

# HVBD8 SERIES

**High Voltage Battery Disconnect** 

800A CONTINUOUS DUTY

**1500VDC** SYSTEM VOLTAGE





# **APPLICATIONS**



IV Battery Heavy Truck Systems



Off-Road Vehicles



Marine





FEATURES

## 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
- Designed and Assembled in the USA

## 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>	800A continuous (350mm^2 Bus Bar)		
Overload Current <sup>2</sup>	See graphs on next page		
Make and Break <sup>1</sup> (400A @ 24VDC)	5,000 cycles		
Contact Resistance (Measured at 200A)	Typ:0.06mΩ, Max: 0.120 mΩ		
Min Insulation Resistance	100ΜΩ		
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	PAĞF		
Switch Lever Material	PAGF		
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.

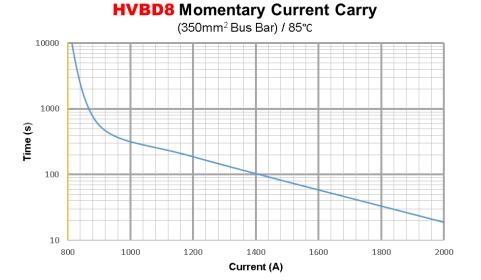
<sup>3</sup> Gasket and or RTV required for feedthrough applications where IP67 is required at the housing flange mounting feature.



#### **PERFORMANCE** (cont.)

#### **Application Notes**

- 170°C Max Terminal Temperature
- 350mm<sup>2</sup> Bus Bar
- Graphs provided for design reference; user to verify system temperatures

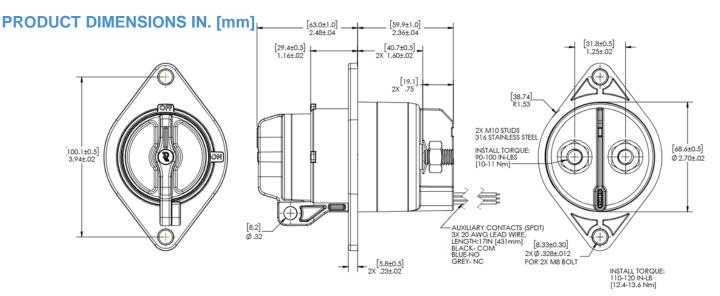


### **OPTIONS**

TABLE 2. PRODUCT NOMENCLATURE					
	CURRENT RATING	MOUNTING	AUXILIARY CONTACTS	HANDLE COLOR	
HVBD	<b>8</b> 800 Amp <b>A</b> 100 mm C:C	A 100 mm C:C	A Included	R Red	
		X None	B Black		

#### **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)





# **AVAILABLE ACCESSORIES**

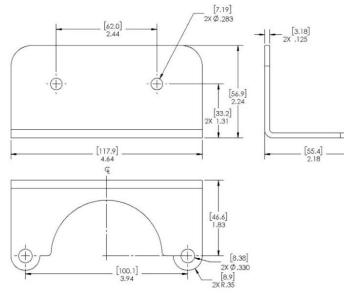
#### **LOTO Padlock**

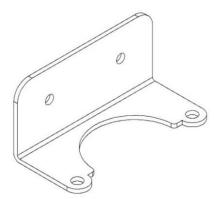
- Safe operation requires the use of an OSHA certified lockout/tagout (LOTO) padlock to ensure the switch remains in the off position
- Lockout Tagout Padlock Requirements:
  - Shackle DIA: 9/32"
  - Vertical Clearance: 3/4"
  - Horizontal Clearance: 5/8"
- Contact Rincon Power for OSHA certified lockout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



#### **RP2099 Mounting Bracket**

Allows for 90-degree mounting

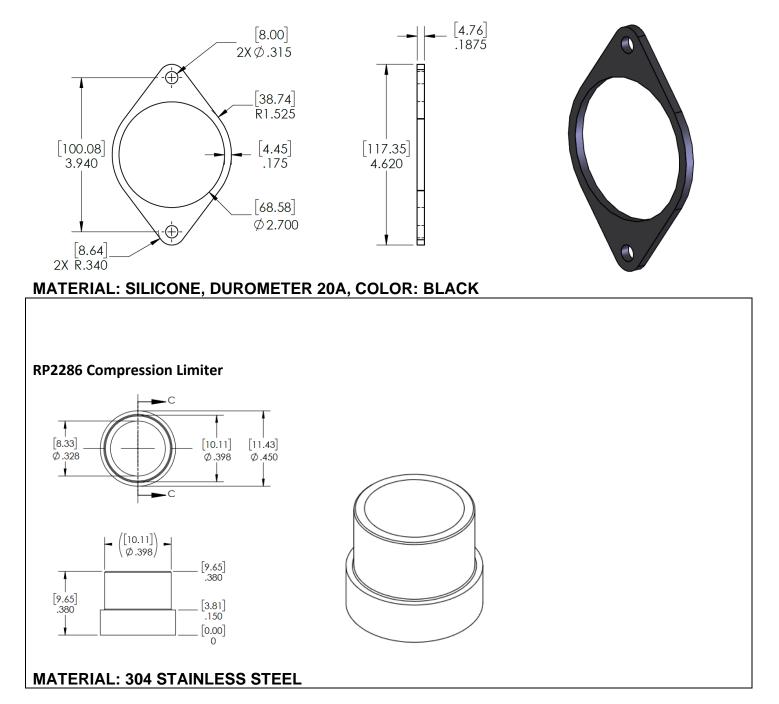






# AVAILABLE ACCESSORIES (cont.)

## **RP2127 Mounting Gasket**



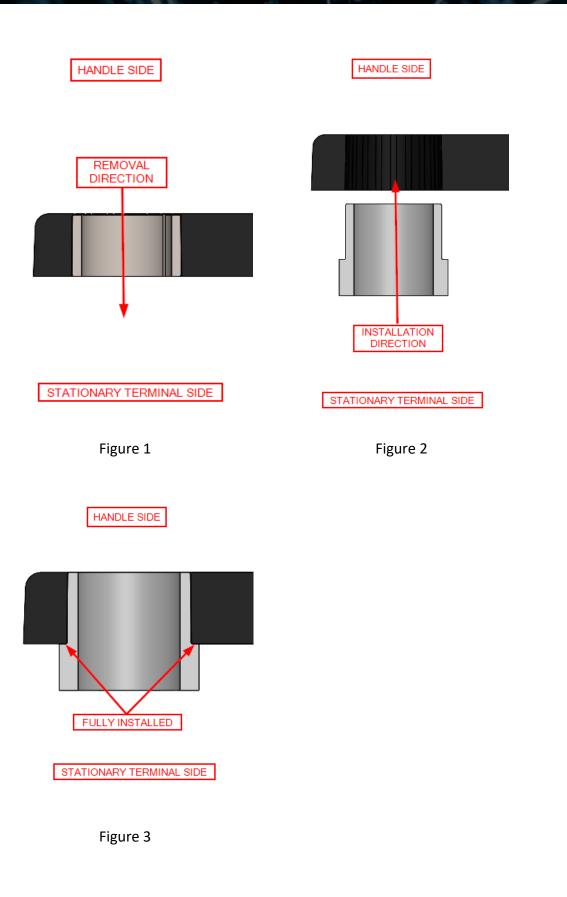


#### **Gasket Application Notes:**

For surface mount applications that require IP testing we recommend the following installation steps to ensure a robust seal is created.

- 1. Surface finish of VDI121 or lower for mounting surface
- 2. Clean surface with isopropyl alcohol to remove contaminates
- 3. Remove the original low profile compression limiters (Figure 1) from HVB housing and replace them with RP2286 Compression limiters (Figure 2 / 3)
- 4. Apply bead of silicone adhesive around DUT thru hole (we recommend Dowsil 739)
- 5. Install gasket on DUT and Compression Limiters
- 6. Insert DUT into the mounting surface thru hole with the mounting fastener holes aligned with the mating fastener holes in the mounting surface
- 7. Install the mounting fasteners lightly to evenly seat the device and gasket on the bead of silicone previously applied and the mounting surface
- 8. Apply an installation torque of 110-120 in-lb to the mounting fasteners
- 9. Allow up to 72hrs @ room temperature for the silicone RTV to cure before testing







#### Legal Disclaimer Notice for Rincon Power, LLC Datasheet

This legal disclaimer applies to purchasers and users of products manufactured by or on behalf of Rincon Power, LLC ("Rincon"). Unless otherwise expressly indicated in writing, Rincon's products, product specifications and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest revision information and verify that such information is current and complete before placing orders for Rincon's products. Users should always verify the actual performance of the Rincon's products in their specific systems and applications.

Except as expressly set forth in the relevant purchaser order terms and conditions or applicable agreement, Rincon makes no warranty, representation or guarantee regarding the products, expressed or implied, including, but not limited to, a warranty of merchantability or fitness for a particular purpose. To the maximum extent permitted by applicable law, Rincon disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

In no event shall Rincon be liable for any incidental or consequential damages resulting from the use, misuse or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory.