



ARISTONCAVI
R&D

TECHNICAL DATA SHEET

NSGAFÖU 3,3kV 110°C

Date: 05/03/2013

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CONSTRUCTION:

- Conductor: Tinned flexible copper, Class 5 according to IEC 60228, DIN VDE 0295 , AS/NZS 1125
- Insulation: special EPR compound, 3GI3 quality acc. to VDE 0207 part 20
- Sheath: 5GM3 quality rubber compound acc. to VDE 0207 Part 21

Colour: black

The cable is designed in accordance with DIN VDE 0250 Part 602 as far as applicable.

WORKING DATA

Rated voltage:	3,3 kV
Test voltage:	6 kV
Min. ambient temp.:	-25° C (mobile conditions)
	-35° C (static conditions)
Max operation temp.:	+110° C
Short circuit temp.:	250° C
Min. bending radius:	(4 × D) mm static conditions (*)
	(5 × D) mm mobile conditions (*)

(*) D = outer diameter

DESCRIPTION, APPLICATIONS AND INSTALLATION CONDITIONS

These cables find wide use in connecting the motors coils to the equipment terminals, standing all the severe conditions due to the following treatments (varnishing and high temperature drying). Their outstanding features against oils recommend their use also in wiring vehicles.

Thanks to their superior features of resistance against the oils and the abrasion, these cables do not require special cautions to be installed to connect motors and other electrical devices, partly in contact with greases and varnishes.



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Current-carrying capacity correction coefficients to meet changes in environments condition (rating factors for cables in air according to the Standard AS/NZS 3008.1.1 Table 27 as far as applicable) .

°C	25	30	35	40	45	50	55	60	65	70	75
Coefficient	1,10	1,07	1,04	1	0,96	0,93	0,89	0,85	0,80	0,76	0,71

CONSTRUCTION DATA

Cross section	Current carrying capacity in free air **	Short circuit current (t = 1s) ***	Nominal diameter of conductor	Conductor resistance at 20 °C (acc.to IEC 60228)	Minimum outer Ø	Maximum outer Ø	Approx weight
N ° x mm ²	[A]	[kA]	[mm]	[Ω/km]	[mm]	[mm]	[kg/km]
1 × 1,5	31	0,20	1,5	13,7	5,5	7	50
1 × 2,5	42	0,33	1,9	8,21	5,9	7,5	65
1 × 4	55	0,53	2,4	5,09	6,4	8	80
1 × 6	70	0,79	3	3,39	7	8,6	105
1 × 10	99	1,32	3,9	1,95	8,2	10	155
1 × 16	130	2,11	4,9	1,24	9,2	11,1	215
1 × 25	173	3,30	6	0,795	11,3	13,4	330
1 × 35	214	4,62	7,2	0,565	12,5	14,6	430
1 × 50	270	6,60	8,6	0,393	14,1	16,4	590
1 × 70	340	9,24	10,3	0,277	15,9	18,3	785
1 × 95	410	12,54	12,5	0,21	18,2	20,8	1030
1 × 120	487	15,84	14,2	0,164	19,6	22,4	1300
1 × 150	562	19,80	15,8	0,132	21,7	24,7	1560
1 × 185	644	24,42	17,5	0,108	23,6	26,7	1930
1 × 240	775	31,68	20,1	0,0817	26,3	29,7	2390
1 × 300	895	39,60	22,9	0,0654	29,3	32,9	3040
1 x 400	1079	52,80	25,9	0,0495	32,5	36,4	3960
1 x 500	1260	52,80	28,9	0,0391	36,5	40,7	5150

** (acc. to AS/NZS 3008.1.1 table 9) Current carrying in free air (at 40°C) for single core flexible cables spaced.

*** The formula to calculate these values is :

$$I_{\text{short circuit}} = \frac{(132 \times S)}{\sqrt{t}}$$

where: S = cross section (mm²)
t = time period of short circuit (s)