

Intermediate Voltage

Armadac®

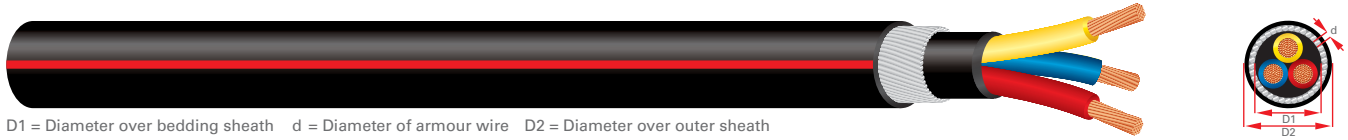
PVC PVC SWA PVC (FR) BLK/Red (1,9/3,3kV)



**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

ABERDARE
CABLES



D1 = Diameter over bedding sheath d = Diameter of armour wire D2 = Diameter over outer sheath

Cable Description

Electrical and physical properties of 3 core PVC insulated PVC bedded SWA PVC sheathed 1,9 / 3,3 kV cables with copper conductors and manufactured to SANS 1507-3.

Application Information

The cost effectiveness of transferring power over long distances through intermediate step-up step-down systems is desirable for the electrification of industrial and residential installations, including game lodges.

Armadac® consists of 3 circular stranded plain soft copper conductors, PVC insulated, PVC bedded, Steel Wire Armoured, PVC sheathed, 1,9/3,3 kV manufactured to SANS 1507-3. Applications where this cable can typically be used include, amongst others, residential installations, game lodges and general long distance electricity transfer applications at intermediate voltage.

Advantages of using an intermediate voltage cable over the conventional 400V 3-phase system offered by the increased voltage of 3,3 kV include the fact that volt drop will be considerably lower and small conductor sizes (10mm², 16mm² or 25mm²) will suffice for most applications. The Armadac® cable is steel wire armoured and provides a robust mechanical protection to the cable, hence it is suitable to be installed underground. Furthermore, Armadac® offers additional protection against attack by rodents and other animals as provided by the steel wire armoring. The steel wire armoring can also be utilized as an earth continuity path, therefore eliminating the need for an external earth conductor. Armadac® makes use of circular cores which limits electrical stress in the insulation and also incorporates a flame retardant PVC Sheath, which limits the spread of fire.

Properties

Specification	: SANS 1507-3
Temperature Range	: -10°C to 70°C
Voltage Rating	: 1900 / 3300V
Core Identification	: Red, Yellow, Blue
Packaging	: Available on 500 metre wooden drums

Technical Data

Electrical & Physical Properties

Product Code	Cable Size (mm ²)	Electrical Properties						Physical Properties			
		Current Rating *			Impe- dence (Z)	Volt Drop	1 Sec Short Circuit Rating	Nominal Diameters			Approx. Mass
		Ground	Ducts	Air				D1	d	D2	
		(A)	(A)	(A)	(Ω/km)	(mV/A/m)	(kA)	(mm)	(mm)	(mm)	(kg/km)
BMAR010C03GSBRGD5	10	68	58	60	2.34	2,2	1,4	20,7	1,6	227,3	1543
BLAR016C03GSBRGD5	16	91	76	81	1.47	1,4	2,2	22,8	1,6	29,6	1859
MCAR025C03GSBRGD5	25	113	95	103	0.93	0,9	3,4	24,9	1,6	31,7	2221

Note:	- Ambient air temperature at 30°C	- Recommended depth of lay 500mm. Soil thermal resistivity 1,2 km/W
	- Maximum conductor temperature at 70°C	- Soil temperature at 25°C
	- Under short circuit conditions a maximum conductor temperature of 250°C is allowed	- * In ground at 500mm depth

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.

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.
- 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.

Unauthorised duplication of this brochure by any means is strictly prohibited.

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

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

www.aberdare.co.za

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



Electrical Accessories

