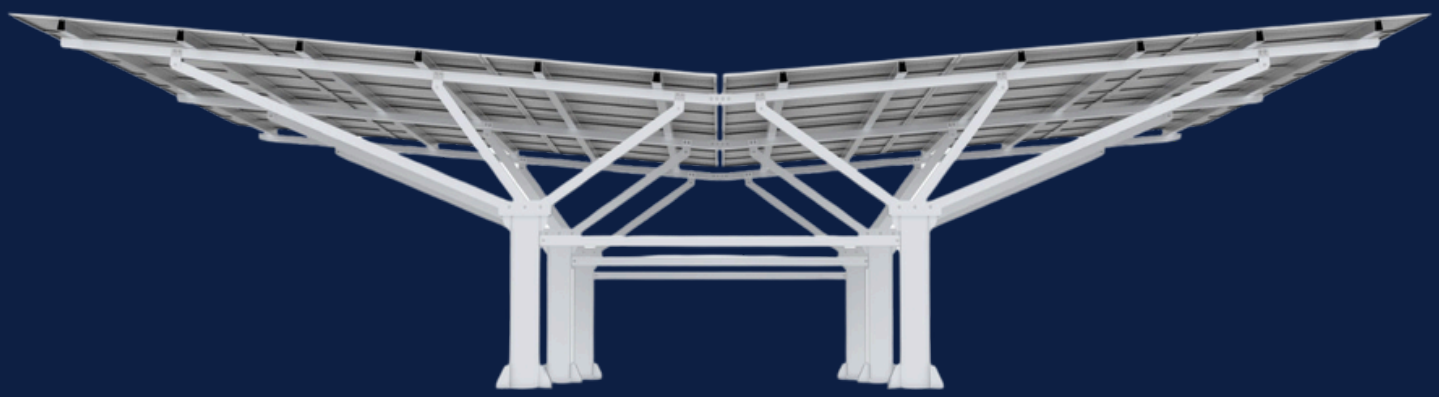
LUMASOL

LUMASOL HYBRID STEEL & ALUMINIUM DOUBLE-POST CANTILEVER CARPORT SYSTEM



ABOUT THE SYSTEM:

The Lumasol Hybrid Carport System combines high-strength hot-dip galvanised steel uprights with anodised aluminium structural components, delivering a durable, corrosion-resistant solar carport solution designed specifically for commercial parking environments.

The system utilises a double-post cantilever design, providing exceptional structural stability while minimising obstruction within parking bays, allowing vehicles to manoeuvre freely without interfering with support structures.

SYSTEM CONFIGURATIONS:

Single-Sided Cantilever (North Facing)
Designed for maximum solar yield with north orientation
Supports 3 PV modules in portrait
5° tilt angle for optimal drainage and generation
Ideal for perimeter parking rows

Double-Sided Cantilever (East / West)
Supports 6 PV modules in portrait
3 modules facing East
3 modules facing West
Enables high energy production throughout the day
Ideal for central parking aisles

KEY SYSTEM FEATURES:

- Heavy-duty posts provide robust structural uprights
- Reduced risk of structural damage from vehicle contact
- 2.5m clearance from ground to underside of structure
- Integrated Solar Panel Mounting Structures

STRUCTURAL DESIGN STANDARDS:

All Lumasol carport structures are designed in accordance with the following South African National Standards **(SANS)**:

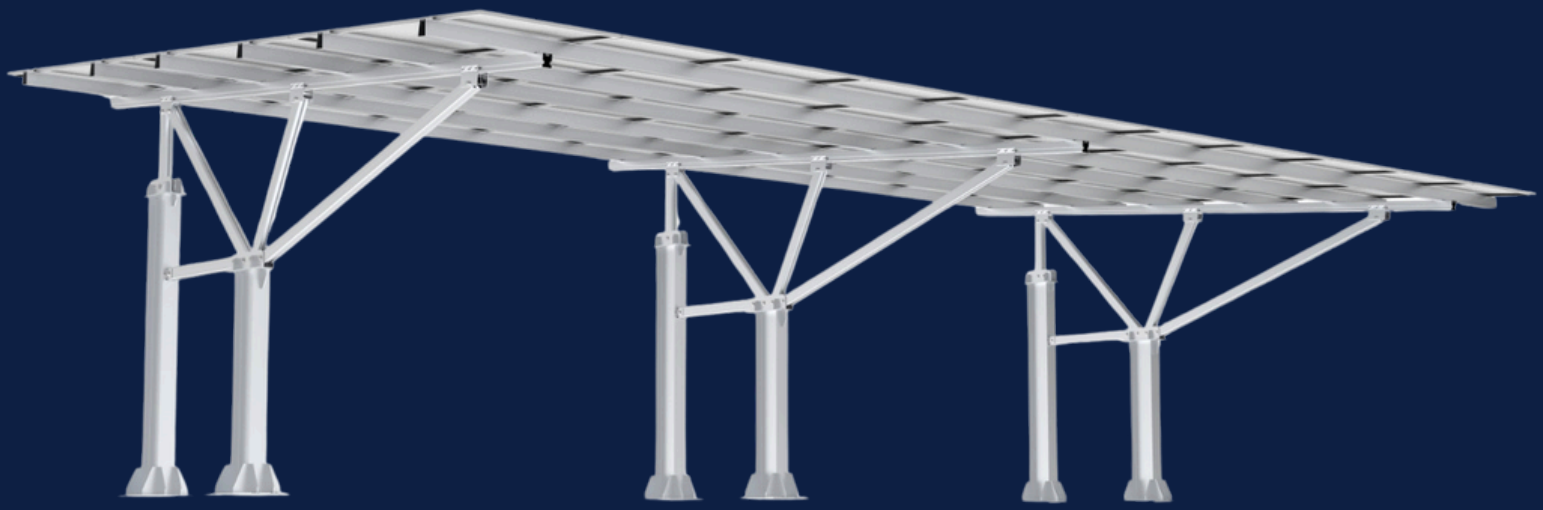
SANS 10160 – Basis of structural design and actions for buildings and industrial structures (including wind loading)
SANS 10162 – Structural use of steel.

MATERIAL + SURFACE TREATMENT:

Aluminium Components:
AL6005-T5 Anodised aluminium 10um.
Structural Steel Posts:
85 µm Hot-Dip Galvanised coating on Q355B.

TYPICAL APPLICATIONS:

- Commercial parking areas
- Shopping centres
- Industrial facilities
- Office parks
- Educational campuses

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