



KINTRONIC LABS
an ISO 9001 registered company

FM products

Catalog 2016



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KTL now offers custom FM combiners according to the specific station requirements. In addition we supply:



FM Combiners

Kintronic supplied
4-port FM combiner
WYPZ-AM, Macon, GA

FM Dummy Loads



FM 1 kW dummy load

Other FM, STL, and TV solutions that we offer include FM filters and patch panels, STL and low power TV isocouplers, rigid transmission lines and accessories, and outdoor temperature-controlled equipment racks.



**Kintronic Isocoil ISO-170-FM-N
for 4-FM station combined
antenna feed on AM tower**

For FM Translators

Isocoupler
FMC-1.5



FM Coaxial Switches



7/16 DIN connector



EIA flange



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**Kintronic FMC4X1.2KW
supplied 4-input
FM combiner**

**Kintronic FMC4X10KW
4-input 10 kW/port
FM combiner**



**Kintronic Custom FM Isocoil
for FM antenna feed on AM tower**



**FMC-1.5 Isocoupler
for FM antenna feed
on AM tower**





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Kintronic FM Star Type and Constant Impedance Combiners Utilizing Double and Triple Cavity Band Pass Filters



Mechanical Characteristics

Input Port
Output Port
Dimensions (L x W x H) (inch)
Weight (lbs)
Temperature Range (°F)

FMC2X600W-D Star-point

N-Female or DIN 7/16
DIN 7/16 or EIA 7/8"

12x 12 x 33-1/2
56
14-120

FMC2X600/3000W-T Constant Impedance

15 x 14-1/2 x 33-1/2
67
14-120

Electrical Characteristics

Frequency Range (MHz)
Insertion Loss (dB)
Port #1
Port #2
Channel Separation (min.) (MHz)
Isolation Between Channels (dB)
Port #1
Port #2
VSWR per Channel
Input/Output Impedance (Ohm)
Max. Channel Input Power (W)
Port #1
Port #2
Max. Output Power
Max. Group Delay Variation (ns)

87.5 ÷ 108

< 0.55
< 0.55
2

> 30
> 30
≤ 1.1 : 1
50

600
600
1200

-

87.5 ÷ 108

< 1.35 (Narrow-band) (NB)
< 0.25 (Broad-band) (BB)
0.8

> 40 (#1 NB → #2 BB)
> 50 (#2 BB → #1 NB)

≤ 1.1 : 1
50

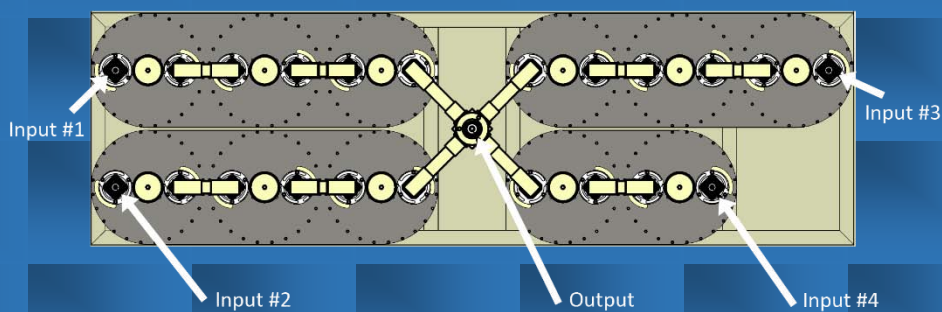
600 (Narrow-band)
3000 (Broad-band)
3600
30



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Kintronic FM Star-point 4-Stations Combiner Utilizing Double and Triple Cavity Band Pass Filters



Mechanical Characteristics

Input Port
Output Port
Dimensions (L x W x H) (inch)
Weight (lbs)
Temperature Range (°F)

FMC4X1.2K

N-Female or DIN 7/16
EIA 7/8"
53 x 16 x 33-1/2
243
14-120

Electrical Characteristics

Frequency Range (MHz)

87.5 ÷ 108

Insertion Loss (dB)

Channel Separation (min.) (MHz)

Port #1

< 0.6

1.2

Port #2

< 0.6

1.2

Port #3

< 0.6

1.2

Port #4

< 0.4

2

Isolation Between Channels (dB)

> 30

VSWR per Channel

≤ 1.1 : 1

Input/Output Impedance (Ohm)

50

Max. Channel Input Power (kW)

1.2

Max. Output Power (kW)

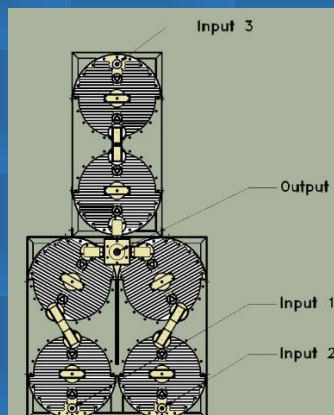
4.8



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Kintronic FM Star-point 3x10 kW Stations Combiner Utilizing Double Cavity Band Pass Filters



Mechanical Characteristics

Input Port
Output Port
Dimensions (L x W x H) (inch)
Weight (LBS)
Temperature Range (°F)

FMC3X10KW

1-5/8" EIA
3-1/8" EIA
36 x 74 x 44-1/2
430
14 to 120

Electrical Characteristics

Frequency Range (MHz)

87.5 ÷ 108

Insertion Loss (dB)

Channel Separation (min.) (MHz)

Port #1
Port #2
Port #3

< 0.22
< 0.22
< 0.22

2
2
2

Isolation Between Channels (dB)
VSWR per Channel
Input/Output Impedance (Ohm)
Max. Channel Input Power (kW)
Max. Output Power (kW)

> 30
≤ 1.11 : 1
50
10
30



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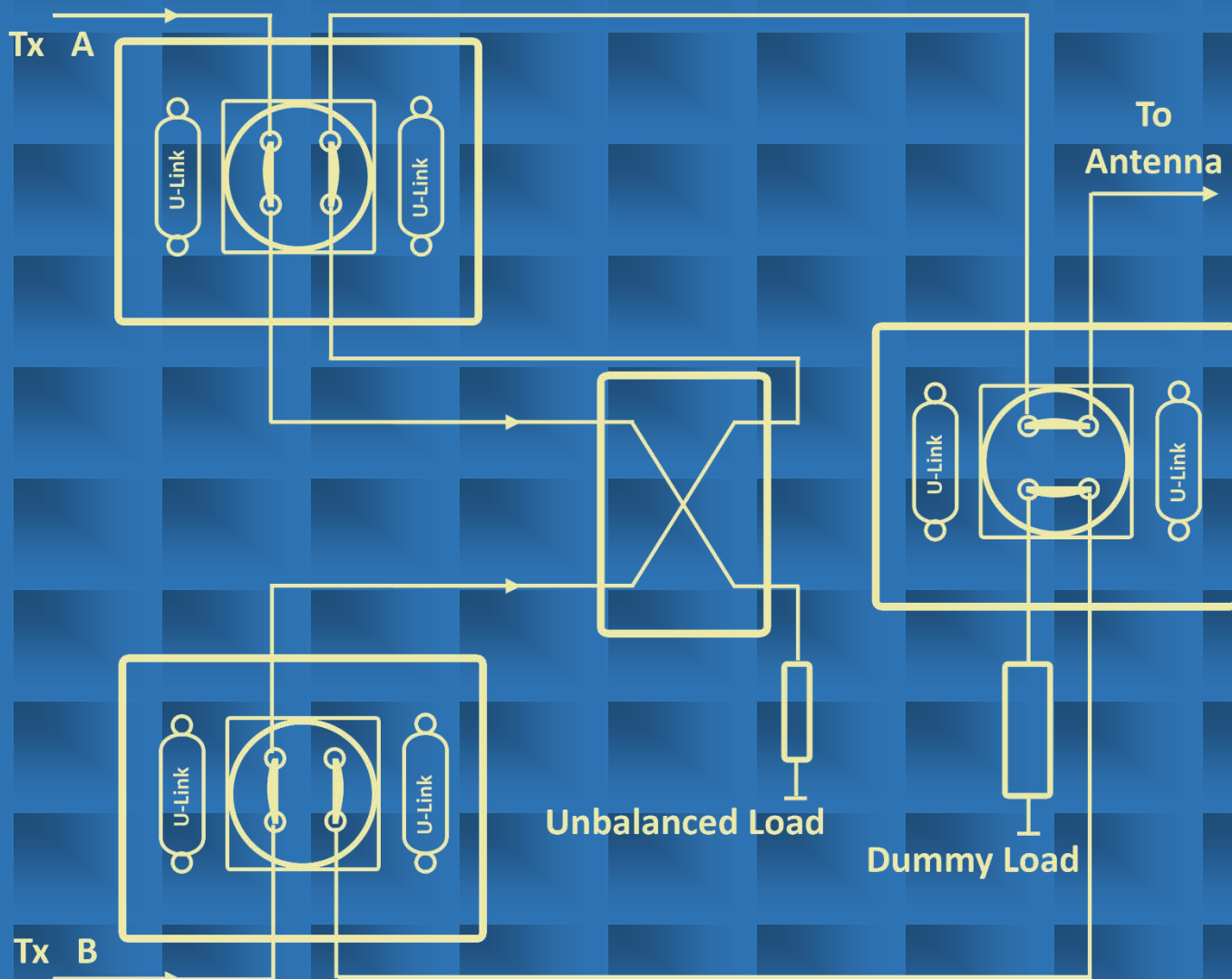
Kintronic FM Paralleling Power System Functional Diagram

P/N FMC2X3KWPAR ; 2 x 3kW FM TX

P/N FMC2X5KWPAR ; 2 x 5kW FM TX



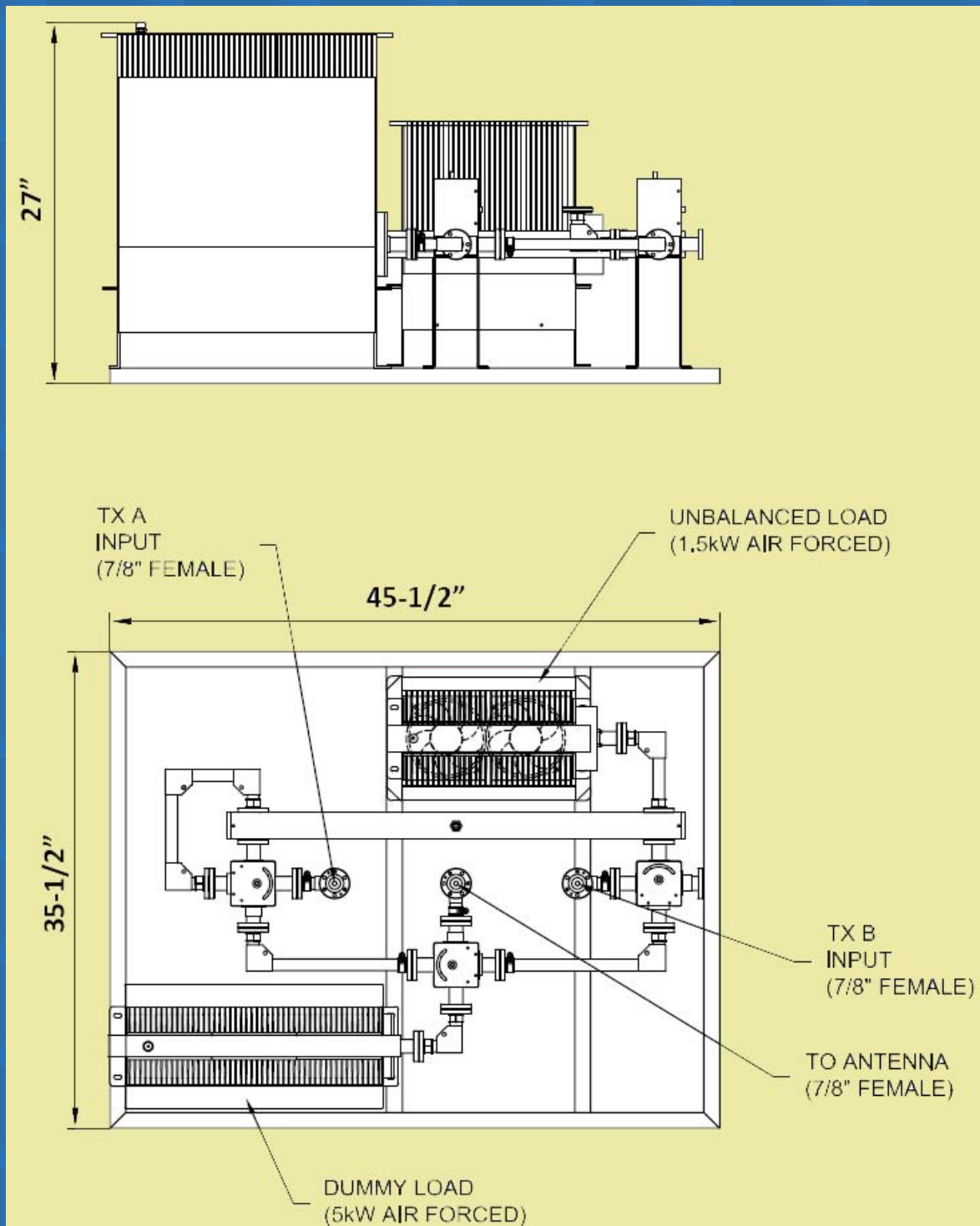
5 kW coax switch





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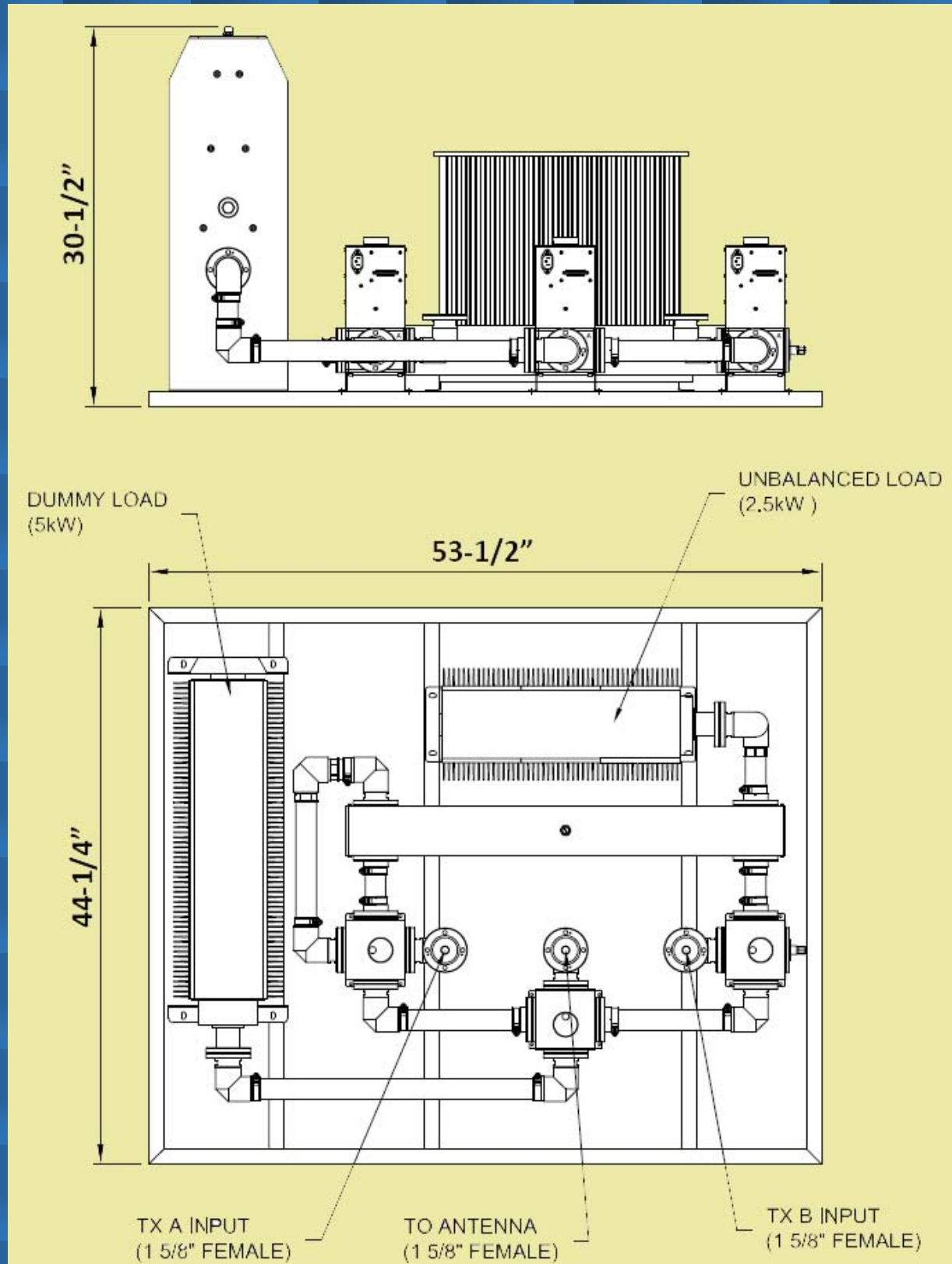


P/N FMC2X3KWPAR ; 2 x 3kW FM TX



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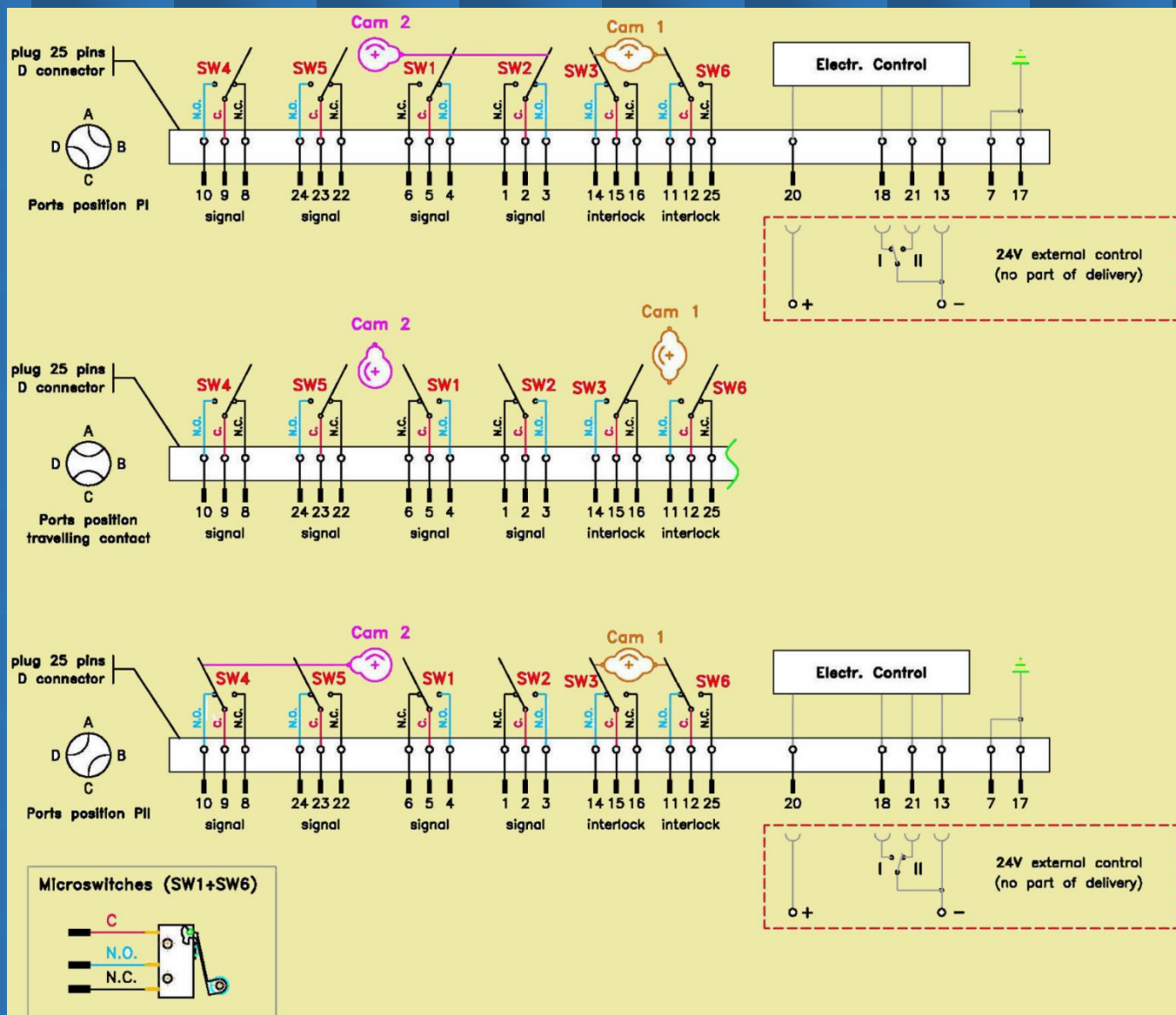
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P/N FMC2X5KWPAR ; 2 x 5kW FM TX Kintronic FM Motorized Coaxial Switch Functional Diagram

DC to 860 MHz ; Type N-Female or 7/16 DIN or EIA

P/Ns CS-NF ; CS-716DIN ; CS-78EIA ; CS-158EIA





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RF Coax Transmission Line Components

Aluminum, Brass & Copper

for FM combiners, isocouplers and isocoils



P/N 108-10-78

P/N 108-10-158

P/N 108-10-318



Impedance 50 ohm

P/N 108-20-78

P/N 108-20-158

P/N 108-20-318



coax line 7/8" ; 1-5/8" ; 3-1/8"



P/N 108-30-78

P/N 108-30-158

P/N 108-30-318

P/N 108-40-78

P/N 108-40-158

P/N 108-40-318

P/N 108-60-78

P/N 108-60-158

P/N 108-60-318



P/N 108-50-78

P/N 108-50-158

P/N 108-50-318





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PART NUMBERS

FM COMBINERS P/N	Input Channels	Input Power per channel	Frequency Separation
FMC2X600W	2	600 W	2 MHz
FMC2X1.2KW	2	1200 W	2 MHz
FMC3X600W	3	600 W	2 MHz
FMC4X600W	4	600 W	1.2 MHz
FMC5X1KW	5	1000 W	0.8 MHz
FM PARALLELING P/N	Input Channels	Input Power per channel	Frequency Separation
FMC2X3KPAR	2	3000 W	0 MHz
FMC2X5KPAR	2	5000 W	0 MHz
FM COAXIAL SWITCH P/N	Connector	Input Power FM (RMS)	Frequency Range
CS-716DIN	7/16 DIN	2000 W	DC to 860 MHz
CS-78EIA	7/8" EIA	5000 W	DC to 860 MHz
CS-158EIA	1-5/8" EIA	10000 W	DC to 860 MHz
CS-318EIA	3-1/8" EIA	40000 W	DC to 860 MHz



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