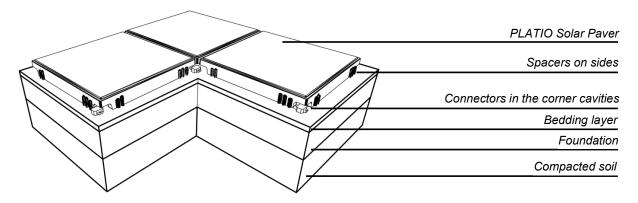


## Quick Installation Guide for the PLATIO System



This manual is only intended to provide a basic understanding of the system, never install a system without a thorough understanding of the latest manual and prior training. PLATIO connectors pass direct current (DC) when exposed to sunlight or other light sources. Contact with incorrectly installed electrically active parts of the module, such as open cable ends, can result in injury or death. When properly installed, the PLATIO system operates at SELV voltage levels, therefore it cannot cause human injury.

PLATIO Solar Paver is an innovative solar paver tile that provides a clean energy source, also is an eco-friendly product, as its base is made of recycled plastic. PLATIO units have one main part. Units come with two free-swinging cables, one red (+) and one black (-). Those two cables can be fixed in 4 positions each, thus creating 16 cable layout variations for the product. The recommended microinverter type is Enphase IQ7+. For optimal performance, make sure that the microinverters are not more than 10 meters away from the connected PLATIO surface or plan cable thickness accordingly. The PLATIO surface should preferably be laid on a well-irradiated surface throughout the day for maximum energy yield. It is advisable to avoid applications where there is a shadow effect for a significant part of the day, for example in the form of parked or passing cars.

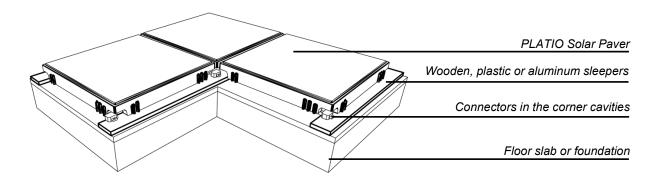


PLATIO elements can be built with several substructures as regular paving elements. The nature and stratification of the substructure are usually determined by the designer of the surrounding area. If the installation takes place replacing an existing paved surface, in case the substructure is in good condition, the PLATIO frames can be installed directly. It is recommended to use concrete foundations if vehicle traffic takes place on a given pavement, as well as on ramps and sloping pavements. It is important to note that installation is only recommended in locations where the weight of the vehicles driving on it does not exceed 2000 kg per wheel. Passing vehicles with more than this weight per wheel can cause damage to the surface. PLATIO is not meant to be placed on roads, but on driveways, walkways. Concrete substructures are typically impermeable to water, so we advise using an impermeable gap filling. Permeable (gravel) foundations are also suitable underlayers for PLATIO systems in the case of pavements, parks, and gardens that are mainly used by pedestrians. Its advantage is its water

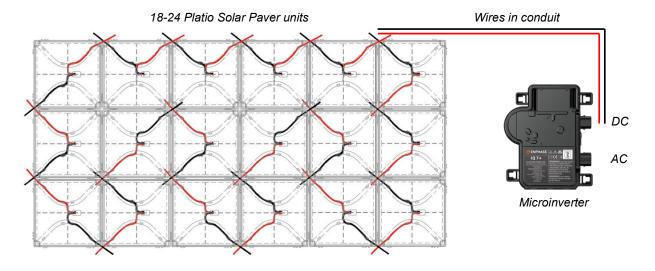


permeability, which can be useful for the surrounding green areas, and its price per square meter is more favorable.

In places like roof gardens, patios, or balconies, if the concrete slab's drainage is given, sleepers can be used (wood or other material). For this solution, we can provide fixing elements (bent square plate washers) and a special small head screw ( $\emptyset$  5 mm) to fix the PLATIO elements to the sleepers by the spacer elements on the sides of the units. On sleepers' heavy-duty traffic is not allowed! Only use this solution for pedestrian traffic.



18-24 (depending on the microinverter) pcs of PLATIO Solar Paver element form a DC system. This should be established using the DC cable whose ends are built into the elements at the factory. The system is either connected directly to the electrical device (microinverter, charge controller, etc., depending on the purpose of the application) or it is recommended to route the wiring from the PLATIO Solar system to the inverter/point of use with H07-RNF 2x2.5 rubber cable in a suitable conduit (protective tube).



When connecting PLATIO elements together in series never under any circumstances exceed the SELV (safety extra low voltage) code.

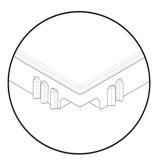
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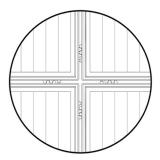


The fastest way to install PLATIO Solar Pavers is to work in teams of two people, especially in the case of not too experienced installers. It is advantageous if one member of the team is an experienced bricklayer and the other has some experience with electrical equipment, but it is not necessary to employ a qualified electrician at this stage of the installation.

The elements are installed in the same way as normal cladding elements. The slope must be checked with twine or other methods. The elements can be adjusted or punched with a rubber hammer or by hand if necessary. Once a unit is in place, preferably do not walk or carry material on its surface until all components of the PLATIO Solar Paver have been installed. Keep the surface of the mainframe relatively clean, and free of debris, sand, and mortar. After each row of PLATIO Solar Pavers, check the voltage on the system with a regular multimeter. If the voltage measurement shows the voltage suitable for the number of elements, the connections are fine. Otherwise check the connectors if the cables have been properly inserted into the connectors and if the buttons have been pushed entirely. As it is checked in every row, if a fault in connecting the connectors occurs, it can be fixed easily.

PLATIO Solar Pavers are connected with the in-built cables, plus additional connectors that our company also provides. Red cables are always connecting to black ones and black ones are always connecting to red ones. The connector is either a 'Coolsplice' unit or an 'MGC' connector. The choice between the two is based on the preference of the installer. In the case of 'Coolsplice' connector the electric bonding is created by pressing two buttons, in the case of MGC it is only one button. Both connectors can only be mounted once, the joint cannot be loosened after compression. The connectors provide IPX8 protection. The connectors provided by our company are suitable for connection to 2.5 - 4 mm2 stranded insulated wire. If another wiring is used, the connector must be clamped, and the connection made in another standard way. The connectors contacted together (either Coolsplice or MGC) are then tucked in the corners of the PLATIO Solar Paver units. Installing 10 m² of PLATIO surface on a well-made foundation and bedding layer takes about 1-2 hours for a team of two people with moderate experience in installation.





PLATIO elements are connected to microinverters via (DC) cables that meet the requirements of given region, but usually  $\geq 2.5 \text{ mm}^2$ . The cables are run in pre-designed and constructed protective conduits, which are not branched and do not have bends of less than a 0.5-meter radius. The distance between the surface and the microinverter should not be more than 20 meters, otherwise, a cable with a larger cross-section should be chosen after a proper calculation to minimize the resistance along the cable length. Microinverters must be installed in a building or in a standard electrical cabinet. The protective tubes run to the inside of the cabinet. The DC cables can be connected to the DC inputs of the microinverters using MC4 connectors. The AC side connection of microinverters for Enphase microinverters (recommended) should be done with Enphase Q cable which is available in 1 or 3-phase versions. The AC side should also be installed according to local standards and include all required

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components (e.g. circuit breakers, disconnectors, etc.). Solar PV systems typically need to be licensed by local electricity suppliers.

## HAZARD OF ELECTRIC SHOCK AND FIRE!

KEEP IN MIND THAT ONLY CERTIFIED PERSONNEL IS ALLOWED TO INSTALL THE MICROINVERTERS! DO NOT ATTEMPT TO INSTALL THE MICROINVERTER CABINETS WITHOUT QUALIFICATION AS AN ELECTRICIAN AND TRAINING PROVIDED BY ENPHASE!

ALWAYS FOLLOW THE LOCAL APPLICABLE CODE FOR GRID CONNECTION!