

# CY200/CY201 FM Switchless Combiners

**CY200-xFM** for 230 VAC supply

**CY201-xFM** for 115 VAC supply

“x” = LFM (88 - 93 MHz), MFM (93 -105 MHz) or HFM (105 -108 MHz)

The Switchless Combiner is rated for 2 x 18 kW avg. at the inputs for 36 kW average power at the output port. The Coaxial Line Stack at the output is 3-1/8-inch, 50 ohm, EIA flanged and includes three (3) Directional Couplers and two (2) Voltage Probes.

The inputs, output, and load port are 3-1/8-inch, 50 ohm EIA flanged connections

### Includes:

- (2) 3 dB Hybrid Coupler
- (1) Motorized Coaxial Phase Shifter (0, 90, 180 degree)
- (2) Non-Directional Voltage Probe (1-at load port, 1-at output port)
- (3) Directional Coupler Port (1-at load port, 2-at output port)
- (1) Interconnect components between above items
- (1) Floor-mount frame  
Inputs/Load port: 3-1/8-inch, 50 ohm EIA flanged  
Output: 3-1/8-inch, 50 ohm EIA flanged  
Reject (off air) Load is not included

### Three Combiner Modes:

PHASE SHIFTER POSITION	MODE
POS 3 - MID (90 degrees)	A+B to ANT
POS 1 - DOWN (180 degrees)	A to ANT, B to LOAD
POS 2 - UP (0 degrees)	B to ANT, A to LOAD

***Combiner also operates manually***

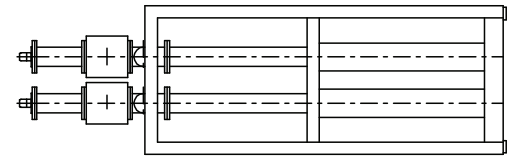
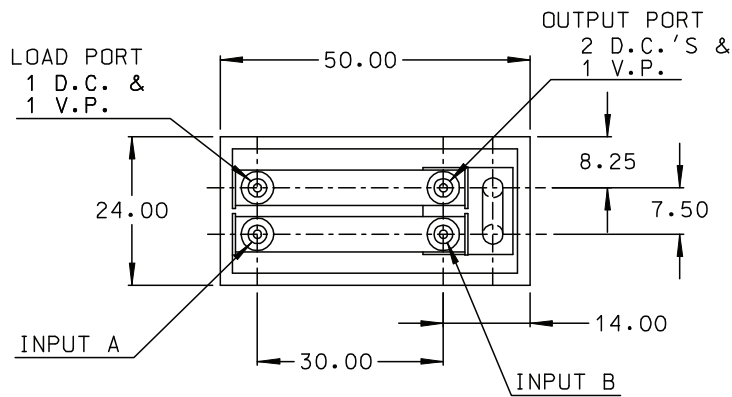
### Please specify at time of order:

- FM Channel/Frequency
- Desired AC Supply (115 VAC or 230 VAC)

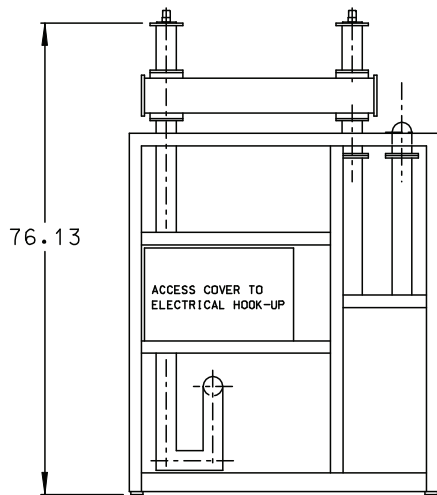
### Specifications

Power Rating <sup>1</sup> :	36 kW avg. analog only 32 kW avg. analog plus 3.2 kW average digital
Input VSWR:	1.04 to 1 or better (+/- 200 kHz) 1.10:1 during changeover
Insertion Loss:	0.1 dB Max
Input Isolation:	35 dB
Inputs/Load Port:	3-1/8-inch, 50 ohm EIA flanged
Output Port:	3-1/8-inch, 50 ohm EIA flanged
Directional Coupler:	Type “N” female
Voltage Probe:	BNC female
Nominal Coupling Values (unless otherwise specified)	
1-port Directional Coupler at load port:	FWD: 42 dB
1-port Voltage Probe at load port:	52 dB
2-port Directional Coupler at output port:	FWD: 48 dB REF: 48 dB
1-port Voltage Probe at output port:	52 dB
Coupler Directivity:	32 dB min. over channel
Weight:	430 lbs (195 Kg)
Approximate Dimensions:	See outline drawing on page 2

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**NOTE:** ALL PORTS 3-1/8-50 OHM  
EIA WITH CONNECTOR



CY200-LFM 220 VAC 88-93 MHZ CH-201-225  
 CY200-MFM 220 VAC 93-105 MHZ CH-226-285  
 CY200-HFM 220 VAC 105-108 MHZ CH-286-300

CY201-LFM 110 VAC 88-93 MHZ CH-201-225  
 CY201-MFM 110 VAC 93-105 MHZ CH-226-285  
 CY201-HFM 110 VAC 105-108 MHZ CH-286-300

CY200/CY201 FM Switchless Combiner Outline Drawing (dimensions are inches).