

# IHV350 SERIES CONTACTOR



## Features

- Load Voltage 12-1800VDC, Consistent current 350A, 2,300A interrupt @450VDC
- Built-in coil economizer – only 4W hold power in the range of specified ambient temperature and coil voltage, and it limits back EMF to 0V.
- Hermetically Sealed – intrinsically safe. Operates in explosive/harsh environments without oxidation or contamination of contacts, including long period of non-operation
- Moving contact rotates to provide fresh contact resistance and low power consumption
- Sealed control connector

## Applications

- DC charging pile, ESS, Solar Inverter
- Test equipment, Rail Transit, BMS, E-forklift
- Motor Control Circuit Isolation, Circuit Protection and Safety in Industrial Machinery

| Coil (Valid Over Temperature Range)                                |          |       |
|--------------------------------------------------------------------|----------|-------|
| Nominal Voltage                                                    | 12VDC    | 24VDC |
| Continuous Maximum Voltage                                         | 14VDC    | 28VDC |
| Pick-up Voltage (Max.)                                             | 10VDC    | 19VDC |
| Drop-out Voltage (Min.)                                            | 4VDC     | 9VDC  |
| Inrush Current (Max.)                                              | 2.8A     | 1.8A  |
| Holding Current (Avg.)                                             | 0.36A    | 0.11A |
| Inrush Time (Max.)                                                 | 200mS    | 200mS |
| Insulation Data                                                    |          |       |
| Dielectric Withstand Voltage 2,200 Vrms @ sea level (leakage <1mA) |          |       |
| Open Contact                                                       | 4,000VDC |       |
| Contacts to Coil                                                   | 2.200VDC |       |
| Insulation Resistance, Terminal to Terminal / Terminals to Coil    |          |       |
| Initial Insulation Resistance (500Vdc)                             | >100MΩ   |       |

\*After Electrical Endurance Test , don't guarantee the dielectric and insulation performance is same as initial data.

# High Voltage DC Contactors

## Main Contact Data

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Contact Form                    | SPST-NO-DM (1 Form X)               |
| Switching Voltage (Max.)        | 1,800 VDC                           |
| Load Current                    | 350A (Continuous)<br>450A (6.5 min) |
| Initial voltage drop (350A)     | 120mV (Max.)                        |
| Operate Voltage(Max.25°C )      | 25mS                                |
| Operate Bounce (Max.25°C )      | 5mS                                 |
| Release Time (Include arc time) | 15mS                                |
| Mechanical Life                 | 200,000 cycles                      |

## Hot Switching Performance (Polarity Sensitive)

|                         |         |            |              |
|-------------------------|---------|------------|--------------|
| 350A                    | +450VDC | Make/Break | 2,500 cycles |
| 350A                    | +750VDC | Make/Break | 1,000 cycles |
| 350A                    | +900VDC | Make/Break | 120 cycles   |
| 350A (reverse polarity) | +450VDC | Make/Break | 10 cycles    |
| 2,300A                  | +450VDC | Break Only | 2 cycles     |

## Others

Shock, 11ms 1/2 sine(operating) — 20G Peak

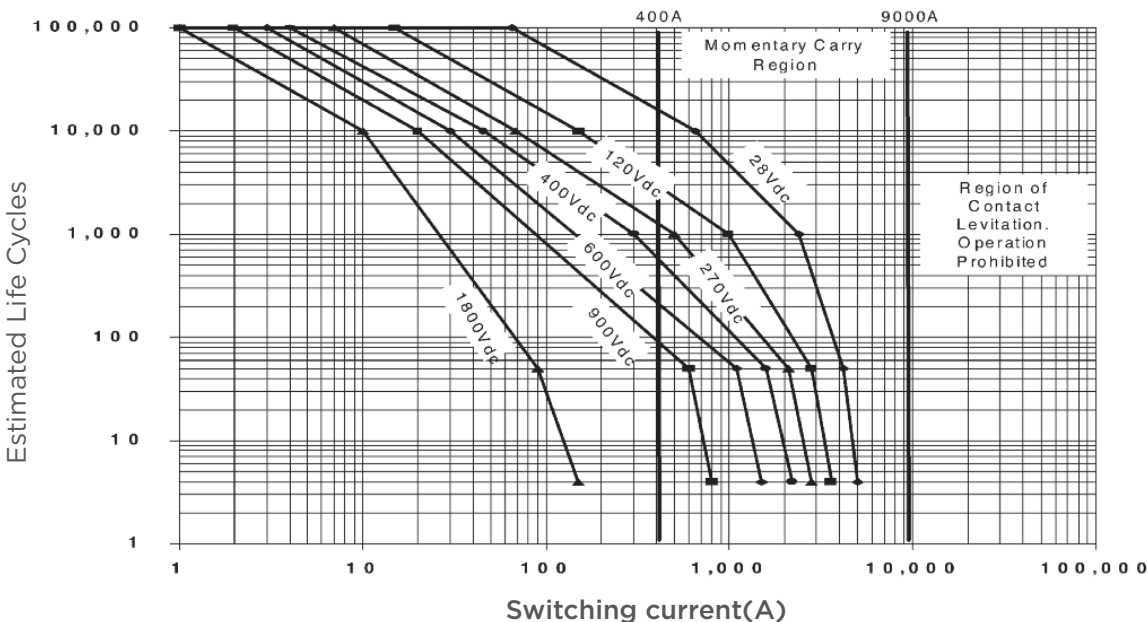
Vibration, Sine, 55 - 2000Hz — 10G Peak

Operating Temperature Range : -40°C to +85°C

Weight : about 800g

## Contact Ratings

Estimated rated switching life cycles



### Note:

- 1) Resistive load includes inductance L=25uH. Load @2300A tested @200uH
- 2) Carry current> 250A, twin wire 54mm<sup>2</sup> is recommended.

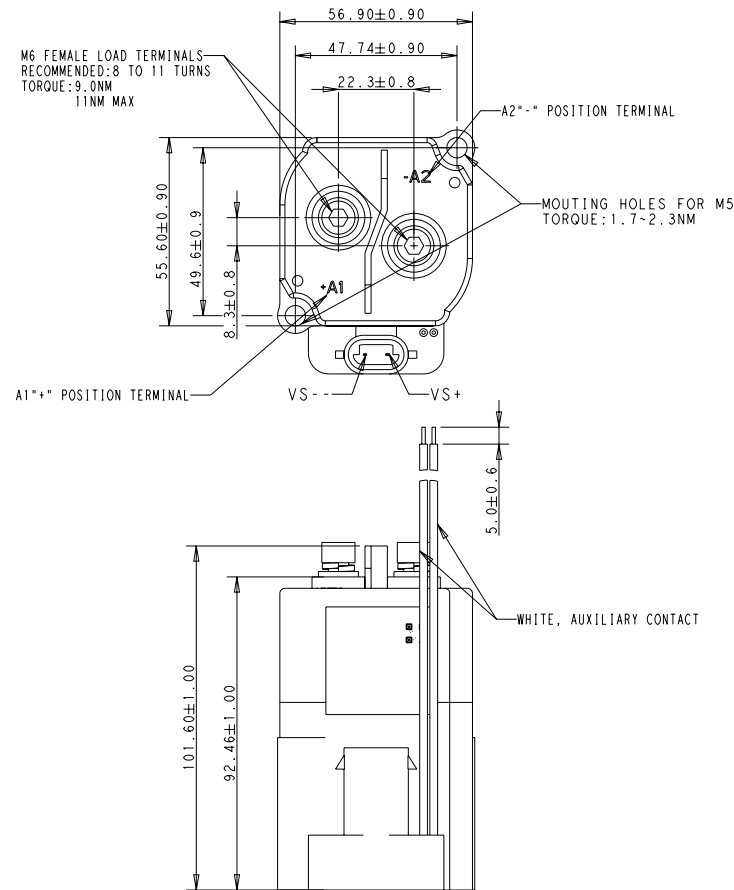
# High Voltage DC Contactors

## Naming Rules for Product Number

|                              | IHV350                                                       | A | A | N | F | A | XX |
|------------------------------|--------------------------------------------------------------|---|---|---|---|---|----|
| Product Series:              | IHV350 = 350 Amp, 12 - 1800VDC Contactor                     |   |   |   |   |   |    |
| Contact Form:                | A = 1 Normally Open<br>H = 1 Normally Open + NO Aux Contacts |   |   |   |   |   |    |
| Coil Voltage:                | A = 12VDC, D = 24VDC (Coil with the Economizer)              |   |   |   |   |   |    |
| Coil Wire length:            | N = No Lead Wires                                            |   |   |   |   |   |    |
| Coil Terminal Connection:    | F = Quickly Connect Terminal                                 |   |   |   |   |   |    |
| Mounting & Power Terminal:   | A = Bottom Mount                                             |   |   |   |   |   |    |
| Customer Special Designator: | XX = 2 Digits or Letters Specified by Manufacturer           |   |   |   |   |   |    |

# High Voltage DC Contactors

## Dimensions (Unit: mm)



**Note:** Tolerance are shown for reference purpose only.

| PART NUMBER | PRODUCT NAME | COIL VOLTAGE | AUX CONTACT   | MOUNT  |
|-------------|--------------|--------------|---------------|--------|
| 2071429-1   | IHV350AANFA  | 12VDC        | NONE          | BOTTOM |
| 2071429-2   | IHV350ADNFA  | 24VDC        | NONE          | BOTTOM |
| 1-2071429-1 | IHV350HANFA  | 12VDC        | NORMALLY OPEN | BOTTOM |
| 1-2071429-2 | IHV350HDNFA  | 24VDC        | NORMALLY OPEN | BOTTOM |

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