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THE SOURCE FOR MILITARY MAGNETICS

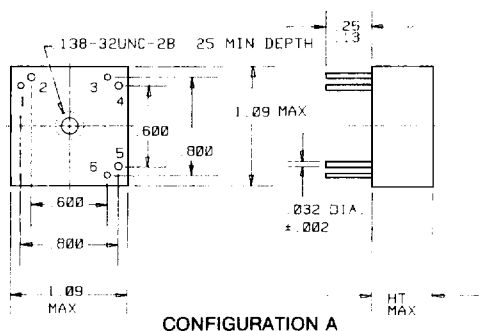
MINIATURE 400HZ power transformers

....OFF-THE-SHELF

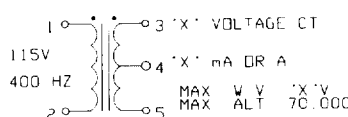
Type Designation
TF5S03ZZ-443
Thru 883

- * 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.

Samples are available off-the-shelf by calling the sales department at (516) 928-0762. Modifications to these designs and virtually all **custom, high reliability designs** are available with **FAST** service by calling the **Engineering Hotline** at (516) 928-0771.



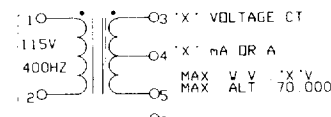
CIRCUIT DIAGRAM AND MARKING



(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 $\pm .005$ (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

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

ELECTRICAL CHARACTERISTICS

ELECTRICAL RATINGS: see table 2.

PRIMARY VOLTAGE: 115 volts $\pm 10\%$, 400 HZ $\pm 5\%$.

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 # MIL SPECIFICATION	SECONDARY VOLTAGES 3.5 V rms ± 3 %	SECONDARY CURRENT 3.5 amps rms				WORKING VOLTAGE V rms
		1.5 VA	3 VA	6 VA	9 VA	
						max
01 A OR B	6	0.250	0.500	1.100	1.500	325
02 A OR B	6.3	0.238	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	0.135	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	82	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	180	0.0085	0.017	0.033	0.050	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	0.025	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

TABLE 3.

DASH # MIL SPECIFICATION	TYPE DESIGNATION TF5S03ZZ## *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	486	532	576	620	664			
02 A OR B	401	445	488	533	577	621	665			
03 A OR B	402	446	490	534	578	622	666			
04 A OR B	403	447	491	535	579	623	667			
05 A OR B	404	448	492	536	580	624	668			
06 A OR B	405	449	493	537	581	625	669			
07 A OR B	406	450	494	538	582	626	670			
08 A OR B	407	451	495	539	583	627	671			
09 A OR B	408	452	496	540	584	628	672			
10 A OR B	409	453	497	541	585	629	673			
11 A OR B	410	454	498	542	586	630	674			
12 A OR B	411	455	499	543	587	631	675			
13 A OR B	412	456	500	544	588	632	676			
14 A OR B	413	457	501	545	589	633	677			
15 A OR B	414	458	502	546	590	634	678			
16 A OR B	415	459	503	547	591	635	679			
17 A OR B	416	460	504	548	592	636	680			
18 A OR B	417	461	505	549	593	637	681			
19 A OR B	418	462	506	550	594	638	682			
20 A OR B	419	463	507	551	595	639	683			
21 A OR B	420	464	508	552	596	640	684			
22 A OR B	421	465	509	553	597	641	685			
23 A OR B	422	466	510	554	598	642	686			
24 A OR B	423	467	511	555	599	643	687			
25 A OR B	424	468	512	556	600	644	688			
26 A OR B	425	469	513	557	601	645	689			
27 A OR B	426	470	514	558	602	646	690			
28 A OR B	427	471	515	559	603	647	691			
29 A OR B	428	472	516	560	604	648	692			
30 A OR B	429	473	517	561	605	649	693			
31 A OR B	430	474	518	562	606	650	694			
32 A OR B	431	475	519	563	607	651	695			
33 A OR B	432	476	520	564	608	652	696			
34 A OR B	433	477	521	565	609	653	697			
35 A OR B	434	478	522	566	610	654	698			
36 A OR B	435	479	523	567	611	655	699			
37 A OR B	436	480	524	568	612	656	700			
38 A OR B	437	481	525	569	613	657	701			
39 A OR B	438	482	526	570	614	658	702			
40 A OR B	439	483	527	571	615	659	703			
41 A OR B	440	484	528	572	616	660	704			
42 A OR B	441	485	529	573	617	661	705			
43 A OR B	442	486	530	574	618	662	706			
44 A OR B	443	487	531	575	619	663	707			

ORDER INFORMATION.

CUSTOM DESIGNS AVAILABLE

* NOTES.

1. *** = SECONDARY OUTPUT VOLTAGE. SEE TABLE 2.
 EXAMPLE: 10537.6B = 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: TF5S03ZZ##.
- EXAMPLE: TF5S03XX400 = 1.5 VA UNIT WITH NO SHIELD AND DASH 01 SECONDARY OUTPUT VOLTAGE

POWER SIZE	TRANS AMERICAN PN *see note 1 & 3	SPEC. SHEET NO. *see note 2 & 3
1.5 VA NO SHIELD	10537-*** A OR B	M2737-## A OR B
1.5 VA WITH SHIELD	10538-*** A OR B	M2738-## A OR B
3 VA NO SHIELD	10539-*** A OR B	M2739-## A OR B
3 VA WITH SHIELD	10540-*** A OR B	M2740-## A OR B
6 VA NO SHIELD	10541-*** A OR B	M2741-## A OR B
6 VA WITH SHIELD	10542-*** A OR B	M2742-## A OR B
9 VA NO SHIELD	10543-*** A OR B	M2743-## A OR B

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