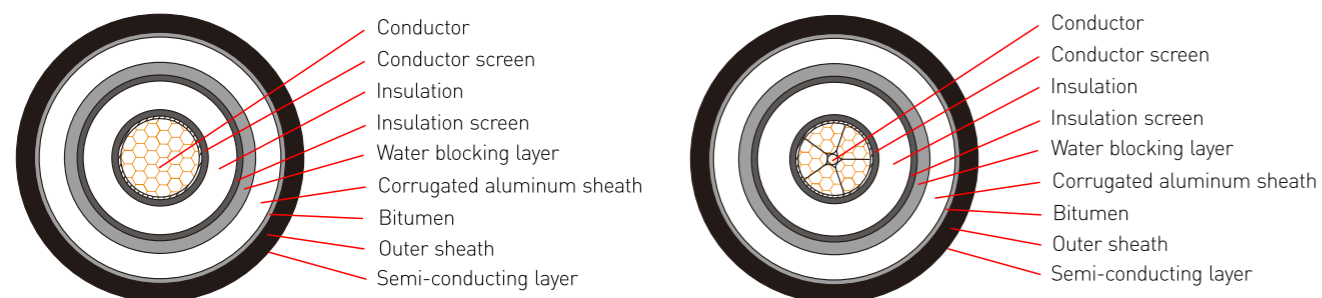


Cu/XLPE/CAS/PE(PVC)

290/500kV high voltage power cable with corrugated aluminium sheath

Standards: IEC 62067 IEC 60228



Explanation for abbreviation:

Cu--Copper conductor
 XLPE--Crosslinked polyethylene
 CWS--Copper wire screen
 APL--Aluminium-polyethylene laminate foil
 CAS--Corrugated aluminium sheath
 LS--Lead sheath
 PE--Polyethylene
 PVC--Polyvinyl chloride

Technical data

Temperature range:

During installation: $\geq 0^{\circ}\text{C}$

Maximum operation temperature: 90°C

At short circuit of Max. 5s: 250°C

Nominal voltage: 290/500kV

Test voltage and duration: 580kV, 60min

Minimal bending radius: 20D

D is external cable diameter

Construction

1. Conductor: Class 2 according to IEC 60228.

2. Conductor screen: Semi-conducting thermosetting compound.

3. Insulation: XLPE.

4. Insulation screen: Semi-conducting thermosetting compound.

5. Water blocking: Semi-conducting water swelling tape.

6. Metal sheath: Corrugated aluminium sheath.

7. Anti-corrosion coating: Bitumen.

8. Sheath: PE or PVC.

9. Semi-conducting layer: Graphite coating or extruded layer.

Sheath colour: Black or Red.

Operating guide for packing and transportation:

The cable is wound on the non-returnable steel drum. Both ends of cable are securely fastened to drum and reliable sealed. The required marking is printed with a weather-proof material on the outsides of drum according to customer's requirement. Packing with fumigated wood battens and using steel strip to fix. For different length of cable, we provide different packing methods. The customer could take off the cable in Hengtong port, or we transport the cable to the designated location by shipping.

Application

Apply to power transmission and distribution line with power frequency of 49-61Hz and rated voltage of 290/500kV. Power cable suitable for different installation environment like in free air, direct buried or in duct.

PVC outer sheath is mainly applied for cable with general fireproof requirement and insulating requirement.

PE outer sheath is mainly for directly buried cable with high insulating requirement and good waterproof requirement.

Advantage

Easy to install and emergence repair;

With good bending performance;

Could undertake high mechanical force;

Secondary transmission parameter

No. of cores & Cross-section area	Approx. diameter of conductor	Nominal thickness of insulation	Max. diameter of cable	Approx. mass of cable		Max. DC resistance of conductor at 20°C	Fault current carrying of conductor [1s]	Max. allowable pulling force of conductor
				PE	PVC			
mm ²	mm	mm	mm	kg/km	kg/km	Ω/km	kA	kN
800	33.6	34.0	147.9	22346	23581	0.0221	114.5	56.0
800[miliken]	35.0	34.0	149.6	22672	23923	0.0221	114.5	56.0
1000	39.2	33.0	153.0	24896	26176	0.0176	143.1	70.0
1200	43.4	33.0	157.2	27336	28653	0.0151	171.7	84.0
1400	46.6	32.0	159.4	29216	30552	0.0129	200.3	98.0
1600	49.6	32.0	162.6	31631	32995	0.0113	228.9	112.0
2000	55.0	31.0	167.2	35798	37202	0.0090	286.2	140.0
2500	61.5	31.0	173.9	41653	43115	0.0072	357.7	175.0