

CABLES

Type: NYY 0.6/1 kV

Document No.: 08-100-R1

Sheet: 1 of 1

German Cathodic Protection



Conductors: Plain annealed copper conductors
 Insulation: PVC (Polyvinylchloride)
 Sheath/Jacket: PVC (Polyvinylchloride)
 Colour: Black
 Operating temperature: Maximum 70°C
 Short circuit temperature: Maximum 160°C
 Types: O - without protective earth conductor
 J - with protective earth conductor
 Standard: VDE0271 / IEC60502



Core identification:

RE - Circular solid conductor
 RM - Circular stranded conductor

Core colour code NYY-J

3 cores (green-yellow, black, blue)
 4 cores (green-yellow, black, blue, brown)
 5 cores (green-yellow, black, blue, brown, black)

Core colour code NYY-O

1 core (black)
 2 cores (black, blue)
 3 cores (black, blue, brown)
 4 cores (black, blue, brown, black)
 5 cores (black, blue, brown, black, black)

Voltage rating:

Cables are classified by the rated voltages U_0/U .

U_0 is the voltage between the conductor and earth or earthed metallic cover (concentric conductor screen, armouring, metal sheath).

U is the voltage between the phase conductors.

Cables are insulated against voltage stress in three-phase systems, the rated voltage $U=1$ kV being laid down in accordance with the VDE Standard voltage insulation levels (1,6,10, 20 kV).

The rated voltage U_0 , by which the conductor insulation to earth is measured, is calculated from the equation
 $U_0 = U / 1.73$

The standard, rounded-off rated voltages employed in three-phase systems in compliance with VDE and IEC are accordingly :
 $U_0/U = 0.6/1; 3.6/6; 6/10; 12/20$ kV

The maximum continuous permissible operating voltage (U_m) during undisturbed operation in DC systems is 1.8 kV for cables in which $U_0=0.6$ kV

In single and three-phase systems the following maximum continuous permissible operating voltages (U_m) apply:

$U_0 = 0.6$ kV

$U_m = 1.2$ kV in three-phase systems

$U_m = 1.4$ kV in single-phase systems both conductors insulated.

$U_m = 0.7$ kV in single-phase systems one conductor earthed.

CORES x CROSS SECTIONAL AREA	SHEATH		RESISTANCE		WEIGHT	NOMINAL DELIVERY LENGTH
	THICKNESS	OUTER DIAMETER	DC 20° C	INDUCTIVE PER CORE AT 50 Hz		
mm ²	mm	mm	Ohm/km	Ohm/km	kg/km	m
1 x 10 RE	1.8	12	1.830	-	190	2 000
1 x 16 RE	1.8	13	1.150	0.254	260	2 000
1 x 25 RM	1.8	15	0.727	0.240	390	1 000
1 x 35 RM	1.8	16	0.524	0.228	490	1 000
1 x 50 RM	1.8	18	0.387	0.219	640	1 000
1 x 70 RM	1.8	19	0.268	0.210	850	1 000
1 x 95 RM	1.8	21	0.193	0.203	1 150	1 000
1 x 120 RM	1.8	23	0.153	0.196	1 400	1 000
1 x 150 RM	1.8	26	0.124	0.192	1 700	1 000
1 x 185 RM	1.8	28	0.099	0.184	2 100	1 000
2 x 1.5 RE	1.8	11	12.10	0.108	175	1 000
2 x 2.5 RE	1.8	13	7.410	0.104	230	1 000
2 x 4 RE	1.8	14	4.610	0.100	295	1 000
2 x 6 RE	1.8	15	3.080	0.094	360	1 000
2 x 10 RE	1.8	17	1.830	0.088	480	1 000
2 x 16 RE	1.8	19	1.150	0.083	650	1 000
3 x 1.5 RE	1.8	12	12.10	0.108	200	1 000
3 x 2.5 RE	1.8	13	7.410	0.104	260	1 000
3 x 4 RE	1.8	15	4.610	0.100	345	1 000
3 x 6 RE	1.8	16	3.080	0.094	425	1 000
3 x 10 RE	1.8	19	1.830	0.088	580	1 000
3 x 25 RM	1.8	24	0.727	0.080	1 270	1 000
4 x 1.5 RE	1.8	13	12.10	0.115	235	1 000
4 x 2.5 RE	1.8	14	7.410	0.110	310	1 000
4 x 4 RE	1.8	16	4.610	0.107	410	1 000
4 x 6 RE	1.8	17	3.080	0.100	520	1 000
4 x 10 RE	1.8	19	1.830	0.094	710	1 000
4 x 16 RE	1.8	22	1.150	0.090	1 020	1 000
4 x 25 RM	1.8	27	0.727	0.086	1 590	1 000
4 x 35 RM	1.8	29	0.524	0.083	1 650	1 000
4 x 50 RM	1.9	33	0.387	0.083	2 200	1 000
4 x 70 RM	2.1	37	0.268	0.082	3 000	1 000
5 x 1.5 RE	1.8	14	12.10	0.115	350	1 500
5 x 2.5 RE	1.8	15	7.410	0.110	450	1 000
5 x 4 RE	1.8	17	4.610	0.107	600	1 000
5 x 6 RE	1.8	20	3.080	0.100	750	1 000
5 x 10 RE	1.8	22	1.830	0.094	1 000	1 000
5 x 16 RE	1.8	24	1.150	0.090	1 400	1 000
5 x 25 RM	1.8	30	0.727	0.086	2 100	1 000
5 x 35 RM	1.9	34	0.524	0.083	2 750	1 000