

Power & Control Cable

IEC 60502-1

(Multicores)

U₀/U 0.6/1 kV

PVC-Insulation, PVC-Sheath

YY-fl

Application

For electricity supply and control in public networks and industrial plants; suitable for use in zone 1 and zone 2 group II classified areas (IEC 60079-14).

Recommended for direct burial. For indoor and outdoor installation in dry and wet locations, on racks, in conduits

Construction

Conductor plain annealed copper, class 1 or class 2 resp., acc. to IEC 60228,
 ≤ 35 mm²: circular solid (RE) or circular stranded (RM),
 > 35 mm²: sector-shaped stranded (SM)

Insulation polyvinyl chloride PVC

Colour code ¹⁾ Two-core: blue, brown
 Three-core: brown, black, grey
 Four-core: blue, brown, black, grey

Laying up cores twisted in layers (if necessary with filling element(s))

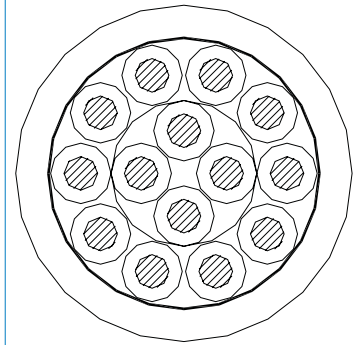
Wrapping at least 1 layer of plastic tape

Bedding extruded polyvinyl chloride PVC, black

Armour galvanized round steel wires

Outer Sheath extruded polyvinyl chloride PVC, black

Cable marking ELECTRIC CABLE 0.6/1 kV IEC 60502-1
 KERPEN, YEAR, LENGTH, MARKING



Technical Data

Abbreviations

Flame retardancy: IEC 60332-1
Flame propagation: IEC 60332-3 cat. A
Outer Sheath:
Amount of halogen acid gas: max. 17 %
 (IEC 60754-1)
Limiting Oxygen Index (LOI): min. 30 %
 (IEC 60332-3 ann. B)
Temperatur Index (TI): min. 300 °C
 (ASTM-D-2863)

Temperature range:
 -30 °C up to +70 °C
 (during operation)
 -5°C up to +50 °C
 (during installation)
 ≤ 300 mm²: max. +160 °C
 > 300 mm²: max. +140 °C
 (under short circuit)
Min. bending radius:
 8 x cable-Ø

Y insulation, bedding & outer sheath of PVC
R round steel wire armour
-fl reduced flame propagation

Electrical Data at 20 °C

	Character	Unit	Values
Conductor resistance	max.	Ω/km	acc. to IEC 60228
Test voltage U_{rms} core: core		V	3500
Test voltage U_{rms} core: armour		V	3500
Nominal voltage U₀ /U		V	600 / 1000
Highest system voltage U_m	max.	V	1200 (for three phase systems)

For further electrical details see appendix

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(multicores)						U ₀ /U 0.6/1 kV	
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YY-fl							
Geometrical Data							
No. of cores and cross-section			Radial thickness of insulation	Radial thickness of outer sheath	Overall diameter	Weight of cable	Part number
(nom.) n / mm ²			(nom.) mm	(nom.) mm	(approx.) mm	(approx.) kg / km	
5 x 1.5 RE	0.8	1.8	11.9	190	20230045		
7 x 1.5 RE	0.8	1.8	12.8	230	20230046		
10 x 1.5 RE	0.8	1.8	15.7	330	20230047		
12 x 1.5 RE	0.8	1.8	16.2	360	20230048		
19 x 1.5 RE	0.8	1.8	18.7	510	20230049		
27 x 1.5 RE	0.8	1.8	22.2	700	20230050		
37 x 1.5 RE	0.8	1.8	24.8	920	20230051		
48 x 1.5 RE	0.8	1.9	28.3	1160	20230052		
5 x 1.5 RM	0.8	1.8	12.4	210	20230053		
7 x 1.5 RM	0.8	1.8	13.4	270	20230000		
10 x 1.5 RM	0.8	1.8	16.6	360	20230009		
12 x 1.5 RM	0.8	1.8	17.1	380	20230054		
19 x 1.5 RM	0.8	1.8	19.9	540	20230055		
27 x 1.5 RM	0.8	1.8	23.6	740	20230056		
37 x 1.5 RM	0.8	1.8	26.3	970	20230057		
48 x 1.5 RM	0.8	1.9	30.1	1230	20230058		
5 x 2.5 RE	0.8	1.8	13.0	260	20230059		
7 x 2.5 RE	0.8	1.8	14.0	320	20230060		
10 x 2.5 RE	0.8	1.8	17.2	420	20230061		
12 x 2.5 RE	0.8	1.8	17.8	490	20230062		
19 x 2.5 RE	0.8	1.8	20.8	710	20230063		
27 x 2.5 RE	0.8	1.8	24.6	970	20230064		
37 x 2.5 RE	0.8	1.9	27.4	1270	20230065		
48 x 2.5 RE	0.8	2.0	31.7	1650	20230066		
5 x 2.5 RM	0.8	1.8	13.6	270	20230067		
7 x 2.5 RM	0.8	1.8	14.7	330	20230068		
10 x 2.5 RM	0.8	1.8	18.2	440	20230069		
12 x 2.5 RM	0.8	1.8	18.8	520	20230070		
19 x 2.5 RM	0.8	1.8	22.0	810	20230031		
27 x 2.5 RM	0.8	1.8	26.1	1030	20230071		
37 x 2.5 RM	0.8	1.9	29.5	1370	20230072		
48 x 2.5 RM	0.8	2.0	33.8	1750	20230073		

RE: circular solid • RM: circular stranded • SM: sector shaped stranded