

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
ENAE0108 MONTAJE Y MANTENIMIENTO DE INSTALACIONES SOLARES FOTOVOLTAICAS

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

Professional Certificate Level 2 in  
ENAE0108 INSTALLATION AND MAINTENANCE OF PHOTOVOLTAIC SOLAR SYSTEMS  
(This translation has no legal status)

## 3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to carry out, under supervision, the installation, commissioning, operation and maintenance of photovoltaic solar systems with the quality and safety required and complying with current law. This general competence is divided into the following **skills units** (UC):

- Prepare the on-site layout of the photovoltaic solar systems (UC0835\_2).
- Install photovoltaic solar systems (UC0836\_2).
- Maintain photovoltaic solar systems (UC0837\_2).

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

- On-site layout of photovoltaic solar systems (MDF0835\_2).
- Installation of photovoltaic solar systems (MDF0836\_2).
- Maintenance of photovoltaic solar systems (MDF0837\_2)
- Practical training at the workplace the installation and maintenance of photovoltaic solar systems  
(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:

- Interpret project designs and technical reports, collaborate on the installation of structures, mechanical installation, electrical installation and maintenance operations in photovoltaic solar systems connected to the power grid with a monitoring system, and a minimum photovoltaic power of 750 W.
- Interpret project designs and technical reports, collaborate on the installation of structures, mechanical installation, electrical installation and maintenance operations in stand-alone solar systems with an energy support system, of a minimum photovoltaic power of 250 W, a minimum cell capacity of 500 Amp-hr and support through a wind power system with a minimum power of 100 W and an electrogen group.
- Collaborate on corrective maintenance operations on the photovoltaic solar systems according to established procedures to return them to their operational state within established parameters.
- 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 companies dedicated to the promotion, installation, operation and maintenance of photovoltaic solar systems for the production of electrical energy, both in installations connected to the power grid and in stand-alone installations with or without a support system. The holder may work in the energy sector, in the sub-sector of renewable energies. The most pertinent occupations and positions are:

- Solar energy panel installer.
- Photovoltaic solar system installer.
- Photovoltaic and wind energy installer.
- Photovoltaic solar plant operator.
- Photovoltaic solar system operator.

The low-voltage electro technical activities of the related occupations have specific requirements established by the competent bodies in the *Reglamento Electrotécnico para Baja Tensión (Spanish acronym REBT)* and will be done *under the supervision of an authorized specialized electrical installer (Spanish acronym IBTE)*. 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.

### Legal basis

Royal Decree 1381/2008 of 1 August, establishing two professional certificates in the professional family Energy and Water, which are included in the National Repertoire of Professional Certificates.(Appendix I, Code: ENAE0108).

Modified by Royal Decree 617/2013 of 2 August, establishing one professional certificates in the professional family Energy and water, which are included in the National Repertoire of Professional Certificates, and updating the professional certificates established as Appendix I, of Royal Decree 1967/2008 of 28 of November and Appendix I of the Royal Decree 1381/2008 of 1st of August.

## 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	78	420
Practical training at the workplace	22	120
<b>Total duration of training leading to the certificate</b>		<b>540</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

