

1. TITLE OF THE CERTIFICATE (ES)

**Certificado de Profesionalidad de nivel 3 en
IMAR0109 DESARROLLO DE PROYECTOS DE INSTALACIONES DE CLIMATIZACIÓN Y VENTILACIÓN-EXTRACCIÓN**

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Professional Certificate Level 3 in
IMAR0109 AIR-CONDITIONING AND VENTILATION/EXTRACTION INSTALLATION PROJECTS DEVELOPMENT
(This translation has no legal status)**

3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to develop projects for air-conditioning and ventilation/extraction installation, determining their characteristics, preparing the plans, planning and specifying the assembly and testing protocols, based on an initial design and in accordance with the technical specifications, regulations and established procedures, ensuring the viability, quality and safety of the project and respecting the environment in these installations. This general competence is divided into the following **skills units** (UC):

- Determine the characteristics of air-conditioning systems (UC1164_3).
- Determine the characteristics of ventilation/extraction systems (UC1165_3).
- Determine the characteristics of ancillary electrical installations of thermal systems (UC1161_3).
- Develop the plans for thermal systems (UC1162_3).
- Plan and specify the assembly, testing and protocols for installation of air-conditioning and ventilation/extraction systems (UC1166_3).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Air conditioning systems (MF1164_2).
- Ventilation/extraction systems (MF1165_3).
- Electrical engineering for thermal systems (MF1161_3).
- Graphic representation for thermal systems (MF1162_3).
- Planning of the assembly of air-conditioning and ventilation/extraction systems (MF1166_3).
- Practical training at the workplace in development of air-conditioning and ventilation/extraction installation projects (MP0185)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Identify the operation and characteristics of equipment, machines, elements and accessories of the air conditioning and ventilation/extraction systems, as well as the electrical installations associated with them.
- Prepare the initial designs, assembly plans and detailed plans for the machines and equipment used in the thermal systems, using computer-aided design.
- Prepare the assembly plan for an air-conditioning and ventilation/extraction system, determining the available resources for the assembly.
- Prepare the technical specifications and costs of the assembly and the manual for use and maintenance of the air-conditioning and ventilation/extraction systems.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in the engineering or the technical department of companies related to the installation of air-conditioning and ventilation/extraction systems. In terms of function, the work is in the areas of design, definition and planning of the assembly and maintenance guidelines for air-conditioning and ventilation/extraction systems. It requires the corresponding professional licences to be obtained first. The holder may work in different productive sectors, in engineering companies and companies that assemble air-conditioning and ventilation/extraction systems for industrial processes, processes that are ancillary to production or in buildings. The most pertinent occupations and positions are:

- Draughtsman/designer of air conditioning and ventilation/extraction systems.
- Planner of the assembly of air-conditioning and ventilation/extraction systems.

The holder of this professional certificate has recognition of the basic level training in labour risk prevention, according to Annex IV of the Royal Decree 39/1997 of 17 of January approving the Labour Risks Prevention Act.

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

Level of the certificate

The Professional Certificate Level 3 of the National Repertoire of Professional Certificates corresponds to level 4 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

Access to next level of education/training

This Professional Certificate Level 3 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

Legal basis

Royal Decree 715/2011 of 20 May, establishing ten professional certificates in the professional family Installation and Maintenance, which are included in the National Repertoire of Professional Certificates, and updating the professional certificates established in Royal Decree 1375/2009 of 28 August. (Appendix VI, Code: IMAR0109)

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	86	490
Practical training at the workplace	14	80
Total duration of training leading to the certificate		570

Entry/access requirements:

- *Bachiller* Diploma (upper secondary education); or
- Professional Certificate Level 2 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

Additional information: Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: www.sepe.es

National Europass Centre: www.oapee.es

(*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

