

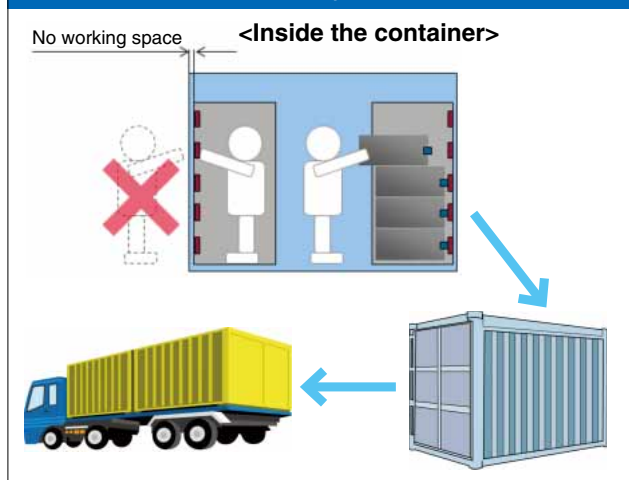
NEW

High Current Plug-in Connector

PS3F Series



Front access is best suited to the systems with limited rear access.



Overview

High current plug-in connector
 Contributes to operators' safety in installing. While reducing installation man-hours.
 Front access is best suited to the systems without rear access Supports IP2X finger protection.
 Harness operation is possible with multi-purpose tools.

Features

1. Allows high current

Power contact supports rated current up to 100Amps.
 (Derating curve, ambient temp 25°C : 125A)

2. Front access is best suited to the systems without rear access

Front access on system rack side allows maintenance from mating side (front side of the component), and is best suited for installing components in places without rear access.

3. Floating amount : $\pm 2.5\text{mm}$

Floating design of the receptacle requires a rotation of $\pm 2.5\text{mm}$ by the dedicated staged screw in X and Y axis directions.

4. The signal section uses the Hirose GT8E connector.

The signal line uses the connector with proven records in automobile markets (GT8E).

5. Supports IP2X finger protection

Finger protection of the plug provides safety operation for field operators when it is used on the battery side.

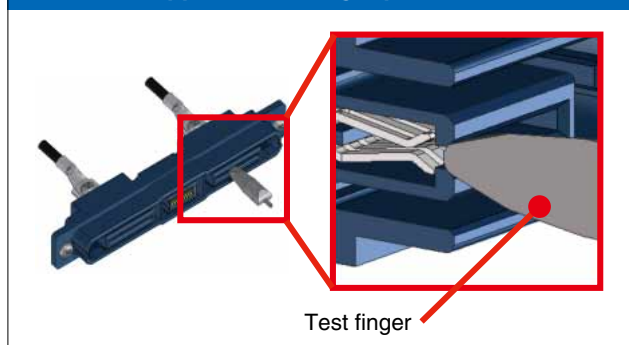
6. UL, C-UL and TÜV-certified

Both the plug and the receptacle meet safety standards (UL, C-UL, TÜV standards).

7. Harness operation is possible with multi-purpose tools

Harness operations includes screwing the plug with a torque wrench etc. and crimping of the receptacle. All of these operations can be carried out with multi-purpose tools. (Torque wrench : JIS B 4652, crimp : JIS C 9711)

Supports IP2X finger protection



Usage

Power supply devices such as batteries and UPS etc.

In cases where the application will demand a high level of reliability, such as automotive, please contact a company representative for further information.

Product Specifications

Ratings	Rated Current	Power : 100A/1pin (Note 1), 125A/1pin (Derating curve, ambient temp 25°C) Signal : 1A/1pin	Rated Voltage	Power : AC/DC 1000V (Note 1) Signal : AC/DC 250V
	Applicable Cable	Power : 22sq (WL1,WL2)(Note 1), 3 AWG Signal : 20 to 22AWG	Op. Temp. Range	-40°C to +105°C (including temperature rise due to electric current)
			Stor. Temp. Range	-40°C to +60°C

*1 : UL, C-UL and TÜV 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, TÜV)" on page 6.

Materials / Finish

Receptacle

Parts	Materials	Color/Finish	Remarks
Insulator	PBT	Black	UL94V-0
Power male contact	Copper alloy	Silver plated	————
Signal male contact	Copper alloy	Contacting part : Gold-plated, GT8E section : Tin-plated	————
Case A	PBT	Black	UL94V-0
Case B	PBT	Black	UL94V-0
Floating screw	Steel	Nickel plated	————

Plug

Parts	Materials	Color/Finish	Remarks
Insulator	PBT	Black	UL94V-0
Power female contact	Copper alloy	Silver plating	————
Signal female contact	Copper alloy	Contacting part : Gold-plated, GT8E section : Tin-plated	————
Contact Retention plate C	PBT	Black	UL94V-0

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.

1. Connector

PS3F – 2 R S / 12 S / 12 S

① ② ③ ④ ⑤ ④ ⑤ ④

2. Power male contact

PS3F – R P C (22)

① ③ ④ ⑥ ⑦

3. Power male contact

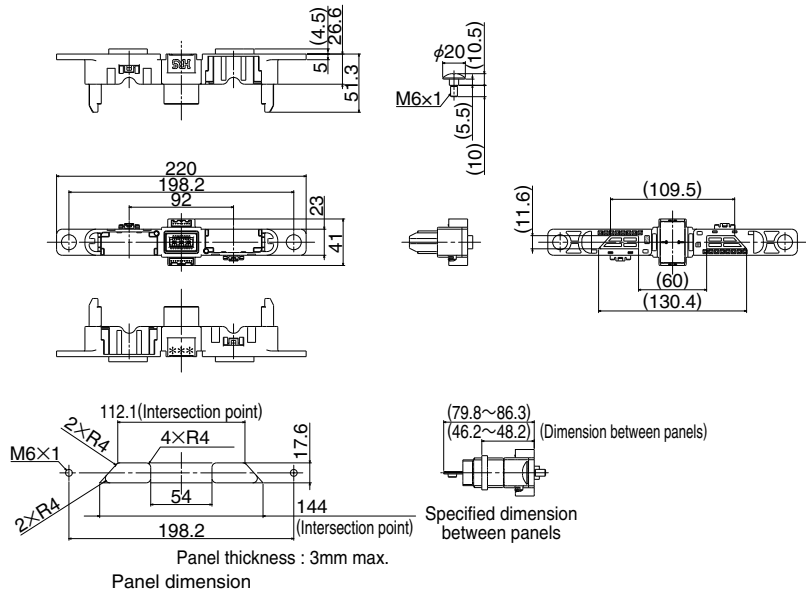
PS3F – P C – HOLDER

① ④ ⑥ ⑧

① Series name : PS3F	⑤ No. of signal contacts :
② No. of power contacts :	⑥ Power contact shapes : C : Crimp contacts
③ Current capacity of power contact : R : 100A	⑦ Applicable wire : 22sq
④ Contact shapes : P : Male contact S : Female contact	⑧ Shape of case : Mating case

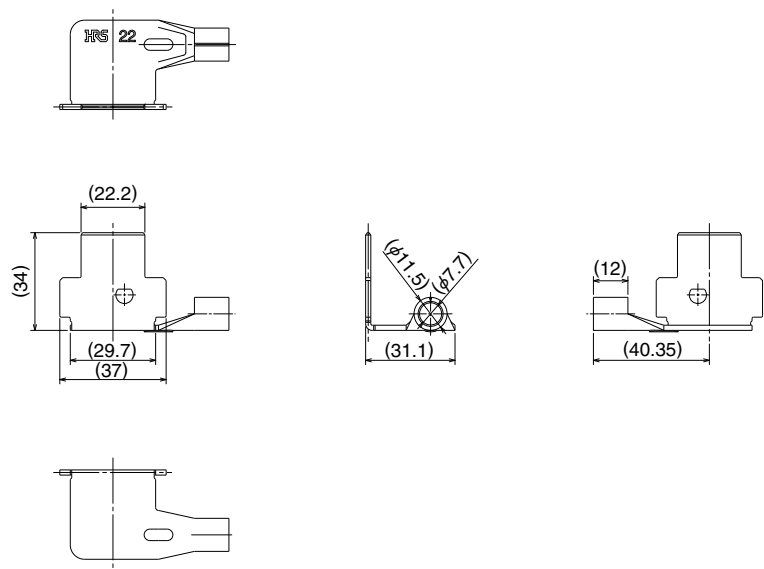
Receptacle

Main receptacle body : PS3F-2R/8P/10P



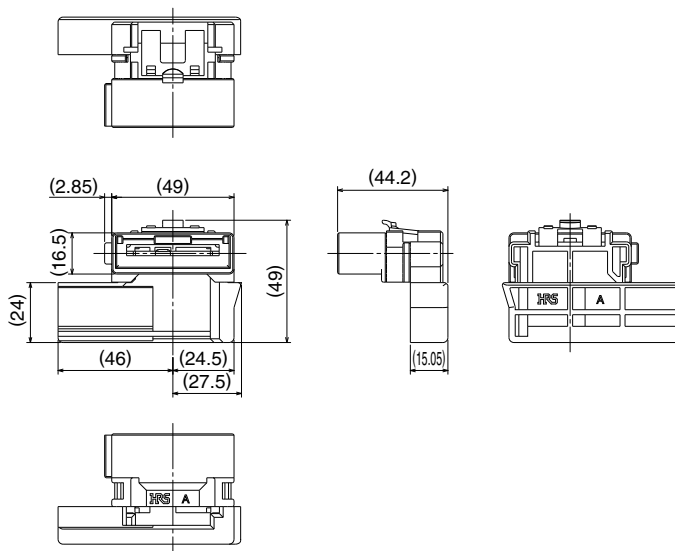
Part No.	HRS No.	RoHS	Packaging
PS3F-2R/8P/10P	236-1056-7 00	○	1 box (32pcs.)
PS3F-2R/8P/10P(01)	236-1056-7 01	○	1pcs.

Power male contact for receptacles : PS3F-RPC (22)



Part No.	HRS No.	RoHS	Packaging
PS3F-RPC (22)	236-1057-0 00	○	1 box (64pcs.)
PS3F-RPC (22) (01)	236-1057-0 01	○	1pcs.

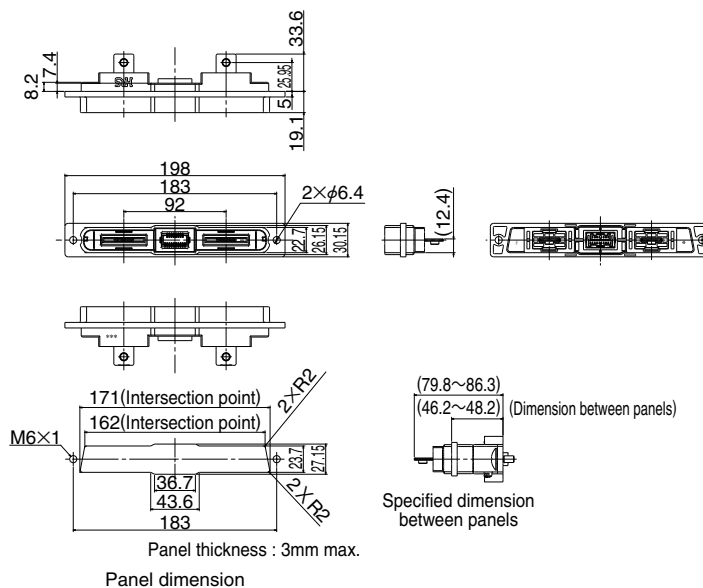
● Power male contact cover : PS3F-PC-HOLDER



Part No.	HRS No.	RoHS	Packaging
PS3F-PC-HOLDER	236-1058-2 00	○	1 box (64pcs.)
PS3F-PC-HOLDER(01)	236-1058-2 01	○	1pcs.

■ Plug

● PS3F-2RS/8S/10S



Part No.	HRS No.	RoHS	Packaging
PS3F-2RS/8S/10S	236-1055-4 00	○	1 box (32cs.)
PS3F-2RS/8S/10S(01)	236-1055-4 01	○	1pcs.

◆ Usage Precautions

- M6 screws are used to attach to the panels. The recommended amount of torque used to tighten the screws should be 2.5 to 5.2 N · m.
- The recommended fastening torque of the screw attached to the power supply female contact on the plug side is 2.5 to 5.2 N · m.
Please use multi-purpose tools including torque wrench etc. (JIS B 4652) for screw-fastening.
In addition, please use multi-purpose tools (JIS C 9711) for crimping the power male contact on the receptacle side.
- Power contacts are silver plated and may react with the sulfide in the atmosphere.
This might cause the color to change to a dark brown.
The power contacts do not support hot-pluggable, so it cannot be used to shut off the power.

◆ Safety Standards Certifications (UL, C-UL, TÜV)

The PS3F series has received safety certifications from the UL, C-UL, and TÜV under the conditions provided in Table 1 and Table 2.

Conditions for safety standards vary depending on submitted applications of current and voltage ratings. See Table 1 and Table 2.

Table 1. Conditions for UL and C-UL

Rated Voltage (AC/DC)	Power 600V Signal 50V
Rated Current	Power 100A Signal 1A
Cable	Power 22sq (Note 1), 3 AWG Signal 22 AWG
Creepage Distance (Note 2)	MIN : 3.2mm
Clearance (Note 2)	MIN : 3.2mm

Table 2. Conditions for TÜV

Rated Voltage (AC/DC)	Power 1000V Signal 50V
Rated Current	Power 100A Signal 1A
Cable	Power 22sq (Note 1), 3 AWG Signal 22 AWG
Overvoltage Category	III
Contamination Level	3
Creepage Distance (Note 2)	MIN : 16mm
Clearance (Note 2)	MIN : 8mm
Insulation System	Basic insulation (Panel should be grounded)

Note 1 : Use the screw and crimp contact combination recommended below. The use of other screws and crimp contacts can affect clearance and creepage distance.

If you choose to use a different screw/contact combination, be sure to check the measurements for clearance and creepage. Make sure that these conditions will meet the UL, C-UL and TÜV.

- Recommended screw: JIS B 1188 spring lock washer + cross recessed head screw with captive flat washer M6×12
- Recommended crimp contacts

Note 2 : Subjects of clearance and creepage distance are as follows.

- Between crimp contacts
- Between power contact and panel
- Between crimp contact and panel
- Between screw (attached to power contact) and panel

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