

## Type

## Voltage class

PDD-27-20-002

### PRODUCT DESCRIPTION

Dry type cable termination MKBC 145 (345x345) has been designed for linking of HV underground cable lines with overhead lines or outdoor switchgears. Termination is suitable for an extruded XLPE high voltage cable with stranded Cu or Al conductor and Cu or Al multiwire screen. Base plate size – 345x345 mm. Minimum guaranteed creepage distance – 4897 mm. Maximum system voltage  $U_m = 145$  kV.

### BASIC COMPONENTS:

- Pre molded and factory tested silicone rubber stress-cone with integrated field control element. No liquid or gas insulating medium inside.
- Self-supporting design.
- Cable sheath electrically insulated from cable screen.
- No maintenance throughout the entire operation period.
- Base plate with 345x345 mm interface dimensions.

### TECHNICAL FEATURES:

Maximum system voltage, (kV)	145
Cable conductor cross-section range, (mm sq.)	185 ÷ 1600
Prepared insulation diameter range, (mm)	44-91
Outer sheath diameter range, (mm)	up to 125
Type test requirements:	
AC testing voltage, (kV)	190 kV throughout 30 min
Lightning impulse testing voltage, (kV)	10 positive and 10 negative 5/50 µs impulses 650 kV
Partial discharge level, (pC)	below 5 pC at 114 kV
Nominal operating current, (A)	limited by cable specification
Maximum short circuit current (kA, s)	
Environmental conditions:	
Minimum guaranteed creepage distance, (mm)	4897
Pollution level according to IEC 60815	IV
Insulator routine test requirements:	
AC testing voltage, (kV)	190 kV throughout 30 min
Partial discharge level, (pC)	below 5 pC 114 kV
Pedestal insulator withstand voltage:	
AC withstand voltage, (kV)	10 kV
DC withstand voltage, (kV)	20 kV
Mechanical restrictions:	
Inclination angle	up to 90°
Approximate weight, (kg)	100
Max mechanical load at top bolt (including intrinsic weight), (kN)	5 kN (transversal)

### ALL TYPE TESTS ACCORDING TO

IEC 60840

## Type MOUNTING

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MKBC 145 has to be mounted by trained/certified personnel. Mounting site shall be protected from any dust and moisture. Temperature range at installation site +10 °C..+40 °C.

### ADDITIONAL OPTIONS:

- Extended base plate size.
- Optical fiber outlet (O) or cable armoring termination.
- Main cable lug for screwing (B) or welding (M). Screen bundle cable lug with shearing bolts.
- Flexible design with no self-supporting (H).

### SHELF LIFE OF COMPONENTS:

Flexible insulator, insulator cap	5 years
Rigid supporting insulator, pedestal insulators	30 years
Base plate, cantilever, cable holder	30 years
Cable lugs	30 years
Kit of fasteners	30 years
Copper mesh tape	30 years
Mastic tape	2 years
Spring elements	30 years
HS tube	5 years
Self-adhesive tape, PVC tape and other winding materials	5 years
OF outlet components	30 years
Mounting consumables	5 years
Silicone paste	2 years
Welding wire	30 years

### STORAGE AND TRANSPORTATION REQUIREMENTS OF KITS:

1. Kits and parts of MKBC 145 cable terminations shall be stored and transported in original package with intact Arkasil SK LLC label. Label damaging leads to warranty void.
2. Storage conditions for MKBC 145 cable terminations:
  - Temperature range +5 °C..+40 °C. Temperature shall be above dewpoint anyway.
  - Average relative humidity – 60%.
  - Maximum relative humidity – 80% at 25 °C.
  - Indoor storage conditions only.
  - Packages shall be protected from dust, rain, snow, fog, etc.
  - Aggressive environments (i.e. acids, bases, ozone, solvents) are restricted.
  - Piling according to storage instruction.
3. Transportation requirements:
  - Solid trailer or tent with no direct UV-radiation.
  - Boxes shall be firmly fixed throughout transportation.
  - No falling, striking and excessive shaking is allowed.
4. Shelf life of MKBC 145 cable termination components is specified in the table above. Components with expired shelf life have to be replaced.