



Multi core, thin wall insulation unscreened or screened, standard wall sheath, 0.6/1kV

Scope of applications

Strictly halogen free, all these wires and cables combine the advantages of thin wall thickness, small size, lightweight, high mechanical properties, and high chemical resistance. They are recommended for installation in railway vehicles, switching stations and control panels.

Standards

Current carrying capacity according to EN 50343.

Cabling rules according to EN 50355.

Fire protection requirements according to EN 45545.

Construction

1. Conductor
Flexible stranded tinned copper
2. Insulation
Special halogen free, thin wall
Color: White
3. Screen
Tinned copper wires braid
4. Sheath
Special cross-linked compound
Type EM 104 acc. to EN 50264-1
Inside covered with optional tapes
Color: Black

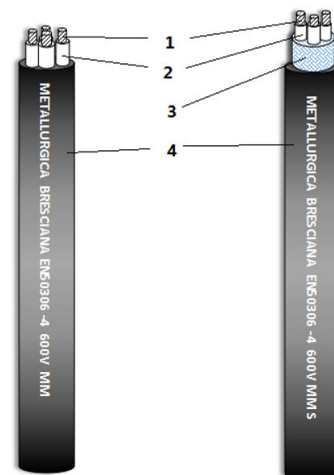




Table 1 EN50306-4 600V multi core, thin wall insulation unscreened and sheathed

Number of cores and nominal cross section	Nominal diame- ter of insulation	Overall diameter	Resistance of conductor at 20°C	Average Weight	Fire load approx.	TYPE NO.
			max.			
nxmm ²	mm	mm	Ω/km	Kg/km	MJ/km	
2x0.5	1.30	4.00±0.20	40.1	27	245	713B10201
4x0.5	1.30	4.50±0.20	40.1	37	305	713B10401
5x0.5	1.30	5.00±0.20	40.1	46	375	713B10501
12x0.5	1.30	6.90±0.30	40.1	90	660	713B11201
25x0.5	1.30	9.50±0.30	40.1	171	1175	713B12501
2x0.75	1.52	4.40±0.20	26.7	34	290	713B10202
4x0.75	1.52	5.00±0.20	26.7	50	355	713B10402
10x0.75	1.52	7.70±0.30	26.7	113	750	713B11002
2x1	1.67	4.70±0.20	20	41	320	713B10203
3x1	1.67	5.00±0.20	20	50	350	713B10303
4x1	1.67	5.50±0.20	20	61	405	713B10403
12x1	1.67	8.60±0.30	20	158	920	713B11203
20x1	1.67	11.20±0.40	20	266	1600	713B12003
2x1.5	2.04	5.40±0.30	13.7	57	420	713B10204
3x1.5	2.04	5.80±0.30	13.7	72	465	713B10304
3G1.5	2.04	5.80±0.30	13.7	72	465	713B10304G
4G1.5	2.04	6.50±0.30	13.7	90	570	713B10404G
5G1.5	2.04	7.20±0.30	13.7	112	705	713B10504G
6x1.5	2.04	7.90±0.30	13.7	135	855	713B10604G
7G1.5	2.04	8.40±0.30	13.7	156	1000	713B10704G
10x1.5	2.04	10.00±0.30	13.7	210	1180	713B11004
18x1.5	2.04	12.5±0.40	13.7	360	1950	713B11804
2x2.5	2.55	6.60±0.30	8.21	85	630	713B10205
3x2.5	2.55	7.00±0.30	8.21	105	690	713B10305
4G2.5	2.55	7.90±0.30	8.21	135	865	713B10405G
12x2.5	2.55	12.60±0.40	8.21	360	1975	713B11205

Note: G:(earth)=Green-Yellow.

**Table 2 EN50306-4 600V multi core, thin wall insulation screened and sheathed**

Number and nominal cross section	Nominal diameter of insulation	Overall diameter	Resistance of conductor at 20°C	Average Weight	Fire load approx.	TYPE NO.
			max.			
nxmm ²	mm	mm	Ω/km	Kg/km	MJ/km	
2x0.5	3.1	4.30±0.30	40.1	33	255	715B20201
3x0.5	3.3	4.50±0.30	40.1	38	300	715B20301
4x0.5	3.6	4.80±0.30	40.1	45	335	715B20401
6x0.5	4.6	5.90±0.30	40.1	69	470	715B20601
9x0.5	5.8	7.20±0.30	40.1	97	640	715B20901
10x0.5	5.8	7.20±0.30	40.1	101	625	715B21001
12x0.5	6.0	7.60±0.30	40.1	116	735	715B21201
15x0.5	6.8	8.50±0.30	40.1	135	880	715B21501
16x0.5	6.8	8.50±0.40	40.1	147	945	715B21601
25x0.5	8.6	10.30±0.40	40.1	213	1260	715B22501
2x2x0.5	5.0	6.40±0.30	41.4	69	650	719B20201
3x2x0.5	5.4	6.90±0.30	41.4	82	580	719B20301
4x2x0.5	6.4	8.00±0.30	41.4	101	745	719B20401
5x2x0.5	8.5	9.30±0.30	41.4	136	780	719B20501
6x2x0.5	7.7	9.20±0.30	41.4	148	1040	719B20601
2x0.75	3.6	4.80±0.30	26.7	42	315	715B20202
3x0.75	3.9	5.00±0.30	26.7	50	320	715B20302
4x0.75	4.3	5.50±0.30	26.7	63	380	715B20402
8x0.75	6.4	7.80±0.30	26.7	123	815	715B20802
16x0.75	8.1	9.70±0.30	26.7	204	1110	715B21602
2x2x0.75	6.2	7.80±0.30	26.7	93	725	719B20202
3x2x0.75	6.7	8.30±0.30	26.7	108	795	719B20302
2x1	3.8	5.00±0.30	20	50	345	715B20203
3x1	4.2	5.50±0.30	20	62	390	715B20303
4x1	4.5	5.80±0.30	20	79	430	715B20403
6x1	5.9	7.30±0.30	20	110	680	715B20603
2x2x1	6.9	8.50±0.30	20.7	107	830	719B20203
2x1.5	4.6	5.80±0.30	13.7	74	455	715B20204
3x1.5	4.9	6.20±0.30	13.7	86	505	715B20304
4x1.5	5.4	6.70±0.30	13.7	106	570	715B20404
12x1.5	9.2	11.00±0.40	13.7	281	1370	715B21204
2x2x1.5	8.3	10.00±0.40	14.2	164	1180	719B20204
2x2.5	5.7	7.00±0.30	8.21	105	665	715B20205

Note: G:(earth)=Green-Yellow.





Usage characteristics

- **Electrical properties**

Rated voltage	$U_0 / U (U_m) = 0.6/1(1.2) \text{ kV}$
Test voltage(a.c)	for insulation: 3.5kV,5min for EN 50306-4 internal sheath: 3.5kV,5min

- **Max. operating temperature at conductor**

Conductor at normal operation	
EN 50306-2 cables	$\leq 105^\circ\text{C} / 100,000 \text{ h}$ $\leq 125^\circ\text{C} / 20,000 \text{ h}$
EN 50306-4 cables	$\leq 90^\circ\text{C} / 100,000 \text{ h}$ $\leq 110^\circ\text{C} / 20,000 \text{ h}$
Conductor under short-circuit conditions(tinned)	$\leq 160^\circ\text{C} / 5 \text{ s}$

- **Operating in cold**

Min. permissible ambient temperature	-40°C
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- **Min. bending radius**

	unscreened	screened
Fixed installation	$\geq 2D$	$\geq 3D$
Free moved	$\geq 4D$	$\geq 5D$
D = cable $\varnothing$ (mm)		