

## CY309 High Band VHF Switchless Combiner

Any High Band VHF Channel 174 to 250 MHz  
2 x 10 kW average power

The Switchless Combiner system consists of two 3 dB hybrid couplers and a motorized, 3-position phase-shifter. The combiner system is fully integrated and resides in an aluminum floor-mount base frame. The input, output, and load connections are all vertical 3-1/8-inch, 50-ohm EIA flanged connections.

### Switchless Combiner Modes:

A to Air  
B to Air  
A + B to Air

### CY309 Switchless Combiner includes:

(2) 3-dB Coaxial Hybrid Coupler  
(1) Motorized, 3-position Coaxial Phase Shifter (0, 90, 180 degrees)  
(1) 1-port Directional Coupler, 3-1/8-inch (at reject load port)  
(1) 1-port non-directional Voltage Probe (at reject load port)  
Interconnect components between above items  
Floor-mount base frame  
Switchless Combiner System does not include Reject Load

### Equipment Specifications

RF Power	2 x 10 kW average power, ATSC 1.0		
Output Power:	20 kW Average, ATSC 1.0		
Frequency:	174 to 250 MHz		
	Tuned to designated 6, 7 or 8 MHz RF channel		
Connectors:	Inputs	3-1/8-inch, 50-ohm, EIA Flanged Male	
	Outputs	3-1/8-inch, 50-ohm, EIA Flanged Male	
		3-1/8-inch, 50-ohm, EIA Flanged Male (antenna)	
VSWR:	1.08 : 1 or better over channel		
	1.15 : 1 or better over channel (during changeover)		
Insertion Loss:	0.20 dB max over channel		
Input Isolation:	30 dB min. over channel		
Coupler Directivity:	32 dB min. over channel		

### Electrical

AC Power	120 VAC, 60Hz, < 600VA
DC Control Power	12 VDC, 75 MA

### Mechanical

Dimensions	Height	76.10-inches	1,933-millimeters
	Width	31.00-inches	787-millimeters
	Depth	28.00-inches	711-millimeters

### Environmental

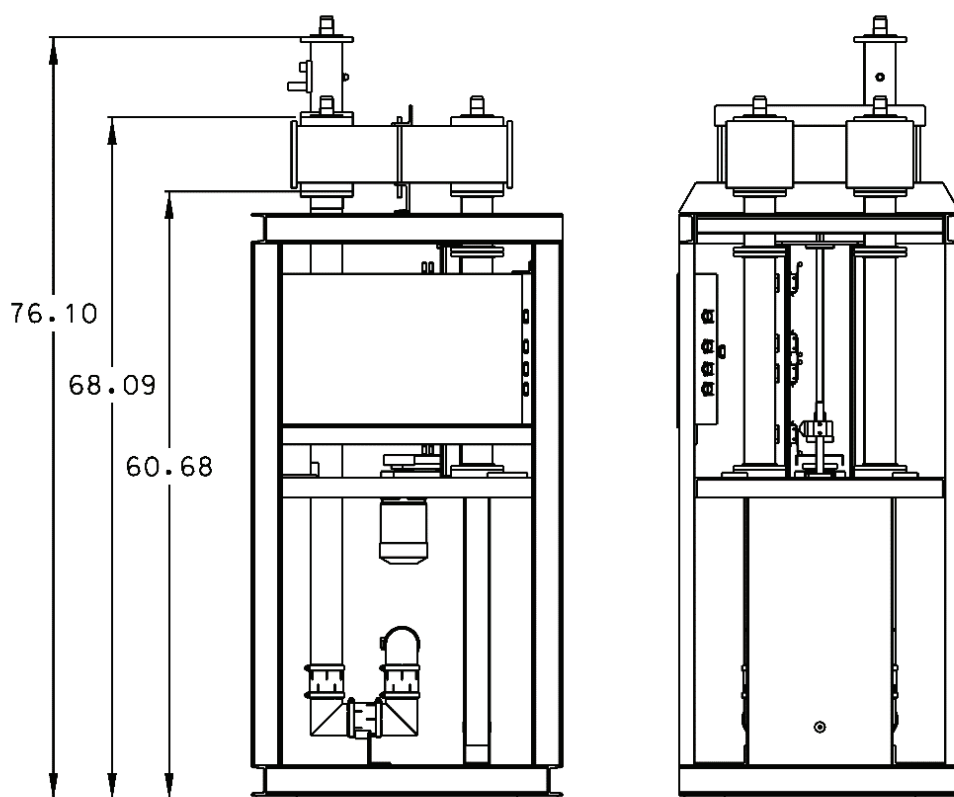
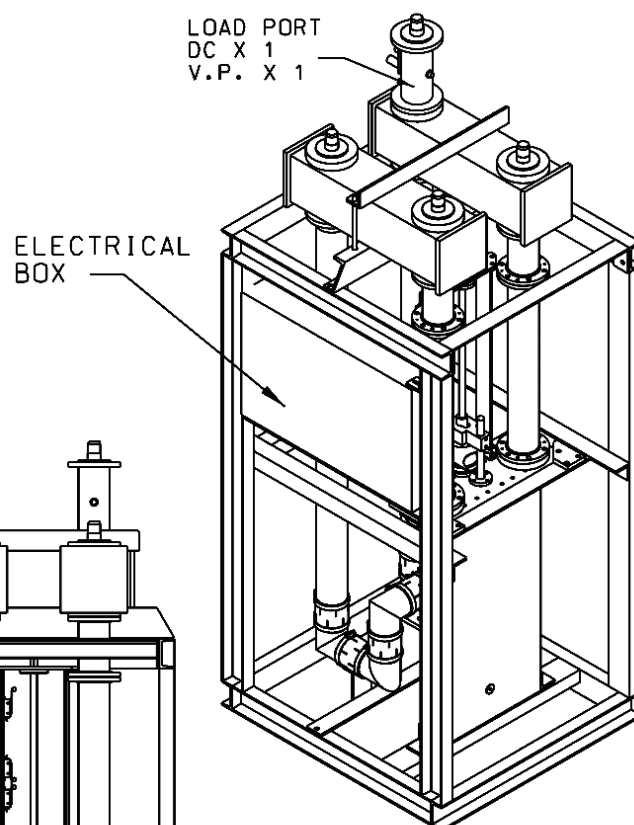
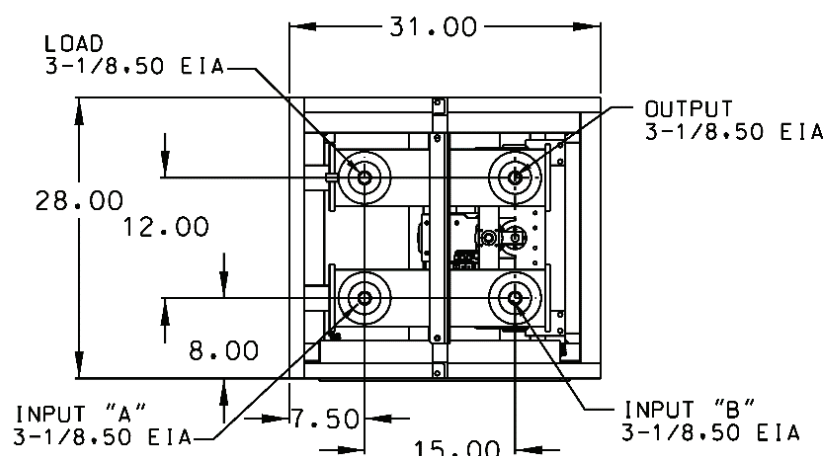
Ambient Temperature:	14 to 122 degrees F	(-10 to 50 degrees C)
Ambient Humidity:	0 to 95% Relative, non-condensing	
Altitude:	0 to 5,000-feet AMSL	(0 to 1,524-meters AMSL)



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## Ordering Notes:

Specify operating RF Channel with order.

Please specify 115 or 230 VAC Supply and 12 or 24 VDC Control Voltage for Switchless Combiner at time of order.

Please specify desired coupling value (load port coupler & voltage probe) at time of order

Model CY309 High Band VHF Switchless Combiner. Dimensions shown are inches.