



FRA 145/S EMC Screened Multicore

Applications

Multicore cable with improved fire performance and very high resistance to temperature designed for internal wiring in lamps, heating appliances and distribution boxes in apparatus, mechanical and plant engineering, etc. Used for fixed and flexible application in dry, humid and wet rooms.

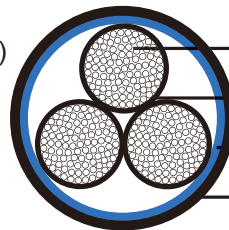


Standard

- IEC 60754-1, EN 50267-2-1 (halogen free)
- IEC 60754-2, EN 50267-2-2 (no corrosive gases)
- NES 02-713, NFC 20-454 (no toxic gases)
- IEC 61034, EN 50268-2 (low smoke density)
- IEC 60332-1, EN 50265-2-1 (flame retardant)
- IEC 60332-3, EN 50266-2, NF C 32-070

(non-flame propagating)

- DIN 51900 (low fire load)



- Stranded Tinned Copper Conductor
- Electron Beam Crosslinkable Polyolefine Copolymer Insulation
- Copper Wire Screen
- Electron Beam Crosslinkable Polyolefine Copolymer Sheath

Construction

- **Conductors:** Class 5 stranded tinned copper to IEC60228/VDE 0295.
- **Insulation:** Electron beam crosslinkable polyolefine copolymer.
- **Screen:** Copper wire screen.
- **Sheath:** Electron beam crosslinkable polyolefine copolymer.

Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm ²	0.50	0.75	1.0	1.5	2.5	4.0	6.0	10
Maximum Conductor Resistance	Ω/km	40.1	26.7	20.0	13.7	8.21	5.09	3.39	1.95
Voltage Rating	V	300/500V (≤1mm ²); 450/750V (≥1.5mm ²)							



▾ Mechanical and Thermal Properties

Minimum Bending Radius: 4xOD (Static); 6xOD (Flexing)

Temperature Range: -55°C ~+145°C (Static); -40°C ~+120°C (Flexing)

Short Circuit Temperature: +280°C

▾ Dimensions and Weight

No. of cores & Nominal Conductor Cross Sectional Area No. x mm ²	Number and Nominal Diameter of Strands No/mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
1x0.5	19/0.18	0.5	3.7	23
2x0.5	19/0.18	0.5	5.6	45
3x0.5	19/0.18	0.5	6.1	59
4x0.5	19/0.18	0.5	6.7	72
5x0.5	19/0.18	0.5	7.3	86
6x0.5	19/0.18	0.5	7.9	102
7x0.5	19/0.18	0.5	8.4	118
8x0.5	19/0.18	0.5	9.0	133
10x0.5	19/0.18	0.5	10.0	157
12x0.5	19/0.18	0.5	10.0	164
1x0.75	24/0.20	0.6	4.0	28
2x0.75	24/0.20	0.6	6.7	66
3x0.75	24/0.20	0.6	7.1	78
4x0.75	24/0.20	0.6	7.7	94
5x0.75	24/0.20	0.6	8.5	113
6x0.75	24/0.20	0.6	8.9	132
7x0.75	24/0.20	0.6	9.9	158
8x0.75	24/0.20	0.6	10.6	181
10x0.75	24/0.20	0.6	11.5	209
12x0.75	24/0.20	0.6	11.5	219
14x0.75	24/0.20	0.6	12.2	251
16x0.75	24/0.20	0.6	12.9	279
19x0.75	24/0.20	0.6	14.5	347
21x0.75	24/0.20	0.6	15.3	385
1x1	32/0.20	0.6	4.2	33
2x1	32/0.20	0.6	7.2	79
3x1	32/0.20	0.6	7.7	89
4x1	32/0.20	0.6	8.3	113
5x1	32/0.20	0.6	9.0	134
6x1	32/0.20	0.6	9.5	156
7G1	32/0.20	0.6	10.9	187
8x1	32/0.20	0.6	11.4	218
10x1	32/0.20	0.6	12.5	253
12x1	32/0.20	0.6	12.5	266
1x1.5	30/0.25	0.6	4.8	43



No. of cores& Nominal Conductor Cross Sectional Area No.×mm ²	Number and Nominal Diameter of Strands No/mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
2×1.5	30/0.25	0.6	8.4	105
3×(G)1.5	30/0.25	0.6	8.9	119
4×(G)1.5	30/0.25	0.6	9.9	163
5×1.5	30/0.25	0.6	10.7	183
6×1.5	30/0.25	0.6	11.5	219
7×(G)1.5	30/0.25	0.6	12.7	273
8×1.5	30/0.25	0.6	13.7	305
10×1.5	30/0.25	0.6	15.0	309
12×1.5	30/0.25	0.6	15.0	371
14×1.5	30/0.25	0.6	16.0	455
16×1.5	30/0.25	0.6	17.0	502
19×1.5	30/0.25	0.6	19.3	627
21×1.5	30/0.25	0.6	20.3	698
25×1.5	30/0.25	0.6	21.7	737
1×2.5	50/0.25	0.7	5.6	61
2×2.5	50/0.25	0.7	9.9	157
3×(G)2.5	50/0.25	0.7	10.5	198
4×2.5	50/0.25	0.7	11.5	236
5×(G)2.5	50/0.25	0.7	12.6	287
6×2.5	50/0.25	0.7	13.8	321
7G2.5	50/0.25	0.7	15.5	430
8×2.5	50/0.25	0.7	16.5	461
10×2.5	50/0.25	0.7	18.3	534
12×2.5	50/0.25	0.7	18.3	569
14×2.5	50/0.25	0.7	19.6	664
16×2.5	50/0.25	0.7	20.7	753
19×2.5	50/0.25	0.7	23.5	934
21×2.5	50/0.25	0.7	24.4	1022
1×4	56/0.30	0.8	6.3	84
2×4	56/0.30	0.8	10.9	174
3×4	56/0.30	0.8	11.5	226
4×4	56/0.30	0.8	13.2	317
5G4	56/0.30	0.8	14.5	376
6×4	56/0.30	0.8	15.6	436
7×4	56/0.30	0.8	17.0	531
8×4	56/0.30	0.8	18.3	610
10×4	56/0.30	0.8	20.7	736
12×4	56/0.30	0.8	20.7	791
14×4	56/0.30	0.8	22.1	910
1×6	81/0.30	0.9	6.9	109
2×6	81/0.30	0.9	12.1	250
3×6	81/0.30	0.9	12.8	316
4×6	81/0.30	0.9	14.3	404



No. of cores & Nominal Conductor Cross Sectional Area No. x mm ²	Number and Nominal Diameter of Strands No/mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
5x6	81/0.30	0.9	16.0	518
6x6	81/0.30	0.9	17.4	595
7x6	81/0.30	0.9	19.3	716
1x10	78/0.40	1.0	8.4	168
2x10	78/0.40	1.0	15.1	390
3G10	78/0.40	1.0	16.4	529
4G10	78/0.40	1.0	18.1	669
5G10	78/0.40	1.0	20.2	840
6G10	78/0.40	1.0	22.3	973
7G10	78/0.40	1.0	24.3	1132



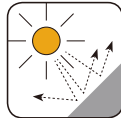
Impact Resistant



Highly Flexible



Weather Resistant



UV Resistant



Fire Retardant
NF C32-070-2.2(C1)
IEC 60332-3/EN50266



Flame Retardant
NF C32-070-2.1(C2)
IEC 60332-1/EN 50265-2-1



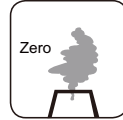
Low Corrosivity
EN 50267-2-2/NF C32-074
IEC 60754-2/NF C20-453



Low Toxicity



Low Smoke Emission
IEC 61034/NFC20-902
EN 50268/NF C32-073



Zero Halogen
IEC 60754-1/NF C20-454
EN 50267-2-1