Certificate of Compliance

Certificate:	80293044	**Master Contract:**	213679
Project:	80293044	**Date Issued:**	2026-07-30
Issued to:	**ESA S.p.A.** **Via E. Fermi 40** **Curno, Bergamo 24035** **Italy** **Attention:** Daniele Busetti	**Issued by:**	*Grace Gao* Grace Gao

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.

PRODUCTS

Class 2632 03 FUEL BURNING EQUIPMENT (GAS) - Gas Burners, Electrical Equipment for Accessories
Class 2632 83 FUEL BURNING EQUIPMENT(GAS) - Gas Burners Electrical Equipment for Accessories-Certified to U.S. Standards
Class 2642 03 FUEL BURNING EQUIPMENT (OIL) - Oil Burners, Electrical Equipment for Accessories
Class 2642 83 FUEL BURNING EQUIPMENT (OIL) - Oil Burners Electrical Equipment for Accessories-Certified to U.S. Standards

Burner Control System (BCS); Gas Train Control (GTC) and Combustion Safety Manager (CSM)

Product Model Number	Description	Rating	Ambient Temperature Range	Humidity	Number of Cycles

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Product Model Number	Description	Rating	Ambient Temperature Range	Humidity	Number of Cycles
ESA ALBEN BC S	Burner Control System (BCS) drives up to two fuel valve and comprises a single flame input	Supply voltage: 115Vac/230Vac 1P+N+PE Frequency: 50/60 Hz Rated Electrical Power: (12.5VA max) (without load) Rated input current: 0.11A	-20°C to 60°C	10% to 95% non-condensing	100,000
ESA ALBEN BC D	Burner Control System (BCS) drives up to four fuel valves and comprises two flame input	Supply voltage: 115Vac/230Vac 1P+N+PE Frequency: 50 Hz – 60 Hz Rated Electrical Power: (25VA max) (without load) Rated max input current: 0.22A	-20°C to 60°C	10% to 95% non-condensing	100,000
ESA ALBEN GTC	Gas Train Control	115Vac +10%/-15%; 230Vac +10%/-15%	-20°C to 60°C	10% to 95% non-condensing	100,000
ESA ALBEN CSM	Combustion Safety Manager	115Vac +10%/-15%; 230Vac +10%/-15%	-20°C to 60°C	10% to 95% non-condensing	100,000

Applied technology:	Complex electronics
Electrical supply:	115 or 230 Vac 50/60 Hz
Ambient temperature:	-20°C to +60°C
Number of Cycles	100,000 Cycles
Class of software	Class C Automatic Burner Control System
IP protection degree:	IP 65
Flame detection:	Ionization rod or ESA UV-2 or analog HTO2 or external flame detector3
Type of operation	Not permanent with ionization rod or UV-2 without UV shutter or permanent with ionization rod or UV-2 with UV shutter
Fuel valve output 1:	115 or 230 Vac / max. 1.5 A / cos φ≥0.8
Fuel valve output 2:	115 or 230 Vac / max. 1.5 A / cos φ≥0.8
Fuel valve output 3[1]:	115 or 230 Vac / max. 1.5 A / cos φ≥0.8
Fuel valve output 4[1]:	115 or 230 Vac / max. 1.5 A / cos φ≥0.8
Class of software	Class C Automatic Burner Control System
[1] Fuel valve outputs available only for types ALBEN BC D xx/xxxxxxx.	
[2] The sensing element (thermocouples) for analog HTO are not part of the approval and at least dual thermocouples shall be used.	
[3] The external HTO flame detector device is not part of the approval.	

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Safety Timing (secs)

Safety Function	Timings (secs)
Max flame failure response time	≤ 1 s
Max ignition activation time	≤ 1 s
Pre-purge time	0…65535 s 0sec - 18hours configurable
Post-purge time	0…..65535s 0sec - 18hours configurable
Max trial for ignition period	1- 5 configurable
Max lock-out time (after detecting fault)	≤ 1 s
Max igniter proving time	< 1 s
Ignition safety time time	1-25 sec configurable
Flame loss reaction time	1-20 sec configurable
Automatic restart time	<1sec in case of recycle or respark
Igniter warm up period (for HSI)	N.A.
Max igniter failure response time	N.A. ≤ 1 s
VPS Valve sequence period (opening- vent time)(if applicable)	< 3 s
VPS Valve measuring times	1…..65535s
Flame sensor check in permanent operation	< 1 hour

Notes:

1. Above model is Certified as automatic burning and ignition control to be used in CSA Certified equipment where the suitability of the combination is evaluated by CSA Group.
2. The investigation for above models are based on Kiwa report PKC0012647/992662/252 and PKC0012647/992834/252 issued date of 29-26/05/2025. The test results done by Kiwa are performed according to EN 298:2022.
3. The above models are provided with software Version as confirmed in Software report Appendix B; Control Class C.

APPLICABLE REQUIREMENTS

Standards Used	Description
ANSI Z21.20:22/CSA C22.2 No. 60730-2-5:22 - Second Edition	Automatic electrical controls for household and similar use - Part 2-5: Particular requirements for automatic electrical burner control systems
UL 60730-2-5, 4th Edition (Jul 29, 2022)	UL Standard for Safety Automatic Electrical Controls for Household and Similar Use, Part 2-5: Particular Requirements for Automatic Electrical Burner Control Systems

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Notes:

Products certified under Class(es) C263203, C264203 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

Products certified under Class(es) C263283, C264283 have been certified under CSA's ISO/IEC 17065 accreditation with the ANSI National Accreditation Board (ANAB). https://anab.ansi.org/product-certification

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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
80293044	2026-07-30	Convert KIWA EN298 certification report to CSA C US certification report. for ALBEN CSM , ALBEN BC and ALBEN GTC

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