semiconducting water blocking tape
copper shielding
copper shielding tape
semiconducting water blocking tape
aluminium foils
outer sheath

cable heads
metal sheath of the cable
conductor
metal shielding
direct bonding
direct grounding
induced voltage in the cable shield

cable heads
sheath of the cable
conductor
shielding
surge protector
parallel earth conductor
direct bonding
direct grounding
induced voltage in the cable shield

cable heads
coupling
conductor
separate shielding
shielding
cross- bonding
parallel earth conductor
surge protector
direct grounding
cross- bonding
direct grounding
minority part
minority part
minority part
majority part

multi-chamber cable protective casing

LV cable

levelling layer

cable
excavation material
Mechanical protection
1-4 the end bricks are laid along the entire length of the cable route
2 bricks separate HV and LV cables along their entire length
3 bricks separating the LV cables are laid every 5 m
5 covering bricks
6 bricks indicating the place of marking of the cable
Sand
LV cable
HV cable
LV cables
warning foil

micro tube

HV cable

Combined power cable with micro tubes

LV cables with energy opto tube

Opto tube

LV cable with an integrated energy microtube

LV cable with an integrated microtube
sand bed
warning foil or warning slab
excavation material
surrounding terrain

concrete
cable protective casing

HV cable and opto tube under a road or roadside

Cable and opto tube

LV

Opto tube
HV
HV Cable and opto tube

opto tube

HV Cable

white
red
FeZn tube Ø32
terrain
Concrete

EHV cable
lockable earthing box for direct grounding
main grounding
grounding cable

EHV cable
coaxial cable
lockable earthing box with cross bonding and surge protector
grounding network
EHV cable
coupling with lead-out shield

Description

pavement construction
compacted backfill
warning foil
concrete slab coverage
fine sand 0-4mm
wall – concrete blocks
coupling 110kV
concrete slab 150mm thick with a net
position for the cross-bonding box

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warning foil
concrete
EHV cable

hot water pipes
warning foil
concreted cable protective casings
EHV cable 4xPVC Ø232

hot water pipes
warning foil
concrete
EHV cable

warning foil
concreted cable protective casings
EHV cable 4xPVC Ø232
hot water pipes

warning foil
concrete
EHV cable
hot water pipes

starting pit (block the pit)
back pressure
target pit (block the pit)

Cross-section A
non-magnetic material fiberglass (PE) from Ø 200mm

Cross-section B
1x steel tube Ø 508mm
1x (for EHV 3xPE Ø 200mm)

concrete
warning foil
EHV cable