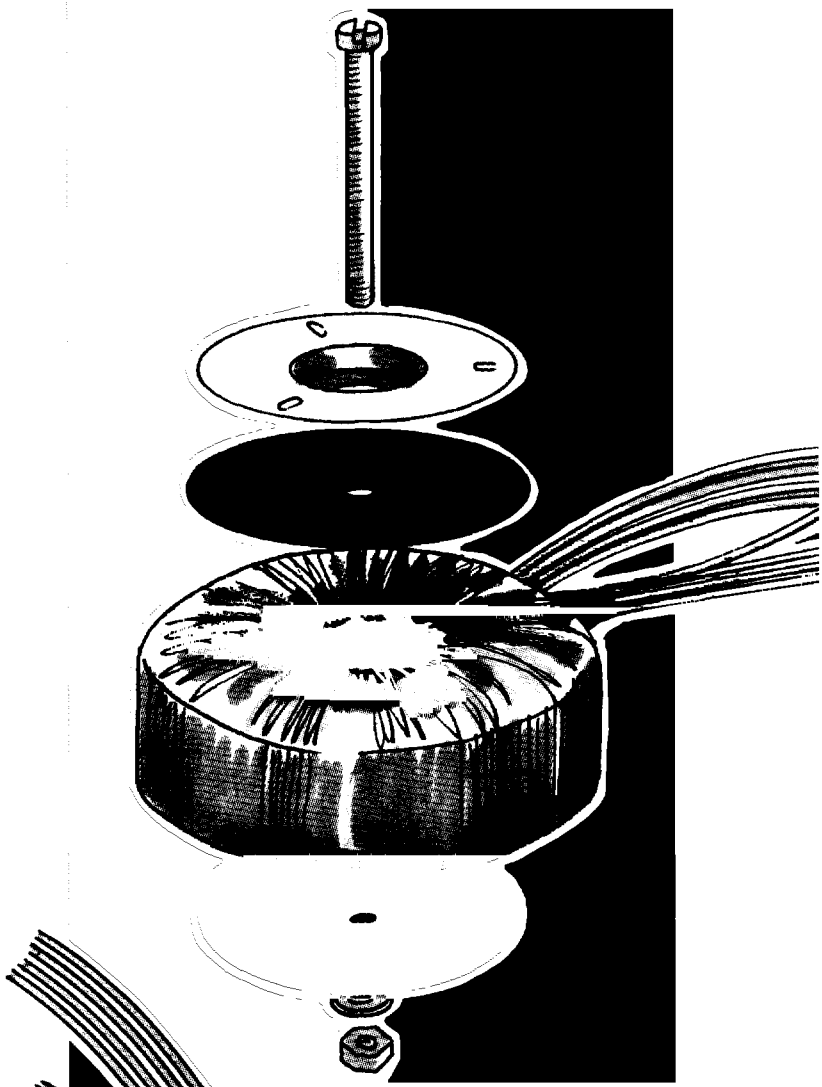
READY MADE TOROIDAL TRANSFORMERS



Avel's polyester tape finish has proved the most popular method of constructing toroidal transformers for modern day electronics.

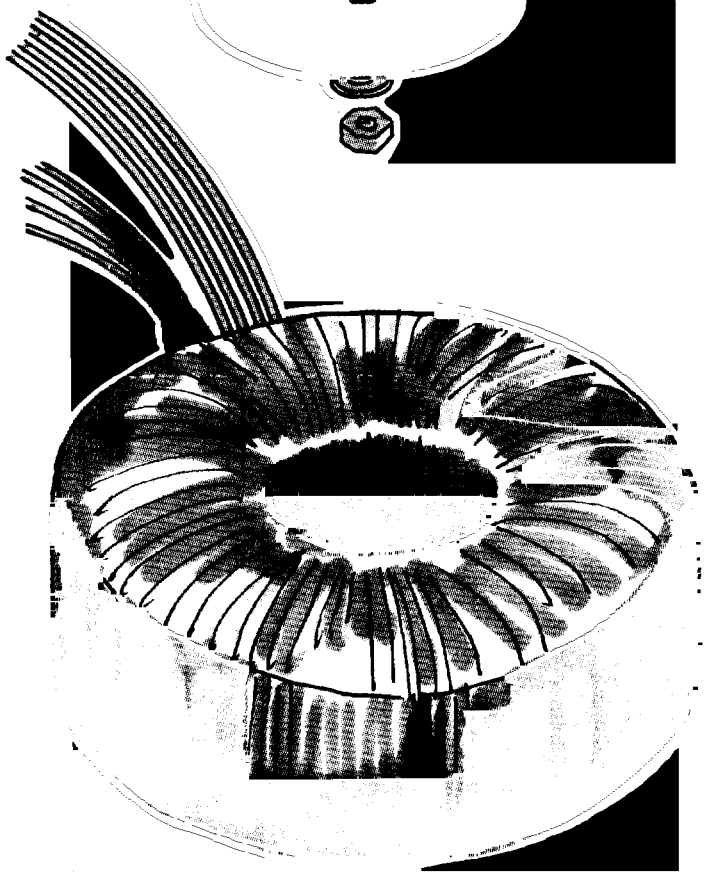
This is the most inexpensive way of purchasing "off the shelf" to match J.I.T. schedules from the wide range of toroids shown in the table.

The "4000" range of transformers is designed and produced to meet international specifications including BS 415 Class 2 IEC 65 Class 2, VDE 0550 Class 2 and is fully UL 506 recognized.

The new "5000" range with single primaries, e.g. 220V, 230V, 240V is available fully approved to IEC 742, EN60 742, BS 3535 and UL 506 recognized.

VA rating as shown in the table is for continuous operation but if required these toroids can be derated to operate at a lower temperature rise with improved regulation.

If this range falls outside your requirements custom built transformers are available.



AVEL

AVELD001

GENERAL SPECIFICATION
Input line voltage: See table.
Frequency: 50/60Hz Operating Range 47 to 400Hz.
Secondary voltage tolerance: Within 3% at nominal input and full load.
Flash Tested to 4kV RMS.
Ambient plus temperature rise should not exceed 105°C.
Leads 6ins. long, PVC insulated.

APPROVALS
4000 range UL 506 recognized.
5000 range UL 506 recognized EN60 742 BS 3535 Part 1.

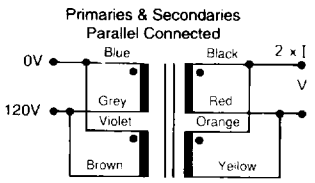
INPUT LINE VOLTAGE TABLE
Single primary 110V Part number prefix "A".
Single primary 220V Part number prefix "B".
Single primary 240V Part number prefix "C".
Dual primary 120+120V Part number prefix "D" – (Standard).
Dual primary 110+110V Part number prefix "E".
Single primary 230V Part number prefix "F".
A range of single primaries 220V, 230V, 240V is available fully IEC 742, EN60 742, BS 3535 approved.

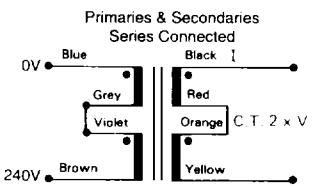
ORDERING CODE EXAMPLE

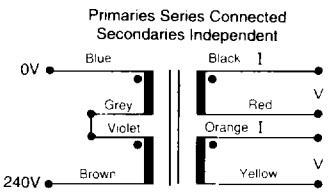
D 4 011

Primary	Approval	VA/Secondary
120+120	UL 506	60 12+12

TRANSFORMER CONNECTIONS
Secondaries may be connected in parallel or series. If they are isolated from each other, the applied potential between them must not exceed 250V DC.







PERFORMANCE DETAILS
Temperature rise above ambient at maximum recommended continuous VA rating.

Load VA	Regulation %	Temp. Rise °C	Iron Loss W	Copper Loss W
30	16	50	0.40	4.8
60	13	50	0.9	7.8
100	10	50	1.2	10
160	9	56	2.0	14.4
230	8	56	2.75	18.4
330	7	58	3.4	23
530	6	60	5.0	32

Should it be preferable to operate the transformer at lower temperature rise with improved regulation the following table indicates temperature rise which can be expected under continuous operating conditions at lower VA rating.

Derated VA From	To	Regulation %	Temperature Rise °C
30	20	11	25
60	50	10	35
100	75	8	35
160	120	6	35
230	175	6	35
330	250	5	35
530	400	4	40

Type	Load VA	Secondary RMS Volts V	Secondary RMS Current A	Dimensions Dia. ins.	Dimensions Ht. ins.	Weight lbs Typical	Mounting
D4000	30	6+6	2.50	2.8	1.2	0.93	Dished Fixing Plate M5 Screw
D4001	30	9+9	1.67	2.8	1.2	0.93	
D4002	30	12+12	1.25	2.8	1.2	0.93	
D4003	30	15+15	1.00	2.8	1.2	0.93	
D4004	30	18+18	0.83	2.8	1.2	0.93	
D4005	30	22+22	0.68	2.8	1.2	0.93	
D4006	30	25+25	0.60	2.8	1.2	0.93	
D4007	30	30+30	0.50	2.8	1.2	0.93	
D4010	60	9+9	3.33	3.5	1.3	1.87	Dished Fixing Plate M6 Screw
D4011	60	12+12	2.50	3.5	1.3	1.87	
D4012	60	15+15	2.00	3.5	1.3	1.87	
D4013	60	18+18	1.67	3.5	1.3	1.87	
D4014	60	22+22	1.36	3.5	1.3	1.87	
D4015	60	25+25	1.20	3.5	1.3	1.87	
D4016	60	30+30	1.00	3.5	1.3	1.87	
D4019A	60	120+120	0.25	3.5	1.3	1.87	
D4018	60	220	0.27	3.5	1.3	1.87	
D4020	100	12+12	4.17	3.6	1.7	2.65	Dished Fixing Plate M6 Screw
D4021	100	15+15	3.33	3.6	1.7	2.65	
D4022	100	18+18	2.78	3.6	1.7	2.65	
D4023	100	22+22	2.27	3.6	1.7	2.65	
D4024	100	25+25	2.00	3.6	1.7	2.65	
D4025	100	30+30	1.67	3.6	1.7	2.65	
D4028A	100	120+120	0.42	3.6	1.7	2.65	
D4027	100	220	0.45	3.6	1.7	2.65	
D4030	160	18+18	4.44	4.5	1.7	4.19	Dished Fixing Plate M6 Screw
D4031	160	22+22	3.64	4.5	1.7	4.19	
D4032	160	25+25	3.20	4.5	1.7	4.19	
D4033	160	30+30	2.67	4.5	1.7	4.19	
D4034	160	35+35	2.29	4.5	1.7	4.19	
D4037A	160	120+120	0.67	4.5	1.7	4.19	
D4036	160	220	0.73	4.5	1.7	4.19	
D4040	230	25+25	4.60	4.7	2.0	5.89	Dished Fixing Plate M8 Screw
D4041	230	30+30	3.83	4.7	2.0	5.89	
D4042	230	35+35	3.29	4.7	2.0	5.89	
D4043	230	40+40	2.88	4.7	2.0	5.89	
D4046A	230	120+120	0.96	4.7	2.0	5.89	
D4045	230	220	1.05	4.7	2.0	5.89	
D4050	330	25+25	6.60	5.2	2.0	7.28	Dished Fixing Plate M8 Screw
D4051	330	30+30	5.50	5.2	2.0	7.28	
D4052	330	35+35	4.71	5.2	2.0	7.28	
D4053	330	40+40	4.13	5.2	2.0	7.28	
D4054	330	45+45	3.67	5.2	2.0	7.28	
D4057A	330	120+120	1.38	5.2	2.0	7.28	
D4056	330	220	1.50	5.2	2.0	7.28	
D4060	530	30+30	8.83	5.9	2.4	11.03	Dished Fixing Plate M8 Screw
D4061	530	35+35	7.57	5.9	2.4	11.03	
D4062	530	40+40	6.63	5.9	2.4	11.03	
D4063	530	45+45	5.89	5.9	2.4	11.03	
D4064	530	50+50	5.30	5.9	2.4	11.03	
D4067A	530	120+120	2.21	5.9	2.4	11.03	
D4066	530	220	2.41	5.9	2.4	11.03	

AVEL TRANSFORMERS INC.
47 SOUTH END PLAZA, NEW MILFORD CT 06776.
Telephone: 203-355-4711. Fax: 203-354-8597.