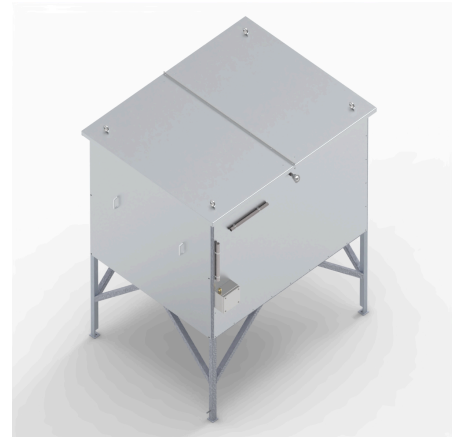


# CSN® earthing resistors (NER/NGR)

## DESCRIPTION

CSN® neutral earthing resistors are used for earthing in electrical distribution systems, especially in three-phase systems. In a three-phase system, the three phase conductors are normally arranged around a common point, the neutral conductor. With neutral earthing, this neutral conductor is connected to the earthing system. Earthing the neutral point has several purposes:

- **Safety:** Earthing the neutral conductor or the neutral point limits unwanted voltages that can occur due to asymmetrical loads or fault currents. This increases the safety of people and equipment in the vicinity of the system.
- **Stability:** Earthing the neutral point helps to keep the potential of the neutral conductor stable, which in turn improves the stability of the entire electrical system.
- **Reduction of interference:** Earthing the neutral point can help reduce interference and electromagnetic interference that may be caused by asymmetrical loads or other factors.



NER = Neutral Earthing Resistor

NGR = Neutral Grounding Resistor

## TECHNISCHE DATEN

Earth fault currents	< 70 kA
System voltage	< 380 kV
Amount of energy absorbed (MJ)	Customised (already supplied up to 100 MJ)
Active elements	- Resistance mesh (CSN® Schniewindt mesh) - Wire meander - Belt elements
Active material	selectable depending on requirement profile
Cooling	air-cooled

Protection classes	according to requirements (IP00 - IP55)
PREN index (Pitting Resistance Equivalent Number)	0 to > 50 (sea water resistant)
Voltage type	Alternating current (AC) and direct current (DC)
Ambient conditions	<p>Reliable operation possible under difficult conditions in the following areas:</p> <ul style="list-style-type: none"> <li>- Seismic</li> <li>- wind</li> <li>- pollution</li> <li>- Temperature influences</li> <li>- Ice and snow loads</li> </ul>
Corrosivity categories	Cl - C5 according to DIN EN ISO 12944
Type of connection and connections	<ul style="list-style-type: none"> <li>- Insulators (porcelain or composite)</li> <li>- Feedthrough</li> <li>- Connection pads</li> <li>- screws</li> <li>- stranded wire</li> <li>- etc.</li> </ul>