

# DC HIGH VOLTAGE EV LATCH RELAY

## EVL250

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

### Magnet coil ratings (코일정격)

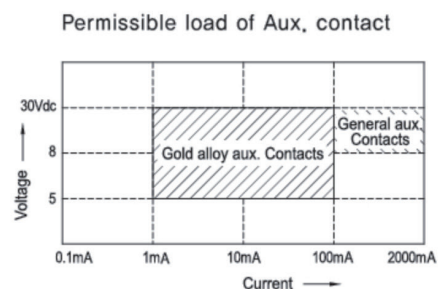
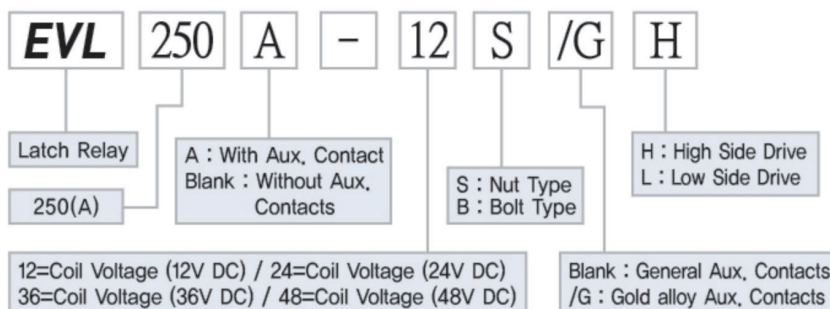
Nominal voltage(V)	Item	Inrush Coil current (Max.)	Pick-up Holding Time (ms)	Pick-up voltage(V)	Drop-out voltage (V)	Drop-out Time (ms)	Max. voltage (V)
12		2.5A	50 to 100ms	9.0VDC	9.0VDC	50 to 100ms	15VDC
24		1.5A	50 to 100ms	18.0VDC	18.0VDC	50 to 100ms	30VDC
36		1.0A	50 to 100ms	27.0VDC	27.0VDC	50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

Notes : 1. Nominal current and coil resistance are measured at  $\pm 20^{\circ}\text{C}$ . 2. Differences of coil resistance are  $\pm 10\%$ .  
3. Performance characteristic coil temperature is measured at  $\pm 20^{\circ}\text{C}$ .

### Contact ratings (접점정격)

Item	Type	1 Pole Resistor load
		EVL250
Max. Continuous current (wire size 185mm <sup>2</sup> )		300A
Max. switching current		250A
Max. switching voltages		1000VDC 80A
Contact Rating switching voltages		12 to 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. (At 5VDC)
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

### Ordering information (주문방법)





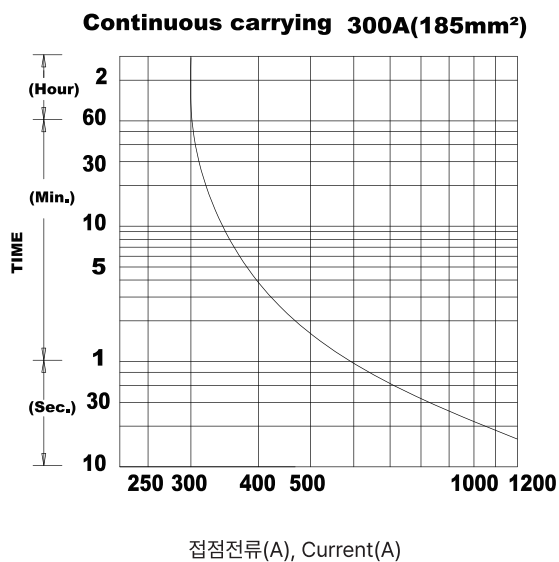
## Characteristics (성능)

Expected life	Mechanical (Min.)		5×10 <sup>5</sup>
	Electric (Min.) (Resistor)	450VDC 250A	6×10 <sup>3</sup>
		250VDC 250A	1×10 <sup>4</sup>
Initial insulation resistance			Min. 100MΩ 500VDC
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. 147 m/s <sup>2</sup> {15G}
	Destructive		Min. 490 m/s <sup>2</sup> {50G}
Vibration resistance	Functional		98 m/s <sup>2</sup> {10G} 10 to 500Hz
	Destructive		98 m/s <sup>2</sup> {10G} 10 to 500Hz
Conditions for operation, transport and storage	Ambient temperature		-40°C to +85°C
	Humidity		5 to 85% R.H.
Unit weight			460g

## Reference data (특성곡선)

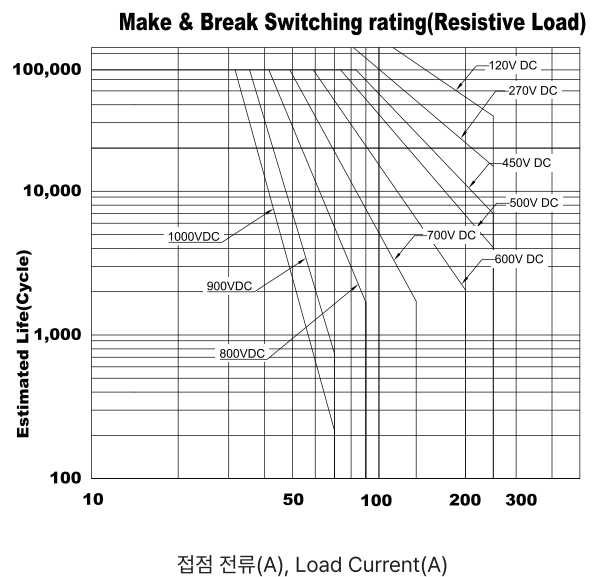
### 온도상승곡선

- 통전시간의 최대치 Max. Current capacity
- Max. Continuous thermal current rating (amperes)



### 전기적 수명 곡선

(Estimated Switching Ratings)



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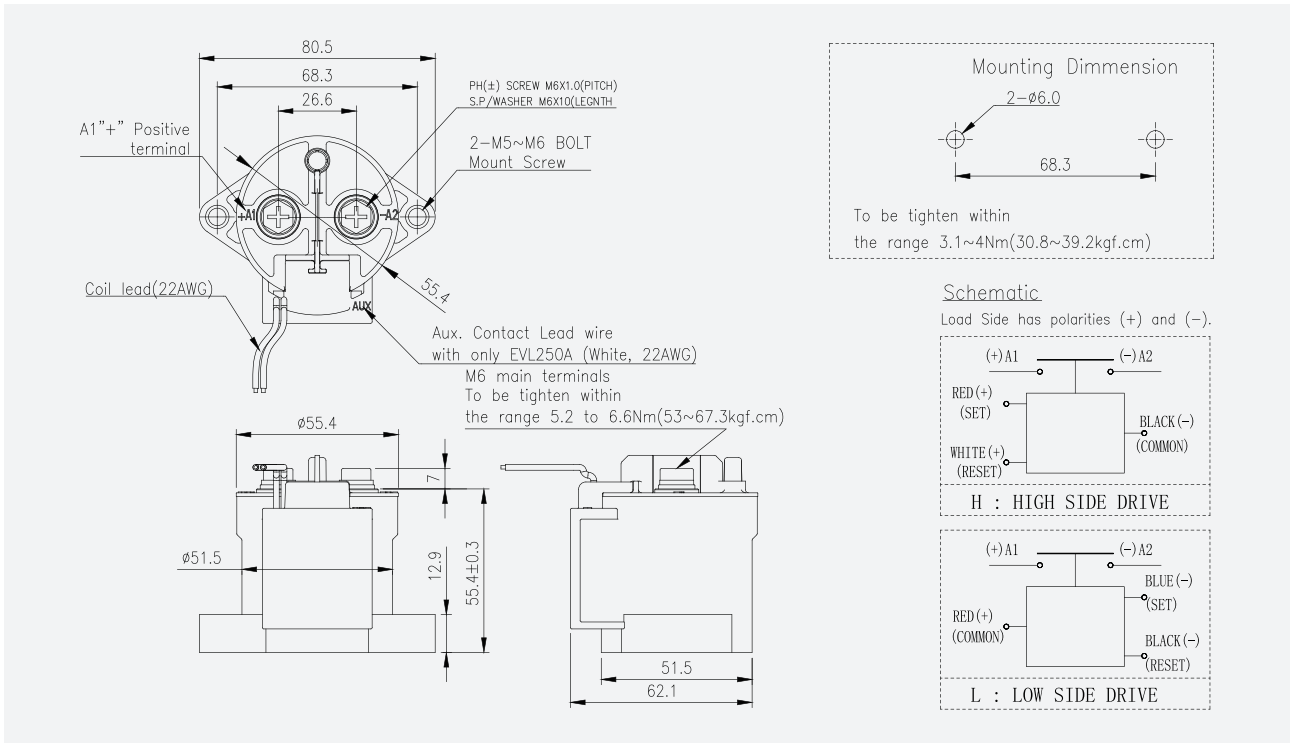
## EVL250



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

### Dimension in mm (외형치수도)

(N : Nut Type)



(B : Bolt Type)

