

# **Certificate of Compliance**

Certificate: 70199588 Master Contract: 273749

**Project:** 70199588 **Date Issued:** October 25, 2018

**Issued to:** Custom Magnetics of California Inc.

1357 Ridgeway Street Pomona, CA 91765

**USA** 

**Attention:** Mr. Christopher Cimino

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and US Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only



Kim Atkins

**Issued by:** K. Atkins

#### **PRODUCTS**

Class No 5411 06 TRANSFORMERS-Power Class No 5411 86 TRANSFORMERS Power - Certified to US Standards

Transformers, dry type, isolation, types open core and coil assemblies or enclosed. Type ANN (ventilated), 600V max, 50Hz, 60Hz, 1-phase, 500 kVA max, 3-phase, 1500 kVA max, class 220C system, 150C Rise. Enclosures are rated 3R with use of gaskets and rain shield.

Autotransformers, dry type, types open core and coil assemblies or enclosed. Type ANN (ventilated), 600V max, 50Hz, 60Hz, 1-phase, 666 kVA max, 3-phase, 2000 kVA max, class 220C system, 150C Rise. Enclosures are rated 3R with use of gaskets and rain shield.

Power Transformers, dry type, types open core and coil assemblies or enclosed. Type ANN (ventilated), 4160Vac primary, 600Vac max secondary, 50/60Hz or 60Hz, 3-phase 1000 kVA to 2500 kVA, single



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phase 333 kVA to 833 kVA; class 220C system, 150C Rise. Enclosures are rated 3R with use of gaskets and rain shield.

#### **APPLICABLE REQUIREMENTS**

CSA Std C22.2 No 0.12 - Wiring Space and Wire Bending Space in Enclosures for Equipment Rated 750 or less

CAN/CSA-C22.2 No 47 - Air-Cooled Transformers (Dry-Type)

UL 1561 - Dry type General Purpose and Power Transformers

#### **MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Transformers shall be plainly marked in a permanent manner, in a place where the details will be readily visible after installation, with the following information:

- Company's name, trade name, or other recognized symbol of identification or Master Contract number "273749" adjacent to the CSA Mark
- Catalogue, style, model or other identifying designation
- High and low voltages
- Tap voltages, if taps are provided, either as actual voltages or as a percentage of rated voltage
- Frequency
- Number of phases, unless clearly indicated on the connection diagram
- Output kVA
- Rated temperature rise, in degrees C
- Indication that the transformer is of the autotransformer type, if this is the case. (The wording "AUTOTRANSFORMER" appears on the nameplate)
- A connection diagram, which shall indicate the polarity for single-phase transformers and include a vector diagram for polyphase transformers
- Percent impedance based on 20C ambient plus rated temperature rise in degrees C
- Transformers having terminations, other than leads, which are suitable for aluminium shall be marked "CU-AL"
- The manufacturing date code;



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<u>Note</u>: For non-standard transformers, Paragraph (j) may be shown on a separate instruction sheet or drawing referred to on the nameplate.

- All transformers with openings of any size in the bottom shall be marked with the following: "DO NOT INSTALL ON OR OVER COMBUSTIBLE SURFACES", and "NE PAS INSTALLER SUR OU AU-DESSUS DE SURFACES COMBUSTIBLES".

- All transformers with ventilation openings shall be marked with the following: "DO NOT INSTALL IN AREAS ACCESSIBLE TO THE PUBLIC", and "NE PAS INSTALLER DANS DES ENDROITS ACCESSIBLES AU PUBLIC".
- For "Neutral Current Eliminators", the neutral current may appear in addition to the above items and they shall be identified as "AUTOTRANSFORMERS".



## Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

### **Product Certification History**

**Project Date** 70199588 October 25, 2018 Submittor and Listee Models are identical Type ANN refer to Nomenclaure below. **Description** -Original 2463027 Project No Model ST Nomenclature Single or Three Winding Winding kVA rimary Electrostatic Enclosure Temp Secondar Temp Type of Transformer Material Configuration Rating Voltage y Voltage Rise Shield Type Monitor 4 digits A = 600 A = 600 A = 150 5 = 50 Hz A = None G = General Purpose S = Single Phase A = Aluminum A = Delta Wve A = 1 B = 208 B = 208 B = 130 6 = 60 Hz B = 4 = Three Phase B = 2 K = K Factor C = Copper B = Delta Delta N = No C = 480 C = 480 C = 115 C = 9 D = Double C = 3R A = Auto = Wye Wye D = 575 D = 575 D = 80 D = 13 S = Spl H = Harmonic D = Wye Delta 0 = Oper E = 347 E = 347 E = 55 E = 20 D = Drive Isolation = Delta ZZ 0 = 277 F = 277 Z = Zero Seq Filter = Delta ZZ 30 G = Zero Sa Filter G = 416 G = 416 f = 1 Ph, 1Ph = Spl H = 120 = Spl = 240 = Spl Listee Model ST Nomenclature Single or Three Winding Winding Primary Secondar Temp Electrostatic Enclosure Temp Type of Transformer Rating Voltage y Voltage Rise Material Configuration Frequency K Factor Shield Туре A = Aluminum A = Delta Wye 4 digits A = 600 A = 600 A = 150 S = 50 Hz A = None G = General Purpose S = Single Phase A = 1 = 208 B = 208 B = 130 6 = 60 Hz B = 4 K = K Factor = Three Phase = Copper B = Delta Delta N = No B = 2= 480 C = 480 C = 115 C = 3RA = Auto C = Wye Wye C = 9 D = Double D = Wye Delta D = 575 D = 575 D = 80 D = 13 S = Spl O = Open E = Delta ZZ 0 E = 347 E = 347 E = 55 D = Drive Isolation E = 20Z = Zero Sea Filter F = Delta ZZ 30 = 277 F = 277 = 30 G = Zero Sq Filter G = 416 G = 416 H = 1 Ph, 1Ph = Spl H = 120= 240 = Spl