



Deliverable Report

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Executive Summary

Framed PV module design has not really changed over the years except for growing in size up to today's standard 60 and 72 cells modules containing 6 inch PV cells. For that reason PV modules and systems are not user- or application friendly products.

This document specifies, as much as possible, the functionality requirements and the performance specifications for the new PV module, individual module components, as well as complete assembly. The overall aim is to deliver: a) lower PV system weight per m², b) plug-&-play installation features, c) more flexibility in terms of module dimensions, d) better aesthetics, and e) low costs. The new multi-functional PV module technology platform should be able to deal with flat roof, pitched roofs, and cladding applications having perfect aesthetics and low system costs.

It is obvious that the new frameless PV module construction should fulfil the mechanical stability and safety requirements of the PV industry IEC 61215 and IEC 61730, but should also incorporate all building requirements and well as many "smart PV module" functional requirements and wishes. A good solution requires an innovative system design that takes into account all these in order to accomplish step-change improvement of functionality and cost efficiency.

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