AERIAL BUNDLE CABLE (ABC) | Three Core (AI/XLPE/CTS or CWS/PE)

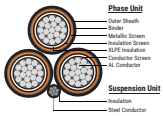
*REACH I RoHS I CE

APPLICATION

Power plant Switch Gear Generator Industrial Substation Distribution network
Residential network

CONSTRUCTION

Phase Unit:
Conductor: Stranded Circular Compacted, Plain annealed Aluminium, Class-2 to BDS IEC 60228
Conductor screen: Semi-conducting XLPE to BDS IEC 60502-2
Insulation: Cross-linked Polethylene XLPE to BDS IEC 60502-2
Insulation screen: Semi-conductive XLPE to BDS IEC 60502-2
Metallic screen: Copper Tape or Copper wire to BDS IEC 60502-2
Binder: Non-oven polyester tape
Sheath: Polethylene (HDPE), ST-7 to BDS IEC 60502-2
Suspension Unit:
Conductor: Stranded Galvanized Steel Wire Class-A, ASTM B498
Insulation: Polethylene (HDPE), ST-7 to BDS IEC 60502-2



VOLTAGE GRADE

Uo/U (Um) : 12/20 (24) kV **,Test Voltage:** 42 kv
Permissible Service Voltage: 12.7/22 kV

OPERATING TEMP

- 20°C to +90°C
Max Short Circuit 250°C

MIN. BENDING RADIUS

For Single Core
Approx. 20x Cable Diameter
For Multicore
Approx. 15x Cable Diameter

STANDARD

BDS IEC 60502-2

COLOR

Insulated Core: Red, Yellow & Blue core marking tape
Sheath: (Red or other colors available on request)

CHARACTERISTICS

Lead free | Flame Retardant | RoHS Compliant | REACH Compliant | Rigid | Meter Marking | Resistance to Solar Radiation

INSTALLATION CONDITION

Industrial Use | Open air | Outdoor Installation | Underground | In Duct | In Water | Power Station Use

CABLE DESIGN PARAMETER

PHYSICAL DATA

Nominal cross sectional area of conductor	Phase unit								Suspension unit				
	Shape of conductor	Conductor diameter		Nominal thickness of insulation	Metallic screen		Nominal thickness of sheath	Approx. Diameter of single core	Number & diameter of steel wire	Minimum thickness of insulation	Approx. Diameter of core	Approx. Diameter of bundled cable	Approx. weight of cable
		Minimum	Maximum		thickness of copper tape	area of copper wire							
Core x mm²	-	mm	mm	mm	mm	mm²	mm	mm	no./ mm	mm	mm	mm	kg/km
3 x 35+ 30	rmc	6.6	7.5	5.5	0.06	16	1.8	26.2	7/2.38	1	9.5	58.5	2250
3 x 50+ 30	rmc	7.7	8.6	5.5	0.06	16	1.8	27.2	7/2.38	1	9.5	61.0	2500
3 x 70+ 50	rmc	9.3	10.2	5.5	0.06	16	1.8	29.0	7/3.10	1	11.8	64.8	3020
3 x 95+ 50	rmc	11.0	12.0	5.5	0.06	16	1.9	31.0	7/3.10	1	11.8	69.0	3400
3 x 120+ 70	rmc	12.3	13.5	5.5	0.06	16	1.9	32.3	7/3.57	1	13.4	72.0	3920
3 x 150+ 70	rmc	13.7	15.0	5.5	0.06	25	2.0	34.2	7/3.57	1	13.4	76.1	4360
3 x 185+ 70	rmc	15.3	16.8	5.5	0.06	25	2.0	35.7	7/3.57	1	13.4	80.0	4810

ELECTRICAL DATA

Nominal cross sectional area	Maximum D.C resistance of conductor at 20 °C	Maximum A.C resistance of conductor at 90 °C	Short circuit rating of conductor in one second	Short circuit rating of metallic screen in one second		Approx. Capacitance of cable	Inductive reactance at 50 Hz	Minimum breaking load of messenger conductor	Current rating ambient air at 40 °C
				Cu tape	Cu wire				
mm²	Ω/km	Ω/km	kA	kA	kA	µF/km	Ω/km	kN	Amp
35	0.868	1.11	3.3	0.39	2.40	0.162	0.165	41.7	145
50	0.641	0.822	4.7	0.39	2.40	0.177	0.157	41.7	170
70	0.443	0.568	6.6	0.39	2.40	0.200	0.145	70.8	215
95	0.320	0.411	8.9	0.39	2.40	0.222	0.138	70.8	260
120	0.253	0.325	11.3	0.39	2.40	0.241	0.133	91.8	305
150	0.206	0.265	14.1	0.39	3.75	0.257	0.128	91.8	340
185	0.164	0.211	17.4	0.39	3.75	0.280	0.124	91.8	390