

SOLNXT

ENERGY PVT LTD

Solar Structure Manufacturers



SOLAR MOUNTING SYSTEMS

Engineered Structures for Reliable, Efficient
and Long-Term Solar Performance

ABOUT SOLNXT

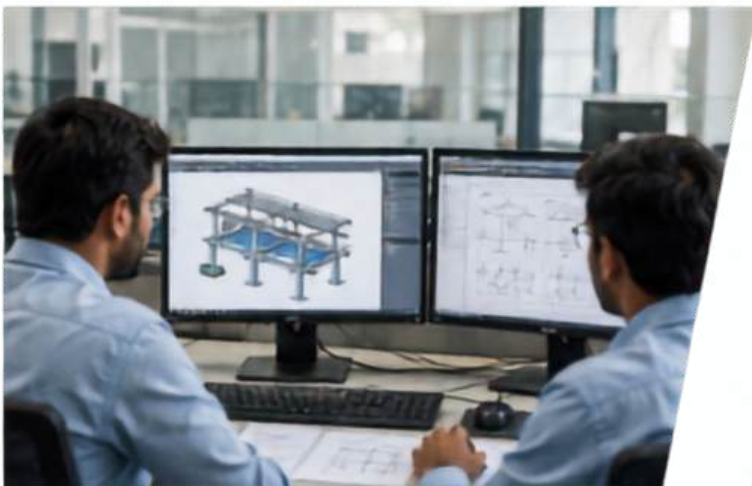
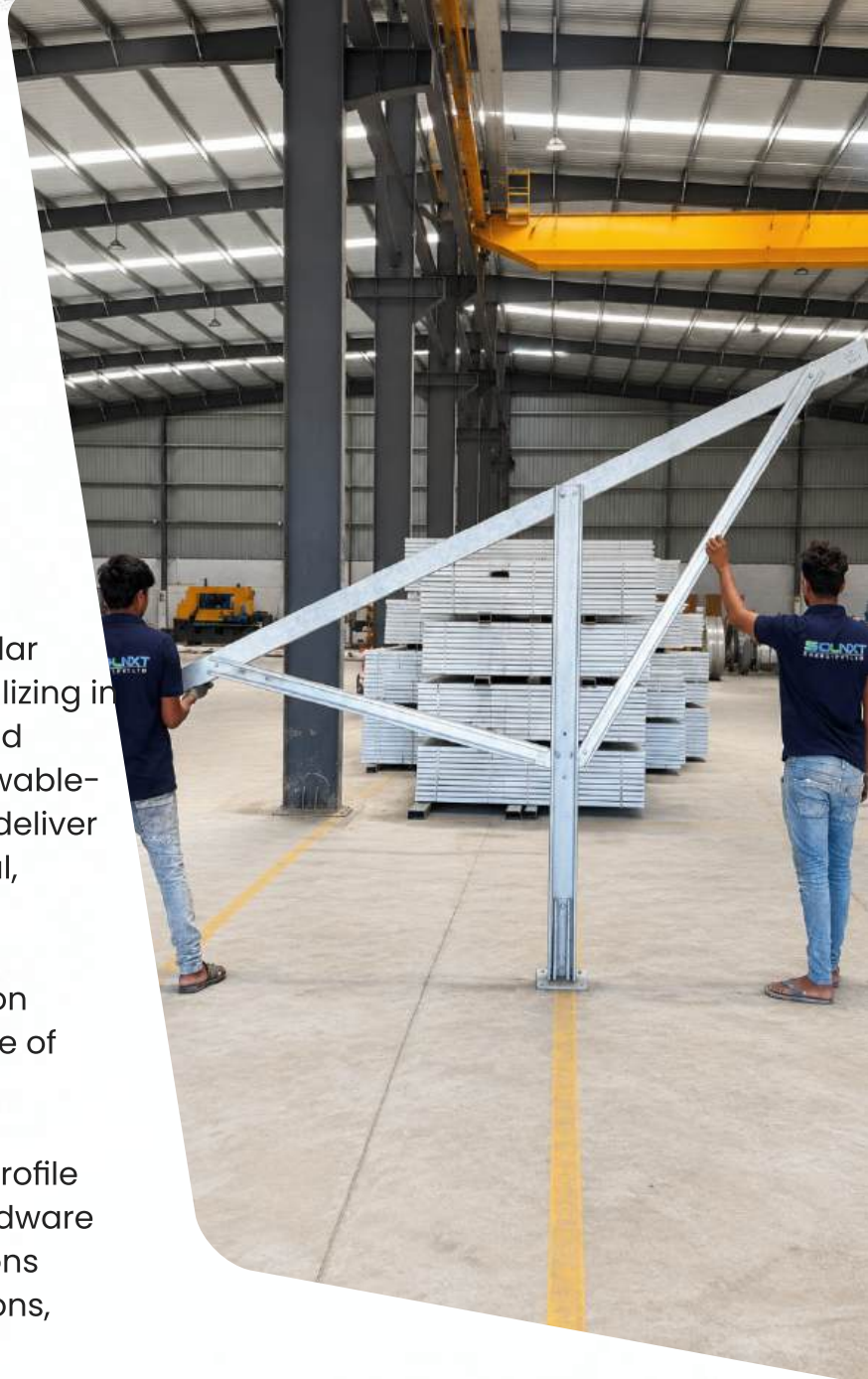
Global Innovation in Solar Mounting and Balance of System Solutions

SOLNXT Energy Pvt Ltd is an innovative solar mounting structure manufacturer specializing in high-performance mounting systems and Balance of System solutions for the renewable-energy sector. We design, fabricate and deliver solar structures for commercial, industrial, residential and utility-scale applications.

Every solution is developed with a focus on structural reliability, economic value, ease of installation and long-term performance.

With expertise in solar structure design, profile fabrication, customised engineering, hardware and accessories, SOLNXT provides solutions aligned with project-specific site conditions, module configurations, wind loads and installation requirements.

Our customer-first approach allows us to collaborate closely with EPC companies, solar developers and installers to provide mounting systems that support project efficiency and dependable energy generation.



Powering the Renewable Energy Transition

Our Vision

To empower the global transition towards clean energy through pioneering innovation, dependable engineering and sustainable solar mounting solutions.

Our Mission

To deliver forward-looking solar structure solutions that accelerate renewable-energy adoption while consistently exceeding customer expectations for quality, reliability, performance and service.

Director's Message

At SOLNXT Energy Pvt Ltd, we are passionate about supporting the global transition towards clean and renewable energy.

We believe that every successful solar installation begins with a strong, accurately engineered and reliable mounting foundation. Our commitment is to develop systems that deliver structural strength, installation efficiency and long-term performance under diverse environmental conditions.

Through continuous innovation, advanced manufacturing and a customer-first approach, we aim to become a trusted partner for solar developers, EPC companies, installers and renewable energy businesses.



OUR END-TO-END CAPABILITIES

Comprehensive Solar Mounting Solutions



01 Design & Engineering

We use advanced CAD tools, structural calculations and wind-load simulations to develop mounting systems that meet project requirements and applicable Indian and international engineering standards.

Site-specific structural design, Wind-load analysis, Foundation recommendations, Material optimisation, Module layout planning, Custom profile development, Installation and code-compliance documentation.

02 Structural Fabrication

From rooftop systems and RCC structures to large ground-mounted projects, SOLNXT manufactures precision-engineered components designed for structural strength, fast assembly and consistent field performance.



03 Hardware & Accessories

We provide mounting hardware, clamps, fasteners, connectors, brackets and installation accessories suitable for different module types and mounting configurations.



04 Profile OEM

SOLNXT develops customised steel and aluminium profiles for solar and cross-industry applications. Custom profile dimensions, punching, embossing and fabrication can be provided according to approved drawings and project requirements.



05 Technical Support

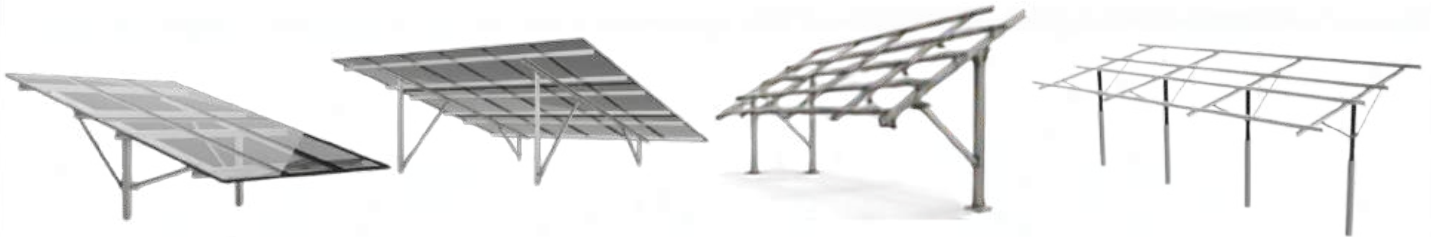
Our technical support includes product selection assistance, structural guidance, installation documentation, project-specific customisation, on-site and off-site installation training, and support from concept to commissioning.



PRODUCTPORTFOLIO

Complete Solar Mounting Product Range

Ground-Mounted Systems



SINGLE POLE STRUCTURE

DOUBLE POLE STRUCTURE

SOLAR CARPORTS

SEASONALITY STRUCTURE

Roof-Mounted Systems



MONORAIL SYSTEM



LONG RAIL SYSTEM



TRAPEZOIDAL SYSTEM



TILTED MOUNT SYSTEM



SEAM CLAMP SYSTEM



RCC BIRACIAL SYSTEM

Balance of System Products



CABLE TRAYS



SOLAR MOUNTING ACCESSORIES



CUSTOMIZED PROFILE



FASTENERS AND
CONNECTION COMPONENTS

► Every mounting solution is developed to balance structural performance, installation convenience, material efficiency and project-specific environmental requirements.

Single Pole Structure

A Proven and Cost-Efficient Solution for Large-Scale Solar Projects

The SOLNXT Single Post Mounting System is a field-proven solution recognised for its simple construction, structural reliability and adaptability across different terrains and climatic conditions.

Its flexible design allows integration with various foundation systems according to soil and project requirements. The lightweight and material-efficient structure supports economical transportation, faster installation and a competitive Levelized Cost of Energy.

Specialised coating options can be selected to suit different corrosive conditions and project environments. Optimized support spacing and efficient material utilisation make the Single Post System suitable for utility-scale and commercial solar installations.

The structure can be supplied as individual components or in a maximally pre-assembled form according to project requirements.

Key Performance Information

2P | 4L

Up to 2 modules in portrait or 4 modules in landscape per table configuration

180 km/h

Designed and tested for wind speeds up to 180 km/h, subject to final project engineering

15° / 30°

Terrain Compatibility — East-West inclination up to 15°, North-South inclination up to 30°



Foundation Compatibility

Driven pile
Cement pier
Anchor bolt
Cement ballast
Other project-specific foundations

Double Post System

Enhanced Stability for Demanding Environmental Conditions

The SOLNXT Double Post Mounting System is engineered for installations requiring increased stability, superior load distribution and enhanced resistance against demanding wind and environmental loads.

Its two-post configuration improves moment resistance and distributes structural forces more evenly across the foundation. This reduces localised stress and supports reliable long-term performance.

The system is particularly suitable for larger module configurations, high-wind regions and projects requiring additional structural rigidity.



Key Advantages

- Increased load-bearing capacity
- Optimised structural load distribution
- Enhanced moment resistance
- Efficient weight-to-strength ratio
- Suitable for larger panel configurations
- Compatible with multiple foundation options
- Reliable performance in demanding environments



Typical Performance Parameters

Module Arrangement:	Up to 2 portrait or 4 landscape modules per table configuration
Wind Resistance:	Up to 180 km/h, subject to final engineering
Terrain Compatibility:	E-W up to 15° and N-S up to 30°
Module Compatibility:	Standard framed, bifacial and selected frameless modules

Structural Configuration

2P

Double Post
Two vertical support columns connected by cross beams and bracing for enhanced stability and load transfer.

Module Arrangement

2P / 4L

Up to 2 modules in portrait or 4 modules in landscape per table configuration.

Ground Mounting Technical Specifications

Materials

Foundation Steel:	Galvanised steel with coating selected according to environmental and corrosion requirements, including G90 or higher protective grades where required.
Structural Components:	Steel columns, rafters, purlins and bracing manufactured with suitable protective finishes such as: Zinc-Aluminium-Magnesium alloy coating, Hot-Dip Galvanising, Pre-Galvanised finish, POSMAC, Galvalume, Other approved project-specific coating
Fixing Components:	Stainless Steel 304, Zinc-flake-coated steel, Aluminium 6063, Project-specific approved fasteners
Design Parameters:	Stainless Steel 304, Zinc-flake-coated steel, Aluminium 6063, Project-specific approved fasteners

Design Parameters

Foundation Options:	Cement pier, driven pile, anchor bolt, cement ballast and customised foundations based on soil analysis.
Modular Design:	Customisable according to project layout, module size and installation requirements.
Supported Modules:	Standard framed, bifacial, thin-film and selected frameless modules.

Module Attachment

- Direct module bolt
- Top clamp
- Additional horizontal rail for selected frameless modules

Maximum Configuration

- Landscape Format: Up to 14 × 4 modules
- Portrait Format: Up to 14 × 2 modules
- Final configuration is subject to structural design, module dimensions and site conditions.

Engineering & Analysis

- | | |
|---|--|
| • Site-specific geotechnical analysis | • Pull-out testing |
| • Finite Element Method verification | • Corrosion testing |
| • Wind-load calculations | • Site-layout optimisation |
| • Optional vibration simulation | • Installation assistance upon request |
| • Structural analysis based on applicable standards | |

Seasonality structure

The SOLNXT Seasonal Tilt System enables manual adjustment of the solar-panel inclination according to seasonal changes in the sun's position.

By adjusting the tilt angle during different periods of the year, the system can improve energy generation without the complexity and maintenance requirements of an automatic tracking system.

Built-in adjustment slots and pre-engineered components support safe, convenient and accurate tilt modification.

Highlights

- Customisable tilt angle from approximately 5° to 30°
- Potential energy-yield improvement of up to 6%, depending on location and operating conditions
- Quick manual tilt adjustment
- Stable and durable structural design
- Suitable for ground installations and flat roofs
- Ground clearance from approximately 500 to 1,000 mm
- Wind resistance up to 180 km/h, subject to engineering
- Compatible with multiple module configurations



Solar Carports

Transform Your Parking Area into a Power-Generating Asset

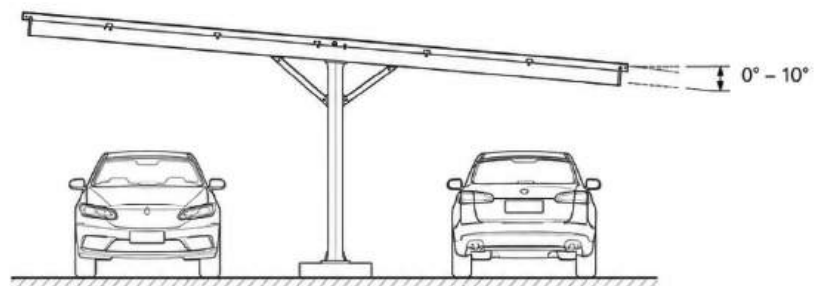
SOLNXT Solar Carports combine covered parking with clean-energy generation, allowing commercial, industrial and institutional properties to use available parking space more efficiently.

The system can accommodate straight or angled parking arrangements while providing shade and structural support for photovoltaic modules.



Technical Information

- Portrait and landscape module orientations
- Tilt angle from 0° to 10°
- Corrosion-resistance options suitable for demanding environments
- Zinc-Magnesium alloy, HDG, GP, Galvalume or POSMAC structural finishes
- Efficient single-column and customised multi-column configurations
- Suitable for commercial and industrial parking areas





Solar Mounting Solutions for Different Roof Types

The performance of a roof-mounted solar project depends on secure attachment, efficient load distribution, installation flexibility and protection of the existing roof structure.

SOLNXT offers a comprehensive range of mounting systems for trapezoidal sheets, corrugated metal roofs, standing-seam roofs, RCC terraces and tilted rooftop installations.

Our roof solutions are developed to minimise installation time, reduce unnecessary roof penetrations and provide compatibility with a wide range of photovoltaic modules.

Roof Product Range



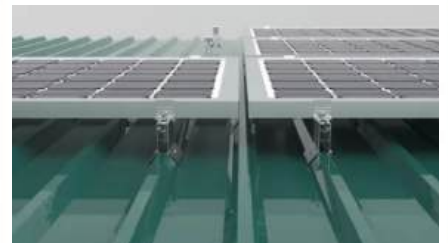
MONORAIL SYSTEM

Compact and efficient mounting for trapezoidal and corrugated metal roofs.



LONG RAIL SYSTEM

A versatile system designed for extended support spans and reduced roof penetration.



TRAPEZOIDAL SYSTEM

A robust side-clamping solution designed to provide strong pull-out resistance.



TILTED MOUNT SYSTEM

An adjustable rooftop structure that improves panel inclination and rear ventilation.



SEAM CLAMP SYSTEM

A non-penetrative solution for selected Kliplok and standing-seam roof profiles.



RCC BIRACIAL SYSTEM

An elevated RCC structure developed to maximise rear-side exposure for bifacial modules.

MONO RAIL & LONG RAIL SYSTEMS

Roof-Mounted Aluminium Solutions

01 Mono Rail System

The SOLNXT Mono Rail System provides a convenient and efficient mounting solution for trapezoidal and corrugated metal roofs.

Its compact rail design supports quick installation without requiring extensive connection to the roof substructure. Custom rail lengths can be supplied according to load, insulation and installation requirements.

HIGHLIGHTS

- Suitable for pitched metal roofs
- Compatible with most PV modules
- Quick installation with fewer components
- Optimised load distribution and roof-space use
- Custom rail lengths available
- Anodised and non-anodised finishes

GENERAL PARAMETERS

- Steel sheet: Above 0.4 mm
- Aluminium sheet: Above 0.5 mm
- Crest length: 22–300 mm, customisable
- Minimum bore-hole clearance: 20 mm
- EPDM sealing recommended
- Rail heights: 30, 70 and 100 mm
- Material: Aluminium 6063-T6 and SS 304



02 Long Rail System

The SOLNXT Long Rail System is engineered to work across a broad range of metal-roof types and pitches. Its extended spanning capability helps reduce the number of roof attachment points, lower installation time and optimise the overall quantity of components.

HIGHLIGHTS

- High strength-to-weight ratio
- Lightweight and easy to install
- Reduced number of roof penetrations
- Suitable for multiple roof profiles
- Compatible with a wide range of PV modules
- Customisable rail lengths
- Anodised and non-anodised options

GENERAL PARAMETERS

- Steel sheet: 0.45 mm or above
- Aluminium sheet: 0.55 mm or above
- Minimum end/joint distance: 50 mm
- Thermal separation for long rail runs
- Rail heights: 30, 70 and 100 mm



TRAPEZOIDAL MINI-RAIL SYSTEM

Secure Rooftop Mounting for Improved Performance

01 Trapezoidal Mini-Rail System

The SOLNXT Trapezoidal Mini-Rail System is developed for secure installation on trapezoidal metal sheets.

Its side-clamping arrangement helps convert pull-out forces into shear forces, providing improved attachment strength compared with conventional top-down connections.

HIGHLIGHTS

- High pull-out resistance
- Minimal sheet damage
- Reduced swarf generation
- Optimised load distribution
- Fewer components
- Quick installation
- Efficient use of roof area

GENERAL PARAMETERS

- Steel sheet: 0.45 mm or above
- Aluminium sheet: 0.55 mm or above
- Minimum end/joint distance: 50 mm
- Thermal separation for long rail runs
- Rail heights: 30, 70 and 100 mm



02 Tilted Mount System

The SOLNXT Tilted Mount System is designed for roofs where the existing surface angle is not optimal for solar-energy generation.

By increasing the module inclination, the system can improve sunlight exposure, rear ventilation and ease of module cleaning

HIGHLIGHTS

- Customisable tilt angle
- Improved module ventilation
- Easier cleaning and maintenance
- Lightweight and installation-friendly
- Optimised load distribution
- Compatible with multiple PV module type

TECHNICAL INFORMATION

- Tilt range: 5°–25°
- Steel sheet: Above 0.4 mm
- Aluminium sheet: Above 0.5 mm
- Wind resistance: Up to 80 km/h
- L Profile: 38 × 38 × 2.5 mm
- C Profile: 50 × 25 × 2.5 mm
- Materials: Aluminium 6063-T6 and SS 304



SEAM CLAMP & RCC BIFACIAL OPTIMA

Non-Penetrative and High-Efficiency Rooftop Solutions

01 Seam Clamp System

The SOLNXT Seam Clamp System is a non-penetrative mounting solution developed for selected Kliplok and standing-seam metal roofs.

The clamp securely grips the roof seam without drilling into the sheet, helping minimise roof damage and leakage risk while maintaining a strong pull-out capacity.

HIGHLIGHTS

- Suitable for Kliplok 700 and 400 profiles
- Non-penetrative installation
- Minimal roof-sheet damage
- Centric load distribution
- Quick installation with fewer components
- Efficient roof-space utilisation
- Compatible with multiple PV modules

GENERAL PARAMETERS

- Recommended roof pitch: 20°
- Minimum spacing: 50 mm
- Thermal separation: After 10 m
- Wind resistance: Up to 120 km/h
- Clamp size: 90 × 80 mm
- Materials: Aluminium 6063-T6 and SS 304



02 RCC Bifacial Optima

The SOLNXT RCC Bifacial Optima System is designed specifically for bifacial solar modules.

Traditional mounting structures can obstruct rear-side light and create unnecessary shading. The elevated and optimised structure improves light exposure across the rear surface, helping increase energy generation and reduce the risk of uneven thermal loading.

PERFORMANCE OPTIONS

- Wind resistance up to 180 km/h, subject to structural design
- Available tilt options of approximately 10°, 15° and 20°
- GP, HDG and powder-coated finish options
- Customisable structure dimensions
- Improved rear-side light exposure
- Suitable for high-efficiency RCC rooftop solar projects



CABLE TRAYS & ACCESSORIES

Complete Cable Management and Mounting Components

01 Cable Tray Solutions

SOLNXT offers cable-management solutions manufactured in different materials, protective finishes and thicknesses to meet project-specific installation requirements.

AVAILABLE MATERIALS

- Pre-Galvanised Steel
- Hot-Dip Galvanised Steel
- Stainless Steel
- Aluminium

AVAILABLE THICKNESSES

- 1.00 mm
- 1.20 mm
- 1.50 mm
- 2.00 mm

PRODUCT TYPES

LADDER CABLE TRAY

Ventilated and economical support for heavy cable installations.

PERFORATED CABLE TRAY

Provides organised cable routing with ventilation and support.

SOLID CABLE TRUNKING

Offers maximum cable protection and reduces sagging.



02 Mounting Components & Accessories

SOLNXT manufactures selected components in-house and sources specialised items from approved vendors after quality inspection.

ALUMINIUM COMPONENTS

- Mid Clamp
- End Clamp
- L Clamp
- Rail Connector
- Module Clamps
- Custom Rail Components



Allen Key Bolt



J Bolt FlangeNut



Hex Bolt



Self Driving Screw



Rivets



Base Plat



Spring Nut Bolt

SELECTED SPECIFICATIONS

- Mid and End Clamps: Aluminium 6063-T6
- End Clamp sizes: approximately 30 to 45 mm
- L Clamp: approximately 85 × 50 × 5 mm
- Rail Connector: approximately 400 mm or customisable
- U Bracket: approximately 100 mm height × 50 mm width
- Custom sizes available according to project requirements



Wedge Fastener

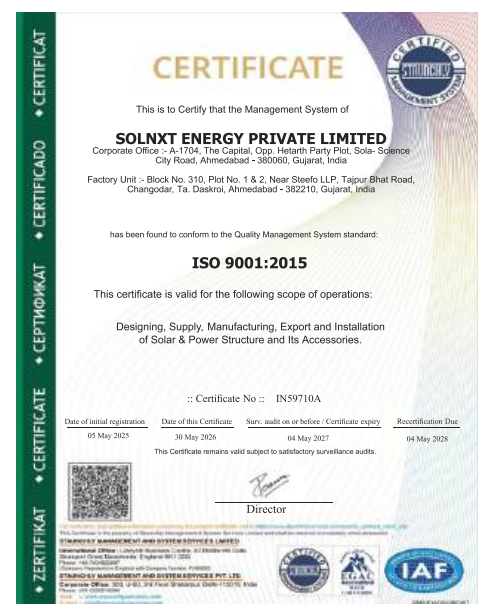
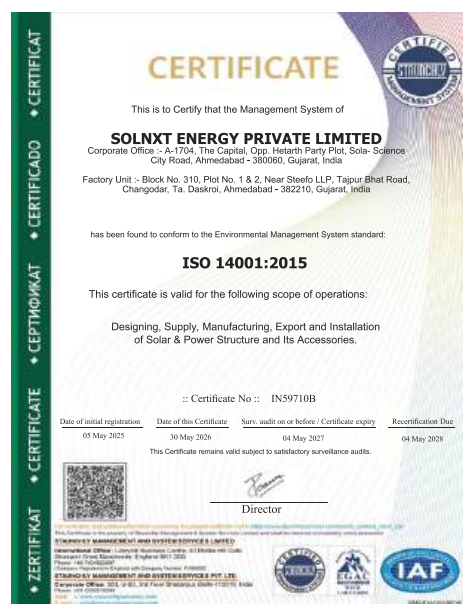


EPDM Tape

CERTIFICATIONS

Present the approved certificates available in the company profile:

- ISO 9001:2015 — Quality Management System
- ISO 14001:2015 — Environmental Management System
- ISO 45001:2018 — Occupational Health and Safety Management System



posco
INDIA PC



AM/NS
INDIA



apollo



LET'S BUILD STRONGER FOUNDATIONS FOR BRIGHTER ENERGY

Contact / Back Cover

Whether your project requires a rooftop mounting system, ground-mounted structure, RCC solution, solar carport, cable-management system or customised profile, SOLNXT is ready to support your requirements with dependable engineering and manufacturing expertise.

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