

DC HIGH VOLTAGE EV RELAY

EVR50

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

Magnet coil ratings (코일정격)

Nominal voltage (V)	Item	Nominal Coil current (mA)	Coil resistance (Ω)	Pick-up voltage (V) max.	Drop-out voltage (V) min.	Max. voltage (V)	Coil power (W) dissipation
DC	220	17	14,500	75%	10%	130%	3 to 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				

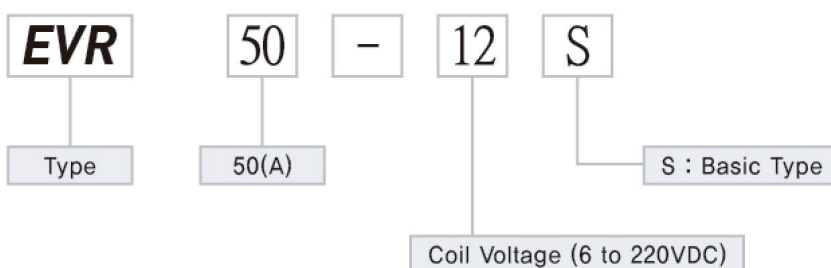
Notes : 1. Nominal current and coil resistance are measured at +20°C
 3. Performance characteristic coil temperature is measured at +20°C

2. Differences of coil resistance are ±10%

Contact ratings (접점정격)

Item	Type	1 Pole Resistor load
		EVR50
Max. switching current (wire size 10mm ²)		50A
Max. switching capacity		1200VDC 10A
Contact rating switching voltages		12 to 1200VDC
Max. contact performance (wire size 10mm ²)		150A 30Sec.
		250A 10Sec.
Voltage drop across contacts per 50A		0.25V Max. (At 5VDC)
Min. permissible load		12VDC 0.5A
Description		S.P On/Off (1a)

Ordering information (주문방법)





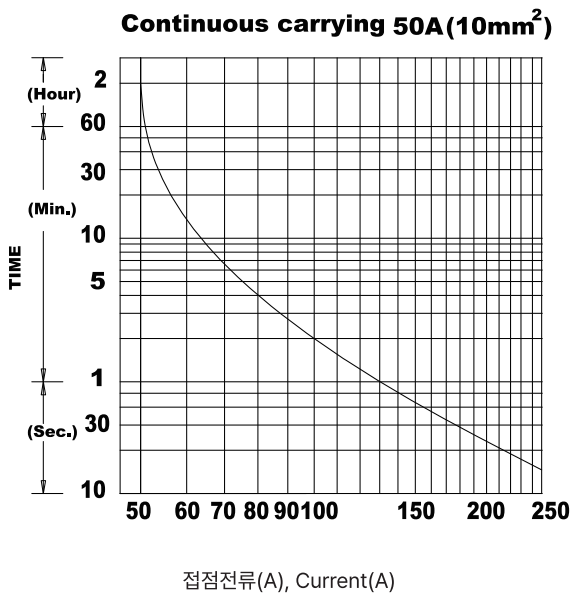
⊙ Characteristics (성능)

Expected life	Mechanical (Min.)		2×10 ⁶
	Electric (Min.) (Resistor)	450VDC 50A	1×10 ⁵
		250VDC 50A	2×10 ⁵
Initial insulation resistance			Min. 100MΩ 500VDC
Initial breakdown voltage	Between open contacts		2500VAC 60 Sec. 10mA
	Between contacts & coil		2500VAC 60 Sec. 10mA
Operate time (at 20°C)			Max. 20ms
Release time (at 20°C)			Max. 5ms
Shock resistance	Functional		Min. 196 m/s ² {20G}, (10μs)
	Destructive		Min. 490 m/s ² {50G}
Vibration resistance	Functional		43 m/s ² {4.4G} 10 to 200Hz, (10μs)
	Destructive		43 m/s ² {4.4G} 10 to 200Hz
Conditions for operation transport and storage	Ambient temperature		-40°C to +85°C
	Humidity		5 to 85% R.H.
Unit weight			110g

⊙ Reference data (특성곡선)

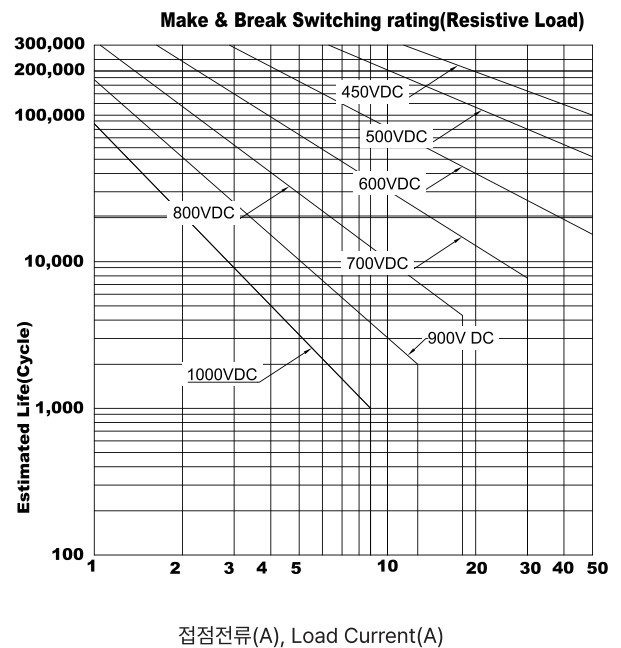
온도상승곡선

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



전기적 수명 곡선

(Estimated Switching Ratings)



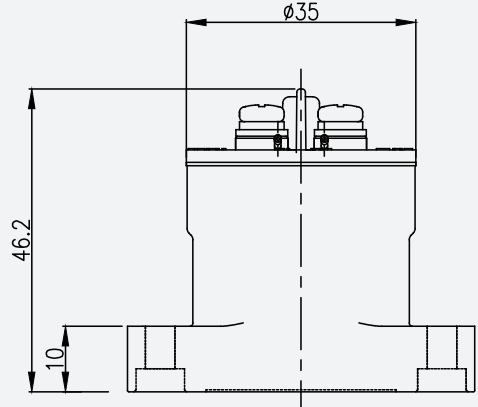
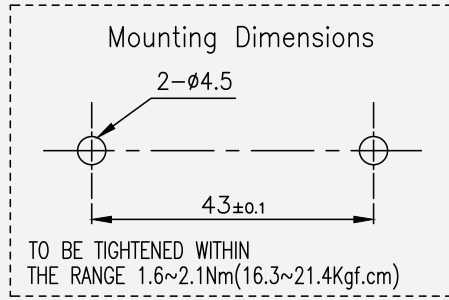
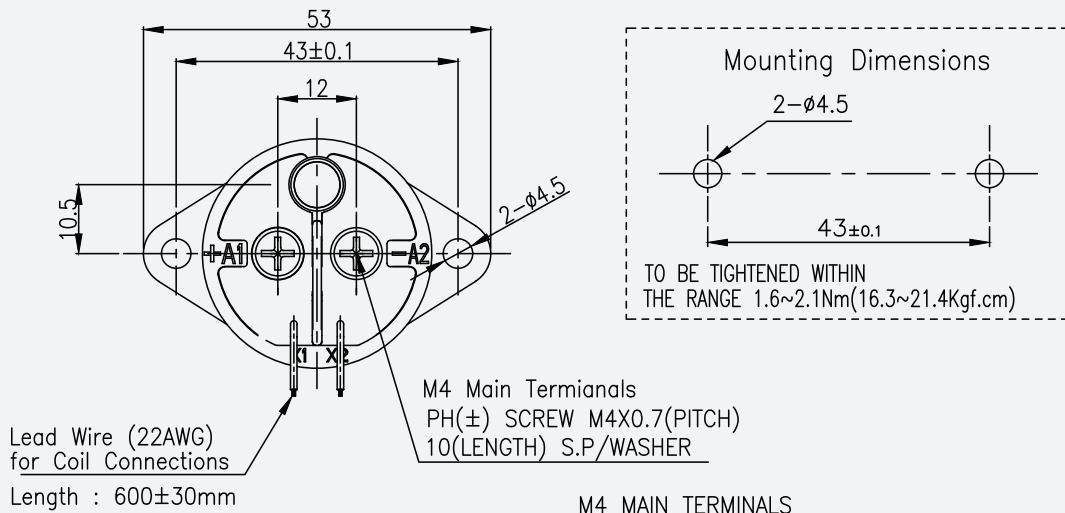
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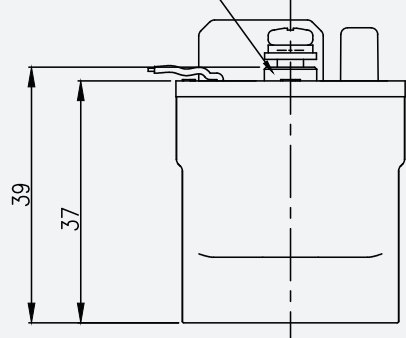


Dimension in mm (외형치수도)

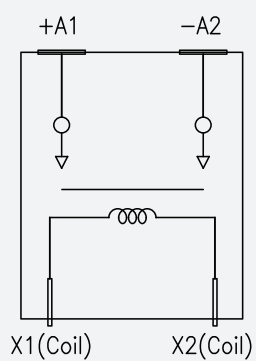
Tolerance(공차) : 10mm 이하±0.3, 10~50mm ±0.6, 50mm 이상±1.0



M4 MAIN TERMINALS
TO BE TIGHTENED WITHIN
THE RANGE 1.6~2.1Nm(16.3~21.4Kgf.cm)



Schematic (Top View)



Load Side has polarities (+) and (-)