

BYA-FR/BAYA-FR | Single Core (Cu or Al/PVC-FR)

APPLICATION

Residential infrastructure Commercial Infrastructure Power & lighting Circuits

CONSTRUCTION

Conductor: Solid/ Circular, Plain annealed copper or Aluminium Class-1 & 2 to BDS IEC 60228, IS 8130

Insulation : Specially formulated Flame Retardant (FR) PVC insulation is used. The FR property retards the propagation of flame without compromising safety.

Insulation Conformity : PVC-FR (Skin Coated), T11- 70°C (with FR property) to BS 7655, BSEN 50363-3 & BDS 1251

VOLTAGE GRADE

U₀/U : 450/750V

Test Voltage : 3.0 kV

OPERATING TEMP.

- 20°C to +70°C

Max Short Circuit : 160°C

MIN. BENDING RADIUS

Upto 10 mm² :
3x overall Diameter
14.5 & 25 mm² :
4x overall Diameter
Above 25 mm² :
5x overall Diameter

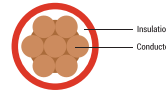
STANDARD

BDS 900
IEC 60227-3
BS 6004
BSEN 50525-2-31

COLOR

Insulation: ● Red
● Yellow
● Blue
● Black
● Green
● Yellow-Green

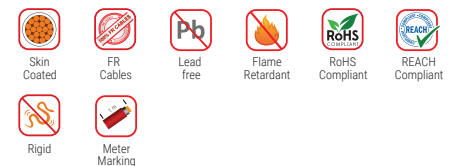
*REACH | RoHS | CE



TEST PARAMETERS

TEST	TEST METHOD	VALUES
Limited Oxygen Index	BDS 1790-58	>29%
Limited Temp. Index	BDS 1790-64	>250°C
Flammability Test	BDS 1790-53	PVC self-extinguishing and flame retardant

CHARACTERISTICS



INSTALLATION CONDITION



CABLE DESIGN PARAMETER

PHYSICAL DATA					ELECTRICAL DATA							
Nominal cross sectional area of conductor	No. of strands & diameter of wire Cu/Al	Nominal thickness of insulation	Overall Diameter		Approx. weight of cable		Max. D.C resistance of conductor at 20 °C		Current rating in conduits at 35 °C		Current rating in air at 35 °C	
			Lower limit	Upper limit								
			Cu	Al	Cu	Al	Cu	Al	Cu	Al		
Core x mm ²	nos./mm	mm	mm	mm	kg/km	kg/km	Ω/km	Ω/km	amps	amps	amps	amps
1 x 0.5 re	1/0.80	0.6	1.9	2.3	10	7	36.0	-	8	-	11	-
1 x 0.75 re	1/0.98	0.6	2.1	2.5	13	8	24.5	-	10	-	13	-
1 x 1.0 re	1/1.13	0.7	2.5	3.0	16	9	18.1	-	13	-	16	-
1 x 1.0 rm	3/0.65	0.7	2.5	3.0	17	10	18.1	-	13	-	16	-
1 x 1.3 rm	3/0.74	0.7	2.6	3.2	20	12	14.03	22.95	15	10	19	12
1 x 1.5 re	1/1.38	0.7	2.6	3.2	22	12	12.1	18.1	16	11	20	13
1 x 1.5 rm	7/0.52	0.7	2.7	3.3	23	13	12.1	18.1	16	11	20	13
1 x 1.5 rm	3/0.8	0.7	2.7	3.3	23	13	12.1	18.1	16	11	20	13
1 x 2.0 rm	3/0.91	0.8	3.1	3.8	30	17	9.11	15.18	20	13	25	15
1 x 2.5 re	1/1.78	0.8	3.2	3.9	32	17	7.41	12.1	22	15	28	18
1 x 2.5 rm	7/0.67	0.8	3.3	4.0	33	19	7.41	12.1	22	15	28	18
1 x 3.0 rm	7/0.74	0.8	3.5	4.3	40	21	5.99	9.84	26	17	31	20
1 x 4.0 rm	7/0.85	0.8	3.8	4.6	51	25	4.61	7.41	30	20	37	24
1 x 4.5 rm	7/0.91	0.8	3.9	4.7	56	28	3.89	6.51	32	21	39	25
1 x 6.0 rm	7/1.04	0.8	4.3	5.2	71	34	3.08	4.61	38	25	47	31
1 x 7.0 rm	7/1.12	1.0	4.5	5.8	85	41	2.61	4.29	42	27	51	33
1 x 9.5 rm	7/1.32	1.0	5.4	6.5	113	52	1.86	3.09	50	32	61	39
1 x 10 rm	7/1.35	1.0	5.6	6.7	117	53	1.83	3.08	52	34	63	41
1 x 14.5 rm	7/1.63	1.0	6.2	7.5	164	72	1.23	2.03	65	40	79	50
1 x 16 rm	7/1.70	1.0	6.4	7.8	179	77	1.15	1.91	70	45	85	55
1 x 16 rm	19/1.04	1.0	6.5	8.0	181	79	1.15	1.91	70	45	85	55

Current Ratings are Dependent on conditions. Check page 184 for current ratings under defined conditions. Check Page 185 to apply correction factors for current rating under deviated conditions.