

# RECTIFIER POWER TRANSFORMERS

F-206U

F-207U

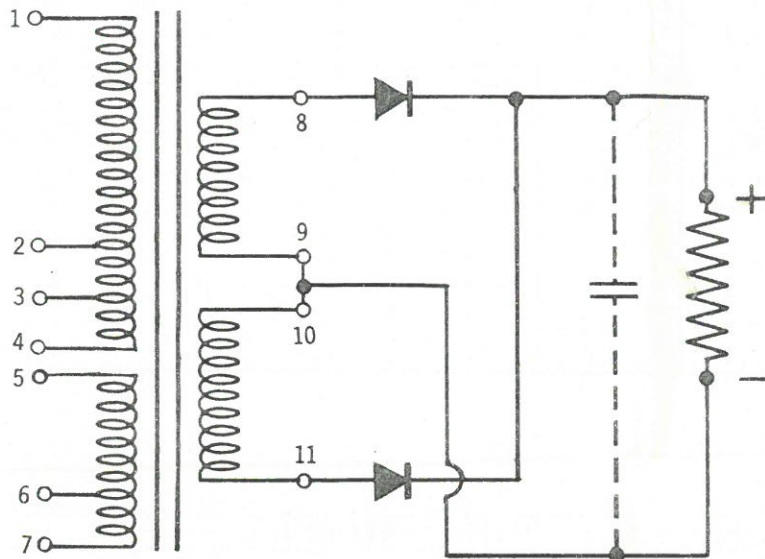


FIG. 1

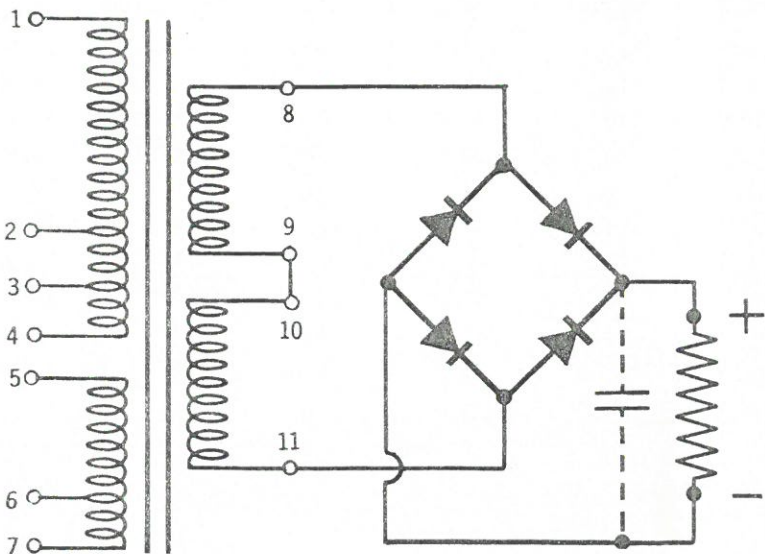


FIG. 2

These transformers are designed for use with silicon or selenium rectifiers in full wave center-tapped or bridge rectifier circuits as shown in Fig. 1 or Fig. 2.

All transformers in this series have terminal connections as shown in these drawings. 1, 2, 3, and 4 are primary terminals. A separate winding is connected to 5, 6, and 7, and may be used with the primary in "boost" or "buck" connection to provide a wider range of output voltages. Although designed specifically for 50/60 cycle input, these units will operate at 400 cycles with no loss of efficiency.

Two identical secondary windings are connected to 8-9 and 10-11. Terminals 10 and 9 are tied in the circuits shown here and used as center tap in the full wave center-tapped circuit.

The tables on the reverse side of this sheet show typical voltages available from both types of circuits with resistive and capacitive loads, and using various primary connections. Many combinations are possible which are not shown.

F-206U		FULL WAVE CENTER-TAPPED 15.0 ADC				FULL WAVE BRIDGE 8.0 ADC			
		Resistive Load		Capacitive Load (7500 mfd)		Resistive Load		Capacitive Load (4000 mfd)	
Input Terminals	Tie Terminals	Secondary AC Volts	D. C. Volts	Secondary AC Volts	D. C. Volts	Secondary AC Volts	D. C. Volts	Secondary AC Volts	D. C. Volts
1-2	---	30.1	12.5	30.0	16.0	30.0	25.0	30.0	36.0
1-7	2-6	26.7	10.9	26.8	13.9	26.7	21.8	26.8	31.2
1-6	2-5	23.9	9.6	23.9	12.0	23.7	19.1	23.7	27.5
1-7	2-5	21.5	8.6	21.5	10.4	21.2	17.1	21.2	24.4
1-3	---	19.8	7.8	19.9	9.5	19.8	15.7	19.8	22.3
1-7	3-6	18.2	7.2	18.2	8.4	18.0	14.4	18.0	20.6
1-6	3-5	16.8	6.5	16.8	7.4	16.7	13.1	16.7	18.2
1-7	3-5	15.5	6.0	15.5	6.7	15.3	11.9	15.3	16.5
1-4	---	14.8	5.6	14.8	6.3	14.6	11.3	14.6	15.3
1-7	4-6	13.8	5.2	13.8	5.7	13.6	10.4	13.6	14.0
1-6	4-5	12.7	4.8	12.9	5.1	12.8	9.6	12.8	12.9
1-7	4-5	12.1	4.5	12.1	4.8	12.0	8.9	12.0	12.0

F-207U		FULL WAVE CENTER-TAPPED 22.5 ADC				FULL WAVE BRIDGE 12.0 ADC			
		Resistive Load		Capacitive Load (11,250 mfd)		Resistive Load		Capacitive Load (6000 mfd)	
Input Terminals	Tie Terminals	Secondary AC Volts	D. C. Volts	Secondary AC Volts	D. C. Volts	Secondary AC Volts	D. C. Volts	Secondary AC Volts	D. C. Volts
1-2	---	29.6	12.2	29.5	15.9	29.7	24.3	30.0	35.5
1-7	2-6	26.9	10.8	26.5	13.6	26.4	21.4	26.3	31.0
1-6	2-5	24.2	9.5	23.9	12.0	24.0	19.3	23.8	27.8
1-7	2-5	21.8	8.5	21.8	10.6	21.8	17.3	21.7	24.8
1-3	---	19.6	7.6	19.7	9.2	19.7	15.6	19.6	21.9
1-7	3-6	18.2	7.0	18.1	8.3	18.1	14.3	18.1	19.9
1-6	3-5	16.9	6.4	16.8	7.5	16.8	13.2	16.8	18.2
1-7	3-5	15.8	6.0	15.8	6.9	15.6	12.0	15.7	16.8
1-4	---	14.5	5.4	14.3	6.1	14.6	11.2	14.4	15.0
1-7	4-6	13.8	5.1	13.5	5.5	13.6	10.3	13.6	14.0
1-6	4-5	13.0	4.8	12.9	5.2	13.0	9.6	12.9	12.9
1-7	4-5	12.1	4.4	12.1	4.8	12.2	9.0	12.2	12.2

The voltages in these tables were obtained using silicon rectifiers, IN3493 for full wave center-tapped and IN3491 for full wave bridge. Capacitor values were as shown above for capacitive loads. Actual values obtained may vary slightly from values shown due to voltage drops across rectifiers, actual capacitor values, and lead losses.

It may be necessary to de-rate current values in capacitive circuits by 15-20% for lower transformer and rectifier temperatures if the higher temperatures produced by these circuits are objectionable. Be sure to choose rectifiers with suitable characteristics to handle voltages and currents shown, as well as PIV and surge currents which will be encountered.