



AMVAJE ABI
ELECTRONICS INDUSTRY

Explosion Protected Electronic Ballast

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Amvaje Abi: A Legacy of Expertise and Commitment to Quality

Amvaje Abi Company stands at the forefront of the industry, boasting over two decades of invaluable experience in designing, manufacturing, and advancing control systems and precision tools. Specializing in various sectors, particularly oil and gas, this knowledge-based company has earned its reputation as a trailblazer in Iran.

Established in 2002 with a mission to develop electronic systems tailored to the nation's needs, Amvaje Abi has evolved significantly over the years. In 2010, facing economic sanctions and stringent restrictions, the company successfully diversified into the production of control systems and precision tools, consistently delivering top-notch products across industries like oil and gas, mining, and steel.

Amvaje Abi's journey includes remarkable milestones, such as expanding R&D units, stringent quality control measures, and efficient production in the engineering department in Shiraz. Complemented by a management and commercial branch in Tehran, the company operates with a dedicated team of over 50 experts and skilled engineers, all alums of prestigious universities in the country.

In its commitment to international standards, Amvaje Abi has earned membership in the EP and AVL list of the Ministry of Petroleum and the National Petrochemical Company. The company has also secured multiple certifications and approvals from renowned organizations like the Association of Oil and Gas Industry Equipment Manufacturers and the Industrial Automation Companies Association.

With a portfolio boasting over 200 successful products, Amvaje Abi has achieved essential certifications domestically and internationally and has also seen exclusive use in major Iranian refineries and petrochemical plants by getting an exclusive MESC Code. Notable among these are the Pars South Gas Complex, Khangiran, Parsian, Shazand Oil, and numerous other significant petrochemical complexes.

Building on its rich experiences, Amvaje Abi has ventured into international trade, exporting its high-quality products to various countries. Committed to excellence, development, support, and the incorporation of cutting-edge technologies, the company has solidified its position as a leading force in Iran's electronic and industrial control industry and is recognized as a dependable supplier.

Explosion Protected Electronic Ballast

The electronic ballast is designed for the startup and operation of fluorescent lamps in a non-hazardous and explosion-proof manner, ensuring safety in environments with the risk of flammable substances. The presence of Explosion Protected (EX) equipment in areas with potential flammable materials is crucial.

Engineered with precision, this product is intended for use in Zone 1 and Zone 2 explosive atmospheres where flammable gases and vapors may be present. The electronic ballast adheres to ATEX standards, ensuring maximum safety in potentially explosive environments. With certifications such as EN 60079-0, EN 60079-1, EN 60079-7, and EN 60529, this product complies with the requirements for hazardous area classification.

Explosion Protected Electronic Ballast



Ballast Tester





Technical Specifications

- Temperature range: -20°C to $+60^{\circ}\text{C}$
- Energy classification: EEI = A2
- Lamp Wattage: 2 x 36/40 W
- Rated current at: 220 V/240 V 0.32 A/0,30 A
- Lamp power consumption: 64 W
- System power rating: 69 W
- Power factor $\cos \phi$: 0,97

Protection rating

- Housing \geq IP54
- Terminal \geq IP20
- Terminal: max 2 x 2.5 [mm]² Fine/Single Wire
- Torque: 1.2Nm
- Life Time: 80.000 hours at 60°C ambient temperature

Certificates

The certificate issued by IMQ Italy



EU-TYPE EXAMINATION CERTIFICATE

Component intended for use in potentially explosive atmospheres - Directive 2014/34/EU

EU Type Examination Certificate number: **IMQ 16 ATEX 009 U**

Component: **Electronic ballast**
 Type/Mod: **ATZ/1-02**

Manufacturer: **Amvaz Air Co.**
 For Science & Technology Park, Aiyun St., Di Hezhuo St., Sheng Wan

IMQ notified body n° 003, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex I to the Directive.

The examination and test results are recorded in certificate Record No. **ATZ 48807/01**

Compliance with Essential Health and Safety Requirements, issued in respect of these listed items (EU) has been checked by compliance with:

EN 60747-4-2:2011 2013; EN 60747-4-3:2014; EN 60747-7:2011

If the sign 'U' is placed after the certificate number indicating that the certificate shall not be maintained as a certificate intended for an equipment or protective system. This notice certification may be used as a basis for certification of an equipment or protective system.

This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified component. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by the certificate.

The marking of the component shall include the following:

U 30 Ex db eb FC Gb

This document is composed of 3 pages including 1 annex.

Issue date: 2018 / 04 / 18
 Certificate no.: 2018 / 04 / 18

IMQ Italy
 S.p.A. Via della Pace, 150 - 00187 Roma - Italy - Tel. +39 06 47811111 - www.imq.it

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 PRD N° 003 B



Annex

EU Type Examination Certificate number: **IMQ 16 ATEX 009 U**

Component Description:
 The product is an electronic ballast for start and operation of fluorescent lamps.

(16.1) Stock/Manufacture description:
 ATZ/1-02

(16.2) Rating:
 IMQ 30 Vac;
 230-254 Vac;
 Current: 0.32 A

(16.3) Safety category:
 IFA

(16.4) Ambient temperature and temperature classes:
 Service temperature range: 20°-40°C

(16.5) Degree of protection (IP code):
 IFA - Component to be incorporated into an equipment.

(16.6) Marking:
 IFA

(16.7) Report No.: ATZ 48807/01

(16.8) Routine (factory) tests:
 The manufacturer shall carry out the routine tests prescribed at clause 27 of the EN 60747-4. The manufacturer shall carry out the test prescribed at clause 4.3.4.2 of EN 60747-4. The manufacturer shall carry out the overvoltage test on each component at 2.1 for minimum for 30 s, according to EN 60747-4 clause 4.4.1.

(16.9) Conformity with the documentation:
 The manufacturer shall carry out the verification tests necessary to ensure that the product complies with the documentation.
 Marking the equipment in accordance with Clause 29 of EN 60747-4, the manufacturer shall ensure traceability of the equipment.
 The equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety notices.
 The routine verifications and routine tests in 26.1 of EN 60747-4 have been successfully completed with good results.

(16.10) Installation conditions:
 Routine related components to be incorporated into an equipment which is intended to be installed in locations where there are no environmental conditions or clearly specified in clause 1, section 2 of EN 60747-4.
 Installation and use in atmospheric and environmental conditions that are not above

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Annex

EU Type Examination Certificate number: **IMQ 16 ATEX 009 U**

Verification in hazardous areas requires considerations and additional measures by the user of the equipment. These shall be specified to the manufacturer by the user. It is the responsibility of the responsible standards body to ensure that the certification body confirms conformity for the relevant locations.
 Installation of the final equipment shall be done according to EN 60747-4.

(17) Schedule of tests:
 The service temperature shall be between -20°C and +40°C.
 The electronic ballast shall have not been tested according to clause 7.1 of the EN 60747-4 standard, the applied voltage shall be different at 25-1000 Vac with a minimum voltage value of 1300 Vac.

(18) Essential Health and Safety Requirements:
 The Certificate does not indicate compliance with essential safety and performance requirements other than those expressly included in the Certificate Marking (U).
 The Certificate does not cover faults arising from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60747-4.

(19) Descriptive documents:
 EN 60747-4:2011

(20) Certificates Validity Certificate:
 The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holder of EU Certificates.
 The validity of this certificate is subject to the condition that the manufacturer accepts the results of the document review and of the pertinent requirement if any included, indicated in the relevant scope of accreditation per EN 45001.
 One copy of the mentioned documents is made to the IMQ.

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PRODUCT QUALITY ASSURANCE NOTIFICATION

Equipment or Protective System Intended for use in potentially explosive atmospheres - Directive 2014/34/EU

Annex VII - MODULE E: CONFORMITY TO TYPE BASED ON PRODUCT QUALITY ASSURANCE

Notification Number: **IMQ 20 ATEX 041 G**

Product/Component: See paragraph 14.1)
 Type of Protection: See paragraph 14.1)

Manufacturer: **AMVAZ AIR CO.**
 For Science & Technology Park - Aiyun St., Di Hezhuo St., Sheng Wan

Manufacturing Location: **AMVAZ AIR CO.**
 For Science & Technology Park - Aiyun St., Di Hezhuo St., Sheng Wan

IMQ notified body n° 003, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, notifies that the manufacturer has a Quality System of the Product/Component which complies with Annex VI of the Directive.

The Notification is based on audit performed on **2020 / 04 / 04-04-04**.

The Notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex VI. Result of periodic re-assessments of the Quality System are a part of this notification.


This notification is valid until **2023 / 12 / 31** and can be withdrawn if the manufacturer does not satisfy the Product Quality Assurance periodic audit.

According to Article 14 clause 3 of the Directive 2014/34/EU the CE marking shall be followed by the identification n° 003, identifying the notified body involved in the Production control stage.

This document is composed of 3 pages including 1 annex.

Issue date: 2020 / 12 / 07
 Certificate no.: 2020 / 12 / 07

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Annex

Notification number: **IMQ 20 ATEX 041 G**

Product/Component description and details or type of protection:

Notified Body	N° of Certificate	Product	Type/Terms	Marking	Type of protection
IMQ	IMQ 16 ATEX 009 U	Electronic ballast	ATZ/1-02	Ex db eb FC Gb	Ex db eb FC Gb

Site of Production: **PL1600274**
 For Science & Technology Park - Aiyun St., Di Hezhuo St., Sheng Wan

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Company's Services

- Engineering and Manufacturing Services:

- Designing various electronic and control systems.
- Reverse engineering and redesigning electronic cards and control systems.
- Electronic component assembly and mass production of various electronic and control systems.
- Testing and quality control of electronic cards.

- Specialized commercial services:

- Consultation and procurement of industrial control systems.
- Consultation and procurement of various electronic, telecommunication, and precision instruments.
- Consult and procure remote control wireless systems.

- Specialized Repairs:

- Specialized repair of electronic cards and precision instruments for refineries and petrochemical plants.

- Training and Technical Engineering Support

- Updating and Upgrading electronic and control systems

- Control Systems Integration and Commissioning

○ In addition to its diverse and prominent activities, Amvaje Abi Company, with its essential capabilities, is recognized as one of the active companies in the field of designing and integrating control systems and precision instruments. This includes implementation, commissioning, support, and maintenance. The Instrument and Control System Department of Amvaje Abi, with over 15 years of practical experience in industrial automation and precision instruments, has become a key player in providing suitable solutions for major industries, including oil and gas, petrochemicals, steel, etc.

The primary activities and services of the Instrument and Control System Department at Amvaje Abi:

- Consultation and Engineering
- Software design and development
- Conducting FAT processes
- Upgrading and Revamping
- Procurement of project components
- Design of engineering documents and documentation
- Control systems Integration and precision instruments
- Cybersecurity Based On Project Requirements
- SAT
- Commissioning
- Repair and Maintenance
- Training
- Project Management

Customers



Certificates and Standards

Implemented Standards

IEC 61508-7-210	IPC 2222A
BSI BS EN 60079-0	IPC 7351B
BSI BS EN 60079-1	IPC 7711C.7721C
BSI BS EN 60079-20-1	IPC A-600J
BSI BS EN 60079-7	IPC A-610F A1-2016
IEC 61132-2 2017	ISO IEC 80079-34-2018
IEC-60529	ISO9001-2015
IPC 2221B	

Membership Certificate Of Industrial Automation Companies Association



Membership Certificate Of Association of Oil and Gas Industry Equipment Manufacturers



Operation License



Membership in the AVL of the Oil Ministry



Knowledge enterprise Appraisal

سند ملی
کتابچه ارزیابی توانمندی و مهارت کارکنان
انجمن صنایع الکترونیک

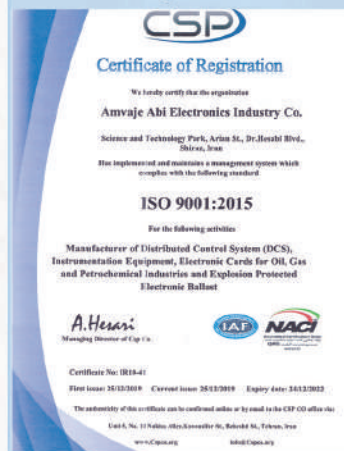
نام شرکت	انجمن صنایع الکترونیک
تاریخ ارزیابی	1399/05/20
محل ارزیابی	تهران
نام ارزیاب	دکتر سید علی حسینی
محل امضاء	تهران

این سند جهت ارزیابی توانمندی و مهارت کارکنان در زمینه های زیر صادر شده است:

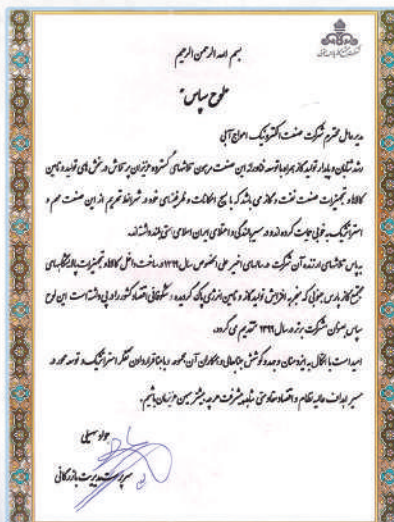
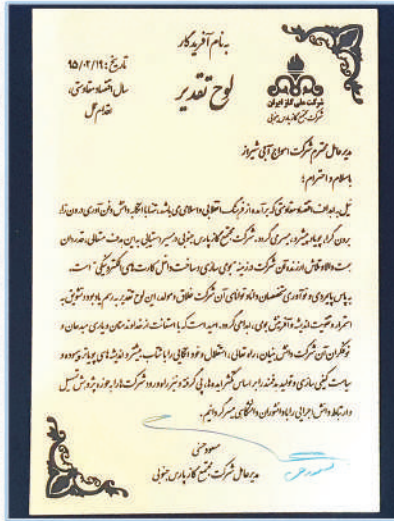
- توانمندی و مهارت کارکنان در زمینه های تخصصی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های مدیریتی و اجرایی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های آموزشی و پژوهشی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های ارتباطی و بازاریابی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های مالی و اقتصادی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های حقوقی و امنیتی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های فرهنگی و اجتماعی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های ورزشی و تفریحی مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های هنری و خلاقانه مرتبط با فعالیت های شرکت.
- توانمندی و مهارت کارکنان در زمینه های سایر موارد مرتبط با فعالیت های شرکت.

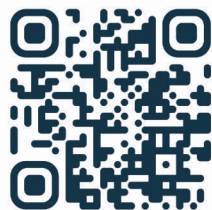
تاریخ صدور سند: 1399/05/20
محل امضاء: تهران

Quality Control According To ISO9001



Appreciation Letters





AMVAJE ABI
ELECTRONICS INDUSTRY

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