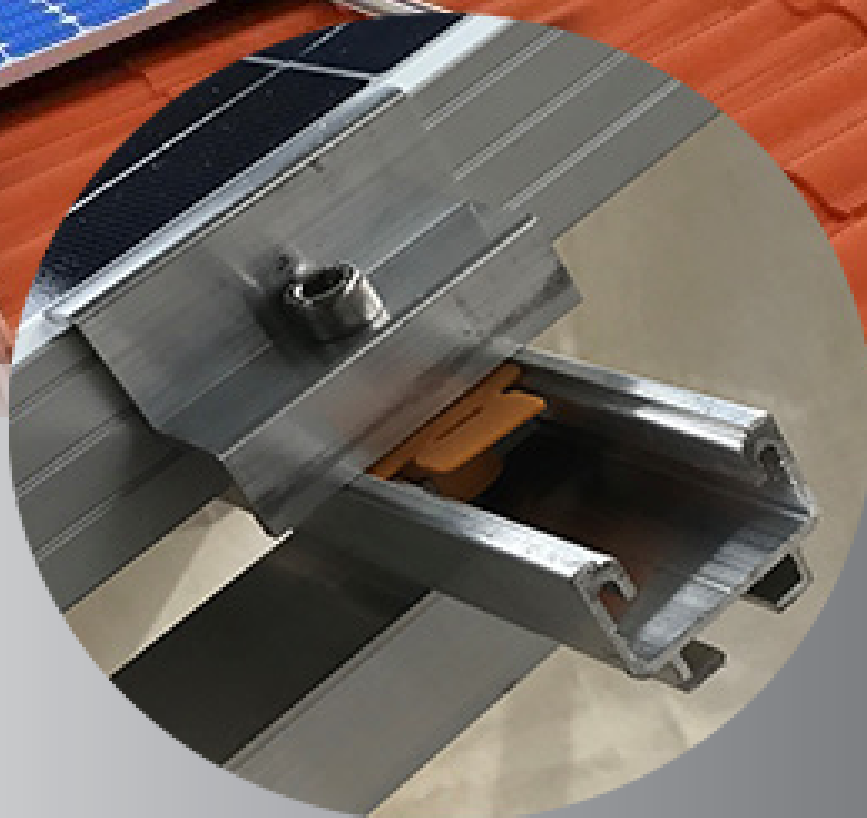
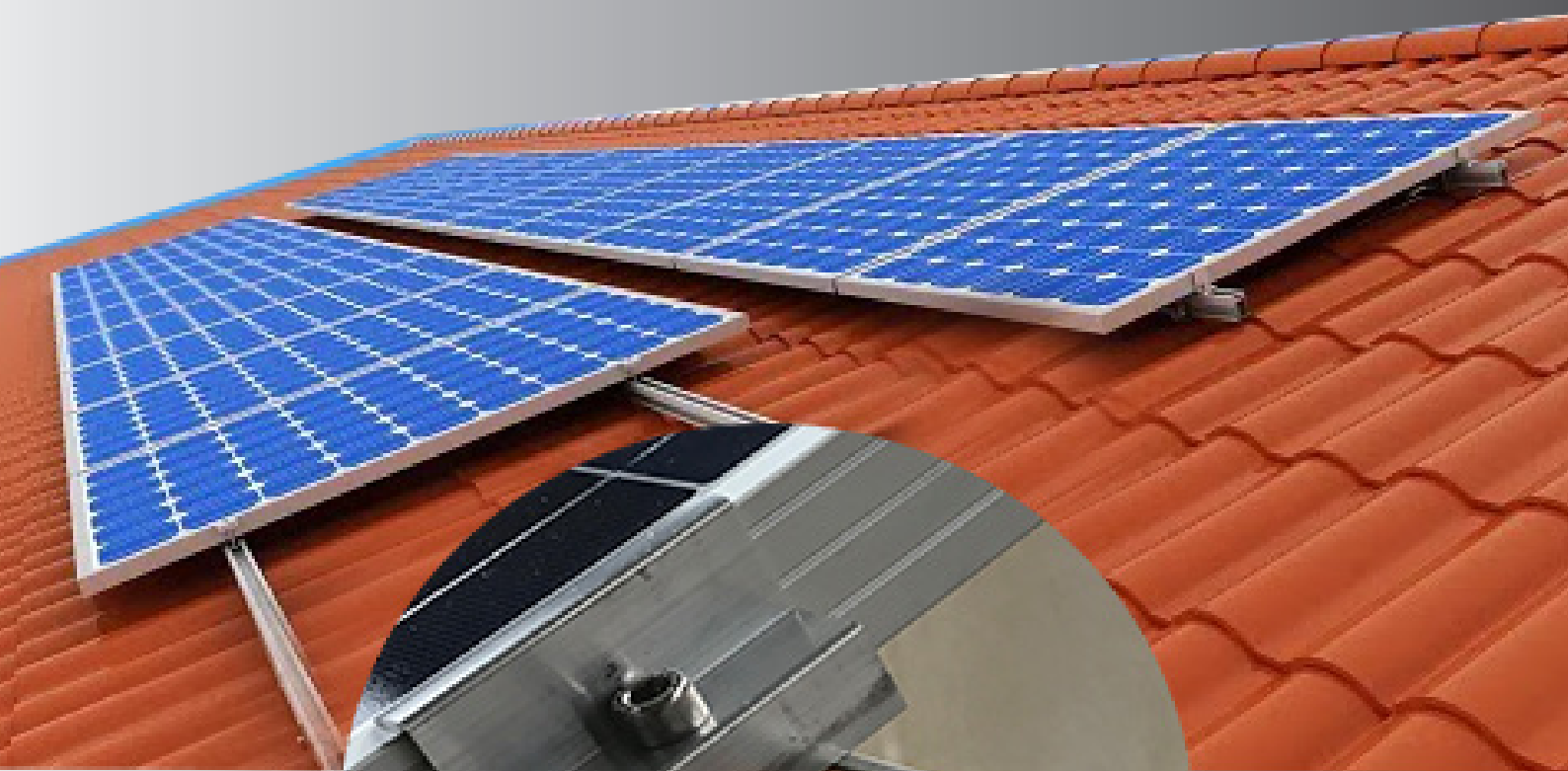


INSTALLATION GUIDE

EASY ROOF



ES ENERGY SYSTEMS

Energy Systems is a company with main office and headquarters located in Braga, within the north Portugal region. We are specialists in the development and production of photovoltaic mounting systems and carport structures, with standard or tailored solutions. Our main focus is to offer high quality and reliability products, that satisfy our customers needs. We have our own production and engineering departments, with experienced professionals and always acting according with the Eurocode rules and standards. We develop and produce components and mounting systems with guarantee of high performance. All our products are designed and developed to become the assembly easier and faster, reducing the time spent on installation.

info@energysystems.pt



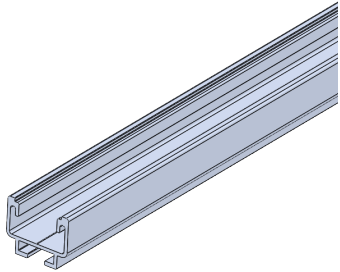
+351 963 314 290



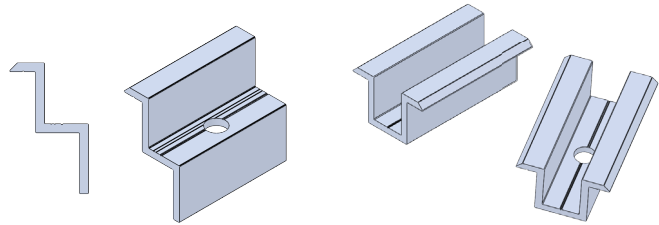
Easy Roof

The Easy Roof is produced under a rigorous process of engineering and quality, which ensure an excellent performance in the fixation of photovoltaic modules on ceramic roofs. The rail is made of extruded aluminium (EN AW-6060) with thermal treatments (EN 573-3 and EN 755-2) and it has 15 years of manufacturing warranty. All the accessories are made of Stainless Steel A2, following the DIN ISO 4759/1 and DIN 267/2 rules. The Easy Roof has a wind load for a maximum height of 9m and in type II exposure in compliance with Eurocode, maximum wind speed according to structure calculation, for maximum inclination up to 35°. Snow load: 1 kN/m² for locations under 1.000 m above the sea level. Easy assembly structure with no need to drill or cut between every component that holds that same structure.

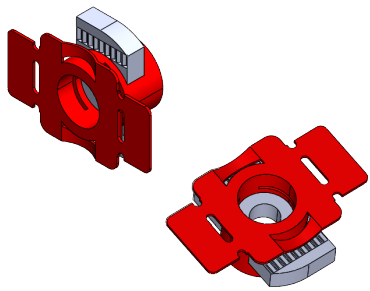
List of components



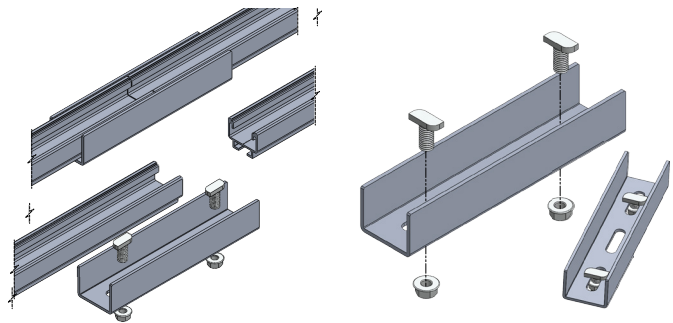
Aluminum Profile Easy Roof
4.8m (optional sizes);



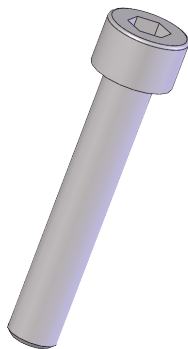
End and Middle clamps;



Nuts with plastic clip;



Connector Kit;

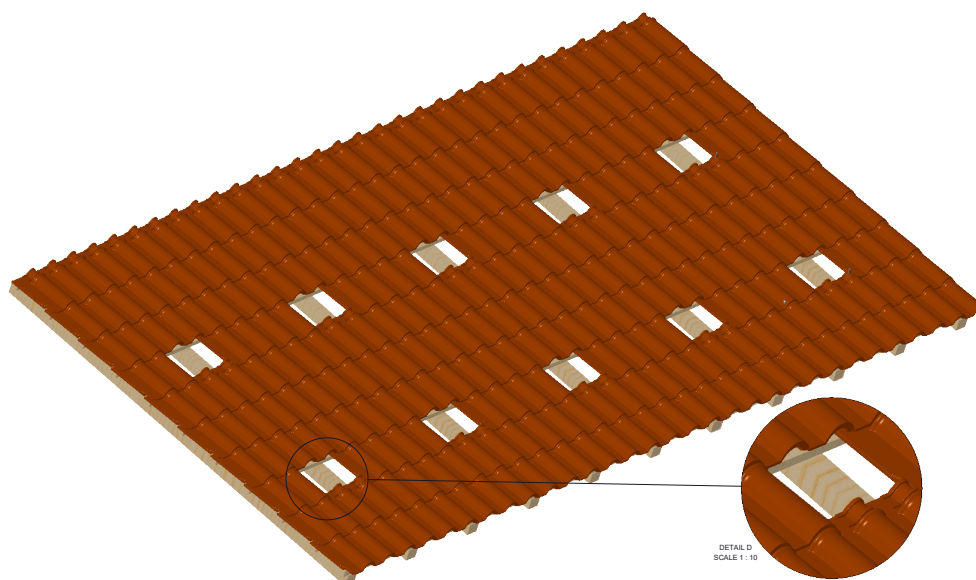


Screw DIN 912 M8 Stainless
Steel.

Installation steps

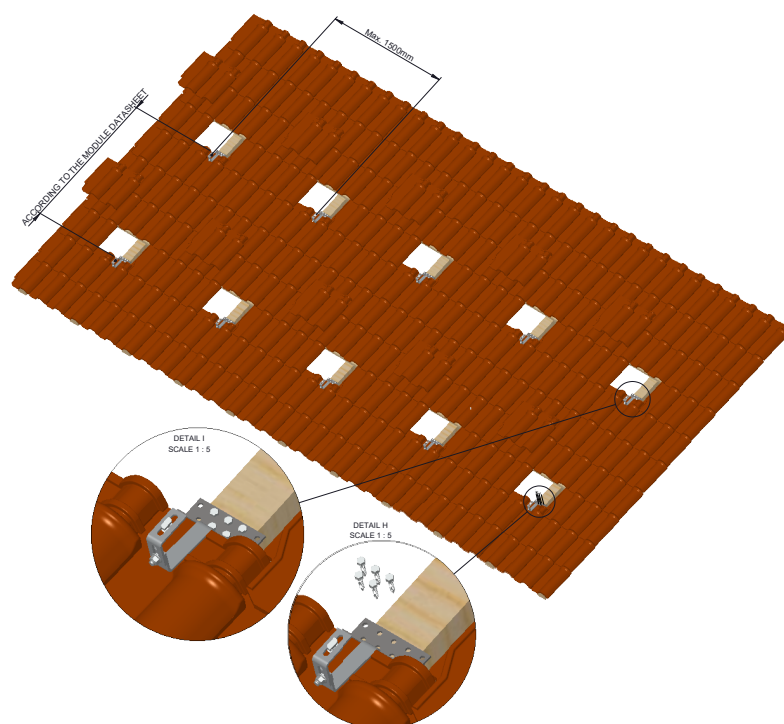
01

Remove the ceramic tiles at the points of the wood beam where the supports will be installed.



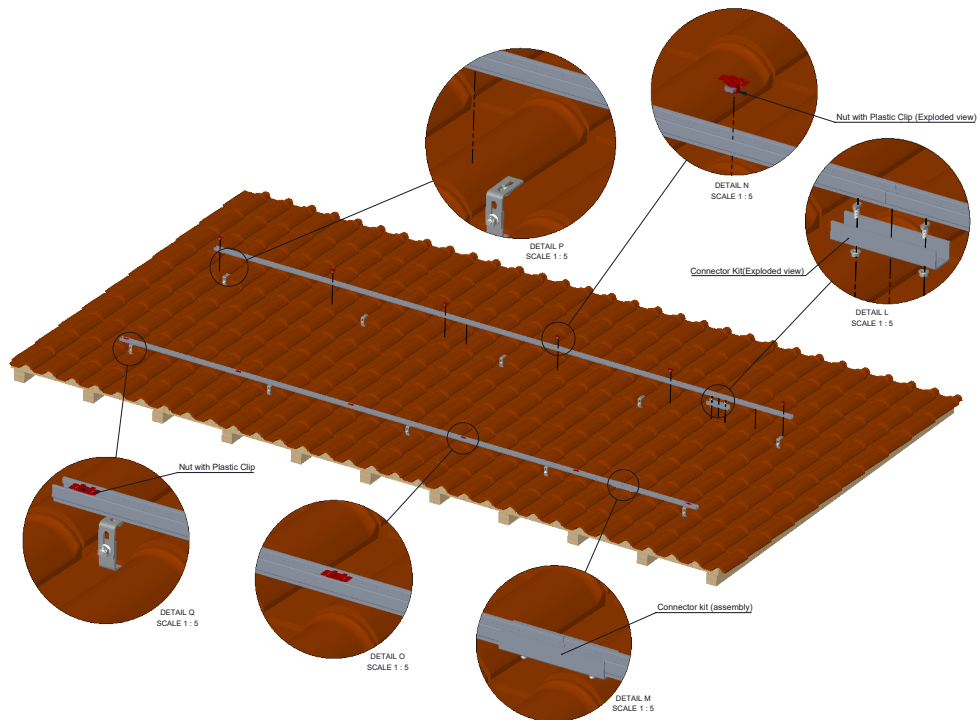
02

Fix the supports on the wood beam structure. In this case the Adjustable Hook is used as example:



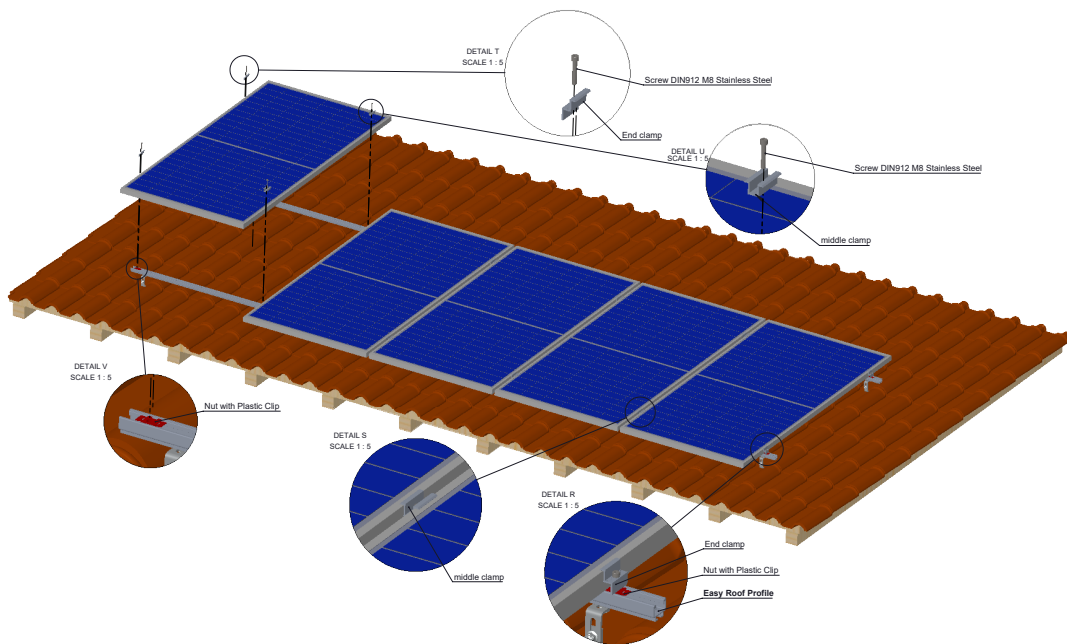
03

Assembly the Ceramic tiles, before removed. Assembly EasyRoof Profile + Connector Kit (If necessary) + Nuts with Plastic Clip.



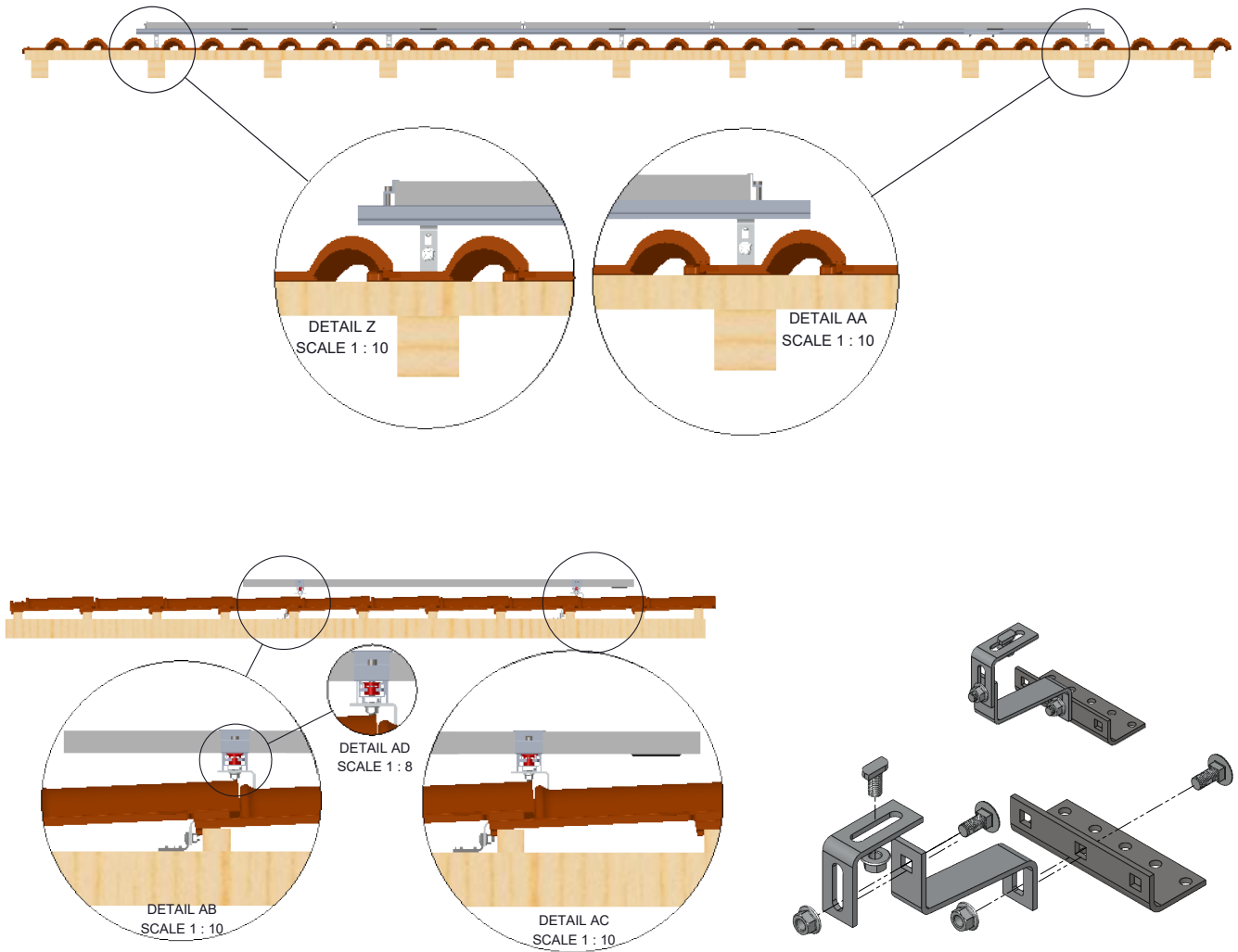
04

Assembly the PV Panels on the EasyRoof profile, using the screws and clamps.

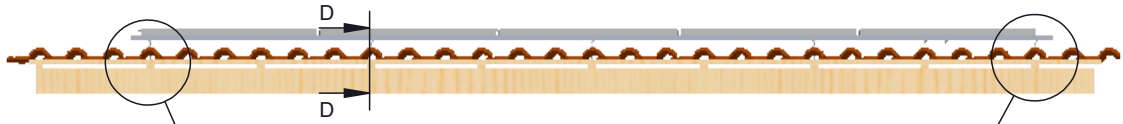


Optional fixation accessories

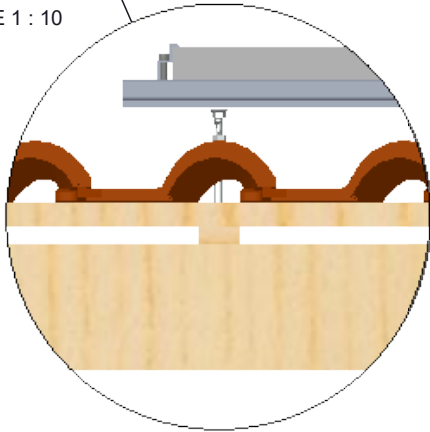
Adjustable Hook:



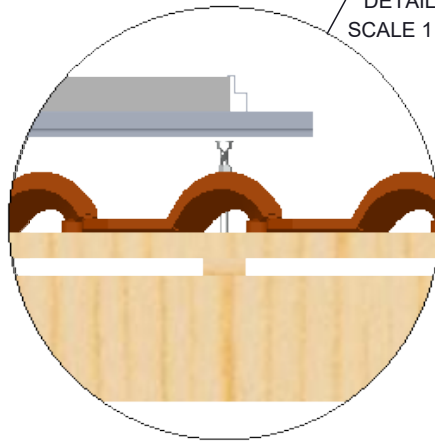
Fixing Screw with adapter plate:



DETAIL G
SCALE 1 : 10



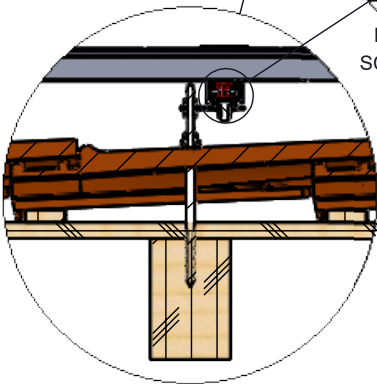
DETAIL H
SCALE 1 : 10



SECTION D-D



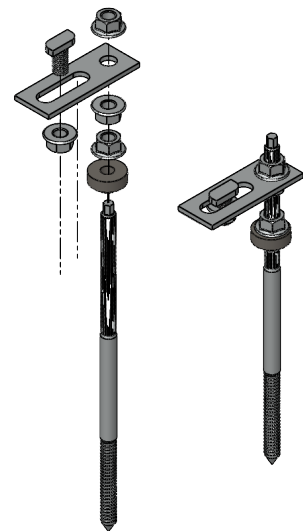
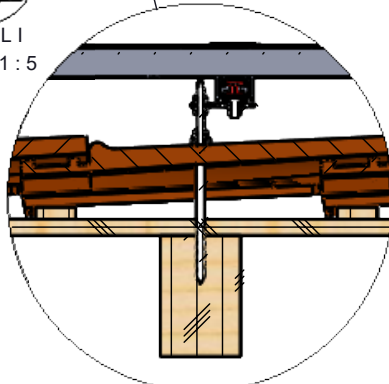
DETAIL E
SCALE 1 : 10



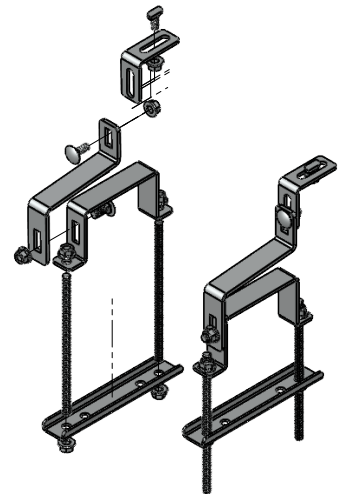
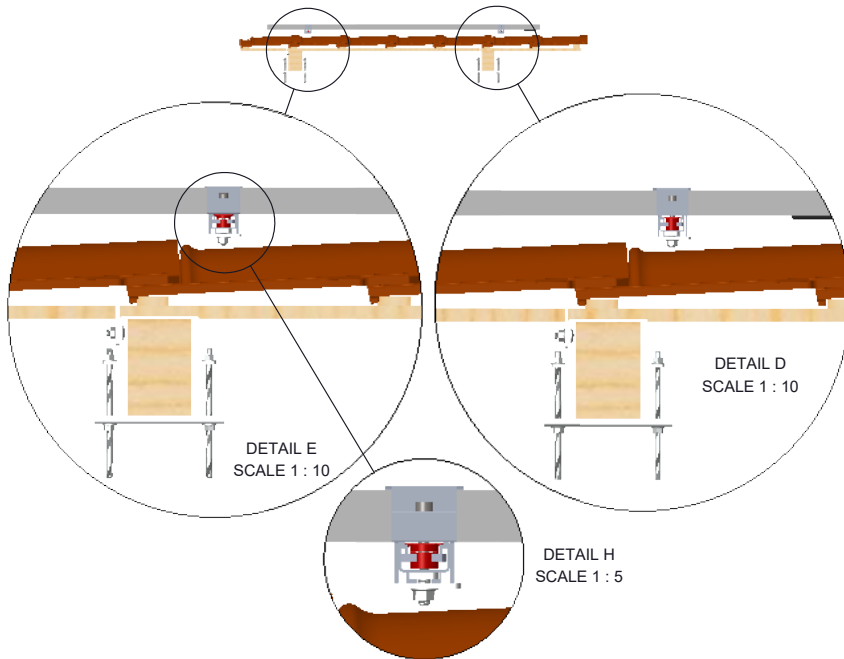
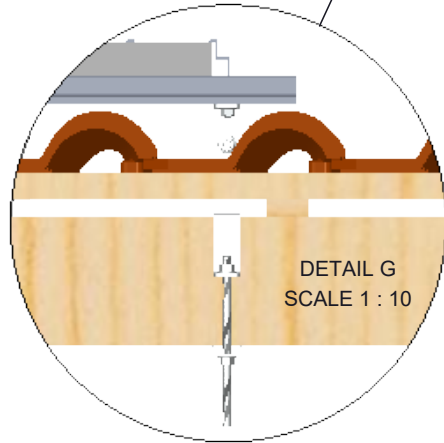
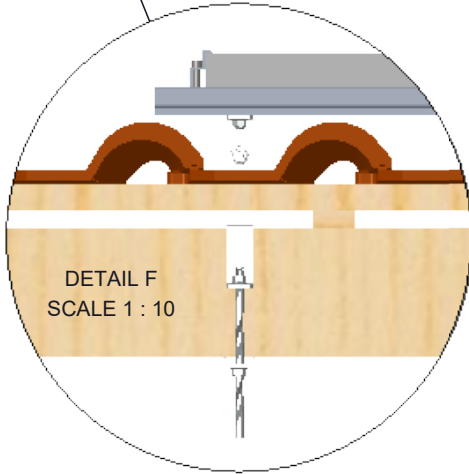
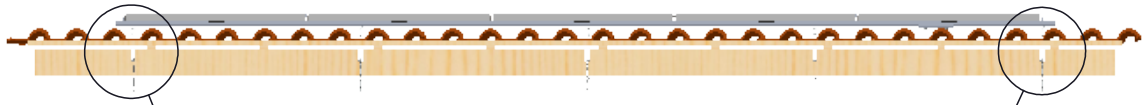
DETAIL I
SCALE 1 : 5



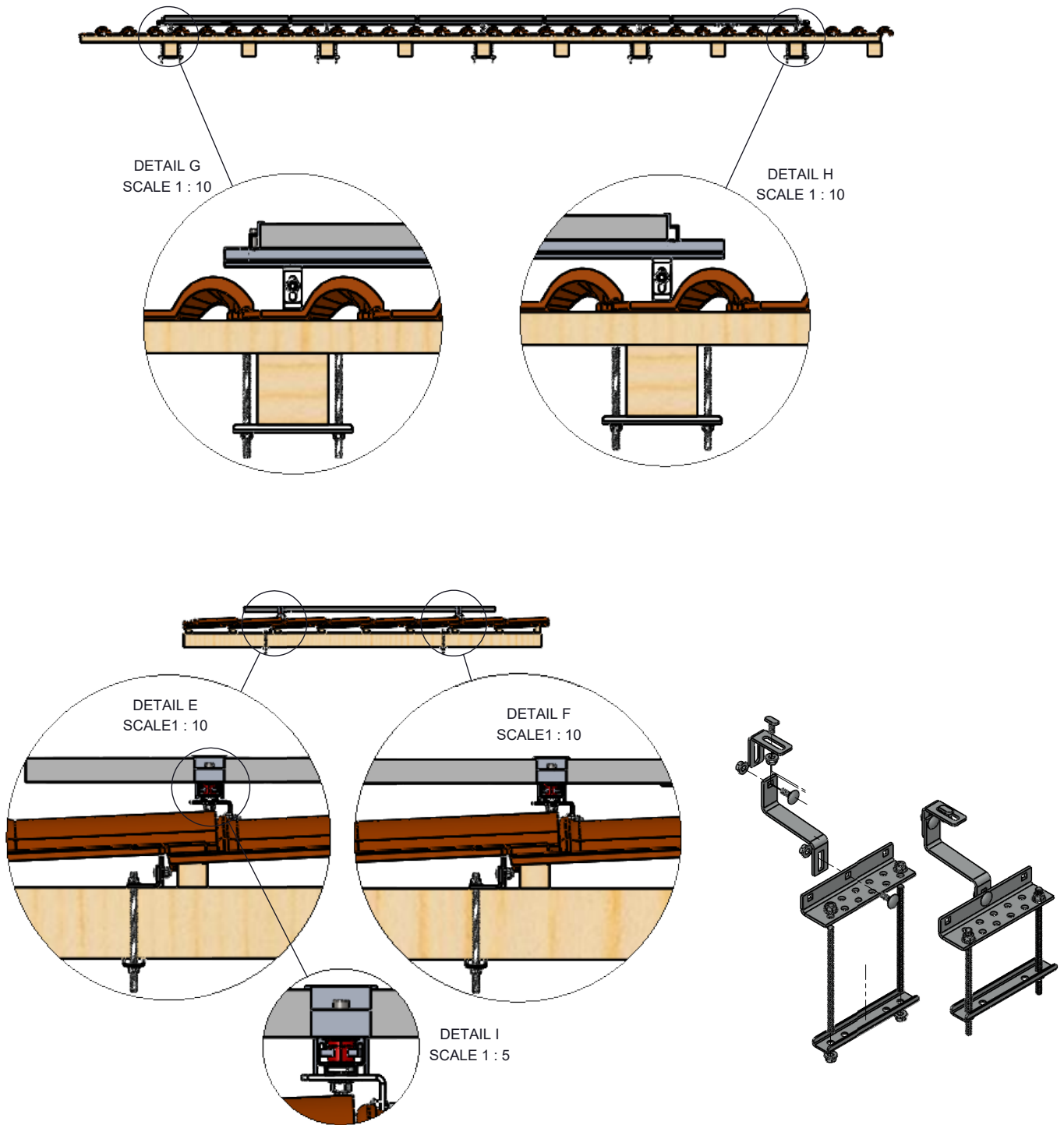
DETAIL F
SCALE 1 : 10



Landscape Beam Bracket:

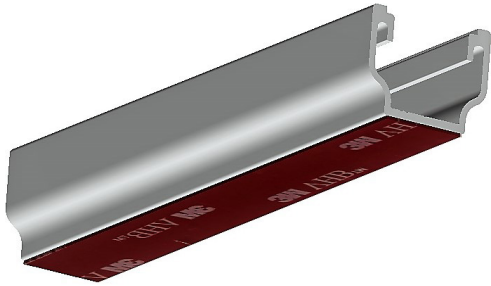


Portrait Beam Bracket:

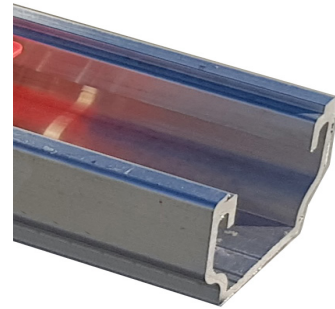


In case of doubt or any further information, please contact the Energy Systems.

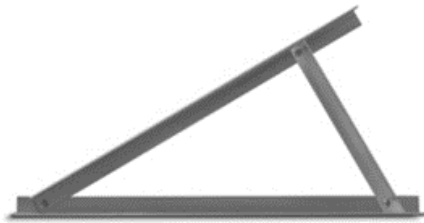
Other products



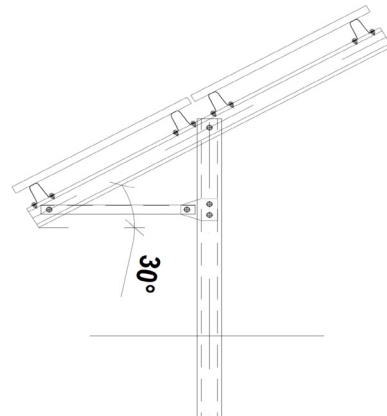
EASY PLAN 3M



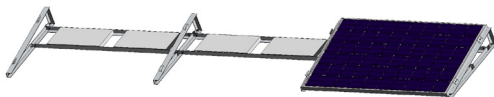
EASY PLAN LIGHT



TRIANGLE



GROUND MOUNTING



BALLAST

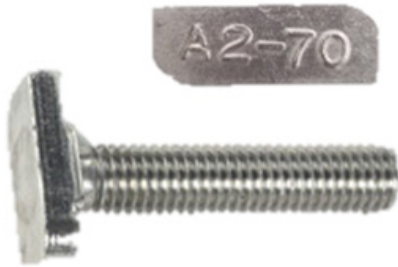


CARPORT

Our components



Allen Bolt Din 912 Inox A-2



T Bolt Inox A-2



Flanged Nuts Inox A-2



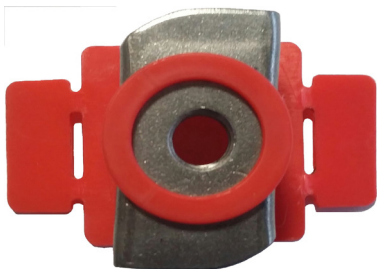
Adjustable Hook Inox A-2



Fixing screw with double thread
+ Adapter plate Inox A-2



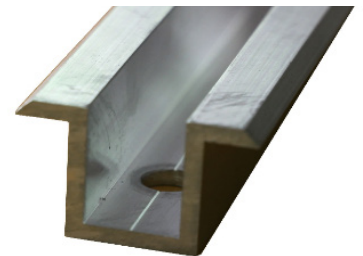
End Clamp Aluminium
35mm/40mm/45mm



Nuts with Plastic Clip
M8 Inox A-2



Ground Wire Clip (Electrical
Protection)



Middle Clamp Aluminium