



Certificate of Compliance

Certificate: 1959652

Master Contract: 160062

Project: 80001517

Date Issued: 2019-04-25

Issued To: WEG Equipamentos Eletricos S.A.
Av Prefeito Waldemar Grubba 3000
Caixa Postal 420
Jaragua Do Sul, Santa Catarina, 89256-900
Brazil

Attention: Rúbia C. do Rosário Fontanella

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: *Ezio Migliozi*
Ezio Migliozi



PRODUCTS

CLASS - C422801 - MOTORS AND GENERATORS For Hazardous Locations

CLASS - C422881 - MOTORS AND GENERATORS For Hazardous Locations - Certified to US Standards

Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G; Temperature Coded T3 or T3C
Ex nA IIC T3; Class I, Zone 2, AEx nA IIC T3(*)

- Three phase Induction motors, W50 Model Series, frame sizes NEMA 5009/10 to 7008/09 and IEC 315 to 450, rated 1750 hp max, 11000V ac max, 50/60Hz, TEFC, 2 to 12 poles, Insulation Class F (H optional), 40 C ambient, Horizontal or vertical mounting

(*) Note:

-For Ex nA/Class I, Zone 2, AEx nA the rated voltage is limited to 6600 V

-For rated voltage up to 11000 V, the motors can be marked Ex nA IIB T3/Class I, Zone 2, AEx nA IIB T3



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Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G; Temperature Coded T3 or T3C

• Three phase Induction motors, HGF Model Series, frame sizes NEMA 5006 to 10412 and IEC 315 to 630, rated 2500 hp max, 11000V ac max, 50/60Hz, TEFC, 2 to 16 poles, Insulation Class F (H optional), 40 C ambient, Horizontal or vertical mounting.

Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G; Temperature Coded T3A, T3B, T2D, T4A or T5.

• Three phase Induction motors, W22 Model Series frame sizes NEMA 447/9 to 588/9T and IEC 315 to 355, rated 500 hp max, 6600V ac max, 50/60Hz, TEFC, Insulation Class F (H optional), 40 C ambient, Horizontal or vertical mounting

The motors (HGF and W22) covered under the scope above can be available as or with:

- 1-) Two Speed Motors with the minimum number of poles 2, 4, 6 or 8.
- 2-) Multiple Voltages.
- 3-) NEMA Premium Efficiency.
- 4-) Inverter and/or Vector Duty (Not applicable for W22 product line, 315 frame size)
- 5-) Space Heater.
- 6-) Optional up to 60°C ambient.
- 7-) TEAO Construction (Minimum Airflow Nameplate Mandatory).
- 8-) TENV Construction.
- 9-) TEBC Construction.
- 10-) Additional junction box available for auxiliaries.
- 11-) Remote terminal box.
- 12-) SF1.15 max.

The motors W50 covered under the scope above can be available as or with:

- 1-) Two Speed Motors.
- 2-) TEAO Construction (Minimum Airflow Nameplate Mandatory).
- 3-) TENV Construction.
- 4-) TEBC Construction.
- 5-) Additional junction box available for auxiliaries.
- 6-) Remote terminal box. The motor is supplied with a base and a separate terminal box.
- 7-) Inverter Duty.
- 8-) Space Heater.
- 9-) Optional up to 60°C ambient.
- 10-) SF1.15 max.



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Class I, Div. 2, Groups A, B, C and D; Temperature Coded T3, T2B, T2C and T2D

- Three phase Induction motors, W40 Model Series frame sizes NEMA 5010, L5010, L5810 and L6808/09 and IEC 315, 355, 400 and 450, rated 2500 hp max, 10 kV ac max, 50 and 60Hz, ODP, Insulation Class F, 40 C ambient, SF 1.0

The motors (W40) covered under the scope above can be available as or with:

- 1-) Inverter Duty Application:
 - CT: 5 to 50 Hz or 6 to 60 Hz;
 - VT: 5 to 50 Hz or 6 to 60 Hz;
 - CHP: 50 to 100 Hz or 60 to 120 Hz
- 2-) Blower as an option
- 3-) Forced ventilation as an option
- 4-) SF 1.15 for de-rating output
- 5-) Optional up to 50°C ambient

APPLICABLE REQUIREMENTS

- | | |
|---------------------------------------|---|
| -CAN/CSA C22.2 No. 0 -10 | - General Requirements - Canadian Electrical Code Part II. |
| -CAN/CSA-C22.2 No. 100-04 | - Motors and Generators |
| -CAN/CSA-C22.2 No. 213-15 | - Nonincendive Electrical Equipment for Use in Class I and II, Div. 2 and Class III, Div.1 and 2 Hazardous (Classified) Locations. |
| -CAN/CSA C22.2 No. 145-M1986 | - Motors and Generators for Use in Hazardous Locations (Guidance) |
| -CAN/CSA C22.2 No. 60079-0:11 | - Explosive Atmospheres –Part 0: Equipment - General Requirements |
| -CAN/CSA C22.2 No. 60079-15:16 | - Explosive Atmospheres – Part 15: Equipment Protection by Type of Protection “n” |
| -ANSI/UL 674 4 th Ed. | - Electric Motors and Generators for Use in Division 1 Hazardous Locations (Guidance) |
| -ANSI/ISA 12.12.01-2015 | - Nonincendive Electrical Equipment for Use in Class I and II, Div. 2 and Class III, Div.1 and 2 Hazardous (Classified) Locations. |
| -ANSI/UL 1004-1 2 nd Ed. | - Motors and Generators |
| -ANSI/UL 1836: 2014 | - Outline of Investigation for Electric Motors and Generators for Use in Class I, Div. 2 and Class II, Div. 2 Hazardous (Classified) Locations. |
| -ANSI/UL 60079-0 6 th Ed. | - Explosive Atmospheres -Part 0 - General Requirements |
| -ANSI/UL 60079-15 4 th Ed. | - Explosive Atmospheres – Part 15: Equipment Protection by Type of Protection “n” |

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.



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- 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.

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.

Nameplate adhesive label material approval information: N/A

The following shall be marked on each motor on a metal plate in a permanent, legible manner and located where readily visible after assembly:

- Submitter's name, Master Contract or Trade Mark;
- Type or (model) designation (as applicable);
- Hazardous Location designation (Class I, Div 2, Groups A, B, C and D and additionally optional Class I, Zone 2, Groups IIC, IIB, IIA); and Ex nA IIC T3; Class I, Zone 2, Ex nA IIC T3 (for W50 motors only).
- Temperature Code or Maximum Operating Temperature *;
- Complete electrical rating in horsepower, volts, amperes, hertz;
- Class insulation;
- Ambient temperature;
- Rated speed;
- Number of phase;
- Service factor (if greater than 1.0);
- Enclosure designation;
- Space heater nameplate (when applicable) shall be marked with voltage and watts ratings.
- CSA Monogram with the C US indicator.
- For Ex nA motors: CSA.17.70092796
- Machine application (e.g. inverter-duty motor), (where applicable);
- Speed range over which the machine is designed to operate, or if marked with a nominal speed at a nominal frequency, the frequency range for which the machine is designed to operate; (where applicable);



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- Type(s) of torque application for which the machine is designed (e.g. VT (variable torque), CT (constant torque), CHP (constant horsepower); (where applicable);
- Types of inverter with which the machine is intended to be used (e.g. VPWM (voltage source pulse width modulated) (where applicable);

The above Marking shall be permanently marked on a metal Nameplate (s) (0.5 mm min. thickness) and secured to the Motor Frame with rivets.

Notes:

1. When anti-condensation heaters are used in the motor (s) the additional markings are required as follows:

- The word "Heater"
- The electrical rating of the heater in watts.

As per Drawings 10001530937, 10002415911, 10001483086 and 10000964180

2. *Temperature Codes for Series W22 Induction Motors are detailed under Table 1 covered under the test section. For 60 °C ambient temperature refer to Table 3 under the same section.



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	Description
80001517	2019-04-25	Update to report 1959652 to cover alternate insulation material for the space heater. Scope includes update of standard UL 1604 to ANSI/ISA 12.12.01-2015/C22.2 no 213-15 (now harmonized), as UL 1604 is withdrawn.
000070092796	2017-01-26	Update to report 1959652 to cover addition marking Ex nA IIC T3, Class I, Zone 2, AEx nA IIC, T3 for W50 motor Series and expansion of the ambient temperature to 50C for W40 motor Series.
000070025882	2015-03-27	Update to report 1959652 to add motor HGF, frame size 7006/10T, 250 hp, 60 Hz, 4000 V, 16 poles for Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G hazardous locations.
0002685030	2014-01-17	Update to Report 1959652 to cover HGF motors, NEMA frame sizes 5009 through 68011(IEC 315 through 400), rated 800 HP max, SF1.0, for use in ambient temperature of 50°C and classified as T3C.
0002660422	2013-11-29	Update to report 1959652 to cover change of Model Series designation from WFA2 to W40 and certification of W50 Series motors for Class I, Div. 2, Grs. A, B, C and D; Class II, Div. 2, Grs F and G hazardous locations.
0002611074	2013-05-24	Update to report 1959652 to cover induction motors, WFA2 Model Series, rated 2500 HP max., 10 kV max., ODP enclosure, for Class I, Division 2, Goups A, B, C and D hazardous locations
0002611045	2013-04-19	Update to report 1959652 to cover addition of alternate insulation system, space heaters and terminal boxes.
0002463043	2012-01-11	Update to report 1959652 to cover the addition of US requirements to W22 and HGF series motors; delisting of HGA and AGA model series and Class II, Div 2, Groups F and G for HGF Series motors.
0002415185	2011-09-01	Update to report 1959652 to cover W22 Series motors , frame sizes NEMA 447/9 to 588/9T, IEC 315 to 355, rated 500 hp max, 6600V max, for use in Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G hazardous locations



0001959652

2008-06-03

Original Certification