

**Electrodac**

## Airdac SNE & CNE Cable

House Service Connection Cable (600/1000V)



**CABLE  
YOU CAN  
TRUST**

181A Barbara Road, Elandsfontein  
PO Box 1679, Edenvale 1610  
Tel +27 (0)11 396 8000  
Fax +27 (0)11 396 8010  
[www.aberdare.co.za](http://www.aberdare.co.za)

**ABERDARE**  
CABLES

# Airdac SNE Cable

House Service Connection Cable with/without communication Cores  
(600/1000V)



## Cable Description

Circular stranded hard drawn copper phase conductor, XLPE insulated with concentrically arranged identified neutral and bare earth conductors. Polyethylene sheathed 600/1000V service connection cable. Nylon ripcord laid under sheath. Manufactured to SANS 1507-6.

- Small overall diameter - concentric construction (SNE - Seperate Neutral Earth).
- Lower mass - due to smaller diameter - no steel wire armour.
- Increased safety - reliable earthing.
- Improved reliability - UV stable sheath and core insulation and water blocked.
- Tamper and vandal proof - unauthorised access to phase conductor inhibited by concentric layer.
- Easy strip with nylon ripcord.

## Application Information

For the wiring of:

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## Properties

Specification	: SANS 1507-2
Temperature Range	: -10°C to 105°C
Voltage Rating	: 300/500V
Core Identification	: White, Yellow, Black, Brown, Red, Orange, Tan, Light Blue and White with a choice of either Yellow, Orange, Red, Black, Blue or Brown Stripes
Packaging	: 7000m lengths down coiled into cardboard barrels

# Airdac SNE Cable

House Service Connection Cable with/without communication Cores  
(600/1000V)



## Technical Data

### Electrical Properties

Product Code	Cable Size	Phase Conductor Resistance (dc @ 20°C)	Earth Size	Neutral Size	Phase Core Impedance (Z)	Current Rating *	Communication Cores (No. x OD) Solid
	(mm <sup>2</sup> )	(Ω/km)	(mm <sup>2</sup> )	(mm <sup>2</sup> )	(Ω/km)	(A)	(mm)
2 Core							
DWSN6.0H01ES02GR5	6	?	?	?	?	?	?
DWSN010H01ES01GD5	10	1,90	7,5	10	2,34	50	2 x 1,13
DWSN016H01ES01GD5	16	1,20	10	16	1,47	70	2 x 1,13

\* **Note:** - In air, with 30 °C ambient with maximum conductor temperature 90 °C

### Mechanical Properties

Product Code	Cable Size	Phase Conductor (No. x OD)	Nominal Insulation Thickness	Neutral Conductor (No. x OD)	Earth Conductor (No. x OD)	Nominal Sheath Thickness	Approximate Cable OD	Approximate Cable Mass
	(mm <sup>2</sup> )	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)
2 Core								
DNSN6.0H01ESBBGR5	6	?	?	?	?	?	?	
DNSN025H01ESBBGD5	25	1,90	7,5	10	2,34	50	2 x 1,13	
		1,20	10	16	1,47	70	2 x 1,13	

### Installation Data

Span (m)		10	20	30	40	50	Based on	
							UTS**	MWT***
SAG* (mm)	10 mm <sup>2</sup>	45	180	400	710	1110	3600	900
SAG* (mm)	16 mm <sup>2</sup>	40	170	380	670	1050	5760	1440

**Note:** \* Assuming worst conditions, i.e. - 5,5 °C with simultaneous wind speed of 31 m/s and measured at midspan.  
 \*\* UTS = Minimum ultimate tensile strength.  
 \*\*\* MWT = Minimum working tension.

# Airdac CNE Cable

House Service Connection Cable (600/1000V)



## Cable Description

Circular stranded hard-drawn copper phase conductor, XLPE insulated with concentrically arranged bare earth conductors. Polyethylene sheathed 600/1000 V house service connection cable. Nylon ripcord laid under sheath. Manufactured to SANS 1507-6.

- Small overall diameter - concentric construction
- Lower mass - due to smaller diameter - no steel wire armour
- Increased safety - reliable earthing
- Improved reliability - UV stable sheath and core insulation
- Tamper and vandal proof - unauthorised access to phase conductor inhibited by concentric layer
- Easy strip with nylon ripcord

## Application Information

For the wiring of:

- 

## Properties

Specification	: SANS 1507-2
Temperature Range	: -10°C to 105°C
Voltage Rating	: 300/500V
Core Identification	: White, Yellow, Black, Brown, Red, Orange, Tan, Light Blue and White with a choice of either Yellow, Orange, Red, Black, Blue or Brown Stripes
Packaging	: 7000m lengths down coiled into cardboard barrels





## Technical Data

### Electrical Properties

Product Code	DNCN4.0H01ESBBGR5	DNCN010H01ESBBGR5
<b>Cable Size (mm<sup>2</sup>)</b>	<b>4</b>	<b>10</b>
Phase Conductor Resistance (Ohm/km) DC @ 20 °C	4,80	1,90
Phase Core Impedance (Z) (Ohm/km)	5,88	2,34
Current Rating (A)*	30	50
Symmetrical Short Circuit Rating for 1s in kA	0,572	1,431

\* **Note:** - In air, with 30 °C ambient with maximum conductor temperature 90 °C

### Mechanical Properties

Cable Size (mm <sup>2</sup> )	4	10
Phase Conductor {No. x OD} (mm)	7 x 0,92	7 x 1,45
Nominal Insulation Thickness (mm)	1,0	1,0
Earth Size (mm <sup>2</sup> )	4	10
Earth Conductor {No. x OD} (mm)	8 x 0,85	18 x 0,85
Nominal Sheath Thickness (mm)	1,4	1,4
Approximate Cable OD (mm)	9,0	11,0
Approximate Cable Mass (kg/km)	121	249

### Installation Data

Span (m)		10	20	30	40	50	Based on	
							UTS**	MWT***
SAG* (mm)	4 mm <sup>2</sup>	40	165	370	650	1020	1480	370
SAG* (mm)	10 mm <sup>2</sup>	35	140	310	550	870	3600	900

**Note:** \* Assuming worst conditions, i.e. temperature -5,5°C with simultaneous wind speed of 31m/s and measured at midspan.  
 \*\* UTS = Minimum ultimate tensile strength. Safety factor of 2,5.  
 \*\*\* MWT = Minimum working tension.

# Low Voltage Product Range

Cable you can trust



## General Wires

- Slipdac Single Core Cable
- Single Core PVC 1kV Cable
- Single Core XLPE PVC 3,3kV Cable
- Surfix Cable
- Flat Twin and Earth Cable
- Cabtyre Cable
- Audio Cord (Ripcord)
- Submersible Pump Cable
- General Welding Cable
- Nitrile Trailing Cable
- Monster Cable
- HRQ Insulated Cable
- Illumination Cable
- Panel Flex Cable
- Nitrile Panel Flex Cable



## Bare Copper

- Bare Copper Wire



## Low Voltage Armoured Cables

- Bells & Mains Cable
- Multicore Cable
- Single Core Cable



## Electrodac

- Airdac SNE Cable
- Airdac CNE Cable
- Aerial Bundle Conductor (ABC) Cable



### Quality and reliability backed by Aberdare

All cable manufactured by Aberdare Cables are covered by warranty for a period of 3 years.  
Please review our Terms and Conditions of Sale for further details.

## **Notes**

Cable you can trust



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**Notice to the user of Electric Cable products manufactured by Aberdare Cables:**

- **“WARNING: Electrical equipment (including cable) and installations which form part of a facility, whether fixed, mobile or moveable are by nature inherently dangerous when energized with electrical power as contact with un-insulated or damaged components of such a facility may result in injury, loss of life and damage to property. Only qualified persons should attend to the installation of such electrical equipment, the maintenance thereof, and the repair of any faulty facilities which have an electrical component.”**
- Selection and Installation of the product must be carried out as per the applicable compulsory specifications by appropriately qualified persons and certified by a competent person so authorized by law prior to being put into service. All fixed electrical Low Voltage installations must have a valid Certificate of Compliance (COC)
- Low voltage electrical installations up to 600/1000V must conform to the compulsory specification SANS 10142-1 “The Wiring of Premises Part 1: Low voltage installations”
- SA Legislation determines that the User or Lessor is responsible for the safety of the electrical installation.
- All Medium Voltage installations above 1 kV must conform to the specification SANS 10198 “The Selection, Handling and installation of electric power cables of rating not exceeding 33 kV”; and where applicable SABS 10142-2 “The wiring of premises Part 2: Medium voltage installations above 1 kV a.c. and not exceeding 22kV a.c. and up to and including 3 000 kW installed capacity”.
- The following **Compulsory Safety Standards** are applicable to Electric Cables manufactured, imported and used in South Africa and no product may be used which does not comply to the applicable standard:
  - (VC 8075) SANS 1507: Electric Cables with solid dielectric insulation for fixed installations (300/500 V to 1900/3300 V)
  - (VC 8077) SANS 1339: Electric Cables Cross linked Polyethylene (XLPE) insulated cables for rated voltages 3,8/6,6 kV to 19/33 kV
  - (VC 8077) SANS 97: Electric Cables Impregnated paper insulated metal sheathed cables for rated voltages 3,3/3,3 kV to 19/33 kV
  - (VC8006) SANS 1574: Electric Flexible Cables with solid dielectric insulation.
- All cables manufactured to a compulsory safety standard must be clearly marked with the applicable SANS standard number as well as the Manufacturer's name.
- Aberdare Cables manufactures all Electric Cables made to Compulsory standards under the SABS Mark scheme. Products manufactured under the SABS mark scheme carries the wording “SABS” to show that the manufacturer is a licensed Mark Holder. The SABS Mark gives the user the assurance that the South African Bureau of Standards monitors the quality of the products which carries this mark and verifies the quality system used by Aberdare Cables to manufacture these products, on an ongoing basis.
- Compulsory specifications (VC's) may be downloaded for free from the SABS website [www.sabs.co.za](http://www.sabs.co.za).
- The user of electric cable products has the right to take up any issue of concern with the **National Regulator of Compulsory Specifications at +27(0)12 428 5000**

**POSSIBLE SPECIFICATION CHANGES:** Aberdare's policy of continuous product improvement may result in changes to the finished product, the parameters of which may differ from the published parameters in this brochure. Aberdare reserves the right to change product specifications from time to time to effect improvements and/or enhancements and accepts no liability arising from any differences between the published parameters of this brochure and the finished product, unless by prior written agreement.

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**ABERDARE GROUP OPERATIONS CENTRE**  
181A Barbara Road, Elandsfontein, Gauteng  
PO Box 1679, Edenvale 1610  
Tel +27 (0) 11 396 8000 Fax +27 (0)11 396 8010

**DISTRIBUTION & LOGISTICS**  
**Elandsfontein** Tel +27 (0)11 396 8000 Fax +27 (0)11 396 8015

**CUSTOMER SERVICE CENTRES**

<b>Bloemfontein</b>	Tel +27 (0)51 448 9226	Fax +27 (0)51 447 9078
<b>Cape Town</b>	Tel +27 (0)21 555-2919	Fax +27 (0)21 555 2950/2
<b>Durban</b>	Tel +27 (0)31 702 2861	Fax +27 (0)31 702 2959
<b>Gauteng</b>	Tel +27 (0)11 396 8000	Fax +27 (0)11 396 8012
<b>Middelburg</b>	Tel +27 (0)13 246 2511	Fax +27 (0)13 246 2144
<b>Nelspruit</b>	Tel +27 (0)13 758 1049	Fax +27 (0)13 758 1037
<b>Port Elizabeth</b>	Tel +27 (0)41 486 1536	Fax +27 (0)41 486 1010
<b>Welkom</b>	Tel +27 (0)57 355 3395/6	Fax +27 (0)57 355 3717

[www.aberdare.co.za](http://www.aberdare.co.za)

Technical / Product Application queries email: [helpdesk@aberdare.co.za](mailto:helpdesk@aberdare.co.za) call: +27 (0)11 396 8107



Electrical Accessories

