

PVing PARKS

PVS2 / PVS4



Solar canopy for instant self-consumption with charging for electric vehicles

Description

PVingPARK is a solar photovoltaic canopy that allows combining and integrating EV charging systems. This solution allows electricity to be produced when the sun is out, thus covering part of the installation's electricity needs, as well as providing part of the additional power needed to charge the electric vehicles as well. It is a completely modular solution that can be adapted to the number of sockets, length or power in kWp required for each project.

PVingPARK canopies are made the following materials:

- HalfCell monocrystalline modules (120 cells)
- Structure of PVS2 (simple) or PVS4 (dual) canopies
- Network-connected PV inverters

Additionally, the solution can be supplemented with DPC electric protection and control panels for processing without excess as per RD 244/2019. These panels include safeguards for both the DC part (StringBox) and the AC safeguards (CombinerBox), as well as the control equipment (DPC / CVM-MINI).

This system offers the following advantages:

- Reduction in energy consumed from the electrical network
- Protection for outdoor car parks
- Charging points for electric vehicles integrated into the structure of the canopy
- Reduced atmospheric CO₂ emissions

Additionally, CIRCUTOR can develop larger, tailor-made solutions.

Applications

- Electric vehicle charging with back-up solar generation
- Photovoltaic installations in buildings with no usable roof space to install conventional photovoltaic panels
- Instant self-consumption, perfect primarily for daytime consumption, such as in offices, industries, shopping centres, charging stations, public infrastructures, etc.

Technical specifications

Electrical specifications	Peak power	5... 80 kWp (depending on model)*
	Type of network*	1 x 230 V single-phase (PVS2 M2M) 3 x 230/400 V three-phase
	DC electrical safeguards	Overvoltages, 15A fuses and isolator
	AC electrical safeguards	Overvoltages, circuit breaker, earth leakage
Construction specifications	Structure material	S355N galvanised steel, anodized aluminium sections and SS screws
	Surface treatment	Epoxy 60-80 micron primer and 60-80 micron paint. Protection rating C4-H
Electric vehicle charging (optional)	URBAN outdoors charging post	Installed next to (but separate from) the canopy with a dual, multi-user socket with Ethernet communications
	Integrated WB-eBasic or RVE-WB charging box	Integrated into the base of the canopy
Monitoring and control (optional)	DPC	Anti-dump device to control feed-in to the grid. RD244/2019 certified
Standards	Structure tested and certified in accordance with the CTE (Technical Building Code) and Eurocode, cover for grounding as per REBT	

* Other types on request.

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References

Simple canopies (PVS2)	Code	Sockets	PV power (kWp)	Inverter (kW)	# bases/legs	Dimensions (width x height x depth) (m)
PVS2 M2M	E6P102.	2	5.03	4.6	1	5.00 x 3.51 x 4.85
PVS2 M2T	E6P120.	2	5.03	4.5	1	5.00 x 3.51 x 4.85
PVS2 M4T	E6P124.	4	10.05	8.2	2	10.00 x 3.51 x 4.85
PVS2 M5T	E6P125.	5	13.07	12.5	2	13.00 x 3.51 x 4.85
PVS2 M6T	E6P126.	6	15.08	12.5	3	15.00 x 3.51 x 4.85
PVS2 M8T	E6P127.	8	20.10	17.5	3	20.00 x 3.51 x 4.85
PVS2 M10T	E6P210.	10	25.13	22.5	4	25.00 x 3.51 x 4.85
PVS2 M12T	E6P212.	12	30.15	25	5	30.00 x 3.51 x 4.85
PVS2 M14T	E6P214.	14	35.18	30	5	35.00 x 3.51 x 4.85
PVS2 M16T	E6P216.	16	40.20	35	6	40.00 x 3.51 x 4.85
PVS2 M20T	E6P220.	20	50.25	42.5	7	50.00 x 3.51 x 4.85
PVS2 M22T	E6P222.	22	55.28	52.5	8	55.00 x 3.51 x 4.85
PVS2 M26T	E6P226.	26	65.33	55	9	65.00 x 3.51 x 4.85
PVS2 M28T	E6P228.	28	70.35	60	10	70.00 x 3.51 x 4.85

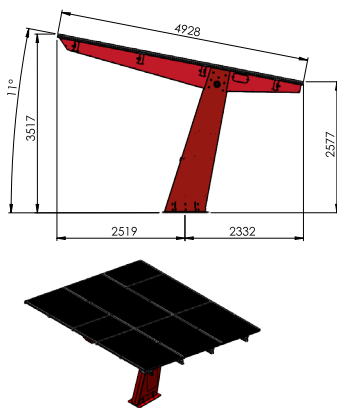
Dual canopies (PVS4)	Code	Sockets	PV power (kWp)	Inverter (kW)	# bases/legs	Dimensions (width x height x depth) (m)
PVS4 M4T	E6P404.	4	10.05	8.2	1	5.00 x 3.77 x 9.74
PVS4 M8T	E6P408.	8	20.10	17.5	2	10.00 x 3.77 x 9.74
PVS4 M12T	E6P412.	12	30.15	25	3	15.00 x 3.77 x 9.74
PVS4 M16T	E6P416.	16	40.20	35	3	20.00 x 3.77 x 9.74
PVS4 M20T	E6P420.	20	50.25	42.5	4	25.00 x 3.77 x 9.74
PVS4 M28T	E6P428.	28	70.35	60	5	35.00 x 3.77 x 9.74
PVS4 M32T	E6P432.	32	80.40	75	6	40.00 x 3.77 x 9.74

The PVS2 and PVS4 canopies allow charging points to be integrated into their structure. The following WallBox CIRCUTOR devices are compatible:

- WB-eBasic range
- RVE-WB range (one outlet)

Dimensions

PVS2



PVS4

