

Make the switch and lead the drive to renewable energy.



Kingspan PowerCanopy
Integrated Solar PV Carport Solutions

Make the switch and lead the drive
to renewable energy with Kingspan.





Over **600 MW** of PoweRail
RC3 PV Mounting system
deployed across Europe



Why build solar canopies over car parks?

Solar canopies over car parks have been identified as a critical opportunity to accelerate renewable energy deployment while maximising land productivity.

Energy Cost Reduction & Revenue Generation

Solar PV carports enable commercial property owners to generate clean electricity directly on-site, reducing reliance on grid-imported power.

Typical installations can yield significant cost savings when energy is consumed on-site.

Integrated EV Charging & Grid Efficiency

Combining solar carports with EV charge points creates a technically efficient and future-proof energy ecosystem.

Co-location ensures solar energy is used when it's generated - during the day - reducing grid load and optimising infrastructure.

Asset Value & Operational Performance

Beyond energy savings, solar canopies enhance asset value by lowering long-term operating costs and supporting ESG objectives. Covered parking improves the user experience, increasing customer satisfaction and tenant appeal. These factors are particularly relevant in retail, workplace, healthcare, and public-sector environments.

Solar canopies can also be a way of increasing generation on-site, complementing existing rooftop PV installations or providing a great alternative if there are any structural or roof integrity issues with the existing building.

Policy Alignment & Land Efficiency

Solar carports directly support the UK's Solar Roadmap, which targets 45–47 GW of installed capacity by 2035. As a form of dual-use infrastructure, they make productive use of existing developed land, avoiding the land-use trade-offs seen with ground-mount solar farms.



In Summary

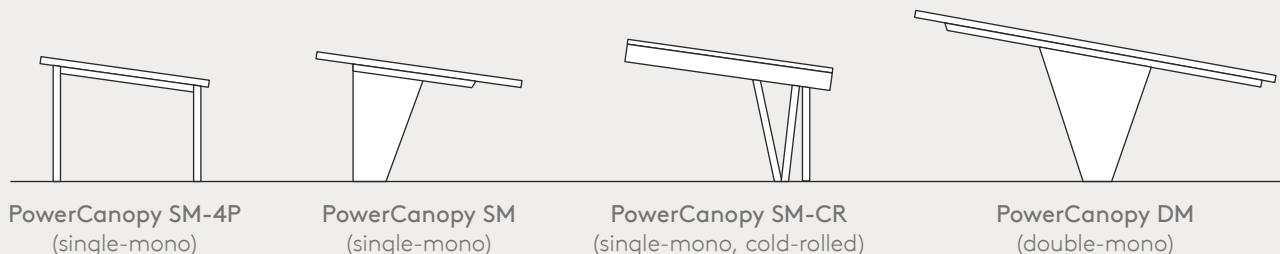
Solar carports offer a technically sound, financially attractive, and policy-aligned pathway to decarbonise commercial properties.

By reducing energy costs, enabling EV charging, and enhancing long-term asset value, they provide a scalable and future-ready solution for organisations committed to sustainable growth and energy resilience.

Why choose Kingspan PowerCanopy?

Kingspan PowerCanopy is a modular solar carport solution, combining design flexibility with the ability to generate electricity at source and deliver it to charge vehicles, supported by a proven mounting system with **over 600 MW deployed across Europe**.

The PowerCanopy range features a full range of designs to suit your project.



Our five-step process ensures you receive the optimum PowerCanopy solution for your needs:



Initial Design & Feasibility

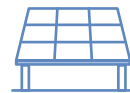
Our team collaborates closely with you to develop a solution that fits your project's needs - balancing performance, cost, and aesthetics to deliver the right outcome from the start.

Whether that's the solar mounting system, structural components or the full system supply, we offer solutions designed to meet your specific requirements.



Site Surveys & Designs

Our trusted **Power Kconnect** partners are on hand to assist with everything from initial site assessments, taking into account ground conditions, topography, drainage, existing services, to planning permission requirements.

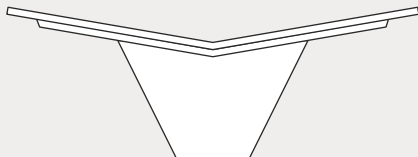


PowerCanopy installation & support

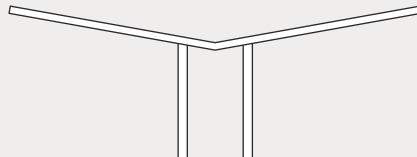
If you're managing the installation yourself, we'll make sure everything arrives on time and in order. We coordinate deliveries to suit your installation schedule, ensuring each component is available when and where it's needed. Our goal is to make your install as smooth and efficient as possible.

If you need support with the installation process, our trusted partners can offer a complete turnkey solution - from structural design and site surveys to installation and ongoing maintenance. This coordinated, end-to-end service ensures a straightforward process and reliable results from start to finish.

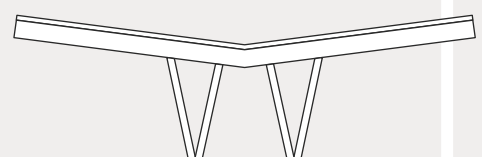
- ◆ Cost-effective modular design provides coverage to suit any car park layout
- ◆ Single-source PV and canopy solution option
- ◆ Innovative design allows PV modules to be slid into position and secured from below for quick, safe installation - compatible with most standard PV modules
- ◆ Full watertight canopy achieved with PV module mounting system
- ◆ Expert technical design support
- ◆ Optional gutter solutions available to assist rainwater harvesting
- ◆ Both hot-rolled and cold-rolled main structure options available to suit your project requirements



PowerCanopy GW
(gull wing)



PowerCanopy GW-DP
(gull wing dual post)



PowerCanopy GWDP-CR
(gull wing dual post, cold-rolled)



Complete System Components

Through our partnership with Solen Energy, we offer a full range of products including EV chargers, inverters, and solar modules - all tailored to your needs.

No guesswork. Just the right products, ready when you need them.



Fully-Funded Solution

Through our financing partners, we can provide a range of funding solutions to meet your requirements, enabling you to spread the cost of the investment over time.

Fully-funded solar canopies

Kingspan has partnered with established funders, offering multiple financing models to support solar canopy deployment.

A Power Purchase Agreement (PPA) is designed to align long-term energy performance with asset renewal.

Under the agreement, the design, installation, operation and ongoing management of on site solar generation and associated roof refurbishment where required – are funded and managed over the long-term.

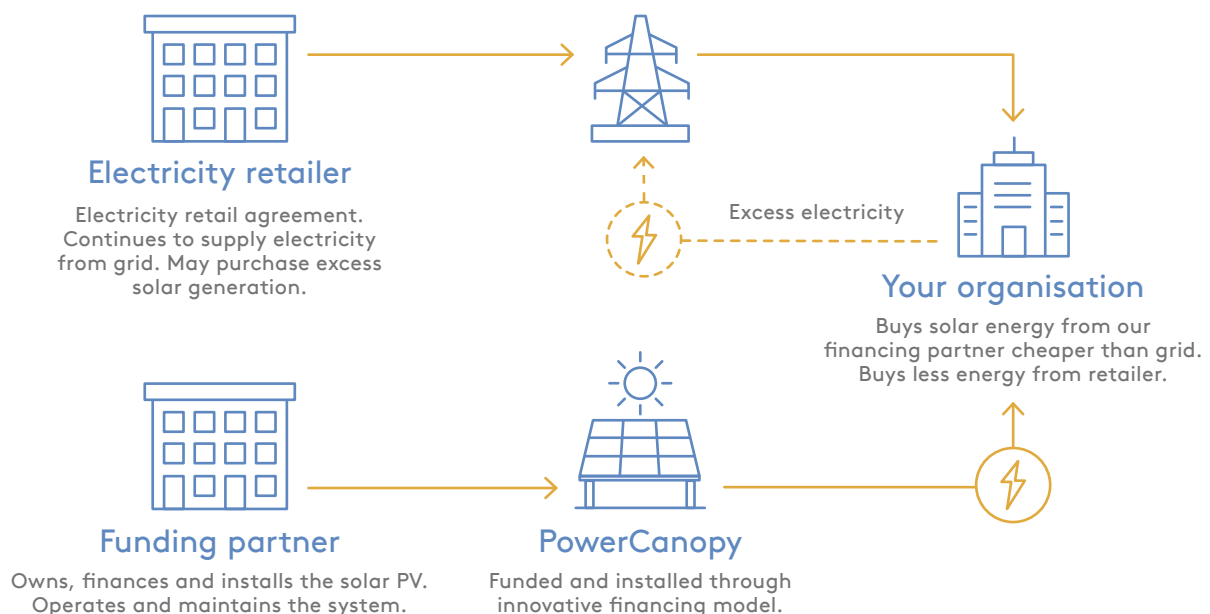
Rather than purchasing and operating energy infrastructure, businesses simply buy the electricity generated and consumed on-site at predictable rates below market prices. PPA tariffs are structured around system performance and lifetime management, providing stability and protection from energy market volatility.

Our funding partners offer comprehensive solutions that enable organisations to reduce energy costs, lower carbon emissions and improve operational resilience – without the complexity of managing energy assets themselves.

At the end of the agreement term, the systems typically transfer to the building owner, allowing them to continue benefiting from on-site renewable generation for the remaining asset life.

Contact us to explore how flexible financing options can support your next project.

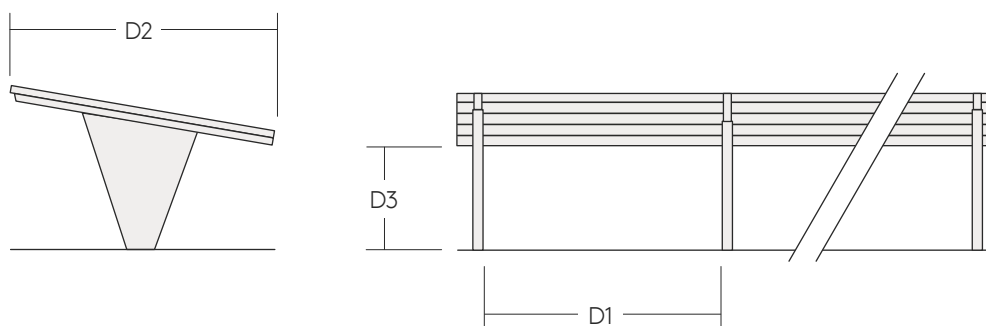
How a PPA works



Full range of solutions

Our Kingspan PowerCanopy product comes in a range of designs to suit your project requirements, budget and timescales.

Design, Dimensions and Roof Pitch



Design	D1 - Span (m)*	D2 - Cover (m)*	D3 - Clearance (m)**	Roof pitches	Primary structure	Parking layout
	4.6 - 8.1	5.1 - 5.8	2.3	5° 7.5° 10°	Hot-rolled or cold-rolled	Single parking row
	4.6 - 8.1	8.6 - 13.7	2.3	5° 10° 12.5°	Hot-rolled	Double parking row
	4.6 - 8.1	10.5 - 14.4	2.3	5° 10° 12.5°	Hot-rolled	Double parking row
	4.6 - 8.1	10.5 - 14.4	2.3	5° 10° 12.5°	Hot-rolled	Double parking row
	4.6 - 8.1	10.5 - 14.4	2.3	5° 10° 12.5°	Cold-rolled	Double parking row

* Dimensions can be altered to suit requirements.

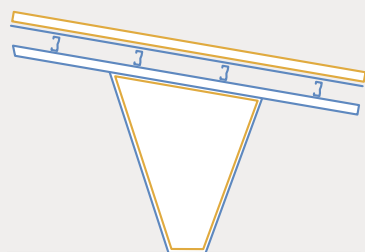
** Minimum height can be increased to achieve specific requirements.

Kingspan PowerCanopy

System components and options

Option 1: PowerCanopy

- 1 End structural post (V)
- 2 Intermediate structural posts including support arms
- 3 Structural rafters
- 4 Multibeam purlins kit
- 5 PowerRail RC3 PV mounting rail system



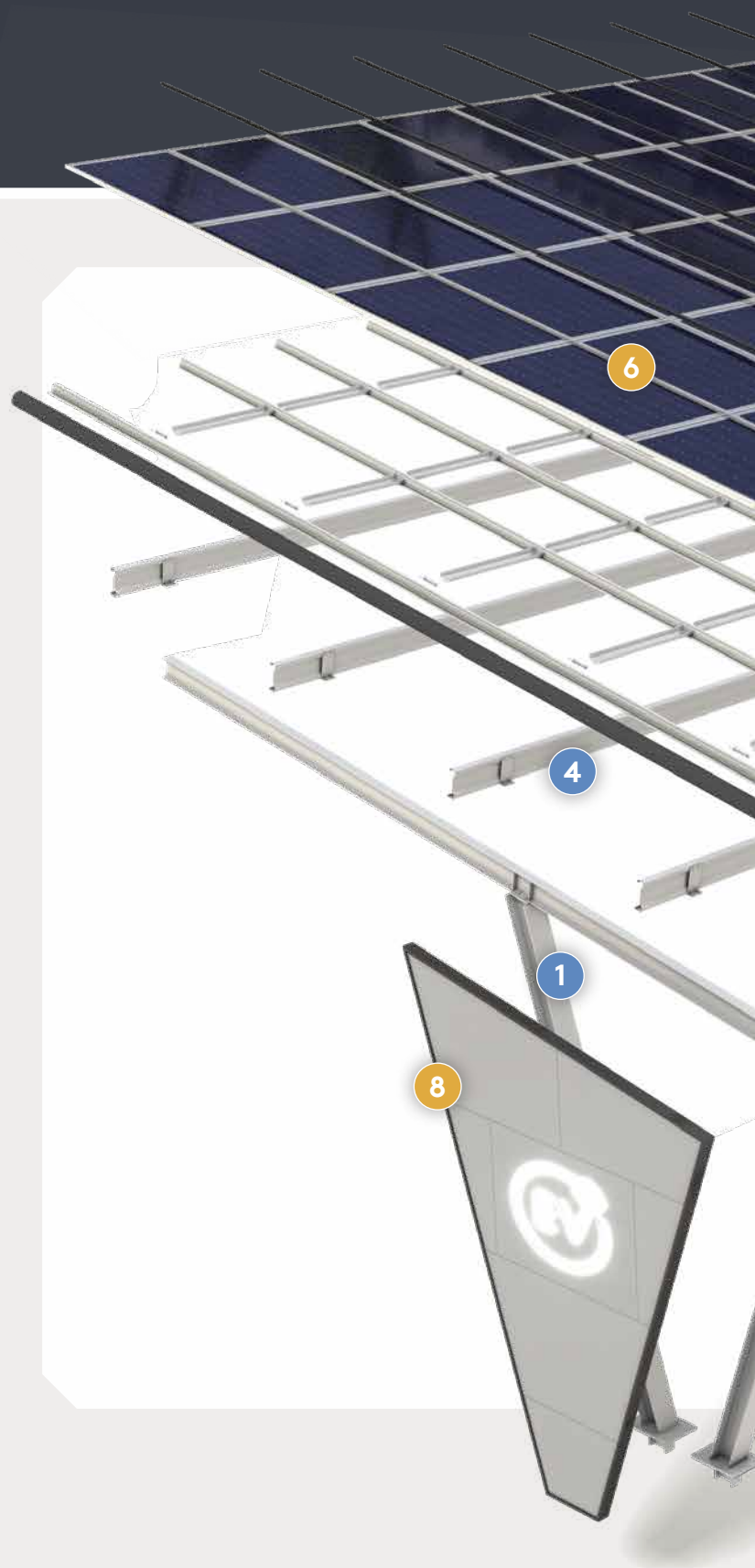
Option 1 extras

- 6 Solar modules
- 7 Rainwater drainage
- 8 Customisable façade end insert
- 9 EV charging

Option 1 includes full installation support through Kingspan approved installation partners.

All fixings supplied. Foundations and associated connections are not included.

For further technical information, please contact kingspansolar@kingspan.com



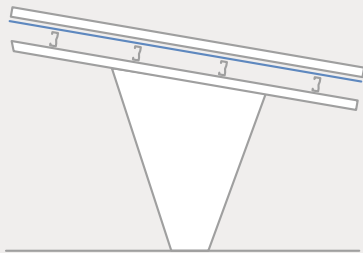


Kingspan PowerCanopy

System components and options

Option 2: PowerRail RC3

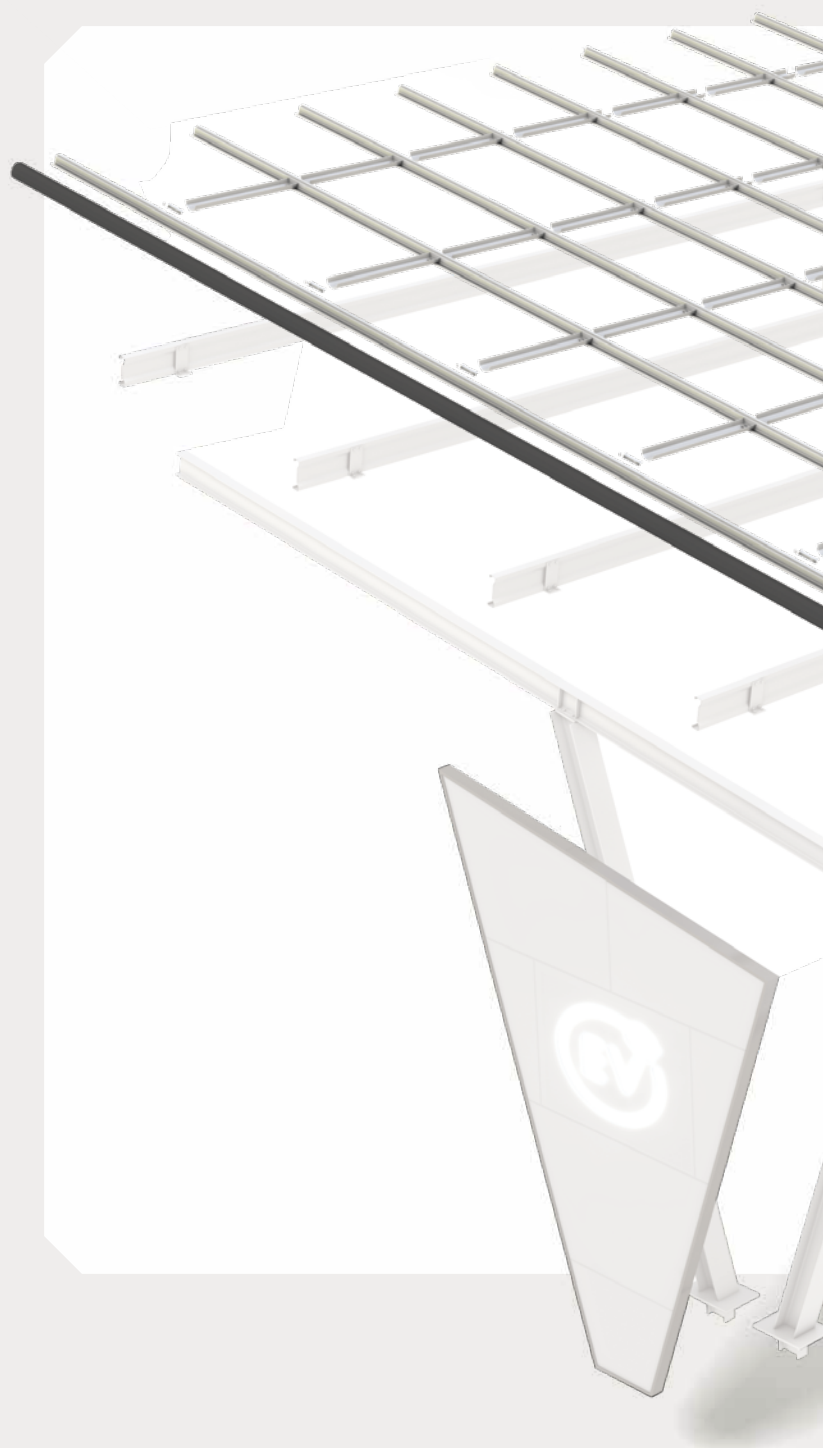
5 PowerRail RC3 PV mounting rail system

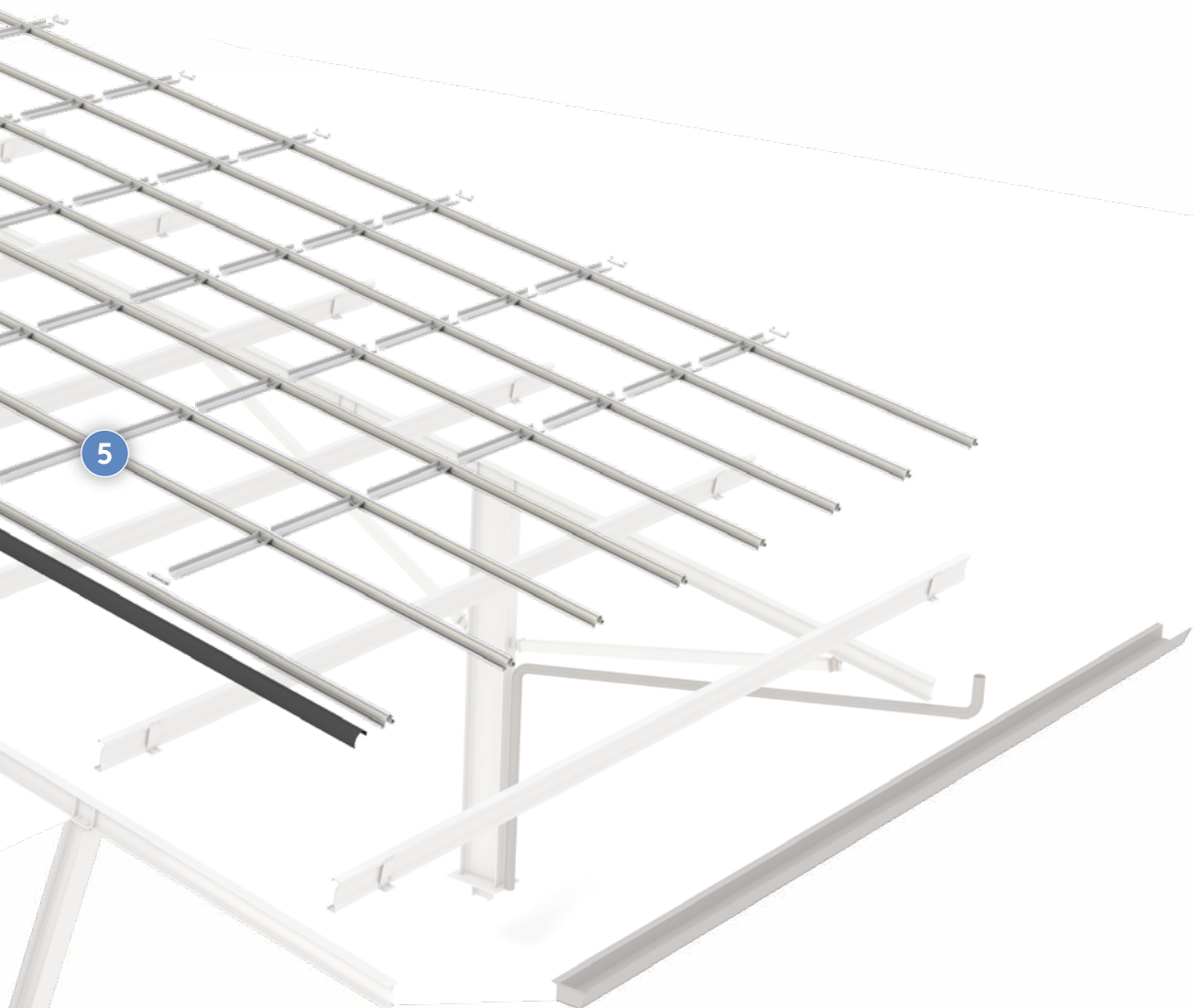


All fixings supplied. Foundations and associated connections are not included.

For further technical information, please contact kingspansolar@kingspan.com

Proven quality delivered at scale:
over 600 MW of the PowerRail RC3
PV Mounting System has been
deployed across Europe.





Kingspan PowerCanopy

System configurations

Hot-rolled structural steel frames, hot dip galvanised finish.



PowerCanopy SM-4P

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m ²)	Spaces	Rows	Columns	Modules
24.70	2.4	22.20	4.76	105.70	9	2	19	38

PowerCanopy SM

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m ²)	Spaces	Rows	Columns	Modules
24.70	2.4	22.20	4.76	105.70	9	2	19	38



PowerCanopy GW

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m ²)	Spaces	Rows	Columns	Modules
74.10	2.4	22.20	14.40	319.70	18	6	19	114

Notes: Typical canopy details based on a 3-bay / 9 parking space widths layout. 1 bay = 3 x car parking widths.

* 650 Wp module (2,382 mm x 1,134 mm).

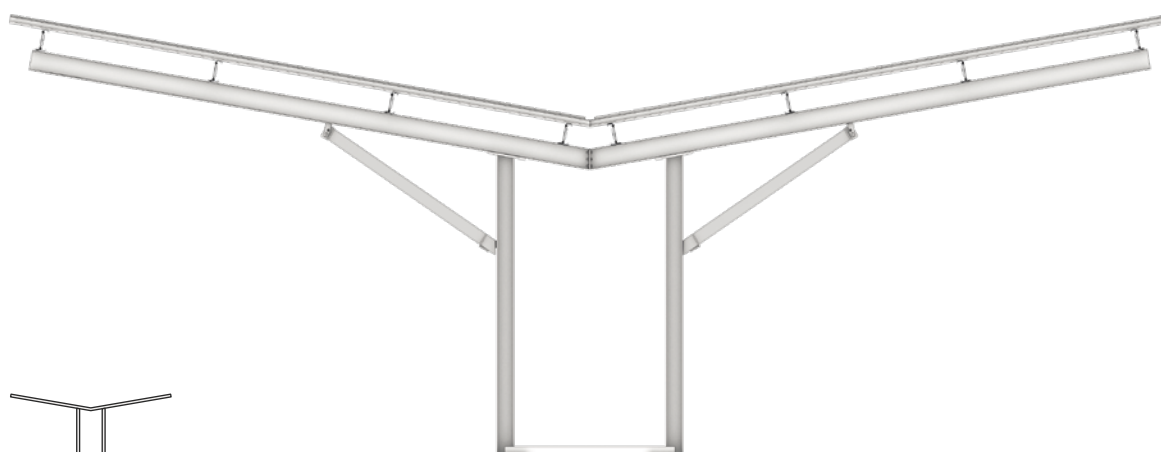


PowerCanopy DM5

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m ²)	Spaces	Rows	Columns	Modules
49.40	2.4	22.20	9.50	210.90	18	4	19	76

PowerCanopy DM7

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m ²)	Spaces	Rows	Columns	Modules
61.75	2.4	22.20	11.90	264.20	18	5	19	95



PowerCanopy GW-DP

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m ²)	Spaces	Rows	Columns	Modules
74.10	2.4	22.20	14.40	319.70	18	6	19	114

Notes: Typical canopy details based on a 3-bay / 9 parking space widths layout. 1 bay = 3 x car parking widths.

* 650 Wp module (2,382 mm x 1,134 mm).

Kingspan PowerCanopy Cold-rolled options

Kingspan PowerCanopy is now available as lightweight, cold-rolled steel frame solutions.

Designed using structural steel systems readily available from Kingspan, the cold-rolled options provide alternative solutions that can reduce lead times to assist with tight programme constraints.



PowerCanopy SM-CR
(single-mono)



PowerCanopy GWDP-CR
(gull wing)



PowerCanopy SM-CR

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m²)	Spaces	Rows	Columns	Modules
26.22	2.4	22.20	5.29	117.30	9	3	19	57



PowerCanopy GWDP-CR

Power (kWp)*	Parking width (m)	Length (m)	Depth (m)	Area (m²)	Spaces	Rows	Columns	Modules
69.2	2.4	22.20	14.10	313.00	18	8	19	152

Notes: Typical canopy details based on a 3-bay / 9 parking space widths layout. 1 bay = 3 x car parking widths.
 * 460 Wp module (1,762 mm x 1,134 mm).

Customised options

Customisable options are available using the full suite of Kingspan solutions.

Customisable options

- ◆ EV charging brackets
- ◆ Inverter plate locations

We have the capabilities to produce a solution to support your needs.

System design

The combination of our PowerCanopy solutions and experienced in-house design team, delivers efficient and cost-effective solutions.

Ground connections

PowerCanopy systems can be adapted to suit any ground connection detail, such as:

- ◆ concrete foundations;
- ◆ helical piles; and
- ◆ ground anchors.



Concrete foundations



Helical piles



Ground anchors





Service and support

Installation peace of mind

Our trusted **Power Konnect** partners offer support from full turn-key solutions including civils and ground surveys to simply support with the main structure.

Power Konnect is a comprehensive support service developed by Kingspan to streamline the process of connecting your PowerCanopy system to the electrical network.

This service includes a detailed step-by-step guide that outlines key project milestones - from initial feasibility and design through to installation, commissioning, and future maintenance.

Leveraging the strength of our wider Kingspan businesses, we have built a trusted network of qualified contractors.

We can either recommend an installer or work alongside your existing supply chain partner to support successful delivery from concept to completion.

The Kingspan Solar Energy Solutions team offers expert design and technical support throughout your project.

Installation partners

We can connect you with experienced, accredited installers who are qualified to work to the highest standards.

Contact us now to discuss your project where our experienced team can support choosing the best solution to meet your needs.



Contact Details

UK

Kingspan Limited

Greenfield Business Park No. 2
Greenfield | Holywell | Flintshire
North Wales | CH8 7GJ

T: +44 (0) 1352 716100

E: kingspansolar@kingspan.com
www.kingspanpanels.co.uk



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Ireland

Kingspan Limited

Carrickmacross Road | Kingscourt
Co. Cavan | A82 E897

T: +353 (0) 42 96 98500

E: kingspansolar@kingspan.com
www.kingspanpanels.ie

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www.kingspanpanels.com

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