

POWERFLEX® PLUS YMvKf

The universal cable for power transmission with improved fire proof properties.

BASED ON: HD 604-4-D / IEC 60502-1



APPLICATION

Powerflex® Plus YMvKf cable is suitable for all types of industrial low voltage connections, urban grids, building installations, etc. This cable is fire retardant and is recommended for use in public places and hazardous industries. Its flexibility makes installation substantially easier, making it highly suitable for difficult layouts. This cable can also be used in buried installations or in tubes or outdoors without requiring additional protection. This cable withstands damp conditions and even total submersion in water (AD7).

CONSTRUCTION

Conductor

Electrolytic copper, class 5 (flexible), based on EN 60228 and IEC 60228.

Insulation

Cross-linked polyethylene (XLPE). The standard identification of insulated conductors is the following:

1 x	Black
2 x	Blue + Brown
3 x	Blue + Brown + Grey
4 G	Brown + Black + Grey + Green/Yellow
5 G	Brown + Black + Grey + Blue + Green/Yellow

Outer sheath

Flexible PVC, grey colour.

CHARACTERISTICS

⚡ Electrical performance

Low voltage 0,6/1kV.

🌡 Thermal performance

Maximum service temperature: 90°C.

Maximum short-circuit temperature: 250°C (max. 5 s).

Minimum service temperature: -40°C (fixed and prot. installations)

🔥 Fire performance

Flame non-propagation based on EN 60332-1 and IEC 60332-1.

Fire non-propagation based on EN 60332-3 / IEC 60332-3 /

NBN C 30-004-F2 / EN 50399.

Reduced halogen emission. Chlorine <15%.

Reaction to fire CPR: C_{ca}-s2,d2,a3 according to 50575.

⤵ Mechanical performance

Minimum bending radius: x5 cable diameter.

Impact resistance: AG2 Medium severity.

🌍 Environmental performance

Chemical performance:

Chemical & Oil resistance: Acceptable..

UV resistant:

UV Resistant: UNE 211605.

Water resistance:

Water resistance: AD7 immersion.

🔦 Installation conditions

Open Air.

Buried.

In conduit.

STANDARDS / COMPLIANCE

📄 Based on

IEC 60502-1 / UNE 21123-2.

🔗 Standards and approvals

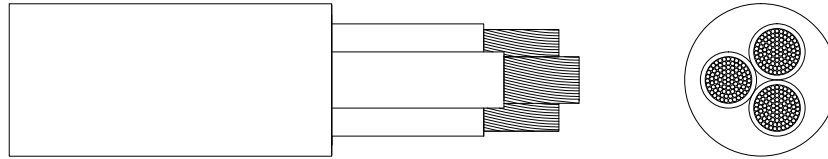
AENOR / BUREAU VERITAS / KEMA-KEUR / RoHS / CE.

🏗 CPR (Construction Products Regulation)

C_{ca}-s2,d2,a3.



DIMENSIONS & ADMISSIBLE INTENSITIES



Cross-section (mm ²)	Diameter (mm)	Weight (kg/km)	Open air 30°C (A)	Buried 20°C (A)	Voltage drop (V/A · km)
1 x 1,5	8,9	105	28	27	29,5
1 x 2,5	9,4	120	39	35	17,7
1 x 4	9,9	140	53	46	11
1 x 6	10,5	165	68	58	7,32
1 x 10	11,4	220	93	77	4,23
1 x 16	12,4	285	124	100	2,68
1 x 25	14,1	390	161	129	1,73
1 x 35	15	485	200	155	1,23
1 x 50	16,7	640	242	183	0,86
1 x 70	18,6	840	310	225	0,603
1 x 95	20,1	1.055	377	270	0,457
1 x 120	22,1	1.310	437	306	0,357
1 x 150	24,2	1.595	504	343	0,286
1 x 185	26,3	1.905	575	387	0,235
1 x 240	28,9	2.435	679	448	0,178
1 x 300	31,7	3.040	783	502	0,142
1 x 400	36	3.950	940	563	0,108
1 x 500	39,5	4.995	1.083	637	0,085
1 x 630	44,3	6.490	1.254	719	0,064
2 x 1,5	9,8	130	26	27	34
2 x 2,5	10,7	165	36	35	20,4
2 x 4	11,8	215	49	46	12,7
2 x 6	12,7	265	63	58	8,45
2 x 10	16,8	460	86	77	4,89
2 x 16	18,5	610	115	100	3,1
2 x 25	22	880	149	129	2
2 x 35	24,3	1.135	185	155	1,42
3 G 1,5	10,2	150	26	27	34
3 G 2,5	11,2	190	36	35	20,4
3 G 4	12,4	250	49	46	12,7
3 G 6	13,6	325	63	58	8,45
3 G 10	17,5	550	86	77	4,89
3 x 16	19,5	750	115	100	2,68
3 x 25	22,8	1.080	149	129	1,73
3 x 35	25,2	1.415	185	155	1,23
3 x 50	28,6	1.900	225	183	0,86
3 x 70	31,5	2.535	289	225	0,603
3 x 95	36,2	3.295	352	270	0,457
3 x 120	40,8	4.180	410	306	0,357
3 x 150	45,7	5.205	473	343	0,286
3 x 185	50,4	6.295	542	387	0,235
3 x 240	55,9	8.130	641	448	0,178
3 x 16 + 1 x 10	20,5	855	115	100	2,68
3 x 25 + 1 x 16	23,9	1.235	149	129	1,73
3 x 35 + 1 x 25	26,7	1.660	185	155	1,23
3 x 50 + 1 x 25	29,8	2.125	225	183	0,86
3 x 70 + 1 x 35	34,1	2.890	289	225	0,603
3 x 95 + 1 x 50	37,7	3.725	352	270	0,457
4 G 1,5	11	175	26	27	29,5

DIMENSIONS & ADMISSIBLE INTENSITIES

Cross-section (mm ²)	Diameter (mm)	Weight (kg/km)	Open air 30°C (A)	Buried 20°C (A)	Voltage drop (V/A · km)
4 G 2,5	11,9	225	36	35	17,7
4 G 4	13,4	300	49	46	11
4 G 6	14,7	390	63	58	7,32
4 G 10	18,9	660	86	77	4,23
4 G 16	21,2	920	115	100	2,68
4 G 25	24,6	1.330	149	129	1,73
4 G 35	26,8	1.740	185	155	1,23
4 G 50	31,8	2.395	225	183	0,86
4 G 70	36,4	3.265	289	225	0,603
4 G 95	39,7	4.170	352	270	0,457
4 G 120	45,4	5.330	410	306	0,357
4 G 150	50,7	6.635	473	343	0,286
4 G 185	56,1	8.055	542	387	0,235
4 G 240	62,7	10.445	641	448	0,178
4 x 35 + 1 G 25	29,6	2.040	185	155	1,23
4 x 50 + 1 G 25	33,5	2.665	225	183	0,86
4 x 70 + 1 G 35	38,6	3.645	289	225	0,603
4 x 95 + 1 G 50	42,6	4.705	352	270	0,457
5 G 1,5	11,8	205	26	27	29,5
5 G 2,5	13,1	265	36	35	17,7
5 G 4	14,5	355	49	46	11
5 G 6	16	465	63	58	7,32
5 G 10	20,4	785	86	77	4,23
5 G 16	23	1.105	115	100	2,68
5 G 25	27,3	1.630	149	129	1,73
5 G 35	29,7	2.135	185	155	1,23
5 G 50	34,7	2.905	225	183	0,86
5 G 70	39,6	3.975	289	225	0,603
5 G 95	44,7	5.160	352	270	0,457
5 G 120	49,7	6.514	410	306	0,357
5 G 150	55,9	8.120	473	343	0,286
5 G 185	62,5	9.875	542	387	0,235
5 G 240	69,8	12.830	641	448	0,178