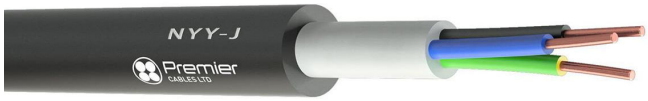
NYY-J PVC 0.6/1kV Power Cable



Application

Power and control cable for fixed installation.

Can be used indoors, outdoors, underground, in concrete and in water.

Standards

IEC 60502-1

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

Characteristics

Voltage Rating Uo/U
0.6/1kV

Temperature Rating
Fixed: -15°C to +70°C
Flexed: -5°C to +50°C

Minimum Bending Radius
Fixed: 12 x overall diameter

Construction

Conductor
RE: Class 1 solid copper conductor
RM: Class 2 stranded copper conductor

Insulation
PVC (Polyvinyl Chloride)

Filler
PVC (Polyvinyl Chloride)

Sheath
PVC (Polyvinyl Chloride)

Sheath Colour
Black

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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	2.5	RE	0.8	1.4	6.15	62
1	4	RE	1	1.4	7.5	85
1	6	RE	1	1.4	7.5	108
1	10	RM	1	1.4	8.6	155
1	16	RM	1	1.4	9.6	218
1	25	RM	1.2	1.4	11.1	318
1	35	RM	1.2	1.4	12.1	414
1	50	RM	1.4	1.4	13.7	552
1	70	RM	1.4	1.4	15.5	750
1	95	RM	1.6	1.5	17.6	1020
1	120	RM	1.6	1.6	19.3	1259
1	150	RM	1.8	1.6	21	1546
1	185	RM	2	1.7	23.2	1913
1	240	RM	2.2	1.8	26.2	2471
1	300	RM	2.4	2	29.2	3097
2	1.5	RE	0.8	1.8	10	147
2	2.5	RE	0.8	1.8	10.7	179
2	4	RM	1	1.8	13	268
2	6	RM	1	1.8	14.2	337
2	10	RM	1	1.8	16.2	472
2	16	RM	1	1.8	18.2	644
3	1.5	RE	0.8	1.8	10.4	166
3	2.5	RE	0.8	1.8	11.3	212
3	4	RE	1	1.8	13.1	299
3	6	RM	1	1.8	15	402
3	10	RM	1	1.8	17.1	570
3	16	RM	1	1.8	19.2	789
3	25	RM	1.2	1.8	22.1	1141
3	35	RM	1.2	1.8	24.1	1462
3	50	RM	1.4	1.8	27.6	1964
3	70	RM	1.6	2.1	36.3	3635
3	95	RM	1.6	2.2	40	4488
4	1.5	RE	0.8	1.8	11.6	198
4	2.5	RE	0.8	1.8	12.1	252
4	4	RM	1	1.8	15.1	391
4	6	RM	1	1.8	16.5	465
4	10	RM	1	1.8	18.6	702
4	16	RM	1	1.8	21.1	992
4	25	RM	1.2	1.8	24.2	1431
4	35	RM	1.2	1.8	26.6	1861
4	50	RM	1.4	1.9	30.9	2535
4	70	RM	1.4	2.1	35.1	3441
4	95	RM	1.6	2.2	40.4	4691
4	120	RM	1.6	2.4	44.2	5757
4	150	RM	1.8	2.5	48.5	7095
4	185	RM	2	2.7	53.9	8810
4	240	RM	2.2	2.9	61.1	11400

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NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR TYPE	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
5	1.5	RE	10.8	1.8	12	232
5	2.5	RE	0.8	1.8	13.1	302
5	4	RM	1	1.8	16.6	477
5	6	RM	1	1.8	18.2	618
5	10	RM	1	1.8	20.3	853
5	16	RM	1	1.8	23.1	1212
5	25	RM	0.8	1.8	26.6	280
7	1.5	RE	1	1.8	16.6	477
7	2.5	RE	0.8	1.8	14.1	368
12	1.5	RE	0.8	1.8	16.6	475
12	2.5	RE	0.8	1.8	18.2	628
14	1.5	RE	0.8	1.8	17.1	515
19	1.5	RE	0.8	1.8	18.9	648
19	2.5	RE	0.8	1.8	20.3	843
27	1.5	RE	0.8	1.8	22.6	895

Conductors

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

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular, Annealed Copper Conductor
	Plain Wires
1.5	12.1
2.5	7.41
4	4.61
6	3.08
10	1.83
16	1.15
25	0.727
35	0.524
50	0.387
70	0.268
95	0.193
120	0.153
150	0.124
185	0.101
240	0.0775
300	0.062

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

NOMINAL CROSS SECTIONAL AREA mm²	MINIMUM NO. OF WIRES IN CONDUCTOR						MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain wires ohms/km
1.5	7	-	6	-	-	-	12.1
2.5	7	-	6	-	-	-	7.41
4	7	-	6	-	-	-	4.61
6	7	-	6	-	-	-	3.08
10	7	7	6	6	-	-	1.83
16	7	7	6	6	-	-	1.15
25	7	7	6	6	6	6	0.727
35	7	7	6	6	6	6	0.524
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754
300	61	61	34	30	34	30	0.0601

The above table is in accordance with EN 60228

Electrical Characteristics

Current Carrying Capacity

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm2	CONDUCTOR TYPE	CURRENT CARRYING CAPACITY Amps	
			In Duct	In Air
1	2.5	RE	-	26
1	4	RE	-	57
1	6	RE	-	57
1	10	RM	-	78
1	16	RM	127	103
1	25	RM	163	137
1	35	RM	195	169
1	50	RM	230	206
1	70	RM	282	261
1	95	RM	336	321
1	120	RM	382	374
1	150	RM	428	428
1	185	RM	483	414
1	240	RM	561	590
1	300	RM	632	678
2	1.5	RE	32	20
2	2.5	RE	42	27
2	4	RM	54	37
2	6	RM	68	48
2	10	RM	90	66
2	16	RM	116	89
3	1.5	RE	26	18

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm2	CONDUCTOR TYPE	CURRENT CARRYING CAPACITY Amps	
			In Duct	In Air
3	2.5	RE	34	25
3	4	RE	44	34
3	4	RM	44	34
3	6	RE	56	43
3	6	RM	56	43
3	10	RM	75	60
3	16	RM	98	80
3	25	RM	128	106
3	35	RM	157	131
3	50	RM	185	159
3	95	RM	275	244
3	120	RM	313	282
4	1.5	RE	26	18
4	2.5	RE	34	25
4	4	RE	44	34
4	4	RM	44	34
4	6	RE	56	43
4	6	RM	56	43
4	10	RM	75	60
4	16	RM	98	80
4	25	RM	128	106
4	35	RM	157	131
4	50	RM	185	159
4	70	RM	252	247
4	95	RM	303	305
4	120	RM	313	282
4	150	RM	390	407
4	185	RM	399	371
4	240	RM	464	436
5	1.5	RE	24	18
5	2.5	RE	34	25
5	4	RE	44	34
5	4	RM	44	34
5	6	RE	56	43
5	6	RM	56	43
5	10	RM	75	60
5	16	RM	98	80
5	25	RM	128	106
7	1.5	RE	15	12
7	2.5	RE	20	16
12	1.5	RE	12	9
12	2.5	RE	16	13
14	1.5	RE	12	9
19	1.5	RE	10	8
19	2.5	RE	13.6	11.3
27	1.5	RE	12	9

Ambient Temperature: 30°C
Depth of Laying: 0.5m
Ground Temperature: 15°C
Thermal Resistivity of Soil: 12km/w

De-Rating Factors

For Air Temperature other than 30°C

AIR TEMPERATURE	20°C	25°C	30°C	35°C	40°C	45°C	50°C
DE-RATING FACTOR	1.12	1.07	1.00	0.94	0.87	0.79	0.71