	
额定电压 Nominal Voltage	5/6/9/12/24VDC	5/6/9/12/24VDC	5/6/9/12/24VDC	
触点参数 Contact Parameters				
触点形式 Contact Type	1C	2C	2C	
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	
接触电阻 Contact Resistance	≤ 100mΩ (1A/6VDC)	≤ 50mΩ (1A/6VDC)	≤ 70mΩ (1A/6VDC)	
触点负载 Contact Load	1A/30VDC 0.3A/60VDC 0.5A/125VAC	3A/125VAC 3A/30VDC	2A/30VDC 0.5A/125VAC	
技术参数 Technic Parameters				
绝缘电阻 Insulation Resistance	100MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	
介质强度 Dielectric strength	断开触点间 Disconnect the contact	0.4kV, 1min	0.5kV, 1min	1.0kV, 1min
	线圈与触点间 Coil & contact	1kV, 1min	1kV, 1min	1.5kV, 1min
冲击电压(初始) Impulse voltage(initial)				
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	1x10 ⁵ 次	
机械寿命 Mechanical Endurance min	1x10 ⁷ 次	1x10 ⁷ 次	1x10 ⁸ 次	
使用温度范围 Ambient Temperature	-30 ~ 70°C	-30 ~ 70°C	-40 ~ 85°C	
保护结构 Enclosure type	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型, 可清洗型 Flux-proof, sealed	防助焊剂型 Flux-proof	
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板 (PCB plate)	PCB板 (PCB plate)	
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards				
重量约 Weight Apprx. (g)	2.2	5	2	

中坤型号 Model No.	ZD31	ZD41/ ZD41A	
产品图片 Picture			
尺寸 Dimensions LxWxH (mm)	14.3x9.3x5.0	15.5x11.0x11.5	
产品特点 Features	<ul style="list-style-type: none"> 超小型、高灵敏信号继电器。 Ultra-small, highly sensitive signal relay. 单稳型, 单线圈或双线圈磁保持继电器。 Single stable type, single or double coil magnetic retention relay. 介质耐压1kV, 冲击电压1.5kV。 Medium withstand voltage is 1kV, and the impact voltage is 1.5kV. 	<ul style="list-style-type: none"> 外形小, 重量轻 Small in appearance and light in weight 线圈功耗低, 高灵敏度 The coil has low power consumption and high sensitivity 用于自动遥控系统装置、通讯设备、无线电遥控、声控玩具 For automatic remote control system device, communication equipment, radio remote control, voice control toys 	
线圈参数 Coil Parameters			
线圈功耗 Coil Power(W)	100mW 140mW 200mW	360mW 450mW	
额定电压 Nominal Voltage	5/6/9/12/24VDC	5/6/9/12/24VDC	
触点参数 Contact Parameters			
触点形式 Contact Type	2C	1A, 1B, 1C	
触点材料 Contact Material	银合金 AgSno2 (gold-plating)	银合金 AgSno2	
接触电阻 Contact Resistance	≤ 50mΩ (1A/6VDC)	≤ 100mΩ (1A/6VDC)	
触点负载 Contact Load	1A/30VDC 2A/30VDC 0.5A/125VAC	1A/2A/3A/5A, 125VAC	
技术参数 Technic Parameters			
绝缘电阻 Insulation Resistance	1000MΩ (500VDC)	100MΩ (500VDC)	
介质强度 Dielectric strength	断开触点间 Disconnect the contact	1.0kV, 1min	0.5kV, 1min
	线圈与触点间 Coil & contact	1.0kV, 1min	0.5kV, 1min
冲击电压(初始) Impulse voltage(initial)			
电气寿命 Electrical Endurance	1x10 ⁵ 次	1x10 ⁵ 次	
机械寿命 Mechanical Endurance min	1x10 ⁸ 次	1x10 ⁷ 次	
使用温度范围 Ambient Temperature	-40 ~ 70°C	-30 ~ 70°C	
保护结构 Enclosure type	防助焊剂型 Flux-proof	防助焊剂型 Flux-proof	
安装方式 Terminal Type	PCB板 (PCB plate)	PCB板 (PCB plate)	
安装尺寸和接线图 Layout and Diagram			
安全认证 Approved Standards	cULus, TUV, CQC, VDE		
重量约 Weight Apprx. (g)	1.5	3.5	

Automotive Relays

汽车继电器



Application industry / 应用行业

Body System
汽车车身系统

Power Battery
动力电池

Powertrain System
动力总成系统

Air Conditioner
车载空调

Light Control
灯光控制



产品图片 Picture				
产品特点 Features	<ul style="list-style-type: none"> 小型通用汽车继电器 Small GM car relays 40A 触点切换能力 40A contact switching capability 具有一组常开, 一组转换两种触点形式 With a set of normally open, a set of converted two contact forms 工作温度高达 125°C Operating temperature is up to 125°C 	<ul style="list-style-type: none"> 小型通用汽车继电器 Small GM car relays 35A 触点切换能力 35A contact switching capability 具有一组常开, 一组转换两种触点形式 With a set of normally open, a set of converted two contact forms 工作温度高达 125°C Operating temperature is up to 125°C 	<ul style="list-style-type: none"> 通用汽车继电器 GM auto relay 70A 触点切换能力 70A contact switching capability 具有一组常开触点形式 Has a set of normally open contact forms 工作温度高达 125°C Operating temperature is up to 125°C 	<ul style="list-style-type: none"> 小型通用汽车继电器 Small GM car relays 50A 触点切换能力 50A contact switching capability 具有一组常开, 一组转换两种触点形式 With a set of normally open, a set of converted two contact forms 工作温度高达 125°C Operating temperature is up to 125°C
线圈功耗 Coil Power(W)	1.5W	1.37W	1.8W	1.5W
额定电压 Nominal Voltage	12VDC, 并联电阻 680Ω(±10%) 12VDC, shunt resistance 680Ω(±10%)	12VDC, 并联电阻 680Ω(±10%) 12VDC, shunt resistance 680Ω(±10%)	12/24VDC, 并联电阻 680Ω/2.7kΩ 12/24VDC, shunt resistance 680Ω/2.7kΩ	12VDC, 并联电阻 680Ω(±10%) 12VDC, shunt resistance 680Ω(±10%)
触点形式 Contact Type	1A, 1C	1A, 1C	1A	1A, 1C
触点材料 Contact Material	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2	银合金 AgSno2
接触电阻 Contact Resistance	≤ 50mΩ (1A/6VDC)	≤ 50mΩ (1A/6VDC)	≤ 50mΩ (1A/6VDC)	≤ 50mΩ (1A/6VDC)
触点负载 Contact Load	最大连续电流: NO 端: 60A(23°C); 40A(85°C); 17A(125°C) Max. continuous current: NO terminal: 60A (23°C); 40A(85°C); 17A(125°C) 最大切换电流: 阻性 40A(13.5VDC) 灯负载接通浪涌峰值电流 150A Max. switching current: resistance 40A (13.5VDC) The lamp load turns on the peak surge current of 150A	最大连续电流: NO 端: 35A(23°C); 25A(85°C); 13A(125°C) Max. continuous current: NO terminal: 35A (23°C); 25A(85°C); 13A(125°C) 最大切换电流: 阻性 35A(13.5VDC) 灯负载接通浪涌峰值电流 150A Max. switching current: resistance 35A (13.5VDC) The lamp load turns on the peak surge current of 150A	最大连续电流: 70A(23°C); 50A(85°C); 30A(125°C) Max. continuous current: NO terminal: 70A (23°C); 50A(85°C); 30A(125°C) 最大切换电流: 阻性 70A(13.5VDC) 灯负载接通浪涌峰值电流 200A Max. switching current: resistance 70A (13.5VDC) The lamp load turns on the peak surge current of 200A	最大连续电流: NO 端: 70A(23°C); 50A(85°C); 17A(125°C) Max. continuous current: NO terminal: 70A (23°C); 50A(85°C); 17A(125°C) 最大切换电流: 阻性 50A(13.5VDC) 灯负载接通浪涌峰值电流 150A Max. switching current: resistance 50A (13.5VDC) The lamp load turns on the peak surge current of 150A
绝缘电阻 Insulation Resistance	≤ 100MΩ (1A/6VDC)	≤ 100MΩ (1A/6VDC)	≤ 100MΩ (1A/6VDC)	≤ 100MΩ (1A/6VDC)
介电强度 Dielectric strength	断开触点间 Disconnect the contact	0.55kV, 1min	0.55kV, 1min	0.5kV, 1min
	线圈与触点间 Coil & contact	0.55kV, 1min	0.55kV, 1min	0.5kV, 1min
冲击电压 (初始) Impulse voltage(initial)				
电气寿命 Electrical Endurance	1×105 次	1×105 次	1×105 次	1×105 次
机械寿命 Mechanical Endurance min	1×106 次	1×106 次	1×106 次	1×106 次
使用温度范围 Ambient Temperature	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 105°C	-40 ~ 125°C
保护结构 Enclosure type	可清洗型、卡扣型 Sealed, buckle type	可清洗型、卡扣型 Sealed, buckle type	可清洗型、卡扣型 Sealed, buckle type	可清洗型、卡扣型 Sealed, buckle type
安装方式 Terminal type	快插端子 Quick plug terminal	快插端子 Quick plug terminal	快插端子 Quick plug terminal	快插端子 Quick plug terminal
安装尺寸和接线图 Layout and Diagram				
安全认证 Approved Standards				
重量约 Weight Appro. (g)	35	18	35	35

Cross Reference

型号对照表

NO.	Zomkun	Hongfa	Omron	Panasonic	TE			NEC	Fujitsu	Songchuan	Zettler	Sanyou
					OEG	P&B	SCHRACK					
1	ZG3FA	HF3FA	G5LA	JS	PCE/ORWH		T7S		899	AZ943/AZ942	SRD	
2	ZG14F	HF14F	G2R		OMI					AZ755/AZ755S	SHI	
3	ZG14F-G	HF14F-G	G2R		OMIH					ZA761/AZ762	SHIH	
4	ZG14FF	HF14FF	G2R	JR1/JR1A	OMI	RKA/RKS	409/CardE/ERP11	CH	845-1P	ZA755/AZ755S	SJ	
5	ZG32F	HF32F	G5SB		OJ/OJE	T77		CS	307/835/835NL	ZA770/770S/7709	SJ	
6	ZG32F-10A	HF32F-G	G5Q-EU		OJ/OJE	T77			835/835NL	ZA940/Z940S	SJE	
7	ZG33F	HF33F	G5Q/G5SB	JQ/PQ	PCH	T77	RE/REL					
8	ZG33F-10A	HF33F-G	G5Q-EU				V23092/SNR					
9	ZG41F	HF41F		PF				FTR-LY				
10	ZG46F	HF46F	G5NB/G5T	LD	PCJ			FTR-F4	202/202H	AZ975/RSD/AZ971	SRB	
11	ZG46F-10A	HF46F-G	G5NB/G5T	LD	PCJ			FTR-F4	202/202H	ZA921		
12	ZG62F	HF62F	G5J	JR1AF-TMP	OMIF				302	AZ756	SMHE	
13	ZG102F	HF102F	G4A	LF/JM	PCFN				891	AZ760/AZ769	SFG	
14	ZG102FK	HF102F			AZ760				891	ZA760		
15	ZG105F	HF105F-1	G8P	JTN/JTV	ORU	T9A/T90	T9A	CT	832/805/855A	AZ2150/AZ2151	SLA/SLC	
16	ZG115F	HF115F	G2RL	LZ	RT		RT/42900/RT1/RT2	TH	881/888/507	AZ697	SM	
17	ZG140FF	HF140FF	G2R/G2RG	JR2/JR2A	OMI		409/RP12/SR2M	FTR-L1	894/845-2P	AZ33W		
18	ZG152F	HF152F	G5LE	JSM				FRT-F1/VSB	207/875A	AZ4/AZ942A	SRG	
19	ZG161F	HF161F	G4A	LF	PCFN					AZ160/AZSR143		
20	ZG161FK	HF161F	G4A	LF	PCFN					AZ160/AZSR143		
21	ZG165F	HF165FD	G8P	JTN/JTV	ORU	T9A/T90	T9A	CT	832	AZ2150/AZ2151	SLA/SLC	
22	ZG165FK	HF165F	G8P		T9/T9A/T9C	T9S SOLAR				AZ2110/AZ2270	SLA/SLC/SLE	
23	ZK17-63/-125	HF197										
24	ZG7520	HF7520	G5CA	JV/JVN		PCB			201	AZ9481	SPA	
25	ZD23	HFD23	G5V-1	HY		V23111/TSC		TY		AZ951	SYS	
26	ZD27	HFD27	G5V-2	DSZY			V23105/D2N/OVR/ORZ/T82/T85/T190	MR62	876	AZ800/AZ830/AZ832	DSY2Y	
27	ZD3	HFD3	G4S	TX		P2/V23079		EC2/ED2	902	AZ8462		
28	ZD31	HFD31	G4H	TQ	FP2			EA2		AZ850/851/8512/8521		
29	ZD4	HFD4	G4K	AGQ	IM			UCZ/UD2		AZ852/AZ8521		
30	ZD41/ZD41A	HFD41/HFD41A	G2E			V23101				AZ952/AZ951	SYS1/SYS1K	
31	ZD42	HFD42	G4J	AGN	IM							
32	ZQV4	HFV4	G8L/G8JN	CB		V23134-A/B V23234-A/B V23136-A/B VF4A			896/896H	AZ972/973/9731	SARL/SARE	
33	ZQV6	HFV6	G8HN	CM		VFM/V23074-A			871	AZ988/AZ977	SARS	
34	ZQV7	HFV7	G8JR	CB		V23134-J V23136-J			897	AZ979/AZ980	SARF	
35	ZQV15	HFV15	G8JN	CB		V23134-A/B V23234-A/B V23136-A/B VF4A			896/896H	AZ973/AZ9731		

注：本表仅供参考，若有任何疑问或需要产品详细规格书，请联系当地代理商，或发邮件至 sales@zomkun.com

Ordering Information

型号规则

ZGXXF	- 12	A	L	-	-S	F	-	XXX
继电器型号 Model NO.(Type)								
线圈电压 Coil Voltage: 5, 9, 12, 24VDC								
触点结构 Contact Arrangement: A: 常开型 Open B: 常闭型 Close C: 转换型 Conversion								
线圈功耗 Coil Power: L: 灵敏型 (仅适用于A型) Sensitive 无(Blank): 标准型 Standard								
保护结构 Protection Structure(1) (2): S: 塑封型 Plastic Sealed 无Blank: 防焊剂型 Flux Proofed								
绝缘等级 UL Insulation System: F: F级 Class F 无Blank: A级 Class A								
特性代码 Special Code XXX: 客户特性号, 用字母或数字表示. Customer Special Requirement Code 无Blank: 标准型 Standard								

Packaging information

包装信息

Model No.	Packing Method	Carton Size L x W x H cm	QTY/CTN	N.W. (kg)	N.W. (kg)
ZG3FA	25pcs/Tube	43.5*20.2*16.4	1000	9	11
	50pcs/Tray	39.6x38.2x15.3	1000	9	10.5
ZG14F	50pcs/Tray	36.8x22.8x17.8	500	7	8.5
ZG14F-G	50pcs/Tray	40x33.7x19	500	7	8.5
ZG32F-10A	100pcs/Tray	33.5x26.5x14.2	1000	6	7.5
	50pcs/Tube	56.5x19x14	1000	6	8
ZG33F-10A	100pcs/Tray	32.5x22.2x23.8	1000	7	8.5
	100pcs/Tube	33.5x26.5x14.8	1000	7	8.5
ZG46F-10A	70pcs/Tube	58.5x28.5x13.5	2800	8.4	10.5
	50pcs/Tray	35x21.5x14.5	1000	3	4.2
ZG62F	50pcs/Tray	40.8x28.3x16.4	500	8	9.5
ZG102F/FK	25pcs/Tray	41.2x27x20.2	500	11	12.5
ZG105F	40pcs/Tray	38x27x29	400	12	13.5
	25pcs/Tray	40x27.5x21	250	7.5	9
ZG115F	50pcs/Tray	37x22.5x17.5	500	7	8.5
ZG152F	100pcs/Tray	38.5x29x31	2000	27	28.5
ZG161F	50pcs/Tray	40x29.7x18.8	500	11	12.5
ZG161FK	50pcs/Tray	40x29.7x24.5	500	10	11.5
ZG165F/FK	40pcs/Tray	38x27x29	400	12	13.5
	25pcs/Tray	40x27.5x21	250	7.5	9
ZK17-63/-125	25pcs/Tray	41.2x30x21.2	500	14	16
	30pcs/Tray	36x26x22	300	15.6	16.5
ZG7520	50pcs/Tray	31.2x29.3x21.2	1000	9	10.5
ZD23	25pcs/Tube	47x30.5x13	2000	4.4	6
ZD27	20pcs/Tube	47x31x15.5	2000	10	11.5
ZD3	25pcs/Tube	48x30x13	2000	9.2	10.8
ZD31	25pcs/Tube	48x28x15	2000	9	10
ZD41/ZD41A	20pcs/Tube	39x30.1x14.8	2000	7	8.5
ZQV4	10pcs/Tube	40x34x20	400	20	20.5
ZQV6	20pcs/Tube	40x34x25	1000	18	18.5
ZQV7	10pcs/Tube	40x34x20	400	21.5	22
ZQV15	10pcs/Tube	40x34x20	400	20	20.53