

# High Current Connector for Busbar applications

## PS4 Series



### Overview

High Current Connector for Busbar applications  
Plug-in design reduces man-hours required for construction and maintenance while improving safety.

### Features

#### 1. Allows a high current

Supports 150A (Derating curve, ambient temp 25°C : 400A) and 300A (Derating curve, ambient temp 25°C : 430A).

The current value differs with the thickness of the busbar.

#### 2. Floating structure

Floating design with  $\pm 2\text{mm}$  for easy mating in blind mating applications which do not allow for easy visual inspection.

The connector itself floats when unmated and moves freely in the range of  $\pm 2\text{mm}$ . However, when the busbar is inserted, it is secured by the contact pressure and the contact is stabilized.

#### 3. Plug-in design

Plug-in design reduces man-hours required for construction and maintenance while improving safety.

#### 4. Small-size design

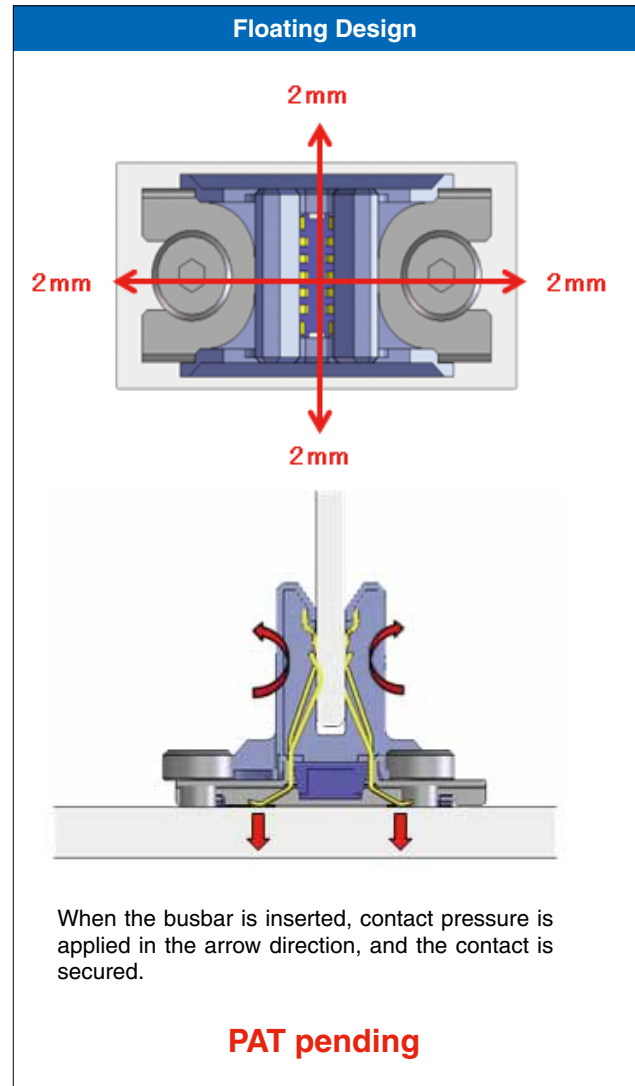
Suitable for small-size design. Supports 1U rack size.

### Product Specifications

Ratings	Current	Busbar thickness : 3.175T 150A(Note 1), 400A (Derating curve, ambient temp 25°C) Busbar thickness : 6.35T 300A(Note 1), 430A (Derating curve, ambient temp 25°C)	Operating temperature range	-40 to +105°C
	Voltage	AC/DC 600V	Storage temperature range	-40 to +60°C

Note 1 : UL, C-UL certifications have been obtained while changing conditions such as rated current and voltage multiple times.  
For details, see the "Conditions on Safety Standards (UL, C-UL)" on page 4.

Items	Specifications	Conditions
1. Contact resistance	0.5mΩ or less	Measured at 1A DC
2. Repeated operation	0.7mΩ or less	50 times
3. Shock resistance	No electrical discontinuity of 10μs or more	Acceleration : 490m/s <sup>2</sup> , duration : 11ms, 3-axis half-sine wave in both directions, 3 cycles for each
4. Vibration resistance	No electrical discontinuity of 10μs or more	10 to 55Hz, half amplitude 0.75mm, 3-axis in both directions, 3 cycles for each
5. Temperature cycles	0.7mΩ or less	Temperature -40 → +105°C Time 30 → 30 minutes
6. Brine spraying	0.7mΩ or less	Left in the environment of 5% brine water with temperature 35°C for 48 hours.



### Materials / Finish

Component	Materials	Color/Finish	Remarks
Insulation case	Synthetic resin	Black color	UL94V-0
Contact	Copper alloy	Silver plated	-
Bracket	Stainless steel	-	-
Pressor plate	Synthetic resin	Black color	UL94V-0
Floating screw	Steel	Nickel plated	-

### Product Number Structure

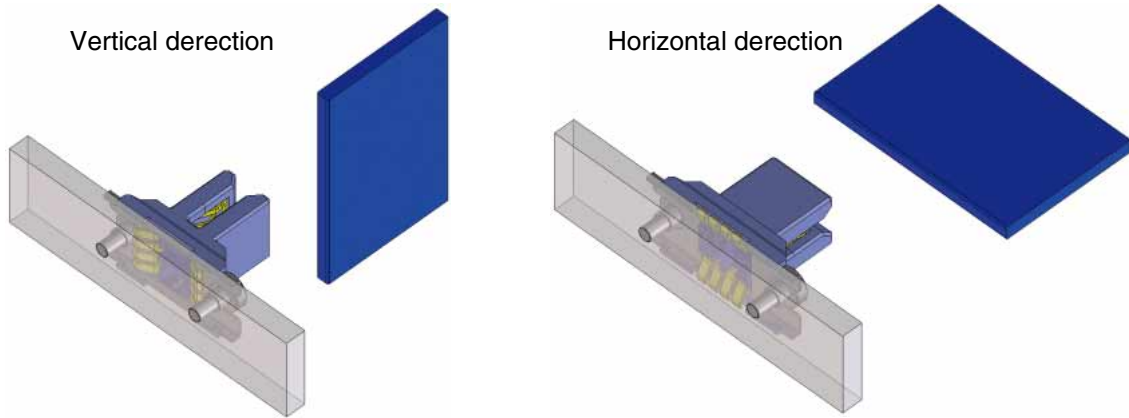
Refer to the chart below when determining the product specifications from the product number.  
Please select from the product numbers listed in this catalog when placing orders.

**PS4** **A** - **6.35T**

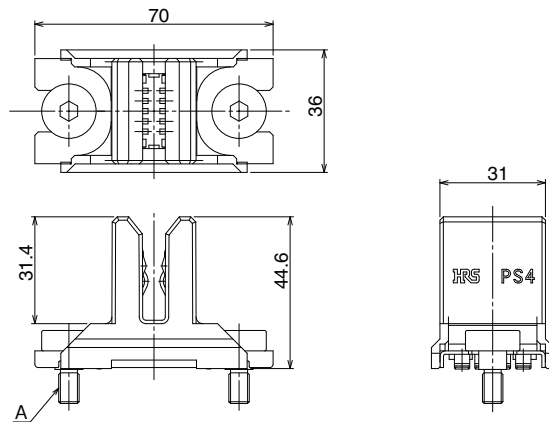
①      ②      ③

① Series name : PS4
② Busbar insertion direction : No symbol : Vertical direction A : Horizontal direction
③ Busbar thickness : 6.35T : 6 or 6.35 3.175T : 3 or 3.175

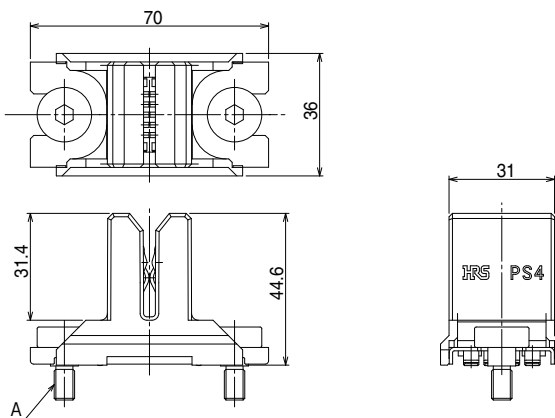
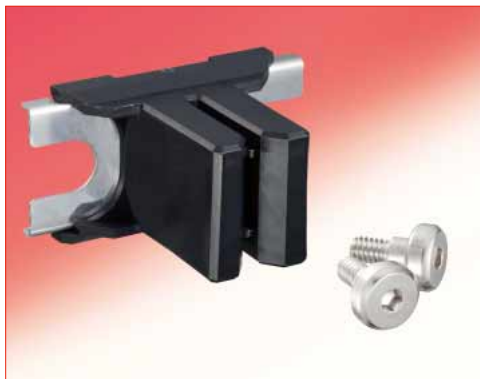
### Functional Diagram



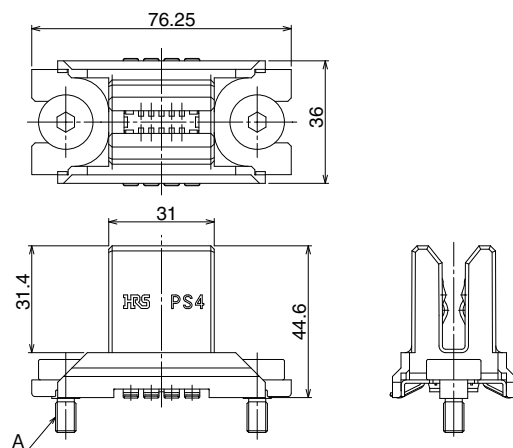
### Connector



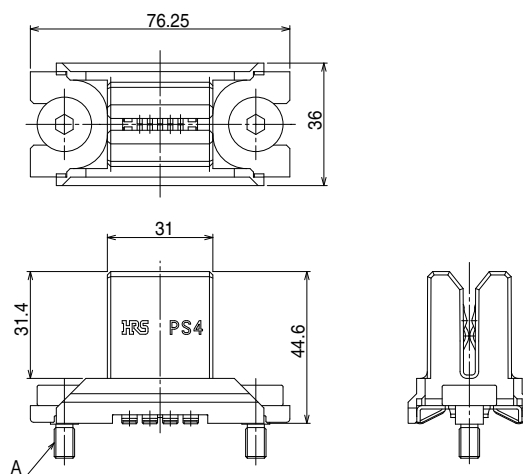
Part No.	HRS No.	A	Packaging
PS4-6.35T	236-1011-0	No.1/4-20UNC	1pcs
PS4-6.35T (01)	236-1011-0 01	M6	1pcs



Part No.	HRS No.	A	Packaging
PS4-3.175T	236-1012-0	No.1/4-20UNC	1pcs
PS4-3.175T (01)	236-1012-0 01	M6	1pcs



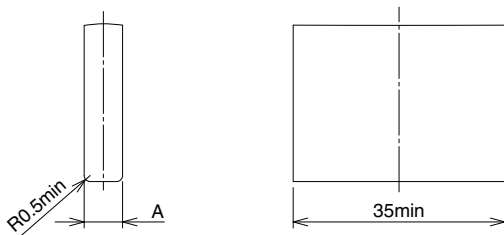
Part No.	HRS No.	A	Packaging
PS4A-6.35T	236-1018-0	No.1/4-20UNC	1pcs
PS4A-6.35T (01)	236-1018-0 01	M6	1pcs



Part No.	HRS No.	A	Packaging
PS4A-3.175T	236-1053-0	No.1/4-20UNC	1pcs
PS4A-3.175T (01)	236-1053-0 01	M6	1pcs

May.1.2021 Copyright 2021 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

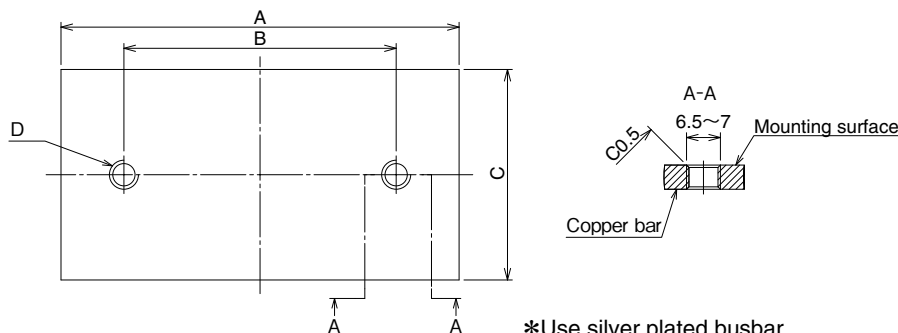
### Busbar Dimensions



\*Use silver plated copper bars.

Part No.	HRS No.	A
PS4-6.35T	236-1011-0	5.88 to 6.45
PS4-6.35T (01)	236-1011-0 01	
PS4A-6.35T	236-1018-0	
PS4A-6.35T (01)	236-1018-0 01	
PS4-3.175T	236-1012-0	2.92 to 3.275
PS4-3.175T (01)	236-1012-0 01	
PS4A-3.175T	236-1053-0	
PS4A-3.175T (01)	236-1053-0 01	

### Copper Bar Attachment Dimensions



\*Use silver plated busbar.

Part No.	HRS No.	A	B	C	D
PS4-6.35T	236-1011-0	76min	50	42min	No.1/4-20UNC
PS4-6.35T (01)	236-1011-0 01				M6
PS4-3.175T	236-1012-0				No.1/4-20UNC
PS4-3.175T (01)	236-1012-0 01				M6
PS4A-6.35T	236-1018-0	82.25min	56.25	43.5min	No.1/4-20UNC
PS4A-6.35T (01)	236-1018-0 01				M6
PS4A-3.175T	236-1053-0				No.1/4-20UNC
PS4A-3.175T (01)	236-1053-0 01				M6

### Safety Standards Certifications (UL, C-UL)

The PS4 series has received safety certifications from the UL, C-UL under the conditions provided in Table 1. Conditions for safety standards vary depending on submitted applications of current and voltage ratings. See Table 1.

Table 1. Conditions for UL and C-UL

	Condition①	Condition②
Rated Voltage (AC/DC)	600V	
Rated Current	150A	300A
Busbar	Copper (Silver plated) Size : 50mm×50mm Thickness : 3.175mm	Copper (Silver plated) Size : 50mm×50mm Thickness : 6.35mm
Copper Bar	Copper (Silver plated) Size : 125mm×40mm Thickness : 5.0mm	Copper (Silver plated) Size : 125mm×40mm Thickness : 5.0mm



**HIROSE ELECTRIC CO.,LTD.**

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN  
 TEL: +81-45-620-3526 Fax: +81-45-591-3726  
<http://www.hirose.com>  
<http://www.hirose-connectors.com>