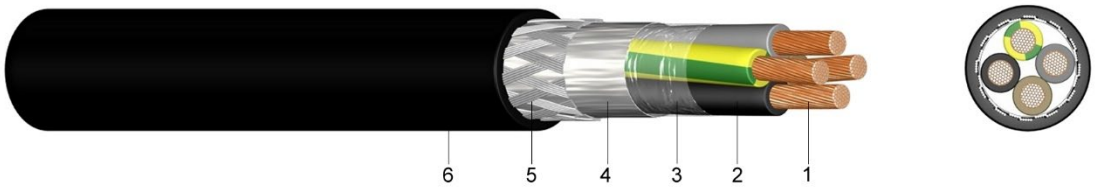
ROZ1-K C_{ca} – s1a, d1, a1

Motor control and power supply cable, 0,6/1 kV
+90 °C service temperature, optimised screen, low smoke, zero halogen, fire retardant, oil, UV and ozone resistant
IEC 60502-1, IEC 60092-353 and EN 50575

Application

Flexible zero halogen motor power supply cable with improved fire characteristics for frequency converter controlled AC drives in industries or wind turbines. This cable type, that incorporate a special screen and have a symmetrical distribution of the protective conductor (3x... + 3G...), are adequate for facilities where is necessary avoid the interferences of electromagnetic waves of high frequency of nearby circuits, as variation engines of speed. Zero halogen cables are suitable for installation in environments where smoke and toxic fumes may threaten life or valuable equipment. For fixed installation and occasional free flexing indoors in dry, damp and wet conditions, as well as outdoors for low mechanical stress. Underground installation is allowed provided that the cable is installed in a sufficiently drained tube (no water accumulation).

Construction



1. Conductor: Copper conductor, bare, flexible (class 5)
2. Insulation: XLPE
   Core identification: according to HD 308 S2
3. Separator: Plastic tape
   Multilayer screen, EMC optimised regarding to radio frequency interference field
4. Screen 1st layer: Laminated Alu/PETP tape
5. Screen 2nd layer: Copper wire braid, tinned
6. Outer sheath: Zero halogen compound, black

Technical information

Rated voltage	U_0/U	0,6/1 kV
Test voltage		4 kV
Max. permissible temperature at conductor		90 °C
Max. short circuit temperature of the conductor		250 °C (max, 5 sec)
Min. operating temperature	fixed installed	-30 °C
Min. bending radius mm	fixed installed	10 x outer diameter in mm

Safety parameters

Reaction to fire		EN 50399 C_{ca} - s1a, d1, a1
Flame spread	single cable	IEC 60332-1-2
	bunched cables	IEC 60332-3
Halogen free		IEC 60754
Smoke density		IEC 61034

Additional parameters

Oil resistant
UV resistant
Ozone resistant

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N° of cores and cross section mm²	Current rating open air A	Current rating buried A	Voltage drop V/A * km	Outer diameter approx. mm	Weight approx. kg/km
4 G 1,5	23	22	29,4	11,4	185
4 G 2,5	32	29	17,6	12,2	230
4 G 4	42	37	10,9	13,7	300
4 G 6	54	46	7,29	15,1	385
4 G 10	75	61	4,22	17,2	560
3 x 10 + 3 G 1,5	75	61	4,22	15,6	510
3 x 16 + 3 G 2,5	100	79	2,67	19,2	795
3 x 25 + 3 G 6	127	101	1,72	22,3	1145
3 x 35 + 3 G 6	158	122	1,22	24,9	1505
3 x 50 + 3 G 10	192	144	0,852	28,1	2055
3 x 70 + 3 G 10	246	178	0,601	31,6	2660
3 x 95 + 3 G 16	298	211	0,455	35,5	3465
3 x 120 + 3 G 16	346	240	0,356	39,4	4340
3 x 150 + 3 G 25	399	271	0,285	45,4	5490
3 x 185 + 3 G 35	456	304	0,234	49,0	6730
3 x 240 + 3 G 50	538	351	0,177	56,5	8815

Current-carrying capacities, in amperes, are calculated according to IEC 60364-5-523 and for the following conditions:

- Open air installation: one cable with adequate ventilation and ambient temperature of 30 °C, supported by cleats and hangers or on perforated tray (reference method E).
- Buried installation: one cable in a duct buried at depth of 0,7 m, with soil thermal resistivity of 2,5 °K·m/W, and 20 °C of ground temperature (reference method D).
- It is supposed a three-phase circuit.

Voltage drop is the maximum that may occur. It is calculated for the maximum service temperature and for cos φ= 1, supposed a three-phase circuit.

La version française de cette fiche technique est disponible sur demande.
De technische gegevens zijn op aanvraag in het Nederlands beschikbaar.

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