

الشركة السعودية للكهرباء
Saudi Electricity company



GENERAL

HD-SDE load break switch feature all copper bar current-carrying parts, providing uniform strength and conductivity with no defects.

Washers between the blade assembly and hinge act as a bearing, ensuring easy blade opening.

HD-SDE load break switch is equipped with loadmaster that allow the interruption of current within 630 A in open functioning.

The single-pull operation of the 630 A rating both bypasses and disconnects the regular or current transformer, or reconnects them to the line.

Reverse loop contacts on 600 A ratings increase contact pressure and minimize the possibility of contact damage when subjected to high fault current.

The regulator and current transformer LBS feature sequenced, make before break operation up to 630 A rating, minimizing the possibility of operator error

MOUNTING

HD-SDE outdoor switch disconnecter can be **mounted** in vertical or horizontal position.

LBS can be supplied in separate poles to reduce space in shipping process.

It is suitable for metal, concrete or timber poles, through standard fixing devices or special on request.

High mounting within 8 m, usually with manual lever device

CURRENT CARRYING SET

Moving contact consists in two blades mounted in parallel.

Fixed contact is made of bent sheet having a feature, which ensure an optimal working.

For both, material is copper Cu-ETP 99,90 coated.

Contacts pressure is controlled by stainless steel springs during normal conditions and by the

self-tightening action when high current flow through them in particular conditions.

Stainless steel bolts or brass clamps on request, carry out connecting of copper or aluminium alloy cables.

All small components like bolts, pins of the current carrying set, are made of stainless steel

INSULATORS

Insulating components used are:

- **Solid glazed porcelain**
- **Silicon rubber**

in according to IEC 61952 standards.

Epoxy or polymer type also available.

Insulators have hot dip galvanized cast iron fittings.

Different leakage distance can be chosen according to the environment pollution level.

OPERATING MECHANISM AND OPERATING DEVICES

- **Operating devices** used are the following:

Manual lever operated consists on an manual control manoeuvrable with bottom pole lever.

OPTIONAL: Operating mechanism with SPRING: allows fast closing and opening operations obtained by a compression spring. The opening / closing speed is independent of the operator.

In order to prevent damages operating mechanism is enclosed into an aluminium cover.



Fast spring operating mechanism

MANUFACTURING, STANDARDS, QUALITY ASSURANCE

HD-SDE is an outdoor switch disconnecter product of Eleron experience.

The Eleron **manufactures** directly main parts of disconnecter as contacts, frame, operating mechanism and devices. Remaining parts come from chosen suppliers, finally Eleron carry out to assembling and test the product.

An internal standard **Quality Assurance** in compliance with governs all manufacturing process UNI EN ISO 9001 standard

Before shipment, all HD-SDE1X36.6 outdoor switch disconnecters are subject to the following **routine tests**:

- Dielectric test on the main circuit
- Tests on auxiliary and control circuits
- functional tests
- Measurement of the resistance of the main circuit
- tightness test
- design and visual check

HD-SDE outdoor switch disconnecter comply with the following **standards**:

- International IEC 62271-103 , IEC 60265, EN 50152-2
- National CEI EN 62271-103, CEI EN 60265, CEI EN 50152-2

TECHNICAL CHARACTERISTICS

Ambient temperature	[°C]	-25÷65
Nr. of mechanical manoeuvre	Classe MO	1000
Ice making capacity	[mm]	10

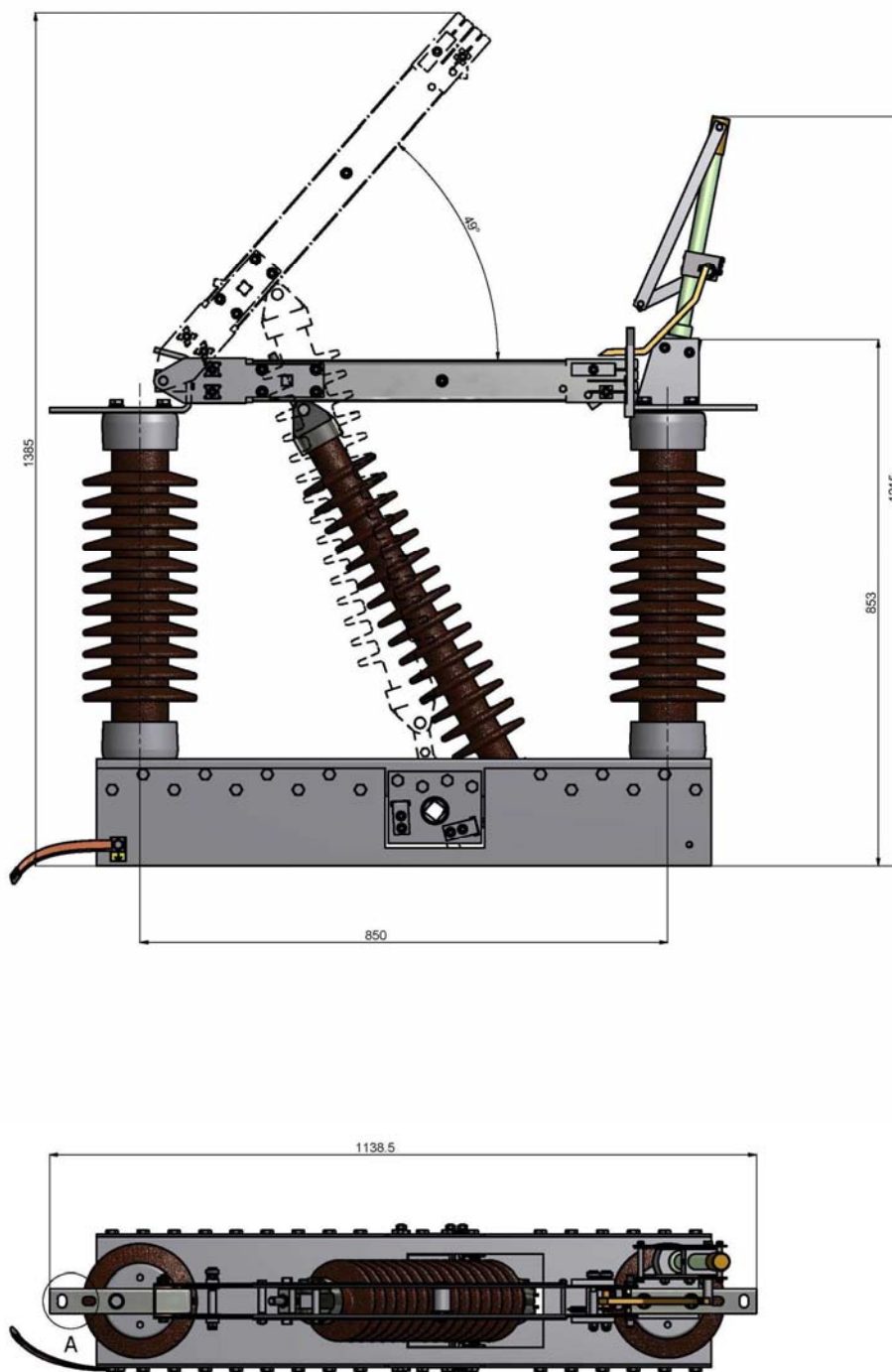
ELECTRICAL CHARACTERISTICS

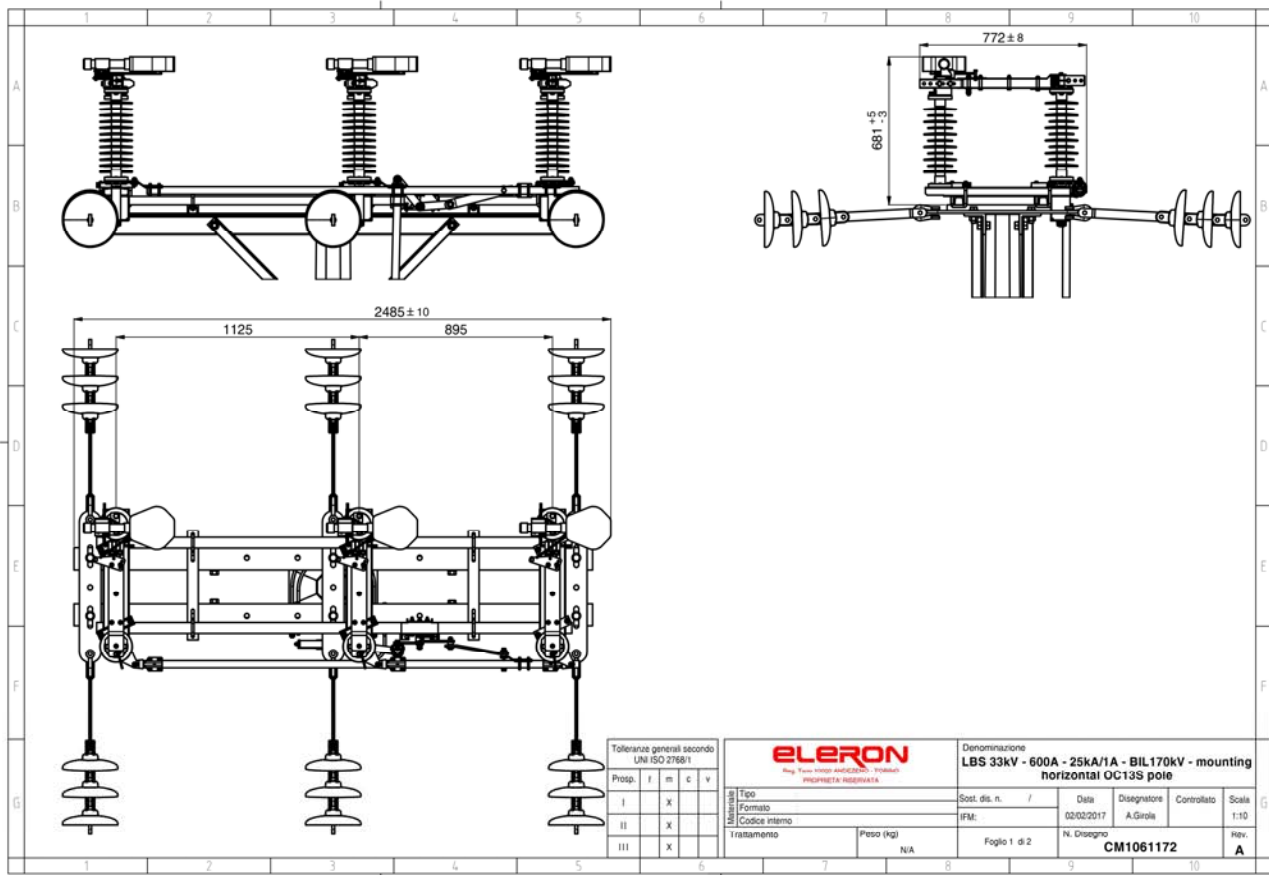
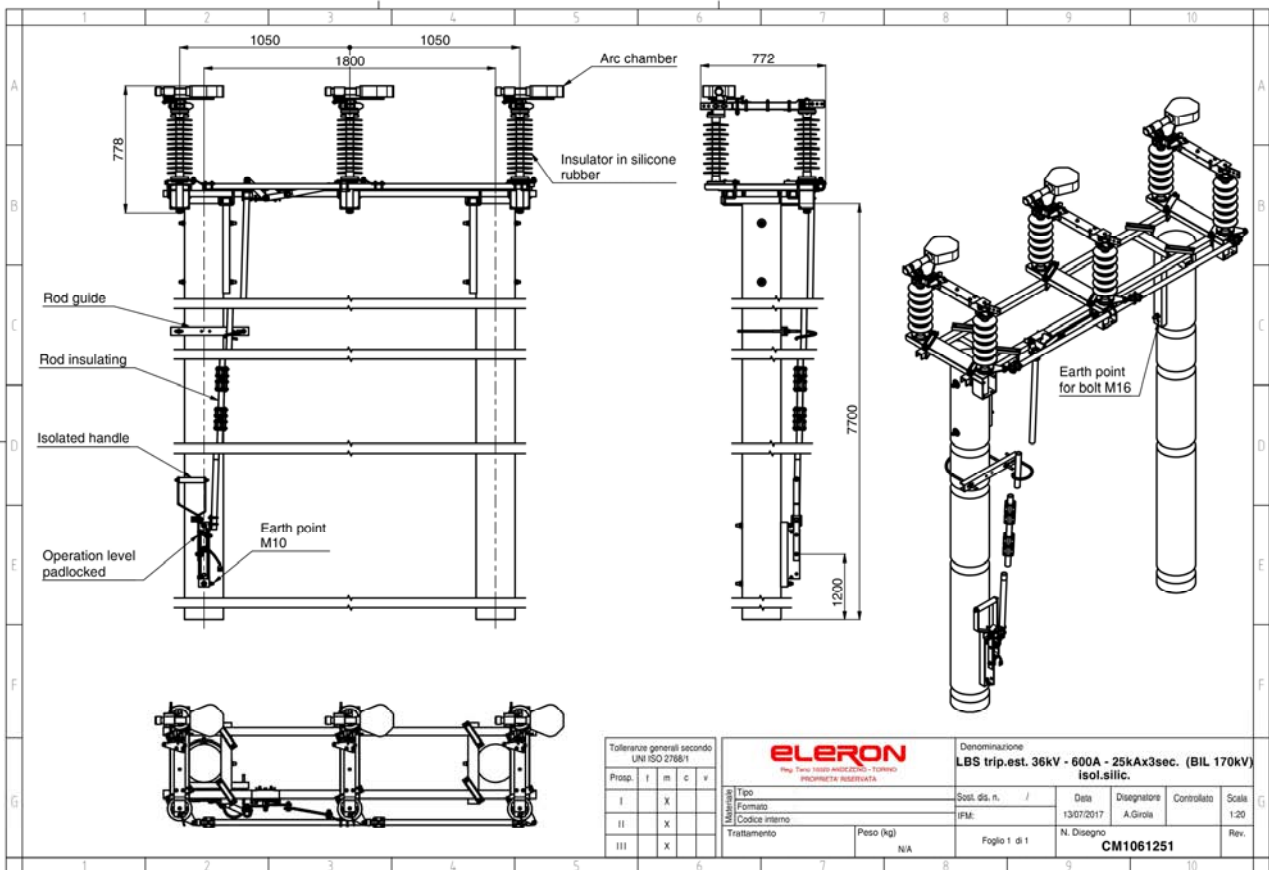
Rated normal voltage 'Ur'	[kV]	13.8 - 33
Rated withstand voltage toward earth and between phases (50-60 Hz/1 min.)	[kV]	38 - 70
Rated withstand voltage between open contacts (50-60 Hz/1 min)	[kV]	45 - 80
Impulse withstands voltage toward earth and between phases 'Up'	[kV]	95 - 170
Impulse withstands voltage between open contacts	[kV]	110 - 195
Rated normal frequency	[Hz]	60
Rated normal thermal current 'Ir'	[A]	Up to 630
Rated admissible short-time current (1 sec./3 sec.) 'Ik'	[kA]	21 - 25

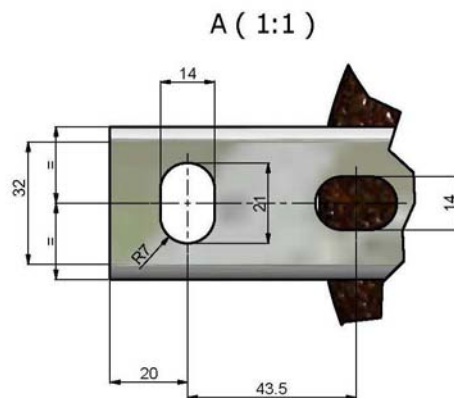
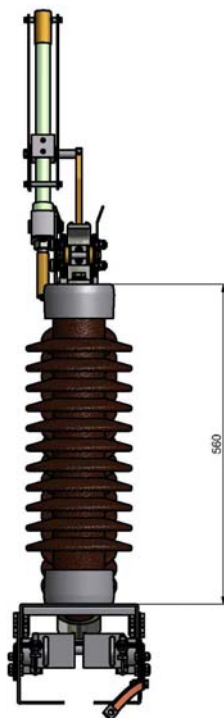


OVERALL DIMENSIONS (33kV type)

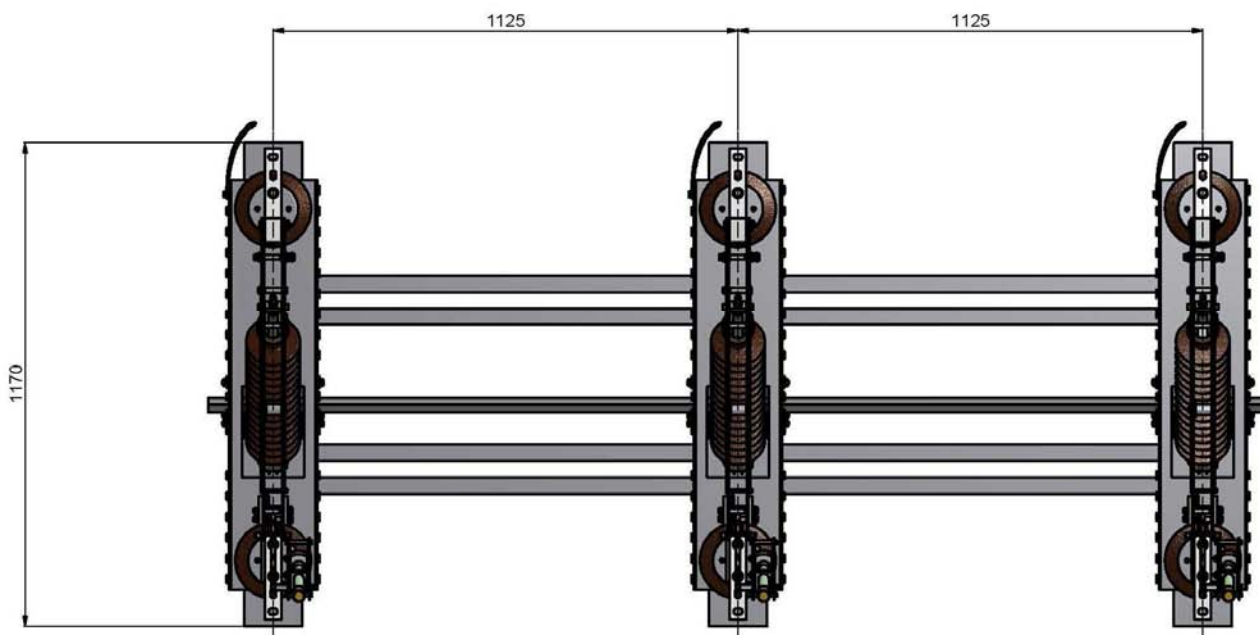
Type HD-SDE – Load Break Switch Single Pole

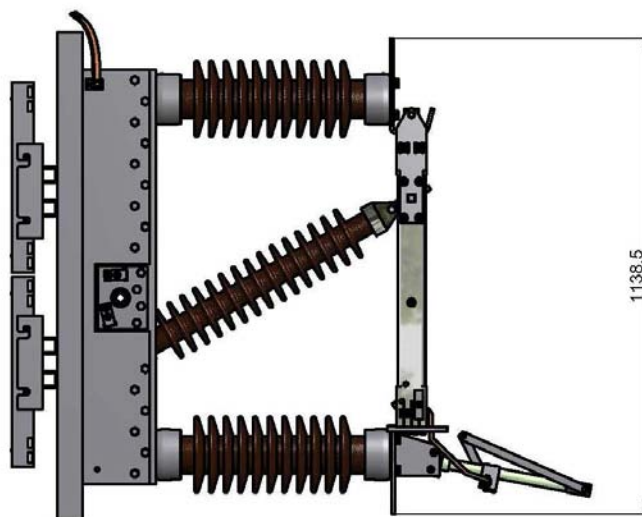
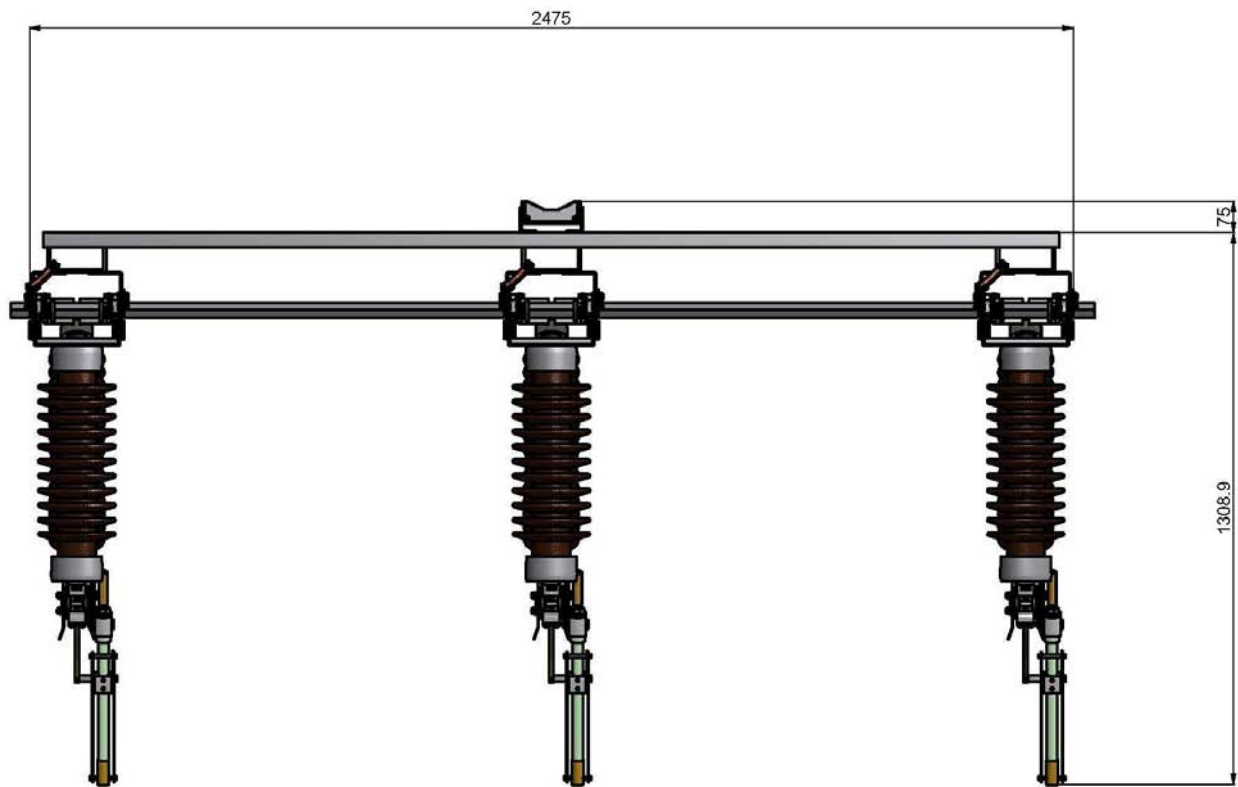


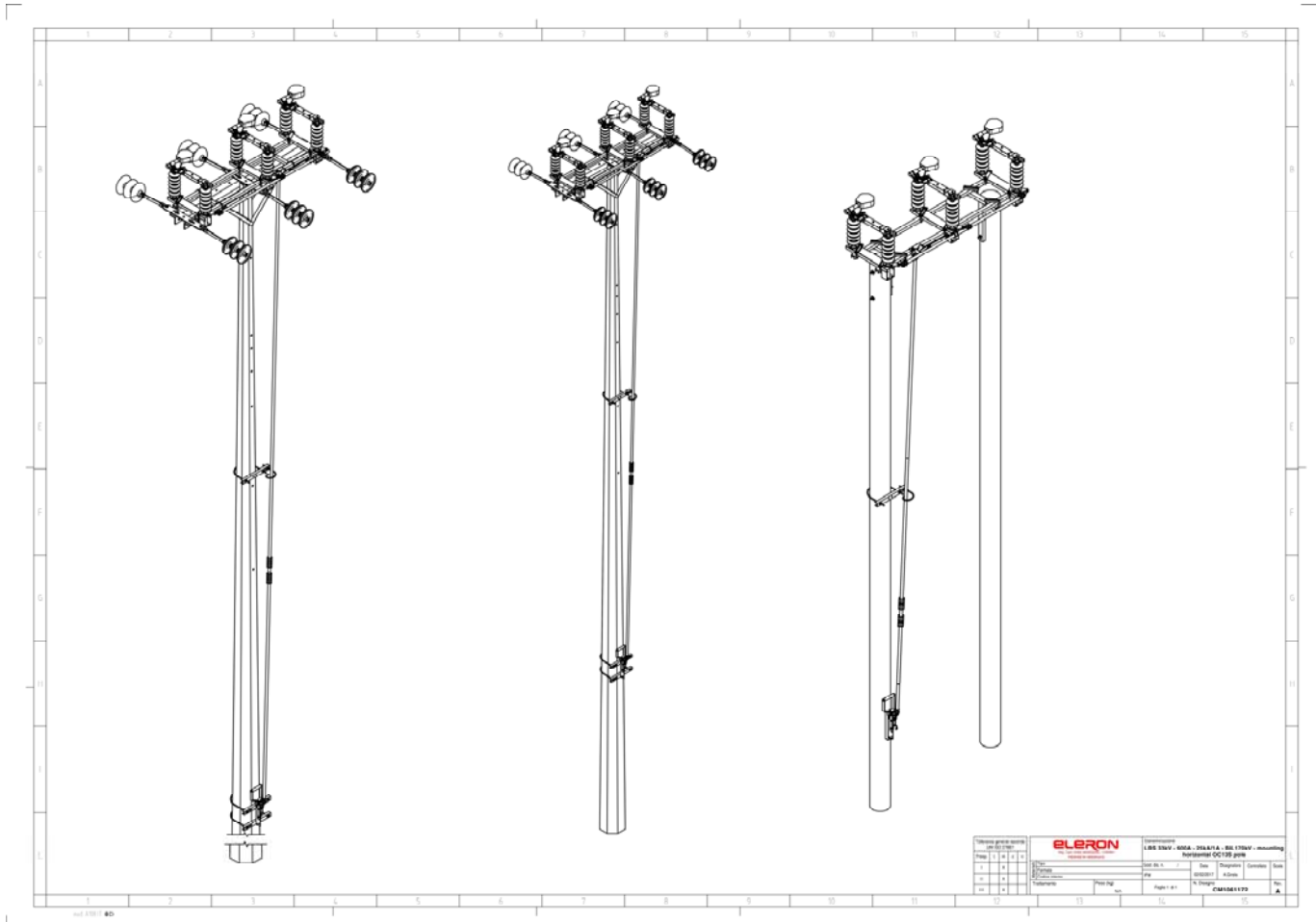




THREEPOLAR MOUNTING







Example of pole installation



NOTE:

