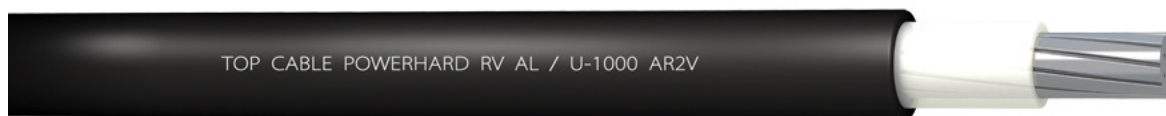


Aluminium cable for power transmission.

ACCORDING TO: UNE-HD 603-5N / XP C 32-321 / IEC 60502-1



E_{ca}

APPLICATION

Powerhard® RV AL/ U-1000 AR2V cable is suitable for all types of underground networks for public power distribution, as well as low voltage connexions in industrial plants, urban networks, buildings, etc. Due to its rigidity, its use is recommended in installations with a simple configuration where a flexible cable is not needed.

- Industrial use.
- Distribution network.

CONSTRUCTION

Conductor

Aluminium conductor, class 2 according to EN 60228 and IEC 60228.

Insulation







Cross-linked polyethylene insulation type DIX-3 according to HD 603, type XLPE according to IEC 60502-1 and compound insulation according to XP C 32-321. The standard identification of insulated conductors according to HD 308, is the following:

1 x	Natural
2 x	Blue + Brown
3 x	Brown + Black + Grey
3 x + 1 x	Brown + Black + Grey + Blue (reduced cross-section)
4 G	Brown + Black + Grey + Green/Yellow
4 x	Brown + Black + Grey + Blue

Outer sheath


Flexible PVC outer sheath, type DMV-18 according to HD 603, type ST2 according to IEC 60502-1 and compound outer sheath according to XP C 32-321. Black colour.

CHARACTERISTICS

-  **Electrical performance**
Low voltage: 0,6/1 kV.
-  **Thermal performance**
Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations).
-  **Fire performance**
Flame non-propagation according to EN 60332-1 and IEC 60332-1.
Reaction to fire CPR: E_{ca}, according to EN 50575.
Reduced halogen emission. Chlorine <15%.
-  **Mechanical performance**
Minimum bending radius: 5x cable diameter.
Impact resistance: AG2 Medium severity.
-  **Environmental performance**
Chemical & Oil resistance: Good.
UV Resistant according to UNE 211605 and XP-C 32-321.
Water resistance: AD8 Submersion.
-  **Installation conditions**
Open Air.
Buried.
In conduit.

STANDARDS / COMPLIANCE

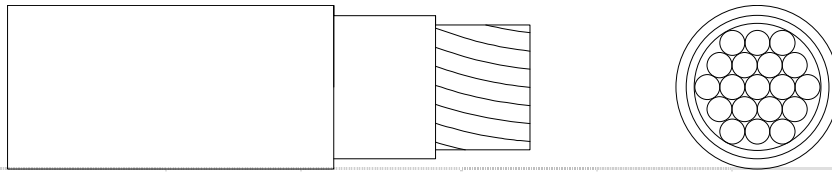
 **According to**
UNE-HD 603-5N / XP C 32-321 / IEC 60502-1.

 **Standards and approvals**
AENOR / NF-USE / RoHS / CE.

 **CPR (Construction Products Regulation)**
E_{ca}.



DIMENSIONS & ADMISSIBLE INTENSITIES



Cross section (mm ²)	Diameter (mm)	Weight (kg/km)	Open air (A) ¹	Buried (A) ²	Voltage drop (V/A · km) ³
1 x 16	8,5	95	92	76	4,894
1 x 25	10,5	145	121	98	3,075
1 x 35	11,2	170	150	117	2,224
1 x 50	12,9	225	184	139	1,642
1 x 70	14,6	290	237	170	1,135
1 x 95	16,3	395	289	204	0,820
1 x 120	17,7	465	337	233	0,648
1 x 150	19,9	590	389	261	0,527
1 x 185	21,5	700	447	296	0,420
1 x 240	24,8	930	530	343	0,320
1 x 300	26,6	1.080	613	386	0,256
1 x 400	30,0	1.395	740	448	0,199
1 x 500	34,1	1.740	856	505	0,155
1 x 630	38,4	2.225	996	572	0,120
3 x 70	30,6	1.255	211	170	1,135
3 x 95	33,0	1.555	257	204	0,820
3 x 120	37,3	1.980	300	233	0,648
3 x 1 x 120	38,1	1.410	296	174	0,648
3 x 150	40,7	2.385	346	261	0,527
3 x 1 x 150	42,8	1.790	342	195	0,527
3 x 150 + 1 x 70	43,7	2.685	346	261	0,527
3 x 185	45,2	2.945	397	296	0,420
3 x 240	51,2	3.800	470	343	0,320
3 x 300	56,4	4.590	543	386	0,256
3 x 300 + 1 x 150	59,4	5.030	543	386	0,256
4 x 35	25,2	840	135	117	2,224
4 x 50	28,6	1.075	164	139	1,642
4 x 95	36,9	1.915	257	204	0,820
4 x 120	41,2	2.390	300	233	0,648
4 x 1 x 120	42,7	1.880	296	174	0,648
4 x 150	45,3	2.935	346	261	0,527
4 x 185	50,5	3.830	397	296	0,420
4 x 240	57,2	4.950	470	343	0,320

¹ Reference method F for single-core and method E for multicore cables according to IEC 60364-5-52 in open air at 30°C ambient temperature.

² Reference method D2 according to IEC 60364-5-52. Directly buried at 0,7 m depth with soil thermal resistivity of 2,5 K·m/W and 20°C of ground temperature.

³ At maximum service temperature and cosφ=1.

For all cables is supposed a single-phase circuit.