MARSHALL COMPONENTS L.t.d.

BM-12 Forced-air cooled electron tube

Output power 30 KW in CW mode

RF Metal-ceramic triode
Mainly used for industrial applications.
The anode cooling is water-cooled (SA) and forced air (FA)

Maximum Anode dissipation power : 15 KW (SA)/10 KW(FA)
Maximum operating frequency 60 MHz

Electrical parameters:

Filament voltage	7.5	V
Filament current	135	A
maximum instantaneous filament current	205	A
Magnification factor	22	
Transconductance	50m	A / V

Electrode capacitance:

Anode - the grid	31	pF
Cathode - the grid	56	pF
Anode - Cathode	2.5	pF

The maximum anode DC voltage	12	KV
Maximum anode DC current	4.5	A
Maximum grid DC current	1	A
Maximum anode dissipation power	The FA 10	KW
	The SA 15	KW
Maximum grid power dissipation	600	W

Mechanical properties:

Quality	5.5Kg (SA) – 8.5 (FA)approx
Cooling method	forced air , water -cooled
Anode air-cooled flow FA	≥ 18m3/min
Anode water-cooled flow SA	≥ 25L/min
Core column air-cooled flow	≥ 1 m3/min
Shell and tube maximum temperature	250 ℃
Terminal maximum temperature	200 ℃
Installation	vertical, anode down

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In typical operation class C telegraph

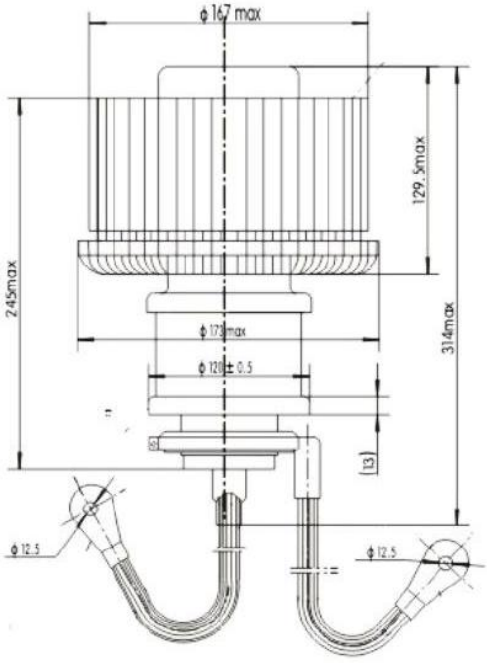
Filament voltage	7.5	V
Anode DC voltage	10	KV
Grid DC bias	-1400	V
Anode DC Current	3.54	A
Grid DC current	0.75	A
Anode output power	30	KW
Sealing at the highest temperature	250	℃
Terminal maximum temperature	200	℃

Working status:

B M-12

In typical operation class C telegraph

Ua (kV)	8	9	10	11	11.5
Uam (kV)	7	8	9	9.8	10.2
-Ug (kV)	-1.2	-1.3	-1.4	-1.5	-1.6
Ugm (kV)	1.64	1.74	1.84	1.92	2.05
Iao(A)	3.74	3.61	3.54	3.54	3.52
Igo (A)	0.874	0.818	0.749	0.697	0.708
Pin (kW)	29.91	32.46	35.38	38.9	40.46
Pout (kW)	24.2	26.79	29.58	32.34	33.68
η a (%)	80.9	82.5	83.6	83.1	83.2
Pa (kW)	5.71	5.67	5.8	6.56	6.77
Pgd (kW)	1.375	1.368	1.328	1.292	1.403
Pg (W)	327	305	280	247	270
Roe (Ω)	1012	1194	1369	1485	1544
Rg (Ω)	1373	1590	1869	2152	2260
Uf (V)	7.5	7.5	7.5	7.5	7.5



Constant current characteristics