SUPERLEC DIRECT
ELECTRICAL SUPPLIES SINCE 1981

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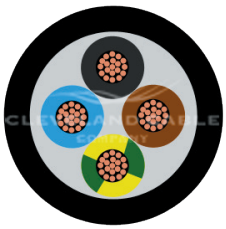
NYY - NON ARMOURED PVC MAINS AND CONTROL CABLE



APPLICATION

Unarmoured power and control cable is most suited for energy supply in fixed installations. NYY Cable can be installed indoors where there is little chance of mechanical damage. Cables can be fixed on cable trays, within conduits or fixed to walls. This cable is not suitable for direct burial.

CABLE STANDARDS

IEC60502-1

VDE 0276-603

CONSTRUCTION

Conductor:
Up to 6mm^2 Class 1 solid copper conductor
above 10mm^2 Class 2 stranded copper conductor

Insulation: PVC (Poly Vinyl Chloride)

Filler: PVC (Poly Vinyl Chloride)

Sheath: PVC (Poly Vinyl Chloride)

CHARACTERISTICS

Voltage Rating: 600/1000 Volts

Temperature Limits: -30°C to +70°C

Minimum Bending Radius: As per cable manufacturer datasheet

CORE IDENTIFICATION

1 Core: Green/Yellow
2 Core: Brown Blue
3 Core: Brown Blue Green/Yellow
4 Core: Brown Black Blue Green/Yellow
5 Core: Brown Black Grey Blue Green/Yellow

Should not be installed at temperatures below 0°C

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NYY MAINS AND CONTROL CABLE - CABLE DIMENSIONS

CCC CODE	CONDUCTOR SIZE (MM^2)	STRANDING (MM)	NO. OF CORES	WEIGHT (KG/KM)	OVERALL DIAMETER (MM)	GLAND SIZE (MM)	NYLON CLEAT SIZE
NYY2X1/5	1.5	1/1.38	2	157	10.5	20s	0.5
NYY3X1/5	1.5	1/1.38	3	190	11	20	0.5
NYY4X1/5	1.5	1/1.38	4	220	11.8	20	0.5
NYY5X1/5	1.5	1/1.38	5	270	12.8	20	0.6
NYY7X1/5	1.5	1/1.38	7	299	13.7	25	0.6
NYY12X1/5	1.5	1/1.38	12	400	17.5	25	0.7
NYY2X2/5	2.5	1/1.78	2	193	11.3	20	0.5
NYY3X2/5	2.5	1/1.78	3	240	11.9	20	0.5
NYY4X2/5	2.5	1/1.78	4	290	12.8	20	0.6
NYY5X2/5	2.5	1/1.78	5	350	13.9	25	0.6
NYY7X2/5	2.5	1/1.78	7	388	14.9	25	0.6
NYY2X4	4	1/2.25	2	267	13	20	0.6
NYY3X4	4	1/2.25	3	330	13.7	25	0.6
NYY4X4	4	1/2.25	4	400	14.8	25	0.6
NYY5X4	4	1/2.25	5	480	16.3	25	0.7
NYY2X6	6	1/2.76	2	329	14	25	0.6
NYY3X6	6	1/2.76	3	420	14.8	25	0.6
NYY4X6	6	1/2.76	4	510	16	25	0.7
NYY5X6	6	1/2.76	5	600	17.6	25	0.7
NYY1X10	10	1/3/56	1	170	15.8	25	0.7
NYY2x10	10	1/3.56	2	498	16.6	25	0.7
NYY3x10	10	1/3.56	3	580	17.8	25	0.8
NYY4x10	10	1/3.56	4	751	19.3	32	0.8
NYY5x10	10	1/3.56	5	910	21.2	32	0.9
NYY2x16	16	1/4.51	2	684	18.8	25	0.8
NYY3x16	16	1/4.51	3	800	20.2	32	0.9
NYY4x16	16	1/4.51	4	1057	22	32	0.9
NYY5x16	16	1/4.51	5	1257	24.2	32	1

NYY MAINS AND CONTROL CABLE – VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA (MM^2)	TWO CORE CABLE DC mV/A/m	TWO CORE CABLE SINGLE PHASE AC mV/A/m	THREE OR FOUR CORE CABLE THREE PHASE AC mV/A/m
1.5	31	31	27
2.5	19	19	16
4	12	12	10
6	7.9	7.9	6.8
10	4.7	4.7	4
16	2.9	2.9	2.5

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NYY MAINS AND CONTROL CABLE - CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA (MM^2)	SINGLE CORE CABLE		2 CORE CABLE		3 & 4 CORE CABLE		5CORE CABLE	
	LAID IN FREE AIR	ENCLOSED	LAID IN FREE AIR	ENCLOSED	LAID IN FREE AIR	ENCLOSED	LAID IN FREE AIR	ENCLOSED
1.5	-	-	20	32	18	26	18	24
2.5	26	-	27	42	25	34	25	34
4	57	-	37	54	34	44	34	44
6	67	-	48	68	43	56	43	56
10	78		66	90	60	75	60	75
16	103	127	89	116	80	98	80	98
25	137	163	-	-	106	128	106	128
35	169	195	-	-	131	157	-	-
50	206	230	-	-	159	185	-	-
70	261	282	-	-	247	252	-	-
95	321	382	-	-	305	303	-	-
120	374	428	-	-	282	313	-	-
150	428	561	-	-	407	390	-	-
185	414	632	-	-	371	399	-	-
240	590	561	-	-	436	464	-	-
300	678	632	-	-	-	-	-	-

MAINS AND CONTROL CABLE - GENERAL CONDUCTOR PROPERTIES

NOMINAL CROSS SECTION AREA MM^2	MAX RESISTANCE (Ω/Km) OF CLASS 1 SOLID CONDUCTOR AT 20 °C	MINIMUM NUMBER OF WIRES IN CLASS 2 CONDUCTOR						MAX RESISTANCE (Ω/Km) OF CLASS 2 COPPER CONDUCTOR AT 20 °C	MAX RESISTANCE (Ω/Km) OF CLASS 2 ALUMINIUM CONDUCTOR AT 20 0C
		CIRCULAR		COMPACTED CIRCULAR		SECTOR SHAPED			
		Cu	Al	Cu	Al	Cu	Al		
1.5	12.1	7		6				12.1	-
2.5	7.41	7	-	6	-	-	-	7.41	-
4	4.61	7	-	6	-	-	-	4.61	-
6	3.08	7	-	6	-	-	-	3.08	-
10	1.83	7	7	6	6	-	-	1.83	3.08
16	1.15	7	7	6	6	-	-	1.15	1.91
25	0.727	7	7	6	6	6	6	0.727	1.2
35	0.524	7	7	6	6	6	6	0.524	0.868
50	0.387	19	19	6	6	6	6	0.387	0.641
70	0.268	19	19	12	12	12	12	0.268	0.443
95	0.193	19	19	15	15	15	15	0.193	0.32
120	0.153	37	37	18	15	18	15	0.153	0.253
150	0.124	37	37	18	15	18	15	0.124	0.206
185	0.101	37	37	30	30	30	30	0.0991	0.164
240	0.0775	37	37	34	30	34	30	0.0754	0.125
300	0.062	61	61	34	30	34	30	0.0601	0.1