

# EKTOS

## Vacuum switch disconnecter

intelligent medium voltage vacuum switch disconnecter is designed for operating in three-phase alternating current networks at a rated voltage of up to 24kV and a frequency of 50 Hz in distribution power networks.

### **EKTOS** switch disconnecter is:

- ▶ intelligent, designed to work in Smart Grid networks vacuum-insulated
- ▶ small-sized
- ▶ metal-shielded
- ▶ equipped with an ultra-fast drive compatible with any controller
- ▶ equipped with an intelligent controller managing the operation of the switch
- ▶ provided with a DOL system
- ▶ equipped with a system for measuring and monitoring line temperature
- ▶ equipped with wireless active voltage and current transformers
- ▶ safe
- ▶ reliable


### **Advantages of EKTOS** disconnectors:

- ▶ designed for use in Smart Grid networks with particular emphasis on FDIR network
- ▶ environmentally safe - does not contain SF6
- ▶ safe for distribution networks - does not generate switching overvoltage
- ▶ safe for control and communication devices - does not generate EMC interference.
- ▶ Resistant to EMC interference.
- ▶ Weatherproof construction
- ▶ High corrosion and weather resistance
- ▶ Easy operation and maintenance thanks to top-quality components
- ▶ Reliability due to the use of vacuum chambers
- ▶ High operation safety through remote monitoring

## TECHNICAL PARAMETERS

Rated voltage	24 kV
Rated frequency	50 Hz
Power frequency withstand voltage	50 kV
- to the ground and interphase	
Power frequency withstand voltage	60 kV
- safe isolation gap	
Lightning impulse withstand voltage (1.2/50 $\mu$ s)	125 kV
- to Earth and between phases	
Lightning impulse withstand voltage (1.2/50 $\mu$ s)	145 kV
- across the isolating distance	
Rated normal current	800 A
Rated short-time withstand current	20 kA (3 s)
Short circuit current	40 kA
Short-circuit making current	50 kA
Line-charging breaking current	50 A
Cable-charging breaking current	50 A
Earth fault breaking current	50 A
Cable charging breaking current under Earth fault conditions	28A
Creepage distance	620 mm
Mechanical class	M2
Number of operations for a short-circuit feeding voltage	5 (40kA, CL E3)
Dimensions: Width: 550 mm Depth: 890 mm Height: 470 mm	

- ▶ **PN-EN 62271-103:2011** - High-voltage switchgear and control equipment -  
**Part 103:** Switch disconnectors with a rated voltage higher than 1 kV up to and including 52 kV
- ▶ **PN-EN 62271-1:2009+A1:2011** - High-voltage switchgear and control apparatus -  
**Part 1:** Common provisions
- ▶ **PN-EN 62271-102:2005; PN-EN 62271-102:2005/A1:2011** - High voltage switchgear and control apparatus.  
**Part 102:** High-voltage alternating current disconnectors and earthing switches.
- ▶ **PN-EN 60529:2003** - Degrees of protection provided by housings (IP code)

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Promotion of entrepreneurship and increasing investment attractiveness of the voivodship in the context of measure 1.4.1  
Regional Operational Programme for Podlaskie Voivodship for the years 2014 – 2020 Strengthening the capacity and competitiveness of the region's economy.

