60Hz MIL-PRF-27 Power Transformers

- Military Designation TF4S03YY
- Hermetically sealed, rugged MIL-PRF-27 transformers
- Standard output voltages: 5 to 486 volts
- Threaded inserts for versatile mounting
- Wide range of power ratings: 5, 10, 15, 20, 30, 40, 80, 120, 160, 200, and 300 VA



Specifications

Input Primary:
115 VAC, 60Hz ±5Hz**, 1 phase.

"A" Option: 230 VAC. Add suffix "A" to model number, e.g., 5P10CTA (See Fig. 1).

"B" Option: 115/230 VAC. Add suffix "B" to model number, e.g., 5P10CTB (See Fig. 2).

**For 50Hz operation, reduce secondary current by 10% of listed ratings. (These units are capable of 400Hz operation.)

Regulation:
12% or less no load to full load (Sizes A1-A2) 10% or less no load to full load (Sizes A3-A11).

Secondary Voltage Tolerance:
Within 3% of listed output voltage when measured at full load and listed input.

Dielectric Withstanding Voltage:
1750 VAC.

Efficiency:
Ranges from 80% to 90% typical.

Construction:
To MIL-PRF-27, Grade 4, Class S; steel case.

Environment:
Encapsulated to meet MIL-STD-810 for vibration, shock, acceleration, sand, dust, humidity, saltspray, fungus, sunshine, rain, explosion, and altitude.

NOTE: For high altitude operation, encapsulate terminals.

Output Secondary:
See output voltage and current of specific models listed.

Other outputs and/or inputs available upon request.

Dimensions and mechanical drawings on Page 4

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60Hz MIL-PRF-27 Power Transformers

Output Volts (FL)	Output Current (Amp)	Size	Secondary DCR Ohms (Typical)	Model No.	QPL Model No.
5.0	1.00	A1	0.335	5P5CT	M27/312-01
	2.00	A2	0.12	10P5CT	M27/313-01
	3.00	A3	0.07	15P5CT	M27/314-01
	4.00	A4	0.066	20P5CT	M27/315-01
	6.00	A5	0.04	30P5CT	M27/316-01
	8.00	A6	0.03	40P5CT	M27/317-01
	16.00	A7	0.011	80P5CT	M27/318-01
6.3	0.79	A1	0.53	5P6.3CT	M27/312-02
	1.58	A2	0.18	10P6.3CT	M27/313-02
	2.38	A3	0.094	15P6.3CT	M27/314-02
	3.16	A4	0.1	20P6.3CT	M27/315-02
	4.76	A5	0.06	30P6.3CT	M27/316-02
	6.35	A6	0.059	40P6.3CT	M27/317-02
	12.70	A7	0.016	80P6.3CT	M27/318-02
	19.00	A8	0.012	120P6.3CT	M27/319-01
8.0	0.67	A1	0.87	5P8CT	M27/312-03
	1.25	A2	0.27	10P8CT	M27/313-03
	1.88	A3	0.16	15P8CT	M27/314-03
	2.50	A4	0.15	20P8CT	M27/315-03
	3.76	A5	0.08	30P8CT	M27/316-03
	5.00	A6	0.079	40P8CT	M27/317-03
	10.00	A7	0.037	80P8CT	M27/318-03
	15.00	A8	0.018	120P8CT	M27/319-02
	20.00	A9	0.014	160P8CT	M27/320-01
10	0.50	A1	1.34	5P10CT	M27/312-04
	1.00	A2	0.42	10P10CT	M27/313-04
	1.50	A3	0.23	15P10CT	M27/314-04
	2.00	A4	0.23	20P10CT	M27/315-04
	3.00	A5	0.14	30P10CT	M27/316-04
	4.00	A6	0.11	40P10CT	M27/317-04
	8.00	A7	0.05	80P10CT	M27/318-04
	12.00	A8	0.031	120P10CT	M27/319-03
	16.00	A9	0.018	160P10CT	M27/320-02
	20.00	A10	0.015	200P10CT	M27/321-01
12.6	0.39	A1	2.06	5P12.6CT	M27/312-05
	0.79	A2	0.65	10P12.6CT	M27/313-05
	1.19	A3	0.4	15P12.6CT	M27/314-05
	1.59	A4	0.34	20P12.6CT	M27/315-05
	2.38	A5	0.2	30P12.6CT	M27/316-05
	3.18	A6	0.18	40P12.6CT	M27/317-05
	6.35	A7	0.07	80P12.6CT	M27/318-05
	9.53	A8	0.041	120P12.6CT	M27/319-04
	12.70	A9	0.038	160P12.6CT	M27/320-03
	15.90	A10	0.027	200P12.6CT	M27/321-02
14	0.36	A1	2.95	5P14CT	M27/312-06
	0.72	A2	0.74	10P14CT	M27/313-06
	1.07	A3	0.6	15P14CT	M27/314-06
	1.43	A4	0.4	20P14CT	M27/315-06
	2.15	A5	0.23	30P14CT	M27/316-06
	2.86	A6	0.19	40P14CT	M27/317-06
	5.72	A7	0.1	80P14CT	M27/318-06
	8.59	A8	0.055	120P14CT	M27/319-05
	11.40	A9	0.042	160P14CT	M27/320-04
	14.30	A10	0.029	200P14CT	M27/321-03
16	0.34	A1	3.35	5P16CT	M27/312-07
	0.68	A2	1.08	10P16CT	M27/313-07
	0.94	A3	0.67	15P16CT	M27/314-07
	1.25	A4	0.52	20P16CT	M27/315-07
	1.87	A5	0.28	30P16CT	M27/316-07
	2.50	A6	0.28	40P16CT	M27/317-07
	5.00	A7	0.12	80P16CT	M27/318-07
	7.50	A8	0.072	120P16CT	M27/319-06
	10.00	A9	0.046	160P16CT	M27/320-05
	12.50	A10	0.034	200P16CT	M27/321-04
	18.70	A11	0.016	300P16CT	M27/322-01
18	0.28	A1	4.65	5P18CT	M27/312-08
	0.55	A2	1.42	10P18CT	M27/313-08
	0.83	A3	0.78	15P18CT	M27/314-08
	1.11	A4	0.62	20P18CT	M27/315-08
	1.67	A5	0.38	30P18CT	M27/316-08
	2.21	A6	0.36	40P18CT	M27/317-08
	4.44	A7	0.16	80P18CT	M27/318-08
	6.68	A8	0.08	120P18CT	M27/319-07
	8.89	A9	0.06	160P18CT	M27/320-06
	11.10	A10	0.045	200P18CT	M27/321-05
	16.70	A11	0.02	300P18CT	M27/322-02

Output Volts (FL)	Output Current (Amp)	Size	Secondary DCR Ohms (Typical)	Model No.	QPL Model No.
20	0.25	A1	5.25	5P20CT	M27/312-09
	0.50	A2	1.54	10P20CT	M27/313-09
	0.75	A3	0.9	15P20CT	M27/314-09
	1.00	A4	0.85	20P20CT	M27/315-09
	1.50	A5	0.4	30P20CT	M27/316-09
	2.00	A6	0.43	40P20CT	M27/317-09
	4.00	A7	0.19	80P20CT	M27/318-09
	6.00	A8	0.12	120P20CT	M27/319-08
	8.00	A9	0.07	160P20CT	M27/320-07
	10.00	A10	0.066	200P20CT	M27/321-06
	15.00	A11	0.023	300P20CT	M27/322-03
22	0.22	A1	7.3	5P22CT	M27/312-10
	0.45	A2	1.9	10P22CT	M27/313-10
	0.68	A3	1.2	15P22CT	M27/314-10
	0.91	A4	0.95	20P22CT	M27/315-10
	1.36	A5	0.55	30P22CT	M27/316-10
	1.82	A6	0.57	40P22CT	M27/317-10
	3.64	A7	0.25	80P22CT	M27/318-10
	5.45	A8	0.125	120P22CT	M27/319-09
	7.27	A9	0.092	160P22CT	M27/320-08
	9.10	A10	0.073	200P22CT	M27/321-07
	13.60	A11	0.031	300P22CT	M27/322-04
25	0.20	A1	8.23	5P25CT	M27/312-11
	0.40	A2	2.55	10P25CT	M27/313-11
	0.60	A3	1.4	15P25CT	M27/314-11
	0.80	A4	1.37	20P25CT	M27/315-11
	1.20	A5	0.7	30P25CT	M27/316-11
	1.60	A6	0.67	40P25CT	M27/317-11
	3.20	A7	0.3	80P25CT	M27/318-11
	4.80	A8	0.182	120P25CT	M27/319-10
	6.40	A9	0.11	160P25CT	M27/320-09
	8.00	A10	0.079	200P25CT	M27/321-08
	12.00	A11	0.042	300P25CT	M27/322-05
28	0.18	A1	11.4	5P28CT	M27/312-12
	0.36	A2	3.0	10P28CT	M27/313-12
	0.54	A3	1.9	15P28CT	M27/314-12
	0.71	A4	1.6	20P28CT	M27/315-12
	1.07	A5	0.94	30P28CT	M27/316-12
	1.43	A6	0.90	40P28CT	M27/317-12
	2.86	A7	0.4	80P28CT	M27/318-12
	4.29	A8	0.205	120P28CT	M27/319-11
	5.72	A9	0.15	160P28CT	M27/320-10
	7.10	A10	0.11	200P28CT	M27/321-09
	10.70	A11	0.046	300P28CT	M27/322-06
31	0.16	A1	13.8	5P31CT	M27/312-13
	0.32	A2	3.8	10P31CT	M27/313-13
	0.48	A3	2.2	15P31CT	M27/314-13
	0.64	A4	2.2	20P31CT	M27/315-13
	0.97	A5	0.96	30P31CT	M27/316-13
	1.29	A6	0.95	40P31CT	M27/317-13
	2.58	A7	0.45	80P31CT	M27/318-13
	3.87	A8	0.31	120P31CT	M27/319-12
	5.17	A9	0.166	160P31CT	M27/320-11
	6.40	A10	0.12	200P31CT	M27/321-10
	9.67	A11	0.054	300P31CT	M27/322-07
35	0.14	A1	17.6	5P35CT	M27/312-14
	0.29	A2	4.5	10P35CT	M27/313-14
	0.43	A3	3.0	15P35CT	M27/314-14
	0.57	A4	2.4	20P35CT	M27/315-14
	0.86	A5	1.4	30P35CT	M27/316-14
	1.14	A6	1.32	40P35CT	M27/317-14
	2.28	A7	0.5	80P35CT	M27/318-14
	3.43	A8	0.35	120P35CT	M27/319-13
	4.57	A9	0.24	160P35CT	M27/320-12
	5.71	A10	0.17	200P35CT	M27/321-11
	8.59	A11	0.072	300P35CT	M27/322-08
39	0.13	A1	19.7	5P39CT	M27/312-15
	0.26	A2	6.3	10P39CT	M27/313-15
	0.38	A3	3.5	15P39CT	M27/314-15
	0.51	A4	3.6	20P39CT	M27/315-15
	0.77	A5	1.62	30P39CT	M27/316-15
	1.03	A6	1.5	40P39CT	M27/317-15
	2.05	A7	0.7	80P39CT	M27/318-15
	3.07	A8	0.342	120P39CT	M27/319-14
	4.10	A9	0.27	160P39CT	M27/320-13
	5.12	A10	0.18	200P39CT	M27/321-12
	7.69	A11	0.08	300P39CT	M27/322-09

60Hz MIL-PRF-27 Power Transformers

Output Volts (FL)	Output Current (Amp)	Size	Secondary DCR Ohms (Typical)	Model No.	QPL Model No.
43	0.12	A1	22.0	5P43CT	M27/312-16
	0.23	A2	7.0	10P43CT	M27/313-16
	0.35	A3	4.65	15P43CT	M27/314-16
	0.46	A4	4.0	20P43CT	M27/315-16
	0.70	A5	2.15	30P43CT	M27/316-16
	0.93	A6	1.62	40P43CT	M27/317-16
	1.85	A7	0.94	80P43CT	M27/318-16
	2.79	A8	0.48	120P43CT	M27/319-15
	3.70	A9	0.382	160P43CT	M27/320-14
	4.64	A10	0.26	200P43CT	M27/321-13
	6.95	A11	0.108	300P43CT	M27/322-10
48	0.10	A1	30.0	5P48CT	M27/312-17
	0.21	A2	9.3	10P48CT	M27/313-17
	0.31	A3	5.2	15P48CT	M27/314-17
	0.42	A4	4.4	20P48CT	M27/315-17
	0.63	A5	2.4	30P48CT	M27/316-17
	0.83	A6	2.35	40P48CT	M27/317-17
	1.63	A7	1.0	80P48CT	M27/318-17
	2.50	A8	0.66	120P48CT	M27/319-16
	3.33	A9	0.405	160P48CT	M27/320-15
	4.17	A10	0.29	200P48CT	M27/321-14
	6.26	A11	0.165	300P48CT	M27/322-11
55	0.09	A1	34.4	5P55CT	M27/312-18
	0.18	A2	11.0	10P55CT	M27/313-18
	0.27	A3	7.5	15P55CT	M27/314-18
	0.36	A4	6.0	20P55CT	M27/315-18
	0.55	A5	3.5	30P55CT	M27/316-18
	0.73	A6	3.2	40P55CT	M27/317-18
	1.46	A7	1.5	80P55CT	M27/318-18
	2.18	A8	0.82	120P55CT	M27/319-17
	2.91	A9	0.6	160P55CT	M27/320-16
	3.64	A10	0.41	200P55CT	M27/321-15
	5.46	A11	0.175	300P55CT	M27/322-12
63	0.08	A1	52.0	5P63CT	M27/312-19
	0.16	A2	16.4	10P63CT	M27/313-19
	0.24	A3	8.6	15P63CT	M27/314-19
	0.32	A4	8.6	20P63CT	M27/315-19
	0.48	A5	3.9	30P63CT	M27/316-19
	0.64	A6	3.7	40P63CT	M27/317-19
	1.27	A7	1.7	80P63CT	M27/318-19
	1.91	A8	1.11	120P63CT	M27/319-18
	2.52	A9	0.64	160P63CT	M27/320-17
	3.18	A10	0.47	200P63CT	M27/321-16
	4.76	A11	0.187	300P63CT	M27/322-13
70	0.071	A1	63.0	5P70CT	M27/312-20
	0.143	A2	19.0	10P70CT	M27/313-20
	0.212	A3	11.2	15P70CT	M27/314-20
	0.286	A4	9.8	20P70CT	M27/315-20
	0.429	A5	5.5	30P70CT	M27/316-20
	0.572	A6	5.2	40P70CT	M27/317-20
	1.140	A7	2.4	80P70CT	M27/318-20
	1.720	A8	1.20	120P70CT	M27/319-19
	2.280	A9	0.93	160P70CT	M27/320-18
	2.860	A10	0.67	200P70CT	M27/321-17
	4.290	A11	0.26	300P70CT	M27/322-14
80	0.067	A1	80.0	5P80CT	M27/312-21
	0.125	A2	25.0	10P80CT	M27/313-21
	0.187	A3	13.6	15P80CT	M27/314-21
	0.250	A4	13.4	20P80CT	M27/315-21
	0.375	A5	6.4	30P80CT	M27/316-21
	0.500	A6	6.4	40P80CT	M27/317-21
	1.000	A7	2.7	80P80CT	M27/318-21
	1.500	A8	1.43	120P80CT	M27/319-20
	2.000	A9	1.06	160P80CT	M27/320-19
	2.500	A10	0.74	200P80CT	M27/321-18
	3.750	A11	0.3	300P80CT	M27/322-15
90	0.055	A1	112.00	5P90CT	M27/312-22
	0.111	A2	30.4	10P90CT	M27/313-22
	0.167	A3	20.0	15P90CT	M27/314-22
	0.222	A4	14.8	20P90CT	M27/315-22
	0.332	A5	8.6	30P90CT	M27/316-22
	0.445	A6	8.4	40P90CT	M27/317-22
	0.890	A7	3.8	80P90CT	M27/318-22
	1.340	A8	1.96	120P90CT	M27/319-21
	1.780	A9	1.49	160P90CT	M27/320-20
	2.220	A10	1.05	200P90CT	M27/321-19
	3.320	A11	0.43	300P90CT	M27/322-16
100	0.050	A1	113.0	5P100CT	M27/312-23
	0.100	A2	40.5	10P100CT	M27/313-23
	0.150	A3	22.0	15P100CT	M27/314-23
	0.200	A4	15.5	20P100CT	M27/315-23
	0.300	A5	10.0	30P100CT	M27/316-23
	0.400	A6	9.4	40P100CT	M27/317-23
	0.800	A7	4.2	80P100CT	M27/318-23
	1.200	A8	2.75	120P100CT	M27/319-22
	1.600	A9	1.69	160P100CT	M27/320-21
	2.000	A10	1.17	200P100CT	M27/321-20
	3.000	A11	0.48	300P100CT	M27/322-17
110	0.045	A1	140.0	5P110CT	M27/312-24
	0.091	A2	44.5	10P110CT	M27/313-24
	0.136	A3	28.0	15P110CT	M27/314-24
	0.182	A4	23.0	20P110CT	M27/315-24
	0.272	A5	13.6	30P110CT	M27/316-24
	0.364	A6	12.5	40P110CT	M27/317-24
	0.726	A7	5.7	80P110CT	M27/318-24
	1.090	A8	3.05	120P110CT	M27/319-23
	1.450	A9	2.3	160P110CT	M27/320-22
	1.820	A10	1.6	200P110CT	M27/321-21
	2.720	A11	0.65	300P110CT	M27/322-18
123	0.040	A1	198.0	5P123CT	M27/312-25
	0.081	A2	70.0	10P123CT	M27/313-25
	0.122	A3	33.5	15P123CT	M27/314-25
	0.162	A4	35.0	20P123CT	M27/315-25
	0.244	A5	15.3	30P123CT	M27/316-25
	0.325	A6	14.6	40P123CT	M27/317-25
	0.650	A7	6.5	80P123CT	M27/318-25
	0.970	A8	4.35	120P123CT	M27/319-24
	1.300	A9	2.57	160P123CT	M27/320-23
	1.620	A10	1.8	200P123CT	M27/321-22
	2.440	A11	0.74	300P123CT	M27/322-19
138	0.036	A1	227.0	5P138CT	M27/312-26
	0.073	A2	80.0	10P138CT	M27/313-26
	0.108	A3	46.0	15P138CT	M27/314-26
	0.145	A4	37.5	20P138CT	M27/315-26
	0.217	A5	21.0	30P138CT	M27/316-26
	0.289	A6	20.5	40P138CT	M27/317-26
	0.580	A7	9.5	80P138CT	M27/318-26
	0.870	A8	4.85	120P138CT	M27/319-25
	1.150	A9	3.6	160P138CT	M27/320-24
	1.450	A10	2.5	200P138CT	M27/321-23
	2.170	A11	1.02	300P138CT	M27/322-20
157	0.064	A2	100.0	10P157CT	M27/313-27
	0.096	A3	53.0	15P157CT	M27/314-27
	0.127	A4	48.2	20P157CT	M27/315-27
	0.191	A5	24.5	30P157CT	M27/316-27
	0.254	A6	23.6	40P157CT	M27/317-27
	0.510	A7	10.5	80P157CT	M27/318-27
	0.760	A8	5.45	120P157CT	M27/319-26
	1.020	A9	4.1	160P157CT	M27/320-25
	1.270	A10	2.86	200P157CT	M27/321-24
	1.910	A11	1.16	300P157CT	M27/322-21
175	0.057	A2	111.0	10P175CT	M27/313-28
	0.086	A3	70.0	15P175CT	M27/314-28
	0.114	A4	55.0	20P175CT	M27/315-28
	0.171	A5	35.0	30P175CT	M27/316-28
	0.228	A6	33.7	40P175CT	M27/317-28
	0.457	A7	14.8	80P175CT	M27/318-28
	0.685	A8	7.6	120P175CT	M27/319-27
	0.914	A9	5.82	160P175CT	M27/320-26
	1.140	A10	4.09	200P175CT	M27/321-25
	1.710	A11	1.63	300P175CT	M27/322-22
200	0.050	A2	160.0	10P200CT	M27/313-29
	0.075	A3	87.0	15P200CT	M27/314-29
	0.100	A4	75.0	20P200CT	M27/315-29
	0.150	A5	40.5	30P200CT	M27/316-29
	0.200	A6	38.5	40P200CT	M27/317-29
	0.400	A7	17.0	80P200CT	M27/318-29
	0.600	A8	8.8	120P200CT	M27/319-28
	0.800	A9	6.7	160P200CT	M27/320-27
	1.000	A10	4.55	200P200CT	M27/321-26
	1.500	A11	1.92	300P200CT	M27/322-23

Note: Other Standard outputs up to 1000 volts available

60Hz MIL-PRF-27 Power Transformers

Dimensions

Size	B	C	D	E	F	G	Model Type	Weight lb. (Max)	Primary DCR Ohms (Typ)
A1	1.500	1.750	2.375	1.062	1.250	6-32	5P	1.0	86.0
A2	1.750	2.062	2.750	1.250	1.500	6-32	10P	1.5	36.0
A3	1.875	2.375	3.125	1.250	1.750	8-32	15P	2.0	24.0
A4	2.000	2.375	3.125	1.500	1.750	8-32	20P	2.5	15.0
A5	2.125	2.687	3.500	1.500	2.000	8-32	30P	3.0	8.5
A6	2.250	2.687	3.500	1.625	2.000	8-32	40P	3.3	6.7
A7*	2.625	3.125	4.125	2.000	2.250	8-32	80P	5.0	3.7
A8*	2.875	3.437	4.500	2.250	2.500	10-32	120P	6.5	1.9
A9*	3.125	3.750	4.875	2.437	2.750	10-32	160P	8.2	1.6
A10*	3.375	4.062	5.250	2.625	3.000	¼-20	200P	10.5	1.1
A11*	3.875	4.687	6.000	2.750	3.500	¼-20	300P	17.0	0.5

**See Fig. 3 for header configuration used on any unit with output current greater than 10 amps.*

Mechanical Drawings

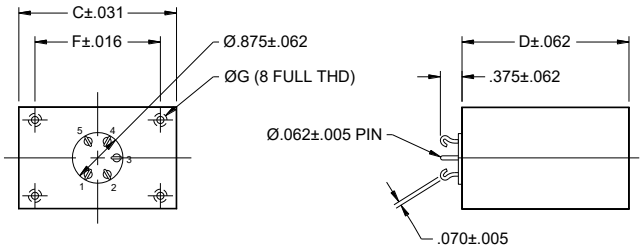


FIG. 1

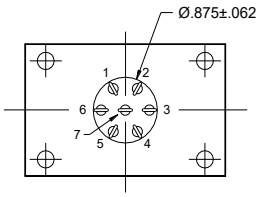


FIG. 2

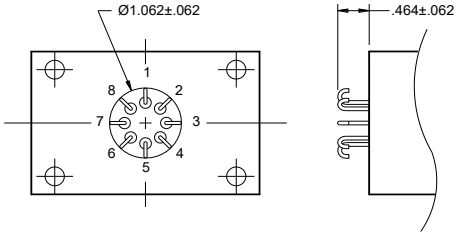
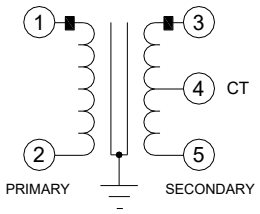


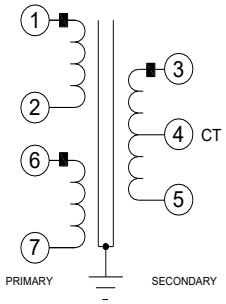
FIG. 3

Circuit Diagram

Standard and “A” Option



“B” Option
for 115V. Connect 1 and 6, 2 and 7.
for 230V. Connect 2 and 6.



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