

HIGH VACUUM RECTIFIER

A296

June 1962

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ENGLISH ELECTRIC

INTRODUCTION

The A296 is a high vacuum rectifier with maximum ratings of 25kV peak inverse voltage and 6.5A peak anode current. It is designed for use in three phase rectifier circuits, giving a d.c. output of 3.0A at 23kV.

GENERAL DATA

Electrical

Filament	..	..	..	..	..	Thoriated Tungsten	
Filament Voltage	..	..	..	..	..	6.3	V
Filament Current	..	..	..	..	..	32.5	A
Maximum Peak Inverse Voltage	..	..	..	..	..	25	kV
Maximum Anode Current:							
Peak	..	..	..	..	..	6.5	A
Mean	..	..	..	..	..	1.25	A
Maximum Anode Dissipation:							
Natural Cooling	..	..	..	..	..	375	W
Forced-air Cooling	..	..	..	..	..	500	W
Nominal Impedance (at 3.0A)	..	..	..	..	..	130	Ω

Mechanical

Overall Length	..	..	..	9.85 inches	(250 mm)	Max
Overall Diameter	..	..	..	5.20 inches	(132.1 mm)	Max
Net Weight	..	..	..	1.5 pounds	(0.68 kg)	Approx
Base	..	..	..	..	..	Flying Leads
Mounting Position	..	..	..	..	..	Vertical, base down
						Use bulb supporting ring
Maximum Bulb Temperature	..	..	..	..	350	$^{\circ}\text{C}$
Maximum Anode or Base Seal Temperature	..	..	..	..	220	$^{\circ}\text{C}$

A top cap radiator, with a minimum surface area of 8sq.in. perpendicular to the axis of the valve, should be used. The radiator should make good thermal contact with the entire length of the anode terminal.

X-RAY WARNING

X-rays are produced when the A296 is operated with a peak inverse anode voltage above 16kV (absolute value). These rays can constitute a health hazard unless the valve is adequately shielded for X-ray radiation. This is entirely a function of high voltage devices and does not reflect upon the design of the valve.

ENGLISH ELECTRIC VALVE CO. LTD.

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ENGLAND**

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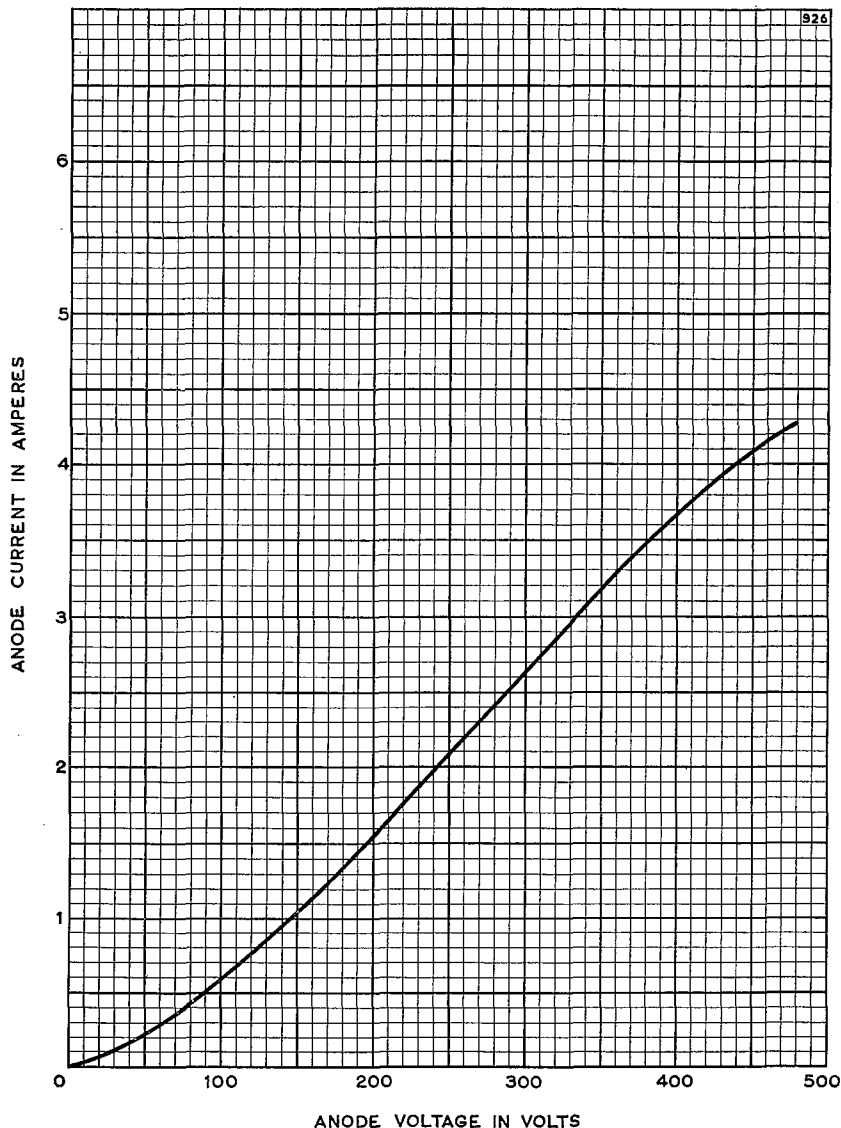
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ANODE CHARACTERISTIC



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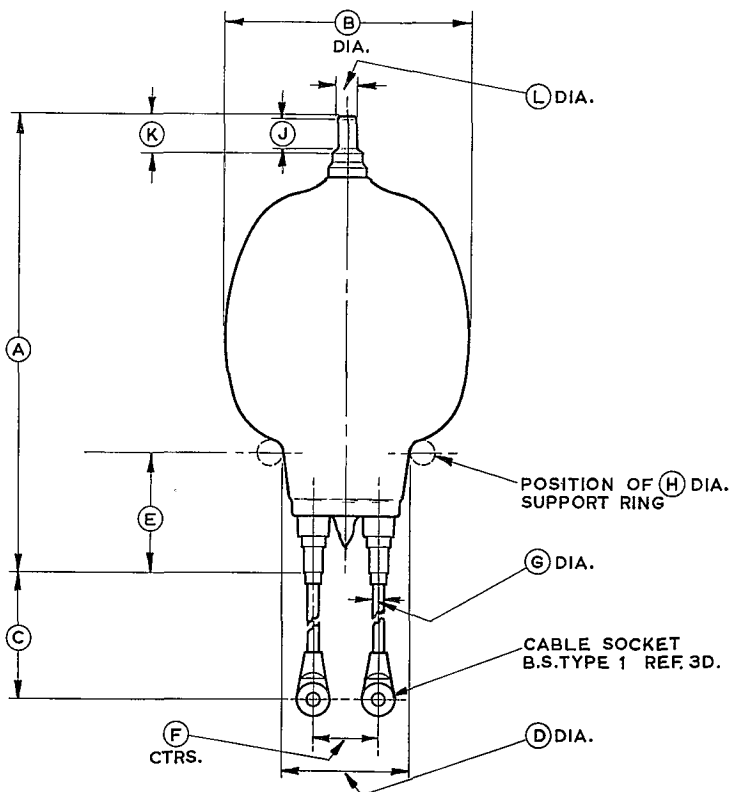
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OUTLINE



Ref.	Inches	Millimetres
A	9.850 Max	250 Max
B	5.200 Max	132.1 Max
C	4.000	101.6
D	2.687 Min	68.25 Min
E	2.500 (ref.)	63.50 (ref.)
F	1.339	34.01
G	0.187	4.750
H	0.500	12.7
J	0.500	12.7
K	0.750	19.05
L	0.375	9.525

Millimetre dimensions have been derived from inches.

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