



RFS Technologies' high-performance air dielectric coaxial cable connectors are designed to ensure a top-quality connector-cable interface, while simplifying and accelerating installation. These connectors, rigorously tested for mechanical and electrical compliance, can be installed quickly and securely with basic hand tools.

The outer contact features a tab flare and integrated O-ring sealing, enhancing both ease of use and durability. Designed for flexibility, the connectors are configured as gas-stop types but can be converted to gas-pass simply by drilling through the insulation.

With a flange interface that meets international EIA and IEC standards, these connectors are built for seamless compatibility. Each C03 series connector is packaged with a flange gasket, coupling element, and necessary hardware—everything required for a reliable and efficient connection.

#### FEATURES / BENEFITS

- High power rating for enhanced performance:** Built to handle high power levels, these connectors ensure reliable performance and efficient signal transmission, even under demanding conditions.
- Quick, labor-saving installation:** Installers can attach these connectors easily with basic hand tools, reducing time and effort on site.
- Adaptable to a variety of applications:** Designed as a gas-stop type, each connector can also be converted to gas-pass by drilling, offering flexibility to match specific needs.
- Broad compatibility across systems:** The flange interface complies with EIA and IEC standards, allowing for seamless integration into different setups.
- Connector kit convenience:** Each C03 series air cable connector comes with a flange gasket, coupling element, and complete hardware kit for mating with another flange, eliminating the need for additional parts and simplifying ordering and stocking.



Connector 3-1/8" EIA

## Technical features

### GENERAL SPECIFICATIONS

|                        |  |  |
|------------------------|--|--|
| Transmission Line Type |  | Coax Cable   |
| Cable Size             |  | 3-1/8  |
| Cable Type             |  | Air Dielectric   |
| Model Series           |  | HCA300-50 Series   |
| Connector Interface    |  | 3-1/8" EIA, Swivel Flange  |
| Connector Type         |  | Gas Stop, can be converted to Gas Pass type by drilling through the insulation |
| Sealing Method         |  | O-Ring   |
| Gender                 |  | Female, with coupling element provided   |

### ELECTRICAL SPECIFICATIONS

|                           |           |  |
|---------------------------|-----------|--|
| Nominal Impedance, ohms   | Ohm       | 50   |
| Insertion loss            | dB        | ≤ 0.05dB   |
| Connector Frequency Range | GHz       | DC to 1.64GHz  |
| VSWR, Return Loss         | VSWR (dB) | DC to 1.0GHz: 1.03 (36.6)<br>1.0GHz to 1.6GHz: 1.05 (32.3) |
| Peak Power Rating         | KW        | 640  |
| Average Power Rating      | KW        | 11.6 @ DC to 960MHz  |



## PRODUCT DATASHEET

**318EIA-HCA300-C03KT**

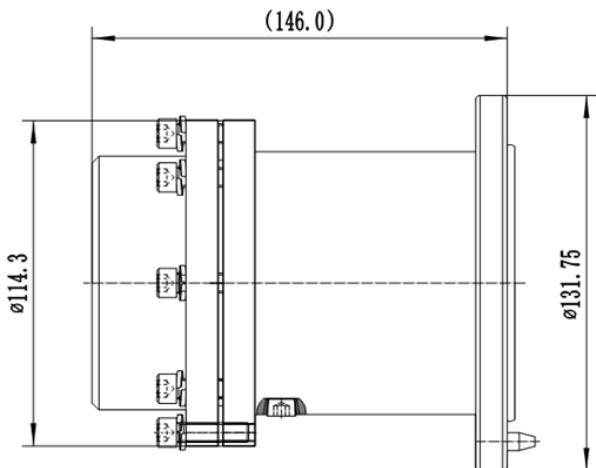
3-1/8" EIA Connector Kit for 3" Coaxial Air Dielectric Cable, O-Ring Sealing

**MECHANICAL SPECIFICATIONS**

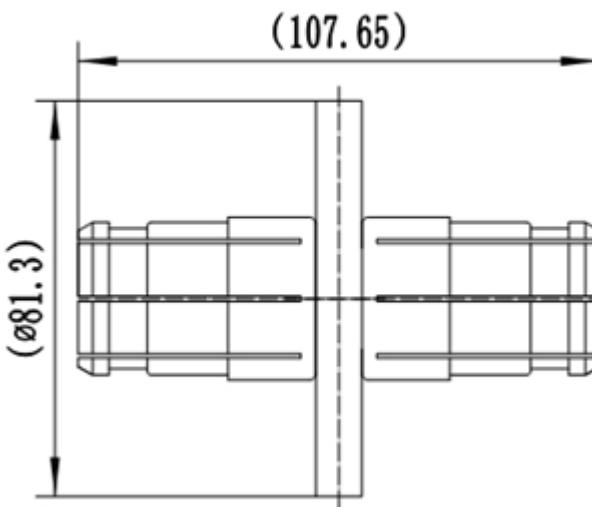
|                          |         |                       |
|--------------------------|---------|-----------------------|
| Plating Outer/Inner      |         | Tri-metal / Silver    |
| Length                   | mm (in) | 146 (5.75)            |
| Outer Diameter           | mm (in) | 114.3 (4.5)           |
| Weight                   | kg (lb) | 4.3 (9.5)             |
| Body Material            |         | Brass                 |
| Inner Contact Material   |         | Brass/Phosphor Bronze |
| Inner Contact Attachment |         | Tab Flare             |
| Outer Contact Attachment |         | Tab Flare             |
| Gas Inlet                |         | 1/8 NPT Female        |

**TESTING AND ENVIRONMENTAL**

|                       |        |                        |
|-----------------------|--------|------------------------|
| Waterproof Level      |        | IP68                   |
| Operation Temperature | °C(°F) | -55 to 85 (-67 to 185) |



Connector Outline Drawing, dimensions in mm



Coupling Element Outline Drawing, dimensions in mm

[External Document Links](#)[Installation Instruction](#)[Notes](#)

These accessories are provided with the connector.

[Protection Cap](#)[Coupling Element](#)[Flange O Ring](#)[Flange Screw Kit](#)

Order 318EIA-HCA300-C03RK for the connector reattachment kit.