LUMASOL

UTILITY-SCALE GROUND MOUNT

ZAM STEEL PILED GROUND MOUNT

Dual-post driven pile system for large-scale PV arrays



PRODUCT SPEC SHEET

LMS-GM-ZAM-DP

0°–45°	60 m/s	275 g/m²
TILT	MAX WIND	ZAM

Technical Specifications

SYSTEM TYPE	Dual-post driven pile ground mount
APPLICATION	Utility-scale and large C&I ground-mounted PV
FOUNDATION TYPE	Driven steel pile (no concrete)
TILT ANGLE	0° – 45° options
WIND LOAD	Designs cater for up to 60 m/s
SNOW LOAD	3.0 kN/m²
APPLICABLE MODULES	Framed PV modules
LAYOUT & PILE EMBEDMENT	Engineered per project and site conditions
WARRANTY	Up to 20 years (by corrosivity category, see page 3)
ANNUAL PRODUCTION CAPACITY	20 GW per year

MATERIAL SPECIFICATIONS

PILES / POSTS	Hot-dip galvanised steel, 85 µm coating
MAIN BEAMS	ZAM (Zn-Al-Mg) coated steel, 275 g/m²
RAILS	ZAM (Zn-Al-Mg) coated steel, 275 g/m²
FASTENERS	SUS 304 stainless steel

Key Features

01 Driven pile foundation
No concrete pours or curing time. Minimal earthworks and site disturbance across large arrays.

02 Simplified dual-post structure
Fewer parts per table, reducing installation time and labour on site.

03 ZAM corrosion protection
Zn-Al-Mg coating with self-healing properties, lowering long-term maintenance and O&M costs.

04 Cost-effective at scale
More economical than traditional hot-dip galvanised structures.

05 Single-operator clamping
Module clamps with serrated flange nuts can be fitted by one installer.

06 Integrated earthing
Ground pins with built-in earthing function for electrical continuity across the array.

Components



RAIL
ZAM steel, 275 g/m²



MAIN BEAM
ZAM steel, 275 g/m²



POST / PILE
HDG steel, 85 µm coating



MID CLAMP
With serrated flange nut

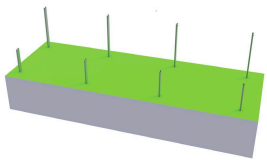


END CLAMP
With serrated flange nut



POST–BEAM–RAIL JOINT
Bolted, SUS 304 fasteners

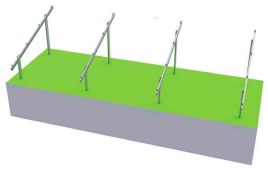
Installation Sequence



01

DRIVE PILES

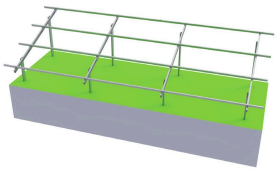
Front and rear piles driven to engineered depth and line.



02

FIT MAIN BEAMS

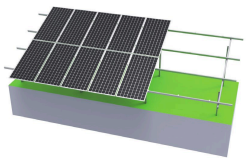
Inclined beams fixed to the posts at the specified tilt.



03

INSTALL RAILS

Horizontal rails fixed across the main beams.



04

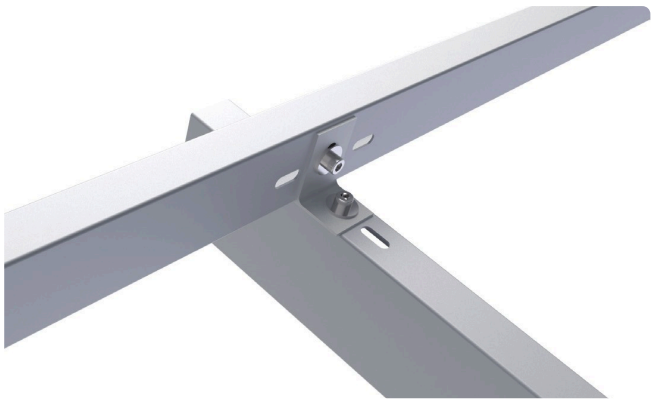
MOUNT MODULES

Modules secured with mid and end clamps.

Connection Details



POST TO MAIN BEAM



RAIL TO MAIN BEAM

Corrosion Protection & Warranty

Warranty coverage by material and corrosivity category (ISO 9223). Specifying the correct material for the site environment is essential to maintaining warranty validity.

COMPONENT	MATERIAL & FINISH	C1 – C3	C4	C5
Main beams & rails	ZAM steel, 275 g/m²	**20 years**	**15 years**	**Not warranted**
Piles / posts	HDG steel, 85 µm	**20 years**	**Not warranted**	**Not warranted**
Fasteners	SUS 304 stainless	**20 years**	**20 years**	**Not warranted**

NOTES

- C5 environments are not covered under the standard product warranty. A separate written agreement is required for C5 installations.
- ISO 9223 classifies atmospheric corrosivity. Pile performance below ground depends on soil conditions, and a site-specific soil assessment is recommended.
- Warranty is valid only upon product registration within 30 days of purchase. Refer to the Lumasol Product Warranty document for full terms, exclusions and the registration process.

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