

PW-TECH

Power Center cabinets
for low voltage power
distribution up to 6300 A



 **LAFER**
Simple ideas for great projects | GROUP



Power Center cabinets for low voltage power distribution up to 6300 A

(IP30 – IP55, from FORM 1 to FORM 4).

Devoted to energy distribution. They offer many solutions to any wiring typology, accessibility and segregation form.

Main characteristics

- Assembled structure made of sheet with a thickness of 20/10 mm.
- Plinth with reinforced flanges with a thickness 20/10 mm for handling on rollers.
- Degree of protection from IP30 (open

- version) to IP55 with blind door or transparent door with toughened glass.
- Possibility of side connection with other Lafer cabinets too (MC-Cub, ME-Cub and Automation).
- Installation of devices of all manufacturers (ABB, Schneider, Siemens, etc.).
- Epoxy powder coating after phosphating in RAL 7035 B (other colours on request).
- Stainless steel cabinet on request.

- Patented and certified earth connection system.
- Internal finishing accessories for all kinds of exigences.



Typology



Cabinet with back access: cabinet with sections up to form 4b.



Vertical and horizontal busbar system: Vertical and horizontal busbar system placed at the back



Cabinet with frontal access: cabinet with sections up to 4a form.



Vertical busbar system: Vertical busbar system placed on the side and horizontal busbar system placed on the top.



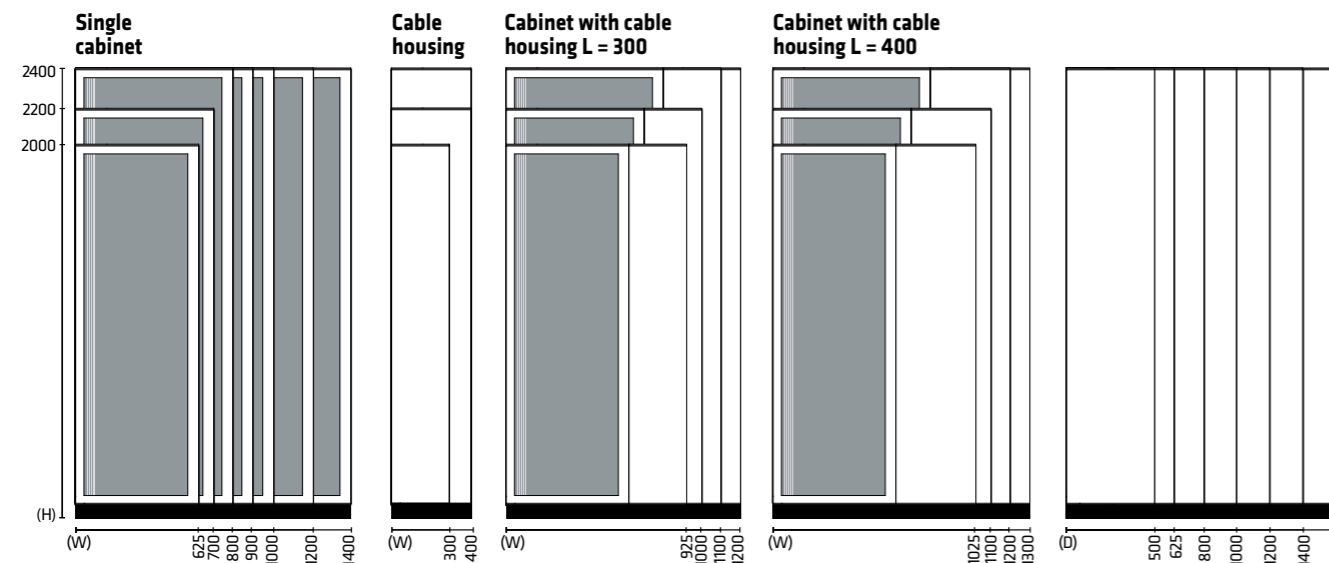
Inox: on request, stainless steel cabinet.



Technical specifications

	Width (W) mm	Height (H) mm	Depth (D) mm
Cabinet	625 (24 modules)	2000 / 2200 / 2400 (usable space = H - 200)	500 / 625 / 800 / 1000 / 1200 / 1400 / 1550
	700 (24 modules)		
	800 (34 modules)		
	1000 (46 modules)		
	1200 (54 modules)		
	1400 (62 modules)		
Cable housing	300	2000 / 2200 / 2400	500 / 625 / 800 / 1000
	400	(usable space = H - 200)	/ 1200 / 1400 / 1550
Cabinet with cable housing	625 + 300 (24 modules)	2000 / 2200 / 2400 (usable space = H - 200)	500 / 625 / 800 / 1000 / 1200 / 1400 / 1550
	700 + 300 (24 modules)		
	800 + 300 (34 modules)		
	625 + 400 (24 modules)		
	700 + 400 (24 modules)		
	800 + 400 (34 modules)		
Back to back cabinet	On request		
Electrical data	Rated insulation voltage (U _i)		1000 V
	Rated operational voltage (U _o)		690 V
	Rated impulse withstand voltage (U _{imp})		8 / 12 kV
	Rated frequency (f _n)		50 / 60 Hz
	Rated current (I _n)		Up to 6300A
	Rated short-time withstand current for 1 sec. (I _{sw})		150 kA
	Voltage ratings		
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 1 / Form 2a / Form 2b / Form 3a / Form 3b / Form 4a / Form 4b	
	Material	Structure Pickled plate 15/10 - 20/10 mm thick Accessories Aluzinc® sheet steel 15/10 - 20/10 - 25/10 mm thick	
	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	
	Bars treatment	Alubar standard: tin on request: Nickel/ Silver Copper standard: none on request: Tin/ Nickel/ Silver	

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



Characteristic 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 high than 1600 A	By test CEI 17-43
	Appendix of the norm (subclause 7.2 point 3)	Single or multiple compartment assemblies with rated current 1600 A I_{na} <math>< 3150 A</math>	By test CEI 17-43 08574-18-0807 02472-15-0378 IPH
	Appendix of the norm (subclause 7.2 point 2)	Single or multiple compartment assemblies with rated current $I_{na}> 3150 A$	Verification by derivation from a proven reference design 08574-18-0807 02472-15-0378 IPH
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
		Flat copper 90 kA	- By test - By comparison with a reference design A6018747 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
Verification of the short-circuit withstand strength	10.11	Smart Energy 35 A	- By test - By comparison with a reference design B3012744 CESI
		Smart Energy 70 kA	- By test - By comparison with a reference design B3013956 CESI
		Flat copper 70 kA	- By test - By comparison with a reference design B0015061 CESI
		Flat copper 80 kA	- By test - By comparison with a reference design A6018748 CESI
		Flat copper 150 kA	- By test - By comparison with a reference design A6018747 CESI
		Smart Energy Plus Smart Energy Copper 75A	- By test - By comparison with a reference design B8020497 CESI
		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 B6004584 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
Seismic test	0.7 g	By test	B3020329 CESI
	1 g	By test	B3020327 CESI



Constructive sections



1
Connections

2
Horizontal busbar system

3
Back segregations

4
Tang extension

5
Vertical segregation

6
Vertical busbar system

7
Connections in braid

Certifications



IEC 61439-1	test n° B0008006 test n° B5002265	Short circuit $I_n=6300 A$ e $I_{cc}=150 kA$ per 1 sec. • Short circuit verification • Verification between the equipment masses and the protection circuit
IEC/TR 61641 CEI 17-86	test n° B0009515 test n° B5014994	Internal arc fault verification 105 Ka for 300 msec.
IEC 61439-1 IEC/TR 61641	test n° B0007840 test n° 02472-15-0378	Overtemperature limits verification • Dielectric properties verification: impulse and industrial frequency test. • Clearance and creepage distance verification.
CEI EN 60529	test n° B0011835	Degree of IP55 protection category 2 verification
IEEE Std 693-2005 IEC 60068-2-57 IEC 62271-300 Transelect	test n° B3020295	Seismic test with acceleration 1,0g



Download the brochure of the ME-Cub series



Download the datasheet of the ME-Cub series



Download the construction module of the ME-Cub series

Inner details



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



ModularDINTM system: rapidity of assembly and disassembly of LDIN modular rails, with the new joint system without screws. It is compatible with the majority of splitter blocks available on the market.



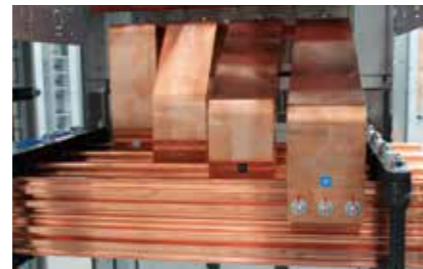
Extension of horizontal or vertical circuit breakers terminals: Alubar



extension of horizontal or vertical circuit breakers terminals: Copper



Alubar circuit breakers connection: Tinplated aluminium connections between circuit breakers and main busbar from 250 A up to 4000 A (nickel-plated or silver-plated aluminium on request).

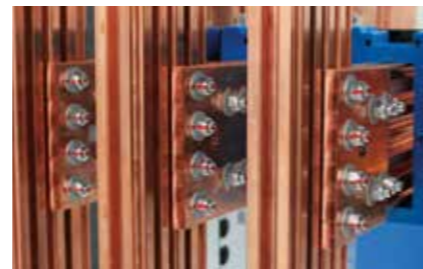


Copper circuit breakers connections: connections up to 6300 A.

Smart-Energy plus busbar system: anodized aluminium with nickel contact surface applied with cold spray technology up to 6300 A



Smart-Energy copper busbar system: extruded copper busbar up to 6300 A.





Made in Italy



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