

PS4 Series

High Current Connector for Busbar Applications



High-Current



Floating



Busbar



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Overview

High Current Connector for Busbar applications. The pluggable busbar connector reduces man-hours required for construction and maintenance while improving safety.

Features

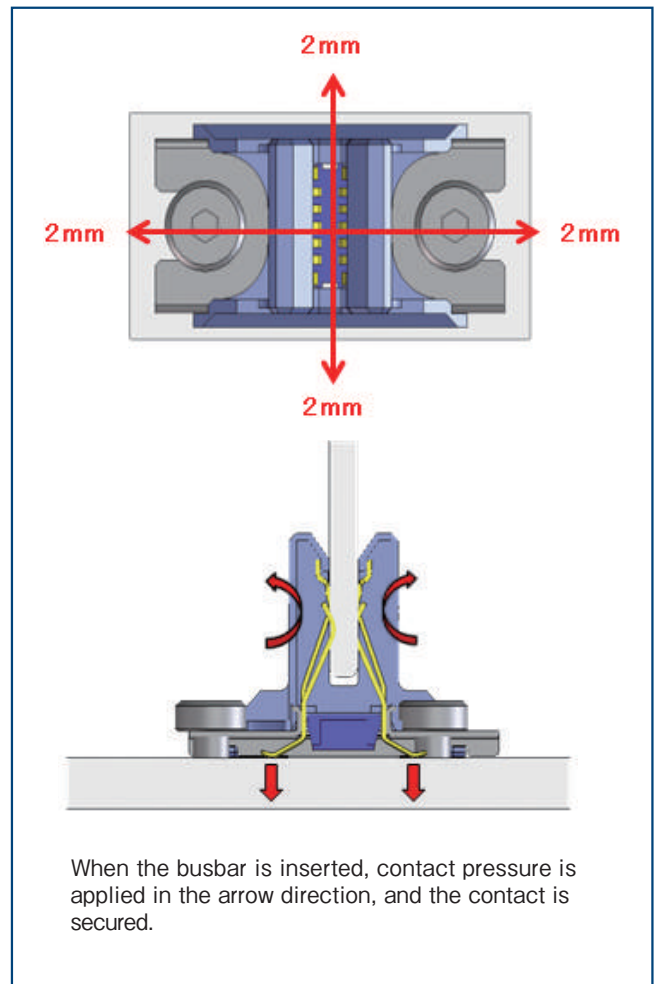
1. Supports High Current

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

The current value varies based on the busbar's thickness.

2. Floating Structure (Patent pending)

Floating design with $\pm 2\text{mm}$ allows for easy mating in blind mating situations where visual inspection isn't clear-cut. While the connector floats and moves within $\pm 2\text{mm}$ when unmated, once the busbar is inserted, the contact pressure ensures stability.



3. Pluggable Busbar Connector

The pluggable busbar connector reduces man-hours required for construction and maintenance while improving safety.

4. Compact Design

Suitable for compact designs. Supports 1U rack size.

Product Specifications

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

Note: 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)".

Items	Specifications	Conditions
Contact Resistance	0.5m Ω Max.	Measured at 1A DC
Mating Durability	0.7m Ω Max.	50 times
Shock Resistance	No electrical discontinuity of 10 μs or more	Acceleration : 490m/s ² , Duration : 11ms, 3-axis half-sine wave in both directions, 3 cycles for each
Vibration Resistance	No electrical discontinuity of 10 μs or more	10 to 55Hz, Half Amplitude 0.75mm, 3-axis in both directions, 3 cycles for each
Temperature Cycles	0.7m Ω Max.	Temperature : -40 → +105°C Time : 30 → 30 minutes
Salt Water Spray	0.7m Ω Max.	Exposed to an environment of 5% brine water at 35°C for 48 hours.

Materials / Finish

Component	Materials	Color/Finish	Remarks
Insulation Case	Synthetic Resin	Black	UL94V-0
Contact	Copper Alloy	Silver Plating	—
Bracket	Stainless Steel	—	—
Pressor Plate	Synthetic Resin	Black	UL94V-0
Floating Screw	Steel	Nickel Plating	—

Product Number Structure

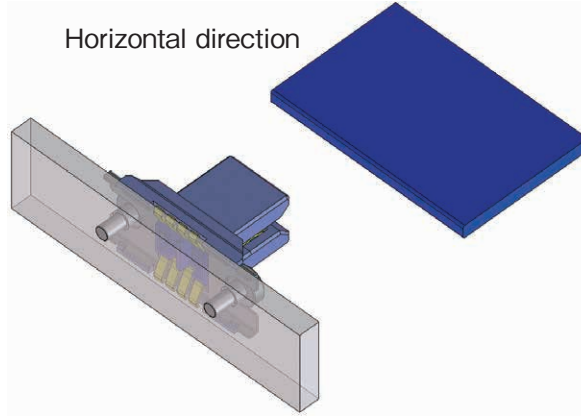
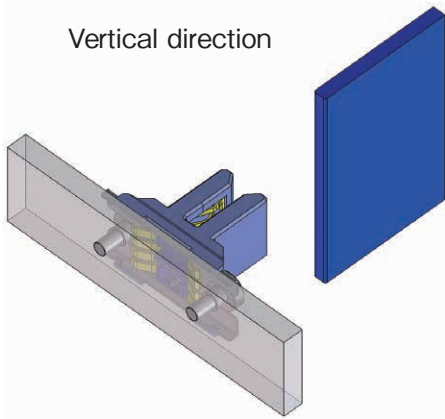
Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

PS4 A - 6.35T - F19

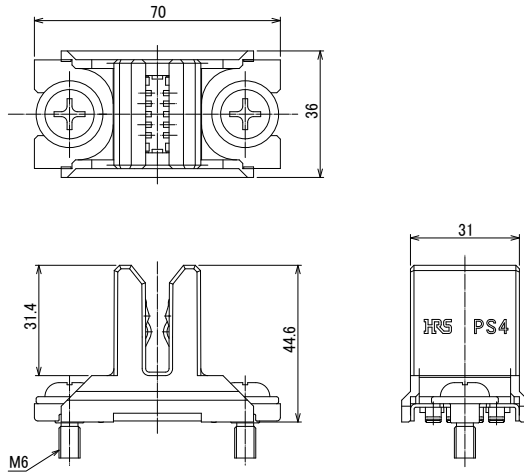
① ② ③ ④

① Series Name	PS4	③ Busbar Thickness	6.35T : 6 or 6.35 3.175T : 3 or 3.175
② Busbar Insertion Direction	None : Vertical Direction A : Horizontal Direction	④ Identification No.	F19

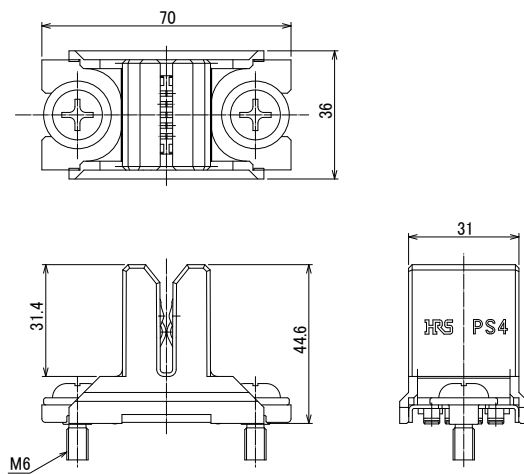
Functional Diagram



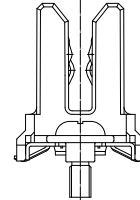
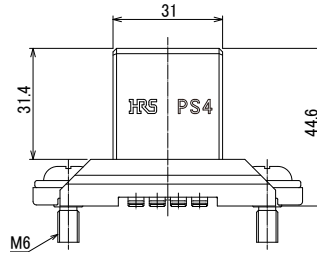
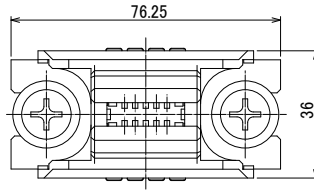
Connector



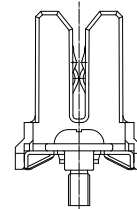
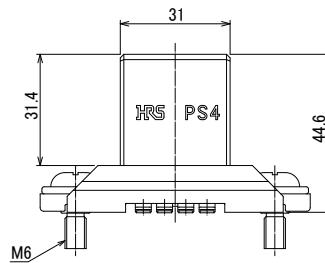
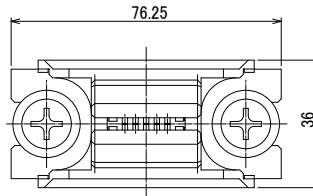
Part No.	HRS No.	Purchase Unit
PS4-6.35T-F19	CL0236-1087-0-00	16pc per tray



Part No.	HRS No.	Purchase Unit
PS4-3.175T-F19	CL0236-1088-0-00	16pc per tray

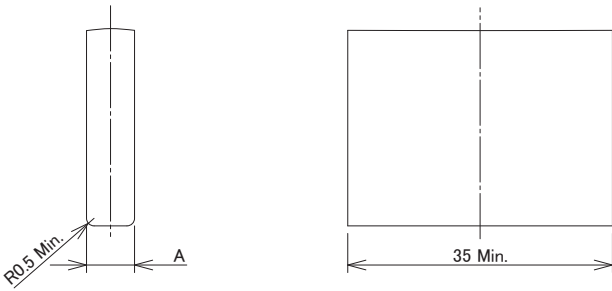


Part No.	HRS No.	Purchase Unit
PS4A-6.35T-F19	CL0236-1089-0-00	16pc per tray



Part No.	HRS No.	Purchase Unit
PS4A-3.175T-F19	CL0236-1090-0-00	16pc per tray

Busbar Dimensions

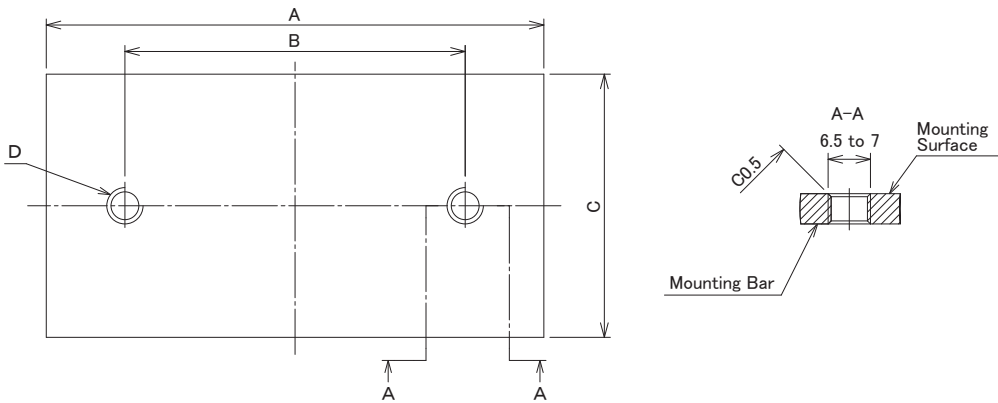


Unit : mm

Part No.	HRS No.	A
PS4-6.35T-F19	CL0236-1087-0-00	5.88 to 6.45
PS4A-6.35T-F19	CL0236-1089-0-00	
PS4-3.175T-F19	CL0236-1088-0-00	2.92 to 3.275
PS4A-3.175T-F19	CL0236-1090-0-00	

Note : Please use silver plating busbars.

Mounting Bar Dimensions



Unit : mm

Part No.	HRS No.	A	B	C	D
PS4-6.35T-F19	CL0236-1087-0-00	76 Min.	50	42 Min.	M6
PS4-3.175T-F19	CL0236-1088-0-00				
PS4A-6.35T-F19	CL0236-1089-0-00	82.25 Min.	56.25	43.5 Min.	
PS4A-3.175T-F19	CL0236-1090-0-00				

Note : Please use pure copper silver plating mounting bar.

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

	Condition ①	Condition ②
Rated Voltage (AC/DC)	600V	
Rated Current	150A	300A
Busbar	Copper (Silver Plating) Size : 50mm × 50mm Thickness : 3.175mm	Copper (Silver Plating) Size : 50mm × 50mm Thickness : 6.35mm
Copper Bar	Copper (Silver Plating) Size : 125mm × 40mm Thickness : 5.0mm	Copper (Silver Plating) Size : 125mm × 40mm Thickness : 5.0mm

While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

HIROSE



HIROSE ELECTRIC CO.,LTD.

2-6-3 Nakagawa Chuoh, Tsuzuki-Ku, Yokohama-Shi 224-8540, JAPAN
<https://www.hirose.com>