

FREE GUIDE

# The 10 costly mistakes with solar panels on the Costa Blanca

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# Before you start

Solar panels on the Costa Blanca are an excellent investment — but only if you make the right choices. And that's exactly where it often goes wrong. Not because it's complicated, but because the rules here are different from back home: different laws, a different climate, and — unfortunately — installers who take advantage of that.

This guide isn't a sales pitch. We'll show you the ten pitfalls we see people on the coast fall into most often — and how to avoid them. So that when a quote lands on your desk, you can judge it with confidence rather than on a gut feeling.

You don't have to decide anything yet. Read at your own pace, and come back when you're ready.

In this guide:

- how to spot an installation that quietly costs you money years later;
- which choices really matter on this coast, and which are mostly marketing;
- the questions to ask an installer before you sign.

# 1. The legalisation trap

## — WHAT LEGALISATION COVERS — UP TO 10 KW

01

Memoria  
técnica

02

Boletín

03

Industria  
registration

04

Compensación

**Your solar system is only truly yours once it's officially registered — and forgetting or fumbling that is what costs people here the most.** Putting panels on your roof is one thing. Registering them legally with the authorities is another, and just as important.

Legalising an installation involves more than a single form:

- a **technical file** describing the system (the *memoria técnica*);
- the **boletín** — the official certificate confirming your system is safe and up to standard;
- **registration with Industria** (your region's industry authority) and the self-consumption (*autoconsumo*) sign-up;
- the **compensación** — the credit you get for the power you feed back to the grid. This is the one thing you arrange yourself: you agree it in your own contract with your energy supplier; the other three are a professional's job.

This list is for systems up to 10 kW — the size of most homes. If you need more than that, above 10 kW, two things are added that genuinely belong there: a full *proyecto* signed by an **engineer**, and an installer with the **especialista** qualification. No better or worse than a smaller system — but these extra steps matter and have to be right.

Paperwork you needn't worry about, you might think. Until something goes wrong.

## What a missing or botched legalisation costs you:

- **A fine** — from hundreds to thousands of euros, and in the worst case the system has to come back down.
- **A house you can't sell** — if your system isn't on the register, buyers will insist it's legalised first. That lowers the value and delays the sale.
- **An insurance claim that's refused** — without the right papers, you're on shaky ground if something goes wrong.
- **No credit for your surplus** — without registration you get no compensación for the power you feed back. You miss out on years of savings.

*A system that's technically fine but administratively wrong will come back to bite you years later — right when you can least use the hassle.*

**What to check.** The boletín can't be signed by just anyone. That has to be a **registered installer** — in Spain an *instalador habilitado* — who actually did the work himself. A signature under someone else's work is not a valid certification. So always ask: *who signs my boletín, and are they registered?* If you don't get a clear answer, that's a red flag.

## 2. The panel that won't survive the coast

### — OUTPUT AFTER 25-30 YEARS



Degradation per year: **0,4-0,5%** glass-glass · **0,7%** glass-foil

**Two panels can look identical on a quote — same wattage, almost the same price — and still differ by years in how long they last.** On the coast, with the sun, the sea salt and the humidity, that difference is big. It comes down to the type of panel.

There are broadly two kinds:

- **Glass-foil** — a glass sheet on the front, a thin plastic **foil** on the back. The cheapest type, and what many installers fit as standard.
- **Glass-glass** — two layers of glass, with the solar cells safely sandwiched between them. A little dearer, but built to last.

**Why this matters especially here.** Heat, sea salt and humidity are at work all summer long — and that's exactly where glass-glass wins:

- **It lasts longer.** Glass-glass loses about 0.4-0.5% of its output a year; glass-foil closer to 0.7%. After 25-30 years glass-glass still delivers around 87% of day one, against roughly 80-84% for glass-foil — and that gap widens every year.

- **It's tougher.** The cells sit clamped between two sheets of glass, so glass-glass picks up far fewer of the hairline cracks (*microcracks*) that happen during transport and fitting — for instance when a fitter rests a knee on a panel. You never see them, but they quietly eat into your output.
- **No moisture gets in.** Glass keeps moisture out; a foil backing lets it seep in slowly over the years. In a damp, salty climate that's the difference between a panel that keeps performing and one that fades early.
- **It's safer in a fire.** Glass doesn't burn, and there's no combustible foil backing to catch fire or drip burning plastic.

**The pitfall.** The cheaper glass-foil panel looks the same on paper and costs a touch less — so it slips onto a quote. You won't notice today, but over the years: less output, a shorter life, and damage your warranty only partly covers — because manufacturers can blame moisture or heat damage on “the climate”. The cheap choice is one you pay for later on this coast.

**What to check on a quote.** Simply ask:

- Is it a **glass-glass** or a glass-foil panel?
- What's the **product warranty** (in years) and the **performance warranty** (what percentage after 25 or 30 years)?

Glass-foil isn't worthless — in a mild climate it's fine. But on the Costa Blanca, with this sun and this sea salt, glass-glass is simply the panel that goes the distance.

### 3. Spot the cowboy before you sign

#### — 3 CHECKS BEFORE YOU SIGN

- ✓ Who signs your **boletín** — and are they registered?
- ✓ Is everything **in writing** before you pay a deposit?
- ✓ You **never pay it all up front** (20–50% is normal).

**Where there's plenty of sun, there are chancers too.** Alongside the good tradespeople, the coast also has installers who take your deposit and vanish, work with cheap kit, or leave you with a system that was never legalised. The good news: you can usually spot them before you sign — if you know what to look for.

#### The tricks to recognise:

- **Door-to-door and “today only”.** A discount that expires tomorrow, pressure to sign now. An honest installer gives you time to compare.
- **A large deposit up front.** The classic: a lot of money up front, then delays or nothing. Whole networks have collected deposits this way and never delivered.
- **Everyone points at everyone else.** The salesperson sells, rotating subcontractors install, and if something goes wrong, no one feels responsible. Without a single point of contact, you're left empty-handed.
- **No clarity about the qualification.** Can the company not say clearly who signs your *boletín* and whether they're registered? Red flag (see chapter 1).
- **A price that's too good to be true.** Often that means used or no-name panels — cheap now, no warranty later (see chapter 2).

- **Tied financing.** Be wary of a loan bound to the installer: if they go under, you keep paying the loan.

### How to protect yourself:

- **Check the basics** — is the company registered, insured, and does it have a track record you can verify (real projects, real reviews)?
- **Who signs your boletín?** It has to be a registered installer who did the work themselves — a signature under someone else's work is actually a crime. No clear answer? Walk away.
- **Everything in writing.** A written quote or contract before you pay a cent, with the legalisation (CIE + registration) explicitly included as part of the job.
- **Never pay everything up front.** On the Costa Blanca a deposit of roughly **20–50%** is normal, with the rest on a working handover. Hold back a **final part until you have the boletín and the registration proof** — which an installer usually emails within about three weeks. Always by bank transfer to the company account, never cash at the door (that last one also matters for your tax deduction).
- **One point of contact** who stays responsible, from quote to aftercare.

**A word on the timing of the papers.** You'll usually get the **boletín and the registration proof** by email from your installer within about three weeks — those are the papers that make your system legal, and what you tie your final payment to. The **feed-in credit** doesn't follow automatically: your installer arranges the grid connection and registers you with the grid operator (you don't have to do that yourself), but you sign the **feed-in contract yourself with your energy supplier** — your installer usually helps. Expect the whole thing to take a few months before the credit shows up on your bill.

Feeling pressure, vagueness about the papers, or a deposit that doesn't sit right? That's your cue to keep looking. A good installer has no trouble with any of these questions — it's the cowboy who starts talking in circles.

## 4. High voltage on your roof

### — HOW YOUR ROOF STAYS SAFE

- ✓ **Microinverters** — never high voltage on your roof
- ✓ **String + optimisers** — voltage drops at each panel
- ✓ **Plain string** — only with rapid shutdown + arc-fault detection

**How your panels' power is converted has a lot to do with how safe your system is.** Your panels produce direct current (DC) at a fairly high voltage — easily several hundred volts. That high-voltage DC is where a **DC arc** can start: a spark that's harder to put out than with alternating current, and one of the main causes of solar fires. So the real question is: **how is that high voltage kept safe on your roof?** There are broadly three approaches:

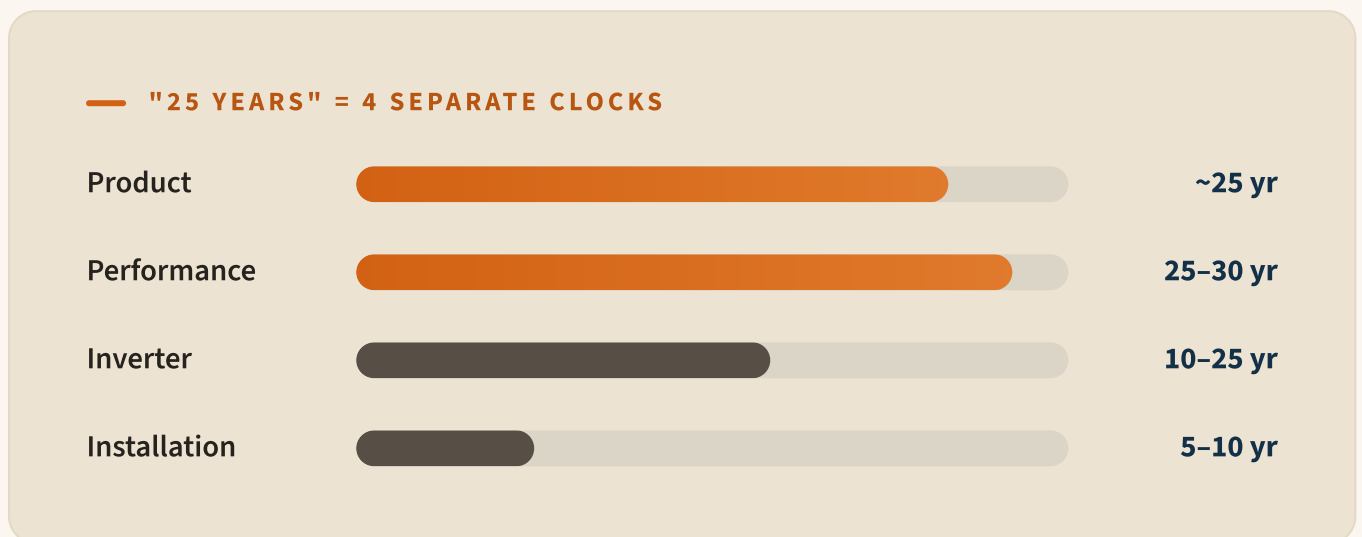
- **A plain string inverter** — all panels in series, the high-voltage DC running to one central box. Safe, provided it has a **rapid shutdown** and **arc-fault detection** that cut the power if something goes wrong. Without those, the high voltage stays live — that's the pitfall.
- **A string with power optimisers** — a small box under each panel (standard on some systems, optional on others). If there's a fault or a shutdown, the voltage **drops to a safe level at each panel** within seconds, plus arc-fault detection. So the high voltage is only present while it's running, and switches off safely if anything goes wrong. Bonus: each panel is measured and optimised on its own — handy with shade.
- **Microinverters** — these convert the power to AC right at the panel, so there's **never** any high-voltage DC on your roof, not even in operation. No inverter box in the house, no DC cabling through your home, and in Spain no separate DC surge protection needed. And if one fails, the rest keep producing.

**So the real question isn't "micro or string", but: how is my roof kept safe?** All three can be safe when done properly. Microinverters are the safest by design (never high voltage), optimisers make a string both safe and smart, and a plain string is safe as long as the rapid shutdown and arc-fault detection are there. It's a trade-off: micros and optimisers cost more but add safety and resilience; a plain string is cheaper and simpler.

**The pitfall** is a **plain string installation where those safety features have been skimmed on** — then the high-voltage DC sits unprotected on your roof. Not the type itself, but leaving out the protection.

**What to check.** Ask how your roof is kept safe: **microinverters, power optimisers, or — with a plain string — a rapid shutdown plus arc-fault detection.** Don't accept a bare string without them.

## 5. The warranty that's worthless



“25-year warranty” sounds reassuring — but on paper it’s a very different thing from in **practice**. It isn’t one warranty, but a stack of separate promises, each with its own term, its own exclusions, and its own company to honour it. And that’s exactly where the pitfalls hide.

**It’s a bundle, not a promise.** A typical “25 years” is made up of:

- **product warranty** on the panels (~25 years) — from the **manufacturer**;
- **performance warranty** (output above a set percentage, 25–30 years) — also the manufacturer;
- **inverter warranty** (10–12 years for a string, up to 25 for microinverters) — the inverter manufacturer;
- **installation/workmanship warranty** (5–10 years) — your **installer**.

Four clocks running separately, from three different companies.

## Where it goes wrong:

- **Labour and shipping usually aren't included.** The manufacturer replaces a faulty panel for free — but taking it off your roof, shipping it and fitting the new one (easily hundreds of euros) is on you, unless a separate labour allowance applies. And that often runs only 2 to 12 years — far shorter than the 25.
- **Your claim goes through your installer.** A product claim almost always goes via a registered installer: they diagnose the fault, handle the return to the manufacturer, take the panel off and fit the new one. In the early years they usually do all of it; after that the cost and hassle shift to you. If your installer disappears, you're on your own as a layperson.
- **Will the company still exist?** The panel maker, the inverter maker and your installer are three separate parties — and the odds are that in twenty years only one of the three is still around. A warranty from a company that's gone is a piece of paper.
- **The small print.** Excluded are, among others, hairline cracks from handling, environmental damage, damage from lightning or surges, and a **missed registration** (the window is often 45 days or less). And the burden of proving it's a manufacturing fault — and not something else — is on you.

**What to check.** Don't ask "how many years' warranty", but:

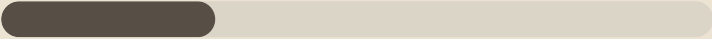
- what's **actually covered** — product, performance, inverter and installation, each for how many years;
- are **labour and shipping** included, and for how long;
- and above all: **how often does this kit actually fail?**

**The real answer: parts that hardly ever fail.** A warranty only helps you *after* something breaks — far better that (almost) nothing breaks. And there's a big difference between brands: over years of failure data, the better inverter technology shows many times fewer faults than the cheap kind. Choose parts with a proven low failure rate and a claim is rare in the first place — and that's worth more than the longest piece of paper. (*Almost* nothing, mind you: no brand *never* fails, so it also matters whether the company is still around in years to come to honour the claim.)

So ask which brands your installer works with **consistently** — a deliberately chosen set, not whatever's cheapest each time — and *why* those. A good installer explains it **on the merits**, often on a brands or products page: why these panels, why this inverter, what the failure figures are. Not sales talk, but an explanation. Someone who can do that has thought about what's still running in fifteen years.

## 6. Buying too big

### — WHAT YOUR POWER IS WORTH

|                 |                                                                                    |            |
|-----------------|------------------------------------------------------------------------------------|------------|
| Use it yourself |  | full price |
| Feed it back    |  | €0,05–0,10 |

**2 to 5× more worth** using your power yourself.

**More panels isn't automatically better — in Spain you lose money on every kWh you don't use yourself.** An installer who earns per panel is happy to fill your roof. But what you feed back to the grid earns a fraction of what that same power saves you when you use it yourself. A system bigger than your usage is partly money evaporating on your roof.

**Using it yourself is worth 2 to 5 times more than feeding it back.**

- What you **use directly** saves you the full price of electricity.
- What you **feed back** is credited at around **€0.05 to €0.10 per kWh** — often less. So on everything you export you lose roughly half to three-quarters of the value.

**And two catches make it worse:**

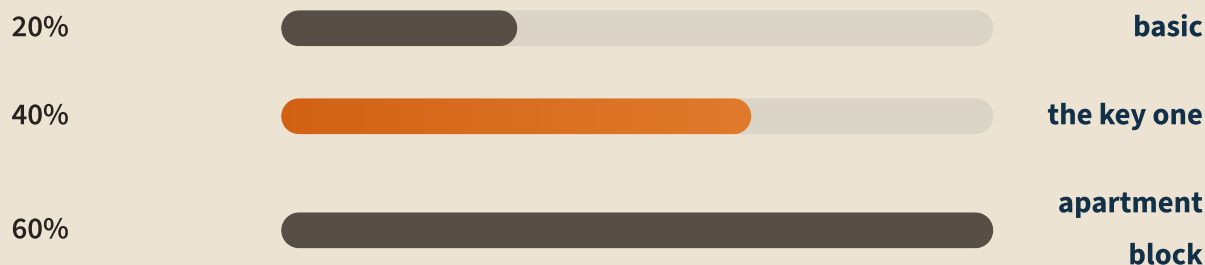
- **A monthly cap.** The credit for your surplus can never exceed what you drew from the grid that month. Your electricity cost can drop to zero, but no lower — beyond your own usage you get nothing. Overproduce heavily and that extra surplus simply evaporates.
- **No rolling over to winter.** It's settled month by month; a surplus doesn't carry to the next month. Your summer peak — exactly when your panels produce most — doesn't offset your winter use.

**But don't go too small either.** It's not about "as few panels as possible", but the right size. Sizing a little generously makes sense if you have a concrete future in mind: an electric car, a heat pump, air conditioning, or a **battery** that stores your surplus instead of exporting it cheaply (see chapter 8). Some energy suppliers also offer a *batería virtual* that banks the value of your surplus for later bills. The trick is to match your **actual usage and when you use it** — deliberately, not to whatever happens to fit on your roof.

**What to check.** Does the installer ask about your **usage and your annual bill**, or name a number of panels straight away? Anyone proposing a system without your figures is filling your roof. Someone who asks first — and weighs when you use power, daytime or evening, summer or winter — is sizing it to you. Also ask for an estimate of how much you'll use yourself and how much you'll export; an honest answer there says more than the panel count.

## 7. Money left on the table

### — IRPF DEDUCTION — UNTIL END OF 2026



Plus **IBI/ICIO** per council (up to 50%).

**The savings aren't only in your electricity bill — there are tax breaks and council discounts you can easily miss.** They're scattered, tied to conditions and deadlines, and they vary by town. Anyone who doesn't actively chase them leaves hundreds to thousands of euros on the table. And it cuts both ways: you miss what you're entitled to, or an installer lures you with a grant that closed long ago.

### What's really available in 2026:

- **A deduction on your income tax (IRPF).** Still valid until the end of 2026: a **20 to 60% deduction**, depending on how much more energy-efficient your home becomes — the key band is 40%, for a substantial improvement or an A or B energy rating. Two things to know. **One:** it's not a deduction "for panels", but for a *proven* improvement — for which you need an **energy certificate before and after** the installation. **Two:** you can only use this deduction if you **pay income tax in Spain** (a tax resident) and it's your main home or you rent it out. If you're not a tax resident here and it's a second home, this deduction falls away — but the council discounts below still apply.

- **Discounts on council taxes (IBI and ICIO).** Many councils give a discount on property tax (IBI) and building tax (ICIO) — sometimes up to 50%, often for a few years and with a cap. But this **varies by town**: one gives generously, another nothing. Ask at your own ayuntamiento, usually within a deadline after installation.
- **Direct grants — mostly closed.** The big European fund closed at the end of 2023. Regional rounds pop up now and then (up to 40%, with a cap), but they run out fast. Don't count on it; check what's open at the time.
- **Businesses** have their own perks — accelerated depreciation and sometimes a higher ICIO discount; have an adviser look into it.

**The key tip: the certificate before installation.** The biggest deduction hangs on proving your home became more energy-efficient — and you can only show that with an energy certificate from **before** the installation and one from after. Forget that “before” reading and the deduction is gone, with nothing to be done about it afterwards. This is the mistake that costs most people money. *(Already have a valid energy label? That often counts as the “before” reading.)*

**What to check.** Does the installer (or a grants specialist they work with) work out what's open for your town and your situation, and handle the paperwork and the timing of that certificate? And just as important: do they avoid promising a grant that's closed? Get the benefits **in writing**, with amounts and deadlines — a vague “you'll surely get a grant” is a red flag, not a commitment.

## 8. Do you need a battery?

### — DOES A BATTERY FIT YOU?

#### Smart if you...

- ✓ use a lot of power in the evening and at night
- ✓ have frequent power cuts or want backup
- ✓ are off-grid
- ✓ want to hedge against price rises

#### Less needed if you...

- are mostly home during the day
- have a stable, strong grid

**A battery is a big, personal choice — and exactly why it's so often handled wrong.** It gets sold as standard, or left out without explanation. The honest question isn't "do you want a battery", but "does it fit how *you* use your power and what you want from it?"

#### The pitfall cuts both ways:

- you get a **battery pushed on you that doesn't fit you** — you're home during the day, the grid is stable, and you don't really need it;
- or you're told "**you don't need one**", **when it would actually help** — lots of evening use, frequent power cuts, a weak grid, or off-grid. Some installers skip it because it complicates the job.

**It's a serious extra investment** — so let it answer a real need of *yours*, not a default checkbox in the quote or a subsidy you're chasing. What matters isn't the sum, but your situation.

**When a battery does make sense.** Not for the money, but for what you gain:

- you use a lot of power **in the evening and at night**, when your panels produce nothing;
- there are regular **power cuts** or the grid is weak, and you want a backup;
- you're **off-grid** — then a battery is simply essential;
- you want to hedge against future price rises and use as much of your own power as possible.

**The smart middle way.** Undecided? You don't have to decide everything now. Choose a **battery-ready (hybrid) inverter**, and you can add a battery later once your situation changes — you move here full-time, or buy an electric car. And purely for the savings there's the *batería virtual*: your energy supplier banks the value of your surplus in euros for later bills, without you buying a physical battery.

**What to check.** Does the installer ask **when** you use power, and whether power cuts are an issue for you? And does he honestly explain when a battery does and doesn't add value for you? Anyone who rings up an expensive battery as standard — or leaves it out without explanation — isn't sizing it to you. Also ask whether the inverter is battery-ready, so the door stays open later.

## 9. The quote that balloons

### — WHAT OFTEN FALLS OUTSIDE THE "FROM" PRICE

- |                               |                  |
|-------------------------------|------------------|
| ✓ Legalisation + registration | ✓ Scaffolding    |
| ✓ Consumer-unit upgrade       | ✓ Longer cabling |
| ✓ Roof type / construction    | ✓ IVA (21%)      |

**A quote is only a price once you know what's in it.** The last pitfall is the low “from” price that climbs by itself as the extras land — because the very things that make *your* installation real weren't in it. A cheap and an expensive quote often aren't even comparing the same thing: one is all-in, the other a stripped-down teaser. Going by the bottom line is exactly the trap.

### What often sits outside the “from” price:

- **Legalisation and registration** — the papers from chapter 1, which often aren't included by default;
- **A consumer-unit upgrade** — if your electrical panel isn't ready for solar, that comes on top separately;
- **Your roof type** — a tiled or flat roof needs different, dearer mounting than a simple pitched roof;
- **Scaffolding** — for a high or hard-to-reach roof;
- **Longer cabling or trenching** — if the inverter sits further away, or for a ground-mounted array;
- **Above 10 kW** — then an engineer's project is added (chapter 1);

- **The IVA (21% VAT)** — a price “plus IVA” is a fifth higher than it looks;
- **A battery, optimisers or an EV charger** — as “options” that seemed included.

**What to check.** Ask for a **fixed, itemised, all-in quote**: panels, inverter, the mounting for *your* roof, cabling, labour, legalisation and registration, a consumer-unit upgrade if needed, scaffolding, and the IVA — everything in. Does it say “from”, “plus IVA” or “excluding legalisation”? Then get, in black and white, what’s included and what isn’t, with a fixed price. That way you know €X really is €X — and you can lay two quotes side by side fairly.

## 10. Certified doesn't mean well-fitted

### — THE INVISIBLE CRAFTSMANSHIP

**±25%** of all solar fires in Europe are caused by **connectors**.

- ✓ Connectors crimped properly
- ✓ Earthed frames + rails
- ✓ No induction loop
- ✓ Handover document with photos

**The most dangerous faults on your roof are the ones you never see.** They're behind the panels, in the connectors, in how the cables are run. An installer can have all the papers and certificates — but a certificate proves someone is *allowed* to do the work, not that it was done well on *your* roof. And it's that workmanship that decides whether your system is still running safely in ten years.

**The invisible craftsmanship.** This is the work that separates a solid installation from a risky one — and that you never get to see:

- **The connectors** (the MC4 plugs between the panels) are crimped with the right tool and technique, and you never mix brands. A badly crimped or mixed connector can sustain an arc for *hours* behind your panel — connectors are involved in about a quarter of all solar fires in Europe.
- **The DC cables** run positive and negative tightly together, so there's no big "loop" that builds up dangerous voltages in a thunderstorm — and they're the right thickness, not the thinnest to save money.

- **With microinverters**, the wiring meets in a junction box on the roof — which should be sealed watertight with resin, so no moisture reaches the connection.
- **The strings are labelled**, so later maintenance is safe and quick.
- **The protection** suits a solar system — chosen for *your* inverter, not just a standard household trip switch that either keeps tripping or fails to protect.
- **The frames and the rails are earthed** — required in Spain, and vital should a cable ever come loose.

**The solution: have it proven to you.** You can't check any of this yourself — but a good installer makes it visible. There's even an international standard for it (IEC 62446): after the installation, the installer should hand you a **handover document** with **photos** of exactly these points, the measured test values, the warranties and the manuals. At a proper handover the installer goes through that document **with you**, you both **sign it digitally**, and you get it straight **in your own inbox** — your proof it was fitted well, and your file for later maintenance.

**What to check.** Ask: *“Do I get a handover document with photos of the installation?”* A simple “yes, we're certified” is not proof. A signed handover file — with pictures of the connectors, the earthing and the finish — is, and it tells you at once that this installer has nothing to hide.

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# In closing

Ten pitfalls — and one thread runs through them all: **a good installer doesn't get nervous at these questions, but is happy to answer them.** The papers, the panel type, the safety on your roof, the warranty, the right size, the grants, the battery, a clear all-in quote and the proof that it was fitted well — anyone who takes the trade seriously explains it before you sign. Anyone who dodges is telling you plenty already.

You don't have to become an expert. With the questions from this guide in hand, you'll spot the difference yourself between someone selling you something and someone fitting it well for you.

*This guide was made by Solarfit — solar panel installer on the Costa Blanca. Would you like to run through these ten points for your own roof? Ask for a no-obligation consultation, in your own language — with no strings attached.*

Ready for the next step? Visit [solar-fit.es](https://solar-fit.es) or request your free, no-obligation advice right away:

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