

Move towards future MAIN DISTRIBUTION BOARD



ENERSYS-M



Educational
Institutes



Hospitals



Hotels &
Resorts





Malls

Residential
Complexes



Commercial
Complexes



Innovation and Technology leader L&T provide a comprehensive range of solutions to exceed your present and future requirements. The new range of distribution board from L&T is more reliable and safe; assuring you, an absolute uninterrupted power supply for your infrastructure.

Energys-M range of main distribution boards are perfect match for your commercial and residential complexes, hotels, hospitals, resorts, malls and educational institutes.

L&T Electrical and Automation is a part of the multi-billion dollar technology, engineering, construction, manufacturing and services, Larsen & Toubro conglomerate. The Company designs, manufactures and markets a wide range of low voltage and medium voltage electrical systems, control and automation systems, electrical products and metering and protection systems.



Safety First



Perfect Harmony



The Leading Edge



Counter The Time



The Smart Space Saver



Enersys-M range of main distribution boards are backed by many years of knowledge, switchgear experience in addition to feedback from consulting engineers, electrical contractors and end users.

With Enersys-M, we assure you cutting-edge performance, superior safety, greater reliability, effective use of your capital & space and high class protection for your power distribution systems.

The design verified assembly together with increased versatility makes it competent to accomplish today's challenging demands and move towards fulfilling future expectations.

Enersys-M is a fully compartmentalized and duly complied with the latest international standards and local regulations, elevating your power distribution to a new level.

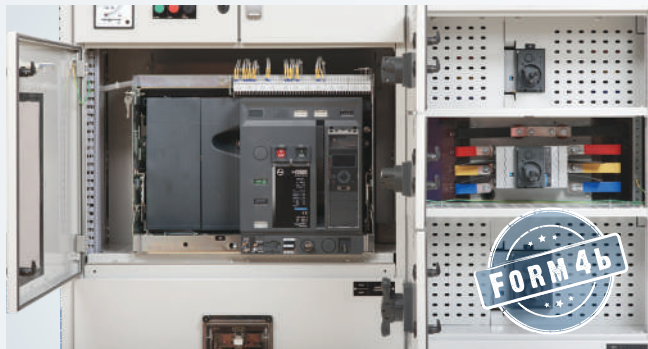




Safety First

Noble guardian

Energys-M is divided into distinct compartments (equipment, busbar, cable and auxiliary) segregated by metallic or non-metallic partitions or barriers, to ensure maximum safety level for your operator against electric shock.



Multi level safety

The specially designed tool operated and padlockable door knob provides multi level safety for your personnel.

Additionally you are protected from accidental access to live parts by our intelligent interlocks.



Trusted bus system

Generous clearances for main busbars and connectors ensure unmatched safety for you.

Supports and insulation materials are flame resistant, track resistant and non-hygroscopic exhibiting outstanding electrical properties.



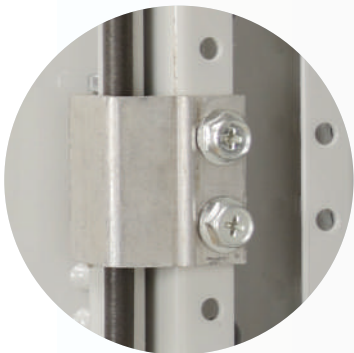
Safety First



Environment control

Enersys-M gives you protection against access to hazardous parts, solid foreign bodies and liquids.

The innovative design of camlock, hinges and door gasket bolster ingress protection.



Integral safety - arc protection

The complete closed door operation and limitation of fault within a confined area, Enersys-M ensures total safety for the operator and maintenance personnel as well as plant safety in order to limit the damage.





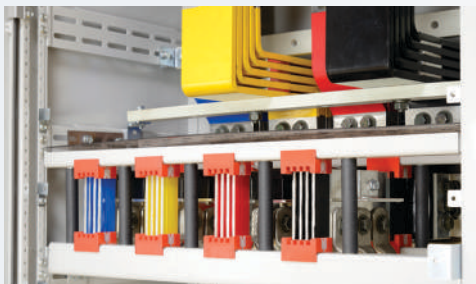
The Leading Edge

Reliable

Design
Verified

Flexible

Compact



Efficiency expert

Enersys-M is the intelligent modular solution to combine your different installation designs in one section with high efficiency. The flexibility thus achieved, allows for the simple exchange or addition of functional units, giving an edge to your credence.

Design for tropicalization

Enersys-M is well designed & engineered to perform satisfactorily in harsh environments consisting of dust, water and pollution, makes it suitable for all geographical sites or any critical ambience.

Unmistakable, Unmatched performance

Stringent fault withstand capacity of Enersys-M of 50 kA, 3s assure you an exclusive and high quality performance.

Technical sophistication

Enersys-M range believes in future and sets new standards as a technically superior application in infrastructure. This means it is always designed to meet constantly increasing technical challenges offering maximum personal and installation safety, a wide range of possible uses, quick installation, minimal maintenance, and timely delivery.



Countering the Time



Need based Delivery

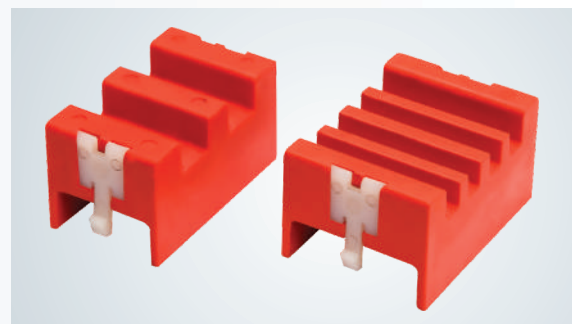
We can offer Enersys-M as functional sub-assemblies, flat-packed versions or fully preassembled for your specifications. Shorter lead time and speedy delivery makes it easy to react to your constant changing needs or enquiries.

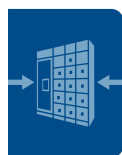
Standardization expert

The indispensable compartmentalized design of Enersys-M reduces your installation and maintenance time. Further, usage of single tool for assembly makes Enersys-M a standardized product.

Revolutionary support

The exclusive click fit busbar supporting design requires less effort, thereby lowering assembly time, to achieve timely delivery of your main distribution board.





The Smart Space Saver

New compactness

Energysys-M range of power distribution board is one of the most compact switchboards and has been optimized for different ratings & requirements.

The smart panel configurations give you flexibility to make optimum use of your available space.

Flexible cable chamber

Energysys-M gives you an option to select front or rear cable entry based on your space requirements.

Moreover, generous space is provided for terminating power cables, ensuring higher bending radius and reducing undue stress on terminals.

Minimum footprint, Maximum Density

Energysys-M can accommodate ACB in a smallest width panel of 500 mm. Further, the higher density of MCCB feeders in a single panel is evident.





The Perfect Harmony

Ergonomic design

Energys-M is equipped with flexibility to lift it from top using eye bolts or to maneuver with a secured plinth base, acting as a easy-to-use interface for installing your assembly to prevent any injuries to personnel.

Quick installation

A separate control wireway and horizontal main busbar chamber gives you an easy way in for fishplate or splice joints, inturn speeding up your installation.

A world of data at finger tip

Energys-M is available with PARTENER – a suit of software, for swift and simple data management of the switchgear assembly you want.

This produces the parts list at the press of a button, incorporating our switchgear and protective devices, in no time.

Razor-sharp response

With our project management executives and post-sales teams, we offer the services tailored to your specific needs. They promise the competences available to support your installation, commissioning and maintenance requirements.



A Global Validation

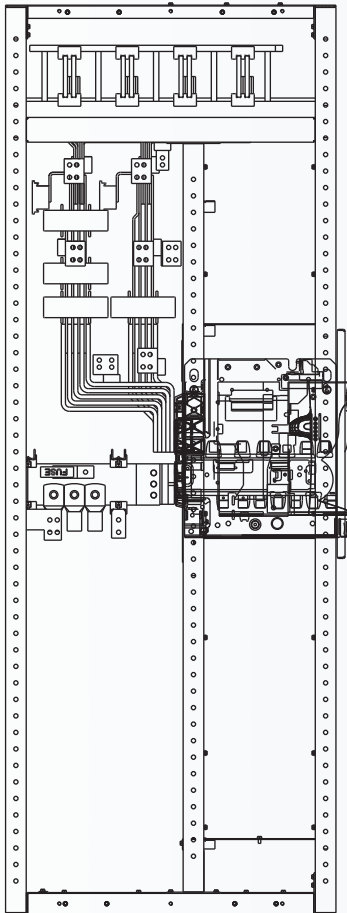
Our Enersys-M low voltage switchgear system is subjected to extensive design verifications in compliance with IEC 61439, at reputed international third-party laboratories to assure you best-in-class products.

Constructional Characteristics	Enersys-M Verified
Strength of materials and parts	
Resistance to corrosion	✓
Thermal stability of enclosures	✓
Glow wire test	✓
Lifting	✓
Marking	✓
Degree of protection of enclosures	✓
Clearance and creepage distances	✓
Effectiveness of earth circuit for external faults	✓

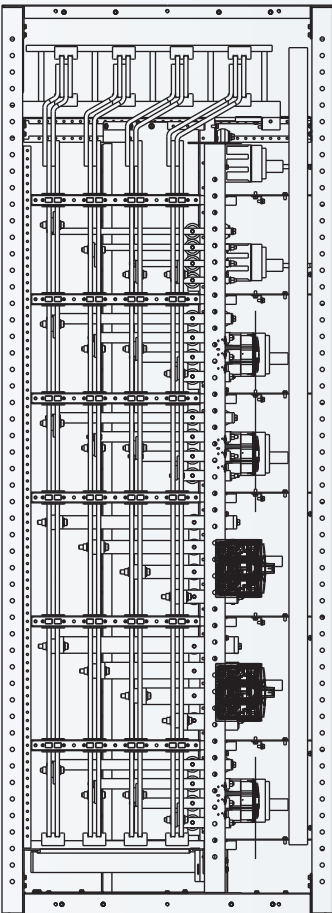
Performance Characteristics	Enersys-M Verified
Power frequency withstand voltage	✓
Impulse withstand voltage	✓
Temperature rise limits	✓
Short-circuit withstand strength	✓
Electromagnetic compatibility (EMC)	✓
Mechanical operation	✓



Typical Arrangements



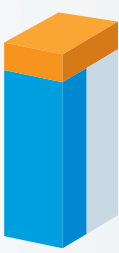
ACB Panel



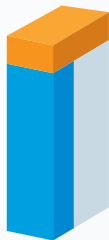
MCCB Panel



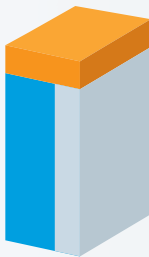
ACB Panel
500/600/800/1000(W) X 1000(D)



ACB Panel
500/600/800(W) X 800(D)



MCCB Panel
600(W) X 800/1000(D)

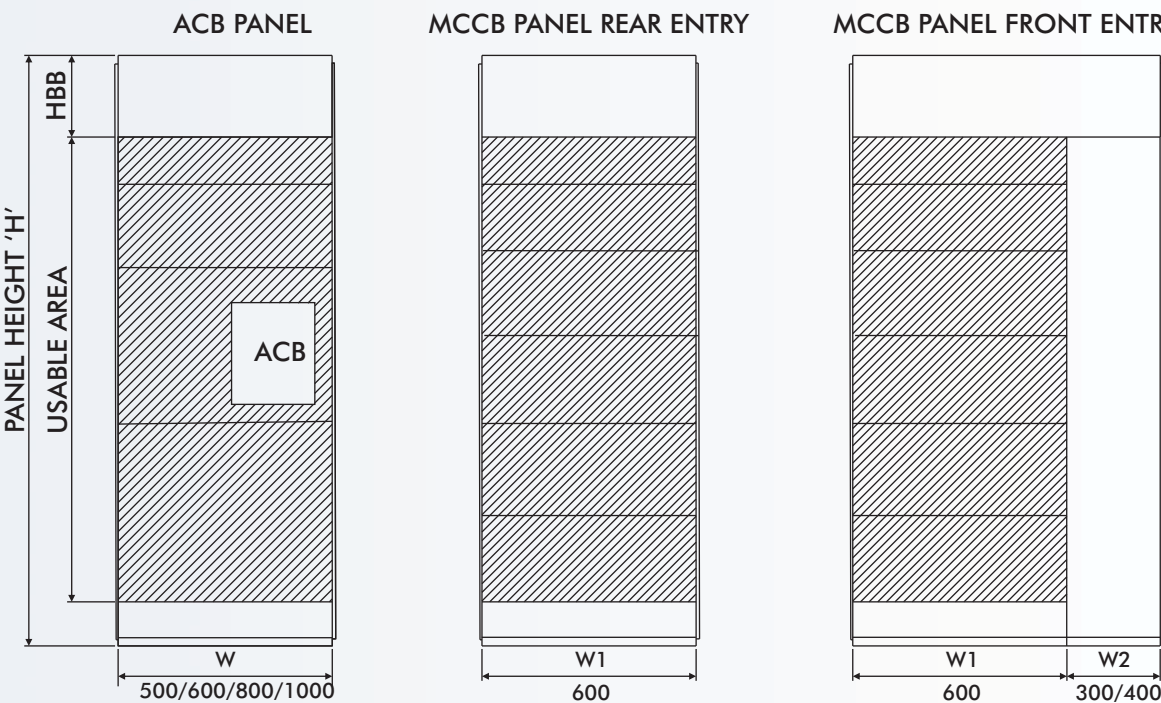


MCCB Panel
900/1000(W) X 800/1000(D)

- Feeder
- Cable alley
- Busbar*

* Top or bottom busbar options available

Configurations



	ACB PANEL	MCCB PANEL
PANEL HEIGHT 'H'	2200	2200
HORIZONTAL BUSBAR (HBB)	270	270
USABLE AREA	1740	1740

All dimensions are in mm

Technical Specifications

Standards		IEC61439
Electrical characteristics		
Voltage ratings	Rated operational voltage (U_e)	415 VAC
	Rated insulation voltage (U_i)	upto 1000 VAC
	Rated impulse withstand voltage (U_{imp})	upto 12 kV
	Rated frequency (f_n)	50 / 60 Hz
Current ratings	Main Horizontal busbars	
	Rated current (I_{nA})	upto 4000A
	Rated peak withstand current (I_{pk})	upto 143 kA
	Rated short-time withstand current (I_{cw})	50 kA, 1s 50 kA, 3s 65 kA, 1s
	Vertical Distribution busbars	
	Rated current (I_{nA})	upto 1800A
	Rated peak withstand current (I_{pk})	upto 143 kA
	Rated short-time withstand current (I_{cw})	50 kA, 1s 50 kA, 3s 65 kA, 1s
Insulation characteristics		
	Clearance	Bus Zone - 25 mm Other areas - 20 mm
	Creepage distance	Bus Zone - 25 mm Other areas - 20 mm
	Overvoltage category	IV
	Pollution degree	3
	Field condition	Inhomogeneous (non-uniform)

Technical Specifications

Mechanical Characteristics		
Degree of protection	In accordance with IEC 60529	
	External	IP 4X IP 54 - upto 2500A
	Internal	IP 2X
Forms of separation	as per IEC 61439-2	upto Form 4b
Dimensions	Height (mm)	2200, 2300 (with plinth)
	Width (mm)	500, 600, 800, 1000 (ACB panel)
		600 (MCCB panel - Rear cable access) 900/1000 (MCCB panel - Front cable access)
	Depth (mm)	800 / 1000 - upto 2500A 1000 - above 2500A
Surface Treatment	Structure	Powder coated / Painted
	Internal Components	Powder coated / Painted
	External Components	Powder coated / Painted
Resistance to Corrosion	Damp heat cycling test	IEC 60068-2-30
	Salt mist test	IEC 60068-2-11
Plastic components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11

The Perfect Match for Your Enersys-M System

L&T is India's leading switchgear company and offers the widest range of electrical standard products, compliant with Indian and global standards. Our in house design and testing facilities enable us to create customized solutions which combine type-tested Enersys-M switchboards with a wide range of perfectly matched L&T switchgear configurations. All, so that you can achieve the highest levels of cost and design optimization possible with your Enersys-M system.

Air circuit Breakers

- 400 A to 6300 A in three optimized frame sizes
- Short circuit breaking capacities upto 100 kA
- 50/100/200% Neutrals available
- Common Height and Depth across range
- Arc chute interlocking
- No derating at higher ambients
- Energy saving pole design
- Independent locking of ON/OFF buttons
- Tool-less fixing of voltmetric releases
- Display of complete accessory Information on front fascia



Moulded Case Circuit Breakers

- 20 A to 1250 A in 3/4 pole variants
- Positive isolation
- Short Circuit breaking capacities upto 70 kA
- Microprocessor, Thermal Magnetic and Magnetic based Releases
- Wide range of snap accessories
- Ergonomic design
- User friendly features

ENERSYS-M

MAIN DISTRIBUTION BOARD



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Product improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here.