

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
IMAR0209 DESARROLLO DE PROYECTOS DE INSTALACIONES FRIGORÍFICAS

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Professional Certificate Level 2 in  
IMAR0209 REFRIGERATION SYSTEMS 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 refrigeration systems, determining their characteristics, preparing the plans, planning and specifying the assembly and testing protocols, based on an initial design and in accordance to the technical specifications, regulations and procedures laid down, ensuring the viability, quality and safety of the project and limiting the environmental of the systems. This general competence is divided into the following **skills units** (UC):

- Determine the characteristic of refrigeration systems (UC1167\_3).
- Determine the characteristics of the ancillary electrical installations for thermal systems (UC1161\_3).
- Prepare the plans for thermal systems (UC1162\_3).
- Plan and specify the assembly, testing and protocols for refrigeration systems (UC1168\_3).

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

- Refrigeration systems and processes (MF1167\_3).
- Electrical engineering for thermal systems (MF1161\_3).
- Graphic representation for thermal systems (MF1162\_3).
- Planning of the assembly of refrigeration systems (MF1168\_3).
- Practical training at the workplace in refrigeration systems projects development (MP0209)

(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:

- Prepare a general report on a real refrigeration installation by on-site observation and collection of the main technical data.
- Carry out the initial designs, assembly plans and detailed plans for the machines and equipment used in the installation, using computer-aided design.
- Prepare the assembly plan for a refrigeration installation, establishing the available resources for the assembly.
- Prepare the technical specifications and costs of the assembly and the manual for use and maintenance of the refrigeration 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 engineering departments or the technical offices of companies involved in the installation of refrigeration systems. In terms of function, the work is in the areas of design, definition and planning of the assembly and the maintenance guidelines for refrigeration systems. It requires the corresponding professional licences to be obtained first. The work may be in different productive sectors, in engineering companies and companies that assemble refrigeration systems for industrial processes, that are ancillary to production or are in buildings. The most pertinent occupations and positions are:

- Refrigeration system design draughtsman.
- Refrigeration system assembly planner.

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 2 of the National Repertoire of Professional Certificates corresponds to level 3 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 2 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.

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 VII, Code: IMAR0209)

## 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
<b>Total duration of training leading to the certificate</b>		<b>570</b>

### Entry/access requirements:

- Compulsory Secondary Education Diploma (Lower secondary education); or
- Professional Certificate Level 1 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

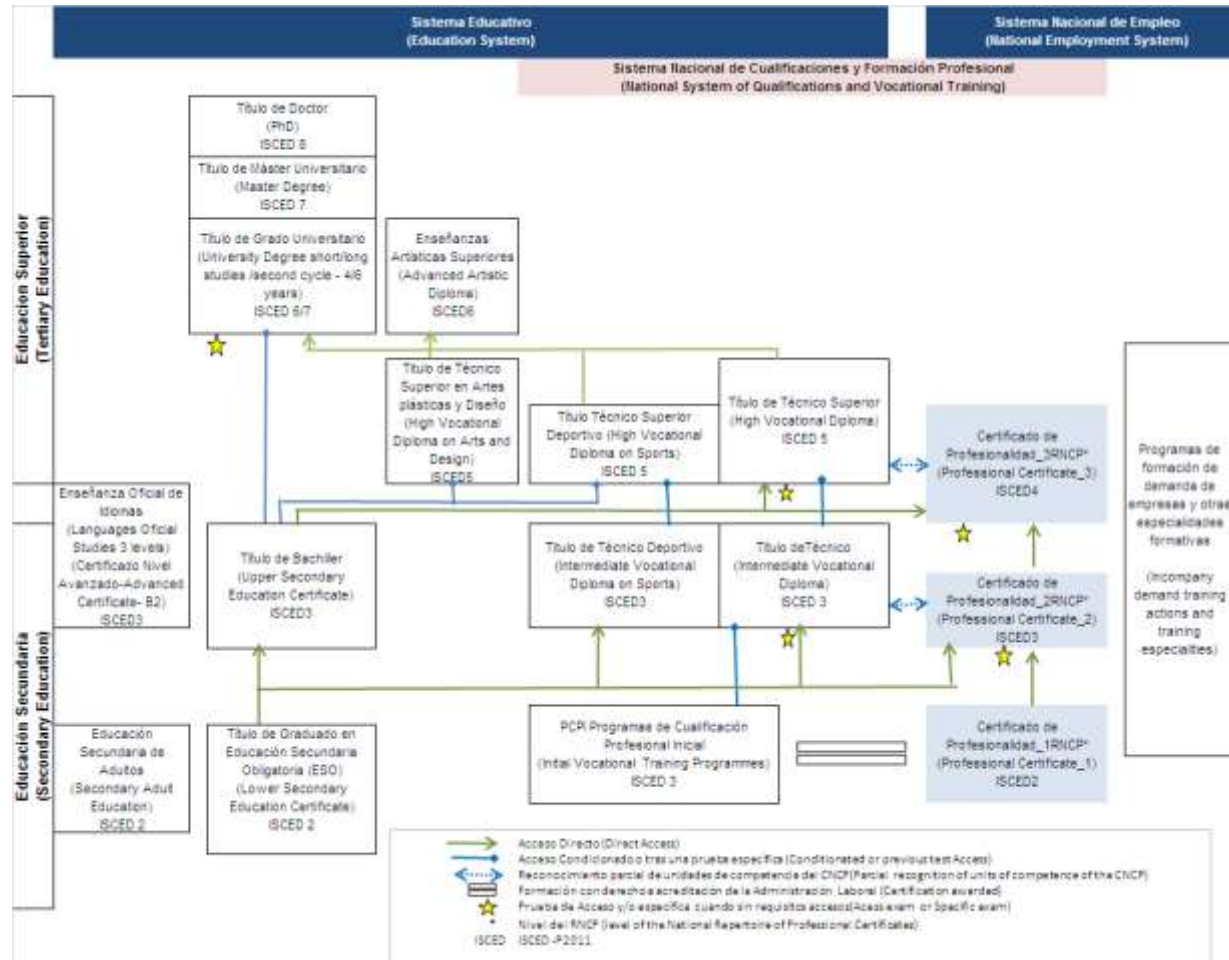
**Additional information:** Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional 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](http://www.sepe.es)




National Europass Centre: [www.oapee.es](http://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



 Acceso Directo (Direct Access)  
 Acceso Condicionado tras una prueba específica (Conditioned or previous test Access)  
 Reconocimiento parcial de unidades de competencia del CNCF (Partial recognition of units of competence of the CNCF)  
 Formación con derecho a acreditación de la Administración Laboral (Certificat on awarded)  
 Prueba de Acceso y/o específica cuando sin requisitos de acceso (Access exam or specific exam)  
 Nivel del RNCF (level of the National Reference of Professional Certificates)  
 ISCED -P2011