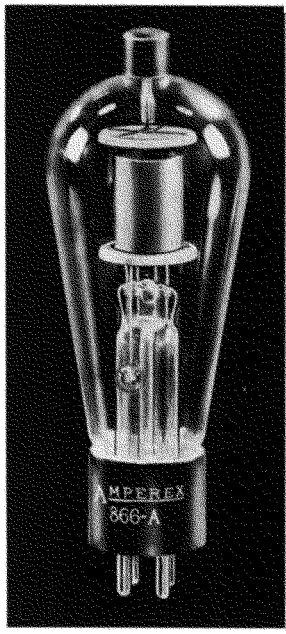
AMPEREX MERCURY VAPOR RECTIFIER 866-A



FILAMENT

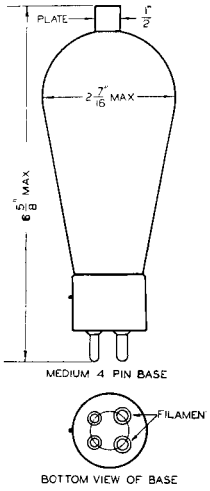
A.C. Voltage	2.5
Current (amperes)	5.0
Preheating Period (Seconds)*	30

*Before plate voltage is applied.

MAXIMUM RATINGS

	For Operation At Supply Frequency Up to 150 Cycles With Condensed Mercury Temperature Range		For Operation At Supply Frequency Up to 1000 Cycles With Condensed Mercury Temperature Range
	25°C. to 60°C.	25°C. to 70°C.	25°C. to 70°C.
Peak Inverse Voltage	10000	2000	5000
Peak Plate Current (ampere)	1.0	2	1.0
Average Plate Current (ampere)*	.25	0.5	.25
Approx. Tube Voltage Drop	10	10	10

*Averaged over period of 10 seconds.



MAXIMUM OUTPUTS IN TYPICAL CIRCUITS

	A.C. Input Volts R.M.S.	D.C. Output Volts to Filter	Max. D.C. Load Current Amperes
Single-Phase Full Wave (2 Tubes)	3535*	3180	.5
Single-Phase Full Wave Bridge (4 Tubes)	7070†	6360	.5
Three-Phase Half Wave (3 Tubes)	4080‡	4780	.75
Three-Phase Double Y-Parallel (6 Tubes)	4080‡	4780	1.5
Three-Phase Full Wave (6 Tubes)	4080‡	9570	.75

*Per Tube. †Total. ‡Per Leg.

NOTE: For Out-Of-Phase Filament Excitation information see "Maximum Peak Plate Current" and "Maximum Average Plate Current", pp. 3 and 4, "General Information and Application Notes" section, "Mercury Vapor High Voltage RECTIFIER TUBES".

AMPEREX

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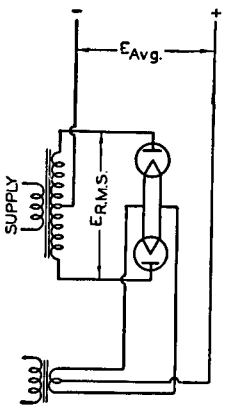
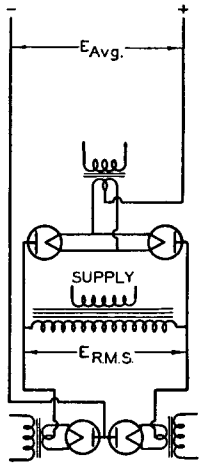
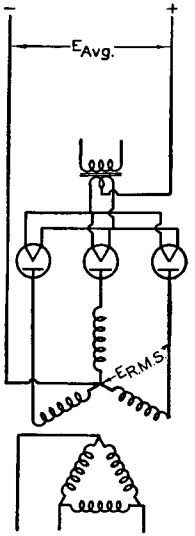
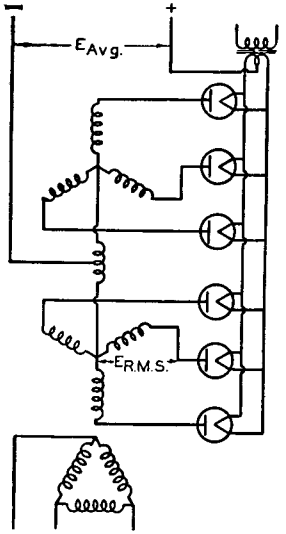
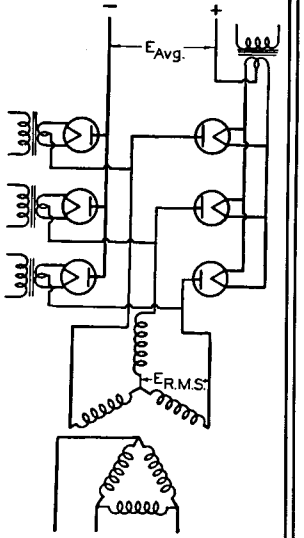
RECTIFIER CIRCUIT	SINGLE PHASE FULL-WAVE 2 TUBES	SINGLE PHASE FULL-WAVE 4 TUBES	THREE PHASE HALF-WAVE	THREE PHASE DOUBLE-Y	THREE PHASE FULL-WAVE
Conditions assumed for following relations 1. Sine-Wave Supply 2. Balanced Phase Voltages 3. Zero Tube Drop 4. Pure Resistance Load 5. No Filter Used NOTE: All rectifier filaments supplied by single phase transformers, with secondaries insulated for voltages greater than the Maximum Peak Inverse Voltage.	FIG. 1 	FIG. 2 	FIG. 3 	FIG. 4 	FIG. 5 
E Average	.450 *E* rms .318 *E* max	.900 *E* rms .636 *E* max	1.170 *E* rms .827 *E* max	1.170 *E* rms .827 *E* max	2.34 *E* rms 1.65 *E* max
E Inverse	3.14 *E* avg	1.57 *E* avg	2.09 *E* avg	2.09 *E* avg	1.045 *E* avg
I Average	.636 *I* max	.636 *I* max	.827 *I* max	1.91 *I* max	.955 *I* max
Ripple Frequency	2 X Supply Freq.	2 X Supply Freq.	3 X Supply Freq.	6 X Supply Freq.	6 X Supply Freq.
Ripple Voltage (Rms)	48.3%	48.3%	18.3%	4.2%	4.2%
† Ratio $\frac{\text{Secondary Kva}}{\text{D.C. Output-Kw}}$	1.57	1.11	1.48	1.48	1.05
† Ratio $\frac{\text{Primary Kva}}{\text{D.C. Output-Kw}}$	1.11	1.11	1.21	1.05	1.05

† These ratios assume that a choke input filter is used to maintain the output current substantially constant.