



FAST CABLES LIMITED
Technical Data Sheet

Conductors-Overhead

Cable Description: AAC COREOPSIS OVERHEAD CONDUCTOR : WAPDA P-63:2007 : :

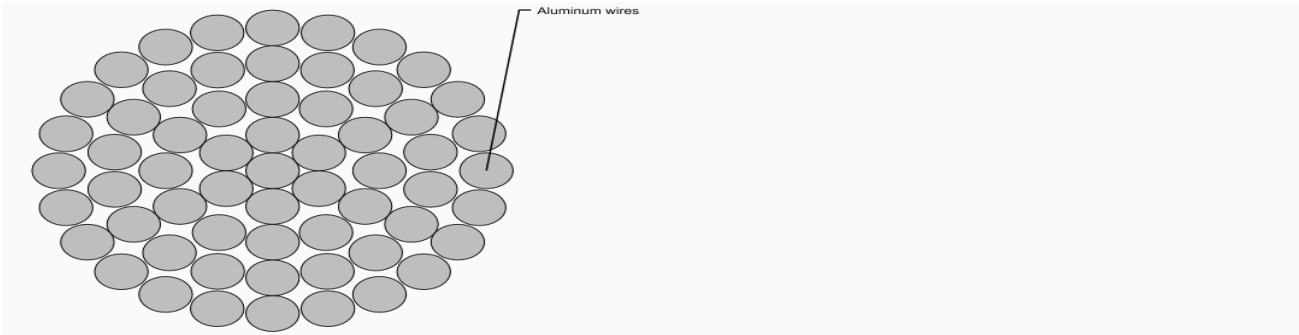
STRANDING

Design and Construction Data		
Reference Manufacturing Standard		WAPDA P-63:2007
Max. Permissible Continuous Conductor Temperature	°C	50
Max. Conductor Temperaturer	°C	80
Type of Conductor		AAC COREOPSIS
Area of complete conductor	mm ²	809.29
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	61
Diameter of Aluminum wires	mm	4.11
Minimum Tensile strength of Aluminum After stranding	Kg/mm ²	15.50
Wrapping test of Aluminum wires		No Cracks
Lay Ratio of Outer most Aluminum layer	Time	10~14
Lay Ratio of Layer immediately beneath outside Aluminum layer	Time	10~15
Lay Ratio of Layer immediately over inner most Aluminum layer	Time	10~16
Lay Ratio of Inner most Aluminum layer	Time	10~17
Lay direction of Outer most layer		Right Hand
Aluminum cross section Area	mm ²	809.29
Aluminum weight	Kg/Km	2241
Density of Aluminum at 20 °C	g/cm3	2.703
Constant mass Temperature coefficient	/ °C	0.00403
Conductor Diameter	mm	36.99
Ultimate Tensile Strength of Complete Conductor	Kg	13670
Total conductor weight	Kg/Km	2241
Nominal Drum Length	MTR	350
Nominal copper equivalent	mm ²	493.66
Electrical Data		
Max Conductor DC resistance @ 20 °C	ohm/km	0.0356
Current carrying Capacity @ 50 °C	Amp	942
Wind speed (v)	m/s	0.6
Solar radiation (Si)	W/m ²	1200
Emmisivity (Ke)		0.5
Solar radiation absorpion coefficient (Y)		0.5
The Conductor shall meet all Test requirements		WAPDA P-63:2007

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STRANDING**

Cable Drawing



AAC COREOPSIS OVERHEAD CONDUCTOR : WAPDA P-63:2007 : : Stranding		Approx. Diameter
Layer 1: No. of Wires / Aluminum Size 1/4.11mm	mm	4.11
Layer 2: No. of Wires / Aluminum Size 6/4.11mm	mm	12.33
Layer 3: No. of Wires / Aluminum Size 12/4.11mm	mm	20.55
Layer 4: No. of Wires / Aluminum Size 18/4.11mm	mm	28.77
Layer 5: No. of Wires / Aluminum Size 24/4.11mm	mm	36.99