



innovative
enclosure solutions
for industrial & electronic
applications



ENERPOWER

40 YEARS OF ETA



4 BUSINESS' AND 4 MATERIALS, FOR AN EXPONENTIAL EXPERIENCE

*Aldo Turati with his sister Luigia,
President and Chief Executive Officer
respectively.*



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ETA is a company that strongly believes in evolution, whose goal – since 1978 – is to design and manufacture high quality sheet metal, stainless steel and aluminium Enclosures, combining innovation with the experience acquired over the years of business in the field.

Staff + 200 employees • Turnover 35 million Euro • 70,000 square metres
4 production units in Italy • 1 logistics centre in Italy
1 ETA Next Research and Development centre • 1 production site in Romania
3 commercial branches in Europe (UK, France, Poland)
1 representative office in Russia • 40 countries around the world
90% of the product intended for foreign final markets • 40 years of business



*The headquarters
in Canzo (CO).*

The ETA Group represents a safe and recognised point of reference for the global Enclosures market. In 2018 we celebrated our fortieth anniversary with production that has grown over the years and now offers products for four sectors:



INDUSTRIAL AUTOMATION

Sheet metal solutions with modular cabinets, compact and monobloc solutions, enclosures with wall or junction mount, lecterns, suspension systems for control interfaces, walkable cable ducting system and thermal management.



HARSH ENVIRONMENTS

For indoor and outdoor applications where a high degree of hygiene and/or resistance to chemical agents or environmental conditions is required, a wide range of solutions made of AISI304L or AISI316L, or in aluminium alloy with specific concepts for outdoor applications.



LV ENERGY DISTRIBUTION

The ENERPOWER range with Power Centers, Motor control centers and Secondary Distribution Cabinets.



IT BUSINESS

ABACUS - solutions with IP20 protection rating to offer the best performance even in the case of simplified applications (cabling or server applications).

EXARO - modular and flexible system of infrastructural solutions for the creation of advanced extensible architectures, from the single conditioned rack to the large data center, passing through micro and edge data center architectures.



MULTIPLIES THE EXPERIENCE



INDUSTRIAL
AUTOMATION



HARSH
ENVIRONMENTS



LV ENERGY
DISTRIBUTION



IT
BUSINESS

AN ORGANISED COMPANY WITH A SPECIFIC PRODUCTION UNIT

HIGH LEVELS OF AUTOMATION AND INTEGRATION

In order to meet the technical specifications of **ENERPOWER** products, both standard machines and special machines have been planned and purchased. The multifunctional heart of the department is the autonomous work island, which allows you to cut from coils, thread in 2D and 3D, bend and palletize in complete autonomy, thanks to the use of two robots, one of which is a Master in charge of handling and one Slave in charge of bending and palletizing.

Some benefits of the working island dedicated to sheet metal processing:

greater process flexibility,
simultaneous processing,
high production speed,
perfect synchronism,
process autonomy.

An area of the production unit is dedicated to processing copper bars, with a dedicated punching and bending system: precision and cutting speed with automatic bar advancement and ease of use thanks to the bending process calculated by the numerical control.

Storage area for flat sheet metal and dedicated coils, warehouse area for semi-finished products, assembly area and finished product testing complete the **ENERPOWER** department.







ALL-INCLUSIVE SERVICE

PROVIDING ADDED VALUE
IS OUR STANDARD

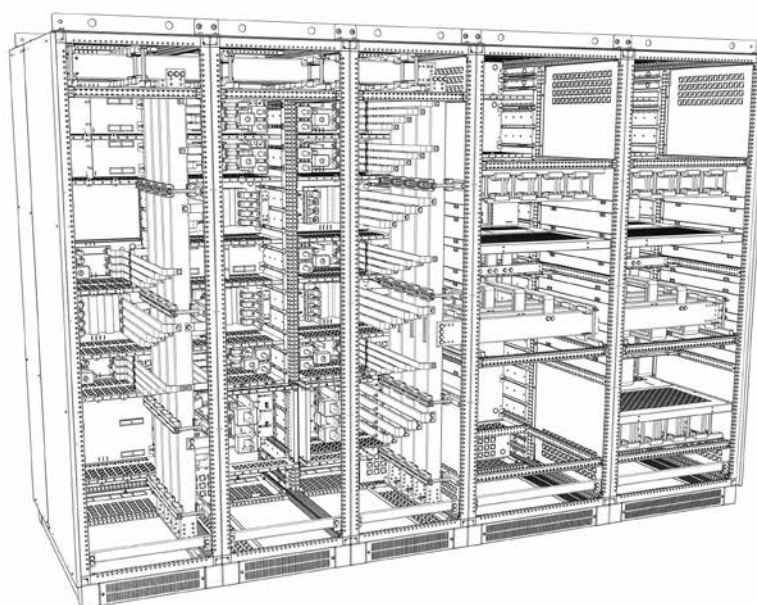
*ETA Next
Research and Development
centre.*



**THE ETA RESEARCH CENTRE
CREATING TOMORROW'S
PRODUCTS TODAY**

ETA Next – inaugurated in 2017 in Canzo (CO) in Italy – is the ETA Research Centre, a centre totally dedicated to the study, design and prototyping of new solutions, with an eye to the most modern technologies, research of materials and, of course, to the development of projects dedicated to our Business Partners. A real Laboratory of Ideas and Solutions for ETA's R&D Department, able to support the Customer in every design phase and test the components before their industrialisation, thanks to the latest generation systems dedicated only to testing and prototyping.

ETA Next also includes an entire area dedicated to Product Quality and Environmental Safety, to keep up to date on the subject of sector certifications and regulations. Furthermore, Laboratory instruments allow ETA to be able to respond to the precise and particular market demands.





A tool for the design and implementation
of **ENERPOWER** solutions

THE CONFIGURATOR DEVELOPED BY ETA

Starting from your final application's wiring diagram, our ETA Next Team / ENERPOWER Division will define the configuration of the ENERPOWER cabinet front, providing you with documentation, drawings and technical support during the entire order process.

And when you prefer to design the ENERPOWER system independently, you can request the possibility of installing the dedicated E DO configurator, thanks to which, with a few simple steps, you can generate drawings and bill of materials (BOM) for your solution.

To learn more about its potential, please consult the dedicated section on p. 30 and 31 or request a live demo with a sales representative!



ENERPOWER SYSTEM BENEFITS

NOT JUST A RANGE OF LV ELECTRICAL CABINETS, A COMBINATION OF DESIGN



**PC
POWER CENTER**



**MCC - MOTOR
CONTROL CENTER**



**SECONDARY
LV DISTRIBUTION
CABINETS**

ENERPOWER

a single design

for three new solutions designed
for electricity distribution

eta

a single partner

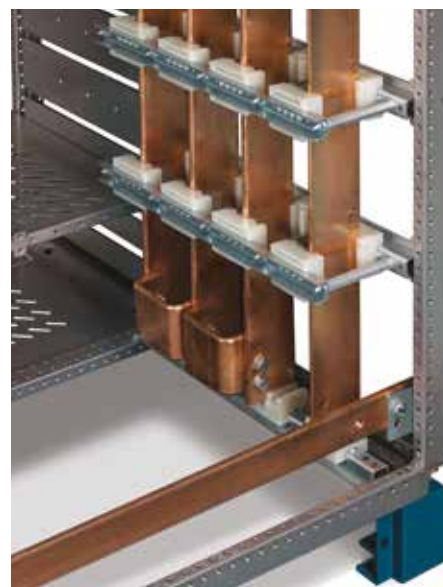
to manage energy,
from power distribution
to industrial and civil automation

eta

a single technical reference point

for consultancy, design and construction

*ENERPOWER system
subjected to type tests
provided for by the standard
CEI EN 61439-1-2,
with performance guaranteed
by tests carried out
under normal operating conditions.*



CENELEC

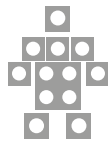




TECHNIQUE AND PRODUCT SOLUTION



Easy to design.



Compatibility with devices of the main brands/manufacturers on the market in the various versions available (fixed, removable, swappable)



Available **with** or **without** bar supports, copper/aluminium omnibus, anchor jacks, etc.



Quick to assemble or modify on-site.



Assisted by both **technical support** and **E Do** configurator software.



Flexibility and customisation for special executions.



Long service life in the plant, especially in harsh or extreme conditions.



Frame made of high yield point steel for higher mechanical resistance.



Simplified frame assembly thanks to the high standardisation, flexibility and modularity of the components.



Advanced construction features and materials.



Pre-threaded and pre-embossed holes for quick assembly.



Pre and post-sales **assistance** for impeccable service.

ENERPOWER

a new and different cabinet

that incorporates ETA's industrial tradition that has been around for over 40 years, integrating it with the most modern technologies



TECHNICAL SPECIFICATIONS

SHARED BY THE ENTIRE ENERPOWER RANGE

A SINGLE CONSTRUCTION FRAME



THE CATAPHORESIS PROCESS
IN THE STANDARD PAINTING CYCLE



UPRIGHTS WITH ECO-COMPATIBLE
MAGNELIS® COATING



COPPER OR ALUMINIUM BAR SYSTEMS

ENERPOWER components

are STANDARDISED,
ROBUST,
FLEXIBLE,
QUICK TO ASSEMBLE.

They are designed for efficiency and safety in all conditions of use.

HIGH MECHANICAL RESISTANCE AND SIMPLIFIED ASSEMBLY

A SINGLE CONSTRUCTION FRAME

Patented ETA Corner.

Frame made of high yield point steel for higher mechanical resistance.



Universal M6 drilling with 20 mm pitch, pre-threaded and pre-embossed along the whole the upright, for maximum speed, ease and construction speed.



A DOUBLE PROTECTION FOR UNIQUE PRODUCTS

THE CATAPHORESIS PROCESS

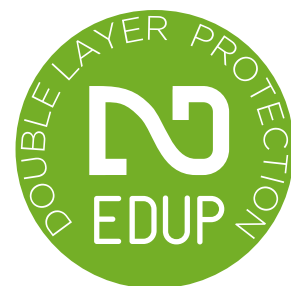
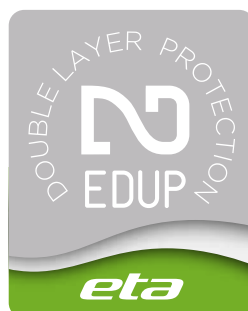
For the first time in the world, the cataphoresis process is applied to enclosure and electrical cabinet painting: the system is called E DUP, double protection.

The new E DUP – Double Layer Protection – process provides a cathodic electrophoresis paint primer with epoxy resin and a second finish with thermosetting epoxy polyester powders according to the ETA electrostatic standard cycle (standard ETA RAL7035 orange peel colour or full range of RAL colours available on request).

This process – applied as standard to ALL ETA painted solutions – provides a primer with undisputed chemical and physical properties, which guarantees better product performance, in order to offer increasingly reliable, performing and adequate solutions for a wide variety of environments and applications. The high level of automation and process innovation have allowed the achievement of a result with high quality characteristics, allowing a reduction in the thickness of the finishing film and an elimination of waste in full compliance with environmental sustainability.



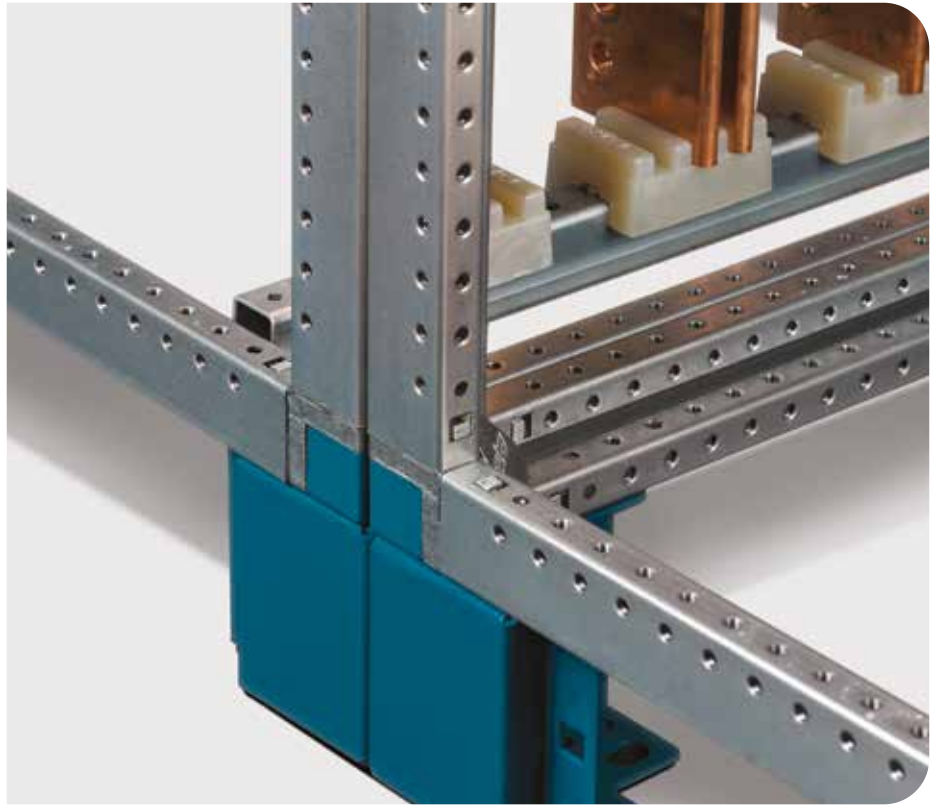
*The marking that
indicates ETA products
with E DUP
surface treatment*



UPRIGHT PERFORMANCE AND SAFETY

ECO-COMPATIBLE MAGNELIS® COATING

Upright frame with Magnelis® coating, self-sealing, eco-compatible and at least 3 times more resistant to corrosion compared to galvanized steel, even in more aggressive environments.



Magnelis® is a 0.45 to 6 mm thick surface coating whose specific composition (3% Mg and 3.5% Al) allows for the formation of a dense, stable and long-lasting protection layer, preserving the underlying steel even on deformed areas. In case of scratches or cuts the film containing magnesium migrates and covers the exposed part, preventing the formation of rust. In aggressive environments the particularly dense layer protects the metal blocking corrosion.

Saline mist tests demonstrate integrity after dozens of weeks not attainable with other surface treatments.



A SPECIFIC SOLUTION FOR EVERY PROJECT NEED

COPPER AND ALUMINIUM BAR SYSTEMS FOR POWER CENTERS, MCC AND



Copper and aluminium bar system with bar supports for all three types of cabinets. Junction easy between transport batches.



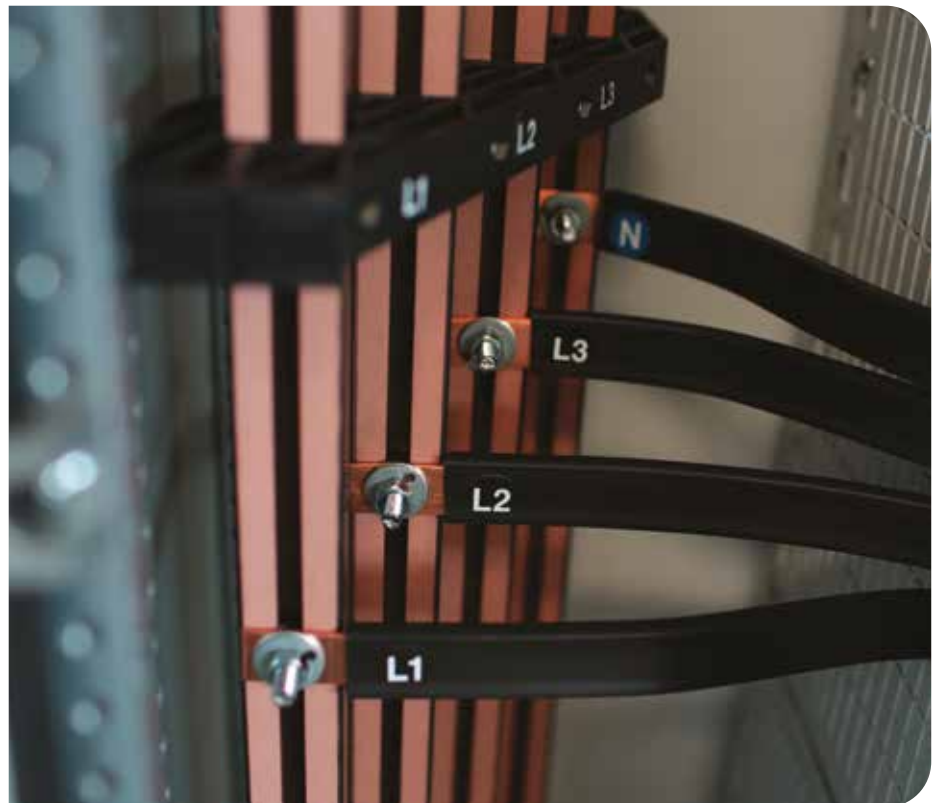
The **ENERPOWER** system was created to be flexible and allow any design solution, the omnibus bars can always be designed and installed in accordance with engineering and construction site needs.

**Aluminium
bar system
to ensure the best
value for money and
assembly speed.**

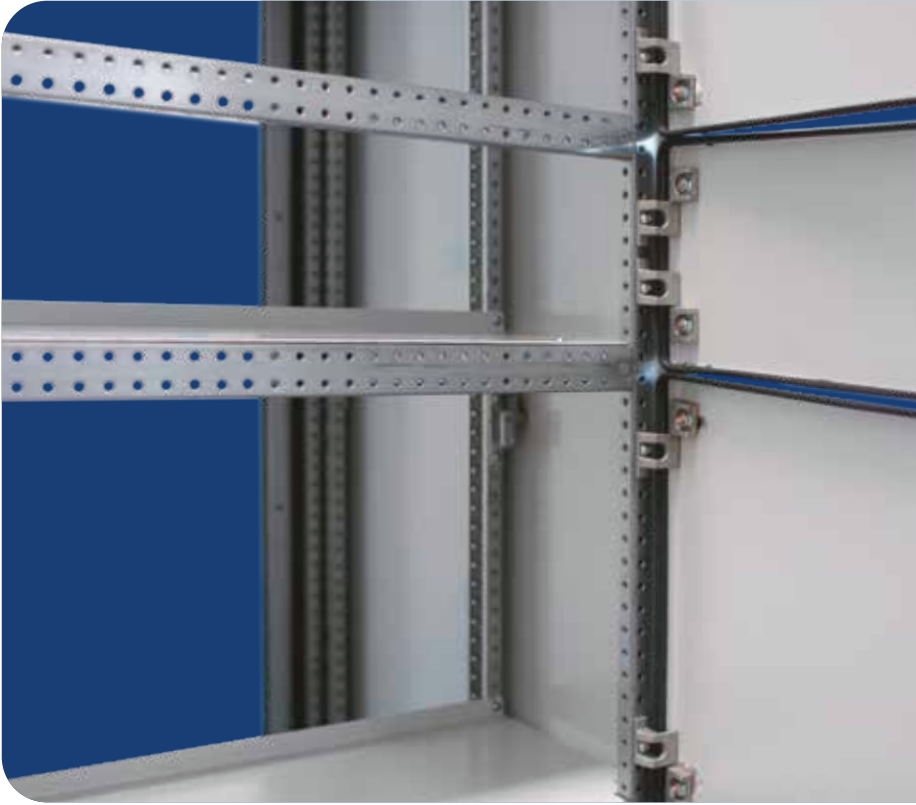
SECONDARY DISTRIBUTION CABINETS

ETA can design and build bars with its customers and according to each specific need.

The **ENERPOWER** system offers aluminium bars with extruded profile and with classic hammer head screws and surface treatments to guarantee nominal data.



TECHNICAL DATA



Hinges and locks are made of metal, without any evidently more fragile and consumable plastic parts.



The holes are made by laser, therefore a high level result is guaranteed also with reference to painting and drilling can be made according to each customer's drawing.

“Easy-lock” handle with a pleasant aesthetic appearance, pleasant to the touch and practical. Special locks are available on request.



Patches with plastic mask that matches the colours of the roof and plinth. The closing system insert is strictly made of metal.



ENERPOWER

PC - POWER CENTER



TECHNICAL SPECIFICATIONS

Rated frequency	50 Hz
Working voltage	Ue 400 V~ or 690 V~
Rated insulation voltage	Ui 1000 V
Rated impulse-withstand voltage	Uimp 12 kV
Rated current	≤ 4000 A In
Admissible rated short-term current I _{cw} /1s	Up to 100 kA
Admissible rated peak current I _{pk}	Up to 220 kA
Constructive forms of segregation	Up to 4b
Protection rating	Ip30 31 40 44 54
Normal working conditions room T	≤ 40°C
Installation height	≤ 2,000 mt

DIMENSIONS

W (mm)	H (mm)	D (mm)			
300	2000	800	1000	1200	1400
300	2200	800	1000	1200	1400
400	2000	800	1000	1200	1400
400	2200	800	1000	1200	1400
600	2000	800	1000	1200	1400
600	2200	800	1000	1200	1400
700	2000	800	1000	1200	1400
700	2200	800	1000	1200	1400
800	2000	800	1000	1200	1400
800	2200	800	1000	1200	1400
900	2000	800	1000	1200	1400
900	2200	800	1000	1200	1400
1000	2000	800	1000	1200	1400
1000	2200	800	1000	1200	1400
1200	2000	800	1000	1200	1400
1200	2200	800	1000	1200	1400

Note: available plinth H = 100 mm or 200 mm

Power Center Frame.



Devices removable from the front, with continuous depth adjustment.



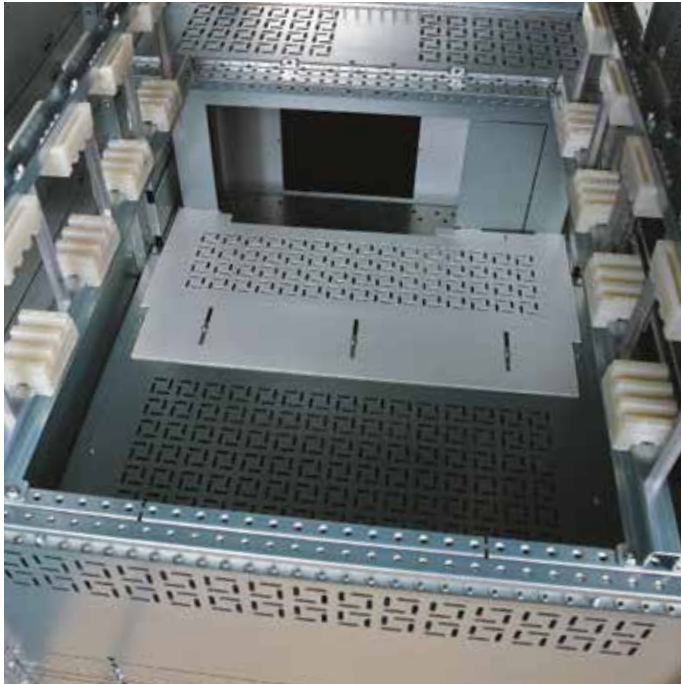
Easily accessible power connections from the back.



Functional unit for moulded-case switches.



Open switch segregated in form 4b.



Segregation in form 3b and 4b.



Insulating supports for omnibus copper bars (also available in aluminium up to 4000 A In).



Accessories for output jack anchoring.



ENERPOWER

MCC - MOTOR CONTROL CENTER



TECHNICAL SPECIFICATIONS

Rated frequency	50 Hz
Working voltage	Ue 400 V~ or 690 V~
Rated insulation voltage	Ui 1000 V
Rated impulse-withstand voltage	Uimp 12 kV
Rated current	≤ 4000 A In
Admissible rated short-term current I _{cw} /1s	Up to 100 kA
Admissible rated peak current I _{pk}	Up to 220 kA
Constructive forms of segregation	Up to 4b
Protection rating	Ip30 31 40 44 54
Normal working conditions room T	≤ 40°C
Installation height	≤ 2,000 mt

DIMENSIONS

SINGLE COLUMN

W (mm)	H (mm)	D (mm)	
600	2000	600	800
600	2200	600	800
700	2000	600	800
700	2200	600	800
900	2000	600	800
900	2200	600	800
1000	2000	600	800
1000	2200	600	800
1200	2000	600	800
1200	2200	600	800

Note: available plinth H = 100 mm or 200 mm

COLUMN WITH RISER

COLUMN W (mm)	RISER		H (mm)	D (mm)	
	W (mm)	POSITIONING COMPARED TO COLUMN			
600	300	right / left	2000	600	800
600	300	right / left	2200	600	800
700	300	right / left	2000	600	800
700	300	right / left	2200	600	800
600	400	right / left	2000	600	800
600	400	right / left	2200	600	800
1200	400	right / left	2000	600	800
1200	400	right / left	2200	600	800

Note: available plinth H = 100 mm or 200 mm

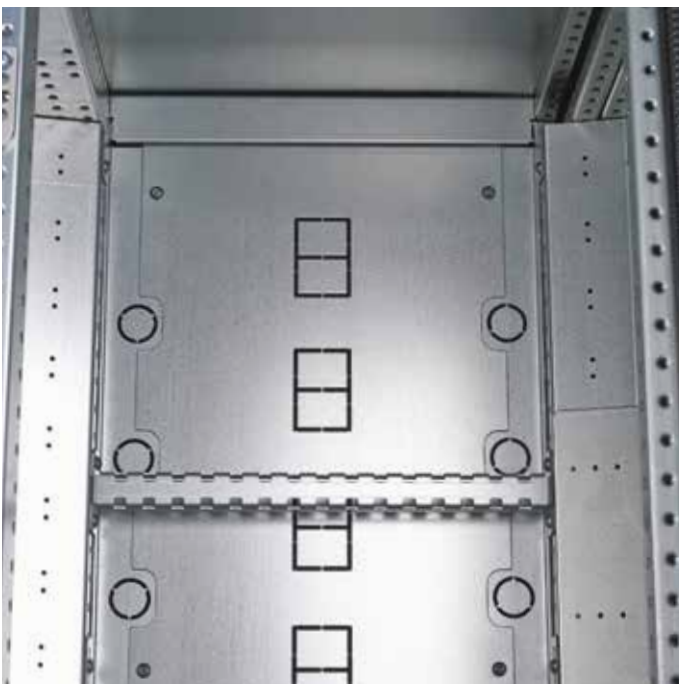
MCC frame with top bars.



MCC frame with back bars.



Cable compartment with settings for box connection.



Cable compartment lower area with pre-cut floor output.



Utility functional units.



Terminal board housing.



Top bar details.



Line arrival functional unit.



ENERPOWER

SECONDARY DISTRIBUTION CABINETS



TECHNICAL SPECIFICATIONS

Rated frequency	50 Hz
Working voltage	Ue 400 V~ or 690 V~
Rated insulation voltage	Ui 1000 V
Rated impulse-withstand voltage	Uimp 12 kV
Rated current	≤ 1600 A In
Admissible rated short-term current I _{cw} /1s	Up to 65 kA
Admissible rated peak current I _{pk}	Up to 143 kA
Constructive forms of segregation	Up to 4b
Protection rating	Ip30 31 54
Normal working conditions room T	≤ 40°C
Installation height	≤ 2,000 mt

DIMENSIONS

SINGLE COLUMN

W (mm)	H (mm)	D (mm)	
400	1800	420	600
400	2000	420	600
400	2200	420	600
600	1800	420	600
600	2000	420	600
600	2200	420	600
700	1800	420	600
700	2000	420	600
700	2200	420	600
800	1800	420	600
800	2000	420	600
800	2200	420	600
900	1800	420	600
900	2000	420	600
900	2200	420	600

Note: available plinth H = 100 mm or 200 mm

COLUMN WITH RISER

COLUMN W (mm)	RISER		H (mm)	D (mm)	
	W (mm)	POSITIONING COMPARED TO COLUMN			
600	200	right / left	1800	420	600
600	200	right / left	2000	420	600
600	200	right / left	2200	420	600
600	300	right / left	1800	420	600
600	300	right / left	2000	420	600
600	300	right / left	2200	420	600
700	200	right / left	1800	420	600
700	200	right / left	2000	420	600
700	200	right / left	2200	420	600
700	300	right / left	1800	420	600
700	300	right / left	2000	420	600
700	300	right / left	2200	420	600
800	200	right / left	1800	420	600
800	200	right / left	2000	420	600
800	200	right / left	2200	420	600

Note: available plinth H = 100 mm or 200 mm

Depth 400/600 mm.



Aluminium bar system connection.



Connection between aluminium bars and copper jacks.



Cable riser with pre-cut bottom.



CERTIFICATIONS

PERFORMANCE GUARANTEED WITH TESTED AND CERTIFIED SOLUTIONS

Certificates “Assemblies and Cabinets - Bar system in ENERPOWER cabinet” issued by ACAE (Bergamo - Italy) on the basis of LOVAG reports:

Verification of Aluminium bar short-circuit withstand 40-60-70kA
LOVAG certificate no. 1618

Verification of Aluminium bar short-circuit withstand 50-80-100kA
LOVAG certificate no. 1619

Verification of Copper bar short-circuit withstand 100kA
LOVAG certificate no. 175

Verification of conditioned bar short-circuit withstand 100kA
LOVAG certificate no. 477

“ENERPOWER” test report released by I.N.R.I.M. Laboratory

Verification of 4000° overheating limits
Test report no. 14-0114-01

MATERIAL CONFORMITY CERTIFICATION

RoHS
COMPLIANT

ITALY / WORLD

—

2011/65/EU

SYSTEM CERTIFICATIONS

IMQ

EUROPEAN COMMUNITY

IMQ

EN ISO IEC 80079-34



ITALY / WORLD

IMQ

UNI EN ISO9001



ITALY

ITALIAN WELDING
INSTITUTE

UNI EN ISO15614-1
cert. No. LB0017/10



ITALY / WORLD

IMQ

OHSAS 18001

**WEBSITE,
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Do you need to download technical 2D (.dwg, .dxf, .pdf) and 3D (.step) drawings, declarations of conformity, technical E BOOK, product images, videos?

Our website **www.eta.it** and the **myETA** platform are complete with all the information!

Follow us on our corporate social media pages: a **Youtube channel** to view corporate videos and technical product videos, and a **Linkedin channel** to follow the latest updates!



THE CONFIGURATOR DEVELOPED BY ETA

A TOOL FOR THE DESIGN AND IMPLEMENTATION

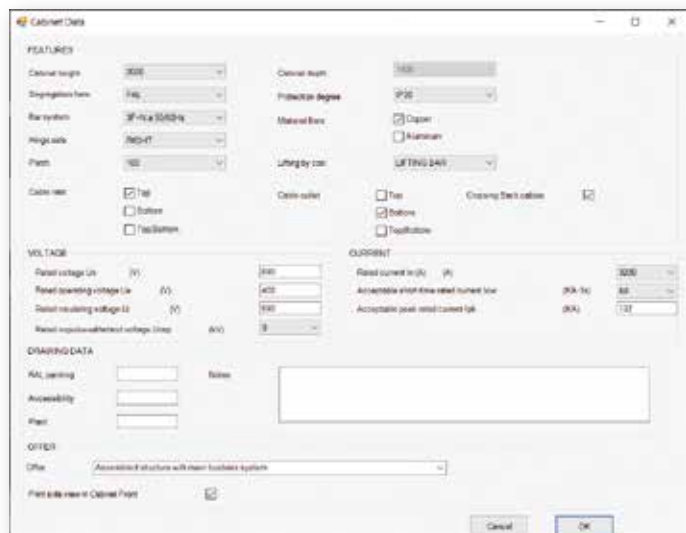
E DO is the configurator developed by ETA for the design, evaluation and budgeting of ENERPOWER solutions, available in stand-alone desktop version and simply installable via USB.

A tool available to the customer and to support our ETA Next / Division Team ENERPOWER to define the configuration of the ENERPOWER cabinet front and related bars, based on the final project or application.

In a few simple steps and with selections via drop-down menu, flag manual data entry or drag & drop, it is possible to develop a custom project (Power Center, MCC or secondary distribution cabinet):

1.

Cabinet and system data entry
(technical-dimensional specifications, voltages, current, etc.) with drawing specifications.



2.

Project overview with relevant 2D drawing and the possibility of adding switches from the main brands in the sector (with relative adaptation to the cabinet cubicle and holes), omnibus bars, anchor jacks, etc.
The graphic engine integrated in E DO allows for simple tool use: a plus that allows you to easily design an ENERPOWER carpentry and bar solution, integrating it with the components available on the market:



OF SOLUTIONS **ENERPOWER**

3.

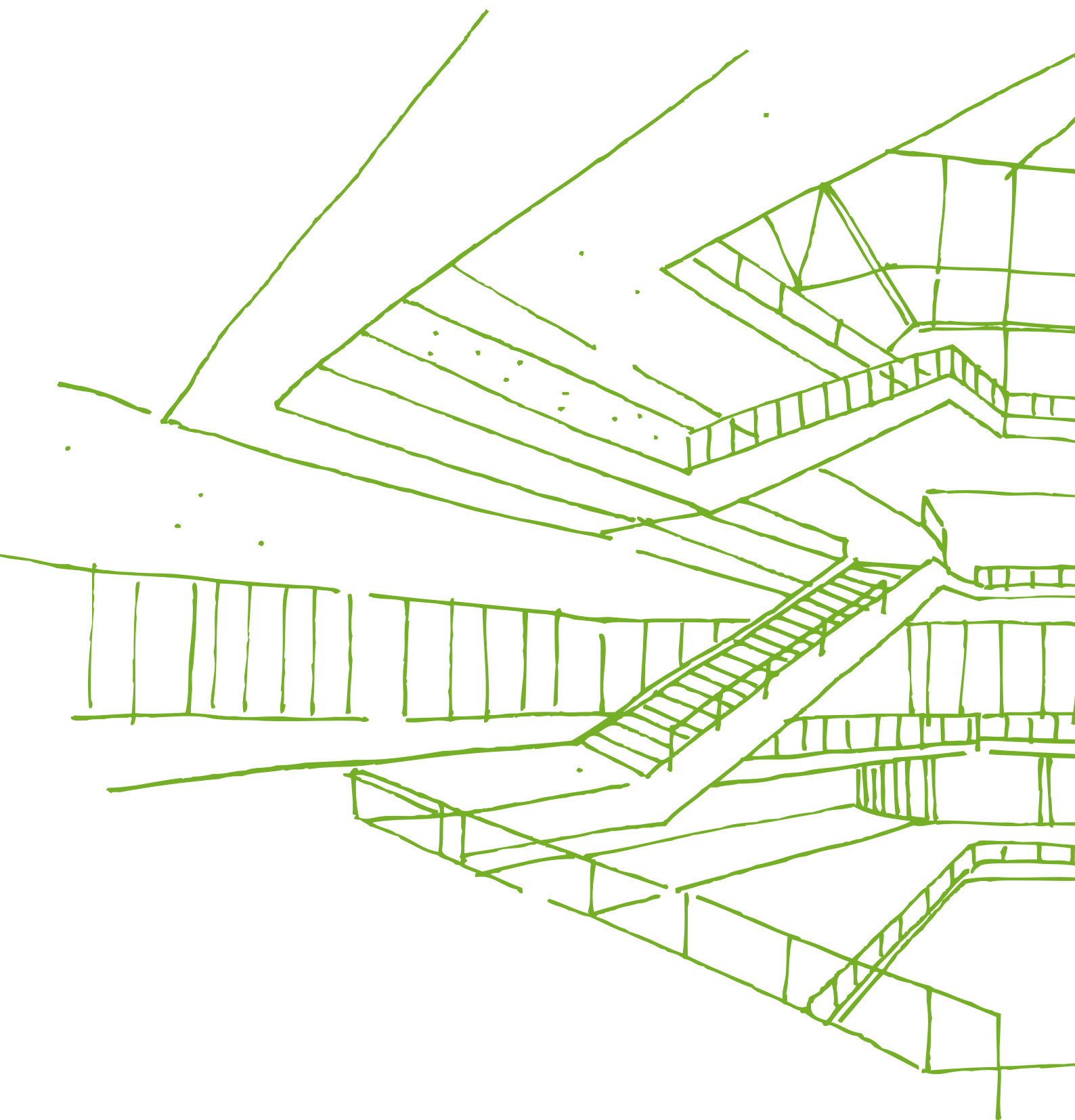
Download project views in .pdf format: cabinet front, bars, side views, top views, etc.



4.

Download bill of materials (BOM) in .pdf format, with selected product code, description and quantity details.

POWER CENTER		
Code	Description	Qty
08A221004	Side panels kit W2000xH1400	1
Column SC1		
08A210106	Power center structure W700xH2000xH1400	1
08A210304	Back compartment W700xH2000	1
08A1001002	Blank functional unit with horizontal panel W700xH200	1
08A1003002	Blank functional unit with horizontal panel W700xH400	1
08A1013002	Blank functional unit without horizontal panel W700xH200	1
08A1013002	Functional unit 1 DIN rail IP30 W700xH200	1
08A1102002	Functional unit W700xH200 for horizontal HCCB	1
08A1102002	Functional unit W700xH200 for horizontal HCCB	1
08A1203002	Functional unit W700xH400	1
08A220302	Roof with back compartment IP30 W700xH1400	1
Column SC2		
08A2101009	Power center structure W800xH2000xH1400	1
08A2103005	Back compartment W800xH2000	1
08A1001003	Blank functional unit with horizontal panel W800xH200	1
08A1003005	Blank functional unit with horizontal panel W800xH200 with punching	1
08A1013003	Blank functional unit without horizontal panel W800xH200	1
08A1013003	Functional unit 1 DIN rail IP30 W800xH200	1
08A1102003	Functional unit W800xH200 for horizontal HCCB	1
08A1102003	Functional unit W800xH200 for horizontal HCCB	1
08A1105003	Functional unit W800xH600	1
08A1105003	Functional unit W800xH600	1
08A2203021	Roof with back compartment IP30 W800xH1400	1
Column SC3		
08A2101009	Power center structure W800xH2000xH1400	1
08A2103005	Back compartment W800xH2000	1



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