

Rubber insulated wire

NSGAFOEU



Application: This wire is designed for use in dry rooms, buses and rail-borne vehicles. It is considered to be short circuit-proof and earth leakage-proof when used in switching appliances and distributors of up to 1 kV. It is flame-retardant and resistant to most oils.

Construction and technical data:

CPR-classification according to EN 50575:	Eca
Standard:	VDE 0250 T. 602
Conductor material:	tinned copper
Conductor construction:	Class 5 = flexible
Insulation:	rubber (EPR) 3GI3
Sheathing material:	rubber (CR) 5GM3
Flame-retardant:	VDE 0482-332-1-2/IEC 60332-1-2
UV-resistant:	yes, only black version
Oil-resistant:	yes
Ozone-resistant:	yes
Max. temperature at conductor, °C:	90 °C
Max. short circuit temperature at conductor, °C:	250 °C
Permitted outer cable temperature, fixed, °C:	-40 - +80 °C
Permitted outer cable temperature, moved, °C:	-25 - +80 °C
Bending radius, fixed installation:	6 x Ø
Bending radius, moving application:	10 x Ø



The products and information presented here are for technical calculation only. They are subject to technical progress and in no way represent the ability of shipment. Outer diameters are approximately.

NSGAFOEU 1.8/3 kV

Colour of outer sheath:	black
Nominal voltage U_o:	1.8 kV
Nominal voltage U:	3 kV
Maximum permitted operating voltage in three-phase systems:	3.6 kV
Test voltage:	6 kV

part no.	part name	DI [mm]	RI [Ohm/km]	I _{bl} [A]	I _k [kA]	Ø [mm]	E _v [kWh/m]	F _{zv} [N]	Cu	G [kg]
050194	1X1.5	1.8	13.7	30	0.183	5.5	0.25	23	14,4	60
050178	1X2.5	2.4	8.21	41	0.305	6.2	0.28	38	24	70
050159	1X4	3	5.09	55	0.488	6.7	0.32	60	38	90
050165	1X6	3.9	3.39	70	0.732	7.2	0.35	90	58	120
050172	1X10	5.1	1.95	98	1.22	8.7	0.5	150	96	180
050183	1X16	6.3	1.24	132	1.95	10	0.65	240	154	250
050184	1X25	7.8	0.795	176	3.05	12	0.9	375	240	390
050163	1X35	9.2	0.565	218	4.27	13	1	525	336	470
050164	1X50	11	0.393	276	6.1	15	1.1	750	480	625
050182	1X70	13.1	0.277	347	8.54	17	1.3	1050	672	880
050208	1X95	15.1	0.21	416	11.6	19.5	1.7	1425	912	1190
050244	1X120	17	0.164	488	14.6	21	1.9	1800	1152	1430
050241	1X150	19	0.132	566	18.3	23	2.2	2250	1440	1750
050245	1X185	21	0.108	644	22.6	26	2.6	2775	1776	2160
050246	1X240	24	0.0817	775	29.3	28	3.1	3600	2304	2640
050247	1X300	27	0.0654	898	33.6	31	3.6	4500	2880	3178
050471	1X400	31	0.0486	1060	48.8	40.5		6000	3840	4200
050472	1X500	35	0.0384	1250	61	42		7500	4800	5500

NSGAFOEU 3.6/6 kV

Nominal voltage U_o:	3.6 kV
Nominal voltage U:	6 kV
Maximum permitted operating voltage in three-phase systems:	7.2 kV
Test voltage:	11 kV

part no.	part name	DI [mm]	RI [Ohm/km]	I _{bl} [A]	I _k [kA]	Ø [mm]	F _{zv} [N]	Cu	G [kg]
053013	1X50 OR (with reference to)	9.5	0.393	270	6.1	15	750	480	625
052678	1X1.5	1.8	13.7	32	0.183	9.5	23	14,4	60
051585	1X2.5	2.4	8.21	43	0.305	10.5	38	24	85
051586	1X4	3	5.09	56	0.488	12	60	38	113
051587	1X6	3.9	3.39	71	0.732	13	90	58	141
051588	1X10	5.1	1.95	99	1.22	14.5	150	96	191
051589	1X16	6.3	1.24	133	1.96	15.5	240	154	282
051590	1X25	7.8	0.795	174	3.05	17.5	375	240	391
051591	1X35	9.2	0.565	215	4.27	19	525	336	500
051592	1X50	11	0.393	270	6.1	21	750	480	650
051593	1X70	13.1	0.277	338	8.54	23	1050	672	860
052679	1X95	15.1	0.21	403	11.6	26.5	1425	912	1110
052680	1X120	17	0.164	473	14.6	28.8	1800	1152	1390
052681	1X150	19	0.132	546	18.3	30.5	2250	1440	1690
052682	1X185	21	0.108	622	22.6	33	2775	1776	1980
052157	1X240 (with reference to)	24	0.0817		29.3	30	3600	2304	2549
052683	1X300 (with reference to)	27	0.0654		33.6	33.4	4500	2880	3170

part no.	part name	DI [mm]	RI [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzv [N]	Cu	G [kg]
051754	1X400 (with reference to)	31	0.0486		48.8	38	6000	3840	4000
052684	1X500 (with reference to)	35	0.0384		61	42.7	7500	4800	5020
051081	1X150 RD (with reference to)	19	0.132	546	18.3	30.5	2250	1440	1690
050856	1X185 RD (with reference to)	21	0.108	622	22.6	27.3	2775	1776	1947
051478	1X240 RD (with reference to)	24	0.0817		29.3	30	3600	2304	2549

DI	diameter conductor
RI	Conductor resistance
Ibl	Ampacity in air (30 °C)
Ik	Short-circuit current (1 s)
Ø	outer diameter approx.
Ev	Combustion heat (fire load)
Fzv	Tensile strength (during installation)
Cu	Copper weight (GER)
G	net weight per 1000