

# FERRANTI

## MERCURY VAPOUR RECTIFIER

A Mercury Vapour Rectifier with an oxide coated filament.

### PHYSICAL DETAILS.

Base	UX—4-pin (Bayonet).
Max. Overall Length	170 mm. (6 $\frac{1}{2}$ in.).
Max. Seated Height	155 mm. (6 $\frac{1}{8}$ in.).
Max. Bulb Diameter	66 mm. (2 $\frac{3}{4}$ in.).
Anode Cap	Type CT3.
Mounting Position	Vertical—Base down.

### CATHODE.

Fil. Voltage	2.5 volts.
Fil. Current	5.0 amps.

### RATINGS. (Maximum ratings are "absolute" values.)

Natural Ventilation	20°C—40°C	25°C—55°C
Forced Ventilation	20°C—60°C	25°C—65°C
Max. P.I.V. (See Note 2 below)	5kV—10kV	up to 5kV

Max. Peak Anode Current	1.0	Amp.
Max. Av. Anode Current	0.25	Amp.

### Ambient Temperature Range :

Natural Ventilation	20°—55°C.
Forced Ventilation	20°—65°C.

Min. Cathode Heating Delay	30	secs.
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The above ratings apply to operation in circuits using a choke input filter and a supply frequency of 50 c/s.

### TYPICAL OPERATION.

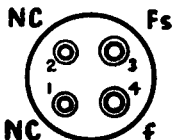
*CIRCUIT.		D.C. Output	
		Kilovolts.	Amps.
No. 1.	Bi-Phase Half Wave (2 valves)	3.2	0.5
No. 2.	3-Phase Half Wave (3 valves)	4.5	0.75
No. 3.	Single Phase Full Wave (4 valves)	6.5	0.5
No. 4.	3-Phase Full Wave (6 valves)	9.5	0.75
No. 5.	3-Phase Half Wave Double Y (6 valves)	4.5	1.5

### INSTALLATION NOTES.

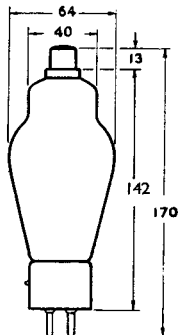
- When first installed or after a long period of rest the valve should be run for at least 5 minutes before the application of any anode voltage.
- The rated value of P.I.V. is applicable only over the temperature ranges noted above. Care should be taken in selecting a suitable position in the layout to ensure free circulation of air around the bulb.
- Valves should be shielded from radio frequency fields.
- Surges due to H.T. switching or other causes should be avoided.
- This rectifier is directly heated and it is therefore recommended that the output circuit should be returned to the mid point of the filament transformer secondary.
- If valves are used in parallel to increase current output balancing inductances must be placed in the anode leads.

\*For Circuit Diagrams see overleaf.

866A



**Base  
Connections  
Underside View  
of Base**



All dimensions shown are in millimetres (max.)



Circuits referred to under "TYPICAL OPERATION" overleaf.

