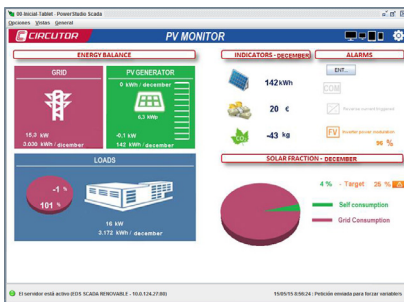


PVing PARKS

Kits PV



Solar canopy for instantaneous self-consumption with electric vehicle charging

Description

PV Kits are a solution that combines a photovoltaic solar canopy with an electric vehicle charging system. This solution generates power during sunlight hours in order to cover part of the electricity consumption of an installation as well as to charge electric vehicles. Solar canopies provide shelter for a parking area with a capacity for 2 to 42 cars with a width of 2.5 m. **PV KITS** are compatible and can include **CDP** (Dynamic Power Controller) units that guarantee zero injection to mains, as well as the **PV-Monitor-M** web-based monitoring and energy-management software.

These KITS consist of the following material:

- Photovoltaic modules,
- Canopy structure: **PV2** (single), **PV4** (double) or **PVS** (single-post),
- Photovoltaic inverters for mains connection.

All the KITS can optionally be completed with the corresponding **CDP** electrical protection and control panels. These panels include DC-side protections (**StringBox**) and AC-side protections (**CombinerBox**), as well as control units:

- **CDP-DUO** (zero injection dynamic power controller),
- **CVM-MINI** power analyzer (for three-phase installations).

This system has the following advantages:

- Lower consumption of power from the mains,
- Shelter for outdoor car parks,
- EV charging points built into the canopy structure,
- Less CO₂ emissions into the atmosphere.

In addition, CIRCUTOR can develop larger customised solutions.

Applications

- Electric vehicle charging with backup solar generation.
- Photovoltaic energy installations in buildings in which the roof is not suitable for the installation of conventional photovoltaic panels.
- Instantaneous self-consumption, ideal for industrial, commercial or residential buildings with outdoor parking and daytime consumption.

Technical features

Electrical features	Peak power	4.05 to 89.10 kWp (according to model)*
	Nominal inverter power	3.3 to 20 kW
	Mains type*	1 x 230 V single-phase (PVS) 3 x 230/400 V three-phase (PV2 , PV4 and PVS)
Build features	DC electrical protections	Overvoltage, short-circuit
	AC electrical protections	Overvoltage, circuit-breaker, differential relay
	Capacity*	2 to 44 vehicles (according to model)
EV charging	Structure material	Galvanised steel
	Ground attachment	Fastening elements for placing and aligning footings, pre-designed foundations
	URBAN outdoor charging post	Installed as an addition to the canopy (not built-in) with double multi-user socket with Ethernet communication
Monitoring and control	WB-eBasic or RVE-WB built-in charging box	Built into the bases of the canopy
	CDP	Control of zero injection to mains, double protection against injection to mains in the event of breaking down
Energy monitoring	PV-Monitor	Web monitoring
	Data type	<ul style="list-style-type: none"> – Photovoltaic generation – Electrical grid consumption – General consumption of the installation – EV consumption (optional) – Data logger logging historic data of all energy flows in the installation
Electrical panels	StringBox and CombinerBox, with the necessary measurement and protection elements.	
Standards	Structure tested and certified in accordance with the Spanish technical building code (CTE) and Eurocode; inspection cover for earthing in accordance with Spanish low voltage regulations (REBT)	

* Others available to order.

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References

Type PV2 (Single)	Code	PV power (kWp)	Inverters	Capacity	Templates	Dimensions (height x depth x width)
PV2 C2PS	E6P202	4.05	1 x 3.7 kW	2	2	5000x3500x4800
PV2 C3PS	E6P203	6.48	1 x 5 kW	3	2	8000x3500x4800
PV2 C4PS	E6P204	8.10	1 x 7 kW	4	3	10000x3500x4800
PV2 C6PS	E6P206	12.15	1 x 10 kW	6	3	15000x3500x4800
PV2 C8PS	E6P208	16.20	1 x 15 kW	8	4	20000x3500x4800
PV2 C10PS	E6P210	20.25	1 x 20 kW	10	5	25000x3500x4800
PV2 C12PS	E6P212	24.30	1 x 20 kW	12	5	30000x3500x4800
PV2 C16PS	E6P216	32.40	2 x 15 kW	16	7	40000x3500x4800
PV2 C18PS	E6P218	36.45	3 x 12.5 kW	18	7	45000x3500x4800
PV2 C20PS	E6P220	40.50	2 x 15 kW	20	8	50000x3500x4800
PV2 C22PS	E6P222	44.55	3 x 15 kW	22	9	55000x3500x4800
PV2 C24PS	E6P224	48.60	3 x 15 kW	24	9	60000x3500x4800
PV2 C26PS	E6P226	52.65	3 x 17.5 kW	26	10	65000x3500x4800
PV2 C28PS	E6P228	56.70	3 x 20 kW	28	11	70000x3500x4800
PV2 C30PS	E6P230	60.75	3 x 20 kW	30	11	75000x3500x4800
PV2 C32PS	E6P232	64.80	3 x 20 kW	32	12	80000x3500x4800
PV2 C34PS	E6P234	68.85	3 x 20 kW	34	13	85000x3500x4800
PV2 C36PS	E6P236	72.90	3 x 20 kW	36	13	90000x3500x4800
PV2 C38PS	E6P238	76.95	3 x 20 kW	38	14	95000x3500x4800
PV2 C40PS	E6P240	81.00	4 x 20 kW	40	15	100000x3500x4800
PV2 C42PS	E6P242	85.05	4 x 20 kW	42	15	105000x3500x4800
Type PV4 (Single)	Code	PV power (kWp)	Inverters	Capacity	Templates	Dimensions (height x depth x width)
PV4 C4PD	E6P404	8.10	1 x 7 kW	4	2	5000x3600x9700
PV4 C6PD	E6P406	12.96	1 x 10 kW	6	2	8000x3600x9700
PV4 C8PD	E6P408	16.20	1 x 15 kW	8	3	10000x3600x9700
PV4 C12PD	E6P412	24.30	1 x 20 kW	12	4	15000x3600x9700
PV4 C16PD	E6P416	32.40	2 x 15 kW	16	4	20000x3600x9700
PV4 C20PD	E6P420	40.50	2 x 20 kW	20	5	25000x3600x9700
PV4 C24PD	E6P424	48.60	3 x 15 kW	24	5	30000x3600x9700
PV4 C28PD	E6P428	56.70	3 x 20 kW	28	6	35000x3600x9700
PV4 C32PD	E6P432	64.80	3 x 20 kW	32	7	40000x3600x9700
PV4 C36PD	E6P436	72.90	3 x 20 kW	36	7	45000x3600x9700
PV4 C40PD	E6P440	81.00	4 x 20 kW	40	8	50000x3600x9700
PV4 C44PD	E6P444	89.10	4 x 20 kW	44	9	55000x3600x9700
Type PVS (single post)	Code	PV power (kWp)	Inverters	Capacity	Templates	Dimensions (height x depth x width)
PVS M2M	E6P102	4.05 single-phase	1 x 3.6 kW	2	1	5040x3488x4784
PVS M2T	E6P120	4.05 three-phase	1 x 3.7 kW	2	1	5040x3488x4784

The **PV KITS** can be further complemented with two types of electrical panels, which include DC-side protections (**StringBox**) as well as AC-side inverter output protections (**CombinerBox**):

Protection and control panels **CDP**

- **StringBox**
- **CombinerBox CDP** (includes **CDP-DUO** and **CVM-MINI** analyzer)

Protection, **CDP** control and **PV-Monitor-M** monitoring panels:

- **StringBox TR** (includes **TRH16** and **M/TR** current-measurement modules)
- **CombinerBox PV** (includes **CDP-DUO**, **CVM-MINI** analyzer and **PV-Monitor-M**)

- Environmental sensors (radiation and panel/environment temperature)

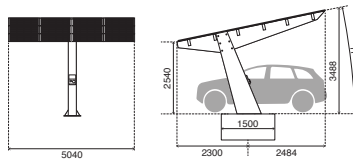
The canopy allows the installation of 2 EV charging WallBoxes built into the leg of the canopy, one on the first foot and one on the last foot. Compatible **CIRCUTOR** WallBoxes:

- **WB-eBasic** range
- **RVE-WB** range (one socket)

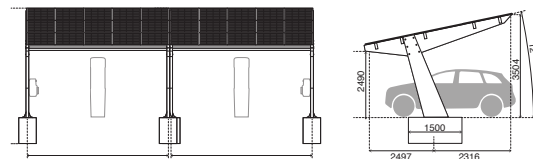
The price also includes the templates and the paint in the customer's choice of RAL colour. If the electrical protection panels are also supplied with the **PV KIT**, the **MC** current transformers must also be specified. SHIPPING NOT INCLUDED.

Dimensions

PVS



PV2



PV4

