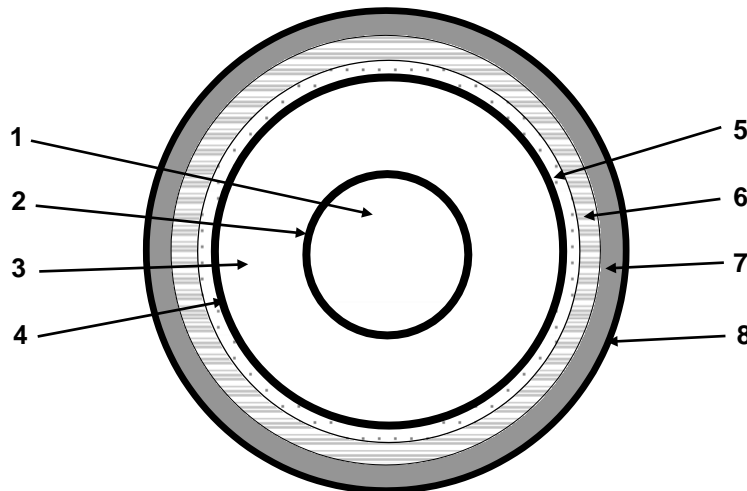


275kV Aluminum conductor, XLPE insulated, HDPE oversheathed cable

Characteristics & Cross- sectional drawing

Scale : Not to scale



No	Description	Unit	Particulars							
0	Rated voltage (U / U ₀ / U _m)	kV	275 / 160 / 300							
1	Conductor		Aluminum wires							
	- nominal cross- sectional area	mm ²		800		1200				
	- shape		Compacted circular				Milliken			
	- overall diameter (nom.)	mm		34.0		41.5				
2	Conductor screen		Semi-conducting thermosetting compound							
	- nominal thickness	mm		1.7		1.5				
3	Insulation		Cross-linked polyethylene(XLPE)							
	- nominal thickness	mm		22.0		22.0				
4	Insulation screen		Semi-conducting thermosetting compound							
	- nominal thickness	mm		1.5		1.5				
5	Longitudinal water barrier		Semi-conducting swellable tape(s)							
	- thickness (t) x width (w)	mm	0.45 x 100							
6	Metallic sheath		Smooth welded aluminum							
	- nominal thickness	mm		1.6		1.5				
7	Oversheath		Red HDPE compound							
	- nominal thickness	mm	4.0							
8	Conductive layer		Black semi-conducting PE compound							
	- nominal thickness	mm	1.0							
9	Overall diameter (approx.)	mm		105		111				
10	Weight of cable (approx.)	kg/m		10.2		12.0				
11	Electrical stress at U ₀									
	- at conductor screen	kV/mm		10.9		10.4				
	- at insulation screen	kV/mm		5.1		5.3				
12	DC conductor resistance (20°C, max.)	Ω/km		0.0367		0.0247				
13	Capacitance(nom.)	μF/km		0.176		0.198				