J599HV High-Voltage, High-Current Circular Connectors, up to 300 A

Up to 300 A · 3500 V withstanding · IP65 · HV interlock option



Current rating	80–300 A per contact
Withstanding voltage	3500 V
Contacts	1 to 4
Shell sizes	13 to 27
Protection	IP65
Temperature	–55 to +175 °C

Key features

- High-power contacts from size 6 (80 A) to size 4/0 (300 A)
- 3500 V dielectric withstanding voltage
- Optional high-voltage interlock (HVIL) circuit
- IP65 sealing and EMI shielding
- Threaded coupling with anti-decoupling; five-key polarization with six key positions
- Crimp, solder or bolted (screw) contacts; straight, 90° or 45° backshells
- Small and light for equipment bays and engine compartments; contact counts customizable

Specifications

Electrical

Parameter	Value	Condition
Dielectric withstanding voltage	3500 V	
Insulation resistance	≥ 5000 MΩ	
Current rating	80–300 A	Per contact, size 6 to 4/0

Mechanical and environmental

Parameter	Value	Condition
Ingress protection	IP65	
Coupling	Thread, anti-decoupling	M18 × 1 to M42 × 1
Durability	500 mating cycles	
Sine vibration	10–2000 Hz, 196 m/s², 12 h	
Shock	2940 m/s², 3 ms	
Operating temperature	–55 to +175 °C	
Salt spray	48 h	
Mold resistance	Grade 2, 28 days	

Versions

Series code	Version	Notes
J599HV/26	Plug	
J599HV/20	Square-flange receptacle	
...01 / ...02	Without / with high-voltage interlock	
(none) / W / X	Straight / 90° / 45° backshell	Bolted-contact versions have no backshell

Shell materials and finishes

Code	Shell material	Finish	Shell conductivity	EMI shielding	Temperature	Salt spray
F	Aluminum alloy	Nickel	—	EMI shielded	−55 to +175 °C	48 h

Contact sizes and current ratings

Contact size	Engaging diameter	Contact resistance	Current rating
6	4.52 mm	0.42 mΩ	80 A
4	5.72 mm	0.29 mΩ	100 A
2	7.19 mm	0.17 mΩ	150 A
0	9.07 mm	0.14 mΩ	200 A
2/0	10.31 mm	0.10 mΩ	250 A
4/0	12.70 mm	0.09 mΩ	300 A

How to order

J599HV/ [type] [finish] [shell] [arrangement] [contact] [key] [interlock] [backshell]

Example: **J599HV/26FC01JPA01W** — Plug, aluminum nickel, shell C (13), single size 6 crimp pin, key A, no interlock, 90° backshell

Code segment	Options
Type	**26** Plug
Type	**20** Square-flange receptacle
Finish	**F** Aluminum, nickel
Shell	**C D E F G H J K** Shell size 13, 15, 17, 19, 21, 23, 25, 27
Arrangement	**e.g. 01J** See the insert arrangement table below
Contact	**P / S** Crimp pin / socket
Contact	**PH / SH** Solder pin / socket
Contact	**Pt / St** Bolted pin / socket
Key	**N** Normal
Key	**A B C D E** Alternate
Interlock	**01** Without HV interlock
Interlock	**02** With HV interlock
Backshell	**(none)** Straight

Code segment	Options
Backshell	**W** 90°
Backshell	**X** 45°

Second example: J599HV/20FD01LStB01 — receptacle, shell D (15), single size 4 bolted socket, key B, no interlock, no backshell.

Insert arrangements

Arrangement	Contacts	Contact sizes
13-01J	1	1 × size 6
15-01L	1	1 × size 4
17-01b	1	1 × size 2
17-01h	1	1 × size 0
19-01J	1	1 × size 2/0
21-01	1	1 × size 4/0
23-02	2	2 × size 6
25-02	2	2 × size 4
25-04	4	4 × size 6
27-04	4	4 × size 4

Standards

- **GB 4208 (IEC 60529)** — IP65 degree of protection.

Request a quote or drawing: https://sinoxh.com/request-a-quote/?product=J599HV