

# AMERACE AIRPORT LIGHTING

## Series Isolating Transformers

<http://www.amerace.com>

### Specifications

#### CONSTRUCTION

Core	Flat laminations (E&I) of high grade grain oriented silicon steel for a long, stable life.
Encapsulant	TPR rubber (also known as TPV, TPE) <ul style="list-style-type: none"><li>• Much higher dielectric strength and lower water absorption than older materials such as epoxy, neoprene, or polychloroprene.</li><li>• Minimal swelling in the presence of hydrocarbons, unlike neoprene, polychloroprene, etc.</li></ul>
Encapsulation process	Injection molding for maximum consistency of encapsulation, yielding exceptionally low leakage currents. Vacuum drawing prior to injection prevents air pockets inside. A far superior process to compression or transfer molding, or pouring.
Winding	Magnet wire on a plastic bobbin, specifically designed to electrically isolate the primary and secondary windings for maximum safety.
Connector pins and sockets	Tin plated for corrosion resistance
Primary cables	Cable is AWG #8 (8,3 mm <sup>2</sup> ) Type C TPR for maximum reliability, 0,6 meter (24") with FAA Style 2 and FAA Style 9 connectors
Secondary cable	Cable is AWG 2/12 (3,3 mm <sup>2</sup> ), 1,2 meters (48") with FAA Style 8 (standard) or FAA Style 7 connector
Material compatibility	Transformer body, cables, and connectors are all molded of TPR for perfect bonding.
Waterproofness	Amerace® transformers are designed and manufactured to operate submerged in water indefinitely.

#### ELECTRICAL

Insulation Level	Primary 5000 V RMS; Secondary 600 V RMS
Insulation Resistance	<ul style="list-style-type: none"><li>• Minimum 7500 Megohms (tested hot with 15 kV DC)</li><li>• Typical 150,000 Megohms</li><li>• Much higher than that required by FAA</li></ul>
Open Circuit Voltages	<ul style="list-style-type: none"><li>• Less than 3 times the full load RMS value in all cases, generally much lower, when tested with sine waves.</li></ul>
Efficiencies	85% to 95% depending on the power rating
Power Factor	> 0,97 for all
Ratio	Flat response load curves for constant lamp brilliancy and long life
Testing	<ul style="list-style-type: none"><li>• All units (100%) are hipotted and their ratio confirmed</li><li>• All ratio testing done with the appropriate frequency, 50Hz or 60 Hz, for precision. No "conversion factors" used.</li></ul>

#### ENVIRONMENTAL

Operating Temperature Range	-55°C to +65°C
Contaminant resistance	Suitable for areas contaminated with most oils, aircraft fuels, soil acids and alkalis, and de-icing fluids. Resistant to UV exposure and ozone.

#### APPROVALS/CONFORMANCES

Accepted in most countries of the world. Formal approvals with FAA, CSA, US Military, STNA (France), etc. Also complies with ICAO, in future with IEC (a specification being prepared by TC 97).

#### INSTALLATION OPTIONS

All types, including above ground, in concrete or other non-metallic pits, in metal cans, or direct buried.

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**FAA STYLE (NON-EARTHED)**



**ICAO STYLE (WITH EARTH)**







Amerace manufactures the world's broadest range of series isolating transformers. Some of the options available are:

Nominal Power (watts)      30/45, 65, 100, 150, 200, 300, 400, 500

Primary/sec current (A)      4, 4.4, 6.6, 8.3, 12, 20 in many combinations

The table below shows several available constructions. Don't see what you want here? Contact us with your requirements or go to our web site to *Create Your Own Transformer*.

 <http://www.amerace.com/NewFiles/techno.html>

Construction	Earthed?	Secondary Connector?	Primary Connectors?
FAA  <a href="http://www.amerace.com/NewFiles/product3.html">http://www.amerace.com/NewFiles/product3.html</a>	No	Style 8	Yes
US Military  <a href="http://www.amerace.com/NewFiles/product5.html">http://www.amerace.com/NewFiles/product5.html</a>	No	Style 8	Yes
CSA  <a href="http://www.amerace.com/NewFiles/product4.html">http://www.amerace.com/NewFiles/product4.html</a>	Yes	Style 8	Yes
ICAO Style  <a href="http://www.amerace.com/NewFiles/product8.html">http://www.amerace.com/NewFiles/product8.html</a>	Yes	Style 7 or 8	Yes
UK Style  <a href="http://www.amerace.com/NewFiles/product7.html">http://www.amerace.com/NewFiles/product7.html</a>	Yes	Style 7 or 8	No
UK TISE  <a href="http://www.amerace.com/NewFiles/product7.html">http://www.amerace.com/NewFiles/product7.html</a>	Yes	Style 7	No

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## GENERAL INFORMATION

### 1. Secondary Connector configurations

Standard is catalog suffix 01 "Tennis Ball" FAA Style 8  4,45 cm (1 3/4")

Alternatively catalog suffix 10 "Straight" FAA Style 7  2,54 cm (1")



2. Unlike the FAA, ICAO recommends that each transformer have an earth (ground) connection for one side of the secondary (large socket, white wire). Any Amerace® transformer can be supplied with an earth stud to meet this recommendation. To specify, add the letter G to the catalog number as follows - a TA045666-01 would become a TAG045666-01.

 <http://www.amerace.com/NewFiles/product3.html>

## FAA SPECIFICATION L 830 60 Hz \*

FAA Designation	Amerace Catalog No.	Rated Watts	Prim/Sec. Amps	Fig. (pg.6)	T Dim. cm/in.	Lead Lengths		Appr. Shp. Wt.	
						Primary	Secondary	Kg.	Lbs.
L830-1	TA045666-01	30/45	6.6/6.6	1	8,6/3.4	60 cm (24")	1,2m (48")	2,4	5.2
L830-2	TA045266-01	30/45	20/6.6	1	8,6/3.4	60 cm (24")	1,2m (48")	2,3	5.0
L830-3	TA065666-01	60	6.6/6.6	1	8,6/3.4	60 cm (24")	1,2m (48")	2,3	5.0
L830-4	TA10066D-01	100	6.6/6.6	2	8,9/3.5	60 cm (24")	1,2m (48")	3,3	7.7
L830-5	TA100266-01	100	20/6.6	2	8,9/3.5	60 cm (24")	1,2m (48")	3,6	8.0
L830-6	TA200666-01	200	6.6/6.6	3	9,1/3.6	60 cm (24")	1,2m (48")	4,9	10.8
L830-7	TA200266-01	200	20/6.6	3	9,1/3.6	60 cm (24")	1,2m (48")	4,9	10.8
L830-8	TA300626-01	300	6.6/20	3	11,4/4.5	60 cm (24")	1,2m (48")	6,9	15.1
L830-9	TA300226-01	300	20/20	3	11,4/4.5	60 cm (24")	1,2m (48")	7,7	17.0
L830-10	TA300666-01	300	6.6/6.6	3	11,4/4.5	60 cm (24")	1,2m (48")	7,1	15.8
L830-11	TA300266-01	300	20/6.6	3	11,4/4.5	60 cm (24")	1,2m (48")	7,9	17.5
L830-12	TA500626-01	500	6.6/20	3	12,5/4.9	60 cm (24")	1,2m (48")	8,0	17.6
L830-13	TA500226-01	500	20/20	3	12,5/4.9	60 cm (24")	1,2m (48")	8,4	18.5

## FAA SPECIFICATION L 831 50 Hz \*

FAA Designation	Amerace Catalog No.	Rated Watts	Prim/Sec. Amps	Fig. (pg.6)	T Dim. cm/in.	Lead Lengths		Appr. Shp. Wt.	
						Primary	Secondary	Kg.	Lbs.
L831-1	TA045665-01	30/45	6.6/6.6	1	8,6/3.4	60 cm (24")	1,2m (48")	2,4	5.2
L831-2	TA045265-01	30/45	20/6.6	1	8,6/3.4	60 cm (24")	1,2m (48")	2,3	5.0
L831-3	TA065665-01	65	6.6/6.6	1	8,6/3.4	60 cm (24")	1,2m (48")	2,3	5.0
L831-4	TA10066D-01	100	6.6/6.6	2	8,9/3.5	60 cm (24")	1,2m (48")	3,3	7.7
L831-5	TA100265-01	100	20/6.6	2	8,9/3.5	60 cm (24")	1,2m (48")	3,1	6.9
L831-6	TA200665-01	200	6.6/6.6	3	9,9/3.9	60 cm (24")	1,2m (48")	5,6	12.4
L831-7	TA200265-01	200	20/6.6	3	9,9/3.9	60 cm (24")	1,2m (48")	5,9	13.0
L831-8	TA300625-01	300	6.6/20	3	12,5/4.9	60 cm (24")	1,2m (48")	7,7	17.0
L831-9	TA300225-01	300	20/20	3	11,4/4.5	60 cm (24")	1,2m (48")	7,9	17.5
L831-10	TA300665-01	300	6.6/6.6	3	12,5/4.9	60 cm (24")	1,2m (48")	7,9	17.5
L831-11	TA300265-01	300	20/6.6	3	12,5/4.9	60 cm (24")	1,2m (48")	7,9	17.5
L831-12	TA500625-01	500	6.6/20	3	12,5/4.9	60 cm (24")	1,2m (48")	8,4	18.5
L831-13	TA500225-01	500	20/20	3	12,5/4.9	60 cm (24")	1,2m (48")	8,4	18.5

\* Not FAA Certified if provided with Style 7 Secondary Connector

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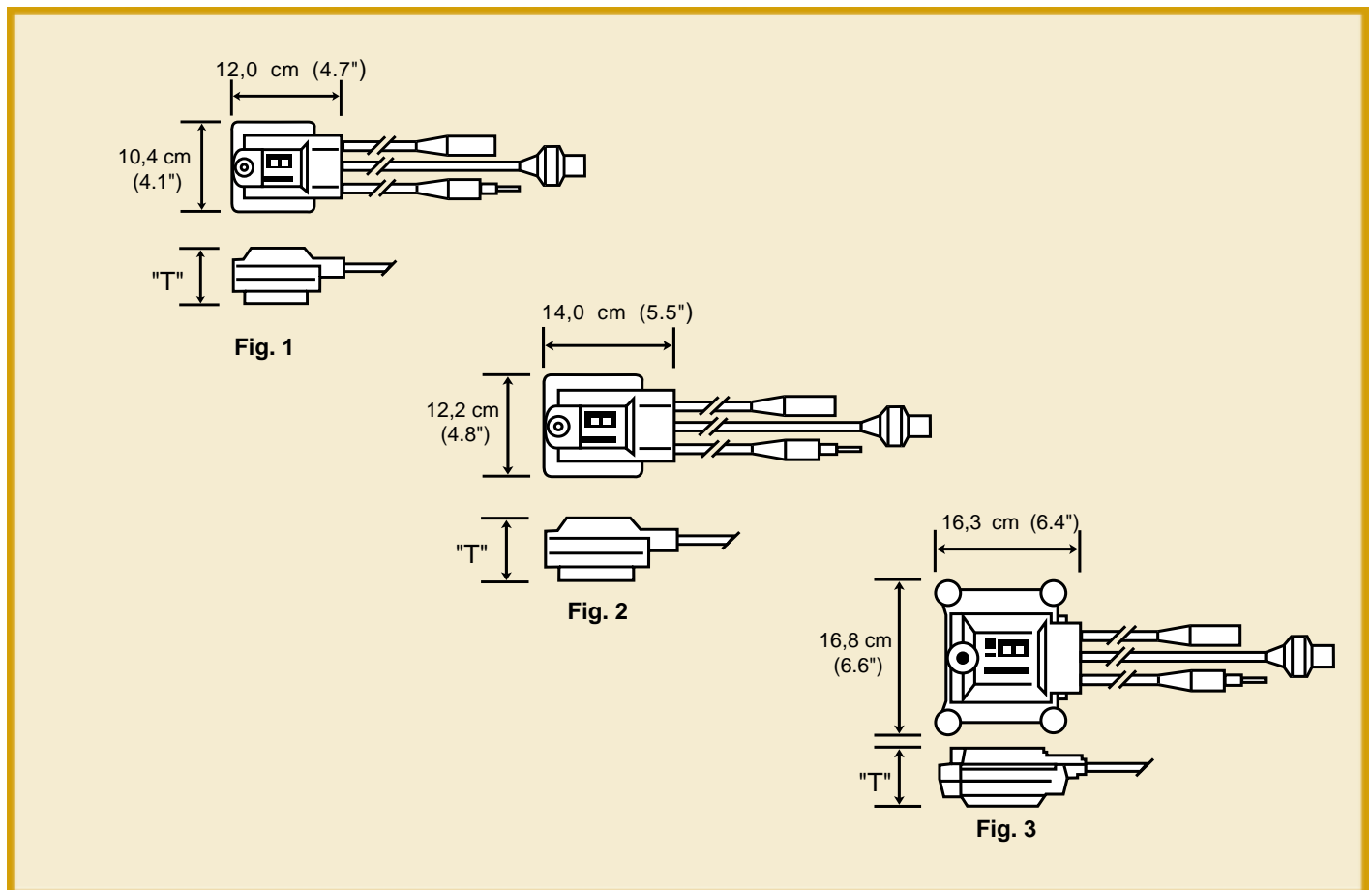
CSA CERTIFIED TRANSFORMERS



<http://www.amerace.com/NewFiles/product4.html>

Replaces Catalog No.	Description	Epoxy Style	Fig.	T Dim. cm/in.	Approx. Ship.Wt. Kg./Lbs.	Certi- fication
CTAG04566D-01	30/45 watt 6.6/6.6 amp 50/60 Hz	8001-2	2	8,9/3.5	3,1/6.9	CSA
CTAG10066D-01	100 watt 6.6/6.6 amp 50/60 Hz	8201-2	2	8,9/3.5	3,3/7.2	CSA
CTAG200666-01	200 watt 6.6/6.6 amp 60 Hz	8301-2	3	9,1/3.6	4,9/10.9	CSA
CTAG250626-01	250 watt 6.6/20 amp 60 Hz	8401-2	3	9,9/3.9	5,6/12.4	CSA
TAG300666-01CS050*	300 watt 6.6/6.6 60 Hz		3	11,4/4.5	7,1/15.8	
TAG500666-01CS058*	500 watt 6.6/6.6 60 Hz		3	12,5/4.9	9,0/19.1	

\*CS means split bolt CSA ground post



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