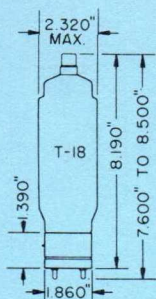


TUNG-SOL

DIODE



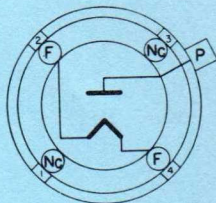
GLASS BULB

FILAMENT

5.0±5% VOLTS 7.25 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
JUMBO BAYONET
4 PIN BASE

4AT

THE 4B32 IS A XENON FILLED HALF WAVE RECTIFIER FOR USE IN HIGH VOLTAGE CIRCUITS. THE TUBE IS DESIGNED TO OPERATE OVER A WIDE TEMPERATURE RANGE WITHOUT THE NECESSITY OF HEATING OR COOLING DEVICES. ITS HARD GLASS ENVELOPE AND WELL SUPPORTED MOUNT MAKE IT PARTICULARLY SUITED FOR MILITARY AND INDUSTRIAL USE. AS CONTRASTED TO SIMILAR MERCURY-VAPOR TUBES, THE 4B32 MAY BE MOUNTED IN ANY POSITION AND IS NOT SUBJECT TO MERCURY-SPLASH PROBLEMS. ITS EFFICIENT OXIDE COATED FILAMENT IS FAST HEATING. AS CONSISTENT WITH FILAMENTARY GAS AND VAPOR RECTIFIER TUBE PRACTICE, QUADRATURE EXCITATION OF THE FILAMENT IS RECOMMENDED FOR OBTAINING THE LONGEST TUBE LIFE. IN QUADRATURE OPERATION, THE FILAMENT CURRENT IS PHASED TO BE AT A MINIMUM WHEN THE PEAK ANODE CURRENT FLOWS. HOWEVER THE TUBE CARRIES FULL RATINGS FOR IN PHASE OPERATION OF THE FILAMENT.

MAXIMUM RATINGS

MAXIMUM PEAK INVERSE VOLTAGE	10 000	VOLTS
MAXIMUM PEAK CATHODE CURRENT	5.0	AMP.
MAXIMUM AVERAGE CATHODE CURRENT	1.25	AMP.
MAXIMUM SURGE CATHODE CURRENT	50.	AMP.
(MAXIMUM DURATION TIME 0.1 SECONDS)		
MAXIMUM AVERAGING TIME	15.	SECONDS
MAXIMUM SUPPLY FREQUENCY	150.	CPS
AMBIENT TEMPERATURE LIMITS	-55 TO +70°	C

ELECTRICAL DATA

FILAMENT VOLTAGE	5.0±5%	VOLTS
FILAMENT CURRENT AT 5.0 VOLTS	7.25	AMP.
MINIMUM CATHODE HEATING TIME	30.	SECONDS
AVERAGE ANODE VOLTAGE DROP	12.	VOLTS
PEAK ANODE VOLTAGE DROP	16.	VOLTS
CRITICAL ANODE VOLTAGE	50.	VOLTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MECHANICAL DATA

MOUNTING POSITION	ANY	
OVERALL LENGTH	7.6 TO 8.5	INCHES
MAXIMUM DIAMETER	2.32	INCHES
BULB	T-18	NONEX
CAP	MEDIUM METAL C-4-5	
BASE	JUMBO 4 PIN, A4-29	
WEIGHT (NET) MAX.	7 1/2	OUNCES

MAXIMUM CIRCUIT VALUES

FIG.	CIRCUIT	TRANSFORMER	FILAMENT OPERATION	NO. OF TUBES	A.C. SECONDARY VOLTS ERMS	DC OUTPUT (APPROX.)		RIPPLE	
						E _{DC} IN VOLTS	I _{DC} IN AMPERES	VOLTS RMS	FREQ.
1	HALF WAVE SINGLE PHASE	SINGLE PHASE	IN PHASE	1	7000	3200	1.25	3500	f
2	FULL WAVE SINGLE PHASE	SINGLE PHASE CENTER TAP	IN PHASE	2	3500	3200	2.50	1500	2f
3	BRIDGE CIRCUIT SINGLE PHASE	SINGLE PHASE	IN PHASE	4	7000	6400	2.50	3000	2f
4	HALF WAVE THREE PHASE	DELTA-WYE	—	3	4000	4800	3.75	860	3f
5	FULL WAVE THREE PHASE	DELTA-WYE	QUADRATURE	6	4000	9500	3.75	400	6f
6	FULL WAVE THREE PHASE	DELTA-DELTA	QUADRATURE	6	7000	9500	3.75	400	6f
7	HALF WAVE SIX PHASE (THREE PHASE SUPPLY)	DELTA-STAR	QUADRATURE	6	3500	4800	5.0	200	6f

DC OUTPUT VALUES ARE THOSE SUPPLIED TO A CHOKE INPUT FILTER WITH A PURE SINE WAVE SUPPLY.

VALUES ARE FOR A MAXIMUM OF 10KV PEAK INVERSE VOLTAGE PER TUBE AND 150 CPS MAXIMUM SUPPLY FREQUENCY.

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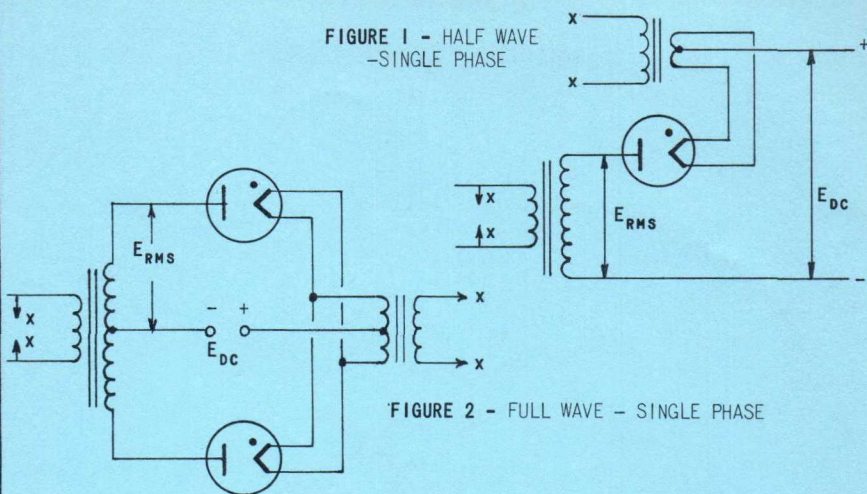
FIGURE 1 - HALF WAVE
-SINGLE PHASE

FIGURE 2 - FULL WAVE - SINGLE PHASE

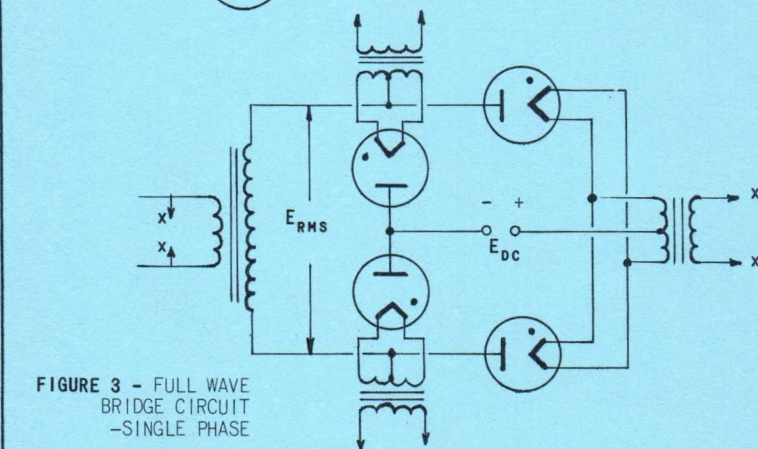
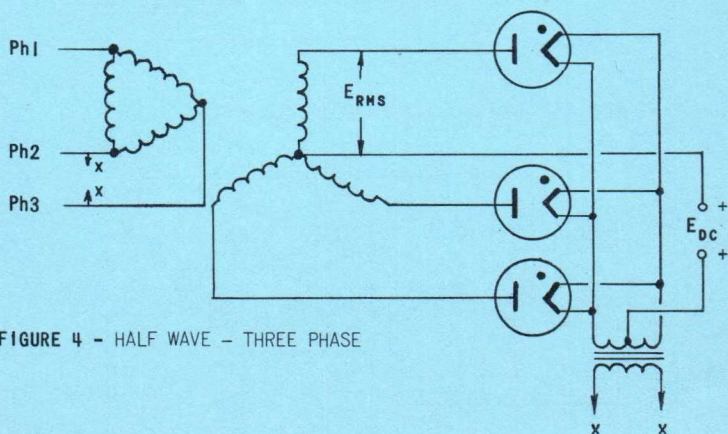
FIGURE 3 - FULL WAVE
BRIDGE CIRCUIT
-SINGLE PHASE

FIGURE 4 - HALF WAVE - THREE PHASE

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FIGURE 5 - FULL WAVE-THREE PHASE

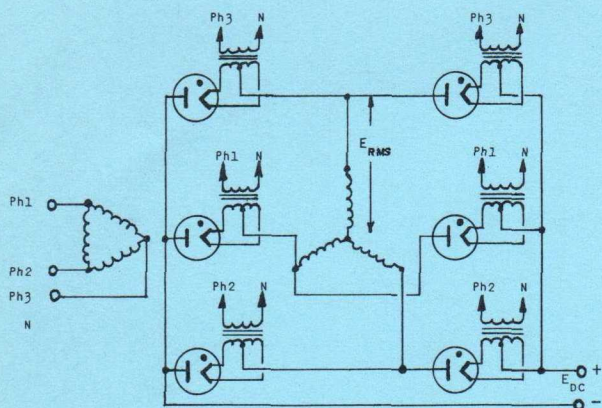


FIGURE 6 - FULL WAVE - THREE PHASE

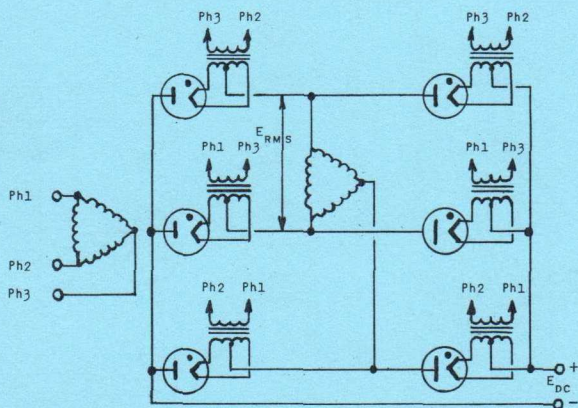


FIGURE 7 - HALF WAVE-SIX PHASE (3 PHASE SUPPLY)

