

# IHV100 SERIES CONTACTORS

- 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
- Optional auxiliary contact for easy monitoring of power contact position
- Designed accordance to AIAG QS9000
- Not position sensitive, can be mounted in any orientation
- RoHS and REACH compliance



## Applications

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

## Approval

cULus E208033

## Mechanical

Compact epoxy-sealed resin enclosure occupies only about 4 in<sup>3</sup> (65.5cm<sup>3</sup>)

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 200g

## 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) .	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

## Auxiliary Contact Data

Contact Form	SPST-NO (1 Form A)
Contact Current, Max.	2A @ 30VDC / 3A @ 125VAC
Contact Current, Min.	100mA @ 8V
Contact Resistance, Max.	0.50 Ω @ 30VDC / 0.15 Ω @ 125VAC

# High Voltage DC Contactors

## Main Contact Data

Contact Form	SPST-NO-DM (1 Form X)
Switching Voltage (Max.)	900VDC
Load Current	Continuous — 100A (Current rating depends upon conductor size) Short Term — 200A (3 minutes at +40°C ambient)
Initial Voltage drop	< 40mV (100A after 1 minute)
Operate time (Max.)	25mS
Operate bounce (Max.)	5mS
Release Time	<10mS
Mechanical Life	1000,000 cycles
Maximum Short Circuit Current (1/2 cycle 60Hz)	1250A

## Hot Switching Performance (Polarity Sensitive) —

100A	+450VDC	make / break	3,000 cycles
100A	-450VDC	make / break	500 cycles
100A	+750VDC*	make / break	2,000 cycles
1,000A	+400VDC	break only	10 cycles
600A		make only	25 cycles

## Insulation Data

Dielectric Withstand Voltage *	* 2,000Vrms minimum under all conditions, until end of life		
Between Open Contacts —	5600Vrms / 8000Vdc		
Contacts to Coil —	2000Vrms / 4000Vdc		
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
Vibration, Sine, 55-2,000Hz, - 20G Peak
Operating Temperature Range — -40°C to +85°C

\*Please contact TE engineers for above 450VDC high voltage switching application.

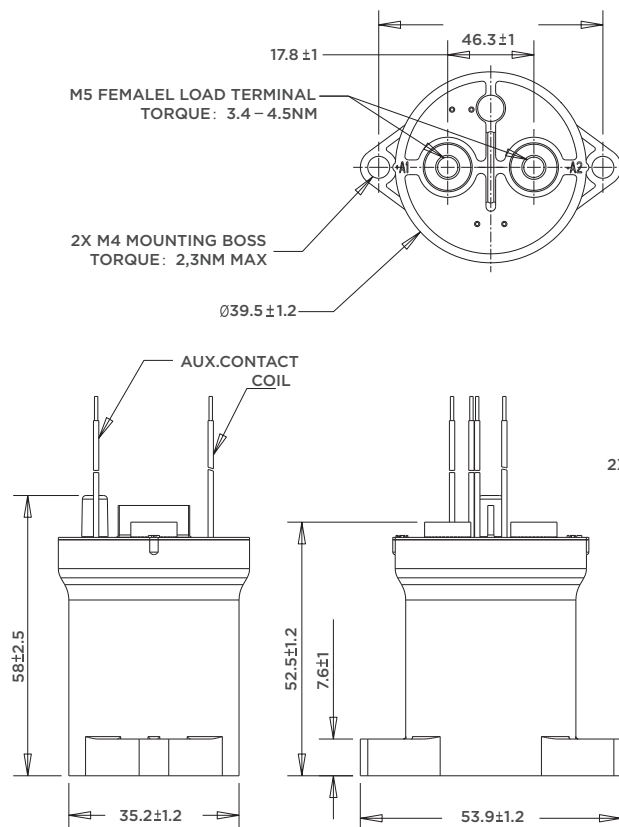
## Naming Rules for Product Number

	IHV100	A	4	A	N	G	XX
Product series IHV100 = 100Amp, 12 - 900VDC Contactor							
Contact form A = Normally Open H = Normally Open + NO Aux Contacts							
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							

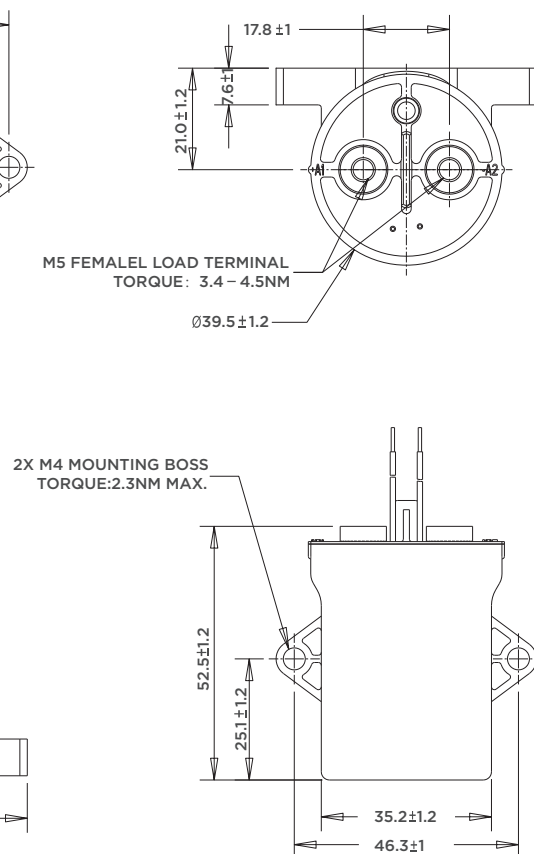
# High Voltage DC Contactors

## Dimensions (Unit: mm)

### BOTTOM MOUNTING



### SIDE MOUNTING



**Note:** The tolerance for reference only.

## High Voltage DC Contactors

PART NUMBER	DESCRIPTION	COIL VOLTAGE	AUX. CONTACT	MOUNTING
2071408-1	IHV100A4ANG	12 VDC	NONE	BOTTOM
2071408-2	IHV100A5ANG	24 VDC	NONE	BOTTOM
2071408-3	IHV100A6ANG	48 VDC	NONE	BOTTOM
1-2071408-1	IHV100A4ANH	12 VDC	NONE	SIDE
1-2071408-2	IHV100A5ANH	24 VDC	NONE	SIDE
1-2071408-3	IHV100A6ANH	48 VDC	NONE	SIDE
2-2071408-1	IHV100H4ANG	12 VDC	NORMALLY OPEN	BOTTOM
2-2071408-2	IHV100H5ANG	24 VDC	NORMALLY OPEN	BOTTOM
2-2071408-3	IHV100H6ANG	48 VDC	NORMALLY OPEN	BOTTOM
3-2071408-1	IHV100H4ANH	12 VDC	NORMALLY OPEN	SIDE
3-2071408-2	IHV100H5ANH	24 VDC	NORMALLY OPEN	SIDE
3-2071408-3	IHV100H6ANH	48 VDC	NORMALLY OPEN	SIDE

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