

## Low Voltage Lighting

A greater selection for your indoor & outdoor low voltage lighting projects

### Why Low Voltage?

Acme's Low Voltage Lighting products provide a safe, long lasting, highly reliable power source; a perfect selection for landscape applications as well as interior use.

Low voltage lighting is a creative medium with unlimited application possibilities. Low voltage lighting benefits include:

- Precision beam control
- More light intensity per watt
- Less radiated heat
- Greater efficiency
- Longer life
- Safer to use
- Easy installation
- A high return on end-user investment



## Acme Advantages

### More value

Acme low voltage transformers are available in a wide range of options and models that are all UL listed for use indoors or outdoors. See inside back cover for warranty details.

### More Power

Transformers in ratings of 100 through 1000 W; Group VI Buck-Boost in .05 through 10 kVA.

### More convenience

Groups IV, V and VI transformers have copper lead wires for hardwiring. Circuit breakers for instant reset (except pool and spa and Buck-Boost). No fumbling with fuses. Generous wiring compartment, too!

### More protection

A full fault current carrying Faraday Shield (except Buck-Boost) prevents 120 volts from reaching the 12 volt side, as required by UL-1571 and UL-1838.

### Features & Options

The convenient "Selection Guide" on the facing page provides you with the data you need to select the product that best meets your requirement. Complete product selection data, dimensions and wiring diagrams are contained on the following pages. If you need help in your selection, or if you have questions, just call technical services at 1-800-334-5214.

## SELECTION GUIDE

Features/Options		TRANSFORMERS	
		GROUP V	GROUP VI
		'T1' Catalog No.	Buck-Boost 'T1' and 'T2' Catalog No.
<b>1</b>	Ratings (Watts, VA, kVA)	100 through 1000 VA	.05 through 10 kVA
<b>2</b>	Primary Input	120 Volts or 240 Volts	120 x 240 Volts
<b>3</b>	Secondary Output	12V or 24V	12 x 24 V
<b>4</b>	Hardwired Primary	Yes	Yes
<b>5</b>	Overload Protection:	Primary	Auto Thermal Reset
		Secondary	Circuit Breakers
<b>6</b>	Output Wiring	Copper Lead Wires	Copper Lead Wires
<b>7</b>	UL Listed	Yes	Yes
<b>8</b>	CSA Certified	Yes	Yes
<b>9</b>	Faraday Shield	Yes	No
<b>10</b>	Product Warranty	10 Years	10 Years
<b>11</b>	UL-3R Indoor/Outdoor Enclosure	No	Yes

## Low Voltage General Purpose Transformers



### FEATURES

- UL Listed , CSA Certified.
- 100, 150, 300, 600, 750, 1000 VA.
- 1 Phase, 60 Hz, 120 or 240 volt input.
- 12 or 24 volt output.
- Input Auto-Thermal reset switch.
- Output circuit breaker.
- Fully encapsulated core and coil.
- Full fault current carrying Faraday Shield.
- Flexible copper leadwire terminations.
- UL class 180°C insulation system 115°C rise.
- UL Type 2 enclosure.
- Keyhole slotted wall mounting brackets.
- Black finish.
- Bottom access.
- Two 0.875 (2.2 cm) single knockouts each side.
- Two dual 0.875 (2.2 cm) and 1.125 (2.9 cm) knockouts on bottom cover.



### GROUP V

#### 120 PRIMARY VOLTS – 12 SECONDARY VOLTS, TWO WINDINGS, 1Ø, 60 Hz

VA	CATALOG NO.	APPROX. DIMENSIONS INCHES (CM.)			APPROX. SHIP WEIGHT LBS. (KG.)	CB RATING	CB STYLE
		HEIGHT	WIDTH	DEPTH			
100	T179600S	9.01 (22.9)	4.08 (10.4)	3.88 (9.9)	7 (3.2)	15 AMP	Push To Reset Thermal Breaker
150	T179620S	9.01 (22.9)	4.08 (10.4)	3.88 (9.9)	7 (3.2)	20 AMP	Push To Reset Thermal Breaker
300	T179621S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	11 (5.0)	40 AMP	Push To Reset Thermal Breaker
600	T179622S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	15 (6.8)	60 AMP	Magnetic Toggle On/Off Breaker
750	T179603S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	18 (8.2)	75 AMP	Magnetic Toggle On/Off Breaker
1000	T179604S	11.93 (30.3)	5.41 (13.7)	5.20 (13.2)	26 (11.8)	100 AMP	Magnetic Toggle On/Off Breaker

#### 120 PRIMARY VOLTS – 24 SECONDARY VOLTS, TWO WINDINGS, 1Ø, 60 Hz

VA	CATALOG NO.	APPROX. DIMENSIONS INCHES (CM.)			APPROX. SHIP WEIGHT LBS. (KG.)	CB RATING	CB STYLE
		HEIGHT	WIDTH	DEPTH			
100	T179605S	9.01 (22.9)	4.08 (10.4)	3.88 (9.9)	7 (3.2)	7 AMP	Push To Reset Thermal Breaker
150	T179623S	9.01 (22.9)	4.08 (10.4)	3.88 (9.9)	7 (3.2)	10 AMP	Push To Reset Thermal Breaker
300	T179624S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	11 (5.0)	20 AMP	Push To Reset Thermal Breaker
600	T179625S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	15 (6.8)	40 AMP	Push To Reset Thermal Breaker
750	T179608S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	18 (8.2)	50 AMP	Push To Reset Thermal Breaker
1000	T179609S	11.93 (30.3)	5.41 (13.7)	5.20 (13.2)	26 (11.8)	50 AMP	Magnetic Toggle On/Off Breaker

#### 240 PRIMARY VOLTS – 24 SECONDARY VOLTS, TWO WINDINGS, 1Ø, 60 Hz

VA	CATALOG NO.	APPROX. DIMENSIONS INCHES (CM.)			APPROX. SHIP WEIGHT LBS. (KG.)	CB RATING	CB STYLE
		HEIGHT	WIDTH	DEPTH			
100	T179615S	9.01 (22.9)	4.08 (10.4)	3.88 (9.9)	7 (3.2)	7 AMP	Push To Reset Thermal Breaker
150	T179629S	9.01 (22.9)	4.08 (10.4)	3.88 (9.9)	7 (3.2)	10 AMP	Push To Reset Thermal Breaker
300	T179630S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	11 (5.0)	20 AMP	Push To Reset Thermal Breaker
600	T179631S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	15 (6.8)	40 AMP	Push To Reset Thermal Breaker
750	T179618S	11.68 (29.7)	4.66 (11.8)	4.57 (11.6)	18 (8.2)	50 AMP	Push To Reset Thermal Breaker
1000	T179619S	11.93 (30.3)	5.41 (13.7)	5.20 (13.2)	26 (11.8)	50 AMP	Magnetic Toggle On/Off Breaker

## Buck-Boost Transformers



### The No-Frills Low Voltage Lighting

Buck-Boost Transformers offer a no-frills approach to low voltage lighting. (See Chart Below) A typical Buck-Boost application is 120 volts in and 12 volts out for low voltage lighting or control circuitry. In most applications, this low voltage isolation transformer is field connected as an autotransformer. For more information on Buck-Boost Transformers, refer to the next section in this catalog.

### GROUP VI

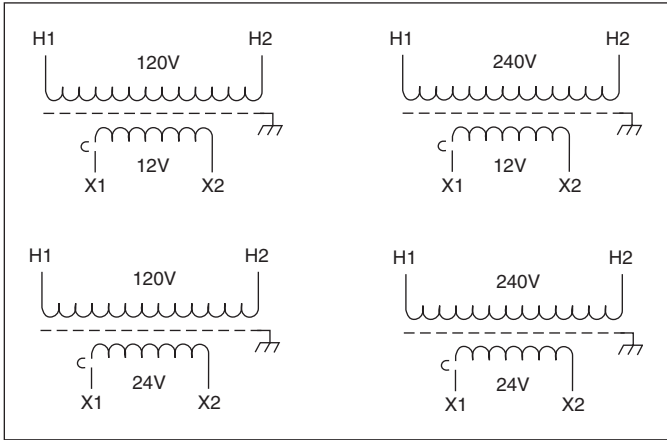
120 x 240 VOLT INPUT – 12/24 VOLT OUTPUT – 1Ø, 60 Hz



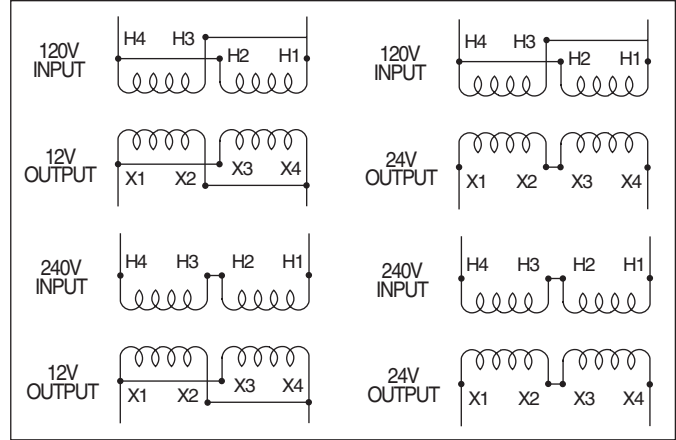
CATALOG NUMBER	INSULATING TRANSFORMER RATING	SECONDARY MAXIMUM CURRENT OUTPUT		APPROX. DIMENSIONS INCHES (CM.)			APPROX. NET WEIGHT LBS. (KG.)
		12V	24V	HEIGHT	WIDTH	DEPTH	
T181047	0.05 kVA	4.16	2.08	6.38 (16.2)	3.19 (8.1)	3.00 (7.6)	4 (1.8)
T181048	0.10 kVA	8.32	4.16	6.62 (16.8)	3.75 (9.5)	3.62 (9.2)	5 (2.3)
T181049	0.15 kVA	12.52	6.25	7.12 (18.1)	3.75 (9.5)	3.62 (9.2)	7 (3.2)
T181050	0.25 kVA	20.80	10.40	8.68 (22.0)	4.08 (10.4)	3.88 (9.9)	10 (4.5)
T181051	0.50 kVA	41.60	20.80	9.06 (23.0)	4.37 (11.1)	4.20 (10.7)	15 (6.8)
T181052	0.75 kVA	62.50	31.25	9.68 (24.6)	4.75 (12.1)	4.51 (11.5)	19 (8.6)
T111683	1.00 kVA	83.20	41.60	10.50 (26.7)	5.50 (14.0)	5.13 (13.0)	24 (10.9)
T111684	1.50 kVA	125.00	62.50	11.62 (29.5)	5.50 (14.0)	5.13 (13.0)	30 (13.6)
T111685	2.00 kVA	166.00	83.20	13.00 (33.0)	5.50 (14.0)	5.13 (13.0)	38 (17.2)
T111686	3.00 kVA	250.00	125.00	11.50 (29.2)	10.31 (26.2)	7.13 (18.1)	55 (24.9)
T111687	5.00 kVA	416.00	208.00	14.38 (36.5)	10.31 (26.2)	7.13 (18.1)	75 (34.0)
T211688	7.50 kVA	625.00	312.50	21.19 (53.8)	13.50 (34.3)	10.84 (27.5)	125 (56.7)
T211689	10.00 kVA	833.00	416.60	21.19 (53.8)	13.50 (34.3)	10.84 (27.5)	160 (72.6)

## Low Voltage Lighting Wiring Diagrams

### GROUP V



### GROUP VI



VOLTAGE DROP CHART		
Voltage at Lamp	Life Expectancy of Lamp	% of Rated Candlepower
13.2	2/3 Rated Life	350
12.6	3/4 Rated Life	180
12.0	As Rated	100
11.5	2X Rated Life	80
11.0	3X Rated Life	74
10.5	5X Rated Life	65
10.0	9X Rated Life	50

CABLE SIZE CONSTANT CHART	
Cable Size	Cable Size Constant
#18	1380
#16	2200
#14	3500
#12	7500
#10	11,920
#8	18,960
#6	30,150

**VOLTAGE DROP FORMULA**

$$X \frac{\text{Total Watts on Cable} \times \text{Length of Run}}{\text{Cable Size Constant}} = \text{Voltage Drop}$$