

C A T A L O G

PRODUCT

cobrecom
Electric wires and cables

COBREC METER BY METER ENGRAVING

SUPERATOX FLEX HEPR 90° C 0.6/1 KV CABLE
GTEPROM FLEX HEPR 90° C 0.6/1 KV CABLE



FACILITATE
CUTTING WITH NO
NEED OF MEASUREMENT
INSTRUMENTS

ADDITIONAL CONTROL OF INVENTORY AND SALES

SIGNIFICANT TIME SAVING IN YOUR DAILY WORK



**METER BY METER ENGRAVING AVAILABLE
IN THE FOLLOWING PRODUCTS:**

ONLY AS FROM
50mm²
GTEPROM FLEX HEPR
90°C 0.6/1 KV

ONLY AS FROM
50mm²
SUPERATOX FLEX HEPR
90°C 0.6/1 KV

7 NBR 7200 IFC/COBRECOM CABO GTEPROM FLEX

0001 IFC/COBRECOM CABO SUPERATOX FLEX HEPR 90°C 0.6/1KV





PLANT LOCATED IN ITU - SP



PLANT LOCATED IN TRÊS LAGOAS - MS

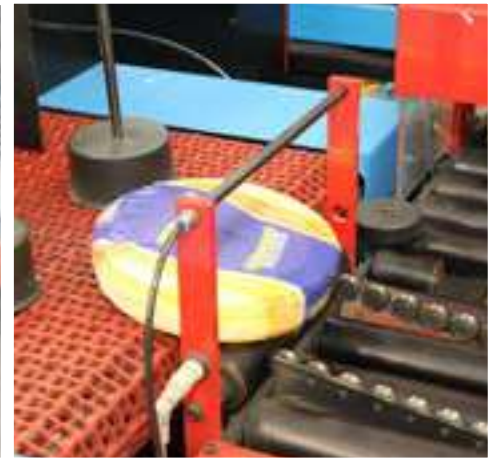
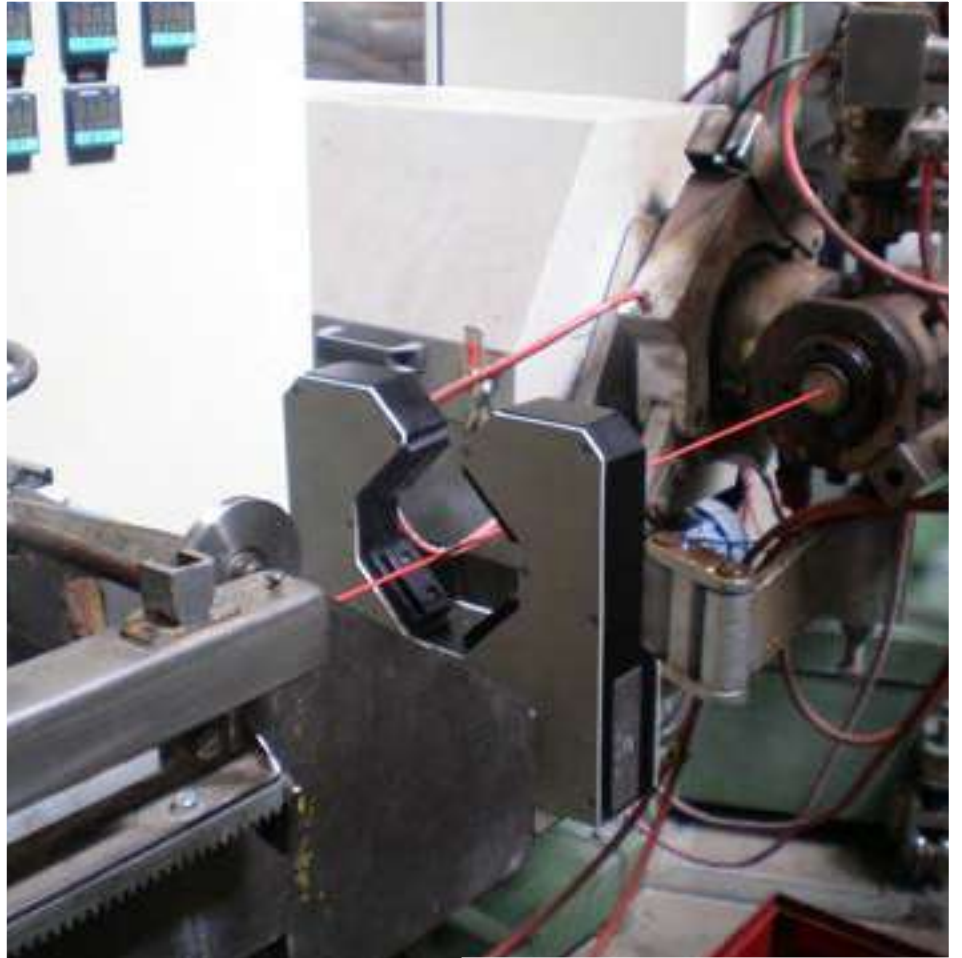
Plant Located in Itu - SP

Av. Primo Schincariol, 670 – Jd. Oliveira
CEP: 13312-250 – Itu/SP

Plant Located in Três Lagoas - MS

Av. Dois Esquina com Av. Cinco, s/n – Distrito Industrial
CEP: 79601-970 – Três Lagoas/MS

- A 100% Brazilian Capital Company.
- More than 15 years manufacturing electric ducts.
- One of the leaders in the actuation segment.
- 2 manufacturing plants totaling 35.000m² of industrial area
- Machines and equipment with state of the art technology
- Highly qualified laboratory.
- 360 direct collaborators.
- 110 agents.
- Nationwide and Mercosul assistance.
- ISO 9001 Quality Administration System
- High technology in researches.
- Rigorous follow-up in manufacturing process of all the products.
- Raw material certified with ISO 9001 high performance and assured quality.
- Pure copper produced for electric purposes with high degree of purity - 99,999%.
- Measurement and essay equipment routinely calibrated.
- Tests performed by qualified technicians.
- Products rigorously manufactured in compliance with technical standards in force.
- Professional recycling and qualification of its staff.
- Safe and reliable products meeting all the manufacturing standards.



**EMPRESA HOMOLOGADA
PETROBRAS**



About us

COBRECOM is a 100% national company, founded in the 90's decade. A reference in quality and innovation. The manufacturing plants located in Itu/SP and Três Lagoas/MS have an industrial area of 35.000m² and use modern manufacturing processes, duly trained and qualified professionals, in addition of high technology equipment.

We are present nationwide assisting several marketplace segments such as industries, engineering, construction, electric and construction material stores, home centers, electric installation companies, electric panel assemblers, public entities and electric power utilities.

Our portfolio of products includes electric wires and cables for voltages of up to 1 kV for electric installations in buildings and industries, in addition of cables for equipment feeding, complying with all the technical standards demandable by law. Special emphasis in production of Superatox Cables, free of halogen.

Products

The products bearing the COBRECOM trademark are manufactured within the highest standards of quality, using always the best technologies to assure safety to its customers. Its wide line of rigid and flexible low voltage cables, with capacity of up to 500mm² of nominal section and insulation voltages for 300V, 750V e 0.6/1.0 kV can be found nationwide. The company has structure, knowledge and best practices to offer products of highest quality and that meet the national and international quality and safety standards.

Within the outstanding characteristics of the products we can mention:

- Free of Halogen - Low release of smoke and free of toxic gases.
- Large variety of colors, sections and packages.
- High resistance to overloads.
- Applicable to any type of low voltage installation.
- High quality BWF type PVC (fire non-propagation characteristic) for electric purposes.
- Availability of material for up to 105°C.
- Excellent mechanical and chemical performance.
- High flexibility (provides curves in electro-roof gutters and electro-ducts in an easier manner).
- Additional sliding insulation (less effort in installation).
- Double-layer insulation (co-extrusion).
- Products with legible paint or embossing engraving.
- Packages easy to use, transport and install.
- Insulation of products assured by Spark-test in 100% of production.
- Material used allow their 100% recycling
- Accuracy in footage (assurance of quantity indicated in label).

Mission, Vision and Values

Mission

"COBRECOM mission is to meet the needs of its customers, improving in an on-going manner its productive processes, using state of the art technology; work, dedication, honesty, professionalism, individual and collective commitment of its collaborators are the differentials of our company"

Vision

"Be a reference in the electric ducts' market, through high quality products, exceeding the dedicated standards of excellence in research, development and reliability."

Values

- Transparency and ethics with the customer, collaborators and community.
- Qualification and appreciation of collaborators and partners.
- Economic, financial and social-environmental sustainability.
- Efficiency and innovation in products and processes.
- Professionalism and pro-activity.

Technology

COBRECOM has technology as high priority and thus, has invested more and more in machines, equipment and qualified professionals in order to assure additional quality to its products and improved assistance to its customers.

To meet the demands of the market, the company promotes ongoing enhancements in its processes, in addition of investing in development of new products for its portfolio.

The Industrial Engineering area has updated professionals, which follow the national and international trends, designing and constructing solutions to meet the needs of the company, in a continuous search for improvement of results and processes.

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Quality Policy

COBRECOT's quality policy has as objective satisfaction of its customers, assuring:

- Quality standard of products and services.
- Assistance standard and technical assistance.
- Competitive conditions
- Ongoing improvement of its services, products and processes.



Company's Differentials

COBRECOT has the capacity to meet different needs in its segment and has professionals duly trained and with expertise in manufacture of electric wires and cable, recognized nationwide.

One of the main differentials of the company is the responsibility in providing electric cables with assured and approved quality, aiming always the long life and safety in projects of engineering, industrial, residential, urban and electro-electronic installers. Investment in technology and constant seek to maintain a serious and bold standard to satisfy its customers and partners result in reliability, commitment, safety and satisfaction.

Its corporate attitude is committed in excellence in production, having total quality as full priority and agility in deliveries as assurance to the customer.

+ QUALITY + SAFETY + TECHNOLOGY

Respect Environment and Community

The company is focused on increase of eco-efficiency of processes and products, aiming reduction of natural resource consumption and impacts on environment.

We work in the Lean Manufacturing system, extracting the maximum possible efficiency from the equipment, workforce and inputs.

Together with our staff we are strongly actuating with awareness of themes such as:

- Sorting of recyclable surpluses.
- Cleaning and organization in work environment.
- Maximization of energy and water consumption.

We believe that it is only possible to obtain the respect of the community if we preserve, in first place, the environment where it lives.



Respect and Partnership with Collaborators and Local Community

At COBRECOM, its collaborators are the first promoters for development of the organization. For this reason, the company believes that the commitment and internal efforts are fundamental for the company to achieve its objectives.

Company's concern with the collaborator is represented in several manners, as follows:

- Qualification and ongoing recycling of the professional.
- Application of internal usage programs.
- Preference for contracting of individuals belonging to the local community.
- Daily practice of gymnastics.
- Offer of meals based on a healthy and equilibrated menu.
- Participation of members of the family through endomarketing actions.
- Incentive to practice of sports, such as for example, participation in Industrial Games.

COBRECOM's commitment with its Customers

- Hear and respond promptly to the needs of the customers.
- Offer high quality aggregated services and products.
- Eliminate possible dissatisfactions in a quick manner.
- Provide assistance to the customer in a proactive and professional manner.
- Help the customer in making the right choices and obtain time saving.
- Assure continuity of the commercial relationship and establish a partnership relationship.
- Rigorous fulfillment of terms and planned conditions.
- Offer technical assistance and permanent support to customer.

Quality

Its products are known due to their excellent quality, as from rigid control in selection of raw material through manufacture of end product.

Through manufacture of copper, with high degree of purity and with the insulating compound specific for each product, COBRECOM produces electric wires and cables of the highest quality.

In addition to all the industrial differentials, in COBRECOM, 100% of the insulated material is subject to a continuous test of high voltage called Sparking Essay, which objective is to assure insulation free of failures and provide safety of wires and cables produced by the company.

All the routine essays, such as Measurement of Electric Resistance, Insulating Resistance, Dimensional and Applied Voltage, are carried out by qualified technicians and in compliance with the standards in force.

The inspection and essay equipment, among which are profile projector, micro-ohmmeters, megohmmeters, traction and stretching machines, among others, are calibrated by specialized companies, assuring the reliability of each measurement.

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Conquered Awards

Over the years, COBRECOM has been granted with several awards that rewarded its efforts in maintaining the quality of its products and services, in addition of its excellent relationship with its partners.

Below are some of the awards conquered by COBRECOM:

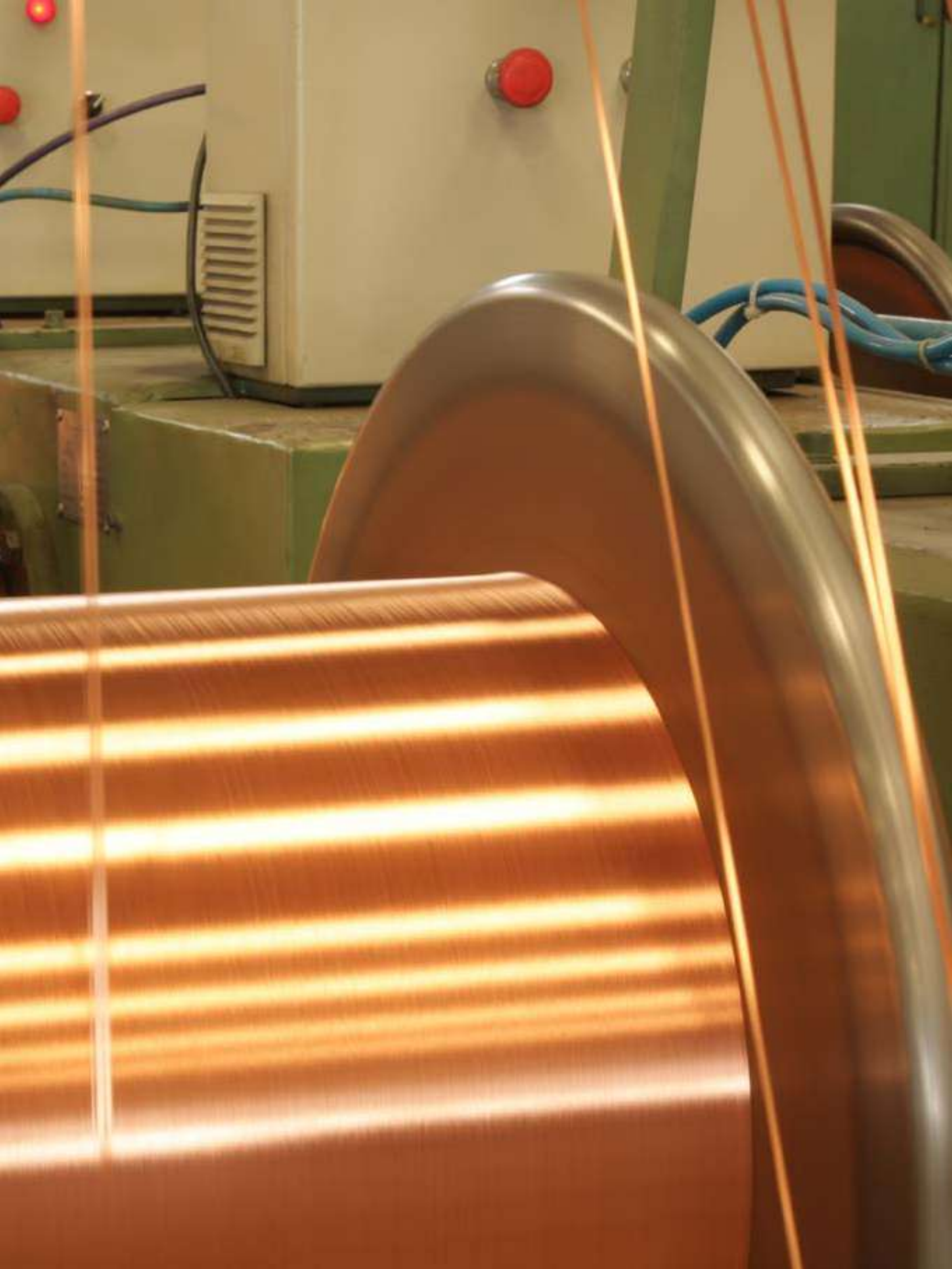
- Prêmio Revista Eletricidade Moderna 2017 - Prêmio Qualidade 2018 (Quality Award) - Top 5
- Prêmio Revista Eletricidade Moderna 2017 - Melhores Produtos do Ano 2017 (Best Products of the Year) - Top 3
- Prêmio Anamaco 2017 - 2nd position in the "Big Customers" category - (Associação Nacional dos Comerciantes de Material de Construção - (National Association of Construction Material Merchants))
- Prêmio Revenda - Melhor Produto do Ano 2017 - Electric Wires and Cables Category - Superatox Flex 450/750 V Cable - Top 3
- Prêmio Revenda 2017 - Top of Mind - Outstanding Electric Wire and Cable
- Prêmio Masterinstal 2016 - Case Prata - Category:
- Projetos de Inclusão Social e de Sustentabilidade Ambiental (Social Inclusion and Environmental Sustainability Projects) - Sindinstalação (Sindicato da Industrial da Instalação (Installation Industry Trade Union)) and by Abrinstal (Associação Brasileira pela Conformidade e Eficiência das Instalações (Brazilian Association for Conformity and Efficiency of Installations))
- Prêmio Masterinstal 2016 - Case Bronze - Category:
- Novas Tecnologias em Materiais, Equipamentos e Sistemas para Instalações (New Technologies in Material, Equipment and Systems for Installations) - Sindinstalação
- (Sindicato da Indústria da Instalação (Installation Industry Trade Union)) and by Abrinstal (Associação Brasileira pela Conformidade e Eficiência das Instalações ((Brazilian Association for Conformity and Efficiency of Installations))
- Prêmio IMEC 2016 - Empresa Destaque da Construção Civil Minas Gerais (Outstanding Company of Civil Construction of the State of Minas Gerais) - (Instituto Mineiro de Engenharia Civil (Civil Engineering Institute of the State of Minas Gerais))
- Prêmio Abreme 2016 - Empresa Destaque - Abreme (Associação Brasileira dos Revendedores e Distribuidores de Material Elétrico (Brazilian Association of Resellers and Distributors of Electric Material))
- Prêmio Revenda 2016 - Top of Mind - Outstanding Electric Wire and Cable
- Prêmio Revenda 2016 - Melhor Produto do Ano - Categoria Fios e Cabos Elétricos (Best Product of the Year - Electric Wires and Cables Category) - Superatox Flex 450/750 V Cable – Top 3
- Prêmio Revenda 2015 - Melhor Produto do Ano - Categoria Fios e Cabos Elétricos (Best Product of the Year -Electric Wires and Cables Category) - Superatox Flex 450/750 V Cable -Top 3
- Prêmio Revenda 2015 - Top of Mind - Outstanding Electric Wire and Cable
- Prêmio Huawei 2015 Brazil - Core Partner - Best Cooperation Improvement Award
- Prêmio Abreme 2014 - Empresa Destaque - Abreme (Associação Brasileira dos Revendedores e Distribuidores de Material Elétrico (Brazilian Association of Resellers and Distributors of Electric Material))
- Prêmio Anamaco 2012 - Menção Honrosa (Special Mention) - (Associação Nacional dos Comerciantes de Material de Construção (National Association of Construction Material Merchants))
- Prêmio Abreme 2012 - Empresa Destaque (Outstanding Company) - Abreme (Associação Brasileira dos Revendedores e Distribuidores de Material Elétrico (Brazilian Association of Resellers and Distributors of Electric Material))
- Prêmio Abreme 2011 - Empresa Destaque (Outstanding Company) – Abreme (Associação Brasileira dos Revendedores e Distribuidores de Material Elétrico (Brazilian Association of Resellers and Distributors of Electric Material))
- Prêmio Anamaco 2008 - Menção Honrosa (Special Mention) - (Associação Nacional dos Comerciantes de Material de Construção (National Association of Construction Material Merchants))

Company's Certifications

COBRECOM is certified by the Quality Administration System's Standard, ISO 9001, and its compulsory certification products have the Certificates of Mark of Conformity required by law covering wires and cables, granted by TÜV Rheinland, a company that provides homologation at Inmetro

OUR PRODUCTS

- 14 • PLASTICOM WIRE
FIRE RESISTANT 450/750 V
- 14 • PLASTICOM CABLE
FIRE RESISTANT 450/750 V
- 15 • FLEXICOM CABLE
FIRE RESISTANT 450/750 V
- 16 • SUPERATOX FLEX HEPR 90° C CABLE
1.0/1 KV (2, 3 AND 4 DUCTS)
- 17 • SUPERATOX FLEX HEPR 90° C CABLE
0.6/1 KV
- 18 • SUPERATOX FLEX CABLE
FIRE RESISTANT 450/750 V
- 18 • FLEXICOM PP CABLE
500 V (2, 3 AND 4 DUCTS)
- 19 • MULTIPLEXED CABLE
0.6/1 KV (COMPACTED COPPER)
- 19 • PLASTISOLDA CABLE
100 V
- 20 • GTEPROM FLEX HEPR 90° C CABLE
0.6/1 KV
- 20 • GTEPROM RÍGIDO HEPR 90°C CABLE
0.6/1 KV
- 21 • MULTINAX FLEX HEPR 90° C CABLE
0.6/1 KV (2, 3 AND 4 DUCTS)
- 22 • CONTROL CABLE
UP TO 0.6/1 KV
- 23 • FLEXICOM TWISTED CORD
300 V
- 24 • FLEXICOM TWISTED
300 V
- 24 • POLARIZED PARALLEL CORD
300 V
- 25 • FLEX PLAIN CABLE
300 V
- 25 • SOLARCOM CABLE
0.6/1 KV (CA) OR 1.8 KV (CC)
- 26 • FLEXICOM 105° CABLE
750 V
- 26 • COMPEX CABLE
0.6/1 KV
- 27 • TMD BARE COPPER CABLE
- 27 • BARE COPPER WIRE



PLASTICOM WIRE

FIRE RESISTANT 450/750 V

Description: For nominal voltages of up to 450/750 V, formed by bare copper, electrolyte, solid, Class 1, soft spot wires, insulated with polyvinyl chloride (PVC), PVC/A type for 70°C, fire resistant (BWF-B).

Basic applicable standards: Product requirements- NBR NM-247-3 of ABNT/Mercosul. Electric Resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for fixed internal, industrial, commercial and residential installations of light and power, embedded in electro-ducts, trays or channels.

Colors: Black, Light Blue, Green, White, Yellow and Red. Other colors subject to query.

Packing: In 100 meters coils or specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
1.5	101.04	1.40 C1	0.7	2.8	1.9	12.1	●○●●●●	⊗
2.5	101.05	1.76 C1	0.8	3.3	3.0	7.41	●○●●●●	⊗
4	101.06	2.24 C1	0.8	3.7	4.4	4.61	●○●●●●	⊗
6	101.07	2.72 C1	0.8	4.3	6.2	3.08	●○●●●●	⊗
10	101.08	3.54 C1	1.0	5.4	10.5	1.83	●○●●●●	⊗

C = Class/nominal dimensions and weights



PLASTICOM CABLE

FIRE RESISTANT 450/750 V

Description: For nominal voltages of up to 450/750 V, formed by bare copper, electrolyte, soft spot, Class 2 stranding wires, insulated with polyvinyl chloride (PVC), PVC/A type for 70°C, fire resistant (BWF-B).

Basic applicable standards: Product requirements- NBR NM-247-3 of ABNT/Mercosul. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for fixed internal, industrial, commercial and residential installations of light and power, embedded in electro-ducts, trays or channels.

Colors: Black, Light Blue and Green. Other colors subject to query.

Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	DUCT		INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
		N° ELEMENTARY WIRE	DIAMETER mm						
4	110.06	7 C2	2.5	0.8	4.1	4.8	4.61	●●●	⊗ ⊞
6	110.07	7 C2	3.1	0.8	4.7	7.1	3.08	●●●	⊗ ⊞
10	110.08	7 C2	4.1	1.0	6.1	11.6	1.83	●●●	⊗ ⊞
16	110.09	7 C2	5.1	1.0	7.1	17.6	1.15	●●●	⊗ ⊞
25	110.10	7 C2	6.3	1.2	8.7	21.5	0.727	●●●	⊗ ⊞
35	110.11	7 C2	7.4	1.2	9.8	35.7	0.524	●●●	⊗ ⊞
50	110.12	19 C2	8.8	1.4	11.6	49.2	0.387	●●●	⊗ ⊞
70	110.13	19 C2	10.5	1.4	13.3	66.0	0.268	●●●	⊗ ⊞
95	110.14	19 C2	12.1	1.6	15.3	91.0	0.193	●●●	⊞
120	110.15	37 C2	13.8	1.6	17.0	114.8	0.153	●●●	⊞
150	110.16	37 C2	15.8	1.8	19.4	144.6	0.124	●●●	⊞
185	110.17	37 C2	17.0	2.0	21.0	172.0	0.0991	●●●	⊞
240	110.18	61 C2	19.6	2.2	24.0	225.5	0.0754	●●●	⊞
300	110.19	61 C2	22.6	2.4	27.4	285.0	0.0601	●●●	⊞

C = Class/nominal dimensions and weights



FLEXICOM CABLE

FIRE RESISTANT 450/750 V

Description: For nominal voltages of up to 450/750 V, formed by bare copper, electrolytic, soft spot, Class 4 and 5 stranding (flexible) wires, insulated with polyvinyl chloride (PVC), PVC/A type for 70°C, fire resistant (BWF-B).

Basic applicable standards: Product requirements - NBR NM-247-3 of ABNT/Mercosul. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for fixed internal, industrial, commercial and residential installations of light and power, command panels, signaling and in electric installations in vehicles and motor vehicles, embedded in electro-ducts, trays or channels.

Colors: Black, Light Blue, Green, White, Yellow and Red. Special Green/Yellow or other colors subject to query.

Packing: In 100 meters coils, plastic spools, wooden reels with 500 meters or specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
0.5	115.01	C4 / C5	0.9	0.6	2.1	0.90	39.00	●●●●●●●●	⊙ ■ ■ ■
0.75	115.02	C4 / C5	1.1	0.6	2.3	1.15	26.00	●●●●●●●●	⊙ ■ ■ ■
1	115.03	C4 / C5	1.3	0.6	2.5	1.41	19.50	●●●●●●●●	⊙ ■ ■ ■
1.5	115.04	C4 / C5	1.5	0.7	2.9	1.96	13.30	●●●●●●●●	⊙ ■ ■ ■ □
2.5	115.05	C4 / C5	1.9	0.8	3.5	3.00	7.98	●●●●●●●●	⊙ ■ ■ ■ □
4	115.06	C4 / C5	2.5	0.8	4.0	4.45	4.95	●●●●●●●●	⊙ ■ ■ ■ □
6	115.07	C4 / C5	3.0	0.8	4.6	6.30	3.30	●●●●●●●●	⊙ ■ ■ ■ □
10	115.08	C5	4.0	1.0	6.0	10.9	1.91	●●●●●●●●	⊙ ■ ■ ■ □
16	115.09	C5	5.1	1.0	6.8	16.0	1.21	●●●●●●●●	⊙ ■ ■
25	115.10	C5	6.7	1.2	8.8	25.1	0.780	●●●●●●●●	⊙ ■ ■
35	115.11	C5	7.9	1.2	10.2	34.3	0.554	●●●●●●●●	⊙ ■ ■
50	115.12	C5	9.5	1.4	12.3	49.8	0.386	●●●●●●●●	⊙ ■ ■
70	115.13	C5	11.1	1.4	14.0	67.6	0.272	●●●●●●●●	⊙ ■ ■
95	115.14	C5	13.0	1.6	16.0	89.0	0.206	●●●●●●●●	■ ■
120	115.15	C5	14.6	1.6	17.8	110.0	0.161	●●●●●●●●	■ ■
150	115.16	C5	16.4	1.8	19.8	138.0	0.129	●●●●●●●●	■ ■
185	115.17	C5	17.9	2.0	22.0	168.0	0.106	●●●●●●●●	■ ■
240	115.18	C5	20.6	2.2	24.6	222.0	0.0801	●●●●●●●●	■ ■
300	115.19	C5	23.0	2.4	27.8	283.0	0.0641	●●●●●●●●	■ ■
400	115.21	C5	27.0	2.6	32.2	382.7	0.0486	●●●●●●●●	■ ■
500	115.22	C5	30.0	2.8	35.8	485.2	0.0384	●●●●●●●●	■ ■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel ■ Spool □ Blister

SUPERATOX FLEX HEPR 90° C CABLE

0.6/1 kV (2, 3 and 4 ducts)



Description: For nominal voltages of up to 0.6/1 kV, formed by bare copper, electrolytic, soft spot, Class 4 and 5 stranding wires (flexible), insulated with thermofix compound of Ethylene-Propylene (NON-HALOGENATED HEPR), of high module for 90° C, twisted cores, forming the center core, polymeric coating of the non-halogenated polyolefin type for 90° C, with fire non propagation and self-extinguishing characteristics and with low emission of smoke.

Basic applicable standards: Product requirements - NBR 13248 of ABNT - Power cables and insulated ducts without coating, non-halogenated and with low emission of smoke, for voltages of up to 1 kV - Performance requirements. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for supply circuits and distribution of electric power for up to 0.6/1 kV, in fixed commercial, residential and industrial installations that require flexibility in installation of panels, junction boxes, etc. For usage in locations with high density of occupation and/or in difficult conditions of escape (soccer stadiums, malls, hospitals, schools, movies, theaters, hotels, commercial and residential towers, convention centers and subways), as recommended by the NBR 5410 and 13570 standards of ABNT.



COBRECOM SUPERATOX FLEX HEPR 90° C 0.6/1 kV cables offer higher safety as they have special fire non propagation and self-extinguishing characteristics and low emission of smoke. These cables are free of halogen, resulting in minor release of non toxic gases and free of acids, minimizing the damages to human beings, equipment and environment.

Colors: Insulation - According to table mentioned below (Special colors, contact our Sales Department) - Coating - Black.

Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	COLOR COATING	PACKING
				INSULATION mm HEPR mm	COATING mm ATOX mm						
2 x 1.5	182.04	C4 / C5	1.5	0.7	1.0	7.8	7.99	13.3	●●	●	⊙ ■
2 x 2.5	182.05	C4 / C5	1.9	0.7	1.0	8.6	10.62	7.98	●●	●	⊙ ■
2 x 4	182.06	C4 / C5	2.5	0.7	1.1	9.8	14.48	4.95	●●	●	⊙ ■
2 x 6	182.07	C4 / C5	3.1	0.7	1.1	11.2	20.59	3.30	●●	●	⊙ ■
2 x 10	182.08	C5	4.0	0.7	1.2	13.4	29.99	1.91	●●	●	⊙ ■
2 x 16	182.09	C5	5.1	0.7	1.2	17.0	45.03	1.21	●●	●	⊙ ■
2 x 25	182.10	C5	6.5	0.9	1.3	21.0	77.46	0.780	●●	●	■
2 x 35	182.11	C5	7.3	0.9	1.4	23.6	102.65	0.554	●●	●	■
2 x 50	182.12	C5	9.0	1.0	1.5	27.4	138.27	0.386	●●	●	■
3 x 1.5	183.04	C4 / C5	1.5	0.7	1.0	8.3	9.68	13.3	●●○	●	⊙ ■
3 x 2.5	183.05	C4 / C5	1.9	0.7	1.0	9.4	13.16	7.98	●●○	●	⊙ ■
3 x 4	183.06	C4 / C5	2.5	0.7	1.1	10.6	18.42	4.95	●●○	●	⊙ ■
3 x 6	183.07	C4 / C5	3.1	0.7	1.1	11.7	24.16	3.30	●●○	●	⊙ ■
3 x 10	183.08	C5	4.0	0.7	1.2	14.3	37.98	1.91	●●○	●	⊙ ■
3 x 16	183.09	C5	5.1	0.7	1.2	18.1	60.44	1.21	●●○	●	⊙ ■
3 x 25	183.10	C5	6.5	0.9	1.4	22.6	99.36	0.780	●●○	●	■
3 x 35	183.11	C5	7.3	0.9	1.4	25.2	130.94	0.554	●●○	●	■
3 x 50	183.12	C5	9.0	1.0	1.6	29.4	178.13	0.386	●●○	●	■
3 x 70	183.13	C5	10.4	1.1	1.7	34.1	250.70	0.272	●●○	●	■
3 x 95	183.14	C5	12.0	1.1	1.8	37.8	321.20	0.206	●●○	●	■
3 x 120	183.15	C5	14.0	1.2	1.9	42.5	409.37	0.161	●●○	●	■
4 x 1.5	184.04	C4 / C5	1.5	0.7	1.0	9.5	12.78	13.3	●●○●	●	⊙ ■
4 x 2.5	184.05	C4 / C5	1.9	0.7	1.1	10.6	17.20	7.98	●●○●	●	⊙ ■
4 x 4	184.06	C4 / C5	2.5	0.7	1.1	11.6	22.56	4.95	●●○●	●	⊙ ■
4 x 6	184.07	C4 / C5	3.1	0.7	1.2	13.3	32.34	3.30	●●○●	●	⊙ ■
4 x 10	184.08	C5	4.1	0.7	1.2	15.9	50.10	1.91	●●○●	●	⊙ ■
4 x 16	184.09	C5	5.1	0.7	1.3	19.9	79.62	1.21	●●○●	●	■
4 x 25	184.10	C5	6.5	0.9	1.4	24.7	124.27	0.780	●●○●	●	■
4 x 35	184.11	C5	7.3	0.9	1.5	27.8	165.06	0.554	●●○●	●	■
4 x 50	184.12	C5	9.0	1.0	1.6	32.3	225.13	0.386	●●○●	●	■
4 x 70	184.13	C5	10.4	1.1	1.8	37.5	317.81	0.272	●●○●	●	■
4 x 95	184.14	C5	12.0	1.1	1.9	41.8	410.22	0.206	●●○●	●	■
4 x 120	184.15	C5	14.0	1.2	2.0	46.9	521.04	0.161	●●○●	●	■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel

SUPERATOX FLEX HEPR 90°C CABLE

0.6/1 kV



COBRECOM INNOVATION.
METER BY METER: ONLY AS FROM 50MM². FACILITATE CUTTING WITH NO NEED OF MEASUREMENT INSTRUMENTS, HIGHER CONTROL OF INVENTORY AND SALES.



Description: For nominal voltages of up to 0.6/1 kV, formed by bare copper, electrolytic, soft spot wires, Class 4 and 5 stranding (flexible), insulated with Ethylene-Propylene (HEPR) thermofix compound, of high module for 90°C, and polymeric coating, non-halogenated polyolefin type for 90°C, with fire non propagation and self-extinguishing characteristics and with low emission of smoke.

Basic applicable standards: Product requirements - NBR 13248 of ABNT - Power cables and insulated ducts without coating, non-halogenated and with low emission of smoke, for voltages of up to 1 kV - Performance requirements. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul. Application: Recommended for usage in locations with high density of occupation and/or in difficult conditions of escape (soccer stadiums, malls, hospitals, schools, movies, theaters, hotels, commercial and residential towers, convention centers and subways), as recommended by NBR 5410 and 13570 standards of ABNT.

COBRECOM SUPERATOX FLEX HEPR 90°C 0.6/1 kV cables offer higher safety as they have special fire non propagation and self-extinguishing characteristics and low emission of smoke. These cables are free of halogen, resulting in minor emission of non toxic gases and free of acids, minimizing the damages to human being, equipment and environment.

Colors: Insulation - Black; Coating - Black, Light Blue and Green, other colors subject to query.

Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	COLOR COATING	PACKING
				INSULATION mm	COATING mm						
1.5	111.04	C4/C5	1.5	0.7	0.9	4.7	3.3	13.30	●	●●●	⊙
2.5	111.05	C4/C5	1.9	0.7	0.9	5.1	4.4	7.98	●	●●●	⊙
4	111.06	C4/C5	2.5	0.7	0.9	5.7	5.9	4.95	●	●●●	⊙
6	111.07	C4/C5	3.0	0.7	0.9	6.2	7.9	3.30	●	●●●	⊙
10	111.08	C5	4.1	0.7	1.0	7.7	12.3	1.91	●	●●●	⊙
16	111.09	C5	5.1	0.7	1.0	8.6	17.8	1.21	●	●●●	⊙
25	111.10	C5	6.5	0.9	1.1	10.4	27.4	0.780	●	●●●	⊙
35	111.11	C5	7.3	0.9	1.1	11.3	36.1	0.554	●	●●●	⊙
50	111.12	C5	9.1	1.0	1.2	14.0	50.9	0.386	●	●●●	⊙
70	111.13	C5	10.8	1.1	1.2	15.4	68.5	0.272	●	●●●	⊙
95	111.14	C5	12.2	1.1	1.3	17.0	89.9	0.206	●	●●●	⊙
120	111.15	C5	14.0	1.2	1.3	19.0	113.0	0.161	●	●●●	⊙
150	111.16	C5	15.5	1.4	1.4	21.2	142.3	0.129	●	●●●	⊙
185	111.17	C5	17.4	1.6	1.4	23.4	171.2	0.106	●	●●●	⊙
240	111.18	C5	20.0	1.7	1.5	27.3	227.7	0.0801	●	●●●	⊙
300	111.19	C5	23.0	1.8	1.6	29.8	286.7	0.0641	●	●●●	⊙
400	111.21	C5	27.0	2.0	1.7	33.9	384.2	0.0486	●	●●●	⊙
500	111.22	C5	30.0	2.2	1.8	38.0	473.8	0.0384	●	●●●	⊙

C = Class/Weights and nominal dimensions

⊙ Coil ⊞ Reel

SUPERATOX FLEX CABLE

FIRE RESISTANT 450/750 V



Description: For nominal voltages of up to 450/750 V, formed by bare copper, electrolytic, soft spot wires, Class 4 and 5 stranding (flexible), insulated with polymer, of the non-halogenated polyolefin type for 70°C, with fire non propagation and self-extinguishing characteristics and low emission of smoke.

Basic applicable standards: Product requirements - NBR 13248 of ABNT - Power cables and ducts insulated without coating, non-halogenated and with low emission of smoke, for voltages of up to 1 kV - Performance requirements. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for usage in locations with high density of occupation and/or in difficult conditions of escape (soccer stadiums, malls, hospitals, schools, movies, theaters, hotels, commercial and residential towers, convention centers and subways), as recommended by NBR 5410 and 13570 standards of ABNT.

COBRECOM SUPERATOX cables offer higher safety as they have special fire non propagation and self-extinguishing characteristics and low emission of smoke. These cables are free of halogen, resulting in minor emission of non toxic gases and free of acids, minimizing the damages to human being, equipment and environment.

Colors: Black, White, Light Blue, Green, Red and Yellow. Other colors subject to query.

Packing: In 100 meters coils, plastic spools, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg/100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
1.5	119.04	C4 / C5	1.5	0.7	2.9	2.0	13.30	●●●●●	⊙ ⊞
2.5	119.05	C4 / C5	1.9	0.8	3.5	3.0	7.98	●●●●●	⊙ ⊞
4	119.06	C4 / C5	2.5	0.8	4.1	4.5	4.95	●●●●●	⊙ ⊞
6	119.07	C4 / C5	3.0	0.8	4.6	6.2	3.30	●●●●●	⊙ ⊞

C = Class/Weights and nominal dimensions

⊙ Coil ⊞ Reel

FLEXICOM PP CABLE

500 V (2, 3 and 4 ducts)

Description: For nominal voltages of up to 500V, formed by bare copper, electrolytic, soft spot wires, Class 5 stranding (flexible), the cores are insulated with polyvinyl chloride (PVC), PVC/D type for 70°C, twisted forming the center core, the extruded coating with polyvinyl chloride ST5 type (PVC).

Basic applicable standards: Product requirements - NBR NM 247-5. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for feeding of electric household appliances, electric machines and handheld tools, which require a high flexibility and resistance to abrasion cable.



Colors: Insulation - According to table mentioned below (Special colors, contact our Sales Department)

Coating - Black (Special colors, contact our Sales Department)

Packing: In 100 meters coils, or wooden reels in specific packing subject to query.

NOMINAL SECTION mm²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg/100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	COLOR COATING	PACKING
				INSULATION mm	COATING mm						
2 x 0.5	132.01	C5	0.9	0.6	0.8	5.8	4.6	39.00	●●	●	⊙ ⊞
2 x 0.75	132.02	C5	1.1	0.6	0.8	6.2	5.4	26.00	●●	●	⊙ ⊞
2 x 1	132.03	C5	1.3	0.6	0.8	6.4	6.1	19.50	●●	●	⊙ ⊞
2 x 1.5	132.04	C5	1.5	0.8	0.8	7.8	8.9	13.30	●●	●	⊙ ⊞
2 x 2.5	132.05	C5	1.9	0.8	1.0	8.8	12.2	7.98	●●	●	⊙ ⊞
2 x 4	132.06	C5	2.5	1.0	1.1	11.2	19.4	4.95	●●	●	⊙ ⊞
2 x 6	132.07	C5	3.1	1.0	1.3	12.8	26.9	3.30	●●	●	⊙ ⊞
3 x 0.5	133.01	C5	0.9	0.6	0.8	6.1	5.4	39.00	●●●	●	⊙ ⊞
3 x 0.75	133.02	C5	1.1	0.6	0.8	6.6	6.5	26.00	●●●	●	⊙ ⊞
3 x 1	133.03	C5	1.3	0.6	0.8	6.8	7.5	19.50	●●●	●	⊙ ⊞
3 x 1.5	133.04	C5	1.5	0.8	0.9	8.4	11.0	13.30	●●●	●	⊙ ⊞
3 x 2.5	133.05	C5	1.9	0.8	1.1	9.7	15.8	7.98	●●●	●	⊙ ⊞
3 x 4	133.06	C5	2.5	1.0	1.2	12.1	24.9	4.95	●●●	●	⊙ ⊞
3 x 6	133.07	C5	3.1	1.0	1.4	13.8	33.8	3.30	●●●	●	⊙ ⊞
4 x 1	134.03	C5	1.3	0.6	0.9	7.7	9.6	19.50	●●●●	●	⊙ ⊞
4 x 1.5	134.04	C5	1.5	0.8	1.0	9.5	14.3	13.30	●●●●	●	⊙ ⊞
4 x 2.5	134.05	C5	1.9	0.8	1.1	10.6	19.6	7.98	●●●●	●	⊙ ⊞
4 x 4	134.06	C5	2.5	1.0	1.3	13.5	31.5	4.95	●●●●	●	⊙ ⊞
4 x 6	134.07	C5	3.1	1.0	1.4	15.1	40.8	3.30	●●●●	●	⊙ ⊞

C = Class/Weights and nominal dimensions

⊙ Coil ⊞ Reel

MULTIPLYED CABLE

0.6/1 kV (COMPACTED COPPER)

Description: For nominal voltages of up to 0.6/1kV, formed by bare copper, electrolytic, soft spot wires, stranded with class 2 compacted circular section, insulated in thermofix compound (XLPE) 90°C with 2.5% of dispersed carbon black, or insulated in thermoplastic compound (PE) 70°C with 2.5% of dispersed carbon black

Neutral support duct: Formed by bare copper, electrolytic, soft spot wires stranded with bare class 2A circular section.

Basic applicable standards: Product requirements- NBR 8182 of ABNT. Self-supported multiplexed power cable with extruded insulation of PE or XLPE, for voltages of up to 0.6/1 kV - Performance Requirements. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: THE MULTIPLYED CABLES are used in supply circuits and/or distribution of power in voltages of up to 0.6/1 kV, in aerial installations mounted on poles.



Colors: Phase insulation - Black. Neutral - Bare.

Packing: Wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	TYPE	DUCT DIAMETER (mm)	INSULATION THICKNESS (mm)	EXTERNAL DIAMETER (mm)	NET WEIGHT (kg/100m)	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	PHASE COLORS	COLOR OF INSULATION	PACKING
1 x 1 x 10 + 10	192.47	Duplex	3.9	1.2	12.6	22.38	1.83	●	●	■
2 x 1 x 10 + 10	193.47	Triplex	3.9	1.2	13.6	34.48	1.83	●	●	■
3 x 1 x 10 + 10	194.47	Quadruplex	3.9	1.2	15.2	46.58	1.83	●	●	■
1 x 1 x 16 + 16	192.48	Duplex	4.9	1.2	14.6	34.56	1.15	●	●	■
2 x 1 x 16 + 16	193.48	Triplex	4.9	1.2	15.8	52.94	1.15	●	●	■
3 x 1 x 16 + 16	194.48	Quadruplex	4.9	1.2	17.6	71.31	1.15	●	●	■
1 x 1 x 25 + 25	192.49	Duplex	5.9	1.4	17.4	51.66	0.727	●	●	■
2 x 1 x 25 + 25	193.49	Triplex	5.9	1.4	18.8	79.02	0.727	●	●	■
3 x 1 x 25 + 25	194.49	Quadruplex	5.9	1.4	21.0	106.37	0.727	●	●	■
1 x 1 x 35 + 35	192.50	Duplex	7.0	1.6	20.4	69.17	0.524	●	●	■
2 x 1 x 35 + 35	193.50	Triplex	7.0	1.6	22.0	105.81	0.524	●	●	■
3 x 1 x 35 + 35	194.50	Quadruplex	7.0	1.6	24.6	142.45	0.524	●	●	■

C = Class/Weights and nominal dimensions

■ Reel

PLASTISOLDA CABLE

100 V

Description: Duct formed by bare copper, electrolytic, soft spot wires, extra-flexible stranding, protection coating of flexible polyvinyl chloride (PVC), ST1 type for 70°C, voltage class 100 V, resistant to abrasion.

Basic applicable standards: Product requirements- NBR 8762 of ABNT (category of up to 100V).

Application: Recommended for connection of power source outlet terminal to the electrode of arch welding machine. For cable with higher flexibility, subject to query.



Colors: Black.

Packing: In 100 meters coils, or wooden reels in specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	DUCT DIAMETER (mm)	INSULATION THICKNESS (mm)	EXTERNAL DIAMETER (mm)	NET WEIGHT (kg/100m)	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	COLOR OF INSULATION	PACKING
10	148.08	4.1	1.8	7.7	12.2	1.91	●	⊙ ■
16	148.09	5.1	1.8	8.7	18.2	1.21	●	⊙ ■
25	148.10	6.5	1.8	10.1	27.7	0.780	●	⊙ ■
35	148.11	7.3	2.0	11.3	38.0	0.554	●	⊙ ■
50	148.12	9.0	2.0	13.0	51.0	0.386	●	⊙ ■
70	148.13	10.4	2.2	14.8	71.0	0.272	●	⊙ ■
95	148.14	12.0	2.2	16.4	92.0	0.206	●	■
120	148.15	13.8	2.4	18.6	119.0	0.161	●	■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel

GTEPROM FLEX HEPR 90°C CABLE

0.6/1 kV

COBRECOM INNOVATION.
METER BY METER: ONLY AS FROM 50MM², FACILITATE CUTTING WITH NO NEED OF MEASUREMENT INSTRUMENTS, HIGHER CONTROL OF INVENTORY AND SALES.

Description: For nominal voltages of up to 0.6/1 kV, formed by bare copper, electrolytic, soft spot wires Class 4 and 5 stranding (flexible) insulated with Ethylene-Propylene (HEPR) thermofix compound, high module for 90°C type, and polyvinyl chloride (PVC) ST2 type, fire resistant (BWF-B).

Basic applicable standards: Product requirements- NBR 7286 of ABNT. Power cable with extruded solid insulation in Ethylene-Propylene (HEPR) rubber for voltages of up to 0.6/1 kV. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul. Installation - NBR 5410 of ABNT.

Application: Recommended for supply circuits and distribution of power, in industrial installations, transformation substations, outdoor or underground in locations of excessive humidity or directly buried in the ground, in electro-ducts, trays and channels.



Colors: Insulation - Black; Coating - Black, Light Blue and Green, other colors subject to query.
Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	COLOR OF INSULATION	COLOR COATING	PACKING
				INSULATION mm	COATING mm						
1.5	114.04	C4 / C5	1.5	0.7	0.9	4.7	3.30	13.30	●	●●●	⊙
2.5	114.05	C4 / C5	1.9	0.7	0.9	5.1	4.40	7.98	●	●●●	⊙
4	114.06	C4 / C5	2.5	0.7	0.9	5.7	5.95	4.95	●	●●●	⊙
6	114.07	C4 / C5	3.0	0.7	0.9	6.2	7.85	3.30	●	●●●	⊙
10	114.08	C5	4.0	0.7	1.0	7.5	12.60	1.91	●	●●●	⊙
16	114.09	C5	5.1	0.7	1.0	8.6	18.05	1.21	●	●●●	⊙
25	114.10	C5	6.5	0.9	1.1	10.5	27.70	0.780	●	●●●	⊙
35	114.11	C5	7.3	0.9	1.1	11.5	37.00	0.554	●	●●●	⊙
50	114.12	C5	9.0	1.0	1.2	13.8	51.85	0.386	●	●●●	⊙
70	114.13	C5	10.4	1.1	1.2	15.4	69.90	0.272	●	●●●	⊙
95	114.14	C5	12.0	1.1	1.3	17.0	93.00	0.206	●	●●●	⊙
120	114.15	C5	14.0	1.2	1.3	19.0	115.20	0.161	●	●●●	⊙
150	114.16	C5	15.5	1.4	1.4	21.2	144.00	0.129	●	●●●	⊙
185	114.17	C5	17.4	1.6	1.4	23.4	174.00	0.106	●	●●●	⊙
240	114.18	C5	20.0	1.7	1.5	26.4	228.00	0.0801	●	●●●	⊙
300	114.19	C5	22.0	1.8	1.6	29.8	288.00	0.0641	●	●●●	⊙
400	114.21	C5	27.0	2.0	1.7	33.5	379.00	0.0486	●	●●●	⊙
500	114.22	C5	30.0	2.2	1.8	38.0	479.00	0.0384	●	●●●	⊙

C = Class/Weights and nominal dimensions

⊙ Coil ⊞ Reel

GTEPROM RIGID HEPR 90°C CABLE

0.6/1 kV

Description: For nominal voltages of up to 0.6/1 kV, formed by bare copper, electrolytic, soft spot wires Class 2 stranding (flexible) insulated with Ethylene-Propylene (HEPR) thermofix compound, of high module for 90°C type, and polyvinyl chloride (PVC) ST2 type coating, fire resistant (BWF-B).

Basic applicable standards: Product requirements- NBR 7286 of ABNT. Power cable with extruded solid insulation in Ethylene-Propylene (HEPR) rubber for voltages of up to 0.6/1 kV. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul. Installation - NBR 5410 of ABNT.

Application: Recommended for supply circuits and distribution of power, in industrial installations, transformation substations, outdoor or underground in locations of excessive humidity or directly buried in the ground, in electro-ducts, trays and channels.



Colors: Insulation - Black; Coating - Black, Light Blue and Green, other colors subject to query.
Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	DUCT		THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	COLOR OF INSULATION	COLOR COATING	PACKING
		N° ELEMENTARY WIRE	DIAMETER mm	INSULATION mm	COATING mm						
6	109.07	7 C2	3.2	0.7	0.9	6.4	8.7	3.08	●	●●●	⊙
10	109.08	7 C2	4.2	0.7	1.0	7.6	13.1	1.83	●	●●●	⊙
16	109.09	7 C2	5.2	0.7	1.0	8.6	19.6	1.15	●	●●●	⊙
25	109.10	7 C2	6.5	0.9	1.1	10.5	29.2	0.727	●	●●●	⊙
35	109.11	7 C2	7.6	0.9	1.1	11.6	39.0	0.524	●	●●●	⊙
50	109.12	19 C2	8.8	1.0	1.2	13.2	52.2	0.387	●	●●●	⊙
70	109.13	19 C2	10.7	1.1	1.2	15.3	69.8	0.268	●	●●●	⊙
95	109.14	19 C2	12.4	1.1	1.3	17.2	95.3	0.193	●	●●●	⊙
120	109.15	37 C2	14.0	1.2	1.3	19.0	122.3	0.153	●	●●●	⊙
150	109.16	37 C2	15.6	1.4	1.4	21.2	153.3	0.124	●	●●●	⊙
185	109.17	37 C2	17.3	1.6	1.4	23.3	182.8	0.0991	●	●●●	⊙
240	109.18	61 C2	20.0	1.7	1.5	26.4	235.1	0.0754	●	●●●	⊙
300	109.19	61 C2	22.1	1.8	1.6	28.9	295.0	0.0601	●	●●●	⊙

C = Class/Weights and nominal dimensions

⊙ Coil ⊞ Reel

MULTINAX FLEX HEPR 90°C CABLE

0.6/1 kV (2, 3 and 4 ducts)

Description: For nominal voltages of up to 0.6/1Kv, formed by bare copper, electrolytic, soft spot wires, Class 4 and 5 stranding (flexible), insulated with Ethylene-Propylene (HEPR) thermofix compound, of high module for 90°C, twisted cores forming the center core, and extruded coating with polyvinyl chloride ST2 type (PVC), fire resistant (BWF-B).

Basic applicable standards: Product requirements- NBR 7286 of ABNT. Power cable with extruded insulation of Ethylene-Propylene (EPR) rubber for voltages from 1 kV to 35 kV - Performance requirements. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for supply circuits and distribution of electric power for up to 0.6/1 kV, in fixed commercial, residential and industrial installations that require flexibility in installation of panels, junction boxes etc.

Colors: Insulation - According to table mentioned below (Special colors, contacts our Sales Department) - Coating - Black.



Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	COLOR OF COATING	PACKING
				INSULATION HEPR mm	COATING PVC mm						
2 x 1.5	152.04	C4 / C5	1.5	0.7	1.0	7.8	8.32	13.3	●●	●	⊙
2 x 2.5	152.05	C4 / C5	1.9	0.7	1.0	8.6	11.22	7.98	●●	●	⊙
2 x 4	152.06	C4 / C5	2.5	0.7	1.1	9.8	15.60	4.95	●●	●	⊙
2 x 6	152.07	C4 / C5	3.1	0.7	1.1	11.2	21.90	3.30	●●	●	⊙
2 x 10	152.08	C5	4.0	0.7	1.2	13.4	32.50	1.91	●●	●	⊙
2 x 16	152.09	C5	5.1	0.7	1.2	17.0	54.00	1.21	●●	●	⊙
2 x 25	152.10	C5	6.5	0.9	1.3	21.0	82.00	0.780	●●	●	⊙
2 x 35	152.11	C5	7.3	0.9	1.4	23.6	109.21	0.554	●●	●	⊙
2 x 50	152.12	C5	9.0	1.0	1.5	27.4	147.15	0.386	●●	●	⊙
3 x 1.5	153.04	C4 / C5	1.5	0.7	1.0	8.3	10.00	13.30	●●○	●	⊙
3 x 2.5	153.05	C4 / C5	1.9	0.7	1.0	9.4	13.60	7.98	●●○	●	⊙
3 x 4	153.06	C4 / C5	2.5	0.7	1.1	10.6	19.64	4.95	●●○	●	⊙
3 x 6	153.07	C4 / C5	3.1	0.7	1.1	11.7	26.30	3.30	●●○	●	⊙
3 x 10	153.08	C5	4.0	0.7	1.2	14.3	41.30	1.91	●●○	●	⊙
3 x 16	153.09	C5	5.1	0.7	1.2	18.1	66.07	1.21	●●○	●	⊙
3 x 25	153.10	C5	6.5	0.9	1.4	22.6	105.70	0.780	●●○	●	⊙
3 x 35	153.11	C5	7.3	0.9	1.4	25.2	139.30	0.554	●●○	●	⊙
3 x 50	153.12	C5	9.0	1.0	1.6	29.4	196.00	0.386	●●○	●	⊙
3 x 70	153.13	C5	10.4	1.1	1.7	34.1	266.70	0.272	●●○	●	⊙
3 x 95	153.14	C5	12.0	1.1	1.8	37.8	341.00	0.206	●●○	●	⊙
3 x 120	153.15	C5	14.0	1.2	1.9	42.5	432.00	0.161	●●○	●	⊙
4 x 1.5	154.04	C4 / C5	1.5	0.7	1.0	9.5	12.39	13.30	●●○●	●	⊙
4 x 2.5	154.05	C4 / C5	1.9	0.7	1.1	10.6	17.02	7.98	●●○●	●	⊙
4 x 4	154.06	C4 / C5	2.5	0.7	1.1	11.6	24.00	4.95	●●○●	●	⊙
4 x 6	154.07	C4 / C5	3.1	0.7	1.2	13.3	34.00	3.30	●●○●	●	⊙
4 x 10	154.08	C5	4.1	0.7	1.2	15.9	53.00	1.91	●●○●	●	⊙
4 x 16	154.09	C5	5.1	0.7	1.3	19.9	84.70	1.21	●●○●	●	⊙
4 x 25	154.10	C5	6.5	0.9	1.4	24.7	132.20	0.780	●●○●	●	⊙
4 x 35	154.11	C5	7.3	0.9	1.5	27.8	175.60	0.554	●●○●	●	⊙
4 x 50	154.12	C5	9.0	1.0	1.6	32.3	236.70	0.386	●●○●	●	⊙
4 x 70	154.13	C5	10.4	1.1	1.8	37.5	338.10	0.272	●●○●	●	⊙
4 x 95	154.14	C5	12.0	1.1	1.9	41.8	435.40	0.206	●●○●	●	⊙
4 x 120	154.15	C5	14.0	1.2	2.0	46.9	548.80	0.161	●●○●	●	⊙

C = Class/Weights and nominal dimensions

⊙ Coil ⊞ Reel

CONTROL CABLE

UP TO 0.6/1 kV

Description: Formed by bare copper, electrolytic, soft sport wires, Class 4 and 5 standing (flexible, insulated with polyvinyl chloride (PVC), PVC/A type for 70°C, and coating with polyvinyl chloride (PVC), ST1 type for 105°C. Both PVCs are fire resistant (BWF-B).

Basic applicable standards: Product requirements- NBR 7289 of ABNT; Control cables with extruded insulation of PE or PVC for voltages of up to 1 kV. Performance requirements. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for command and control circuits, in industrial, commercial and other types of installations. Used in operation of industrial equipment and panels, through signals or feeding in fixed installations.



Colors: Insulation- Black. Coating - Black.

Core identification: Numbered cores.

NOMINAL SECTION mm²	REFERENCE	INSULATION VOLTAGE	NUMBER OF DUCTS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	INSULATION COLOR	COLOR OF COATING	PACKING
					INSULATION mm	COVER mm					
0.5	302.01.04.4.01	0.5 kV	2	0.95	0.6	1.0	6.3	5.2	●	●	■
0.5	303.01.04.4.01	0.5 kV	3	0.95	0.6	1.0	6.6	6.0	●	●	■
0.5	304.01.04.4.01	0.5 kV	4	0.95	0.6	1.0	7.2	7.1	●	●	■
0.5	305.01.04.4.01	0.5 kV	5	0.95	0.6	1.0	7.8	8.3	●	●	■
0.5	306.01.04.4.01	0.5 kV	6	0.95	0.6	1.0	8.5	9.6	●	●	■
0.5	30701.04.4.01	0.5 kV	7	0.95	0.6	1.0	8.5	10.4	●	●	■
0.5	308.01.04.4.01	0.5 kV	8	0.95	0.6	1.1	6.3	12.2	●	●	■
0.5	310.01.04.4.01	0.5 kV	10	0.95	0.6	1.1	6.6	14.6	●	●	■
0.5	312.01.04.4.01	0.5 kV	12	0.95	0.6	1.1	7.2	16.6	●	●	■
0.5	316.01.04.4.01	0.5 kV	16	0.95	0.6	1.2	7.8	21.3	●	●	■
0.5	320.01.04.4.01	0.5 kV	20	0.95	0.6	1.2	8.5	25.8	●	●	■
0.5	325.01.04.4.01	0.5 kV	25	0.95	0.6	1.3	8.5	31.7	●	●	■
0.75	302.02.04.4.01	0.5 kV	2	1.1	0.6	1.0	6.6	5.9	●	●	■
0.75	303.02.04.4.01	0.5 kV	3	1.1	0.6	1.0	7.0	7.0	●	●	■
0.75	304.02.04.4.01	0.5 kV	4	1.1	0.6	1.0	7.5	8.4	●	●	■
0.75	305.02.04.4.01	0.5 kV	5	1.1	0.6	1.0	8.2	9.9	●	●	■
0.75	306.02.04.4.01	0.5 kV	6	1.1	0.6	1.0	8.9	11.3	●	●	■
0.75	30702.04.4.01	0.5 kV	7	1.1	0.6	1.0	8.9	12.5	●	●	■
0.75	308.02.04.4.01	0.5 kV	8	1.1	0.6	1.1	6.6	14.6	●	●	■
0.75	310.02.04.4.01	0.5 kV	10	1.1	0.6	1.1	7.0	17.5	●	●	■
0.75	312.02.04.4.01	0.5 kV	12	1.1	0.6	1.1	7.5	20.1	●	●	■
0.75	316.02.04.4.01	0.5 kV	16	1.1	0.6	1.2	8.2	25.8	●	●	■
0.75	320.02.04.4.01	0.5 kV	20	1.1	0.6	1.2	8.9	31.3	●	●	■
0.75	325.02.04.4.01	0.5 kV	25	1.1	0.6	1.3	8.9	38.7	●	●	■
1.0	302.03.04.4.01	0.5 kV	2	1.3	0.6	1.0	7.0	7.0	●	●	■
1.0	303.03.04.4.01	0.5 kV	3	1.3	0.6	1.0	7.4	8.4	●	●	■
1.0	304.03.04.4.01	0.5 kV	4	1.3	0.6	1.0	8.0	10.1	●	●	■
1.0	305.03.04.4.01	0.5 kV	5	1.3	0.6	1.0	8.8	12.0	●	●	■
1.0	306.03.04.4.01	0.5 kV	6	1.3	0.6	1.1	9.7	14.2	●	●	■
1.0	30703.04.4.01	0.5 kV	7	1.3	0.6	1.1	9.7	15.7	●	●	■
1.0	308.03.04.4.01	0.5 kV	8	1.3	0.6	1.1	10.8	17.9	●	●	■
1.0	310.03.04.4.01	0.5 kV	10	1.3	0.6	1.2	12.4	22.0	●	●	■
1.0	312.03.04.4.01	0.5 kV	12	1.3	0.6	1.2	12.8	25.3	●	●	■
1.0	316.03.04.4.01	0.5 kV	16	1.3	0.6	1.2	14.2	32.0	●	●	■
1.0	320.03.04.4.01	0.5 kV	20	1.3	0.6	1.3	15.9	40.0	●	●	■
1.0	325.03.04.4.01	0.5 kV	25	1.3	0.6	1.3	17.6	48.1	●	●	■
1.5	302.04.04.4.01	0.6/1kV	2	1.5	0.8	1.0	8.2	9.3	●	●	■
1.5	303.04.04.4.01	0.6/1kV	3	1.5	0.8	1.0	8.7	11.2	●	●	■
1.5	304.04.04.4.01	0.6/1kV	4	1.5	0.8	1.1	9.7	13.9	●	●	■
1.5	305.04.04.4.01	0.6/1kV	5	1.5	0.8	1.1	10.6	16.4	●	●	■
1.5	306.04.04.4.01	0.6/1kV	6	1.5	0.8	1.1	11.5	18.9	●	●	■
1.5	30704.04.4.01	0.6/1kV	7	1.5	0.8	1.1	11.5	21.0	●	●	■
1.5	308.04.04.4.01	0.6/1kV	8	1.5	0.8	1.2	13.1	24.3	●	●	■
1.5	310.04.04.4.01	0.6/1kV	10	1.5	0.8	1.2	14.8	29.4	●	●	■
1.5	312.04.04.4.01	0.6/1kV	12	1.5	0.8	1.3	15.5	34.4	●	●	■
1.5	316.04.04.4.01	0.6/1kV	16	1.5	0.8	1.3	17.2	43.6	●	●	■
1.5	320.04.04.4.01	0.6/1kV	20	1.5	0.8	1.4	19.3	53.8	●	●	■
1.5	325.04.04.4.01	0.6/1kV	25	1.5	0.8	1.5	21.6	66.3	●	●	■
2.5	302.05.04.4.01	0.6/1kV	2	1.9	0.8	1.0	9.0	13.5	●	●	■
2.5	303.05.04.4.01	0.6/1kV	3	1.9	0.8	1.1	9.8	16.3	●	●	■
2.5	304.05.04.4.01	0.6/1kV	4	1.9	0.8	1.1	10.6	18.8	●	●	■
2.5	305.05.04.4.01	0.6/1kV	5	1.9	0.8	1.1	11.7	21.9	●	●	■
2.5	306.05.04.4.01	0.6/1kV	6	1.9	0.8	1.2	12.9	26.0	●	●	■
2.5	30705.04.4.01	0.6/1kV	7	1.9	0.8	1.2	12.9	27.9	●	●	■
2.5	308.05.04.4.01	0.6/1kV	8	1.9	0.8	1.2	14.5	31.8	●	●	■
2.5	310.05.04.4.01	0.6/1kV	10	1.9	0.8	1.3	16.6	39.0	●	●	■

C = Class/Weights and nominal dimensions

■ Reel

NOMINAL SECTION mm ²	REFERENCE	INSULATION VOLTAGE	NUMBER OF DUCTS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg/100m	INSULATION COLOR	COLOR OF COATING	PACKING
					INSULATION mm	COVER mm					
2.5	312.05.04.4.01	0.6/1kV	12	1.9	0.8	1.3	172	43.6	●	●	■
2.5	316.05.04.4.01	0.6/1kV	16	1.9	0.8	1.4	19.3	55.2	●	●	■
2.5	320.05.04.4.01	0.6/1kV	20	1.9	0.8	1.5	21.7	67.7	●	●	■
2.5	325.05.04.4.01	0.6/1kV	25	1.9	0.8	1.5	24.0	80.6	●	●	■
4.0	302.06.04.4.01	0.6/1kV	2	2.4	1.0	1.1	11.0	18.5	●	●	■
4.0	303.06.04.4.01	0.6/1kV	3	2.4	1.0	1.1	11.7	22.7	●	●	■
4.0	304.06.04.4.01	0.6/1kV	4	2.4	1.0	1.2	13.0	28.4	●	●	■
4.0	305.06.04.4.01	0.6/1kV	5	2.4	1.0	1.2	14.3	33.9	●	●	■
4.0	306.06.04.4.01	0.6/1kV	6	2.4	1.0	1.3	15.8	40.1	●	●	■
4.0	30706.04.4.01	0.6/1kV	7	2.4	1.0	1.3	15.8	44.8	●	●	■
4.0	308.06.04.4.01	0.6/1kV	8	2.4	1.0	1.3	178	50.8	●	●	■
4.0	310.06.04.4.01	0.6/1kV	10	2.4	1.0	1.4	20.4	62.7	●	●	■
4.0	312.06.04.4.01	0.6/1kV	12	2.4	1.0	1.4	21.1	72.7	●	●	■
4.0	316.06.04.4.01	0.6/1kV	16	2.4	1.0	1.5	23.7	94.9	●	●	■
4.0	320.06.04.4.01	0.6/1kV	20	2.4	1.0	1.6	26.7	116.5	●	●	■
6.0	302.0704.4.01	0.6/1kV	2	3.0	1.0	1.2	12.4	24.6	●	●	■
6.0	303.0704.4.01	0.6/1kV	3	3.0	1.0	1.2	13.2	30.5	●	●	■
6.0	304.0704.4.01	0.6/1kV	4	3.0	1.0	1.2	14.5	37.7	●	●	■
6.0	305.0704.4.01	0.6/1kV	5	3.0	1.0	1.3	16.1	45.9	●	●	■
6.0	306.0704.4.01	0.6/1kV	6	3.0	1.0	1.3	176	53.5	●	●	■
6.0	3070704.4.01	0.6/1kV	7	3.0	1.0	1.3	176	60.1	●	●	■
6.0	308.0704.4.01	0.6/1kV	8	3.0	1.0	1.4	20.1	69.0	●	●	■
6.0	310.0704.4.01	0.6/1kV	10	3.0	1.0	1.5	23.0	85.2	●	●	■
6.0	312.0704.4.01	0.6/1kV	12	3.0	1.0	1.5	23.8	99.1	●	●	■
6.0	316.0704.4.01	0.6/1kV	16	3.0	1.0	1.6	26.7	128.7	●	●	■
10.0	302.08.04.4.01	0.6/1kV	2	4.0	1.0	1.2	14.4	36.7	●	●	■
10.0	303.08.04.4.01	0.6/1kV	3	4.0	1.0	1.3	15.6	47.2	●	●	■
10.0	304.08.04.4.01	0.6/1kV	4	4.0	1.0	1.3	17.1	58.8	●	●	■
10.0	305.08.04.4.01	0.6/1kV	5	4.0	1.0	1.4	19.0	71.7	●	●	■
10.0	306.08.04.4.01	0.6/1kV	6	4.0	1.0	1.4	20.8	83.7	●	●	■
10.0	30708.04.4.01	0.6/1kV	7	4.0	1.0	1.4	20.8	94.8	●	●	■
10.0	308.08.04.4.01	0.6/1kV	8	4.0	1.0	1.5	23.7	108.5	●	●	■
10.0	310.08.04.4.01	0.6/1kV	10	4.0	1.0	1.6	27.2	134.1	●	●	■
10.0	312.08.04.4.01	0.6/1kV	12	4.0	1.0	1.7	28.4	158.1	●	●	■
16.0	302.09.04.4.01	0.6/1kV	2	5.0	1.0	1.3	16.6	51.5	●	●	■
16.0	303.09.04.4.01	0.6/1kV	3	5.0	1.0	1.3	17.7	66.0	●	●	■
16.0	304.09.04.4.01	0.6/1kV	4	5.0	1.0	1.4	19.7	83.6	●	●	■
16.0	305.09.04.4.01	0.6/1kV	5	5.0	1.0	1.5	21.9	102.1	●	●	■
16.0	306.09.04.4.01	0.6/1kV	6	5.0	1.0	1.5	24.0	119.7	●	●	■
16.0	30709.04.4.01	0.6/1kV	7	5.0	1.0	1.5	24.0	135.7	●	●	■

C = Class/Weights and nominal dimensions

■ Reel

FLEXICOM TWISTED CORD

300 V

Description: For nominal voltages of up to 300 V, formed by bare copper, electrolyte, soft spot wires, Class 5 stranding (flexible), two cores organized in parallel insulated with polyvinyl chloride (PVC), PVC/D type for 70°C.

Basic applicable standards: Product requirements - ABNT NBR NM 247-5. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Indicated in feeding of household equipment, apparent internal connections, extensions, luminaires and handheld sets.



Colors: White and Brown.

Packing: In 100 meters coils, or wooden reels in specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIMENSIONS mm	NET WEIGHT kg/100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
2 x 0.5	120.01	C5	0.9	0.8	2.6 x 5.2	2.1	39.0	●●	⊙ ■ ■ ■
2 x 0.75	120.02	C5	1.1	0.8	2.7 x 5.4	2.7	26.0	●●	⊙ ■ ■ ■
2 x 1	120.03	C5	1.3	0.8	2.8 x 5.6	3.1	19.5	●●	⊙ ■ ■ ■
2 x 1.5	120.04	C5	1.5	0.8	3.1 x 6.2	4.2	13.3	●●	⊙ ■ ■ ■ □
2 x 2.5	120.05	C5	1.9	0.8	3.6 x 7.2	6.3	7.98	●●	⊙ ■ ■ ■ □
2 x 4	120.06	C5	2.5	0.8	4.3 x 8.6	8.6	4.95	●●	⊙ ■ ■ ■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel ■ Spool □ Blister

FLEXICOM TWISTED CORD

300 V

Description: For nominal voltages of up to 300 V, formed by bare copper, electrolyte, soft spot wires, Class 4 stranding (flexible), individual insulation of cores with polyvinyl chloride (PVC), PVC/D type for 70°C and two twisted cores.

Basic applicable standards: Product requirements- NBR 15717 of ABNT. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Indicated in feeding of household equipment, apparent internal connections, extensions, inspection lights, luminaires and handheld sets.

Colors: White and Brown.

Packing: In 100 meters coils or wooden reels in specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg/100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
2 x 0.50	122.01	C4	0.9	0.8	2.5 x 5.0	2.16	39.0	○●	⊙ ■ ■
2 x 0.75	122.02	C4	1.1	0.8	2.6 x 5.2	2.70	26.0	○●	⊙ ■ ■
2 x 1	122.03	C4	1.3	0.8	2.8 x 5.6	3.25	19.5	○●	⊙ ■ ■
2 x 1.5	122.04	C4	1.5	0.8	3.1 x 6.2	4.25	13.3	○●	⊙ ■ ■
2 x 2.5	122.05	C4	1.9	0.8	3.5 x 7.0	6.25	7.98	○●	⊙ ■ ■
2 x 4	122.06	C4	2.5	0.8	4.0 x 8.0	9.16	4.95	○●	⊙ ■ ■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel ■ Spool

POLARIZED PARALLEL CORD

300 V

Description: For nominal voltages of up to 300 V, formed by bare copper, electrolyte, soft spot wires, Class 5 stranding (flexible), two cores organized in parallel insulated with polyvinyl chloride (PVC), PVC/D type for 70°C.

Basic applicable standards: COBRECOM internal standard

Application: Indicated for installation of loudspeakers, sounding system and sound equipment in general.

Colors: Red with black strip.

Packing: In 100 meters coils, wooden spool in specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIMENSIONS mm	NET WEIGHT kg/100m	INSULATION COLOR	PACKING
2 x 0.5	121.01	0.73	0.4	1.7 x 3.3	1.10	●	⊙ ■
2 x 0.75	121.02	0.90	0.5	2.0 x 4.0	1.65	●	⊙ ■
2 x 1	121.03	1.08	0.6	2.3 x 4.6	2.25	●	⊙ ■
2 x 1.5	121.04	1.29	0.6	2.5 x 5.0	2.95	●	⊙ ■
2 x 2.5	121.05	1.50	0.7	3.0 x 5.9	3.90	●	⊙ ■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Spool

FLEX PLAIN CABLE

300 V

Description: For nominal voltages of 300 V, formed by bare copper, electrolytic, soft spot wires Class 5 stranding (flexible), the cores are insulated with polyvinyl chloride (PVC), PVC/D type for 70°C, and organized in parallel forming the core, extruded coating with polyvinyl chloride ST5 type (PVC).

Basic applicable standards: Product requirements - ABNT NBR NM 247-5. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Recommended for feeding of electric household appliances, electric machines and handheld tools, which require a high flexibility and resistance to abrasion cable.

Colors: Insulation - 2 ducts: Clear Blue and Brown. Coating - Black or White.

Packing: In 500 meters coils, or wooden reels in specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	COLOR OF COATING	PACKING
				INSULATION mm	COATING mm						
2 x 0.5	118.01	C5	0.9	0.5	0.6	3.3 x 5.2	2.9	39.0	●●	○●	⊙ ■
2 x 0.75	118.02	C5	1.1	0.5	0.6	3.5 x 5.6	3.6	26.0	●●	○●	⊙ ■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel

SOLARCOM CABLE

0.6/1 kV (CA) or 1.8 kV (CC)

Description: Cable for nominal voltages of 0.6/1 kV (CA) and up to 1.8 kV (CC) formed by electrolytic copper wires and tinned with class 5 stranding (flexible) with insulation and coating in thermofix polyolefin compound of high thermal stability with service temperature from -15°C through 90°C with maximum operation temperature of 120°C during 20.000h, of easy installation due to its flexibility and low radius of curve.

Some characteristics of the applied polyolefin compound: Free of halogen, high resistance to UV rays, resistance to ozone, flame resistant, low emission of smoke and gases, resistant to mineral oils, alkalis and ammonia; excellent mechanical resistance.

Basic applicable standards: Product requirements - NBR 16612 - Power cables for photovoltaic systems, non-halogenated, insulated, with coating, for voltage of up to 1.8 kV (CC) between ducts - Performance requirements. Duct formation and electric resistance - NBR NM-280 - Ducts of insulated cables.



Application: For use in fixed installations which product interconnects the photovoltaic modules to the string box, control box and service panels to the inverters. High safety cables that do not propagate fire, with low emission of smoke and free of halogen. Adequate for internal and external installations.

Colors: Insulation - White or Natural. Coating - Red, Black and Green/Yellow. Special: other colors subject to query.

Packing: In 100 meters coils, wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS	DUCT DIAMETER mm	THICKNESS		EXTERNAL DIAMETER mm nom. máx	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	COLOR OF COATING	PACKING
				INSULATION XLPE mm	COATING XLPE mm						
1.5	281.04	C5	1.5	0.70	0.80	4.5	3.0	13.70	○	●●●	⊙ ■
2.5	281.05	C5	1.9	0.70	0.80	4.9	4.1	8.21	○	●●●	⊙ ■
4	281.06	C5	2.4	0.70	0.80	5.4	5.6	5.09	○	●●●	⊙ ■
6	281.07	C5	3.0	0.70	0.80	6.0	7.4	3.39	○	●●●	⊙ ■
10	281.08	C5	4.0	0.70	0.80	7.0	11.8	1.95	○	●●●	⊙ ■
16	281.09	C5	5.0	0.70	0.90	8.2	17.7	1.24	○	●●●	⊙ ■
25	281.10	C5	6.2	0.90	1.00	10.0	26.8	0.795	○	●●●	⊙ ■
35	281.11	C5	7.4	0.90	1.10	11.4	36.9	0.565	○	●●●	⊙ ■
50	281.12	C5	8.9	1.00	1.20	13.3	52.0	0.393	○	●●●	■
70	281.13	C5	10.4	1.10	1.20	15.0	70.2	0.277	○	●●	■
95	281.14	C5	12.1	1.10	1.30	16.9	93.0	0.210	○	●●	■
120	281.15	C5	13.6	1.20	1.30	18.6	115.0	0.164	○	●●	■
150	281.16	C5	15.3	1.40	1.40	20.9	144.5	0.132	○	●●	■
185	281.17	C5	16.8	1.60	1.60	23.2	176.5	0.108	○	●●	■
240	281.18	C5	19.3	1.70	1.70	26.1	230.6	0.0817	○	●●	■
300	281.19	C5	21.8	1.80	1.80	29.0	291.0	0.0654	○	●●	■
400	281.21	C5	25.2	2.00	2.00	33.2	385.0	0.0495	○	●●	■

C = Class/Weights and nominal dimensions

⊙ Coil ■ Reel

FLEXICOM 105°C CABLE

750 V

Description: For nominal voltages of up to 750 V, formed by bare copper, electrolyte, soft spot wires, Class 4 stranding (flexible), insulated with polyvinyl chloride (PVC), PVC/EB type for 105°C.

Basic applicable standards: Product requirements- NBR 9117 of ABNT. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: Indicated for connection of reactors and heating sets which temperature of operation in permanent regime does not exceed 105°C.

Colors: Standard; Black, White, Light Blue, Green, Blue, Red, Brown and Yellow. Special; Green/Yellow and other colors subject to query.

Packing: In 100 meters coils, or plastic spools in specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	STRANDING CLASS mm	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
0.5	116.01	C4	0.9	0.8	2.5	0.92	39.00	●○●●●●●●	○■
0.75	116.02	C4	1.1	0.8	2.6	1.35	26.00	●○●●●●●●	○■
1	116.03	C4	1.3	0.8	2.8	1.53	19.50	●○●●●●●●	○■
1.5	116.04	C4	1.5	0.8	3.1	2.04	13.30	●○●●●●●●	○■
2.5	116.05	C4	1.9	0.8	3.5	2.95	7.98	●○●●●●●●	○■
4	116.06	C4	2.5	0.8	4.0	4.31	4.95	●○●●●●●●	○■
6	116.07	C4	3.1	0.8	4.6	6.28	3.30	●○●●●●●●	○■

C = Class/Weights and nominal dimensions

○ Coil ■ Reel

COMPEX CABLE

0.6/1 kV

Description: For nominal voltages of up to 0.6/1 kV, formed by bare copper, electrolytic, soft spot wires, stranded with Class 2 compacted circular section, insulated in thermofix compound (XLPE) 90°C with 2.5% of dispersed carbon black

Basic applicable standards: Product requirements- NBR 7285 of ABNT. Power cable with XLPE Thermofix Polyethylene extruded insulation for voltage of 0.6/1 kV- No coating - Specification. Formation of duct and electric resistance - NBR NM-280 of ABNT/Mercosul.

Application: The COMPEX CABLES are used in supply circuits and distribution of electric power. Designed for fixed installations. In general are installed in external aerial lines, mounted on poles or structures.



Colors: Insulation: Black.

Packing: Wooden reels with 500 meters or specific packing subject to query.

NOMINAL SECTION mm ²	REFERENCE	DUCT DIAMETER mm	INSULATION THICKNESS mm	EXTERNAL DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω/km a 20°C	INSULATION COLOR	PACKING
10.0	108.8	3.9	1.6	7.1	11.3	1.83	●	■
16.0	108.09	4.9	1.6	8.1	17.3	1.15	●	■
25.0	108.10	5.9	1.6	9.1	24.7	0.727	●	■
35.0	108.11	7.0	1.6	10.2	33.8	0.524	●	■
50.0	108.12	8.3	2.0	12.3	47.4	0.387	●	■
70.0	108.13	10.0	2.0	14.0	64.4	0.268	●	■
95.0	108.14	11.6	2.0	15.6	88.5	0.193	●	■
120.0	108.15	13.1	2.4	17.9	113.6	0.153	●	■
150.0	108.16	14.4	2.4	19.2	140.2	0.124	●	■
185.0	108.17	16.5	2.4	21.3	167.3	0.0991	●	■
240.0	108.18	18.8	2.4	23.6	216.2	0.0754	●	■
300.0	108.19	21.1	2.8	26.7	276.2	0.0601	●	■

C = Class/Weights and nominal dimensions

■ Reel

TMD BARE COPPER CABLE

WITH PRODUCT IDENTIFICATION BAND

Description: Formed by bare copper, electrolytic, annealed temper, solid, Class 2A and 3A stranding.

Basic applicable standards: Product requirements- NBR 5111 of ABNT. Formation of duct and electric resistance - NBR 6524 of ABNT.

Application: Indicated in installations of electric power transmission aerial lines and in grounding system.

Product constitution: Copper used in manufacture of the bare copper cable is refined by electrolysis, with minimum purity of 99.9%, annealed, annealed temper, minimum conductivity of 96.6% IACS at 20°C, available in a copper wire with length of 1m, 1 mm² of transversal section at 20°C, this means, maximum electric resistivity ρ at 200C = 0.017837 Ω x mm²/m.



Packing: In wooden reels, in specific packing, subject to query.

NOMINAL SECTION mm ²	REFERENCE	DUCT		NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE Ω /km a 20°C	PACKING
		N° ELEMENTARY WIRE	DIAMETER mm			
10	104.08	7 C2A	4.1	9.1	1.82	Reel
16	104.09	7 C2A	5.1	14.3	1.17	Reel
25	104.10	7 C2A	6.2	20.9	0.795	Reel
35	104.11	7 C2A	7.5	30.9	0.538	Reel
50	104.12	7 C2A	9.0	44.4	0.375	Reel
70	104.13	7 C2A	10.6	60.2	0.283	Reel
120	104.15	19 C2A	14.5	110.7	0.148	Reel
70	123.13	19 C3A	10.6	60.2	0.276	Reel
95	123.14	19 C3A	12.5	83.7	0.198	Reel
120	123.15	37 C3A	14.5	110.7	0.150	Reel
150	123.16	37 C3A	15.7	130.9	0.127	Reel
185	123.17	37 C3A	17.5	163.1	0.102	Reel
240	123.18	37 C3A	20.3	219.4	0.076	Reel

C = Class/Weights and nominal dimensions

Coil Reel

BARE COPPER WIRE

Description: Bare copper wire, electrolytic, soft spot, electrolytic, solid, Class 1.

Basic applicable standards: Product requirements - NBR 5111 and NBR 6809

Application: Indicated in installations of electric power transmission aerial lines.

Packing: In 100 meters coils or wooden reels in specific packing subject to query.



NOMINAL SECTION mm ²	REFERENCE	DUCT DIAMETER mm	NET WEIGHT kg / 100m	MAX. ELECTRIC RESISTANCE MÁX. Ω /km a 20°C	PACKING
2.5	105.05	1.76 C1	2.1	741	Coil Reel
4	105.06	2.24 C1	3.5	4.61	Coil Reel
6	105.07	2.72 C1	5.1	3.08	Coil Reel
10	105.08	3.54 C1	8.7	1.83	Coil Reel

C = Class/Weights and nominal dimensions

Coil Reel

MINIMUM SECTIONS OF DUCTS

Information extracted from NBR 5410:2004 rule

TYPE OF INSTALLATION	CIRCUIT USAGE	MINIMUM SECTION OF DUCT (mm ²)
Fixed Installation	Illumination circuit	1.5
	Power circuit (plugs)	2.5
	Plug for specific usage	According to equipment to be connected
Mobile connections	For specific equipment	As specified in the equipment description
	For any other application	0.75

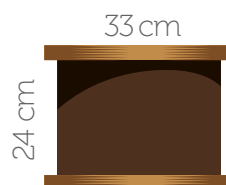
COLORS OF NEUTRAL DUCT FOR PROTECTION (GROUND) AND PHASE

According to rule NBR 5410:2004 - Low Voltage Electric Installations, the colors light-blue and green/yellow or only green, are exclusive for given functions. The duct with insulation in the light-blue color should be used as neutral duct.

The duct with green/yellow insulation or only green, should be used as protection duct, also known as ground wire. The duct used as phase can be of any color except the colors mentioned above.

COLORS OF NEUTRAL DUCT FOR PROTECTION (GROUND) AND PHASE

The spools have 33 cm of diameter and 24 cm of width. Each product packed in spool has a length that depends on the diameter of the packed material.



OCCUPATION RATE OF ELECTRO-DUCT AND LIMIT OF LENGTH

According to rule NBR 5410:2004 - Low Voltage Electric Installations, the electro-duct occupation rate should be complied with, which is the sum of the transversal areas of the ducts, calculated based on the external diameter. Based on this, the occupation area should not be higher than:

- 53% in case of one duct;
- 31% in case of two ducts;
- 40% in case of three or more ducts.

The continuous parts of piping, without interposition of boxes or equipment, should not exceed 15 meters in length for internal lines and 30 meters in length for external lines. If the parts include curves, the limits of 15 and 30 meters should be reduced in 3 meters for each curve of 90°.

VOLTAGE DROP

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According to rule NBR 5410:2004 – Low Voltage Electric Installations, item 6,2,7,2, under no circumstance shall the voltage drop in terminal circuits be higher than 4%. Higher drops of voltage are allowed for equipment such as electric motors with high starting current, as long as within the limits allowed in their respective rules. Below is the table of voltage drop for products insulated in PVC 70°C and environmental temperature of 30°C, installed according to method of reference B1.

Calculation:

Voltage drop (V) = fixed voltage drop (V/A.km) x circuit current (A) x length (km)

Voltage drop in % = [voltage drop (V) / circuit voltage (V)] x 100.

NOMINAL SECTION OF DUCT (mm ²)	VOLTAGE DROP FOR $\cos\phi = 0.8$ (V/A.km)		
	NON-MAGNETIC DUCT		MAGNETIC DUCT
	SINGLE PHASE CIRCUIT	THREE PHASE CIRCUIT	
15	23.3	20.2	23
25	14.3	12.4	14
4	8.96	7.79	9
6	6.03	5.25	5.87
10	3.63	3.17	3.54
16	2.32	2.03	2.27
25	1.51	1.33	1.5
35	1.12	0.98	1.12
50	0.85	0.76	0.86
70	0.62	0.55	0.64
95	0.48	0.43	0.5
120	0.4	0.36	0.42
150	0.35	0.31	0.37
185	0.3	0.27	0.32
240	0.26	0.23	0.29
300	0.23	0.20	0.26

TABLE OF CURRENT IN FULL LOAD OF AC MOTORS

60 HZ

RATED POWER		SINGLE PHASE SYSTEM		THREE PHASE SYSTEM 1800 RPM		
kW	cv	115 V	230 V	220 V	380 V	440 V
0.25	1/3	72	3.6	1.5	0.9	0.75
0.37	1/2	9.8	4.9	2.2	1.12	1.1
0.55	3/4	13.8	6.9	3.0	1.7	1.5
0.75	1	16	8	4.2	2.5	2.1
1.1	1.5	20	10	5.2	3.0	2.6
1.5	2	24	12	6.8	4.0	3.9
2.2	3	34	17	9.5	5.5	4.8
3.0	4	42	21	12	7.0	6.0
3.7	5	56	28	15	8.5	7.5
4.4	6	68	34	17	10	8.5
5.5	7.5	80	40	21	12	10.5
7.5	10	100	50	28	16	14
9.2	12.5	-	-	34	19	17
11	15	-	-	40	23	20
15	20	-	-	52	30	26
18.4	25	-	-	65	38	33
22	30	-	-	75	44	38
30	40	-	-	105	60	53
37	50	-	-	130	75	65
44	60	-	-	145	85	73
55	75	-	-	175	100	88
75	100	-	-	240	140	120
92	125	-	-	290	165	145
110	150	-	-	360	210	180
150	200	-	-	480	280	240
185	250	-	-	580	350	290
221	300	-	-	700	400	350

See in table below which is your installation method and check in the tables of the next pages the current capacity of the electric duct under discussion.

INSTALLATION METHOD TABLE

INSTALLATION METHOD NUMBER	DESCRIPTION	REFERENCE METHOD
7	Insulated ducts or unipolar cables in electro-duct of circular section embedded in masonry	B1
8	Multipolar cable in electro-duct of circular section embedded in masonry	B2
11	Unipolar cables or multipolar cable, on wall or distant from wall, less than 0.3 time the cable diameter	C
12	Unipolar cables or multipolar cable in non-perforated tray, wire channel or shelf	C
13	Unipolar cables or multipolar cable in perforated tray, horizontal or vertical	E (multipolar) F (unipolar)

Extracted from rule NBR 5410:2004 - Low voltage electric installations

CAPACITY OF CURRENT CONDUCTION IN AMPERES (A) FOR COPPER CABLES WITH INSULATION IN PVC (70°)

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INSTALLATION METHOD: B1, B2 AND C

NOMINAL SECTION OF DUCT (mm ²)	INDICATED REFERENCE METHODS					
	B1		B2		C	
	2 LOADED DUCTS	3 LOADED DUCTS	2 LOADED DUCTS	3 LOADED DUCTS	2 LOADED DUCTS	3 LOADED DUCTS
0.5	9	8	9	8	10	9
0.75	11	10	11	10	13	11
1	14	12	13	12	15	14
1.5	17.5	15.5	16.5	15	19.5	17.5
2.5	24	21	23	20	27	24
4	32	28	30	27	36	32
6	41	36	38	34	46	41
10	57	50	52	46	63	57
16	76	68	69	62	85	76
25	101	89	90	80	112	96
35	125	110	111	99	138	119
50	151	134	133	118	168	144
70	192	171	168	149	213	184
95	232	207	201	179	258	223
120	269	239	232	206	299	259
150	309	275	265	236	344	299
185	353	314	300	268	392	341
240	415	370	351	313	461	403
300	477	426	401	358	530	464
400	571	510	477	425	634	557
500	656	587	545	486	729	642

Extracted from rule NBR 5410:2004 - Low voltage electric installations

CAPACITY OF CURRENT CONDUCTION IN AMPERES (A) FOR COPPER CABLES WITH INSULATION IN PVC (70°)

INSTALLATION METHOD: E and F

NOMINAL SECTION OF DUCT (mm ²)	INDICATED REFERENCE METHODS				
	MULTIPOLAR CABLES		UNIPOLAR CABLES		
	2 LOADED DUCTS	3 LOADED DUCTS	2 LOADED DUCTS	3 LOADED DUCTS	3 LOADED DUCTS. IN SAME PLAN
	METHOD E	MÉTODO E	METHOD F	METHOD F	YUSTAPUESTOS METHOD F
1	2	3	4	5	6
0.5	11	9	11	8	9
0.75	14	12	14	11	11
1	17	14	17	13	14
1.5	22	18.5	22	17	18
2.5	30	25	31	24	25
4	40	34	41	33	34
6	51	43	53	43	45
10	70	60	73	60	63
16	94	80	99	82	85
25	119	101	131	110	114
35	148	126	162	137	143
50	180	153	196	167	174
70	232	196	251	216	225
95	282	238	304	264	275
120	328	276	352	308	321
150	379	319	406	356	372
185	434	364	463	409	427
240	514	430	546	485	507
300	593	497	629	561	587
400	715	597	754	656	689
500	826	689	868	749	789

Extracted from rule NBR 5410:2004 - Low voltage electric installations

CAPACITY OF CURRENT CONDUCTION IN AMPERES (A) FOR COPPER CABLES WITH INSULATION IN PVC (90°C)

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INSTALLATION METHOD: B1, B2 AND C

NOMINAL SECTION OF DUCT (mm ²)	INDICATED REFERENCE METHODS					
	B1		B2		C	
	2 LOADED DUCTS	3 LOADED DUCTS	2 LOADED DUCTS	3 LOADED DUCTS	2 LOADED DUCTS	3 LOADED DUCTS
0.5	12	10	11	10	12	11
0.75	15	13	15	13	16	14
1	18	16	17	15	19	17
1.5	23	20	22	19.5	24	22
2.5	31	28	30	26	33	30
4	42	37	40	35	45	40
6	54	48	51	44	58	52
10	75	66	69	60	80	71
16	100	88	91	80	107	96
25	133	117	119	105	138	119
35	164	144	146	128	171	147
50	198	175	175	154	209	179
70	253	222	221	194	269	229
95	306	269	265	233	328	278
120	354	312	305	268	382	322
150	407	358	349	307	441	371
185	464	408	395	348	506	424
240	546	481	462	407	599	500
300	628	553	529	465	693	576
400	751	661	628	552	835	692
500	864	760	718	631	966	797

Extracted from rule NBR 5410:2004 - Low voltage electric installations

CAPACITY OF CURRENT CONDUCTION IN AMPERES (A) FOR COPPER CABLES WITH INSULATION IN HEPR OR XLPE (90°C)

INSTALLATION METHOD: E and F

NOMINAL SECTION OF DUCT (mm ²)	INDICATED REFERENCE METHODS				
	MULTIPOLAR CABLES		UNIPOLAR CABLES		
	2 LOADED DUCTS	3 LOADED DUCTS	2 LOADED DUCTS	3 LOADED DUCTS	3 LOADED DUCTS. IN SAME PLAN
	METHOD E	METHOD E	METHOD F	METHOD F	OVERLAPPED METHOD F
1	2	3	4	5	6
0.5	13	12	13	10	10
0.75	17	15	17	13	14
1	21	18	21	16	17
1.5	26	23	27	21	22
2.5	36	32	37	29	30
4	49	42	50	40	42
6	63	54	65	53	55
10	86	75	90	74	77
16	115	100	121	101	105
25	149	127	161	135	141
35	185	158	200	169	176
50	225	192	242	207	216
70	289	246	310	268	279
95	352	298	377	328	342
120	410	346	437	383	400
150	473	399	504	444	464
185	542	456	575	510	533
240	641	538	679	607	634
300	741	621	783	703	736
400	892	745	940	823	868
500	1030	859	1083	946	998


Extracted from rule NBR 5410:2004 - Low voltage electric installations

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Electric wires and cables



I.F.C. Ind. e Com. de Condutores Elétricos Ltda.

 Contact us +55 11 2118-3200

 cobrecom@cobrecom.com.br

 cobrecom.com.br

 /cobrecom

Unity Itu - SP
Av. Primo Schincariol, 670 • Jardim Oliveira
Itu • SP • CEP 13312-250 • Caixa Postal: 414

Unity Três Lagoas - MS
Av. Dois Esquina com Av. Cinco s/n • Distrito Industrial
Três Lagoas • MS • CEP 79601-970