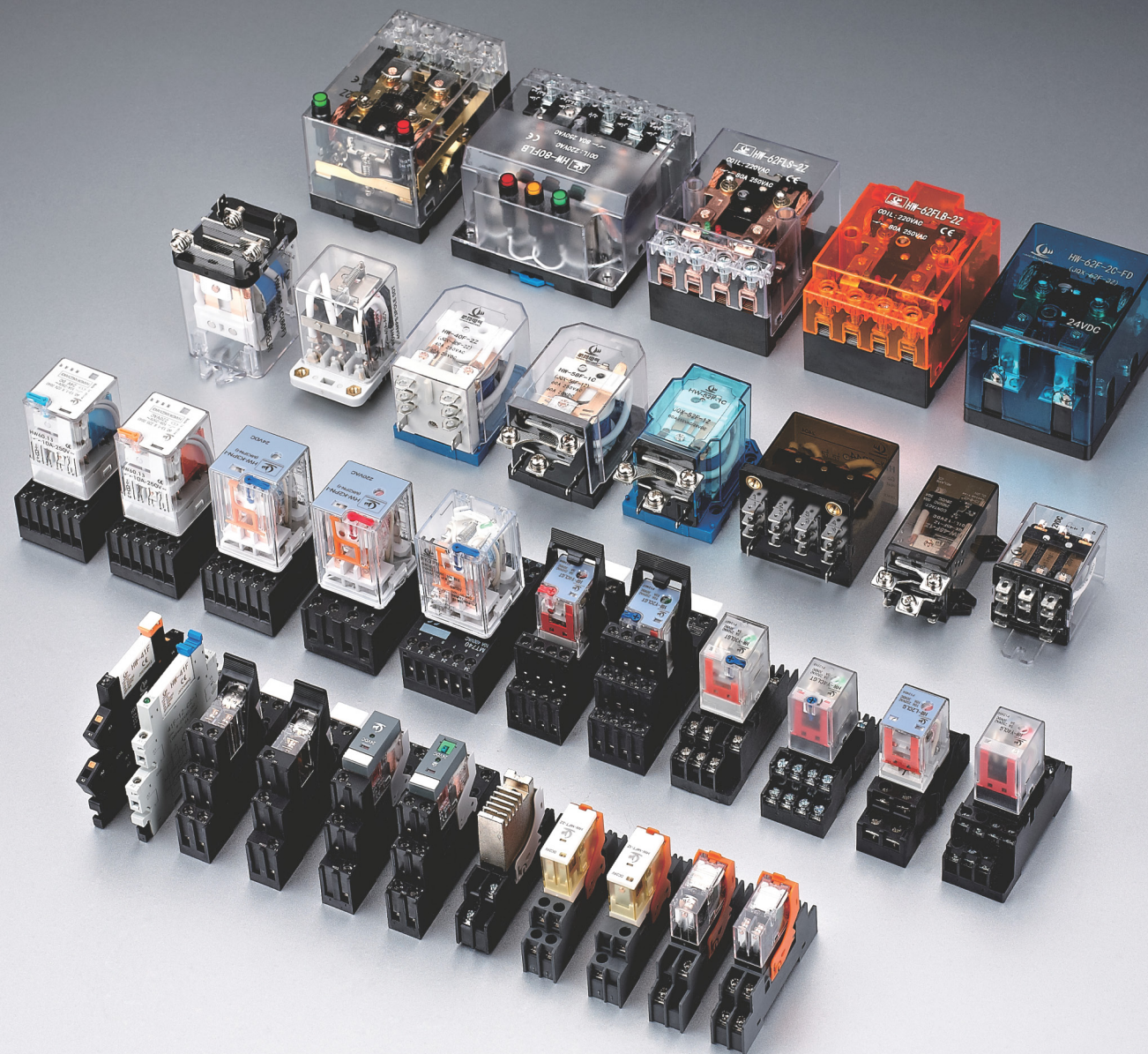


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浙江航网电气科技有限公司

ZHEJIANG HANGWANG ELECTRICAL TECHNOLOGY CO., LTD

乐清市艺杰电器有限公司

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厂址：浙江省乐清市象阳后横工业区
Address: Xiangyang Houheng Industrial Zone, Yueqing City,
Zhejiang Province

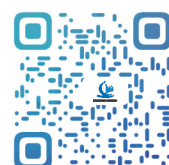
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Warning: Due to technical upgrade of the
product, the technical date of this manual
are for reference only!

产品导购手册
PRODUCT CATALOGUE

浙江航网电气科技有限公司是一家引进国际先进技术和设备工艺，在国内从事工控领域电磁继电器研发，制造，生产，销售和服务为一体的现代化企业。

公司始终坚持产品的不断升级和创新，并取得了相应的成果。主要生产的产品有：新能源继电器：HW-53F系列，大功率继电器HW-60F系列，特大功率继电器HW-250F系列，通用继电器HW-10F系列。小型继电器：HW-Y/L系列以及继电器配套底座、附件等，广泛应用于机械、机床、电力、航空、通信等工业自动化和机电一体化行业系统控制。

公司十分注重质量的把控，先后通过了质量管理体系GB/T19001、环境管理体系GB/T24001以及职业安全管理体系GB/T45001认证,产品通过CQC认证以及欧盟CE认证，新能源系列拥有多项实用新型专利，产品远销全球各地，在业界赢得了良好的口碑。

“航海梯山，珊瑚在网” 航网电气愿秉承“厚德至诚、精工至善、创新至远、服务至上”的理念与您一起成长！

Zhejiang Hangwang Electric Technology Co., Ltd. is a modern enterprise that implies international advanced technology and equipment processes, and is engaged in the research and development, manufacturing, production, sales, and service of electromagnetic relays in the field of industrial control in China.

The company has always adhered to the continuous upgrading and innovation of its products, and has achieved corresponding results. The main products are: new energy relays: HW-53F series, high-power relays HW-60F series, high-power relays HW-250F series, and general-purpose relays HW-10F series. Small relay: HW-Y/L series and relay supporting bases, accessories, etc., are widely used in industrial automation and electromechanical integration industry system control such as machinery, machine tools, electric power, aviation, communication, etc.

The company attaches great importance to quality control, and has successively passed the quality management system GB/T19001, environmental management system GB/T24001, and occupational safety management system GB/T45001 certifications. The products have passed CQC certification and EU CE certification. The new energy series has a number of utility model patents, and the products are exported to various parts of the world, winning a good reputation in the industry.

"Sailing on the sea, stepping on the mountain, and enjoying the coral in net". Hangwang Electric is willing to adhere to the philosophy of "honesty, precision, innovation, and service first" to grow with you!

证书certificate



车间场景Workshop scenario



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大功率继电器新能源系列 New Energy Power Relay



大功率继电器新能源系列New Energy Power Relay



HW-53F2Z



HW-53F2Z-P



HW-53F3Z



HW-53F3Z-P

产品特点Product characteristics

- ✦ 可选配法兰式安装
it can choose the flange mounted type
- ✦ 产品配有点动、带自锁式测试按钮
the products with the inching test button
which Self-locking
- ✦ 配套插座HW53S-□E
It can match the socket for HW53S-E

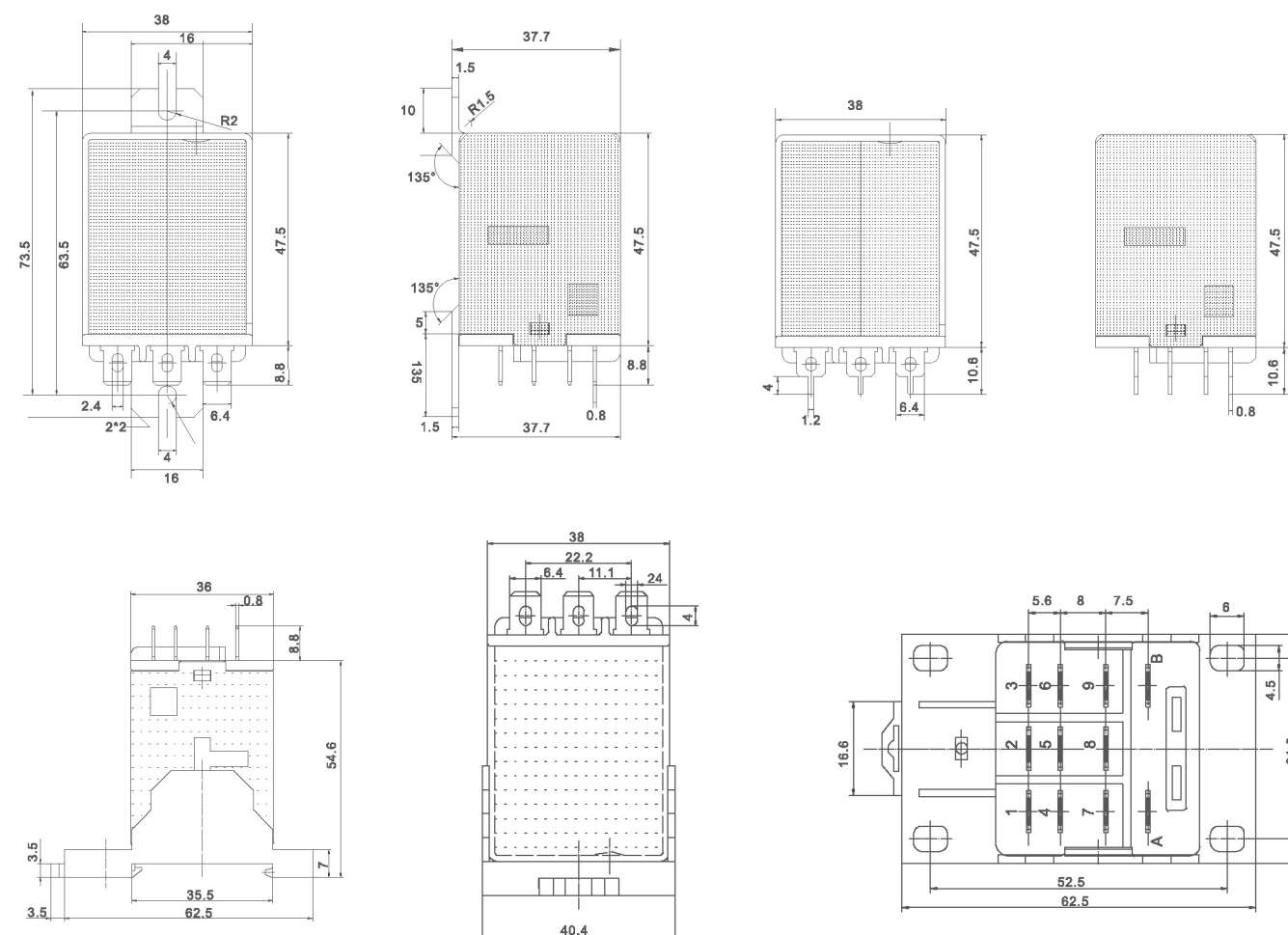
型号及其含义Type and meaning

HW 53F 3 ☐ - P L T ☐ VDC

1 2 3 4 5 6 7 8

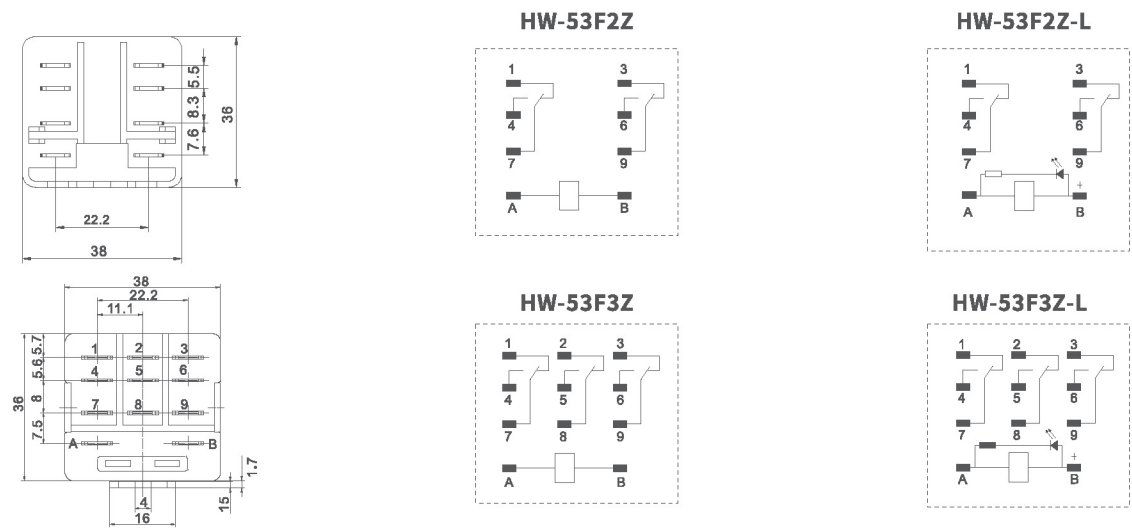
- | | | | |
|---|--|---|--|
| 1 | 企业代号: 航网电气
Enterprise Code: Hangwang Electric | 5 | 安装方式: F:法兰式 P:PCB式 无字母: 插拔式
mounted type: F:flange mounted type P:PCB mounted type No Letters: plug-in mouted |
| 2 | 设计序号
Serial Number | 6 | 工作状态: L:LED指示 无字母: 无指示
operating state:L:LED indicate No Letters:no indicate |
| 3 | 触点组数: 2、3
Number of contact groups: two,three | 7 | 辅助功能: T自锁 G机械指示 D/CR抑制保护
auxiliary function : T-Self-locking G-mechanical indicate D/CR-inhibitory protection |
| 4 | 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type D-normally closed contact | 8 | 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage |

外形尺寸图External dimensions (mm)





接线图Wiring diagram

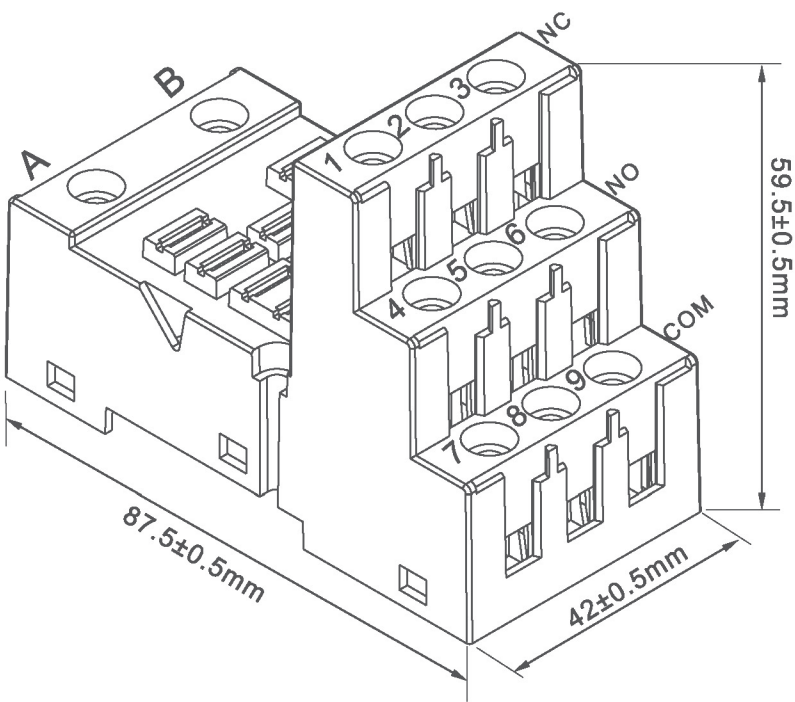
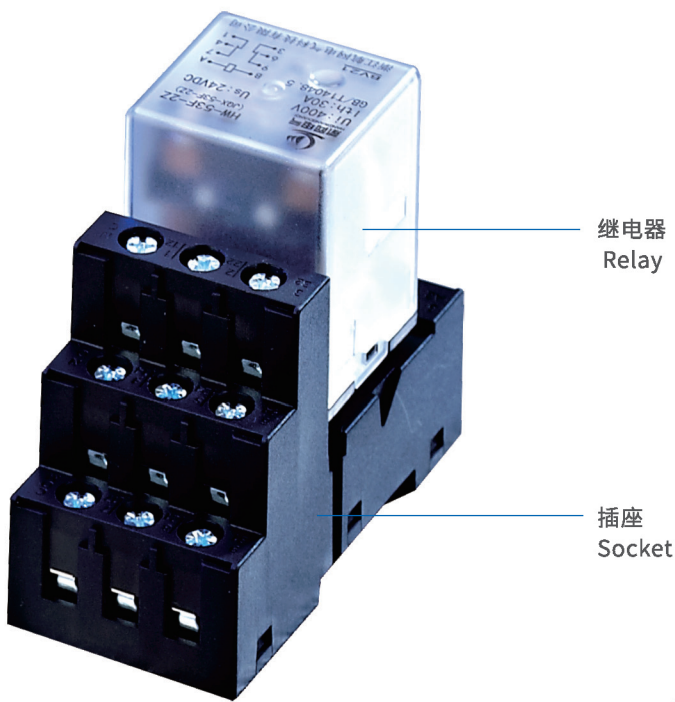


产品性能Product performance

产品型号Model		HW-53F
外形尺寸Dimension(mm)		38x36x56.5
触点形式 Contact Form		3Z、3H、3D、2Z、2H、2D
触点材料 Contact Material		银合金 SilverAlloy
触点容量阻性 Resistance Performance Of ContactorCapacity		25A/28VDC、25A/240VAC
线圈功率Coil Power	AC (VA)	2.5
	DC(W)	1.8
线圈电压Coil Voltage	AC(V)	6~380
	DC(V)	6~220
吸合电压 Pick-up Voltage		DC: ≤75%、AC: ≤80%
释放电压 Dropout Voltage		DC: ≥10%、AC: ≥30%
最大电压 Max Voltage		110%
接触电阻 Contact Resistance (mΩ)		≤100mΩ
介质耐压 Dielectric Strength	开路触点间 Between OpenContacts	1500VAC
	触点组间 Contacts Pieces	1500VAC
	线圈与触点间 BetweenCoil&Contacts	2500VAC
绝缘电阻 Insulation Resistance (MΩ) at 500VDC		≥100MΩ
工作寿命 Service Life	电气 Electrical(次)	5×10 ⁴ 次
	机械Mechanical(次)	5×10 ⁵ 次
环境温度Ambient Temperature (°C)		-25℃~+55℃
引出端形式 Terminal Type		插拔式Insert Type
防护形 Protection Type		封闭式 Close Type
产品重量 Product Weight (g)		2Z:77 3Z:81



产品组合Product mix





HW-30F

型号及其含义Type and meaning

HW	30F	2		-	P	D		VDC
1	2	3	4	5	6	7		

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 2
Number of contact groups: two

4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact
- 5 安装方式: F:法兰式 无字母: 插拔式
mounted type: F:flange mounted type No Letters: plug-in mouted

6 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection

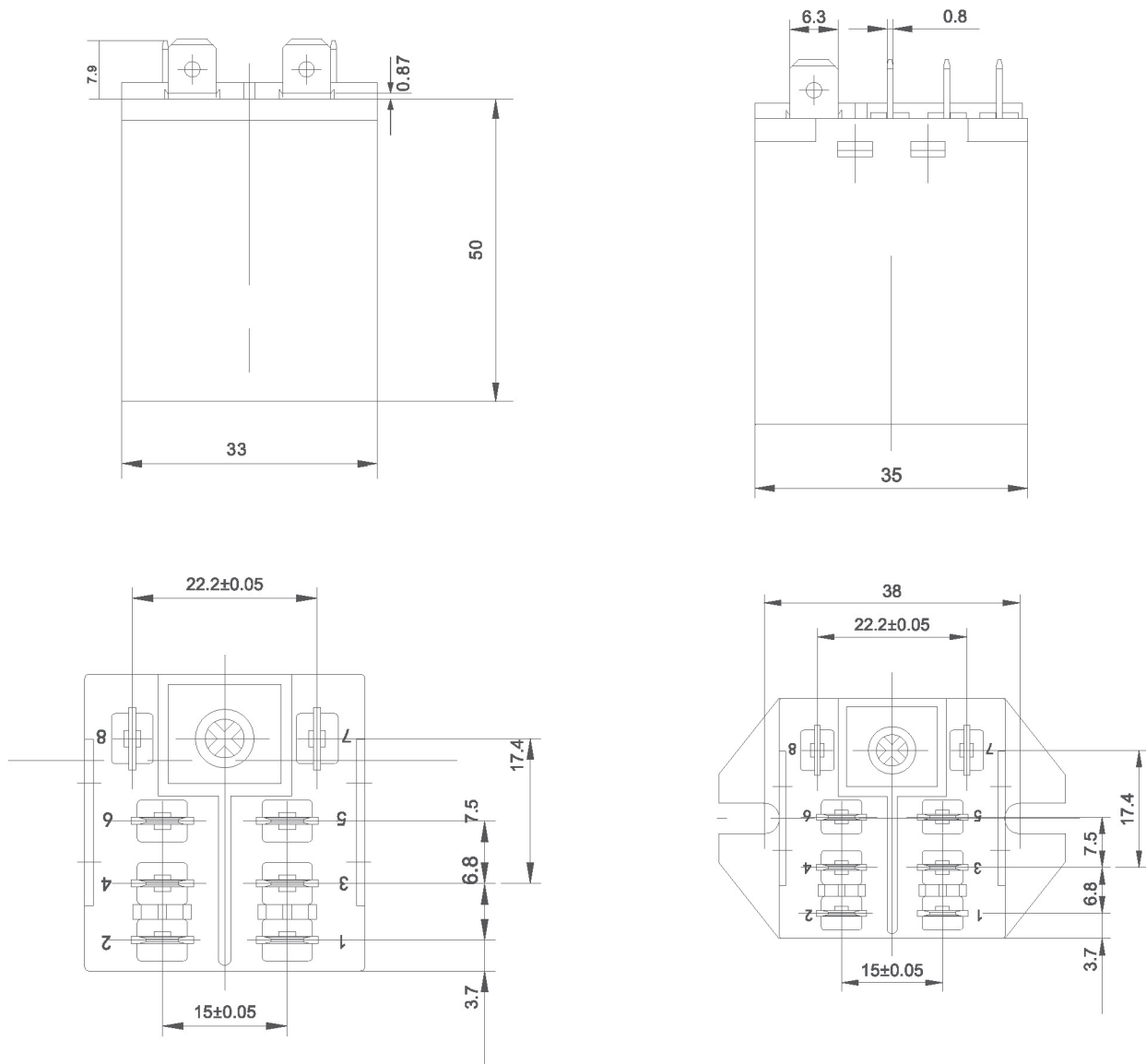
7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

产品性能Product performance

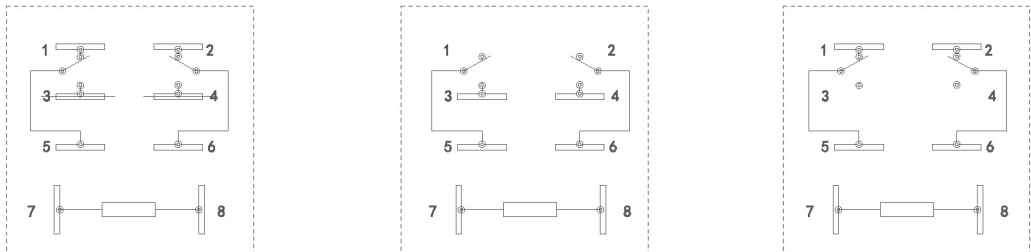
接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥5×10 ⁴ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤25ms
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1500VAC/1min(漏电流Leakage current 1mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1mA)
触点与线圈间 Between contact and coil	2000VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	43×35.5×48mm
重量 weight	约around 70g



外形尺寸图External dimensions (mm)



接线图Wiring diagram





HW-38F

型号及其含义Type and meaning

HW	38F	2		-	P	D		VDC
1	2	3	4	5	6	7		

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 2、3
Number of contact groups: two、three

4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact
- 5 安装方式: P:PCB式 无字母: 插拔式
mounted type: P:PCB mounted type No Letters: plug-in mouted

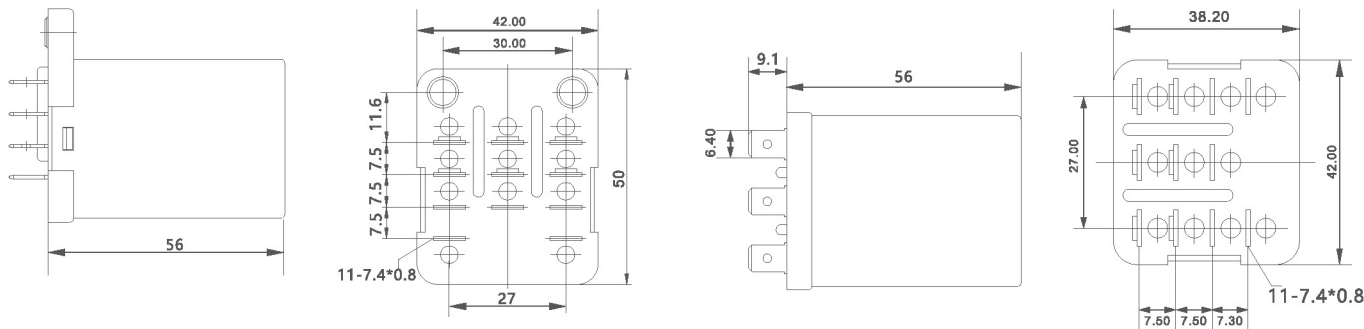
6 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection

7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

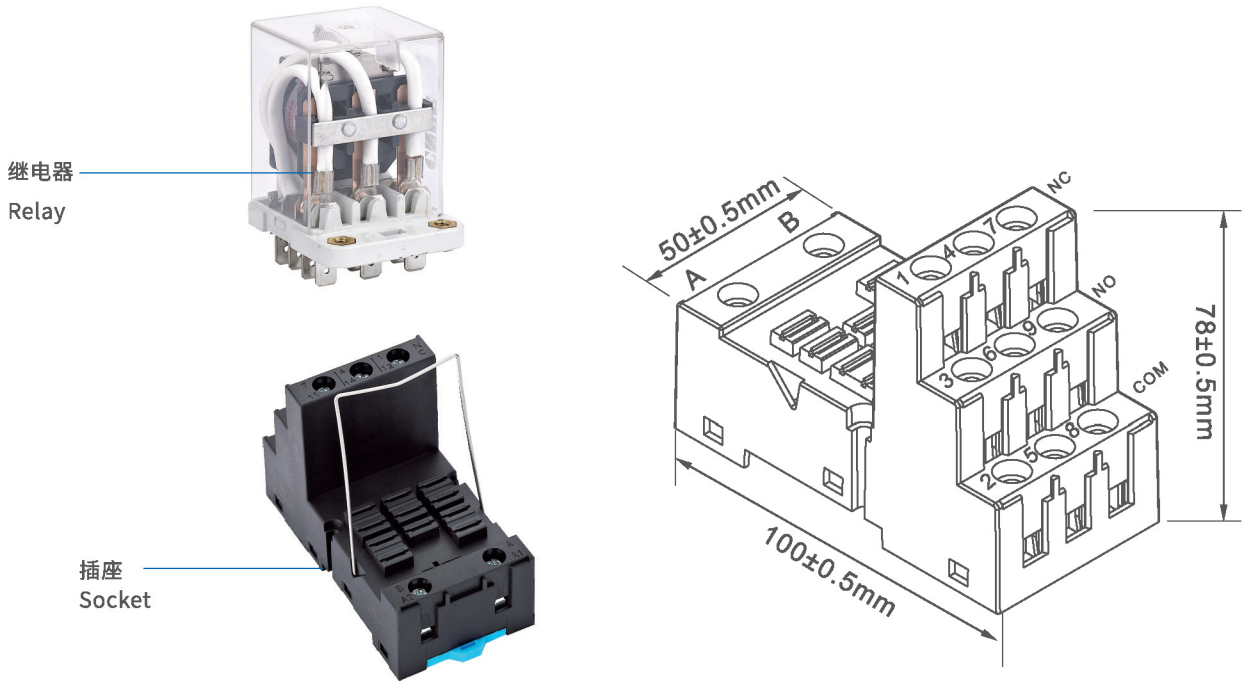
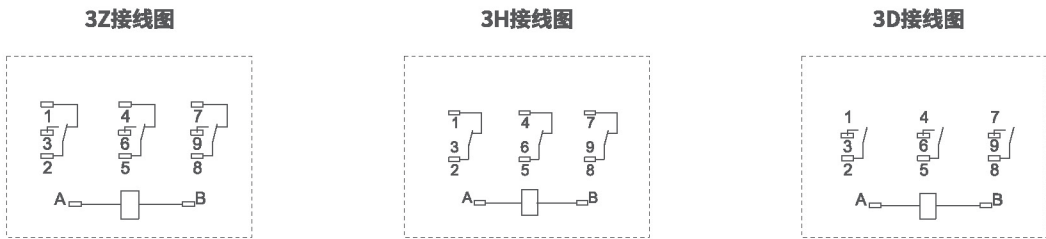
产品性能Product performance

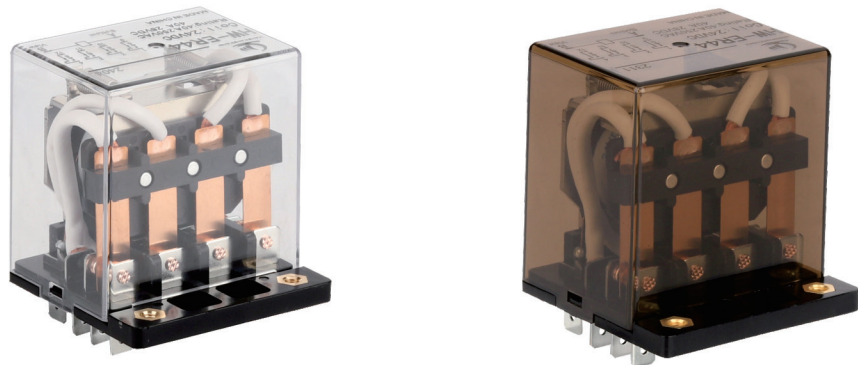
接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥5×10 ⁴ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤25ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1mA)
触点与线圈间 Between contact and coil	2500VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-25°C ~ +55°C
环境湿度 Ambient humidity	35% ~ 80%RH .
大气压力 Atmospheric pressure	86 ~ 106KPa .
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	55.5 X50 X 42mm
重量 weight	约around 130g

外形尺寸图External dimensions (mm)



接线图Wiring diagram





产品介绍: product presentation

- 1) 型号: HW-ER44
ITEM NO:HW-ER44
- 2) 触点组数: 4组; 形式有: 4转换、4常开、4常闭。
Number of contact groups: 4 groups type: 4transition . 4 NO 4 NC
- 3) 触点额定电流: 40A。 rated contact current :40A
- 4) 防护形式: 封闭式 (防尘) 。 Form of protection:closed type (dustproof)
- 5) 引出端形式: 快插式 (配专用插簧) 、PCB式。
Terminal Configuration:quick-insert(Equipped with special spring) PCB type
- 6) 应用场所: 主要用于三相 (四路) 电机控制。)
application place :Mainly used for three-phase (four-way) motor control.

产品性能 Product performance

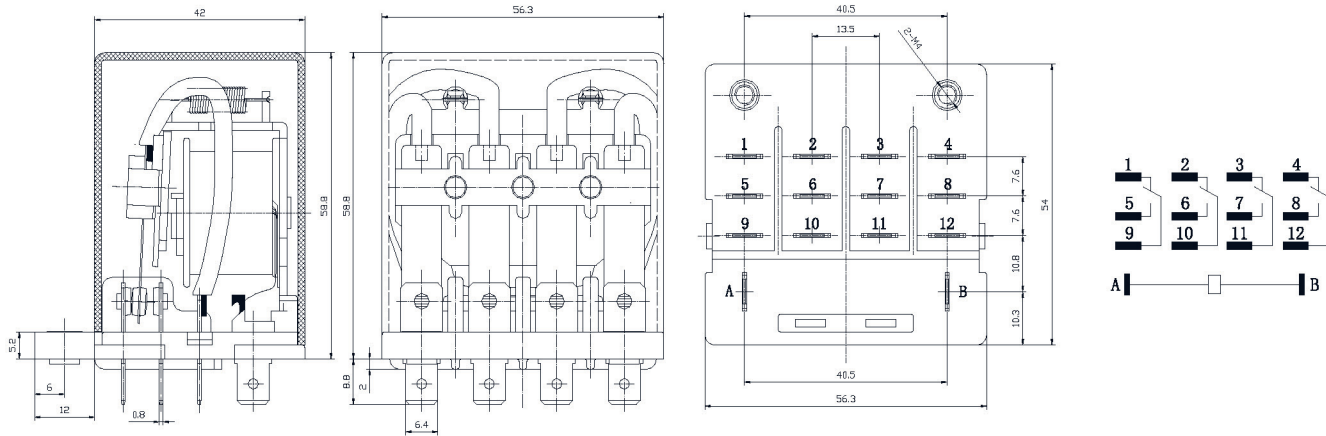
产品型号Model		HW-ER44
外形尺寸Dimension(mm)		56.5 × 42× 61
触点形式 Contact Form		4C、4A、 4B
触点材料 Contact Material		银合金 Silver Alloy
触点容量阻性 Resistance Performance Of ContactorCapacity		40A/28VDC 240VAC
接触电阻 Contact Resistance （mΩ ）		≤100mΩ
线圈功率Coil Power	AC (VA)	5.5
	DC(W)	3.0
线圈电压Coil Voltage	AC(V)	6 ~ 380V
	DC(V)	6 ~ 220V
吸合时间（额定电压） Operate time		≤ 25ms
释放时间（额定电压） Release time		≤ 25ms
吸合电压 Pick-up Voltage		DC: ≤ 75% AC: ≤ 80%
释放电压 Drop-out Voltage		DC: ≥ 10% AC: ≥ 30%



最大电压 Max Voltage		110%
介质耐压 Dielectric Strength	开路触点间 Between OpenContacts	1800VAC/1min （漏电流 1mA）
	触点组间 Contacts Pieces	1800VAC/1min （漏电流 1mA）
	线圈与触点间 BetweenCoil&Contacts	2500VAC/1min （漏电流 1mA）
绝缘电阻 Insulation Resistance (MΩ) at 500VDC		≥ 500MΩ （500VDC）
工作寿命 Service Life	电气 Electrical(次)	≥ 30000 次 （ 450 Ops/h ）
	机械Mechanical(次)	≥ 500000 次 （ 18000 Ops/h ）
环境温度Ambient Temperature （℃）		-25 ~ +55℃
环境湿度Humidity		35%~ 85%RH
大气压力 Atmospheric Pressure		86 ~ 106KPa
耐冲击 Shock resistance		10G（正弦半波脉冲: 11ms）
耐振动 Vibration resistance		10 ~ 55Hz 双振幅: 1.0mm
引出端形式 Terminal Type		插拔式 Insert Type
防护形式 Protection Type		封闭式 Close Type
配用插座 Suitable Socket		/
产品重量 Product Weight （ g ）		175g
同类产品参照 Same Reference		JQX-38F 4Z

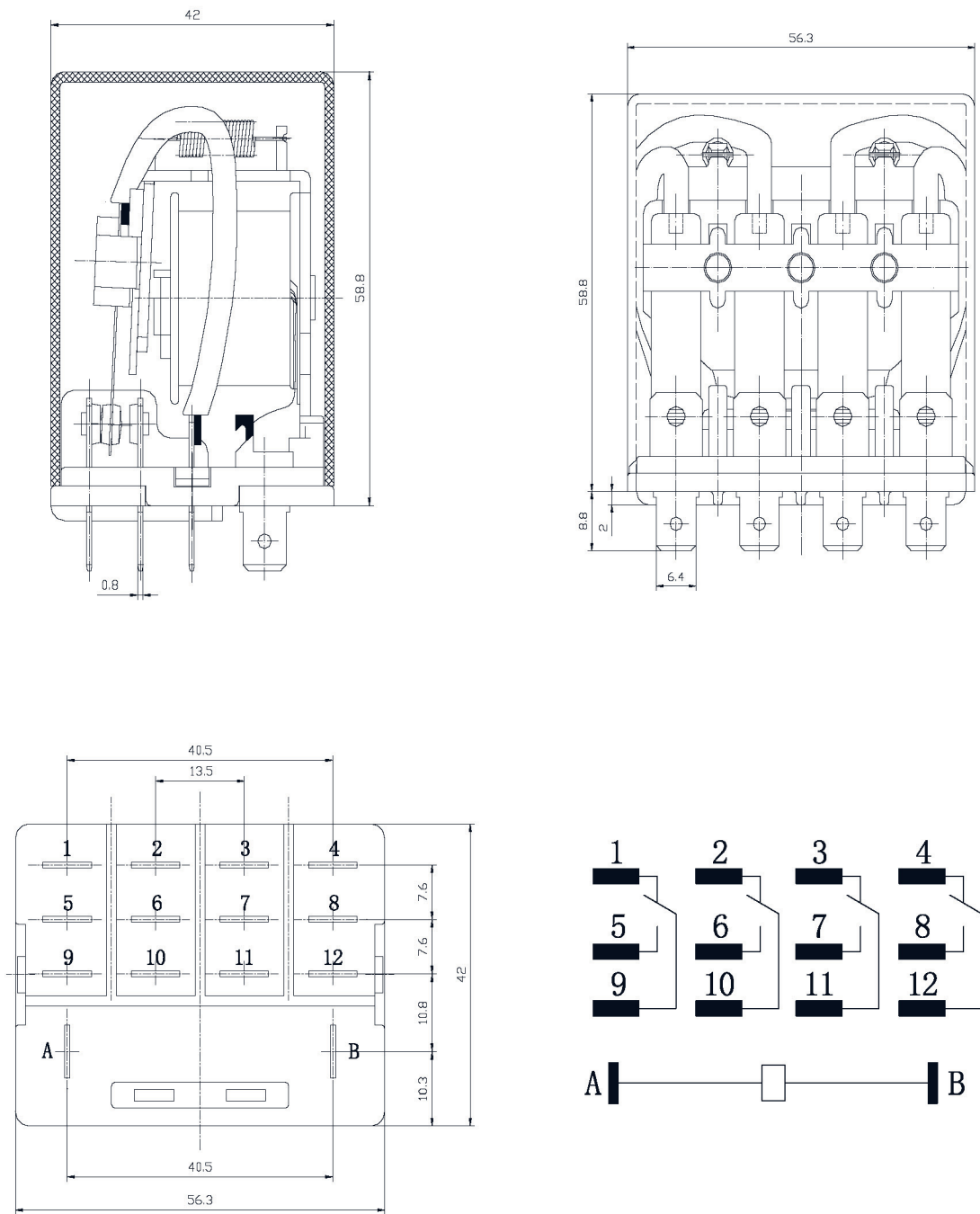
外形图、接线图、安装尺寸 (mm)
 Outline drawing, wiring diagram, installation dimensions

HW-ER44 （螺钉式）

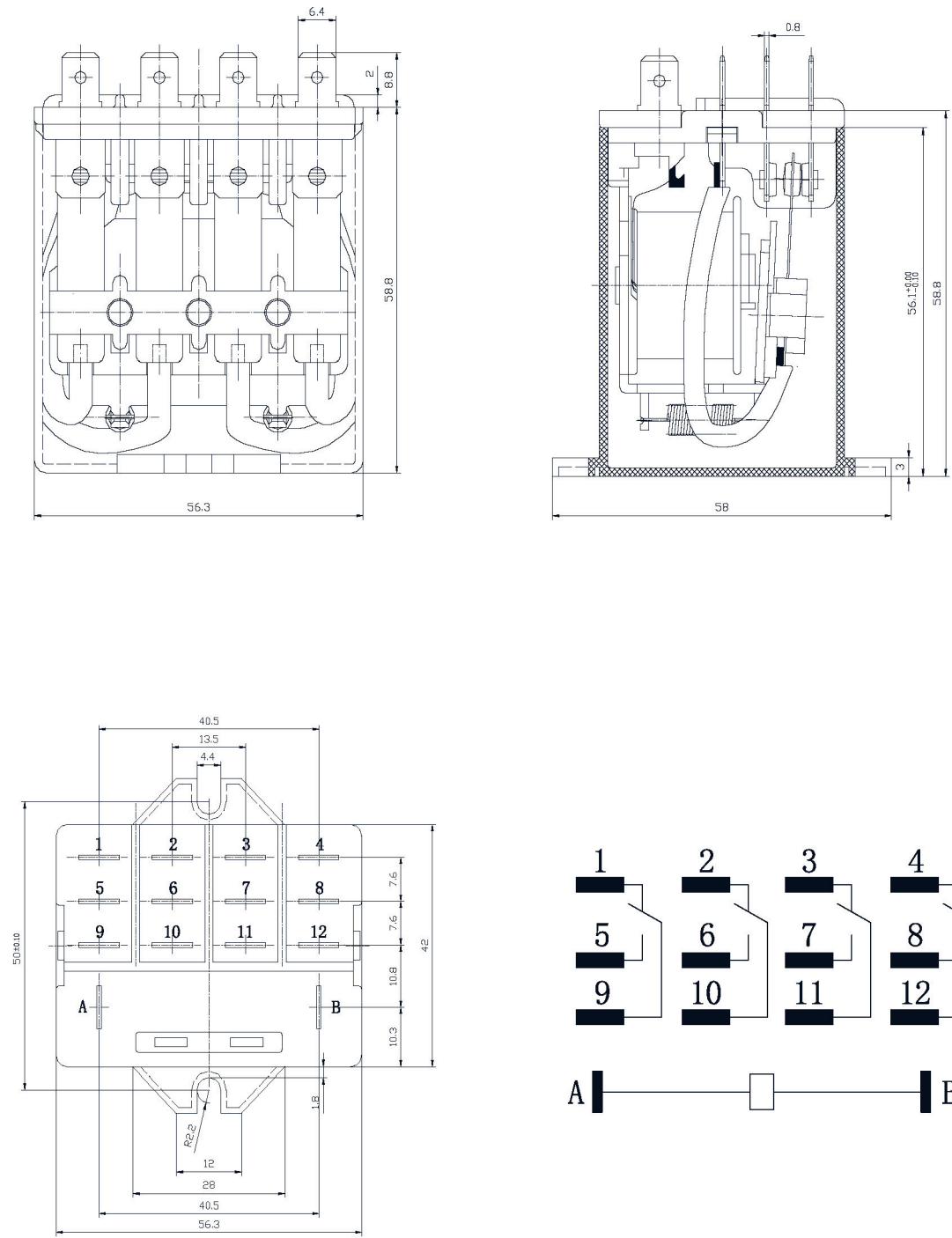




HW-ER44 (快插式、PCB式)



HW-ER44 (法兰式)





HW-40F2Z

产品特点Product characteristics

- ✦ 结构牢固抗冲击抗振动性强使用寿命长
Strong structure, strong impact resistance, strong vibration resistance and long service life
- ✦ 可提供2组(40A)触点转换
2 sets(40A) of contact conversions
- ✦ 导轨式安装
Guide rail type installation

型号及其含义Type and meaning

HW	40F	2Z		-	P	D		VDC
1	2	3	4	5	6	7		

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 2
Number of contact groups: two

4 触点形式: Z转换 H常开 D常闭 H-normally open contact
Contact Form: z-conversion type D-normally closed contact
- 5 安装方式: 导轨式安装
mounted type: Guide rail type installation

6 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection

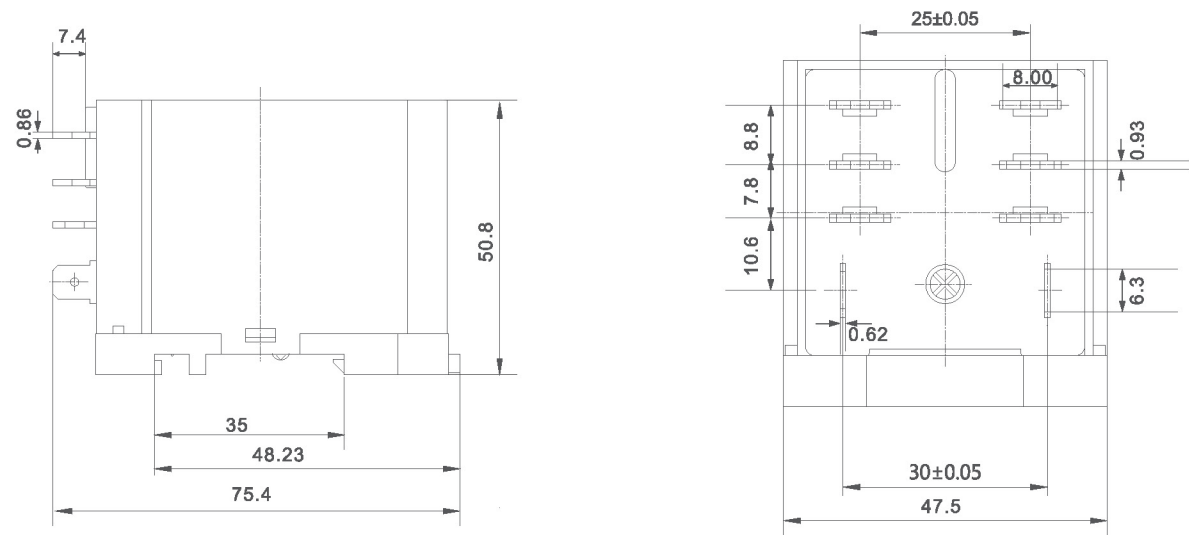
7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

产品性能Product performance

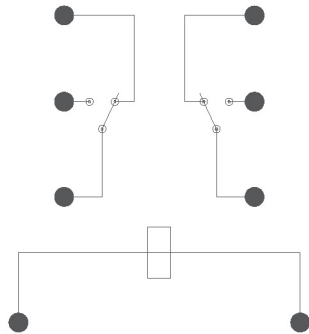
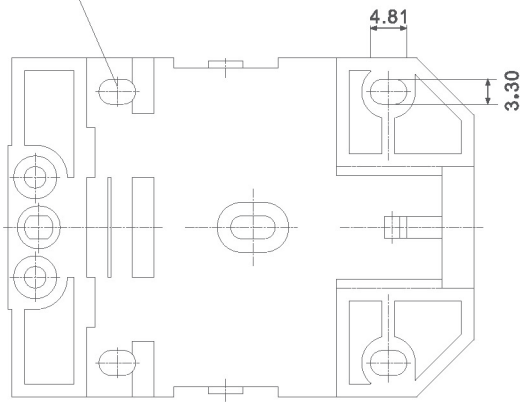
接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥5×10 ⁴ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤25ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1500VAC/1min(漏电流Leakage current 1mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1mA)
触点与线圈间 Between contact and coil	2500VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥200MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	68×47×50.8mm
重量 weight	约around 160g



外形尺寸图External dimensions (mm)



安装孔





HW-59F

产品特点Product characteristics

- ✦ 结构牢固抗冲击抗振动性强使用寿命长
Strong structure, strong impact resistance, strong vibration resistance and long service life
- ✦ 可提供1组(80A)触点转换
it can provide 1 set(80A) of contact conversion
- ✦ 负载切换电流: 80A
80A Load switching current:80A
- ✦ 螺栓式安装、法兰式安装
retaining bolt installation\ flange mounted

型号及其含义Type and meaning

HW	59F	1Z	□	- F	D	□ VDC
1	2	3	4	5	6	7

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 1
Number of contact groups: one

4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact
- 5 安装方式: 螺栓式安装、法兰式安装
mounted type: retaining bolt installation、flange mounted type

6 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection

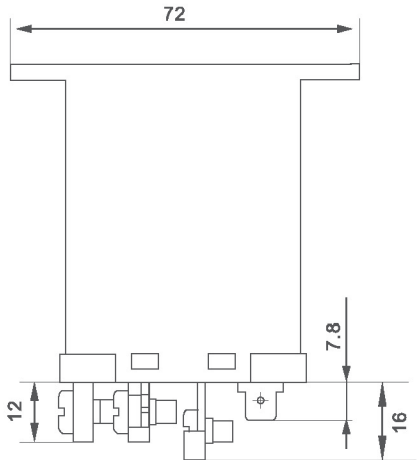
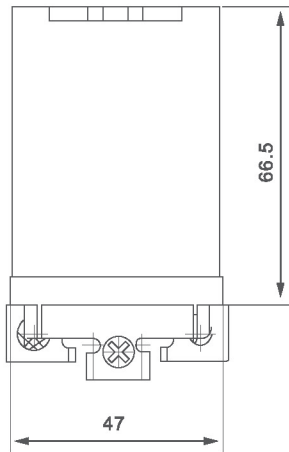
7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

产品性能Product performance

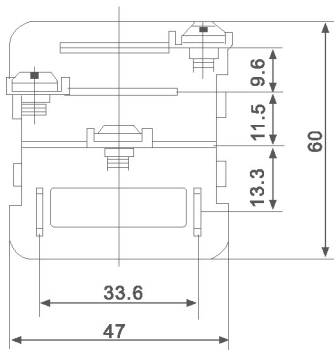
接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥5×10 ⁴ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤25ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1mA)
异极触点之间 Between polar contacts	/
触点与线圈间 Between contact and coil	2500VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥200MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	66.5×47×72mm
重量 weight	约around 240g

外形尺寸图External dimensions (mm)

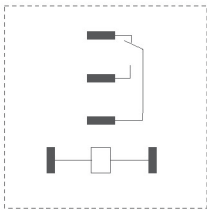
HW-59F-1Z



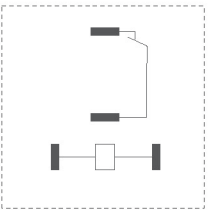
接线图Wiring diagram



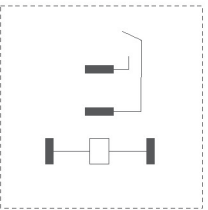
HW-59F-1Z



HW-59F-1H



HW-59F-1D





产品特点Product characteristics

- ✦ 40A、50A、60A负载切换能力
40A, 50A, 60A load switching capability法兰式安装
- ✦ 法兰式安装
Flange mounting
- ✦ 螺丝安装引出端
Screw mounting out end

型号及其含义Type and meaning

HW	45F	1Z	40A	DC12V
1	2	3	4	5

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric
- 2 设计序号
Serial Number
- 3 触点形式:1H=1组常开型;1D=1组常闭型;1Z=1组转换型
Contact form :
1H=1 group normally open type ,
1D=1 group normally closed type ,
1Z=1 group conversion type

- 4 触点负载:40A、50A、60A
Contact load :40A, 50A, 60A
- 5 线圈电压: DC为直流 AC为交流
Coil Voltage:
DC is for direct voltage
AC is for alternating voltage

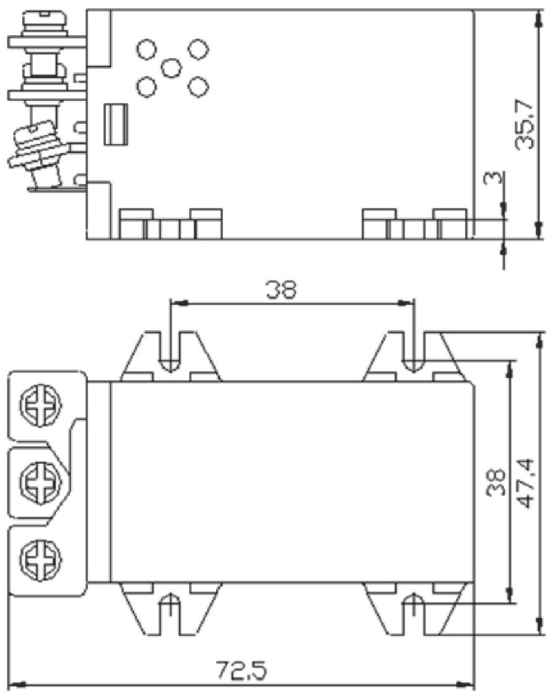
产品性能Product performance

接触电阻 Contact resistance	100mΩ以下(在6VDC 1A条件下)
电气寿命 Electrical life	阻性负载, 10万次以上
机械寿命 Mechanical life	1000万以上
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤25ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1500VAC/1min(漏电流Leakage current 1mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1mA)
触点与线圈间 Between contact and coil	2500VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-44℃ ~ +55℃
环境湿度 Ambient humidity	5% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	最高加速度980m/s2持续时间6ms
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	63.2 X 46X 46mm
重量 weight	约around 105g

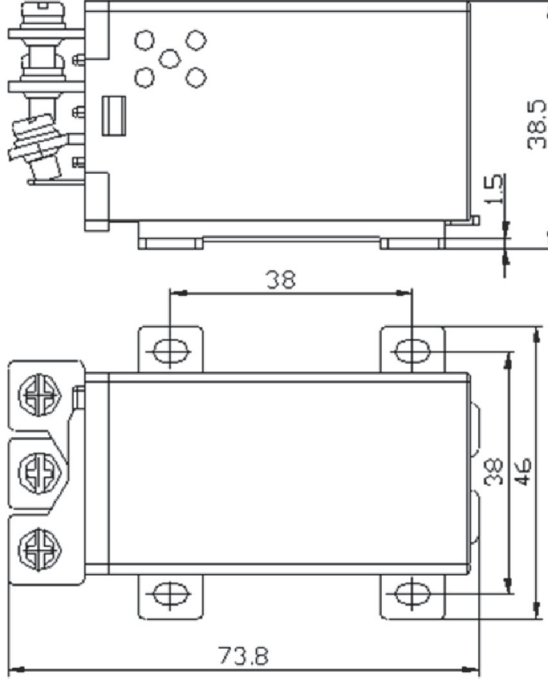


外形尺寸图External dimensions (mm)

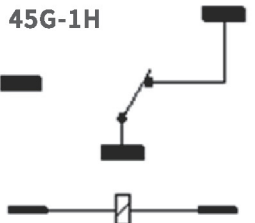
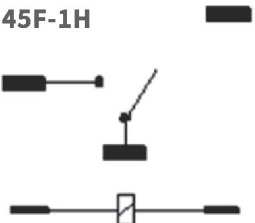
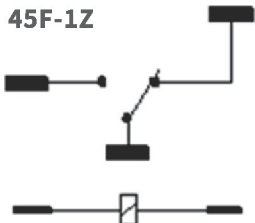
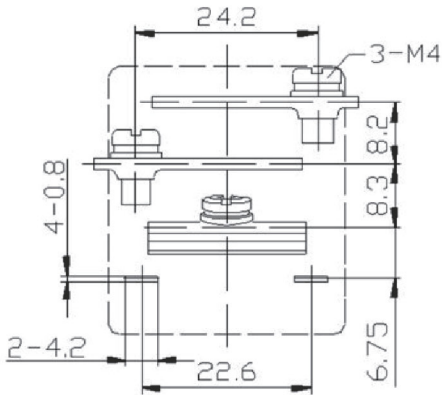
HW-45F-1Z法兰式



HW-45F-1Z铁板安装型



接线图Wiring diagram



备注:
(1)产品部分外形尺寸未注尺寸公差, 当外形尺寸<1mm, 公差为+0.1;当外形尺寸在1-3mm之间时, 公差为±0.2;当外形尺寸>3mm, 公差为+0.3。
(2)安装孔尺寸中未注尺寸公差为+0.1。

大功率继电器导轨安装系列 DIN-Rail Power Relay



大功率继电器导轨安装系列DIN-Rail Power Relay



HW-58F

产品特点Product characteristics

- ✦ 结构牢固抗冲击抗振动性强使用寿命长
Strong structure, strong impact resistance, strong vibration resistance and long service life
- ✦ 负载切换电流: 60A
60A Load switching current:60A
- ✦ 螺栓式安装
retaining bolt installation
- ✦ 可提供1组触点转换
it can provide 1 set of contact conversion

型号及其含义Type and meaning

HW	58F	1Z	□	-	□	D	□	VDC
1	2	3	4	5	6	7		

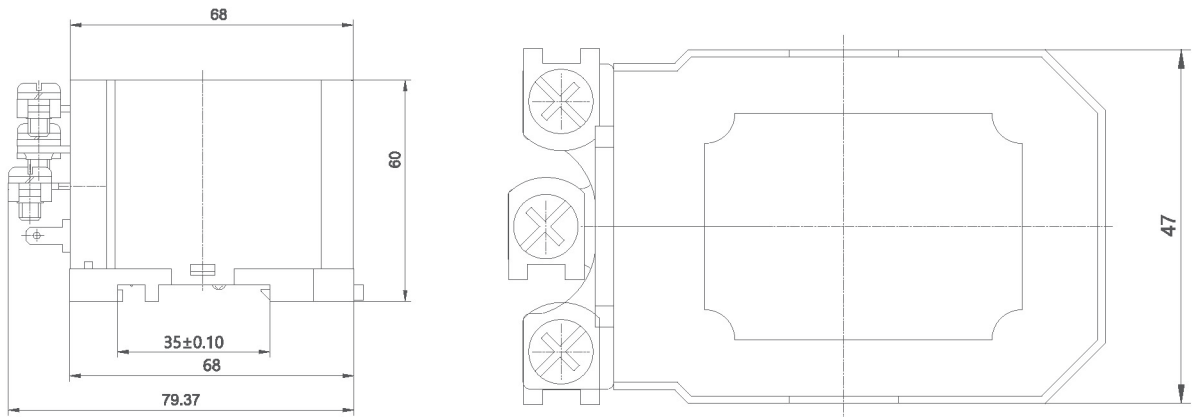
- | | |
|--|---|
| <p>1 企业代号: 航网电气
Enterprise Code: Hangwang Electric</p> <p>2 设计序号
Serial Number</p> <p>3 触点组数: 1
Number of contact groups: one</p> <p>4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact</p> | <p>5 安装方式: 螺栓式安装
Mounted type: retaining bolt installation</p> <p>6 辅助功能: D/CR抑制保护
Auxiliary function :D/CRInhibitory protection</p> <p>7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage</p> |
|--|---|

产品性能Product performance

接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥5×10 ⁴ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤25ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1mA)
异极触点之间 Between polar contacts	/
触点与线圈间 Between contact and coil	2500VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥200MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH .
大气压力 Atmospheric pressure	86 ~ 106KPa .
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	68 X 47 X 60mm
重量 weight	约around 170g



外形尺寸图External dimensions (mm)



HW-62F1Z

HW-62F2Z

产品特点Product characteristics

- 结构牢固抗冲击抗振动性强使用寿命长
Strong structure, strong impact resistance, strong vibration resistance and long service life
- 负载切换电流: 1Z 100A 2Z 80A
Load switching current: 1Z 100A 2Z 80A
- 导轨式安装、螺栓式安装
Din rail mounted、retaining bolt installation
- 可提供1组、2组触点转换
it can provide 1、2 set of contact conversion

产品性能Product performance

触点 contact	触点形式 Contact Form	1Z	2Z
	触点负载(阻性)Contact load (resistive)	100A、250VAC/30VDC	80A、250VAC/30VDC
	电气/机械寿命 Electrical life/ Mechanical life	$\geq 5 \times 10^4$ 次 $\geq 1 \times 10^6$ 次	
	接触电阻 Contact Resistance	$\leq 100\text{m}\Omega$ (1A6VDC)	
	触点材料 Contact Material	AgSn02	
性能 function	绝缘电阻 Insulation Resistance (M Ω)	$\geq 200\text{M}\Omega$ (500VDC)	
	介质耐压 Dielectric Strength	同极触点之间 $\geq 1000\text{VAC}/1\text{min}$	Between the same pole contacts
		异极触点之间 $\geq 1500\text{VAC}/1\text{min}$	Between polar contacts
		线圈与触点间 $\geq 2500\text{VAC}/1\text{min}$	Between contact and coil
	吸合/释放时间 Operate time/Release time	$\leq 25\text{ms}/25\text{ms}$	
线圈 coil	引出端方式 Terminal Type	螺丝式Screw type	
		额定线圈功率DC/AC Rated coil power DC/AC	
		80A:DC2.0W/AC4VA	
尺寸 dimension	重量 weight	67X67X60.5	85X68X65
		240g	315g



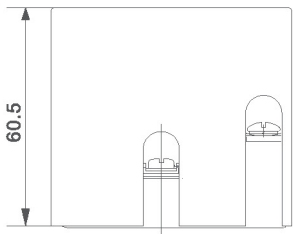
型号及其含义Type and meaning

HW	62F	1Z	☐ - ☐	D	☐ VDC	
1	2	3	4	5	6	7

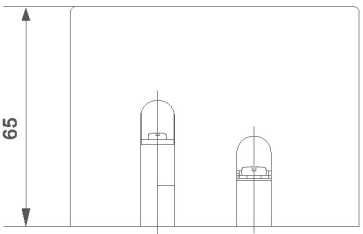
- 企业代号: 航网电气
Enterprise Code: Hangwang Electric
- 设计序号
Serial Number
- 触点组数: 1、2
Number of contact groups: one、two
- 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact
- 安装方式: 螺栓式安装、导轨式安装
mounted type: retaining bolt installation\Din rail mounted
- 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection
- 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

外形尺寸图External dimensions (mm)

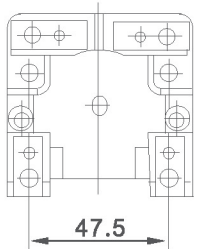
HW-62F1Z



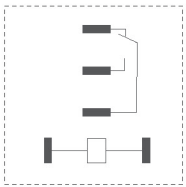
HW-62F2Z



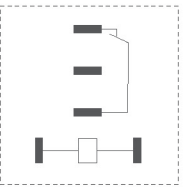
接线图Wiring diagram



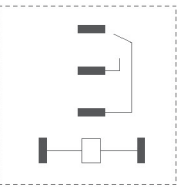
HW-62F1Z



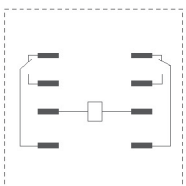
HW-62F1H



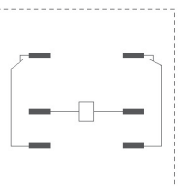
HW-62F1D



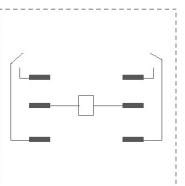
HW-62F2Z



HW-62F2H



HW-62F2D





HW-250F

产品特点Product characteristics

- ✦ 结构牢固抗冲击抗振动性强使用寿命长
Strong structure, strong impact resistance, strong vibration resistance and long service life
- ✦ 负载切换电流: 250A
Load switching current:250A
- ✦ 螺栓式安装
retaining bolt installation
- ✦ 可提供1组触点转换
it can provide 1 set of contact conversion

型号及其含义Type and meaning

HW	250F	1Z	☐ - ☐	D	☐ VDC	
1	2	3	4	5	6	7

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 1
Number of contact groups: two

4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type D-normally closed contact
- 5 安装方式: 螺栓式安装
mounted type: retaining bolt installation

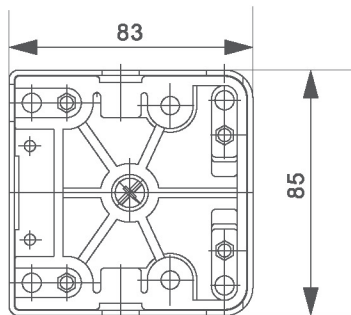
6 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection

7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

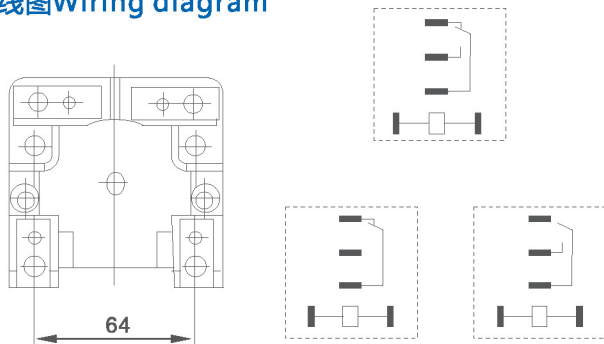
产品性能Product performance

触点 contact	触点形式 Contact Form	1Z
	触点负载(阻性)Contact load (resistive)	250A、250VAC/30VDC
	电气/机械寿命 Electrical life/ Mechanical life	≥3×10 ⁴ 次 ≥1×10 ⁶ 次
	接触电阻 Contact Resistance	≤100mΩ
	触点材料 Contact Material	AgSn02
性能 function	绝缘电阻 Insulation Resistance (MΩ)	≥200MΩ(500VDC)
	介质耐压 Dielectric Strength	同极触点之间≥1000VAC/1min Between the same pole contacts /
	吸合/释放时间 Operate time/Release time	≤25ms/25ms
	引出端方式 Terminal Type	螺丝式Screw type
线圈 coil	额定线圈功率DC/AC Rated coil power DC/AC	250A:DC2.0W/AC4VA

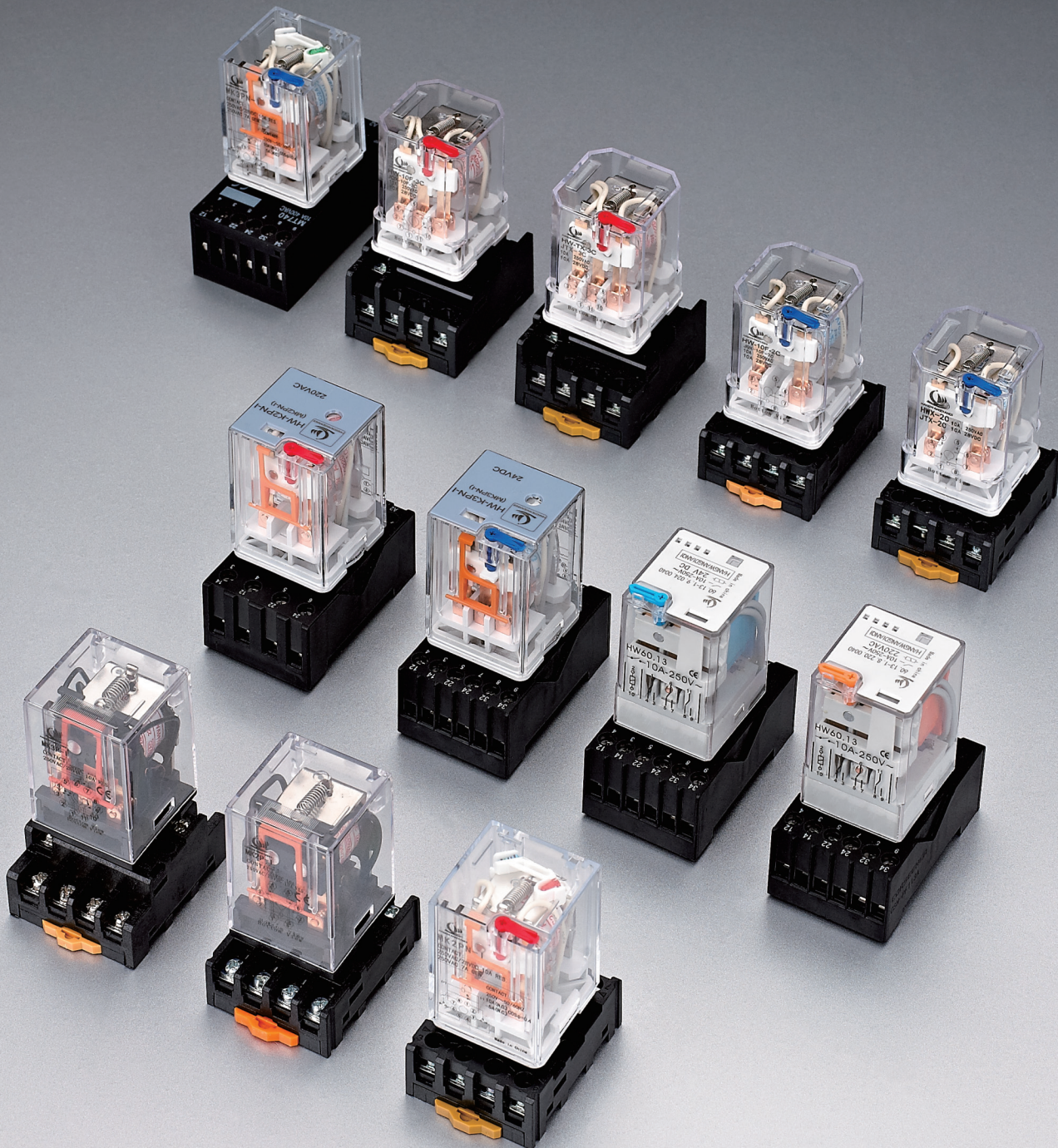
外形尺寸图External dimensions (mm)



接线图Wiring diagram



通用继电器系列
General-Purpose Relay





HW-MK2P

HW-MK3P

型号及其含义Type and meaning

HW	MK	2		-		L	D		VDC
1	2	3	4	5	6	7	8		

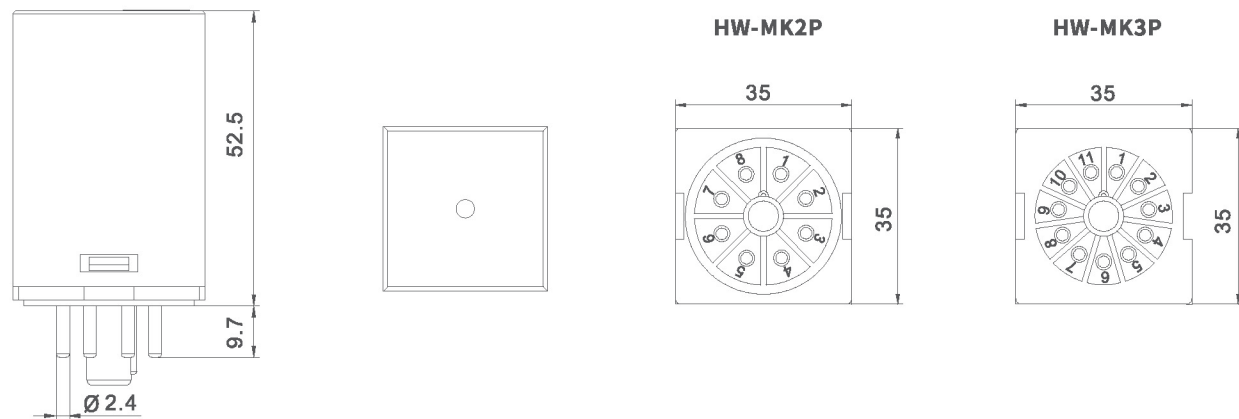
- | | |
|--|---|
| <p>1 企业代号: 航网电气
Enterprise Code: Hangwang Electric</p> <p>2 设计序号
Serial Number</p> <p>3 触点组数: 2、3
Number of contact groups: two,three</p> <p>4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact</p> | <p>5 安装方式: 插拔式
mounted type: plug-in moudted</p> <p>6 工作状态: L:LED指示 无字母: 无指示
operating state:L:LED indicate No Letters:no indicate</p> <p>7 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection</p> <p>8 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage</p> |
|--|---|

产品性能Product performance

接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥5×10 ⁴ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤20ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1 mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1 mA)
触点与线圈间 Between contact and coil	2000VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	35X35X55mm
重量 weight	约around 75g

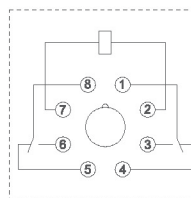


外形尺寸图External dimensions (mm)

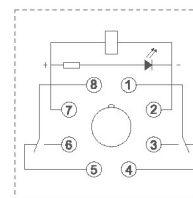


接线图Wiring diagram

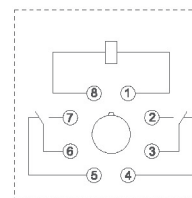
HW-MK2P-2Z-1



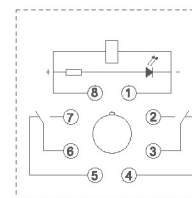
HW-MK2P-2Z-L



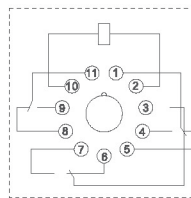
HW-MK2P-2Z-2



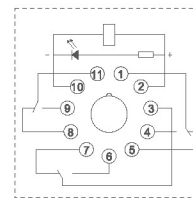
HW-MK2P-2Z-L



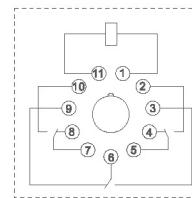
HW-MK3P-3Z-1



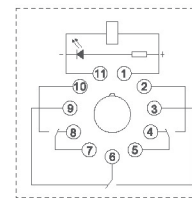
HW-MK3P-3Z-L



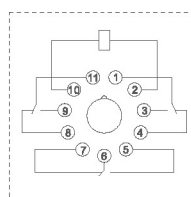
HW-MK3P-3Z-2



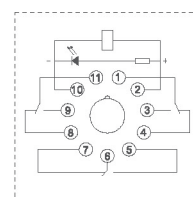
HW-MK3P-3Z-L



HW-MK3P-3Z-5



HW-MK3P-3Z-5-L





型号及其含义Type and meaning

HW	MK	2	T	-	L	VDC
1	2	3	4	5	6	7

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 2、3
Number of contact groups: two,three

4 辅助功能: T: 自锁 G: 机械指示D/C R: 抑制保护
auxiliary function : T-Self-locking G-mechanical indicate D/CR-Inhibitory protection
- 5 安装方式: 插拔式
mounted type: plug-in moudted

6 工作状态: L:LED指示 无字母: 无指示
operating state:L:LED indicate No Letters:no indicate

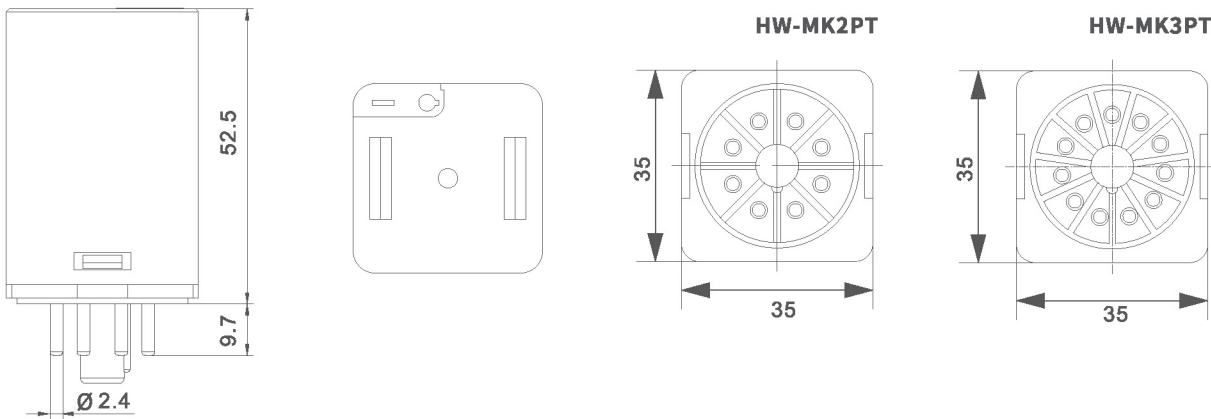
7 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

产品性能Product performance

接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥1×10 ⁵ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤20ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1 mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1 mA)
触点与线圈间 Between contact and coil	2000VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	35X35X55mm
重量 weight	约around 75g

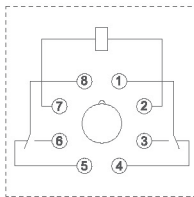


外形尺寸图External dimensions (mm)

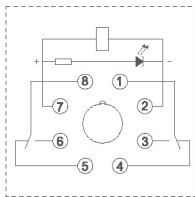


接线图Wiring diagram

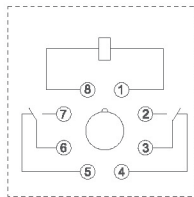
HW-MK2PT-2Z-1



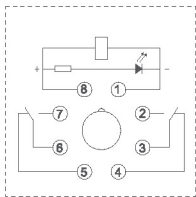
HW-MK2PT-2Z-L



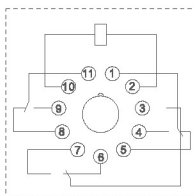
HW-MK2PT-2Z-2



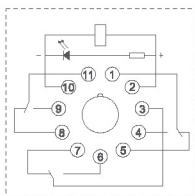
MK2PT-2Z-L



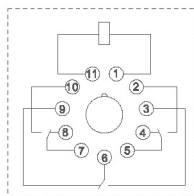
HW-MK3PT-3Z-1



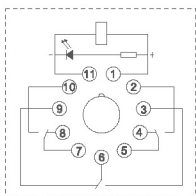
HW-MK3PT-3Z-L



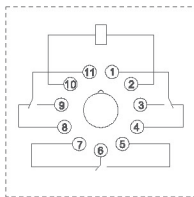
HW-MK3PT-3Z-2



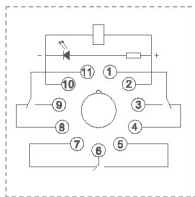
MK3PT-3Z-L

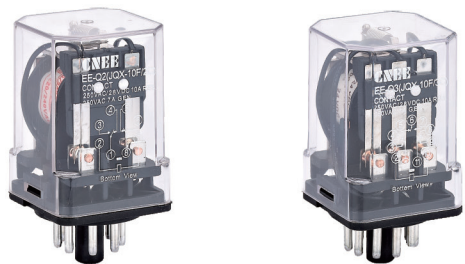


HW-MK3PT-3Z-5



HW-MK3PT-3Z-5-L





HW-10F/2Z

HW-10F/3Z

型号及其含义Type and meaning

HW	10F	2		-		L	T		VDC
1	2	3	4	5	6	7	8		

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 触点组数: 2、3
Number of contact groups: two,three

4 触点形式: Z转换 H常开 D常闭
Contact Form: z-conversion type H-normally open contact D-normally closed contact
- 5 安装方式: 插拔式
mounted type: plug-in moudted

6 工作状态: L:LED指示 无字母: 无指示
operating state:L:LED indicate No Letters:no indicate

7 辅助功能: D/CR抑制保护
auxiliary function :D/CRInhibitory protection

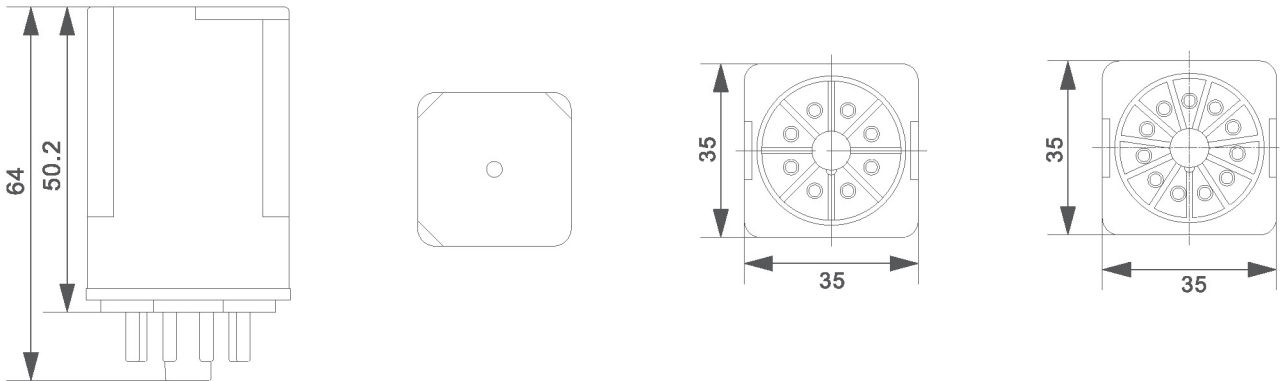
8 线圈电压: DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

产品性能Product performance

接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥1×10 ⁵ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤20ms ;
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1 mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1 mA)
触点与线圈间 Between contact and coil	2000VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	35X35X55mm
重量 weight	约around 75g

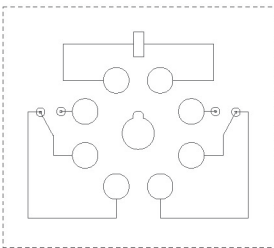


外形尺寸图External dimensions (mm)

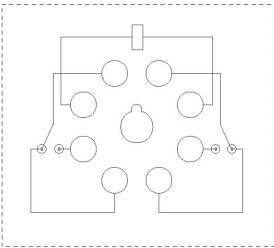


接线图Wiring diagram

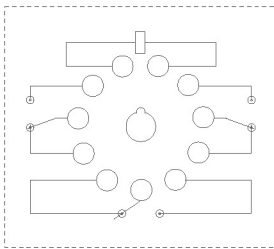
HW-10F-2Z(JTX-2Z)



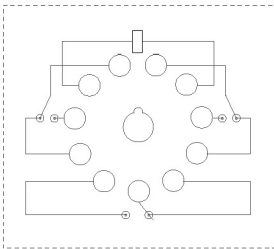
HW-10F-2Z(JQX-2Z)

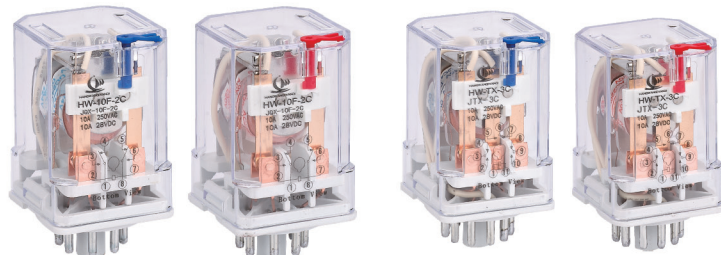


HW-10F-3Z(JTX-3Z)



HW-10F-3Z(JQX-3Z)





HW-10FT-2Z

HW-10FT/3Z

型号及其含义Type and meaning

HW	10F	T	2	-	□	L	D	□	VDC
1	2	3	4	5	6	7	8		

1 企业代号：航网电气
Enterprise Code: Hangwang Electric

2 设计序号
Serial Number

3 辅助功能：T：自锁 G：机械指示D/C R：抑制保护
auxiliary function：T-Self-locking G-mechanical indicate D/CR-Inhibitory protection

4 触点组数：2、3
Number of contact groups: two,three

5 安装方式：插拔式
mounted type: plug-in mouldted

6 工作状态：L:LED指示 无字母：无指示
operating state:L:LED indicate No Letters:no indicate

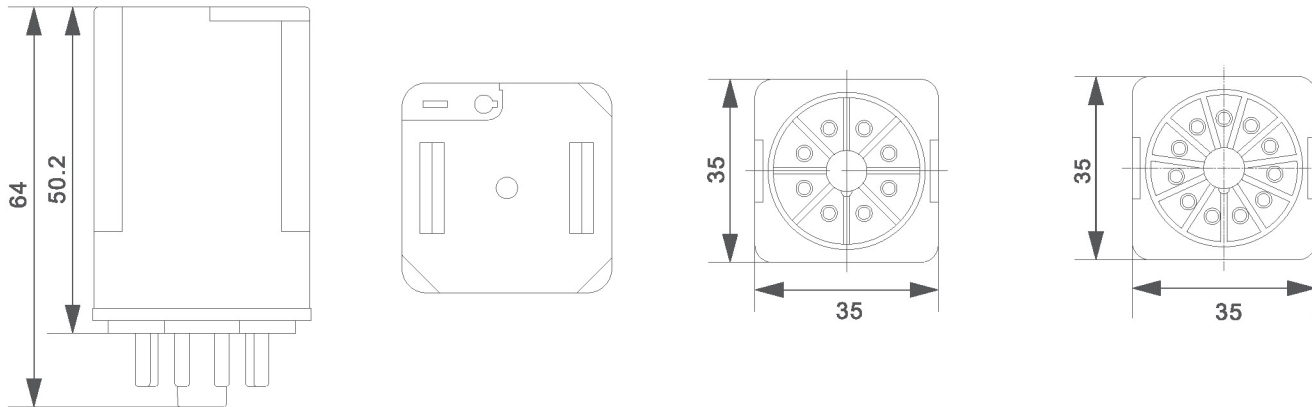
7 线圈电压：DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

产品性能Product performance

接触电阻 Contact resistance	≤100mΩ
电气寿命 Electrical life	≥1×10 ⁵ 次
机械寿命 Mechanical life	≥1×10 ⁶ 次
线圈电压 Coil voltage	DC:6-220V AC:6-380V.
吸合时间 Suction time	≤20ms；
释放时间 Release time	≤15ms
同极触点之间 Between the same pole contacts	1000VAC/1min(漏电流Leakage current 1 mA)
异极触点之间 Between polar contacts	1500VAC/1min(漏电流Leakage current 1 mA)
触点与线圈间 Between contact and coil	2000VAC/1min(漏电流Leakage current 1mA)
绝缘电阻 Insulation resistance	≥100MΩ(500VDC)
环境温度 Ambient temperature	-25℃ ~ +55℃
环境湿度 Ambient humidity	35% ~ 80%RH
大气压力 Atmospheric pressure	86 ~ 106KPa
耐冲击 Impact resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)
耐振动 Vibration resistance	10~55Hz双振幅Double amplitude: 1.5mm
尺寸 dimension	35X35X55mm
重量 weight	约around 75g

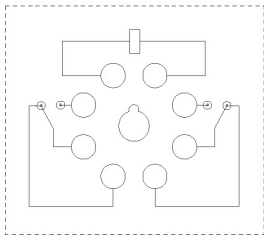


外形尺寸图External dimensions (mm)

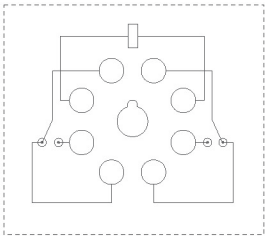


接线图Wiring diagram

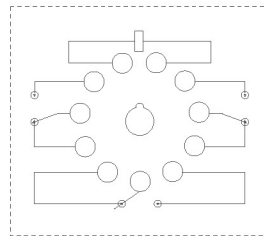
HW-10FT-2Z(JTX-2Z)



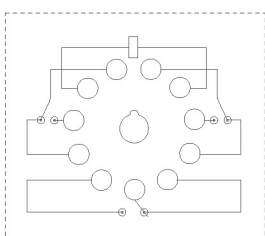
HW-10FT-2Z(JQX-2Z)



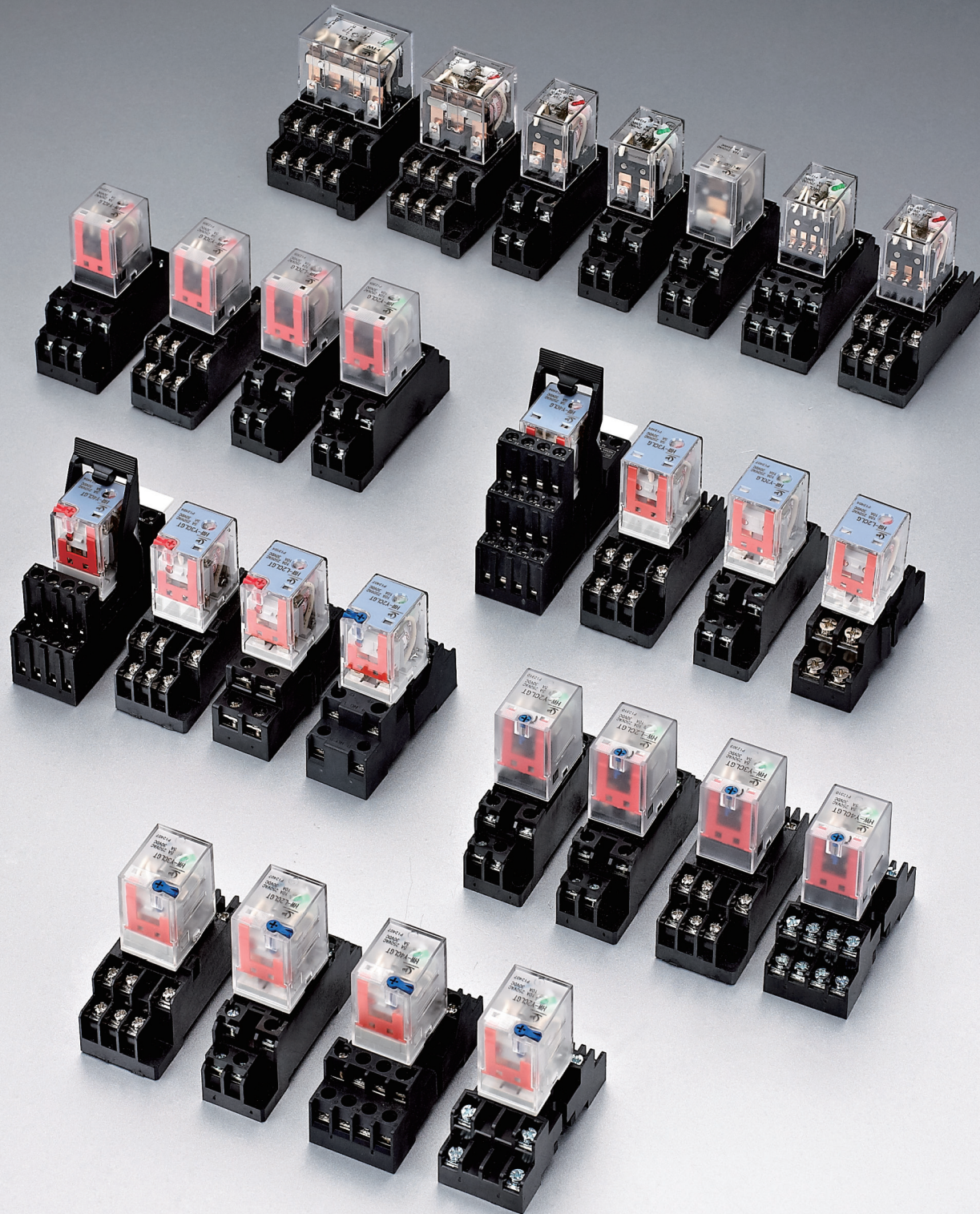
HW-10FT-3Z(JTX-3Z)



HW-10FT-3Z(JQX-3Z)



电磁继电器系列 Electromagnetic Relay



电磁继电器系列Electromagnetic Relay

可选插座系列Optional socket series



PYF08A-E
(HW-Y2)



PYF11A
(HW-Y3)

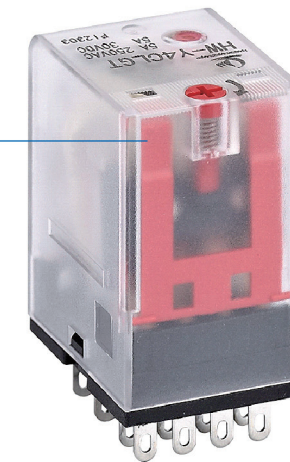


PYF14A-E
(HW-Y4)



PTF08A-E
(HW-L2)

继电器
Relay



插座
Socket





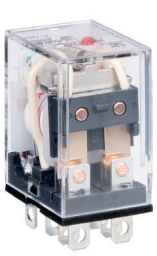
HW-Y2CL



HW-Y3CL



HW-Y4CL



HW-L2CL

产品特点Product characteristics

- + 产品具有系列化，基本型、改良型、功能型等；
Products have serialization, basic type, improved type, functional type and so on

+ 工作状态 LED 指示，线圈电压直流带 LED 型可选无极输入；
Working state LED indicator, coil voltage DC with LED optional infinite input
- + 结构新颖、设计巧妙、外形美观大方、耐电性能高、具备多项专利；
Novel structure, ingenious design, beautiful appearance, high electric resistance, with multiple patents

+ 改良型和功能型继电器壳体具有多种固定卡簧安装设计。
Improved and functional relay cover has a variety of fixed circlip design for mounting

型号及其含义Type and meaning

HW	Y	4		-	P	L	T		VDC
1	2	3	4	5	6	7	8		

- 1 企业代号：航网电气
Enterprise Code: Hangwang Electric

2 设计序号：常规款
Serial Number: Regular

3 触点组数：2、3、4
Number of contact groups: two,three,four

4 触点形式：C转换 A常开 B常闭 A-normally open contact
Contact Form: C-conversion type B-normally closed contact
- 5 安装方式：F:法兰式 P:PCB式 无字母：插拔式
mounted type: F:flange mounted type P:PCB mounted type
No Letters: plug-in moudted

6 工作状态：L:LED指示 无字母：无指示
operating state:L:LED indicate No Letters:no indicate

7 辅助功能：D/CR抑制保护
auxiliary function :D/CRInhibitory protection

8 线圈电压：DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

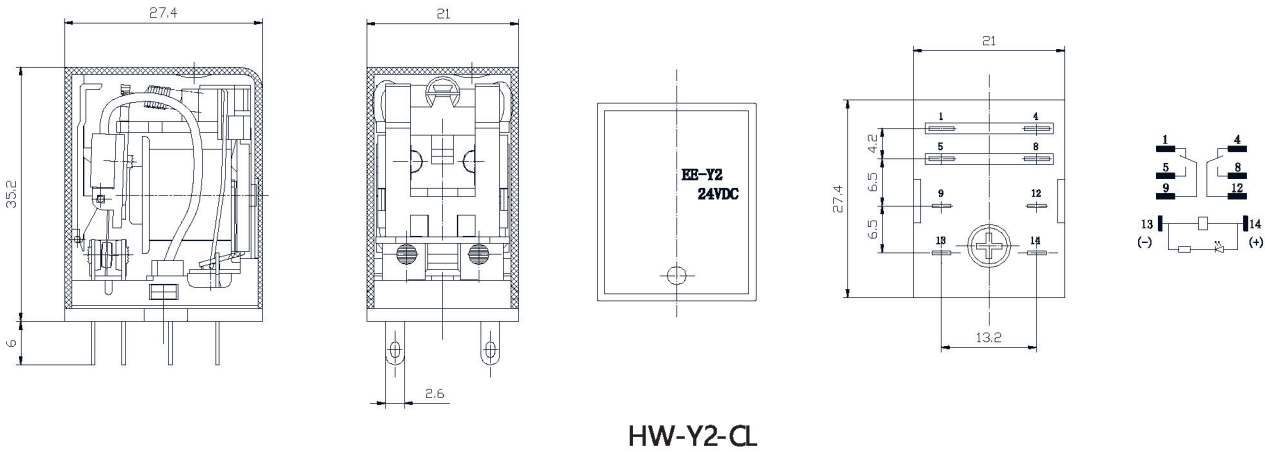
产品性能Product performance

产品型号 Model		HW - Y2	HW - Y3	HW - Y4	HW - L2
外形尺寸 Dimension	± 0.5mm	长Long × 宽Wide × 高High 27.4 × 21.0 × 35.4mm			
触点形式 Contact Form		2 (A、B、C)	3 (A、B、C)	4 (A、B、C)	2 (A、B、C)
触点材料 Contact Material		银氧化镉AgCdo、银氧化锡AgSno2、银合金 Silver Alloy			
触点容量 (阻性) Resistance Performance Of Contactor Capacity		10A 28VDC/240VAC	7A 28VDC/240VAC	5A 28VDC/240VAC	10A 28VDC/240VAC
接触电阻 Contact Resistance		≤ 50mΩ			
线圈功率 Coil Power	AC	1.2VA			
	DC	0.9W			
线圈电压 Coil Voltage	AC	6 ~ 380VAC			
	DC	6 ~ 220VDC			

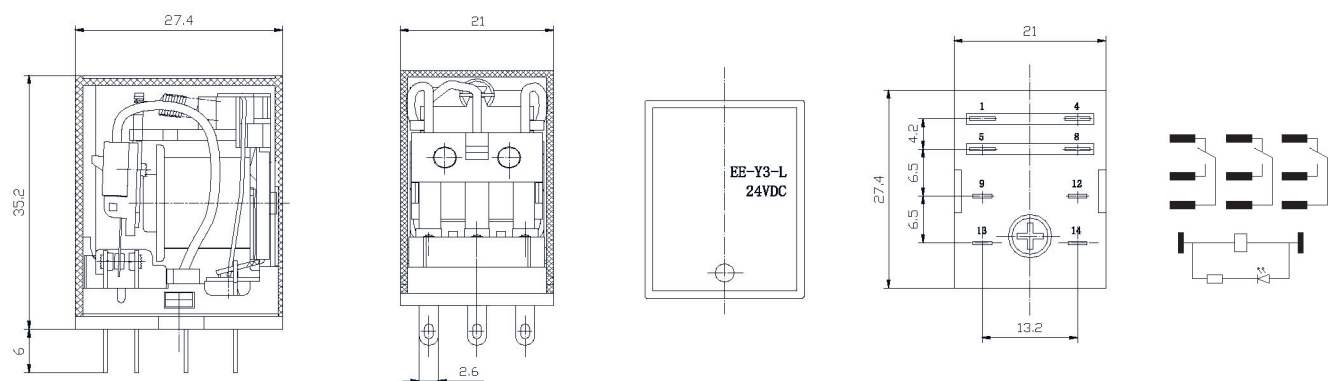


吸合时间（额定电压）Operate time		≤ 15ms			
释放时间（额定电压）Release time		≤ 15ms			
吸合电压 Pick - up Voltage		DC: ≤ 75%、 AC: ≤ 80%			
释放电压 Drop - out Voltage		DC: ≥ 10%、 AC: ≥ 30%			
最大电压 Max Voltage		110%			
介质耐压 Dielectric Strength	开路触点间 Between Open Contacts	1000VAC/1min（漏电流Leakage current 1mA）			
	触点组间 Contacs Pieces	1200VAC/1min（漏电流Leakage current 1mA）			
	线圈与触点间 Between Coil&Contacts	1500VAC/1min（漏电流Leakage current 1mA）			
绝缘电阻 Insulation Resistance（MΩ）		≥ 500MΩ（ 500VDC）			
触点形式： Service Life	电气 Electrical（次）	≥ 1× 10 ⁵ 次（ 1800 Ops/h ）			
	机械 Mechanical（次）	≥ 1× 10 ⁷ 次（ 18000 Ops/h ）			
环境温度 Ambient Temperature（℃）		- 25 ~ +55℃			
环境湿度 Humidity		35%~ 85%RH			
大气压力 Atmospheric Pressure		86 ~ 106KPa			
耐冲击 Shock resistance		10G（正弦半波脉冲Sine half wave pulse: 11ms）			
耐振动 Vibration resistance		10~55Hz双振幅Double amplitude: 1.0mm			
引出端形式 Terminal Type		插拔式 Insert Type			
防护形式 Protection Type		封闭式 Close Type			
配用插座 Suitable Socket		PYF08A	PYF11A	PYF14A	PTF08A
产品重量 Product Weight（g）		约around 35g	约around 35g	约around 40g	约around 40g
同类产品参照 Same Reference		MY2	MY3	MY4	LY2

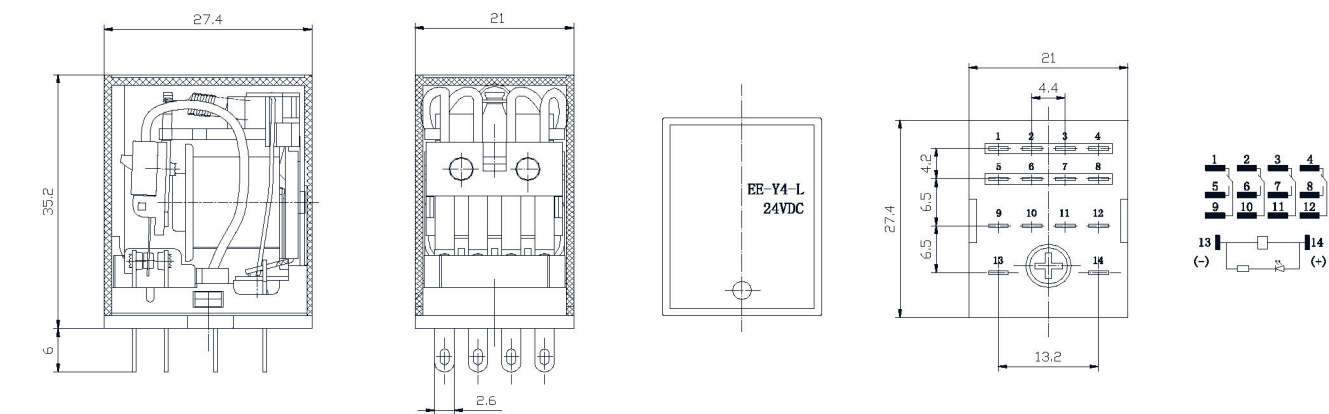
外形尺寸图External dimensions (mm)



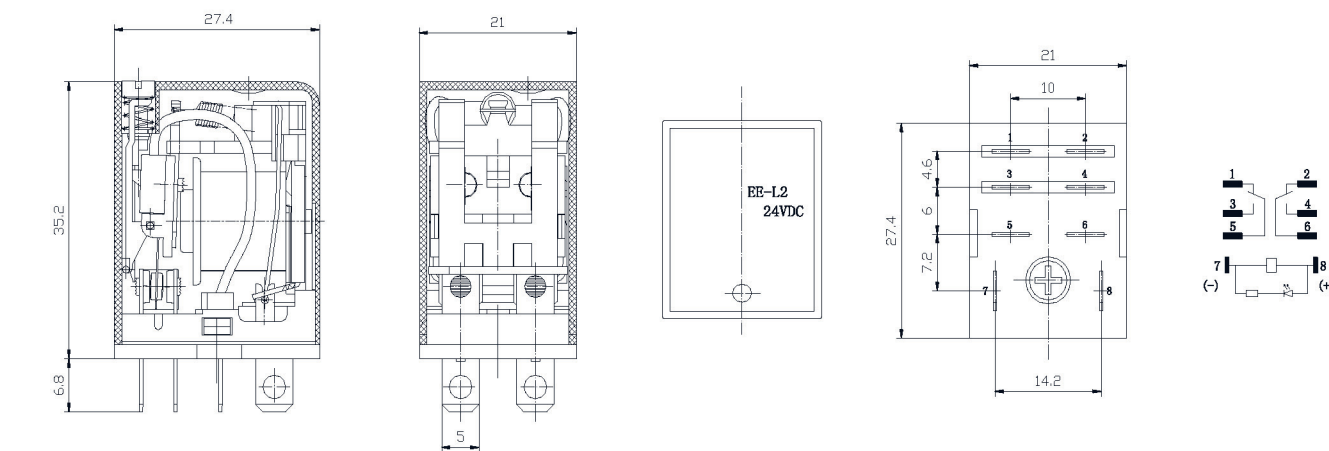
HW-Y2-CL



HW-Y3-CL



HW-Y4-CL



HW-L2-CL



产品特点Product characteristics

- + 产品具有系列化，基本型、改良型、功能型等；
Products have serialization, basic type, improved type, functional type and so on
- + 结构新颖、设计巧妙、外形美观大方、耐电性能高、具备多项专利；
Novel structure, ingenious design, beautiful appearance, high electric resistance, with multiple patents
- + 工作状态 LED 指示，线圈电压直流带 LED 型可选无极输入；
Working state LED indicator, coil voltage DC with LED optional infinite input
- + 改良型和功能型继电器壳体具有多种固定卡簧安装设计。
Improved and functional relay cover has a variety of fixed circlip design for mounting

型号及其含义Type and meaning

HW	Y	4	□	-	P	L	T	□	VDC
1	2	3	4	5	6	7	8		

- 1 企业代号：航网电气
Enterprise Code: Hangwang Electric
- 2 设计序号：L系列
Serial Number: L etc
- 3 触点组数：1、2、3、4
Number of contact groups: one two,three,four
- 4 触点形式：C转换 A常开 B常闭 A-normally open contact
Contact Form: C-conversion type B-normally closed contact
- 5 安装方式：F:法兰式 P:PCB式 无字母：插拔式
mounted type: F:flange mounted type P:PCB mounted type
No Letters: plug-in mouted
- 6 工作状态：L:LED指示 无字母：无指示
operating state:L:LED indicate No Letters:no indicate
- 7 辅助功能：D/CR抑制保护
auxiliary function :D/CRInhibitory protection
- 8 线圈电压：DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

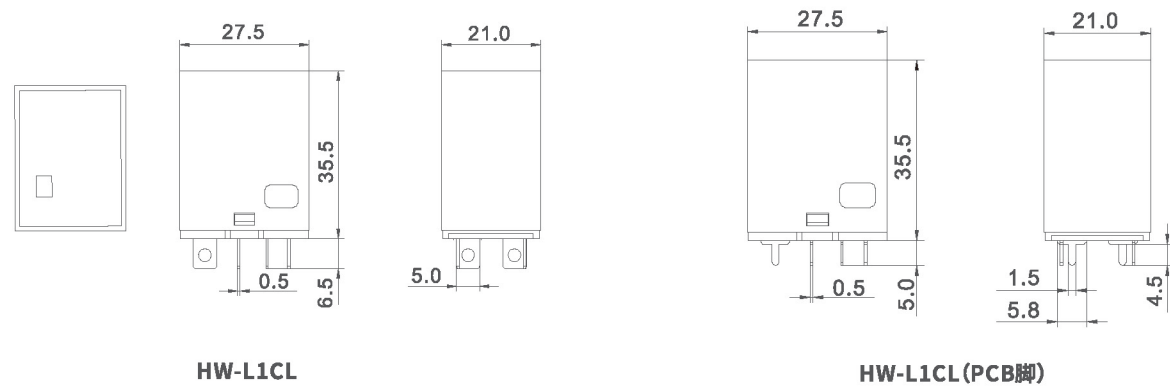
产品性能Product performance

产品型号 Model	HW-L1CL	HW-L3CL	HW-L4CL
外形尺寸 Dimension ± 0.5mm	27.4 × 21.0×35.4mm	27.3 X 31 X 35mm	27.3 X 41 X 35mm
触点形式 Contact Form	1 (C、A、B)	3 (C、A、B)	4 (C、A、B)
触点材料 Contact Material	银氧化铜、银氧化锡、银合金 Silver Alloy (镀金) 可选		
触点容量 (阻性) Resistance Performance Of Contactor Capacity	16A 28VDC/240VAC	10A 28VDC/240VAC	10A 28VDC/240VAC
接触电阻 Contact Resistance	≤ 50m Ω		
线圈功率 Coil Power	AC	1.2VA	
	DC	0.9W	
线圈电压 Coil Voltage	AC	6 ~ 380VAC	
	DC	6 ~ 220VDC	

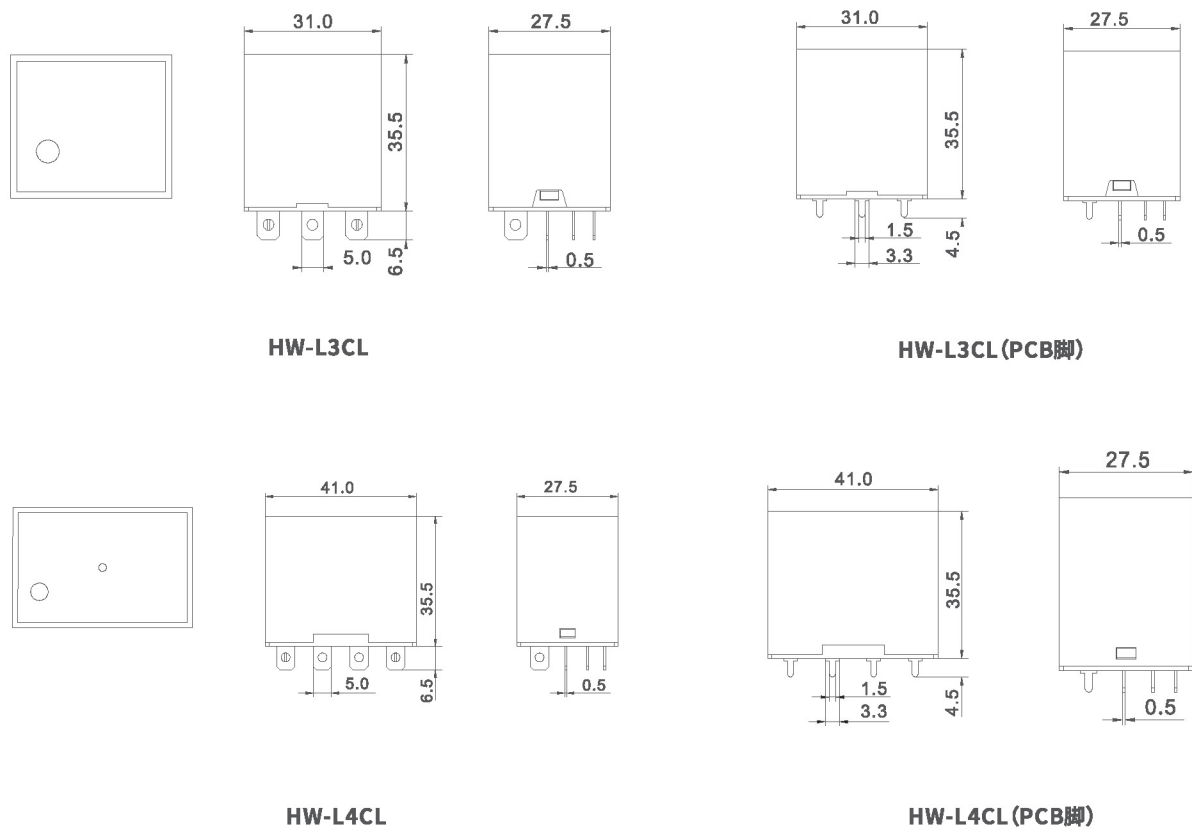


吸合时间 (额定电压) Operate time		≤ 15ms		
释放时间 (额定电压) Release time		≤ 15ms		
吸合电压 Pick - up Voltage		DC: ≤ 75%、 AC: ≤ 80%		
释放电压 Drop - out Voltage		DC: ≥ 10%、 AC: ≥ 30%		
最大电压 Max Voltage		110%		
介质耐压 Dielectric Strength	开路触点间 Between Open Contacts	1000VAC/1min (漏电流Leakage current 1mA)		
	触点组间 Contacts Pieces	1200VAC/1min (漏电流Leakage current 1mA)		
	线圈与触点间 Between Coil&Contacts	1500VAC/1min (漏电流Leakage current 1mA)		
绝缘电阻 Insulation Resistance (MΩ)		≥ 500MΩ (500VDC)		
工作寿命 Service Life	电气 Electrical (次)	≥ 1× 10 ⁵ 次 (1800 Ops/h)		
	机械 Mechanical (次)	≥ 1× 10 ⁷ 次 (18000 Ops/h)		
环境温度 Ambient Temperature (°C)		- 25 ~ +55°C		
环境湿度 Humidity		35%~ 85%RH		
大气压力 Atmospheric Pressure		86 ~ 106KPa		
耐冲击 Shock resistance		10G (正弦半波脉冲Sine half wave pulse: 11ms)		
耐振动 Vibration resistance		10~55Hz双振幅Double amplitude: 1.0mm		
引出端形式 Terminal Type		插拔式 Insert Type		
防护形式 Protection Type		封闭式 Close Type		
配用插座 Suitable Socket		PTF08A	PTF11A	PTF14A
产品重量 Product Weight (g)		约around 35g	约around 50g	约around 65g
同类产品参照 Same Reference		LY1	LY3	LY4

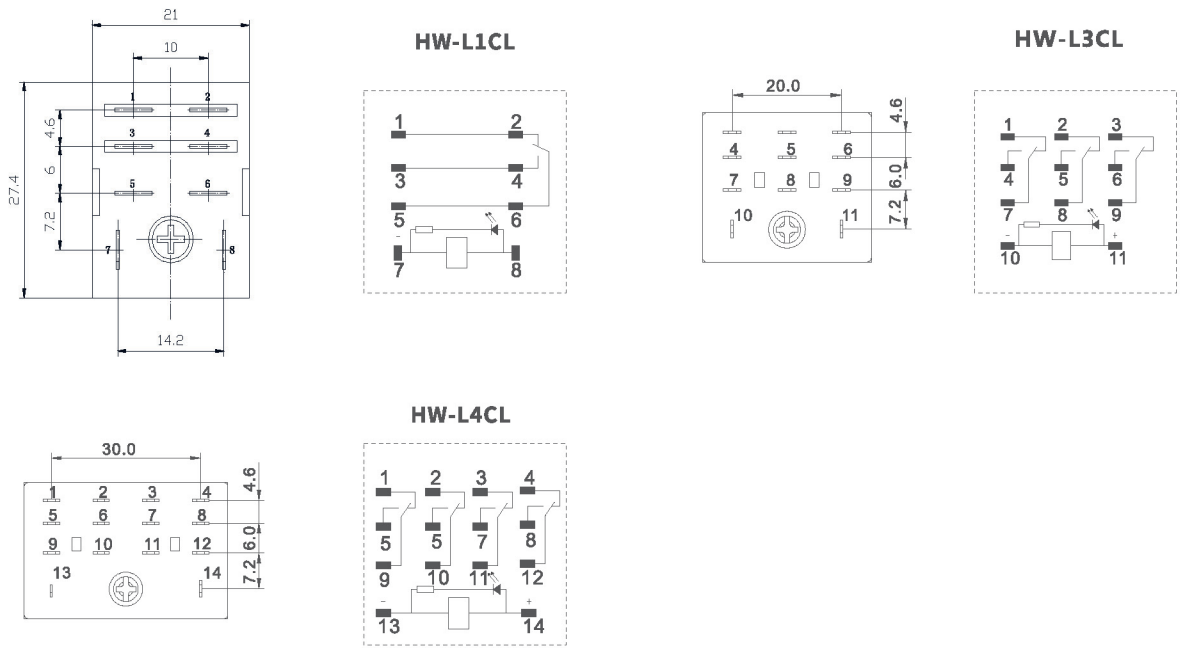
外形尺寸图External dimensions (mm)



外形尺寸图External dimensions (mm)



接线图Wiring diagram





HW-Y2CLGT



HW-Y3CLGT



HW-Y4CLGT



HW-L2CLGT

产品特点Product characteristics

- + 产品具有系列化，基本型、改良型、功能型等；
Products have serialization, basic type, improved type, functional type and so on
- + 功能型可用于手动改变触点状态，具有点动测试和自锁两种功能；
Functional type can be used to manually change the contact state which also has two functions: point test and self - lock
- + 工作状态 LED 指示，线圈电压直流带 LED 型可选无极输入；
Working state LED indicator, coil voltage DC with LED optional infinite input

- + 结构新颖、设计巧妙、外形美观大方、耐电性能高、具备多项专利；
Novel structure, ingenious design, beautiful appearance, high electric resistance, with multiple patents
- + 改良型具有动作状态机械指示窗；
improved type with action state Mechanical indicator window
- + 改良型和功能型继电器壳体具有多种固定卡簧安装设计。
Improved and functional relay cover has a variety of fixed circlip design for mounting

型号及其含义Type and meaning

HW	Y	4		-	P	L	T		VDC
1	2	3	4	5	6	7	8		

- 1 企业代号：航网电气
Enterprise Code: Hangwang Electric

2 设计序号：Y系列
Serial Number: Y etc

3 触点组数：2、3、4
Number of contact groups: two,three,four

4 触点形式：C转换 A常开 B常闭
Contact Form: C-conversion type B-normally closed contact
- 5 安装方式：F:法兰式 P:PCB式 无字母：插拔式
mounted type: F:flange mounted type P:PCB mounted type No Letters: plug-in moudted

6 工作状态：L:LED指示 无字母：无指示
operating state:L:LED indicate No Letters:no indicate

7 辅助功能：D/CR抑制保护 T自锁 G带机械指示扣
auxiliary function :D/CRInhibitory protection T self-locking G with mechanical indicator buckle

8 线圈电压：DC为直流 AC为交流
Coil Voltage:DC is for direct voltage AC is for alternating voltage

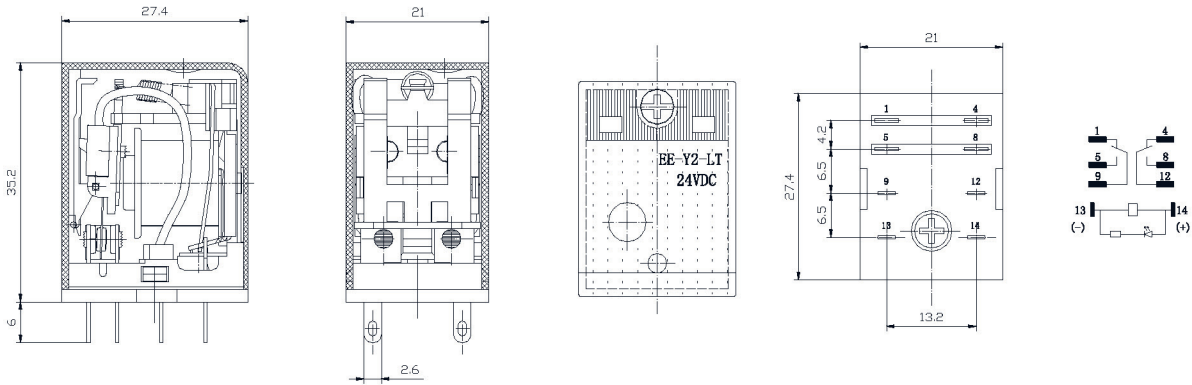
产品性能Product performance

产品型号 Model	HW - Y2	HW - Y3	HW - Y4	HW - L2
外形尺寸 Dimension ± 0.5mm	长Long × 宽Wide × 高High 27.4 × 21.0 × 35.4mm			
触点形式 Contact Form	2 (A、B、C)	3 (A、B、C)	4 (A、B、C)	2 (A、B、C)
触点材料 Contact Material	银氧化镉AgCdo、银氧化锡AgSno2、银合金Silver Alloy			
触点容量 (阻性) Resistance Performance Of Contactor Capacity	10A 28VDC/240VAC	7A 28VDC/240VAC	5A 28VDC/240VAC	10A 28VDC/240VAC
接触电阻 Contact Resistance	≤ 50m Ω			
线圈功率 Coil Power	AC	1.2VA		
	DC	0.9W		
线圈电压 Coil Voltage	AC	6 ~ 380VAC		
	DC	6 ~ 220VDC		

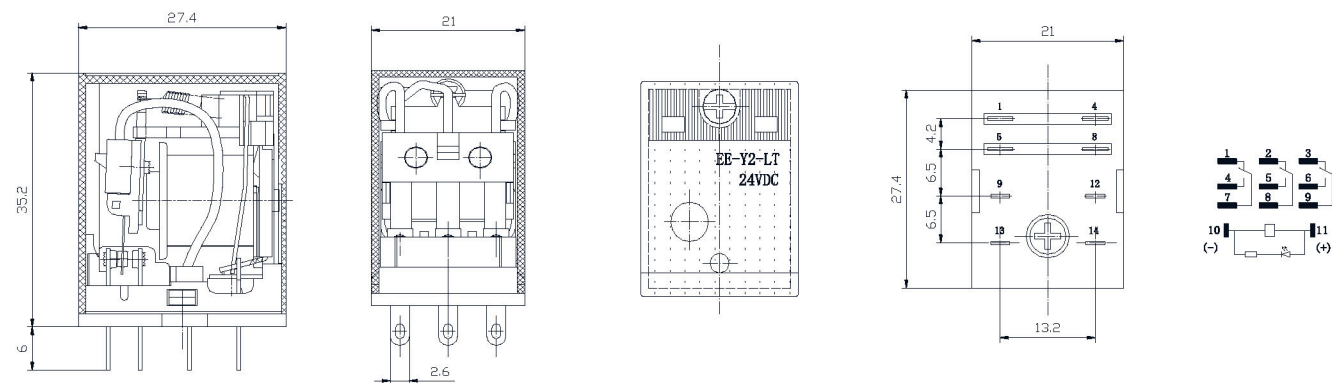


吸合时间 (额定电压)	Operate time	≤ 15ms			
释放时间 (额定电压)	Release time	≤ 15ms			
吸合电压	Pick - up Voltage	DC: ≤ 75%、AC: ≤ 80%			
释放电压	Drop - out Voltage	DC: ≥ 10%、AC: ≥ 30%			
最大电压	Max Voltage	110%			
介质耐压 Dielectric Strength	开路触点间 Between Open Contacts	1000VAC/1min (漏电流Leakage current1mA)			
	触点组间 Contacts Pieces	1200VAC/1min (漏电流Leakage current1mA)			
	线圈与触点间 Between Coil&Contacts	1500VAC/1min (漏电流Leakage current1mA)			
绝缘电阻 Insulation Resistance (MΩ)		≥ 500MΩ (500VDC)			
工作寿命 Service Life	电气 Electrical (次)	≥ 1 × 10 ⁵ 次 (1800 Ops/h)			
	机械 Mechanical (次)	≥ 1 × 10 ⁷ 次 (18000 Ops/h)			
环境温度	Ambient Temperature (°C)	- 25 ~ +55°C			
环境湿度	Humidity	35%~ 85%RH			
大气压力	Atmospheric Pressure	86 ~ 106KPa			
耐冲击	Shock resistance	10G (正弦半波脉冲Sine half wave pulse: 11ms)			
耐振动	Vibration resistance	10~55Hz双振幅Double amplitude: 1.0mm			
引出端形式	Terminal Type	插拔式 Insert Type			
防护形式	Protection Type	封闭式 Close Type			
配用插座	Suitable Socket	PYF08A	PYF11A	PYF14A	PTF08A
产品重量	Product Weight (g)	约around 35g	约around 35g	约around 40g	约around 40g
同类产品参照	Same Reference	MY2	MY3	MY4	LY2

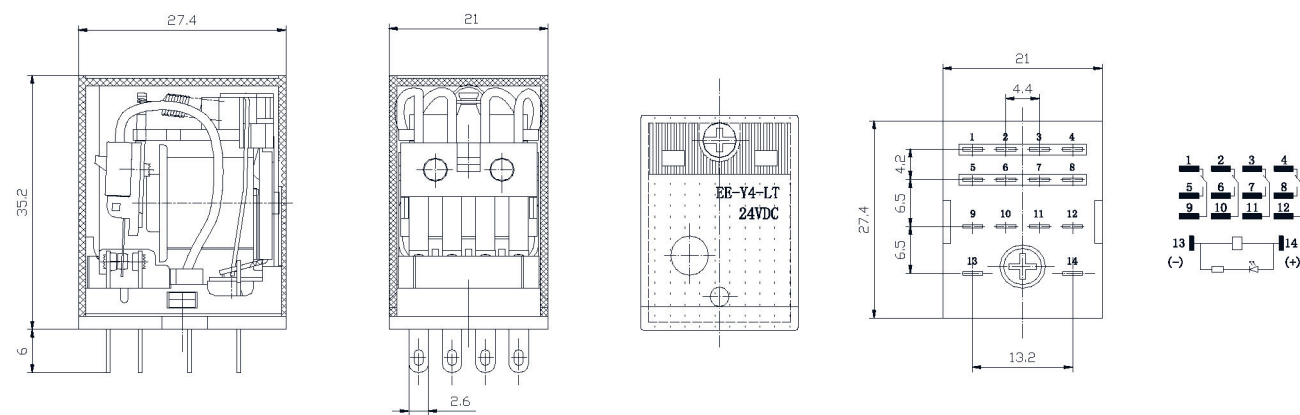
外形尺寸图External dimensions (mm)



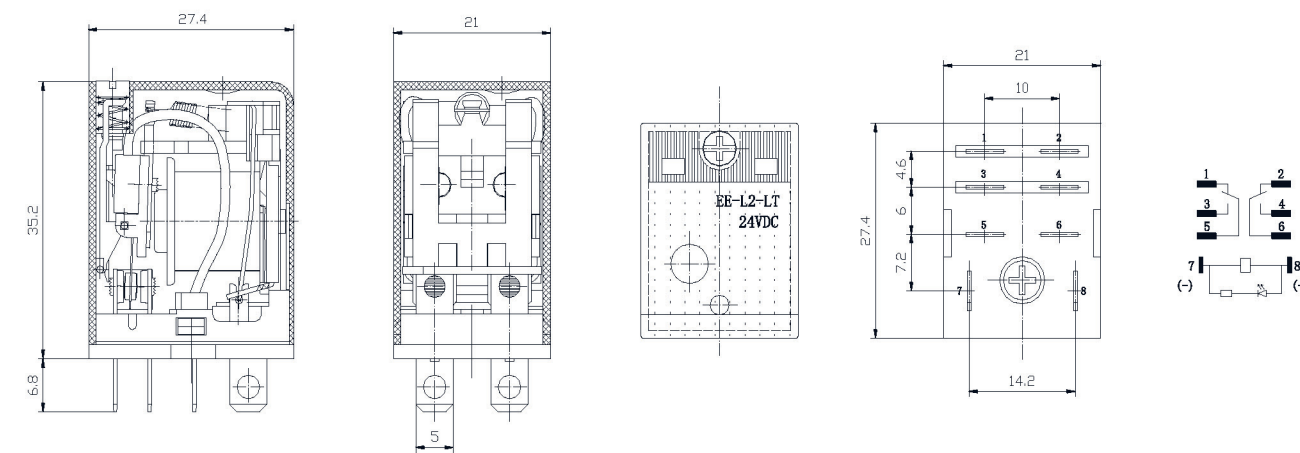
HW-Y2-LT



HW-Y3-LT



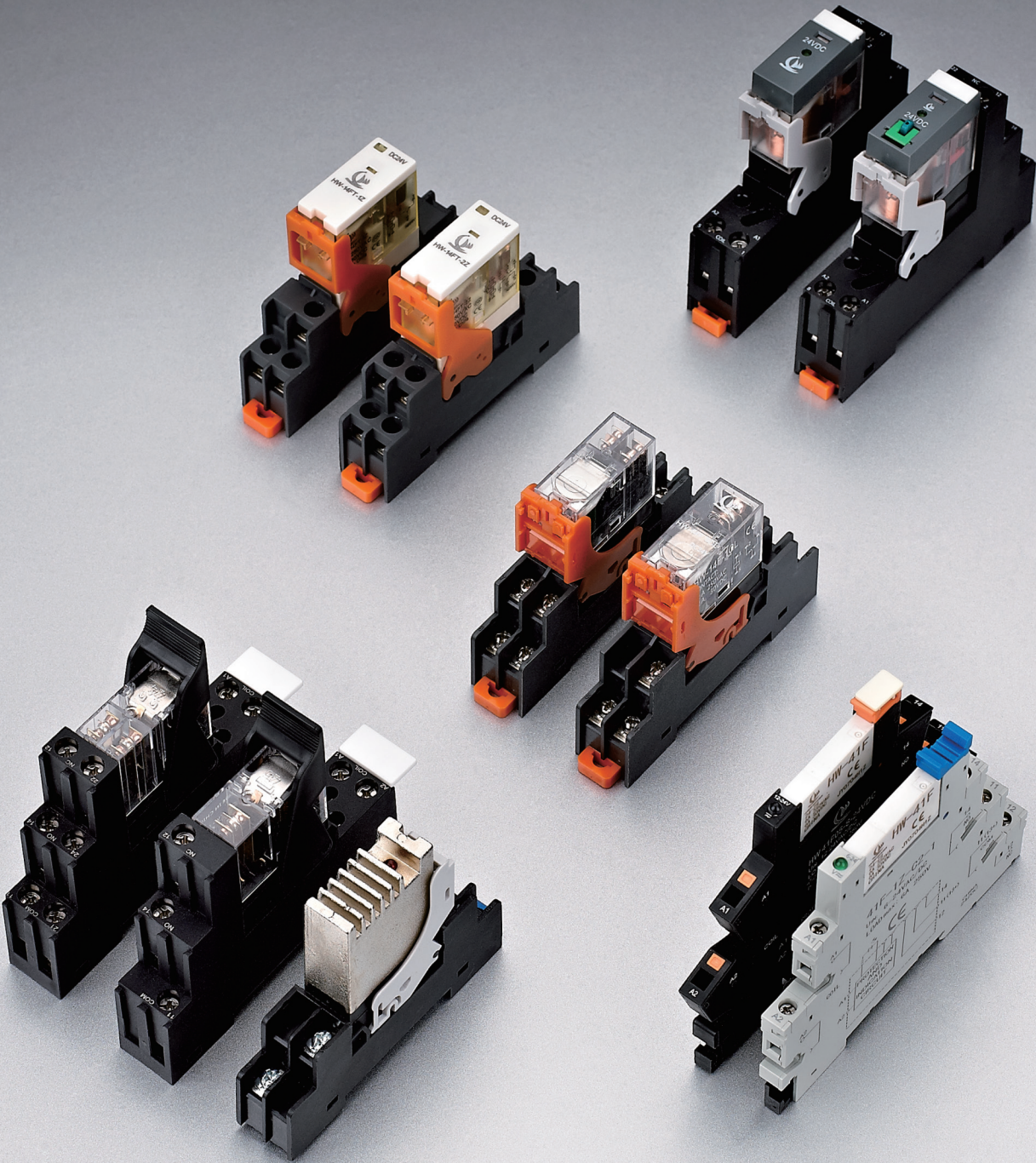
HW-Y4-LT



HW-L2-LT



强功率电磁继电器 Power Electromagnetic Relay





产品特点Product characteristics

- + 体积小, 灵敏度高
small size ,high sensitivity
- + 结构合理, 用途广
Reasonable structure, wide use
- + 多种规格, 可配指示灯装置
Various specifications, can be equipped with indicator device

型号及其含义Type and meaning

HW	-	14F	2	-	P	L	T
1	2	3	4	5			

1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

2 1、2(转换) 1A、2A(常开)
1B、2B(常闭)
1, 2(Conversion) 1A, 2A(normally open)
1B, 2B(normally closed)

3 带灯
With lamp

4 面板机械指示
Panel mechanical indication

5 带自锁功能
With self-locking function

产品性能Product performance

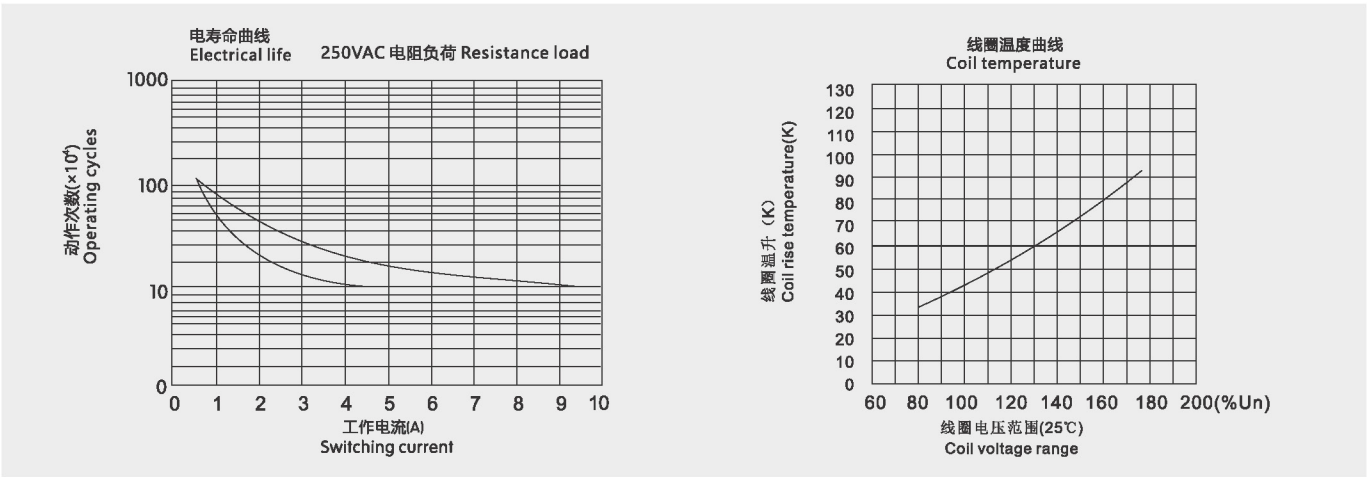
形式 Contact form			1A, 1B, 1C	2A, 2B, 2C
触点 Contact	负载 Rated load	阻性 Resistive (AC-1)	12A/250VAC,30VDC	8A/250VAC,30VDC
		马达 Motor (AC-15)	1/2HP,240VAC,1/2HP,240VAC	1/6HP,240VAC
	切换功率(阻性) Operating power(Resistive)		2500VA,300W;4000VA,480W	1250VA,150W;2000VA,240W
	接触电阻(初始) Contact resistance(Initial)		≤50mΩ	
	材料 Material		银合金Ag alloy	
	电气寿命(频率1S通, 1S断) Electrical life		≥10 ⁵ 次 cycles(1800 Ops/h)	
	机械寿命(频率300次/1分钟)Mechanical life		≥10 ⁷ 次 cycles(18000 Ops/h)	
吸合电压(25℃) Operate voltage(at 25℃)			DC:≤75%Reted voltage,AC:≤80%Rated voltage	
释放电压(25℃) Release voltage(at 25℃)			DC:≤10%Rated voltage,AC:≤30%Rated voltage	
最大电压(25℃) Max. Allowed voltagefat 25℃)			110%Rated voltage	
绝缘电阻Insulation resistance			≥1000MΩ(500VDC)	
初始耐压 Dielectric Strength	DC(W)		0.53	
	AC(VA)		1.0	
吸合时间(额定电压) Operate time			≤20ms	
释放时间(额定电压) Release time			≤20ms	
同极触点之间 Between contacts			1000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
异极触点之间 Between contacts(defferent pole)			1000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
触点与线圈间 Between contact and coil			5000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
环境温度 Ambient temperature			-40~+55℃	
环境湿度 Humidity			35%~85%RH	
大气压力 Atmospheric Pressure			86~106KPa	
耐冲击 Shock resistance			10G(正统半波脉冲:11ms) (Haif a wave of pulses of sine: 11ms)	
耐振动 Vibration resistance			10~55Hz 双振幅:1.0mm 10~55Hz Dual amplitude :1.0mm	
安装方式 Install model			焊接式 PCB terminal	
重量 Weight			17g	
配套插座 Matched relay socket			14F-1Z-C5	14F-2Z-C5
同类产品 Like Products			G2RS	



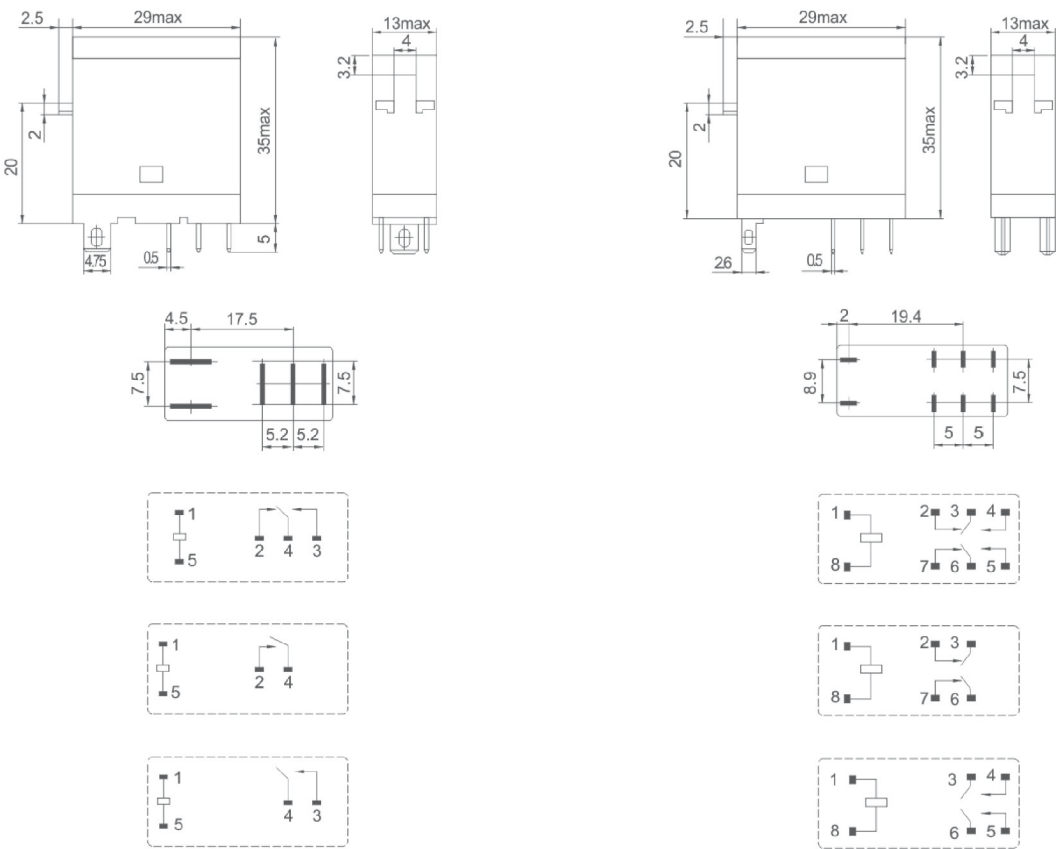
线圈规格(25℃) Coiltype(25℃)

额定电压V.DC Rated voltage	3	5	6	9	12	18	24	36	48	110
线圈电阻 Ω(±10%) Coil resistance	17	47	68	150	270	610	1100	2440	4300	22800
额定电压V.AC Rated voltage	6	12	24	48	110	220				
线圈电阻Ω (±10%) Coil resistance)	16	63	240	1085	5500	21000				

性能曲线图 Curve graph of performance



外形图、接线图、安装尺寸(mm) Dimension.Bottom View





产品特点Product characteristics

- + 体积小, 灵敏度高
small size ,high sensitivity
- + 结构合理, 用途广
Reasonable structure, wide use
- + 多种规格, 可配指示灯装置
Various specifications, can be equipped with indicator device

型号及其含义Type and meaning

HW - 14F 2 - L		
1	2	3

- 1 企业代号: 航网电气
Enterprise Code: Hangwang Electric

3 带灯
With lamp
- 2 1、2(转换) 1A、2A(常开)
1B、2B(常闭)
1, 2(Conversion) 1A, 2A(normally open)
1B, 2B(normally closed)

产品性能Product performance

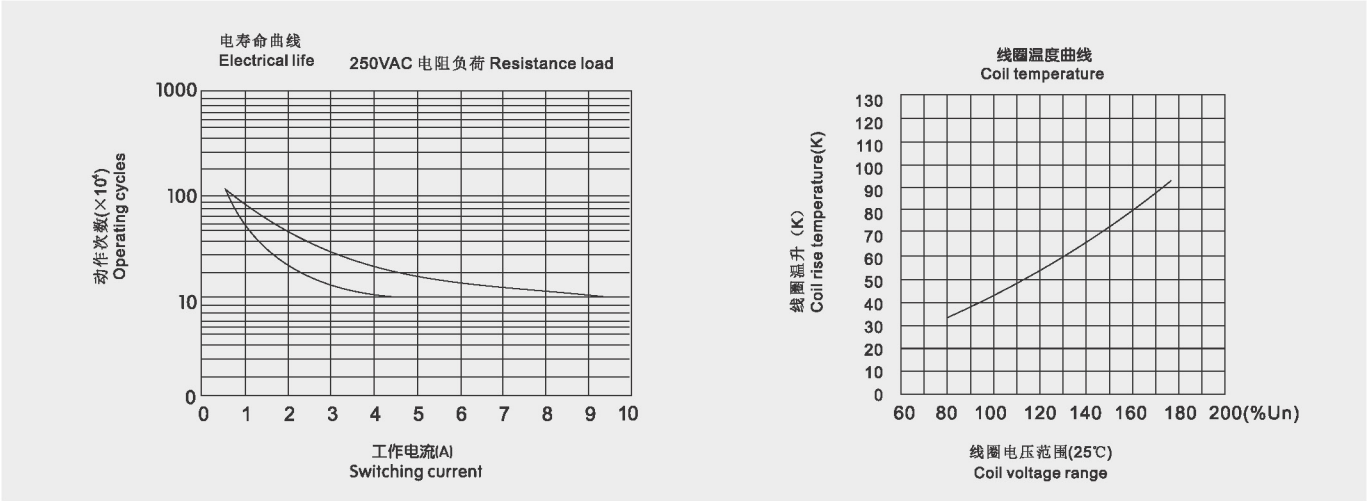
形式 Contact form			1A, 1B, 1C	2A, 2B, 2C
触点 Contact	负载 Rated load	阻性 Resistive (AC-1)	12A/250VAC,30VDC	8A/250VAC,30VDC
		马达 Motor (AC-15)	1/2HP,240VAC,1/2HP,240VAC	1/6HP,240VAC
	切换功率(阻性) Operating power(Resistive)		2500VA,300W;4000VA,480W	1250VA,150W;2000VA,240W
	接触电阻(初始) Contact resistance(Initial)		≤50mΩ	
	材料 Material		银合金Ag alloy	
	电气寿命(频率1S通, 1S断) Electrical life		≥10 ⁵ 次 cycles(1800 Ops/h)	
机械寿命(频率300次/1分钟)Mechanical life		≥10 ⁷ 次 cycles(18000 Ops/h)		
吸合电压(25℃) Operate voltage(at 25℃)			DC:≤75%Reted voltage,AC:≤80%Rated voltage	
释放电压(25℃) Release voltage(at 25℃)			DC:≤10%Rated voltage,AC:≤30%Rated voltage	
最大电压(25℃) Max. Allowed voltagefat 25℃)			110%Rated voltage	
绝缘电阻Insulation resistance			≥1000MΩ(500VDC)	
初始耐压 Dielectric Strength	DC(W)		0.53	
	AC(VA)		1.0	
吸合时间(额定电压) Operate time			≤20ms	
释放时间(额定电压) Release time			≤20ms	
同极触点之间 Between contacts			1000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
异极触点之间 Between contacts(defferent pole)			1000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
触点与线圈间 Between contact and coil			5000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
环境温度 Ambient temperature			-40~+55℃	
环境湿度 Humidity			35%~85%RH	
大气压力 Atmospheric Pressure			86~106KPa	
耐冲击 Shock resistance			10G(正统半波脉冲:11ms) (Haif a wave of pulses of sine: 11ms)	
耐振动 Vibration resistance			10~55Hz 双振幅:1.0mm 10~55Hz Dual amplitude :1.0mm	
安装方式 Install model			焊接式 PCB terminal	
重量 Weight			17g	
配套插座 Matched relay socket			14F-1Z-C5	14F-2Z-C5
同类产品 Like Products			G2RS	



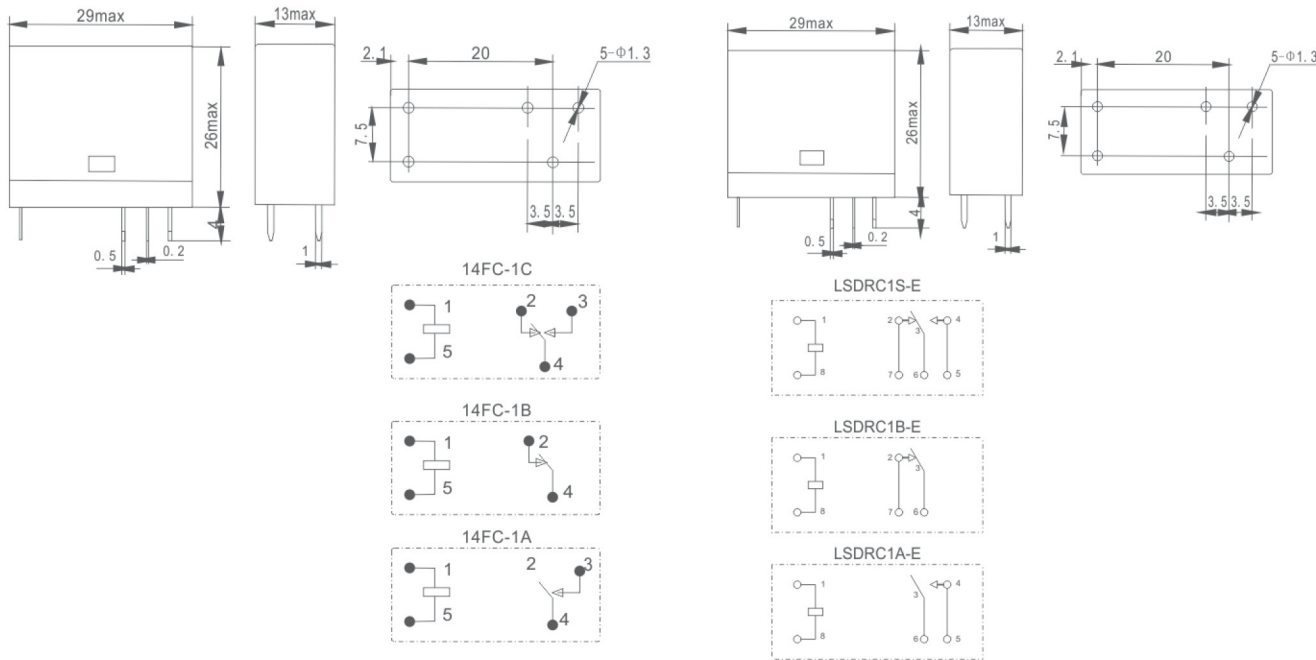
线圈规格(25℃) Coiltype(25℃)

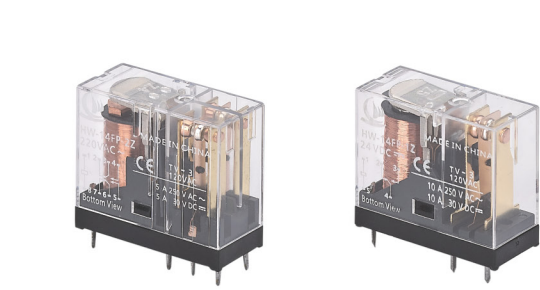
额定电压V.DC Rated voltage	3	5	6	9	12	18	24	36	48	110
线圈电阻 Ω(±10%) Coil resistance	17	47	68	150	270	610	1100	2440	4300	22800
额定电压V.AC Rated voltage	6	12	24	48	110	220				
线圈电阻Ω (±10%) Coil resistance)	16	63	240	1085	5500	21000				

性能曲线图 Curve graph of performance



外形图、接线图、安装尺寸(mm) Dimension.Bottom View





产品特点Product characteristics

- + 体积小，灵敏度高
small size ,high sensitivity
- + 结构合理，用途广
Reasonable structure, wide use
- + 多种规格，可配指示灯装置
Various specifications, can be equipped with indicator device

型号及其含义Type and meaning

HW	-	14F		2	-	E
1		2		3		

1 企业代号：航网电气
Enterprise Code: Hangwang Electric

2 1、2(转换) 1A、2A(常开)
1B、2B(常闭)
1, 2(Conversion) 1A, 2A(normally open)
1B, 2B(normally closed)

3 E(16A)

产品性能Product performance

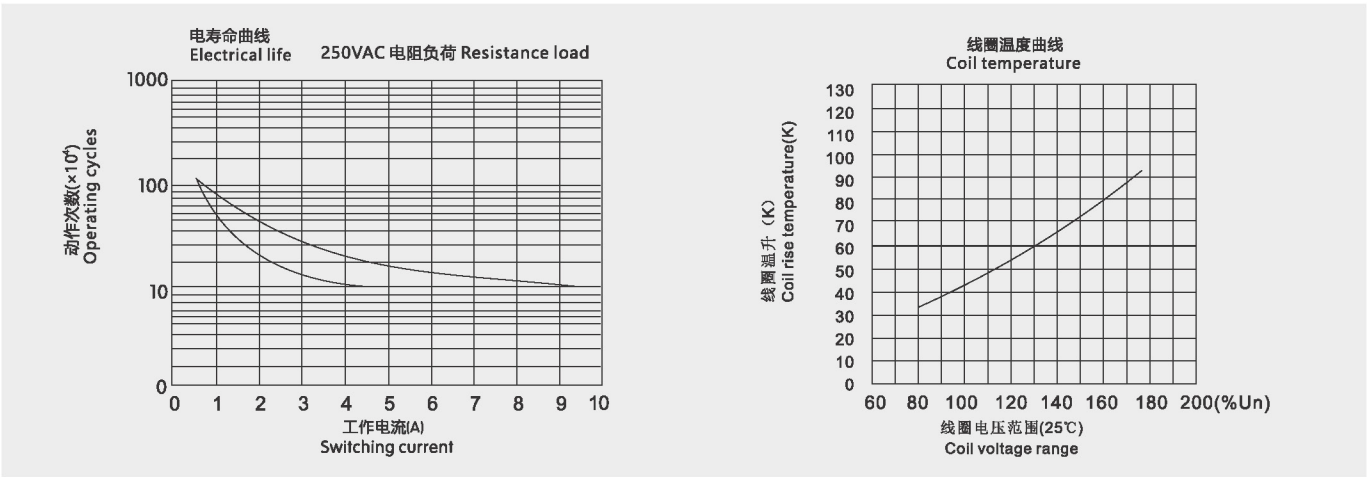
形式 Contact form			1A, 1B, 1C	2A, 2B, 2C
触点 Contact	负载 Rated load	阻性 Resistive (AC-1)	10A/250VAC,30VDC	8A/250VAC,30VDC
		马达 Motor (AC-15)	1/3HP,240VAC,1/2HP,240VAC	1/6HP,240VAC
	切换功率(阻性) Operating power(Resistive)		2500VA,300W;4000VA,480W	1250VA,150W;2000VA,240W
	接触电阻(初始) Contact resistance(Initial)		≤50mΩ	
	材料 Material		银合金Ag alloy	
	电气寿命(频率1S通, 1S断) Electrical life		≥10 ⁵ 次 cycles(1800 Ops/h)	
	机械寿命(频率300次/1分钟)Mechanical life		≥10 ⁷ 次 cycles(18000 Ops/h)	
吸合电压(25℃) Operate voltage(at 25℃)			DC:≤75%Reted voltage,AC:≤80%Rated voltage	
释放电压(25℃) Release voltage(at 25℃)			DC:≤10%Rated voltage,AC:≤30%Rated voltage	
最大电压(25℃) Max. Allowed voltagefat 25℃)			110%Rated voltage	
绝缘电阻Insulation resistance			≥100MΩ(500VDC)	
初始耐压 Dielectric Strength	DC(W)		0.53	
	AC(VA)		1.0	
吸合时间(额定电压) Operate time			≤20ms	
释放时间(额定电压) Release time			≤10ms	
同极触点之间 Between contacts			1000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
异极触点之间 Between contacts(defferent pole)			1000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
触点与线圈间 Between contact and coil			5000VAC/1min(漏电流 1mA) (Leakage current 1 mA)	
环境温度 Ambient temperature			-40~+65℃	
环境湿度 Humidity			35%~85%RH	
大气压力 Atmospheric Pressure			86~106KPa	
耐冲击 Shock resistance			10G(正弦半波脉冲:11ms) (Haif a wave of pulses of sine: 11ms)	
耐振动 Vibration resistance			10~55Hz 双振幅:1.0mm 10~55Hz Dual amplitude :1.0mm	
安装方式 Install model			焊接式 PCB terminal	
重量 Weight			17g	
配套插座 Matched relay socket			14F-1Z-C2/C3/C4	14F-2Z-C2/C3/C4
		富士通公司	FBR610	
同类产品 Like Products			G2R	



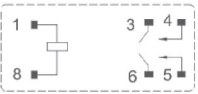
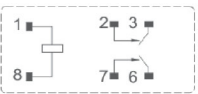
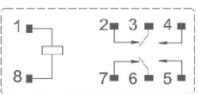
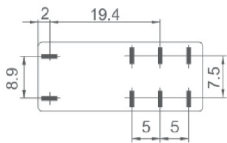
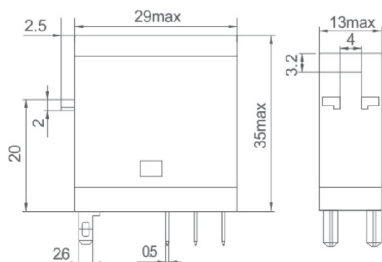
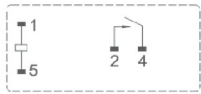
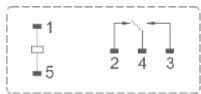
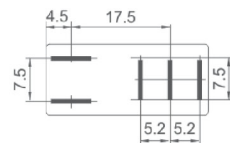
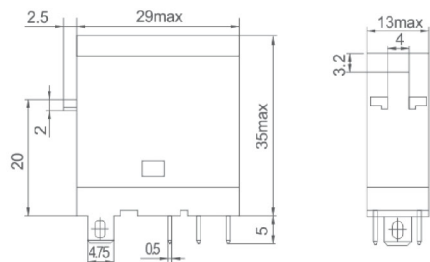
线圈规格(25℃) Coiltype(25℃)

额定电压V.DC Rated voltage	3	5	6	9	12	18	24	36	48	110
线圈电阻 Ω(±10%) Coil resistance	17	47	68	150	270	610	1100	2440	4300	22800
额定电压V.AC Rated voltage	6	12	24	48	110	220				
线圈电阻 Ω (±10%) Coil resistance)	16	63	240	1085	5500	21000				

性能曲线图 Curve graph of performance

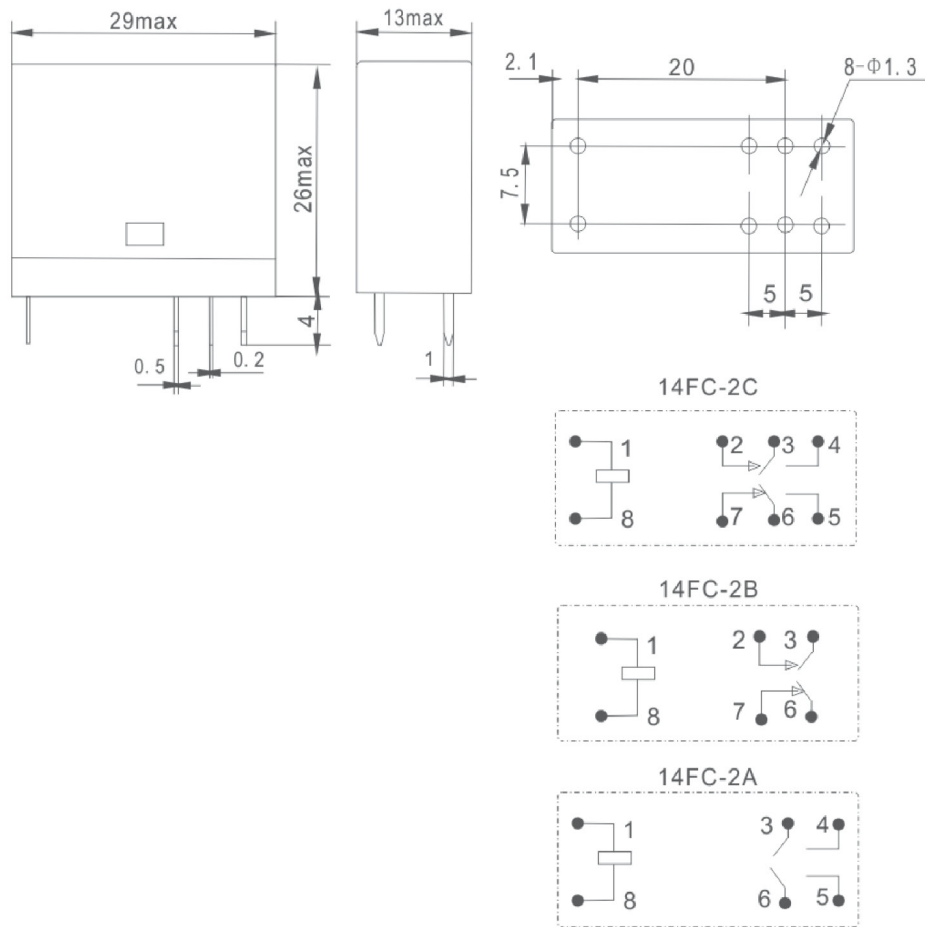


外形图、接线图、安装尺寸(mm) Dimension.Bottom View





外形图、接线图、安装尺寸(mm) Dimension.Bottom View



产品特点Product characteristics

- ✦ 6A 负载切换能力 6A switching capability
- ✦ 承受 80A 冲击电流 matching inrush current 80A,
- ✦ 长电寿命型可选择 Long E-life type available
- ✦ 1 组触点 1 poles contact
- ✦ 机械寿命 1000 万次以上 M-life 10KK cycles,
- ✦ 绝缘等级: Class F UL insulation system UL
- ✦ 满足 ROHS 要求 ROHS comply
- ✦ 可提供满足 IEC60335-1 标准产品 Comply IEC60335-1 available
- ✦ 满足插座配套使用 Socket available
- ✦ 空间距离大于 8mm, 爬电距离大于 8mm*
Clearance distance: >8 mm, and creepage distance: >8 mm.



Application 应用:

PLC, Elevator电梯, industrial device工控设备, Lamp灯, PV inverter逆变器, UPS,Charging充电, DCS, Smart home appliance智能家电)

型号及其含义Type and meaning

HW41 - 6 - 1A S P F G (XXX) / DC12V								
1	2	3	4	5	6	7	8	9

- 1 系列 Series: IR41
- 2 额定负载电流 Rating load current: 6=6A
- 3 触点类型Contact arrangement: 1A=1 form A 1 组常开型; 1C=1 form C 1 组转换型。
- 4 保护结构 Protect construction: S=Plastic sealed 塑封型; Nil 无=Flux type 防焊剂型。
- 5 线圈功率 Coil power: P=0.4W Long-life type, 长电寿命型; Nil 无=Standard type 标准型
- 6 绝缘等级Insulation class: F= Class F F 级
- 7 触点镀层 Contact plating: G=Gold Plating 表层镀金; Nil 无=无镀层
- 8 特性码Special code :XXX=Special requirement code 客户特殊特性代码
例如 Ex: (FLT) =引出脚折弯 90°, 水平安装型 terminal flat mounition type.
- 9 线圈电压 Coil voltage:refer coil data sheet 参考线圈参数表

Note 备注:(1) 若无特殊应用要求, 请选用银锡材料型. if no special application, please use AgSnO type.



触点参数 Contact data

触点类型 Contact arrangement	1A/1C 1组常开型/1组转换型
接触电阻 Contact resistance	100mΩ max. (at 1A 6VDC) 100mΩ以下 (在6VDC1A条件下)
触点材料 Contact material	AgSnO alloy 银氧化锡合金
额定负载 Contact rating	NO: 6A 277VAC, COSΦ =1.0 NO: 6A 24VDC, L/R=0 NC: 6A 277VAC, COSΦ =1.0 NC: 6A 24VDC, L/R=0
最大切换电压 Max. switching voltage	277VAC/30VDC
最大切换电流 Max. switching current	6A
最大切换功率 Max. switching power	1662VA/180W
最小切换负载 Min. switching load	10mA6V
机械耐久性 Mechanical endurance	10,000,000 cycles min.; 1000万以上
电气耐久性 Electrical endurance	Standard type 标准型: at ON/OFF=1s/9s, normal temp.通断时间: 1s通/9s断, 常温。 NO: 6A 250VAC, R-load 阻性负载, 30,000cycles min. NO: 6A 24VDC, R-load 阻性负载, 30,000cycles min. NC: 6A 250VAC, R-load 阻性负载, 10,000cycles min. NC: 6A 24VDC, R-load 阻性负载, 10,000cycles min. Long E-life type 长电寿命型: at ON/OFF=1s/9s, normal temp.通断时间: 1s通/9s断, 常温。 NO: 6A 250VAC, R-load 阻性负载, 60,000cycles min. NO: 6A 24VDC, R-load 阻性负载, 100,000cycles min. NC: 6A 250VAC, R-load 阻性负载, 30,000cycles min. NC: 6A 24VDC, R-load 阻性负载, 30,000cycles min.



特性参数 (初期) Characteristics (initial)

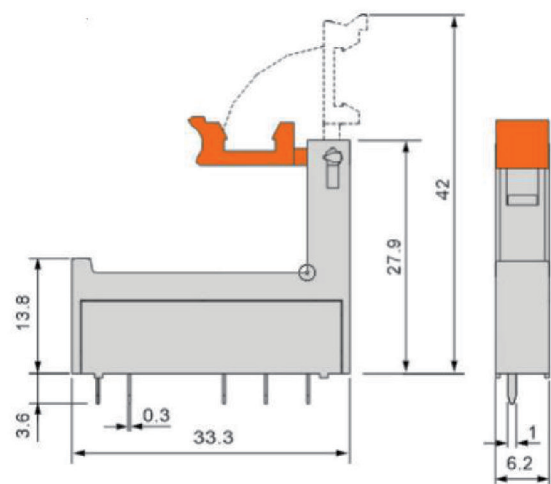
绝缘电阻 Insulation resistance	1000MΩ(at 500VDC)
介质耐压 Dielectric strength	Between coil and contacts: 5000V for 1 minute 线圈与触点间: 5000V (1分钟) Between across contacts of same pole: 1000V for 1 minute 断开触点间: 1000V (1分钟)
动作时间 (额定电压下) Operate time (at normal voltage)	10ms max. 10ms 以下
释放时间 (额定电压下) Release time (at normal voltage)	5ms max. 5ms 以下
振动特性 vibration resistance	10Hz-55Hz, at double amplitude 1mm 频率 10Hz-55Hz, 双振幅 1mm
冲击特性 Shock resistance	Functional: Min. 100m/s ² 功能性: 100m/s ² 以上。 Destructive: Min. 1000m/s ² 强度: 1000m/s ² 以上
环境温度 Ambient temperature	-40°C to 85°C
环境湿度 Humidity	5% to 85% RH
端子结构 Termination	PCB type. PCB 安装型
重量 Unit weight	Approx. 5g 大约 5g
保护结构 Construction	Flux protected or plastic sealed type 防焊剂型或塑封型



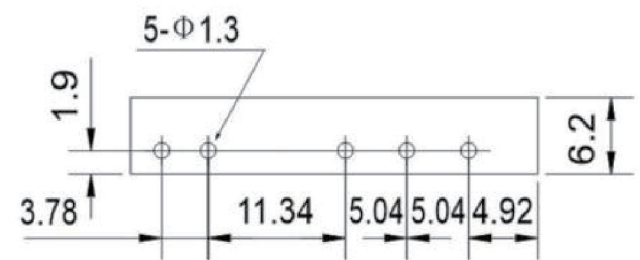
HW41-05E (PCB)	
1	2

- 1 系列 SERIES =HW41-05E
- 2 特性码 Special code :PCB=PCB type 焊锡安装型

外形尺寸图 OUTLINE



安装孔尺寸图 Mounting dimension(bottom view)



备注：

(1) 产品部分外形尺寸未注尺寸公差，当外形尺寸≤1mm，公差为±0.1；当外形尺寸在1-3mm之间时，公差为±0.2；当外形尺寸>3mm，公差为±0.3；

There are some outline-dimension without tolerance, please refer these: dimension is less than 1mm, tolerance is ±0.1; dimension is 1-3mm, tolerance is ±0.2; dimension is more than 3mm, tolerance is ±0.3.

(2) 安装孔尺寸中未注尺寸公差为±0.1。the mounting dimension tolerance is ±0.1.

声明：

本产品规格书仅供客户使用时参考，若有更改，恕不另行通知。对我司而言，不可能评定继电器在每个具体应用领域的所有性能参数要求，因而客户应根据具体的使用条件选择与之相匹配的产品，若有疑问，请与我司联系以便获取更多的技术支持，但产品选型责任仅由客户负责。

The data-sheet is only for reference when customer use, if we have some change, we can not show the notice to you.

We can not evaluate all the performance and all the parameters for every application, so that please choose the suitable relay-product in your application. If you have any questions, please connect our company for further supports.



继电器插座系列
Relay socket Series

