

DC HIGH VOLTAGE EV LATCH RELAY

EVL250



▶ **응용분야 (Application)** : Electric Vehicle, Charging System, Battery Energy Storage System, Solar System, Golf Car, Fuel Cell Vehicle, Helicopter, etc.

▶ **코일정격 (Magnet coil ratings)**

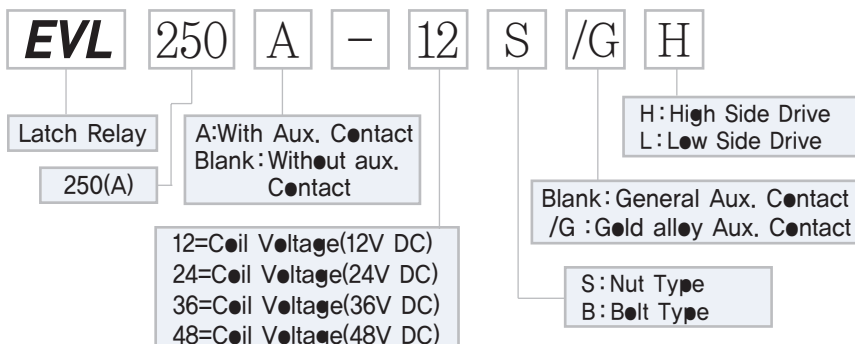
Nominal voltage(V)	Item	Inrush Coil current (Max.)	Pick-up Holding Time (ms)	Pick-up voltage (V)	Drop-out voltage (V)	Drop-out Time (ms)	Max. voltage (V)Max.
12		2.5A	50~100ms	9.0VDC	9.0VDC	50~100ms	15VDC
24		1.5A	50~100ms	18.0VDC	18.0VDC	50~100ms	30VDC
36		1.0A	50~100ms	27.0VDC	27.0VDC	50~100ms	45VDC
48		0.75A	50~100ms	36.0VDC	36.0VDC	50~100ms	60VDC

Notes : 1, Nominal current and coil resistance are measured at +20°C. 2, Differences of coil resistance are ±10%. 3, Performance characteristic coil temperature is measured at +20°C.

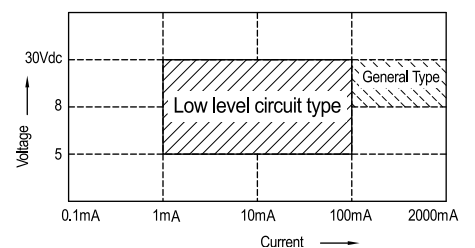
▶ **접점정격 (Contact ratings)**

Item	Type	1Pole Resistive load (L/R≤1ms)
		EVL250
Max. Continuous current (wire size 185mm ²)		300A
Max. switching current		250A
Max. switching voltages		1000VDC 80A
Contact rating switching voltages		12~1000VDC
Max. cut-off current		300VDC 1000A 10 Ops
		300VDC 1500A 3 Ops
C-R load (charging)		500V 1500A 4,000 Ops
		500V 500A 30,000 Ops
Voltage drop across contacts per 100A		30mV Max.
Min. permissible load		12VDC 0.5A
Description		S.P On/Off (a)
Contact Arrangement, auxiliary contacts		1Form A (SPST-NO.)
General Aux. Contact Current, Max.		2A 30VDC / 3A 125VAC
General Aux. Contact Current, Min.		100mA 8VDC
Gold alloy Aux. Contacts Max.		0.1A 30VDC / 0.1A 30VAC
Gold alloy Aux. Contacts Min.		1mA 5VDC / 1mA 5VAC

▶ **주문방법 (Ordering information)**



Permissible load of Aux. contact



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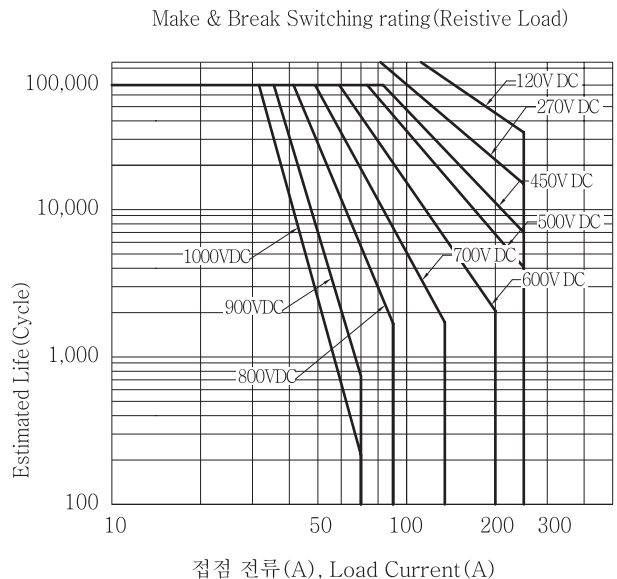
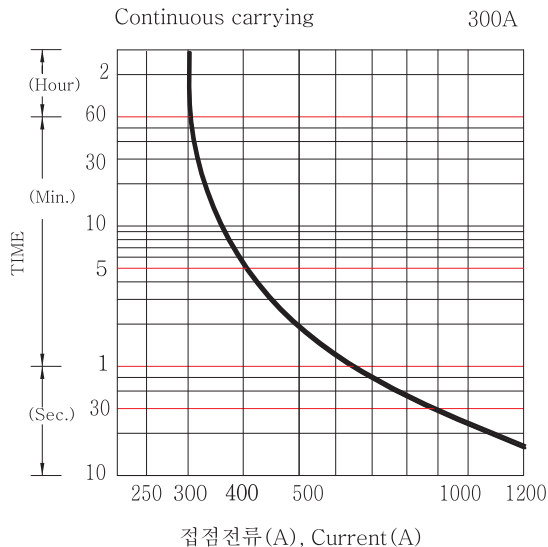
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▶ 성능 (Characteristics)

Expected life	Mechanical (Min.)		2×10 ⁶
	Electric (Min.) (L/R≤1ms)	450V DC 250A	6×10 ³
		250V DC 250A	10 ⁵
Initial insulation resistance			Min. 100MΩ 500V DC
Initial breakdown voltage	Between open contacts		3500VAC 60 Sec. 5mA
	Between contacts & coil		3500VAC 60 Sec. 5mA
Operate time (at 20°C)			Max. 10ms
Release time (at 20°C)			Max. 10ms
Shock resistance	Functional		Min 196 % {20G}
	Destructive		Min 490 % {50G}
Vibration resistance	Functional		100 % {20G} 80 to 2000Hz
	Destructive		100 % {20G} 80 to 2000Hz
Conditions for operation transport and storage	Ambient temperature		-40°C to +85°C
	Humidity		5 to 85% R.H.
Unit weight			460g

▶ 특성곡선 (Reference data)

- 온도상승곡선
 - 통전시간의 최대치 Max, Current capacity
Max, Continuous thermal current rating (amperes)
- 전기적 수명 곡선
(Estimated Switching Ratings)



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공차 (Tolerance) : 10mm 이하 ±0.3, 10~50mm ±0.6, 50mm 이상 ±1.0

외형치수도 (Dimension in mm)

(Nut Type)

**PH(±) SCREW M6 X 1.0(PITCH)
S.P/WASHER M6 X 10(LEGNTH)**

**2-M5-M6 BOLT
MOUNT SCREW**

A1"+" Positive terminal

Coil Lead (22AWG)

Aux. Contact Lead wire with only EVL 250A(White, 22AWG)

Ø55.4

M6 main terminals to be tighten within the range 5.2~6.6Nm(51.1~64.9kgf.cm)

Mounting Dimmension

2-Ø6.0

68.3

To be tighten within the range 3.1~4Nm(30.8~39.2kgf.cm)

Schematic (Top View)
Load Side has polarities (+) and (-).

H : HIGH SIDE DRIVE

(+)A1 (-)A2
RED(+) (SET) BLACK(-) (COMMON)
White(+) (RESET)

L : LOW SIDE DRIVE

(+)A1 (-)A2
RED(+) (COMMON) BLUE(-) (SET)
BLACK(-) (RESET)

(Bolt Type)

**M8 X 1.25 POWER TERMINALS
2 X M8 WASHER, STAINLESS
2 X M8 LOCKWASHER-SPLIT RING, STAINLESS
2 X M8 x 1.25 NUT, STAINLESS**

**2-M5-M6 BOLT
MOUNT SCREW**

A1"+" Positive terminal

Coil Lead (22AWG)

Aux. Contact Lead wire with only EVL 250A(White, 22AWG)

Ø55.4

M6 main terminals to be tighten within the range 8.8~11Nm(80~100kgf.cm)

Mounting Dimmension

2-Ø6.0

68.3

To be tighten within the range 3.1~4Nm(30.8~39.2kgf.cm)

Schematic (Top View)
Load Side has polarities (+) and (-).

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(+)A1 (-)A2
RED(+) (COMMON) BLUE(-) (SET)
BLACK(-) (RESET)