

MINIATURE 400HZ power transformers

Type Designation
TF5S03ZZ-443
Thru 883

- * Designed to meet the requirements of: MIL-T-27/37 thru MIL-T-27/47
- * 308 standard designs from 1.5 VA thru 25 VA **, including a wide variety of output voltages offering maximum design flexibility.

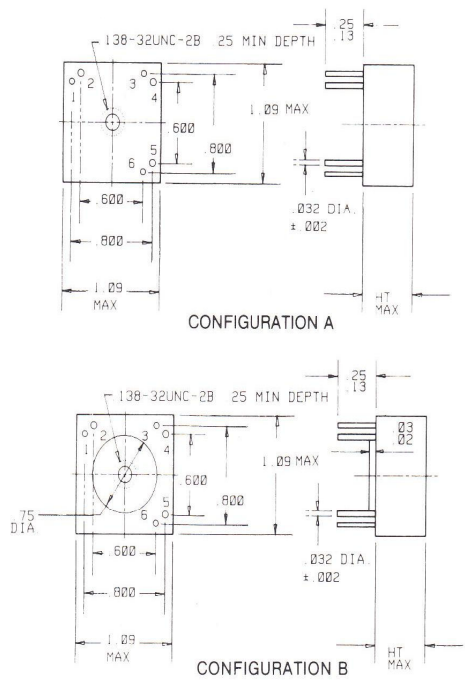
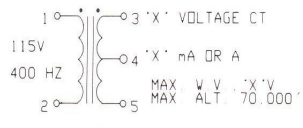


FIGURE 1. Dimensions and configuration.

TABLE 1.

POWER	HEIGHT MAX	TEMP. RISE °C MAX	WEIGHT OZ. MAX	EFF. % MIN	NO LOAD I _{ma rms} MAX	REG. % MAX
1.5 VA NO SHIELD	0.47	17	0.85	70	1.5	23
1.5 VA WITH SHIELD	0.59	17	1.10	70	3.0	18
3 VA NO SHIELD	0.59	20	1.10	75	3.0	18
3 VA WITH SHIELD	0.78	20	1.65	75	6.0	12
6 VA NO SHIELD	0.78	25	1.65	81	6.0	12
6 VA WITH SHIELD	1.03	25	2.20	80	9.0	10
9 VA NO SHIELD	1.03	30	2.20	83	9.0	10

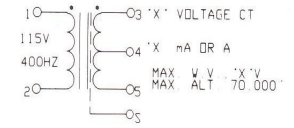
CIRCUIT DIAGRAM AND MARKING



(SEE TABLE 2 FOR VALUE OF "X")

SEE ORDER INFO

CIRCUIT DIAGRAM AND MARKING



(SEE TABLE 2 FOR VALUE OF "X")

NOTE: TERMINAL MARKED #6 FIG #1, WILL BE MARKED S FOR SHIELD ON ALL UNITS WITH A SHIELD.

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerance on terminal position dimensions is ± .005 (0.13 mm).
4. Marking shall be on the side of the case.
5. A white dot shall be marked on the side opposite the terminals, over terminal 1, in addition to the terminal marking shown.
6. Secondary electrical values shall be marked as specified in table 2 as applicable.

INCHES	MM
.002	0.05
.02	0.5
.03	0.8
.032	0.81
.13	3.3
.138	3.51
.25	6.4
.600	25.24
.75	19.1
.78	19.8
.800	20.32
1.09	27.7

ELECTRICAL CHARACTERISTICS

ELECTRICAL RATINGS: see table 2.
 PRIMARY VOLTAGE: 115 volts ± 10%, 400 HZ ± 5%.
 NO LOAD: with 115 volts, 400 HZ across 1-2, the current in 1-2 shall not exceed, see table 1.
 RATED LOAD: with 115 volts, 400 HZ across 1-2 and a resistive load with current as specified in table 2 in 3-5, the voltage across 3-5 shall be as specified in table 2.
 EFFICIENCY: % minimum at rated load, see table 1.
 POLARITY: additive with terminals 2 and 3 connected
 PHASE SHIFT: 1.0 degree between primary and secondary voltage at rated load, maximum.
 TEMPERATURE RISE: degrees C maximum, see table 1.
 REGULATION: % max, see table 1.

DESIGN AND CONSTRUCTION

DIMENSIONS AND CONFIGURATION: see figure 1.
 WEIGHT: OUNCE maximum, see table 1.
 ALTITUDE: 70,000 feet, maximum.
 OPERATING TEMPERATURE RANGE: -55 C to +130 C maximum.
 TERMINALS: printed circuit, tinned.
 DIELECTRIC WITHSTANDING VOLTAGE: 2.8 x the maximum working voltage specified in table 2.

** 16 VA and 25 VA INFORMATION AVAILABLE UPON REQUEST.

TABLE 2. ELECTRICAL RATINGS

DASH # SPECIFICATION	SECONDARY VOLTAGES 3.5 V rms	SECONDARY CURRENT 3.5 amps rms				WORKING VOLTAGE V rms
		1.5 VA	3 VA	6 VA	9 VA	
01 A or B	5	0.250	0.500	1.100	1.500	325
02 A or B	6.3	0.236	0.476	0.953	1.430	325
03 A or B	7	0.214	0.429	0.857	1.286	325
04 A or B	7.5	0.200	0.400	0.800	1.200	325
05 A or B	8	0.188	0.375	0.750	1.125	325
06 A or B	9	0.167	0.333	0.667	1.000	325
07 A or B	10	0.150	0.300	0.600	0.900	325
08 A or B	11	0.136	0.273	0.545	0.818	325
09 A or B	12	0.125	0.250	0.500	0.750	325
10 A or B	12.6	0.119	0.238	0.476	0.715	325
11 A or B	13	0.115	0.231	0.462	0.692	325
12 A or B	15	0.100	0.200	0.400	0.600	325
13 A or B	16	0.094	0.188	0.375	0.563	325
14 A or B	18	0.083	0.167	0.333	0.500	325
15 A or B	20	0.075	0.150	0.300	0.450	325
16 A or B	22	0.068	0.136	0.272	0.409	325
17 A or B	24	0.063	0.125	0.250	0.375	325
18 A or B	26	0.058	0.115	0.230	0.346	325
19 A or B	28	0.053	0.107	0.214	0.321	325
20 A or B	30	0.050	0.100	0.200	0.300	325
21 A or B	33	0.045	0.091	0.182	0.273	325
22 A or B	36	0.042	0.083	0.167	0.250	325
23 A or B	39	0.038	0.077	0.154	0.231	325
24 A or B	43	0.035	0.070	0.140	0.209	325
25 A or B	47	0.032	0.064	0.128	0.191	325
26 A or B	51	0.029	0.059	0.118	0.176	325
27 A or B	56	0.027	0.054	0.107	0.161	325
28 A or B	62	0.024	0.048	0.097	0.145	325
29 A or B	68	0.022	0.044	0.088	0.132	325
30 A or B	75	0.020	0.040	0.080	0.120	325
31 A or B	81	0.018	0.037	0.073	0.110	325
32 A or B	91	0.016	0.033	0.066	0.099	325
33 A or B	100	0.015	0.030	0.060	0.090	325
34 A or B	110	0.014	0.027	0.055	0.082	325
35 A or B	115	0.013	0.026	0.052	0.078	325
36 A or B	120	0.0125	0.025	0.050	0.075	325
37 A or B	130	0.0115	0.023	0.046	0.069	325
38 A or B	150	0.010	0.020	0.040	0.060	325
39 A or B	160	0.0095	0.017	0.039	0.059	325
40 A or B	200	0.0075	0.015	0.030	0.045	440
41 A or B	220	0.007	0.014	0.027	0.041	440
42 A or B	240	0.006	0.013	0.026	0.038	440
43 A or B	270	0.0055	0.011	0.022	0.033	580
44 A or B	300	0.005	0.010	0.020	0.030	580

ORDER INFORMATION:

POWER SIZE	STANDEX PN *see note 1 & 3	SPEC. SHEET NO. *see note 2 & 3
1.5 VA NO SHIELD	Mg14778-***A OR B	M27/37-##A OR B
1.5 VA WITH SHIELD	Mg14779-***A OR B	M27/38-##A OR B
3 VA NO SHIELD	Mg14780-***A OR B	M27/39-##A OR B
3 VA WITH SHIELD	Mg14781-***A OR B	M27/40-##A OR B
6 VA NO SHIELD	Mg14782-***A OR B	M27/41-##A OR B
6 VA WITH SHIELD	Mg14783-***A OR B	M27/42-##A OR B
9 VA NO SHIELD	Mg14784-***A OR B	M27/43-##A OR B

CUSTOM DESIGNS AVAILABLE

TABLE 3.

DASH # SPECIFICATION	TYPE DESIGNATION TFS503ZZ### *see note 4											
	1.5 VA		3 VA		6 VA		9 VA					
	NO SHIELD	WITH SHIELD	NO SHIELD	WITH SHIELD	NO SHIELD	WITH SHIELD	NO SHIELD	WITH SHIELD				
01 A or B	400	444	488	532	576	620	664	707				
02 A or B	401	445	489	533	577	621	665	708				
03 A or B	402	446	490	534	578	622	666	709				
04 A or B	403	447	491	535	579	623	667	710				
05 A or B	404	448	492	536	580	624	668	711				
06 A or B	405	449	493	537	581	625	669	712				
07 A or B	406	450	494	538	582	626	670	713				
08 A or B	407	451	495	539	583	627	671	714				
09 A or B	408	452	496	540	584	628	672	715				
10 A or B	409	453	497	541	585	629	673	716				
11 A or B	410	454	498	542	586	630	674	717				
12 A or B	411	455	499	543	587	631	675	718				
13 A or B	412	456	500	544	588	632	676	719				
14 A or B	413	457	501	545	589	633	677	720				
15 A or B	414	458	502	546	590	634	678	721				
16 A or B	415	459	503	547	591	635	679	722				
17 A or B	416	460	504	548	592	636	680	723				
18 A or B	417	461	505	549	593	637	681	724				
19 A or B	418	462	506	550	594	638	682	725				
20 A or B	419	463	507	551	595	639	683	726				
21 A or B	420	464	508	552	596	640	684	727				
22 A or B	421	465	509	553	597	641	685	728				
23 A or B	422	466	510	554	598	642	686	729				
24 A or B	423	467	511	555	599	643	687	730				
25 A or B	424	468	512	556	600	644	688	731				
26 A or B	425	469	513	557	601	645	689	732				
27 A or B	426	470	514	558	602	646	690	733				
28 A or B	427	471	515	559	603	647	691	734				
29 A or B	428	472	516	560	604	648	692	735				
30 A or B	429	473	517	561	605	649	693	736				
31 A or B	430	474	518	562	606	650	694	737				
32 A or B	431	475	519	563	607	651	695	738				
33 A or B	432	476	520	564	608	652	696	739				
34 A or B	433	477	521	565	609	653	697	740				
35 A or B	434	478	522	566	610	654	698	741				
36 A or B	435	479	523	567	611	655	699	742				
37 A or B	436	480	524	568	612	656	700	743				
38 A or B	437	481	525	569	613	657	701	744				
39 A or B	438	482	526	570	614	658	702	745				
40 A or B	439	483	527	571	615	659	703	746				
41 A or B	440	484	528	572	616	660	704	747				
42 A or B	441	485	529	573	617	661	705	748				
43 A or B	442	486	530	574	618	662	706	749				
44 A or B	443	487	531	575	619	663	707	750				

* NOTES:

- 1.*** = SECONDARY OUTPUT VOLTAGE. SEE TABLE 2.
- EXAMPLE: 14778-6B = 1.5 VA UNIT NO SHIELD, 6 VRMS SECONDARY OUTPUT VOLTAGE WITH CONFIGURATION B PER FIGURE 1.
- 2.## = DASH #, SEE TABLE 2
- 3.A OR B = CONFIGURATION, SEE FIGURE 1
- 4. TYPE DESIGNATION: TFS503ZZ###
- EXAMPLE: TFS503XX400 = 1.5 VA UNIT WITH NO SHIELD AND DASH 01 SECONDARY OUTPUT VOLTAGE.