Medium voltage cable N2XSY acc. to VDE 0276-620

VDE

Application: For installation in ground, in water, outdoors, indoors and in cable ducts for power stations, industry, and distribution networks. The good installation properties of this cable make installation easy, even on difficult routes. Acc. to VDE 0276-603 cables must be protected against direct sun irradiation.

- stranded, class 2
- maximum temperature at conductor: 90°C
- max. operating temperature, fixed: 70°C
- temperature, moved/during installation: -5 - +70°C
- min. installation temperature: -5°C
- bending radius, fixed installation: 15 x DA
- flame retardant: VDE 0482-332-1-2/IEC 60332-1
- installation in free air only with UV-protection (cable not UV-resistant)
- cable for direct burial

Construction

conductor material: bare copper
conductor construction: stranded, class 2
insulation: XLPE DIX8
sheathing material: PVC DMV6
colour of outer sheath: red
partial discharge: 2 pC

	N2XSY 6/10 kV	N2XSY 12/20 kV	N2XSY 18/30 kV
nominal voltage Uo:	6 kV	12 kV	18 kV
nominal voltage U:	10 kV	20 kV	30 kV
maximum permitted operating voltage in 3-phase systems:	2 kV	24 kV	36 kV
test voltage:	21 kV	42 kV	63 kV

Medium voltage cable N2XSY acc. to VDE 0276-620

ELEKTRO KABEL

VDE

p/n	part name		D_l [mm]	R_l [Ω/km]	W_i [mm]	I_{bl} [A]	I_{be} [A]	I_k [kA]	R_{bv} [mm]	W_m [mm]	D_A [mm]	F_{zv} [N]	Cu [kg/km]	G [kg]
N2XSY 6/10 kV														
011292	N2XSY 1X35/16	RM	7,5	0,524	3,4	197	187	5	360	2,5	24	1750	518	920
011288	N2XSY 1X50/16	RMv	8,6	0,387	3,4	236	220	7,15	375	2,5	25	2500	662	1100
011289	N2XSY 1X70/16	RMv	10,2	0,268	3,4	294	268	10	405	2,5	27	3500	854	1300
011326	N2XSY 1X95/16	RMv	12	0,193	3,4	358	320	13,6	420	2,5	28	4750	1094	1600
011290	N2XSY 1X120/16	RMv	13,5	0,153	3,4	413	363	17,2	450	2,5	30	6000	1334	1850
011327	N2XSY 1X150/16	RMv	15	0,124	3,4	468	405	21,4	465	2,5	31	7500	1622	2050
011291	N2XSY 1X150/25	RMv	15	0,124	3,4	468	405	21,4	465	2,5	31	7500	1723	2200
011328	N2XSY 1X185/16	RMv	16,8	0,0991	3,4	535	456	26,5	495	2,5	33	9250	1958	2450
011329	N2XSY 1X185/25	RMv	16,8	0,0991	3,4	535	456	26,5	495	2,5	33	9250	2059	2550
011330	N2XSY 1X240/16	RMv	19,2	0,0754	3,4	631	526	34,3	525	2,5	35	12000	2486	3000
011294	N2XSY 1X240/25	RMv	19,2	0,0754	3,4	631	526	34,3	525	2,5	35	12000	2587	3150
011331	N2XSY 1X300/25	RMv	21,6	0,0601	3,4	722	591	42,9	555	2,5	37	15000	3163	3750
011332	N2XSY 1X400/35	RMv	24,6	0,047	3,4	827	662	57,2	615	2,5	41	20000	4234	4650
011333	N2XSY 1X500/35	RMv	27,6	0,0366	3,4	949	744	71,5	660	2,5	44	25000	5194	5700
011976	N2XSY 1X630/35	RMv	32,5	0,0283	3,4	1090	820	90,1	735	2,5	49	31500	6442	7090
N2XSY 12/20 kV														
011295	N2XSY 1X35/16	RM	7,5	0,524	5,5	200	189	5	420	2,5	28	1750	518	1100
011296	N2XSY 1X50/16	RMv	8,6	0,387	5,5	239	222	7,15	435	2,5	29	2500	662	1250
011297	N2XSY 1X70/16	RMv	10,2	0,268	5,5	297	271	10	465	2,5	31	3500	854	1500
011298	N2XSY 1X95/16	RMv	12	0,193	5,5	361	323	13,6	480	2,5	32	4750	1094	1800
011318	N2XSY 1X120/16	RMv	13,5	0,153	5,5	416	367	17,2	510	2,5	34	6000	1334	2050
011334	N2XSY 1X150/16	RMv	15	0,124	5,5	470	409	21,4	525	2,5	35	7500	1622	2300
011335	N2XSY 1X150/25	RMv	15	0,124	5,5	470	409	21,4	525	2,5	35	7500	1723	2400
011336	N2XSY 1X185/16	RMv	16,8	0,0991	5,5	538	461	26,5	555	2,5	37	9250	1958	2650
011299	N2XSY 1X185/25	RMv	16,8	0,0991	5,5	538	461	26,5	555	2,5	37	9250	2059	2800
011337	N2XSY 1X240/16	RMv	19,2	0,0754	5,5	634	532	34,3	600	2,5	40	12000	2486	3250
011338	N2XSY 1X240/25	RMv	19,2	0,0754	5,5	634	532	34,3	600	2,5	40	12000	2587	3400
012691	N2XSY 1X240/50	RMv	19,2	0,0754	5,5	634	532	34,3	600	2,5	40	12000	2864	3499
011339	N2XSY 1X300/25	RMv	21,6	0,0601	5,5	724	599	42,9	630	2,5	42	15000	3163	4000
011341	N2XSY 1X400/35	RMv	24,6	0,047	5,5	829	671	57,2	675	2,5	45	20000	4234	4950
011340	N2XSY 1X500/35	RMv	27,6	0,0366	5,5	953	754	71,5	735	2,5	49	25000	5194	6050
012566	N2XSY 1X630/35	RMv	32,5	0,0283	5,5	1075	820	90,1	795	2,5	53	31500	6442	7090
012692	N2XSY 1X800/50	RMv	37,6	0,0221	5,5	1205	890	114,4	900	2,5	60	40000	8240	9249
011529	N2XSY 1X800/35	RMv	37,6	0,0221	5,5	1205	890	114,4	900	2,5	60	40000	8094	9032
N2XSY 18/30 kV														
013657	N2XSY 1X35/16	RM	7,5	0,524	8	202	191	5	495		33	1750	518	1350
011342	N2XSY 1X50/16	RMv	8,6	0,387	8	241	225	7,15	510	2,5	34	2500	662	1550
011343	N2XSY 1X70/16	RMv	10,2	0,268	8	299	274	10	540	2,5	36	3500	854	1750
011344	N2XSY 1X95/16	RMv	12	0,193	8	363	327	13,6	555	2,5	37	4750	1094	2050
011345	N2XSY 1X120/16	RMv	13,5	0,153	8	418	371	17,2	585	2,5	39	6000	1334	2350
011346	N2XSY 1X150/25	RMv	15	0,124	8	472	414	21,4	600	2,5	40	7500	1723	2700
011347	N2XSY 1X185/25	RMv	16,8	0,0991	8	539	466	26,5	630	2,5	42	9250	2059	3100
011348	N2XSY 1X240/25	RMv	19,2	0,0754	8	635	539	34,3	660	2,5	44	12000	2587	3700
011349	N2XSY 1X300/25	RMv	21,6	0,0601	8	725	606	42,9	705	2,5	47	15000	3163	4350
011350	N2XSY 1X400/35	RMv	24,6	0,047	8	831	680	57,2	750	2,5	50	20000	4234	5350
011351	N2XSY 1X500/35	RMv	27,6	0,0366	8	953	765	71,5	795	2,5	53	25000	5194	6450
013061	N2XSY 1X630/35	RMv	32,5	0,0283	8	1094	841	90,1		2,5		31500	6442	7833

The current rating in air Ibl refers to an ambient temperature of 30 °C, a load factor of 1,0 and threefold bunching. The current rating in ground Ibe refers to ground temperature of 20 °C, a load factor of 0,7 and threefold bunching.

Dl: diameter of conductor
Rl: conductor resistance
Wi: thickness of insulation
Ibl: ampacity (in air)
Ibe: ampacity (in ground)
Ik: short circuit current (1 s)
Rbv: bending radius, fixed installation
Wm: thickness of outer sheath
DA: outer diameter
Fzv: tensile strength (during installation)
Cu: copper
G: weight