

## DC Contactor

## SW81 DC Contactor



## USES

This product have one normally open and one normally close contact, for electric vehicles, telecommunication equipment, engineering machinery, car batteries, electric forklift trucks, trains, ships, electronic control systems such as uninterruptible power supply.

| SW81 | -□ | -□ | /24V |
|------|----|----|------|
| 1    | 2  | 3  | 4    |

- 1 Product type
- 2 Other function codes
- 3 Working system: CO Continuous; INT Intermittent
- 4 Coil rated voltage: 6V,12V,24V,36V,48V,60V,72V,84V,120V,150V,220V etc.

## USE OF THE ENVIRONMENT

|                              |                            |
|------------------------------|----------------------------|
| Contact lead M8 tightening   | ≥9.0 appropriate           |
| Coil lead-out torque (N.m)   | ≥0.8 appropriate           |
| Ambient temperature          | -25~+70℃                   |
| Relative humidity            | +20℃ 98%                   |
| Vibration freq. at the fixed | 3G, 1~50Hz amplitude 0.5mm |
| Concussion                   | (60~100) time/minute、      |
| Altitude                     | 2000m                      |
| Installation direction       | Random                     |
| International protection     | IP40 (According IEC60947)  |

## ORDER INSTRUCTION

|                       |                                                                              |
|-----------------------|------------------------------------------------------------------------------|
| U.N.W.                | 486g                                                                         |
| G.W. per Box(2pcs)    | 1038g                                                                        |
| Package QTY.          | 40pcs                                                                        |
| DIM.(cm)              | 33*24.5*24                                                                   |
| Mounting bracket type | M Horizontal (default), 1L One vertical, 2L Two vertical, X Oblique, 2N Rear |

## ORDER FORM DESCRIPTION

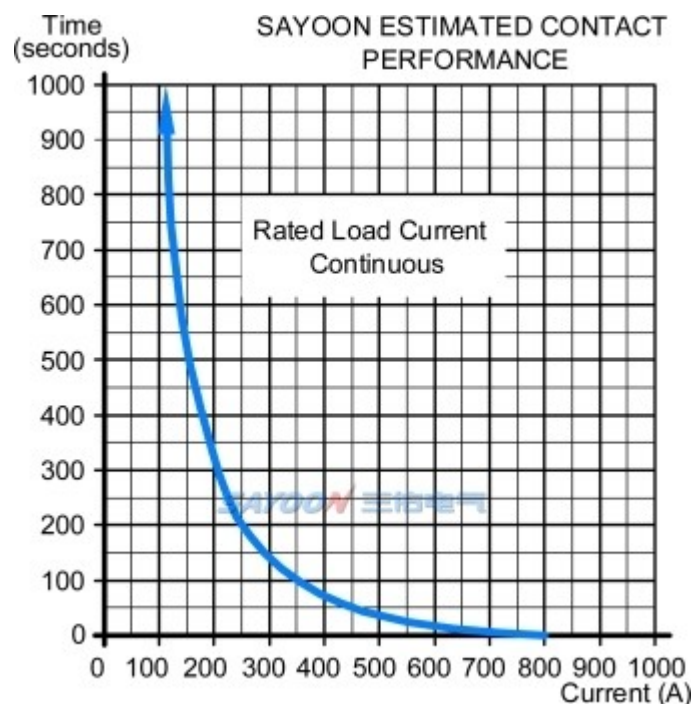
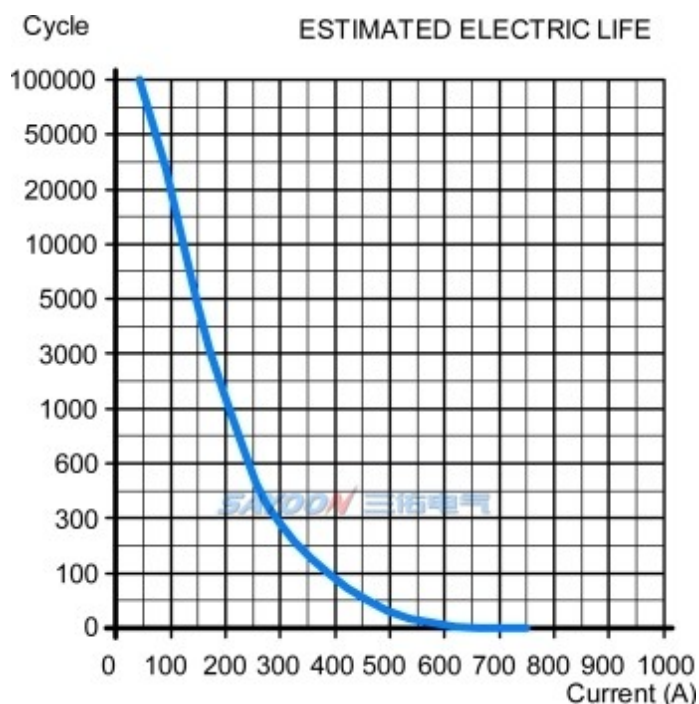
When ordering, please state the following: name, full model, control coil voltage specification, installation frame type, whether with auxiliary contact, order quantity. For example: DC Contactor CZWH100A/24V 100pcs, indicating the load rated current 100A, without auxiliary contact, default mounting bracket, coil control voltage 24V purchase 100pcs. Special voltage specification products, such as user needs can be special order.

## TECHNICAL PARAMETERS

(Version 1.46)

| SAYOON Product Type                              | SW81                                               |
|--------------------------------------------------|----------------------------------------------------|
| Contact form                                     | 1 NO 1 NC                                          |
| Coil Rated voltage (DC V)                        | 6V,12V,24V,36V,48V,60V,72V,84V,120V,150V,220V etc. |
| Contact voltage (DC V)                           | ≤80V                                               |
| Rated load current of contact 48V circuit (DC-1) | 100A                                               |
| Typical voltage drop across contacts per 100A    | ≤80mV                                              |
| The cooling pull-in voltage at (20±5)°C (V)      | ≤70%                                               |
| The cooling drop-out voltage at (20±5)°C (V)     | ≤35%, ≥5%                                          |
| Working voltage range of 40°C coil               | 0.8-1.2Us                                          |
| Drop-out time (n/o contacts to open)             | 40ms                                               |
| Pull-in time (n/o contacts to close)             | 12ms                                               |
| Maximum bounce time for contact connection       | 10ms                                               |
| Maximum bounce time for contact disconnection    | 3ms                                                |
| Insulation resistance                            | 20MΩ                                               |
| Electric strength to resist                      | 50Hz/60Hz 1000VAC 1minute                          |
| Typical fault currents which can be ruptured     | 800A/5ms at 48V DC                                 |
| Coil power (W)                                   | 14-23                                              |
| Temperature rise of coil (K)                     | ≤80                                                |
| Temperature rise on outgoing terminal (K)        | ≤65                                                |
| Electrical life                                  | 20,000 times                                       |
| Mechanical life                                  | 300,000 times                                      |
| Work specification                               | Continuous or Intermittent(default)                |
| Contact material                                 | Ag alloy                                           |
| Load terminal type                               | M8 Screw                                           |
| Coil terminal type                               | 6.3mm spade terminals                              |
| Auxiliary contact rated load (optional)          | 2A/48VDC, 5A/24VDC                                 |
| Normally closed to normally open                 | 7ms                                                |

## LOAD CHARACTERISTIC CURVE



## OTHER TECHNICAL PARAMETERS

|                                    |        |
|------------------------------------|--------|
| Normally open to normally closed   | 4ms    |
| Testing organization certification | CE,FCC |

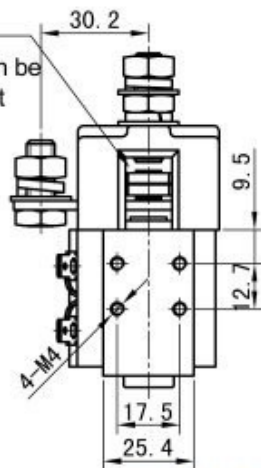
Note: As regarding to the different using environments of customers which requires different focus of the functions, and in order to improve the comprehensive properties of our products, sayoon may adjust the coil parameters, temperature rise and so on. The above parameters are for reference only. For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

## INSTALLATION DIAGRAM

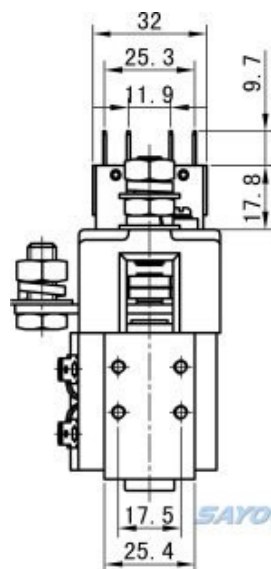
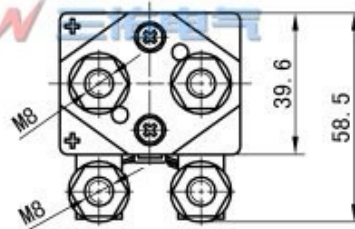
此处安装挡板

以防止灰尘进入

Optional barriers can be fitted here to prevent ingress of dust etc.

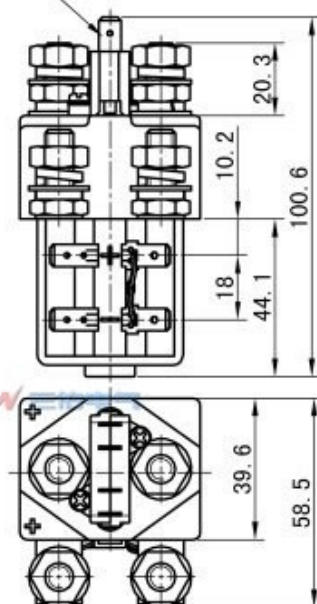


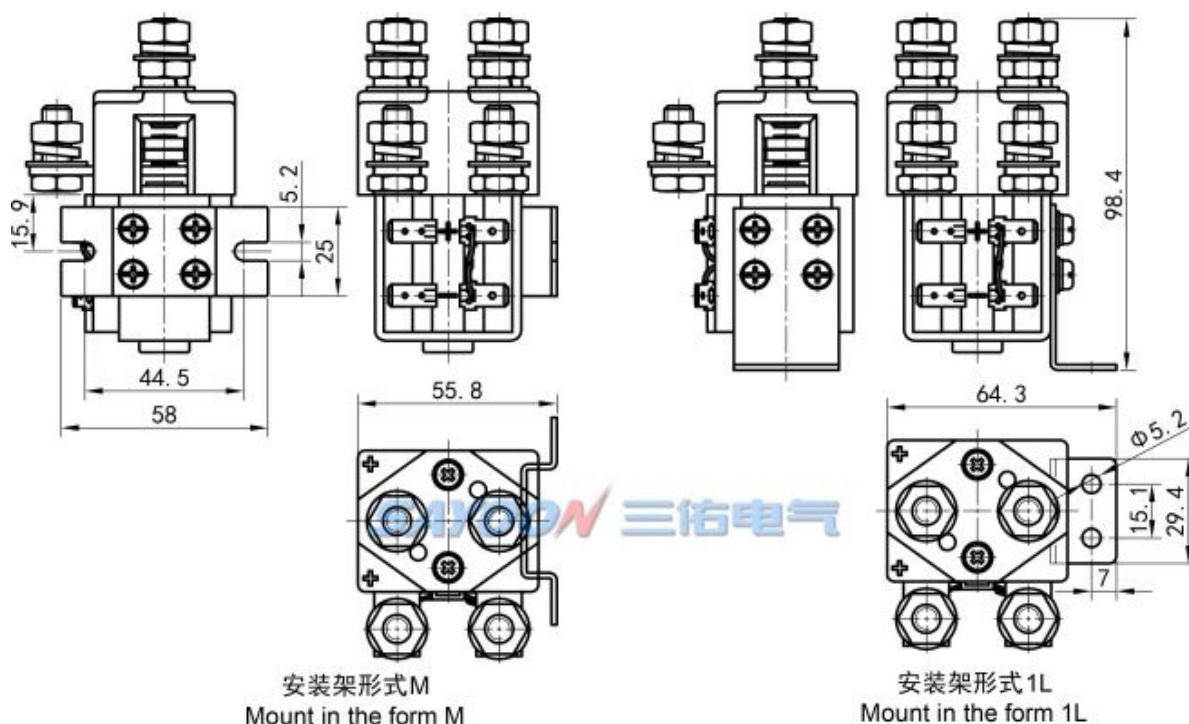
线圈接头6.3mm插片  
6mm spade terminals  
for coil connections



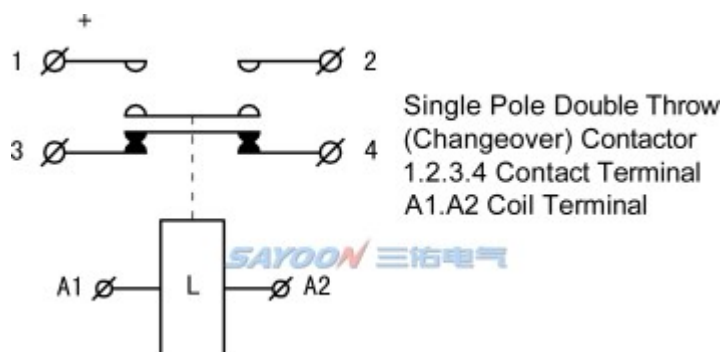
带微动开关  
with the auxiliary  
microswitch

6.3mm插片 spade terminals

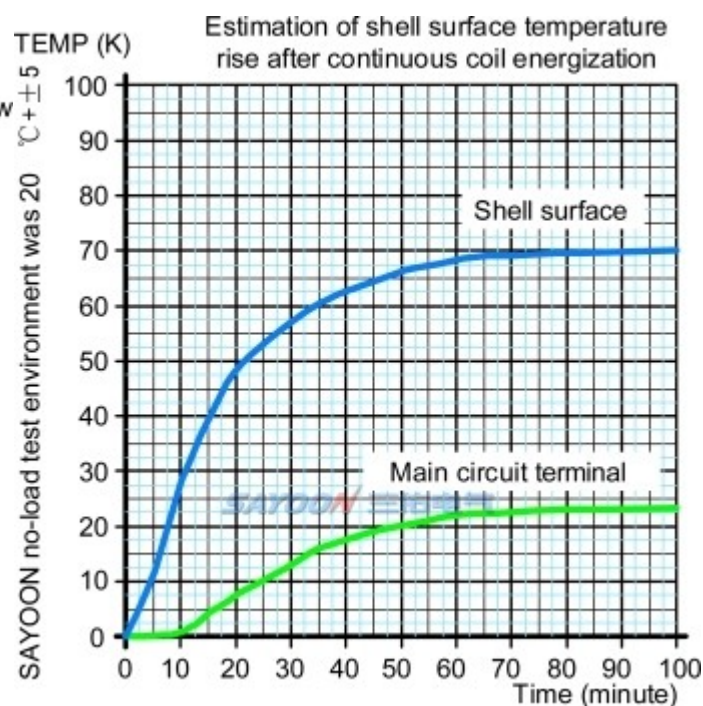




## WIRING DIAGRAM



## TEMPERATURE RISE CURVE



## FEATURES

Suitable for electric forklift, battery cars, tractors, excavators, brick machine, cleaning vehicles, automotive air-conditioning, communication power supply, uninterruptible power supply, power supply switches such as electroplating electronic control system control circuit, has the advantages of small volume, large load capacity, long service life, easy maintenance and other characteristics, welcomed by users. The products in accordance with the standard of the JB2286-78, JB3974-85, YD / 585-92, YD / T512-92 requirements; the plant and related test unit test, meet the standard requirements, the user use for many years, the maximum to meet user needs, quality and reliable.

## 3D NUMERICAL AND MODELING INTERACTIVE DISPLAY

SW81-M: <http://www.sayoon.com/en/v3d/p.html?type=czwh100a-m>