



## INNOVCABLE CONTROL CABLE BTA XLPE-HEPR/PVC - NBR 7290



- 1) Stranded conductor formed by electrolytic bare copper wires, soft temper, class 5 NBR NM 280 stranding.
- 2) Composite insulation (HEPR - ethylene-propylene rubber) or XLPE 90°C.
- 3) Separator in polyester tape.
- 4) Intermediate layer in thermoplastic compound based on polyvinyl chloride (PVC /ST1).
- 5) Shielding in galvanized steel braid
- 6) Non-hygroscopic tape
- 7) Covering in thermoplastic compound based on polyvinyl chloride (PVC/ST1).

- Insulation voltage:

Up to 1,0mm<sup>2</sup> - 500V

From 1,50mm<sup>2</sup> to 10,00mm<sup>2</sup> - 1000V

- Routine tests:

Electrical resistance of the conductor at 20°C

Electric tension in Alternate Current

Insulation resistance.

### Identification

Black or white veins numbered sequentially, can be manufactured on customer request with a green track (protective conductor). It can also be built with coloured veins.



## Applicable Specifications

ABNT/MERCOSUR: NM-280 and NM-IEC

NBR NM IEC 60332-3-23 (Category B)

ABNT: NBR 7290 - Control cables with XLPE, EPR or HEPR extruded insulation for voltages up to 1 kV - Performance requirements

ABNT: NBR 6251

## Applications

They are used in fixed installations in control, command and signalling circuits of electrical equipment, structured cabling, machine connections, push buttons, power supply, microprocessor systems, in the automation of substations, power plants, industrial and chemical areas, among others.

They are applied in fixed systems of conduits (embedded or exposed), ducts, duct banks, cable trays, electrical panels, among other applications. It has mechanical protection of galvanized steel braid. This cable has good flexibility, resistance to UV, bad weather, humidity and certain chemicals.

## Maximum Conductor Temperature

In steady state: +90°C

Maximum short circuit temperature: +250°C (5s)

## Notes

The BTA XLPE-HEPR/PVC CONTROL CABLE - NBR 7290, can be manufactured in other sections, dimensions or material, at the customer's request.



Innovcable reserves the right to modify this catalogue without prior notice.

## CONSTRUCTION OPTIONS

We can manufacture other configurations on request.

1- Tinned Copper Conductor.

Class 2 stranding.

2- Different sections and number of veins, maximum up to

- 71 x 0,50mm<sup>2</sup> / 71 x 2,50mm<sup>2</sup>

- 52 x 4,00mm<sup>2</sup> / 52 x 4,00mm<sup>2</sup>.

- 42 x 6,00mm<sup>2</sup>

- 20 x 10,0mm<sup>2</sup>

3- Vein insulation material / other temperatures:

PVC/E -105°C

PVC/A - 70 °C

PE - 80 °C

4- Material of the intermediate layer and the cover:

PE

PVC/E

PVC/ST2

Special PVC resistant to oils, grease and other chemicals.

LSZH (non-halogenated polyolefin compound).

5- Perfectly cylindrical cover for cable gland applications in classified areas (Ex)



DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 0,50 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		8,53	113,72
3		8,80	129,09
4		9,61	165,49
5		9,76	181,41
6		10,29	196,39
7		10,29	205,40
8		10,84	222,58
9		12,33	262,76
10		12,74	283,19
11		12,74	290,86
12		12,95	306,54
13		13,41	326,83
14		13,41	334,18
15		13,92	359,04
16		13,92	366,11
17		14,45	386,56
18		14,45	393,18
19		14,45	399,93
20		15,20	429,75
21		15,73	445,50
22		15,73	456,42
23		15,73	471,64
24		15,73	477,91
25		15,73	492,97

DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 0,75 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		8,95	126,04
3		9,25	145,17
4		10,16	187,87
5		10,33	207,08
6		10,92	225,77
7		10,92	238,31
8		11,53	259,46
9		13,16	305,17
10		13,61	329,43
11		13,61	340,48
12		13,82	360,12
13		14,33	384,23
14		14,33	394,91
15		14,91	423,60
16		14,91	433,97
17		15,50	458,25
18		15,50	468,11
19		15,50	478,12
20		16,32	512,53
21		16,91	532,18
22		16,91	546,22
23		16,91	564,65
24		16,91	574,11
25		16,91	592,37



DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 1,00 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		9,31	137,25
3		9,64	159,95
4		10,63	208,37
~		~ ~ ~	~ ~ ~
19		16,39	551,66
20		17,26	590,34
21		17,91	613,62
22		17,91	630,75
23		17,91	652,29
24		17,91	664,84
25		17,91	686,19
~		~ ~ ~	~ ~ ~
13		15,12	437,86
14		15,12	451,75
15		15,74	484,08
16		15,74	497,61
17		16,39	525,53
18		16,39	538,51
19		16,39	551,66
20		17,26	590,34
21		17,91	613,62
22		17,91	630,75
23		17,91	652,29
24		17,91	664,84
25		17,91	686,19

DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 1,50 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		9,87	156,27
3		10,24	185,28
4		11,36	243,41
5		11,57	271,48
6		12,30	299,94
7		12,30	321,85
8		13,05	353,35
9		14,95	412,82
10		15,51	447,13
11		15,51	467,19
12		15,72	497,18
13		16,35	531,29
14		16,35	550,91
15		17,06	589,65
16		17,06	608,88
17		17,79	643,21
18		17,79	661,81
19		17,79	680,59
20		18,75	726,70
21		19,48	756,35
22		19,48	779,07
23		19,48	806,19
24		19,48	824,30
25		19,48	851,20





DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 2,50 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		11,60	209,58
3		12,11	255,43
4		13,62	340,71
5		13,90	383,72
6		14,89	428,83
7		14,89	466,63
8		15,91	515,85
9		18,34	599,43
10		19,10	650,90
11		19,10	686,18
12		19,31	733,88
13		20,17	785,07
14		20,17	819,76
15		21,13	875,67
16		21,13	909,82
17		22,11	961,32
18		22,11	994,62
19		22,11	1028,19
20		23,35	1094,55
21		24,34	1141,27
22		24,34	1178,60
23		24,34	1220,32
24		24,34	1252,96
25		24,34	1294,39

DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 4,00 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		12,89	263,27
3		13,47	324,70
4		15,19	433,96
5		15,51	491,01
6		16,63	551,52
7		16,63	604,14
8		17,79	669,65
9		20,49	773,82
10		21,35	841,05
11		21,35	890,57
12		21,56	954,01
13		22,53	1020,86
14		22,53	1069,65
15		23,62	1141,28
16		23,62	1189,41
17		24,74	1256,64
18		24,74	1303,75
19		24,74	1351,18
20		26,11	1435,04
21		27,23	1497,37
22		27,23	1548,42
23		27,23	1603,86
24		27,23	1650,15
25		27,23	1705,24



DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 6,00 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		14,36	336,15
3		15,04	422,85
4		17,05	567,35
5		17,42	647,84
6		18,74	733,43
7		18,74	810,42
8		20,09	902,03
9		23,19	1037,68
1		24,19	1130,42
11		24,19	1203,64
12		24,40	1292,73
13		25,54	1384,99
14		25,54	1457,32
15		26,81	1554,43
16		26,81	1625,96
17		28,12	1718,67
18		28,12	1788,97
19		28,12	1859,66
20		29,69	1971,37
21		31,00	2059,08
22		31,00	2133,20
23		31,00	2211,73
24		31,00	2281,03
25		31,00	2359,14

DADOS DIMENSIONAIS			
SEÇÃO NOMINAL - 10,00 mm <sup>2</sup>			
Número de Condutores		Diâmetro Externo mm	Peso Nominal (kg/km)
2		16,60	468,61
3		17,43	604,90
4		19,91	814,72
5		20,37	941,90
6		21,99	1076,75
7		21,99	1201,90
8		23,66	1344,43
9		27,38	1539,40
10		28,62	1682,11
11		28,62	1802,43
12		28,83	1941,68
13		30,23	2083,74
14		30,23	2202,93
15		31,79	2349,97
16		31,79	2468,13
17		33,41	2610,77
18		33,41	2727,37
19		33,41	2844,46
20		35,30	3009,84
21		36,92	3147,28
22		36,92	3267,55
23		36,92	3392,21
24		36,92	3507,54
25		36,92	3631,67