# MODUTEC®

Simplifying Panel Building



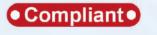


MODDIS

# Modular Electrical Enclosures for Every Need











#### **Shaping Tomorrow**

Modutec aims to simplify panel building for Panel Builders, OEMs, and End Users. We do this to meet the urgent need to distribute electricity worldwide faster, smarter, safer, greener, and more compliant ways.

Our mission is to help our Panel Partners standardise for speed, systematise for scale, and simplify the currently cumbersome methods of constraint and complication-ridden enclosure manufacturing with software

We emphasise the importance of switchboard manufacturers being asset-light, focusing more on the intricacies of electricals and electronics and finding time to be increasingly customer-centric. We catalyse the ready availability, easy accessibility, and fair affordability of our products and solutions, ultimately enhancing the end user's experience.

As the most type-tested Indian modular switchboard enclosure systems, we demonstrate the importance of compliance, urge the need for upgraded specifications, and ensure our products' highest quality and reliability. We educate our Partners to leverage our modular technology better to serve their industrial, building, and infrastructural clients.

We are switchgear agnostic, providing our Panel Partners with the advantage of choice while allowing them to benefit from the adaptability, flexibility, and versatility of arguably the world's best modular electrical flatpack enclosures.



#### **VISION**

To serve Panel Builders worldwide, scale profitably while distributing electricity in a safe, reliable and convenient manner.

#### **MISSION**

To Simplify Panel Building showing, sharing and shaping minds in faster, smarter and greener ways.

#### **VALUES**

Of being Enterprising, practising Equality, living Empathetically, shining forth Excellence and continually Evolving.

#### **QUALITY**

The Intent to be inculcated into every Modutecian, to meet Global Standards, User Delight and Simplicity.

#### **CERTIFICATION**

To comply with evolving International Standards, is our ongoing journey of learning and advancing to support Panel Builders.





Faster, Smarter & Greener

Adaptable, Flexible & Versatile

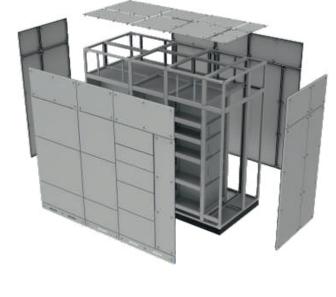
Switchgear agnostic and hence freedom of choice

Type Test compliant to IEC 61439 1&2 and repeatedly

Economical, affordable and fair priced

Software for estimation, engineering & execution

Training, handholding & partnering



**SWITCHGEAR** 

MAKE OF YOUR CHOICE

SWITCHBOARD



## MODDIS







#### Salient features of MODDIS

- Versatile Application: Designed for Power Control and Motor Control Centers.
- Simplified Construction: Built with two basic profiles: A frame bar and a Crossbar.
- Standardised Dimensions: 30mm increments with standardised Width, Height, and Depth.
- Customisable Lengths: The frame bar and Crossbar can be cut at 30mm intervals.
- Proven System: Modular bolted flat pack system.
- Certified Quality: Type tested to IEC 61439 -1 & 2 standards with certifications from ASTA (Intertek UK), DEKRA, ERDA, CPRI; compatible with LS-Electric, ABB, Schneider, Mitsubishi, EATON, and Siemens circuit breakers.
- Internal Arc Fault Test: Type tested to IEC / TR 61641 standard with certification from ASTA (Intertek UK)
- **High Performance:** Tested up to IP 55, 65kA for 3 seconds, with no derating in temperature rise at 5000A.
- Flexible Configurations: Available in Single-front and Double-front options.
- **Ease of Estimation:** Simplified estimation with MODSIM and MODEST software.
- Accommodates Changes: Last-minute changes can be easily managed.
- **Cost-Effective Shipping:** The flat pack system drastically reduces shipment costs.
- Comprehensive Support: Detailed assembly animation videos and catalogue.
- Safe Handling: Standard lifting procedures ensure secure and simple lifting.
- **Switchgear Flexibility:** Freedom to choose from a variety of switchgear manufacturers.

Tested with











**SIEMENS** 



## **MODBAY**









#### Salient features of MODBAY

- Modular Design: Flexible and adaptable to various configurations.
- **Bayable:** Easily expandable with bayable design.
- Protection Ratings: Available in IP 43 and IP 54.
- **Enclosure Types:** Form 1 and Form 2 enclosures.
- Adjustable Depth: Depth-adjustable mounting plate.
- **Door Options:** Single and double leaf doors.
- **Secure Locking:** 3-point locking system.
- Base Plinth: Modular base plinth available in 100mm version.
- Front Options: Available in single and double front configurations.
- Enhanced Door Stability: Punched rails on door stiffener.
- Convenient Access: Split gland plate.
- Color Options: Standard colors RAL 7032 and RAL 7035 (Other colors available on minimum order quantity).

#### **Accessories (On Request)**

- Door stay
- Inner door
- Toughened glass door (custom sizes)
- Drawing pocket (sheet steel or plastic)
- And more...







## MODDIS - DD

MODDIS-DD is a double-door version of an electrical switchboard, enhancing the panel's aesthetic appearance while flawlessly executing electrical distribution functions in a modular, flexible, and versatile enclosure.

Designed to meet the evolving needs of modern commercial building environments, MODDIS-DD combines innovative features with robust construction to ensure optimal performance, safety, and efficiency.

With its advanced design, MODDIS-DD offers easy access for maintenance and upgrades, reducing downtime and improving operational efficiency. Its customisable configuration options allow it to adapt to various applications, making it the ideal choice for facilities seeking a reliable and adaptable electrical distribution solution.

## **Key Features of MODDIS - DD**

- Double Door Design with Outer Glass Door Enhanced Safety & Aesthetics: Provides additional protection and allows visual inspections without opening the panel, offering a sleek, professional appearance.
- Modular and Scalable Customizable & Easy Installation: It can be easily configured and expanded to meet specific needs, and it is designed for simplicity to reduce installation time and complexity.
- Superior Safety Standards
  Compliance with Latest Standards: Meets the latest international safety standards, featuring IP 43/54 protection ratings and Form 2, 3, and 4 construction.
- High Durability and Reliability
  Robust Materials: Profiles and internals made from high-quality Aluzinc material to withstand harsh conditions, ensuring long-term reliability and performance.
- Space-Saving Design Efficient Layout: Compact and efficient, optimising space utilisation within electrical rooms.
- Exceptional Rigidity Enhanced Stability: Profiles built with four bent crossbars for maximum rigidity, providing superior stability and durability.





# MODDIS - SS

Designed to meet the same high standards of performance, safety, and efficiency as our regular MODDIS and MODBAY panels, MODDIS-SS offers the added durability and aesthetic appeal of stainless steel construction.

Perfect for environments that demand corrosion resistance and a polished appearance, MODDIS-SS is the ideal choice for industries such as food processing, pharmaceuticals, marine applications, and others.

MODDIS-SS also reduces maintenance costs and extends service life while maintaining a pristine appearance. They are suitable for functional and decorative applications, enhancing overall site aesthetics.

## **Key Features of MODDIS - SS**

- Unparalleled Quality: MODDIS-SS panels are meticulously crafted from high-grade stainless steel, offering unmatched corrosion resistance and durability. This ensures their longevity even in the harshest environments. These panels are available in all AISI grades of steel.
- Similar Design and Functionality: Built with the same innovative features and robust construction as our regular MODDIS/MODBAY panels, MODDIS-SS maintains optimal performance, safety, and efficiency.
- Exceptional Durability: MODDIS-SS panels' stainless steel construction gives them exceptional durability and reliability, even in the most demanding environments.
- Enhanced Aesthetic Appeal: The sleek, modern look of stainless steel enhances the aesthetic appeal of MODDIS-SS panels, making them suitable for both functional and decorative applications.
- **Easy Maintenance:** Stainless steel's non-porous surface makes MODDIS-SS panels easy to clean and maintain. They require minimal upkeep while retaining their pristine appearance.
- **Eco-Friendly Material:** Stainless steel is a recyclable material, making MODDIS-SS panels an eco-friendly choice for sustainable construction and design projects.





MODACC



### **MODACC**

A range of modular accessories and innovative joiner pieces that enhance the modularity of the Modutec product range.

### **MODFLX**

- Ambient and Working Temperatures: Rated currents are specified for a reference ambient of 40°C, with an average working temperature of bus bars at 90°C.
- Short-Time Currents: Applicable for a final temperature limit of 200°C at the end of 10ms.
- Application Requirement: These flexible bus bars must be used with a short circuit protection device (SCPD) capable of interrupting within 10ms, with the peak cut-off current limited to specified values.



## **Door Stay**





#### **Door Locks**

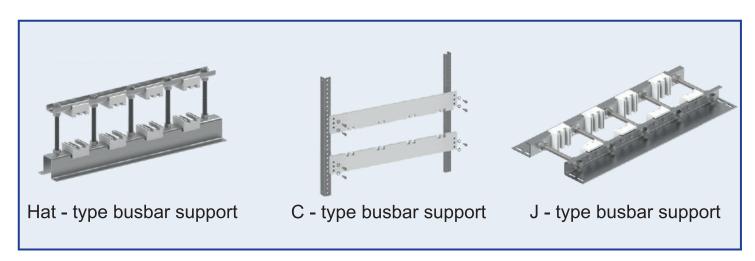


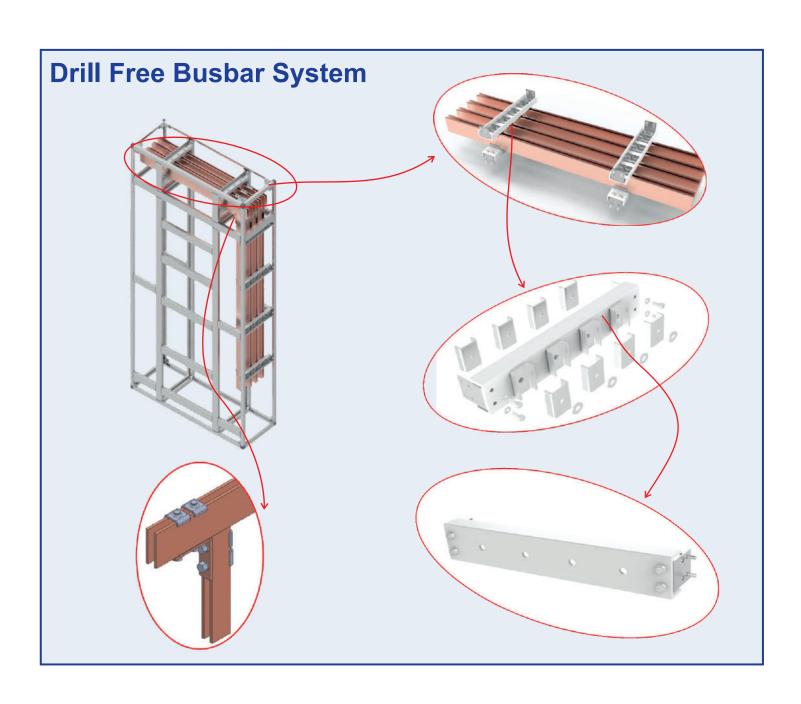


## **Busbar Supports**



#### Modutec facilitates various busbar support assemblies:







## MODPAN

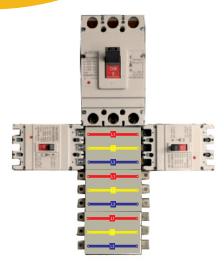
MODUTEC Pan Assemblies for MCCBs are available in configurations from 4-way up to 18-way, supporting 3P and 4P for 250A, 400A, and 630A ratings in open type, and 3P only in molded type. They ensure a safe design and comply with IEC 61439 standards.

#### Salient features of MODPAN

- Compatibility: Accommodates major OEM MCCBs and MCBs without adaptors.
- Fully Insulated & Encapsulated: Ensures maximum safety.
- Enhanced Safety: Safer than conventional systems.
- Quick Installation: Faster to install.
- Compact Design: More compact in size.
- Ease of Installation: Removable chassis for easy installation.
- Versatile Options: Available in open-type and surfacemounted configurations.

#### **MODPAN Specification**

Mains Capacity: 30A - 630ASub Capacity: 30A - 400A







# MODMED

The MODUTEC MV Basic Kit, part of the MODMED range, is a Type Tested indoor switchgear flat pack assembly that ensures maximum user safety, simplicity, and reliability during installation, operation, and maintenance. It meets all electrical distribution needs up to 11 kV and incorporates innovative solutions.

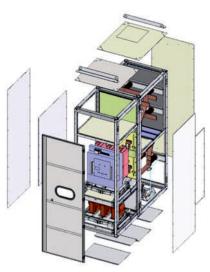
### **Applications:**

- **Energy:** HV/MV substations, MV/MV substations, power generation
- Infrastructure and Buildings: Hospitals, airports, subways, railways, industrial and commercial buildings
- Industries: Oil & gas, metal & mines, marine, automotive, food & beverages
- Other Sectors: Data centers, renewables, and more

#### **Salient features of MODMED**

- Safety, Simplicity, and Reliability
- IEC 62271-200 Verified
- Draw-Out Mechanisms
- Compatible with Schneider EasyPact / Eaton VCBs
- Suitable for Indoor and Outdoor Use
- Internal Arc Design with Exhaust Flaps Available
- Top or Bottom Cable Entry
- Modular Flat Pack Design
- Electrical Ratings:
  - 4,000 A / 40 kA for voltages up to 11kV
  - 2,500 A / 31.5 kA for voltages up to 11kV
  - 1,250 A / 26.3 kA for voltages up to 11kV
- IP4X Degree of Protection







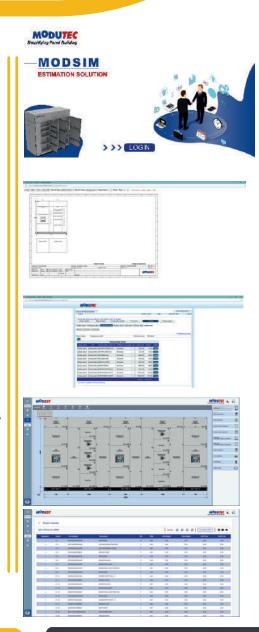
# MODSIM MODEST

Globally, many governments have implemented stringent regulations regarding safety, compliance with IEC standards, and world-class quality.

To support this trend and enable panel builders to produce world-class panels in terms of quality, safety, and technology, MODSIM and MODEST excel in facilitating on-time delivery, reducing lead times, and simplifying processes.

#### Salient features

- MODSIM: A web-based designer application for electrical switchboards in our product line. As part of the MODUTEC Solution, MODSIM helps our partners develop a more efficient and transparent pricing structure for both electrical and mechanical.
- MODEST: This software is designed to simplify the panel building process for panel builders, OEMs, MODHUBs and system integrators for enclosure BOM.
- User-Friendly Tool: MODSIM and MODEST are designed for creating switchboard enclosures, providing an accurate bill of materials and price estimate.
- Modern Interface: Features a modern, interactive interface for generating BOM, 2D design and drawings.
- Accuracy and Efficiency: The guided design process and visualization features help minimize errors and ensure accuracy during the design phase.
- Comprhensive Support: The tools support project management, general arrangement drawings, bill of materials, quotations, and 2D drawings.
- Flexibility: The tools support various panel configurations, making it adaptable to different manufacturing requirements.



## Type Test Certificates



#### IEC 61439 - 1 & 2 and IEC / TR 61641



































# Taking the Modular Concept Worldwide







ABB validating the Modutec enclosure system as being compliant to IEC 61439-1&2

## Certificate

IEC 61439

Awarded To

Modutec Ready Panels Private Limited, No:4, K Ashwath Industrial Layout, Uttari Road Off Kanakapura Road, Kaggalipura, Bengaluru – 560116

Has designed, manufactured, and completed testing of Low-voltage Switchboard (415V, 4000A, 65kA for 1 Sec) and certified in accordance with the standard IEC 61439-1 and IEC 61439-2 using ABB low voltage switchgear components and are authorized to assemble, test, manufacture, and sell under its own responsibility.

Date of Issue: 11/04/2024

Dev Chandra Kuril

Product Marketing Manager

Valid till: 31/12/2024

Ajay K Garg

Panel Builder Channel Manager



