

MC-CUB

Motor Control Center
with fixed units
up to 6300 A



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(IP30 – IP55, from FORM 3 to FORM 4).

Designed and produced for starting and motor control center. They offer a quick wiring solution with many solutions: rear busbars, side busbars and rear busbars with tunnel

Main characteristics

- Assembled structure made of sheet with a thickness of 2 mm.
- Degree of protection from IP30 (open

- version) to IP55 with blind door or transparent door with toughened glass.
- Compartment with hinged cover, wiring plate, horizontal partition and side segregation.
- Possibility of side connection.
- Installation of circuit breakers of all leading manufacturers (ABB, Schneider, Siemens, etc.).
- Epoxy powder coating after phosphating

- in RAL 7035 B (other colours on request).
- Patented and certified earth connection system.
- Plinth with reinforced covering flanges for a handling on rollers.
- Full range of internal finishing accessories to provide solutions for any requirement.
- On request, stainless steel cabinet



Typology



Cabinet - rear busbars: cabinet with sections and segregation form 3b. Vertical and horizontal busbar system placed at the back.



Cabinet - rear busbars: cabinet with sections and segregation form 3b. Vertical and horizontal busbar system placed at the back



Cabinet - rear busbars with tunnel: cabinet with sections and segregation form 3b. Vertical busbar system placed at the back and horizontal busbar system placed on the top.



Back to back cabinet: cabinet with sections and segregation form 3b. Vertical busbar system placed on the sides or at the back and horizontal busbar system placed on the top.



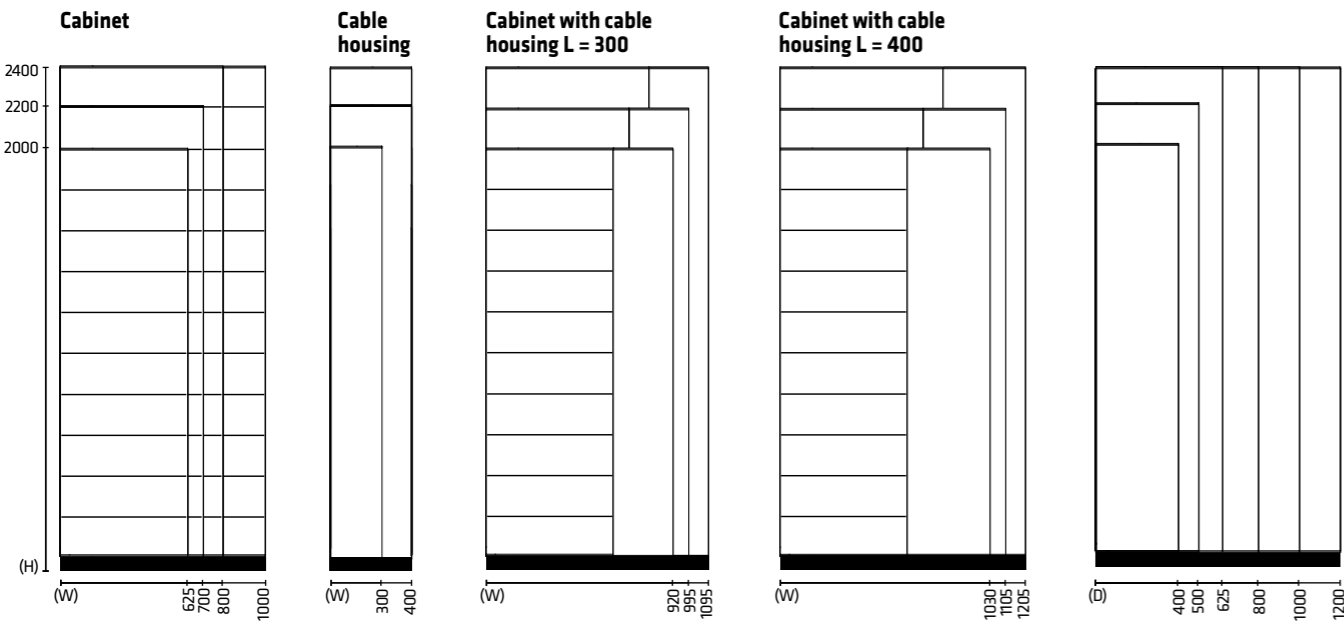
Inox: on request, stainless steel cabinet.



Technical specifications

	Width (W) mm	Height (H) mm	Depth (D) mm	
Cabinet	625	2000 / 2200 / 2400 (usable space = H - 400)	400 / 500 / 625 / 800 / 1000 / 1200 (usable space = 300 / 400)	
	700			
	800			
	1000			
Cable housing	300	2000 / 2200 / 2400 (usable space = H - 400)	400 / 500 / 625 / 800 / 1000 / 1200 (usable space = 300 / 400)	
	400			
Cabinet with cable housing	625 + 300	2000 / 2200 / 2400 (usable space = H - 400)	400 / 500 / 625 / 800 / 1000 / 1200 (usable space = 300 / 400)	
	700 + 300			
	800 + 300			
	625 + 400			
	700 + 400			
	800 + 400			
Back to back cabinet	On request			
Electrical data		Rated insulation voltage (U _i)	1000 V	
	Voltage ratings	Rated operational voltage (U _e)	690 V	
		Rated impulse withstand voltage (U _{imp})	6 / 8 / 12 kV	
		Rated frequency (f _n)	50 / 60 Hz	
	Current ratings	Rated current (I _n)	Up to 6300A	
		Rated short-time withstand current for 1 sec. (I _{sw})	70 kA	
	Mechanical characteristics	IP degree of protection	Internal	Up to IP2X
External enclosure			From IP30 to IP55	
Covers height (h)		150 / 200 / 250 / 300 / 350 / 400 / 450 / 500 / 600 / 700 / 800 / 900 / 1000		
IK test (shock resistance)		IK09 glazed door		
		IK10 blind door		
Access		From the front / Side / Rear		
Execution		Form 3b / Form 4a		
Material		Structure	Pickled plate 15/10 - 20/10 mm	
		Accessories	Aluzinc® sheet steel 15/10 - 20/10 mm	
Powder coating		Standard	RAL 7035 B light grey (orange peel)	
	On request	Powder RAL colours and stainless steel		
Plastic components	Halogen-free, flame retardants, self-extinguishing, CFC-free			

All Lafer cabinets have been designed to be used in indoor environments. In case of outdoor applications, customers should require the supply of the specific rain canopy. Lafer shall not be held liable for any damage resulting from the non-observance of these guidelines.



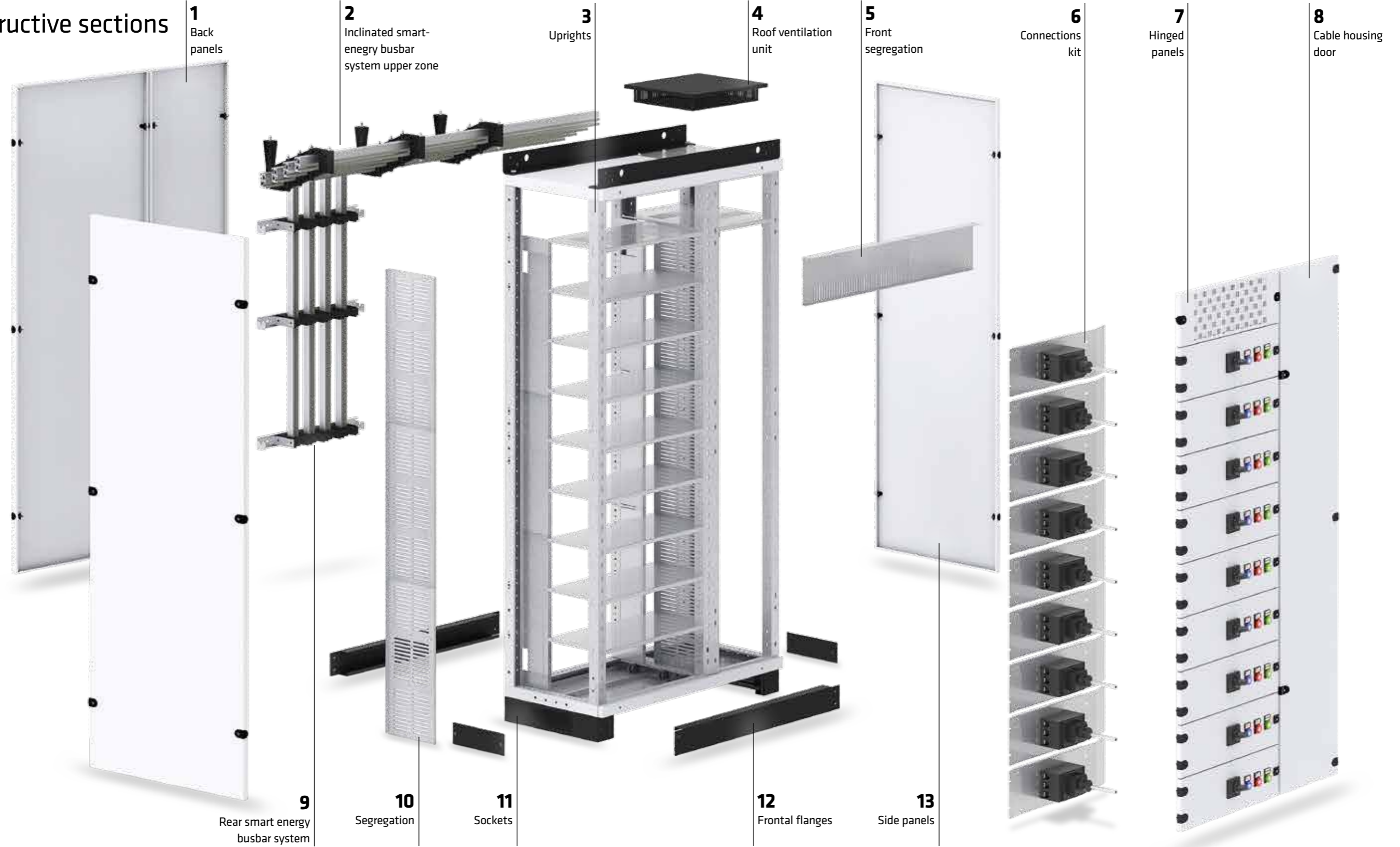
Certifications



Characteristics to be verified	Clause/Subclause	Design verification method	Test report n°	
Degree protection of the assembly of enclosures	10.3	IP30	By test	EPT16AVM033754359 EUROFINS
		IP41	By test	EPT16AVM033954359 EUROFINS
		IP42	By test	EPT16AVM034054359 EUROFINS
		IP55	By test	B0011835 CESI
Mechanical impacts (IK)	10.2.6	IK9	By test	EPT16AVM034154359 EUROFINS
		IK10	By test	EPT16AVM033854359 EUROFINS
Temperature rise limits	10.10.4.2	Single-compartment assemblies with rated current not higher than 630 A	Verification by calculation according to the method of power losses	
	10.10.4.3	Single or multiple compartment assemblies with rated current not higher than 1600A	Verification by CEI 17-43	
	Appendix of the norm (subclause 7.2 point 3)	Single or multiple compartment assemblies with rated current 1600 A < I _{na} < 3150 A	Verification by CEI 17-43 with confrontation with proved cabinet	
Clearances	10.4		By test	Lafer quality control protocol
Creepage distances	10.4		By test	Lafer quality control protocol
Verification of the short-circuit withstand of the protection circuit	10.5.3	Flat copper 60 kA	- By test - By comparison with a reference design	B0015061 CESI
		Extruded aluminium 60 kA	- By test - By comparison with a reference design	B7001848 CESI
		Flat aluminium 60 kA	- By test - By comparison with a reference design	B6004584 CESI
		Smart Energy 35 kA	- By test - By comparison with a reference design	B3012744 CESI
		Smart Energy 70 kA	- By test - By comparison with a reference design	B3013956 CESI
		Rame piatto 70 kA	- By test - By comparison with a reference design	B0015061 CESI
		Smart Energy Plus Smart Energy Copper 75 kA	- By test - By comparison with a reference design	B8020497 CESI
Verification of the short-circuit withstand strength	10.11	Smart Energy Copper 105 kA	- By test - By comparison with a reference design	B8020496 CESI
		Smart Energy Plus 105 kA	- By test - By comparison with a reference design	B5002265 CESI
		Smart Energy Plus 105 kA	- By test - By comparison with a reference design	B7001848 CESI
		Smart Energy Plus 105 kA	- By test - By comparison with a reference design	B3020325 CESI
		Smart Energy Plus 105 kA	- By test - By comparison with a reference design	B3020295 CESI
Seismic test	0.7 g	By test		B3020325 CESI
	1 g	By test		B3020295 CESI

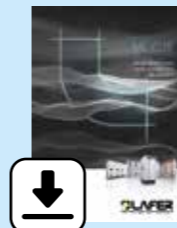


Constructive sections



MC-Cub series

Design and buy your Lafer panel online thanks to our free planning configurator Fast-One. Discover our technical catalogue.



Download the brochure of the MC-Cub series



Download the datasheet of the MC-Cub series



Download the construction module of the MC-Cub series

Outer details



IP30: : hinged cover, degree of protection IP30.



IP41: fixed cover with ventilation shutters and gasket, degree of protection IP41.



IP42: hinged cover with gasket, degree of protection IP42.



IP54: inner hinged covers and transparent toughened glass door, degree of protection IP54.

Inner details



Compartment - side bars: with hinged cover, wiring plate, horizontal partition and lexan side segregation.



Compartment - rear bars: with hinged cover, wiring plate, horizontal partition and Aluzinc sheet steel side segregation.



Upper segregation: made of Aluzinc sheet steel with possibility of fixing the cable ducting



Terminal block support: support for fixing the terminal block on a DIN rail inside the cable housing.

Busbar systems



Smart-Energy Basic: Horizontal busbar system up to 1250 A placed on the top of the cabinet.



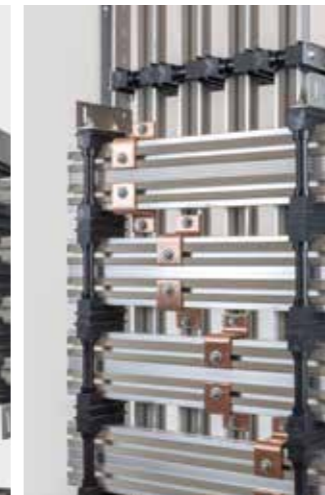
Smart-Energy Plus: Horizontal busbar system up to 4000 A placed on the top of the cabinet.



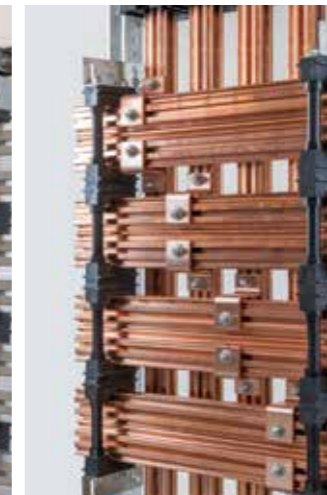
Smart-Energy Copper: Horizontal busbar system up to 4000 A placed on the top of the cabinet.



Smart-Energy Basic



Smart-Energy Plus



Smart-Energy Copper



Barratura tradizionale

Vertical / Horizontal busbar system up to 4000 A placed on the back of the cabinet.



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