

# HVBD SERIES

## High Voltage Battery Disconnect

**300A, 400A, 600A**
**CONTINUOUS DUTY**
**1500VDC**
**SYSTEM VOLTAGE**


## APPLICATIONS


 HV Battery  
Systems


Heavy Truck


 Off-Road  
Vehicles

 Electric  
Vehicles


Marine


 Emergency  
Vehicles

 Construction &  
Mining

## FEATURES

HVBD is the next level in battery disconnect technology

- Robust metal-ceramic hermetic seal
- Industry leading dielectric withstand voltage
- High temperature performance
- Ultra-low contact resistance over life
- Ready for harsh environments
- Designed for OSHA compliant lockout/tagout (LOTO)
- Optional integrated auxiliary contacts
- Patent pending
- CE compliant

## PERFORMANCE

TABLE 1. SPECIFICATIONS	
CHARACTERISTIC	MEASURE
Contact Arrangement	Form X, SPST
Operating Voltage <sup>1</sup>	Up to 1500VDC (no switching under load)
Dielectric Withstand Voltage	5,375VDC, 1 minute
Continuous Current <sup>2</sup>	300A, 400A, or 600A continuous
Overload Current <sup>2</sup>	See graphs on next page
Make and Break <sup>1</sup> (400A @ 24VDC)	5,000 cycles
Voltage Drop (Max at nominal load)	40mV
Min Insulation Resistance	100Mohm
Shock, 1/2 Sine, 11ms	25G
Vibration, Sinusoidal (10-500Hz Peak)	4G
Vibration, Sinusoidal (500Hz-2000Hz Peak)	20G
Operating Temperature <sup>2</sup>	-55°C to 85°C
Ingress Protection (Sealed Contacts)	Exceeds IP69, (Hermetically Sealed)
Ingress Protection (Housing Feedthrough) <sup>3</sup>	IP67
Weight	425g
Case Material	PA GF
Switch Lever Material	PA GF
Mounting	100mm   C:C, 2X M8
Mounting Position	Any
Auxiliary Contacts	SPDT, 3A Continuous Duty

<sup>1</sup> The HVBD is designed to isolate at voltages up to 1500VDC. The HVBD is not intended for make/break switching above 100V.

<sup>2</sup> 170°C max terminal temperature.

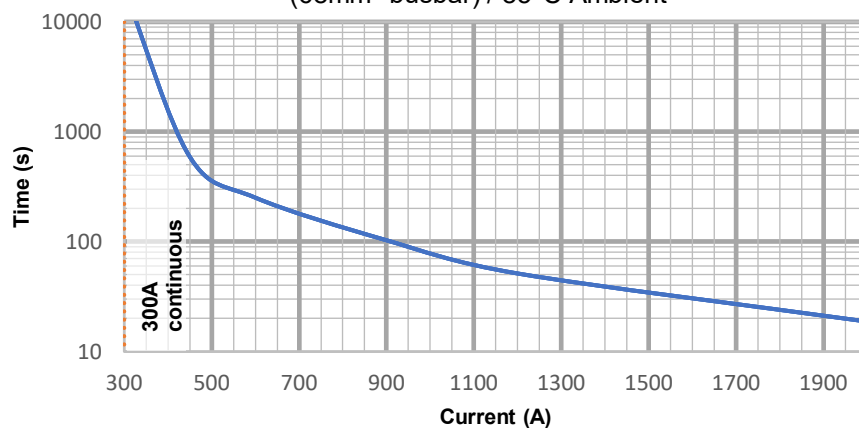
<sup>3</sup> Gasket and or RTV required for feedthrough applications where IP67 is required at the housing flange mounting feature.

## PERFORMANCE (cont.)

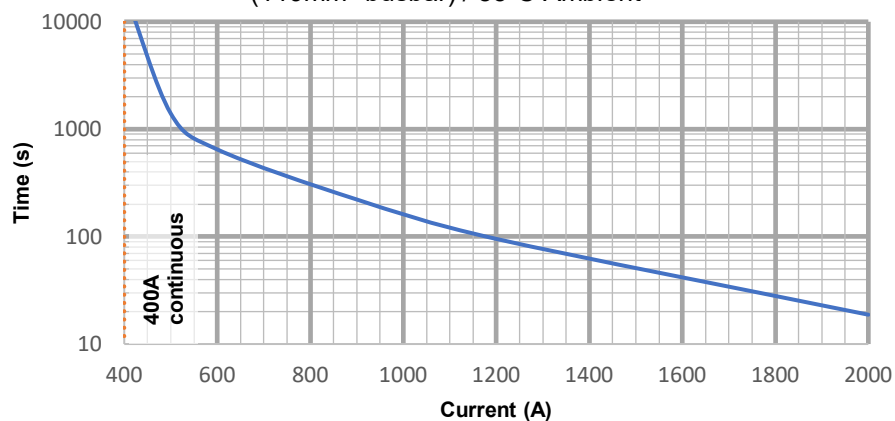
### Application Notes

- Current carry @ 85°C Ambient (75°C for 600A version)
- 170°C max terminal temperature
- Graphs provided for design reference; user to verify system temperatures

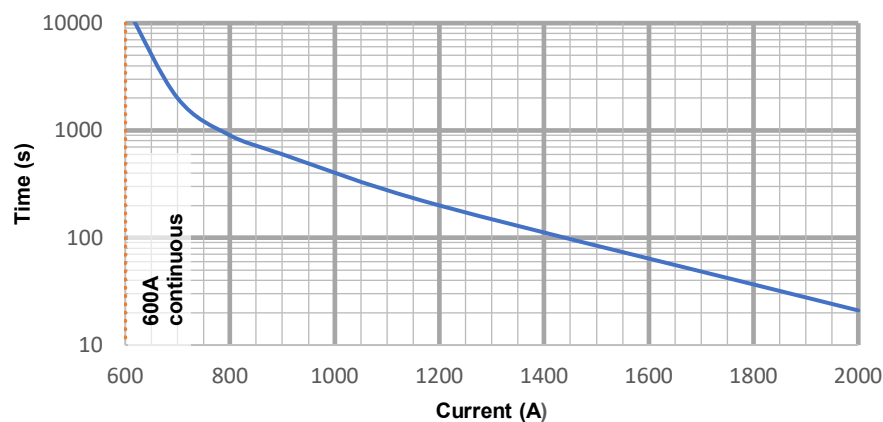
#### HVBD3 Series Momentary Current Carry (68mm<sup>2</sup> busbar) / 85°C Ambient



#### HVBD4 Series Momentary Current Carry (119mm<sup>2</sup> busbar) / 85°C Ambient



#### HVBD6 Series Momentary Current Carry (250mm<sup>2</sup> busbar) / 75°C Ambient



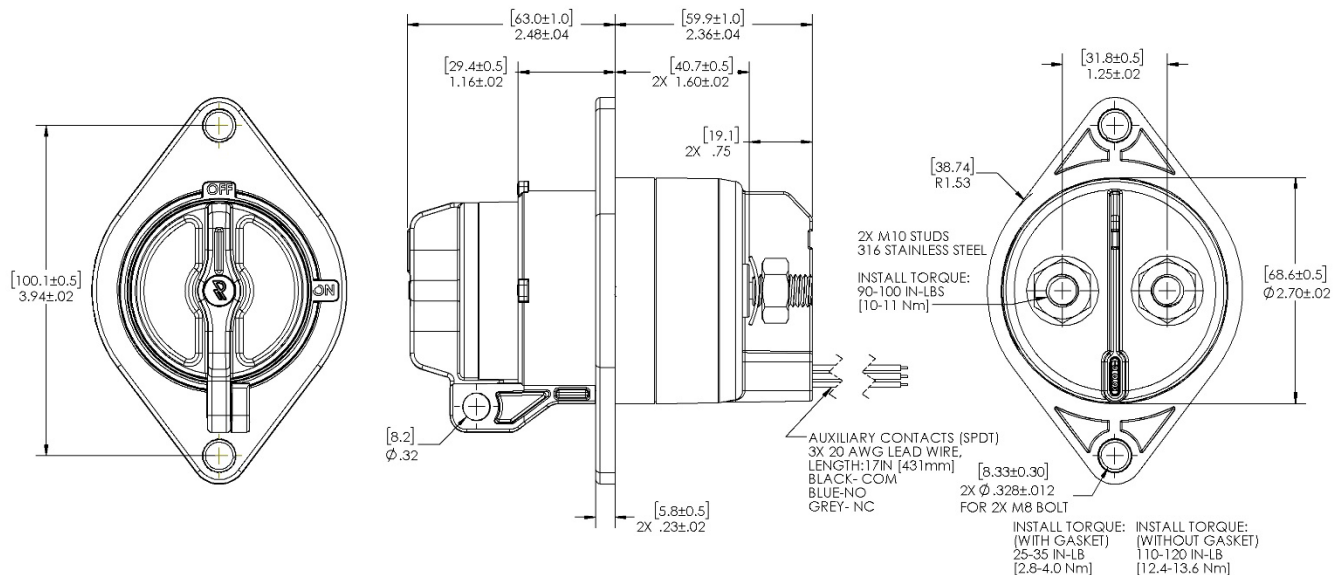
## OPTIONS

TABLE 2. PRODUCT NOMENCLATURE				
	CURRENT RATING	MOUNTING	AUXILIARY CONTACTS	HANDLE COLOR
HVBD	<b>3</b> 300 Amp	<b>A</b> 100 mm C:C	<b>A</b> Included	<b>R</b> Red
	<b>4</b> 400 Amp		<b>X</b> None	<b>B</b> Black
	<b>6</b> 600 Amp			

### Optional SPDT auxiliary switch details

- Main contacts close before auxiliary contacts when switching from OFF to ON
- Auxiliary contacts open before main contacts when switching from ON to OFF
- IP67 sealed
- Auxiliary contacts rated to (3A @ 12VDC 100k cycles)

## PRODUCT DIMENSIONS IN. [mm]



## AVAILABLE ACCESSORIES

### LOTO Padlock

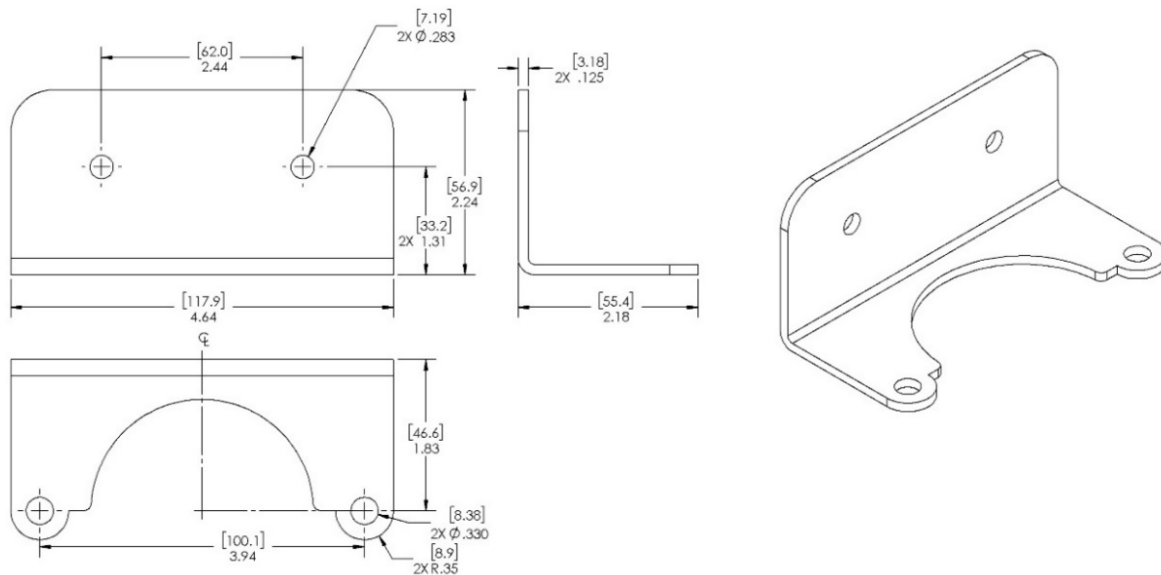
- Safe operation requires the use of an OSHA certified lockout/tagout (LOTO) padlock to ensure the switch remains in the off position
- Lockout Tagout Padlock Requirements:
  - Shackle DIA: 9/32"
  - Vertical Clearance: 3/4"
  - Horizontal Clearance: 5/8"
- Contact Rincon Power for OSHA certified lockout tagout padlock



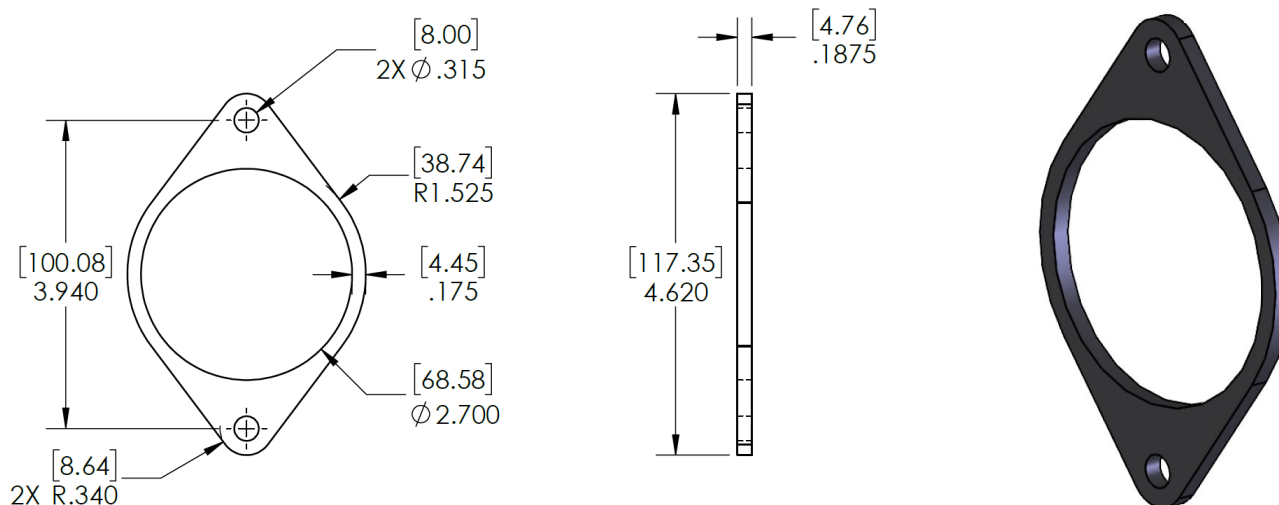
## AVAILABLE ACCESSORIES (cont.)

### RP2099 Mounting Bracket

- Allows for 90-degree mounting



### RP2127 Mounting Gasket



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