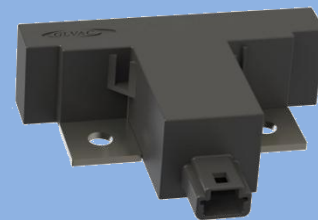




DC Contactor

GLT100 直流接触器



◇ 产品概述 Features

型号 Type	GLT100
触点形式 Contact Arrangement	一组常开 1 Form A
触点材料 Contact Material	银合金 Silver alloy
表面处理(静触点) Surface Treatment(Static Contact)	镀银 Silver plating
外形尺寸 Outline(L×W×H)	80mm×66mm×23.5mm
重量 Unit Weight	115×(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)	额定启动电流 Rated starting current A (at 23°C)	线圈额定功率 Rated Power W (at 23°C)
12	PWM 斩波控制	16	≤6.5	≥0.6	2.3×(1±7%)	5.2	启动: 约 62.6; Start: approx62.6;
48	PWM control	64	≤25	≥2.4	36.8×(1±7%)	1.3	保持: 约 1.5~2.3; Retention: approx1.5~ 2.3;

注 Note

1. 使用时需在外部线圈驱动电路设计 PWM 斩波控制节能或降压节能功能。

When in use, it is necessary to design the PWM control energy-saving or buck energy saving function in the external



coil drive circuit.

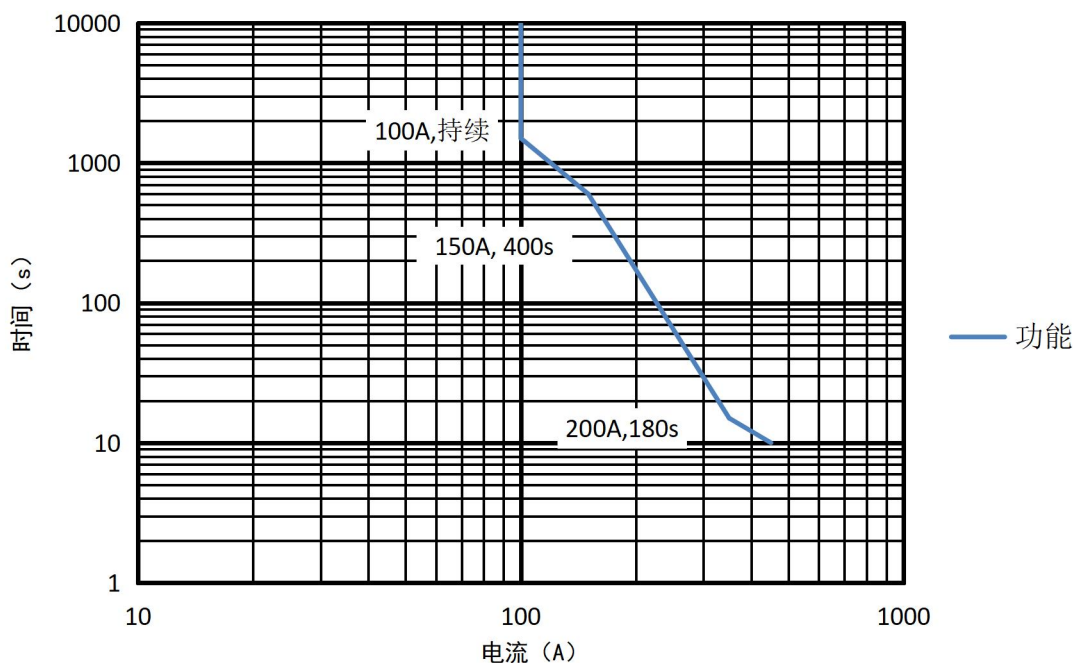
2. 采用 PWM 斩波节能控制时，涌流时间为 25~100ms:

When using PWM chopper energy-saving control, the inrush current time is 25~100ms:

◇ 触点参数 Contact Specification

额定工作电流 Rated Current	100A (导体截面积 35mm ²) 100A (wire 35mm ²)
最大切断电流 Max. Breaking Current	1000A 48VDC 1次(op)
工作电压范围 Working Voltage Range	12-60VDC
接触电阻 Contact Resistance	≤0.75mΩ (at 100A)
电流耐受(导体截面积 35mm ² , 23℃) Current Endurance(Wire 35mm ² , 23℃)	100A 持续 cont. 150A 600s 200A 180s

电流耐受能力
Current Endurance



注 Notes

1. 环境温度为23℃，导线截面积≥35mm²；

The ambient temperature is 23℃, and the cross-sectional area of the wire is ≥35mm²;

2. 该曲线设定功能温升温度上限为130℃，适合于长时工作制。

The upper limit of the function temperature rise is 130℃, which is suitable for long-time working.



◇ 耐久性 Endurance

阻性电耐久性 Electrical Endurance	通断(Making & Breaking)	±100A 48VDC 10000 次(ops)
	切断(Breaking)	±200A 48VDC 1000 次(ops)
		±300A 48VDC 30 次(op)
		±400A 48VDC 10 次(op)
	接通(Making)	±100A 48VDC 100000 次(ops)
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，外接PWM节能板控制时，通断比为0.6s: 5.4s。

Unless specified, Electrical Endurance tests are conducted in room temperature, external PWM energy saving board control, Operating frequency: 0.6s on, 5.4s off.

2. 机械耐久性测试条件为常温，外接PWM节能板控制时，通断比为0.3s: 2.7s，频率过快易导致线圈发热严重，可能影响产品正常工作。

Mechanical Endurance tests are conducted in normal room temperature, external PWM energy saving board control, operating frequency: 0.3s on, 2.7s off, too fast frequency will easily cause serious heating of the coil, which may affect the normal operation of the product.

◇ 性能参数 Performance

绝缘电阻(断开触点间) Insulation Resistance (Between open contacts)	试验前Before Test: $\geq 100M\Omega$ (at 500VDC) 试验后After Test: $\geq 50M\Omega$ (at 500VDC)
绝缘电阻(触点与线圈间) Insulation Resistance (Between contacts and coil)	试验前Before Test: $\geq 100M\Omega$ (at 500VDC) 试验后After Test: $\geq 50M\Omega$ (at 500VDC)
介质耐压(断开触点间, 漏电流 $\leq 1mA$) Dielectric Strength (Between open contacts, leak current $\leq 1mA$)	试验前Before Test: $\geq 1000VAC$, (50/60 Hz 1min) 试验后After Test: $\geq 750VAC$, (50/60 Hz 1min)
介质耐压(触点与线圈间, 漏电流 $\leq 1mA$) Dielectric Strength (Between contacts and coil, leak current $\leq 1mA$)	试验前Before Test: $\geq 1000VAC$, (50/60 Hz 1min) 试验后After Test: $\geq 750VAC$, (50/60 Hz 1min)



动作时间(线圈额定电压下, 23℃)
Operate Time (At rated coil voltage, 23℃) $\leq 8\text{ms}$

释放时间(线圈额定电压下, 23℃)
Release Time (At rated coil voltage, 23℃) $\leq 5\text{ms}$

回跳时间(线圈额定电压, 23℃)
Bounce Time (At rated coil voltage, 23℃) $\leq 5\text{ms}$

耐冲击-误动作冲击
Shock - Functional
ON: 半正弦波, 11ms, 20G
ON: 1/2 sine, 11ms, 20G
OFF: 半正弦波, 11ms, 10G
OFF: 1/2 sine, 11ms, 10G

耐冲击-强度冲击
Shock - Destructive
半正弦波, 6ms, 50G
1/2 sine, 6ms, 50G

随机振动
Vibration
10-2000 Hz, 4.5G

◇ 标准测试条件 Standards Test Condition

温度 Temperature $23 \pm 5^\circ\text{C}$

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℃~+85℃
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℃~30℃
湿度 Humidity	35%~70%RH

◇ 产品编号规则 Product Code Structure

	GLT100	H	B	- ***
产品型号 Product Type				
触点型式 Contact Type		H: 一组常开带常开辅助触点; 1 Form A with auxiliary contact;		
线圈电压 Coil Voltage			B: 12VDC F: 48VDC	
客户代码 Customer code				***

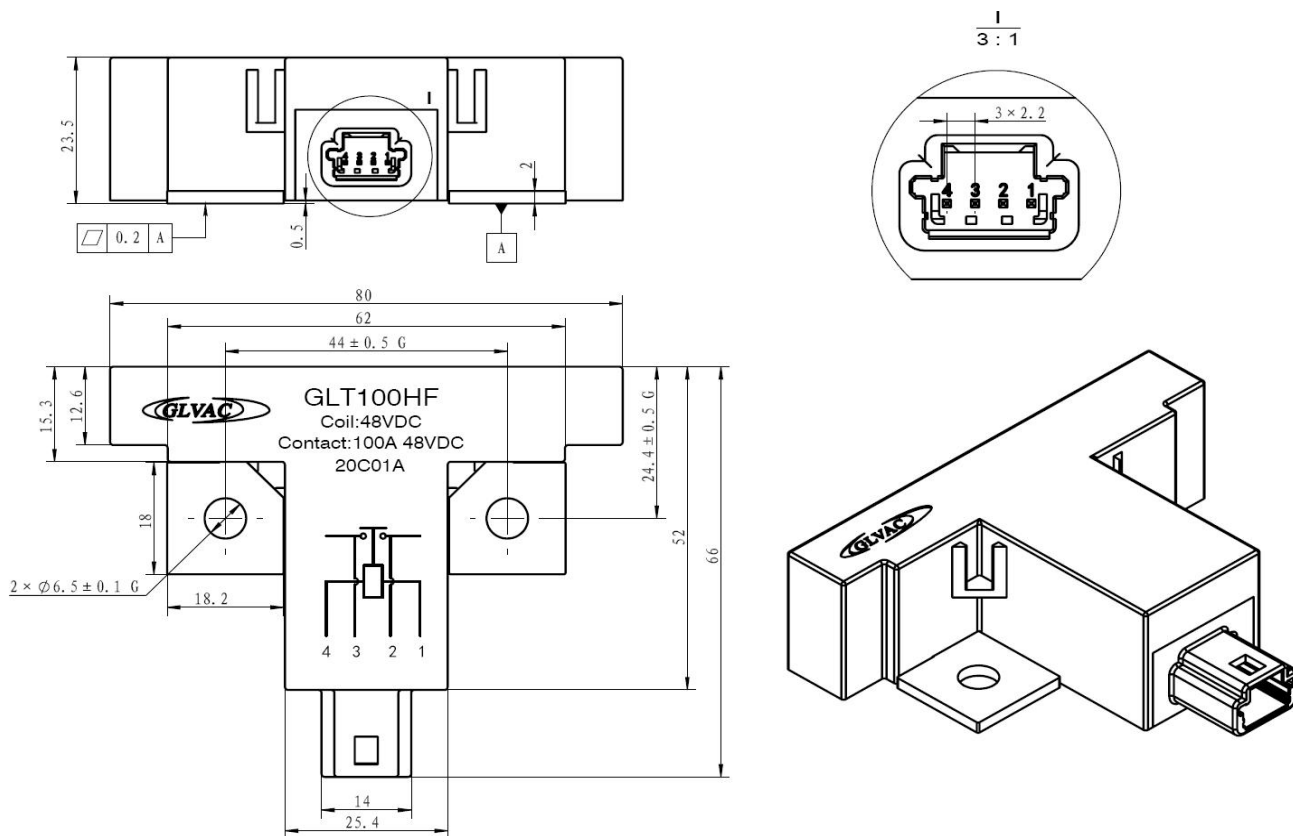
注：3、客户代码项可根据客户需求编写，也可为空。

Note:3、customer code items can be written according to customer requirements or empty.

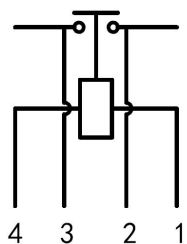


◇ 外形图 Outline Dimensions

产品型号 Product model:
GLT100H*



◇ 接线图 Wiring Diagram



负载、线圈均无极性（1，4表示线圈引出端）

No polarity on the load and coil (1, 4 refers to coil outlet)

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)	±0.3	±0.5	±0.8

3. 产品可适配泰科连接器，具体型号如下：

The default connector of the product and TE connector can be used, the specific model are as follows:

品牌 Brand	型号 model
泰科 TE	TE c-1379658-1

4. 产品默认出货不含连接器线束、螺钉、垫片、弹垫等安装配件。

The default product is shipped without connector harness、screws、washers、spring washers and other installation accessories.

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.

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。

Please control the tightening torque during installation within the scope specified in the table below.

负载端（本体）安装部分 Fixing of Contact (Body)					
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	8~10N·m	≥15N·m	2~3mm	0.1	φ 6.1~ φ 6.5mm

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 5V 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 5V 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. 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.

10. 接触器在规定条件下存储时间为1年，超过1年不建议使用。

The storage time of contactors is 1 years under the specified test conditions, more than 1 years is not recommended.

11. 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.