

CONTACTOR SINGLE-OUTPUT SWITCH FOR 1000V WSN 1.32 E(-N)

APPLICATION AREA

Contactors switches of normal design (IP54) designated as WSN 1.32 E(-N) are electric appliances designed for power supply with local and remote control, switching and protection of electric drives for mining machinery supplied from three-phase electric networks with rated voltage of 1000V, with an insulated neutral point of the supplying transformer and provided with a central leakage protection.

Safeguarding measures incorporated into the switch are meant to protect the supplied loads against consequences of shorts, overloads, phase loss, operation with excessively low resistance of line-to-earth insulation as well as discontinuity of earthing line.

APPLICATION CONDITIONS

The device is suitable for working areas of underground operations without the hazard of methane explosion and the ones with the 'a' degree of methane explosion hazard as well as with the 'A' class of coal dust explosion hazard.

CHARACTERISTICS

- local /remote control,
- mechanical locking of the device enclosure door when the main circuit breaker is on,
- the enclosure door can be opened only when the circuit breaker is in the "EARTHING" ("UZIEMIENIE") position (the output is disconnected from the power supply voltage and the output line is earthed), which enables **safe testing of the switch operability** when the door is open,
- protection against consequences of short faults in main circuits of 1000V,
- protection against consequences of overloads and asymmetry of phase currents in main circuits of 1000V,
- protection against consequences of short faults at the primary (1000V) side of the control transformer,
- protection against consequences of short faults and overloads in 24V circuits,
- protection against phase loss for one or two phases,
- protection against energizing of the output line when insulation resistance in the supplied network of 1000V is below the safety threshold,
- protection against energizing of the external circuits of 24V when insulation resistance in these circuits is below the safety threshold,
- protection against energizing of the output line when insulation resistance of the protective earthing (PE) line in the supplied network of 1000V exceeds the safety threshold.

TECHNICAL PARAMETERS

- | | |
|---|--|
| • Rated switched voltage | 1000 VAC |
| • Rated control voltage | 24 VAC |
| • Rated switched current | 32 A |
| • Rated voltage of external circuits: | 24 V |
| • Rated output current for external circuits | 6 A |
| • Tripping resistance for the leakage protection (main circuits of 1000V) | 50 k Ω \pm 20% |
| • Tripping resistance for the interlocking and disconnecting protection (24 VAC circuits) | 7 k Ω \pm 20% (locking)
4 k Ω \pm 20% (disconnection) |
| • Resistance of the circuit for monitoring of earthing continuity | 80 Ω \pm 20% (tripping)
60 Ω \pm 20% (reclosure) |
| • Network type | IT |
| • Enclosure index of protection | IP 54 |
| • Overall dimensions (H x W x D) | 1000 x 750 x 300 mm |
| • Weight | ~ 65 kg |



v.2