



Amveco Toroidal Solutions



*Innovative toroidal magnetics
provide the superior solution for
the most challenging applications*





Acme Electric's Amveco brand specializes in the design and construction of class-leading toroid magnetics. These are suitable for the most challenging applications, including the medical and communications industry. There a number of key benefits of toroids compared to conventional transformers: small size, low stray magnetic field, low hum, lightweight, low no-load losses, higher efficiency, lower temperature rise and easy mounting.

Sections

- Section 1: Dry-Type Distribution Transformers
- Section 2: Medium Voltage Transformers
- Section 3: Harmonic Mitigating & Non-Linear Load Transformers
- Section 4: Drive Isolation & AC Line Reactors
- Section 5: Industrial Control Transformers
- Section 6: DIN-Rail Power Supplies/Receptacles & Low Voltage Lighting Transformers
- Section 7: Buck-Boost Transformers
- Section 8: Panel-Tran Zone Power Centers
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- **Section 10: Amveco Toroidal Solutions**
- Section 11: Custom Solutions

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Section 10 | General Description and Features

Acme Electric's Amveco brand specializes in the design and construction of class-leading toroid magnetics, for the most challenging applications, including the medical and communications industry.

Small Size

Most toroids are smaller than their E-I transformer counterparts. They are particularly well suited where low height is a consideration.

Low Stray Magnetic Field

Toroids have no air gaps since the primaries and secondaries are wound uniformly around the entire core. As a result, toroids emit very low radiated magnetic fields. This makes the toroid ideal for applications involving high sensitivity circuitry.

Low Mechanical Hum

The core of a toroid is formed from a single strip of grain-oriented electrical grade silicon steel tightly wound in the form of a clock spring with the ends spot-welded in place. The copper wire is wound over polyester film, forming a silent, stable unit without the use of environmentally unfriendly glues or varnishes.

Low Weight

Toroids weigh up to 50% less, than conventional laminated transformers thanks to their higher efficiency levels. Low weight simplifies end product design by reducing mounting hardware and supporting enclosure requirements.

Low No-Load Losses

Compared to conventional E-I transformers, toroids exhibit extremely low no-load losses. In applications where a circuit is in a "stand-by" mode for long periods, the potential cost reduction for power can be significant, sometimes 80-90%.

High Efficiency

Due to its unique construction, toroids are typically between 15 and 30% more efficient than the conventional type.

Low Operating Temperature

Since most of the losses in a toroid are copper wire, the toroid cools off quicker than the conventional E-I type with more iron. At half the load, the toroid's temperature rise is only about 30% of what it is at full load.

Easy To Mount

A single-center screw easily and quickly mounts the toroid, avoiding costly mechanical design and practical problems associated with conventional E-I-laminated transformers.

Safety Standards

Acme Electric proudly holds Certificates from both North American and International Safety Standard Testing Laboratories.

- UL 506 General Purpose Transformers (File # E 122978)
- UL 1950 Information Technology Equipment, Electrical Business Equipment (File # E 138299)
- UL60601-1 Medical and Dental Equipment (File # E 138299)
- UL 1446, Class B, Class F and Class H Insulation Systems (File # E 123069)
- CSA 22.2 No. 66-1988 Specialty Transformers (File # LR 86989)
- CSA 22.2 No. 601.1 M90 Medical Standard for Canada (File # E 138299)
- IEC 601.1 (Medical Standard for International Installations) (File # E 152649)

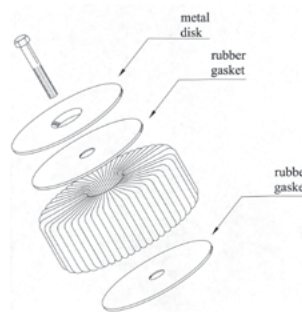
OVERALL COMPARISON OF 250VA E-I CORE ISOLATION TRANSFORMER VS. 250 VA TOROIDAL ISOLATION TRANSFORMER

Feature	250VA E-I Core Transformer	250VA Toroid Transformer
Height	4.7" (119mm)	2.2" (56mm)
Width	3.9" (99mm)	4.5" (114mm)
Depth	4.3" (109mm)	4.5" (114mm)
Volume	78.8 sqs.in. (508.4cm ²)	35.0 sq.in. (225.8cm ²)
Weight	10 lbs. (4.5 kg)	5 lbs. (2.3 kg)
Mounting Requirements	Four corner bolts	Single bolt through center
No Load Losses	10.0 W	1.5 W
Continuity of Magnetic Path	50% of grain perpendicular	100% parallel grain orientation
Air Gaps	Approximately 180 (60 laminations x 3)	None
Magnetic Properties of Core	Affected by clamping, welding, banding, etc.	Optimized prior to winding and remains stable
Coupling Factor	Limited by bobbin width and layers of windings	Maximized by even winding distribution and close proximity to core

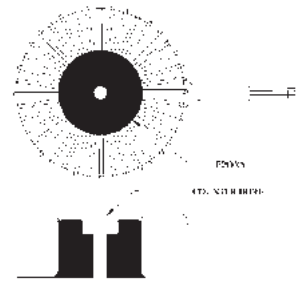
DIMENSIONS OF METAL MOUNTING DISK AND INSULATION PAD

Power Range (VA)	OD inch (mm)	Hole inch (mm)	Thickness inch (mm)	Recommended Hardware
20	1.7 (45)	0.18 (4.5)	.04 (1)	#8
40-60	2.4 (60)	0.20 (5.2)	.04 (1)	#10
100-150	2.8 (70)	0.26 (6.6)	.04 (1)	1/4"
200-350	3.5 (90)	0.26 (6.6)	0.05 (1.3)	1/4"
425-800	4.4 (110)	0.26 (6.6)	0.06 (1.5)	1/4"
800-120	5.2 (130)	0.33 (8.4)	0.07 (1.7)	5/16"
1200-1500	5.6 (145)	0.41 (10.3)	0.07 (1.7)	3/8"

Metal disk with Insulating Pads Up to 1500VA



Potted Centerhole All sizes



TOROIDAL TRANSFORMERS – North American Voltage 120V/60Hz

Our standard lines of toroidal transformers are designed for step up or step down general purpose applications in North American and international markets.

Features

- 120V, 60Hz
- Many, popular secondary voltage options
- 18 to 1000VA ratings available
- Listed as recognized/certified components (UL and CSA)
- Class A (105°C)
- Disk mounting hardware included
- 10" color-coded self leads
- Wiring configurations with color codes

Winding Configurations With Color Codes

Figure 1

Single 120V/60Hz Primary w/ Dual Secondaries

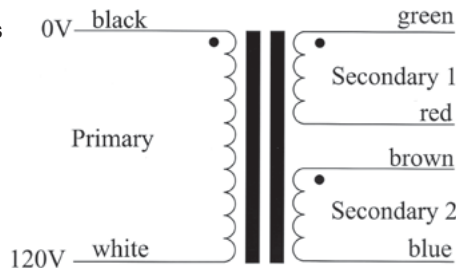


Figure 2

Single 120V/60Hz Primary w/ Single Secondary

Windings

Base coat of Polyester. Heavy topcoat of amide imide (200°C)

Wound uniformly over entire core

Better heat dissipation

Windings configured for minimum flux leakage

Low voltage maintained between adjacent turns

Core Insulation

All cores: 100% surface coverage of four layers of 2 mil polyester film Class B (130°C)

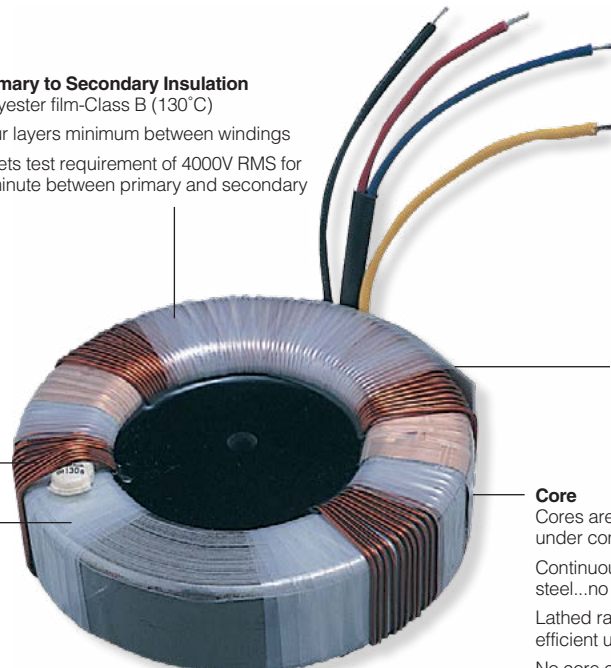
Protects, insulates and cushions the core from windings and reduces vibration

Primary to Secondary Insulation

Polyester film-Class B (130°C)

Four layers minimum between windings

Meets test requirement of 4000V RMS for 1 minute between primary and secondary



Outer Insulation

Tape wound type: Standard two layers polyester film Class B (130°C)

Magnetic enclosures optional

Core

Cores are manufactured and annealed in-house, under controlled conditions

Continuous tightly wound grain oriented silicon steel...no airgaps, no mechanical noise

Lathed radial corners... compact design, most efficient use of materials

No core caps necessary

Section 10 | Toroidal Transformer

PRIMARY VOLTAGE — 120V 60Hz



Part Number	Nominal Power (VA)	Secondary Voltage (Volts)	Secondary Current (Amps)	Core Loss (Watts)	Copper Loss (Watts)	OD x H Inches (mm)	Weight Lbs. (kg)	Mounting Hardware
AA50182009	18	2 x 9	1.0	3.0	0.20	2.5 x 1.3 (64 x 33)	0.7 (0.3)	#8
AA50182012		2 x 12	0.7	3.0	0.20			
AA50182015		2 x 15	0.6	3.0	0.20			
AA50182018		2 x 18	0.5	3.0	0.20			
AA50362009	36	2 x 9	2.0	5.8	0.25	2.9 x 1.5 (74 x 38)	1.1 (0.5)	#10
AA50362012		2 x 12	1.5	5.8	0.25			
AA50362015		2 x 15	1.2	5.8	0.25			
AA50362018		2 x 18	1.0	5.8	0.25			
AA50602009	60	2 x 9	3.3	8.6	0.45	3.3 x 1.4 (84 x 36)	1.6 (0.7)	#10
AA50602012		2 x 12	2.5	8.6	0.45			
AA50602015		2 x 15	2.0	8.6	0.45			
AA50602018		2 x 18	1.7	8.6	0.45			
AA50902012	90	2 x 12	3.8	12.0	0.60	3.7 x 1.5 (94 x 38)	1.9 (0.9)	#10
AA50902015		2 x 15	3.0	12.0	0.60			
AA50902018		2 x 18	2.5	12.0	0.60			
AA50902022		2 x 22	2.0	12.0	0.60			
AA51152012	115	2 x 12	4.8	16.0	0.90	3.9 x 1.5 (99 x 38)	2.2 (1)	1/4"
AA51152015		2 x 15	3.8	16.0	0.90			
AA51152018		2 x 18	3.2	16.0	0.90			
AA51152022		2 x 22	2.6	16.0	0.90			
AA51702012	170	2 x 12	7.1	19.0	1.20	3.9 x 1.9 (99 x 48)	3.1 (1.4)	1/4"
AA51702015		2 x 15	5.7	19.0	1.20			
AA51702018		2 x 18	4.7	19.0	1.20			
AA51702022		2 x 22	3.9	19.0	1.20			
AA52201220	220	220	1.0	20.0	1.40	4.5 x 1.8 (114 x 46)	4 (1.8)	1/4"
AA52202018		2 x 18	6.1	20.0	1.40			
AA52202022		2 x 22	5.0	20.0	1.40			
AA52202024		2 x 24	4.6	20.0	1.40			
AA53601220	360	220	1.6	22.0	1.70	4.5 x 2.4 (114 x 61)	5.4 (2.5)	1/4"
AA53602024		2 x 24	7.5	22.0	1.70			
AA53602030		2 x 30	6.0	22.0	1.70			
AA53602033		2 x 33	5.5	22.0	1.70			
AA53602038		2 x 38	4.7	22.0	1.70			
AA54501220	450	220	2.1	27.0	2.00	5.4 x 2 (137 x 51)	6.5 (3)	1/4"
AA54502030		2 x 30	7.5	27.0	2.00			
AA54502033		2 x 33	6.8	27.0	2.00			
AA54502038		2 x 38	5.9	27.0	2.00			



PRIMARY VOLTAGE — 120V 60Hz (CONT.)

Part Number	Nominal Power (VA)	Secondary Voltage (Volts)	Secondary Current (Amps)	Core Loss (Watts)	Copper Loss (Watts)	OD x H Inches (mm)	Weight Lbs. (kg)	Mounting Hardware
AA55501220	550	220	2.5	31.0	2.40	5.4 x 2.6 (137 x 66)	8.5 (3.7)	1/4"
AA55502030		2 x 30	9.2	31.0	2.40			
AA55502033		2 x 33	8.3	31.0	2.40			
AA55502038		2 x 38	7.2	31.0	2.40			
AA56501120	650	120	5.4	36.0	3.10	5.4 x 2.8 (137 x 71)	9.5 (4.3)	5/16"
AA56502024		2 x 24	13.5	36.0	3.10			
AA56502030		2 x 30	10.8	36.0	3.10			
AA56502042		2 x 42	7.7	36.0	3.10			
AA57901120	790	120	6.6	45.0	3.80	5.8 x 2.8 (147 x 71)	11.5 (5.2)	5/16"
AA57902024		2 x 24	16.5	45.0	3.80			
AA57902030		2 x 30	13.2	45.0	3.80			
AA57902042		2 x 42	9.4	45.0	3.80			
AA50001120	1000	120	8.3	45.0	3.80	6.5 x 2.6 (165 x 66)	12.4 (5.6)	5/16"
AA50002024		2 x 24	20.8	45.0	3.80			
AA50002030		2 x 30	16.7	45.0	3.80			
AA50002042		2 x 42	11.9	45.0	3.80			

Note: Electrical measurements @ 20°C ambient temperature. All data subject to change without prior notice.

TOROIDAL TRANSFORMER – INTERNATIONAL VOLTAGE 2x117V, 50/60Hz

Features

- 2 x 117V/50-60Hz primaries
- Many popular secondary voltage options
- 15 to 990VA ratings available
- Listed as recognized/certified components (UL and CSA)
- Class A (105°C)
- Disk mounting hardware included
- 10" color coded self leads
- Wiring configurations with color codes

PRIMARY VOLTAGE — 2 X 117V 50/60 Hz

Part Number	Nominal Power (VA)	Secondary Voltage (Volts)	Secondary Current (Amps)	Core Loss (Watts)	Copper Loss (Watts)	OD x H Inches (mm)	Weight Lbs. (kg)	Mounting Hardware
AA50152006	15	2 x 6	1.25	3.0	0.20	2.5 x 1.3 (64 x 33)	0.7 (0.3)	#8
AA50152009		2 x 9	0.83	3.0	0.20			
AA50152012		2 x 12	0.62	3.0	0.20			
AA50152015		2 x 15	0.5	3.0	0.20			
AA50152018		2 x 18	0.42	3.0	0.20			
AA50152022		2 x 22	0.3	3.0	0.20			
AA50302006	30	2 x 6	2.5	5.8	0.25	3.0 x 1.5 (76 x 38)	1.1 (0.5)	#10
AA50302009		2 x 9	1.67	5.8	0.25			
AA50302012		2 x 12	1.25	5.8	0.25			
AA50302015		2 x 15	1	5.8	0.25			
AA50302018		2 x 18	0.88	5.8	0.25			
AA50302022		2 x 22	0.68	5.8	0.25			

Section 10 | Toroidal Transformer

PRIMARY VOLTAGE — 2 X 117V 50/60 Hz (CONT.)



Part Number	Nominal Power (VA)	Secondary Voltage (Volts)	Secondary Current (Amps)	Core Loss (Watts)	Copper Loss (Watts)	OD x H Inches (mm)	Weight Lbs. (kg)	Mounting Hardware
AA50502006	50	2 x 6	4.2	8.6	0.45	3.2 x 1.4 (81 x 36)	1.6 (0.7)	#10
AA50502009		2 x 9	2.8	8.6	0.45			
AA50502012		2 x 12	2.1	8.6	0.45			
AA50502015		2 x 15	1.7	8.6	0.45			
AA50502018		2 x 18	1.4	8.6	0.45			
AA50502022		2 x 22	1.1	8.6	0.45			
AA50502024		2 x 24	1	8.6	0.45			
AA50952009	95	2 x 9	2.8	16.0	0.90	3.9 x 1.5 (99 x 38)	2.2 (1)	1/4"
AA50952012		2 x 12	2.1	16.0	0.90			
AA50952015		2 x 15	3.2	16.0	0.90			
AA50952018		2 x 18	2.6	16.0	0.90			
AA50952022		2 x 22	2.2	16.0	0.90			
AA50952024		2 x 24	2	16.0	0.90			
AA50952028		2 x 28	1.7	16.0	0.90			
AA50952030		2 x 30	1.6	16.0	0.90			
AA51402012	140	2 x 12	5.8	19.0	1.20	3.9 x 1.9 (99 x 48)	3 (1.4)	1/4"
AA51402015		2 x 15	4.7	19.0	1.20			
AA51402018		2 x 18	3.9	19.0	1.20			
AA51402022		2 x 22	3.2	19.0	1.20			
AA51402024		2 x 24	2.9	19.0	1.20			
AA51402028		2 x 28	2.5	19.0	1.20			
AA51402030		2 x 30	2.3	19.0	1.20			
AA51402117		2 x 117	0.6	19.0	1.20			
AA51852012	185	2 x 12	7.7	20.0	1.40	4.5 x 1.9 (114 x 48)	4 (1.8)	1/4"
AA51852015		2 x 15	6.16	20.0	1.40			
AA51852018		2 x 18	5.1	20.0	1.40			
AA51852022		2 x 22	4.2	20.0	1.40			
AA51852024		2 x 24	3.9	20.0	1.40			
AA51852028		2 x 28	3.3	20.0	1.40			
AA51852030		2 x 30	3.1	20.0	1.40			
AA51852117		2 x 117	0.8	20.0	1.40			
AA52402015	240	2 x 15	8	22.0	1.70	4.5 x 2.1 (114 x 53)	4.8 (2.2)	1/4"
AA52402018		2 x 18	6.7	22.0	1.70			
AA52402024		2 x 24	5	22.0	1.70			
AA52402030		2 x 30	4	22.0	1.70			
AA52402038		2 x 38	3.2	22.0	1.70			
AA52402117		2 x 117	1	22.0	1.70			





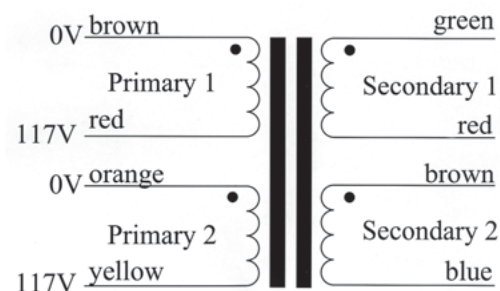
PRIMARY VOLTAGE — 2 X 117V 50/60 Hz (CONT.)

Part Number	Nominal Power (VA)	Secondary Voltage (Volts)	Secondary Current (Amps)	Core Loss (Watts)	Copper Loss (Watts)	OD x H Inches (mm)	Weight Lbs. (kg)	Mounting Hardware
AA53002015	300	2 x 15	10	22.0	1.70	4.6 x 2.6 (117 x 66)	5.7 (2.6)	1/4"
AA53002018		2 x 18	8.3	22.0	1.70			
AA53002024		2 x 24	6.2	22.0	1.70			
AA53002030		2 x 30	5	22.0	1.70			
AA53002038		2 x 38	5	22.0	1.70			
AA53002117		2 x 117	1.3	22.0	1.70			
AA53752018	375	2 x 18	10.4	27.0	2.00	5.4 x 2.0 (137 x 51)	6.7 (3)	1/4"
AA53752024		2 x 24	7.8	27.0	2.00			
AA53752030		2 x 30	6.3	27.0	2.00			
AA53752038		2 x 38	4.9	27.0	2.00			
AA53752117		2 x 117	4.9	27.0	2.00			
AA54602024	460	2 x 24	9.6	31.0	2.40	5.4 x 2.6 (137 x 66)	7.9 (3.6)	1/4"
AA54602030		2 x 30	7.7	31.0	2.40			
AA54602038		2 x 38	6	31.0	2.40			
AA54602117		2 x 117	2	31.0	2.40			
AA56252024	625	2 x 24	13	36.0	3.10	5.5 x 3.2 (140 x 81)	9.5 (4.3)	1/4"
AA56252030		2 x 30	10.4	36.0	3.10			
AA56252033		2 x 33	9.5	36.0	3.10			
AA56252038		2 x 38	8.2	36.0	3.10			
AA56252117		2 x 117	2.7	36.0	3.10			
AA58002024	800	2 x 24	16.7	45.0	3.80	6.4 x 2.7 (163 x 69)	12.3 (5.6)	5/16"
AA58002030		2 x 30	13.3	45.0	3.80			
AA58002038		2 x 38	10.5	45.0	3.80			
AA58002048		2 x 48	8.2	45.0	3.80			
AA58002117		2 x 117	3.4	45.0	3.80			
AA59902024	990	2 x 24	20.6	45.0	3.80	6.5 x 3.0 (165 x 76)	15.2 (6.9)	5/16"
AA59902042		2 x 42	11.8	45.0	3.80			
AA59902055		2 x 55	9	45.0	3.80			
AA59902117		2 x 117	4.2	45.0	3.80			

Note: Electrical measurements @ 20°C ambient temperature. All data subject to change without prior notice.

Winding Configurations With Color Codes

Dual 117V 50/60Hz Primaries w/ Dual Secondaries
Multiple primaries must be connected in series or parallel.



MEDICAL GRADE HIGH ISOLATION TOROIDAL TRANSFORMERS

Medical grade isolation transformers are installed in numerous medical power applications due to the advantages toroids have compared to other transformer constructions. The designs and constructions of medical transformers are greatly impacted by rigorous rules, guidelines, and laws that dictate specific requirements such as spacing, creepage distances, and leakage current maximums.

Quad Primaries: 100V, 120V, 220V, 240V - 50/60Hz

Part Number	Nominal (VA)	Secondary Current at 120V (Amps)	Secondary Current at 240V (Amps)	OD x H Inches (mm)	Weight Lbs. (kg)
MT0100DS	100 VA	0.83	0.42	4.0 x 2.0 (102 x 51)	2.7 (1.2)
MT0100SS	100 VA	0.83		4.0 x 2.0 (102 x 51)	2.7 (1.2)
MT0230DS	230 VA	1.92	0.96	4.6 x 2.4 (117 x 61)	5.2 (2.4)
MT0230SS	230 VA	1.92		4.6 x 2.4 (117 x 61)	5.2 (2.4)
MT0400DS	400 VA	3.33	1.67	5.5 x 2.5 (140 x 64)	8 (3.6)
MT0400SS	400 VA	3.33		5.5 x 2.5 (140 x 64)	8 (3.6)
MT0600DS	600 VA	5	2.5	6.2 x 3.1 (157 x 79)	13 (5.9)
MT0600SS	600 VA	5		6.2 x 3.1 (157 x 79)	13 (5.9)
MT0750DS	750 VA	6.25	3.12	6.6 x 3.0 (168 x 79)	14 (6.4)
MT0750SS	750 VA	6.25		6.6 x 3.0 (168 x 79)	14 (6.4)
MT1000DS	1000 VA	8.33	4.16	6.9 x 3.5 (175 x 89)	20 (9.1)
MT1500DS	1500 VA	12.5	6.25	8.2 x 4.0 (208 x 102)	28 (12.7)
MT2000DS	2000 VA	16.6	8.33	9.1 x 4.4 (231 x 112)	35 (15.9)
MT2500DS	2500 VA	20.8	10.4	9.4 x 4.5 (239 x 114)	39 (17.7)
MT3000DS	3000 VA	25	12.5	10.0 x 4.3 (254 x 109)	47 (21.3)
MT3750DS	3750 VA	31.2	15.6	10.5 x 4.9 (267 x 124)	65 (29.5)
MT5000DS	5000 VA	41.6	20.8	11.6 x 5.4 (295 x 137)	78 (35.4)
MT6250DS	6250 VA	52	26	12.0 x 5.6 (305 x 143)	90 (40.8)
MT7500DS	7500 VA	62.5	31.2	12.0 x 5.5 (305 x 140)	100 (45.4)
MT8750DS	8750 VA	72.9	36.4	12.5 x 5.5 (318 x 140)	110 (49.9)
MT10000DS	10000 VA	83.3	41.6	13.0 x 5.2 (330 x 132)	120 (54.4)

Note: Electrical measurements @ 20°C ambient temperature. All data subject to change without prior notice.

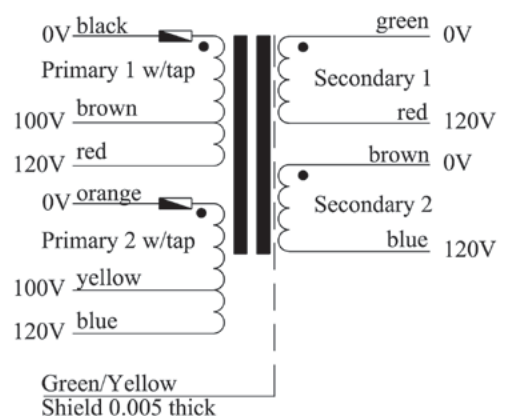
(suffix) SS = (Single Secondary) Secondary 1 only

(suffix) DS = (Dual Secondary) Secondary 1 & 2

Units rated below 1000VA come with metal disk and insulating pads.

Units rated 1000VA and larger are center potted.

Part numbers MT100 through MT5000 carry full TUV BAUARTMARK.



Section 10 | Toroidal Power Inductors General Description and Features

TOROIDAL POWER INDUCTORS

Many of the same features offered by our toroidal transformers are also true for our tor DC filtering and AC circuits. A toroidal DC filter choke for line frequency operation used in conjunction with a toroidal power transformer allows our engineering to design a small size transformer. Using toroidal DC filter chokes also reduces the size of the required filter capacitors.

Part Number	Current I DC (Amps)	Current RMS (Amps)	Inductance (mH)	Power (WS)	Core Losses (W)	Copper Losses (W)	OD x HT Inches (mm.)	Weight Lbs. (kg)
L0540	5	3.5	40	0.5	1.5	12.8	3.8 x 1.9 (97 x 48)	2.5 (1.1)
L0560	5	3.5	60	0.75	3	13.8	4.6 x 2.0 (117 x 51)	4 (1.8)
L1020	10	7	20	1	4	16.7	5.5 x 2.0 (140 x 51)	6 (2.7)
L1040	10	7	40	2	5	23.4	5.5 x 2.4 (140 x 61)	8 (3.6)
L1060	10	7	60	3	7	28.6	5.9 x 2.8 (150 x 71)	11.5 (5.2)
L1510	15	10.6	10	1.13	4	18.7	5.5 x 2.0 (140 x 51)	6 (2.7)
L1515	15	10.6	15	1.69	5	22.7	5.5 x 2.4 (140 x 61)	7.5 (3.4)
L1520	15	10.6	20	2.25	5	26.3	5.5 x 2.4 (140 x 61)	8 (3.6)
L1540	15	10.6	40	4.5	8	37.8	6.5 x 2.8 (165 x 71)	15 (6.8)
L2010	20	14.1	10	2	5	23.2	5.5 x 2.4 (140 x 61)	8 (3.6)
L2015	20	14.1	15	3	7	28.4	5.9 x 2.8 (150 x 71)	11.5 (5.2)
L2020	20	14.1	20	4	8	32.8	6.5 x 2.8 (165 x 71)	14 (6.4)
L2040	20	14.1	40	8	12	42.8	8.0 x3.5 (203 x 89)	27 (12.3)
L3005	30	21.2	5	2.25	5	26.1	5.5 x 2.4 (140 x 61)	8.5 (3.9)
L3010	30	21.2	10	4.5	8	37.8	6.5 x 2.8 (165 x 71)	15 (6.8)
L3015	30	21.2	15	6.75	11	45.9	8.0 x 3.0 (203 x 76)	22 (10)
L3020	30	21.2	20	9	13	43.2	8.0 x 3.5 (203 x 89)	28 (12.7)
L4005	40	28.3	5	4	8	32	6.5 x 2.8 (165 x 71)	14 (6.4)
L4010	40	28.3	10	8	13	43.2	8.0 x 3.5 (203 x 89)	27 (12.3)
L4015	40	28.3	15	12	20	56	10.0 x3.4 (254 x 86)	39 (17.7)
L5005	50	35.3	5	6.25	11	35	8.0 x 3.0 (203 x 76)	23 (10.4)
L5010	50	35.3	10	12.5	20	57.5	10.0 x 3.4 (254 x 86)	39 (17.7)
L6005	60	42.4	5	9	12	43.2	8.0 x 3.5 (203 x 89)	29 (13.2)

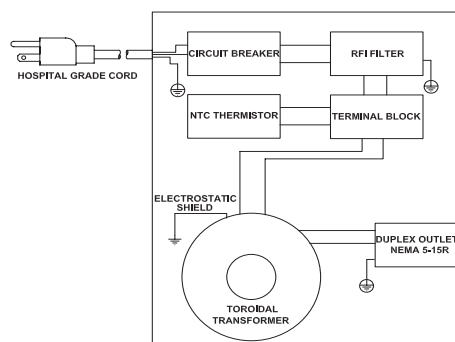
Notes: Electrical measurements @ 20°C ambient temperature. All data subject to change without prior notice.

ENCLOSED MEDICAL ISOLATION TRANSFORMERS

Acme Electric now offers a line of fully enclosed medical isolation transformers, featuring Amveco Toroidal Power technology. For medical grade applications, these units provide additional safety and protection. When using electronic devices in a medical, these medical grade transformers will bring the equipment into compliance with the UL 60601 medical safety standard. The transformers operate at 120V 60Hz input with 120V output. They have built in RFI filtering and in-rush current limiting. The transformer design utilizes toroidal transformer which offers light weight, high efficiency, quiet operation, cool overall temperature, and low stray magnetic field.

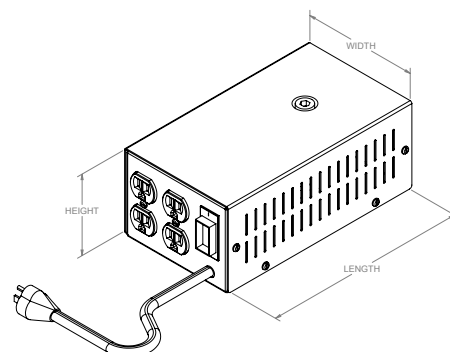
Features

- Fully enclosed medical isolation transformers housed in white aluminum enclosure
- Designed for North American 120V 60Hz input operation
- UL listed to UL 60601-1 and c-UL listed to CSA C22.2 No.601.1.
- High efficiency toroidal transformer design yielding overall compact size and low weight.
- Low leakage design. Less than 100 µA leakage current.
- Built in filtering with RFI interference and inrush protection.
- Surge suppression
- 10 ft hospital grade power cord
- Duplex 'green-dot' hospital grade outlets
- On/Off circuit breaker
- Floor standing or wall mount



ENCLOSED MEDICAL ISOLATION TRANSFORMERS 120 VOLT PRIMARY — 120 SECONDARY VOLT — 60 Hz

VA	Catalog Number	Width (Inches)(Cm.)	Height (Inches)(Cm.)	Length (Inches)(Cm.)	Weight (Lbs.)(Kg.)	Load Regulation	NEMA PLUG	Hospital Grade Duplex Outlets
300	AS30327	5.63 (14.3)	4.13 (10.5)	10.00 (25.4)	10 (4.5)	4.5%	5-15P	(2) 5-15R
600	AS30328	7.13 (18.1)	4.13 (10.5)	12.50 (31.7)	17 (7.7)	2.9%	5-15P	(3) 5-15R
900	AS30329	7.13 (18.1)	4.13 (10.5)	12.50 (31.7)	26 (11.8)	1.5%	5-15P	(4) 5-15R
1200	AS30330	9.13 (23.2)	4.13 (10.5)	14.00 (35.6)	32 (14.5)	1.4%	5-15P	(4) 5-15R
1800	AS30331	9.13 (23.2)	4.13 (10.5)	14.00 (35.6)	37 (16.8)	1.7%	5-20P	(4) 5-20R



Warranty Certificate

Acme Electric 10-Year Limited* Warranty

Acme Electric (Acme) warrants to the original purchaser to correct by repair, replacement or refund of original purchase price, at Acme's option, products manufactured and sold by its Power Distribution Products Division, that may fail in service within the applicable period as set forth below, from the date of manufacture provided however, that conditions of operation have been normal at all times, and that the equipment has not been subjected to abnormal stress from such causes as incorrect primary voltage or frequency, improper ventilation or improper use. This warranty is made on the condition that prompt notice of defect is given to Acme in writing within the warranty period, and that Acme's inspection reveals to its satisfaction that the original purchaser's claim is valid under the terms of this warranty. Acme's obligation under this warranty, which is in lieu of all other warranties, express or implied, including the implied warranty of fitness for a particular purpose and merchantability, is limited to replacing or repairing defective products or parts, free of charge, provided they are returned to the factory, or refund of original purchase price, at Acme's option. However, purchased components (except for timers and photocells used in low voltage lighting power supplies) including but not limited to capacitors, circuit breakers, terminal blocks, batteries, fuses and tubes shall not be covered under this warranty. Repairs or replacement deliveries shall not interrupt or prolong the term of this warranty. Acme will not be liable for any special, indirect, consequential or incidental damages, including, without limitation, from loss of use, data, function or profits deriving out of or in connection with the use or performance of the product and shall have no liability for payment of any other damages whether in an action of contract, strict liability or tort. The remedy provided herein states Acme Electric's entire liability and buyer's sole and exclusive remedy here under. Rights may vary in certain states.

*Warranty Period:

Standard Catalog Transformers — 10-year limited; Medium Voltage Transformer — 3-year limited; Custom products — 1 year.



AA50001120	6	AA50902015	5	AA52202018	5	AA55502038	6	L1540	10
AA50002024	6	AA50902018	5	AA52202022	5	AA56252024	8	L2010	10
AA50002030	6	AA50902022	5	AA52202024	5	AA56252030	8	L2015	10
AA50002042	6	AA50952009	7	AA52402015	7	AA56252033	8	L2020	10
AA50152006	6	AA50952012	7	AA52402018	7	AA56252038	8	L2040	10
AA50152009	6	AA50952015	7	AA52402024	7	AA56252117	8	L3005	10
AA50152012	6	AA50952018	7	AA52402030	7	AA56501120	6	L3010	10
AA50152015	6	AA50952022	7	AA52402038	7	AA56502024	6	L3015	10
AA50152018	6	AA50952024	7	AA52402117	7	AA56502030	6	L3020	10
AA50152022	6	AA50952028	7	AA53002015	8	AA56502042	6	L4005	10
AA50182009	5	AA50952030	7	AA53002018	8	AA57901120	6	L4010	10
AA50182012	5	AA51152012	5	AA53002024	8	AA57902024	6	L4015	10
AA50182015	5	AA51152015	5	AA53002030	8	AA57902030	6	L5005	10
AA50182018	5	AA51152018	5	AA53002038	8	AA57902042	6	L5010	10
AA50302006	6	AA51152022	5	AA53002117	8	AA58002024	8	L6005	10
AA50302009	6	AA51402012	7	AA53601120	5	AA58002030	8	MT0100DS	9
AA50302012	6	AA51402015	7	AA53602024	5	AA58002038	8	MT0100SS	9
AA50302015	6	AA51402018	7	AA53602030	5	AA58002048	8	MT0230DS	9
AA50302018	6	AA51402022	7	AA53602033	5	AA58002117	8	MT0230SS	9
AA50302022	6	AA51402024	7	AA53602038	5	AA59902024	8	MT0400DS	9
AA50362009	5	AA51402028	7	AA53752018	8	AA59902042	8	MT0400SS	9
AA50362012	5	AA51402030	7	AA53752024	8	AA59902055	8	MT0600DS	9
AA50362015	5	AA51402117	7	AA53752030	8	AA59902117	8	MT0600SS	9
AA50362018	5	AA51702012	5	AA53752038	8	AS30327	10	MT0750DS	9
AA50502006	7	AA51702015	5	AA53752117	8	AS30328	10	MT0750SS	9
AA50502009	7	AA51702018	5	AA54501220	5	AS30329	10	MT1000DS	9
AA50502012	7	AA51702022	5	AA54502030	5	AS30330	10	MT1000DS	9
AA50502015	7	AA51852012	7	AA54502033	5	AS30331	10	MT1500DS	9
AA50502018	7	AA51852015	7	AA54502038	5	L0540	10	MT2000DS	9
AA50502022	7	AA51852018	7	AA54602024	8	L0560	10	MT2500DS	9
AA50502024	7	AA51852022	7	AA54602030	8	L1020	10	MT3000DS	9
AA50602009	5	AA51852024	7	AA54602038	8	L1040	10	MT3750DS	9
AA50602012	5	AA51852028	7	AA54602117	8	L1060	10	MT5000DS	9
AA50602015	5	AA51852030	7	AA55501220	7	L1510	10	MT6250DS	9
AA50602018	5	AA51852117	7	AA55502030	6	L1515	10	MT7500DS	9
AA50902012	5	AA52201220	5	AA55502033	6	L1520	10	MT8750DS	9





Acme Electric®

*Our history is strong,
engaging and dedicated...
just like our people.*



The Acme Electric Legacy

Acme Electric provides power quality and conversion equipment to OEM, industrial and commercial markets. Founded in 1917 in Cleveland, Ohio as the Acme Electric and Machine Company, the company has a legacy of providing innovative electrical products. Acme is now part of Hubbell Incorporated, one of the largest electrical manufacturers in North America. Hubbell's history of innovation extends back to 1888 and the invention of the pull chain light switch and the electric plug.

Acme's original product line of motor-driven battery chargers, electrical appliances and electrical generators has transformed to a diversified mix of high-quality low voltage, medium voltage and 3 phase transformers and power supplies.

Learn more about us at www.hubbell.com/acmeelectric/en



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CONSTRUCTION**

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