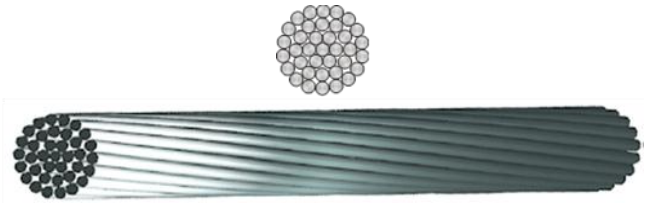
ENERGY CABLES

AAC

Aerial - AAC 250mm² & above

AAC/1350



APPLICATION		
7 and 19 strand construction is suitable for bare overhead reticulation of medium spans, normally at low and medium voltages. 37 strand construction is suitable for transmission and subtransmission lines for short span projects. Also used as flexible bus bar. ▪ AAC = All Aluminium Conductor.	STANDARD	BS 215 Part 1
	CONDUCTOR	Aluminium Alloy 1350
	STRAND CONSTRUCTION	As Below

TECHNICAL SPECIFICATIONS

CODE NAME	ITEM NUMBER	CONDUCTOR ALUMINIUM		NOMINAL OVERALL DIAMETER	APPROX. MASS
		AREA mm²	No./mm	mm	kg/km
COCKROACH	66970000	266	19/4.22	21.1	730
BUTTERFLY	66980000	323	19/4.65	23.3	890
MOTH	67170000	373	19/5.00	25.0	1030
DRONE	67180000	373	37/3.58	25.1	1030
CENTIPEDE	67200000	415	37/3.78	26.5	1150
LOCUST	67190000	429	19/5.36	26.8	1180
MAYBUG	67210000	487	37/4.09	28.6	1340
SCORPION	67220000	530	37/4.27	29.9	1460
CICADA	66640000	629	37/4.65	32.6	1730
TARANTULA	67230000	795	37/5.23	36.6	2190

TECHNICAL SPECIFICATIONS - Continued

CONDUCTOR CODE NAME	ELECTRICAL CHARACTERISTICS							
	EQUIVALENT ELECTRICAL AREAS		MAXIMUM DC RESISTANCE @20°C Ω/km	MAXIMUM AC RESISTANCE @75°C Ω/km	CURRENT RATINGS @ 75°C (a)		INDUCTIVE REACTANCE TO 0.4M Ω/km	SINGLE PHASE VOLTAGE DROP @ 0.4M SPACING mV/A.m
	ALUMINIUM mm²	COPPER mm²			WINTER NIGHT A	SUMMER NOON A		
COCKROACH	266	162	0.108	0.133	893	649	0.260	0.585
BUTTERFLY	323	197	0.089	0.110	1010	732	0.254	0.554
MOTH	373	228	0.077	0.095	1110	800	0.250	0.534
DRONE	373	228	0.077	0.095	1111	801	0.250	0.533
CENTIPEDE	415	253	0.069	0.086	1187	857	0.245	0.520
LOCUST	429	261	0.067	0.083	1212	872	0.245	0.518
MAYBUG	487	296	0.059	0.073	1317	943	0.240	0.503
SCORPION	530	323	0.054	0.068	1383	996	0.238	0.494
CICADA	629	383	0.046	0.058	1537	1099	0.232	0.478
TARANTULA	795	485	0.036	0.046	1792	1275	0.225	0.459

(a) Wind Speed 1m/sec, emissivity 0.5, absorptance 0.5. Air temperature 10°C for winter night, 35°C for summer noon. Intensity of solar radiation 1000 W/m² for summer noon. Angle of wind to conductor axis is 60° in summer noon. For current ratings at different conductor operating temperatures, refer to the graph on next two pages.

Calculation based on IEEE Std 738 – 1993.

CONDUCTOR CODE NAME	PHYSICAL PROPERTIES					
	NOMINAL OVERALL DIAMETER mm	TOTAL CROSS SECTIONAL AREA mm²	CALCULATED MINIMUM BREAKING LOAD kN	APPROX. MASS kg/km	FINAL MODULUS OF ELASTICITY GPa	COEFFICIENT OF LINEAR EXPANSION /° x 10^{-6}
COCKROACH	21.1	266	40	730	56	23
BUTTERFLY	23.3	323	49	890	56	23
MOTH	25.0	373	56	1030	56	23
DRONE	25.1	373	58	1030	56	23
CENTIPEDE	26.5	415	63	1150	56	23
LOCUST	26.8	429	64	1180	56	23
MAYBUG	28.6	487	74	1340	56	23
SCORPION	29.9	530	80	1460	56	23
CICADA	32.6	629	95	1730	56	23
TARANTULA	36.6	795	120	2190	56	23

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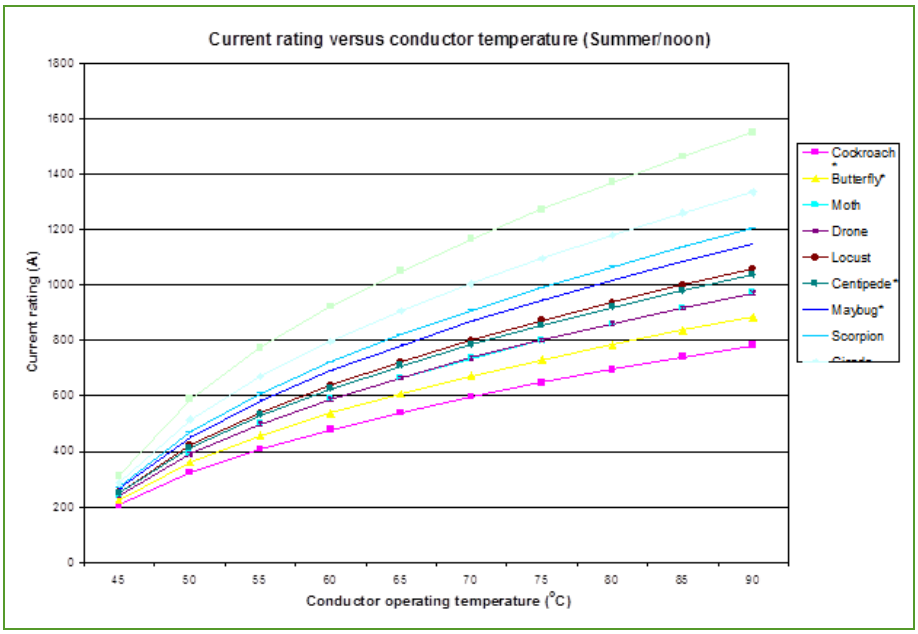
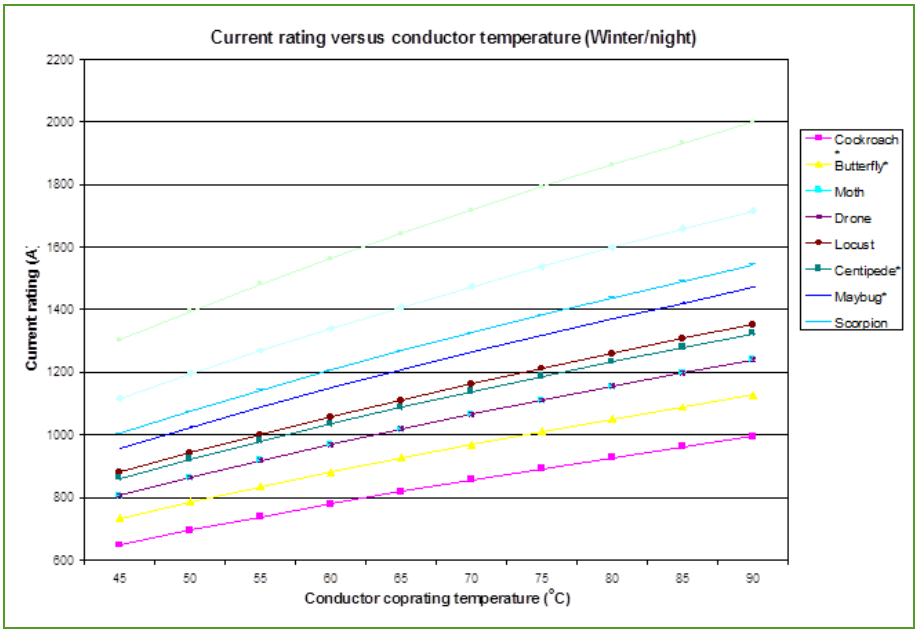
TECHNICAL SPECIFICATIONS - Continued





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