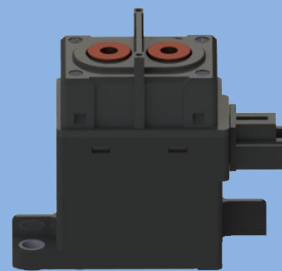




High Voltage DC Contactor

GLFW150 直流接触器



◇ 产品概述 Features

型号 Type	GLFW150
触点形式 Contact Arrangement	一组常开 1 Form A
触点材料 Contact Material	铜合金 Copper alloy
表面处理(静触点) Surface Treatment(Static Contact)	无 None
密封类型 Seal Type	陶瓷密封 Ceramic seal
外形尺寸 Outline(L×W×H)	82.3mm×39mm×69.7mm
重量 Unit Weight	350×(1±7%)g

◇ 线圈额定参数 Coil Rating

额定电压 Rated Voltage VDC	驱动方式 Driving Mode	最大工作电压 Max. Operating Voltage VDC	动作电压 Operate Voltage VDC (at 23°C)	释放电压 Release Voltage VDC(at 23°C)	线圈电阻 Coil Resistance Ω (at 23°C)	线圈额定功率 Rated Power W (at 23°C)
12	单线圈 Single coil	16	≤9	≥1.2	20.5×(1±7%)	约 7 Approx. 7
24		32	≤18	≥2.4	85×(1±7%)	

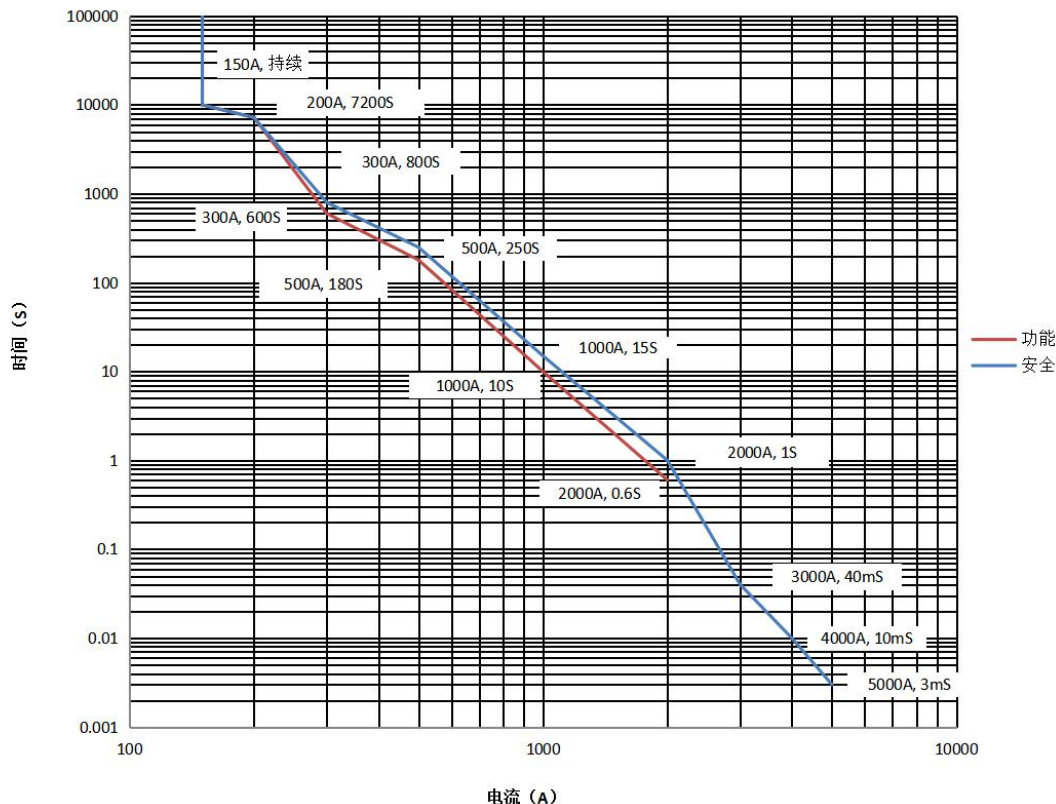
注 Notes



◇ 触点参数 Contact Specification

额定工作电流 Rated Current	150A(导体截面积 50mm ²) 150A(Wire 50mm ²)
最大切断电流 Max. Breaking Current	1500A 450VDC 3次(ops) 2000A 450VDC 1次(op)
工作电压范围 Working Voltage Range	12-800VDC
最小负载 Min. Load	1A 12VDC
接触电阻 Contact Resistance	<0.5mΩ (at 300A)
电流耐受(导体截面积 50mm ² , 85℃) Current Endurance(Wire 50mm ² , 85℃)	200A 2h 300A 10min 500A 3min

电流耐受能力
Current Endurance



注 Notes

1. 环境温度为85℃，导线截面积≥50mm²；

The ambient temperature is 85℃, and the cross-sectional area of the wire is ≥50mm²;

2. 该曲线设定功能温升温度上限为130℃，适合于长时工作制；安全温升温度上限为180℃，适合于短时工作制，如果温度超过



180°C, 接触器可能起火:

The upper limit of the function temperature rise is 130°C, which is suitable for long-time working; and the upper limit of the safe temperature rise is 180°C, which is suitable for short-time working; If the temperature exceeds 180°C, the contactor may catch fire.

◇ 耐久性 Endurance

	通断 (Making & Breaking)
电耐久性 Electrical Endurance	±150A 450VDC 2000 次 (ops)
	±200A 450VDC 1000 次 (op)
	±150A 750VDC 1000 次 (op)
	±300A 450VDC 100 次 (op)
机械耐久性 Mechanical Endurance	300,000 次 (ops)

注 Note

1. 如无特殊说明, 电耐久性测试条件为常温, 通断比为0.6s:5.4s。

Unless specified, Electrical Endurance tests are conducted in room temperature. Operating frequency: 0.6s on, 5.4s off.

◇ 性能参数 Performance

绝缘电阻 (断开触点间) Insulation Resistance (Between open contacts)	试验前 Before Test: $\geq 1000\text{M}\Omega$ (at 1000VDC) 试验后 After Test: $\geq 50\text{M}\Omega$ (at 1000VDC)
绝缘电阻 (触点与线圈间) Insulation Resistance (Between contacts and coil)	试验前 Before Test: $\geq 1000\text{M}\Omega$ (at 1000VDC) 试验后 After Test: $\geq 50\text{M}\Omega$ (at 1000VDC)
介质耐压 (断开触点间, 漏电流 $\leq 1\text{mA}$) Dielectric Strength (Between open contacts, leak current $\leq 1\text{mA}$)	试验前 Before Test: $\geq 2500\text{VAC}$, (50/60 Hz 1min) 试验后 After Test: $\geq 1875\text{VAC}$, (50/60 Hz 1min)
介质耐压 (触点与线圈间, 漏电流 $\leq 1\text{mA}$) Dielectric Strength (Between contacts and coil, leak current $\leq 1\text{mA}$)	试验前 Before Test: $\geq 2500\text{VAC}$, (50/60 Hz 1min) 试验后 After Test: $\geq 1875\text{VAC}$, (50/60 Hz 1min)



动作时间(线圈额定电压下, 23°C)

Operate Time (At rated coil voltage, 23°C) ≤50ms

释放时间(线圈额定电压下, 23°C)

Release Time (At rated coil voltage, 23°C) ≤10ms

回跳时间(线圈额定电压, 23°C)

Bounce Time (At rated coil voltage, 23°C) ≤5ms

耐冲击-误动作冲击

Shock - Functional 半正弦波, 11ms, 196m/s²

Shock - Functional 1/2 sine, 11ms, 196m/s²

耐冲击-强度冲击

Shock - Destructive 半正弦波, 6ms, 490m/s²

Shock - Destructive 1/2 sine, 6ms, 490m/s²

随机振动

Vibration 10-2000 Hz, 57.9m/s²

◇ 标准测试条件 Standards Test Condition

温度 Temperature 23±5°C

湿度 Humidity 25%~75%RH

方向 Direction of Measurement 竖直 Vertical

◇ 使用条件 Operating Condition

触点允许的最高温度(长时)

Maximum allowable temperature of contacts(Long-time) 130°C

触点允许的最高温度(短时)

Maximum allowable temperature of contacts(Short-time) 180°C

温度 Temperature -40°C~+85°C

湿度 Humidity 5%~95%RH

海拔 Altitude ≤4000m

安装方向 Mounting Direction 竖直 Vertical

◇ 贮存条件 Storage Condition



温度 Temperature

5°C ~ 30°C

湿度 Humidity

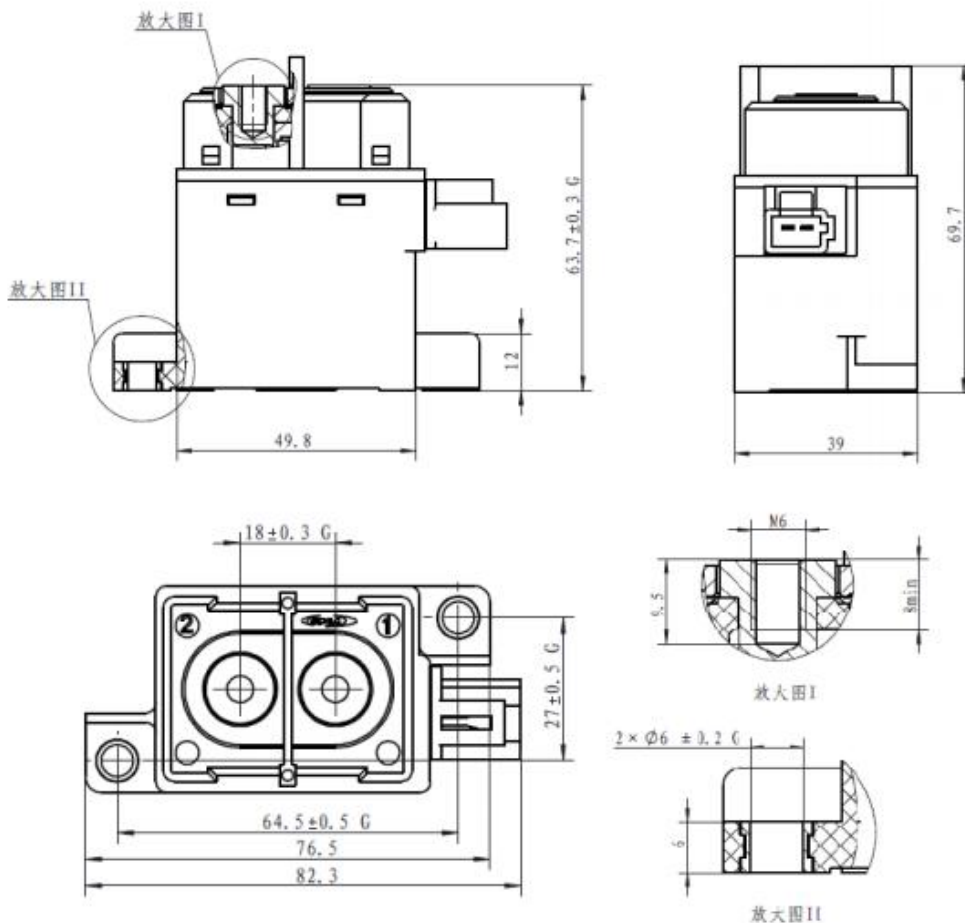
35% ~ 70%RH

◇ 产品编号规则 Product Code Structure

GLFW150	A	B
产品型号 Product Type		
触点型式 Contact Type	A: 一组常开 1 Form A	
线圈电压 Coil Voltage		B: 12VDC C: 24VDC

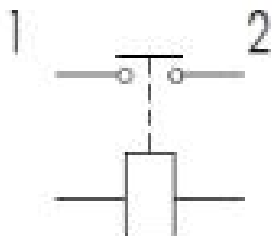
◇ 外形图 Outline Dimensions

产品型号 Product model: GLFW150AB





◇ 接线图 Wiring Diagram



负载无极性，线圈无极性

The load is nonpolar, no polarity of coil

注 Notes

1. “G” 标记为重要管控尺寸;

The sizes marked with “G” are critical;

2. 产品外形尺寸未注公差:

Outline dimensions had not specified tolerance:

尺寸 Dimension (mm)	<10	10~50	>50
公差 Tolerance (mm)	±0.25	±0.5	±0.8

3. 产品可适配矢崎或天海连接器，具体型号如下:

The default connector of the product and THB or Yazaki connector can be used, the specific models are as follows:

品牌 Brand	护套 Sheathing	插针 Pin Insertion
矢崎 Yazaki	7283-1020	7116-4020

4. 适配连接器为选配件，默认导线规格：AWM3266 22AWG，颜色为黑色。

The adapter connector is optional, the default wire specification: AWM3266 22AWG, the color is black.

5. 产品默认出货附带M6×12螺钉组件用于负载端导体安装。

The default product is shipped by default with M6x12 screw assembly for load end conductor installation.



应用信息 Application Notes

1. 产品完全符合RoHS要求，对环境更友好。

Products meet RoHS and are better for the environment.

2. 当接触器使用1个及多个导电铜排连接时，请确保导电铜排与触点端面紧密贴合（多个铜排需确保大电流的导电铜排最贴近触点端面，小电流的导电铜排其次），然后是平垫圈、弹簧垫圈、螺钉。不正确的连接顺序可能造成严重过热。

When contactor is connected with one or more busbars, please ensure that the busbars are tightly fitted to the contact terminal face (when there are multiple busbars, please ensure that the busbar with large current is closest to the contact terminal face, and the busbars with low current come next), then the flat washer, spring washer and screw. Incorrect connection order can cause severe overheating.

产品类型 Contact type	连接示意图 Connection diagram
内螺纹型 Internal thread	<p>螺钉 Screw 弹垫 Spring washer 平垫 Flat washer 导电铜排（或电缆引出片）Busbar(or cable lead) 触点端面 Main contact terminal</p>

3. 安装时请避免附着异物、油脂类及腐蚀性液体，否则会导致接触器触点端发热异常。

Please avoid foreign bodies, grease or corrosive liquids during installation, otherwise it will lead to abnormal heating at contact terminals.

4. 请避免在强磁界(变压器、磁铁的周围)和发热物体的附近安装。

Please avoid installation in strong magnetic field (around the transformers, the magnet) and the heating objects nearby.

5. 接触器安装的锁紧力矩请控制在下表规定范围内，超过范围可能导致螺纹损坏。

Please control the tightening torque during installation within the scope specified in the table below, exceeding the range may cause thread damage.

负载端安装部分 Fixing of Contact					
安装方式 Typical Installation	扭矩要求 Torque	破坏扭矩 Destructive Torque	建议铜排厚度 Recommended Copper Bar Thickness	建议铜排平面度 (安装面) Recommended Copper Bus Flatness (Mounting Surface)	建议铜排孔径 Recommended Copper Bar Aperture
M6 螺钉 M6 screw	4~6N·m	≥10N.m	2~3mm	0.1	φ 6.1~ φ 6.5mm



本体安装部分 Fixing of Body		
安装方式 Typical Installation	扭矩要求 Torque	破坏扭矩 Destructive Torque
M5 螺钉 M5 screw	3.5N•m~4.5N•m	≥15N•m

6. 在接触器线圈端并联续流二极管作为抑制反向电压的措施，会延长接触器释放时间，导致产品切断性能有所下降。建议使用钳位电压为线圈额定电压 1.5 倍以上的双向稳压二极管、TVS 管等抑制线圈反向过电压。
A parallel connection with diode for coil suppression can slow the release time of contactor, which may affect the break performance. Zener diode or TVS (Transient Voltage Suppressor) is recommended for+ back EMF suppression, but the clamp voltage of it should be 1.5 times larger than the coil rated voltage.
7. 接触器应用在容性负载回路时，请注意采取预充等措施，建议接触器闭合压差控制在 20V 以内。如未采取措施，可能会造成触点粘连。
In a capacitive load, please pre-charge the capacitive load to make sure voltage difference less than 20V when contactor pick up. The contactor may have a contact welding without such action.
8. 接触器应用在感性负载回路时，建议对感性负载并联加装浪涌吸收措施。如未采取措施，可能导致接触器切断能力有所下降。
In an inductive load, a parallel connection with surge absorber is recommended in the inductive load. It may weaken the break performance if without such protection.
9. 接触器的内部触点使用了气体保护，伴随着触点温度变化(环境温度+通电致使温度上升)而存在内部气体穿透，严禁将继电器长时间置于超过产品温度使用范围(-40 °C~+85 °C)环境中。
The contactor contacts are sealed and filled with gas. When the contact temperature changes, there is internal gas penetrating characteristic. Contactor are forbidden to be used at the temperature beyond our suggestion -40 °C~+85 °C for long time.
10. 请避免接触器在使用或运输过程中发生撞击或跌落。为保持接触器的性能，撞击或跌落后的接触器不建议继续使用。
Please avoid collision or fall in transit or use. To ensure the product performance, please do not use the contactor if there was a collision or fall.
11. 接触器在规定条件下存储时间为 2 年，超过 2 年不建议使用。
The storage time of contactors is 2 years under the specified test conditions, more than 2 years is not recommended.
12. 如需获取更多信息与支持，请联系昆山国力源通新能源科技有限公司。
Please contact GuoLi YuanTong for more information or support.