

N2XY XLPE/PVC Cable



Application

These power and fixed wiring cables are used for electricity supply in low voltage installation systems.

They are well adapted to underground use in industrial applications with an additional mechanical protection. These cables can be fixed on cable trays, within conduits or fixed to walls.

Standards

IEC 60502-1, VDE 0276-603, IEC/EN 60228

Flame retardant according to IEC/EN 60332-1-2

Characteristics

Voltage Rating U_o/U
0.6/1kV

Temperature Rating
During installation -5°C to +50°C
Fixed Installation: -20°C to +90°C

Minimum Bending Radius
Fixed: 12 x overall diameter



Construction

Conductor

RE: Class 1 solid copper conductor
RM: Class 2 stranded circular or circular compacted
SM: Class 2 stranded sectoral shaped

Insulation

XLPE (Cross-Linked Polyethylene)

Bedding

PVC (Polyvinyl Chloride)

Sheath

PVC (Polyvinyl Chloride)

Sheath Colour

Black



Dimensions

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR TYPE	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
1	16	RM	0.7	1.8	9.8	216
1	25	RM	0.9	1.8	11.5	318
1	35	RM	0.9	1.8	12.6	415
1	50	RM	1	1.8	14.1	543
1	70	RM	1.1	1.8	15.6	746
1	95	RM	1.1	1.8	17.6	1000
1	120	RM	1.2	1.8	19.2	1239
1	150	RM	1.4	1.8	21.2	1515
1	185	RM	1.6	1.8	23.1	1872
1	240	RM	1.7	1.8	25.8	2403
1	300	RM	1.8	1.8	27.8	2974
1	400	RM	2	1.9	31.1	3834
1	500	RM	2.2	2	34.9	4892
1	630	RM	2.8	2.8	46.6	6544
2	1.5	RE	0.7	1.8	10.1	145
2	2.5	RE	0.7	1.8	10.9	179
2	4	RE	0.7	1.8	11.8	226
2	6	RE	0.7	1.8	12.8	284
2	6	RM	0.7	1.8	13.1	295
2	10	RM	0.7	1.8	15	416
2	16	RM	0.7	1.8	17	581
2	25	RM	0.9	1.8	20.4	859
2	35	RM	0.9	1.8	22.5	1109
3	1.5	RE	0.7	1.8	10.5	162
3	2.5	RE	0.7	1.8	11.4	205
3	4	RE	0.7	1.8	12.4	265
3	6	RE	0.7	1.8	13.4	338
3	10	RM	0.7	1.8	15.8	505
3	16	RM	0.7	1.8	18	719
3	25	RM	0.9	1.8	21.6	1072
3	35	RM	0.9	1.8	23.9	1403
3	50	SM	1	1.9	23.8	1581
3	16/10	SM	0.7	1.8	19.8	875.5
3	25/16	SM	0.9/0.7	1.8	22.4	1223
3	35/16	SM	0.9/0.7	1.8	24.3	1557
3	50/25	SM	1/0.9	1.9	26.9	1863
3	70/35	SM	1.1/0.9	2	30	2594
3	95/50	SM	1.1/1	2.2	33.8	3505
3	120/70	SM	1.2/1.1	2.3	37	4440
3	150/70	SM	1.4/1.1	2.4	41.6	5333
3	185/95	SM	1.6/1.1	2.6	45.8	6701
3	240/120	SM	1.7/1.2	2.8	51.6	8674
3	300/150	SM	1.8/1.4	3	67.2	10624
4	1.5	RE	0.7	1.8	11.3	188
4	2.5	RE	0.7	1.8	12.2	240
4	4	RE	0.7	1.8	13.3	314

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR TYPE	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
4	6	RE	0.7	1.8	14.5	408
4	10	RE	0.7	1.8	17.1	615
4	16	RE	0.7	1.8	19.6	885
4	25	RE	0.9	1.8	23.7	1330
4	35	RE	0.9	1.8	26.2	1758
4	50	SM	1	2	27.1	2082
4	70	SM	1.1	2.1	31.4	2937
4	95	SM	1.1	2.2	35	3955
4	120	SM	1.2	2.4	39.3	4979
4	150	SM	1.4	2.6	43.6	6129
4	185	SM	1.6	2.7	48	7591
4	240	SM	1.7	2.9	53.9	9875
4	300	SM	1.8	2.6	68.9	15124
5	1.5	RE	0.7	1.8	12.1	218
5	2.5	RE	0.7	1.8	13.1	281
5	4	RE	0.7	1.8	14.3	372
5	6	RE	0.7	1.8	15.6	486
5	10	RM	0.7	1.8	18.6	740
5	16	RM	0.7	1.8	21.3	1071
5	25	RM	0.9	1.8	25.9	1619
5	35	RM	0.9	1.8	28.8	2138
5	50	RM	1	2.1	29.4	2578
5	70	RM	1.1	2.2	33.7	3616
5	95	RM	1.1	2.4	38.6	4933
5	120	RM	1.2	2.5	42.6	6153
5	150	RM	1.4	2.7	47.7	7587
5	185	RM	1.6	2.9	52.8	9454
5	240	RM	1.7	3.1	58.7	12242
7	1.5	RE	0.7	1.8	12.9	260
7	2.5	RE	0.7	1.8	14	342
7	4	RE	0.7	1.8	15.4	461
10	1.5	RE	0.7	1.8	15.6	357
10	2.5	RE	0.7	1.8	17.2	475
10	4	RE	0.7	1.8	19	646
12	1.5	RE	0.7	1.8	16.1	394
12	2.5	RE	0.7	1.8	17.6	528
14	1.5	RE	0.7	1.8	16.8	436
14	2.5	RE	0.7	1.8	18.5	592
16	4	RM	0.7	1.8	23	971
19	1.5	RE	0.7	1.8	18.4	543
19	2.5	RE	0.7	1.8	20.3	746
24	1.5	RE	0.7	1.8	21.2	675
24	2.5	RE	0.7	1.8	23.4	931
30	1.5	RE	0.7	1.8	22.3	788
30	2.5	RM	0.7	1.8	26.3	1164
40	1.5	RE	0.7	1.8	24.6	995
40	2.5	RE	0.7	1.9	27.5	1416

Conductors

Class 1 Solid Conductors for Single-Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km	
	Circular, Annealed Copper Conductors	
	Plain	
0.5	36	
0.75	24.5	
1	18.1	
1.5	12.1	
2.5	7.41	
4	4.61	
6	3.08	

Class 2 Stranded Conductors for Single-Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm ²	MINIMUM NO. OF WIRES IN THE CONDUCTOR		MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular	Circular Compacted	
	Cu	Cu	
4	7	6	4.51
6	7	6	3.08
10	7	6	1.83
16	7	6	1.15
25	7	6	0.727
35	7	6	0.524
50	19	6	0.387
70	19	12	0.268
95	19	15	0.193
120	37	18	0.153
150	37	18	0.124
185	37	30	0.0991
240	37	34	0.0754
300	61	34	0.0601
400	61	53	0.0470
500	61	53	0.0366

Electrical Characteristics

Current Carrying Capacity at 30°C

NOMINAL CROSS SECTIONAL AREA mm ²	SINGLE CORE				2 - 40 CORE Amps	
	In Ground		In Air		In Ground	In Air
	Flat	Trefoil	Flat	Trefoil		
1.5	-	-	-	-	31	24
2.5	-	-	-	-	40	32
4	82	54	57	44	52	42
6	102	67	72	56	64	53
10	136	89	99	77	86	74
16	176	115	131	102	112	98
25	229	148	177	138	145	133
35	275	177	217	170	174	162
50	326	209	265	207	206	197
70	400	256	336	263	254	250
95	480	307	415	325	305	308
120	548	349	485	380	348	359
150	616	393	557	437	392	412
185	698	445	646	507	444	475
240	815	517	774	604	517	564
300	927	663	901	697	585	649
400	1064	749	1060	811	-	-
500	1227	843	1252	940	-	-

De-Rating Factors

For Ground Temperatures other than 20°C

AIR TEMPERATURE	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
DE-RATING FACTOR	1.07	1.04	1.00	0.96	0.93	0.89	0.85	0.80	0.76

For Air Temperatures other than 30°C

AIR TEMPERATURE	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
DE-RATING FACTOR	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.