

CY310 High Band VHF Switchless Combiner

Any High Band VHF Channel 176 to 250 MHz
2 x 20 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. The input connections are both 4-1/16-inch, 50 ohm unflanged, female. The combined output is 6-1/8-inch EIA flanged, male and the reject load port is 4-1/16-inch flanged, male.

Switchless Combiner Modes:

- A to Air and B to Load
- B to Air and A to Load
- A + B to Air

CY310 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, 4-1/16-inch (at reject load port)
- (2) 1-port Directional Coupler, 4-1/16-inch (at switchless combiner inputs)
- (1) 1-port Directional Coupler, 6-1/8-inch (at antenna port)
- Interconnect components between above items
- Floor-mount base frame

Equipment Specifications

| | |
|----------------------|---|
| Input 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 4-1/16-inch, 50-ohm, Flanged Male |
| | Outputs 4-1/16-inch, 50-ohm, Flanged Male (load) |
| | 6-1/8-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 or 240 VAC, 60Hz, < 600VA
DC Control Power 12 or 24 VDC, 75 MA

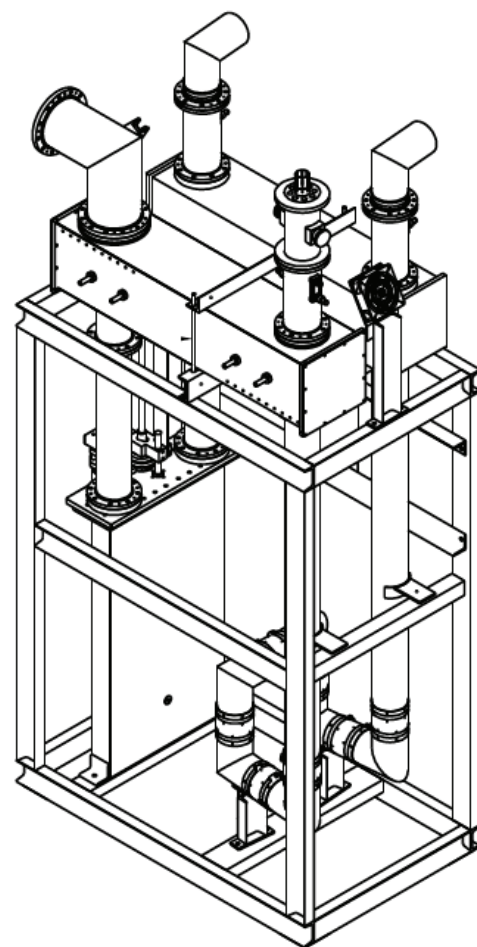
Mechanical

Dimensions Height 97.58-inches (2,479-millimeters)
Width 46.00-inches (1,168-millimeters)
Depth 30.50-inches (775-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)

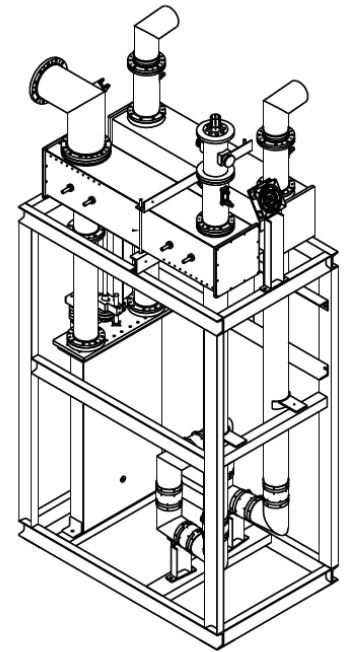
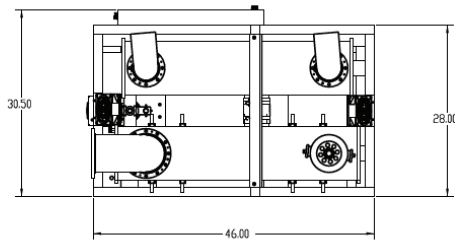
Note: Switchless Combiner System does not include Reject Load.



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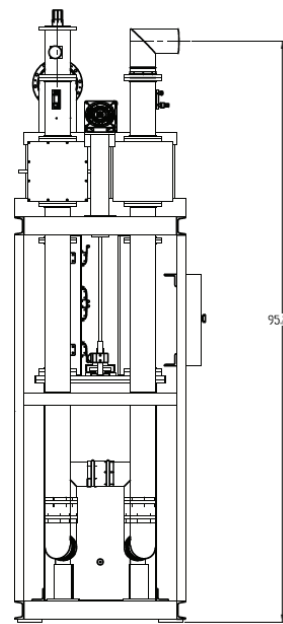
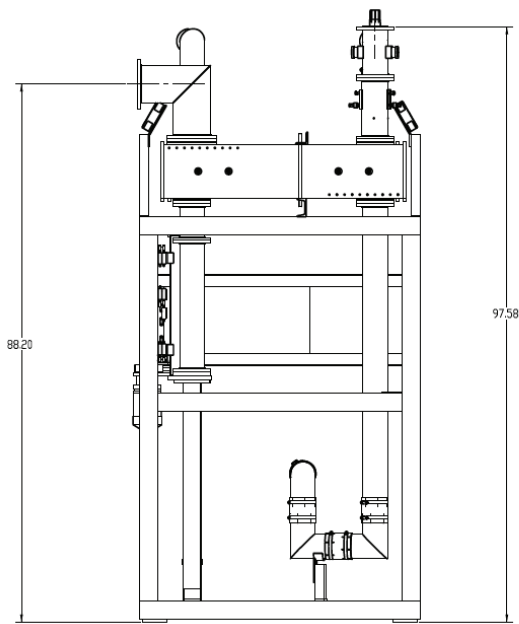
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2 x 20 kW average power



Ordering Notes:

Please specify 120 or 240 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 CY310 High Band VHF Switchless Combiner. Dimensions shown are inches.