

## Magnetic Holding HEV-K Magnetic Holding DC Contactor



### USES

This product realizes zero power connection when working. It is suitable for 5G、charging pile, telecommunication communication equipment, automation equipment, electric vehicle, energy-saving and environmental protection system, road traffic lighting system, programmable power supply and uninterrupted power supply equipment.

| HEV | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -7 | A | K | X | L | -□ | ※ | /12V |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|---|---|----|---|------|
| 1   | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3  | 4 | 5 | 6 | 7 | 8  | 9 | 10   |
| 1   | Product type: HEV one group circuits; HEVJ two group circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |   |   |   |   |    |   |      |
| 2   | Rated current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |   |   |   |   |    |   |      |
| 3   | Contact Rated Voltage: 1:200V; 7:1000V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |   |   |   |   |    |   |      |
| 4   | Circuit structure: A - one normally open; B - one normally closed; C - 1NO 1NC; J - 2NO ;F - one normally open with one auxiliary switch (the auxiliary switch and main contact have the same structure); G - one normally closed with one auxiliary (auxiliary switch and main contact have the same structure). (For other auxiliary switch structures, add 2 or 3 numbers after the model to describe the auxiliary switch structure)                                                                                                                                                                                                                                   |    |   |   |   |   |    |   |      |
| 5   | Coil type: H with coil economizer; K dual wire magnetic holding (single coil, dual wire self-locking); 2K three wire magnetic holding (double coil, three wire self-locking); P signal control; R built-in pre charging type [relay drive] (the left digit of the pre charging function is the pre charging delay time, used to control the coil; the right digit is the resistance value with resistance); Y: External pre charging [MOS driver] (the left digit of the pre charging function is the pre charging delay time, and the right digit is used as a lead for controlling the coil. If it is greater than 1, it is the resistance value of the live resistance) |    |   |   |   |   |    |   |      |
| 6   | Coil outgoing mode: X Wire (390mm); O Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |   |   |   |   |    |   |      |
| 7   | Mounting bracket type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |   |   |   |   |    |   |      |
| 8   | None: auxiliary switch and main contact have the same structure (default); 2: The structure of auxiliary switch and main contact is opposite; 3: Special auxiliary switch structure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |   |   |   |   |    |   |      |
| 9   | Other special functions: V with capacitive type load; N no polarity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |   |   |   |   |    |   |      |
| 10  | Coil rated voltage: 6V,12V,24V,36V,48V,60V,72V,84V,120V,150V,220V etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |   |   |   |   |    |   |      |

### ORDER FORM DESCRIPTION

When ordering, please state the following: name, full model, control coil voltage specification, installation frame type, whether with auxiliary contact, order quantity. For example: Magnetic Holding DC Contactor HEV-K-□-□/24V 100pcs, indicating the load rated current 30A,50A,100A,150A,200A,250A,300A,400A,600A,800A, without auxiliary contact, default mounting bracket, coil control voltage 24V purchase 100pcs. Special voltage specification products, such as user needs can be special order.

## TECHNICAL PARAMETERS

(Version 2.62)

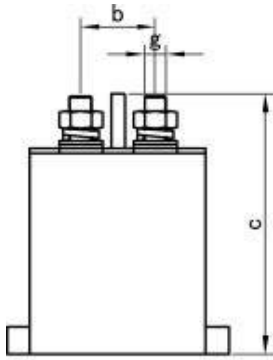
| SAYOON Product Type                           | HEV-K                                              |
|-----------------------------------------------|----------------------------------------------------|
| Contact form                                  | 1 Circuit                                          |
| Coil Rated voltage (DC V)                     | 6V,12V,24V,36V,48V,60V,72V,84V,120V,150V,220V etc. |
| Contact voltage (DC V)                        | 150V,450V,750V                                     |
| Contact circuit rated load current (DC-1)     | 30A,50A,100A,150A,200A,250A,300A,400A,600A,800A    |
| Typical voltage drop across contacts per 100A | ≧80mV                                              |
| The cooling pull-in voltage at (20±5)°C (V)   | ≧80%                                               |
| The cooling drop-out voltage at (20±5)°C (V)  | ≧80%                                               |
| Working voltage range of 40°C coil            | 0.8-1.2Us                                          |
| Pulse dration                                 | 200ms≤t≤1s                                         |
| Operating frequency(square wave)              | 1 minute≤6 times                                   |
| Insulation Resistance                         | 100MΩ                                              |
| Electric strength to resist                   | 50Hz/60Hz 2200VAC 1minute                          |
| Typical fault currents which can be ruptured  | 1500A/5ms at 48V DC                                |
| Coil power (W)                                | K Start: 5-60, Keep: 0                             |
| Temperature rise of coil (K)                  | Normal temperature                                 |
| Temperature rise on outgoing terminal (K)     | ≤65                                                |
| Electrical life                               | 10,000 times                                       |
| Mechanical life                               | 300,000 times                                      |
| Work specification                            | Continuous                                         |
| Contact material                              | Alloy                                              |
| Inrush time (max)                             | 130ms                                              |
| Maximum switching current                     | 2500A 320VDC ( more than once )                    |
| Maximum switching power                       | 800kW                                              |
| Load terminal type                            | M5,M8,M10 Screw                                    |
| Coil terminal type                            | 0.3 square silicone wire, 390mm long               |
| Auxiliary contact rated load (optional)       | 3A/30VDC                                           |

## OTHER TECHNICAL PARAMETERS

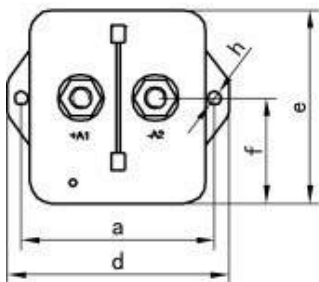
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|------------------------------------|-------------|
| Testing organization certification | CE,FCC,RoHS |
|------------------------------------|-------------|

Note:As regarding to the different using environments of customers which requires different focus of the functions,and in order to improve the comprehensive properties of our products,sayoon may adjust the coil parameters,temperature rise and so on. The above parameters are for reference only, For details, please refer to the guidelines for selection and use of the SAYOON DC contactor.

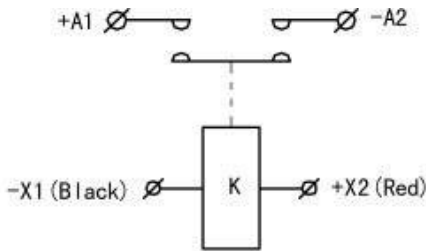
## INSTALLATION DIAGRAM



| SIZE<br>CURRENT | a     | b     | c     | d     | e    | f    | g   | h    |
|-----------------|-------|-------|-------|-------|------|------|-----|------|
| 30A             | 42    | 14    | 59    | 49.4  | 41.2 | 24.2 | M5  | Φ4.7 |
| 50A             | 42    | 14    | 59    | 49.4  | 41.2 | 24.2 | M5  | Φ4.7 |
| 100A            | 46.4  | 18    | 61.8  | 53.8  | 47.7 | 27.6 | M5  | Φ4.7 |
| 150A            | 46.4  | 18    | 61.8  | 53.8  | 47.7 | 27.6 | M5  | Φ4.7 |
| 200A            | 68.28 | 26.67 | 97    | 80.38 | 65.1 | 36.3 | M8  | Φ8   |
| 250A            | 68.28 | 26.67 | 97    | 80.38 | 65.1 | 36.3 | M8  | Φ8   |
| 300A            | 68.28 | 26.67 | 97    | 80.38 | 65.1 | 36.3 | M8  | Φ8   |
| 400A            | 88    | 34    | 118.2 | 101   | 88   | 48   | M10 | Φ6.4 |
| 600A            | 88    | 34    | 118.2 | 101   | 88   | 48   | M10 | Φ6.4 |



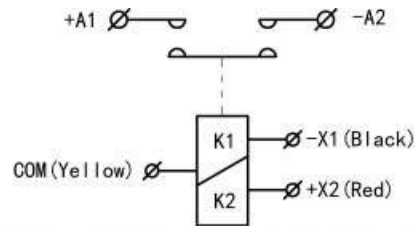
## WIRING DIAGRAM



K Two Jiont Magnetic Retention(Two Jiont Self-locking)

+A1.-A2 Main Contact Terminal  
-X1(Black).+X2(Red) Coil Terminal

- X1(Black)Connect the negative pole of the power supply
- +X2(Red)Connect the positive pole of the power supply
- +A1和-A2 Main contact on.
- X1(Black)Connect the positive pole of the power supply
- +X2(Red). Connect the negative pole of the power supply
- +A1和-A2 Main contact disconnection.



2K Three Jiont Magnetic Retention(Three Jiont Self-locking)

+A1.-A2 Main Contact Terminal  
-X1(Black).COM(Yellow).+X2(Red) Coil Terminal

- Common positive electrode:COM(Yellow)Connect the positive pole of the power supply
- X1(Black)Connect the negative pole of the power supply
- +A1.-A2 Main contact on.
- COM(Yellow)Connect the positive pole of the power supply
- +X2(Red)Connect the negative pole of the power supply
- +A1.-A2 Main contact disconnection
- Public negative electrode:COM(Yellow)Connect the negative pole of the power supply
- X1(Black)Connect the positive pole of the power supply
- +A1.-A2 Main contact disconnection.
- COM(Yellow)Connect the negative pole of the power supply
- +X2(Red)Connect the positive pole of the power supply
- +A1.-A2 Main contact on.

## FEATURES