

## DC HIGH VOLTAGE EV RELAY

# EVR400-S/B (Normal Close Contact)



EVR400-S/B

▶ 응용분야 (Application) : Elarth device of Solar Power Systems

▶ 코일정격 (Magnet coil ratings)

| Nominal voltage(V) | Item | Inrush Coil current 150ms(Max.) | Holding Coil current | Pick-up voltage (V)max. Contact Closing → pening | Drop-out voltage (V)min. (Contact Opening → Closing) | Holding voltage (V)min (Contact:Opening) | Max. voltage (V) |
|--------------------|------|---------------------------------|----------------------|--------------------------------------------------|------------------------------------------------------|------------------------------------------|------------------|
| A                  | 36   | 4.0A                            | 0.2A                 | 9VDC                                             | 6VDC                                                 | 7.5VDC                                   | 36VDC            |
|                    | 24   |                                 | 0.25A                |                                                  |                                                      |                                          |                  |
|                    | 12   |                                 | 0.3A                 |                                                  |                                                      |                                          |                  |
| 12                 |      | 4.0A                            | 0.3A                 | 9VDC                                             | 6VDC                                                 | 7.5VDC                                   | 18VDC            |
| 24                 |      | 2.7A                            | 0.3A                 | 18VDC                                            | 12VDC                                                | 13.5VDC                                  | 32VDC            |

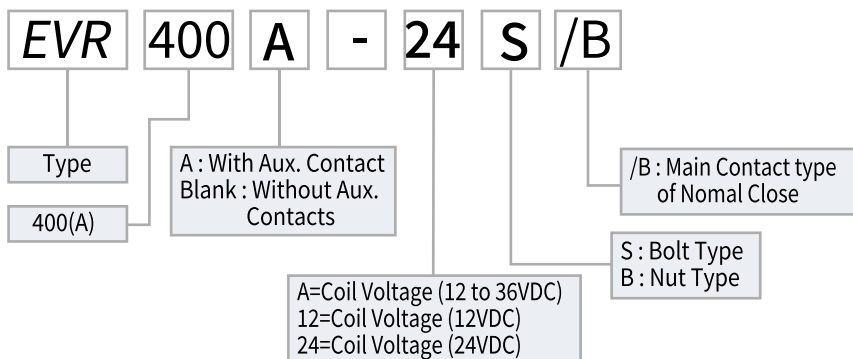
Notes : 1. Nominal current and coil resistance are measured at +20°C. 2. Differences of coil resistance are  $\pm 10\%$ .  
3. Performance characteristic coil temperature is measured at +20°C.

▶ 접점정격 (Contact ratings)

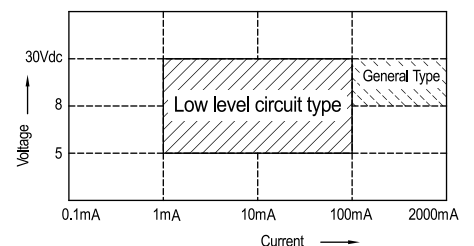
| Item                                                      | Type | 1Pole Resistor load |                     |
|-----------------------------------------------------------|------|---------------------|---------------------|
|                                                           |      | EVR400-S/B          |                     |
| Max. Continuous current (wire size 150mm <sup>2</sup> ×2) |      | 500A                |                     |
| Max. switching current                                    |      | 1200VDC 80A         | UL<br>Certification |
|                                                           |      | 1000VDC 90A         |                     |
|                                                           |      | 1200VDC 80A         |                     |
|                                                           |      | 1000VDC 100A        |                     |
| Contact rating switching voltages                         |      | 12~1500VDC          |                     |
| Voltage drop across contacts per 100A                     |      | 30mV Max. (At 5VDC) |                     |
| Min. permissible load                                     |      | 12VDC 0.5A          |                     |
| Description                                               |      | S.P On/Off (b)      |                     |
| Contact Arrangement                                       |      | 1Form B (SPST-NC.)  |                     |

Notes : EVR400- S/B is without aux. contact.

▶ 주문방법 (Ordering information)



Permissible load of Aux. contact



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# EVR400-S/B

## (Normal Close Contact)



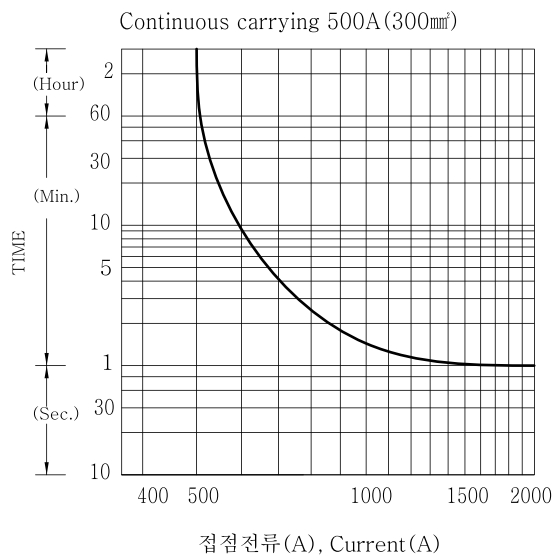
### ▶ 성능 (Characteristics)

|                                                            |                               |              |                                         |
|------------------------------------------------------------|-------------------------------|--------------|-----------------------------------------|
| Expected life                                              | Mechanical (Min.)             |              | $5 \times 10^5$                         |
|                                                            | Electric (Min.)<br>(Resistor) | 450VDC 400A  | $3 \times 10^3$                         |
|                                                            |                               | 250VDC 400A  | $1 \times 10^4$                         |
|                                                            |                               | 1000VDC 100A | $1 \times 10^4$                         |
| 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) (Contact closing → Contact opening) |                               |              | Max. 30ms                               |
| Release time (at 20°C) (Contact opening → Contact closing) |                               |              | Max. 10ms                               |
| Shock resistance                                           | Functional                    |              | Min 196 m/s <sup>2</sup> {20G}          |
|                                                            | Destructive                   |              | Min 490 m/s <sup>2</sup> {50G}          |
| Vibration resistance                                       | Functional                    |              | 196 m/s <sup>2</sup> {20G} 80 to 2000Hz |
|                                                            | Destructive                   |              | 196 m/s <sup>2</sup> {20G} 80 to 2000Hz |
| Conditions for operation<br>transport and storage          | Ambient temperature           |              | -40°C to +85°C                          |
|                                                            | Humidity                      |              | 5 to 85% R.H.                           |
| Unit weight                                                |                               |              | 660g                                    |

### ▶ 특성곡선 (Reference data)

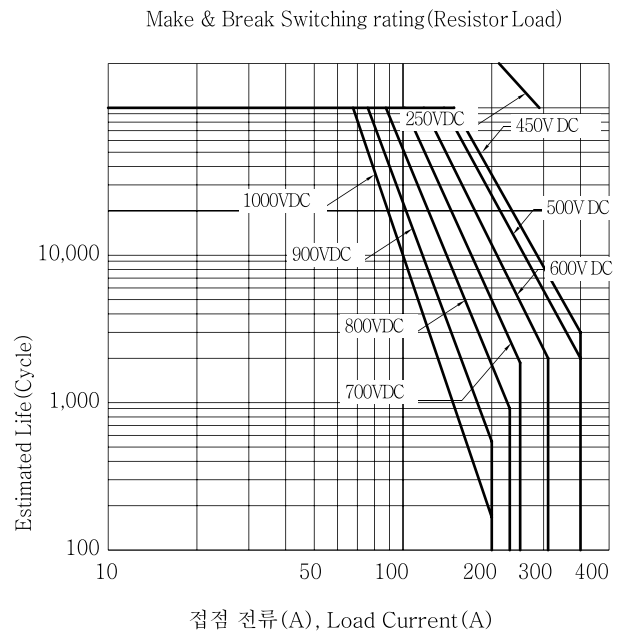
#### ● 온도상승곡선

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



#### ● 전기적 수명 곡선

(Estimated Switching Ratings)



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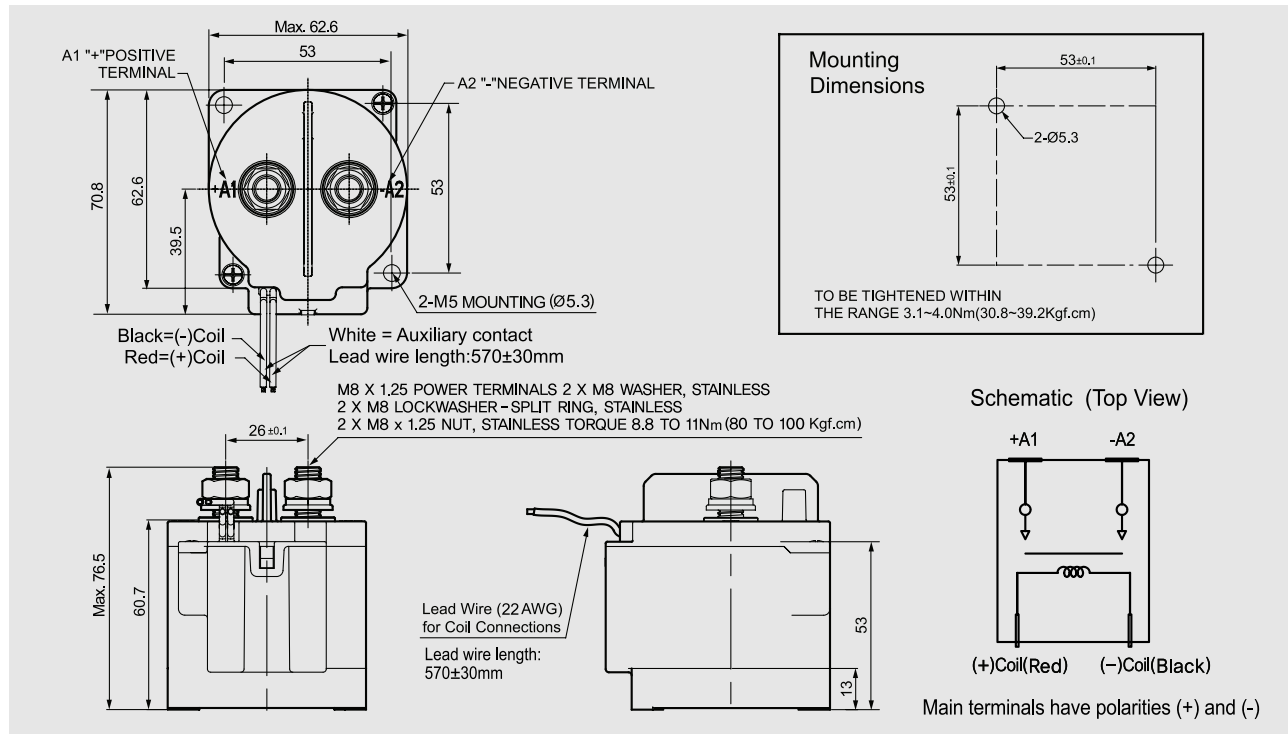


EVR400-S/B

공차(Tolerance) : 10mm 이하 $\pm 0.3$ , 10~50mm  $\pm 0.6$ , 50mm 이상 $\pm 1.0$

### 외형치수도 (Dimension in mm)

S: Bolt Type



B: Nut Type

