Special Cables

PROVIDING SAFE ENERGY

ELSEWEDY CABLES

Subsidiary of ELSEWEDY ELECTRIC

Special Cables catalogue 2014

ELSEWEDY CABLES

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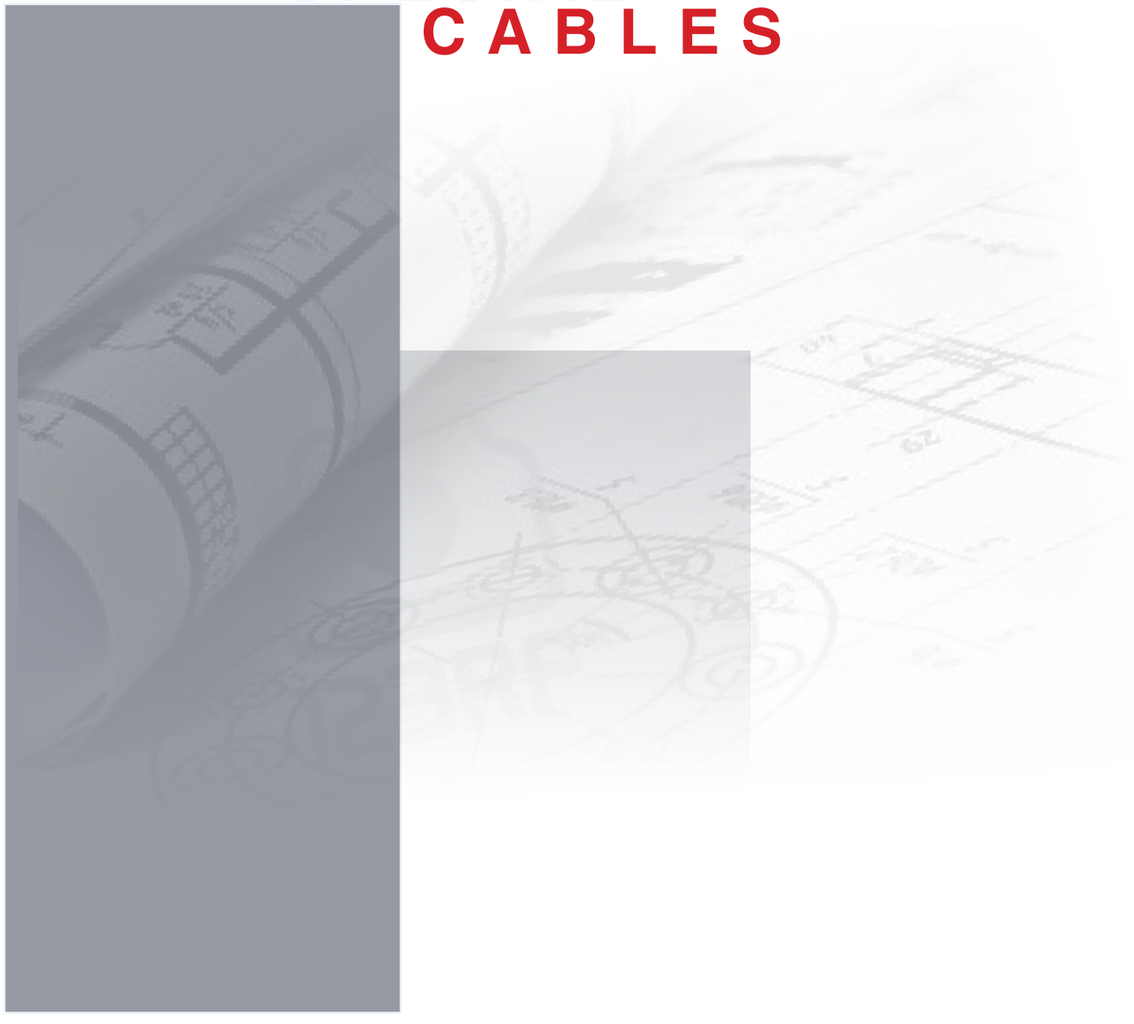
SPECIAL CABLES



www.elsewedy.com

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Welcome

Elsewedy Cables is one of the major companies under the umbrella of Elsewedy Electric holding company, it is also considered the mother company of the Cables Segment.

Elsewedy Cables is one of the leading worldwide manufacturers producing a wide range of cables, wires, special cables, network cables, fiber optic cables, cables accessories and integrated solution. The company has been able to maximize its commitment to improve efficiency by ensuring that its management possess the expertise and talent necessary for the most critical business needs and has thus succeeded in maintaining a solid financial position.

The special cables catalogue illustrates the wide range of special cables we have, including instrumentation, Control, Fire Alarm, Fire Resistance, LAN, Coaxial, Telephone, Automotive and Harmonized Cables.

Brief

Dedicating an area over 34316 m^2 and more than 900 employees for serving the complete process of the instrumentation, control, fire alarm, resistant cables, coaxial, LAN cables and winding wires manufacturing. Our production facilities are among the most advanced in the region offering value added products, resulting in a total annual production capacities of 20,000 ton / annum.

Product range

The facilities produce shielded, unshielded, armored and unarmored cables, with insulation material as PE, XLPE, LSHF, also PVC with several different characteristics like flame retardant, sun, ultra violet, corrosion, moisture, heat, oil, chemical, anti-bacterial, anti-termite, acid, alkalis and water resistant cables. In addition to, flexibility in manufacturing that can suit any customer's requirements.

ELSEWEDY CABLES

Introduction

SEGMENTS

INTEGRATED ENERGY SOLUTIONS

Wires and cables

Wires and cables segment has a wide range of products and solutions that covers different electrical applications within infrastructure, Industrial and building sector. Moreover, we provide a complete integrated solution for your project, insuring high quality products, optimum execution time and customer satisfaction.

Transformers

Being a leading provider of integrated solutions, Elsewedy transformer segment has a state of the art set-up to produce a wide range of products under three main divisions; power transformers division, oil immersed power and distribution transformers division. Serving the needs of electrical companies and heavy.
industries locally and internationally. Also, Elsewedy Cast Resin Dry type transformer division (ESCART) products can be used in locations where safety is of utmost importance like high rise buildings, hospitals, wind farms, airports and commercial complexes. Our dry type transformers range is up to 10 MVA, 36 KV In conformity with IEC 60076 & tested at KEMA & CESI With industrial facilities certificates ISO 9001 & 14001 and using the latest technologies in this field, we produce oil immersed distribution transformers from 25 KVA up to 5000 KVA with primary voltage up to 33 kV.

Electrical Products

Electrical products segment includes a diverse range of products providing integrated solutions that suit different market needs, where cables accessories, joints and terminations divisions are combined together resulting in integrated cables solutions. Insulators division integrating the generation, transformer substations, transmission lines and distribution turnkey projects. We also have a division for Fiber glass poles providing an elegant, reliable and low cost lighting solution.

Communication

Elsewedy Electric communication segment acquired a majority interest of 3W networks a technology based communication contractor and systems integrator primarily involved in providing integrated communication solution for oil and gas, power utilities, telecom operator, transport, and infrastructure sector.

Energy and water Measurements and management

Energy measurement and management features one of the most well-known brands worldwide in energy metering; ISKRAEMECO system solution provides value for all energy market players, utilities, consumers, energy suppliers and regulators. The water meters division provides watering measurement solution for industrial facilities in order to control water consumption and prevent water leakage. While under automation division ISKRAamesi is specialized in the field of meter test equipment and industrial automation.
Through efficient, flexible and scalable engineering tools we deliver customized analysis, development, construction and engineering services on automation of bulk production, testing equipment and process.

Projects & developments

This sector includes four divisions covering several market needs. The Development & Operating division develops, designs, builds, owns and operates assets in the field of power industry, whether in power generation, transmission or distribution. Transmission and distribution division is an international division specializing in providing complete solution for delivering electricity with its turn-key projects, such as electricity transmission and distribution, rural electrification and street lighting. Engineering and Generation division includes Power System Projects (PSP) which provides an EPC solution within the power generation and high voltage substations projects, with expert engineers and employees.
Finally, Water & Environment solution division specialized in the design,construction and operation of broad line water and environmental related applications whether in supplying fresh water, treatment of raw water or sewage, irrigation system, water and sewage conveyance and leakage detection, up to financing and managing water networks.

Wind energy

Elsewedy electric invading into the wind energy segment through the strategic acquisition of Spanish wind-energy turbines manufacturer M.Torres Olvega industrial and the joint venture agreement with German windmill tower manufacturer SIAG.

Solar energy

Solar technology works particularly well in the sun rich MENA region and Elsewedy's highly skilled technical team are experienced in adapting the technology for use in the Middle East and North Africa. Wide scale implementation of solar technology such as that provided by Elsewedy Solar is a new perspective for long term sustainable energy supplies. Elsewedy Solar offers highly trained engineers and energy experts with North African project experience and a reputation for delivering projects on time and on budget.

Elsewedy Electric Quality Policy

Quality & safety are uncompromised at Elsewedy Electric; the adopted policy assures maximum effectiveness & efficiency through all process systems, making sure that every aspect of the company activity is aligned to satisfy our objectives and customer expectations using the full potential of every person.
The continuous monitoring of systems' performance is essential and performed with the use of the most powerful diagnostic tools which contributed to the reliability of Elsewedy Electric Quality system that is based on the following worldwide approved Management Standards:

- Quality Management System (ISO 9001:2000)
- BASEC Quality Management System ISO / TS 16949:2002 (For Automotive Facilities)
- ISO 17025 (Competence of Testing & Calibration Laboratories)
- Environmental Management System (ISO 14001:2004)
- Occupational Health and Safety Assessment Series (OHSAS 18001:2007)

Elsewedy Electric Enterprise Relationship Management (ERM)

Our E-Business Enterprise Relationship Management (ERM) solution is a highly complex architecture yet convenient application that record, manage, analyze, weigh and graphically present the multifaceted networked business relationships with all our external entities and internal companies constituting the sectors. It is basically a business strategy for value creation that is not based on cost containment, but rather on the leveraging of network enabled processes and activities to transform and capitalize on the relationships between the organization and all its internal and external constituencies in order to maximize current and future orders and overall business opportunities.

ELSEWEDY ELECTRIC Employees

More than 10,000 ambitious employees are working on implementing our vision. These high profile selected calibers that work with tact at the highest competence to maintain and develop our expansion with the most dependability attitude. Their main drivers are the team spirit and the true willing of achieving new leaps. ELsewedy ELectric employees come from diverse cultural backgrounds that serve their societies' maturity through any of our spread factories wherever located & by contributing virtue products and services.

Safety Routine

Ensuring the safety in our factories is the most important matter that concerns Elsewedy Electric. Avoiding accidents' risks comes by following the safety procedures & drills we comply with, through our Safety Assurance department that undergo intensive routine inspection. Minimizing the risk factors in our plants is on the top of our list by carrying out the ultimate safety techniques and by conducting the policy of labor with comprehensive involvement of all the factories' members.

Supply Chain Management (SCM)

Supply chain management is the delivery of added value through management of the procurement process from initiation of requirement to delivery of goods and services.

Marketing Spirit

Elsewedy Electric marketing team has the most challenging role in handling the change throughout the last decade. The marketing team was heavily involved in the geographic expansion arrangements, starting from market research phase up, competitive analysis, market requirements, markets' needs and branding strategy. With extra determination for working on the product development, dealing with the promotion, distribution channels and CRM. Our marketing team also works on a marketing strategy that combines product development, positioning, promotion, distribution, all by setting corporate goals and identifying the utmost means.

Elsewedy Electric Markets

MORE THAN 75 YEARS IN UNDERSTANDING MARKETS

In 1938
Elsewedy family started as a trading enterprise in the electrical equipment business.

In 1960
The business developed to start working in the distributing of the imported cables in the Egyptian market.

In 1984
We established Arab Cables the first power cables production facility in Egypt to enter a new era as cable manufacturer.

In 1996
A long leap forward by launching Egytech Cables as cables production facility for Power Cables supported by our backward integration Sedplast for PVC compounds and raw materials manufacturing.

In 1997
A unique step in the group history by establishing United Industries factory for focusing on the production and development of Special Cables including instrumentation cables, low smoke halogen free cables, control cables, fire resistance cables,fire alarm cables, LAN cables, coaxial cables, automotive wires and appliance cords with a complete contribution to the cables production industry.
A step forward was taken in the same year by launching Elastimold; the fully integrated cables accessories plant which provides integrated cables & accessories segment contributing to our main vision of integration.

In 1998
United Metals was established to manage our main raw manufacturing of copper rods.Elsewedy Sedco; the cables joints & terminations pioneer factory was established in the same year providing an integrated cables' solutions.

In 1999
Following our product diversification strategy, United Industries added Winding Wires production that targets Original Equipment Manufacturers (OEM). Winding wires are also used in equipment maintenance process for motors and transformers. During the same year Elsewedy added Fiber Glass Poles to its product range.

In 2002
Was the first move in our geographic expansion; stretching our subsidiary companies beyond the borders. Initially, by launching Giad Elsewedy Cables; the cables production facility in Sudan as a joint venture between Giad and Elsewedy Cables.

In 2004
A further development in the electrical products segment took place by launching Italsmea Elsewedy (Currently names Elsewedy Sedco for Petroleum Services) which supplies a wide range of explosion proof electrical products like control units, junction boxes, lighting fixtures and luminaries, control accessories, cables glands, conduits fitting, receptacles and plugs. Eventually, we have succeeded in providing diversified products to satisfy different markets' needs.

In 2005
A new successful development to our international presence has occurred by opening Elsewedy Cables Syria; cables production facility to serve the Levant Region. Then a subsequent move was taken in Sudan by establishing a Sudanese Egyptian Electrical Industries Sudatraf; the first transformers' manufacturing facility producing oil distribution transformers, adding up more development in the Sudanese market. In addition, Elsewedy Electric T&D was established to introduce a new segment of project & development; for Engineering, Procurement and Construction which provide various solutions to the electrical power generation, transmission and distribution fields.

In 2006
Deeper move in Africa was taken by establishing Elsewedy Electric-Ghana producing Fiber Glass Poles.

In 2007
A new transformers' manufacturing facility was opened in Syria named Elsewedy Electric Syria to extend our products and services offerings to fulfil the demand of the Middle East Region. United Wires was also established in Egypt, producing the Steel Reinforcing Wires used in the overhead completion for previous line. Along with adding up a new company in the projects and development segment by acquiring Power System Projects (PSP) which had 16 years of experience in the field of electro-mechanical consultancy services, planning and designs of LV & MV distribution network, engineering of high voltage substations, design and procurement of control protection, communication,SCADA systems for distribution, transmission networks, generating construction management of turnkey power project.

In 2008
Elsewedy ELectric witnesses a year of glory by establishing 3 major factories.
Elsewedy Cables Algeria that reinforce our geographical existence in North Africa.
Elsewedy Transformers Zambia and Elsewedy Transformers in Egypt which are transformers.
completion for previous line.During the same year a series of expansions have occurred; Elsewedy ELectric added 3 new segments to its portfolio . This major step enabled the company to provide integrated energy solutions through its justify seven diversified segments.
Telecom segment; the first fiber optic cables' manufacturing facility named Comcore was established to serve Egypt and the Middle East region.
Electrical products segment; Elsewedy Electric has acquired ECMEI; the Egyptian Company for Manufacturing Electrical Insulators which is considered the sole distributor in Africa of producing electrical porcelain insulators.
Energy measurement & management segment; Elsewedy Electric has completed the acquisition of the third largest worldwide player of energy measurement & management systems Iskraemeco Wind energy segment; Elsewedy Electric has acquired 30% stake in M Torres Olvega Industrial, to establish Elsewedy Wind Energy Generation- SWEG as a bold step into the humanity vision toward greener power generation.

In 2009
Continuing our outstanding achievements and diversification, we have established Elsewedy Cables K.S.A., Elsewedy Cables Ethiopia, Elsewedy Cables Yemen and Elsewedy Elsewedy Electric Nigeria; a transformers' production facility. Opening those facilities allowed us to grow deeper in the Middle East and Africa regions.

In 2010
The corporate name has been changed from Elsewedy Cables to Elsewedy Electric that incorporates all our diversified portfolio.
Nevertheless, Elsewedy Electric acquired 60% more acquisition of the Spanish wind turbine manufacturer (M-Torres) to reach 90% and has established SIAG Elsewedy Towers (SET) in Sokhna, Egypt; a wind turbine manufacturing facility which is joint venture of SIAG -the leading German company specialized in wind mill tower construction and Elsewedy Electric.A new step towards solutions providing was taken by accruing. 3W Network;
a technology based communication contractor and system integrator providing integrated communication. Such a step enabled Elsewedy Electric to offer integrated communication solutions serving oil, power utilities, telecom, operators, transportation and infrastructure sectors. During the same year our cables production has expanded to reach Qatar by establishing Doha Cables.

In 2011
A new segment of solar energy was launched adding an eighth segment serving the renewable energy markets. As for tomorrow, our 10,000 employees will continue to excel in developing new products, invading new markets, serving all customers' needs and exceeding expectations. Finally, Elsewedy Electric will continue to be the biggest energy solutions' provider in the Middle East and Africa.

The ISO 9000 family of standards relate to quality management systems and are designed to insure that organizations meet the needs of customers and other stakeholders.

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

CERTIFICATE OF CONFORMITY

This is to certify that the

Quality Management System

of

EL SEWEDY CABLES GROUP

Incorporating

United Industries Company - UIC

conforms to the requirements of

ISO 9001:2008

in respect of the sites specified in the attached schedule(s).

Schedule nos:-

CS1-185/003.1

Certificate No: **CS1-185/003.0** Date of Issue: 15th October 2011

Date of original certification: 8th February 2007 Expiry Date: 4th November 2014

This certificate is issued subject to and in accordance with BASEC Regulations and continued compliance.

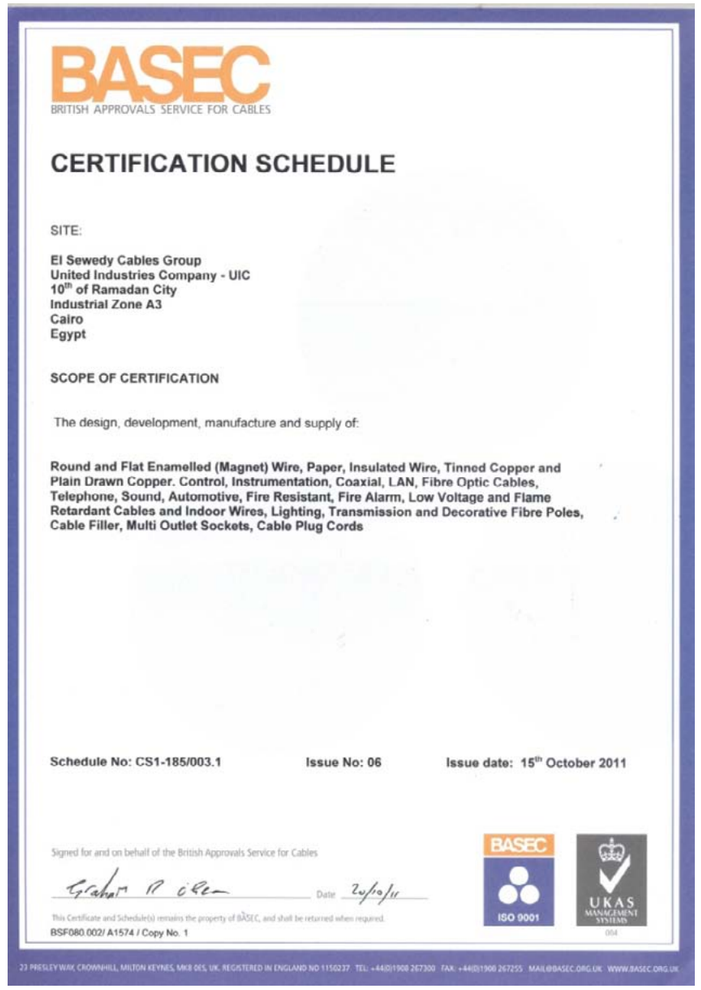
Signed for and on behalf of the British Approvals Service for Cables

Date 24/10/11

This Certificate and Schedule(s) remains the property of BASEC, and shall be returned when required.
BSF080.002/ A1574 / Copy No: 1

ISO 9001 UKAS MANAGEMENT SYSTEMS 004

23 PRESLEY WAY, CROWNHILL, MILTON KEYNES, MK8 0ES, UK. REGISTERED IN ENGLAND NO 1150237. TEL: +44(0)1908 267300. FAX: +44(0)1908 267255. MAIL@BASEC.ORG.UK. WWW.BASEC.ORG.UK



BASEC
BRITISH APPROVALS SERVICE FOR CABLES

CERTIFICATION SCHEDULE

SITE:

El Sewedy Cables Group
United Industries Company - UIC
10th of Ramadan City
Industrial Zone A3
Cairo
Egypt

SCOPE OF CERTIFICATION

The design, development, manufacture and supply of:

Round and Flat Enamelled (Magnet) Wire, Paper, Insulated Wire, Tinned Copper and Plain Drawn Copper. Control, Instrumentation, Coaxial, LAN, Fibre Optic Cables, Telephone, Sound, Automotive, Fire Resistant, Fire Alarm, Low Voltage and Flame Retardant Cables and Indoor Wires, Lighting, Transmission and Decorative Fibre Poles, Cable Filler, Multi Outlet Sockets, Cable Plug Cords

Schedule No: CS1-185/003.1 **Issue No: 06** **Issue date: 15th October 2011**

Signed for and on behalf of the British Approvals Service for Cables

Date 24/10/11

This Certificate and Schedule(s) remains the property of BASEC, and shall be returned when required.
BSF080.002/ A1574 / Copy No. 1

ISO 9001 UKAS MANAGEMENT SYSTEMS 004

23 PRESLEY WAY, CROWNHILL, MILTON KEYNES, MK8 0ES, UK. REGISTERED IN ENGLAND NO 1150237. TEL: +44(0)1908 267300. FAX: +44(0)1908 267255. MAIL@BASEC.ORG.UK. WWW.BASEC.ORG.UK

ISO 9001

ISO 9000 deals with the fundamentals of quality management systems, including the eight management principles on which the family of standards is based. ISO 9001 deals with the requirements that organizations wishing to meet and puts the standards to achieve them. ISO 9001 certification is performed by third-party organizations rather than being awarded by ISO directly.

Certificate EG10/2616

The management system of

United Industries Company – UIC
ELSEWEDY CABLES EGYPT

Industrial zone A3,
10th of Ramadan, Cairo, Egypt

has been assessed and certified as meeting the requirements of

ISO 14001:2004

For the following activities

- **Round and flat enamelled (Magnet) wire, paper insulated wire, tinned copper and plain drawn copper.**
- **Control, instrumentation, coaxial, LAN, fiber optic cables, telephone, sound, automotive, fire resistant, fire alarm, low voltage, flame retardant and indoor wires.**
- **Lighting, transmission and decorative fiber poles, cable filler, multi outlet sockets and cable plug cords**

This certificate is valid from 18 August 2013 until 18 August 2016 and remains valid subject to satisfactory surveillance audits.
Re certification audit due before 22 June 2016
Issue 2. Certified since 18 August 2010

Authorised by

SGS United Kingdom Ltd Systems & Services Certification
Rossmore Business Park Ellesmere Port Cheshire CH65 3EN UK
t +44 (0)151 350-6666 f +44 (0)151 350-6600 www.sgs.com

SGS EMS 04 0311

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UKAS MANAGEMENT SYSTEMS 005

ISO 14001

The ISO 14000 environmental management standards aim to help organizations in minimizing how their operations negatively affect the environment, complying with applicable laws, regulations, and other environmentally oriented requirements.

Certificate IATF 0144780
Certificate SGS EG06/0632

The management system of

United Industries Company –
El Sewedy

Factory :- Industrial zone A3.10th of Ramadan city, Egypt
Has been assessed and certified as meeting the requirements of

ISO/TS 16949:2009
Edition 3

For the following activities

Manufacturing of Automotive wires

EXCLUSIONS: 7.3 product Design
3 Year certification is valid from 10.08.2012 until 09.08.2015 and remains valid subject to satisfactory surveillance audits
Version no. 03 Current version updated 10.08.2012
Re certification audit due before 03 June 2015
Certified since 18 August 2006

This is a multi-site certification.
Additional site details are listed on the subsequent page.

Authorised by

Veto Power Authority
Contracted Office: SGS United Kingdom Ltd, SGS House, Johns Lane, Tividale, B69 3HX UK.
Telephone 0121 521 3721. Fax 0121 522 4150.
e mail Neil.Hall@sgs.com

SGS TS -9 0512 M2

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ISO 16949

The ISO/TS 16949 is an ISO technical specification aiming to develop a quality management system that provides a continual improvement, emphasizing defect prevention, reduction of variation and waste in the supply chain.
ISO 9001 certificate is used as a basis for quality management process carried out in Elsewedy Electric, in addition to, ISO 14001 that proves our commitment to protecting the environment.

Certificate CH10/1115

The management system of

United Industries Company – UIC
ELSEWEDY CABLES EGYPT

Industrial Zone A3, 10th of Ramadan City, Cairo, Egypt

has been assessed and certified as meeting the requirements of

OHSAS 18001:2007

For the following activities

- **Round and flat enamelled (Magnet) wire, paper insulated wire tinned copper and plain drawn copper**
- **Control, instrumentation, coaxial, LAN, fiber optic cables telephone, sound, automotive, fire resistant, fire alarm, low voltage, flame retardant and indoor wires**
- **Lighting, transmission and decorative fiber poles, cable filler multi outlet sockets and cable plug cords**

This certificate is valid from 5 July 2013 until 4 July 2016
and remains valid subject to satisfactory surveillance audits
Recertification audit due before 22 June 2016
Issue 2. Certified since July 2010

Authorised by

SGS Société Générale de Surveillance SA Systems & Services Certification
Technoparkstrasse 1 8005 Zurich Switzerland
t +41 (0)44 445-16-80 f +41 (0)44 445-16-88 www.sgs.com

Accreditation No. SCESm 017

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OHSAS 18001:2007

OHSAS 18001 is a British Standard for occupational health and safety management systems. It exists to help all kinds of organizations put in place demonstrably sound occupational health and safety performance. It is widely seen as the world's most recognized occupational health and safety management systems standard.

BASEC

British Approvals Service for Cables (BASEC) is an independent and non-profit technical organization that provides certification services to manufacturers of electrical cables. It has been established in 1971 by the UK cable industry and related stakeholders. BASEC is a company limited by guarantee and overseen by an independent board. BASEC offers quality management, environmental management, health and safety certification to cables makers. It operates by regularly inspecting factories and testing samples of cables in a prescribed regime.

KEMA

KEMA is an independent knowledge leader and a global provider of high-quality services to energy value chain, including technical consultancy, operational support, measurements, inspection, testing & certification. KEMA provides impartial advice and support to producers for suppliers and end users of energy, as well as to governmental bodies and manufacturers of energy related equipment.

VDE

VDE (Verband der Elektrotechnik) is one of Europe's largest technical-scientific associations. The German Commission for Electrical, Electronic and Information Technologies of DIN and VDE (DKE) develops standards and safety regulations for the fields of electrical engineering, electronics and information technology products.

UL

UL Standards encompass UL's extensive safety research, scientific expertise and uncompromising focus on quality. With over a century of experience and the development of more than 1,000 Standards, UL continues to break new ground in its mission to help create a safer, more sustainable world.

NF

Created in 1828, Bureau Veritas is a global leader in Testing, Inspection and Certification (TIC), delivering high quality services to help clients meet the growing challenges of quality, safety, environmental protection and social responsibility. As a trusted partner, Bureau Veritas offers innovative solutions that go beyond simple compliance with regulations and standards, reducing risk, improving performance and promoting sustainable development. Bureau Veritas core values include integrity and ethics, impartial counsel and validation, customer focus and safety at work. Bureau Veritas is recognized and accredited by major national and international organizations.

CE

is European Product Safety Regulations. Products and installations that are put into use in the European market must comply to the CE marking and CE certification regulations. Only if products comply to the European Directives can they gain the CE approval and be supplied with a CE certificate.The CE mark certification experts of CE Solutions evaluate product documentation and carry out all procedures required so that the CE mark or CE marking results in the required CE approval. Once all the procedures have been correctly implemented by our experts regarding the CE certification the CE mark can be legally brought onto the product.

ELSEWEDY CABLES

Providing Safe Energy

Un-Armored Instrumentation Cables

To BS EN 50288-7

- 300V Collective Screen cables 22
- Multi-core cables 23
- Multi-pair cables 24
- Multi-triple cables 25
- 500V Collective Screen cables 26
- Multi-core cables 27
- Multi-pair cables 28
- Multi-triple cables 30

300V

Cable Description

Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	Black, continuously numbered
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over tinned copper drain wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

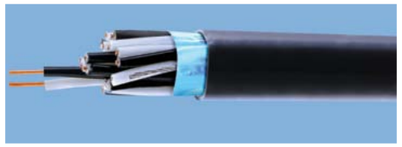
Application

It works as signal carrier for Instrumentation equipments.Recommended to be used in indoor installation, on racks, in conduits, in dry and wet locations.

Product code	No. of cores	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN020001	2	0.50	0.26	0.8	4.9	35
IN020002	3			0.8	5.2	45
IN020003	4			0.9	5.8	58
IN020004	5			0.9	6.3	69
IN020005	10			1.0	8.6	127
IN020006	20			1.0	10.7	226
IN020007	50			1.2	16.0	529
IN020008	2	0.75	0.26	0.9	5.6	45
IN020009	3			0.9	5.9	58
IN020010	4			0.9	6.3	72
IN020011	5			0.9	6.8	85
IN020012	10			1.0	9.4	159
IN020013	20			1.1	12.1	293
IN020014	50			1.3	18.0	687
IN020015	2	1.00	0.26	0.9	5.9	52
IN020016	3			0.9	6.3	68
IN020017	4			0.9	6.8	85
IN020018	5			0.9	7.3	102
IN020019	10			1.0	10.2	191
IN020020	20			1.1	13.0	354
IN020021	50			1.4	19.7	846
IN020022	2	1.50	0.35	0.9	6.9	69
IN020023	3			0.9	7.3	92
IN020024	4			0.9	7.9	116
IN020025	5			1.1	8.8	144
IN020026	10			1.1	12.3	271
IN020027	20			1.2	15.8	505
IN020028	50			1.5	23.9	1208

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request
For any queries about other variants, please use our special cable from pg. 131

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black and 1 White core, continuously numbered
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over tinned copper drain wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

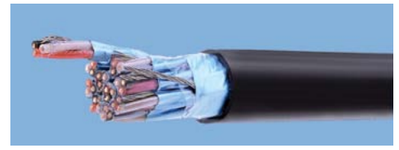
It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, on racks, in conduits, in dry and wet locations.

Product code	No. of "Pairs"	Nominal cross sectional area (mm²)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN020029	1	0.50	0.26	0.8	4.9	33
IN020030	2			0.9	7.2	61
IN020031	5			1.1	9.3	122
IN020032	10			1.1	12.9	225
IN020033	20			1.3	16.9	419
IN020034	50			1.6	25.5	982
IN020035	1	0.75	0.26	0.9	5.6	43
IN020036	2			0.9	7.9	76
IN020037	5			1.0	10.2	155
IN020038	10			1.2	14.5	296
IN020039	20			1.3	18.7	544
IN020040	50			1.7	28.6	1302
IN020041	1	1.00	0.26	0.9	5.9	51
IN020042	2			1.0	8.7	94
IN020043	5			1.1	11.2	193
IN020044	10			1.2	15.7	360
IN020045	20			1.4	20.5	678
IN020046	50			1.8	31.2	1622
IN020047	1	1.50	0.35	0.9	6.9	68
IN020048	2			1.0	10.3	129
IN020049	5			1.1	13.3	271
IN020050	10			1.4	19.2	530
IN020051	20			1.6	25.1	995
IN020052	50			2.1	38.4	2394

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

For any queries about other variants, please use our special cable from pg. 131

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black, 1 white & 1 red core continuously numbered.
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, on racks, in conduits, in dry and wet locations.

Product code	No. of triples	Nominal cross sectional area (mm²)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN020053	1	0.50	0.26	0.8	5.2	41
IN020054	2			0.9	8.0	79
IN020055	5			1.0	10.3	161
IN020056	10			1.2	14.6	309
IN020057	20			1.3	18.8	570
IN020058	50			1.7	28.8	1365
IN020059	1	0.75	0.26	0.9	5.9	54
IN020060	2			1.0	8.9	103
IN020061	5			1.1	11.5	215
IN020062	10			1.3	16.4	412
IN020063	20			1.4	21.1	764
IN020064	50			1.8	32.3	1833
IN020065	1	1.00	0.26	0.9	6.3	65
IN020066	2			1.1	9.6	124
IN020067	5			1.1	12.4	263
IN020068	10			1.3	17.7	506
IN020069	20			1.5	23.1	958
IN020070	50			2.0	35.5	2318
IN020071	1	1.50	0.35	0.9	7.3	89
IN020072	2			1.1	11.6	178
IN020073	5			1.2	15.1	382
IN020074	10			1.4	21.5	737
IN020075	20			1.7	28.3	1416
IN020076	40			2.1	38.4	2756

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

For any queries about other variants, please use our special cable from pg. 131

500V

Cable Description

Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	Black, continuously numbered
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, on racks, in conduits, in dry and wet locations.

Product code	No. of cores	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN020077	2	0.50	0.44	0.9	5.9	44
IN020078	3			0.9	6.2	55
IN020079	4			0.9	6.7	68
IN020080	5			0.9	7.3	81
IN020081	10			1.0	10.0	149
IN020082	20			1.1	12.9	271
IN020083	50			1.4	19.4	640
IN020084	2	0.75	0.44	0.9	6.3	52
IN020085	3			0.9	6.6	66
IN020086	4			0.9	7.2	82
IN020087	5			0.9	7.8	98
IN020088	10			1.1	11.1	188
IN020089	20			1.2	14.2	343
IN020090	50			1.4	21.2	800
IN020091	2	1.00	0.44	0.9	6.6	59
IN020092	3			0.9	7.0	77
IN020093	4			0.9	7.6	96
IN020094	5			1.0	8.5	119
IN020095	10			1.1	11.8	222
IN020096	20			1.2	15.1	408
IN020097	50			1.5	22.9	968
IN020098	2	1.50	0.44	0.9	7.2	74
IN020099	3			0.9	7.7	97
IN020100	4			1.0	8.6	126
IN020101	5			1.0	9.3	152
IN020102	10			1.1	13.0	286
IN020103	20			1.3	16.9	540
IN020104	50			1.6	25.6	1285
IN020105	2	2.50	0.53	1.0	8.6	105
IN020106	3			1.0	9.2	141
IN020107	4			1.0	10.0	178
IN020108	5			1.1	11.1	221
IN020109	10			1.2	15.6	417
IN020110	20			1.4	20.3	792
IN020111	50			1.8	31.0	1907

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

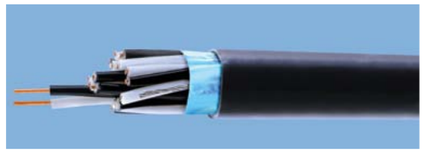
For any queries about other variants, please use our special cable from pg. 131

500V Collective Screen Cables

Multi-pair cables to BS EN 50288-7

500V

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	XLPE (Cross linked polyethylene)
	LSOH (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black and 1 White core, continuously numbered
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	LSOH (Low smoke Zero Halogen)
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, on racks, in conduits, in dry and wet locations.

Product code	No. of "Pairs"	Nominal cross sectional area (mm²)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN020112	1	0.50	0.44	0.9	5.9	42
IN020113	2			1.0	8.6	77
IN020114	5			1.1	11.1	151
IN020115	10			1.2	15.5	276
IN020116	20			1.4	20.2	510
IN020117	50			1.8	30.8	1202
IN020118	1	0.75	0.44	0.9	6.3	50
IN020119	2			1.0	9.3	92
IN020120	5			1.1	12.0	186
IN020121	10			1.3	17.1	353
IN020122	20			1.5	22.2	654
IN020123	50			1.9	33.9	1545
IN020124	1	1.00	0.44	0.9	6.6	58
IN020125	2			1.0	9.9	107
IN020126	5			1.1	12.8	220
IN020127	10			1.3	18.3	420
IN020128	20			1.5	23.8	785
IN020129	50			2.0	36.6	1885
IN020130	1	1.50	0.44	0.9	7.2	72
IN020131	2			1.1	11.1	141
IN020132	5			1.2	14.3	293
IN020133	10			1.4	20.4	560
IN020134	20			1.6	26.6	1051
IN020135	40			2.0	36.2	2039
IN020136	1	2.50	0.53	1.0	8.6	105
IN020137	2			1.1	13.0	198
IN020138	5			1.3	17.2	430
IN020139	10			1.6	24.8	837
IN020140	20			1.8	32.3	1574

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

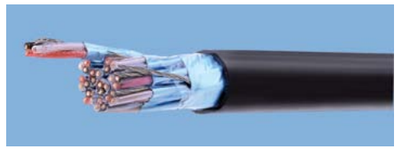
For any queries about other variants, please use our special cable from pg. 131

500V

500V Collective Screen Cables

Multi-triple cables to BS EN 50288-7

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	XLPE (Cross linked polyethylene)
	LSOH (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black, 1 white & 1 red core continuously numbered.
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	LSOH (Low smoke Zero Halogen)
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, on racks, in conduits, in dry and wet locations.

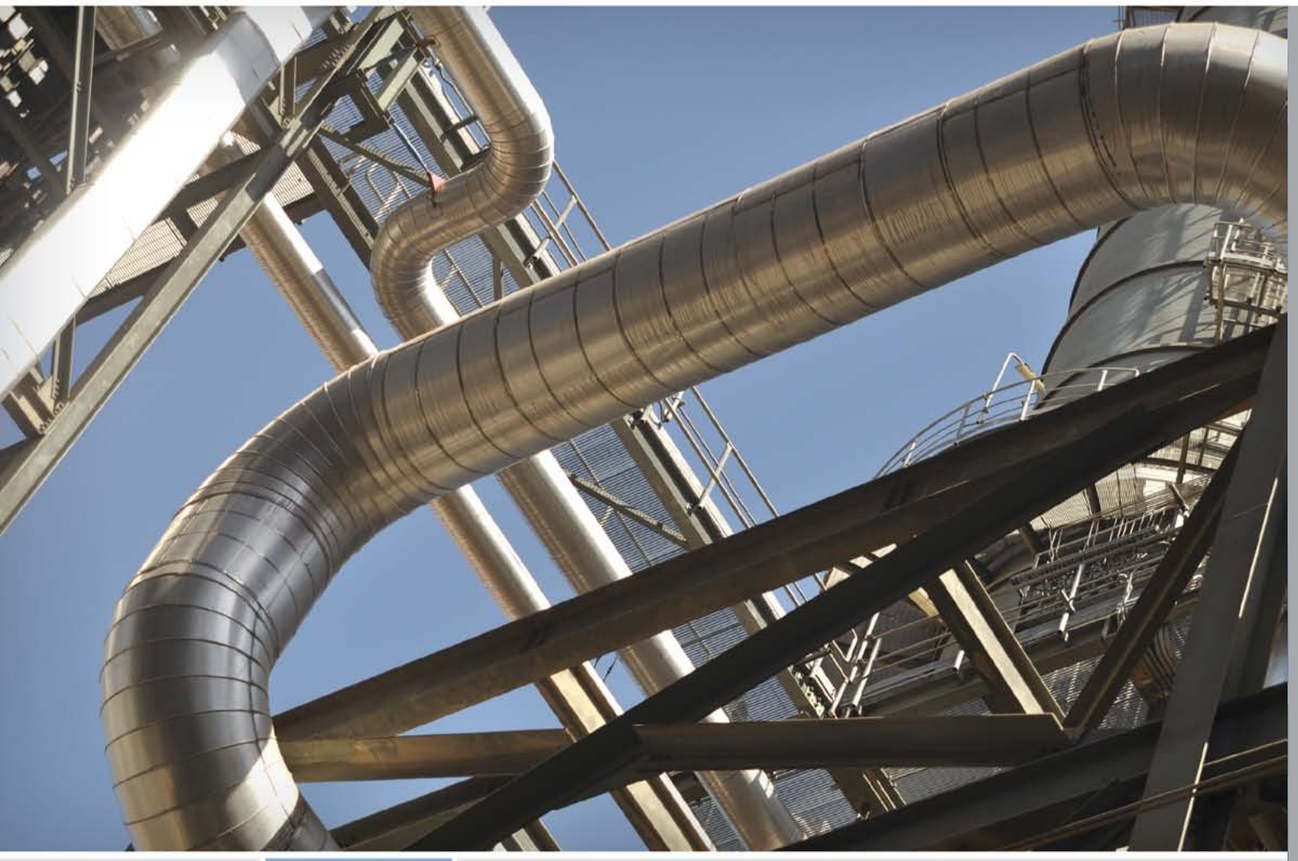
Product code	No. of triples	Nominal crosssectional area (mm²)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN020141	1	0.50	0.44	0.9	6.2	52
IN020142	2			1.0	9.5	98
IN020143	5			1.1	12.3	199
IN020144	10			1.3	17.5	379
IN020145	20			1.5	22.8	706
IN020146	50			1.9	34.8	1672
IN020147	1	0.75	0.44	0.9	6.6	63
IN020148	2			1.0	10.3	121
IN020149	5			1.1	13.3	251
IN020150	10			1.4	19.3	490
IN020151	20			1.6	25.1	914
IN020152	50			2.1	38.5	2192
IN020153	1	1.00	0.44	0.9	7.0	74
IN020154	2			1.1	11.2	147
IN020155	5			1.2	14.5	307
IN020156	10			1.4	20.6	589
IN020157	20			1.6	26.9	1108
IN020158	40			2.0	36.6	2152
IN020159	1	1.50	0.44	0.9	7.7	95
IN020160	2			1.1	12.3	189
IN020161	5			1.2	16.0	404
IN020162	10			1.5	23.1	790
IN020163	20			1.8	30.3	1510
IN020164	1	2.50	0.53	1.0	9.2	139
IN020156	2			1.2	14.7	276
IN020166	5			1.4	19.4	610
IN020167	10			1.7	27.9	1189
IN020168	20			2.0	36.7	2275

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

For any queries about other variants, please use our special cable from pg. 131

ELSEWEDY CABLES

Providing Safe Energy



Armored Instrumentation Cables

To BS EN 50288-7

- 300V Collective Screen cables 32
- Multi-core cables 33
- Multi-pair cables 34
- Multi-triple cables 35
- 500V Collective Screen cables 36
- Multi-core cables 37
- Multi-pair cables 38
- Multi-triple cables 40

300V

Cable Description

Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	Black, continuously numbered
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Inner sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	material varies as per standard and according to application
Armor	Galvanized round steel wires
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

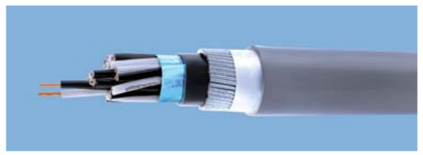
Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation and outdoor installation, on racks, trays, in conduits, in dry and wet locations and for direct burials.

Product code	No. of cores	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN053001	2	0.50	0.26	1.3	9.6	186
IN053002	3			1.3	9.9	202
IN053003	4			1.3	10.5	230
IN053004	5			1.3	10.9	255
IN053005	10			1.4	13.4	372
IN053006	20			1.5	15.8	531
IN053007	50			1.6	22.0	1093
IN053008	2	0.75	0.26	1.3	10.2	210
IN053009	3			1.3	10.5	230
IN053010	4			1.3	11.0	258
IN053011	5			1.3	11.5	281
IN053012	10			1.4	14.3	421
IN053013	20			1.5	17.1	630
IN053014	50			1.7	24.1	1320
IN053015	2	1.00	0.26	1.3	10.6	225
IN053016	3			1.3	10.9	249
IN053017	4			1.3	11.4	279
IN053018	5			1.4	12.2	317
IN053019	10			1.4	15.0	474
IN053020	20			1.5	18.1	714
IN053021	50			1.7	25.8	1535
IN053022	2	1.50	0.35	1.4	11.7	271
IN053023	3			1.4	12.1	307
IN053024	4			1.4	12.8	346
IN053025	5			1.4	13.7	397
IN053026	10			1.5	17.3	610
IN053027	20			1.6	21.7	1057
IN053028	50			1.8	30.3	2050

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request
For any queries about other variants, please use our special cable from pg. 131

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black, 1 white core continuously numbered .
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Inner sheath	**PVC** (polyvinyl chloride)
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Armor	Galvanized round steel wires
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

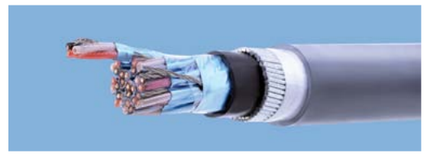
It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation,outdoor installation, on racks, trays, in conduits, in dry and wet locations and for direct burials.

Product code	No. of pairs	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN053029	1	0.50	0.26	1.3	9.6	184
IN053030	2			1.4	12.1	270
IN053031	5			1.4	14.1	383
IN053032	10			1.5	18.0	580
IN053033	20			1.6	22.8	1010
IN053034	50			1.9	32.8	2080
IN053035	1	0.75	0.26	1.3	10.2	209
IN053036	2			1.4	12.8	306
IN053037	5			1.4	15.1	438
IN053038	10			1.6	19.8	700
IN053039	20			1.7	24.9	1204
IN053040	50			2	36.0	2532
IN053041	1	1.00	0.26	1.3	10.6	224
IN053042	2			1.4	13.6	340
IN053043	5			1.5	16.3	508
IN053044	10			1.6	21.7	911
IN053045	20			1.8	26.8	1408
IN053046	50			2.1	38.9	2982
IN053047	1	1.50	0.35	1.4	11.7	270
IN053048	2			1.4	15.1	413
IN053049	5			1.5	18.4	639
IN053050	10			1.7	25.4	1204
IN053051	20			1.9	32.3	2073
IN053052	50			2.3	47.3	4402

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

For any queries about other variants, please use our special cable from pg. 131

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black, 1 white & 1 red core continuously numbered.
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Inner sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Armor	Galvanized round steel wires
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	material varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, outdoor installation, on racks, trays, in conduits, in dry and wet locations and for direct burials.

Product code	No. of triples	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN053053	1	0.50	0.26	1.3	9.9	199
IN053054	2			1.4	12.8	309
IN053055	5			1.4	15.1	445
IN053056	10			1.6	19.9	718
IN053057	20			1.7	25.0	1231
IN053058	50			2	36.2	2614
IN053059	1	0.75	0.26	1.3	10.5	227
IN053060	2			1.4	13.8	357
IN053061	5			1.5	16.6	538
IN053062	10			1.6	22.3	989
IN053063	20			1.8	27.5	1519
IN053064	50			2.1	39.9	3237
IN053065	1	1.00	0.26	1.3	10.9	245
IN053066	2			1.4	14.5	393
IN053067	5			1.5	17.5	608
IN053068	10			1.7	23.9	1137
IN053069	20			1.8	29.5	1773
IN053070	50			2.2	44.1	4165
IN053071	1	1.50	0.35	1.4	12.1	304
IN053072	2			1.5	16.7	502
IN053073	5			1.6	21.0	918
IN053074	10			1.8	27.9	1497
IN053075	20			2	35.8	2643
IN053076	40			2.3	47.3	4765

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request

For any queries about other variants, please use our special cable from pg. 131

500V

500V Collective Screen Cables

Multi-core cables to BS EN 50288-7

Cable Description

Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	Black, continuously numbered
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Inner sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Armor	Galvanized round steel wires
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	material varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

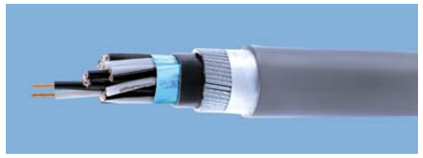
Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, outdoor installation, on racks, trays, in conduits in dry and wet locations and for direct burials.

Product code	No. of cores	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN053077	2	0.50	0.44	1.3	10.5	216
IN053078	3			1.3	10.8	236
IN053079	4			1.3	11.4	262
IN053080	5			1.4	12.1	296
IN053081	10			1.4	14.9	426
IN053082	20			1.5	17.9	625
IN053083	50			1.7	25.6	1326
IN053084	2	0.75	0.44	1.3	10.9	238
IN053085	3			1.3	11.3	260
IN053086	4			1.4	12.1	291
IN053087	5			1.4	12.7	322
IN053088	10			1.5	16.1	502
IN053089	20			1.6	19.4	739
IN053090	50			1.8	27.5	1556
IN053091	2	1.00	0.44	1.3	11.3	253
IN053092	3			1.4	11.9	285
IN053093	4			1.4	12.5	319
IN053094	5			1.4	13.4	364
IN053095	10			1.5	16.8	551
IN053096	20			1.6	21.1	944
IN053097	50			1.8	29.3	1781
IN053098	2	1.50	0.44	1.4	12.1	288
IN053099	3			1.4	12.5	320
IN053100	4			1.4	13.4	372
IN053101	5			1.4	14.2	413
IN053103	10			1.5	18.0	646
IN053104	20			1.7	23.1	1144
IN053105	50			1.9	32.9	2384
IN053105	2	2.50	0.53	1.4	13.5	351
IN053106	3			1.4	14.0	401
IN053107	4			1.4	14.9	455
IN053108	5			1.5	16.2	535
IN053109	10			1.6	21.5	967
IN053110	20			1.7	26.5	1507
IN053111	50			2.1	38.7	3264

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request
For any queries about other variants, please use our special cable from pg. 131

Cable Description



Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black & 1 white core continuously numbered.
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Inner sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Armor	Galvanized round steel wires
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	material varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, outdoor installation, on racks, trays, in conduits in dry and wet locations and for direct burials.

Product code	No. of pairs	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN053112	1	0.50	0.44	1.3	10.5	215
IN053113	2			1.4	13.5	322
IN053114	5			1.5	16.1	464
IN053115	10			1.6	21.4	825
IN053116	20			1.7	26.4	1223
IN053117	50			2.1	38.5	2541
IN053118	1	0.75	0.44	1.3	10.9	236
IN053119	2			1.4	14.2	353
IN053120	5			1.5	17.1	517
IN053121	10			1.7	23.2	958
IN053122	20			1.8	28.6	1440
IN053123	50			2.1	41.5	3017
IN053124	1	1.00	0.44	1.3	11.3	251
IN053125	2			1.4	14.7	383
IN053126	5			1.5	17.9	574
IN053127	10			1.7	24.4	1066
IN053128	20			1.8	30.2	1627
IN053129	50			2.2	45.2	3770
IN053130	1	1.50	0.44	1.4	12.1	287
IN053131	2			1.5	16.1	455
IN053132	5			1.6	19.6	695
IN053133	10			1.7	26.6	1275
IN053134	20			1.9	33.9	2194
IN053135	40			2.2	44.9	3920
IN053136	1	2.50	0.53	1.4	13.5	350
IN053137	2			1.5	18.1	558
IN053138	5			1.7	23.3	1046
IN053139	10			1.9	31.3	1723
IN053140	20			2.1	39.9	2979

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request
For any queries about other variants, please use our special cable from pg. 131

Cable Description

Conductor	Plain annealed stranded copper
Core insulation	**PVC** (polyvinyl chloride)
Alternatives	*XLPE (Cross linked polyethylene)*
	LS0H (Low smoke Zero Halogen)
	PE (polyethylene)
Color coding	1 Black, 1 white &1 red core continuously numbered.
Wrapping	At least 1 layer of plastic tape
Collective screen	24 µm Aluminum/ PETP tape over a tinned copper drain wire
Inner sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	Outer sheath varies as per standard and according to application
Armor	Galvanized round steel wires
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LS0H (Low smoke Zero Halogen)*
	material varies as per standard and according to application
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

It works as signal carrier for Instrumentation equipments. Recommended to be used in indoor installation, outdoor installation, on racks, trays, in conduits in dry and wet locations and for direct burials.

Product code	No. of triples	Nominal cross sectional area (mm^2)	Minimum Thickness of insulation (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall diameter (mm)	Approx. net Weight (Kg/Km)
IN053141	1	0.50	0.44	1.3	10.83	232
IN053142	2			1.4	14.4	366
IN053143	5			1.5	17.3	538
IN053144	10			1.7	23.7	998
IN053145	20			1.8	29.2	1508
IN053146	50			2.2	42.7	3192
IN053147	1	0.75	0.44	1.3	11.3	257
IN053148	2			1.4	15.1	405
IN053149	5			1.5	18.4	619
IN053150	10			1.7	25.4	1164
IN053151	20			1.9	32.4	1992
IN053152	50			2.3	47.3	4201
IN053153	1	1.00	0.44	1.4	11.9	281
IN053154	2			1.5	16.2	462
IN053155	5			1.6	19.7	710
IN053156	10			1.8	27.0	1319
IN053157	20			1.9	34.2	2253
IN053158	40			2.2	45.2	4064
IN053159	1	1.50	0.44	1.4	12.5	317
IN053160	2			1.5	17.3	528
IN053161	5			1.6	21.9	968
IN053162	10			1.8	29.4	1605
IN053163	20			2	37.8	2808
IN053164	1	2.50	0.53	1.4	14.0	399
IN053156	2			1.6	20.0	686
IN053166	5			1.7	25.6	1296
IN053167	10			2	35.4	2396
IN053168	20			2.2	45.3	4187

Notes: Not allowed for direct connection to low impedance source, e.g. the public mains electricity supplies.
"Values are approximate and subjected to normal manufacturing tolerance.
Individual unit screen also available upon request
For any queries about other variants, please use our special cable from pg. 131

ELSEWEDY CABLES

Providing Safe Energy

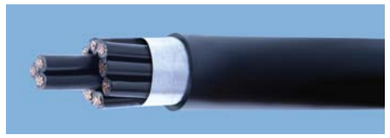
Control Cables

- PVC insulated and PVC sheathed 42
- PVC insulated , Copper tape screened and PVC sheathed 43
- PVC insulated , Steel Wire armored and PVC sheathed 44
- XLPE insulated and PVC sheathed 45
- XLPE insulated, copper tape screened and PVC sheathed 46
- XLPE insulated, steel wire armored and PVC sheathed 47

Stranded Copper Conductors

PVC insulated and PVC sheathed to IEC 60502
0.6/1 kV

Cable Description



Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	**PVC** (polyvinyl chloride)
Color coding	Black, continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Outer sheath	**PVC** (polyvinyl chloride)
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

Product code	Nominal Cross sectional area (mm²)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
				Ground	Duct	Air		
CL009001	1.5	5	0.8	20	14	14	11.5	210
CL009002		7	0.8	17	12	12	12.7	242
CL009003		10	0.8	14	10	10	15.9	333
CL009004		12	0.8	13	10	10	16.4	382
CL009005		14	0.8	13	9	10	17.2	434
CL009006		16	0.8	12	9	9	18.1	492
CL009007		19	0.8	11	8	9	19.1	564
CL009008		24	0.8	10	7	8	22.2	702
CL009009		30	0.8	9	7	7	23.5	850
CL009010		37	0.8	9	6	7	25.4	1026
CL009011		44	0.8	8	6	6	28.5	1212
CL009012	2.5	5	0.8	26	18	20	12.8	280
CL009013		7	0.8	22	16	17	14.1	328
CL009014		10	0.8	19	13	14	17.7	456
CL009015		12	0.8	18	12	14	18.3	528
CL009016		14	0.8	17	12	13	19.2	602
CL009017		16	0.8	16	11	12	20.2	685
CL009018		19	0.8	15	10	12	21.3	789
CL009019		24	0.8	13	9	10	24.9	985
CL009020		30	0.8	12	9	10	26.4	1199
CL009021		37	0.8	11	8	9	28.5	1454
CL009022		44	0.8	11	8	9	32.3	1733
CL009023	4	5	1.0	34	24	26	15.2	412
CL009024		7	1.0	29	20	22	16.8	483
CL009025		10	1.0	25	17	19	21.3	675
CL009026		12	1.0	23	16	18	22.1	786
CL009027		14	1.0	22	15	17	23.2	901
CL009028		16	1.0	21	15	16	24.5	1028
CL009029		19	1.0	20	14	15	25.9	1189
CL009030		24	1.0	17	12	14	30.5	1494
CL009031		30	1.0	16	11	13	32.4	1835
CL009032		37	1.0	15	11	12	35.2	2239

Notes: For different insulation and sheathing materials other than **PVC**, Customer has to specify.
For any queries about other variants, please use our special cable from pg. 131

Stranded Copper Conductors

PVC insulated , Copper tape screened and PVC sheathed to IEC 60502
0.6/1 kV

Cable Description

Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	**PVC** (polyvinyl chloride)
Color coding	Black, continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Inner sheath	**PVC** (polyvinyl Chloride) or binder tape
Screening	Copper tape helically applied
Outer sheath	**PVC** (polyvinyl chloride)
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

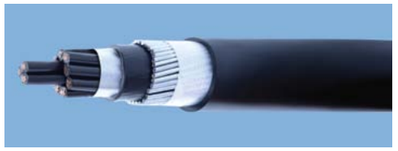
Product code	Nominal Cross sectional area (mm²)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
				Ground	Duct	Air		
CL018001	1.5	5	0.8	20	14	15	13.3	290
CL018002		7	0.8	17	12	13	14.5	330
CL018003		10	0.8	14	10	11	17.7	443
CL018004		12	0.8	13	10	11	18.2	496
CL018005		14	0.8	13	9	10	19.0	553
CL018006		16	0.8	12	9	10	19.9	617
CL018007		19	0.8	11	8	9	20.9	696
CL018008		24	0.8	10	7	8	24.0	856
CL018009		30	0.8	9	7	8	25.3	1012
CL018010		37	0.8	9	6	7	27.2	1201
CL018011		44	0.8	8	6	7	30.3	1407
CL018012	2.5	5	0.8	26	18	20	14.6	369
CL018013		7	0.8	22	16	17	15.9	425
CL018014		10	0.8	19	13	14	19.5	578
CL018015		12	0.8	18	12	14	20.1	654
CL018016		14	0.8	17	12	13	21.0	734
CL018017		16	0.8	16	11	12	22.0	824
CL018018		19	0.8	15	10	12	23.1	936
CL018019		24	0.8	13	9	10	26.7	1157
CL018020		30	0.8	12	9	10	28.2	1381
CL018021		37	0.8	11	8	9	30.3	1651
CL018022		44	0.8	11	8	9	34.4	1981
CL018023	4	5	1.0	34	24	26	17.0	517
CL018024		7	1.0	29	20	23	18.6	599
CL018025		10	1.0	25	17	19	23.1	822
CL018026		12	1.0	23	16	18	23.9	938
CL018027		14	1.0	22	15	18	25.0	1060
CL018028		16	1.0	21	15	17	26.3	1197
CL018029		19	1.0	20	14	16	27.7	1367
CL018030		24	1.0	17	12	14	32.6	1730
CL018031		30	1.0	16	11	13	34.6	2085
CL018032		37	1.0	15	11	13	37.4	2514

Notes: For different insulation and sheathing materials other than **PVC**, Customer has to specify.
Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Stranded Copper Conductors

PVC insulated , Steel wire armored and PVC sheathed to IEC 60502
0.6/1 KV

Cable Description



Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	**PVC** (polyvinyl chloride)
Color coding	Black, continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Inner sheath	**PVC** (polyvinyl chloride)
Armor	Galvanized round steel wire
Outer sheath	**PVC** (polyvinyl chloride)
Cables marking	=EL SEWEDY CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

For outdoor installation in damp and wet locations, laid direct in the ground, where mechanical damages are expected to occur. They are normally used in connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations.

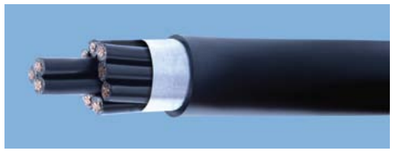
Product code	Nominal Cross sectional area (mm²)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
				Ground	Duct	Air		
CL029001	1.5	5	0.8	20	15	16	15.0	425
CL029002		7	0.8	17	13	14	16.2	478
CL029003		10	0.8	14	11	12	20.3	765
CL029004		12	0.8	13	10	11	20.8	826
CL029005		14	0.8	13	9	11	21.6	900
CL029006		16	0.8	12	9	10	22.5	981
CL029007		19	0.8	11	8	9	24.1	1203
CL029008		24	0.8	10	7	8	27.3	1448
CL029009		30	0.8	9	7	8	28.6	1633
CL029010		37	0.8	9	6	8	30.6	1872
CL029011		44	0.8	8	6	7	33.9	2178
CL029012	2.5	5	0.8	26	20	20	16.2	517
CL029013		7	0.8	22	18	18	18.5	714
CL029014		10	0.8	19	15	15	22.1	933
CL029015		12	0.8	18	14	14	22.6	1017
CL029016		14	0.8	17	14	14	24.2	1240
CL029017		16	0.8	16	13	13	25.3	1395
CL029018		19	0.8	15	12	12	26.4	1499
CL029019		24	0.8	13	11	11	30.1	1827
CL029020		30	0.8	12	10	10	31.6	2085
CL029021		37	0.8	11	10	10	33.9	2422
CL029022		44	0.8	11	9	9	38.9	3112
CL029023	4	5	1.0	34	28	28	19.6	822
CL029024		7	1.0	29	24	24	21.2	937
CL029025		10	1.0	25	20	20	26.4	1385
CL029026		12	1.0	23	19	19	27.12	1531
CL029027		14	1.0	22	19	19	28.3	1682
CL029028		16	1.0	21	18	18	29.7	1851
CL029029		19	1.0	20	17	17	31.1	2054
CL029030		24	1.0	17	15	15	37.1	2789
CL029031		30	1.0	16	14	14	39.0	3215
CL029032		37	1.0	15	13	13	41.8	3739

Notes: For different insulation and sheathing materials other than **PVC**, Customer has to specify.
Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Stranded Copper Conductors

XLPE insulated and PVC sheathed to IEC 60502-1
0.6/1 KV

Cable Description



Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	**XLPE** (Cross linked Polyethylene)
Alternatives	*LSOH (Low smoke zero halogen)*
Color coding	Black, continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Outer sheath	**PVC** (Polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Cables marking	=EL SEWEDY CABLES=, size, cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts, In trenches, in steel support brackets or direct in ground, when well protected

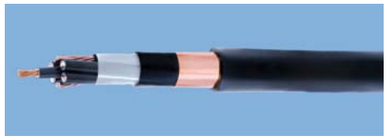
Product code	Nominal Cross sectional area (mm²)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
				Ground	Duct	Air		
CL013001	1.5	5	0.7	23	16	18	11.0	181
CL013002		7	0.7	20	14	16	12.1	206
CL013003		10	0.7	17	12	13	15.1	283
CL013004		12	0.7	16	11	13	15.6	323
CL013005		14	0.7	15	10	12	16.3	356
CL013006		16	0.7	14	10	12	17.2	413
CL013007		19	0.7	13	9	11	18.1	472
CL013008		24	0.7	12	8	10	21.0	586
CL013009		30	0.7	11	8	9	23.2	705
CL013010		37	0.7	10	7	9	24.0	849
CL013011		44	0.7	10	7	8	27.0	1001
CL013012	2.5	5	0.7	31	21	24	12.2	246
CL013013		7	0.7	26	18	21	13.5	286
CL013014		10	0.7	22	15	18	16.9	396
CL013015		12	0.7	21	14	17	17.5	456
CL013016		14	0.7	20	14	16	18.3	519
CL013017		16	0.7	19	13	15	19.3	590
CL013018		19	0.7	18	12	14	20.3	678
CL013019		24	0.7	15	11	13	23.7	846
CL013020		30	0.7	15	10	12	25.1	1027
CL013021		37	0.7	14	9	12	27.1	1234
CL013022		44	0.7	13	9	11	30.6	1473
CL013023	4	5	0.7	40	27	32	13.6	336
CL013024		7	0.7	34	23	27	15.0	599
CL013025		10	0.7	29	20	23	18.9	552
CL013026		12	0.7	27	19	22	19.6	641
CL013027		14	0.7	26	18	21	20.6	733
CL013028		16	0.7	25	17	20	21.7	835
CL013029		19	0.7	23	16	19	22.9	965
CL013030		24	0.7	20	14	17	26.8	1207
CL013031		30	0.7	19	13	16	28.4	1474
CL013032		37	0.7	18	12	15	30.8	1798

Notes: For different insulation and sheathing materials other than **PVC**, Customer has to specify.
Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Stranded Copper Conductors

XLPE insulated, copper tape screened and
PVC sheathed to IEC 60502-1
0.6/1 KV

Cable Description



Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	**XLPE** (Cross linked Polyethylene)
Alternatives	*LSOH (Low smoke zero halogen)*
Color coding	Black, continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Inner Sheath	**PVC** (polyvinyl chloride) or Binder tape
Alternatives	*LSOH (Low smoke zero halogen)*
Screening	Copper tape helically applied
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Cables marking	=EL SEWEDY CABLES=, size, cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

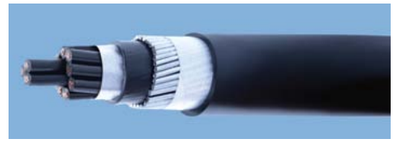
Product code	Nominal Cross sectional area (mm²)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
				Ground	Duct	Air		
CL030001	1.5	5	0.7	23	16	19	12.8	257
CL030002		7	0.7	20	14	16	14.0	290
CL030003		10	0.7	17	12	14	16.9	387
CL030004		12	0.7	16	11	13	17.4	430
CL030005		14	0.7	15	10	13	18.1	478
CL030006		16	0.7	14	10	12	19.0	532
CL030007		19	0.7	13	9	11	19.9	596
CL030008		24	0.7	12	8	10	22.8	731
CL030009		30	0.7	11	8	10	24.0	858
CL030010		37	0.7	10	7	9	25.8	1014
CL030011		44	0.7	10	7	9	28.7	1186
CL030012	2.5	5	0.7	30	21	25	14.0	330
CL030013		7	0.7	26	18	21	15.3	379
CL030014		10	0.7	22	15	18	18.7	512
CL030015		12	0.7	20	14	17	19.3	577
CL030016		14	0.7	19	14	17	20.1	646
CL030017		16	0.7	18	13	16	21.1	723
CL030018		19	0.7	17	12	15	22.1	818
CL030019		24	0.7	15	11	13	25.5	1009
CL030020		30	0.7	14	10	13	26.9	1200
CL030021		37	0.7	13	9	12	29.0	1430
CL030022		44	0.7	12	9	11	32.8	1710
CL030023	4	5	0.7	39	27	32	15.4	429
CL030024		7	0.7	34	23	28	16.8	499
CL030025		10	0.7	28	20	24	20.7	682
CL030026		12	0.7	27	19	23	21.4	776
CL030027		14	0.7	25	18	22	22.4	875
CL030028		16	0.7	24	17	21	23.5	985
CL030029		19	0.7	22	16	19	24.7	1123
CL030030		24	0.7	20	14	17	28.6	1391
CL030031		30	0.7	19	13	16	30.2	1669
CL030032		37	0.7	17	12	15	32.9	2036

Notes: For different insulation and sheathing materials other than **PVC**, Customer has to specify.
Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Stranded Copper Conductors

XLPE insulated, steel wire armored and
PVC sheathed to IEC 60502-1
0.6/1 KV

Cable Description



Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	**XLPE** (Cross linked Polyethylene)
Alternatives	*LSOH (Low smoke zero halogen)*
Color coding	Black, continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Inner Sheath	**PVC** (polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Armor	Galvanized round steel wire
Outer sheath	**PVC** (polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Cables marking	=EL SEWEDY CABLES=, size, cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

Product code	Nominal Cross sectional area (mm²)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
				Ground	Duct	Air		
CL041001	1.5	5	0.7	24	17	20	14.5	386
CL041002		7	0.7	20	14	17	15.6	732
CL041003		10	0.7	17	12	14	19.5	692
CL041004		12	0.7	16	11	14	19.9	744
CL041005		14	0.7	15	11	13	20.7	808
CL041006		16	0.7	15	10	12	21.5	879
CL041007		19	0.7	14	10	12	22.4	960
CL041008		24	0.7	12	8	10	26.1	1295
CL041009		30	0.7	11	8	10	27.3	1450
CL041010		37	0.7	11	7	9	29.1	1652
CL041011		44	0.7	10	7	9	32.2	1907
CL041012	2.5	5	0.7	31	22	26	15.7	472
CL041013		7	0.7	26	19	22	17.9	650
CL041014		10	0.7	22	16	19	21.3	851
CL041015		12	0.7	21	15	18	21.8	923
CL041016		14	0.7	20	14	17	22.7	1009
CL041017		16	0.7	19	13	16	24.4	1245
CL041018		19	0.7	18	12	15	25.4	1353
CL041019		24	0.7	15	11	14	28.8	1631
CL041020		30	0.7	15	10	13	30.3	1870
CL041021		37	0.7	14	10	12	32.4	2151
CL041022		44	0.7	13	9	12	37.2	2795
CL041023	4	5	0.7	40	29	34	17.9	710
CL041024		7	0.7	34	25	29	19.4	805
CL041025		10	0.7	29	21	25	24.0	1189
CL041026		12	0.7	27	19	24	24.6	1297
CL041027		14	0.7	26	18	23	25.6	1424
CL041028		16	0.7	25	18	22	26.7	1562
CL041029		19	0.7	23	16	20	27.9	1728
CL041030		24	0.7	20	14	18	32.1	2112
CL041031		30	0.7	19	14	17	33.8	2440
CL041032		37	0.7	18	13	16	37.4	3120

Notes: For different insulation and sheathing materials other than **PVC**, Customer has to specify.
Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

ELSEWEDY CABLES

Providing Safe Energy

Automotive Cables

To ISO 6722 and DIN 72551

- PVC insulation 50
- Heat Resistant PVC Insulation 51
- Heat Pressure resistant PVC Insulation 52
- Cold Resistant PVC Insulation 53
- Concentric Conductors with PVC Insulation 54
- PVC Thin Insulation 55

Cables Structure

Conductor	Plain / tinned annealed copper
Insulation	**PVC** (polyvinyl chloride) based on ISO 6722 class A
Color code	Color coded with or without stripes upon request
Temperature rating	- 40˚C up to + 85˚C
Packing	Cables are packed in carton boxes.

Application

This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm²)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001001	0.5	16 x 0.21	37.1	0.6	2.3	9
AU001002	0.75	24 x 0.21	24.7	0.6	2.5	12
AU001003	1	32 x 0.21	18.5	0.6	2.7	15
AU001004	1.5	30 x 0.26	12.7	0.6	3.0	20
AU001005	2	28 x 0.31	9.42	0.6	3.3	26
AU001006	2.5	50 x 0.26	7.6	0.7	3.6	32
AU001007	3	44 x 0.31	6.15	0.7	4.1	37
AU001008	4	56 x 0.31	4.71	0.8	4.4	49
AU001009	6	84 x 0.31	3.14	0.8	5.0	68

Notes: Other Automotive wires types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Cables Structure

Conductor	Plain / tinned annealed copper
Insulation	Heat resistant **PVC** (polyvinyl chloride) based on ISO 6722 class B.
Color code	Color coded with or without stripes upon request
Temperature rating	- 40°C up to +100°C
Packaging	Cables are packed in carton boxes.

Application

This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm²)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001010	0.5	16 x 0.21	37.1	0.6	2.3	9
AU001011	0.75	24 x 0.21	24.7	0.6	2.5	11
AU001012	1	32 x 0.21	18.5	0.6	2.7	14
AU001013	1.5	30 x 0.26	12.7	0.6	3.0	19
AU001014	2.5	50 x 0.26	7.6	0.7	3.6	31
AU001015	4	56 x 0.31	4.71	0.8	4.4	49
AU001016	6	84 x 0.31	3.14	0.8	5.0	68

Notes: Other Automotive wires types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Heat – Pressure resistant PVC Insulation

based on ISO 6722

Cables Structure

Conductor	Plain / tinned annealed copper
Insulation	Heat resistant **PVC** (polyvinyl chloride) based on ISO 6722 class B. (Hot pressure resistance test at 120°C)
Color code	Color coded with or without stripes upon request
Temperature rating	- 40°C up to + 120°C
Packing	Cables are packed in carton boxes.

Application

This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm^2)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001017	0.5	16 x 0.21	37.1	0.6	2.3	9
AU001018	0.75	24 x 0.21	24.7	0.6	2.5	11
AU001019	1	32 x 0.21	18.5	0.6	2.7	14
AU001020	1.5	30 x 0.26	12.7	0.6	3.0	19
AU001021	2.5	50 x 0.26	7.6	0.7	3.6	30
AU001022	3	44 x 0.31	6.15	0.7	4.1	36

Notes: Other Automotive wires types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Concentric Conductors with PVC Insulation

based on DIN 72551

Cables Structure

Conductor	Concentric stranded copper conductor based on DIN 72551, part 6, type A.
Insulation	**PVC** (polyvinyl chloride) based on DIN 72551, part 5.
Color code	Color coded with or without stripes upon request
Temperature rating	- 40°C up to + 105°C
Packing	Cables are packed in carton boxes.

Application

This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm^2)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001027	0.35	7 x 0.26	52	0.2	1.3	4.5
AU001028	0.5	19 x 0.19	37.1	0.22	1.6	6.6
AU001029	0.75	19 x 0.23	24.7	0.24	1.9	9.0
AU001030	1	19 x 0.26	18.5	0.24	2.1	11.0
AU001031	1.5	19 x 0.32	12.7	0.24	2.4	16.0
AU001032	2	19 x 0.37	9.42	0.24	2.6	22.5
AU001033	2.5	19 x 0.41	7.6	0.28	3.0	26.0

Notes: Other Automotive wires types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

PVC Thin Insulation

based on DIN 72551

Cables Structure

Conductor	Concentric stranded copper conductor based on DIN 72551, part 6, type B.
Insulation	**PVC** (polyvinyl chloride) based on DIN 72551, part 5.
Color code	Color coded with or without stripes upon request
Temperature rating	- 40°C up to + 105°C
Packing	Cables are packed in carton boxes.

Application

This wire is used in the manufacture of electrical harness for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm^2)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001034	0.35	12 x 0.21	52	0.2	1.4	4.5
AU001035	0.5	16 x 0.21	37.1	0.22	1.6	6.6
AU001036	0.75	24 x 0.21	24.7	0.24	1.9	9.0
AU001037	1	32 x 0.21	18.5	0.24	2.1	11.0
AU001038	1.5	30 x 0.26	12.7	0.24	2.4	16.0
AU001039	2	30 x 0.31	9.31	0.24	2.6	22.5
AU001040	2.5	50 x 0.26	7.6	0.28	3.0	26.0
AU001041	3	45 x 0.31	6.15	0.28	3.2	32.5
AU001042	4	56 x 0.31	4.7	0.32	3.7	42.0
AU001043	6	84 x 0.31	3.1	0.32	4.3	61.0

Notes: Other Automotive wires types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

ELSEWEDY CABLES

Providing Safe Energy

Telephone Cables

To IEC 60189 / TC 113

- Non-Shielded Telephone Cables 58
- Shielded Telephone Cables 60

Non-Shielded Telephone Cables

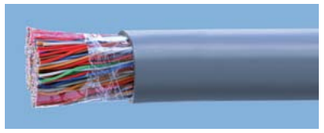
based on IEC 60189 / TC 113

Cable Description

Conductor Solid annealed copper wire, plain or tinned according to IEC 60228 class 1.

Insulation **PVC** (polyvinyl chloride) rated 80°C

Assembly Two cores are twisted to form a pair, pairs assembled together depending on the cable construction.
- For cables up to 30 pairs, pairs are grouped into 5 pairs per group.
- For cables up to 60 pairs, pairs are grouped into 10 pairs per group.
- For cables above 60 pairs, pairs are grouped into 20 pairs per group.
These groups are assembled together and binded with a binder tape.



Color code According to IEC60189 for the above mentioned construction.

Outer Sheath Flame Retardant polyvinyl chloride 80˚C, grey color, or upon request.

Temperature rating - 5˚C up to + 80˚C during operation

Marking Inkjet marking (=EL SEWEDY CABLES=TEL NO. OF PAIRS X SIZE MFG. YEAR)

Packing Wooden drums, or air coils for up to 10 pairs.Other packing types could be arranged upon request

Application

For indoor installations and interconnection of transmission, telephone, telegraph and electronic equipment.
For outdoor applications armored and jelly filled cables are also available.

Product code	Nominal conductor diameter (mm)	No. Of Pairs	Minimum insulation thickness (mm)	Minimum outer sheath thickness (mm)	Approx. Overall Diameter (mm)	Approx Overall Weight (Kg/Km)
TL009001	0.4	1	0.15	0.40	2.6	8
TL009002		2	0.15	0.40	3.72	14
TL009003		3	0.15	0.40	3.92	18
TL009004		4	0.15	0.40	4.28	23
TL009005		5	0.15	0.60	5.08	32
TL009006		6	0.15	0.60	5.48	36
TL009007		8	0.15	0.60	5.8	44
TL009008		10	0.15	0.70	6.72	56
TL009009		15	0.15	0.70	7.69	79
TL009010		20	0.15	0.80	8.82	104
TL009011		25	0.15	0.80	9.65	125
TL009012		30	0.15	0.80	10.39	146
TL009013		40	0.15	0.90	11.91	190
TL009014		50	0.15	0.90	13.19	234
TL009015		60	0.15	0.90	14.23	274
TL009016		80	0.15	1.00	16.29	357
TL009017		100	0.15	1.00	18.0	438
TL009018		150	0.15	1.15	21.84	646
TL009019		200	0.15	1.15	24.83	838
TL009020		250	0.15	1.15	27.46	1028
TL009021		300	0.15	1.35	30.23	1245
TL009022		400	0.15	1.35	34.46	1622

Product code	Nominal conductor diameter (mm)	No. Of Pairs	Minimum insulation thickness (mm)	Minimum outer sheath thickness (mm)	Approx. Overall Diameter (mm)	Approx Overall Weight (Kg/Km)
TL009023	0.5	1	0.15	0.40	2.8	10
TL009024		2	0.15	0.40	4.06	18
TL009025		3	0.15	0.40	4.29	24
TL009026		4	0.15	0.40	4.69	29
TL009027		5	0.15	0.60	5.54	40
TL009028		6	0.15	0.60	5.99	47
TL009029		8	0.15	0.60	6.35	58
TL009030		10	0.15	0.70	7.36	73
TL009031		15	0.15	0.70	8.44	104
TL009032		20	0.15	0.80	9.69	138
TL009033		25	0.15	0.80	10.63	166
TL009034		30	0.15	0.90	11.66	200
TL009035		40	0.15	0.90	13.15	255
TL009036		50	0.15	0.90	14.57	316
TL009037		60	0.15	0.90	15.75	371
TL009038		80	0.15	1.00	18.04	486
TL009039		100	0.15	1.00	19.97	599
TL009040		150	0.15	1.15	24.25	887
TL009041		200	0.15	1.15	27.62	1156
TL009042		250	0.15	1.35	30.97	1452
TL009043		300	0.15	1.35	33.64	1720
TL009044	0.6	1	0.15	0.40	3.2	13
TL009045		2	0.15	0.40	4.4	23
TL009046		3	0.15	0.50	4.85	32
TL009047		4	0.15	0.50	5.3	40
TL009048		5	0.15	0.60	6.0	51
TL009049		6	0.15	0.60	6.05	59
TL009050		8	0.15	0.70	7.01	77
TL009051		10	0.15	0.70	8.0	93
TL009052		15	0.15	0.80	9.04	138
TL009053		20	0.15	0.80	10.57	177
TL009054		25	0.15	0.90	11.08	220
TL009055		30	0.15	0.90	12.73	258
TL009056		40	0.15	0.90	14.38	332
TL009057		50	0.15	0.90	15.97	413
TL009058		60	0.15	1.00	17.48	494
TL009059		80	0.15	1.00	19.08	638
TL009060		100	0.15	1.15	22.24	804
TL009061		150	0.15	1.15	26.67	1174
TL009062		200	0.15	1.35	30.08	1540
TL009063		250	0.15	1.35	34.09	1898
TL009064		300	0.15	1.60	37.56	2296
TL009065	0.8	1	0.25	0.60	4.2	24
TL009066		2	0.25	0.60	6.16	42
TL009067		3	0.25	0.60	6.51	56
TL009068		4	0.25	0.70	7.34	73
TL009069		5	0.25	0.70	8.04	88
TL009070		6	0.25	0.70	8.74	103
TL009071		8	0.25	0.70	9.3	130
TL009072		10	0.25	0.90	10.96	170
TL009073		15	0.25	0.90	12.62	240
TL009074		20	0.25	0.90	14.25	310
TL009075		25	0.25	1.00	15.09	385
TL009076		30	0.25	1.00	17.02	454
TL009077		40	0.25	1.00	19.51	589
TL009078		50	0.25	1.15	22.04	752
TL009079		60	0.25	1.15	23.87	886
TL009080		80	0.25	1.35	27.52	1175
TL009081		100	0.25	1.35	30.52	1453
TL009082		150	0.25	1.60	37.21	2166

Notes: Other telephone wires types can be provided on specific request. Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Shielded Telephone Cables

based on IEC 60189 / TC 113

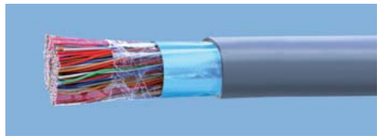
Cable Description

Conductor Solid annealed copper wire, plain or tinned according to IEC 60228 class 1.

insulation **PVC** (polyvinyl chloride) rated 80°C

Assembly Two cores are twisted to form a pair, pairs are then assembled or grouped together depending on the cable.
- For cables up to 30 pairs, pairs are grouped into 5 pairs per group.
- For cables up to 60 pairs, pairs are grouped into 10 pairs per group.
- For cables above 60 pairs, pairs are grouped into 20 pairs per group.

These groups are assembled together and binded with a binder tape.



Color code According to IEC60189 for the above mentioned construction.

Metallic Shield Aluminum polyester tape wrapped over the assembled cable.

Outer Sheath Flame Retardant polyvinyl chloride 80˚C, grey color, or upon request.

Bending radius 8 x d (d = overall diameter)

Temperature rating - 5˚C up to + 80˚C during operation

Marking Inkjet marking (=EL SEWEDY CABLES=TEL NO. OF PAIRS X SIZE MFG. YEAR)

Packing Wooden drums, or air coils for up to 10 pairs. Other packing types could be arranged upon request.

Application

For indoor installations and interconnection of transmission, telephone, telegraph and electronic equipment.
For outdoor applications armored and jelly filled cables are also available.

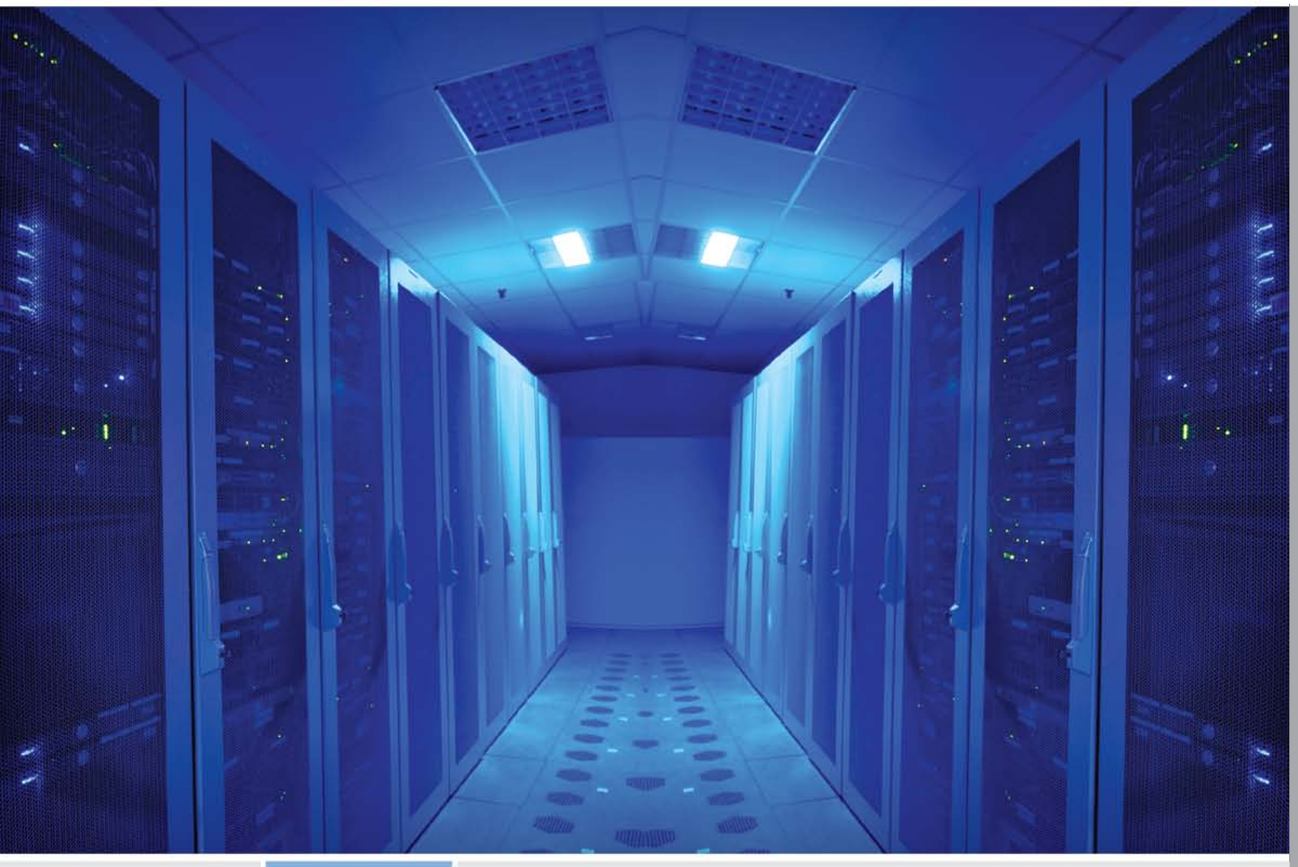
Product code	Nominal conductor diameter (mm)	No. Of Pairs	Minimum insulation thickness (mm)	Minimum outer sheath thickness (mm)	Approx. Overall Diameter (mm)	Approx Overall Weight (Kg/Km)
TL020001	0.4	1	0.15	0.40	2.74	11
TL020002		2	0.15	0.40	3.86	17
TL020003		3	0.15	0.40	4.06	21
TL020004		4	0.15	0.40	4.42	26
TL020005		5	0.15	0.60	5.22	35
TL020006		6	0.15	0.60	5.62	40
TL020007		8	0.15	0.60	5.94	48
TL020008		10	0.15	0.70	6.86	60
TL020009		15	0.15	0.70	7.78	83
TL020010		20	0.15	0.80	8.92	108
TL020011		25	0.15	0.80	9.74	129
TL020012		30	0.15	0.80	10.48	150
TL020013		40	0.15	0.90	12.01	195
TL020014		50	0.15	0.90	13.28	239
TL020015		60	0.15	0.90	14.32	278
TL020016		80	0.15	1.00	16.38	363
TL020017		100	0.15	1.00	18.1	445
TL020018		150	0.15	1.15	21.94	654
TL020019		200	0.15	1.15	24.92	847
TL020020		250	0.15	1.15	27.55	1038
TL020021		300	0.15	1.35	30.33	1256
TL020022		400	0.15	1.35	34.55	1635

Product code	Nominal conductor diameter (mm)	No. Of Pairs	Minimum insulation thickness (mm)	Minimum outer sheath thickness (mm)	Approx. Overall Diameter (mm)	Approx Overall Weight (Kg/Km)
TL020023	0.5	1	0.15	0.40	2.94	13
TL020024		2	0.15	0.40	4.2	21
TL020025		3	0.15	0.40	4.43	27
TL020026		4	0.15	0.40	4.83	33
TL020027		5	0.15	0.60	5.68	44
TL020028		6	0.15	0.60	6.13	51
TL020029		8	0.15	0.60	6.49	62
TL020030		10	0.15	0.70	7.5	78
TL020031		15	0.15	0.70	8.54	108
TL020032		20	0.15	0.80	9.79	142
TL020033		25	0.15	0.80	10.72	171
TL020034		30	0.15	0.90	11.75	205
TL020035		40	0.15	0.90	13.25	260
TL020036		50	0.15	0.90	14.67	322
TL020037		60	0.15	0.90	15.85	377
TL020038		80	0.15	1.00	18.13	493
TL020039		100	0.15	1.00	20.07	606
TL020040		150	0.15	1.15	24.34	896
TL020041		200	0.15	1.15	27.71	1166
TL020042		250	0.15	1.35	31.07	1463
TL020043		300	0.15	1.35	33.74	1732
TL020044	0.6	1	0.15	0.40	3.14	15
TL020045		2	0.15	0.40	4.54	26
TL020046		3	0.15	0.50	4.99	35
TL020047		4	0.15	0.50	5.44	43
TL020048		5	0.15	0.60	6.14	55
TL020049		6	0.15	0.60	6.64	63
TL020050		8	0.15	0.70	7.24	81
TL020051		10	0.15	0.70	8.14	98
TL020052		15	0.15	0.80	9.49	142
TL020053		20	0.15	0.80	10.66	181
TL020054		25	0.15	0.90	11.89	225
TL020055		30	0.15	0.90	12.82	263
TL020056		40	0.15	0.90	14.47	337
TL020057		50	0.15	0.90	16.07	419
TL020058		60	0.15	1.00	17.57	501
TL020059		80	0.15	1.00	19.89	645
TL020060		100	0.15	1.15	22.33	813
TL020061		150	0.15	1.15	26.76	1181
TL020062		200	0.15	1.35	30.89	1552
TL020063		250	0.15	1.35	34.18	1910
TL020064		300	0.15	1.60	37.65	2309
TL020065	0.8	1	0.25	0.60	4.34	27
TL020066		2	0.25	0.60	6.3	46
TL020067		3	0.25	0.60	6.65	60
TL020068		4	0.25	0.70	7.48	78
TL020069		5	0.25	0.70	8.18	93
TL020070		6	0.25	0.70	8.88	108
TL020071		8	0.25	0.70	9.44	135
TL020072		10	0.25	0.90	11.1	176
TL020073		15	0.25	0.90	12.71	246
TL020074		20	0.25	0.90	14.35	315
TL020075		25	0.25	1.00	15.99	392
TL020076		30	0.25	1.00	17.29	461
TL020077		40	0.25	1.00	19.61	597
TL020078		50	0.25	1.15	22.14	760
TL020079		60	0.25	1.15	23.96	895
TL020080		80	0.25	1.35	27.61	1185
TL020081		100	0.25	1.35	30.61	1465
TL020082		150	0.25	1.60	37.31	2179

Notes: Other telephone wires types can be provided on specific request. Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

ELSEWEDY CABLES

Providing Safe Energy



LAN Cables

- Cat 5e (UTP) 64
- Cat 5e (FTP) 65
- Cat 6 (UTP) 66

Cat 5e (UTP)

CATEGORY 5E UTP 4X2X24 AWG

ANSI / TIA-568-B.2 Category 5E ,According to EN 50288-3 and ISO / IEC 11801 - 2nd Edition,125 MHZ

Cables Structure

Conductor	Φ 0.51 mm copper conductor
Insulation	Polyethylene
Assembly	Cores are twisted in pairs, and all pairs assembled together
Sheath	PVC Grey color
Overall radius	5.3 mm
Weight	31.0 Kg / Km
Standard Packing	100 m / Coil , 305 m / box , 1000 m / drum

Technical Data

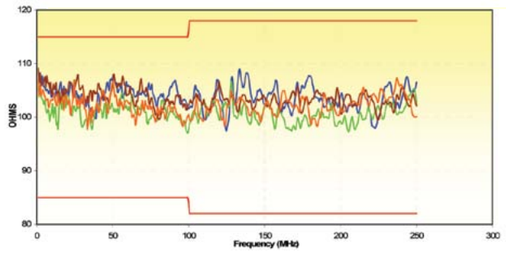
Impedance	100 ± 15 Ω
Mutual Capacitance	50 pF / m
Conductor Resistance	Max. 94 Ω / Km
Resistance Unbalance	Max. 2 %
Insulation Resistance	5000 M Ω / Km
Test Voltage	Max. 1200 V
Operating Temperature	Up To + 80 C˚
Min. Bending Radius	8XD
Nominal Velocity	66 %

Application

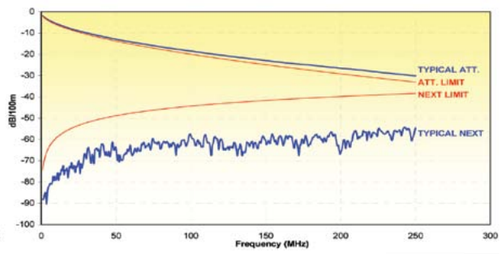
It is used for data communications in local area networks for bandwidths up to 125 MHz

Frequency (MHz)	Attenuation (dB/100m) Max	Near-End cross talk (NEXT) Loss Min. (dB)	PS Near-End cross talk (PSNEXT) Loss Min.(dB)	Equal Level Far-End Crosstalk (ELFEXT) Min. (dB/100m)	PS Equal Level Far-End Crosstalk (PSELFEXT) Min (dB/100m)	Structural return Loss (SRL) Min (dB)
1	2	65.3	62.3	63.8	60.8	23
4	4.1	56.3	53.3	51.8	48.8	23
8	5.8	51.8	48.8	45.7	42.7	23
10	6.5	50.3	47.3	43.8	40.8	23
16	8.2	47.2	44.2	39.7	36.7	23
20	9.3	45.8	42.8	37.8	34.8	23
25	10.4	44.3	41.3	35.8	32.8	22
31.25	11.7	42.9	39.9	33.9	30.9	21
62.5	17	38.4	35.4	27.9	24.9	18
100	22	35.3	32.3	23.8	20.8	16

Impedance



Attenuation&NEXT



Notes: “Values are approximate and subjected to normal manufacturing tolerance.

For any queries about other variants, please use our special cable from pg. 131

Cat 5e (FTP)

CATEGORY 5E FTP 4X2X24 AWG

ANSI / TIA-568-B.2 Category 5E ,According to EN 50288-3 and ISO / IEC 11801 - 2nd Edition,125 MHZ

Cables Structure

Conductor	Φ 0.51 mm copper conductor
Insulation	Polyethylene
Assembly	Cores are twisted in pairs, all pairs assembled together and binded with polyester tape
Screen	AL / PET foil Screen in contact with a tinned copper drain wire
Sheath	**PVC** Grey color
Overall radius	6.3 mm
Weight	43.0 Kg / Km
Standard Packing	100 m / Coil , 305 m / box , 1000 m / drum

Technical Data

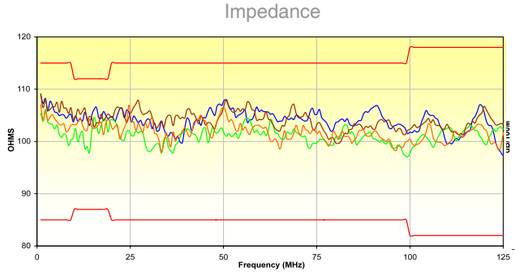
Impedance	100 ± 15 Ω
Mutual Capacitance	50 pF / m
Conductor Resistance	Max. 94 Ω / Km
Resistance Unbalance	Max. 2 %
Insulation Resistance	5000 M Ω / Km
Test Voltage	Max. 1200 V
Operating Temperature	Up To + 80 C˚
Min. Bending Radius	8XD
Nominal Velocity	66 %

Application

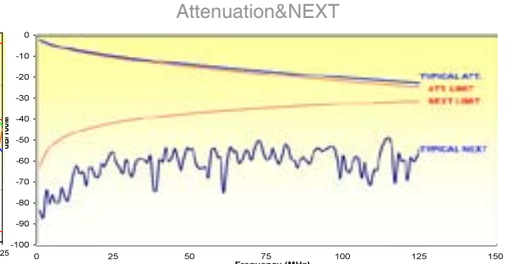
It is used for data communications in local area networks for bandwidths up to 125 MHz where additional protection from unwanted interference is required

Frequency (MHz)	Attenuation (dB/100m) Max	Near-End cross talk (NEXT) Loss Min. (dB)	PS Near-End cross talk (PSNEXT) Loss Min.(dB)	Equal Level Far-End Crosstalk (ELFEXT) Min. (dB/100m)	PS Equal Level Far-End Crosstalk (PSELFEXT) Min (dB/100m)	Structural return Loss (SRL) Min (dB)
1	2	65.3	62.3	63.8	60.8	23
4	4.1	56.3	53.3	51.8	48.8	23
8	5.8	51.8	48.8	45.7	42.7	23
10	6.5	50.3	47.3	43.8	40.8	23
16	8.2	47.2	44.2	39.7	36.7	23
20	9.3	45.8	42.8	37.8	34.8	23
25	10.4	44.3	41.3	35.8	32.8	22
31.25	11.7	42.9	39.9	33.9	30.9	21
62.5	17	38.4	35.4	27.9	24.9	18
100	22	35.3	32.3	23.8	20.8	16

Impedance



Attenuation&NEXT



Notes: “Values are approximate and subjected to normal manufacturing tolerance.

For any queries about other variants, please use our special cable from pg. 131

Cat 6 (UTP)

CATEGORY 6 UTP 4X2X23 AWG

ANSI / TIA-568-B.2 category - 6 ,According to EN 50288-3 and ISO / IEC 11801 - 2nd Edition, 250 MHZ

Cables Structure

Conductor	Φ 0.57 mm copper conductor
Insulation	Polyethylene
Assembly	Cores are twisted in pairs, and all pairs assembled together with star shaped separator
Sheath	PVC Grey color
Overall radius	6.0 mm
Weight	44.0 Kg / Km
Standard Packing	100 m / Coil , 305 m / box , 1000 m / drum

Technical Data

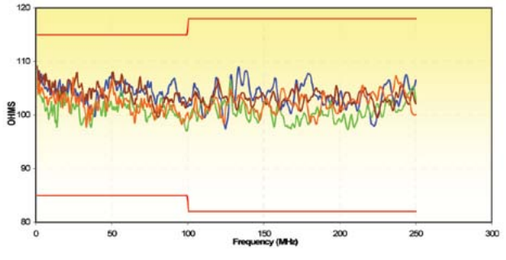
Impedance	100 ± 15 Ω
Mutual Capacitance	50 pF / m
Conductor Resistance	Max. 94 Ω / Km
Resistance Unbalance	Max. 2 %
Insulation Resistance	5000 M Ω Km
Test Voltage	Max. 1200 V
Operating Temperature	Up To + 80 C°
Min. Bending Radius	8XD
Nominal Velocity	66 %

Application

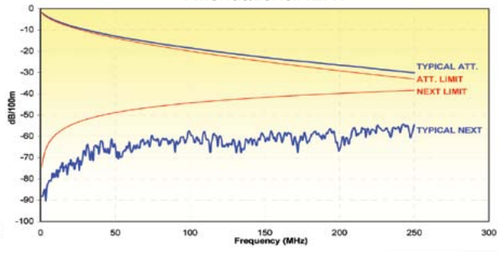
It is used for data communications in local area networks for bandwidths up to 250 MHz

Frequency (MHz)	Attenuation (dB/100m) Max	Near-End cross talk (NEXT) Loss Min. (dB)	PS Near-End cross talk (PSNEXT) Loss Min.(dB)	Equal Level Far-End Crosstalk (ELFEXT) Min. (dB/100m)	PS Equal Level Far-End Crosstalk (PSELFEXT) Min (dB/100m)	Structural return Loss (SRL) Min (dB)
1	2	74.3	72.3	67.8	64.8	20
4	3.8	65.3	63.3	55.8	52.8	23
8	5.3	60.8	58.8	49.7	46.7	24.5
10	6	59.3	57.3	47.8	44.8	25
16	7.6	56.2	54.2	43.7	40.7	25
20	8.5	54.8	52.8	41.8	38.8	24.3
25	9.5	53.3	51.3	39.8	36.8	23.6
31.25	10.7	51.9	49.9	37.9	34.9	21.5
62.5	15.4	47.4	45.4	31.9	28.9	20.1
100	19.8	44.3	42.3	27.8	24.8	18
200	29	39.8	37.8	21.8	18.8	17.3
250	32.8	38.3	36.3	19.8	16.8	16.4

Impedance



Attenuation&NEXT

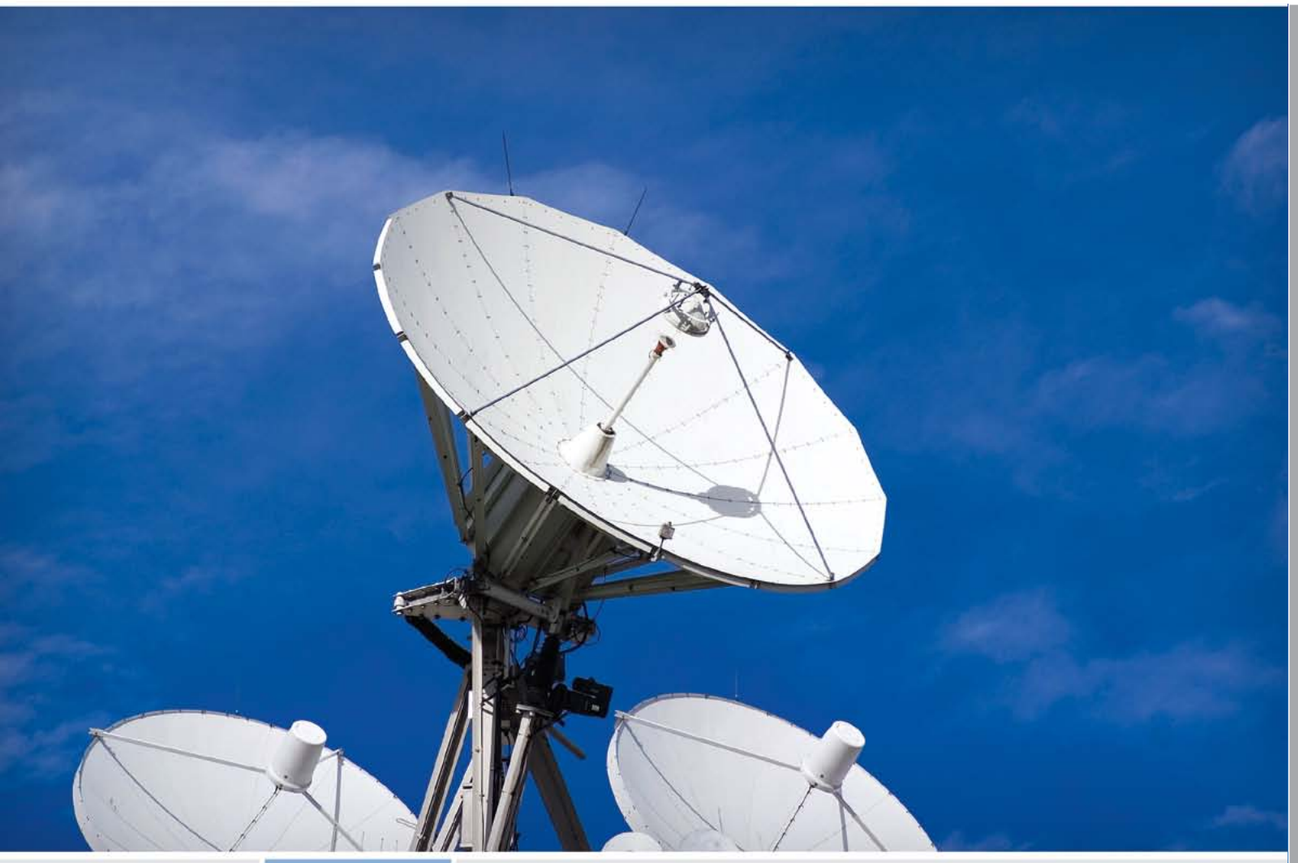


Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

ELSEWEDY CABLES

ELSEWEDY CABLES

Providing Safe Energy



Coaxial Cables

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Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with a woven layer of Braided Bare Copper wires and finally sheathed with Polyvinyl Chloride.

Cables Structure

Inner Conductor	Solid Copper Wire, Bare,Nominal Diameter 1.0 mm.
Insulation	Foamed Polyethylene, Nominal Diameter 4.50 mm.
Metallic screen	Bare Copper Braid providing 55 % Optical Coverage
Approximate Overall Diameter	6.15 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colours available)
Outer Sheath Marking	=EL SEWEDY CABLES = EGYPT 75 OHM C80 COAXIAL
Approximate Cable Weight	39 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	56
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	22
• **Outer conductor**	Ω/km	15

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	50	100	200	400	700	900	1000
dB/100m (Max)	7	9	12	17	22	25	26.5

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with Aluminum / Polyester Screen followed by a woven layer of Braided Copper wires and finally sheathed with Polyvinyl Chloride.

Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Nominal Diameter 1.0 mm.
Insulation	Foamed Polyethylene,Nominal Diameter 4.50 mm.
Metallic screen	Aluminum / Polyester Screen providing 100 % Optical coverage in contact with Bare Copper braid providing 55 % Optical coverage
Approximate Overall Diameter	6.25 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colours available)
Outer Sheath Marking	= EL SEWEDY CABLES = EGYPT 75 OHM CF160 COAXIAL
Approximate Cable Weight	40 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max. Operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	56
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	22
• **Outer conductor**	Ω/km	27

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	50	100	200	400	700	900	1000
dB/100m (Max)	7	9	12	17	22	25	26.5

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with Copper / Polyester Screen and then surrounded by a woven layer of Braided Plain Copper wires and finally sheathed with Polyvinyl Chloride.

Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Nominal Diameter 1.0 mm
Insulation	Foamed Polyethylene, Nominal Diameter 4.50 mm.
Metallic screen	Copper / Polyester Screen providing 100 % Optical Coverage in contact with Plain Copper Braid providing 50 % Optical Coverage
Approximate Overall Diameter	6.20 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = CX100 75 OHM COAXIAL BASED ON BS EN50117
Approximate Cable Weight	40 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	56
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	22
• **Outer conductor**	Ω/km	30

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	5	50	100	200	460	860	1000	1750	2150
dB/100m (Max)	1.6	4.6	6.5	9.5	15	19.5	21.5	29	32.5

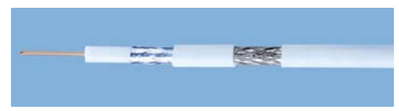
Return Loss

MHz	5-30	30-470	470-862	862-2150
Db/	>23	>23	>20	>18

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with Aluminum / Polyester Screen and then followed a woven layer of Braided Tinned Copper wires and finally sheathed with Polyvinyl Chloride.



Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Nom. Diameter 1.0 mm
Insulation	Foamed Polyethylene, Nominal Diameter 4.5 mm
Metallic screen	Aluminum / Polyester Screen providing 100 % optical coverage in contact with Tinned Copper Braid providing 66 % Optical Coverage
Approximate Overall Diameter	6.40 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White, (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES= EGYPT 75 OHM RG6 TYPE COAXIAL
Approximate Cable Weight	47 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	56
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	22
• **Outer conductor**	Ω/km	12.7

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	50	100	200	400	700	900	1000
dB/100m (Max)	7	9	12	17	22	25	26.5

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 6 Armored

Based on Mil-C-17/2A

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with Aluminum/Polyester Screen followed by a woven layer of Braided Tinned Copper wires. PVC inner sheath armored with, Galvanized Steel Wires and sheathed by Polyvinyl Chloride

Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Nominal Diameter 1.0 mm.
Insulation	Foamed Polyethylene, Nominal Diameter 4.50 mm.
Metallic screen	Aluminum/Polyester Screen providing 100 % Optical Coverage in contact with Tinned Copper Braid providing 50 % Optical Coverage.
Inner Sheath Material	Flame Retardant **PVC**
Armor	Galvanized Steel Wires for physical protection
Outer Sheath Material	Flame Retardant **PVC**
Approximate Overall Diameter	11 mm
Outer Sheath Color	White, (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = EGYPT 75 OHM RG6 TYPE ARM COAXIAL
Approximate Cable Weight	255 Kg / Km
Delivery Length	500 m on Wooden Drums (Other lengths can be arranged)

Electrical properties at 20 °C

Max Operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	56
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	22
• **Outer conductor**	Ω/km	27

Application

Suitable for underground video signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	50	100	200	400	700	900	1000
dB/100m (Max)	7	9	12	17	22	25	26.5

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 8

Based on Mil-C-17

Cables Construction

Consists of Bare Soft Annealed Stranded Copper conductor coated with Solid Polyethylene dielectric, wrapped with a woven layer of Braided Bare Copper wires and finally sheathed with Polyethylene

Cables Structure

Inner Conductor	Stranded Copper Wire, Bare, Nominal Diameter 2.22 mm
Insulation	Solid Polyethylene, Nominal Diameter 7.25 mm.
Metallic screen	Bare Copper Braid providing 97 % Optical Coverage
Approximate Overall Diameter	16 mm.
Outer Sheath Material	Low Density Polyethylene
Outer Sheath Color	Black, (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = 50 OHM RG8-PE TYPE COAXIAL
Approximate Cable Weight	290 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	50
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	102
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	5
• **Outer conductor**	Ω/km	6

Application

Suitable for Broad cast, Ethernet and RF signal transmission

Attenuation

MHz	50	100	200	400	800	1000
dB/100m (Max)	5.72	8.6	12.4	20.1	30	35

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 11

Based on Mil-C-17/6B

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with Aluminum/Polyester Screen and followed by a woven layer of Braided Tinned Copper wires and finally sheathed with Polyvinyl Chloride.

Cables Structure

Inner Conductor	Solid Copper Wire,Bare, Nominal Diameter 1.63 mm.
Insulation	Foamed Polyethylene,Nominal Diameter 4.50 mm.
Metallic screen	Aluminum / Polyester Screen providing 100 % Optical Coverage in contact with Tinned Copper Braid providing 60 % Optical Coverage.
Approximate Overall Diameter	10.20 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = 75 OHM RG11 TYPE COAXIAL
Approximate Cable Weight	110 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	53.7
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	9
• **Outer conductor**	Ω/km	8

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	50	100	200	400	700	900	1000
dB/100m (Max)	4.3	7.9	10.2	14	15.6	20.6	22.2

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 59 (Solid PE)

Based on Mil-C-17/29C

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Solid Polyethylene dielectric, wrapped with Aluminum/ Polyester Screen and then surrounded by a woven layer of Braided Tinned Copper wires and finally sheathed with Polyvinyl Chloride

Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Nominal Diameter 0.59 mm
Insulation	Solid Polyethylene, Nominal Diameter 3.70 mm
Metallic screen	Aluminum / Polyester Screen providing 100 % Optical Coverage in contact with Tinned Copper Braid providing 95 % Optical Coverage
Approximate Overall Diameter	6.30 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = EGYPT 75 OHM RG59 TYPE COAXIAL
Approximate Cable Weight	65 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	64
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	65
• **Outer conductor**	Ω/km	8

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	50	100	200	400	700	900	1000
dB/100m (Max)	7.87	11.15	16.07	22.96	31.82	36.41	39.36

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 59 (Foamed PE)

Based on Mil-C-17/29C

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, wrapped with Aluminum/Polyester Screen and then surrounded by a woven layer of Braided Tinned Copper wires and finally sheathed with polyethylene chloride

Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Nominal Diameter 0.81 mm
Insulation	Foamed polyethylene, Nominal Diameter 3.70 mm
Metallic screen	Aluminum/Polyester Screen providing 100 % Optical Coverage in contact with Tinned Copper Braid providing 61% Optical Coverage
Approximate Overall Diameter	6.20 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = EGYPT 75 OHM RG59 TYPE COAXIAL
Approximate Cable Weight	50 Kg / Km
Delivery Length	100 tm Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	57
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	37
• **Outer conductor**	Ω/km	16

Application

Suitable for low power video signaling and RF signed connection

Attenuation

MHz	50	100	200	400	800	1000
dB/100m (Max)	8	10	14.5	20	25	28

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 58

Based on Mil-C-17/ 028

Cables Construction

Consists of a flexible Soft Annealed tinned copper conductor coated with Solid Polyethylene dielectric, surrounded by a woven layer of Braided Tinned Copper wires and finally sheathed with Polyvinyl Chloride

Cables Structure

Inner Conductor	Flexible Copper Wire,Tinned, 19 x 0.18 mm
Insulation	Solid Polyethylene, Nominal Diameter 2.95 mm
Outer Conductor	Tinned Copper Braid providing 96 % Optical Coverage
Approximate Overall Diameter	4.91 mm
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Black, or White (Other Colors available)
Outer Sheath Marking	= EL SEWEDY CABLES = EGYPT 75 OHM RG58 TYPE COAXIAL
Approximate Cable Weight	37.5 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	50
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	101
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	38
• **Outer conductor**	Ω/km	11

Application

Suitable for the Interconnection of Telecommunication Transmission Equipment

Attenuation

MHz	50	100	200	400	700	900
dB/100m (Max)	10.8	16.1	23.9	37.7	55.8	65.6

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

RG 213

Based on Mil-C-17/14

Cables Construction

Consists of Bare Soft Annealed Stranded Copper conductor coated with Solid Polyethylene dielectric, wrapped with a woven layer of Braided Bare Copper wires and finally sheathed with **PVC**.

Cables Structure

Inner Conductor	Stranded Copper Wire, Bare, Nominal Diameter 2.25 mm.
Insulation	Solid Polyethylene, Nominal Diameter 7.25 mm.
Metallic screen	Bare Copper Braid providing 95 % Optical Coverage
Approximate Overall Diameter	10.30 mm
Outer Sheath Material	Flame retardant PVC
Outer Sheath Color	Black, (Other Colors available)
Outer Sheath Marking	=EL SEWEDY CABLES = 50 OHM RG213 COAXIAL
Approximate Cable Weight	175 Kg / Km
Delivery Length	100 m Coils in Carton Boxes (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	50
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	104.6
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	5
• **Outer conductor**	Ω/km	6

Application

Suitable for Broadcast, Ethernet and RF Signal Transmission

Attenuation

MHz	50	100	400	800	1000
dB/100m (Max)	3.94	7.54	13.5	17	19

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

75Ω Coaxial Interconnection Cable 0.315/1.95 FR-PVC

Based on Internal El Sewedy Specifications

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Solid Polyethylene dielectric, surrounded by two woven layers of Braided Tinned Copper wires and finally sheathed with Polyvinyl Chloride.

Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Diameter 0.315 mm.
Insulation	Solid Polyethylene, Diameter 1.95 mm
Metallic screen	Two layers of Tinned Copper Braid, Optical Coverage 94 % and 87 %, Diameter Over Second Braid 2.75 mm
Approximate Overall Diameter	3.75mm
Outer Sheath Material	Flame Retardant **PVC.**
Outer Sheath Color	Grey, (Other Colors available)
Outer Sheath Marking	= El Sewedy Cables = 0.315/1.95 - 75 Ω Coaxial - FR-PVC
Approximate Cable Weight	22 Kg / Km
Delivery Length	500 and 1000 m (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	65
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	240
• **Outer conductor**	Ω/km	20

Application

Suitable for Video Signaling, Digital Communication and Power Limited Applications

Attenuation

MHz	1	4	17	70
dB/100m (Max)	2.3	4.5	9.2	18.7

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

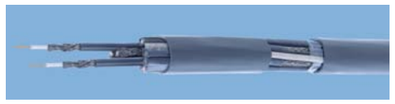
Coaxial Cables

8 Way 75Ω Coaxial Interconnection Cable 0.315/1.95 FR-PVC

Based on Internal El Sewedy Specifications

Cables Construction

The cable consists of eight 75 Ohm coaxial cables. Each individual miniature coaxial cable consists of a plain annealed copper inner conductor coated with solid polyethylene dielectric, surrounded by two layers of braided copper wires and sheathed with polyvinyl chloride. The miniature coaxial cables are stranded and then sheathed overall with polyvinyl chloride. Low smoke zero halogen is also available.



Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Diameter 0.315 mm
Insulation	Solid Polyethylene, Diameter 1.95 mm
Metallic screen	Two layers of Tinned Copper Braid, Optical Coverage 94 % and 87 %, Diameter OverSecond Braid 2.75 mm
Approximate Overall Diameter	15.20 mm
Single Coax Sheath	Flame Retardant **PVC**, Diameter 3.75 mm, Grey, RAL 7040
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Grey, (Other Colors available)
Outer Sheath Marking	= El Sewedy Cables = 0.315 / 1.95 - 75 Ω Coaxial - FR-**PVC**
Approximate Cable Weight	240 Kg / Km
Delivery Length	250 and 500 m (Other lengths can be arranged)

Electrical properties at 20 °C

Max Operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	65
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	240
• **Outer conductor**	Ω/km	20

Application

Suitable for the Interconnection of Telecommunication Transmission Equipment

Attenuation

MHz	1	4	17	70
dB/100m (Max)	2.3	4.5	9.2	18.7

Notes: “Values are approximate and subjected to normal manufacturing tolerance.

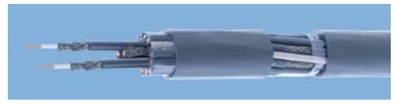
For any queries about other variants, please use our special cable from pg. 131

16 Way 75Ω Coaxial Interconnection Cable 0.315/1.95 FR-PVC

Based on Internal El Sewedy Specifications

Cables Construction

The cable consists of sixteen 75 Ohm coaxial cables. Each individual miniature coaxial cable consists of a plain annealed copper inner conductor coated with solid polyethylene dielectric, surrounded by two layers of braided copper wires and sheathed with polyvinyl chloride. The miniature coaxial cables are stranded and then sheathed overall with polyvinyl chloride. Low smoke zero halogen is also available.



Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Diameter 0.315 mm
Insulation	Solid Polyethylene, Diameter 1.95 mm
Metallic screen	Two layers of Tinned Copper Braid, Optical Coverage 94 % and 87 %, Diameter Over Second Braid 2.75 mm
Approximate Overall Diameter	21.20 mm
Single Coax Sheath	Flame Retardant **PVC**, Diameter 3.75 mm, Grey,
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Grey, (Other Colors available)
Outer Sheath Marking	= El Sewedy Cables = 0.315 / 1.95 - 75 Ω Coaxial - FR-**PVC**
Approximate Cable Weight	475 Kg / Km
Delivery Length	250 and 500 m (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	66
Capacitance (Nominal)	pF/m	65
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	240
• **Outer conductor**	Ω/km	20

Application

Suitable for the Interconnection of Telecommunication Transmission Equipment

Attenuation

MHz	1	4	17	70
dB/100m (Max)	2.3	4.5	9.2	18.7

Notes: “Values are approximate and subjected to normal manufacturing tolerance.

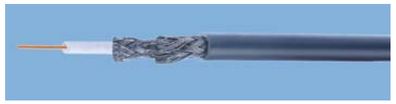
For any queries about other variants, please use our special cable from pg. 131

75Ω Coaxial Interconnection Cable 0.405/1.95 FR-PVC

Based on Internal El Sewedy Specifications

Cables Construction

Consists of Bare Soft Annealed Copper conductor coated with Foamed Polyethylene dielectric, surrounded by two woven layers of Braided Tinned Copper wires and finally sheathed with Polyvinyl Chloride



Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Diameter 0.405 mm
Insulation	Foamed Polyethylene, Diameter 1.95 mm
Metallic screen	Two layers of Tinned Copper Braid, Optical Coverage 94 % and 87 %, Diameter Over Second Braid 2.75 mm
Approximate Overall Diameter	3.75 mm
Single Coax Sheath	Flame Retardant **PVC**, Diameter 3.75 mm, Grey, RAL 7040
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Grey, (Other Colors available)
Outer Sheath Marking	= El Sewedy Cables = 0.405 / 1.95 - 75 Ω Coaxial - FR-**PVC**
Approximate Cable Weight	25 Kg / Km
Delivery Length	250 and 500 m (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	65
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	150
• **Outer conductor**	Ω/km	20

Application

Suitable for the Interconnection of Telecommunication Transmission Equipment

Attenuation

MHz	1	4	17	70
dB/100m (Max)	2.3	4.5	9.2	18.7

Notes: “Values are approximate and subjected to normal manufacturing tolerance.

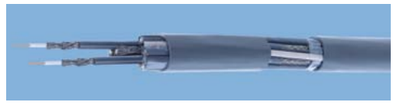
For any queries about other variants, please use our special cable from pg. 131

8 Way 75Ω Coaxial Interconnection Cable 0.405/1.95 FR-PVC

Based on Internal El Sewedy Specifications

Cables Construction

The cable consists of eight 75 Ohm coaxial cables. Each individual miniature coaxial cable consists of a plain annealed copper inner conductor coated with foamed polyethylene dielectric, surrounded by two layers of braided copper wires and sheathed with polyvinyl chloride. The miniature coaxial cables are stranded and then sheathed overall with polyvinyl chloride. Low smoke zero halogen is also available.



Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Diameter 0.405 mm
Insulation	Foamed Polyethylene, Diameter 1.95 mm
Metallic screen	Two layers of Tinned Copper Braid, Optical Coverage 94 % and 87 %, Diameter Over Second Braid 2.75 mm
Approximate Overall Diameter	15.20 mm
Single Coax Sheath	Flame Retardant **PVC**, Diameter 3.75 mm, Grey
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Grey, (Other Colors available)
Outer Sheath Marking	= El Sewedy Cables = 0.405 / 1.95 - 75 Ω Coaxial - FR-**PVC**
Approximate Cable Weight	270 Kg / Km
Delivery Length	250 and 500 m (Other lengths can be arranged)

Electrical properties at 20 °C

Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	75
Capacitance (Nominal)	pF/m	65
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	150
• **Outer conductor**	Ω/km	20

Application

Suitable for the Interconnection of Telecommunication Transmission Equipment

Attenuation

MHz	1	4	17	70
dB/100m (Max)	2.3	4.5	9.2	18.7

Notes: “Values are approximate and subjected to normal manufacturing tolerance.

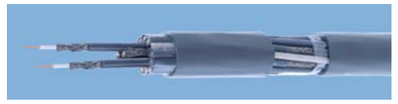
For any queries about other variants, please use our special cable from pg. 131

16 Way 75Ω Coaxial Interconnection Cable 0.405/1.95 FR-PVC

Based on Internal El Sewedy Specifications

Cables Construction

The cable consists of sixteen 75 Ohm coaxial cables. Each individual miniature coaxial cable consists of a plain annealed copper inner conductor coated with foamed polyethylene dielectric, surrounded by two layers of braided copper wires and sheathed with polyvinyl chloride. The miniature coaxial cables are stranded and then sheathed overall with polyvinyl chloride. Low smoke zero halogen is also available.



Cables Structure

Inner Conductor	Solid Copper Wire, Bare, Diameter 0.405 mm
Insulation	Foamed Polyethylene, Diameter 1.95 mm
Metallic screen	Two layers of Tinned Copper Braid, Optical Coverage 94 % and 87 %, Diameter Over Second Braid 2.75 mm
Approximate Overall Diameter	3.75 mm
Single Coax Sheath	Flame Retardant **PVC**, Diameter 3.75 mm, Grey, RAL 7040
Outer Sheath Material	Flame Retardant **PVC**
Outer Sheath Color	Grey, (Other Colors available)
Outer Sheath Marking	= El Sewedy Cables = 0.405 / 1.95 - 75 Ω Coaxial - FR-**PVC**
Approximate Cable Weight	25 Kg / Km
Delivery Length	250 and 500 m (Other lengths can be arranged)

Electrical properties at 20 °C

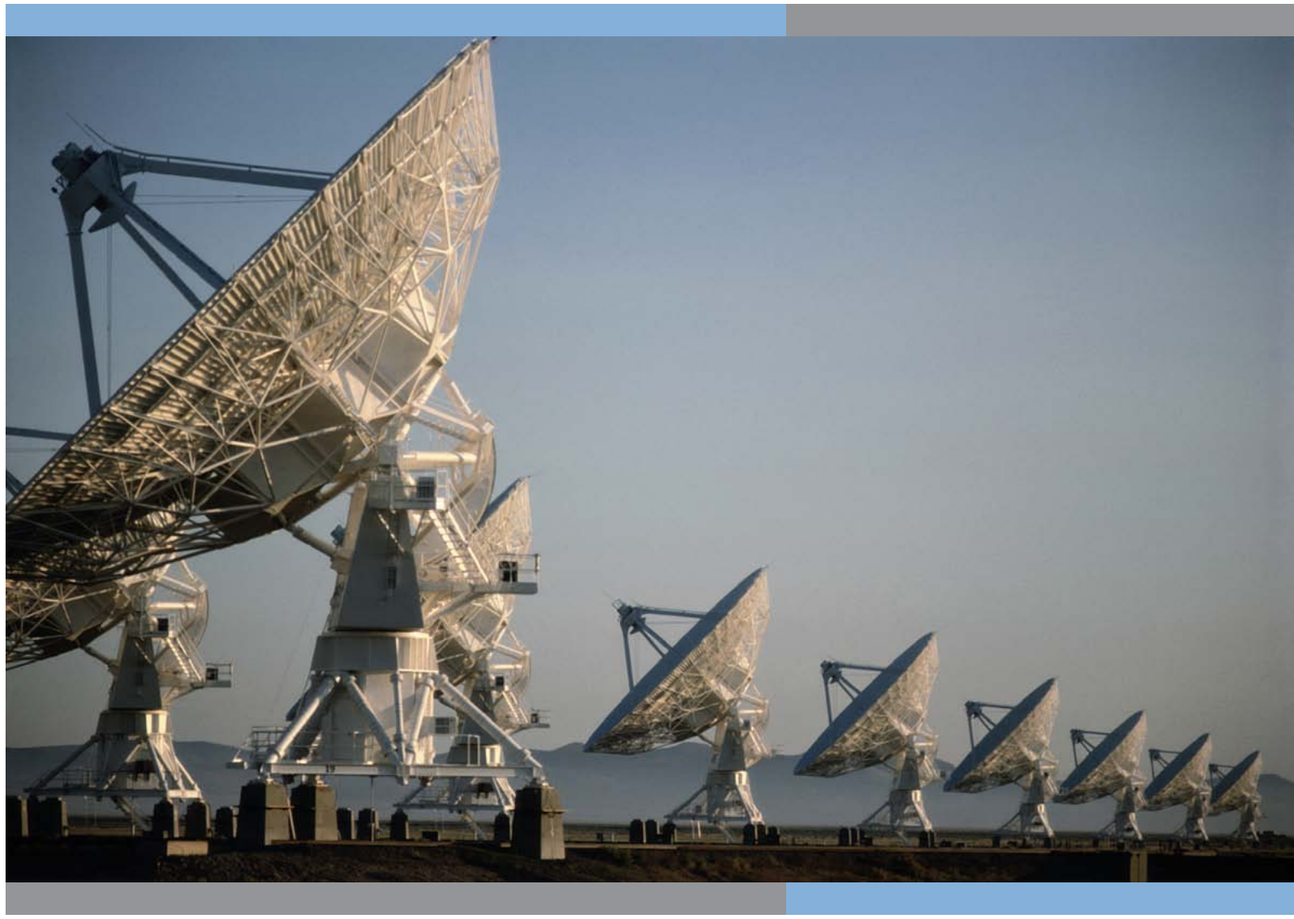
Max operating Temperature	°C	75
Characteristic Impedance (Nominal)	Ω	75
Velocity of Propagation (Nominal)	%	79
Capacitance (Nominal)	pF/m	65
DC Resistance (Maximum)		
• **Inner conductor**	Ω/km	150
• **Outer conductor**	Ω/km	20

Application

Suitable for the Interconnection of Telecommunication Transmission Equipment

MHz	1	4	17	70
dB/100m (Max)	2.3	4.5	9.2	18.7

Notes: “Values are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131



ELSEWEDY CABLES

Providing Safe Energy

Fire Resistant & Fire Alarm

Fire Fighting Cables Classifications 90

Fire Resistant

- Un-armored Multi Core 94
- Armored Multi Core 95
- Un-armored Multi Pair 96
- Armored Multi Pair 97
- Un-armored Multi Triple 98
- Armored Multi Triple 99

Fire Alarm

- Stranded Multi Core Un screened 100
- Stranded Multi Core screened 101
- Solid Multi Core 102
- Flexible Multi Core 103

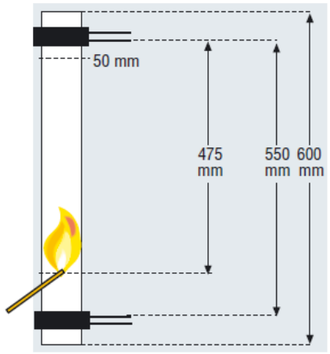
Fire Fighting Cables:

When it comes to select the wiring systems of all industrial, residential or commercial buildings it becomes more than ever important for owners and authorities to choose the proper cables for their applications, the definitions , terminologies and testing requirements of the fire rated cables are generally as below:

Flame Retardant Cables

In Fire condition; traditional cables are acting as a network to propagate the flame along their length to distances far from the fire area.
Using special flame retardant grades of the non-metallic components of the cable will significantly increase the cable ability to prevent flame spread “this is called flame retardant”
The key definitions of the flame retardant cables are:

- Cables which doesn’t spread fire
- Cables which are self-extinguishing

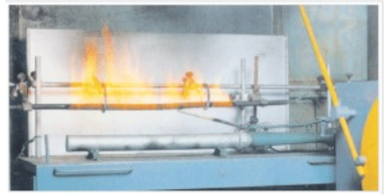


Testing flame retardant cables is done in accordance with BS EN 60332 or IEC 60332 (the most widely applied tests) which specifies different parts for the test depending on the number of cables or wires, single or bunched as the following:

BS EN / IEC 60332-1 &2: it’s a test on a single insulated vertical wire or electric and fiber optic cable. A 60 cm long cable sample is fixed vertically inside a metallic box and the lower end is exposed to a gas burner angled at 45° to the horizontal. After burning cease, the charred or affected position does not reach within 50mm of the lower edge of the top clamp which is equivalent to 425mm above the point of flame application.
The test method is not suitable for the testing of some small wires due to the melting of the conductors during the time of application of the flame.

BS EN /IEC 60332-3: it’s a test for bunched wires and cables and basically categorized in three grades A, B & C, the three grades have the same test procedures and the same test purpose, the cable is considered as flame retardant if the flame did not propagate along the cable for more than 2.5 m after the flame is ceased but it all depends on the number of samples as above:
BS EN / IEC 60332-3-22 (CAT A): it’s the most severe test and the number of test samples require providing a total volume of 7 liters of non-metallic material which shall be bunched on a ladder exposed to flame for 40 minutes.
BS EN / IEC 60332-3-23 (CAT B): The number of test samples require providing a total volume of 3.5 liters of non-metallic material which shall be bunched on a ladder and exposed to flame for 40 minutes.
BS EN / IEC 60332-3-24 (CAT C): The number of test samples require providing a total volume of 1.5 liters of non-metallic material which shall be bunched on a ladder and exposed to flame for 20 minutes

Fire Resistant Cables



Fire resistant cables: are used when the cables are required to keep circuit integrity and continue to operate in the presence of a fire for a specified time under defined conditions, these cables are called fire resistant cables.

The cables are tested based on the following standards:

IEC 60331 Fire Resistance Test
A sample is connected to an electrical supply at its rated voltage. Fire is applied for a period of 3 hours. The temperature on the cable is between 750 and 830°C. The fire and the power are switched off. 12 hours later, the cable sample is re-energized and must maintain its circuit integrity.

BS6387 Fire Resistance Test
It details the following methods to categorize the cables according to cable withstand capacities.

Resistance to fire alone: cables are tested by gas burner flame while a current is passing at its rate voltage. Four categories are defined:

- € **Category A:** Cables are subjected to fire at 650°C for 3 hours.
- € **Category B:** Cables are subjected to fire at 750°C for 3 hours.
- € **Category C:** Cables are subjected to fire at 950°C for 3 hours.
- € **Category S:** Cables are subjected to fire at 950°C for 20 minutes.

Resistance to fire with water:

- € **Category W:** Cables are subjected to fire at 650°C for 15 minutes, then at 650°C with water spray for a further 15 minutes.

Resistance to fire with mechanical shock:

- € **Category X:** Cables are subjected to fire at 650°C with mechanical shock for 15 minutes.
- € **Category Y:** Cables are subjected to fire at 750°C with mechanical shock for 15 minutes.
- € **Category Z:** Cables are subjected to fire at 950°C with mechanical shock for 15 minutes.

The highest category for BS 6387 is CWZ where the three tests are performed on the three samples of the same cable.

Other products also are available in according with the most advanced fire resistance standards BS 7846, BS EN 50200 and BS 8491

Fire alarm cables:

In addition to the fire resistant cables in the fire and emergency systems, another type of cables is required which transmit signals to the notification (Indicating) device circuits such as alarm sounders, horns, strobes and other remote signaling equipment.
Fire alarm cables work under high temperature Reach 105°C to do it is function in energizing or Sending the signals to specific device and it is observed that the fire resistant cables work under extreme conditions, the main difference between fire alarm and fire resistance cables is that fire alarm cables doesn’t require to maintain circuit integrity under fire conditions; it only turns on the alarm systems at the beginning of the fire.

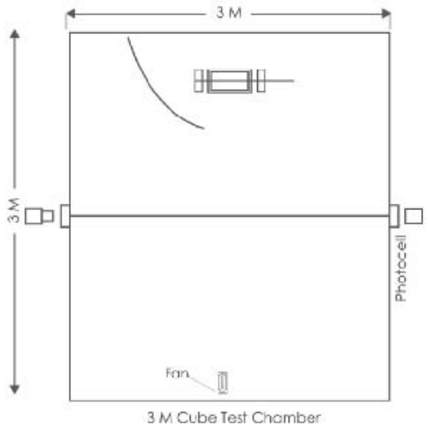
Fire alarm cable is specified in the article 760 of the American national electric code “NEC” and Elsewedy electric is a UL certified as recognized manufacture of the same.

Low Smoke and Halogen free Cables:

In all fire disasters, smoke, halogen and toxic fumes of traditional PVC sheathed cables are the main obstacles to safe evacuation of a building or an area. In addition to the fire resistance and flame retardant tests there are some tests to ensure maximum safe evacuation of people with no harmful effects.

Smoke Emission Tests: (IEC 61034, BS EN 61034)

This test is for determination of smoke density. A 1m length of cable is placed in a $3m^3$ enclosures (It is called 3 meter cube test) and exposed to a beam of light through a clear window. This light travels across the enclosure to a photocell connected to recording equipment in the window on the other end. A minimum light transmission value greater than 60% is acceptable after a fire is generated. The higher the light transmittance, the less smoke emitted during a fire.



Plan of Low Smoke Halogen Free test chamber according to IEC 61034 & BS EN 61034

Acid Gas Emission Tests: (IEC 60754, BS EN 50267)

A corrosive halogen gases can be generated by burning PVC or chlorine containing material. HCl gas combines with the water in the eyes, mouth, throat, nose and lungs to form hydrochloric acid that has harmful effects and increasing potential fatalities by inhalation of carbon monoxide and oxygen depletion, additional dangers exist on all metallic materials and devices in the proximity of a fire.

IEC 60754-1, BE EN 50267

specifies a method in determining the amount of halogen acid gas other than the hydrofluoric acid evolved during combustion of compound based on halogenated polymers and compounds containing halogenated additives taken from cable constructions. Halogen includes Fluorine, Chlorine, Bromine, Iodine and Astatine. If the hydrochloric acid yield is less than 5 mg/g, the cable specimen is categorized as LSZH.

IEC 60754-2

specifies a method in determining the degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity. This standard requires the weighted pH value of not less than 4.3 when related to 1 liter of water, and the weighted value of conductivity should not exceed 10µS/mm.

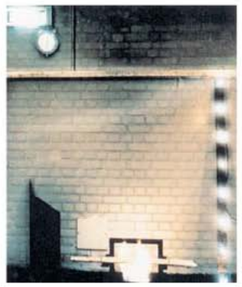
The 3 Meter Cube Smoke Test Chamber

Photos in the upper side for PVC sheathed cables and lower side shows the LSHF sheathed cables

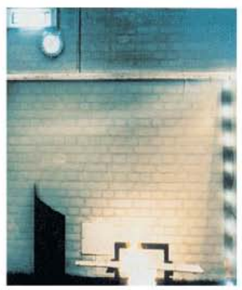

PVC Cables: 30 sec

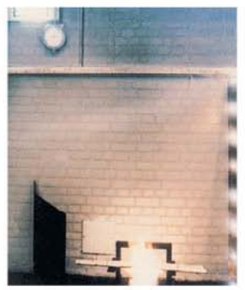

PVC Cables: 3 mins


PVC Cables: 6 mins


LSHF: 30 sec


LSHF: 3 mins

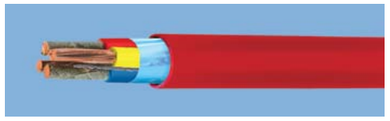

LSHF: 6 mins


LSHF: 12 mins

Comparison between traditional PVC & Low Smoke Halogen Free Cables when tested in accordance to IEC 61034

The comparative figure above shows the difference between the behavior of traditional PVC and low smoke halogen free sheathed cables when tested for low smoke emission according to IEC 61034. This property helps making the public places like underground tunnels, hospitals, hotels, etc. more safer and easier for evacuation during the fire conditions.

Cable Description



Conductor	Plain annealed stranded copper
Core Insulation	Flame barrier Mica tape, **XLPE** (Cross linked polyethylene)
Color coding	Color coded or Black cores continuously numbered
Assembly	Cores twisted together to form round cable with fillers and binders if necessary.
Collective Screen	Aluminum / PETP tape in contact with tinned copper drain wire
Outer Sheath	**LSOH** (Low smoke Zero Halogen)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

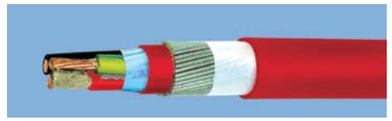
These cables are used in hazardous area where safety and circuit integrity are highly required during fire conditions

Product code	No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FR064001	2	1**	0.54	7.41	61.94
FR064002	3			7.84	77.3
FR064003	4			8.54	94.37
FR064004	5			9.50	119.78
FR064005	7			10.31	147.53
FR064006	10			13.21	208.76
FR064007	12			13.64	238.1
FR064008	19			16.11	350.42
FR064009	24			18.81	434.98
FR064010	30			20.12	532.1
FR064011	37			21.71	639.5
FR064012	2	1.50	0.7	9.79	111.55
FR064013	3			10.32	139.53
FR064014	4			11.17	169.83
FR064015	5			12.09	206.98
FR064016	7			13.08	256.09
FR064017	10			16.37	352.12
FR064018	12			16.90	404.35
FR064019	19			19.66	593.69
FR064020	24			22.95	738.23
FR064021	30			24.30	893.31
FR064022	37			26.24	1076.83
FR064023	2	2.50	0.7	10.69	138.13
FR064024	3			11.29	176.73
FR064025	4			12.26	217.97
FR064026	5			13.31	267.97
FR064027	7			14.43	336.4
FR064028	10			18.17	465.93
FR064029	12			18.77	538.9
FR064030	19			21.91	801.67
FR064031	24			25.65	999.93
FR064032	30			27.18	1216.97
FR064033	37			29.39	1473.13

Notes: Values are approximate and subjected to normal manufacturing tolerances.
* Fire resistance cables to "BS 6387, BS 7846, BS 8491 or BS EN 50200" are available upon request
** 1 mm2 designed with 500 v to BS EN 50288-7, additionally 1.5 & 2.5 mm2 are available also with the same standard
For any queries about other variants, please use our special cable form pg 131

ELSEWEDY CABLES

Cable Description



Conductor	Plain annealed stranded copper
Core Insulation	Flame barrier Mica tape, **XLPE** (Cross linked polyethylene)
Color coding	Color coded or Black cores continuously numbered
Assembly	Cores twisted together to form round Cable with fillers and binders if necessary.
Collective Screen	Aluminum / PETP tape in contact with tinned copper drain wire
Inner Sheath	**LSOH** (Low smoke Zero Halogen)
Armor	Single layer of steel wires
Outer Sheath	**LSOH** (Low smoke Zero Halogen)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used in hazardous area where safety and circuit integrity are highly required during fire conditions

Product code	No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FR069001	2	1**	0.54	12.07	259.3
FR069002	3			12.50	287.4
FR069003	4			13.40	325.12
FR069004	5			14.36	371.97
FR069005	7			15.17	415.2
FR069006	10			18.27	554.49
FR069007	12			18.70	591.95
FR069008	19			21.17	763.95
FR069009	24			24.77	1058.96
FR069010	30			26.08	1195.35
FR069011	37			27.87	1356.2
FR069012	2	1.5	0.7	13.25	296.59
FR069013	3			13.78	334.53
FR069014	4			14.63	380.03
FR069015	5			15.55	432.65
FR069016	7			16.54	497.49
FR069017	10			20.73	795.16
FR069018	12			21.26	859.09
FR069019	19			24.02	1117
FR069020	24			28.01	1501.94
FR069021	30			29.42	1698.09
FR069022	37			31.47	1960.53
FR069023	2	2.50	0.7	14.15	338.55
FR069024	3			14.75	387.4
FR069025	4			15.72	444.31
FR069026	5			16.77	514.21
FR069027	7			18.79	733.33
FR069028	10			22.53	954.52
FR069029	12			23.13	1039.47
FR069030	19			26.97	1529.81
FR069031	24			30.85	1862.93
FR069032	30			32.47	2140.27
FR069033	37			34.80	2463.66

Notes: Values are approximate and subjected to normal manufacturing tolerances.
* Fire resistance cables to "BS 6387, BS 7846, BS 8491 or BS EN 50200" are available upon request
** 1 mm2 designed with 500 v to BS EN 50288-7, additionally 1.5 & 2.5 mm2 are available also with the same standard
For any queries about other variants, please use our special cable form pg 131

ELSEWEDY CABLES

Cable Description

Conductor	Plain annealed stranded copper
Core Insulation	Flame barrier Mica tape, **XLPE** (Cross linked polyethylene)
Color coding	Color Coded 1 Black, 1 White cores continuously numbered
Assembly	Pairs twisted together to form round cable with fillers and binders if necessary.
Collective Screen	Aluminum / PETP tape in contact with tinned copper drain wire
Outer Sheath	**LSOH** (Low smoke Zero Halogen)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

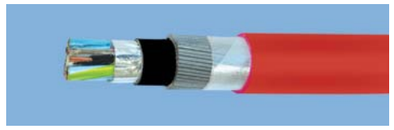
Application

These cables are used in hazardous area where safety and circuit integrity are highly required during fire conditions

Product code	No. of pairs	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FR064034	1	1	0.44	7.41	71.07
FR064035	2			11.07	130.66
FR064036	5			14.37	266.41
FR064037	10			20.52	507.08
FR064038	20			26.81	947.3
FR064039	50			40.98	2253.38
FR064040	1	1.50	0.44	7.95	85.17
FR064041	2			11.95	158.38
FR064042	5			15.76	338.69
FR064043	10			22.49	645.73
FR064044	20			29.37	1210.95
FR064045	40			39.71	2328.52
FR064046	1	2.50	0.53	9.21	118.18
FR064047	2			14.22	230.55
FR064048	5			18.75	500.96
FR064049	10			26.83	959.08
FR064050	20			35.28	1831.51
FR064051	30			42.05	2691.19

Notes: Values are approximate and subjected to normal manufacturing tolerances.
* Fire resistance cables to "BS 6387, BS 7846, BS 8491 or BS EN 50200" are available upon request
Individual unit screen also available upon request
For any queries about other variants, please use our special cable form pg 131

Cable Description



Conductor	Plain annealed stranded copper
Core Insulation	Flame barrier Mica tape, **XLPE** (Cross linked polyethylene)
Color coding	color coded 1 Black, 1 White cores continuously numbered
Assembly	Pairs twisted together to form round cable with fillers and binders if necessary.
Collective Screen	Aluminum / PETP tape in contact with tinned copper drain wire
Inner Sheath	**LSOH** (Low smoke Zero Halogen)
Armor	Single layer of steel wires
Outer Sheath	**LSOH** (Low smoke Zero Halogen)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used in hazardous area where safety and circuit integrity are highly required during fire conditions

Product code	No. of pairs	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FR069034	1	1	0.44	12.67	300.63
FR069035	2			15.93	427.97
FR069036	5			19.43	648.16
FR069037	10			26.68	1202.35
FR069038	20			33.17	1850.8
FR069039	40			43.73	3311.5
FR069040	1	1.50	0.44	13.01	318.7
FR069041	2			16.81	472.27
FR069042	5			20.82	751.49
FR069043	10			28.65	1406.75
FR069044	20			36.63	2424.42
FR069045	30			42.49	3227.81
FR069046	1	2.50	0.53	14.07	371.77
FR069047	2			19.28	606.14
FR069048	5			24.71	1129
FR069049	10			33.19	1872.31
FR069050	20			42.94	3305.89

Notes: Values are approximate and subjected to normal manufacturing tolerances.
* Fire resistance cables to "BS 6387, BS 7846, BS 8491 or BS EN 50200" are available upon request
Individual unit screen also available upon request
For any queries about other variants, please use our special cable form pg 131

Cable Description

Conductor	Plain annealed stranded copper
Core Insulation	Flame barrier Mica tape, **XLPE** (Cross linked polyethylene)
Color coding	1 Black, 1 White & 1 Red cores continuously numbered
Assembly	Triples twisted together to form round cable with fillers and binders if necessary.
Collective Screen	Aluminum / PETP tape in contact with tinned copper drain wire
Outer Sheath	**LSOH** (Low smoke Zero Halogen)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used in hazardous area where safety and circuit integrity are highly required during fire conditions

Product code	No. of triples	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FR064052	1	1	0.44	7.84	91.77
FR064053	2			12.3	174.43
FR064054	5			16.23	377.5
FR064055	10			23.19	721.86
FR064056	20			30.3	1361.1
FR064057	40			40.99	2625.46
FR064058	1	1.50	0.44	8.43	111.84
FR064059	2			13.51	221.28
FR064060	5			17.59	472.46
FR064061	10			25.41	922.2
FR064062	20			33.19	1745.56
FR064063	30			39.58	2570.35
FR064064	1	2.50	0.53	9.79	158.8
FR064065	2			16.06	323.99
FR064066	5			20.97	705.31
FR064067	10			30.31	1378.87
FR064068	20			39.86	2649.62

Notes: Values are approximate and subjected to normal manufacturing tolerances.
* Fire resistance cables to "BS 6387, BS 7846, BS 8491 or BS EN 50200" are available upon request
Individual unit screen also available upon request
For any queries about other variants, please use our special cable form pg 131

Cable Description

Conductor	Plain annealed stranded copper
Core Insulation	Flame barrier Mica tape, **XLPE** (Cross linked polyethylene)
Color coding	1 Black, 1 White & 1 Red cores continuously numbered
Assembly	Triples twisted together to form round cable with fillers and binders if necessary.
Collective Screen	Aluminum/PETP tape in contact with tinned copper drain wire
Inner Sheath	**LSOH** (Low smoke Zero Halogen)
Armor	Single layer of steel wires
Outer Sheath	**LSOH** (Low smoke Zero Halogen)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

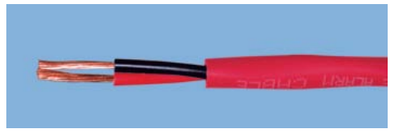
Application

These cables are used in hazardous area where safety and circuit integrity are highly required during fire conditions

Product code	No. of pairs	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FR069051	1	1	0.44	12.5	303.74
FR069052	2			17.16	495.9
FR069053	5			21.29	804
FR069054	10			29.35	1498.77
FR069055	20			37.56	2599.62
FR069056	30			43.61	3494.75
FR069057	1	1.50	0.44	13.09	337.82
FR069058	2			18.57	581.24
FR069059	5			23.55	1071.47
FR069060	10			31.77	1783.51
FR069061	20			40.65	3112.75
FR069062	1	2.50	0.53	14.65	426.65
FR069063	2			21.32	755.17
FR069064	5			27.13	1414.23
FR069065	10			37.57	2617.55
FR069066	15			43.08	3497.63

Notes: Values are approximate and subjected to normal manufacturing tolerances.
* Fire resistance cables to "BS 6387, BS 7846, BS 8491 or BS EN 50200" are available upon request
Individual unit screen also available upon request
For any queries about other variants, please use our special cable form pg 131

Cable Description



Conductor	Plain annealed stranded copper
Core Insulation	**PVC** (Polyvinyl chloride) 105°C
Color coding	Two Cores : Red, Black Three Cores : Red, Yellow, Blue Four Cores : Red, Yellow, Blue, Black
Assembly	Cores twisted together to form round cable.
Outer Sheath	**PVC** (Polyvinyl chloride)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

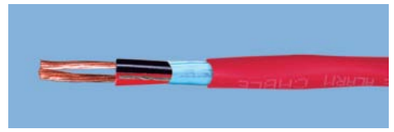
Application

These cables are used for communication and signaling in fire alarm systems.

Product code	No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FA009001	2	1	0.44	6.61	56.58
FA009002	3			6.99	72.6
FA009003	4			7.6	89.7
FA009004	2	1.50	0.44	7.15	69.31
FA009005	3			7.57	90.63
FA009006	4			8.46	117.3

Notes: Values are approximate and subjected to normal manufacturing tolerances.
For any queries about other variants, please use our special cable form pg 131

Cable Description



Conductor	Plain annealed stranded copper
Core Insulation	**PVC** (Polyvinyl chloride) 105°C
Color coding	Two Cores : Red, Black Three Cores : Red, Yellow, Blue Four Cores : Red, Yellow, Blue, Black
Assembly	Cores twisted together to form round cable.
Collective Screen	Aluminum /PETP tape in contact with tinned copper drain wire
Outer Sheath	**PVC** (Polyvinyl chloride)
Cable Marking	= EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used for communication and signaling in fire alarm systems.

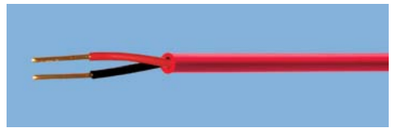
Product code	No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FA002001	2	1	0.44	6.75	62.7
FA002002	3			7.15	80.75
FA002003	4			7.75	100.3
FA002004	2	1.50	0.44	7.3	75.5
FA002005	3			7.71	99.2
FA002006	4			8.6	128

Notes: Values are approximate and subjected to normal manufacturing tolerances.
For any queries about other variants, please use our special cable form pg 131

Fire Alarm Solid

Solid Fire Alarm Cables 500 V Un screened
Cables Multi-Core cables to BS EN 50288-7

Cable Description



Conductor Plain annealed solid copper
Core Insulation **PVC** (Polyvinyl chloride) 105°C
Color coding Two Cores : Red, Black
Three Cores : Red, Yellow, Blue
Four Cores : Red, Yellow, Blue, Black
Assembly Cores twisted together to form round cable.
Outer Sheath **PVC** (Polyvinyl chloride)
Cable Marking = EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used for communication and signaling in fire alarm systems.

Product code	No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FA009007	2	1	0.44	6.29	53.07
FA009008	3			6.64	67.94
FA009009	4			7.22	83.82
FA009010	2	1.50	0.44	6.73	63.89
FA009011	3			7.12	83.32
FA009012	4			7.95	107.75

Notes: Values are approximate and subjected to normal manufacturing tolerances.
For any queries about other variants, please use our special cable form pg 131

Fire Alarm Flexible

Flexible Fire Alarm Cables 500 V UN screened
Cables Multi-Core cables to BS EN 50288-7

Cable Description

Conductor Plain annealed flexible copper
Core Insulation **PVC** (Polyvinyl chloride) 105°C
Color coding Two Cores : Red, Black
Three Cores : Red, Yellow, Blue
Four Cores : Red, Yellow, Blue, Black
Assembly Cores twisted together to form round cable.
Outer Sheath **PVC** (Polyvinyl chloride)
Cable Marking = EL SEWEDY CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

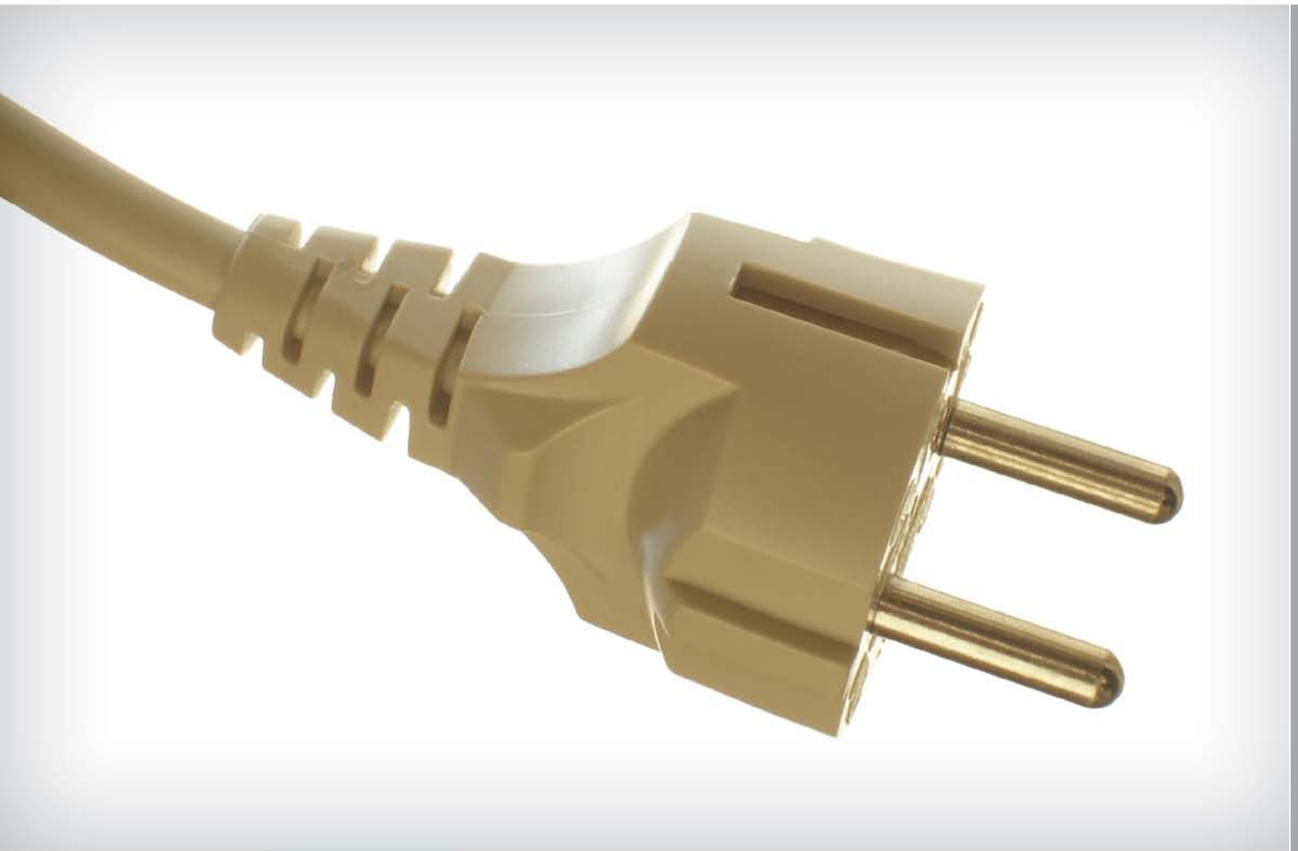
These cables are used for communication and signaling in fire alarm systems.

Product code	No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
FA009013	2	1	0.44	6.53	53.3
FA009014	3			6.9	67.82
FA009015	4			7.51	83.41
FA009016	2	1.50	0.44	7.09	65.63
FA009017	3			7.51	85.25
FA009018	4			8.39	110.16

Notes: Values are approximate and subjected to normal manufacturing tolerances.
For any queries about other variants, please use our special cable form pg 131

ELSEWEDY CABLES

Providing Safe Energy



Harmonized Cables and Appliance Cords

To BS 6500 - HD 21.5.S3 and
BS EN 50525-2- 31

H05VV-F	106
H03VV-F	107
Appliance Cords	108

- Flat cords
- Round cords with lateral earthing Contact

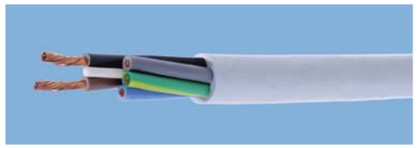
Harmonized Cables and Appliance cords

H05VV-F

To BS 6500, HD 21.5.S3 and BS EN 50525-2- 31
300/500 V.

Cable Description

Conductor Flexible plain annealed copper as per BS 6360
Core insulation **PVC** type TI2 as per BS 7655
Color code Two Cores
Blue, Brown
Three Cores
Green / Yellow, Blue, Brown
Four cores
Green / Yellow, Black, Blue, Brown Other colors can be arranged



Assembly Cores are twisted together to form a round cable.
Sheath **PVC** (polyvinyl chloride) TM2 as per BS 7655 Outer sheath varies as per standard and according to application

Application

These cables can be used for domestic appliances.

Product Code	Conductor		Max Conductor DC Resistance at 20°C (Ohm/Km)	Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm²)	No. of Wires x Max Wire Diameter (No. x mm)				
LV009001	2 x 0.75	26	0.6	0.8	6.5	61
LV009002	2 x 1.0	19.5	0.6	0.8	6.8	70
LV009003	2 x 1.5	13.3	0.7	0.8	7.7	91
LV009004	2 x 2.5	7.98	0.8	1.0	9.4	139
LV009005	3 x 0.75	26	0.6	0.8	6.9	73
LV009006	3 x 1.0	19.5	0.6	0.8	7.2	85
LV009007	3 x 1.5	13.3	0.7	0.9	8.4	114
LV009008	3 x 2.5	7.98	0.8	1.0	10.2	175
LV009009	4 x 0.75	26	0.6	0.8	7.7	91
LV009010	4 x 1.0	19.5	0.6	0.9	8.1	106
LV009011	4 x 1.5	13.3	0.7	1.0	9.3	142
LV009012	4 x 2.5	7.98	0.8	1.1	11.1	211

Note: Other types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

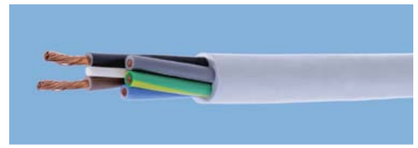
Harmonized Cables and Appliance cords

H03VV-F

To BS 6500, HD 21.5.S3 and BS EN 50525-2- 31
300/300 V.

Cable Description

Conductor Flexible plain annealed copper as per BS 6360
Core insulation **PVC** type TI2 as per BS 7655
Color code Two Cores
Blue, Brown
Three Cores
Green / Yellow, Blue, Brown
Four cores
Green / Yellow, Black, Blue, Brown Other colors can be arranged



Assembly Cores are twisted together to form a round cable. For flat cables, two cores are laid parallel.
Sheath **PVC** (polyvinyl chloride) TM2 as per BS 7655 Outer sheath varies as per standard and according to application
Temperature rating - 5˚C up to + 70˚C

Application

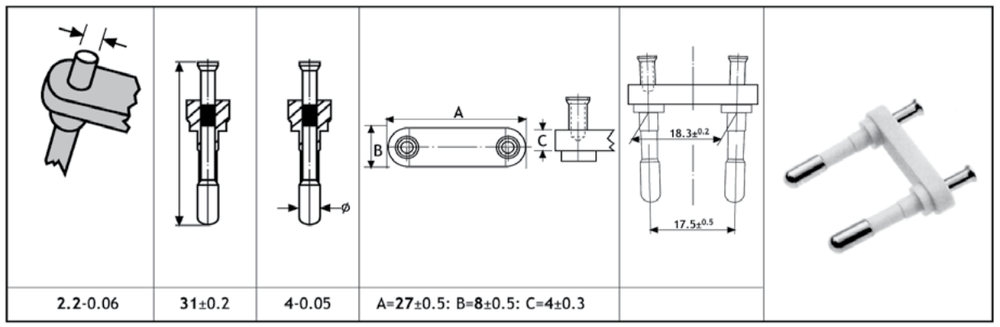
These cables can be used for domestic appliances.

Product code	Conductor		Nominal Insulation Thickness (mm)	Nominal Outer Sheath Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (Kg/Km)
	Nominal Cross sectional area (mm²)	Conductor Max DC Resistance at 20°C (Ohm/Km)				
FL009001	2 x 0.5 Flat	39	0.5	0.6	3.7 x 5.9	30
LV009013	2 x 0.5	39	0.5	0.6	5.2	38
FL009002	2 x 0.75 Flat	26	0.5	0.6	3.8 x 6.3	34
LV009014	2 x 0.75	26	0.5	0.6	5.7	49
LV009015	3 x 0.5	39	0.5	0.6	5.6	48
LV009016	3 x 0.75	26	0.5	0.6	6.0	60
LV009017	4 x 0.5	39	0.5	0.6	6.1	58
LV009018	4 x 0.75	26	0.5	0.6	6.6	72

Note: Other types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our special cable from pg. 131

Appliance Cords

Flat cords



2.2-0.06	31±0.2	4-0.05	A=27±0.5: B=8±0.5: C=4±0.3	

Structure

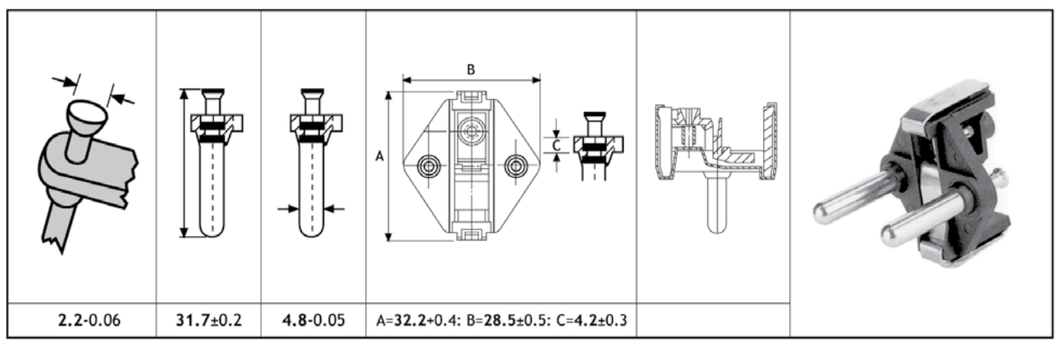
Suitable Cables	H03VV-F	2 X 0.75
	H05VV-F	2 X 0.75
	H05VV-F	2 X 1.00
Group	**PVC** plug for safety class II	
Voltage Rating	300 / 300 V & 300 / 500 V. only allowed for double insulated appliances.	
Material	Glass - reinforced polyamide, black or white color.	
Permitted Current Rating	2.5 Amps AC or 10 Amps AC.	
Permitted Voltage	250 V AC.	
Pins	4.0 mm Φ solid metal Pins, nickel - plated	

Application

Used in domestic premises, kitchens, offices or light duties for light portable appliances.

Appliance Cords

Round cords with lateral earthing Contact



2.2-0.06	31.7±0.2	4.8-0.05	A=32.2+0.4: B=28.5±0.5: C=4.2±0.3		

Structure

Suitable Cables	H03VV-F	3 G 0.75
	H05VV-F	3 G 0.75
	H05VV-F	3 G 1.00
Group	**PVC** plug for safety class 1	
Voltage Rating	2-Pin angled plug with lateral earthing system	
Material	PBTP 30 % Glass- reinforced anthracite black or white color.	
Permitted Current Rating	10 Amps AC or 16 amps AC.	
Permitted Voltage	250 V AC.	
Pins	4.8 mm Φ solid metal Pins, nickel - plated	

Application

Used in domestic premises, kitchens, offices or light duties for light portable appliances.

ELSEWEDY CABLES

ELSEWEDY CABLES

Subsidiary of ELSEWEDY ELECTRIC

Technical Information

DC resistance of conductor:

DC resistance per unit length of the conductor at another conductor temperature t is given by:

$R=Ro\ [1+\alpha 20\ (\ t-20^{\circ}C\ )]$

Where:

R	= DC resistance at temperature to ˚C	Ω/Km
Ro	= DC resistance at temperature 20˚C	Ω/Km
t	= conductor temperature	˚C
α20	= temperature coefficient at 20˚C	1/˚C

AC Resistance of Conductor:

To calculate the AC resistance of the conductor at its operating temperature the following formula is used:

$$R_ac = R\ (\ 1 + K_p + K_s\ )$$

Where:

K_P and K_S are proximity effect and skin effect factors

Inductance:

Self mutual inductance is defined as follows

$$L = K + 0.2\ LN\ |\frac{25}{d}|$$

Where:

L = Inductance in mH / Km
K = A constant depending on the number of wires in the conductor
d = Conductor diameter in mm
n = Axial spacing between cables in trefoil formation in mm
= 1.26 x axial spacing between cables in flat formation in mm

Capacitance:

The mutual capacitance of the pairs or adjacent cores shall not exceed a maximum of 250 PF/m at a frequency of 1 KHz

1- Mutual capacitance of unshielded twisted pair

$$C = \frac{7.218\ \varepsilon}{LN\ (\frac{1.3D}{fd})}$$

2- Mutual capacitance of shielded twisted pair

$$C = \frac{21.14\ \varepsilon}{LN\ (\frac{1.2D}{fd})}$$

3- Mutual capacitance of overall shielded & cables

$$C = \frac{9.515\ \varepsilon}{LN\ (\frac{1.5D}{fd})}$$

Where:

C : Mutual Capacitance In PF / m
ε : Dielectric constant of insulation material
D : Diameter over insulation in mm
d : Diameter over conductor in mm
F : Stranding factor depend on no. of wires in conductor

L / R ratio:

The L / R ratio for adjacent cores shall not exceed the following maximum value:

Conductor mm²	Maximum L/R ratio µH / Ω
0.5	25
0.75	25
1.5	40

Impedance Zo (ohms):

1- Unshielded twisted pair : $Zo = \frac{310\sqrt{\varepsilon}}{C}\ \Omega$

2- Shielded twisted pair : $Zo = \frac{276}{\sqrt{\varepsilon}}\ \log\ \left(\frac{1.2D}{f(d)}\right)\ \Omega$

3- Overall shield & cabled : $Zo = \frac{347}{\sqrt{\varepsilon}}\ \log\ \left(\frac{1.5D}{f(d)}\right)\ \Omega$

Where:

C : Mutual Capacitance In PF/m
ε : Dielectric constant of insulation material
f : Stranding factor depend on no. of wires in conductor
D : Diameter over insulation in mm
d : Diameter over conductor in mm

Attenuation:

The power loss in an electrical system, in cables, generally expressed in decibels (dB) per unit length

$$(\ A\ ) = 86.8\ \sqrt{\frac{RGW}{2}}$$

Where:

A : Attenuation in dB per 100 ft
R : Resistance (AC)
G : Conductance
W: 2π f (f = test frequency MHz)

Velocity of Propagation:

The speed of an electrical signal down a length of cable compared to speed in free space expressed as a percent. It is inversely proportional to the dielectric constant. Lowering the dielectric constant. Lowering the dielectric constant increases the velocity

$$Vp = \frac{1}{\sqrt{\varepsilon}}\ \text{ or }\ Vp = \frac{1}{\sqrt{Lc}}$$

Where:

E : Dielectric constant
L : Inductance
C : Capacitance

Dielectric medium or material	Vp (%)
Air	100.0
Solid polyethylene	65.9
Foamed polyethylene	80.0
PVC	45.0

Fire Resistant cables:

A cable can be described as fire resistant when it complies with the severe test in IEC 60331 in which the middle portion of a sample of cable 1200 mm long is supported by two metal rings 300 mm apart and exposed to the flame from a tube type gas burner at 750 ˚C. Simultaneously the rated voltage of the cable is applied continuously throughout the test period. Furthermore, not less than 12 hours after the flame has been extinguished, the cable is reenergized. No electrical failure must occur under these conditions.

Halogen Free Material:

What are Halogens?
Halogens are salts of the elements Fluorine, Chlorine, Bromine and Iodine.
Fluorine and chlorine are important in cable design. For example; Flourine, Chlorine and Bromine are common components of flame protection additives.

When is a cable Halogen free?
The burning behavior of cables is very important for the safety of buildings and also in control plants.
Consequently the following points are important:
• Behavior under flame influence ie. the inflammability as the propagation of fire.
• Development of smoke density (darkening of emergency exits, hindrance of the fire fighters).
Cables produced of non halogen free materials such as those with chlorine in the molecule chain :
polyvinylchloride (PVC), chloroprene rubber (CR), chlorinated polyethylene (CM), have a better behavior in case of fire.
These are barely combustible or not flammable and self extinguishing, in case of fire molecules of Chlorine (or Fluorine) are released which hinder the access of oxygen at the fire location and hence suffocate the flame. The disadvantage of these materials is that the released Chlorine (or Fluorine) atoms combine with hydrogen which is decomposed from the plastic material as well as hydro choleric acid or Hydrofluoric acid from the existing air. These compounds are extremely corrosive and toxic in consequence, damage by corrosion may be higher than the damage caused by fire.
Halogen free cables contain no halogens, ie. the insulation and sheath materials of these cables are composed of polymers of pure hydrocarbons. Burning these materials, produce no corrosive compounds or toxic gases, only water vapor and carbon dioxide gas. For maximum security halogen free cable must be hardly flammable and self extinguishing . This is achieved by using special polymer compounds, containing high percentages of flame protective materials.

Application:

Halogen free cable are increasingly specified for public buildings and areas where large numbers of people may be present.

LAN Cables:

The necessity to communicate through digital information, to share data, to reach calculation resources and to share costly devices has encourages the development of local area networks. A local area network (LAN) is a computer network linking users in a small area. Generally, a local area network connects users located either in the same office, or at the same floor, or in the same building. The success of local area networks is due to their ability to satisfy communication needs at a reasonable price. Compatibility is a critical element. Local area networks require high speed channels for data transmission, permitting the transfer of large blocks of data, images, and video signals. The technology used in local networks can reach a transmission rate which is higher than 100 Mbps, ie. higher than that of traditional direct connections. Moreover, the traditionally low transfer capacity of public telecommunications is increasing therefore the distinction between direct connection, local area networks and wide area networks is going to lose significance, at least as far as transmission capacity is concerned. The transmission media is the cable. Common media are phone pairs, coaxial cables and purpose designed LAN cables which are essentially extremely high performance telephone pairs, sometimes provided with shielding. This kind of shielded cable is more immune to electrical interference and permits high speed transmission over longer distances. Pairs are still the most versatile media for transmission and are often the best choice for new network installations.

- Attenuation:

The reduction in a transmitted signal as it passes through wires or equipment in an electrical circuit.

Maximum attenuation values of Cat 5e

Frequency (MHz)	Maximum attenuation dB
0.1	N / A
1.0	2.5
4.0	4.8
10.0	7.5
16.0	9.4
20.0	10.5
31.25	13.1
62.5	18.4
100.0	23.2

- Characteristic Impedance:

The nominal differential characteristic impedance of a cabling link shall be 100Ω at frequencies between 1 MHz and the highest specified frequency for the cabling class. The tolerance of the characteristic impedance in a given link shall not exceed the chosen nominal impedance by more than + 15Ω from 1 MHz up to the highest specified frequency for the class.

- Near end crosstalk loss (Next):

The near end crosstalk loss of a link shall meet or exceed the values shown in table below, and shall be consistent with the design values of cable length and cabling materials used.

Maximum next loss of Cat 5e

Frequency (MHz)	Maximum attenuation dB
1.0	54
4.0	45
10.0	39
16.0	36
120.0	35
31.25	32
62.5	27
100	24

- Attenuation to crosstalk loss ration (ASR) :

This is the difference between the crosstalk and the attenuation of the link in dB.
ACR(dB) = an (dB) - a(dB).

- Return loss:

The return loss of the cabling, measured at any interface, shall meet or exceed the values shown in the table below:

Frequency (MHz)	Maximum attenuation dB
1 ≤ F < 10	18
10 ≤ F < 16	15
16 ≤ F < 20	15
20 ≤ F < 100	10

Coaxial Cable :

A cable consisting of two cylindrical with a common axis, separated by a dielectric

Electrical Parameters:

1- Characteristic Impedance : $Zo = \frac{138}{\sqrt{\varepsilon}} LN \left(\frac{D}{d}\right)$ Ω

2- Velocity of Propagation : $Vp = \frac{100\%}{\sqrt{\varepsilon}}$

3- Capacitance : $C = \frac{24.148\varepsilon}{LN \left(\frac{D}{d}\right)}$ PF / m

4- Inductance : $L = 0.459\ LN \left(\frac{D}{d}\right)$

5- Braiding Details:

Braid angle : $\Phi = \tan^{-1} \left(\frac{2\pi(d+e)^p}{C}\right)$ degrees

Braid picks per cm : $P = \frac{0.394\ (c)\ \tan p}{2\pi\ M}$

Braid resistance : $R = \frac{r}{n\ (C)\ (\cos\Phi)}$ Ω/km

Where:

D = Diameter under shield in mm
d = conductor diameter in mm
ε = dielectric constant of insulation
= 1.56 cellular polyethylene
= 2.26 solid polyethylene
C = number of carriers
n = number of wires in one carrier
M = D + build of braid on one shield wall in mm
e = diameter of each wire in mm
R = DC resistance of the braid in ohm/km
r = DC resistance of each wire in ohm/km
p = picks per cm

ELSEWEDY CABLES

Packing:

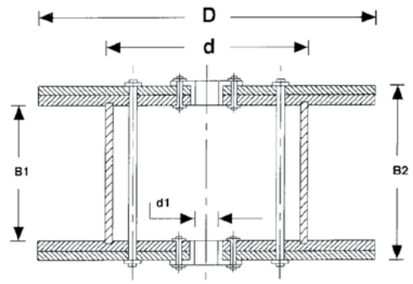
1- LAN Cable:
Available in easy – pull boxes of 1000 feet (305m) capacity.
This assures the cable will not be damaged during installation due to the "figure 8" coiling.
It also enables easy, tidy storage before and during installation.

2 - Coaxial Cable:
Available in easy – pull boxes of 100m or 500m on wooden drum.

3 - Telephone Cable:
Cables supplied on coils of (200m) or in non-returnable wooden drums.

4 - Automotive wires:
Wires are packed in Carton boxes which reduces storage area & cost.
Boxes may be delivered individually or as a solid cube on wooden pallet.

5- Instrumentation, Fire Resistant and Control Cables:
International practice is to supply cables on wooden drums.
At the customers request we will also supply on steel drums for improved on-site performance and handling.



Drum Dimensions

D	D	d1	B1	B2	W1	W2
600	300	85	410	530	16	300
700	350	85	410	530	20	350
800	400	85	410	530	24	400
1000	500	85	610	710	46	800
1250	580	85	580	680	60	1700
1400	700	85	800	950	160	2000
1600	700	110	800	950	170	2500
1800	920	110	900	1050	240	3000
2000	1020	110	1200	1350	335	4000

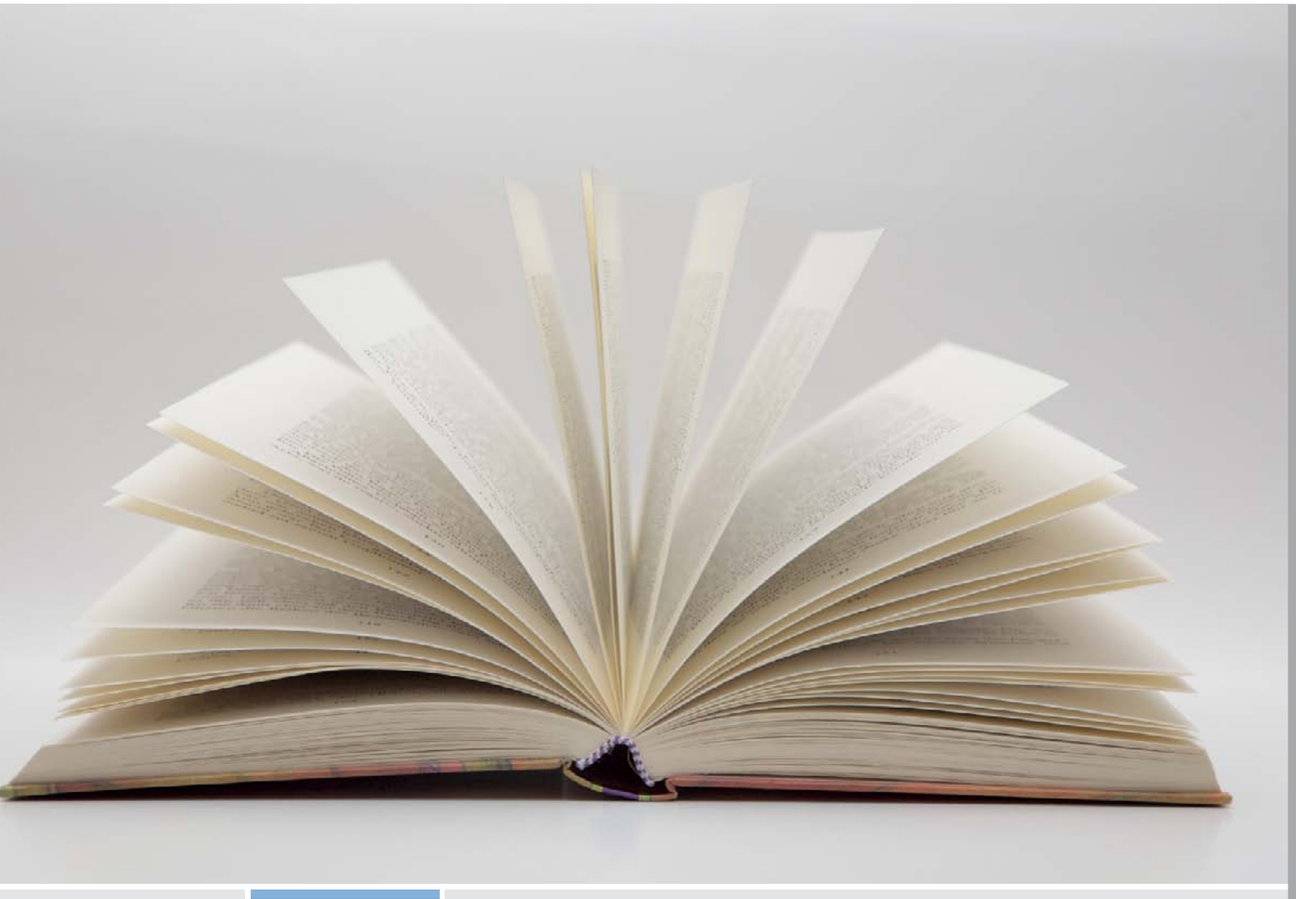
Where:	
D : Flange diameter	mm.
d : Barrel diameter	mm.
d1: Axis hole diameter	mm.
B1 : Distance be tween flanges	mm.
B2 : Overall width	mm.
W1: Approximate net weight of drum	kg.
W2:Maximum gross weight of drum	kg.

Multiply	By	To obtain
Weight – Imperial		
Ounces	28.495	grams
Pounds (AV)	453.59	grams
Pounds (AV)	0.45359	kilograms
Tons (short)	907.19	kilograms
Tons (long)	1016.05	kilograms
Weight – Metric		
Grams	0.03527	Ounces
Grams	0.002205	Pounds
Kilograms	35.274	Ounces
Kilograms	2.2046	Pounds
Kilograms	0.001102	Tons (short)
Kilograms	0.0009842	Tone (long)
Miscellaneous – Imperial		
Pounds per 1000 feet	1.48816	Kg/ Km
Pounds per mile	0.28185	Kg/ Km
Pounds per square inch	0.0007031	Kg. per square mm.
Pounds per square inch	0.07031	Kg. per square cm
Pounds per cubic	27.68	Grams per cubic cm
Feet per second	18.288	Meters per minute
Feet per second	1.09728	Kilometers per hour
Miles per hour	1.60935	Kilometers per hour
Ohms per 1000 feet	3.28083	Ohms per kilometer
Ohms per mile	0.62137	Ohms per kilometer
Decibels per 1000 feet	3.28083	Decibels per kilometer
Decibels per mile	0.62137	Decibels per kilometer
Decibels	0.1153	nepers.
Miscellaneous – Metric		
Kg / Km	0.67197	Pounds per 100 feet
Kg / Km	3.54795	Pound per mile
Kg. per square mm	1422.34	Pound per square inch
Kg. per square cm	14.2234	Pound per square inch
Grams per cubic cm	0.03613	Pound per cubic inch
Meters per minute	0.05468	Feet per second
Kilometers per hour	0.91134	Feet per second
Kilometers per hour	0.62137	Miles per hour
Ohms per kilometer	0.3048	Ohms per 1000 feet.
Ohms per kilometer	1.6093	Ohms per mile
Decibels per kilometer	0.3048	Decibels per 1000 feet
Decibels per kilometer	1.6093	Decibels per mile
Temperature		
Fahrenheit	5/9(*F)-32	*Celsius
Celsius	9/5 (*C)+32	* Fahrenheit

Multiply	By	To obtain
Length – Imperial		
Mils	0.001	Inches
Mils	0.0254	mm
Inches	1000	Mils
Inches	25.40	Mm
Inches	2.54	Cm
Feet	30.48	Cm
Feet	0.3048	Meters
Feet (thousands of)	0.3048	Kilometers
Yards	0.9144	Meters
miles	1.3093	Kilometers
Length-metric		
Millimeters	39.37	Mils
Millimeters	0.03937	inches
Centimeters	0.3937	Inches
Centimeters	0.032808	Feet
Meters	39.37	Inches
Meters	3.2808	Feet
Meters	1.0936	Yards
Kilometers	3280.83	Feet
Kilometers	0.62137	Miles
Area – Imperial		
Square mils	1.2732	Circular mils
Square mils	0.000001	Square inches
Circular mils	0.7854	Square mils
Circular mils	0.0000007954	Square inches
Square mils	0.0005037	Square mm.
Square inches	1000000	Square mils
Square inches	1273240	Circular mils
Square inches	645.16	Square mm
Square inches	645.16	Square cm.
Square feet	0.09290	Square meters
Square yards	0.8361	Square meters
Area – Metric		
Square millimeters	1973.52	Circular mils
Square millimeters	0.00155	Square inches
Square centimeters	0.155	Square inches
Square meters	10.7638	Square feet
Square meters	1.19599	Square yards
Volume – Imperial		
Cubic inches	16.38716	Cubic cm.
Cubic feet	0.028317	Cubic meters.
Volume – U. S.		
Quarts (liquid)	0.9463	Liters
Gallons	3.7854	Liters
Volume – Imperial		
Cubic cm	0.06102	Cubic incuse
Cubic meters	35.3145	Cubic feet.
Liters	1.05668	Quarts.(liquid U.S)
Liters	0.26417	Gallons (U.S.)

ELSEWEDY CABLES

Subsidiary of ELSEWEDY ELECTRIC



Glossary

A

Abrasion Resistance: Ability of a material or cable to resist surface wear.

A.C. Resistance
The total resistance offered by a device to alternating current circuit due to inductive and capacitive effects, as well as the direct current resistance.

Active current
In an alternating current, a component in phase with the voltage. The working component as distinguished from the idle or wattles component.

Aerial cable
A cable suspended in the air on poles or other overhead structure.

Air core cable
A telephone cable in which the interstices in the cable core are not filled with a moisture blocking material.

Air spaced coaxial cable
One in which air is the essential dielectric material. A spirally wound synthetic filament or spacer may be used to center the conductor.

Alpeth
A telephone cable having an aluminum shield and a polyethylene jacket.

Alternating current (A.C.)
An electric current that continually reverses its direction giving a repetitive plus and minus wave form at fixed intervals.

Alternating voltage:
The voltage developed across a resistance or impedance through which alternating current is flowing.

Ambient temperature
The normal temperature within a given area

American wire gauge
A standard used in the determination of the physical size of a conductor determined by its circular mil area. Usually expressed as AWG. Also referred to as brown and sharpe (B&S) wire gauge.

Ampacity:
The maximum current an insulated wire or cable can safely carry without exceeding either he insulation or jacket material limitations (Same as current carrying capacity).

Ampere
The unit current. One ampere is the current flowing thought on ohm of resistance at one volt potential .

Anneal
To subject to high heat wit subsequent cooling. When annealing copper, the act of softening the metal by means of heat to render it less brittlewear.

Anode
The electrode through which a direct current enters the liquid, gas or other discrete part of an electrical circuit; the positively charged pole of an electrochemical cell.

Appliance wire and cable
Appliance wiring material is a classification of underwriters' laboratories, inc., covering insulated wire and cable, internal wiring of appliances and equipment. Each construction satisfies the requirements for use in particular applications.

Area of conductor
The size of conductor cross-section measured in circular mils, square inches, etc.

Armor
A braid or wrapping of metal, usually steel, used for mechanical protection.

Armored cable
A cable having a metallic covering for protection against mechanical injury.

ASTM
The American society for Testing and materials

Attenuation
The reduction in a transmitted signal as it passes through wires or equipment in an electrical circuit.

AWG
Abbreviation for American wire gauge.

Ambient temperature
The normal temperature within a given area

B

Balance circuit
A circuit so arranged that the impressed voltage on each conductor of the pair are equal in magnitude but opposite in polarity with respect to ground.

Band width
The frequency range of transmitted electrical signals, expressed in Hertz.

Bare conductor
A conductor having no covering. A conductor with no coating or cladding on the copper.

Bedding
A layer of material applied to a cable immediately below the armoring.

Binder
A spirally served tape or thread used for holding assembled cable components in place awaiting subsequent manufacturing operations..

Bonded flat cable
Flat cable consisting of individually insulated conductors lying parallel and bonded together typically for application in electronics, telecommunications. Or computers.

Braid
A fibrous or metallic group of filaments interwoven in cylindrical form to form a covering over one or more wires.

Braid Angle
The smaller of the two angles formed by the shielding strand and the axis of the cable being shielded.

Breakdown of insulation
Failure of an insulated conductor resulting in a flow of current through the insulation. It may be caused by the application of excess voltage or by defects or decay.

Breakdown voltage
The voltage at which the insulation between two conductors breaks down.

Bunched Strand
Any number of conductor strands twisted together in one direction with the same lay length.

Buried Cable
A cable installed directly in the ground without use of underground conduit. Also called " direct burial cable".

C

Cable
A group of individually insulated conductors in twisted or parallel configuration, with or without an overall covering.

Cable, Star Quad
A multicore radio or television relay cable in which the conductors are arranged in quads and each quad consists of four conductors twisted together, the diagonally opposite conductors constituting a pair circuit. Also known as spiral four cable.

Cabling
The act of twisting together two or more insulated components by machine to form a cable.

Capacitance:
Storage of electrically separated charges between two plates having different potentials. The value depends on the surface area of the plates and the distance and material between them.

Capacitance, Direct:
The capacitance measured directly with all other conductors, including shield, short circuited to ground.

Capacitance, Mutual

The capacitance between two conductors with all other conductors, including shield, short circuited to ground.

Capacitance unbalance
The inequalities of the capacitances of the wires of a telephone circuit to other wires or to earth which produce interference. Various forms of unbalance arise according to the circuits concerned in the measurement, hence

side-to-side, pair - to- pair unbalance.

Capacitance unbalance to ground
An inequality of capacitance between the ground capacitance the conductors of a pair which results in a pickup of external source energy, usually from power transmission lines.

Capacitance coupling
Electrical interaction between two conductors caused by the capacitance between them.

Characteristic impedance
The impedance that, when connected to the output terminals of a transmission line of any length, makes the line appear infinitely long. The ratio of voltage to current at every point along a transmission line on which there are no stranding waves.

Charge
The quantity of electricity held statically in a capacitor or an insulated conductor.

Circular Mil
A measurement used in determining the area of wire. The area of a circle one thousandth (.001) of an inch in diameter.

Coating
A material applied to the surface of a conductor to prevent environmental deterioration, facilitate soldering or improve electrical performance.

Coaxial Cable
A cable consisting of two cylindrical conductors with a common axis, separated by a dielectric.

Cold Test
Any test to determine the performance of cable during or after subjection to a specified low temperature for a specified time.

Colour Code
A colour system for circuit identification by use of solid colours, tracers, braids , surface printing, etc.

Composite cable
A cable consisting of two or more different types or sizes of wires.

Concentricity
In a wire or cable, the measurement of the location of the center of the conductor with respect to the geometric center of the circular insulation.

Concentric Stranding
A group of wires twisted so as to contain a center core with one or more distinct layers of spirally wrapped, wires laid overall.Conductance

Conductance
The ability of a conductor to carry electric current. It is the reciprocal of resistance and is measured in Mhos.

Conductivity
A term used in describing the capability of a material to carry an electrical charge. Usually expressed as a percentage of copper conductivity copper being one hundred (100%) percent.

Conductor
Any material capable of transferring electrical charge easily.

Control cable
A multi-conductor cable made for operation in control or signal circuits.

Core
In cables, a term used to denote a component or assembly of components, over which other materials are applied, such as additional components, shied, sheath, or armor.

Cross-Sectional Area
The area of the cut surface of an object cut at right angles to the length of the object.

Crosstalk
Signal interference between nearby conductors caused by pickup of stray energy. It is also called induced interference.

Cure
To change the physical properties of a material by chemical reaction, by the action of heat and catalysts, alone or in combination, with or without pressure.

Current
The rate of flow of electricity in a circuit , measured in amperes.

Current Carrying Capacity
The maximum current an insulated conductor or cable can continuously carry without exceeding its temperature rating. It is also called ampacity.

Current, Direct (D.C.)
Electrical current whose electrons flow in one direction only ; it may be constant or pulsating as long as their movement is in the same direction.

Cycle
The complete sequence of alternation or reversal of alternation or reversal of the flow of an alternating electric current. (See Hertz)

D

D.C.
Abbreviation for “Direct Current”

Decibel (dB)
A unit to express differences of power level. Used to express power gain in amplifiers or power loss in passive circuits or cables.

Dielectric Constant (K)
The ratio of the capacitance of a capacitor (or consoles) with dielectric between the electrodes to the capacitance with air is between the electrodes. Also called permittivity and specific inductive capacity.

Dielectric Strength
The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).

Dielectric test
A test in which a higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions.

Direct capacitance
The capacitance measured directly from conductor to conductor through a single insulation layer.

Direction of Lay
The direction, either clockwise or counterclockwise, of a conductor or group of conductors when looking axially down a cable length.

Drain Wire
In a cable, an uninsulated wire laid over the component or component and used as a ground connection. Normally laid in contact with a metallic foil shield.

Drawing
In the manufacturing of wire, pulling the metal through a die or series of dies for reduction of diameter to a specified size.

Drop Wire
A telephone cable, usually consisting of one insulated telephone pair, which is used to connect a subscribers premises to open wires lines on poles.

E

Eccentricity
Like concentricity, a measure of the center of a conductor’s location with respect to the circular crosssection of the insulation; expressed as a percentage of center displacement of one circle within the other.

EIA
Abbreviation for Electronic Industries Association. Elongation The fractional increase in length of a material stressed in tension.

Embossing
A means of identification or lettering usingheat and or pressure to leave raised lettering on the sheath material of the cable.

Emergency overloads
Loads which occur when larger than normal currents are carried through a cable or wire oven a short period time.

Extrusion
The process of continuously forcing a plastic or elastomer and a conductor core through a die, thereby applying a continuous coating of insulation or jacket to the core or conductor.

F

Farad
A unit of electrical capacity

FEXT
Far end crosstalk

Figure 8 cable
An aerial cable configuration in which the conductors and the strand which supports the cable are integrally jacketed a cross-section of the finished cable approximates the figure “eight”.

Filler
(1) A material used in the cable to fill large interstices between electrical components; (2) A substance, often inert, added to a compound to improve propertied and / or decrease cost.

Film
A thin plastic sheet.

Flame Resistance
Ability of the material to extinguish flame once the source of heat is removed

Flat cable
A cable with two essentially flat surfaces

Flexible Cable
A cable containing one or more cores, each formed of a group of wires, the diameters of the wires, the diameters of the wires being sufficiently small to afford flexibility.

Flexibility
The ease with which a cable may be bent

Foamed Plastics
Plastic insulations having a cellular structure.

Foamskin
Polyethylene foam insulation

Frequency
Number of times an alternating current reverses itself in one second. Expressed in Hertz (Hz), which is one cycle per second.

G

Gauge
A term used to denote physical size.

H

Harness
An arrangement of wires and cables, usually with many breakouts , which have been tied together or pulled into a rubber or plastic sheath, used to interconnect electric circuit.

Heat Resistance
Ability of a substance to maintain physical chemical and electrical integrity under specified temperature conditions.

Henry
Unit of inductance such that the induced voltage in volts is numerically equal to the rate of change of current in amperes per second.

Hertz (Hz)
A term replacing cycles-per seconds as a unit of frequency.

High Temperature wire and cable
Those electrical wires and cable having thermal operating characteristics of 125˚C and higher.

Hz
Abbreviation for Hertz.

I

ICEA
Insulated Cable Engineers Association (formerly IPCEA).

IEC
International Electrotechnical Commission, Similar to the ISO in structure and scope.

IEEE
Institute of Electrical and Electronic Engineers

Impulse (Or pulse)
A surge of unidirectional polarity.

Induced Current
An electric current set up in a circuit by interacting electrical fields a current caused by electromagnetic induction.

Inductance
The property of a circuit element that opposes a change in current flow, thus causing current change to lag behind voltage changes. It is measured in Henrys.

Induction
A cable with two essentially flat surfaces

Flexible Cable
The phenomenon of a voltage, magnetic field or electrostatic charge being produced in an object by lines of force from the source of such fields.

Inductive coupling
Crosstalk resulting from the action of the electromagnetic field of one conductor on the other.

Insulation
A non-conductive material usually surrounding or separating two conductive materials. Often called the dielectric in a radio frequency cable.

Insulation Resistance
That property of an insulating material which resists electrical current flow through the insulating material when a potential difference is applied.

Insulation Thickness
The wall thickness of the applied insulation

Interference
Any undesired electrical signal induced into a conductor by electrical or electromagnetic means (Noise) ISO International Standards Organization

J

Jacket
A material covering over a wire insulation or an assembly of components. An overall jacket on a complex cable grouping is also often referred to as a sheath.

K

Kilohertz
1.000 Hertz (cycles per second)

Kilovolt
A term denoting 1000 volts.

Kilowatt
A term denoting 1000 watts.

L

Lay Direction
The direction in which the strands of a conductor run over the top of the conductor as they recede from and observer looking along the axis of the conductor.

Leakage Current
The undesirable flow of current through or over the surface of an insulation

Longitudinal shield
A tap shield, flat or corrugated, applied longitudinally along the axis of the cable core being shielded

Loss Factor
The product of the dissipation and dielectric constant of an insulating material.

M

Marker Tape
A tap laid parallel to the conductors under the sheath in a cable, imprinted with the manufacture's name and the specification to which the cable is made. Other information such as date of manufacture may also be included.

MCM
One thousand circular Mils.

Megohm
One million ohms

Mho
The unit of conductivity. The reciprocal of an ohm.

Mhz
Megahertz (one million cycles per second)

Microphonics
Noise in a system caused by mechanical vibration of components within the system.

Microwave
A short (usually less than 30cm.) Electrical wave.

Mill
A unit used in measuring diameter of a wire or thickness of insulation over a conductor. One onethousandth of an inch (0.001").

Moisture Resistance
The ability of a material to resist absorbing moisture from the air or when immersed in water.

Multi-Conductor
More than one conductor within a single cable.

Mutual inductance
The ratio of voltage induced in one conductor to the time rate of current change in the separate conductor causing this induction.

Mylar
DuPont trademark for polyethylene terephthalate (polyester) film used in the form of a tape.

N

Next
Near end crosstalk

O

Ohm
Unit of resistance such that a constant current of one ampere produces a force of one volt.

Overall Diameter
Finished diameter over wire or cable

Over Current
The Current which causes and excessive temperature rise in a conductor.

Over Current
The Current which causes and excessive temperature rise in a conductor.

Overload Capacity
The maximum level of current, voltage, or power which a device can withstand before it is damaged.

Oxygen index
Percentage of Oxygen necessary to support combustion of specified material.

P

Pair
Two insulated wires of a single circuit associated together.

Peak Voltage
The maximum instantaneous voltage.

Percent Conductivity
Conductivity of a material expressed as a percentage of that of copper

Polyester
Polyethylene terephthalate which is used extensively in the production of a high strength moisture resistant film used as cable core wrapping material.

Polyethylene
A family of insulating materials derived from polymerization of ethylene gas. They are basically pure hydrocarbon resins, with excellent dielectric properties.

Polypropylene
A thermoplastic polymer of propylene.

Polyvinlychloride (PVC).
A thermoplastic material composed of polymers of vinylchloride which may be rigid or eleastomeric, depending on specific formulation.

Power Factor The ratio of resistance
to impedance. The ratio of the actual power of an alternating current to apparent power. Mathematically, the cosine of the angle between the voltage applied and the current resulting.

Propagation time
The required for an electrical wave to travel between two points on a transmission line.

Pulse
A current or voltage which changes abruptly from one value to another and back to the original value in a finite length of time.

Pulse Cable
A type of coaxial cable constructed to transmit repeated high voltage pulses without degradation.

Q

Quad
A four- wire unit of insulated conductors. See star quad

R

Rated Temperature
The maximum temperature at which an electric component can operate for extended periods without loss of its operating properties

Rated Voltage
The maximum voltage at which an electric component can operate for extended periods without degradation of performance or safety hazard.

Reactance
The opposition offered to the flow of alternating current by the inductance or capacitance of a component or circuit

Resistance
In D.C. circuits , the opposition a material offers to current, measured in ohms. In A.C. Circuits, resistance is the real component of impedance , and may be higher than the value measured at D.C

RFI
Radio Frequency Interference.

RG/U
Radio Government, Universal. RG is the military designation for coaxial cable and U stands for " general Utility".

Round Conductor
A conductor whose cross-section is substantially circular

S

Sheath
The material, usually an extruded plastic or elastomer, applied outermost to a wire or cable. Very often referred to as a jacket.

Shield
A metallic layer around an insulated conductor or group of conductors to prevent electrostatic or electromagnetic interference between the enclosed wires and external fields. This shield can be braided or served wires, foil wrap, foil backed tape, a metallic tube , or conductors, the shielding effectiveness is in proportion to the amount of coverage, usually expressed in percentage.

Shield Coverage
The physical area of a cable that is actually covered by the shielding material and is expressed in percentage.

Signal
Current used to convey information, either digital, analogue, audio or video.

Single cable
A cable designed to carry current of usually less than one ampere per conductor.

Skin Effect
The tendency of alternating current, as its frequency increases, to travel only on the surface of a conductor.

Solid Conductor
A conductor consisting of a single wire.

Spark Test
A test designed to locate imperfections (usually pinholes) in a wire insulation by application of an electrical potential across the material for a short period of time while the wire is drawn through an electrode field with one end of the wire grounded.

Specific Gravity
The ratio of the weight of any volume of substance to a weight of an equal volume of some substance taken as a standard, usually water for liquids and hydrogen for gases.

Square Mil
The area of a square on mil by one mil.

Stranded conductor
A conductor composed of individual groups of wires twisted together to form an entire unit.

Strand Lay length
A distance of advance of on strand of a spirally stranded conductor, in one turn, measured axially.

T

Temperature Rating
The maximum temperature at which insulating material may be used in continuous operation without loss of its basic properties.

Tensile strength
A term denoting the greatest longitudinal tensile stress a substance can bear without mechanical failure.

Thermal Rating
The maximum and / or minimum temperature at which a material will perform its functions without undue degration.

Thermal Shock
A test to determine mine the ability of a material to withstand heat and cold by subjecting it to rapid and wide change in temperature.

Tin coating over copper to aid in soldering and inhibit corrosion.

Tinned wire
Copper wire that has been coated with a layer of tin or solder to simplify soldering.

Triple (Traid)
A cable consisting of three insulated single conductors twisted together.

Tubing
A tube of extruded non-supported plastic or metallic material.

Twin Cable
A cable composed of two separated insulated stranded conductors laid parallel under a common covering.

Twin Coaxial cable
A single cable consisting of two separate coaxial cables laid adjacent and parallel or twisted together.

Twisted Pair
A twisted pair is composed of two small separately insulated wires twisted together.

Twisted Triad
Any three individually insulated conductors which are twisted together.

V

Velocity of Propagation
The speed of an electric signal down a length of cable compared to speed in free space expressed as a percentage. It is the reciprocal of the square root of the dielectric constant of the cable insulation.

Volt (potential difference)
A unit of electrical pressure. One volt is the amount of pressure that will cause one ampere of current in one ohm of resistance.

Voltage
The term most often used in place of electromotive force, potential, potential difference, or voltage drop, to designate electric pressure that exists between two points and is capable of producing a flow of current when a circuit is connected between the two points.

VoltageDrop
The amount of voltage loss between two power in a circuit.

Voltage Rating
The highest voltage that may be continuously applied to a wire or cord in conformance with standards or specifications.

Volume Resistivity
The electrical resistance between opposite face of a 1 cm cube of insulating material, commonly expressed in ohms/ centimeter.

W

Water Absorption
Ratio of the weight of water absorbed by a material to the weight of the dry material.

Watt
A unit of electrical power. One watt is equivalent to the power generated by one ampere of current under a pressure of one volt in a D.C. circuit.

Wavelength
The distance, measured in the direction of propagation, of a repetitive electrical pulse or waveform between two successive points

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ELSEWEDY CABLES

Custom Cable Request Form

Company : .....
.....
Address : .....
.....
Contact : .....
Title : .....
Email : .....
Phone : .....
Fax : .....

Brief Description of cable and application : .....
.....

Required Quantity (km) : .....
Estimated Annual Usage (km) : .....
Cable Type : .....
Notes : .....
Voltage Grade (V) : .....
Temperature Rating : .....
Reference from other supplier/catalogue : .....
.....
Sample (If available) : .....
Standard / Approval : .....
Fire Performance : .....
No. of Conductors : .....
Conductor Size : .....
Conductor Type : .....
Coating : .....
Insulation Material : .....
Core Identification : .....
Individual Shield : .....
Coverage : .....
Assembly & Shielding : (If possible, please attach drawing of desired geometry)
.....
Coverage : .....
Inner Sheath : ..... Screening : .....
Armor : ..... Sheathing : .....
Color : ..... Marking : .....
Max. Overall Diameter (mm) : ..... Electrical properties : .....
Impedance : ..... Packing : .....
For Data Cables : ..... Capacitance : .....
Cutting Length (m) : ..... (If available) : .....
Attenuation : .....

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