

DC HIGH VOLTAGE EV RELAY

EVR50



EVR50

▶ **응용분야 (Application)** : Pre-Charge Relay, Electric Vehicle, Charging System, Solar System Heating System, etc.

▶ **코일정격 (Magnet coil ratings)**

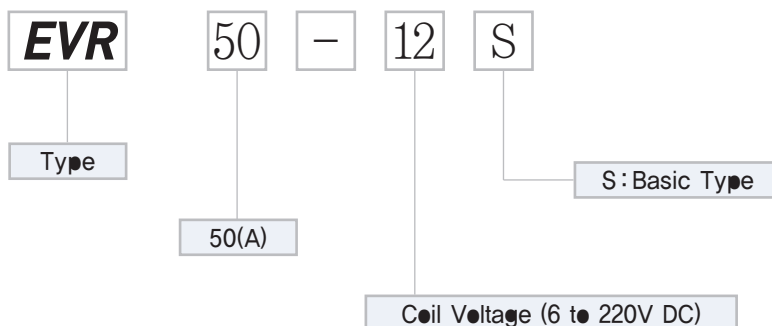
Nominal voltage(V)	Item	Nominal Coil current (mA)	Coil resistance (Ω)	Pick-up voltage (V)Max.	Drop-out voltage (V)Min.	Max. voltage (V)Max.	Coil power(W) dissipation
DC	220	17	14,500	75%	10%	130%	3 ~ 3.5
	110	29	3,750				
	72	45	1,600				
	60	54	1,120				
	48	66	730				
	36	90	400				
	24	133	180				
	12	267	45				
	6	545	11				

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)
		EVR50
Max. switching current (wire size 10mm ²)		50A
Max. switching capacity		1200VDC 10A
Contact rating switching voltages		12~1200VDC
Max. contact performance (wire size 10mm ²)		150A 30Sec.
		250A 10Sec.
Voltage drop across contacts per 50A		0.25V max.
Min. permissible load		12V DC 0.5A
Description		S.P On/Off, (1a)

▶ **주문방법 (Ordering information)**



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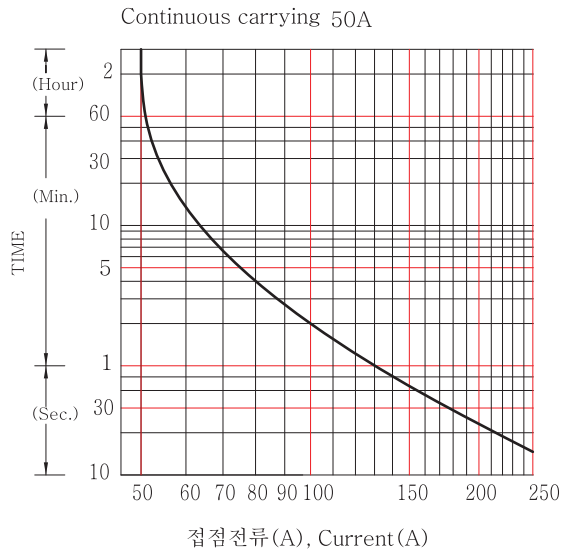


▶ 성능 (Characteristics)

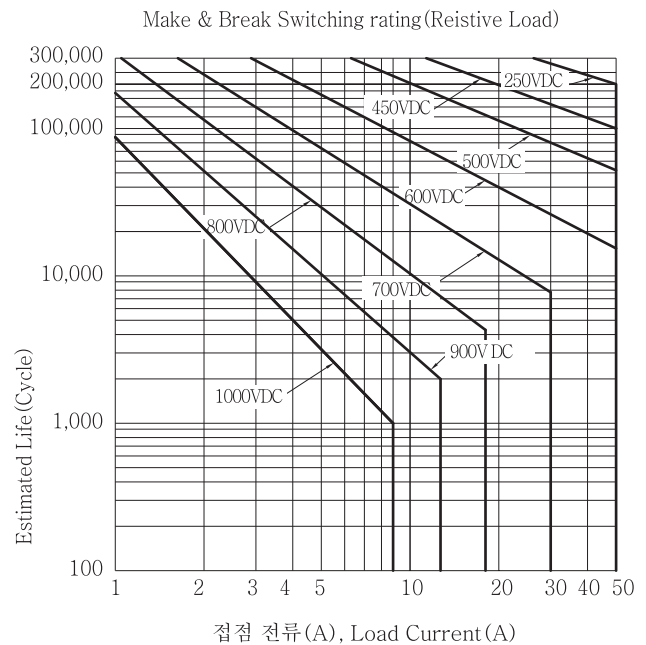
Initial insulation resistance		Min. 100M Ω 500V DC
Expected life	Mechanical (Min.)	
	Electric (L/R \leq 1ms)	450V DC 50A
		250V DC 50A
Initial breakdown voltage	Between open contacts	2500V AC 60 Sec. 10mA
	Between contacts & coil	2500V AC 60 Sec. 10mA
Operate time (at 20 $^{\circ}$ C)		Max. 20ms
Release time (at 20 $^{\circ}$ C)		Max. 5ms
Shock resistance	Functional	Min 196 % {20G}, (10 μ s)
	Destructive	Min 490 % {50G}
Vibration resistance	Functional	43 % {4.4G} 10 to 200Hz, (10 μ s)
	Destructive	43 % {4.4G} 10 to 200Hz
Conditions for operation transport and storage	Ambient temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
	Humidity	5 to 85% R.H.
Unit weight		110g

▶ 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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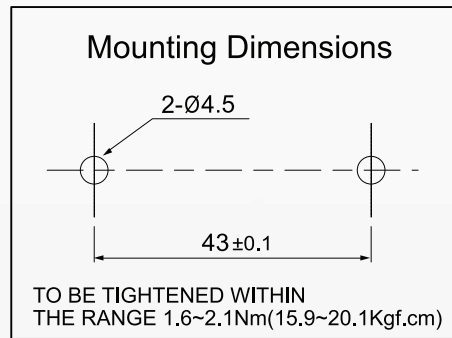
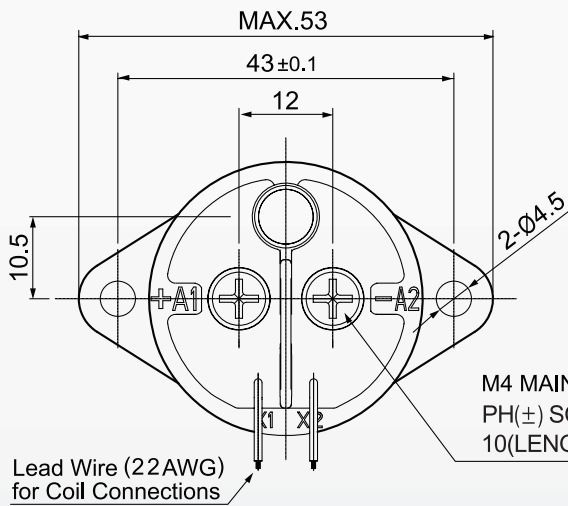
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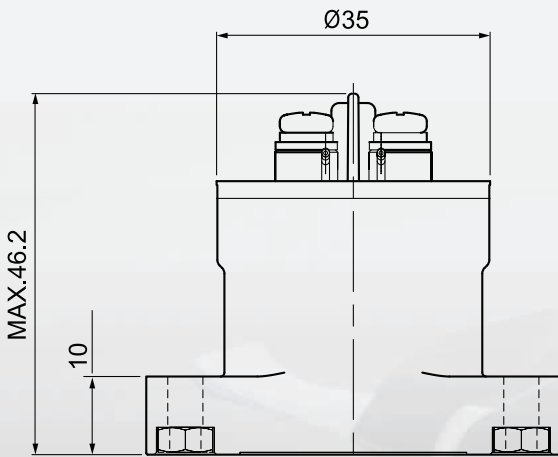
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▶ 외형치수도 (Dimension in mm)

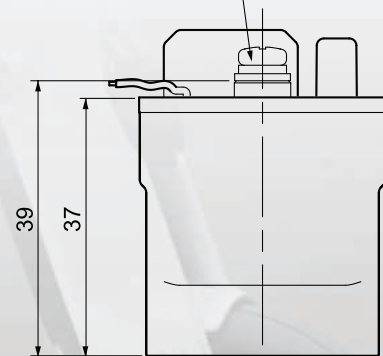
공차 (Tolerance) : 10mm 이하 ±0.3, 10~50mm ±0.6, 50mm 이상 ±1.0



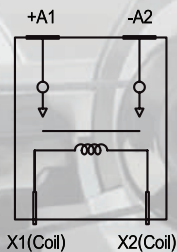
M4 MAIN TERMINALS
PH(±) SCREW M4X0.7(PITCH)
10(LENGTH) S.P/WASHER



M4 MAIN TERMINALS
TO BE TIGHTENED WITHIN
THE RANGE 1.6~2.1Nm(15.9~20.1Kgf.cm)



Schematic (Top View)



Load Side has polarities (+) and (-)