



5B Maverick



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Next generation solar

The 5B Maverick is a fully prefabricated solar array solution. It is an Australian designed ground mount, modular solar solution designed to be safer, require less labour hours to install, and to be more energy dense than conventional tracker and fixed tilt array solutions. The 5B Maverick can be used in a wide range of commercial, industrial and large-scale solar applications.

Robust and relocatable, each 5B Maverick consists of up to 90 solar modules, typically mounted on 9 hinged racks between 10 composite steel-concrete beams.

- This system is optimised for the most common 550 - 585W module class of the utility-scale solar industry, at just under 50 kWp per structure.
- Each 5B Maverick is fitted with plug-and-play wiring options, and designed to interface with a variety of DC reticulation solutions.

5B reduces mechanical installation and solar deployment labour hours, and improves safety through efficient assembly of the 5B Maverick arrays, including cabling and module mounting, in facilities designed for repetitive manufacturing. 5B Australia Pty Ltd and the associated Adelaide and Vietnam assembly locations have attained ISO9001 quality systems certification.

DNV, (a top-tier, global provider of expert assurance services in energy), found that the **5B Maverick system yields approximately twice as much energy** (MWh/hectare/yr) when compared to single axis tracker configurations*.

The 5B Maverick is inherently tolerant to high winds. Minimal if any, ground penetrating foundations are required in most cases. At higher wind loads, beam anchoring may be necessary.

The 5B Maverick is the solution for relocatable next generation solar. On-site mechanical installation (including piling, and considering module mounting and string cabling) requires 70% less labour hours when compared to single axis tracker solar solutions. This unlocks installation savings and an unprecedented ability to scale up solar developments - with particular benefits for remote, off-grid and grid connected relocatable solutions**.

- It is relocatable - avoid high decommissioning costs.
- Less exposure to weather delays.
- Less AC & DC cabling.
- Less land.
- Less on-site construction.
- Less on-site labour - Reduced messing and accommodation requirements.

Unlock the potential of your site's renewable energy efficiency with the 5B Maverick.

*Based on 5B comparative studies conducted across sites in Australia and Chile. Includes piling, module mounting and string cabling.

**98% average increase, based on DNV modelling of 6 sites, latitudes ranging from -12.5° to +43.6°. Yield benefit ranged from 90-113.8% (prepared 12/2021).



Why choose the 5B Maverick?

Energy dense. The 5B Maverick solution achieves typically 98% more energy yield per unit area (kWh/hectare/annum) than single axis tracker systems and 87% more when compared to fixed tilt structure PV array systems*. The increased density reduces overall system footprint, lower DC losses, and provides flexibility in layout design to better manage earthwork requirements and other civil design constraints.

Easy. Solar modules and DC stringing are factory fitted so that the 5B Maverick is delivered to site complete and ready to install. Compared to typical single axis tracker and fixed tilt solar array solutions, on-site labour hours and skills, related labour management costs, and machinery movements are greatly reduced.

The Maverick greatly reduces parts staging needs and nearly eliminates associated site waste management.

Adding or reducing yield capacity of the Maverick system in the future is easily completed without complex disassembly and parts storage.

Safer. The 5B Maverick reduces the number of on site repetitive labour assembly activities that can lead to injury or harm. Reduced on-site lost time injuries and lower safety management costs are benefits when choosing the 5B Maverick instead of typical single axis tracker or fixed tilt solar array solutions.

Pre-wired, checked and ready to connect.

Connector failures are a leading cause of performance issues with conventional array systems. Connector failures during the cabling of the array system increases costs, and requires time and technical effort to resolve. The 5B Maverick is delivered ready for connection and fitted with quality assured DC string cables.



*Based on DNV modelling of 6 sites, latitudes ranging from -12.5° to +43.6°. (prepared 12/2021).



Why choose the 5B Maverick?

Robust across all wind regions. The 5B Maverick solution is configurable to meet the needs of projects being deployed into the most demanding environments. Certified to withstand cyclonic wind speeds (up to 78.5 m/s, 3.7 kPa, AS1170.2:2021), and designed for highly corrosive environments (C4 resistance), the 5B Maverick is a highly robust and dependable ground-mount solar solution.

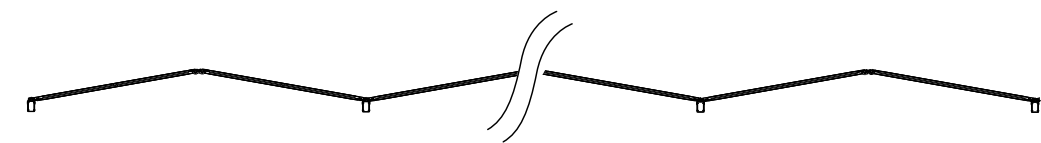
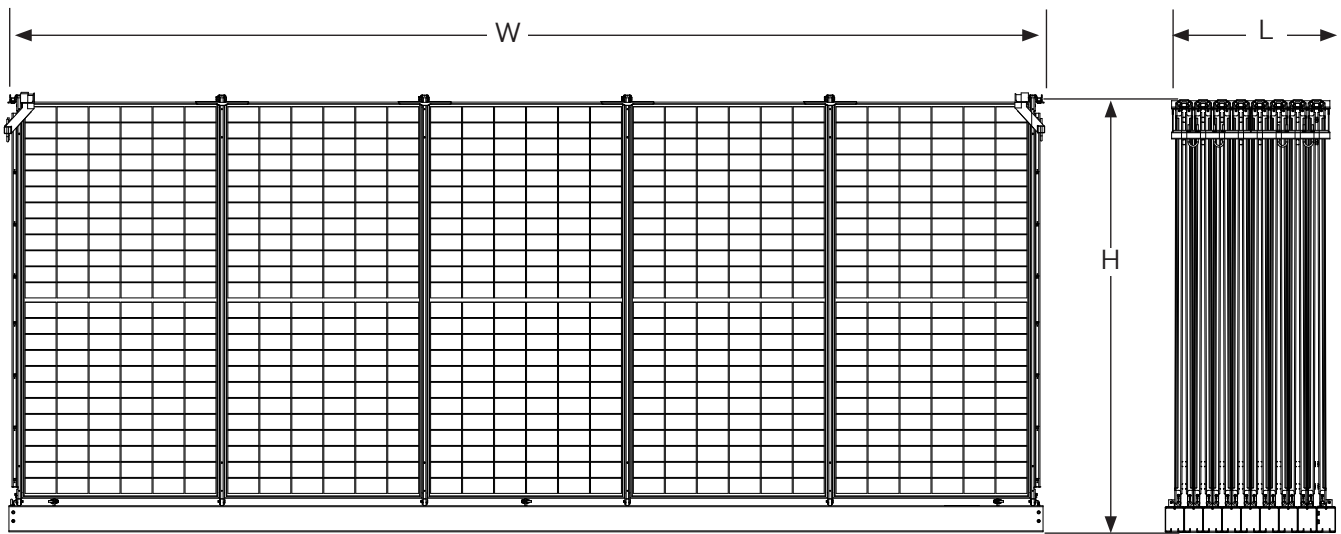
Reliable and durable. The 5B Maverick yield performance is predictable and dependable. Unlike single-axis trackers, the deployed 5B Maverick has no moving parts and so eliminates the potential failure points associated with drive motors, control systems, and batteries - as well as their associated maintenance requirements. Non-powered equipment maximises energy production and is independent of any AC power source.

Quality. Manufacture of the 5B Maverick in a quality assured factory transfers significant on-site labour, waste, logistics, and quality risks to the 5B purpose built assembly lines. 5B warrants the quality of the 5B Maverick, reducing the quality assurance burden on site and during commissioning. Protected from inclement weather, assembly of the 5B Maverick proceeds without the cost of weather based delays or downtime waiting for parts to arrive, reducing schedule risk.

Relocatable. The 5B Maverick solution is relocatable, so when your power plant is no longer needed at one site, it can be efficiently picked up and moved to another site where it can continue to meet power generation needs. This reduces the risk of owning stranded assets and provides flexibility for asset owners with a portfolio of renewable energy plants to manage.

Reduced decommissioning costs. In comparison to typical single axis tracker and fixed tilt array solutions, the ability to fold up and relocate 5B Mavericks allows faster and safer system decommission at the end of the project life - or to extend asset life by re-using the Maverick elsewhere.

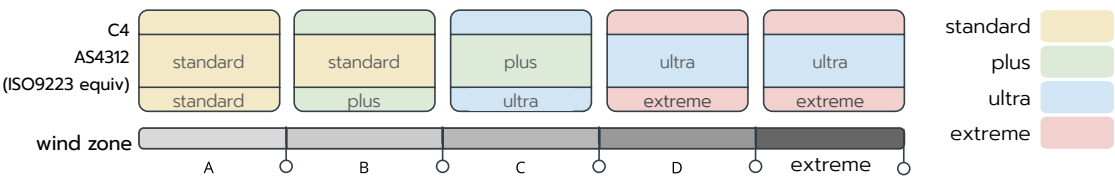
5B Maverick dimensions



Measure	5P10B	5P9B
Packed Height (H)	2523 ± 5mm	
Width (W)	5950 ± 3mm	
Packed Length (L)	1100 ± 20mm	990 ± 20mm
Deployed Length (L _d)	42005 ± 63mm	37350 ± 56mm



5B Maverick layout. Within a 5B Maverick layout, Mavericks that have their long sides exposed to the wind are classified as 'External' while those that are within the array and shielded from the wind are classified as 'Internal' Combinations of different Internal and External 5B Maverick models provide for cost effective layout for a given load condition.



5B Maverick configuration	String length in series	No. interconnected Mavericks per full set	Number of complete strings per set	Maximum system voltage
10 beam (90 module)	30 (2S30-2S15)	2	6	1500V
10 beam (90 module)	27 (2S27-4S9)	3	10	1500V
10 beam (90 module)	18 (4S18-2S9)	2	10	1100V
9 beam (80 module)	20 (4S20)	No interconnection required	4	1100V

5B Maverick specifications subject to change without notice, last updated 10/2023.



System characteristics

Application

Measure	Performance
Maximum design pressure	3.7kPa
Maximum site design wind speed	78.5 m/s to AS1170.2:2021 with unitary multipliers. <i>Note: Site-specific factors may impact design wind speeds in accordance with applicable structural codes. Indicated wind speed is guidance only, and subject to site assessment by a qualified structural engineer.</i>
Corrosion rating	C4 AS4312/ISO9223
Temperature	-60°C to 60°C (-76°F to 140°F)
Height from ground level	Up to 500mm to bottom of beam and 650mm to edge of modules
Warranty	5B warrants the 5B Maverick will be free from defects in materials and workmanship for 10 years after initial deployment

Materials

Element	Material
Module rails	Zinc-magnesium steel
Hinges	HDG steel
Beam foundation	Zinc-magnesium coated steel/concrete composite
Fixing	G316 stainless/85 micron HDG steel

Deployment of 5B Mavericks is completed through qualified and licensed partners using an 8T all-terrain forklift/telehandler. Mavericks are relocatable to new sites by qualified and licensed deployment partners.

Installation

Measure	Characteristics
Deployment rate	Approximately 1MWp capacity per week with a team of 3-4 persons
Max site slope	3 degrees
Ground interface	A variety of zero penetration or anchoring solutions, including compatibility to various pile designs, according to site requirements. The 5B team will provide guidance to the specific site details.

Modules

Type	Characteristics
Length	2256-2227mm ±2mm
Frame width	133-1134mm ±2mm
Frame height	35mm ±1mm
Module configuration	90 modules per 5B Maverick 5 modules wide, 18 set long
Power	Approx. 48.6kWp Module dependent
Mass	28-32.6kg (per module)
Earthing	Single earthing connection point provided for the complete 5B Maverick

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