

High Voltage Contactors IHV250 Series

- **Hermetically sealed. Operates in explosive/harsh environments without oxidation or contamination of contacts, including long periods of non-operation**
- **Inert gases in contact chamber, and arc-blow magnet, allow contact works in 900VDC condition**
- **Optional auxiliary contact for easy monitoring of power contact position**
- **Built-in coil economizer, only 1.7W hold power @ 12VDC and it limits back EMF to 0V. Models requiring external economizer also available**
- **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)	12-900VDC ¹⁾
Rated current	250A (Continuous)
Break current (Max)	2500A, 450VDC
Initial voltage drop	< 60mV (250A after 1 minute)
Operate time max.	25ms
Operate bounce time max.	7ms
Release time, (Include arc time), under 2,500A, Max.	12ms
Mechanical life	Without Aux. contact = 500,000 cycles With Aux. contact = 300,000 cycles

Contact ratings	
Load	Cycles
250A, +450VDC, make / break	3,000
250A, +750VDC ¹⁾ , make / break	500 ²⁾
250A, -450VDC, make / break	50 ²⁾
2500A, +450VDC, break only	3 ²⁾
650A, make only	26

1) Please contact TE engineers for above 450VDC high voltage switching application.
2) Without auxiliary contact.

Auxiliary Contact Data	
Contact Form	1 Form A (SPST-NO)
Contact Current, Max.	2A, 30VDC / 3A, 125VAC
Contact Current, Min.	100mA, 8VDC
Contact Resistance, Max.	0.5Ω @ 30VDC / 0.15Ω @ 125VAC

Coil versions, DC coil							
Nominal Voltage	Operate Voltage Max.	Maximum Voltage	Hold Voltage (Min.)	Release Voltage	Inrush Current (Max.)	Holding Current (Avg.)	Inrush Time (Max.)
9-36VDC	9VDC	36VDC	7.5VDC	6VDC	3.8A	0.13A @ 12V; 0.07A @ 24V	130ms

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

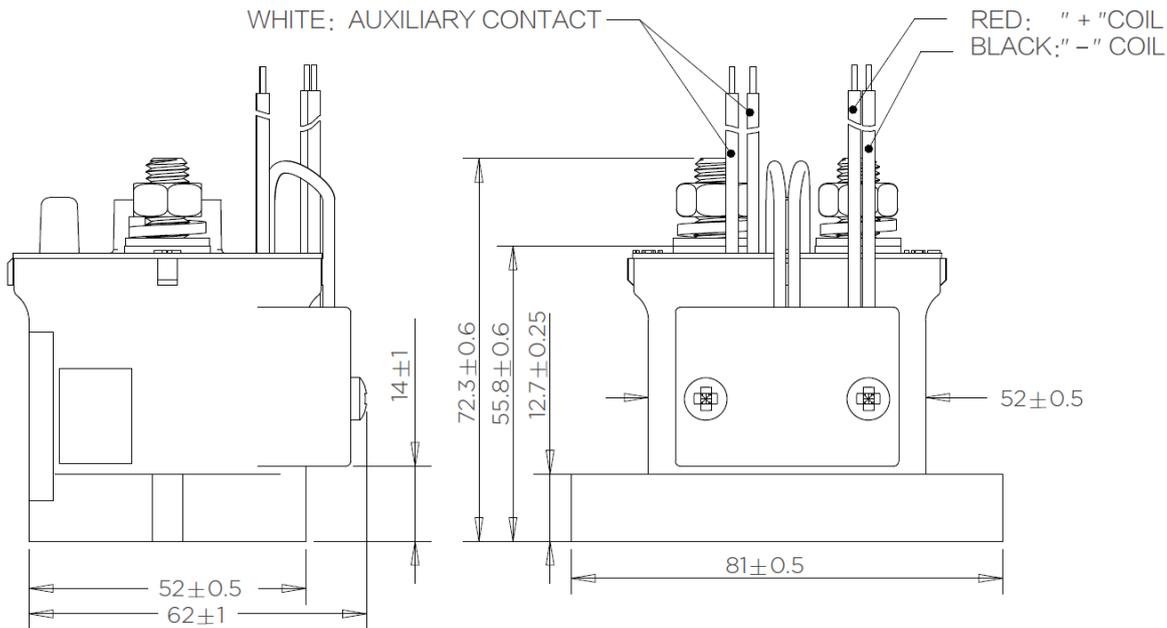
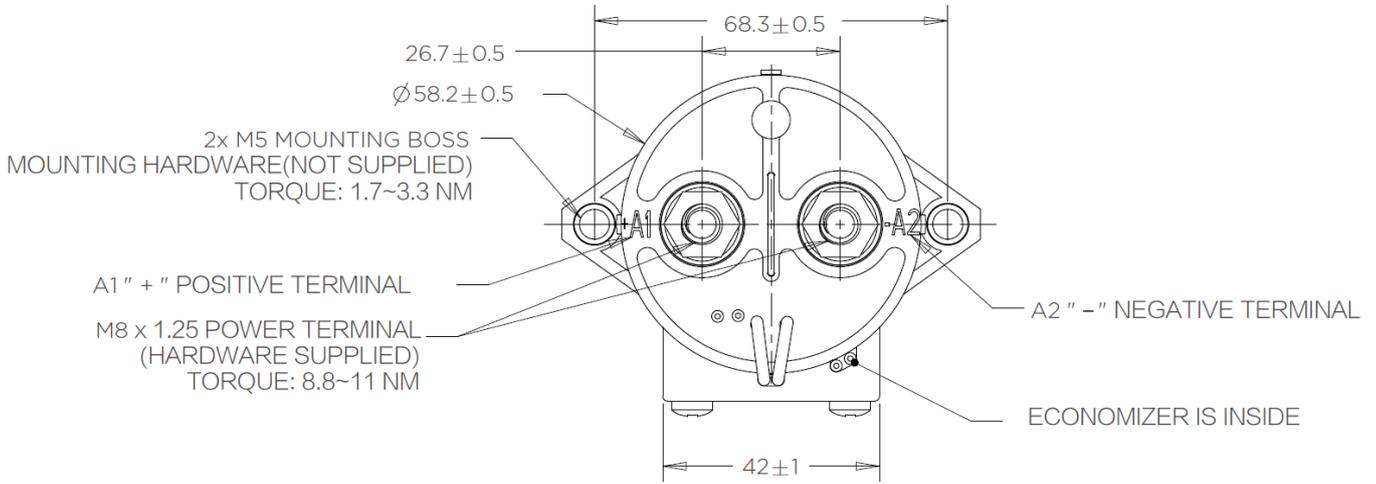


Insulation Data	
Dielectric withstand voltage (leakage current <1mA)	
between open contacts	2,200Vrms
between contact and coil	2,200Vrms
Initial insulation resistance @ 500VDC	
between open contacts	> 1×10 ⁸ Ω
between contact and coil	> 1×10 ⁸ Ω

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	
Ambient temperature	
DC coil	-40°C to 85°C
Vibration resistance (functional),	Sine, 80 – 2000Hz, 18G
Shock resistance (functional)	11ms 1/2 Sine, Peak 20G
Terminal type	Screw for contact, wire for coil
Weight	About 430g
Packaging/unit	20pcs/carton

High Voltage Contactors IHV250 Series (Continued)

Dimension



Tolerances are shown for reference purposes only

High Voltage Contactors IHV250 Series (Continued)

Product code structure	IHV250	A	A	A	N	A	XX
Product series	IHV250 = 250 Amp, 12 - 900VDC Contactor						
Contact form	A = 1 Normally Open H = 1 Normally Open + NO Aux Contacts						
Coil Voltage	A = 12~24VDC (Coil with the Economizer)						
Coil Wire Length	A = 15.3 inch / 390mm						
Coil Terminal Connection	N = None						
Mounting & Power Terminal	A = Bottom Mount & Male 10mm X M8 Threaded Terminal						
Customer Special Designator	XX = 2 Digits or Letters Specified by Manufacturer						

Product code	Contact form	Mounting position	Coil	Part number
IHV250AAANA	Normally Open	Bottom	12-24VDC	2071411-1
IHV250HAANA	Normally Open + NO Aux Contact			2-2071411-1