

Operating Frequency	60	Hz	
Operating Voltage LL	13,80	kV	
Operating Voltage LN	7,97	kV	
Ambient Temp. Air	50	°C	
Ambient Temp. Ground	40	°C	
cable maximum operating temp.	90	°C	
$\Delta\theta$	313,15	*K	
Thermal resistivity earth	2	K.m/W	
Thermal resistivity concrete	1	K.m/W	
Thermal resistivity XLPE	3,5	K.m/W	Cable insulation
Thermal resistivity PVC	6	K.m/W	Cable Jacket, Duct material
Duct outside diameter	160	mm	
Duct inside diameter	150	mm	
U	1,87		
V	0,312		
Y	0,0037		
Ductbank X	730	mm	
Ductbank Y	730	mm	
L	1500	mm	8th cable/duct center distance to ground
LG	1290	mm	distance from ground to ductbank center
rb	401		

Cable type: copper conductor single-core unarmoured in trefoil configuration (copper tape screen) (Saudi Cable Catalogue p.27 bottom table)

conductor cross-sectional area		Rdc20	Rac at 90°C		cond. Diameter		Thickness of XLPE		Thickness of screen		Thickness of PVC sheath		Overall Diameter		Diameter of trefoil (De)	
70	mm.sq.	0,2680	0,3420	ohm/km	9,90	mm	4,5	mm	2,25	mm	1,8	mm	27	mm	58	mm
95	mm.sq.	0,1930	0,2470	ohm/km	11,80	mm	4,5	mm	1,80	mm	1,8	mm	28	mm	60	mm
120	mm.sq.	0,1530	0,1960	ohm/km	13,30	mm	4,5	mm	1,95	mm	1,9	mm	30	mm	65	mm
150	mm.sq.	0,1240	0,1600	ohm/km	14,70	mm	4,5	mm	2,25	mm	1,9	mm	32	mm	69	mm
185	mm.sq.	0,0991	0,1280	ohm/km	16,40	mm	4,5	mm	2,30	mm	2	mm	34	mm	73	mm
300	mm.sq.	0,0601	0,0800	ohm/km	20,80	mm	4,5	mm	2,50	mm	2,1	mm	39	mm	84	mm

tanδ for Wd 0,004
ε for Wd 2,5

- | | | |
|---------------------|------------------------------------------|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 6. Non-hygroscopic separation tape |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 7. Outer Sheath |
| 3. Insulation | | |

