

**High Voltage Contactors IHV50 Series**

- Hermetically sealed. 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
- RoHS compliance

Typical applications

DC Charging, Solar Inverter, Energy Store Station, Test Equipment  
Battery Management System, Electric Forklift, AGV, Rail Transit  
Motor Control Circuit Isolation, Circuit Protection and Safety in Industrial Machinery

Approvals  
cULus E58304



**Main Contact Data**

Contact arrangement	1 Form X (SPST-NO-DM)
Switching voltage (Max)	900VDC <sup>1)</sup>
Rated current	50A <sup>2)</sup>
Initial voltage drop	< 60mV (50A after 1 minute)
Operate time max.	25ms
Operate bounce time max.	5ms
Release time, max	10ms
Maximum short circuit current (1/2 cycle 60Hz)	1250A
Mechanical life	1,000,000 cycles

**Contact ratings**

Load	Cycles
50A, +450VDC, make / break	5,000
50A, +750VDC <sup>1)</sup> , make / break	3,000
50A, -450VDC, make / break	1,000
500A, +450VDC, break only	10
300A, make only	26

1) Please contact TE engineers for above 450VDC high voltage switching application.  
2) Continuous current 50A (Current depends upon conductor size) and short term current 100A for 3 minutes (at +40°C).

**Coil versions, DC coil**

Coil code	Nominal Voltage VDC	Operate Voltage VDC	Maximum Voltage VDC	Release Voltage VDC	Coil resistance Ω	Coil Power W
12	12	8	16	1.2	26	5.5
24	24	16	28	2.4	96	6
48	48	33	52	4.8	392	6

All figures are given for coil without pre-energization, at ambient temperature +20°C

**Insulation Data**

Dielectric withstand voltage (leakage current <1mA)	
between open contacts	5,600Vrms / 8,000Vdc
between contact and coil	2,000Vrms / 4,000Vdc
Initial insulation resistance @ 500VDC	
between open contacts	> 1×10 <sup>8</sup> Ω
between contact and coil	> 1×10 <sup>8</sup> Ω

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

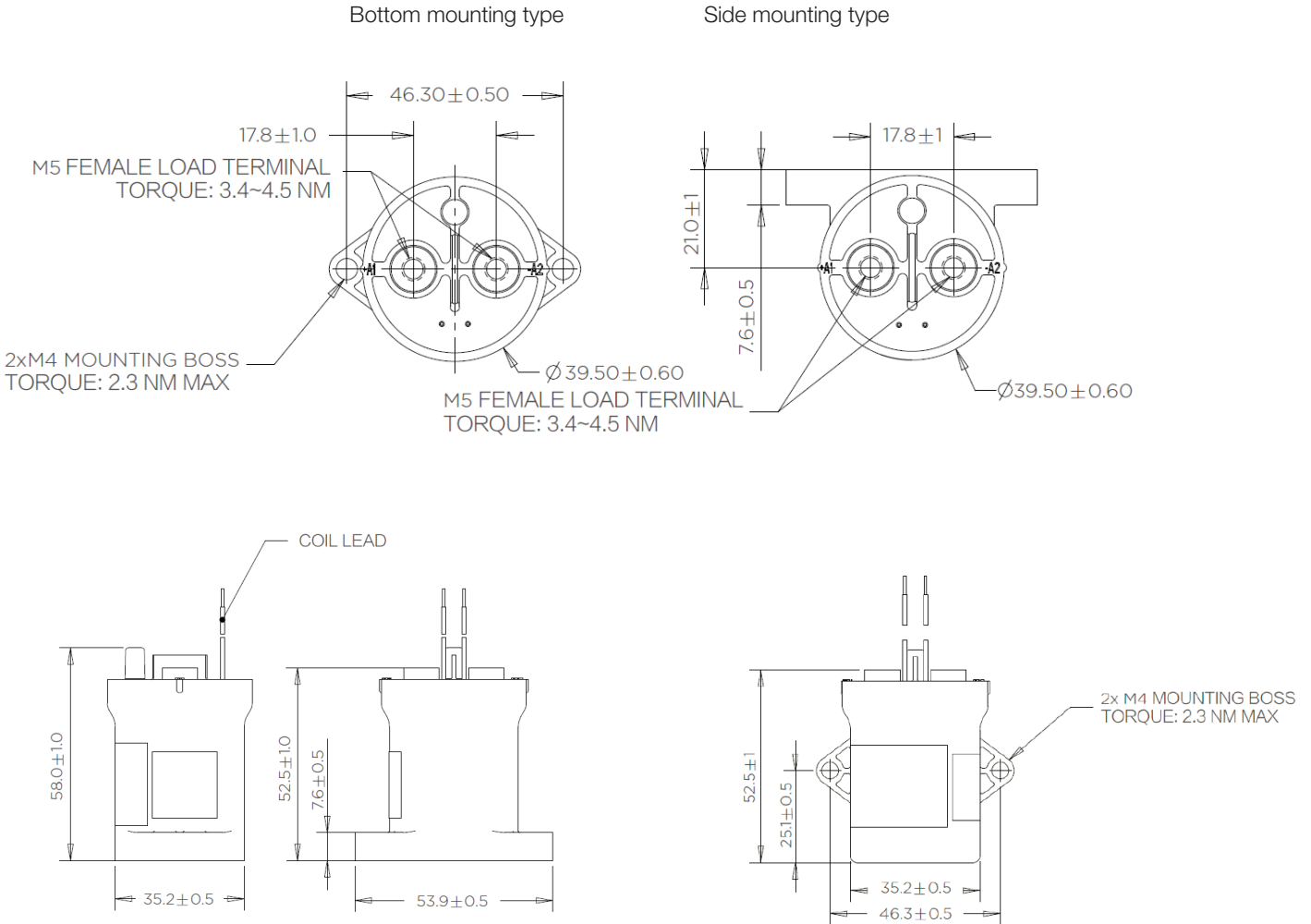
Ambient temperature	DC coil	-40°C to 85°C
Vibration resistance (functional),		Sine, 55 – 2000Hz, 15G
Shock resistance (functional)		11ms 1/2 Sine, Peak 20G
Terminal type		Screw for contact, wire for coil
Weight		About 190g
Packaging/unit		60pcs/carton

Notes:

1. Compact epoxy-sealed resin enclosure occupies only about 4 in<sup>3</sup> (65.5 cm<sup>3</sup>)
2. Robust integral mounting plate on either bottom or side of enclosure accepts two M4 screws
3. Inert gas filled contact chamber
4. Flying leads for coil connections
5. Load terminals threaded for M5 bolts (not included)

**High Voltage Contactors IHV50 Series** (Continued)

**Dimensions**



Tolerances are shown for reference purposes only

**High Voltage Contactors IHV50 Series** (Continued)

<b>Product code structure</b>	IHV50	A	4	A	N	G	XX
<b>Product series</b> IHV50 = IHV50 Contactor							
<b>Contact form</b> A = 1 Normally Open							
<b>Coil Voltage</b> 4 = 12VDC 5 = 24VDC 6 = 48VDC							
<b>Coil Wire Length</b> A = 15.3 inch / 390mm							
<b>Coil Terminal Connection</b> N = None							
<b>Mounting &amp; Power Terminal</b> G = Bottom Mount & Female 10mm X M5 Threaded Terminal H = Side Mount & Female 10mm X M5 Threaded Terminal							
<b>Customer Special Designator</b> XX = 2 digits or Letters Specified by Manufacturer							

Product code	Contact form	Mounting position	Coil	Part number
IHV50A4ANG	Normally Open	Bottom	12VDC	2071407-1
IHV50A5ANG			24VDC	2071407-2
IHV50A6ANG			48VDC	2071407-3
IHV50A4ANH		Side	12VDC	1-2071407-1
IHV50A5ANH			24VDC	1-2071407-2
IHV50A6ANH			48VDC	1-2071407-3