

Conductors-Overhead

Cable Description: AAC ANT OVERHEAD CONDUCTOR : WAPDA P-63:2007 : : STRANDING

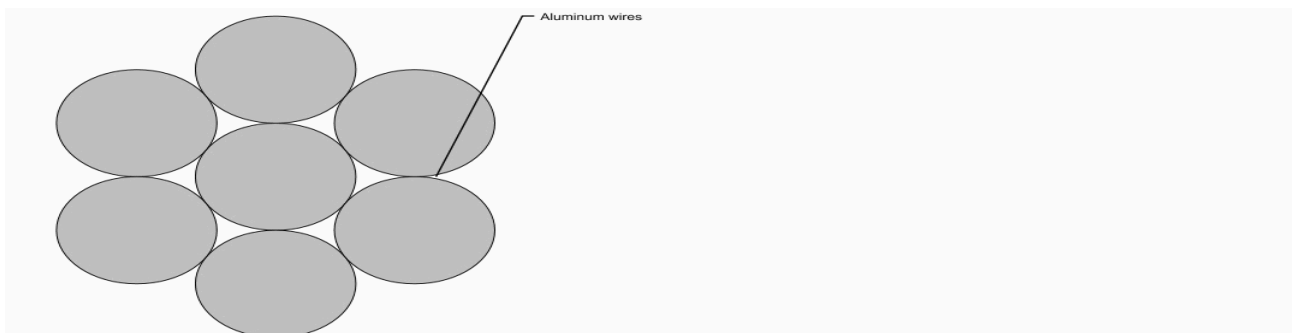
Design and Construction Data

Reference Manufacturing Standard		WAPDA P-63:2007
Max. Permissible Continuous Conductor Temperature	°C	50
Max. Conductor Temperatuer	°C	80
Type of Conductor		AAC ANT
Area of complete conductor	mm ²	52.83
Conductor Material & Shape		Aluminum & Stranded Class 2
Max. Resistivity of Aluminum wire at 20 °C	Ωmm ² /m	0.028264
No. of wires of Aluminum	No	7
Diameter of Aluminum wires	mm	3.10
Minimum Tensile strength of Aluminum After stranding	Kg/mm ²	16.00
Wrapping test of Aluminum wires		No Cracks
Lay Ratio of Outer most Aluminum layer	Time	10~14
Lay direction of Outer most layer		Right Hand
Aluminum cross section Area	mm ²	52.83
Aluminum weight	Kg/Km	144.4
Density of Aluminum at 20 °C	g/cm ³	2.703
Constant mass Temperature coefficient	/ °C	0.00403
Conductor Diameter	mm	9.30
Ultimate Tensile Strength of Complete Conductor	Kg	847
Total conductor weight	Kg/Km	144.4
Nominal Drum Length	MTR	4300
Nominal copper equivalent	mm ²	32.23

Electrical Data

Max Conductor DC resistance @ 20 °C	ohm/km	0.5419
Current carrying Capacity @ 50 °C	Amp	176
Wind speed (v)	m/s	0.6
Solar radiation (Si)	W/m ²	1200
Emmisivity (Ke)		0.5
Solar radiation absorption coefficient (Y)		0.5
The Conductor shall meet all Test requirements		WAPDA P-63:2007

Cable Drawing



AAC ANT OVERHEAD CONDUCTOR : WAPDA P-63:2007 : : Stranding		Approx. Diameter
Layer 1: No. of Wires / Aluminum Size 1/3.10mm	mm	3.10
Layer 2: No. of Wires / Aluminum Size 6/3.10mm	mm	9.30