



Executive Office

Menara Karya 3rd Fl. Suite D Jl. HR Rasuna Said
Blok X-5 Kav 1-2 Jakarta 12950 - Indonesia
Tel. : +62 21 5794 4622
Fax. : +62 21 5794 4649

Website : www.voksel.co.id

Factory & Operational Office

Jl. Raya Narogong Km. 16, Cileungsi
Bogor 16820 - Indonesia
Tel. : +62 21 823 0525 ; +62 21 8249 1720
Fax. : +62 21 823 0526 ; +62 21 8249 1701
hotline : +62 21 8249 3329
E-mail : sales@voksel.co.id

**HIGH VOLTAGE
Cable**

**XLPE
150 kV**

HIGH VOLTAGE Cable

Product Structure Diagram

**HIGH VOLTAGE CABLE 87/150 (170) kV
IEC 60840**



Scope of Application

Applies to solidly earthed system with power frequency of 50 - 60 Hz and rated voltage of 275 kV or less.

Operational Performance

Under short circuit condition (Maximum duration does not exceed 5s),operating temperature of cable conductor shall not exceed 250°C.

Ambient temperature shall not be lower than 0°C, while laying cable.

Minimum bending radius of cable shall not be smaller than 15 times of actual external diameter of cable.

PVC sheath mainly applies to cable line of general firing requirement and certain insulating requirement.

PE sheath mainly applies to cable line of direct buried with high insulating requirement and better moisture proof performance.

The Main Technical Parameters

Nominal Cross - Section Area (mm ²)	Conductor Shape	Conductor Diameter (approx) (mm)	Nominal Insulation Thickness (mm)	Insulation Diameter (Approx) (mm)	Overall Cable Diameter (mm)	Cable Net Weight (approx) (kg/ m)		Max. DC Conductor Resistance at 20°C (Ω/ km)		Max. Short Circuit Current of Conductor KA/ sec		Max. Short Circuit Current of Screen KA/ sec	Maximum Current Carrying Capacity in Ground at 30°C (A)	
						Cu	Al	Cu	Al	Cu	Al		kA	Cu
300	cm	20.6	19	64.0	89.0	16.4	14.6	0.0601	0.1000	42.9	28.3	40	584	453
400	cm	23.4	19	66.8	91.8	17.6	15.2	0.0470	0.0778	57.2	37.8	40	667	520
500	cm	26.6	19	70.0	95.2	19.4	16.3	0.0336	0.0605	71.5	47.2	40	793	597
630	cm	29.9	19	73.3	98.3	21.1	17.3	0.0283	0.0490	90.1	59.5	40	869	670
800	cm	33.6	19	77.0	102.0	23.4	18.4	0.0221	0.0367	114.5	73.6	40	981	779
1000	rs	39.2	19	83.6	108.8	26.9	20.8	0.0176	0.0291	143.1	94.8	40	1091	880
1200	rs	43.4	19	87.8	113.0	29.5	22.1	0.0151	0.0247	171.7	113.4	40	1161	955
1600	rs	49.6	19	94.0	119.0	34.1	24.3	0.0113	0.0186	228.9	151.1	40	1300	1088
2000	rs	55.0	19	100.0	124.4	38.7	26.4	0.0090	0.0149	286.1	188.9	40	1453	1189

Note : Cross section of conductor is in range of 300-2000 mm². Cross section of 300 - 800 mm² applies compacted circuit conductor structure and cross section :1000 -2000 mm² applies segment conductor or m liken conductor structure.

The design of current carrying capacity performs ideally under conditions of: ① Soil temperature 25°C, the thermal resistance 1.0. ② Air temperature 25°C, the thermal resistance 6.0 ③ Flat laying when installation ④ Outer Sheath with PE (Polyethylene).