



## 特性 Features

1. 长时400A负载;  
Continuous 400A load.
2. 具有二组常开, 二组常闭触点形式;  
It has two sets of normally open and two sets of normally closed contacts.
3. 线圈功耗 $\leq 20W$ ;  
Coil power consumption  $\leq 20W$ .
4. 绝缘电阻达 $100M\Omega$ (1000VDC), 触点与线圈间耐压1kV;  
The insulation resistance reaches  $100M\Omega$  (1000VDC), and the withstand voltage between the contacts and the coil is 1kV.
5. IP防护等级:IP40;  
IP protection level: IP40.
6. 符合IEC 60664-1, GB/T14048.1和GB/T14048.4要求;  
Compliant with IEC 60664-1, GB/T14048.1 and GB/T14048.4 requirements.
7. 符合RoHS (2015/863/EU), REACH (1907/2006/EC) 要求;  
Compliant with RoHS (2015/863/EC) and REACH (1907/2006/EC) requirements.
8. 安规认证: CE, RoHS;  
Safety certificate: CE, RoHS.

## 性能参数 (at23°C)

### Performance Parameters (at23°C)

触点形式 Contact Arrangement	2K (2NO), 2B (2NC)	吸合电压 Pickup Voltage	$\leq 70\%U_s$	
接触电阻 Contact Resistance	$\leq 0.5m\Omega$	释放电压 Dropout Voltage	$\geq 10\%U_s$	
接触压降 Contact Voltage Drop	$\leq 80mV$ (at 400A)	吸合时间 Pickup Time	$\leq 30ms$	
过载电流 Overload Current	$\leq 7I_e, > 1s$	释放时间 Dropout Time	$\leq 30ms$	
温度 Temperature	$-40^{\circ}C \sim 65^{\circ}C$	介质耐压 Dielectric Strength	主触点间 Between Main Contacts	50Hz/60Hz 1000VAC/1min
负载端引出端型式 Load Terminal	M10外螺纹 M10 External Thread		主触点与线圈间 Between Main Contacts and Coil	50Hz/60Hz 1000VAC/1min
振动 Vibration	3.5g, 10~200Hz, 1/2正弦波 (通电) 3.5g, 10~200Hz, 1/2 Sine Wave (Power On)	绝缘电阻 Insulation Resistance	初始状态 Initial State	100M $\Omega$ 1min
湿度 Relative Humidity	20%~90%RH		电寿命后 After Electrical Life	50M $\Omega$ 1min
外形尺寸 Dimension	160.5x72x153mm	振动 Vibration	(10-200)Hz、加速度 $< 3.5g$ (10-200)Hz, Acceleration $< 3.5g$	
工作制 Operating Duty	长时 Continuous	冲击 Shock	(60-100)次/分、加速度 $< 4g$ (60-100)times/min, Acceleration $< 4g$	
带载耐久(阻性) Electrical Durability with Load (Resistive)	$\geq 6000$ 次 $\geq 6,000$ Times	机械耐久 Mechanical Durability	$\geq 100000$ 次 $\geq 100,000$ Times	
负载接线力矩 Load Wiring Torque	10-13N.m	线圈接线 Coil Wiring	0.8x6.3插片 0.8*6.3 Spade Terminal	

## ASW400S2Z线圈参数 ASW400S2Z Coil Parameters

线圈电压 Coil Voltage	吸合电压 Pickup Voltage VDC	释放电压 Dropout Voltage VDC	保持电流 Holding Current	线圈功耗 Coil Power Consumption
12V	$\leq 70\%U_s$	$\geq 10\%U_s$	$\leq 1.5A$	$< 20W$
24V	$\leq 70\%U_s$	$\geq 10\%U_s$	$\leq 0.7A$	$< 20W$
36V	$\leq 70\%U_s$	$\geq 10\%U_s$	$\leq 0.5A$	$< 20W$
48V	$\leq 70\%U_s$	$\geq 10\%U_s$	$\leq 0.35A$	$< 20W$
60V	$\leq 70\%U_s$	$\geq 10\%U_s$	$\leq 0.3A$	$< 20W$
72V	$\leq 70\%U_s$	$\geq 10\%U_s$	$\leq 0.25A$	$< 20W$

### 型号说明 Model Coding

ASW 400 S 2Z 12 P CP H FS T01

客户特殊要求  
Customer Special Requirements

FS: 外置微动开关  
FS: External Auxiliary Switch

H: 有极性, N: 无极性 (默认不注)  
H: Polarity, N: Non-polarity (Not Marked by Default)

CP: 线圈插片接线0.8x6.3插片 (默认不注)  
CP: Coil 0.8\*6.3 Spade Terminal Connection (Not Marked by Default)

P: 侧边安装, L: 底部安装  
P: Side Mounting, L: Bottom Mounting

12V, 24V, 36V, 48V, 60V, 72V (不适用时跳过)  
12V, 24V, 36V, 48V, 60V, 72V (Ignore if Not Applicable)

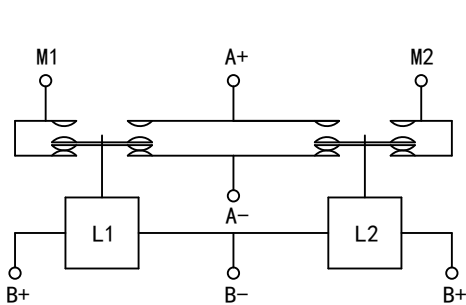
2Z: 二组转换  
2Z: Two Sets of Changeover Contacts

S: 长时型单线圈  
S: Continuous Duty Single Coil

400: 额定负载电流  
400: Rated Load Current

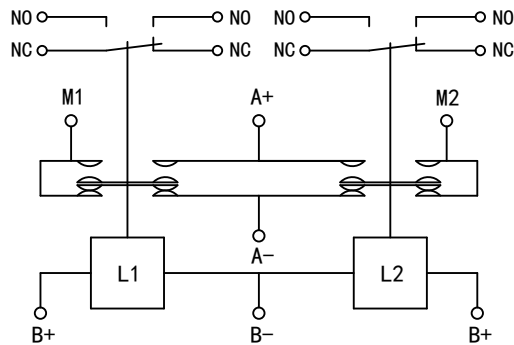
ASW: 产品系列代码  
ASW: Product Series Code

### 接线原理图 Wiring Diagram



不带微动 接线图

Wiring Diagram Without Micro Switch



带微动 接线图

Wiring Diagram with Micro Switch

NC辅助常闭端子  
NC Auxiliary Contact

NO辅助常开端子  
NO Auxiliary Contact

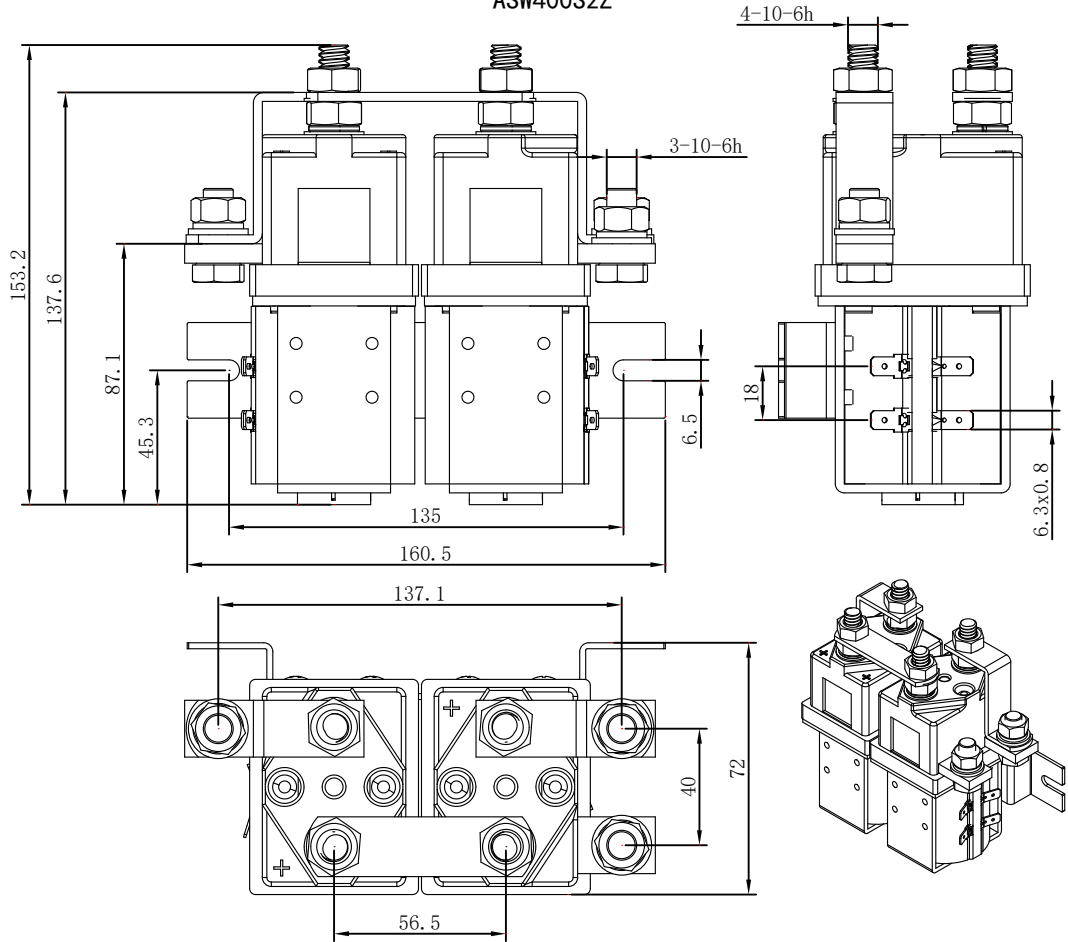
A+, A- 负载端电源  
A1, A2 Load Terminal Power Supply

M1, M2 负载  
M1, M2 Load

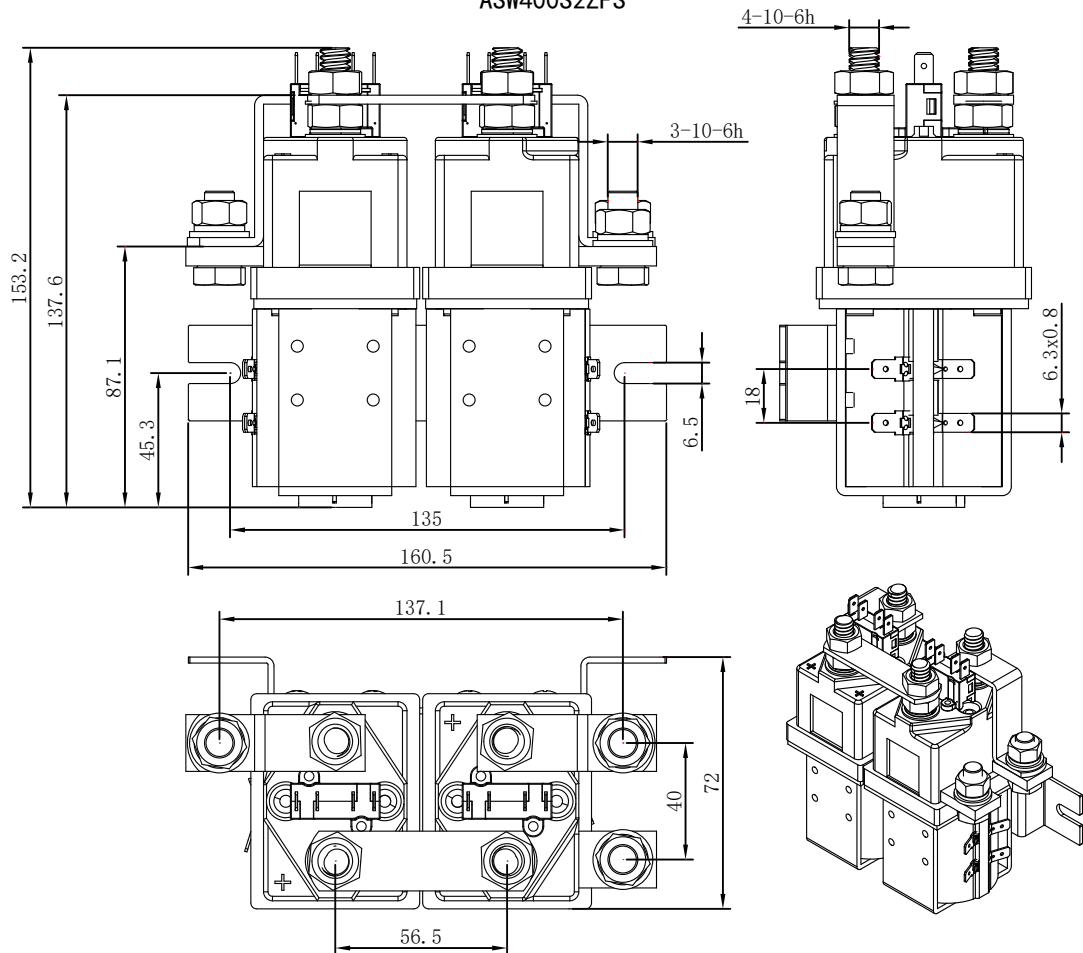
B+, B- 控制端电源  
B+, B- Control Terminal Power Supply

# 外形安装尺寸图 Outline Installation Dimension Drawing

ASW400S2Z



ASW400S2ZFS



## 使用注意事项 Usage Cautions

1. 本资料仅供客户选型参考，奥凯已尽力确保本资料中信息的准确性。产品规格、参数可能因产品改良等发生变更，而未及时更新导致规格参数的不一致。具体每个产品的参数及性能请以奥凯提供的样品及对应签字受控的承认书为准。

This document is only for customer selection reference, AOKAI has tried the best to ensure the accuracy of the information in this document. Product specifications and parameters may be changed due to product improvement etc., they may be inconsistent because of not updated in time. For the specific parameters and performance of each product, please refer to the samples provided by AOKAI and the corresponding signed and controlled specification.

2. 关于本产品的应用，客户在选型产品时，根据自己的具体使用条件和环境要求，选择与之相匹配的产品，其中未明确规定的要求条件，请与奥凯联系，以便获取更多的技术支持。

Regarding the application of this product, please select the matching product according to your specific use conditions and environmental requirements when selecting the product. If the requirements are not clearly specified, please contact AOKAI to obtain more technical support.

3. 安装使用本产品时，无论接线还是固定安装，均要求使用防松弹垫。

When installing and using this product, regardless of wiring or fixed installation, it is required to use anti-loose spring washers.

4. 安装紧固件的扭矩应在本规范要求的标准范围内，扭矩低于扭矩最小值或超出扭矩最大值，可能导致安装不牢固或破坏产品。

The torque for installing fasteners should be within the standard range required by this specification. It may cause the unstable installation or damaging the product if the torque is lower than the minimum torque or higher than the maximum torque.

5. 避免把本接触器安装在强磁场的地方（如变压器或强磁铁处），或靠近有热辐射的物体，建议配合安装散热风扇使用。

Do not install the contactor in places with strong magnetic fields (such as transformers or strong magnets), or close to objects with thermal radiation. It is recommended to use it with a cooling fan.

6. 禁止使用高处（高度 $\geq 30\text{cm}$ ）跌落过的产品。

It is forbidden to use the product that have been dropped from a high place (height $\geq 30\text{cm}$ ).

7. 产品线圈的驱动功率必须大于等于产品的线圈功率，否则，会降低产品的切换能力。

The driving power of the product coil must be bigger than or equal to the coil power of the product, otherwise the product switching ability will be reduced.

8. 对线圈连续通电时，线圈电压不能超过最高容许电压，否则线圈异常发热会影响线圈的使用寿命。

When the coil is continuously energized, the coil voltage cannot exceed the maximum allowable voltage, otherwise the abnormal heating of the coil will affect its service life.

9. 本产品非防水产品，请勿在水、溶剂、油可能接触到外壳或端子的环境使用，否则因外壳老化或端子腐蚀会引起异常发热。

This product is not waterproof. Please do not use it in an environment where water, solvent, or oil may come into contact with the casing or terminals. Otherwise, the aging of the casing or corrosion of the terminals may cause abnormal heating.

10. 禁止超出额定电寿命使用该产品，额定电寿命到达时虽然产品还可以继续工作，但有失效、爆炸、不断开引起燃烧的风险。

It is forbidden to use the product beyond the rated electrical life. When the rated electrical life is reached, although the product can continue to work, there is a risk of failure, explosion, and burning because of non-breaking.

11. 该产品不能作为保护器使用，使用时线路必须串联保护器。

This product cannot be used as a protector, and the circuit must be connected with a protector in series when using.

12. 奥凯仅做阻性电寿命验证和质量保证，产品用于有感性负载或容性负载的环境时，建议回路并联浪涌保护装置。

AOKAI only does the resistive electrical life verification and quality assurance. When the product is used in an environment with inductive load or capacitive load, it is recommended that the circuit should be connected in parallel with a surge protection device.

13. 持续工作后，断开后立即重启，会因产品处于发热状态而影响吸合电压，吸合电压会升高属合理现象。

After continuous work, restarting immediately after disconnection will affect the pull-in voltage because the product is in a hot state, and the pull-in voltage will increase, which is a reasonable phenomenon.

14. 严禁带电接线。

It is strictly prohibited to wiring when power on.