

NYRaY / NAYRaY or YRaY / AYRaY

Single Core (Cu or Al/PVC/AWA/PVC)

APPLICATION

Power cables for energy supply are installed in open air, in underground, in water, indoors, in cable ducts, power stations for industry and distribution boards as well as in subscriber networks, where mechanical damages are not to be expected.

STANDARD

IEC 60502-1
VDE 0271/3.69 & DIN VDE 0276-603

VOLTAGE GRADE

U₀/U (Um) : 0.6/1.0 (1.2) kV
Permissible Service Voltage: 0.72/1.2 kV

COLOR

Insulated core : ■ (Black)
Sheath : ■ (Black or Other Colors available on request)

CONSTRUCTION

Conductor: Stranded Circular/ Compacted, Plain annealed Copper or Aluminium, Class-2 to IEC 60228

Insulation: PVC, PVC/A to IEC 60502-1

Inner covering: PVC, ST-1 to IEC 60502-1

Armour: Round Aluminium wire to IEC 60502-1

Sheath: PVC, ST-1 to IEC 60502-1



LOW VOLTAGE

PHYSICAL DATA

Nominal cross sectional area of conductor	Shape of Conductor	No. of strands & diameter of wire Cu/Al	Nominal thickness of insulation	Nominal diameter of round aluminium wire armour	Nominal thickness of sheath	Approx. Overall diameter	Approx. weight of cable	
							Cu	Al
Core x mm ²	-	nos./mm	mm	mm	mm	mm	kg/km	kg/km
1 x 35	rmc	min. 6	1.2	1.25	1.8	17.3	615	290
1 x 50	rmc	min. 6	1.4	1.25	1.8	19.3	770	370
1 x 70	rmc	min. 12	1.4	1.25	1.8	20.8	1000	455
1 x 95	rmc	min. 15	1.6	1.25	1.8	23.3	1265	570
1 x 120	rmc	min. 18/15	1.6	1.6	1.8	25.5	1575	680
1 x 150	rmc	min. 18/15	1.8	1.6	1.8	27.5	1915	800
1 x 185	rmc	min. 30	2.0	1.6	1.8	29.5	2325	950
1 x 240	rmc	min. 34/30	2.2	1.6	1.9	32.3	2920	1195
1 x 300	rmc	min. 34/30	2.4	2.0	2.0	36.0	3620	1485
1 x 400	rmc	min. 53	2.6	2.0	2.1	40.1	4675	1873
1 x 500	rmc	min. 53	2.8	2.0	2.2	43.6	5725	2270
1 x 630	rmc	min. 53	2.8	2.0	2.4	47.2	7025	2760
1 x 800	rmc	min. 53	2.8	2.5	2.5	54.4	8920	3465
1 x 1000	rmc	min. 53	3.0	2.5	2.7	59.3	11020	4250

ELECTRICAL DATA

Nominal cross sectional area of conductor	Shape of Conductor	Max. D.C resistance of conductor at 20 °C		Current Carrying Capacity in Ground at 30 °C				Current Carrying Capacity in Air at 35 °C			
				Copper		Aluminium		Copper		Aluminium	
		Copper	Aluminium	Direct laid	In duct	Direct laid	In duct	Open	In pipes	Open	In pipes
Core x mm ²	-	W/km	W/km	amp	amp	amp	amp	amp	amp	amp	amp
1 x 35	rmc	0.524	0.868	155	119	120	93	160	114	124	87
1 x 50	rmc	0.387	0.641	185	144	144	114	195	138	152	105
1 x 70	rmc	0.268	0.443	225	175	175	138	245	171	191	130
1 x 95	rmc	0.193	0.320	270	211	210	167	300	204	233	153
1 x 120	rmc	0.153	0.253	310	243	240	191	350	242	272	184
1 x 150	rmc	0.124	0.206	350	275	270	216	405	280	314	212
1 x 185	rmc	0.0991	0.164	390	306	302	241	460	320	358	243
1 x 240	rmc	0.0754	0.125	450	351	349	276	555	386	431	292
1 x 300	rmc	0.0601	0.100	515	402	386	307	640	448	448	304
1 x 400	rmc	0.0470	0.0778	585	453	439	345	770	546	540	374
1 x 500	rmc	0.0366	0.0605	680	526	510	400	900	643	630	441
1 x 630	rmc	0.0283	0.0469	800	615	600	467	1030	740	721	508
1 x 800	rmc	0.0221	0.0367	945	724	708	549	1160	836	812	575
1 x 1000	rmc	0.0176	0.0291	1095	835	821	632	1310	949	917	654

Current ratings are valid for cables laid under defined conditions at page no. 165. For current ratings at deviated conditions, apply correction factor as given on page no. 165-17