

SR3E560
**Rotating outdoor isolator with double
disconnection for 72,5 to 245 kV**



GENERAL

SR3E560 three phase rotating outdoor isolator, is designed to be employed in distribution networks, electrical transmission or outdoor transformation field up to 245 kV and they are used for disconnection of lines.

CONSTRUCTION

The isolator is formed with single poles with fixed insulators on a base in For both, material is copper Cu-ETP 99,90 tin-coated.

The central insulator rotates on the clutches while the others two are fixed.

The isolator can be equipped with earth linked blade that are locked with the line.

MOUNTING

SR3E560 outdoor isolator can be **mounted** on a steel base in horizontal position, that is fixed with normalized device or special on request. The mechanical electrical links work with rods and joints for the best assembly. The base is normalized for use with different isolators.

CURRENT CARRYING SET

Moving contact consists in three separated blades mounted in parallel in alloy. The terminals are equipped the contact-fingers or bar in copper tin coated.

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

The special moving contact is mounted when the isolator works in severe environmental condition.

It's equipped with an articulated joint bringing the contact-fingers that make easier the connection in case of strong ice presence.

Both solutions have the same contact pressure guaranteed by stainless steel springs during the normal use and with high current clench effect.

The hold-bar can be realized with flight bar or cylindrical silvered bar.

Alloy or copper cable fixed with stainless steel bolts connect the power line with the isolator.

Components, nuts and screws matter electric parts are in stainless steel.



INSULATORS

Insulating components used are made of high-quality glazed **porcelain** or fibre glass and **silicone** rubber insulators.

All kind of insulators have hot dip galvanized cast iron fittings and are in accordance to IEC standards. Different leakage distance can be chosen according to the environment pollution level.

CONTROL AND MANOUVRE DEVICE

Operating mechanism The opening / closing speed is dependent of the operator.

Operating devices used are the following:

- **Manual bottom transmission device**

consists on an handle control manoeuvrable directly. Transmitted devices are braced to the operating mechanism by means of one or more pipe transmission rods and transmitting rod joint. Optional padlock can be fitted.

All operating devices are made of welded structural and bent metal sheets, protected against corrosion by hot-dip galvanization treatment.

Different operating devices are available on request.

- Auxiliary contacts 8NO + 8NC for the remote control.
- Anti-condensate resistance.
- Electrical lock
- Clamp additional.

- **Motorized command device**

It allows to control the isolator from remote. The manual or motorized local maneuver remains however possible. Several supply voltages are possible to agree with the customer.

All the types of commands are connected to the isolator with rod and combined levers.

The devices are realized with structural steel and welded steel sheet, protect with treatment of hot-galvanizing.

Others devices:

Key-lockers for interlocking in open or in close, customizable.



MANUFACTURING, STANDARDS, QUALITY ASSURANCE

SR3E560 outdoor isolator is born from the experience of Eleron and can boast thousands installations and many years of duty.

The Eleron **manufactures** directly main parts of disconnector 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 SR3E560 outdoor isolators are subject to the following **routine tests**:

- Dielectric test
- Measurement of the resistance of the main circuit
- Mechanical operating test

Outdoor isolator comply with the following **standards**:

- International IEC 62271-102
- National CEI EN 62271-102

The isolator SR3E560 is a product of the decennial experience of the Eleron staff that developed projects and made a lot of products in Italy and abroad since several years.

Eleron produces itself several parts of the isolator SR3E560. The remaining parts are acquired from our qualified suppliers.

Eleron supplies to the final assemblage and the test of the product.

The company operates with Quality System Certifications EN ISO 9001.

Before the shipment, all our isolator SR3E560 are subject to the following tests of routine:

- Operational test
- Test dielectric
- Measure of the power circuit resistance
- Verification of the protective coating

Isolator type SR3E560 has been subordinate to the following prototype tests:

- Test of isolation
- Test of temperature
- Test of mechanical duration
- Verification of the protective coating
- Verification of the adequate operation of the position dispositive
- Measure of the power circuit resistance
- Test under-ice
- Tests of held to the currents short-circuit

The isolator SR3E560 observes the following norms:

- International IEC 62271-102
- National CEI EN 62271-102, CEI 17-83, CEI 9-43 EN 50152-2

TECHNICAL CHARACTERISTICS

Ambient temperature	[°C]	-25÷50				
Nr. of mechanical manoeuvre	/	1000				
Ice making capacity	mm	10				
Isolator's electrical characteristics		72,5kV	123kV	145kV	170kV	245kV
Rated normal voltage	[kV]	72,5	123	145	170	245
Rated withstand voltage toward earth and between phases (50-60 Hz/1 min.)	[kV]	140	230	275	325	395
Rated withstand voltage between open contacts (50-60 Hz/1 min.)	[kV]	160	265	315	375	460
Impulse withstands voltage toward earth and between phases	[kV]	325	550	650	750	950
Impulse withstands voltage between open contacts	[kV]	375	630	750	860	1050
Rated normal frequency	[Hz]	50÷60				
Rated normal thermal current	[A]	800/1250/1600/2000/2500				
Rated admissible short-time current (3 sec.)	[kA]	25/31,5/40/50				
Earthing switch's electrical characteristics		72,5kV	123kV	145kV	170kV	245kV
Rated normal voltage	[kV]	72,5	123	145	170	245
Rated withstand voltage toward earth and between phases (50-60 Hz/1 min.)	[kV]	140	230	275	325	395
Impulse withstands voltage toward earth and between phases	[kV]	325	550	650	750	950
Rated admissible short-time current (3 sec.)	[kA]	25/31,5/40/50				

*** For different requests please contact our technical department**

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DIMENSIONS SR3E560

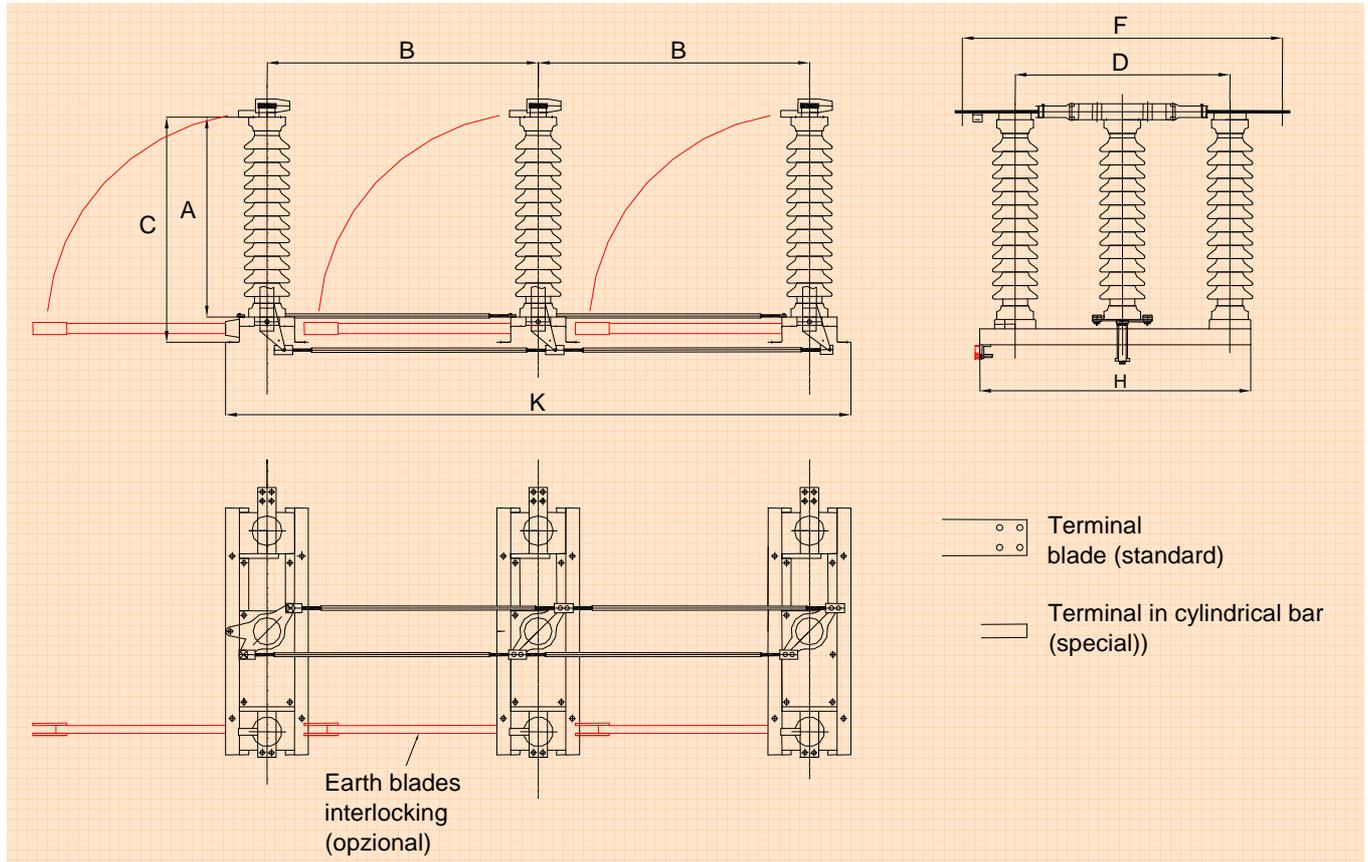


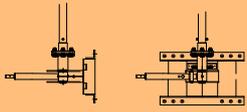
Fig.1

Overall dimensions (mm)	A	B(minimum)	C	D	F	H	K(minimum)
72,5 kV	770	1200	960	1210	1290	1250	2700
123 kV	1220	1700	1410	1810	1890	1850	3700
145 kV	1500	2150	1690	1810	1890	1850	4600
170 kV	1700	2150	1890	2110	2190	2150	4600
245 kV	2100	2800	2290	2710	2790	2750	5900

Please consult us for other values

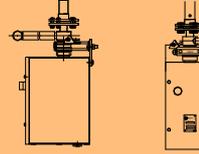
Dimensions are subject to changes without notice

OPERATING DEVICES AND ACCESSORIES



2.a

Manual device (horizontal movement)
Used for metal pole, wood or concrete. It's fixed with special adaptation.



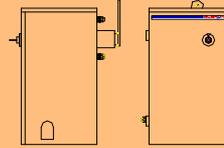
2.b

Manual device (horizontal movement) with box for accessories.
Used for metal pole, wood or concrete. It's fixed with special adaptation.



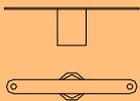
2.c

Transmitting rods



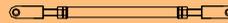
2.d

Control motorized apt for poles in metal, wood and concrete. Fixed by appropriate attacks.



2.e

Joint 'T'



Rod with regulation

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