

Choosing the Right PV System | Guide List

This Guide provides a checklist of the key parameters to look for when selecting your PV System.

- ✔ PV modules are of mono-crystalline, poly-crystalline Silicon technology (TopCon, PERC, PERT, HJT).
- ✔ PV modules have at least a half-cut design
- ✔ PV module power capacity is > 400 W and efficiency > 21%
- ✔ Power temperature coefficient is < -0.4 %/°C with NOCT <45°C (±2°C)
- ✔ PV module general certifications:
 - EN 50380
 - IEC 61215
 - IEC 61730
 - Class II Equipment certificate
 - CE marking
- Additional test standards:
 - Certified for salt mist corrosion test – IEC 61701
 - Certified for potential induced degradation (PID) – IEC 62804
 - Certified for ammonia corrosion – IEC 62716
- ✔ PV module product warranty ≥ 10 years
- ✔ PV module performance guarantee for:
 - First year: > 98%
 - After first year: < 0.5% annual degradation
- ✔ Inverter is transformer-less
- ✔ Inverter Maximum Efficiency ≥98% and European Efficiency ≥97%
- ✔ Inverter has wired or wireless communication for monitoring
- ✔ Inverter general certifications:
 - EN 61000-6-1 or EN61000-6-2 (immunity)
 - EN 61000-6-3 or EN61000-6-4 (emissions)
 - EN 61010-1 (safety requirements)
 - EN 62109 (PV converters)
 - CE marking
- ✔ Inverter product warranty ≥ 10 years
- ✔ PV module and inverter manufacturers have relevant ISO 9001 certifications
- ✔ PV module and inverter manufacturers are Tier-1 (BNEF)
- ✔ Frame structures are made of anodized Aluminium alloy or hot dip galvanized steel
- ✔ Mounting structure product warranty > 20 years
- ✔ Installation companies must have experience in the field, ease of communication and reach, and low time for error resolution.
- ✔ Ensure monitoring of energy yield (at least inverter monitoring)