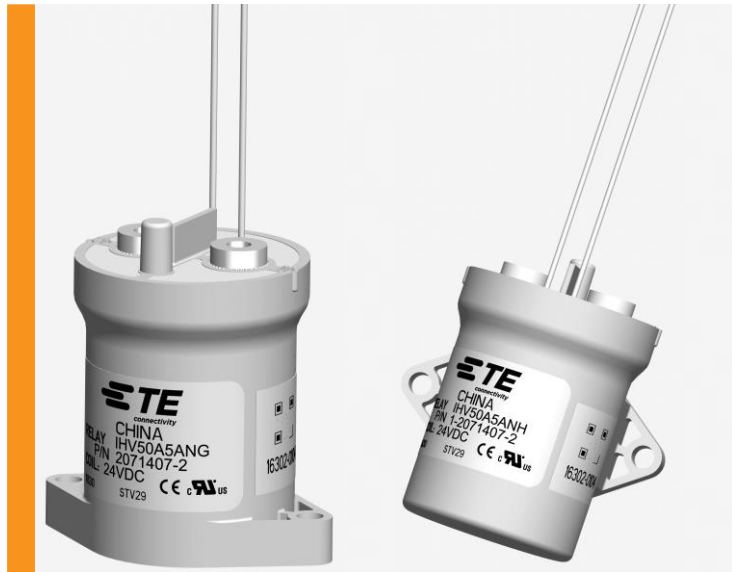


IHV50 SERIES RELAY



Product Features

- Hermetically sealed — intrinsically safe. Operates in explosive/harsh environments without oxidation or contamination of contacts, including long periods of non-operation
- 8kV isolation between open contacts permits use for high voltage isolation and carry
- 12, 24 and 48 Vdc coils
- Designed accordance to AIAG QS9000
- Not position sensitive, can be mounted in any orientation
- Solid copper contacts
- RoHS versions available

Applications

- DC Charging, Solar Inverter, Energy Store Station, Test Equipment
- Battery Pack, Electric Vehicle-Mounted, Rail Transit, Motor Control
- Circuit Isolation, Circuit Protection and Safety in Industrial Machinery

Approval

cULus

Mechanical

Compact epoxy-sealed resin enclosure occupies only about 4 in3 (65.5 cm3)

Robust integral mounting plate on either bottom or side of enclosure accepts two M4 screws

Inert gas filled contact chamber

Flying leads for coil connections

Load terminals threaded for M5 bolts (not included)

Weight - about 190g

Coil Operating Voltage (Valid Over Temperature Range)

| | | | |
|-----------------------------------------|---------|----------|----------|
| Nominal Voltage | 12 Vdc | 24 Vdc | 48 Vdc |
| Maximum Voltage | 16 Vdc | 28 Vdc | 52 Vdc |
| Pick Up Voltage (20°C) | 8Vdc | 16Vdc | 33Vdc |
| Drop Out Voltage (20°C) Max. | 1.2 Vdc | 2.4 Vdc | 4.8 Vdc |
| Coil Current (Nominal at 20°C, 12vdc) | 461 mA | 250 mA | 122 mA |
| Coil PowerNominal @ Vnom, +20°C | 5.5 W | 6 W | 6 W |
| Pickup (Close) Voltage Max. @85°C | 9.6 Vdc | 19.2 Vdc | 38.4 Vdc |
| Coil ResistanceNominal @ +20°C ± 5% (Ω) | 26 | 96 | 392 |

High Voltage DC Contactors

Main Contact data

| | |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Contact Form | SPST-NO-DM (1 Form X) |
| Switching Voltage (Max): | 900VDC |
| Load Current | Continuous — 50A (Current depends upon conductor size) Short Term, Minutes — 100A 3 minutes (at +40°C) |
| Initial Voltage drop: | < 60mV (50A after 1 minute) |
| Operate time (Max) | 25mS |
| Operate bounce (Max) | 5mS |
| Release Time | <10mS |
| Mechanical Life | |
| Maximum Short Circuit Current (1/2 cycle 60Hz) | 1250A |

Hot Switching Performance (Polarity Sensitive)

| | | | |
|------|---------|--------------|----------------|
| 50A | +450VDC | make / break | 5,000 cycles |
| 50A | +750VDC | make / break | 3,000 cycles * |
| 50A | -450VDC | make / break | 1,000 cycles |
| 500A | +450VDC | break only | 10 cycles |
| 300A | | make only | 26 cycles |

* Without Auxiliary contact

Insulation data

| | |
|-----------------------------------------------------------------|----------------------------|
| Dielectric Withstand Voltage * | |
| Between Open Contacts — | 5,600Vrms/8,000Vdc |
| Contacts to Coil — | 2,000Vrms/4,000Vdc |
| Insulation Resistance, Terminal to Terminal / Terminals to Coil | |
| When New | 100 megohms, min. @ 500Vdc |
| At End of Life | 50 megohms, min. @ 500Vdc |

Environmental Data

Shock, 11ms 1/2 sine (operating) — 20G peak
Sine Vibration, 20G peak — 55-2,000 Hz.
Operating Temperature Range — -40°C to +85°C

IHV50 A 4 A N G XX

Product series

IHV50 = 50A Relay

Contact form

A = Normally Open

Coil Voltage

4 = 12VDC, 5 = 24VDC, 6 = 48VDC

Coil wire length

A = 15.3 inch / 390mm

Coil Terminal connection

N = NONE

Mounting & Power Terminal

G = Bottom mount & Female 10mm X M5 Threaded terminal

H = Side mount & Female 10mm X M5 Threaded terminal

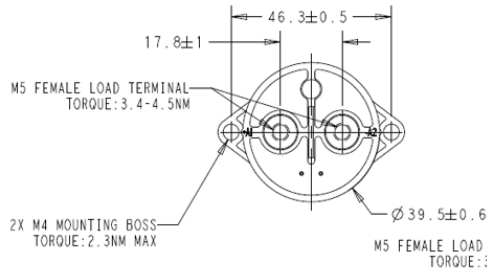
Customer Special Designator

XX = 2 digit or letter specified by manufacture factory

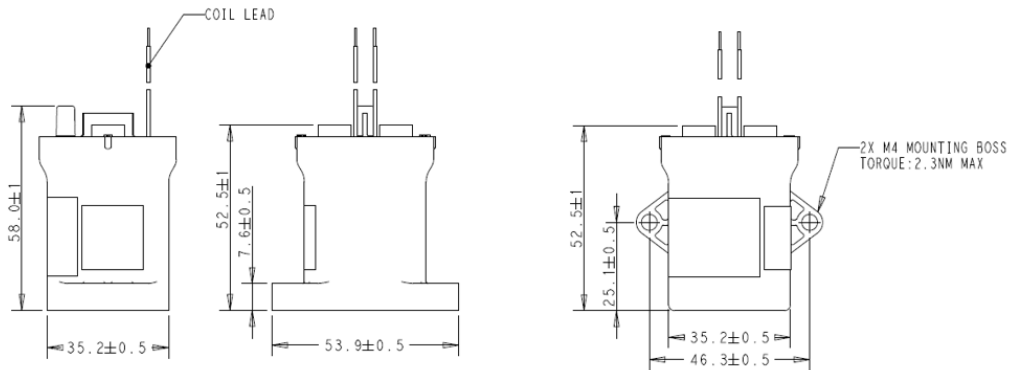
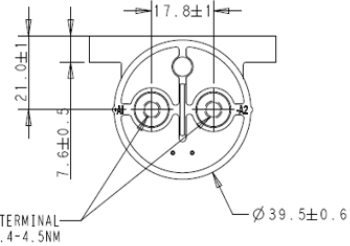
High Voltage DC Contactors

DIMENSIONS(Unit: mm)

BOTTOM MOUNTING TYPE



SIDE MOUNTING TYPE



| PART NUMBER | PRODUCT NAME | COIL VOLTAGE | MOUNTING |
|-------------|--------------|--------------|----------|
| 2071407-1 | IHV50A4ANG | 12 VDC | BOTTOM |
| 2071407-2 | IHV50A5ANG | 24 VDC | BOTTOM |
| 2071407-3 | IHV50A6ANG | 48 VDC | BOTTOM |
| 1-2071407-1 | IHV50A4ANH | 12 VDC | SIDE |
| 1-2071407-2 | IHV50A5ANH | 24 VDC | SIDE |
| 1-2071407-3 | IHV50A6ANH | 48 VDC | SIDE |

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