Technical Specification code: MAT-E&E-NC-2022-0116-GIN
Version no. 1 dated 01/07/2022
Subject: Global Infrastructure and Networks – GSCM735 Earthing trolley for air insulated “Compact” Switchgear Family

Application Areas
Perimeter: *Global*
Staff Function: -
Service Function: -
Business Line: *Infrastructure & Networks*

CONTENTS

THE HEAD OF NETWORK COMPONENTS

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1 DOCUMENT AIMS AND APPLICATION AREA

The aim of this document is to describe the construction and use characteristics Earthing Trolley (ET), for indoor application and vertical translation, used in the GSCM690 "Family of AIS "compact" ***enel*** type technical specifications collection" to be installed in HV-MV and MV-MV substations of the Enel Group Distribution Companies, listed below:

Country	Distribution Company
Argentina	Edesur
Brazil	Enel Distribuição Rio Enel Distribuição Ceará Enel Distribuição Goiás Enel Enel Distribuição São Paulo
Chile	Enel Distribución Chile
Colombia	Codensa
Iberia	e-distribución
Italy	e-distribuzione
Peru	Enel Distribución Perú
Romania	Enel Distributie Banat Enel Distributie Dobrogea Enel Distributie Muntenia

Table 1 - Distribution Companies

This document shall be implemented and applied to the extent possible within the Global Infrastructure and Networks Business Line and in compliance with any applicable laws, regulations and governance rules, including any stock exchange and unbundling-relevant provisions, which in any case prevail over the provisions contained in this document.

1.1 RELATED DOCUMENTS TO BE IMPLEMENTED AT COUNTRY LEVEL

This document applies to both Enel Global Infrastructure and Networks Srl Company and to Infrastructure and Networks Business Line perimeter, when each Company does not have to issue further documents.

2 DOCUMENT VERSION MANAGEMENT

Version	Date	Main changes description
1	01/07/2022	General revision of document “Global Infrastructure and Networks GSCM735 earthing trolley for air insulated “Compact” Switchgear Family” technical specification

3 UNITS IN CHARGE OF THE DOCUMENT

Responsible for drawing up the document:

- Global Infrastructure and Networks: Engineering and Construction / Components and Devices Design/ Network Components unit.

Responsible for authorizing the document:

- Global Infrastructure and Networks: Head of Network Components unit;
- Global Infrastructure and Networks: Head of Quality unit.

4 REFERENCES

- Code of Ethics of Enel Group;
- Enel Human Right Policy;
- The Enel Group Zero Tolerance of Corruption (ZTC) Plan;
- Organization and management model as per Legislative Decree No. 231/2001;
- Enel Global Compliance Program (EGCP);
- Integrated Policy of Quality, Health and Safety, Environment and anti-Bribery;
- MAT-O&M-NCS-2021-0033-EGIN “Global Infrastructure and Networks - GSCG002 Technical Conformity Assessment”;
- MAT-E&C-NC-2021-0057-GIN “Global Infrastructure and Networks GSCG003 - Employer’s Information Requirements for supplier components”;
- MAT-E&C-NC-2021-0064-GIN “Global Infrastructure and Networks GSCM690 - Family of AIS “compact” enel type, technical specifications collection”;
- MAT-O&M-NCS-2021-0036-EGIN “Global Infrastructure and Networks GSCM505 - Extractable, Vertical Translation, Three-Pole, Vacuum Circuit Breaker, Ur=24kV for air insulated “Compact” Switchgear Family”;
- MAT-O&M-NCS-2021-0055-GIN “GSCM734 “Voltage transformer trolley for air insulated “compact” switchgear family”;

- WKI-QPT-CMQ-2020-0019-EGIN “Contractual Requirements for Components and Materials Quality management”;
- CNS-O&M-S&L-2021-0032-EGIN “Global Infrastructure and Networks Barcode specification;
- ISO 9001:2015 - Quality Management System – Requirements;
- ISO 14001:2015 - Environmental Management System - Requirements with guidance for use;
- ISO 45001:2018 - Occupational Health and Safety Management System - Requirements with guidance for use;
- ISO 37001:2016 - Anti-bribery Management System - Requirements with guidance for use;
- ISO/IEC 17000:2020 - Conformity assessment – Vocabulary and general principles;
- ISO/IEC 17020:2012 - General criteria for the operation of various types of bodies performing inspection;
- ISO/IEC 17025:2017 - General requirements for the competence of testing and calibration laboratories;
- ISO/IEC 17050-1:2004 - Conformity assessment - Supplier’s declaration of conformity - Part 1: General requirements (ISO/IEC 17050-1:2004, corrected version 2007-06-15);
- ISO/IEC 17050-2:2004 - Conformity assessment - Supplier’s declaration of conformity - Part 2: Supporting documentation (ISO/IEC 17050-2:2004);
- ISO/IEC 17065:2012 - Conformity assessment – Requirements for bodies certifying products, processes and services;
- IEC 62271-1 “High-voltage switchgear and controlgear - Part 1: Common specifications for alternating current switchgear and controlgear”;
- IEC 62271-100 “High-voltage switchgear and controlgear - Part 100: Alternating current circuit-breakers”;
- IEC 62271-102 “High-voltage switchgear and controlgear - Part 100: Alternating current disconnectors and earthing switches”;
- IEC 62271-200 “High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV”;
- IEC/TS 62271-210 “High-voltage switchgear and controlgear - Part 210: Seismic qualification for metal enclosed and solid-insulation enclosed switchgear and controlgear assemblies for rated voltages above 1 kV and up to and including 52 kV”;
- IEC 62271-304 “High-voltage switchgear and controlgear - Part 304: Classification of indoor enclosed switchgear and controlgear for rated voltages above 1 kV up to and including 52 kV related to the use in special service conditions with respect to condensation and pollution”;
- ISO 12944 “Paints and varnishes — Corrosion protection of steel structures by protective paint systems”;
- Regulation (EU) of the European Parliament and of the Council 517/2014 of the 16th April 2014.

Reference documents listed below (amendments included) shall be the edition in-force at the contract date. For South America destinations, the reference standards are the IEC/ISO, whilst for Europe destinations the reference standards are the correspondent European ones (EN).

Argentina

Brazil

- NR-10 – Segurança em instalações e serviços em eletricidade.

Chile

- Norma técnica de calidad de servicios para sistema de distribución, Comisión Nacional de Energía, Diciembre 2017;
- ETG-1020 “Requisitos de Diseño Sísmico para Equipo Eléctrico”;
- IEEE 693-2005 “Recommended Practice for Seismic Design of Substations”;
- Norma Técnica de Seguridad y Calidad de Servicio, Comisión Nacional de Energía, Septiembre 2020;
- Reglamento de producción, transporte y distribución de energía eléctrica – Decreto N°109;
- Pliego Técnico normativo RPTD N°15 Operación y Mantenimiento. Decreto N°109;
- Pliego Técnico normativo RPTD N°17 Sistema de Gestión de integridade de instalaciones eléctricas. Decreto N°109.

Colombia

- RETIE – Reglamento Técnico de Instalaciones Eléctricas.

Perú

Italy

- D.Lgs n. 81 of the 9 of April 2008 and subsequent modifications;
- D.P.R. n. 43 of the 27th of January 2012;
- Nota Operativa PVR001 – Rev. 2 – Ott. 2012 - Gestione Garanzie dei materiali di ENEL Distribuzione.
- GUI 101 “Caratteristiche generali e prescrizioni di impiego del pallet in legno da utilizzare per imballo di trasporto”.

Spain

- RAT, Seguridad, Declaracion de conformidad;
- R.D. 614/2001, de 8 de junio, sobre disposiciones mínimas para la protección de la salud y seguridad de los trabajadores frente al riesgo eléctrico;
- R.D. 337/2014, de 9 de mayo, por el que se aprueban el Reglamento sobre condiciones técnicas y garantías de seguridad en instalaciones eléctricas de alta tensión y sus Instrucciones Técnicas

Complementarias ITC-RAT 01 a 23;

- R.D. 223/2008, de 15 de febrero, por el que se aprueban el Reglamento sobre condiciones técnicas y garantías de seguridad en líneas eléctricas de alta tensión y sus instrucciones técnicas complementarias ITC-LAT 01 a 09.

Romania

- Prescriptia Energetica PE 101/85 – Normativ pentru construcţia instalaţiilor electrice de conexiuni şi transformare cu tensiuni peste 1 kV;
- GUI 101RO "Caracteristicile generale și cerințele de utilizare ale paletului de lemn care urmează să fie utilizat pentru ambalarea de transport.

5 ORGANIZATIONAL PROCESS POSITION IN THE PROCESS TAXONOMY

Value Chain/Process Area: Engineering and Construction

Macro Process: Devices and Components Development

Process: Standard Catalog Management

6 DEFINITIONS AND ACRONYMS

Acronym and Key words	Description
High Voltage (HV)	Electrical system with 230kV to 35kV nominal operative voltage between the phases
Medium Voltage (MV)	System with a nominal operative voltage between the phases higher than 1 kV to 35 kV included. NOTE: The boundary value between medium voltage and high voltage depends on local and historical circumstances or on common usage. Nevertheless for internal standardization purposes, medium voltage is defined as a system with a nominal operative voltage between the phases higher than 1 kV to 35 kV included"
Technical Conformity Assessment (TCA)	A "conformity assessment"[1] with respect to "specified requirements"[2] consists in functional, dimensional, constructional and test characteristics required for a product (or a series of products) and quoted in technical specifications and quality

[1] Definition 2.1 of ISO/IEC 17000
[2] Definition 3.1 of ISO/IEC 17000

	requirements issued by Enel Group distribution companies. This also includes the verification of conformity with respect to local applicable regulation and laws and possession of relevant requested certifications
Type A documentation	Not confidential documents used for product manufacturing and management from which it is possible to verify the product conformity to all technical specification requirements, directly or indirectly

7 DESCRIPTION

7.1 LIST OF COMPONENTS

Type code	Description
GSCM735	Earthing Trolley for GSCM690

Material codes please refer to Annex B.

7.2 SERVICE CONDITIONS

ET shall be compliant with normal service conditions for indoor installation, defined in IEC 62271-1, considering as minimum value of ambient temperature - 5°C.

Maximum altitude shall be as defined in normal service condition (1000 m).

Manufacturer shall define the Ur referred to 2700 m of altitude for Colombia, (a de-rating of Ur can be considered).

Seismic level of apparatuses, functional unit switchgear and ET shall be:

- seismic severity 2;
- acceptance class 1.

as defined in IEC/TS 62271-210.

ET shall be compliant for installation in three-phases MV effectively and non-effectively earthed neutral system (solidly earthed, isolated, impedance earthed, resonant earthed and arc-suppression-coil-earth neutral system).

ET shall be compliant with design class 2 of IEC 62271-304.

7.3 TECHNICAL CHARACTERISTICS

In the following table, electrical ratings for ET GSCM735 are defined.

***enel* Type**	**GSCM735**
Rated Voltage Ur (kV)	24
Rated frequency fr (Hz)	50 and 60
Rated short-time withstand current Ik (kA)	16
Rated duration of short circuit tk (s)	1
Rated peak withstand current Ip (kA)	41,6 (d.c. time = 45 ms)

Table 2 – Technical features

7.4 CONSTRUCTION CHARACTERISTICS

7.4.1 Generality

ET shall be extractable type, with clamp contacts and shall be suitable for installing inside a voltage bus bar measurement functional unit switchgear GSCM731 (see annex G GSCM690).

Dimensions of ET and interfaces with GSCM731 functional unit switchgear reference shall be made to GSCM505.

7.4.2 Protection panel

ET shall be equipped, in front and sides, with a protection metallic (other materials shall be taken into account) panel of adequate resistance to mechanical stress and internal fault. Panel shall be without sharp corners at the edges. Design of lowest part of the panel shall also take in consideration the maneuverability of the handles for extraction of the ET (see paragraph 7.4.5).

7.4.3 Wheels

ET trolley shall be equipped of 4 sliding stainless wheels suited to the guides installed inside the functional unit switchgear; the wheels shall permit the easy handling of ET trolley.

Wheels fixing system shall be contained in the maximum width of trolley.

7.4.4 Earthing contact

Earthing circuit shall be built with copper bar of proper dimension compliant with electrical ratings of ET and to be coupled with the functional unit switchgear earthing system.

Earthing circuit shall connect the contact clamps of each phase of the functional unit switchgear with the earth contacts of the trolley, see figure 1 annex C.

Clamp contacts shall be designed in order to be coupled with the functional unit switchgear fixed contacts (reference GSCM505 and GSCM731).

Penetration of clamp in the fixed contacts shall be 30 mm as minimum values; at any case the penetration shall be adequate in order to ensure the electrical ratings of functional unit switchgear.

Clamp contacts shall have a degree of mobility in order to permit a correct coupling with the fixed contacts even in case of offset with respect to the bus bar.

Every group of contacts shall be equipped by independent re-entry springs to permit, after a disconnection of ET from bus bar, that the clamp return to pre-connection position.

7.4.5 Drag handles for trolley

ET shall be equipped with two handles positioned in the front panel, retractable by means of return springs; handles shall allow to release the two rectangular blocking pivots of the ET.

Mechanism shall be designed in order to operate correctly with functional unit switchgear interlocks.

Design of handles shall be ergonomic, safe and effortlessly for operators

7.4.6 Lifting devices

Removable lifting devices shall be installed on ET (for example eyebolts or similar), for the lifting of the complete ET.

7.4.7 Blocking pivot

ET shall be equipped with a blocking pivot with a diameter of 20 mm, rounded edges and stroke at least 20 mm (see GSCM505).

When the trolley is “totally relieved” and “totally lowered” (ET connected and disconnected), the pivot will be in its more external position.

Such position of pivot shall be maintained by a horizontal pressure towards external direction with respect to trolley.

The pressure shall have proper accordance with specific mechanism present on the front of functional unit switchgear (see GSCM505).

Activation of blocking pivot shall occur when it is pushed towards internal direction starting from 5 mm and to 10 mm from beginning of horizontal stroke.

7.4.8 Protective coatings

The carpentry shall have a protective coating compliant with ISO 12944 with the following minimum features:

- Durability: High (H);
- Atmospheric corrosion category:C3.

Use of painting cycles or alternatively, electrolytic galvanizing on items that are not part of the load-bearing structure of the trolley is allowed.

7.5 MANUALS

Manufacturer shall provide the ET manual compliant with IEC 62271-102 and IEC 62271-200.

Minimum time of maintenance shall be 60 months.

The manuals language shall be compliant with the supply country, e.g. in Italian/Spanish/ Romanian/Portuguese.

7.6 NAMEPLATE AND SINGS

ET shall be equipped, on front part and in visible position, with a nameplate where, as far as applicable, dates indicated (included the mass) by IEC 62271-102 and IEC 62271-200 shall be listed.

Also on the nameplate following indications shall be included:

- ***enel*** type;
- ***enel*** material code;
- Barcode compliant with CNS-O&M-S&L-2021-0032-EGIN (in case there is not enough space on the nameplate, barcode could be insert out of nameplate).

7.6.1 Sequence of maneuvers plate

Sequence of maneuvers plate and single line scheme shall be present in front of ET (see figure 2 annex C).

The language shall be compliant with the country of supply, e.g. in Italian/Spanish/ Romanian/Portuguese.

Here below an example of maneuvers sequence in English language and of the single line scheme of ET.

Warning: The previous sequence is to be applied after the assembly of MV switchgear is put "out of service".

MV Bus bar Earthing and Short Circuiting

1- Disconnect and extract VT trolley GSCM734 from functional unit switchgear GSCM731;
2- Insert the ET inside the functional unit switchgear GSCM731 until the "disconnect" position is reached;
3- If required attach warning sing on the external front of functional unit switchgear GSCM731 as example see figure 4;
4- Close the door;
5- Open the shutter;
6- Insert and actuate the block key;
7- Insert and actuate the command maneuver of blocking pivot;
8- Insert the vertical translation maneuver and actuate for vertical translation of ET from "disconnected" conditions to "service" conditions;
9- Extract the vertical translation maneuver;

10- De-actuate and extract the command maneuver of blocking pivot;

11- If required insert the padlock or take the interlock key.

MV Bus bar Earthing short circuiting removal

1- If present remove the padlock or insert the interlock key;

2- Insert and actuate the command maneuver of blocking pivot;

3- Insert the vertical translation maneuver and actuate for vertical translation of ET from “service” conditions to “disconnected” conditions;

4- Extract the vertical translation maneuver;

5- De-actuate and extract the command maneuver of blocking pivot;

6- De-actuate and extract the block key;

7- Close the shutter;

8- Open the door;

9- Extract the ET from functional unit switchgear GSCM731

10- Remove warning sign if attached previously.

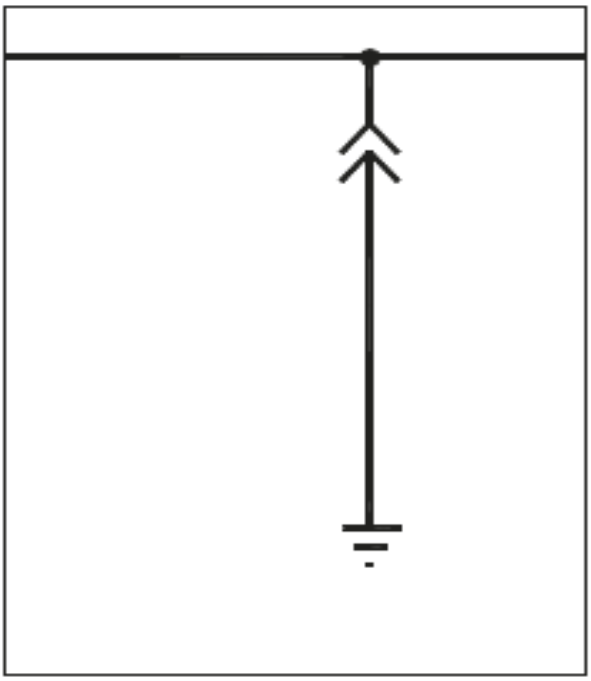


Figure 1 – Single line scheme of ET

7.7 TESTING

Type, routine and factory acceptance tests shall be performed in compliance with IEC 62271-102, IEC 62271-1 and IEC 62271-200 and the clarifications indicated in the follow paragraphs.

Technical conformity assessment (TCA) process shall be compliant with GSCG002.

Drawings included in the type A documentations shall be compliant with GSCG003.

Functional unit switchgear GSCM731 with TCA in force necessary for all type and routine tests shall procured by Manufacturer.

Manufacturer shall produce a “values declared by Manufacturer” document necessary for Routine Test to be insert in TCA report.

7.7.1 List of type tests

Type test	Reference
Constructive features and interlock functionality verifications	Par. 7.7.3.1
Mechanical operation tests	Par. 7.7.3.2; Par. 7.102 of IEC 62271-200 ed.3
Measurement of the resistance of the main circuit	Par.7.7.3.3 Par. 7.4 of IEC 62271-102 ed.2 Par. 7.4 of IEC 62271-200 ed.3
Short-time withstand current and peak withstand current tests	Par. 7.7.3.4 Par. 7.6 of IEC 62271-102 ed.2 Par. 7.6 of IEC 62271-200 ed.3
Ageing and humidity test	Par. 7.7.3.5 IEC 62271-304
Seismic test	Par. 7.7.3.6 IEC TS 62271-210
Protective coating verifications	ISO 12944

Table 3 - Type Test

Last edition of previous standards shall be used, paragraphs indicated are referred to current edition.

7.7.2 List of routine tests

Routine test	Reference
Type correspondence verifications	Par. 7.7.4.1 Par. 8.6 of IEC 62271-102 ed.2
Mechanical operation tests and interlock functionality	Par. 7.7.4.2 Par. 8.101 of IEC 62271-102 ed.2 Par. 8.102 of IEC 62271-200 ed.3
Verification of earthing functioning and measurement of the resistance of the main circuit	Par. 7.7.4.3 Par. 8.102 of IEC 62271-102 ed.2 Par. 8.4 of IEC 62271-102 ed.2 Par. 8.3 of IEC 62271-200 ed.3
Protective coating dimensional check	Par. 7.7.4.4 and Main standards applicable

Table 4 - Routine test

Last edition of previous standards shall be used, paragraphs indicated are referred to current edition.

7.7.3 Type tests

Type tests shall be performed on ET fully equipped as for ordinary use.

7.7.3.1 Constructive features verifications and interlock functionality verifications

For this verification, a mechanical simulation of functional unit switchgear is necessary.

Mechanical simulation of functional unit switchgear and ET (mock-up template) shall be manufactured by Manufacturer in compliance with enel drawings and specifications; verification of the template accuracy is in charge of Manufacturer

Annual check of mock-up template with portable 3D automatic measurement shall be performed by Manufacturer.

The right interlock functionality, listed in this document and its annexes, shall be also checked with the mock-up template, procedure described in GSCM690 annex N shall be followed.

Furthermore, nameplate and signs shall be verified in compliance with paragraph 7.6

7.7.3.2 Mechanical operation tests

Test shall be performed on ET installed inside functional unit switchgear GSCM731, in compliance with the paragraph 7.102 of IEC 62271-200 ed.3.

Correct insertion and vertical translation of ET inside functional unit switchgear shall be checked.

7.7.3.3 Measurement of the resistance of the main circuit

Test shall be performed on ET installed inside functional unit switchgear GSCM731, in compliance with paragraphs 7.4 of IEC 62271-102 ed.2 and 7.4 of IEC 62271-200 ed.3.

For each phase the following measurement shall be performed:

a) R1: between MV busbar and earth circuit of GSCM731 switchgear;

average value, for each phase, of measurement carried out during the check a), shall be adopted as referring value for the routine tests.

7.7.3.4 Short-time withstand current and peak withstand current tests

Test shall be performed on ET installed inside functional unit switchgear GSCM731, in compliance with paragraphs 7.6 of IEC 62271-102 ed.2 and 7.6 of IEC 62271-200 ed.3.

7.7.3.5 Ageing and humidity test

Test shall be performed on ET in compliance with IEC 62271-304 with design class 2.

7.7.3.6 Seismic test

Test shall be performed on ET installed inside their functional unit switchgear, compliance with IEC TS 62271-210.

7.7.4 Routine tests

The routine tests are indicated in the table 4, these tests shall be carried out by the Manufacturer on all the specimen prepared for the commissioning.

For each piece belonging to the prepared batch, the supplier shall prepare a test report with the results of the tests performed.

For routine tests reference values and acceptability ranges defined in the TCA Report, type A documents shall be considered.

Routine tests shall be performed on ET fully equipped as for ordinary use.

7.7.4.1 Type correspondence verifications

Test shall be performed on ET in compliance with the paragraph 8.6 of IEC 62271-102, following verifications shall be performed:

a) Visual examination in order to check the absence of external imperfections and constructive defects;

b) Constructive features check with drawings schemes and pictures of the approved type A documentations.

7.7.4.2 Mechanical operation tests and interlock functionality

Test compliant with paragraphs 8.102 of IEC 62271-200 ed.3 and 8.101 of IEC 62271-102 ed.2 shall be performed on ET installed inside functional unit switchgear GSCM731.

List of tests necessary to verify the mechanical operation and interlocks and their procedure shall be defined by Manufacturer under own responsibility, a line guide present in the par. 8.12.4 GSCM690 annex N, could be take in the account from Manufacturer.

7.7.4.3 Protective coating dimensional check

Protective coating dimension declared during TCA shall be checked using the main standards applicable.

7.7.5 Factory acceptance test

Factory acceptance test shall be carried out on a sample basis, on a number of samples which depends on the consistency of the supply according to the conditions establish in the document WKI-QPT-CMQ-2020-0019-EGIN “Contractual Requirements for Components and Materials Quality management”.

7.8 SUPPLY REQUIREMENTS

ET shall be supplied in single package, in order to ensure a proper protection during the transportation and storage.

Inside the package followings elements shall be supplied:

ET shall be supplied in single package, in order to ensure a proper protection during the transportation and storage.

Inside the package followings elements shall be supplied:

- ET completely equipped;
- All accessories necessary for the complete installation and commissioning of ET;
- Installation, operation and maintenance manuals;
- Only for Spain, annex D.2 GSCG002 for each equipment supplied;
- Any other device eventually needed for the operation ET.

Out of the package followings indications shall be present:

- ***enel*** DSO;
- Name of supplier;
- Description of product;
- ***enel*** material and type code;
- Manufacturer type code and serial number;
- Gross weight.
- BAR Code compliant with CNS-O&M-S&L-2021-0032-EGIN.

Package shall be assembled for delivering as prescribed in ***enel*** standard.

7.8.1 Warranty

60 months of warranty period.

7.9 DOCUMENTATIONS TO BE PROVIDED IN TECHNICAL OFFER

Documentations:

- Check list see annex A to fill in for each ***enel*** type code;
- Deviations letter (if any).

8 ANNEXES

8.1 ANNEX A - TECHNICAL CHECK LIST

Technical specification:	**Offer number:**
Manufacturer	**Site of production:**
***enel* type code:**	**Manufacturer type code or designation:**
***enel* material code:**	

	Technical ratings	Request	Manufacturer offer
1	Service conditions	Paragraph 7.2	
2	Maximum altitude (m)	1000	
3	Maximum altitude only for Colombia(m)	2700	
4	Minimum ambient air temperature (°C)	-5	
5	Severity degree of pollution (IEC 62271-304)	design class 2	
6	Seismic level; acceptance class	2 ;1	
7	Rated frequency fr (Hz)	50 and 60	
8	Rated voltage Ur (kV)	24	
9	Rated Voltage Ur (kV) to 2700 m	Manufacturer information	
10	Rated short-time withstand current Ik (kA)	16	
11	Rated duration of short circuit tk (s)	1	
12	Rated peak withstand current Ip (kA)	41,6	
13	Overall dimension	Annex C and GSCM505	
14	Protective coatings (durability/category)	H/C3	

Table 5 - Check list

8.2 ANNEX B – MATERIAL CODES

Type code	Argentina	Brazil	Chile	Colombia	Italy	Perú	Rumania	Spain
GSCM735					140316		140052	140716

Table 6 - Local of material codes

8.3 ANNEX C - OVERALL DIMENSIONS

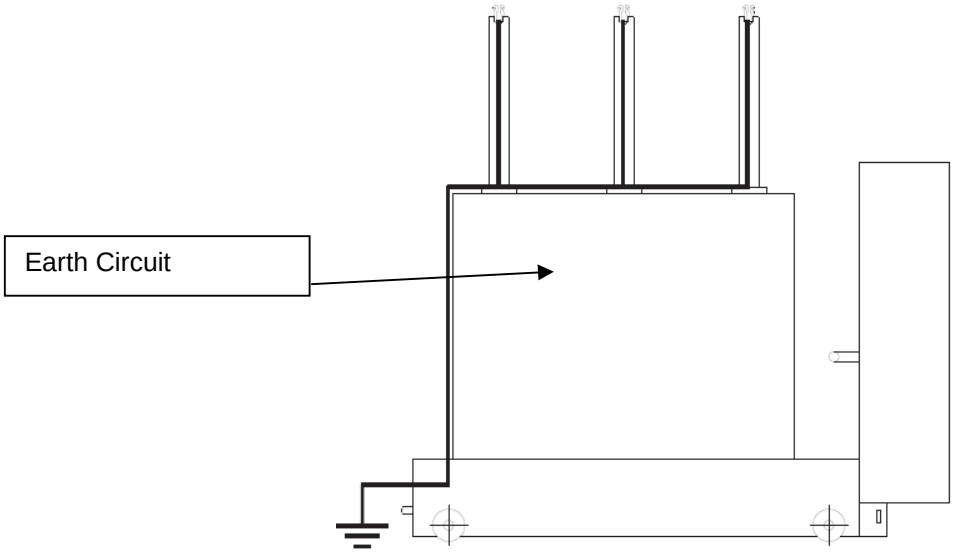
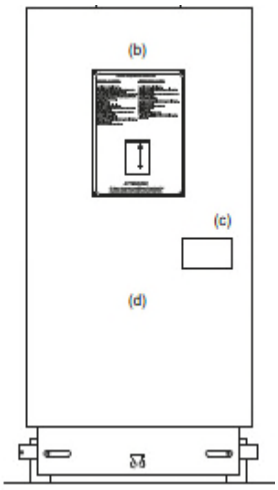


Figure 2 – Lateral view



b) Maneuverers sequence
c) Features plate
d) Front panel

Figure 3 – Frontal view

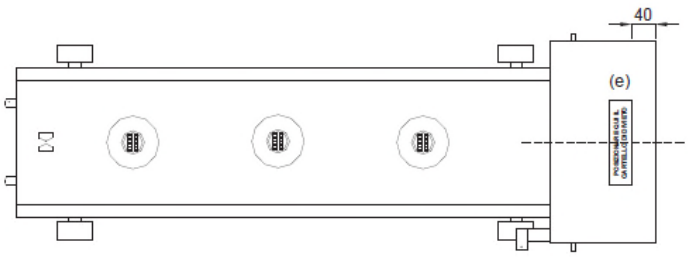


Figure 4 – Plan view

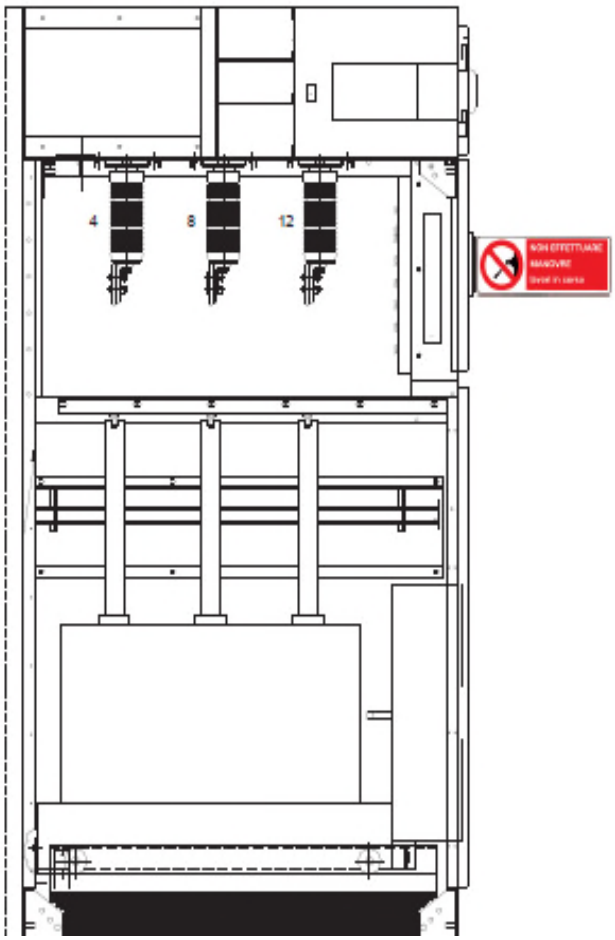


Figure 5 – Earthing trolley inside the functional unit switchgear GSCM731