ML-6426K

POWER TRIODE - MEDIUM-MU - **55 kW OUTPUT**

The ML-6426K is a water-cooled, ceramic/metal, medium-mu power triode suitable for industrial heating service. This tube features a coaxial mounting structure which provides high dissipation, low-inductance rf electrode terminals. The cathode is a sturdy, self-supporting, stress-free, thoriated tungsten filament. The ML-6426K has a water-cooled, heavy wall anode capable of dissipating 40 kW.

Input of 80 kW is permissible up to 30 MHz; useful power output can be obtained at frequencies up to 70 MHz with reduced ratings. The 1600 watt filament allows reserve emission capability. The grid is rated at 750 watts making this tube an excellent choice for industrial service.

CHARACTERISTICS

Plate Output Power (Loaded)	55 kW
Plate Dissipation (Max.)	40 kW
Grid Dissipation (Max.)	750 watts
Frequency for Max. Ratings (CW)	30 MHz
Cooling	Water and Forced Air
Filament	Thoriated Tungsten
Voltage	8.0 volts
Current	200 amperes
Capacitances (Gnd. Cath. Connection)	
Cgk	50 pF
Cgp	38 pF
Cpk	1.8 pF
Amplification Factor	20
Base	Coaxial
Maximum Seal and Anode Core Temperature	250°C
Maximum Length	15.75 in.; 400.05 mm
Maximum Diameter	5.25 in.; 133.35 mm
Weight (approximate)	13 lb.; 5.897 kg
Operating Position	Vertical, Anode Down

Radio Frequency Industrial Oscillator
Class C (Filtered dc Power Supply)

ABSOLUTE MAXIMUM RATINGS:

PLATE VOLTAGE	12.5	kV
PLATE CURRENT	8.0	A
GRID VOLTAGE	-2.0	kV
GRID CURRENT NO LOAD	1.0	A
PLATE INPUT POWER	80	kW
PLATE DISSIPATION	40	kW
GRID POWER	750	W

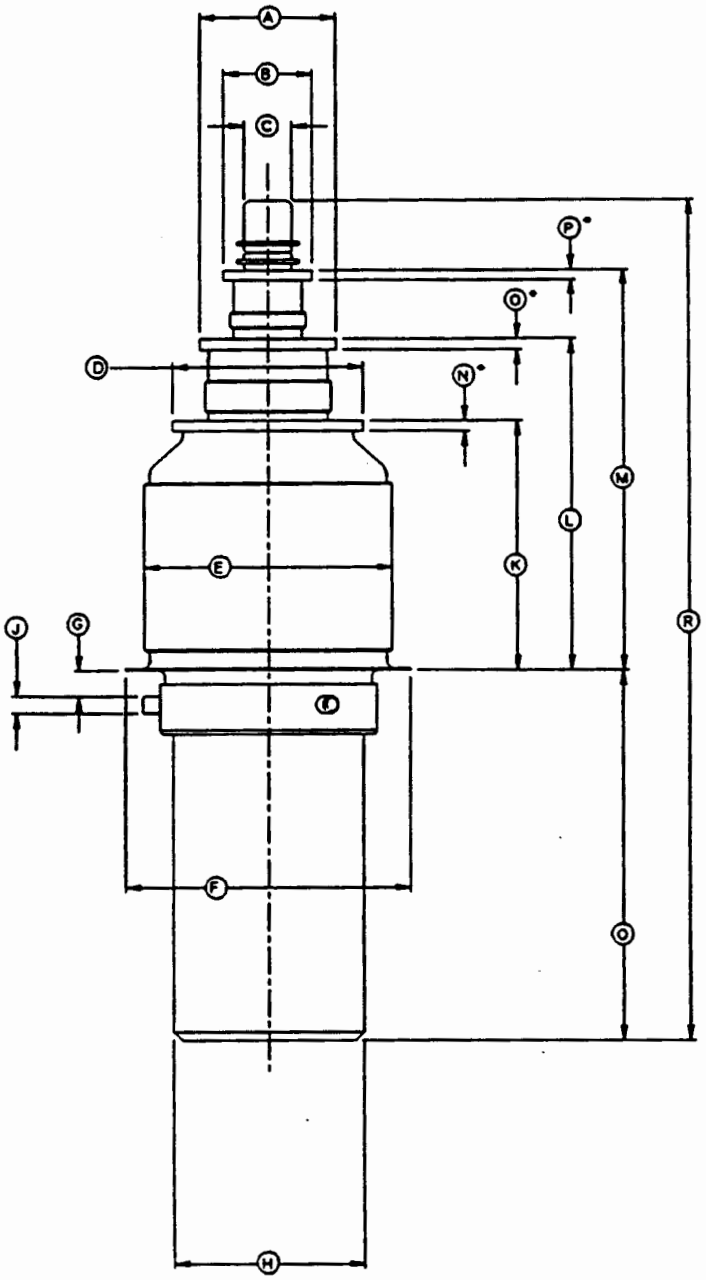
Typical Operation Loaded Conditions

Plate Voltage	12	kVdc
Plate Current	6.4	Adc
Grid Voltage	-1200	Vdc
Grid Current	0.35	Adc
Peak Positive Grid Voltage	1940	V
Driving Power	670	W
Plate Input Power	76.8	kW
Plate Dissipation	21.4	kW
Plate Output Power	55.4	kW
Approximate Load Impedance	870	Ohms

WATER COOLING - In the case of a tube requiring water cooling, the water must be well filtered (with effectiveness the equivalent of a 100-mesh screen) to eliminate any solid materials, to avoid the possibility of blockage of cooling passages, as this would immediately affect the cooling efficiency and could produce localized anode overheating and failure of the tube.

Tube life can be seriously compromised by cooling water condition. If it becomes contaminated, deposits will form inside the water jacket, causing localized anode heating and eventual tube failure. To ensure minimum electrolysis and power loss, water resistance at 25°C should always be 1 megohm per cubic centimeter or higher. Relative water resistance can be continuously monitored in the reservoir by readily available instruments.

EIMAC Application Bulletin #16, WATER PURITY REQUIREMENTS IN LIQUID COOLING SYSTEMS, is available on request, and contains considerable detail on purity requirements and maintenance systems.



DIMENSIONAL DATA

DIM.	INCHES MIN.	INCHES MAX.	INCHES REF.	MILLIMETERS MIN.	MILLIMETERS MAX.	MILLIMETERS REF.
A	2.469	2.531		62.71	64.29	
B	1.564	1.626		40.40	42.06	
C			.875			22.22
D	3.469	3.531		88.11	89.69	
E			4.562			115.87
F						
G	.406	.531		10.31	13.49	
H	3.485	3.515		88.52	89.28	
J	.300	.320		7.62	8.13	
K	4.500	4.750		114.30	120.65	
L	6.000	6.250		152.40	158.75	
M	7.312	7.362		185.72	187.00	
N	.125	.188		3.18	4.78	
O	.125	.188		3.18	4.78	
P	.125	.188		3.18	4.78	
Q	6.938	7.031		176.22	178.58	
R	15.500	15.750		393.70	400.05	
S						
T						
U						
V						
W						
Z						

NOTES:

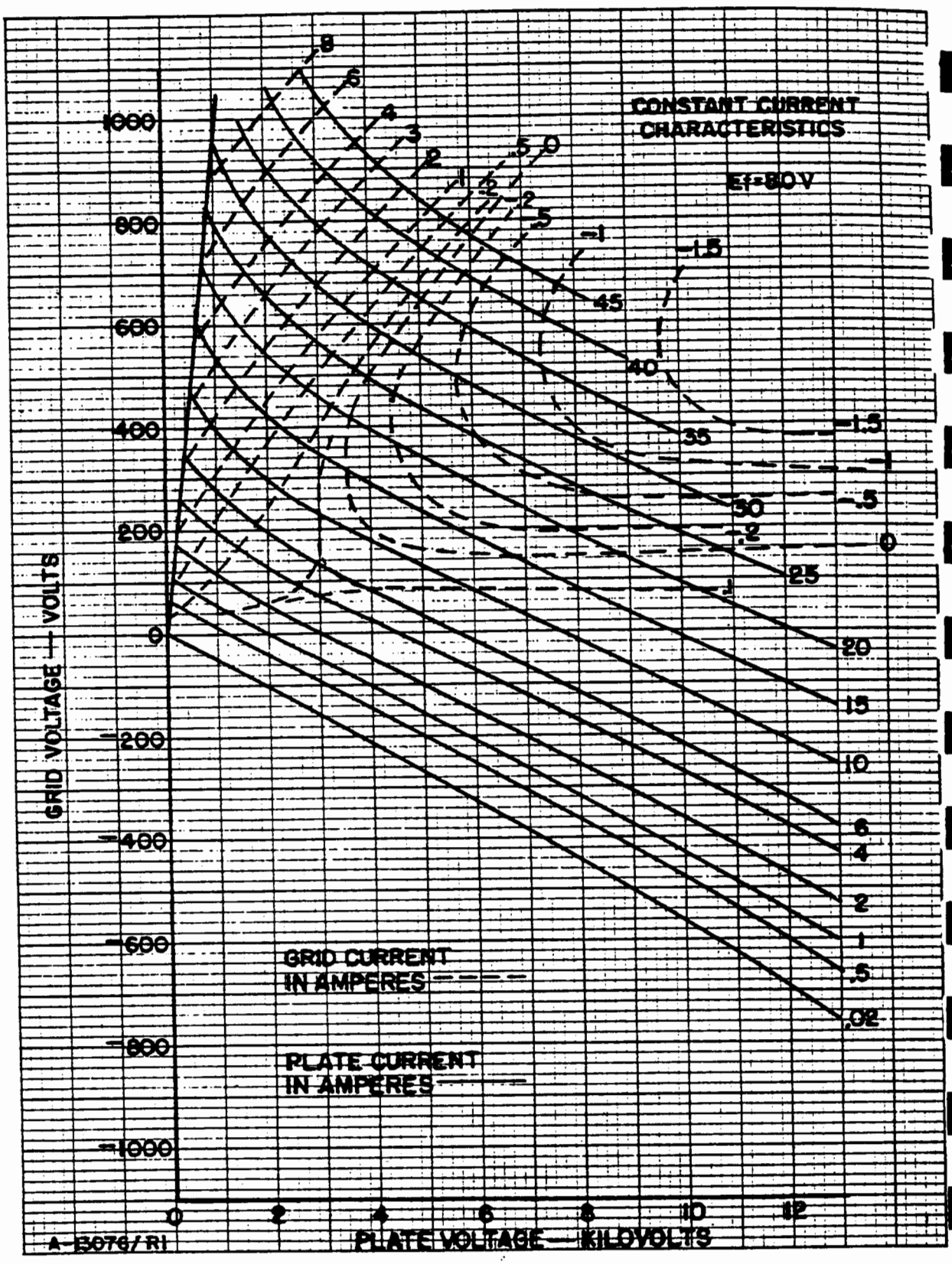
1. REF. DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.
2. (•) CONTACT SURFACES.

LTR	DESCRIPTION OF CHANGE	ECN	DATE	BY
1	DRAWN		10/10/95	AA

DRAWN: AUTSEN 10/10/95

ELECTRON TUBE

ML-6426K 1


CONSTANT CURRENT CHARACTERISTICS
Ef=80V
GRID VOLTAGE — VOLTS
PLATE VOLTAGE — KILOVOLTS
GRID CURRENT IN AMPERES
PLATE CURRENT IN AMPERES
A-3076/R1