

DC HIGH VOLTAGE Bi-directional SWITCHING RELAY

EVHB500

(H: 1500V Class)



▶ **응용분야 (Application)** : Electric Vehicle, Charging System, Battery Energy Storage System, Solar System, etc. Bi-directional switching systems and AC systems. 양방향 직류 스위치 및 교류 스위칭 시스템

▶ **코일정격 (Magnet coil ratings)**

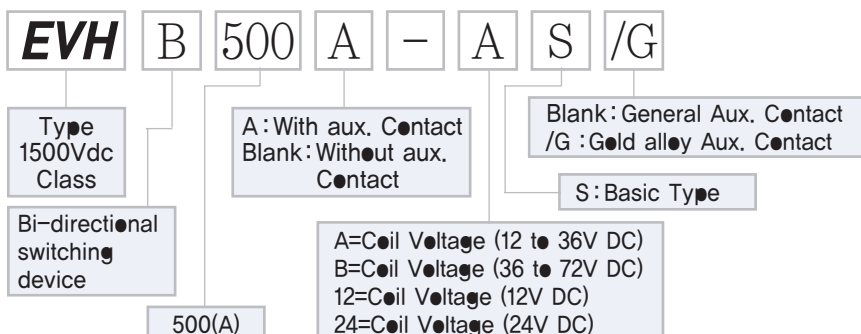
Nominal voltage(V)	Item	Inrush Coil current 100ms (Max.)	Holding Coil current (mA)	Pick-up voltage (V)Max.	Drop-out voltage (V)Min.	Holding voltage (V)Min.	Max. voltage (V)Max.
B	72	1.3A	0.06A	32VDC	18VDC	22VDC	95VDC
	60		0.08A				
	36		0.12A				
A	36	3.8A	0.1A	9VDC	6VDC	7.5VDC	36VDC
	24		0.16A				
	12		0.35A				
12		1.4A	0.32A	9VDC	6VDC	7.5VDC	18VDC
24		1.1A	0.16A	18VDC	12VDC	13.5VDC	32VDC

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.

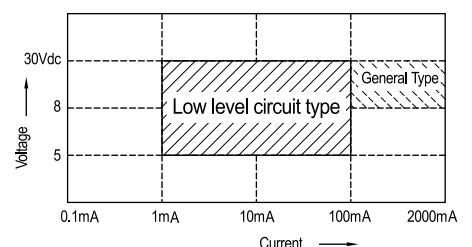
▶ **접점정격 (Contact ratings)**

Item	Type	1Pole Resistive load (L/R≤1ms)	
		EVHB500	
Continuous current (wire size 325mm ²)		500A	
Max. switching current		750V DC 500A	UL Certification
		1000V DC 300A	
		1500V DC 100A	
Max. switching Voltages		1500VDC / 1000VAC	
Contact Rating switching voltages		12~1500VDC / 1000VAC	
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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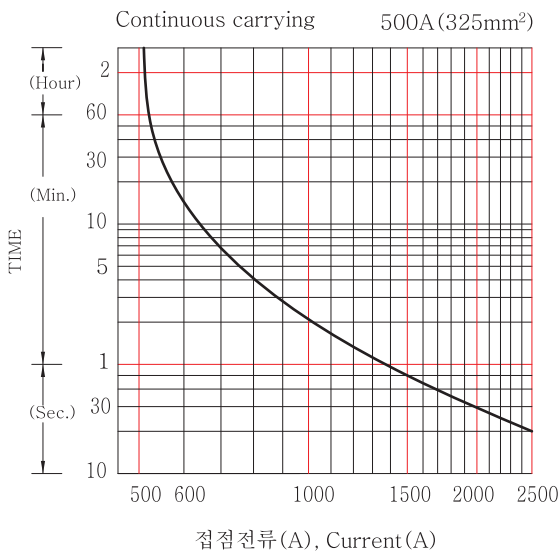
EVHB500

▶ 성능 (Characteristics)

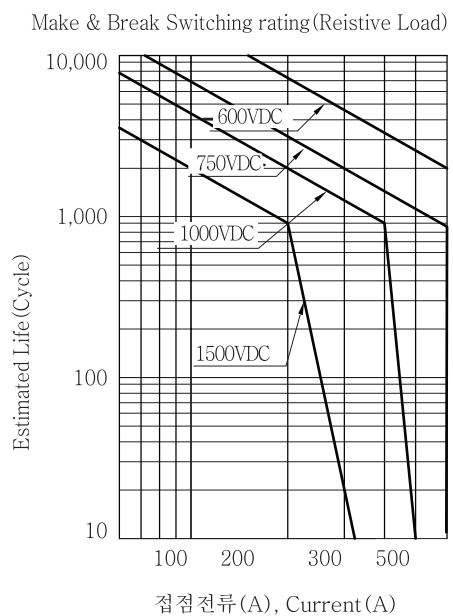
Expected life	Mechanical (Min.)		2×10 ⁶
	Electric (L/R≤1ms)	750V DC(+),(-) 500A	1×10 ³
		1000V DC(+),(-) 300A	1×10 ³
		1500V DC(+),(-) 100A	1×10 ³
Initial insulation resistance			Min. 100M Ω 500V DC
Initial breakdown voltage	Between open contacts		4500V AC 60 Sec. 5mA
	Between contacts & coil		4500V AC 60 Sec. 5mA
Operate time (at 20°C)			Max. 40ms
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			980g

▶ 특성곡선 (Reference data)

- 온도상승곡선
 - 통전시간의 최대치 Max, Current capacity
Max, Continous thermal current rating (amperes)



- 전기적 수명 곡선
(Estimated Switching Ratings)



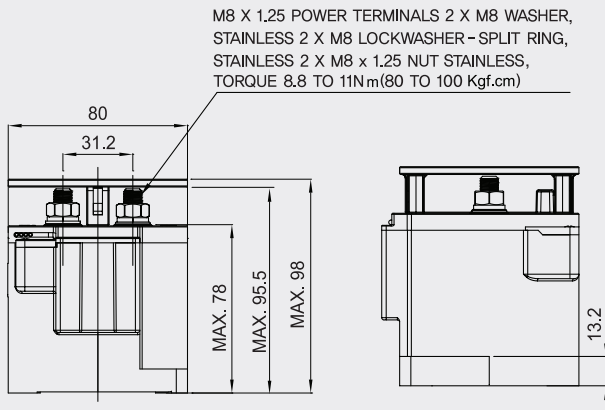
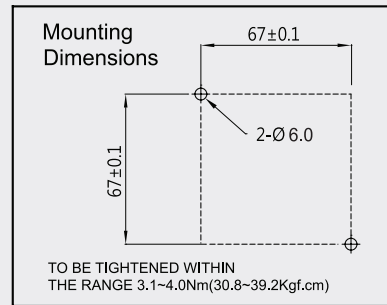
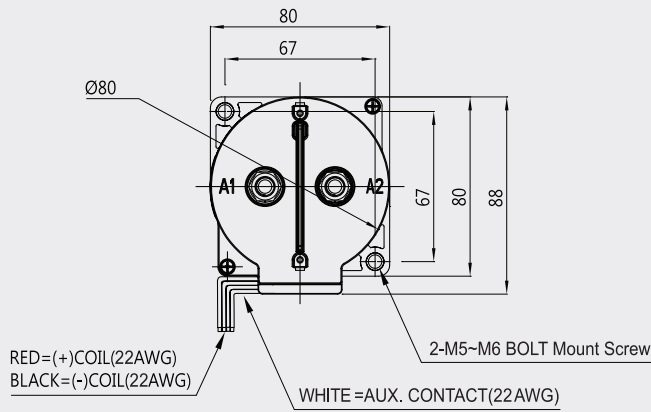
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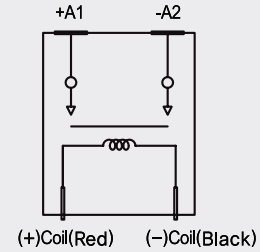
▶ 외형치수도 (Dimension in mm)

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



Schematic (Top View)

EVHD500 dont have polality on the main contacts



▶ 응용 회로 (Application Circuit)

