

## High Voltage DC Contactor / 100A Power Relay



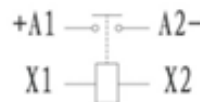
### • Features

**Ceramic seal, with high heat resistance level** - reduced risk of fire or meltdown in over current conditions. The same technology used for advanced aerospace programs.

**Fully hermetically sealed** - designed to meet: UL1604 for Class I & II, Div 2 and Class III for use in hazardous locations, IP67 for temporary water immersion for 30 min, SAE J1171 - external ignition protection, and ISO8846 for protection against ignition around flammable gasses.

**Easy to install** - base plate fixed with screws, can be installed in any direction.

**Fully ROHS compliant** - fully compliant with ROHS requirements and better for the environment.



Parameter	Ratings
Contact Arrangement	SPST-NO
Rated Operating Voltage	12VDC-800VDC
Rated Operating Current	100A (AWG3 cable - 26.7 mm <sup>2</sup> cross-section area)
Max Carrying Current (1 time)	1 Second 500A, 60 Seconds 180A, 600 Seconds 140A See Figure 2. Contact current carrying capacity
Switching Capacity	See Figure 1. Estimated switching capacity under different load conditions
Max break Current	1000A@400V, 1 time
Contact Resistance - Max @ rated carry current	1.5mΩ
Mechanical Life	300,000 times
Operate Time, 25°C Close (Max, includes bounce) Bounce (Max) Release time, includes arc time at max. break current	25ms 6ms 10ms (Note 1)
Insulation Resistance at 500VDC	100 MΩ (50 MΩ after life test)
Dielectric Withstand Voltage at Sea Level (leakage current < 1mA)	2200VRMS
Shock (11ms STW or sine)	20G
Vibration, Sine (10-2000Hz peak)	20G
Operating Ambient Temp Range	-55~85°C
Storage Ambient Temp Range	-55~125°C
Weight, Typical Value	208g

### ● Coil Ratings

Coil P/N	B	C	F
Coil Operating Voltage	12Vdc	24Vdc	48Vdc
Coil Voltage (Max)	16VdC	28VdC	52Vdc
Pick-up Voltage, 25°C (Max)	8.5Vdc	17Vdc	34Vdc
Drop-out Voltage, 25°C (Min)	0.6Vdc	0.9Vdc	1.8Vdc
Coil Current (At rated voltage, 25°C)	460mA	250mA	122mA
Coil Resistance (±5%Ω at 25°C)	26	100	400
Coil Power Dissipation (At rated voltage, 25°C)	5.5W	5.8W	6.0W
Pick-up Voltage, 85°C (Max)	9.6Vdc	19.2Vdc	38.4Vdc

Note 1. Release time is tested when coil terminal is not connected with diode in parallel which will reduce the load switching capacity of contactor. We suggest connect with Bi-directional zener diode in parallel to reduce the reverse over-voltage while the coil is disconnected.

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● Resistive Load Life at Different Voltages

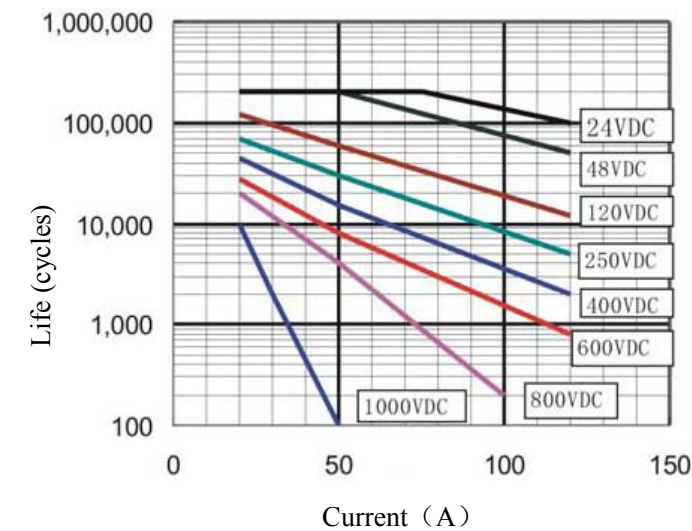


Figure 1

● Current Carrying Capacity

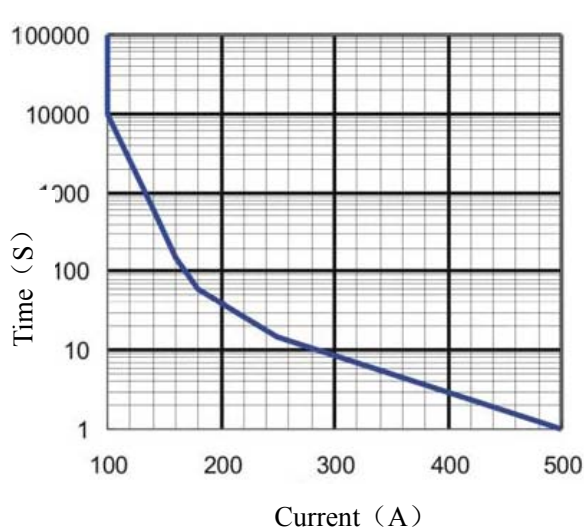


Figure 2

Notes:

- 1. Electrical life rating is based on resistive load with 27μH maximum inductance in circuit. Because your application may be different, we suggest you test the contactor in your circuit to verify life is as required.
- 2. AWG3 cables are used in above test. (26.7mm<sup>2</sup> cross-section area)

● Part Number System

GL100	A	C	A	N	A
Contact Form:	A=Normally Open				
Coil Voltage:	B=12VDC; C=24VDC; F=48VDC				
Coil Wire Length:	A=15.3 in (390mm) Note: Length tolerance of lead is ±10mm				
Coil Terminal Connector:	N=None				
Mounting & Large Current Terminals:	A=Horizontal Mount, 7mmX M5 Terminals B=Horizontal Mount, M5 Internal Thread				

