

# NYY-J/O 0.6/1kV Power Cable

IEC 60502-1  
BS EN/IEC 60332-1-2



## Application

Power and Control Cable, suitable for use both internally or externally.  
Primarily designed for fixed external wiring for energy supply.

Suitable for direct burial.

## Construction

Conductor	RE: Class1 solid copper conductor RM: Class 2 stranded copper conductor
Insulation	PVC Polyvinyl Chloride
Bedding	PVC Polyvinyl Chloride
Sheath	PVC Polyvinyl Chloride
Voltage Rating (Uo/U)	600/1000V
Temperature Rating Fixed:	-15°C to +70°C
Temperature Rating Flexing	-5°C to +50°C
Minimum Bending Radius	Fixed: 12 x overall diameter
Core Identification	Up to 5 cores: colour coded or number coded 7 core & above number coded

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29001X002.5	1	2.5	RE	0.8	6.2	62
29001X004	1	4	RE	1.0	7.5	85
29001X006	1	6	RE	1.0	7.5	108
29001X010	1	10	RM	1.0	8.6	155
29001X016	1	16	RM	1.0	9.6	218
29001X025	1	25	RM	1.2	11.1	318
29001X035	1	35	RM	1.2	12.1	414
29001X050	1	50	RM	1.4	13.7	552
29001X070	1	70	RM	1.4	15.5	750
29001X095	1	95	RM	1.6	17.6	1020
29001X120	1	120	RM	1.6	19.3	1259
29001X150	1	150	RM	1.8	21.0	1546
29001X185	1	185	RM	2.0	23.2	1913
29001X240	1	240	RM	2.2	26.2	2471
29001X300	1	300	RM	2.4	29.2	3097

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29002X001.5	2	1.5	RE	0.8	10.0	147
29002X002.5	2	2.5	RE	0.8	10.7	179
29002X004	2	4	RM	1.0	13.0	268
29002X006	2	6	RM	1.0	14.2	337
29002X010	2	10	RM	1.0	16.2	472
29002X016	2	16	RM	1.0	18.2	644

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29003X001.5	3	1.5	RE	0.8	10.4	166
29003X002.5	3	2.5	RE	0.8	11.3	212
29003X004	3	4	RE	1.0	13.1	299
29003X004	3	4	RM	1.0	13.8	318
29003X004	3	3	RE	1.0	14.2	380
29003X006	3	6	RM	1.0	15.0	402
29003X010	3	10	RM	1.0	17.1	570
29003X016	3	16	RM	1.0	19.2	789
29003X025	3	25	RM	1.2	22.1	1141
29003X035	3	35	RM	1.2	24.1	1462
29003X050	3	50	RM	1.4	27.6	1964
29003X070	3	70	RM	1.6	36.3	3635
29003X095	3	95	RM	1.6	40.0	4488

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29004X001.5	4	1.5	RE	0.8	11.6	198
29004X002.5	4	2.5	RE	0.8	12.1	252
29004X004	4	4	RE	1.0	14.0	355
29004X004	4	4	RM	1.0	15.1	391
29004X006	4	6	RE	1.0	15.4	465
29004X006	4	6	RM	1.0	16.5	501
29004X010	4	10	RM	1.0	18.6	702
29004X016	4	16	RM	1.0	21.1	992
29004X025	4	25	RM	1.0	24.2	1431
29004X035	4	35	RM	1.2	26.6	1861
29004X050	4	50	RM	1.2	30.9	2535
29004X070	4	70	RM	1.4	35.1	3441
29004X095	4	95	RM	1.6	40.4	4691
29004X120	4	120	RM	1.6	44.2	5757
29004X150	4	150	RM	1.8	48.5	7095
29004X185	4	185	RM	2.0	53.9	8810
29004X240	4	240	RM	2.2	61.1	11400

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29005X001.5	5	1.5	RE	0.8	12.0	232
29005X002.5	5	2.5	RE	0.8	13.1	302
29005X004	5	4	RE	1.0	15.2	428
29005X004	5	4	RM	1	16.6	477
29005X006	5	6	RE	1	16.5	551
29005X006	5	6	RM	1.0	18.2	618
29005X010	5	10	RM	1.0	20.3	853
29005X016	5	16	RM	1.0	23.1	1212
29005X025	5	25	RM	1.2	26.6	1759

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29007X001.5	7	1.5	RE	0.8	12.9	280
29007X002.5	7	2.5	RE	0.8	14.1	368

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29012X001.5	12	1.5	RE	0.8	16.6	475
29012X002.5	12	2.5	RE	0.8	18.2	628

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29019X001.5	19	1.5	RE	0.8	18.9	648
29019X002.5	19	2.5	RE	0.8	20.3	843

Premier Part No	No of Cores	Nominal Cross Section mm <sup>2</sup>	Conductor Type	Nominal Insulation Thickness mm <sup>2</sup>	Nominal Diameter Overall mm <sup>2</sup>	Nominal Weight kg/km
29027X001.5	27	1.5	RE	0.8	22.6	895

### Class 1 solid conductors for single and multi-core cable

Nominal Cross Section mm <sup>2</sup>	Max. Resistance of Conductor at 20°C ohms/km
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	0.077
300	0.062

## Class 2 Stranded Conductors for single & multi-core Cables

Nominal Cross Section mm <sup>2</sup>	Min. No. of Wires in Conductor			Max. Resistance of Conductor at 20°C ohms/km
	Circular	Compacted	Shaped	
1.5	7	6		12.1
2.5	7	6		7.41
4	7	6		4.61
6	7	6		3.08
10	7	6		1.83
16	7	6		1.15
25	7	6	6	0.727
35	7	6	6	0.524
50	19	6	6	0.387
70	19	12	12	0.268
95	19	15	15	0.193
120	37	18	18	0.153
150	37	18	18	0.124
185	37	30	30	0.101
240	37	34	34	0.077
300	61	34	34	0.062

The above table is in accordance with BS EN 60228

## Current Carrying Capacity

No of Cores	Nominal Cross sect. mm <sup>2</sup>	Conductor Type	Current Carrying Capacity	
			In Duct mm <sup>2</sup>	In Air mm <sup>2</sup>
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

### Current Carrying Capacity

No of Cores	Nominal Cross sect. mm <sup>2</sup>	Conductor Type	Current Carrying Capacity	
			In Duct mm <sup>2</sup>	In Air mm <sup>2</sup>
3	1.5	RE	26	18
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	70	RM	252	244
3	95	RM	275	247
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	371
4	185	RM	399	407
4	240	RM	464	436
5	1.5	RE	24	18
5	2.5	RE	34	25
5	4	RM	44	34
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
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 temp. 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

The information contained within this data sheet is for guidance only.  
Cable and gland sizes are nominal and may vary according to different manufacturer's tolerances.  
Every possible effort is made to ensure that the Information contained in this data sheet is correct.  
However, we reserve the right to change the information or specification at any time in the light of technical developments or revisions.  
References to or extracts from British Standards, current IEE regulations or other regulatory bodies should be verified with these organisations.