



PROTON

Your Trusted Source For Safe And Reliable Cables



**Building wires | Multicore flexible cables | Submersible cables
HDBC | Power and Control armoured & unarmoured cables**



PROTON



TRUST THE BEST

Proton Electro-Cables

We're a manufacturing company dedicated to shape the future of cable industry . Founded in 2024, we're part of the Southern Africa Ferro Alloys Limited (SAFAL) group, a diversified conglomerate with expertise in :

- Manganese Mining
- Packaging Industry

Driven by innovation, we're making cable products better, faster, and more reliable.



PROTON

Our Story

Our organization began with a simple yet ambitious vision: to produce high-quality products that exceed customer expectations. Our state-of-the-art facility is equipped with cutting-edge technology, and our team is comprised of skilled professionals who share our passion for innovation and quality.

Our Mission :

Our mission is to become a leading manufacturer of electrical cables recognized for our:

- Unwavering commitment to quality and customer satisfaction
- Pioneering spirit and innovative solutions
- Sustainable practices and environmental responsibility
- Collaborative approach and strong partnerships

Our Values

- Quality: Uncompromising commitment to excellence
- Sustainability: Minimizing our environmental footprint
- **Customer Focus: Understanding and meeting customer needs**

Our Capabilities

- State-of-the-art manufacturing facility
- Advanced technology and equipment
- Skilled and experienced workforce
- Agile and responsive production processes
- Robust quality control and assurance



CERTIFICATION



ISO 9001 : 2015
Quality Management Systems

Certificate No.:
25RN01BM



UAF is member of International Accreditation Forum (IAF). Its membership status can be verified at www.iaf.nv. This Certificate remains the property of Royal Impact Certification Limited. Must be returned on request or if certificate is withdrawn. Validity of this certificate is subject to successful surveillance audits as per dates given above.



ISO 45001 : 2018
Occupational Health and Safety Management

Certificate No.
25RN01BO



CB-MS-2617
This certificate can be verified at www.iaforcentersearch.org



ISO 14001 : 2015
Environmental Management Systems

Certificate No
25RN01BN



This certificate can be verified at www.intellicertsearch.org



RoHS

Certificaat Nummer / Certificate No. : RSBV-2501-8212

Deane

RoHS
COMPLIANT
2015/863/EU



ISO/IEC 17025:2017

Certificaat Nummer / Certificate No. : RSBV-2501-8213

Deale

PGC-GFAC-1506-299



Certificaat Nummer / Certificate No. : RSBV-2501-8211

Deane

CE



Single Core Stranded & Solid Unsheathed Wiring Cables 600/1000V

Proton Electro-cable

Cable Description

High conductivity annealed stranded copper conductors to SANS 1411 Part 1.

Insulated with General Purpose PVC and Special Requirement PVC - HR,FR,& LSFR PVC.

Skin coloured in plain colours to SANS 1411 Part 2.

Cable is manufactured to SANS 1507 Part 2.

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Uniform Lay and diameter of copper wires making stripping and crimping easier and minimises losses.

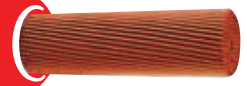
Insulation from Virgin PVC

Technical Data

No.of cores & Cross-sectional area of conductor	No. and nominal diameter of the strand	Nominal thickness of PVC insulation (mm)	Overall diameter of cable (mm) (Approx)	Conductor resistance at 20° C (Max) Ohm/km	Current Rating (Amp)
1 x 0.50	1/0.797	0.80	2.40	36.00	7
1 x 0.75	1/0.977	0.80	2.60	24.50	8
1 x 1.00	1/1.14	0.80	2.90	18.10	13
1 x 1.00	7/0.43	0.80	2.90	18.10	13
1 x 1.50	1/1.38	0.80	3.20	12.10	17
1 x 1.50	7/0.525	0.80	3.20	12.10	17
1 x 2.50	1/1.80	0.80	3.60	7.41	24
1 x 2.50	7/0.68	0.80	3.60	7.41	24
1 x 4.00	7/0.85	1.00	4.60	4.61	30
1 x 6.00	7/1.042	1.00	5.20	3.08	38
1 x 10.00	7/1.35	1.00	6.00	1.83	52
1 x 16.00	7/1.72	1.00	7.25	1.15	70

Single Core Flexible Unsheathed Wiring Cables 600/1000V

Proton Electro-cable



Cable Description

High conductivity Flexible Multi Stranded (Class 5) copper conductors to SANS 1411 Part 1.

Insulated with General Purpose PVC and Special Requirement PVC - HR,FR,& LSFR PVC.

Skin coloured in plain colours to SANS 1411 Part 2. Cable is manufactured to SANS:1574 Part 3

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Flexible MultiStranded (Class 5) copper conductor

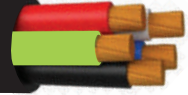
Flexible MultiStranded (Class 5) copper conductor

Technical Data

No.of cores & Crossectional Area of conductor	Maximum diameter of wires in conductor mm	Nominal Thickness of PVC insulation (mm)	Conductor resistance at 200 C (Max) Ohm/km	Current Rating (Amp)
1x0.5	0.21	0.80	39.000	7.0
1x0.75	0.21	0.80	26.000	8.0
1x1	0.21	0.80	19.500	13.0
1x1.5	0.26	0.80	13.300	17.0
1x2.5	0.26	1.00	7.980	24.0
1x4	0.31	1.00	4.950	30.0
1x6	0.31	1.00	3.300	38.0
1x10	0.41	1.00	1.910	52.0
1x16	0.41	1.00	1.210	70.0
1x25	0.41	1.20	0.780	88.0
1x35	0.41	1.20	0.554	110.0
1x50	0.41	1.40	0.386	145.0
1x70	0.51	1.40	0.272	215.0

Multi Core Flexible Cable For Industrial Use 600/1000V

Proton Electro-cable



Cable Description

High conductivity Flexible MultiStranded (Class 5) copper conductors to SANS 1411 Part 1. Insulated with PVC and skin coloured in plain colours to SANS 1411 Part 2. Cable is manufactured to SANS:1574 Part 3

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Flexible MultiStranded (Class 5) copper conductor

Insulation from Virgin PVC

Technical Data

Crossectional Area of conductor	Maximum diameter of wires in conductor (mm)	Nominal Thickness of PVC insulation (mm)	Nominal Thickness of PV sheath			Approx. overall diameter of cable (mm)			Conductor resistance at 20°C (Max) Ohm/km	Current Rating (Amp)
			2Core	3Core	4Core	2Core	3Core	4Core		
0.50	0.21	0.80	1.6	1.6	1.6	6.2	6.6	7	39	7
0.75	0.21	0.80	1.6	1.6	1.6	6.6	6.9	7.4	26	8
1.00	0.21	0.80	1.6	1.6	1.6	7.1	7.3	8	19.5	13
1.50	0.26	0.80	1.6	1.6	1.6	7.50	10.10	10.90	13.3	18
2.50	0.26	0.80	1.6	1.6	1.6	9.00	11.00	11.90	7.98	25
4.00	0.31	1.00	1.6	1.6	1.6	10.00	12.90	14.50	4.95	33
6.00	0.31	1.00	1.6	1.6	1.6	13.80	14.20	15.50	3.30	42
10.00	0.41	1.00	1.6	1.6	1.6	14.80	16.00	17.60	1.91	58
16.00	0.41	1.00	1.6	1.6	1.6	17.00	18.20	20.00	1.21	77
25.00	0.41	1.20	1.6	1.6	1.6	20.3	21.9	24.5	0.78	102
35.00	0.41	1.20	1.8	1.8	1.8	23.1	24.8	27.5	0.554	125
50.00	0.41	1.40	1.8	1.8	1.8	27.8	29.7	32.8	0.386	151
70.00	0.51	1.40	1.8	1.8	1.8	32.0	34.2	37.8	0.272	192

Multi Core Flexible Flat Cable For Industrial Use 600/1000V



Cable Description

High conductivity Flexible Multi iStranded (Class 5) copper conductors to SANS 1411 Part 1.

Insulated with PVC and skin coloured in plain colours to SANS 1411 Part 2.

Cable is manufactured to SANS:1574 Part 3

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Flexible MultiStranded (Class 5) copper conductor

Insulation from Virgin PVC

Technical Data

Crossectional Area of conductor	Maximum diameter of wires in conductor (mm)	Nominal Thickness of PVC insulation (mm)	Nominal Thickness of PV sheath			Approx. overall diameter of cable (mm)			Conductor resistance at 20°C (Max) Ohm/km	Current Rating (Amp)
			2Core	3Core	4Core	2Core	3Core	4Core		
1.5	0.26	0.8	1x1.5	1x1.5	1x1.5	5.2x9.4	5.2x12.6	5.2x15.8	13.3	18
2.5	0.26	0.8	1x1.8	1x1.8	1x1.8	5.6x10.8	5.6x14.4	5.6x18.0	7.98	25
4	0.31	0.8			1.2x1.8	6.9x12.6	6.9x17.1	6.9x21.6	4.95	33
6	0.31	0.8			1.2x1.8	7.5x13.9	7.5x19.1	7.5x24.2	3.30	42
10	0.41	1.0			1.4x1.8			9.9x31.5	1.91	58

SUBMERSIBLE PUMP CABLE (CIRCULAR) 600/1000V

Proton Electro-cable



Cable Description

High conductivity Flexible MultiStranded (Class 5) copper conductors to SANS 1411 Part 1.

Insulated with PVC and skin coloured in plain colours to SANS 1411 Part 2.

Cable is manufactured to SANS:1574 Part 3

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

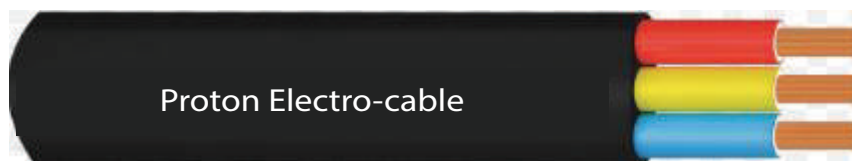
Flexible MultiStranded (Class 5) copper conductor

Insulation from Virgin PVC

Technical Data

Crossectional Area of conductor	Maximum diameter of wires in conductor mm	Nominal Thickness of PVC insulation	Nominal Thickness of PVC sheath		Approx overall diameter of cable		Conductor resistance at 20 ⁰ C (Max) Ohm/km	Current Rating (Amp)
			3Core	4Core	3Core	4Core		
0.50	0.21	0.80	1.6	1.6	6.6	7.00	39.000	7
0.75	0.21	0.80	1.6	1.6	6.9	7.40	26.000	8
1.00	0.21	0.80	1.6	1.6	7.3	8.00	19.500	13
1.50	0.26	0.80	1.6	1.6	10.10	10.90	13.300	18
2.50	0.26	0.80	1.6	1.6	11.00	11.90	7.980	25
4.00	0.31	1.00	1.6	1.6	12.90	14.50	4.950	33
6.00	0.31	1.00	1.6	1.6	14.20	15.50	3.300	42
10.00	0.41	1.00	1.6	1.6	16.00	17.60	1.910	58
16.00	0.41	1.00	1.6	1.6	18.20	20.00	1.210	77
25.00	0.41	1.20	1.6	1.6	21.9	24.50	0.780	102
35.00	0.41	1.20	1.8	1.8	24.8	27.50	0.554	125
50.00	0.41	1.40	1.8	1.8	29.7	32.80	0.386	151
70.00	0.51	1.40	1.8	1.8	34.2	37.80	0.272	192

SUBMERSIBLE PUMP CABLE (FLAT) 600/1000V



Cable Description

High conductivity Flexible Mult iStranded (Class 5) copper conductors to SANS 1411 Part 1.

Insulated with PVC and skin coloured in plain colours to SANS 1411 Part 2.

Cable is manufactured to SANS:1574 Part 3

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Flexible MultiStranded (Class 5) copper conductor

Insulation from Virgin PVC

Technical Data

Crossectional Area of conductor	Maximum diameter of wires in conductor mm	Nominal Thickness of PVC insulation	Nominal Thickness of PVC sheath		Approx. overall diameter of cable		Conductor resistance at 20 ⁰ C (Max) Ohm/km	Current Rating (Amp)
			3Core	4Core	3Core	4Core		
1.5	0.26	0.80	1x1.5	1x1.5	5.2x12.6	5.2x15.8	13.3	18
2.5	0.26	0.80	1x1.8	1x1.8	5.6x14.4	5.6x18.0	7.98	25
4	0.31	0.80		1.2x1.8	6.9x17.1	6.9x21.6	4.95	33
6	0.31	0.80		1.2x1.8	7.5x19.1	7.5x24.2	3.30	42
10	0.41	1.00		1.4x1.8		9.9x31.5	1.91	58

SINGLE CORE WELDING DC CABLES 100V

Proton Electro-cable

Cable Description

High conductivity Extra Flexible Multi Stranded (Class 6) copper conductors to SANS 1411 Part 1.

Insulated and sheathed with PVC Nitrile to SANS 1411 Part 2. Cable is manufactured to SANS:1576

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

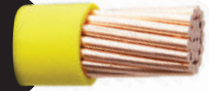
Extra Flexible MultiStranded (Class 6) copper conductor

Technical Data

No.of cores & Crossectional Area of conductor	Maximum diameter of wires in conductor mm	Nominal Thickness of PVC insulation (mm)	Overall diameter of cable approx (mm)	Conductor resistance at 20 ⁰ C (Max) Ohm/km	Current Rating (Amp)
1 x 16	0.21	2.0	10.15	1.150	120
1 x 25	0.21	2.0	11.50	0.780	150
1 x 35	0.21	2.0	12.80	0.554	200
1 x 50	0.31	2.2	15.00	0.386	250
1 x 70	0.31	2.4	17.25	0.272	315

SINGLE CORE UNARMoured REDUCED HALOGEN EMISSION AND REDUCED FLAME PROPAGATION (LHFR) LV POWER CABLE 600/1000V

Proton Electro-cable



Cable Description

High conductivity Round stranded or shaped class 2 copper conductors to SANS 1411 Part 1.

Insulated with PVC and sheathed with LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride) to SANS 1411 Part 2. Cable is manufactured to SANS:1507-3, ZS-688-3, & BS 6346

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Round stranded or shaped class 2 copper conductor

Insulation from Virgin PVC

Sheathed from LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride)

Technical Data

No.of cores & Crossectional Area of conductor	No. and Nominal diameter of the strand	Nominal Thickness of PVC insulation (mm)	Approx. overall diameter of cable (mm)	Conductor resistance at 20 ⁰ C (Max) Ohm/km
16	7/1.74	1.0	13.1	1.1500
25	7/2.2	1.2	14.7	0.7270
35	7/2.61	1.2	15.8	0.5240
50	19/1.82	1.4	17.3	0.3870
70	19/2.20	1.4	19.1	0.2680
95	19/2.61	1.6	21.3	0.1930
120	37/2.05	1.6	25.4	0.1530
150	37/2.28	1.8	27.1	0.1240
185	37/2.53	2.0	30.1	0.0991
240	61/2.24	2.2	33.0	0.0754
300	61/2.51	2.4	36.4	0.0601

SINGLE CORE ARMoured REDUCED HALOGEN EMISSION AND REDUCED FLAME PROPAGATION (LHFR) LV POWER CABLE 600/1000V

Proton Electro-cable

Cable Description

High conductivity Round stranded or shaped class 2 copper conductors to SANS 1411 Part 1.

Insulated with PVC and sheathed with LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride) to SANS 1411 Part 2. Armoured with round Aluminium wire.

Cable is manufactured to SANS:1507-3, ZS-688-3, & BS 6346

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Round stranded or shaped class 2 copper conductor

Insulation from Virgin PVC

Sheathed from LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride)

Armoured with round Aluminium wire

Technical Data

No.of cores & Crossectional Area of conductor	No. and Nominal diameter of the strand	Nominal Thickness of PVC insulation (mm)	Approx. overall diameter of cable (mm)	Conductor resistance at 20 ⁰ C (Max) Ohm/km	Current Rating (Amp)
16	7/1.74	1.0	13.1	1.1500	77
25	7/2.2	1.2	14.7	0.7270	102
35	7/2.61	1.2	15.8	0.5240	125
50	19/1.82	1.4	17.3	0.3870	151
70	19/2.20	1.4	19.1	0.2680	192
95	19/2.61	1.6	21.3	0.1930	231
120	37/2.05	1.6	25.4	0.1530	267
150	37/2.28	1.8	27.1	0.1240	306
185	37/2.53	2.0	30.1	0.0991	348
240	61/2.24	2.2	33.0	0.0754	409
300	61/2.51	2.4	36.4	0.0601	469

MULTICORE UNARMoured REDUCED HALOGEN EMISSION AND REDUCED FLAME PROPAGATION (LHFR) LV POWER CABLE 600/1000V

Proton Electro-cable



Cable Description

High conductivity Round stranded or shaped class 2 copper conductors to SANS 1411 Part 1.

Insulated with PVC and sheathed with LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride) to SANS 1411 Part 2. Cable is manufactured to SANS:1507-3, ZS-688-3, & BS 6346

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Round stranded or shaped class 2 copper conductor

Insulation from Virgin PVC

Sheathed from LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride)

Technical Data

No. of cores & Crossectional Area of conductor	No. and Nominal diameter of the strand	Nominal Thickness of PVC insulation (mm)	Nominal Thickness of PVC sheath			Overall diameter of cable Approx. (mm)			Conductor resistance at 20° C (Max) Ohm/km	Current Rating (Amp)
			2Core	3Core	4Core	2Core	3Core	4Core		
1.5	7/0.525	0.70	0.90	0.90	1.0	7.50	8.00	9.00	12.1	18
2.5	7/0.68	0.7	1.00	1.00	1.0	9.00	9.40	10.40	7.41	25
4	7/0.85	0.80	1.00	1.00	1.0	10.00	10.60	11.80	4.61	33
6	7/1.042	0.8	1.10	1.2	1.2	11.20	12.30	13.60	3.08	42
10	7/1.35	1	1.3	1.4	1.4	14.80	16.00	17.60	1.83	58
16	7/1.72	1	1.4	1.4	1.4	17.00	18.20	20.00	1.15	77
25	7/2.2	1.2	1.4	1.5	1.6	20.3	21.9	24.5	0.727	102
35	7/2.52	1.2	1.6	1.6	1.7	23.1	24.8	27.5	0.524	125
50	19/1.82	1.4	2.0	2.0	2.0	27.8	29.7	32.8	0.386	151
70	19/2.20	1.4	2.2	2.2	2.2	32.0	34.2	37.8	0.268	192

Multicore Armoured Reduced Halogen Emission And Reduced Flame Propagation (LHFR) LV Power Cable 600/1000V

Proton Electro-cable



Cable Description

High conductivity Round stranded or shaped class 2 copper conductors to SANS 1411 Part 1.

Insulated with PVC and sheathed with LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride) to SANS 1411 Part 2. Armoured with round Galvanized steel wire.

Cable is manufactured to SANS:1507-3, ZS-688-3, & BS 6346

Sailent Features

Indegenously manufactured electrolytic grade high pure copper for maximum conductivity

Round stranded or shaped class 2 copper conductor

Insulation from Virgin PVC

Sheathed from LHFR-PVC (Reduced Halogen Emission & Reduced Flame Propagation Polyvinyl Chloride)

Armoured with round Galvanized steel wire

Technical Data

No.of cores & Crossectional Area of conductor	No. and Nominal diameter of the strand	Nominal Thickness of PVC insulation (mm)	Nominal Thickness of PVC sheath			Overall diameter of cable Approx. (mm)			Conductor resistance at 20° C (Max) Ohm/km	Current Rating (Amp)
			2Core	3Core	4Core	2Core	3Core	4Core		
1.5	7/0.525	0.70	0.90	0.90	1.0	7.50	8.00	9.00	12.1	18
2.5	7/0.68	0.7	1.00	1.00	1.0	9.00	9.40	10.40	7.41	25
4	7/0.85	0.80	1.00	1.00	1.0	10.00	10.60	11.80	4.61	33
6	7/1.042	0.8	1.10	1.2	1.2	11.20	12.30	13.60	3.08	42
10	7/1.35	1	1.3	1.4	1.4	14.80	16.00	17.60	1.83	58
16	7/1.72	1	1.4	1.4	1.4	17.00	18.20	20.00	1.15	77
25	7/2.2	1.2	1.4	1.5	1.6	20.3	21.9	24.5	0.727	102
35	7/2.52	1.2	1.6	1.6	1.7	23.1	24.8	27.5	0.524	125
50	19/1.82	1.4	2.0	2.0	2.0	27.8	29.7	32.8	0.386	151
70	19/2.20	1.4	2.2	2.2	2.2	32.0	34.2	37.8	0.268	192



Proton Catalogue Download

Trust The Best - Proton Cables



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