



Sumai Renewable

Energy Solution



SUMAI

is our oath towards dedicated efforts in ensuring efficient products and uninterrupted services to all enthusiast who want to be part of the inevitable renewable revolution





Sumai Renewable was established with the mission of bringing to the market superior technical and design solutions for the Solar Industry. The core focus was on assembling customized and efficient panels for projects of all sizes and uses. Over the years, integration into a product line customized for non-solar solutions like electrical was a natural choice due to possibility of shared resources and stakeholder channels. Consequently, today Sumai has come to establish brawny product lines in both solar and electrical solutions.

Solar Products

DC Distribution Box (DCDB)/
Array Junction Box (AJB)

AC Distribution Box (ACDB)

ACDB -800VAC

No Volt Relay (NVR) Panel

Meter Panel

String Monitoring Unit (SMU)

Electrical Products

PCC Panels

APFC Panels

PDB/LT Panels

MCC Panels





Electrical Products

PCC PANELS



Power Control Centre (PCC) is a power instrument used for distribution and control of various power sources used in industry. It is the main panel normally installed near power source, leading to possibility of high fault levels. Sumai PCC panels consist of feeder breakers, monitoring devices and control devices. They are further provided with various protections like short circuit; overload, earth fault, under voltage etc to for safeguarding source and equipment. The Bus bar systems and cable terminations are designed keeping in mind protection at temperatures 40 degrees higher than ambient temperatures.

Active/Automatic Power Factor Correction/Control (APFC) Panels is an electrical control panel that maintains the power factor of an electrical system. It does so by controlling the capacitor banks as per the needs of the system. By doing so, it maintains the PF up to 0.999 or Unity leading to availability of quality power to the LT panels.

An APFC Panel extends some important benefits on installation:

- It minimizes harmonic disruption, reduces risk of operational issues and power harmonics and safeguards the equipment from damage and harmonics.
- It extends consistent power correction during fluctuating power loads on the premises.
- It extends dual Power factor Control for both leading and lagging scenarios.

Sumai APFC panels are built with user-friendly interface designed for semi-skilled workers. They are designed to reduce the risk of operational issues and power harmonics. They work on the principle of VAR sensing by reading the load automatically in multiple stages.

APFC PANELS



PDB/LT PANELS



Power Distribution Board (PDB)/ LT panel is an electrical component that is used to distribute electrical power into subsidiary circuit by a circuit breaker and switch fuse unit. It not only ensures efficient distribution of power, but also protects the subsidiary circuits in case of overload and short circuits.

Sumai PDB Panels are equipped with an efficient number of air circuit breakers, switch fuse units, contractor, protective relays, fuses, meters, indicating lamps, push buttons and busbar. They are designed for both removable and fixed versions with ample cabling space for easy connections. They are fabricated with high quality CRCA sheets and powder coating with 7-tank process within IP 31 or IP 54 Index Protection.

Motor Control Centre (MCC) Panels are the central instruments to control electric motors of an electrical system consisting multiple motors. It is made up of combinations of different types of motor starters like Direct Online (DOL) Starter or Star-delta starter.

Sumai MCC Panels are complete with assembly of motor starter, fuse or circuit breaker and power disconnect. It offers various types of MCC panels like MCC with remote operation, Draw Out type, Dual Starter, Autotransformer Starter and VFD control.

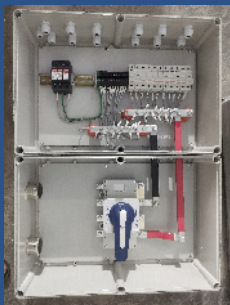
MCC PANELS





Solar Products

DC Distribution Box (DCDB)/ Array Junction Box (AJB)



Sumai offers bespoke AJB/DCDB solutions for Roof top and large-scale PV project alike, for indoor as well as outdoor wall mount, also adaptable to harsh environment. We can provide all of the following sub-components based on the unique requirement of each site:

- DC Fuse
- DC surge protection device
- DC circuit breaker or DC isolator switch
- IP 65 waterproof, anti-dust and anti-ultraviolet design
- Polycarbonate, FRP or cold rolled steel enclosure

Each and every sub-component used is tested/certified as per Nation/international standard and the final product offerings go through strict tests for high/low temperature. The internal wiring is simplified and convenient to ensure easy installation.

Sumai offers wide range and customized ACDBs for all kind of need varying from KW to MW range, with internal electrical design to ensure saving of optimal amount of cost and cables. The following sub-components assist in to achieve this better:

- AC surge protection device
- AC circuit breaker
- Multifunction meter
- Inbuilt with NVR setup
- CBCT & earth fault relay

AC Distribution Box (ACDB)



ACDB -800VAC



The inverters used in the photovoltaic systems at present are designed to operate in coordination with 600 or 690V AC distribution systems. Increasing the voltage values and reducing the losses is the approach used to create more efficient systems.

To keep up with these trends, Sumai has developed a new range of 800V LT Panels, which are specially designed keeping in mind the protection and distribution of electric networks from the new inverters with operational voltage level ratings of 800V AC. This ensures further increase in energy efficiency, limiting of involved rated currents and reduction in switchgear size, resulting in decreased installation time and costs.



No Volt Relay (NVR) Panel



Sumai provides cent percent efficient NVR panels to safeguard inverters in case of power failures or protect them from single phase, over voltage or under voltage. The Relays are designed to not reset again until the power phases become healthy again. The NVR panels are complete with:

- Special relay combination
- Contactor & MCB
- A/M Selector Switch

Sumai provides NVR Panels for all types of applications like Solar Rooftop Power Plants, Solar Ground Mount Power Plants as well as Residential Solar Power Plants.

Sumai assembles easily installable indoor and outdoor type Meter panels for domestic and industrial purposes for measurement of power used up and the rate of power consumption. Sumai Meter panels are complete with following features:

- 14G/16G CRCA steel enclosures
- IP 54 degree protection
- Dust and vermin proof
- Cross-linked foam gaskets

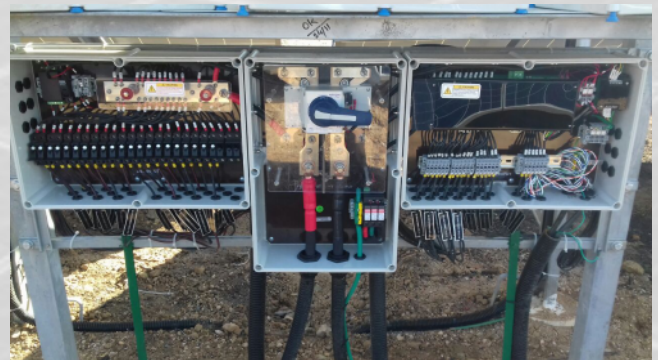
Meter Panel



The SMUs offered by Sumai are designed to ensure increase in overall return on instrument for PV system installation, while increasing safety for O&M employees, especially for MW scale projects. The following sub-components ensure accurate measurement of various factors to better understand the system performance:

- DC Fuse
- DC shunts (Hall effect sensors)
- String card
- Connectivity to PLC/SCADA via MODBUS/RTU

String Monitoring Unit (SMU)



Sumai Edge

We provide product solutions that ensure highest safety for uninterrupted power generation and for maintenance staff. Our solutions are available for complete range of sub-components to deal with all types of natural calamities and mechanical breakdown with least cost effects. All our product configurations and sub-component selection is done so as to provide high reliability, adaptability and flexibility. Each and every sub-component used is tested/certified as per Nation/international standard and the final product offerings go through strict tests for high/low temperature. The internal wiring is simplified and convenient to ensure easy installation.

A separate electrical & solar product range ensures each project is given its due attention keeping in mind the relevant need and separate experts and product design teams are kept in the loop from client request-for-quote to tech-spec sheet creation to final assembling. Such approach leaves no space for any kind of oversight in client requirement, ensuring client satisfaction project after project.



Easy to install for
all imaginable situations



World class quality
with best industry price



Reliable in
extreme conditions



Energy
Efficiency



Higher Return
on investment



Designed for
Reliability



Flexible



Easy to
service



Sumai Renewable

Energy Solution

C-35, D.K. Metro Industrial Estate, Nr. Milan
Kanta, Sahyog Hotel, GIDC, Chhatral – 382729,
Gandhinagar, Gujarat India.

+91 09725994443
info@sumairenewable.com
www.sumairenewable.com