

# Medium voltage cable N2XS(F)2Y acc. to VDE 0276-620



<b>Conductor material:</b>	bare copper
<b>Conductor class:</b>	class 2 = stranded
<b>Insulation:</b>	XLPE DIX8
<b>Sheathing material:</b>	polyethylene DMP2
<b>Longitudinally watertight:</b>	yes
<b>Colour outer sheath:</b>	black
<b>Meter mark:</b>	yes
<b>Flame-retardant:</b>	no
<b>UV-resistant:</b>	yes
<b>Maximum permitted conductor temperature:</b>	90 °C
<b>Permitted outer cable temperature, fixed:</b>	70 °C
<b>Permitted outer cable temperature, in motion/ during installation:</b>	-20 - +70 °C
<b>Bending radius, fixed installation:</b>	15 x DA
<b>Partial discharge:</b>	2 pC

	<i>N2XS(F)2Y 6/10 kV</i>	<i>N2XS(F)2Y 12/20 kV</i>	<i>N2XS(F)2Y 18/30 kV</i>
<b>Nominal voltage U<sub>0</sub>:</b>	6 kV	12 kV	18 kV
<b>Nominal voltage U:</b>	10 kV	20 kV	30 kV
<b>Maximum permitted operating voltage in three-phase systems:</b>	12 kV	24 kV	36 kV
<b>Test voltage:</b>	21 kV	42 kV	63 kV

**Application:** For installation in the ground, in water, outdoors, indoors and in cable ducts for power stations, industrial applications and distribution networks. It should be noted during installation in cable ducts and interior spaces that the PE-sheath is zero-halogen, yet not flame-retardant as defined under DIN VDE 0482-332-1. This cable is also suitable for unfavourable operating conditions, specifically where there is a need to avoid water penetration lengthwise following mechanical damage.



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.

Table: Technical characteristics N2XS(F)2Y 6/10 kV

p/n	part name		D <sub>i</sub> [mm]	R <sub>i</sub> [Ω/km]	W <sub>i</sub> [mm]	I <sub>bl</sub> [A]	I <sub>be</sub> [A]	I <sub>k</sub> [kA]	R <sub>bv</sub> [mm]	W <sub>m</sub> [mm]	D <sub>A</sub> [mm]	F <sub>ZV</sub> [N]	Cu [kg/km]	G [kg/km]
013261	N2XS(F)2Y 01X35/16	RM	7,5	0,524	3,4	197	187	5	420	2,5	28	1750	518	820
011479	N2XS(F)2Y 01X50/16	RMv	8,6	0,387	3,4	236	220	7,15	375	2,5	25	2500	662	1150
011480	N2XS(F)2Y 01X70/16	RMv	10,2	0,268	3,4	294	268	10	405	2,5	27	3500	854	1400
011481	N2XS(F)2Y 01X95/16	RMv	12	0,193	3,4	358	320	13,6	420	2,5	28	4750	1094	1650
011482	N2XS(F)2Y 01X120/16	RMv	13,5	0,153	3,4	413	363	17,2	450	2,5	30	6000	1334	1900
011483	N2XS(F)2Y 01X150/25	RMv	15	0,124	3,4	468	405	21,4	465	2,5	31	7500	1723	2300

p/n	part name		D <sub>l</sub> [mm]	R <sub>l</sub> [Ω/km]	W <sub>i</sub> [mm]	I <sub>bl</sub> [A]	I <sub>be</sub> [A]	I <sub>k</sub> [kA]	R <sub>bv</sub> [mm]	W <sub>m</sub> [mm]	D <sub>A</sub> [mm]	F <sub>ZV</sub> [N]	Cu [kg/km]	G [kg/km]
011484	N2XS(F)2Y 01X185/25	RMv	16,8	0,0991	3,4	535	456	26,5	495	2,5	33	9250	2059	2650
011485	N2XS(F)2Y 01X240/25	RMv	19,2	0,0754	3,4	631	526	34,3	525	2,5	35	12000	2587	3250
013271	N2XS(F)2Y 01X240/25	RMv	19,2	0,0754	3,4	631	526	34,3	525	2,5	35	12000	2587	3250
011486	N2XS(F)2Y 01X300/25	RMv	21,6	0,0601	3,4	722	591	42,9	555	2,5	37	15000	3163	3850
011487	N2XS(F)2Y 01X400/35	RMv	24,6	0,047	3,4	827	662	57,2	615	2,5	41	20000	4234	4800
011488	N2XS(F)2Y 01X500/35	RMv	27,6	0,0366	3,4	949	744	71,5	660	2,5	44	25000	5194	5900
012224	N2XS(F)2Y 01X630/35	RMv	32,5	0,0283	3,4	1090	820	90,1	735	2,5	49	31500	6442	7014
014387	N2XS(F)2Y 1X800/35	RMv	37,6	0,0221	3,4			114,4		2,5	57	40000	8094	8800

The current rating in air I<sub>bl</sub> refers to an ambient temperature of 30 °C, a load factor of 1,0 and threefold bunching. The current rating in ground I<sub>be</sub> refers to ground temperature of 20 °C, a load factor of 0,7 and threefold bunching.

Table: Technical characteristics N2XS(F)2Y 12/20 kV

p/n	part name		D <sub>l</sub> [mm]	R <sub>l</sub> [Ω/km]	W <sub>i</sub> [mm]	I <sub>bl</sub> [A]	I <sub>be</sub> [A]	I <sub>k</sub> [kA]	R <sub>bv</sub> [mm]	W <sub>m</sub> [mm]	D <sub>A</sub> [mm]	F <sub>ZV</sub> [N]	Cu [kg/km]	G [kg/km]
011546	N2XS(F)2Y 1X35/16	RM	7,5	0,524	5,5	200	189	5	420	2,5	28	1750	518	1300
011489	N2XS(F)2Y 1X50/16	RMv	8,6	0,387	5,5	239	222	7,15	435	2,5	29	2500	662	1350
011490	N2XS(F)2Y 1X70/16	RMv	10,2	0,268	5,5	297	271	10	465	2,5	31	3500	854	1600
011317	N2XS(F)2Y 1X95/16	RMv	12	0,193	5,5	361	323	13,6	480	2,5	32	4750	1094	1900
011491	N2XS(F)2Y 1X120/16	RMv	13,5	0,153	5,5	416	367	17,2	510	2,5	34	6000	1334	2150
011492	N2XS(F)2Y 1X150/25	RMv	15	0,124	5,5	470	409	21,4	525	2,5	35	7500	1723	2500
011309	N2XS(F)2Y 1X185/25	RMv	16,8	0,0991	5,5	538	461	26,5	555	2,5	37	9250	2059	2900
011493	N2XS(F)2Y 1X240/25	RMv	19,2	0,0754	5,5	634	532	34,3	600	2,5	40	12000	2587	3500
011494	N2XS(F)2Y 1X300/25	RMv	21,6	0,0601	5,5	724	599	42,9	630	2,5	42	15000	3163	4150
011495	N2XS(F)2Y 1X400/35	RMv	24,6	0,047	5,5	829	671	57,2	675	2,5	45	20000	4234	5100
011496	N2XS(F)2Y 1X500/35	RMv	27,6	0,0366	5,5	953	754	71,5	720	2,5	48	25000	5194	6200
012225	N2XS(F)2Y 01X630/35	RMv	32,5	0,0283	5,5	1094	830	90,1	780	2,5	52	31500	6442	7365
013843	N2XS(F)2Y 1X800/35	RMv	37,6	0,0221	5,5					2,5	57	40000	8094	8800
014083	N2XS(F)2Y 1X1000/35	RMv								2,5	61	50000	9994	10900

The current rating in air I<sub>bl</sub> refers to an ambient temperature of 30 °C, a load factor of 1,0 and threefold bunching. The current rating in ground I<sub>be</sub> refers to ground temperature of 20 °C, a load factor of 0,7 and threefold bunching.

Table: Technical characteristics N2XS(F)2Y 18/30 kV

p/n	part name		D <sub>l</sub> [mm]	R <sub>l</sub> [Ω/km]	W <sub>i</sub> [mm]	I <sub>bl</sub> [A]	I <sub>be</sub> [A]	I <sub>k</sub> [kA]	R <sub>bv</sub> [mm]	W <sub>m</sub> [mm]	D <sub>A</sub> [mm]	F <sub>ZV</sub> [N]	Cu [kg/km]	G [kg/km]
011516	N2XS(F)2Y 01X50/16	RMv	8,6	0,387	8	241	225	7,15	510	2,5	34	2500	662	1650
011517	N2XS(F)2Y 01X70/16	RMv	10,2	0,268	8	299	274	10	540	2,5	36	3500	854	1900
011526	N2XS(F)2Y 01X95/16	RMv	12	0,193	8	363	327	13,6	555	2,5	37	4750	1094	2150
011519	N2XS(F)2Y 01X120/16	RMv	13,5	0,153	8	418	371	17,2	585	2,5	39	6000	1334	2450
011520	N2XS(F)2Y 01X150/25	RMv	15	0,124	8	472	414	21,4	600	2,5	40	7500	1723	2750
011521	N2XS(F)2Y 01X185/25	RMv	16,8	0,0991	8	539	466	26,5	630	2,5	42	9250	2059	3150
011972	N2XS(F)2Y 01X185/35	RMv	16,8	0,0991	8	539	466	26,5	630	2,5	42	9250	2175	2955
011522	N2XS(F)2Y 01X240/25	RMv	19,2	0,0754	8	635	539	34,3	660	2,5	44	12000	2587	3800
012216	N2XS(F)2Y 01X240/70	RMv	19,2	0,0754	8	539	539	34,3	660	2,5	44	12000	3084	3786
011523	N2XS(F)2Y 01X300/25	RMv	21,6	0,0601	8	725	606	42,9	705	2,5	47	15000	3163	4400
011524	N2XS(F)2Y 01X400/35	RMv	24,6	0,047	8	831	680	57,2	750	2,5	50	20000	4234	5450
011525	N2XS(F)2Y 01X500/35	RMv	27,6	0,0366	8	953	765	71,5	795	2,5	53	25000	5194	6550
012226	N2XS(F)2Y 01X630/35	RMv	32,5	0,0283	8	1094	841	90,1	870	2,5	58	31500	6442	7803
013743	N2XS(F)2Y 01X800/35 18/30 kV SW	RMv	37,6	0,0221	8	1250	890	114,4	930	2,5	62	40000	8094	9300
014084	N2XS(F)2Y 1X1000/35	RMv			8					2,5	67	50000	9994	11400

The current rating in air I<sub>bl</sub> refers to an ambient temperature of 30 °C, a load factor of 1,0 and threefold bunching. The current rating in ground I<sub>be</sub> refers to ground temperature of 20 °C, a load factor of 0,7 and threefold bunching.

DI	Conductor diameter
RI	Conductor resistance
Wi	Insulation wall thickness
Ibl	Ampacity in air (30 °C)
Ibe	Ampacity in ground (20 °C)
Ik	Short-circuit current (1 s)
Rbv	Bending radius, fixed installation
Wm	Wall thickness of sheath
DA	Outer diameter approx.
Fzv	Tensile strength (during installation)
Cu	Copper weight (GER)
G	weight