

# CSB Series Broadband Motorized Coaxial Switches

## Features

- Broadband – DC to 806 MHz
- 3 or 4 port configurations
- Three port application require only the addition of a shorting cap
- Non-volatile position memory
- VSWR <1.05:1 typical
- Isolation > 55 dB typical
- Geneva drive mechanism provides precise position control
- Available with 115 Volt or 240 Volt AC motors
- 12 or 24 volts DC control voltage
- Mount in any orientation
- May be operated manually

## FM, VHF, and UHF Motorized Coaxial Switches

ERI broadband motorized coaxial switches are designed for operation in FM, VHF, and UHF broadcast systems. This new motorized switch is a coplanar design that simplifies interconnecting transmission line requirements and allows for more compact equipment configurations with fewer expensive coaxial elbows. The switches are engineered to provide high capability and long life. A Geneva drive mechanism provides exact 90 degree rotation of the contacts. The switches utilize a unique, flat plane, silver plated, dual-contact is designed to provide high power capability and long life. The switch drive can be either 115 VAC or 230 VAC with control voltages of 12 VDC or 24 VDC. Manual operation is provided via a hex drive Tee Wrench through a hole in the switch case. If power to the drive is interrupted, the control circuit provides nonvolatile memory so that the switch either holds its position or continues its transition upon re-application of AC power.



The standard configuration provided is a four port coaxial switch, the standard model can be adapted to three port configurations with the addition of a shorting cap. This allows the switch to be used in future configurations requiring 4 ports, by only removing the shorting cap.

## Part Numbers for AM, FM, and VHF TV Motorized Coaxial Switches

Part Number	Description
CS203-112	1-5/8-inch, four (4) port motorized coaxial switch. 115 VAC drive motor voltage, 12 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS203-124	1-5/8-inch, four (4) port motorized coaxial switch. 115 VAC drive motor voltage, 24 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS203-212	1-5/8-inch, four (4) port motorized coaxial switch. 230 VAC drive motor voltage, 12 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS203-224	1-5/8-inch, four (4) port motorized coaxial switch. 230 VAC drive motor voltage, 24 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS300-112	3-1/8-inch, four (4) port motorized coaxial switch. 115 VAC drive motor voltage, 12 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.

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Part Number	Description
CS300-124	3-1/8-inch, four (4) port motorized coaxial switch. 115 VAC drive motor voltage, 24 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS300-212	3-1/8-inch, four (4) port motorized coaxial switch. 230 VAC drive motor voltage, 12 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS300-224	3-1/8-inch, four (4) port motorized coaxial switch. 230 VAC drive motor voltage, 24 VDC control voltage. EIA flanged connections. Broadband, DC to 806 MHz.
CS400-112	4-1/16-inch, four (4) port motorized coaxial switch. 115 VAC drive motor voltage, 12 VDC control voltage. Flanged connections. Broadband, DC to 806 MHz.
CS400-124	4-1/16-inch, four (4) port motorized coaxial switch. 115 VAC drive motor voltage, 24 VDC control voltage. Flanged connections. Broadband, DC to 806 MHz.
CS400-212	4-1/16-inch, four (4) port motorized coaxial switch. 230 VAC drive motor voltage, 12 VDC control voltage. Flanged connections. Broadband, DC to 806 MHz.
CS400-224	4-1/16-inch, four (4) port motorized coaxial switch. 230 VAC drive motor voltage, 24 VDC control voltage. Flanged connections. Broadband, DC to 806 MHz.

NOTE: Specify AC motor voltage (115 or 230 VAC) and DC control voltage (12 or 24 VDC) at time of order.

## CS Series Motorized Coaxial Switch Specifications

### CS203 1-5/8-inch Motorized Coaxial Switch Specifications

Model:	CS203
Size:	1 5/8-inch
Impedance:	50 Ohms
Frequency Range:	DC-806 MHz
Power Rating, Peak:	165 kW
Power Rating, Average:	140 kW at 1 MHz 30 kW at 25 MHz 15 kW at 108 MHz 9 kW at 250 MHz 6 kW at 470 MHz 4 kW at 806 MHz
Weight:	30 lbm   13.6 kg
Shorting Cap (for 3 port use):	CS008
VSWR:	1:03:1 or better
Insertion Loss:	0.06 dB or less
Isolation:	60 dB or more
Switching Time:	~ 3 sec
RF Connectors:	EIA Flanged*
AC Power Current, 115 VAC:	0.45 A
AC Power Current, 230 VAC:	0.21 A
Control Power Current, 12 VDC:	140 mA
Control Power Current, 24 VDC:	70 mA

\* Unflanged available.

## CS Series Motorized Coaxial Switch Specifications

### CS300 3-1/8-inch Motorized Coaxial Switch Specifications

Model:	CS300
Size:	3 1/8-inch
Impedance:	50 Ohms
Frequency Range:	DC-806 MHz
Power Rating, Peak:	300 kW
Power Rating, Average:	300 kW at 1 MHz 75 kW at 25 MHz 40 kW at 108 MHz 30 kW at 250 MHz 22 kW at 470 MHz 17 kW at 806 MHz
Weight:	52 lbm   23.6 kg
Shorting Cap (for 3 port use):	CS009
VSWR:	1:05:1 tuned to channel
Insertion Loss:	0.06 dB or less
Isolation:	60 dB or more
Switching Time:	~ 3 sec
RF Connectors:	EIA Flanged*
AC Power Current, 115 VAC:	0.45 A
AC Power Current, 230 VAC:	0.21 A
Control Power Current, 12 VDC:	140 mA
Control Power Current, 24 VDC:	70 mA

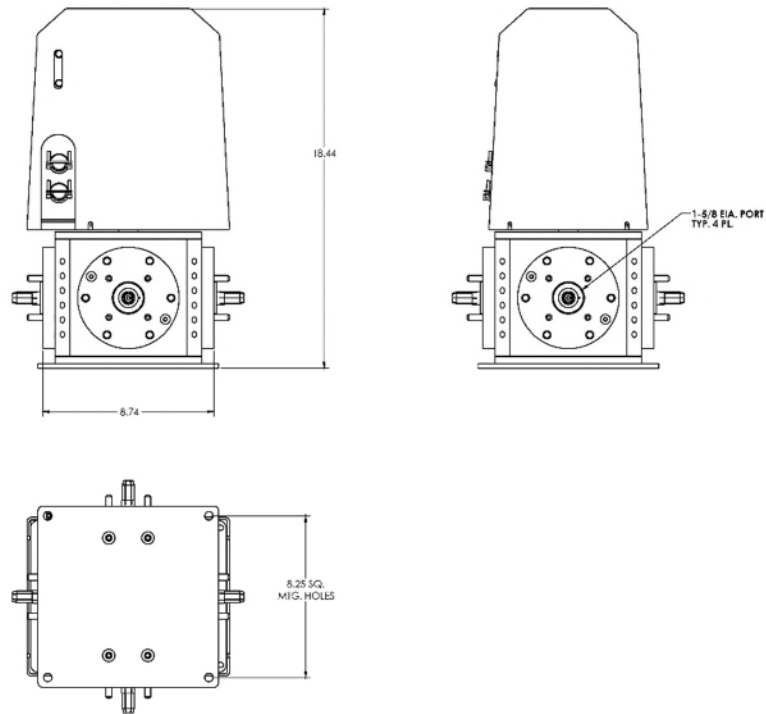
\* Unflanged available.

### CS400 4-1/16-inch Motorized Coaxial Switch Specifications

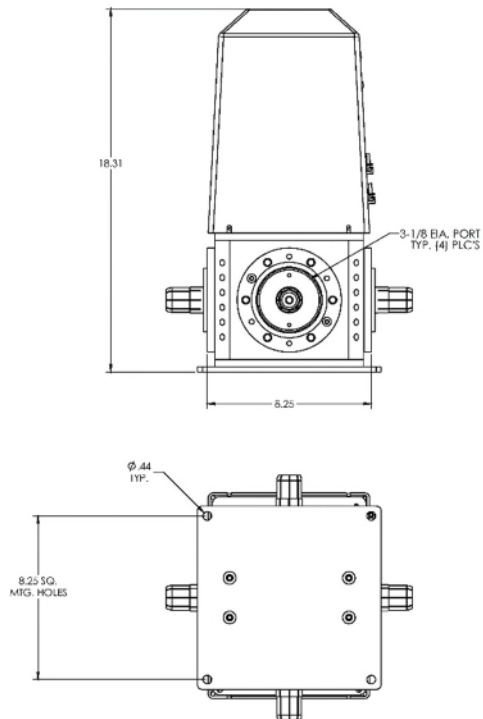
Model:	CS400
Size:	4 1/16-inch
Impedance:	50 Ohms
Frequency Range:	DC-806 MHz
Power Rating, Peak:	500 kW
Power Rating, Average:	500 kW at 1 MHz 125 kW at 25 MHz 70 kW at 108 MHz 49 kW at 250 MHz 35 kW at 470 MHz 26 kW at 806 MHz
Weight:	65 lbm   29.5 kg
Shorting Cap (for 3 port use):	CS011
VSWR:	1:05:1 or better
Insertion Loss:	0.06 dB or less
Isolation:	60 dB or more
Switching Time:	~ 3 sec
RF Connectors:	Flanged *
AC Power Current, 115 VAC:	0.45 A
AC Power Current, 230 VAC:	0.21 A
Control Power Current, 12 VDC:	140 mA
Control Power Current, 24 VDC:	70 mA

\* Unflanged available.

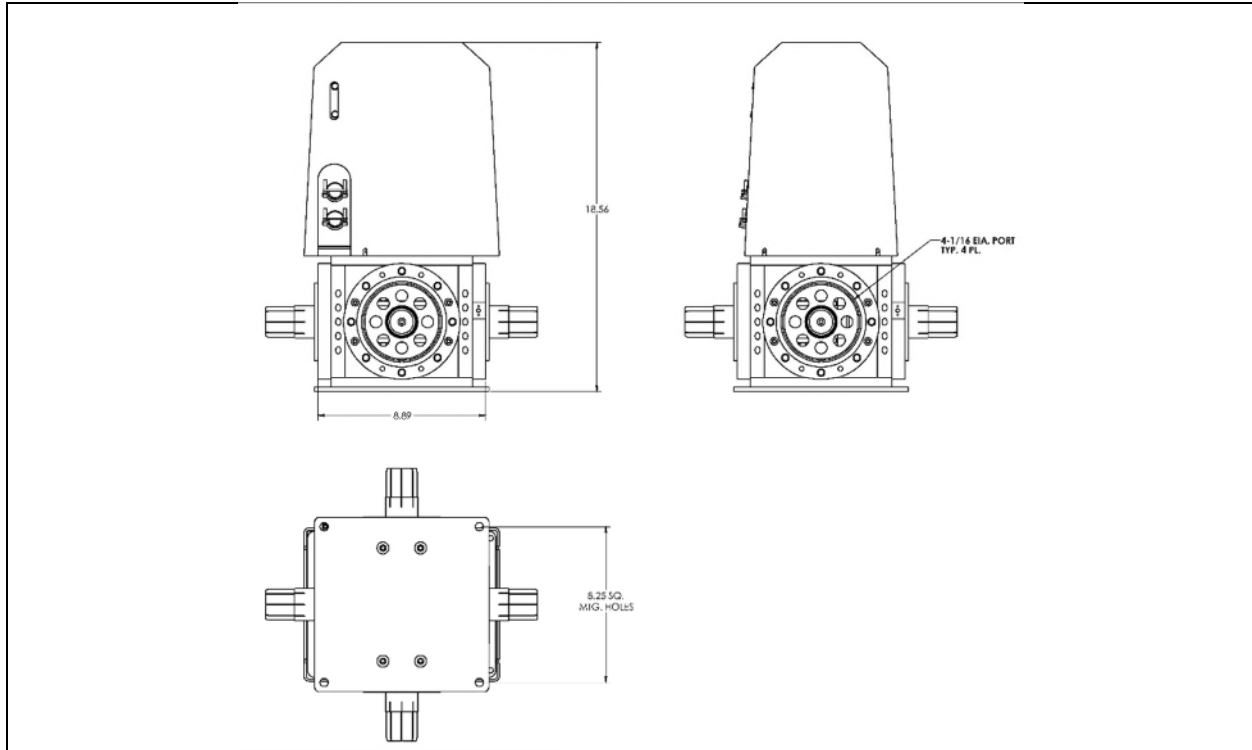
### Motorized Coaxial Switch Outline Drawings



ERI 1-5/8-inch motorized coaxial switch outline drawing (dimensions shown in inches).



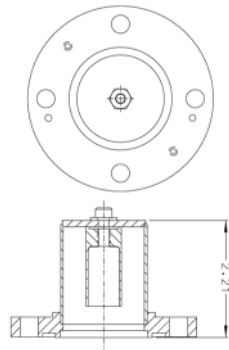
ERI 3-1/8-inch motorized coaxial switch outline drawing (dimensions shown in inches).



ERI 4-1/16-inch motorized coaxial switch outline drawing (dimensions shown in inches).

### Motorized Coaxial Switch Accessories

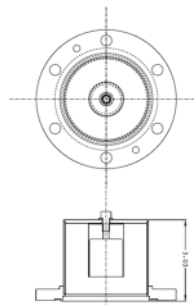
CS008 1-5/8-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.



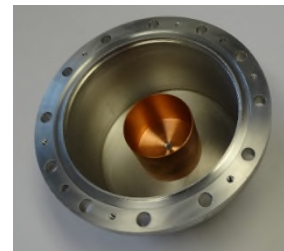
CS011 4-1/16-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.



CS009 3-1/8-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.



CS012 6-1/8-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.



Specifications subject to change without notice.