

Power & Control Cable

IEC 60502-1

(2-, 3-, 4- and 5-cores)

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 or and outdoor installation in dry and wet locations, on racks, in conduits. (Local and / or legal requirements to be noted)

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)¹⁾

Insulation polyvinyl chloride PVC

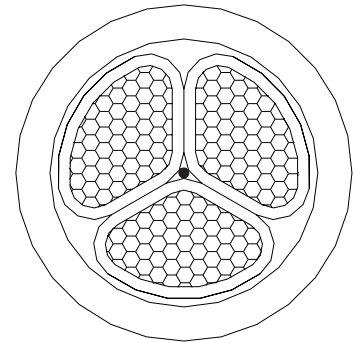
Colour code²⁾ 2-core: blue, brown
 3-core: brown, black, grey
 4-core: blue, brown, black, grey
 5-core: blue, brown, black, grey, black

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

Inner Covering extruded filler of regenerated rubber

Outer Sheath extruded polyvinyl chloride PVC, black

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



Technical Data

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)
Temperature 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

Abbreviations

Y insulation & outer sheath of PVC
-fl reduced flame propagation

Electrical Data at 20 °C

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

¹⁾ 5core cables only with circular conductors
²⁾ other colours on request

for further details see appendix

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Geometrical Data						
No. of cores and cross-section (nom.) n / mm ²	Radial thickness of insulation (nom.) mm	Radial thickness of outer sheath (nom.) mm	Overall diameter (approx.) mm	Weight of cable (approx.) kg / km	Part number	
2 x 1.5 RE	0.8	1.8	10.1	150	20230251	
2 x 1.5 RM	0.8	1.8	10.6	160	20230003	
2 x 2.5 RE	0.8	1.8	10.9	190	20230252	
2 x 2.5 RM	0.8	1.8	11.4	200	20230253	
2 x 4 RE	1.0	1.8	12.7	260	20230254	
2 x 4 RM	1.0	1.8	13.4	290	20230255	
2 x 6 RE	1.0	1.8	13.7	320	20230256	
2 x 6 RM	1.0	1.8	14.4	350	20230257	
2 x 10 RE	1.0	1.8	15.2	430	20230258	
2 x 10 RM	1.0	1.8	16.3	480	20230259	
2 x 16 RE	1.0	1.8	17.1	600	20230260	
2 x 16 RM	1.0	1.8	18.5	660	20230261	
2 x 25 RM	1.2	1.8	21.4	920	-	
2 x 35 RM	1.2	1.8	23.6	1020	-	
2 x 50 SM	1.4	1.8	23.1	1320	20230264	
2 x 70 SM	1.4	1.9	26.3	1730	20230265	
2 x 95 SM	1.6	2.0	30.0	2360	20230266	
2 x 120 SM	1.6	2.1	31.9	2850	20230267	
2 x 150 SM	1.8	2.2	35.3	3480	20230268	
2 x 185 SM	2.0	2.4	39.7	4340	20230269	
2 x 240 SM	2.2	2.6	44.6	5600	20230270	
2 x 300 SM	2.4	2.7	51.7	7200	20230013	
3 x 1.5 RE	0.8	1.8	10.6	170	20230271	
3 x 1.5 RM	0.8	1.8	11.1	190	20230272	
3 x 2.5 RE	0.8	1.8	11.5	220	20230273	
3 x 2.5 RM	0.8	1.8	12.0	230	20230274	
3 x 4 RE	1.0	1.8	13.3	300	20230275	
3 x 4 RM	1.0	1.8	14.1	310	20230276	
3 x 6 RE	1.0	1.8	14.4	390	20230277	
3 x 6 RM	1.0	1.8	15.2	410	20230278	
3 x 10 RE	1.0	1.8	16.1	540	20230279	
3 x 10 RM	1.0	1.8	17.2	580	20230280	
3 x 16 RE	1.0	1.8	18.2	750	20230281	
3 x 16 RM	1.0	1.8	19.6	820	20230282	
3 x 25 RM	1.2	1.8				

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

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No. of cores and cross-section (nom.) n / mm ²	Radial thickness of insulation (nom.) mm	Radial thickness of outer sheath (nom.) mm	Overall diameter (approx.) mm	Weight of cable (approx.) kg / km	Part number
3 x 35 RM	1.2	1.8			
3 x 50 SM	1.4	1.8	26.8	1870	20230285
3 x 70 SM	1.4	2.0	30.2	2510	20230286
3 x 95 SM	1.6	2.1	33.7	3410	20230287
3 x 120 SM	1.6	2.2	36.2	4080	20230288
3 x 150 SM	1.8	2.3	40.3	5010	20230289
3 x 185 SM	2.0	2.5	45.8	6290	20230290
3 x 240 SM	2.2	2.7	51.8	8170	20230291
3 x 300 SM	2.4	2.8	59.4	10460	20230292
3 x 400 SM	2.6	3.1	66.5	13260	20230293
4 x 1.5 RE	0.8	1.8	11.4	190	20230294
4 x 1.5 RM	0.8	1.8	11.9	200	20230295
4 x 2.5 RE	0.8	1.8	12.3	240	20230296
4 x 2.5 RM	0.8	1.8	12.9	250	20230297
4 x 4 RE	1.0	1.8	14.4	340	20230298
4 x 4 RM	1.0	1.8	15.3	370	20230299
4 x 6 RE	1.0	1.8	15.6	440	20230300
4 x 6 RM	1.0	1.8	16.5	470	20230301
4 x 10 RE	1.0	1.8	17.6	640	20230302
4 x 10 RM	1.0	1.8	19.0	680	20230303
4 x 16 RE	1.0	1.8	19.8	910	20230304
4 x 16 RM	1.0	1.8	21.4	980	20230305
4 x 25 RM	1.2	1.8	25.3	1530	-
4 x 35 RM	1.2	1.8	28.0	2000	-
4 x 50 SM	1.4	1.9	30.8	2400	20230308
4 x 70 SM	1.4	2.1	34.2	3210	20230309
4 x 95 SM	1.6	2.2	38.4	4440	20230310
4 x 120 SM	1.6	2.3	41.6	5390	20230311
4 x 150 SM	1.8	2.5	46.0	6620	20230312
4 x 185 SM	2.0	2.7	50.4	8240	20230313
4 x 240 SM	2.2	2.9	59.0	10770	20230314
4 x 300 SM	2.4	3.1	66.1	13780	20230315
4 x 400 SM	2.6	3.4	77.0	17580	20230316
5 x 4 RE	1.0	1.8	15.7	440	20230317
5 x 4 RM	1.0	1.8	16.6	470	20230318

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

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No. of cores and cross-section (nom.) n / mm ²	Radial thickness of insulation (nom.) mm	Radial thickness of outer sheath (nom.) mm	Overall diameter (approx.) mm	Weigth of cable (approx.) kg / km	Part number
5 x 6 RE	1.0	1.8	17.0	480	20230319
5 x 6 RM	1.0	1.8	17.9	550	20230320
5 x 10 RE	1.0	1.8	19.1	710	20230321
5 x 10 RM	1.0	1.8	20.4	780	20230322
5 x 16 RE	1.0	1.8	21.6	1080	20230323
5 x 16 RM	1.0	1.8	23.5	1160	20230324
5 x 25 RM	1.2	1.8	27.4	1750	20230325
5 x 35 RM	1.2	1.9	30.8	2260	20230326
5 x 50 RM	1.4	2.0	35.0	3010	20230327
5 x 70 RM	1.4	2.2	40.3	4180	20230328

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