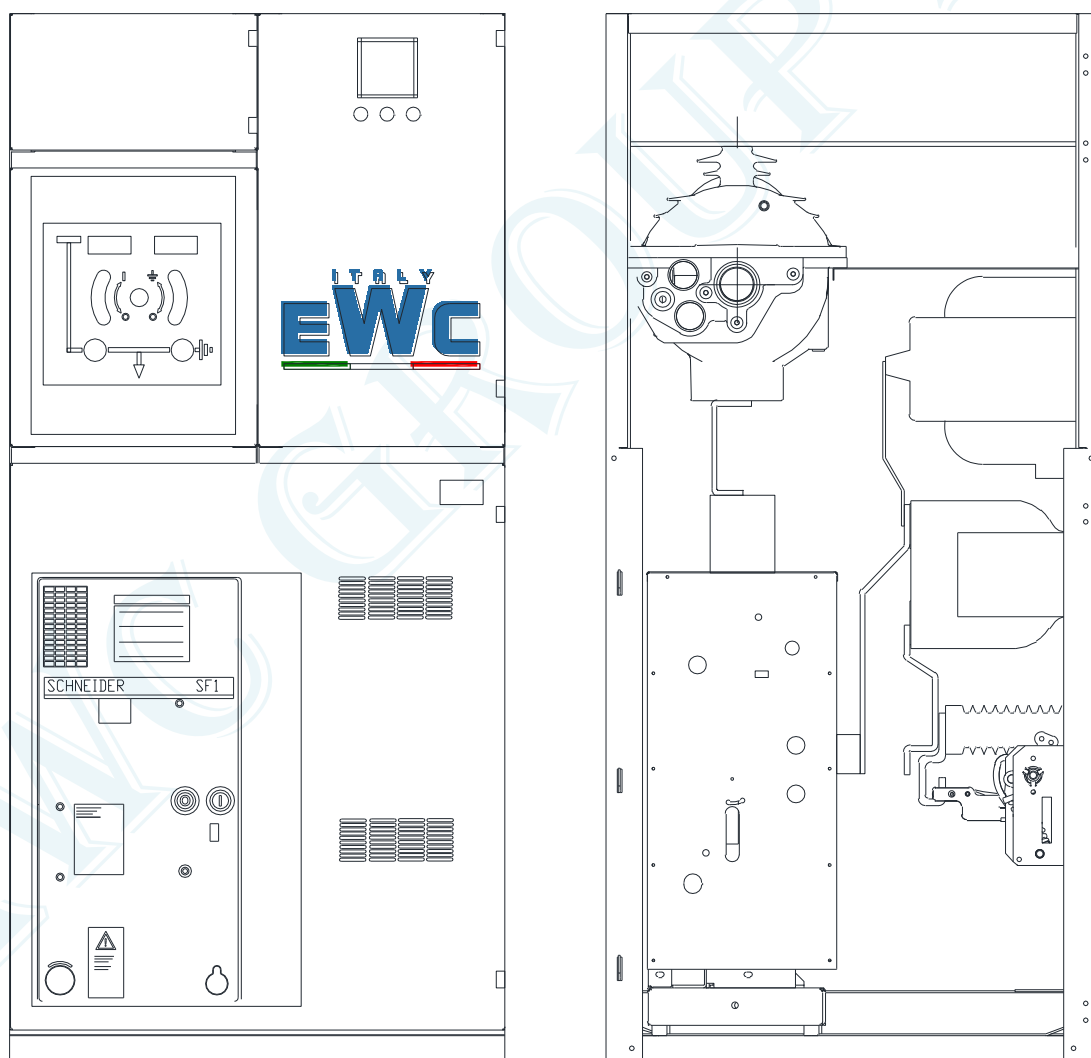




MESG – 12 / 17.5 / 24 / 36 KV

Medium Voltage Air Insulated Metal Enclosed Switchgear up to 36 kV- up to 1250 A - up to 25 kA for 1 sec. with SF6 or vacuum circuit breakers.



METAL ENCLOSED

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GENERAL FEATURES

● GENERAL DESCRIPTION

The structure of the cubicles, of considerable strength, has self-supporting structure and is made of steel sheet 2mm thick bent and suitably stiffened. Each module is normally divided into two compartments:

- a higher one, where there are the busbars.
- a lower one containing the various devices.

The switching body and isolation (LBS) separates the two compartments and acts, in the open position, as segregation. The accessibility to the lower compartment is made possible by the opening of a hinged door, the opening of which, mechanically interlocked with the operating means of the module, allows to perform any operation with the rest of the cubicle in service from which it is segregated by the LBS with degree of protection IP 2X.

● MAIN FEATURES

- ME 12 / 17.5 / 24 / 36 KV series Metal enclosed units, have been designed and tested to be used for all energy distribution systems till 36kV
- Modular Metal Enclosed units appears as the optimal solution with their easiness of taking operation by means of their modular structure
- ME 12 / 17.5 / 24 / 36 KV series Metal enclosed units are manufactured according to IEC Standards
- Long term technical solutions for various applications
- High level personnel safety

● STANDARDS

- Compliance with standards IEC 62271 – 1
- Compliance with standards IEC 62271 – 200
- Classification of service continuity: LSC 2A
- Classification of the partitions: PI or PM

● APPLICATIONS

- Manufacturing industry
- Secondary distribution networks
- MV / LV distribution transformer substations - Small size power plants
- Wind power plants
- Airports, hospitals

● SAFETY

- There is a surveillance window on the front cover of every cubicle to check inside the same cubicle without opening the door / cover
- The door / cover of the accessible compartments is mechanically interlocked with the earthing switches
- Voltage indication system is provided in each cubicle

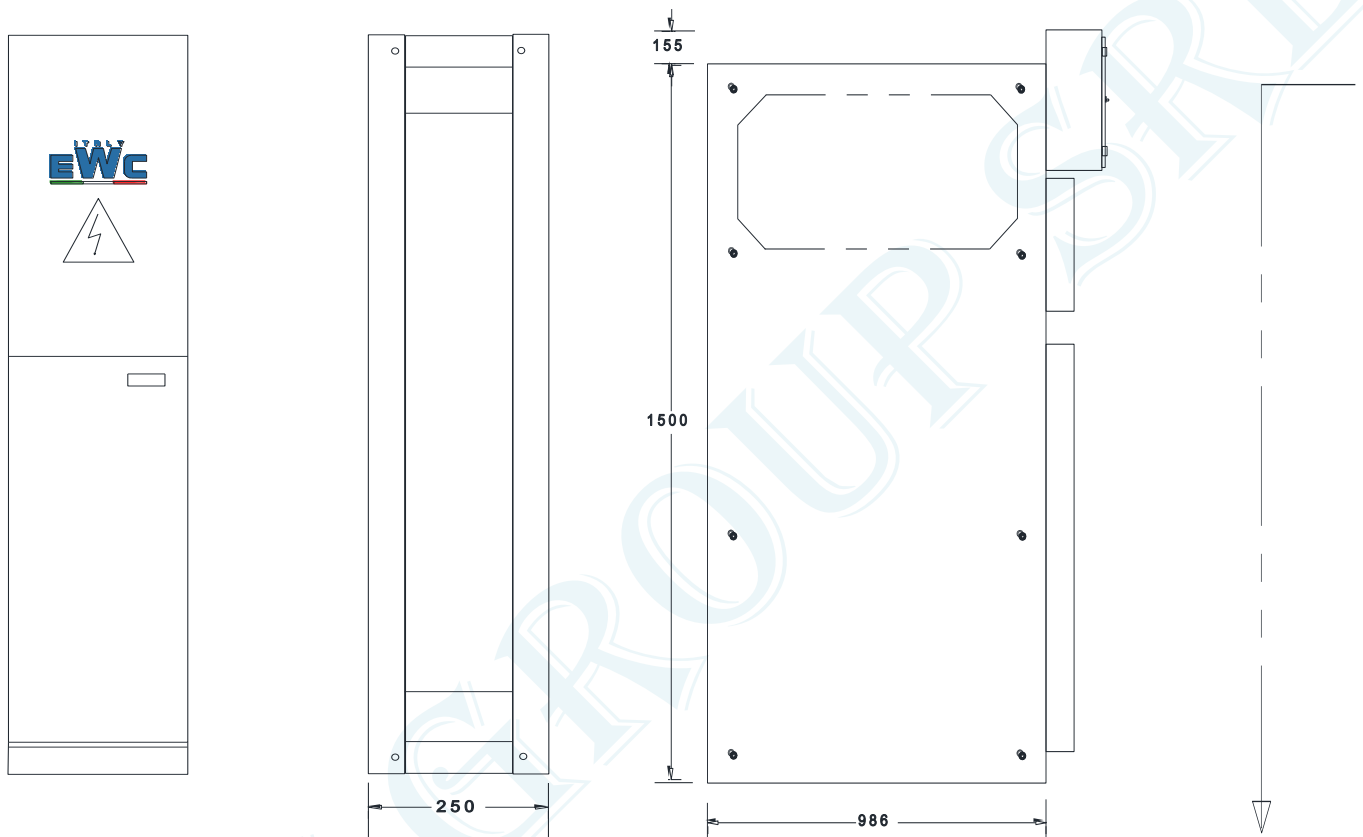
TECHNICAL DATA

Rated voltage	kV	12	17.5	24	36
Rated lightning impulse withstand voltage	kV	75	95	125	170
- Across phases and phase to earth	peak	85	110	145	195
- Across the isolating distance	-				
Rated power frequency withstand voltage	kV eff	28	38	50	70
- Across phases and phase to earth	-	32	45	60	80
- Across the isolating distance					
Rated frequency	Hz	50/60	50/60	50/60	50/60
Rated Current					
- Busbar	A	630/1250	630/1250	630/1250	630/1250
- Feeder	-	630/1250	630/1250	630/1250	630/1250
Rated short time withstand current	kA eff	16/20/25	16/20/25	16/20/25	16/20/25
- Main circuit	-	16	16	16	16
- Earthing circuit					
Rated peak withstand current	kA peak	40/50/62,5	40/50/62,5	40/50/62,5	40/50/62,5
Rated duration of short circuit	S	1/3	1/3	1/3	1/3
Arc fault current, 1s	kA	16	16	16	16
Internal arc class	-	A(FLR)/A(FL)	A(FLR)/A(FL)	A(FLR)/A(FL)	A(FLR)/A(FL)
Partitions class	-	PI - PM	PI - PM	PI - PM	PI - PM
Loss of the service continuity	-	LSC2A	LSC2A	LSC2A	LSC2A
Degree of protection enclosure	-	IP3X	IP3X	IP3X	IP3X
Degree of protection partitions	-	IP3X	IP3X	IP3X	IP3X
Ambient temperature					
- Maximum value	°C	+40	+40	+40	+40
- Maximum value of 24h mean		+35	+35	+35	+35
- Minimum value		-5	-5	-5	-5

*For different or higher values please contact us

TYPICAL UNITS

1. MESG* / CI – Cable Incoming Cubicle



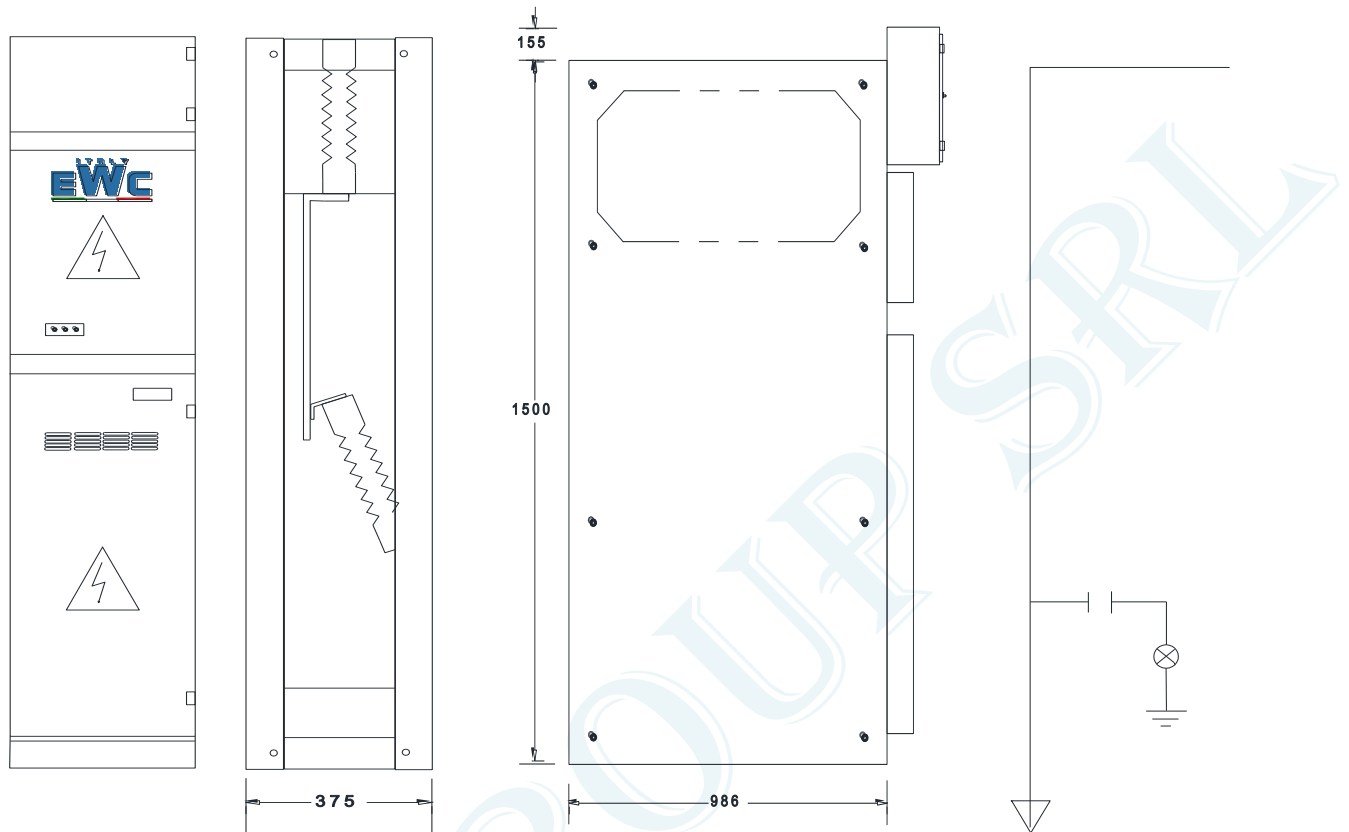
Base Accessories:

- Steel Structure
- Cable Connection

Optional Accessories:

- Earthing Switch
- Key Lock on Earthing Switch

2. MESG* / BI – Busbar Incoming Cubicle



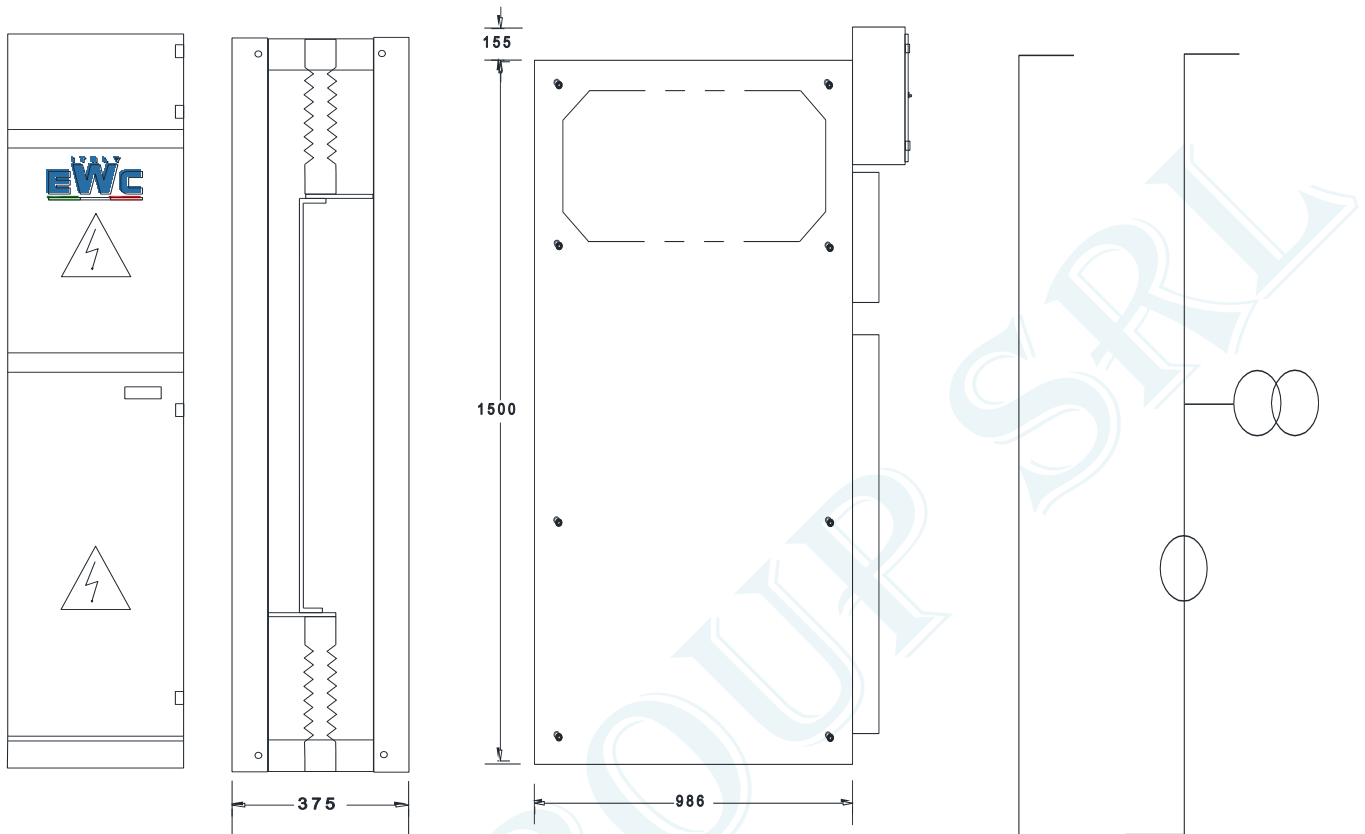
Base Accessories:

- Steel Structure
- Cable Connection
- Busbars Connection
- Capacitive Voltage Divider with Signalling Lamps

Optional Accessories:

- Earthing Switch
- Key Lock on Earthing Switch

3. MESG* / BR – Bus Riser Cubicle



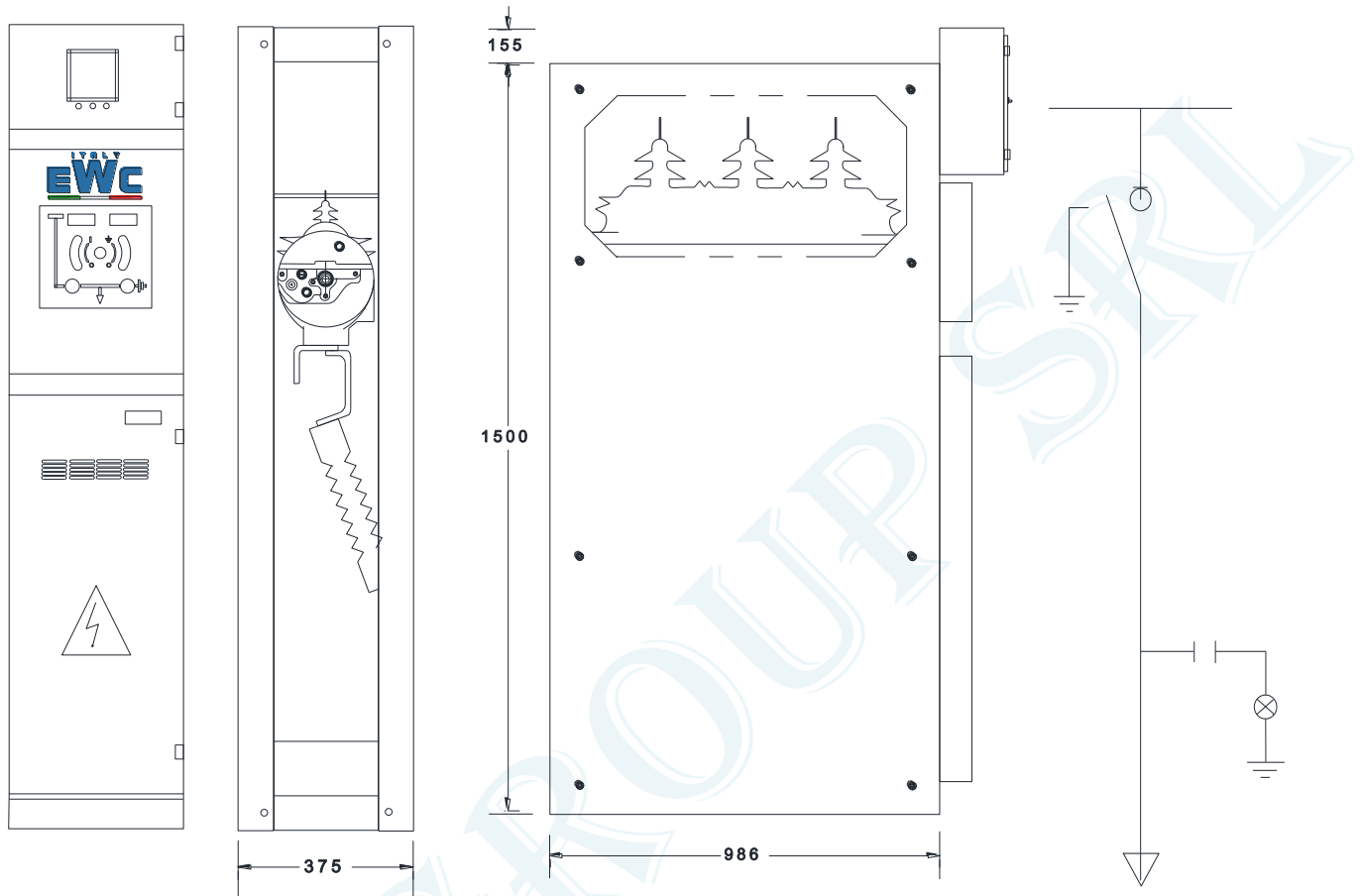
Base Accessories:

- Steel Structure
- Cable Connection

Optional Accessories:

- Low Voltage Compartment
- Set of VTs – width 750mm
- Set of CTs - width 750mm
- Metering Instruments

4. MESSG* / LF – Line Feeder Cubicle



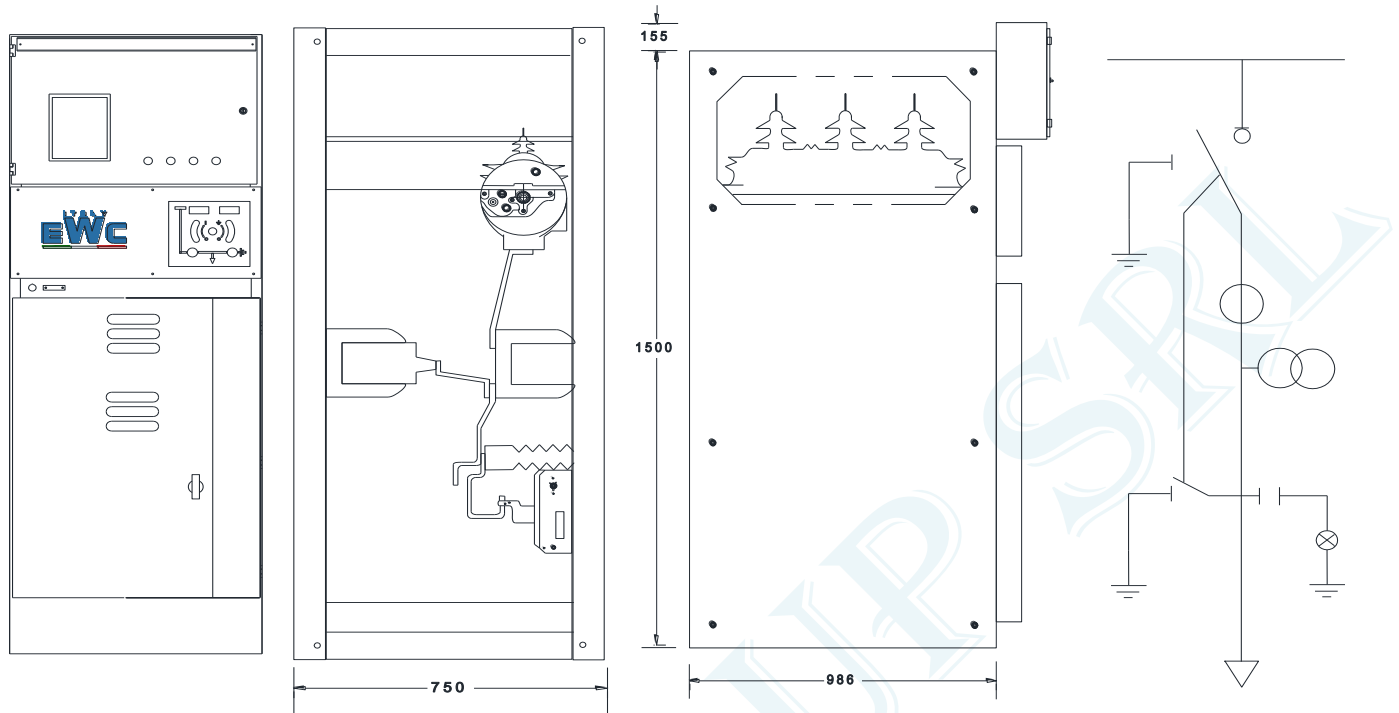
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch
- Manual Simple Operating Mechanism for LBS
- Key Lock on LBS
- Key Lock on Earthing Switch
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Earth-Fault Detector with Toroidal CTs

5. MESG* / LM – Line Feeder with Metering Cubicle



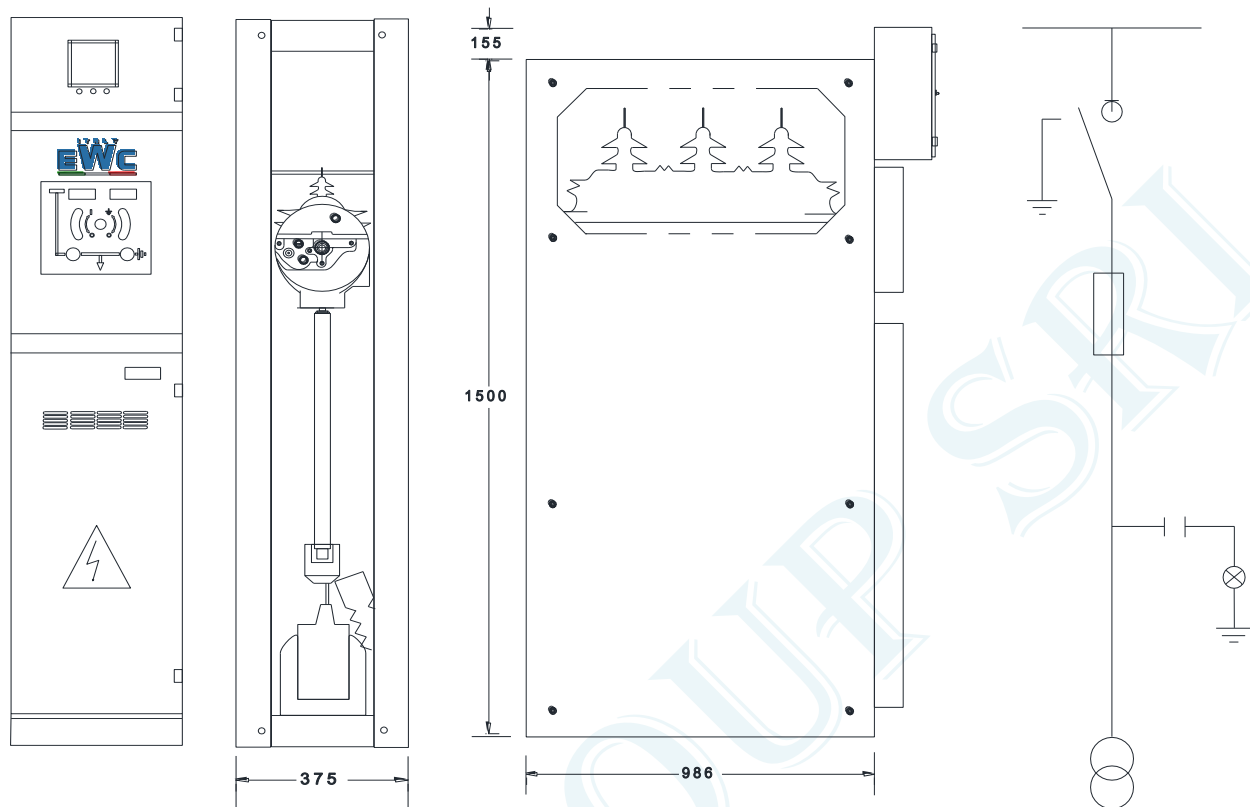
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch
- Manual Simple Operating Mechanism for LBS
- Additional Earthing Switch
- Key Lock on LBS
- Key Lock on Additional Earthing Switch
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Earth-Fault Detector with Toroidal CTs
- Set of CTs
- Set of VTs
- Metering Instruments

6. MESG* / M – Metering Cubicle



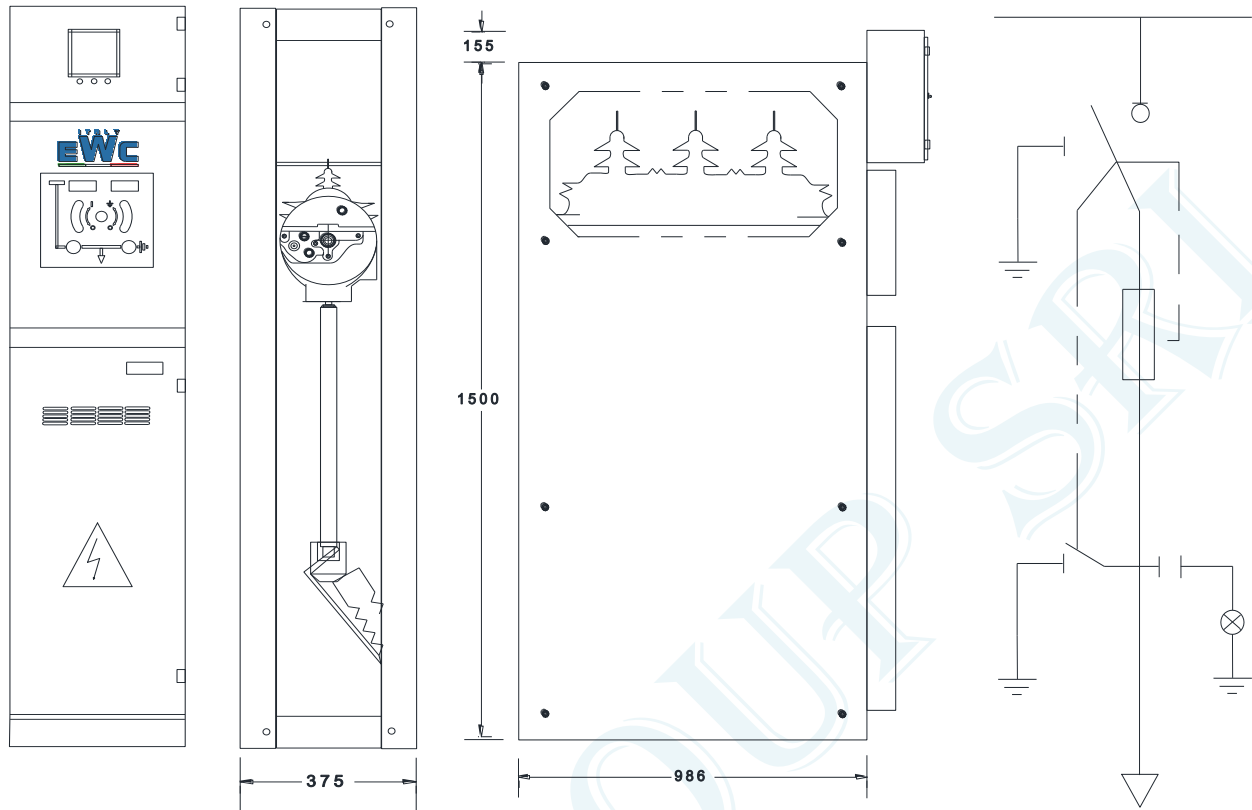
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch and Fuseholders
- Manual Tripping Operating Mechanism for LBS
- Key Lock on LBS
- Set of n.3 Fuses 6A
- Set of VTs (phase/earth)
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Set of VTs (phase/phase) – width 750mm
- Metering Instruments

7. MESG* / TR – Transformer Feeder Cubicle



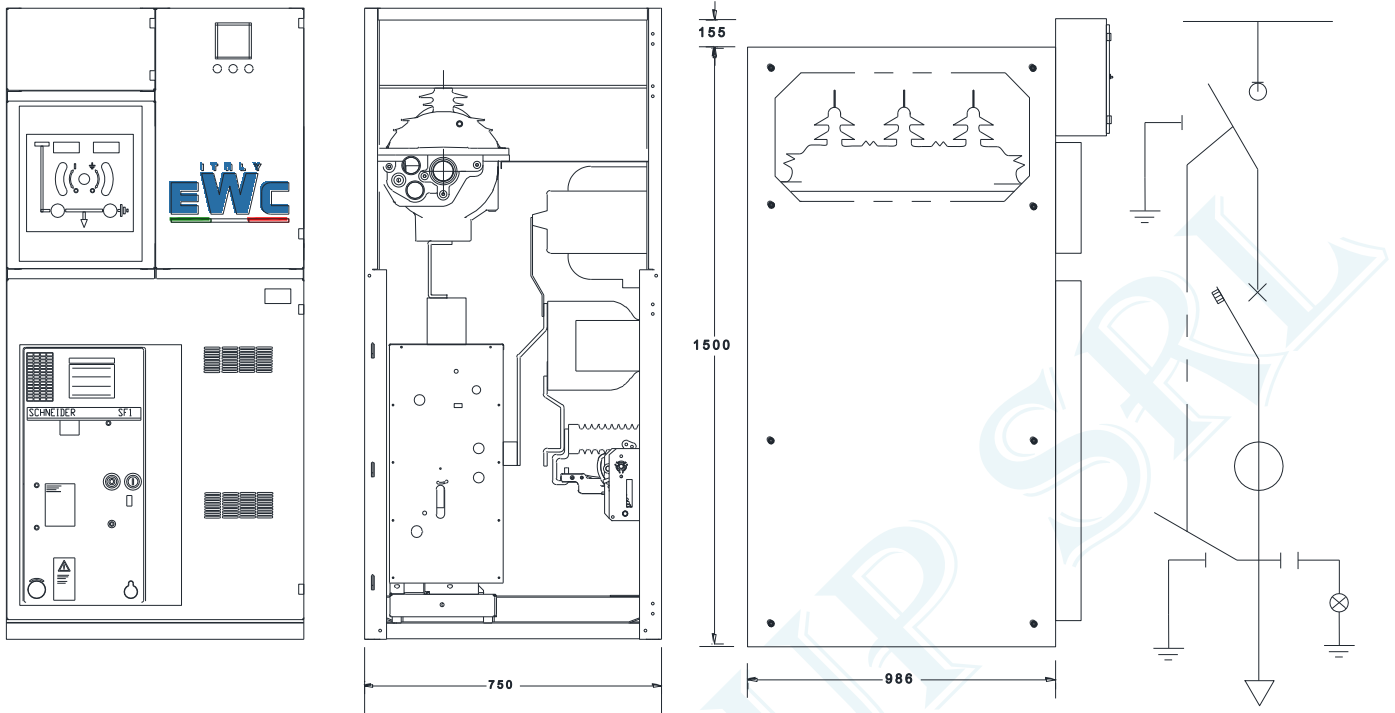
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch and Fuseholders
- Manual Tripping Operating Mechanism for LBS
- Additional Earthing Switch
- Key Lock on LBS
- Key Lock on Additional Earthing Switch
- Set of n.3 Fuses 40A
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Earth-Fault Detector with Toroidal CTs

8. MESG* / CB1 – Circuit Breaker Cubicle



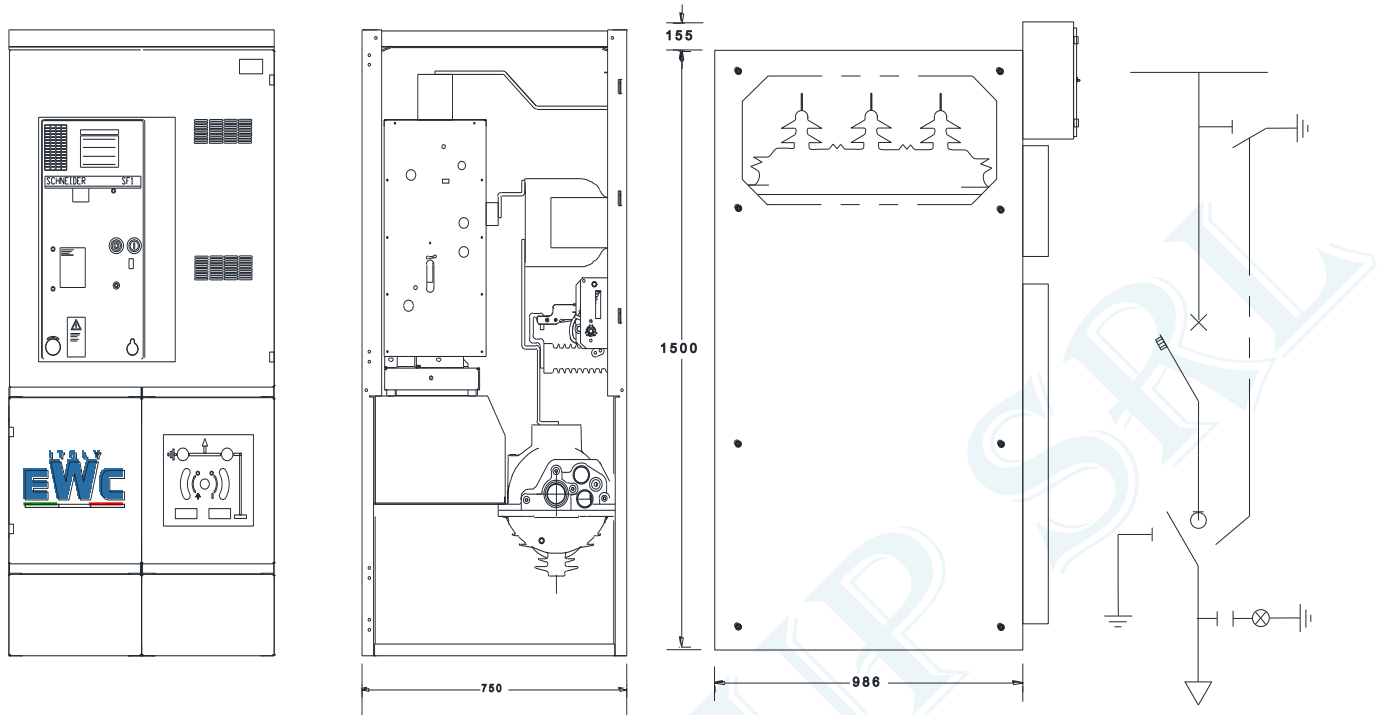
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch
- Manual Simple Operating Mechanism for LBS
- Additional Earthing Switch
- MV Automatic SF6/Vacuum Circuit Breaker
- Key Lock on LBS
- Key Lock on Additional Earthing Switch
- Key Lock on CB
- Set of CTs
- Multifunction Protection Relay
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Motor Operating Mechanism on CB
- Set of VTs
- Metering Instruments

9. MESG* / CB2 – Circuit Breaker Cubicle



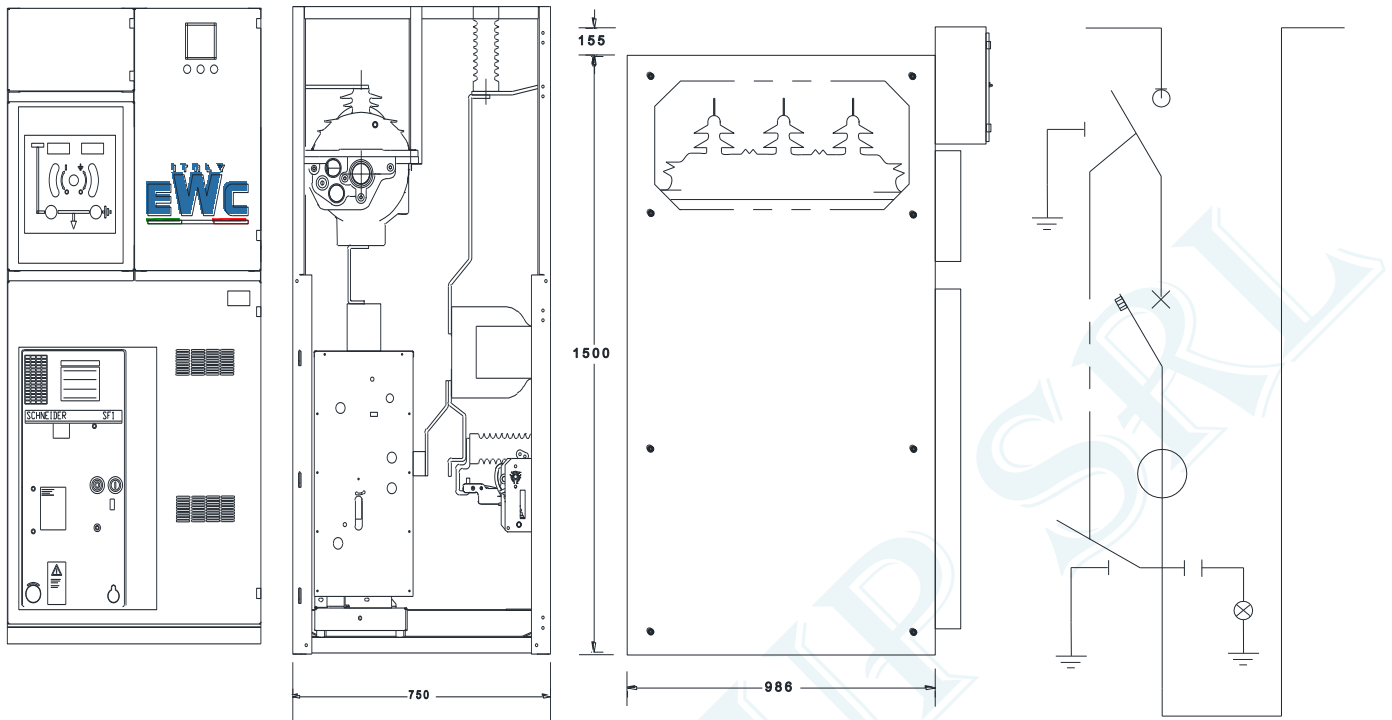
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch
- Manual Simple Operating Mechanism for LBS
- Additional Earthing Switch
- MV Automatic SF6/Vacuum Circuit Breaker
- Key Lock on LBS
- Key Lock on Additional Earthing Switch
- Key Lock on CB
- Set of CTs
- Multifunction Protection Relay
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Motor Operating Mechanism on CB
- Set of VTs
- Metering Instruments

10. MESG* / CB3 – Circuit Breaker Cubicle



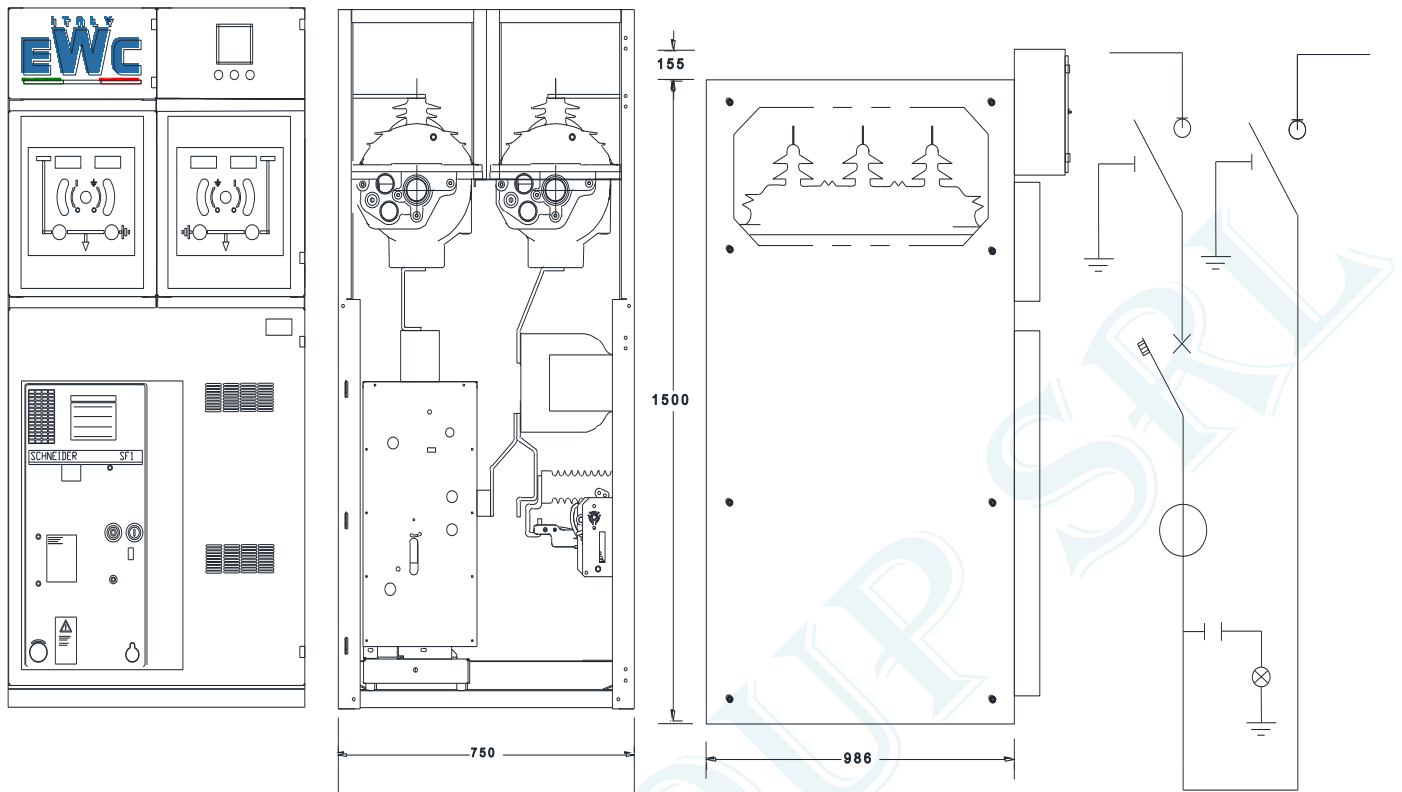
Base Accessories:

- Steel Structure
- Cable Connection
- Main Busbars System and Bus Riser
- Capacitive Voltage Divider with Signalling Lamps
- Load-Break Switch complete with Earthing Switch
- Manual Simple Operating Mechanism for LBS
- Additional Earthing Switch
- MV Automatic SF6/Vacuum Circuit Breaker
- Key Lock on LBS
- Key Lock on Additional Earthing Switch
- Key Lock on CB
- Set of CTs
- Multifunction Protection Relay
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Motor Operating Mechanism on CB
- Set of VTs
- Metering Instruments

11. MESG* / CB4 – Circuit Breaker Cubicle



Base Accessories:

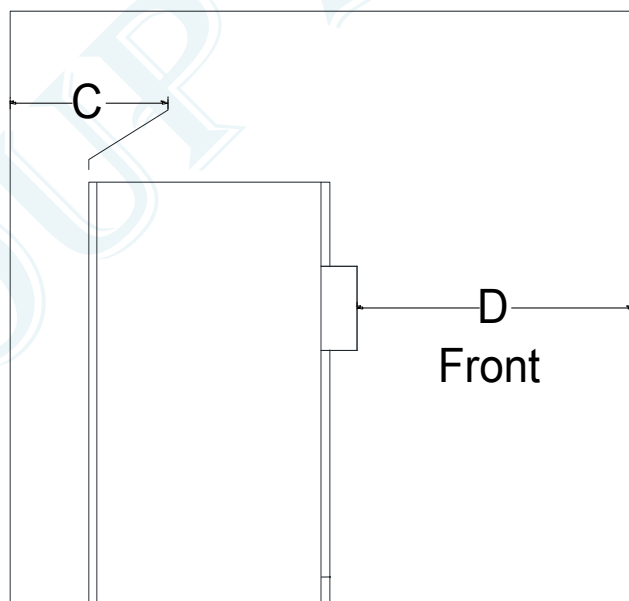
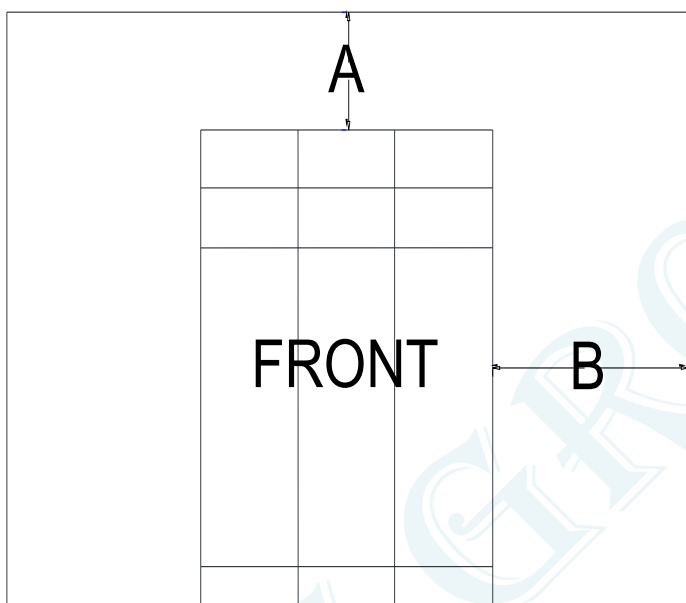
- Steel Structure
- Cable Connection
- Main Busbars System and Bus Riser
- Capacitive Voltage Divider with Signalling Lamps
- N.2 Load-Break Switches complete with Earthing Switch
- Manual Simple Operating Mechanism for LBS
- Additional Earthing Switch
- MV Automatic SF6/Vacuum Circuit Breaker
- Key Lock on LBSs
- Key Lock on Additional Earthing Switch
- Key Lock on CB
- Set of CTs
- Multifunction Protection Relay
- Low Voltage Compartment
- Internal Light
- Anti-Condensation Heater

Optional Accessories:

- Motor Operating Mechanism on LBS
- Motor Operating Mechanism on CB
- Set of VTs
- Metering Instruments

INSTALLATION ROOM

VERSION	A (mm)	B (mm)	C (mm)	D (mm)
Standard	≥ 50 (3)	≥ 100 (3)	≥ 50	≥ 1550 (1)
Arc proof	≥ 600 (2)(3)	≥ 100 (3)	≥ 50	≥ 1550 (1)
Internal arc on the front	≥ 600	≥ 100	≥ 100	≥ 1550 (1)

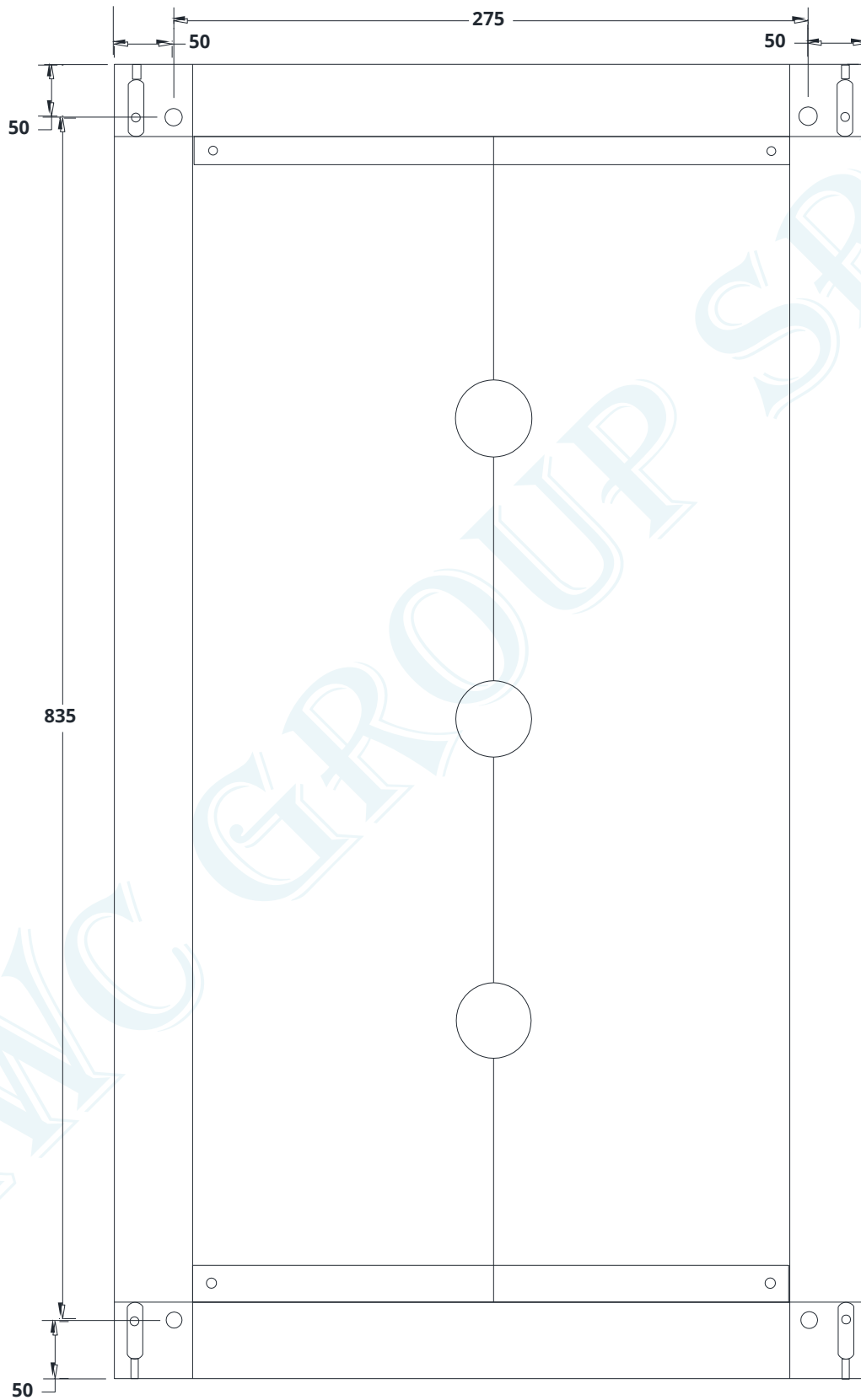


(1) For circuit-breaker units, $D = 1200$ mm.

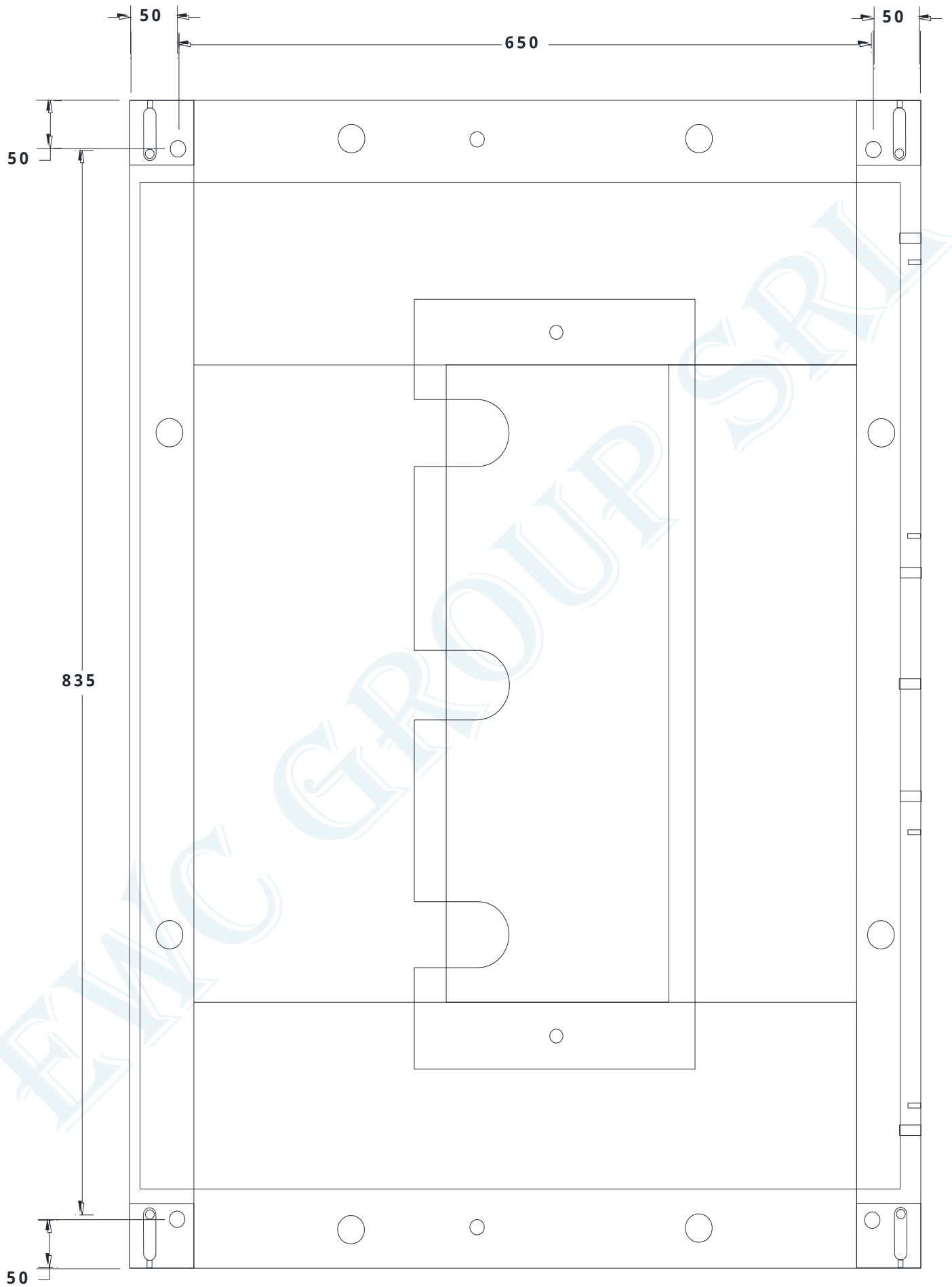
(2) For lower values, please consult us.

(3) When the units are complete with low voltage compartments (control auxiliaries) and the rear sheets are against the wall, distances A and B must be large enough to allow a person to pass through to carry out main busbar assembly.

CIVIL WORKS



Cubicles 375 mm



Cubicles 750 mm

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