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MODEL NO. MEC 5421 (GR)  
 MEC 5422 (FE)  
 6.5 to 18.0 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	1.6 A	-6.0 Vdc	-6.6 Vdc	2 A
HELIX	W/ RF	GROUND	GROUND	GROUND	15 mA
	W/O RF				
FE ON	-25 Vdc	0.1 mA	0	-75 Vdc	1 mA
FE OFF	-1300 Vdc	0.1 mA	-1500 Vdc	-1700 Vdc	1 mA
GRID ON	200 Vdc	1 mA	125 Vdc	250 Vdc	10 mA
GRID OFF	-200 Vdc	0.1 mA	-200 Vdc	-500 Vdc	1 mA
CATHODE (Ek)	-10.3 kV	270 mA	-10 kV	-10.5 kV	300 mA
COLLECTOR W/ RF	#1 5.36 kV	50 mA	52% x Ek ± 2%		100 mA
	#2 3.71 kV	212 mA	36% x Ek ± 2%		300 mA

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.  
 NOTE 2: HEATER, COLLECTOR, GRID OR FOCUS ELECTRODE (FE) VOLTAGES ARE MEASURED WITH RESPECT TO CATHODE.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	2:1	2.5:1
OUTPUT VSWR	2:1	2.25:1
MAXIMUM DUTY	—	CW
FE CAPACITANCE	50 pF	65 pF
GRID CAPACITANCE	37 pF	50 pF
MIN HARMONIC SEPARATION	-7 dBc	-5 dBc *
NOISE POWER DENSITY	-15 dBm/MHz	-10 dBm/MHz
PRIME POWER	1147 W	1400 W
TEMPERATURE RANGE	-40° to 85°C	—

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
6.5	275	250 *	35
7.0	275	250	38
8.0	290	250	41
9.0	280	250	43
10.0	275	250	45
11.0	280	250	45
12.0	300	250	45
13.0	300	250	45
14.0	300	250	45
15.0	300	250	43
16.0	285	250	41
17.0	275	250	38
18.0	275	250	35

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS WITH EQUALIZER.

An ISO 9001:2000 Quality System  
 Certified Company

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