

# PRODUCT SPECIFICATIONS

Specifications NO : YMT-665-20082

For Approval       For Estimation       For Reference

CUSTOMER : KHAI MINH ELECTRIC TECHNOLOGY JSC

PRODUCT : EV RELAY

MODEL : EVHB100A-24S/G

	Process		Date
승인 (Approval)	검토 (Inspected by)		
	심사 (Checked by)		
	승인 (Approved)		

상기와 같이 승인원을 제출하오니 검토하여 승인하여 주시기 바랍니다.

**DATE : 2020. 10. 23**



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## NAME

EVHB100A-24S

1. Type EVHB100
2. Code No. EVHB100A-24S/G

## 3. Characteristics

## 3.1 Coil data

EVHB100A-24S/G

- |                                       |        |
|---------------------------------------|--------|
| 1) Nominal voltage                    | DC24V  |
| 2) Pick-Up voltage(initial, at 20°C)  | ≤ 18V  |
| 3) Drop-out voltage(initial, at 20°C) | ≥ 2.4V |
| 4) Holding Voltage(initial, at 20°C)  | ≤ 12V  |
| 5) Inrush current (initial, at 20°C)  | 0.27A  |
| 6) Holding Current (initial, at 20°C) | 0.27A  |

## 3.2 Main Contacts data

- 1) Arrangement 1NO
- 2) Rated insulation voltage  $U_i$  1,500V
- 3) Rated impulse withstand voltage  $U_{imp}$  8KV
- 4) Conventional free air thermal current  $I_{th}$  100A(38mm<sup>2</sup>)
- 5) Utilization category Resistor
- 6) Rated operational voltage and rated operational current for each utilization category  $U_e/I_e$  DC400V/100A  
DC800V/80A
- 7) Max switching Capacity 1000Vdc 80A
- 8) Min. permissible load 12V 0.5A
- 9) Contact Resistance Max. 1mΩ(At 20A)



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Checked

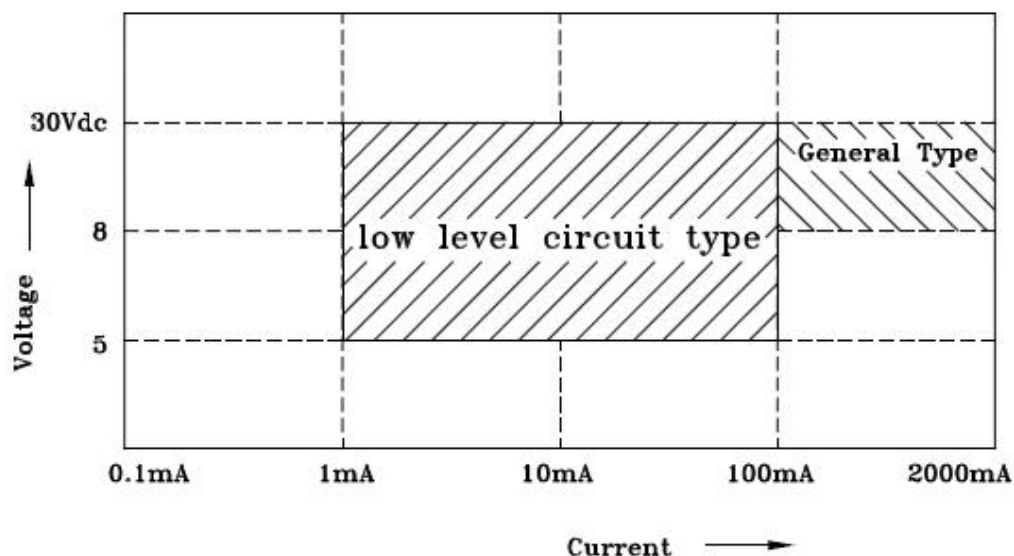
Assigned Cho, Hyun Kil

**NAME** EVHB100A-24S

3.3 Aux. contact

1) Aux. contact current Max. for gold 100mA 30VDC (option: /G)

2) Aux. contact current Min. for gold 1mA 5VDC (option: /G)



3.4 Life

1) . Electrical life

Voltage	Current	Life	Remark
300Vac	100A	6,000	Resistor
400V DC	100A	6000	Resistor
440V DC	120A	1,000	Resistor
800V DC	80A	6,000	Resistor
1000V DC	20A	6,000	Resistor

2) Reverse direction electrical life	Switching for bi-direction (The same as electrical life)
3) Mechanical life	500,000 times (at 15cpm)
3.5 Withstand voltage	
1) Between open contacts	AC4,500Vrms for 1 min.(Detection current : 5mA)
2) Between contacts and coil	AC2,500Vrms for 1 min.(Detection current : 5mA)
3) Initial insulation resistance	More than 100MΩ (DC 500V MEGGER)
3.6 Operation time	Less than 25ms (at 20°C and nominal voltage)
3.7 Release time	Less than 10ms (at 20°C and nominal voltage)
3.8 Tightening Torque	1.6 ~ 2.1Nm(Mounting) 3.4 ~ 4.5Nm(Main terminal)
3.9 Weight	180g
3.10 Vibration resistance	
1) Functional	98m/s <sup>2</sup> (10G)(10 ~ 500Hz, Detection time :10us)
2) Destructive	196m/s <sup>2</sup> (20G)
3.11 Shock resistance	
1) Functional	196m/s <sup>2</sup> (20G)
2) Destructive	490m/s <sup>2</sup> (50G)

4. Environmental condition

4.1 Degrees of protection of enclosed equipment IP IP67

4.2 Type of fuse used in test of rated conditional short-circuit current(SCPD) 5kA/ with fuse 100A  
Withstand current

4.3 Class of insulating material of the coil Class E

4.4 Pollution degree III

4.5 Material group IIIb

4.6 Storage

- 1) Temperature -40°C ~ +80°C
- 2) Humidity 5 ~ 85% RH

4.7 Installation

- 1) Gas condition Place where corrosive gas such as hydrogen and salt cannot be reached.
- 2) Sunlight Place it where it cannot be reach by direct sunlight. In any case, do not exert weight that may disfigure or deteriorate the product.

5. Cautions for use

5.1 Lifetime is specified under the standard test condition in UL508.(Temperature 15 to 35°C, humidity 25 to 85%RH)

5.2 If the relay is used while exceeding the coil rating, contact rating or cycle lifetime, this may result in the risk of overheating.

- 5.3 If the relay is dropped onto a hard surface, it should not be used again.
- 5.4 Take care to avoid cross connections as they may cause malfunctions or overheating
- 5.5 When the screws for fixing relay body and for additional nuts for additional terminal are tightened, it should be used within the range of decided torque.
- 5.6 If the several relays are mounted closely or a heat-generation object is close to the relay, take care to check the abnormal temperature-rise and the insulation distance between the terminals outside of the relay.
- 5.7 If you use an inductive load(L load) such that  $L/R > 0.5ms$ , add surge protection in parallel with the inductive load. If this is not done, the electrical life will decrease and a failure of breaking a circuit may occur.
- 5.8 Use the suitable wire or bus bar according to the current.
- 5.9 Take care to disconnect to the power supply when wiring.
- 5.10 Do not use this product in such atmosphere where any kind of organic solvent(as benzene, thinner an alcohol) and the strong alkali(as ammonia and caustic soda) might be adhered to this product.
- 5.11 Be careful that oils and foreign matter do not stick to main terminal parts because it is likely to cause a terminal part to give off unusual heat.
- 5.12 We are striving to improve quality and the reliability. The things such as electric, mechanic performance, external dimension and assembled dimension may be changed without notice in order to improve quality.

6. Warranty

6.1 The warranty period of this product is one year from the date of arrival of the product at the location of the purchaser, and is limited to the listed items on the specification.

**NAME** EVHB100A-24S

6.2 Warranty Scope

If upon arrival any defect due to YM tech's failure to perform become apparent, YM tech will replace, exchange or repair the defective product on the where was received.

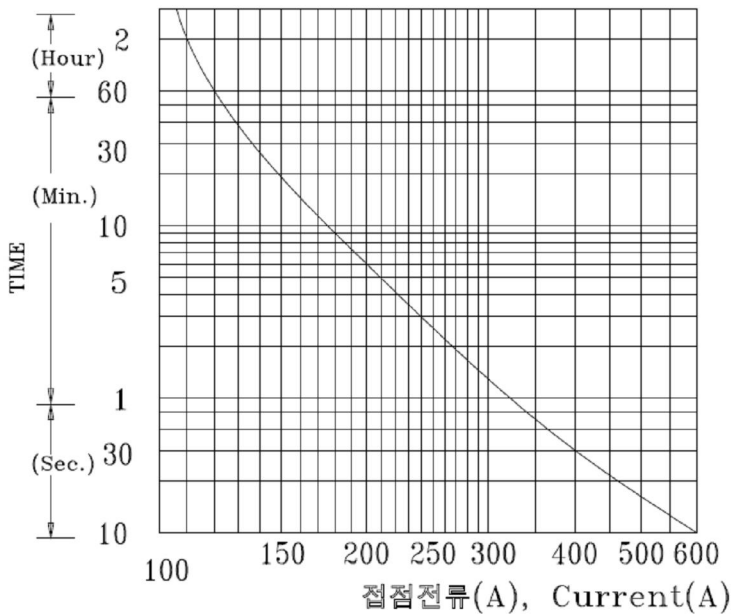
6.3 The following are excluded from the warranty condition;

- 1). Damage caused by relay problem or failure.
- 2) A natural or manmade disaster which is outside of YM Tech's control occurs such as earthquake, flood, fire or social strife.

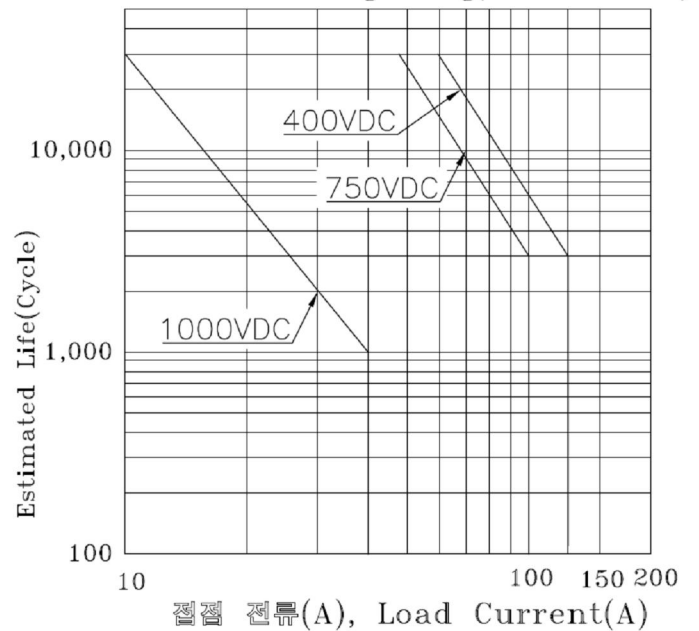
Reference :

1. Temperature rise(at 20°C and nominal voltage)
2. Estimated electrical life (at 20°C and nominal voltage)
3. Drawing of dimension

Continuous carrying 100A (38mm<sup>2</sup>)



Make & Break Switching rating(Resistive Load)



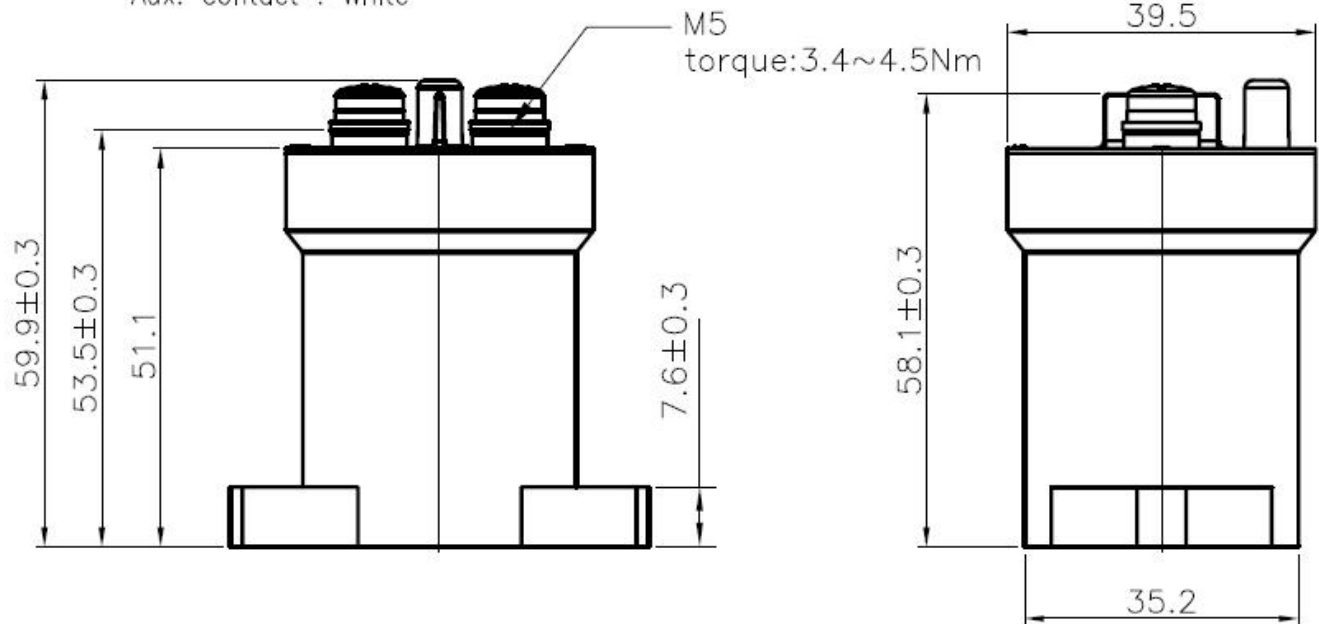
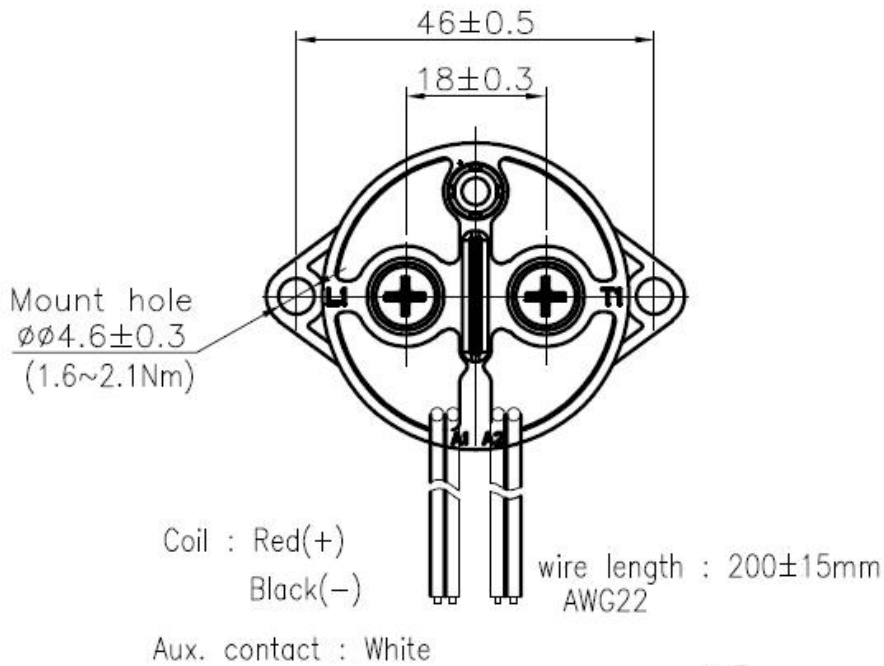
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Information of Model

EVH

B

100

A

-

24

S

/G

/C

Blank: Without connector  
/C : With connector

Aux. contacts type  
Blank: General Aux.  
/G :Aux. contacts for  
 Low level current

standard

Coil ; 12 : 12Vdc  
24 : 24Vdc

A: with Aux. contacts  
Blank: Without Aux. contacts

Rating current : 100A

B: Bi-direction switching device

YM Tech High Voltage DC Relay



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**TITLE**

**Specification for EV Relay**

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**NAME**

**EVHB100A-24S**

Rev. No	Date	Page	Detail	Remark



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单击下面可查看定价，库存，交付和生命周期等信息

[>>YMTech\(上海世携\)](#)