



CATALOGUE

MARINE & OFFSHORE

TKF CONNECTIVITY SOLUTIONS

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TECHNOLOGICAL LEADERSHIP IN CABLE AND CONNECTIVITY SOLUTIONS

Since its establishment in 1930 TKF developed from a cable producer to a leading supplier of connectivity solutions located in the Netherlands. A broad range of cables, systems and services enables us to provide our customers worldwide with safe and reliable power and data connections.

Due to a focused commitment, TKF is distinguished by specialized application knowledge and solutions with a high degree of reliability, quality and service. Specialized technical know-how and flexibility lead to a high return on investment for our customers.

TKF is characterized by continuous investment in customer relations, quality and supplementary services, resulting in sustainable cable solutions and long-term and successful relationships.

It goes without saying that we offer our customized solutions with respect for people and environment. Being part of the technology company TKH Group NV, TKF has access to breakthrough solutions, concepts and technologies.

OUR MARKET SEGMENTATION

BUILDING SOLUTIONS

- Building
- Energy
- Infrastructure
- Renewable
- Rail infra

INDUSTRIAL SOLUTIONS

- Industry
- Marine & offshore
- Oil, gas & petrochemical

TELECOM SOLUTIONS

- Telecom

OUR CORE VALUES

- Innovativeness
- Maximum reliability
- Outstanding quality
- High service degree
- Corporate Social Responsibility



MORE THAN 90 YEARS
OF EXPERIENCE





MEET THE TKH GROUP AND ITS CORE TECHNOLOGIES

TKH Group NV (TKH) is an internationally operating group of companies specialized in creating and supplying innovative Telecom, Building and Industrial Solutions.



member of the TKH Group <

All TKH technologies are interlinked into total solutions for these three business segments. Specialists in the fields of marketing, process development, design, engineering and logistics add advice and project implementation to offer a tailor-made solution. TKH aims to carve out strong market positions based mainly on its own advanced technologies and services and on its strong regional and international positioning.

The group's growth is concentrated in North-Western, Central and Eastern Europe and in Asia. TKH is known for its innovations and its commitment to renewal. The urge to lead is great. TKH places its experience and knowledge into the service of its clients, and jointly looks for optimal solutions.

THE THREE TKH CORE TECHNOLOGIES:

- Vision & Security
- Connectivity
- Smart Manufacturing

WWW.TKHGROUP.COM

INTEGRATED MARINE SOLUTIONS OF THE TKH GROUP

TKH Group supplies a wide variety of (integrated) innovative Marine, Oil and Gas (MOG) solutions.

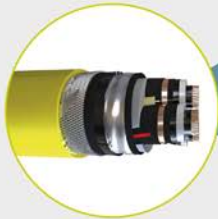
The areas of expertise within MOG are:

- Connectivity solutions
- Video management systems
- Video surveillance
- Access control systems
- Evacuation systems
- Alarm systems



More information? Visit www.tkhgroup.com or contact our sales department.

SUBSEA CABLE SYSTEMS



SUSTAINABLE LIGHTING



MAN ON BOARD SYSTEMS





TKH MARINE SOLUTIONS

WATCH AN IMPRESSION



**LEAKAGE
DETECTION**



**PERIMETER
INTRUSION
DETECTION**



**VISION BASED
PROCESS
CONTROL SYSTEM**



**CENTRAL
CONTROL
ROOM SYSTEMS**



SECURITY SYSTEMS



CONNECTIVITY



**MISSION CRITICAL
COMMUNICATION
SYSTEMS**



**ALARM
SYSTEMS**



**EVACUATION
SYSTEMS**



MARINE MARKET

Efficiency, safety and cost reduction emphasize the importance of high quality shipboard cables. The right cables can reduce costs, improve safety, improve performance, and help respect the environment.

HIGH END CABLE SOLUTIONS FOR ALL MARINE APPLICATIONS



Watch our video

TKF designs and produces marine cables to create added value for shipbuilders, owners and shipyards. Our complete portfolio of cables and service concepts is appropriate for dredgers, private yachts, cruise ships, offshore vessels and working boats of all kinds.

Designed for the marine environment, cables can increase operations and safety on board. Our portfolio is light weight, flexible, flame-retardant, halogen free, fire-resistant and suitable for harsh environments.

CUSTOMER SERVICES

Our customers profit from our reliability, short delivery times, local stocks and cut and labeling services. The light weight, small diameter, flexibility, stock availability and international certification by major classification societies are important advantages.



Our marine portfolio consists of the following cable types and connectivity:

LOW VOLTAGE CABLES

Light weighted low voltage cables for power and lighting on board of ships.

MEDIUM VOLTAGE CABLES

(Flexible) power cables for medium voltage energy transport for fixed installations.

COMMUNICATION CABLES

(Fire resistant) communication cables for instrumentation, telecommunication and data transmission on board of ships.

SIGNAL CABLES

Signal cables for signaling-, control- and alarm-systems on board of ships.



CUT & LABEL SERVICE

- 25% faster installation
- No stock, no cutting losses
- First-time-right installation



VENDOR MANAGED INVENTORY

- Improved planning
- No downtime
- Storage cost reduction



LOGISTIC EXCELLENCE

- Just-in-time delivery
- Yard space optimisation
- International local stocks



INTERNATIONAL STANDARDS AND APPROVALS

All marine cables are designed and produced according to international standards and approvals. TKF marine cables fully comply with the requirements specified in the IEC 60092 series of standards.

| Low Voltage Cables 0,6/1kV & 1,8/3kV | ABS | BV | DNV | LRS | PRS | CRS | RINA |
|--------------------------------------|-----|---------|-----|-----|-----|-----|------|
| MarineLine YZp 0,6/1 kV | X | X | X | X | X | X | X |
| MarineLine YOZp 0,6/1 kV | X | X | X | X | X | X | X |
| MarineLine YZafp 0,6/1 kV | X | X | X | X | | X | X |
| MarineLine+ YZp 0,6/1 kV | X | X | X | X | | X | X |
| MarineLine+ YOZp 0,6/1 kV | X | X | X | X | | X | X |
| MarineFlex YZp 0,6/1 kV | X | X | X | X | X | X | X |
| MarineFlex YOZp 0,6/1 kV | X | X | X | X | X | X | X |
| MarineLine YOZp 0,6/1 kV EMC | X | | X | X | | X | X |
| MarineLine+ YOZp 0,6/1 kV EMC | X | | X | X | | X | X |
| MarineFlex YOZp 0,6/1 kV EMC | X | | X | X | | X | X |
| MarineLine YOZp 1,8/3 kV | X | X | X | X | | X | X |
| MarineFlex YOZp 1,8/3 kV | X | X | X | X | | X | X |
| MarineLine YOZp 1,8/3 kV EMC | X | | X | | | | X |
| MarineLine+ YOZp 1,8/3 kV EMC | | | | | | | X |
| MarineFlex YOZp 1,8/3 kV EMC | X | | X | X | | X | X |
| MarineMultiFlex BOQp 0,6/1 kV | | | | | | | |
| MarineWire | | | X | | | | |
| MarineLine YZp X-FR 0,6/1 kV | X | X | X | X | X | | X |
| MarineLine YOZp X-FR 0,6/1 kV | X | X | X | X | X | | X |
| MarineLine+ YZp X-FR 0,6/1 kV | X | X | X | X | | | X |
| MarineLine+ YOZp X-FR 0,6/1 kV | X | X | X | X | | | X |
| MarineFlex YZp X-FR 0,6/1 kV | X | X | X | X | X | | X |
| MarineFlex YOZp X-FR 0,6/1 kV | X | X | X | X | X | | X |
| MarineLine YOZp X-FR 0,6/1 kV EMC | X | | X | X | | | X |
| MarineLine+ YOZp X-FR 0,6/1 kV EMC | X | | X | X | | | X |
| MarineFlex YOZp X-FR 0,6/1 kV EMC | X | | X | X | | | X |
| MarineLine YZp X-FRSW 0,6/1 kV | | pending | X | | | | |
| MarineLine YOZp X-FRSW 0,6/1 kV | | pending | X | | | | |
| MarineFlex YZp X-FRSW 0,6/1 kV | | pending | X | | | | |
| MarineFlex YOZp X-FRSW 0,6/1 kV | | pending | X | | | | |
| MarineLine YOZp X-FRSW EMC 0,6/1 kV | | pending | X | | | | |
| MarineFlex YOZp X-FRSW EMC 0,6/1 kV | | pending | X | | | | |

X = Type approval available

In case type approval is not available, contact us for other options (batch approvals)

Subject to alternations. Please see our website for the most recent information.



| Instrumentation & Signal cables 250 V | ABS | BV | DNV | LRS | PRS | CRS | RINA |
|---------------------------------------|-----|---------|-----|-----|-----|-----|------|
| MarineCom YOZc 250 V | X | X | X | X | X | | X |
| MarineCom YZafc 250 V | X | X | X | X | | | X |
| Marine2Com YOZ2c 250 V | X | X | X | X | X | | X |
| Marine2Com YZ2afc 250 V | X | X | X | X | | | X |
| MarineCom+ YOZc 250 V | | pending | X | | | | X |
| Marine2Com+ YOZc 250 V | | pending | X | | | | X |
| MarineCom YOZc X-FR 250 V | X | X | X | X | X | | X |
| MarineCom YZafc X-FR 250 V | | | X | X | | | X |
| Marine2Com YOZ2c X-FR 250 V | X | X | X | X | X | | X |
| MarineCom+ YOZc X-FR 250V | | pending | X | | | | X |
| Marine2Com+ YOZ2c X-FR 250V | | pending | X | | | | X |
| Marine2Com YZ2afc X-FR 250 V | | | X | X | | | X |
| MarineSignal YZs 250 V | X | X | X | X | | | X |
| MarineSignal YOZs 250 V | X | X | X | X | | | X |
| MarineSignal+ YZs 250 V | X | X | X | X | | | X |
| MarineSignal+ YOZs 250 V | X | X | X | X | | | X |
| MarineSignal YZs X-FR 250 V | | | X | | | | X |
| MarineSignal YOZs X-FR 250 V | | | | | | | X |
| MarineCom YOZc X-FRSW 250 V | | pending | X | | | | |
| Marine2Com YOZ2c X-FRSW 250 V | | pending | X | | | | |
| MarineCom+ YOZc X-FRSW 250 V | | pending | X | | | | |
| Marine2Com+ YOZ2c X-FRSW 250 V | | pending | X | | | | |
| MarineCom YZafc X-FRSW 250 V | | pending | X | | | | |
| Marine2Com YZ2afc X-FRSW 250 V | | pending | X | | | | |

| CAT 5 & CAT 6 & CAT 7 | ABS | BV | DNV | LRS | PRS | CRS | RINA |
|--------------------------------------|-----|----|-----|-----|-----|-----|------|
| InduData Cat 5e S/FTP stranded | | | X | | | | X |
| InduData Cat 7 S/FTP stranded | | | X | | | | X |
| InduData Cat 7 S/FTP solid | | | X | | | | X |
| InduData Cat 6a S/FTP solid/stranded | | | X | | | | |
| InduData Cat 7a S/FTP solid | | | X | | | | |
| CAT 6a/7 S/FTP Fire Resistant | | | X | | | | |

GREEN PASSPORT FOR ENVIRONMENTALLY FRIENDLY MATERIALS

As one of the first cable manufacturers, TKF (has) registered with Det Norske Veritas (DNV GL), a declaration of conformity for a "Green Passport" for ships, in June 2009. At this moment there are two main legislations with respect to ship recycling in the market, one is IMO Hong Kong Convention (HKC) SR/CONF/45 and the other one is the EU Ship Recycling Regulation (EU SRR) EC No 1257/2013. HKC has in total 6 guidelines and MEPC.269(68) is the guidelines for the development of the inventory of hazardous materials (IHM) under IMO. The IHM is a list of hazardous materials that are present on a ship. The IHM quantifies and locates hazardous materials on board ships which are known to represent a potential hazard to people and the environment. For assuring a safe and environmentally friendly handling of these materials, detailed documentation of those materials in the ship's structure and equipment, and in stores, is essential. For newbuilding projects, the IHM Part I is prepared by the shipyard. The IHM is based on Material Declarations (MD) and the Supplier's Declaration of Conformity (SDoC) provided for all machinery, equipment, materials and coatings installed on board a vessel. The MD and SDoC contain information on whether hazardous materials, as listed in Annexes I and II of the EU SRR and/or Appendixes 1 and 2 of the Convention, are present in the specified products. TKF marine cables are completely free of hazardous substances as listed by the EU SRR / Convention.

Contact our Sales Department for more information.



SAFE RETURN TO PORT (SRTP)

Safe Return to Port (SRtP) is mandatory for passenger ships constructed after July 2010. It is applicable for ships with a length of 120mtr or more or having three or more main vertical zones. The overall intentions of SRtP regulations are to increase the vessels robustness and the ability to safely return to the port unsupported after an incident of fire or flooding and thus reduce the likelihood of evacuation. The vessels shall be able to return to port by its own power, and provide a safe area for all passengers with a certain level of habitability.

Cables form an essential part of a ship's network infrastructure and play an indispensable role in SRtP. They have to ensure the vital functioning of power, data and control systems. SOLAS requires essential systems to be still operational for at least three hours, in order to support the "orderly evacuation" and safe return of the vessel. This is one of the reasons for the continuous research and development of highly specialised fire resistant cables, designed to withstand and remain operational in the event of fire and during firefighting efforts. TKF Marine X-FRSW series, high-end cables designed to exceed the most stringent fire resistant standards, 3 hours burning time including mechanical shock and water simulations.

CORPORATE SOCIAL RESPONSIBILITY

TKF aims to contribute to a sustainable society. This means that every business decision is made not only in the light of its effect on profitability, but also on its possible consequences for the people involved in our organization, and its impact on the environment and our reputation.

CSR-STRATEGY

As a matter of strategic priority, sustainability is firmly embedded in our day-to-day operations, and CSR initiatives are increasingly being integrated into our organization. Our CSR policy provides a framework for our short- and medium-term plans without losing sight of company interests. CSR is fully incorporated into our business operations so that, when we implement our strategy and achieve our objectives, we consider our social responsibilities in relation to all relevant stakeholders.

TKF is present in an increasing number of value chains as a purchaser, producer, supplier or business partner. In all of these roles, TKF tries to guarantee uniformity with regard to its CSR principles.

We have defined four areas with focused programs for achieving sustainability results:



PEOPLE: THE SOCIAL ASPECT OF ENTREPRENEURSHIP

- Ensuring a safe and healthy work environment;
- Providing opportunities for development, thereby retaining and engaging TKF employees;
- Being socially responsible towards the organisation as an employer.



PLANET: ATTENTION FOR ENVIRONMENT AND CLIMATE

- TKF contributes to a better climate with an energy reduction program;
- More efficient commodity chains through reduction and separation of waste;
- Focus on circularity.



PROFIT: ECONOMIC ASPECT OF ENTREPRENEURSHIP

- Ingenuity as one of the pillars at TKF for further growth;
- Sustainability in the chain.



POSITIONING: MAINTAINING GOOD REPUTATION

- A balanced and sustainable product and customer portfolio;
- TKF provides (sponsor) contributions to society;
- Maintaining a good reputation.

MARINE CONNECT

With the advent of the internet of things and industry 4.0, demands are increasing rapidly if it comes to the trouble free functioning of a ship's network infrastructure. Faster data, video and telephony transmissions without downtime, performance at 24/7 basis.

FAST AND SAVE DATA WITH TKF MARINE CONNECT

To secure the reliability and maximum performance of the network, TKF has developed MarineConnect. An approved permanent link for marine application which guarantees a 24/7 functioning up to 10 Gigabit. Ethernet. A Cat.7 cable and Category 6A connector, developed according to the latest requirements, certified by DELTA and approved by DNV-GL. A compact and tool less, easy to install, permanent link class Ea.

MARINECONNECT APPROVED PERMANENT LINK

MarineConnect permanent link class Ea consists of a Cat.6A tool less connector and a high performance Cat.7 cable. The certified link results in a reliable performance up to 10 GBps for special application in ships.

CAT.7 SOLID AND STRANDED

The Cat.7 S/FTP is a universal network cable for installation/horizontal in heavy duty applications. The cable is available in a solid version as well as a stranded version for use in tougher mechanical environments. The fully screened Cat. 6A connector offers a tool less termination through a cap, equipped with a separator in order to facilitate the wire management and to reduce the unsplitting length. The optimized printed circuit improves the high frequencies crosstalk performance. Two wings linked to the connectors body (no loose parts) offer a simple and easy locking system.





Our MarineConnect portfolio consists of the following cable types and connectivity:

CABLES:

| | | |
|------------|----------------------------|----------------------|
| Art. 24026 | MarineConnect Cat.5E S/FTP | 4x2xAWG 24/7 HFFR-LS |
| Art. 24031 | MarineConnect Cat.6A S/FTP | 4x2xAWG 23/1 HFFR-LS |
| Art. 24021 | MarineConnect Cat.6A S/FTP | 4x2xAWG 23/7 HFFR-LS |
| Art. 24016 | MarineConnect Cat.7 S/FTP | 4x2xAWG 22/7 HFFR-LS |
| Art. 24021 | MarineConnect Cat.7 S/FTP | 4x2xAWG 23 HFFR-LS |
| Art. 24023 | MarineConnect Cat.7A S/FTP | 4x2xAWG 23/1 HFFR-LS |

CONNECTOR:

| | | |
|-------------|--------------------|----------------------------|
| Art. 800412 | MarineConnect RJ45 | Cat.6A Tool less connector |
|-------------|--------------------|----------------------------|

TKF MarineConnect Permanent link is certified and approved by:



BENEFITS & CHARACTERISTICS

- High performance PCB
- 20 years of warranty on the system*
- Certified link (cable and connector)
- Compact and tool less, easy to install
- Keystone format: suitable with all patch panels, boxes and plates
- Time & costs saving
- Cat.7 cable and Cat.6A connector suitable for Power Ethernet (PoE and PoE+)

* ask for our conditions



Watch our video about the cutting & labeling service concept

CUTTING & LABELING SERVICE

The marine market is a fast moving market where pressure on efficiency and cost reduction is high. Plannings are tight and delays are costly.

TKF's cutting & labeling service is a proven concept of TKF. More than 400 reel positions make it possible to cut & label cables on a large scale. This means that cables are delivered at the exact lengths needed and labeled with detailed information about the installation location. Main advantages of this concept are decrease of cost due to purchase efficiency, no stock, no waste and faster installation.

SERVICE ADVANTAGES

- No stock, no waste
- Just-in-time delivery
- Reduction cost of failures
- 25% faster installation
- Efficiency
- Industrialized – traceability of cables
- Flexibility

Early involvement in the design process allows TKF to plan ahead stock availability. Detailed information from engineers about cable lengths, types and diameters is gathered to compile a standardized list which is used for the final label. The customer decides what information will be added for the installer to ease the installation. In our specially equipped cutting & labeling hall, the cables are cut, labeled and packaged, mainly automated.

Packaging plays an important role in this concept, cables are sorted by route and labeled with the necessary details for the installer about the cable and the location. This results in 25% faster installation and less errors.

Combined with planning, the cables are delivered just-in-time. No stock is needed on location, resulting in lower costs and reduced risk.



With this service concept TKF guarantees: high quality, ease of installation and short delivery times.



PRODUCTS

- 1 Low voltage cables
- 2 Marine medium voltage power cables
- 3 Communication cables
- 4 Signal cables
- 5 CAT 5 & CAT 6 & CAT 7
- 6 Connector

Low voltage cables

MarineLine YZp 0,6/1 kV

Properties

Application:

Lightweight, unarmoured, reduced diameter low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

78 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 16560 | 2 x 1,0 mm ² Black | 0.053 | 28 | 7 | 30 |
| 16000 | 1 x 1,5 mm ² Black | 0.035 | 19 | 4.8 | 23 |
| 16001 | 2 x 1,5 mm ² Black | 0.065 | 31 | 7.6 | 45 |
| 16002 | 3 x 1,5 mm ² Black | 0.084 | 32 | 8 | 68 |
| 15969 | 3 G 1,5 mm ² Black | 0.084 | 32 | 8 | 68 |
| 15970 | 4 G 1,5 mm ² Black | 0.108 | 36 | 8.9 | 90 |
| 16003 | 4 x 1,5 mm ² Black | 0.108 | 36 | 8.9 | 90 |
| 15971 | 5 G 1,5 mm ² Black | 0.137 | 40 | 9.8 | 113 |
| 16004 | 5 x 1,5 mm ² Black | 0.137 | 40 | 9.8 | 113 |
| 16005 | 6 x 1,5 mm ² Black | 0.164 | 43 | 10.6 | 135 |
| 15972 | 7 G 1,5 mm ² Black | 0.171 | 43 | 10.6 | 158 |
| 16006 | 7 x 1,5 mm ² Black | 0.171 | 43 | 10.6 | 158 |
| 16007 | 8 x 1,5 mm ² Black | 0.228 | 51 | 12.7 | 180 |
| 16008 | 10 x 1,5 mm ² Black | 0.248 | 55 | 13.6 | 225 |
| 16009 | 12 x 1,5 mm ² Black | 0.288 | 58 | 14.3 | 270 |
| 16010 | 16 x 1,5 mm ² Black | 0.372 | 64 | 16 | 360 |
| 16011 | 19 x 1,5 mm ² Black | 0.435 | 70 | 17.4 | 428 |
| 16059 | 20 x 1,5 mm ² Black | 0.455 | 72 | 17.8 | 450 |
| 16012 | 24 x 1,5 mm ² Black | 0.545 | 78 | 19.4 | 540 |
| 15999 | 27 x 1,5 mm ² Black | 0.6 | 82 | 20.4 | 608 |
| 16013 | 1 x 2,5 mm ² Black | 0.047 | 22 | 5.5 | 38 |
| 16014 | 2 x 2,5 mm ² Black | 0.091 | 35 | 8.7 | 75 |
| 16015 | 3 x 2,5 mm ² Black | 0.12 | 37 | 9.2 | 113 |
| 15973 | 3 G 2,5 mm ² Black | 0.12 | 37 | 9.2 | 113 |
| 15974 | 4 G 2,5 mm ² Black | 0.15 | 40 | 10 | 150 |
| 16016 | 4 x 2,5 mm ² Black | 0.15 | 40 | 10 | 150 |
| 16017 | 5 x 2,5 mm ² Black | 0.196 | 45 | 11.2 | 188 |
| 15975 | 5 G 2,5 mm ² Black | 0.195 | 45 | 11.2 | 188 |
| 17401 | 6 x 2,5 mm ² Black | 0.231 | 49 | 12.2 | 225 |
| 16018 | 7 x 2,5 mm ² Black | 0.247 | 49 | 12.2 | 263 |
| 15976 | 7 G 2,5 mm ² Black | 0.247 | 49 | 12.2 | 263 |
| 16019 | 1 x 4 mm ² Black | 0.064 | 24 | 5.9 | 60 |
| 16020 | 2 x 4 mm ² Black | 0.125 | 39 | 9.6 | 120 |
| 15977 | 3 G 4 mm ² Black | 0.169 | 41 | 10.2 | 180 |
| 16021 | 3 x 4 mm ² Black | 0.168 | 41 | 10.2 | 180 |
| 15978 | 4 G 4 mm ² Black | 0.223 | 46 | 11.4 | 240 |
| 16022 | 4 x 4 mm ² Black | 0.222 | 46 | 11.4 | 240 |
| 16559 | 5 G 4 mm ² Black | 0.276 | 50 | 12.5 | 240 |
| 16561 | 5 x 4 mm ² Black | 0.275 | 50 | 12.5 | 240 |
| 16023 | 1 x 6 mm ² Black | 0.085 | 26 | 6.5 | 90 |
| 16024 | 2 x 6 mm ² Black | 0.169 | 43 | 10.7 | 180 |
| 16025 | 3 x 6 mm ² Black | 0.237 | 47 | 11.6 | 270 |
| 15979 | 3 G 6 mm ² Black | 0.238 | 47 | 11.6 | 270 |
| 15980 | 4 G 6 mm ² Black | 0.308 | 51 | 12.7 | 360 |

MarineLine YZp 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16026 | 4 x 6 mm ² Black | 0.307 | 51 | 12.7 | 360 |
| 16563 | 5 x 6 mm ² Black | 0.39 | 57 | 14.2 | 450 |
| 15967 | 5 G 6 mm ² Black | 0.391 | 57 | 14.2 | 450 |
| 17352 | 19 x 6 mm ² Black | 1.332 | 160 | 25.8 | 1,710 |
| 16027 | 1 x 10 mm ² Black | 0.124 | 29 | 7.1 | 150 |
| 16028 | 2 x 10 mm ² Black | 0.255 | 51 | 12.6 | 300 |
| 16029 | 3 x 10 mm ² Black | 0.356 | 54 | 13.4 | 450 |
| 15981 | 3 G 10 mm ² Black | 0.359 | 54 | 13.4 | 450 |
| 15982 | 4 G 10 mm ² Black | 0.475 | 60 | 14.9 | 600 |
| 16030 | 4 x 10 mm ² Black | 0.474 | 60 | 14.9 | 600 |
| 17426 | 5 G 10 mm ² Black | 0.589 | 66 | 16.3 | 750 |
| 16564 | 5 x 10 mm ² Black | 0.588 | 66 | 16.3 | 750 |
| 17353 | 19 x 10 mm ² Black | 2.086 | 122 | 30.3 | 2,850 |
| 16031 | 1 x 16 mm ² Black | 0.178 | 35 | 8.1 | 240 |
| 16032 | 2 x 16 mm ² Black | 0.374 | 60 | 14.8 | 480 |
| 16033 | 3 x 16 mm ² Black | 0.524 | 64 | 15.7 | 720 |
| 16034 | 4 x 16 mm ² Black | 0.695 | 70 | 17.5 | 960 |
| 16568 | 4 G 16 mm ² Black | 0.695 | 70 | 17.5 | 960 |
| 16565 | 5 x 16 mm ² Black | 0.876 | 80 | 19.4 | 1,200 |
| 15968 | 5 G 16 mm ² Black | 0.869 | 75 | 19.2 | 1,200 |
| 16035 | 1 x 25 mm ² Black | 0.276 | 40 | 10.1 | 375 |
| 16036 | 2 x 25 mm ² Black | 0.584 | 75 | 18.8 | 750 |
| 16037 | 3 x 25 mm ² Black | 0.832 | 80 | 20.2 | 1,125 |
| 16038 | 4 x 25 mm ² Black | 1.081 | 90 | 22 | 1,500 |
| 16558 | 5 G 25 mm ² Black | 1.376 | 99 | 24.7 | 1,875 |
| 16039 | 1 x 35 mm ² Black | 0.369 | 46 | 11.3 | 525 |
| 16040 | 2 x 35 mm ² Black | 0.776 | 85 | 21.2 | 1,050 |
| 16041 | 1 x 50 mm ² Black | 0.496 | 52 | 12.8 | 750 |
| 16042 | 1 x 70 mm ² Black | 0.7 | 59 | 14.7 | 1,050 |
| 16043 | 1 x 95 mm ² Black | 0.954 | 68 | 16.8 | 1,425 |
| 16044 | 1 x 120 mm ² Black | 1.198 | 75 | 18.6 | 1,800 |
| 16045 | 1 x 150 mm ² Black | 1.495 | 83 | 20.7 | 2,250 |
| 16046 | 1 x 185 mm ² Black | 1.866 | 93 | 23.1 | 2,775 |
| 16047 | 1 x 240 mm ² Black | 2.393 | 103 | 25.7 | 3,600 |

Properties

Application:

Lightweight, armoured, reduced diameter low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Excellent abrasion resistance
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

Low voltage cables

MarineLine YOZp 0,6/1 kV

90 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 16110 | 1 x 1,5 mm ² Black | 0.057 | 22 | 5.6 | 23 |
| 16111 | 2 x 1,5 mm ² Black | 0.1 | 35 | 8.6 | 45 |
| 16112 | 3 x 1,5 mm ² Black | 0.12 | 36 | 9 | 68 |
| 15984 | 3 G 1,5 mm ² Black | 0.12 | 36 | 9 | 68 |
| 15985 | 4 G 1,5 mm ² Black | 0.145 | 39 | 9.7 | 90 |
| 16113 | 4 x 1,5 mm ² Black | 0.145 | 39 | 9.7 | 90 |
| 16114 | 5 x 1,5 mm ² Black | 0.176 | 42 | 10.5 | 113 |
| 15986 | 5 G 1,5 mm ² Black | 0.176 | 42 | 10.5 | 113 |
| 15991 | 6 G 1,5 mm ² Black | 0.205 | 46 | 11.5 | 135 |
| 16115 | 6 x 1,5 mm ² Black | 0.21 | 46 | 11.5 | 135 |
| 16116 | 7 x 1,5 mm ² Black | 0.216 | 46 | 11.5 | 158 |
| 15995 | 7 G 1,5 mm ² Black | 0.216 | 46 | 11.5 | 158 |
| 16117 | 8 x 1,5 mm ² Black | 0.271 | 51 | 12.7 | 180 |
| 16595 | 10 G 1,5 mm ² Black | 0.341 | 60 | 14.9 | 225 |
| 16118 | 10 x 1,5 mm ² Black | 0.34 | 50 | 14.9 | 225 |
| 16574 | 12 G 1,5 mm ² Black | 0.378 | 62 | 15.4 | 270 |
| 16119 | 12 x 1,5 mm ² Black | 0.377 | 62 | 15.4 | 270 |
| 16597 | 14 G 1,5 mm ² Black | 0.422 | 66 | 16.3 | 315 |
| 16120 | 16 x 1,5 mm ² Black | 0.481 | 70 | 17.3 | 360 |
| 16121 | 19 x 1,5 mm ² Black | 0.543 | 76 | 18.5 | 428 |
| 16599 | 19 G 1,5 mm ² Black | 0.539 | 76 | 18.2 | 428 |
| 16430 | 20 x 1,5 mm ² Black | 0.568 | 76 | 18.9 | 450 |
| 16122 | 24 x 1,5 mm ² Black | 0.667 | 82 | 20.5 | 540 |
| 16600 | 24 G 1,5 mm ² Black | 0.662 | 86 | 20.5 | 540 |
| 16159 | 27 x 1,5 mm ² Black | 0.729 | 91 | 21.5 | 608 |
| 16185 | 37 x 1,5 mm ² Black | 0.942 | 96 | 23.9 | 833 |
| 16123 | 1 x 2,5 mm ² Black | 0.07 | 25 | 6.1 | 38 |
| 16124 | 2 x 2,5 mm ² Black | 0.128 | 38 | 9.5 | 75 |
| 16125 | 3 x 2,5 mm ² Black | 0.157 | 40 | 10 | 113 |
| 15987 | 3 G 2,5 mm ² Black | 0.157 | 41 | 10.2 | 113 |
| 15988 | 4 G 2,5 mm ² Black | 0.193 | 44 | 10.8 | 150 |
| 16126 | 4 x 2,5 mm ² Black | 0.192 | 44 | 10.8 | 150 |
| 16127 | 5 x 2,5 mm ² Black | 0.239 | 48 | 11.9 | 188 |
| 15989 | 5 G 2,5 mm ² Black | 0.239 | 48 | 11.9 | 188 |
| 16128 | 7 x 2,5 mm ² Black | 0.294 | 52 | 12.9 | 263 |
| 16572 | 7 G 2,5 mm ² Black | 0.295 | 52 | 12.9 | 263 |
| 16596 | 10 G 2,5 mm ² Black | 0.459 | 68 | 17 | 375 |
| 16567 | 10 x 2,5 mm ² Black | 0.459 | 68 | 17 | 375 |
| 16573 | 12 G 2,5 mm ² Black | 0.52 | 70 | 17.5 | 450 |
| 16437 | 12 x 2,5 mm ² Black | 0.52 | 59 | 17.5 | 450 |
| 16598 | 14 G 2,5 mm ² Black | 0.59 | 78 | 18.5 | 525 |
| 16429 | 19 x 2,5 mm ² Black | 0.758 | 85 | 21.1 | 713 |
| 16540 | 24 x 2,5 mm ² Black | 0.928 | 94 | 23.4 | 900 |
| 16129 | 1 x 4 mm ² Black | 0.085 | 27 | 6.6 | 60 |

Low voltage cables

MarineLine YOZp 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16130 | 2 x 4 mm ² Black | 0.167 | 42 | 10.4 | 120 |
| 16131 | 3 x 4 mm ² Black | 0.216 | 45 | 11.2 | 180 |
| 16536 | 3 G 4 mm ² Black | 0.217 | 45 | 11.2 | 180 |
| 16132 | 4 x 4 mm ² Black | 0.27 | 49 | 12.2 | 240 |
| 15992 | 4 G 4 mm ² Black | 0.269 | 49 | 12.2 | 240 |
| 16586 | 5 G 4 mm ² Black | 0.325 | 55 | 13.2 | 300 |
| 16133 | 1 x 6 mm ² Black | 0.114 | 29 | 7.2 | 90 |
| 16134 | 2 x 6 mm ² Black | 0.218 | 47 | 11.7 | 180 |
| 16135 | 3 x 6 mm ² Black | 0.285 | 50 | 12.4 | 270 |
| 15997 | 3 G 6 mm ² Black | 0.285 | 50 | 12.4 | 270 |
| 15990 | 4 G 6 mm ² Black | 0.397 | 57 | 14.1 | 360 |
| 16136 | 4 x 6 mm ² Black | 0.396 | 57 | 14.1 | 360 |
| 16480 | 5 G 6 mm ² Black | 0.479 | 60 | 15.3 | 450 |
| 16566 | 5 x 6 mm ² Black | 0.478 | 63 | 15.3 | 450 |
| 16089 | 7 x 6 mm ² Black | 0.613 | 68 | 16.8 | 630 |
| 16109 | 7 G 6 mm ² Black | 0.613 | 68 | 16.8 | 630 |
| 16137 | 1 x 10 mm ² Black | 0.155 | 32 | 8 | 150 |
| 16138 | 2 x 10 mm ² Black | 0.308 | 54 | 13.3 | 300 |
| 16139 | 3 x 10 mm ² Black | 0.45 | 59 | 14.7 | 450 |
| 16534 | 3 G 10 mm ² Black | 0.451 | 59 | 14.7 | 450 |
| 16140 | 4 x 10 mm ² Black | 0.567 | 67 | 16 | 600 |
| 15993 | 4 G 10 mm ² Black | 0.569 | 64 | 16 | 600 |
| 16489 | 5 x 10 mm ² Black | 0.702 | 71 | 17.6 | 600 |
| 16108 | 5 G 10 mm ² Black | 0.702 | 70 | 17.6 | 600 |
| 16141 | 1 x 16 mm ² Black | 0.215 | 36 | 9.1 | 240 |
| 16142 | 2 x 16 mm ² Black | 0.466 | 65 | 15.9 | 480 |
| 16143 | 3 x 16 mm ² Black | 0.631 | 70 | 17 | 720 |
| 16535 | 3 G 16 mm ² Black | 0.634 | 70 | 17 | 720 |
| 16144 | 4 x 16 mm ² Black | 0.814 | 77 | 18.6 | 960 |
| 15994 | 4 G 16 mm ² Black | 0.806 | 75 | 18.6 | 960 |
| 15996 | 5 G 16 mm ² Black | 1 | 85 | 20.5 | 1,200 |
| 16145 | 1 x 25 mm ² Black | 0.324 | 65 | 11.2 | 375 |
| 16146 | 2 x 25 mm ² Black | 0.701 | 120 | 19.9 | 750 |
| 16147 | 3 x 25 mm ² Black | 0.948 | 85 | 21.9 | 1,125 |
| 16148 | 4 x 25 mm ² Black | 1.231 | 95 | 23.3 | 1,500 |
| 16158 | 1 x 35 mm ² Black | 0.422 | 50 | 12.3 | 525 |
| 16157 | 2 x 35 mm ² Black | 0.912 | 94 | 23.4 | 1,050 |
| 16436 | 5 G 35 mm ² Black | 2.051 | 118 | 29.3 | 2,625 |
| 16401 | 1 x 50 mm ² Black | 0.585 | 57 | 14.2 | 750 |
| 16402 | 1 x 70 mm ² Black | 0.796 | 62 | 15.3 | 1,050 |
| 16403 | 1 x 95 mm ² Black | 1.071 | 73 | 18.2 | 1,425 |
| 16404 | 1 x 120 mm ² Black | 1.328 | 80 | 20 | 1,800 |
| 16405 | 1 x 150 mm ² Black | 1.64 | 88 | 22 | 2,250 |
| 16406 | 1 x 185 mm ² Black | 2.028 | 98 | 24.5 | 2,775 |
| 16407 | 1 x 240 mm ² Black | 2.573 | 109 | 27.1 | 3,600 |
| 16433 | 1 x 300 mm ² Black | 3.23 | 125 | 31.2 | 4,500 |

Low voltage cables

MarineLine YZafp 0,6/1 kV

Properties

Application:

Alpet tape screened, lightweight, reduced diameter low voltage power cables for power and lighting applications in all ship areas where EMC protection is needed.

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Alpet tape |
| Drain wire | Yes |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

38 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 16601 | 2 x 1,5 mm ² Black | 0.074 | 65 | 7.9 | 45 |
| 16602 | 3 x 1,5 mm ² Black | 0.098 | 70 | 8.5 | 68 |
| 16670 | 3 G 1,5 mm ² Black | 0.098 | 70 | 8.5 | 68 |
| 16671 | 4 G 1,5 mm ² Black | 0.119 | 75 | 9.2 | 90 |
| 16603 | 4 x 1,5 mm ² Black | 0.119 | 75 | 9.2 | 90 |
| 16604 | 5 x 1,5 mm ² Black | 0.147 | 80 | 10 | 113 |
| 16672 | 5 G 1,5 mm ² Black | 0.147 | 80 | 10 | 113 |
| 16605 | 6 x 1,5 mm ² Black | 0.175 | 85 | 10.8 | 135 |
| 16676 | 7 G 1,5 mm ² Black | 0.182 | 85 | 10.8 | 158 |
| 16606 | 7 x 1,5 mm ² Black | 0.181 | 85 | 10.8 | 158 |
| 16607 | 8 x 1,5 mm ² Black | 0.241 | 106 | 13.2 | 180 |
| 16609 | 10 x 1,5 mm ² Black | 0.266 | 115 | 14 | 225 |
| 16611 | 12 x 1,5 mm ² Black | 0.3 | 115 | 14.5 | 270 |
| 16615 | 16 x 1,5 mm ² Black | 0.385 | 130 | 16.2 | 360 |
| 16618 | 19 x 1,5 mm ² Black | 0.448 | 140 | 17.6 | 428 |
| 16623 | 24 x 1,5 mm ² Black | 0.56 | 155 | 19.6 | 540 |
| 16626 | 27 x 1,5 mm ² Black | 0.615 | 165 | 20.6 | 608 |
| 16627 | 30 x 1,5 mm ² Black | 0.674 | 170 | 21.6 | 675 |
| 16628 | 37 x 1,5 mm ² Black | 0.822 | 190 | 23.8 | 833 |
| 16631 | 2 x 2,5 mm ² Black | 0.104 | 70 | 9 | 75 |
| 16673 | 3 G 2,5 mm ² Black | 0.133 | 75 | 9.5 | 113 |
| 16632 | 3 x 2,5 mm ² Black | 0.133 | 75 | 9.5 | 113 |
| 16633 | 4 x 2,5 mm ² Black | 0.165 | 85 | 10.3 | 150 |
| 16674 | 4 G 2,5 mm ² Black | 0.165 | 80 | 10.3 | 150 |
| 16634 | 5 x 2,5 mm ² Black | 0.209 | 90 | 11.4 | 188 |
| 16675 | 5 G 2,5 mm ² Black | 0.209 | 90 | 11.4 | 188 |
| 16635 | 6 x 2,5 mm ² Black | 0.249 | 100 | 12.4 | 225 |
| 16677 | 7 G 2,5 mm ² Black | 0.26 | 100 | 12.4 | 263 |
| 16636 | 7 x 2,5 mm ² Black | 0.26 | 100 | 12.4 | 263 |
| 16637 | 8 x 2,5 mm ² Black | 0.337 | 115 | 13.9 | 300 |
| 16639 | 10 x 2,5 mm ² Black | 0.367 | 140 | 15.9 | 375 |
| 16641 | 12 x 2,5 mm ² Black | 0.431 | 135 | 16.6 | 450 |
| 16645 | 16 x 2,5 mm ² Black | 0.558 | 150 | 18.7 | 600 |
| 16648 | 19 x 2,5 mm ² Black | 0.648 | 160 | 20.2 | 713 |
| 16653 | 24 x 2,5 mm ² Black | 0.806 | 180 | 22.5 | 900 |
| 16656 | 27 x 2,5 mm ² Black | 0.894 | 190 | 23.7 | 1,013 |
| 16657 | 30 x 2,5 mm ² Black | 0.993 | 200 | 25 | 1,125 |
| 16658 | 37 x 2,5 mm ² Black | 1.197 | 220 | 27.3 | 1,388 |

Low voltage cables

MarineLine+ YZp 0,6/1 kV

Properties

Application:

Unarmoured, heavy duty, low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Extruded inner bedding for perfectly round shaped cable
- Halogen free and low smoke, flame retardant
- Perfect abrasion resistance & suitable for heavy duty applications
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

36 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16060 | 2 x 1,5 mm ² Black | 0.115 | 35 | 8.8 | 45 |
| 16061 | 3 x 1,5 mm ² Black | 0.12 | 35 | 8.8 | 68 |
| 16420 | 3 G 1,5 mm ² Black | 0.12 | 35 | 8.8 | 68 |
| 16419 | 4 G 1,5 mm ² Black | 0.139 | 35 | 9.4 | 90 |
| 16062 | 4 x 1,5 mm ² Black | 0.139 | 39 | 9.7 | 90 |
| 16063 | 5 x 1,5 mm ² Black | 0.172 | 40 | 10.4 | 113 |
| 16418 | 5 G 1,5 mm ² Black | 0.172 | 42 | 10.4 | 113 |
| 16661 | 7 x 1,5 mm ² Black | 0.256 | 47 | 12.9 | 158 |
| 16064 | 2 x 2,5 mm ² Black | 0.135 | 37 | 9.2 | 75 |
| 16065 | 3 x 2,5 mm ² Black | 0.167 | 40 | 10 | 113 |
| 16417 | 3 G 2,5 mm ² Black | 0.167 | 40 | 10 | 113 |
| 16416 | 4 G 2,5 mm ² Black | 0.195 | 45 | 10.7 | 150 |
| 16066 | 4 x 2,5 mm ² Black | 0.195 | 45 | 10.7 | 150 |
| 16067 | 5 x 2,5 mm ² Black | 0.25 | 50 | 12.1 | 188 |
| 16415 | 5 G 2,5 mm ² Black | 0.25 | 50 | 12.1 | 188 |
| 16068 | 2 x 4 mm ² Black | 0.187 | 42 | 10.4 | 120 |
| 16069 | 3 x 4 mm ² Black | 0.236 | 46 | 11.4 | 180 |
| 16084 | 3 G 4 mm ² Black | 0.237 | 46 | 11.4 | 180 |
| 16070 | 4 x 4 mm ² Black | 0.288 | 50 | 12.4 | 240 |
| 16071 | 2 x 6 mm ² Black | 0.256 | 49 | 11.8 | 180 |
| 16072 | 3 x 6 mm ² Black | 0.308 | 50 | 12.4 | 270 |
| 16085 | 3 G 6 mm ² Black | 0.308 | 50 | 12.4 | 270 |
| 16073 | 4 x 6 mm ² Black | 0.371 | 54 | 13.3 | 360 |
| 16074 | 2 x 10 mm ² Black | 0.363 | 54 | 13.4 | 300 |
| 16075 | 3 x 10 mm ² Black | 0.462 | 58 | 14.5 | 450 |
| 16076 | 4 x 10 mm ² Black | 0.573 | 64 | 15.8 | 600 |
| 16083 | 4 G 10 mm ² Black | 0.574 | 64 | 15.8 | 600 |
| 16077 | 2 x 16 mm ² Black | 0.531 | 65 | 15.9 | 480 |
| 16078 | 3 x 16 mm ² Black | 0.659 | 65 | 16.8 | 720 |
| 16079 | 4 x 16 mm ² Black | 0.81 | 75 | 18.1 | 960 |
| 16086 | 5 G 16 mm ² Black | 0.997 | 80 | 20 | 1,200 |
| 16080 | 2 x 25 mm ² Black | 0.824 | 80 | 19.8 | 750 |
| 16081 | 3 x 25 mm ² Black | 1.02 | 85 | 20.9 | 1,125 |
| 16087 | 3 G 25 mm ² Black | 1.04 | 85 | 21.2 | 1,125 |
| 16088 | 4 G 25 mm ² Black | 1.302 | 95 | 23.2 | 1,500 |
| 16082 | 4 x 25 mm ² Black | 1.279 | 90 | 22.9 | 1,500 |

Low voltage cables

MarineLine+ YOZp 0,6/1 kV

Properties

Application:

Armoured, heavy duty, low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Extruded inner bedding for perfectly round shaped cable
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Perfect abrasion resistance & suitable for heavy duty applications
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

42 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 16160 | 2 x 1,5 mm ² Black | 0.176 | 42 | 10.4 | 45 |
| 16161 | 3 x 1,5 mm ² Black | 0.195 | 45 | 10.8 | 68 |
| 16414 | 3 G 1,5 mm ² Black | 0.195 | 43 | 10.8 | 68 |
| 16413 | 4 G 1,5 mm ² Black | 0.226 | 48 | 11.7 | 90 |
| 16162 | 4 x 1,5 mm ² Black | 0.226 | 48 | 11.7 | 90 |
| 16163 | 5 x 1,5 mm ² Black | 0.257 | 50 | 12.4 | 113 |
| 16412 | 5 G 1,5 mm ² Black | 0.257 | 50 | 12.4 | 113 |
| 16662 | 7 x 1,5 mm ² Black | 0.34 | 57 | 14.1 | 158 |
| 16663 | 12 x 1,5 mm ² Black | 0.5 | 71 | 17.6 | 270 |
| 16664 | 24 x 1,5 mm ² Black | 0.908 | 96 | 23.8 | 540 |
| 16164 | 2 x 2,5 mm ² Black | 0.221 | 45 | 11.5 | 75 |
| 16411 | 3 G 2,5 mm ² Black | 0.249 | 50 | 12 | 113 |
| 16165 | 3 x 2,5 mm ² Black | 0.249 | 50 | 12 | 113 |
| 16410 | 4 G 2,5 mm ² Black | 0.286 | 50 | 12.8 | 150 |
| 16166 | 4 x 2,5 mm ² Black | 0.286 | 50 | 12.8 | 150 |
| 16167 | 5 x 2,5 mm ² Black | 0.371 | 60 | 14.3 | 188 |
| 16409 | 5 G 2,5 mm ² Black | 0.371 | 60 | 14.3 | 188 |
| 16168 | 2 x 4 mm ² Black | 0.27 | 50 | 12.3 | 120 |
| 16186 | 3 G 4 mm ² Black | 0.311 | 52 | 12.9 | 180 |
| 16169 | 3 x 4 mm ² Black | 0.31 | 52 | 12.9 | 180 |
| 16170 | 4 x 4 mm ² Black | 0.409 | 58 | 14.5 | 240 |
| 16454 | 4 G 4 mm ² Black | 0.414 | 59 | 14.6 | 240 |
| 16446 | 5 G 4 mm ² Black | 0.478 | 63 | 15.6 | 300 |
| 16171 | 2 x 6 mm ² Black | 0.337 | 54 | 13.4 | 180 |
| 16187 | 3 G 6 mm ² Black | 0.442 | 60 | 14.8 | 270 |
| 16172 | 3 x 6 mm ² Black | 0.441 | 60 | 14.8 | 270 |
| 16173 | 4 x 6 mm ² Black | 0.518 | 64 | 15.8 | 360 |
| 16174 | 2 x 10 mm ² Black | 0.502 | 63 | 15.7 | 300 |
| 16175 | 3 x 10 mm ² Black | 0.606 | 67 | 16.7 | 450 |
| 16428 | 3 G 10 mm ² Black | 0.607 | 68 | 16.7 | 450 |
| 16176 | 4 x 10 mm ² Black | 0.724 | 72 | 17.9 | 600 |
| 16445 | 4 G 10 mm ² Black | 0.725 | 72 | 17.9 | 600 |
| 16177 | 2 x 16 mm ² Black | 0.687 | 70 | 17.9 | 480 |
| 16178 | 3 x 16 mm ² Black | 0.82 | 75 | 18.8 | 720 |
| 16179 | 4 x 16 mm ² Black | 1.007 | 85 | 20.6 | 960 |
| 16188 | 5 G 16 mm ² Black | 1.214 | 90 | 22.5 | 1,200 |
| 16180 | 2 x 25 mm ² Black | 0.991 | 85 | 21.6 | 750 |
| 16181 | 3 x 25 mm ² Black | 1.217 | 90 | 23 | 1,125 |
| 16431 | 3 G 25 mm ² Black | 1.221 | 90 | 22.9 | 1,125 |
| 16182 | 4 x 25 mm ² Black | 1.5 | 100 | 25.1 | 1,500 |
| 16432 | 4 G 25 mm ² Black | 1.495 | 100 | 25.1 | 1,500 |
| 16435 | 5 G 25 mm ² Black | 1.823 | 110 | 27.6 | 1,875 |

Low voltage cables

MarineFlex YZp 0,6/1 kV

Properties

Application:

Lightweight, unarmoured, flexible low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 5 conductors
- Easy installation in tight spaces due to flexible conductors
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

33 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16488 | 1 x 16 mm ² Black | 0.184 | 35 | 8.6 | 375 |
| 16486 | 2 x 16 mm ² Black | 0.549 | 67 | 16.6 | 720 |
| 16447 | 3 x 16 mm ² Black | 0.679 | 71 | 17.6 | 720 |
| 16484 | 4 x 16 mm ² Black | 0.831 | 76 | 19 | 960 |
| 17427 | 5 G 16 mm ² Black | 1.039 | 86 | 21.3 | 1,200 |
| 16537 | 1 x 25 mm ² Black | 0.271 | 41 | 10.2 | 375 |
| 16659 | 2 x 25 mm ² Black | 0.812 | 80 | 20 | 1,125 |
| 16482 | 3 x 25 mm ² Black | 1.007 | 85 | 21.2 | 1,125 |
| 16542 | 4 x 25 mm ² Black | 1.263 | 94 | 23.3 | 1,500 |
| 16090 | 1 x 35 mm ² Black | 0.357 | 47 | 11.7 | 525 |
| 16091 | 2 x 35 mm ² Black | 1.065 | 91 | 22.7 | 1,050 |
| 16092 | 3 x 35 mm ² Black | 1.397 | 101 | 25.1 | 1,575 |
| 16438 | 4 x 35 mm ² Black | 1.812 | 113 | 28.1 | 2,100 |
| 16093 | 1 x 50 mm ² Black | 0.492 | 53 | 13.1 | 750 |
| 16094 | 3 x 50 mm ² Black | 1.909 | 114 | 28.5 | 2,250 |
| 16439 | 4 x 50 mm ² Black | 2.478 | 128 | 31.9 | 3,000 |
| 16095 | 1 x 70 mm ² Black | 0.69 | 63 | 15.1 | 1,050 |
| 16096 | 3 x 70 mm ² Black | 2.653 | 132 | 32.9 | 3,150 |
| 16440 | 4 x 70 mm ² Black | 3.409 | 147 | 36.6 | 4,200 |
| 16097 | 1 x 95 mm ² Black | 0.9 | 69 | 17.1 | 1,425 |
| 16098 | 3 x 95 mm ² Black | 3.437 | 150 | 37.4 | 4,275 |
| 16441 | 4 x 95 mm ² Black | 4.402 | 165 | 41.1 | 5,700 |
| 16099 | 1 x 120 mm ² Black | 1.13 | 76 | 18.9 | 1,800 |
| 16100 | 3 x 120 mm ² Black | 4.352 | 167 | 41.6 | 5,400 |
| 16442 | 4 x 120 mm ² Black | 5.61 | 186 | 46.2 | 7,200 |
| 16101 | 1 x 150 mm ² Black | 1.404 | 85 | 21.1 | 2,250 |
| 16102 | 3 x 150 mm ² Black | 5.383 | 185 | 46.2 | 6,750 |
| 16103 | 1 x 185 mm ² Black | 1.704 | 92 | 23 | 2,775 |
| 16104 | 3 x 185 mm ² Black | 6.519 | 206 | 51.4 | 8,325 |
| 16105 | 1 x 240 mm ² Black | 2.294 | 106 | 26.5 | 3,600 |
| 16106 | 3 x 240 mm ² Black | 8.695 | 234 | 58.3 | 10,800 |
| 15983 | 4 x 240 mm ² Black | 11.17 | 258 | 64.3 | 14,400 |
| 16107 | 1 x 300 mm ² Black | 2.815 | 118 | 29.3 | 4,500 |

Low voltage cables

MarineFlex YOZp 0,6/1 kV

Properties

Application:

Lightweight, armoured, flexible low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 5 conductors
- Easy installation in tight spaces due to flexible conductors
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Excellent abrasion resistance
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

46 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16483 | 3 x 16 mm ² Black | 0.888 | 83 | 20.6 | 720 |
| 16485 | 4 x 16 mm ² Black | 1.096 | 90 | 22.5 | 960 |
| 16487 | 2 x 25 mm ² Black | 1.045 | 92 | 23 | 750 |
| 16543 | 3 x 25 mm ² Black | 1.262 | 97 | 24.2 | 1,125 |
| 16553 | 4 G 25 mm ² Black | 1.55 | 107 | 26.6 | 1,500 |
| 16491 | 4 x 25 mm ² Black | 1.552 | 107 | 26.6 | 1,500 |
| 16190 | 1 x 35 mm ² Black | 0.405 | 50 | 12.5 | 525 |
| 16456 | 2 x 35 mm ² Black | 1.33 | 105 | 26 | 1,050 |
| 16191 | 3 x 35 mm ² Black | 1.63 | 110 | 27.5 | 1,575 |
| 16192 | 4 x 35 mm ² Black | 2.032 | 121 | 30.1 | 2,100 |
| 16523 | 4 G 35 mm ² Black | 1.982 | 118 | 29.7 | 2,100 |
| 16552 | 5 G 35 mm ² Black | 2.575 | 135 | 33.6 | 2,100 |
| 16193 | 1 x 50 mm ² Black | 0.585 | 58 | 14.5 | 750 |
| 17898 | 2 x 50 mm ² Black | 1.737 | 115 | 28.7 | 1,500 |
| 16194 | 3 x 50 mm ² Black | 2.17 | 123 | 30.9 | 2,250 |
| 16195 | 4 x 50 mm ² Black | 2.685 | 135 | 33.7 | 3,000 |
| 17790 | 4 G 50 mm ² Black | 2.693 | 135 | 33.7 | 3,000 |
| 16473 | 5 G 50 mm ² Black | 3.362 | 150 | 37.6 | 3,750 |
| 16196 | 1 x 70 mm ² Black | 0.789 | 66 | 16.3 | 1,050 |
| 16197 | 3 x 70 mm ² Black | 3.109 | 144 | 35.9 | 3,150 |
| 16198 | 4 x 70 mm ² Black | 3.878 | 158 | 39.4 | 4,200 |
| 16524 | 4 G 70 mm ² Black | 3.882 | 158 | 39.4 | 4,200 |
| 16474 | 5 G 70 mm ² Black | 4.74 | 175 | 43.4 | 5,250 |
| 16199 | 1 x 95 mm ² Black | 1.01 | 74 | 18.3 | 1,425 |
| 16522 | 2 x 95 mm ² Black | 3.161 | 152 | 37.8 | 2,850 |
| 16200 | 3 x 95 mm ² Black | 3.895 | 160 | 40 | 4,275 |
| 16201 | 4 x 95 mm ² Black | 4.928 | 177 | 44.1 | 5,700 |
| 16490 | 4 G 95 mm ² Black | 4.932 | 177 | 44.1 | 5,700 |
| 16475 | 5 G 95 mm ² Black | 6.033 | 195 | 48.5 | 7,125 |
| 16202 | 1 x 120 mm ² Black | 1.263 | 82 | 20.3 | 1,800 |
| 16203 | 3 x 120 mm ² Black | 4.842 | 177 | 44.2 | 5,400 |
| 16476 | 4 G 120 mm ² Black | 6.129 | 195 | 48.6 | 7,200 |
| 16443 | 4 x 120 mm ² Black | 6.118 | 195 | 48.6 | 7,200 |
| 16477 | 5 G 120 mm ² Black | 7.525 | 215 | 53.7 | 9,000 |
| 16204 | 1 x 150 mm ² Black | 1.553 | 90 | 22.5 | 2,250 |
| 16205 | 3 x 150 mm ² Black | 5.891 | 195 | 48.6 | 6,750 |
| 16539 | 4 x 150 mm ² Black | 7.517 | 217 | 54.1 | 9,000 |
| 17791 | 4 G 150 mm ² Black | 7.474 | 215 | 53.7 | 9,000 |
| 16206 | 1 x 185 mm ² Black | 1.854 | 97 | 24.2 | 2,775 |
| 16207 | 3 x 185 mm ² Black | 7.046 | 212 | 52.8 | 8,325 |
| 16478 | 4 G 185 mm ² Black | 8.992 | 234 | 58.4 | 11,100 |
| 16479 | 4 x 185 mm ² Black | 8.976 | 234 | 58.4 | 11,100 |
| 16208 | 1 x 240 mm ² Black | 2.466 | 111 | 27.7 | 3,600 |
| 16209 | 3 x 240 mm ² Black | 9.33 | 242 | 60.3 | 10,800 |

Low voltage cables

MarineFlex YOZp 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 15998 | 4 x 240 mm ² Black | 12.042 | 270 | 67.3 | 14,400 |
| 16455 | 1 x 300 mm ² Black | 3.003 | 122 | 30.4 | 4,500 |

MarineWire Zp 0,6/1 kV

Properties

Application:

0,6/1kV halogen free earthing & power wires are used for wiring switchboards, control panels and cabinets in all ship areas. Extra flexible Class 5/6 conductors for improved flexibility.

Characteristics:

- Class 5/6 conductors, unarmoured
- Easy installation in tight spaces due to flexible conductors
- Halogen free, low smoke, flame retardant insulation
- Green/Yellow sheath. Different colours on request



Specifications

| | |
|--|-------------------------|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | XLHFFR - HF90 |
| Flame retardant | IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 90 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineWire Zp 0,6/1 kV

16 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|----------------------------------|-------------------|--|----------------------------|------------------|
| 160260 | 1,5 mm ² Green/yellow | 0.021 | 12 | 3 | 23 |
| 160261 | 2,5 mm ² Green/yellow | 0.031 | 15 | 3.4 | 38 |
| 160262 | 4 mm ² Green/yellow | 0.044 | 15 | 4 | 60 |
| 160263 | 6 mm ² Green/yellow | 0.063 | 18 | 4.6 | 90 |
| 160264 | 10 mm ² Green/yellow | 0.103 | 22 | 5.6 | 150 |
| 160265 | 16 mm ² Green/yellow | 0.156 | 27 | 6.6 | 240 |
| 160266 | 25 mm ² Green/yellow | 0.24 | 34 | 8.3 | 375 |
| 160267 | 35 mm ² Green/yellow | 0.318 | 38 | 9.5 | 525 |
| 160268 | 50 mm ² Green/yellow | 0.452 | 44 | 11 | 750 |
| 160269 | 70 mm ² Green/yellow | 0.64 | 52 | 12.8 | 1,050 |
| 160270 | 95 mm ² Green/yellow | 0.834 | 59 | 14.6 | 1,425 |
| 160271 | 120 mm ² Green/yellow | 1.062 | 70 | 17.4 | 1,800 |
| 160272 | 150 mm ² Green/yellow | 1.327 | 74 | 18.4 | 2,250 |
| 160273 | 185 mm ² Green/yellow | 1.619 | 81 | 20.2 | 2,775 |
| 160274 | 240 mm ² Green/yellow | 2.189 | 94 | 23.5 | 3,600 |
| 160275 | 300 mm ² Green/yellow | 2.692 | 105 | 26.1 | 4,500 |

Properties

Application:

Low voltage shipboard power cables with enhanced EMC properties for use in sensitive EMC areas and suitable for Variable Frequency Drive applications. Enhanced shielding properties due to optimized tinned copper wire braid in combination with 100% foil-screen coverage.

Characteristics:

- Class 2 conductors
- Designed for situations that need Electro-Magnetic Interference to be limited to the minimum
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | EMC-screen consists of copper/PETtape and (CU) braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineLine YOZp EMC 0,6/1 kV

30 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|---|-------------------|--|----------------------------|------------------|
| 17341 | 3 x 1,5 mm ² Black | 0.125 | 40 | 9 | 68 |
| 17344 | 4 G 1,5 mm ² Black | 0.15 | 40 | 9.7 | 90 |
| 16530 | 4 x 1,5 mm ² Black | 0.15 | 39 | 9.7 | 90 |
| 17342 | 3 x 2,5 mm ² Black | 0.163 | 40 | 10 | 113 |
| 17437 | 3 x 2,5 mm ² + 3 G 1,5 mm ² Black | 0.257 | 115 | 13 | 180 |
| 17345 | 4 G 2,5 mm ² Black | 0.196 | 44 | 10.8 | 150 |
| 16531 | 4 x 2,5 mm ² Black | 0.198 | 45 | 10.8 | 150 |
| 16541 | 12 G 2,5 mm ² Black | 0.528 | 70 | 17.5 | 450 |
| 16533 | 19 x 2,5 mm ² Black | 0.77 | 85 | 21.1 | 713 |
| 17473 | 1 x 4 mm ² Black | 0.09 | 27 | 6.6 | 60 |
| 16532 | 2 x 4 mm ² Black | 0.172 | 42 | 10.4 | 120 |
| 17177 | 3 x 4 mm ² Black | 0.221 | 45 | 11.2 | 180 |
| 17902 | 3 x 4 mm ² + 3 G 1,5 mm ² Black | 0.335 | 57 | 14.1 | 248 |
| 16638 | 4 x 4 mm ² Black | 0.278 | 50 | 12.3 | 240 |
| 17346 | 4 G 4 mm ² Black | 0.274 | 49 | 12.2 | 240 |
| 16550 | 2 x 6 mm ² Black | 0.225 | 71 | 11.7 | 180 |
| 17454 | 3 x 6 mm ² + 3 G 1,5 mm ² Black | 0.399 | 59 | 14.7 | 338 |
| 17343 | 3 x 6 mm ² Black | 0.289 | 52 | 12.4 | 270 |
| 17347 | 4 G 6 mm ² Black | 0.402 | 57 | 14.1 | 360 |
| 17469 | 4 x 6 mm ² Black | 0.402 | 57 | 14.1 | 360 |
| 17378 | 3 x 10 mm ² + 3 G 4 mm ² Black | 0.635 | 72 | 17.9 | 450 |
| 17193 | 3 x 10 mm ² Black | 0.464 | 60 | 14.8 | 450 |
| 17219 | 4 G 10 mm ² Black | 0.583 | 65 | 16.1 | 600 |
| 17451 | 4 x 10 mm ² Black | 0.582 | 65 | 16.1 | 600 |
| 17350 | 2 x 16 mm ² Black | 0.474 | 65 | 15.9 | 480 |
| 17348 | 3 x 16 mm ² Black | 0.64 | 70 | 17 | 720 |
| 17176 | 3 x 16 mm ² + 3 G 6 mm ² Black | 0.884 | 82 | 20.4 | 990 |
| 17184 | 4 G 16 mm ² Black | 0.825 | 75 | 18.6 | 960 |
| 17439 | 4 x 16 mm ² Black | 0.824 | 75 | 18.6 | 960 |
| 17197 | 3 x 25 mm ² Black | 0.964 | 85 | 21.2 | 1,125 |

Properties

Application:

Armoured, heavy duty, low voltage power cables for power and lighting applications in all ship areas where EMC protection is needed. Suitable for variable frequency drive applications.

Characteristics:

- Class 2 conductors
- Designed for situations that need Electro-Magnetic Interference to be limited to the minimum
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Extruded inner bedding for perfectly round shaped cable
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | EMC-screen consists of copper/PETtape and (CU) braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineLine+ YOZp EMC 0,6/1 kV

2 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|------------------------------|-------------------|--|----------------------------|------------------|
| 17179 | 3 x 16 mm ² Black | 0.775 | 72 | 17.9 | 720 |
| 17215 | 3 x 25 mm ² Black | 1.205 | 91 | 22.7 | 1,125 |

Low voltage cables

MarineFlex YOZp EMC 0,6/1 kV

Properties

Application:

Lightweight, armoured, flexible low voltage power cables for power and lighting applications in all ship areas where EMC protection is needed.

Characteristics:

- Class 5 conductors
- For easy installation in tight spaces
- Halogen free and low smoke, flame retardant
- 3 +3E construction with symmetrical PE conductor are recommended for VFD applications
- Tinned copper wire braid armouring
- Combined screen of copper-pet tape and tinned copper wire braid for optimal screening
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | EMC-screen consists of copper/PETtape and (CU) braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineFlex YOZp EMC 0,6/1 kV

27 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|--|----------------------------|------------------|
| 55910 | 3 x 16 mm ² + 3 G 6 mm ² Black | 1.33 | 103 | 25.7 | 1,980 |
| 17472 | 1 x 35 mm ² Black | 0.412 | 51 | 12.6 | 525 |
| 17198 | 3 x 35 mm ² Black | 1.654 | 111 | 27.6 | 1,575 |
| 55902 | 3 x 35 mm ² + 3 G 6 mm ² Black | 1.877 | 118 | 29.4 | 3,150 |
| 17217 | 4 x 35 mm ² Black | 2.064 | 122 | 30.3 | 2,100 |
| 17160 | 1 x 50 mm ² Black | 0.592 | 58 | 14.5 | 750 |
| 17199 | 3 x 50 mm ² Black | 2.199 | 125 | 31.1 | 2,250 |
| 55907 | 3 x 50 mm ² + 3 G 16 mm ² Black | 3.287 | 155 | 38.6 | 2,700 |
| 17432 | 4 G 50 mm ² Black | 2.766 | 136 | 34 | 3,000 |
| 17161 | 1 x 70 mm ² Black | 0.797 | 66 | 16.3 | 1,050 |
| 17178 | 3 x 70 mm ² Black | 3.168 | 146 | 36.4 | 3,150 |
| 17379 | 3 x 70 mm ² + 3 G 16 mm ² Black | 3.861 | 162 | 40.5 | 3,150 |
| 17183 | 4 G 70 mm ² Black | 3.948 | 160 | 39.9 | 4,200 |
| 17218 | 1 x 95 mm ² Black | 1.018 | 74 | 18.3 | 1,425 |
| 17376 | 2 x 95 mm ² Black | 3.225 | 156 | 38.3 | 4,275 |
| 17195 | 3 x 95 mm ² Black | 3.965 | 162 | 40.5 | 4,275 |
| 55908 | 3 x 95 mm ² + 3 G 25 mm ² Black | 5.192 | 377 | 47.1 | 5,400 |
| 17214 | 4 x 95 mm ² Black | 5.005 | 179 | 44.6 | 5,700 |
| 17399 | 1 x 120 mm ² Black | 1.276 | 82 | 20.4 | 1,800 |
| 55903 | 3 x 120 mm ² + 3 G 25 mm ² Black | 5.846 | 390 | 48.7 | 5,400 |
| 17213 | 3 x 120 mm ² Black | 4.909 | 179 | 44.7 | 5,400 |
| 17400 | 1 x 150 mm ² Black | 1.569 | 91 | 22.6 | 2,250 |
| 17216 | 3 x 150 mm ² Black | 5.997 | 198 | 49.3 | 6,750 |
| 55909 | 3 x 150 mm ² + 3 G 25 mm ² Black | 6.806 | 416 | 52 | 6,750 |
| 17194 | 1 x 185 mm ² Black | 1.865 | 97 | 24.2 | 2,775 |
| 17209 | 3 x 185 mm ² Black | 7.137 | 214 | 53.3 | 8,325 |
| 17438 | 1 x 240 mm ² Black | 2.498 | 112 | 28 | 3,600 |

Low voltage cables

MarineFlex YOZp EMC 1,8/3 kV

Properties

Application:

Lightweight, EMC screened and armoured, special frequency drive cables which offer excellent EMI- and mechanical protection for use in places that need Electro-Magnetic Interference to be limited to the minimum.

Characteristics:

- Class 5 flexible conductors
- For easy installation in tight spaces
- Halogen free and low smoke, flame retardant
- 3 +3E construction with symmetrical PE conductor are recommended for VFD applications
- Combined screen of copper-pet tape and tinned copper wire braid for optimal screening
- Suitable for voltage peaks up to 3kV
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | EMC-screen consists of copper/PETtape and (CU) braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 1.8 kV |
| Nominal voltage U | 3 kV |
| Test voltage | 6.5 kV |

MarineFlex YOZp EMC 1,8/3 kV

12 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|--|----------------------------|------------------|
| 17782 | 3 x 35/25 mm ² Black | 2.211 | 138 | 34.5 | 1,575 |
| 55913 | 3 x 35 mm ² + 3 G 6 mm ² Black | 2.851 | 161 | 40.3 | 1,845 |
| 55914 | 3 x 50 mm ² + 3 G 10 mm ² Black | 3.757 | 179 | 44.7 | 2,700 |
| 17826 | 3 x 50 mm ² Black | 2.802 | 150 | 37.4 | 2,250 |
| 17783 | 3 x 70/35 mm ² Black | 3.587 | 165 | 41.3 | 3,150 |
| 17784 | 3 x 95/50 mm ² Black | 4.485 | 182 | 45.4 | 4,275 |
| 17785 | 3 x 120/70 mm ² Black | 5.779 | 207 | 51.8 | 5,400 |
| 55901 | 3 x 120 mm ² + 3 G 25 mm ² Black | 6.852 | 228 | 57.1 | 6,525 |
| 17897 | 3 x 150 mm ² + 3 G 25 mm ² Black | 7.621 | 235 | 58.7 | 7,875 |
| 55900 | 1 x 185 mm ² Black | 1.935 | 104 | 26.1 | 2,775 |
| 17899 | 3 x 185 mm ² + 3 G 25 mm ² Black | 8.324 | 238 | 59.5 | 8,595 |
| 55906 | 1 x 240 mm ² Black | 2.544 | 116 | 29 | 3,600 |

Properties

Application:

Lightweight, armoured, frequency drive cables which offer good EMI- and mechanical protection.

Characteristics:

- Class 5 conductors
- Easy installation in tight spaces due to flexible conductors
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Suitable for voltage peaks up to 3kV
- Excellent abrasion resistance
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 1.8 kV |
| Nominal voltage U | 3 kV |
| Test voltage | 6.5 kV |

MarineFlex YOZp 1,8/3 kV

15 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16507 | 1 x 35 mm ² Black | 0.505 | 63 | 15.7 | 525 |
| 16515 | 3 x 35 mm ² Black | 1.919 | 128 | 32.1 | 1,575 |
| 16508 | 1 x 50 mm ² Black | 0.658 | 69 | 17.2 | 750 |
| 16516 | 3 x 50 mm ² Black | 2.664 | 147 | 36.7 | 2,250 |
| 16509 | 1 x 70 mm ² Black | 0.865 | 75 | 18.8 | 1,050 |
| 16517 | 3 x 70 mm ² Black | 3.572 | 166 | 41.6 | 3,150 |
| 16510 | 1 x 95 mm ² Black | 1.088 | 83 | 20.8 | 1,425 |
| 16518 | 3 x 95 mm ² Black | 4.395 | 181 | 45.3 | 4,275 |
| 16511 | 1 x 120 mm ² Black | 1.341 | 90 | 22.6 | 1,800 |
| 16519 | 3 x 120 mm ² Black | 5.328 | 196 | 49.1 | 5,400 |
| 16512 | 1 x 150 mm ² Black | 1.614 | 97 | 24.2 | 2,250 |
| 16520 | 3 x 150 mm ² Black | 6.348 | 211 | 52.7 | 6,750 |
| 16513 | 1 x 185 mm ² Black | 1.918 | 104 | 26 | 2,775 |
| 16521 | 3 x 185 mm ² Black | 7.428 | 224 | 56 | 8,325 |
| 16514 | 1 x 240 mm ² Black | 2.524 | 116 | 29 | 3,600 |

Properties

Application:

Lightweight, armoured, double screened, low voltage power cables for power and lighting applications in all ship areas. Applicable where repeated bending and working in harsh environments is required, like azipod drives, powering underwater dredger motors and use in cable chains.

Characteristics:

- Class 5 conductors
- Filled cable to facilitate optimal sealing in cable transits
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- High abrasion resistance due to PUR outer sheath and a special combined EMI screening for use in frequency drive applications
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor surface | Tinned |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Rubber |
| Construction outer shield | EMC-screen consists of copper/PETtape and (CU) braiding |
| Material outer sheath | Polyurethane (PUR) |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 70 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineMultiFlex BOQp 0,6/1 kV

2 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|------------------------------|-------------------|--|----------------------------|------------------|
| 17349 | 3 x 50 mm ² Black | 3.296 | 258 | 42.9 | 2,250 |
| 17351 | 3 x 95 mm ² Black | 5.174 | 317 | 52.9 | 4,275 |

Properties

Application:

Lightweight, armoured, double screened, low voltage power cables for power and lighting applications in all ship areas. Applicable where repeated bending and working in harsh environments is required, like azipod drives, powering underwater dredger motors and use in cable chains.

Characteristics:

- Class 5 conductors
- Filled cable to facilitate optimal sealing in cable transits
- Halogen free and low smoke, flame retardant
- Tinned copper wire braid armouring
- High abrasion resistance due to PUR outer sheath and a special combined EMI screening for use in frequency drive applications
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor surface | Tinned |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Rubber |
| Construction outer shield | EMC-screen consists of copper/PETtape and (CU) braiding |
| Material outer sheath | Polyurethane (PUR) |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 70 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Nominal voltage U0 | 1.8 kV |
| Nominal voltage U | 3 kV |
| Test voltage | 6.5 kV |

MarineMultiFlex BOQp 1,8/3 kV

3 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16544 | 3 x 120 mm ² Black | 5.681 | 316 | 52.6 | 5,400 |
| 16545 | 3 x 150 mm ² Black | 7.11 | 345 | 57.5 | 6,750 |
| 16547 | 3 x 240 mm ² Black | 10.147 | 385 | 64 | 10,800 |

Properties

Application:

Lightweight, fire-resistant, unarmoured, reduced diameter low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen-free and low smoke
- Fire-resistant according to IEC 60331 1/2 ($\geq 120\text{min.}$)
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

Low voltage cables

MarineLine YZp X-FR 0,6/1 kV

74 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|---------------------------------|-------------------|--|----------------------------|------------------|
| 27000 | 1 x 1,5 mm ² Orange | 0.045 | 35 | 5.8 | 23 |
| 27001 | 2 x 1,5 mm ² Orange | 0.085 | 55 | 8.8 | 45 |
| 27002 | 3 x 1,5 mm ² Orange | 0.109 | 55 | 9.3 | 68 |
| 27080 | 3 G 1,5 mm ² Orange | 0.111 | 55 | 9.3 | 68 |
| 27081 | 4 G 1,5 mm ² Orange | 0.137 | 60 | 10.2 | 90 |
| 27003 | 4 x 1,5 mm ² Orange | 0.136 | 60 | 10.2 | 90 |
| 27004 | 5 x 1,5 mm ² Orange | 0.178 | 70 | 11.4 | 113 |
| 27082 | 5 G 1,5 mm ² Orange | 0.179 | 70 | 11.4 | 113 |
| 27005 | 6 x 1,5 mm ² Orange | 0.214 | 75 | 12.4 | 135 |
| 27083 | 7 G 1,5 mm ² Orange | 0.222 | 75 | 12.4 | 158 |
| 27006 | 7 x 1,5 mm ² Orange | 0.222 | 56 | 12.4 | 158 |
| 27007 | 8 x 1,5 mm ² Orange | 0.31 | 103 | 17.1 | 180 |
| 27008 | 10 x 1,5 mm ² Orange | 0.322 | 95 | 15.9 | 225 |
| 27009 | 12 x 1,5 mm ² Orange | 0.364 | 100 | 16.4 | 270 |
| 27010 | 16 x 1,5 mm ² Orange | 0.482 | 110 | 18.7 | 360 |
| 27011 | 19 x 1,5 mm ² Orange | 0.554 | 120 | 20.2 | 428 |
| 27012 | 24 x 1,5 mm ² Orange | 0.706 | 135 | 22.7 | 540 |
| 27013 | 27 x 1,5 mm ² Orange | 0.776 | 145 | 23.9 | 608 |
| 27014 | 30 x 1,5 mm ² Orange | 0.851 | 150 | 25 | 675 |
| 27015 | 37 x 1,5 mm ² Orange | 1.04 | 165 | 27.6 | 833 |
| 27016 | 1 x 2,5 mm ² Orange | 0.055 | 35 | 5.8 | 38 |
| 27017 | 2 x 2,5 mm ² Orange | 0.11 | 59 | 9.8 | 75 |
| 27018 | 3 x 2,5 mm ² Orange | 0.145 | 65 | 10.4 | 113 |
| 27084 | 3 G 2,5 mm ² Orange | 0.146 | 63 | 10.4 | 113 |
| 27085 | 4 G 2,5 mm ² Orange | 0.189 | 70 | 11.6 | 150 |
| 27019 | 4 x 2,5 mm ² Orange | 0.19 | 70 | 11.6 | 150 |
| 27086 | 5 G 2,5 mm ² Orange | 0.237 | 77 | 12.8 | 188 |
| 27020 | 5 x 2,5 mm ² Orange | 0.239 | 77 | 12.8 | 188 |
| 27021 | 6 x 2,5 mm ² Orange | 0.282 | 83 | 13.9 | 225 |
| 27022 | 7 x 2,5 mm ² Orange | 0.3 | 84 | 13.9 | 263 |
| 27087 | 7 G 2,5 mm ² Orange | 0.301 | 84 | 13.9 | 263 |
| 27096 | 16 x 2,5 mm ² Orange | 0.658 | 127 | 21.1 | 600 |
| 27023 | 1 x 4 mm ² Orange | 0.072 | 38 | 6.3 | 60 |
| 27024 | 2 x 4 mm ² Orange | 0.144 | 65 | 10.8 | 120 |
| 27025 | 3 x 4 mm ² Orange | 0.199 | 70 | 11.6 | 180 |
| 27088 | 3 G 4 mm ² Orange | 0.2 | 70 | 11.6 | 180 |
| 27026 | 4 x 4 mm ² Orange | 0.256 | 77 | 12.8 | 240 |
| 27089 | 4 G 4 mm ² Orange | 0.257 | 77 | 12.8 | 240 |
| 27078 | 5 G 4 mm ² Orange | 0.327 | 86 | 14.3 | 240 |
| 27027 | 1 x 6 mm ² Orange | 0.096 | 42 | 6.9 | 90 |
| 27028 | 2 x 6 mm ² Orange | 0.198 | 74 | 12.2 | 180 |
| 27090 | 3 G 6 mm ² Orange | 0.271 | 78 | 12.9 | 270 |
| 27029 | 3 x 6 mm ² Orange | 0.27 | 78 | 12.9 | 270 |
| 27030 | 4 x 6 mm ² Orange | 0.357 | 87 | 14.4 | 360 |

Low voltage cables

MarineLine YZp X-FR 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 27091 | 4 G 6 mm ² Orange | 0.358 | 87 | 14.4 | 360 |
| 27079 | 5 G 6 mm ² Orange | 0.447 | 96 | 15.9 | 360 |
| 27031 | 1 x 10 mm ² Orange | 0.137 | 46 | 7.6 | 150 |
| 27032 | 2 x 10 mm ² Orange | 0.284 | 83 | 13.7 | 300 |
| 27033 | 3 x 10 mm ² Orange | 0.402 | 89 | 14.8 | 450 |
| 27092 | 3 G 10 mm ² Orange | 0.403 | 89 | 14.8 | 450 |
| 27093 | 4 G 10 mm ² Orange | 0.522 | 98 | 16.2 | 600 |
| 27034 | 4 x 10 mm ² Orange | 0.521 | 98 | 16.2 | 600 |
| 27097 | 5 G 10 mm ² Orange | 0.661 | 108 | 18 | 750 |
| 27035 | 1 x 16 mm ² Orange | 0.198 | 53 | 8.8 | 240 |
| 27037 | 3 x 16 mm ² Orange | 0.581 | 103 | 17.1 | 720 |
| 27094 | 3 G 16 mm ² Orange | 0.583 | 103 | 17.1 | 720 |
| 27095 | 4 G 16 mm ² Orange | 0.77 | 113 | 18.8 | 960 |
| 27038 | 4 x 16 mm ² Orange | 0.765 | 113 | 18.8 | 960 |
| 27098 | 5 G 16 mm ² Orange | 0.949 | 127 | 21.1 | 1,200 |
| 27039 | 1 x 25 mm ² Orange | 0.297 | 65 | 10.7 | 375 |
| 27040 | 2 x 25 mm ² Orange | 0.639 | 120 | 20.2 | 750 |
| 27041 | 3 x 25 mm ² Orange | 0.908 | 130 | 21.7 | 1,125 |
| 27042 | 4 x 25 mm ² Orange | 1.177 | 140 | 23.7 | 1,500 |
| 27043 | 1 x 35 mm ² Orange | 0.398 | 73 | 12.1 | 525 |
| 27044 | 2 x 35 mm ² Orange | 0.862 | 140 | 23.2 | 1,050 |
| 27047 | 1 x 50 mm ² Orange | 0.524 | 81 | 13.5 | 750 |
| 27048 | 2 x 50 mm ² Orange | 1.177 | 161 | 26.8 | 1,500 |
| 27051 | 1 x 70 mm ² Orange | 0.736 | 95 | 15.4 | 1,050 |
| 27055 | 1 x 95 mm ² Orange | 1.002 | 106 | 17.7 | 1,425 |
| 27059 | 1 x 120 mm ² Orange | 1.245 | 116 | 19.3 | 1,800 |
| 27063 | 1 x 150 mm ² Orange | 1.55 | 129 | 21.4 | 2,250 |
| 27067 | 1 x 185 mm ² Orange | 1.944 | 145 | 24.1 | 2,775 |
| 27071 | 1 x 240 mm ² Orange | 2.481 | 160 | 26.6 | 3,600 |
| 27075 | 1 x 300 mm ² Orange | 3.098 | 182 | 30.3 | 4,500 |

Low voltage cables

MarineLine YOZp X-FR 0,6/1 kV

Properties

Application:

Lightweight, fire resistant, armoured, reduced diameter low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen free and low smoke
- Fire resistant according IEC 60331 1/2 (≥ 120 min.)
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

83 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|---------------------------------|-------------------|--|----------------------------|------------------|
| 27199 | 3 x 1,0 mm ² Orange | 0.126 | 59 | 9.7 | 45 |
| 27100 | 1 x 1,5 mm ² Orange | 0.065 | 37 | 6.1 | 23 |
| 27101 | 2 x 1,5 mm ² Orange | 0.121 | 42 | 9.6 | 45 |
| 27180 | 3 G 1,5 mm ² Orange | 0.147 | 60 | 10.1 | 68 |
| 27102 | 3 x 1,5 mm ² Orange | 0.146 | 61 | 10.1 | 68 |
| 27181 | 4 G 1,5 mm ² Orange | 0.183 | 65 | 11.2 | 90 |
| 27103 | 4 x 1,5 mm ² Orange | 0.183 | 65 | 11.2 | 90 |
| 27182 | 5 G 1,5 mm ² Orange | 0.223 | 75 | 12.1 | 113 |
| 27104 | 5 x 1,5 mm ² Orange | 0.22 | 75 | 12.1 | 113 |
| 27105 | 6 x 1,5 mm ² Orange | 0.296 | 80 | 13.5 | 135 |
| 27106 | 7 x 1,5 mm ² Orange | 0.27 | 79 | 13.1 | 158 |
| 27183 | 7 G 1,5 mm ² Orange | 0.301 | 81 | 13.5 | 158 |
| 27107 | 8 x 1,5 mm ² Orange | 0.385 | 90 | 15 | 180 |
| 27172 | 10 G 1,5 mm ² Orange | 0.432 | 105 | 17.2 | 225 |
| 27108 | 10 x 1,5 mm ² Orange | 0.434 | 105 | 17.2 | 225 |
| 27109 | 12 x 1,5 mm ² Orange | 0.476 | 107 | 17.7 | 270 |
| 27173 | 14 G 1,5 mm ² Orange | 0.547 | 115 | 19 | 315 |
| 27110 | 16 x 1,5 mm ² Orange | 0.609 | 120 | 20 | 360 |
| 27174 | 19 G 1,5 mm ² Orange | 0.693 | 130 | 21.5 | 428 |
| 27111 | 19 x 1,5 mm ² Orange | 0.692 | 130 | 21.5 | 428 |
| 27112 | 24 x 1,5 mm ² Orange | 0.849 | 145 | 23.8 | 540 |
| 27113 | 27 x 1,5 mm ² Orange | 0.94 | 114 | 25.2 | 608 |
| 27114 | 30 x 1,5 mm ² Orange | 1.022 | 160 | 26.3 | 675 |
| 27115 | 37 x 1,5 mm ² Orange | 1.226 | 175 | 28.9 | 833 |
| 27116 | 1 x 2,5 mm ² Orange | 0.077 | 40 | 6.6 | 38 |
| 27117 | 2 x 2,5 mm ² Orange | 0.151 | 63 | 10.6 | 75 |
| 27118 | 3 x 2,5 mm ² Orange | 0.193 | 69 | 11.4 | 113 |
| 27184 | 3 G 2,5 mm ² Orange | 0.194 | 69 | 11.4 | 113 |
| 27119 | 4 x 2,5 mm ² Orange | 0.237 | 75 | 12.4 | 150 |
| 27185 | 4 G 2,5 mm ² Orange | 0.238 | 75 | 12.4 | 150 |
| 27120 | 5 x 2,5 mm ² Orange | 0.315 | 84 | 13.9 | 188 |
| 27186 | 5 G 2,5 mm ² Orange | 0.316 | 84 | 13.9 | 188 |
| 27187 | 7 G 2,5 mm ² Orange | 0.398 | 92 | 15.2 | 263 |
| 17825 | 7 x 2,5 mm ² Orange | 0.397 | 67 | 15.2 | 263 |
| 17423 | 12 x 2,5 mm ² Orange | 0.622 | 119 | 19.8 | 450 |
| 27196 | 19 x 2,5 mm ² Orange | 0.929 | 146 | 24.3 | 713 |
| 27398 | 21 x 2,5 mm ² Orange | 1.126 | 110 | 28.5 | 713 |
| 27121 | 27 x 2,5 mm ² Orange | 1.248 | 169 | 28.1 | 1,013 |
| 27123 | 1 x 4 mm ² Orange | 0.098 | 42 | 7 | 60 |
| 27124 | 2 x 4 mm ² Orange | 0.193 | 71 | 11.8 | 120 |
| 27188 | 3 G 4 mm ² Orange | 0.246 | 75 | 12.4 | 180 |
| 27125 | 3 x 4 mm ² Orange | 0.246 | 75 | 12.4 | 180 |
| 27126 | 4 x 4 mm ² Orange | 0.347 | 86 | 14.2 | 240 |
| 27189 | 4 G 4 mm ² Orange | 0.346 | 86 | 14.2 | 240 |

Low voltage cables

MarineLine YOZp X-FR 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 27178 | 5 G 4 mm ² Orange | 0.418 | 93 | 15.4 | 300 |
| 27127 | 1 x 6 mm ² Orange | 0.124 | 46 | 7.6 | 90 |
| 27128 | 2 x 6 mm ² Orange | 0.249 | 79 | 13.1 | 180 |
| 27190 | 3 G 6 mm ² Orange | 0.362 | 86 | 14.3 | 270 |
| 27129 | 3 x 6 mm ² Orange | 0.36 | 86 | 14.3 | 270 |
| 27191 | 4 G 6 mm ² Orange | 0.452 | 94 | 15.6 | 360 |
| 27130 | 4 x 6 mm ² Orange | 0.453 | 94 | 15.6 | 360 |
| 16457 | 5 G 6 mm ² Orange | 0.555 | 103 | 17.2 | 450 |
| 27131 | 1 x 10 mm ² Orange | 0.172 | 52 | 8.6 | 150 |
| 27132 | 2 x 10 mm ² Orange | 0.377 | 90 | 15 | 300 |
| 27133 | 3 x 10 mm ² Orange | 0.496 | 96 | 15.9 | 450 |
| 27192 | 3 G 10 mm ² Orange | 0.495 | 96 | 15.9 | 450 |
| 27193 | 4 G 10 mm ² Orange | 0.633 | 105 | 17.5 | 600 |
| 27134 | 4 x 10 mm ² Orange | 0.637 | 105 | 17.5 | 600 |
| 16458 | 5 G 10 mm ² Orange | 0.783 | 116 | 19.3 | 750 |
| 27135 | 1 x 16 mm ² Orange | 0.237 | 59 | 9.8 | 240 |
| 27136 | 2 x 16 mm ² Orange | 0.521 | 104 | 17.2 | 480 |
| 27137 | 3 x 16 mm ² Orange | 0.689 | 110 | 18.2 | 720 |
| 27194 | 3 G 16 mm ² Orange | 0.688 | 110 | 18.2 | 720 |
| 27138 | 4 x 16 mm ² Orange | 0.889 | 121 | 20.1 | 960 |
| 27195 | 4 G 16 mm ² Orange | 0.89 | 87 | 20.1 | 960 |
| 16459 | 5 G 16 mm ² Orange | 1.104 | 134 | 22.2 | 1,200 |
| 27139 | 1 x 25 mm ² Orange | 0.344 | 70 | 11.6 | 375 |
| 27140 | 2 x 25 mm ² Orange | 0.754 | 90 | 21.1 | 750 |
| 27141 | 3 x 25 mm ² Orange | 1.021 | 135 | 22.4 | 1,125 |
| 16460 | 4 G 25 mm ² Orange | 1.328 | 150 | 24.8 | 1,500 |
| 27142 | 4 x 25 mm ² Orange | 1.326 | 105 | 24.8 | 1,500 |
| 16461 | 5 G 25 mm ² Orange | 1.674 | 165 | 27.6 | 1,875 |
| 27143 | 1 x 35 mm ² Orange | 0.452 | 80 | 13.1 | 525 |
| 27144 | 2 x 35 mm ² Orange | 0.992 | 144 | 23.9 | 1,050 |
| 27147 | 1 x 50 mm ² Orange | 0.621 | 90 | 14.9 | 750 |
| 27148 | 2 x 50 mm ² Orange | 1.282 | 162 | 26.9 | 1,500 |
| 27151 | 1 x 70 mm ² Orange | 0.836 | 100 | 16.6 | 1,050 |
| 27155 | 1 x 95 mm ² Orange | 1.117 | 114 | 18.9 | 1,425 |
| 27159 | 1 x 120 mm ² Orange | 1.385 | 125 | 20.8 | 1,800 |
| 27163 | 1 x 150 mm ² Orange | 1.693 | 136 | 22.6 | 2,250 |
| 27167 | 1 x 185 mm ² Orange | 2.103 | 152 | 25.3 | 2,775 |
| 27171 | 1 x 240 mm ² Orange | 2.655 | 167 | 27.8 | 3,600 |
| 27175 | 1 x 300 mm ² Orange | 3.311 | 130 | 31.7 | 4,500 |

Properties**Application:**

Unarmoured, heavy duty, fire resistant, low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Extruded inner bedding for perfectly round shaped cable
- Halogen free and low smoke
- Fire resistant according IEC 60331 1/2 (≥ 120 min.)
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2

**Specifications**

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

Low voltage cables

MarineLine+ YZp X-FR 0,6/1 kV

39 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 27200 | 2 x 1,5 mm ² Orange | 0.145 | 60 | 9.9 | 45 |
| 27201 | 3 x 1,5 mm ² Orange | 0.161 | 60 | 10.3 | 68 |
| 27280 | 3 G 1,5 mm ² Orange | 0.163 | 60 | 10.3 | 68 |
| 27281 | 4 G 1,5 mm ² Orange | 0.192 | 65 | 11.2 | 90 |
| 27202 | 4 x 1,5 mm ² Orange | 0.191 | 65 | 11.2 | 90 |
| 27203 | 5 x 1,5 mm ² Orange | 0.235 | 74 | 12.3 | 113 |
| 27282 | 5 G 1,5 mm ² Orange | 0.237 | 55 | 12.3 | 113 |
| 27204 | 2 x 2,5 mm ² Orange | 0.181 | 65 | 10.8 | 75 |
| 27205 | 3 x 2,5 mm ² Orange | 0.21 | 69 | 11.4 | 113 |
| 27283 | 3 G 2,5 mm ² Orange | 0.211 | 69 | 11.4 | 113 |
| 27284 | 4 G 2,5 mm ² Orange | 0.257 | 76 | 12.6 | 113 |
| 27206 | 4 x 2,5 mm ² Orange | 0.256 | 76 | 12.6 | 150 |
| 27207 | 5 x 2,5 mm ² Orange | 0.306 | 83 | 13.7 | 188 |
| 27285 | 5 G 2,5 mm ² Orange | 0.31 | 80 | 13.7 | 188 |
| 27208 | 2 x 4 mm ² Orange | 0.236 | 72 | 12 | 120 |
| 27209 | 3 x 4 mm ² Orange | 0.275 | 76 | 12.6 | 180 |
| 27286 | 3 G 4 mm ² Orange | 0.276 | 76 | 12.6 | 180 |
| 27287 | 4 G 4 mm ² Orange | 0.338 | 83 | 13.8 | 240 |
| 27210 | 4 x 4 mm ² Orange | 0.337 | 83 | 13.8 | 240 |
| 27288 | 5 G 4 mm ² Orange | 0.409 | 92 | 15.2 | 300 |
| 27211 | 2 x 6 mm ² Orange | 0.305 | 80 | 13.2 | 180 |
| 27212 | 3 x 6 mm ² Orange | 0.363 | 84 | 13.9 | 270 |
| 27289 | 3 G 6 mm ² Orange | 0.364 | 84 | 13.9 | 270 |
| 27290 | 4 G 6 mm ² Orange | 0.456 | 93 | 15.4 | 360 |
| 27213 | 4 x 6 mm ² Orange | 0.453 | 93 | 15.4 | 360 |
| 27291 | 5 G 6 mm ² Orange | 0.546 | 101 | 16.8 | 450 |
| 27214 | 2 x 10 mm ² Orange | 0.42 | 89 | 14.8 | 300 |
| 27215 | 3 x 10 mm ² Orange | 0.516 | 95 | 15.7 | 450 |
| 27216 | 4 x 10 mm ² Orange | 0.643 | 104 | 17.3 | 600 |
| 27292 | 3 G 10 mm ² Orange | 0.517 | 95 | 15.7 | 600 |
| 27293 | 4 G 10 mm ² Orange | 0.645 | 104 | 17.3 | 600 |
| 27294 | 5 G 10 mm ² Orange | 0.781 | 114 | 18.9 | 750 |
| 27217 | 2 x 16 mm ² Orange | 0.587 | 101 | 16.8 | 480 |
| 27295 | 3 G 16 mm ² Orange | 0.735 | 108 | 18 | 720 |
| 27296 | 4 G 16 mm ² Orange | 0.917 | 119 | 19.7 | 960 |
| 27219 | 4 x 16 mm ² Orange | 0.916 | 119 | 19.7 | 960 |
| 27220 | 2 x 25 mm ² Orange | 0.893 | 125 | 20.9 | 750 |
| 27221 | 3 x 25 mm ² Orange | 1.111 | 130 | 22.2 | 1,125 |
| 27222 | 4 x 25 mm ² Orange | 1.403 | 145 | 24.6 | 1,500 |

Properties

Application:

Armoured, heavy duty, fire resistant, low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- Class 2 conductors
- Extruded inner bedding for perfectly round shaped cable
- Halogen free and low smoke
- Fire resistant according IEC 60331 1/2 (≥ 120 min.)
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

Low voltage cables

MarineLine+ YOZp X-FR 0,6/1 kV

46 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|---------------------------------|-------------------|--|----------------------------|------------------|
| 27300 | 2 x 1,5 mm ² Orange | 0.21 | 70 | 11.4 | 45 |
| 27301 | 3 x 1,5 mm ² Orange | 0.233 | 72 | 11.9 | 68 |
| 27380 | 3 G 1,5 mm ² Orange | 0.234 | 72 | 11.9 | 68 |
| 27381 | 4 G 1,5 mm ² Orange | 0.275 | 98 | 13 | 91 |
| 27302 | 4 x 1,5 mm ² Orange | 0.305 | 80 | 13.4 | 90 |
| 27303 | 5 x 1,5 mm ² Orange | 0.353 | 85 | 14.3 | 113 |
| 27382 | 5 G 1,5 mm ² Orange | 0.352 | 86 | 14.3 | 113 |
| 27324 | 7 G 1,5 mm ² Orange | 0.394 | 90 | 15.3 | 158 |
| 27328 | 7 x 1,5 mm ² Orange | 0.395 | 92 | 15.3 | 158 |
| 27326 | 8 x 1,5 mm ² Orange | 0.49 | 100 | 16.9 | 180 |
| 27329 | 12 x 1,5 mm ² Orange | 0.608 | 119 | 19.7 | 270 |
| 27369 | 24 x 1,5 mm ² Orange | 1.128 | 217 | 27.1 | 540 |
| 27304 | 2 x 2,5 mm ² Orange | 0.262 | 76 | 12.6 | 75 |
| 27305 | 3 x 2,5 mm ² Orange | 0.296 | 83 | 13.2 | 113 |
| 27383 | 3 G 2,5 mm ² Orange | 0.297 | 83 | 13.2 | 113 |
| 27384 | 4 G 2,5 mm ² Orange | 0.379 | 88 | 14.6 | 150 |
| 27306 | 4 x 2,5 mm ² Orange | 0.378 | 88 | 14.6 | 150 |
| 27307 | 5 x 2,5 mm ² Orange | 0.442 | 96 | 15.9 | 188 |
| 27385 | 5 G 2,5 mm ² Orange | 0.443 | 96 | 15.9 | 188 |
| 27325 | 6 x 2,5 mm ² Orange | 0.505 | 84 | 17 | 225 |
| 27308 | 2 x 4 mm ² Orange | 0.349 | 84 | 14 | 120 |
| 27309 | 3 x 4 mm ² Orange | 0.394 | 87 | 14.6 | 180 |
| 27386 | 3 G 4 mm ² Orange | 0.395 | 87 | 14.6 | 180 |
| 27387 | 4 G 4 mm ² Orange | 0.475 | 96 | 16 | 240 |
| 27310 | 4 x 4 mm ² Orange | 0.474 | 96 | 16 | 240 |
| 27388 | 5 G 4 mm ² Orange | 0.554 | 75 | 17.2 | 300 |
| 27311 | 2 x 6 mm ² Orange | 0.431 | 92 | 15.2 | 180 |
| 27312 | 3 x 6 mm ² Orange | 0.501 | 97 | 16.1 | 270 |
| 27389 | 3 G 6 mm ² Orange | 0.502 | 69 | 16.1 | 270 |
| 27390 | 4 G 6 mm ² Orange | 0.6 | 105 | 17.4 | 360 |
| 27313 | 4 x 6 mm ² Orange | 0.598 | 105 | 17.4 | 360 |
| 27391 | 5 G 6 mm ² Orange | 0.712 | 82 | 19 | 450 |
| 27314 | 2 x 10 mm ² Orange | 0.559 | 101 | 16.8 | 300 |
| 27315 | 3 x 10 mm ² Orange | 0.672 | 108 | 17.9 | 450 |
| 27392 | 3 G 10 mm ² Orange | 0.673 | 108 | 17.9 | 450 |
| 27393 | 4 G 10 mm ² Orange | 0.809 | 116 | 19.3 | 600 |
| 27316 | 4 x 10 mm ² Orange | 0.806 | 116 | 19.3 | 600 |
| 27394 | 5 G 10 mm ² Orange | 0.973 | 90 | 21.1 | 750 |
| 27317 | 2 x 16 mm ² Orange | 0.755 | 114 | 19 | 480 |
| 27318 | 3 x 16 mm ² Orange | 0.903 | 120 | 20 | 720 |
| 27395 | 3 G 16 mm ² Orange | 0.904 | 104 | 20 | 720 |
| 27396 | 4 G 16 mm ² Orange | 1.115 | 132 | 21.9 | 960 |
| 27319 | 4 x 16 mm ² Orange | 1.113 | 132 | 21.9 | 960 |
| 27397 | 5 G 16 mm ² Orange | 1.338 | 145 | 24 | 1,200 |

Low voltage cables

MarineLine+ YOZp X-FR 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 27323 | 3 G 25 mm ² Orange | 1.332 | 145 | 24.4 | 1,125 |
| 27399 | 5 G 25 mm ² Orange | 1.994 | 175 | 29.4 | 1,875 |

Low voltage cables

MarineFlex YZp X-FR 0,6/1 kV

Properties

Application:

Unarmoured, heavy duty, fire resistant, ultra flexible, low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- The only flexible fire resistant class 5 conductor cable
- Lightweight
- Halogen free and low smoke
- Fire resistant according IEC 60331 1/2 (≥ 120 min.)
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Mica + XLHFFR |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

28 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 27223 | 3 x 16 mm ² Orange | 0.609 | 108 | 18 | 720 |
| 27230 | 1 x 35 mm ² Orange | 0.381 | 74 | 12.2 | 525 |
| 27231 | 2 x 35 mm ² Orange | 1.132 | 94 | 23.5 | 1,050 |
| 27232 | 3 x 35 mm ² Orange | 1.445 | 152 | 25.2 | 1,575 |
| 27233 | 4 x 35 mm ² Orange | 1.842 | 112 | 27.9 | 2,100 |
| 27265 | 4 G 35 mm ² Orange | 1.845 | 112 | 27.9 | 2,100 |
| 27234 | 1 x 50 mm ² Orange | 0.523 | 83 | 13.8 | 750 |
| 27235 | 2 x 50 mm ² Orange | 1.609 | 167 | 27.8 | 1,500 |
| 27236 | 3 x 50 mm ² Orange | 2.01 | 177 | 29.5 | 2,250 |
| 27237 | 4 x 50 mm ² Orange | 2.568 | 197 | 32.7 | 3,000 |
| 27238 | 1 x 70 mm ² Orange | 0.726 | 95 | 15.8 | 1,050 |
| 27240 | 3 x 70 mm ² Orange | 2.756 | 203 | 33.8 | 3,150 |
| 27241 | 4 x 70 mm ² Orange | 3.538 | 225 | 37.4 | 4,200 |
| 27242 | 1 x 95 mm ² Orange | 1.002 | 107 | 17.7 | 1,425 |
| 27244 | 3 x 95 mm ² Orange | 3.533 | 228 | 37.9 | 4,275 |
| 27245 | 4 x 95 mm ² Orange | 4.524 | 252 | 42 | 5,700 |
| 27246 | 1 x 120 mm ² Orange | 1.159 | 118 | 19.6 | 1,800 |
| 27248 | 3 x 120 mm ² Orange | 4.293 | 249 | 41.4 | 5,400 |
| 27249 | 4 x 120 mm ² Orange | 5.619 | 278 | 46.8 | 7,200 |
| 27250 | 1 x 150 mm ² Orange | 1.461 | 131 | 21.8 | 2,250 |
| 27252 | 3 x 150 mm ² Orange | 5.393 | 276 | 46 | 6,750 |
| 27253 | 4 x 150 mm ² Orange | 6.961 | 211 | 51.3 | 9,000 |
| 27254 | 1 x 185 mm ² Orange | 1.77 | 143 | 23.8 | 2,775 |
| 27256 | 3 x 185 mm ² Orange | 6.517 | 302 | 50.2 | 8,325 |
| 27257 | 4 x 185 mm ² Orange | 8.393 | 336 | 55.9 | 11,100 |
| 27258 | 1 x 240 mm ² Orange | 2.372 | 164 | 27.2 | 3,600 |
| 27260 | 3 x 240 mm ² Orange | 8.729 | 347 | 57.7 | 10,800 |
| 27262 | 1 x 300 mm ² Orange | 2.904 | 180 | 30 | 4,500 |

Low voltage cables

MarineFlex YOZp X-FR 0,6/1 kV

Properties

Application:

Armoured, heavy duty, fire resistant, ultra flexible, low voltage power cables for power and lighting applications in all ship areas.

Characteristics:

- The only flexible fire resistant class 5 conductor cable
- Lightweight
- Halogen free and low smoke
- Fire resistant according IEC 60331 1/2 (≥ 120 min.)
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 5 = flexible |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

41 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 27365 | 3 x 16 mm ² Orange | 0.996 | 132 | 21.9 | 720 |
| 27366 | 4 x 25 mm ² Orange | 1.69 | 170 | 28.2 | 1,500 |
| 27330 | 1 x 35 mm ² Orange | 0.462 | 56 | 13.4 | 525 |
| 27331 | 2 x 35 mm ² Orange | 1.415 | 160 | 26.7 | 1,050 |
| 27332 | 3 x 35 mm ² Orange | 1.734 | 170 | 28.2 | 1,575 |
| 16462 | 3 G 35 mm ² Orange | 1.802 | 175 | 29.2 | 1,575 |
| 27333 | 4 x 35 mm ² Orange | 2.199 | 188 | 31.3 | 2,100 |
| 16463 | 4 G 35 mm ² Orange | 2.268 | 195 | 31.9 | 2,100 |
| 16464 | 5 G 35 mm ² Orange | 2.758 | 210 | 35 | 2,625 |
| 27334 | 1 x 50 mm ² Orange | 0.621 | 64 | 15.9 | 750 |
| 27335 | 2 x 50 mm ² Orange | 1.927 | 185 | 30.8 | 1,500 |
| 27372 | 3 G 50 mm ² Orange | 2.36 | 197 | 32.7 | 2,250 |
| 27336 | 3 x 50 mm ² Orange | 2.356 | 197 | 32.7 | 2,250 |
| 27337 | 4 x 50 mm ² Orange | 3.136 | 221 | 36.9 | 3,000 |
| 16465 | 4 G 50 mm ² Orange | 3.095 | 222 | 36.9 | 3,000 |
| 16466 | 5 G 50 mm ² Orange | 3.652 | 168 | 40.4 | 3,750 |
| 27338 | 1 x 70 mm ² Orange | 0.838 | 104 | 17.2 | 1,050 |
| 27340 | 3 x 70 mm ² Orange | 3.26 | 225 | 37.4 | 3,150 |
| 27341 | 4 x 70 mm ² Orange | 4.154 | 250 | 41.6 | 4,200 |
| 16467 | 4 G 70 mm ² Orange | 4.158 | 250 | 41.6 | 4,200 |
| 16468 | 5 G 70 mm ² Orange | 5.054 | 274 | 45.6 | 5,250 |
| 27342 | 1 x 95 mm ² Orange | 1.056 | 114 | 19 | 1,425 |
| 27344 | 3 x 95 mm ² Orange | 4.103 | 251 | 41.7 | 4,275 |
| 27433 | 3 x 95 mm ² Black | 4.102 | 251 | 41.7 | 4,275 |
| 27345 | 4 x 95 mm ² Orange | 5.167 | 275 | 45.8 | 5,700 |
| 16469 | 4 G 95 mm ² Orange | 5.172 | 275 | 45.8 | 5,700 |
| 16470 | 5 G 95 mm ² Orange | 6.425 | 306 | 51 | 7,125 |
| 27346 | 1 x 120 mm ² Orange | 1.296 | 126 | 21 | 1,800 |
| 27348 | 3 x 120 mm ² Orange | 5.004 | 275 | 45.8 | 5,400 |
| 27349 | 4 x 120 mm ² Orange | 6.323 | 303 | 50.4 | 7,200 |
| 16471 | 4 G 120 mm ² Orange | 6.329 | 303 | 50.4 | 7,200 |
| 27350 | 1 x 150 mm ² Orange | 1.613 | 140 | 23.2 | 2,250 |
| 27352 | 3 x 150 mm ² Orange | 6.187 | 303 | 50.4 | 6,750 |
| 27353 | 4 x 150 mm ² Orange | 7.815 | 333 | 55.5 | 9,000 |
| 16472 | 4 G 150 mm ² Orange | 7.823 | 333 | 55.5 | 9,000 |
| 27354 | 1 x 185 mm ² Orange | 1.925 | 150 | 25 | 2,775 |
| 27356 | 3 x 185 mm ² Orange | 7.351 | 327 | 54.4 | 8,325 |
| 27357 | 4 x 185 mm ² Orange | 9.322 | 361 | 60.1 | 11,100 |
| 27358 | 1 x 240 mm ² Orange | 2.554 | 171 | 28.4 | 3,600 |
| 27360 | 3 x 240 mm ² Orange | 9.686 | 372 | 61.9 | 10,800 |
| 27362 | 1 x 300 mm ² Orange | 3.098 | 188 | 31.2 | 4,500 |

Low voltage cables

MarineLine YZp X-FRSW 0,6/1 kV

Properties

Application:

Lightweight, unarmoured, low-voltage power cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP.

Characteristics:

- Class 2 conductors (class 5 on request)
- Lightweight, reduced diameter
- Halogen free and low smoke
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Construction with copper tape barrier (for cable OD $>$ 20mm)
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|---|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding | Lapped Copper tape |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Fire resistant acc. IEC60331-2(180 min test) EN50200:2015 Annex E (diam. \leq 20mm) | Yes |
| Fire resistant acc. IEC60331-1 (180 min test) BS8491:2008 (diameter $>$ 20mm) | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

36 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|---------------------------------|-------------------|---|-----------------------------|------------------|
| 115003 | 4 x 1,0 mm ² Orange | 0.137 | 66 | 10.9 | 60 |
| 115006 | 7 x 1,0 mm ² Orange | 0.218 | 80 | 13.3 | 105 |
| 115008 | 10 x 1,0 mm ² Orange | 0.328 | 104 | 17.3 | 150 |
| 115011 | 19 x 1,0 mm ² Orange | 0.642 | 135 | 22.4 | 285 |
| 115021 | 2 x 1,5 mm ² Orange | 0.1 | 60 | 10 | 45 |
| 115022 | 3 x 1,5 mm ² Orange | 0.13 | 64 | 10.6 | 68 |
| 115040 | 3 G 1,5 mm ² Orange | 0.131 | 64 | 10.6 | 68 |
| 115041 | 4 G 1,5 mm ² Orange | 0.171 | 71 | 11.8 | 90 |
| 115023 | 4 x 1,5 mm ² Orange | 0.17 | 71 | 11.8 | 90 |
| 115024 | 5 x 1,5 mm ² Orange | 0.213 | 78 | 13 | 113 |
| 115042 | 5 G 1,5 mm ² Orange | 0.214 | 78 | 13 | 113 |
| 115025 | 6 x 1,5 mm ² Orange | 0.263 | 87 | 14.4 | 135 |
| 115026 | 7 x 1,5 mm ² Orange | 0.271 | 87 | 14.4 | 158 |
| 115043 | 7 G 1,5 mm ² Orange | 0.272 | 87 | 14.4 | 158 |
| 115027 | 8 x 1,5 mm ² Orange | 0.343 | 96 | 15.9 | 180 |
| 115028 | 10 x 1,5 mm ² Orange | 0.395 | 111 | 18.5 | 225 |
| 115029 | 12 x 1,5 mm ² Orange | 0.452 | 116 | 19.3 | 270 |
| 115030 | 16 x 1,5 mm ² Orange | 0.686 | 135 | 22.5 | 360 |
| 115031 | 19 x 1,5 mm ² Orange | 0.775 | 144 | 23.9 | 428 |
| 115032 | 24 x 1,5 mm ² Orange | 0.964 | 160 | 26.7 | 540 |
| 115033 | 27 x 1,5 mm ² Orange | 1.066 | 170 | 28.3 | 608 |
| 115034 | 30 x 1,5 mm ² Orange | 1.164 | 178 | 29.6 | 675 |
| 115061 | 2 x 2,5 mm ² Orange | 0.132 | 68 | 11.2 | 75 |
| 115062 | 3 x 2,5 mm ² Orange | 0.173 | 72 | 11.9 | 113 |
| 115080 | 3 G 2,5 mm ² Orange | 0.174 | 72 | 11.9 | 113 |
| 115063 | 4 x 2,5 mm ² Orange | 0.219 | 78 | 13 | 150 |
| 115064 | 5 x 2,5 mm ² Orange | 0.282 | 87 | 14.6 | 188 |
| 115083 | 7 G 2,5 mm ² Orange | 0.356 | 95 | 15.8 | 263 |
| 115102 | 3 x 4 mm ² Orange | 0.227 | 78 | 12.9 | 180 |
| 115103 | 4 x 4 mm ² Orange | 0.299 | 87 | 14.4 | 240 |
| 115122 | 3 x 6 mm ² Orange | 0.305 | 87 | 14.4 | 270 |
| 115132 | 3 G 6 mm ² Orange | 0.306 | 87 | 14.4 | 270 |
| 115133 | 4 G 6 mm ² Orange | 0.396 | 96 | 15.9 | 360 |
| 115123 | 4 x 6 mm ² Orange | 0.395 | 96 | 15.9 | 360 |
| 115142 | 3 x 10 mm ² Orange | 0.432 | 96 | 16 | 450 |
| 115143 | 4 x 10 mm ² Orange | 0.572 | 107 | 17.8 | 600 |

Low voltage cables

MarineLine YOZp X-FRSW 0,6/1 kV

Properties

Application:

Lightweight, armoured, low-voltage power cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP.

Characteristics:

- Class 2 conductors (class 5 on request)
- Lightweight, reduced diameter
- Halogen free and low smoke
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|---|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Fire resistant acc. IEC60331-2(180 min test) EN50200:2015 Annex E (diam. \leq 20mm) | Yes |
| Fire resistant acc. IEC60331-1 (180 min test) BS8491:2008 (diameter $>$ 20mm) | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

47 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|---------------------------------|-------------------|---|-----------------------------|------------------|
| 116021 | 2 x 1,5 mm ² Orange | 0.139 | 65 | 10.8 | 45 |
| 116022 | 3 x 1,5 mm ² Orange | 0.178 | 70 | 11.6 | 68 |
| 116040 | 3 G 1,5 mm ² Orange | 0.179 | 70 | 11.6 | 68 |
| 116041 | 4 G 1,5 mm ² Orange | 0.22 | 77 | 12.6 | 90 |
| 116023 | 4 x 1,5 mm ² Orange | 0.219 | 77 | 12.6 | 90 |
| 116024 | 5 x 1,5 mm ² Orange | 0.301 | 86 | 14.3 | 113 |
| 116042 | 5 G 1,5 mm ² Orange | 0.302 | 86 | 14.3 | 113 |
| 116025 | 6 x 1,5 mm ² Orange | 0.345 | 92 | 15.3 | 135 |
| 116026 | 7 x 1,5 mm ² Orange | 0.354 | 92 | 15.3 | 158 |
| 116043 | 7 G 1,5 mm ² Orange | 0.355 | 92 | 15.3 | 158 |
| 116027 | 8 x 1,5 mm ² Orange | 0.444 | 102 | 17 | 180 |
| 116028 | 10 x 1,5 mm ² Orange | 0.513 | 118 | 19.6 | 225 |
| 116044 | 10 G 1,5 mm ² Orange | 0.513 | 118 | 19.6 | 225 |
| 116029 | 12 x 1,5 mm ² Orange | 0.563 | 122 | 20.2 | 270 |
| 116045 | 14 G 1,5 mm ² Orange | 0.649 | 131 | 21.7 | 315 |
| 116030 | 16 x 1,5 mm ² Orange | 0.727 | 120 | 22.9 | 360 |
| 116031 | 19 x 1,5 mm ² Orange | 0.845 | 150 | 24.9 | 428 |
| 116046 | 19 G 1,5 mm ² Orange | 0.844 | 150 | 24.9 | 428 |
| 116032 | 24 x 1,5 mm ² Orange | 1.014 | 164 | 27.3 | 540 |
| 116033 | 27 x 1,5 mm ² Orange | 1.117 | 173 | 28.9 | 608 |
| 116034 | 30 x 1,5 mm ² Orange | 1.223 | 182 | 30.2 | 675 |
| 116061 | 2 x 2,5 mm ² Orange | 0.177 | 72 | 12 | 75 |
| 116062 | 3 x 2,5 mm ² Orange | 0.223 | 77 | 12.7 | 113 |
| 116083 | 3 G 2,5 mm ² Orange | 0.224 | 77 | 12.7 | 113 |
| 116084 | 4 G 2,5 mm ² Orange | 0.312 | 87 | 14.3 | 150 |
| 116063 | 4 x 2,5 mm ² Orange | 0.312 | 87 | 14.4 | 150 |
| 116064 | 5 x 2,5 mm ² Orange | 0.373 | 95 | 15.7 | 188 |
| 116085 | 5 G 2,5 mm ² Orange | 0.374 | 95 | 15.7 | 188 |
| 116086 | 7 G 2,5 mm ² Orange | 0.455 | 102 | 16.9 | 263 |
| 116101 | 2 x 4 mm ² Orange | 0.219 | 78 | 13 | 120 |
| 116102 | 3 x 4 mm ² Orange | 0.317 | 86 | 14.3 | 180 |
| 116112 | 3 G 4 mm ² Orange | 0.318 | 86 | 14.3 | 180 |
| 116113 | 4 G 4 mm ² Orange | 0.394 | 94 | 15.6 | 240 |
| 116103 | 4 x 4 mm ² Orange | 0.393 | 94 | 15.6 | 240 |
| 116114 | 5 G 4 mm ² Orange | 0.484 | 104 | 17.2 | 300 |
| 116121 | 2 x 6 mm ² Orange | 0.307 | 89 | 14.7 | 180 |
| 116122 | 3 x 6 mm ² Orange | 0.398 | 94 | 15.6 | 270 |
| 116132 | 3 G 6 mm ² Orange | 0.399 | 94 | 15.6 | 270 |
| 116133 | 4 G 6 mm ² Orange | 0.502 | 103 | 17.1 | 360 |
| 116123 | 4 x 6 mm ² Orange | 0.5 | 103 | 17.1 | 360 |
| 116134 | 5 G 6 mm ² Orange | 0.617 | 114 | 18.9 | 450 |
| 116141 | 2 x 10 mm ² Orange | 0.408 | 98 | 16.2 | 300 |
| 116142 | 3 x 10 mm ² Orange | 0.536 | 103 | 17.1 | 450 |
| 116152 | 3 G 10 mm ² Orange | 0.537 | 103 | 17.1 | 450 |

Low voltage cables

MarineLine YOZp X-FRSW 0,6/1 kV

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|-------------------------------|-------------------|---|-----------------------------|------------------|
| 116153 | 4 G 10 mm ² Orange | 0.685 | 144 | 18.9 | 600 |
| 116143 | 4 x 10 mm ² Orange | 0.683 | 144 | 18.9 | 600 |
| 116154 | 5 G 10 mm ² Orange | 0.849 | 126 | 20.9 | 750 |

Low voltage cables

MarineLine YOZp X-FRSW EMC 0,6/1 kV

Properties

Application:

Low voltage fire resistant shipboard power cables with enhanced EMC properties for use in sensitive EMC areas and suitable for Variable Frequency Drive applications. Water spray / Water jet resistant to remain operational after a fire casualty and during fire-fighting efforts, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP

Characteristics:

- Class 2 conductors (class 5 on request)
- Halogen free and low smoke, flame retardant
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Combined screen of copper-pet tape and tinned copper wire braid for optimal screening
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2



Specifications

| | |
|---|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | EMC-screen consists of Cu/PET-tape and tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Fire resistant acc. IEC60331-2(180 min test) EN50200:2015 Annex E (diam. \leq 20mm) | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U ₀ | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineLine YOZp X-FRSW EMC 0,6/1 kV

2 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|-------------------------------|-------------------|---|-----------------------------|------------------|
| 117122 | 3 x 6 mm ² Orange | 0.407 | 94 | 15.6 | 270 |
| 117142 | 3 x 10 mm ² Orange | 0.543 | 103 | 17.1 | 450 |

Low voltage cables

MarineFlex YZp X-FRSW 0,6/1 kV

Properties

Application:

Lightweight, unarmoured, heavy duty low-voltage power cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment – OEA and Safe Return to Port – SRtP.

Characteristics:

- Flexible fire resistant class 5 conductor cable
- Lightweight
- Halogen free and low smoke
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Construction with copper tape barrier (for cable OD $>$ 20mm)
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|---|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor category | Class 5 = flexible |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding | Lapped Copper tape |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Fire resistant acc. IEC60331-1 (180 min test) BS8491:2008 (diameter $>$ 20mm) | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

MarineFlex YZp X-FRSW 0,6/1 kV

22 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|--------------------------------|-------------------|---|-----------------------------|------------------|
| 115572 | 3 x 16 mm ² Orange | 1.019 | 137 | 22.8 | 720 |
| 115573 | 4 x 16 mm ² Orange | 1.249 | 150 | 25 | 960 |
| 115583 | 4 G 16 mm ² Orange | 1.243 | 150 | 25 | 960 |
| 115592 | 3 x 25 mm ² Orange | 1.429 | 161 | 26.7 | 1,125 |
| 115593 | 4 x 25 mm ² Orange | 1.758 | 176 | 29.3 | 1,500 |
| 115603 | 4 G 25 mm ² Orange | 1.761 | 176 | 29.3 | 1,500 |
| 115612 | 3 x 35 mm ² Orange | 1.78 | 176 | 29.3 | 1,575 |
| 115613 | 4 x 35 mm ² Orange | 2.204 | 194 | 32.2 | 2,100 |
| 115623 | 4 G 35 mm ² Orange | 2.208 | 194 | 32.2 | 2,100 |
| 115632 | 3 x 50 mm ² Orange | 1.093 | 199 | 33.1 | 2,250 |
| 115633 | 4 x 50 mm ² Orange | 1.303 | 220 | 36.6 | 3,000 |
| 115643 | 4 G 50 mm ² Orange | 1.307 | 220 | 36.6 | 3,000 |
| 115652 | 3 x 70 mm ² Orange | 3.212 | 227 | 37.8 | 3,150 |
| 115653 | 4 x 70 mm ² Orange | 4.084 | 251 | 41.8 | 4,200 |
| 115663 | 4 G 70 mm ² Orange | 4.089 | 251 | 41.8 | 4,200 |
| 115672 | 3 x 95 mm ² Orange | 4.056 | 252 | 42 | 4,275 |
| 115673 | 4 x 95 mm ² Orange | 5.173 | 279 | 46.5 | 5,700 |
| 115683 | 4 G 95 mm ² Orange | 5.159 | 279 | 46.5 | 5,700 |
| 115692 | 3 x 120 mm ² Orange | 4.951 | 278 | 46.3 | 5,400 |
| 115693 | 4 x 120 mm ² Orange | 6.293 | 306 | 51 | 7,200 |
| 115712 | 3 x 150 mm ² Orange | 6.092 | 304 | 50.6 | 6,750 |
| 115713 | 4 x 150 mm ² Orange | 7.749 | 336 | 56 | 9,000 |

Properties

Application:

Armoured, heavy duty low-voltage power cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP.

Characteristics:

- Flexible fire resistant class 5 conductor cable
- Lightweight
- Halogen free and low smoke
- Cable OD ≤ 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD > 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Tinned copper wire braid armouring
- Different colour outer sheaths, other than orange, available on request

Core identification:

- HD308 S2



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor category | Class 5 = flexible |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Fire resistant acc. IEC60331-2(180 min test) EN50200:2015 Annex E (diam. ≤ 20mm) | Yes |
| Fire resistant acc. IEC60331-1 (180 min test) BS8491:2008 (diameter > 20mm) | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |

Low voltage cables

MarineFlex YOZp X-FRSW 0,6/1 kV

37 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|--------------------------------|-------------------|---|-----------------------------|------------------|
| 116550 | 1 x 10 mm ² Orange | 0.188 | 58 | 9.6 | 150 |
| 116552 | 3 x 10 mm ² Orange | 0.812 | 128 | 21.2 | 450 |
| 116553 | 4 x 10 mm ² Orange | 0.979 | 139 | 23.1 | 600 |
| 116570 | 1 x 16 mm ² Orange | 0.251 | 64 | 10.6 | 240 |
| 116572 | 3 x 16 mm ² Orange | 1.069 | 141 | 23.5 | 720 |
| 116573 | 4 x 16 mm ² Orange | 1.306 | 155 | 25.7 | 960 |
| 116590 | 1 x 25 mm ² Orange | 0.36 | 75 | 12.4 | 375 |
| 116592 | 3 x 25 mm ² Orange | 1.449 | 161 | 26.8 | 1,125 |
| 116593 | 4 x 25 mm ² Orange | 1.769 | 176 | 29.2 | 1,500 |
| 116610 | 1 x 35 mm ² Orange | 0.486 | 86 | 14.2 | 525 |
| 116612 | 3 x 35 mm ² Orange | 1.867 | 182 | 30.2 | 1,575 |
| 116622 | 3 G 35 mm ² Orange | 1.863 | 182 | 30.2 | 1,575 |
| 116613 | 4 x 35 mm ² Orange | 2.335 | 199 | 33.1 | 2,100 |
| 116624 | 5 G 35 mm ² Orange | 3.062 | 225 | 37.5 | 2,625 |
| 116630 | 1 x 50 mm ² Orange | 0.219 | 64 | 15.8 | 750 |
| 116632 | 3 x 50 mm ² Orange | 1.218 | 207 | 34.4 | 2,250 |
| 116642 | 3 G 50 mm ² Orange | 1.222 | 207 | 34.4 | 2,250 |
| 116633 | 4 x 50 mm ² Orange | 1.581 | 231 | 38.5 | 3,000 |
| 116644 | 5 G 50 mm ² Orange | 1.704 | 254 | 42.2 | 3,750 |
| 116650 | 1 x 70 mm ² Orange | 0.862 | 108 | 17.8 | 1,050 |
| 116652 | 3 x 70 mm ² Orange | 3.444 | 236 | 39.3 | 3,150 |
| 116662 | 3 G 70 mm ² Orange | 3.448 | 236 | 39.3 | 3,150 |
| 116653 | 4 x 70 mm ² Orange | 4.32 | 259 | 43.1 | 4,200 |
| 116664 | 5 G 70 mm ² Orange | 5.268 | 286 | 47.5 | 5,250 |
| 116670 | 1 x 95 mm ² Orange | 1.096 | 120 | 19.8 | 1,425 |
| 116672 | 3 x 95 mm ² Orange | 4.276 | 260 | 43.3 | 4,275 |
| 116682 | 3 G 95 mm ² Orange | 4.281 | 261 | 43.3 | 4,275 |
| 116673 | 4 x 95 mm ² Orange | 5.432 | 287 | 47.8 | 5,700 |
| 116684 | 5 G 95 mm ² Orange | 6.637 | 317 | 52.7 | 7,125 |
| 116690 | 1 x 120 mm ² Orange | 1.326 | 130 | 21.6 | 1,800 |
| 116692 | 3 x 120 mm ² Orange | 5.22 | 286 | 47.6 | 5,400 |
| 116693 | 4 x 120 mm ² Orange | 6.626 | 315 | 52.5 | 7,200 |
| 116710 | 1 x 150 mm ² Orange | 1.645 | 143 | 23.7 | 2,250 |
| 116712 | 3 x 150 mm ² Orange | 6.415 | 313 | 52.1 | 6,750 |
| 116713 | 4 x 150 mm ² Orange | 8.134 | 345 | 57.5 | 9,000 |
| 116730 | 1 x 185 mm ² Orange | 1.955 | 153 | 25.4 | 2,775 |
| 116750 | 1 x 240 mm ² Orange | 2.587 | 174 | 28.9 | 3,600 |

Low voltage cables

MarineFlex YOZp X-FRSW EMC 0,6/1 kV

Properties

Application:

Lightweight, fire resistant, armoured, flexible low voltage power cables for power and lighting applications in all ship areas where EMC protection is needed. Water jet resistant to remain operational after a fire casualty and during fire-fighting efforts, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP.

Characteristics:

- Class 5 conductors
- For easy installation in tight spaces
- Halogen free and low smoke, flame retardant
- Cable OD > 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- 3 +3E construction with symmetrical PE conductor are recommended for VFD applications
- Tinned copper wire braid armouring
- Combined screen of copper-pet tape and tinned copper wire braid for optimal screening
- Different colour outer sheaths, other than black, available on request

Core identification:

- HD308 S2

Specifications

| | |
|---|---|
| Standardization | IEC 60092-350/-360/-353 |
| Conductor material | Copper |
| Conductor category | Class 5 = flexible |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | EMC-screen consists of Cu/PET-tape and tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Fire resistant acc. IEC60331-1 (180 min test) BS8491:2008 (diameter > 20mm) | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U0 | 0.6 kV |
| Nominal voltage U | 1 kV |
| Test voltage | 3.5 kV |



MarineFlex YOZp X-FRSW EMC 0,6/1 kV

14 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile Load (N) |
|-------------|--|-------------------|---|-----------------------------|------------------|
| 117552 | 3 x 10 mm ² Orange | 0.83 | 128 | 21.3 | 450 |
| 117569 | 3 x 10 mm ² + 3 G 4 mm ² Orange | 1.68 | 169 | 28.1 | 450 |
| 117572 | 3 x 16 mm ² Orange | 1.088 | 142 | 23.6 | 720 |
| 117589 | 3 x 16 mm ² + 3 G 4 mm ² Orange | 1.911 | 166 | 29.3 | 720 |
| 117592 | 3 x 25 mm ² Orange | 1.471 | 162 | 26.9 | 1,125 |
| 117609 | 3 x 25 mm ² + 3 G 6 mm ² Orange | 1.936 | 189 | 31.4 | 1,125 |
| 117612 | 3 x 35 mm ² Orange | 1.891 | 182 | 30.3 | 1,575 |
| 117629 | 3 x 35 mm ² + 3 G 6 mm ² Orange | 2.188 | 195 | 32.5 | 1,575 |
| 117632 | 3 x 50 mm ² Orange | 1.244 | 207 | 34.5 | 2,250 |
| 117649 | 3 x 50 mm ² + 3 G 10 mm ² Orange | 1.808 | 225 | 37.5 | 2,250 |
| 117652 | 3 x 70 mm ² Orange | 3.473 | 237 | 39.4 | 3,150 |
| 117669 | 3 x 70 mm ² + 3 G 16 mm ² Orange | 4.183 | 258 | 42.9 | 3,150 |
| 117672 | 3 x 95 mm ² Orange | 4.329 | 262 | 43.6 | 4,275 |
| 117689 | 3 x 95 mm ² + 3 G 16 mm ² Orange | 4.797 | 270 | 44.9 | 4,275 |

Marine medium voltage power cables

MarinePower Y(Z)OZmv 3,6/6 kV

Properties

Application:

Heavy duty, midvoltage (3,6/6 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 2 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than red, available on request



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 2+ = stranded flexible |
| Conductor shield | Semiconductive Compound |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 3.6 kV |
| Nominal voltage U | 6 kV |
| Nominal voltage U _{max} | 7.2 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

14 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------|-------------------|---|----------------------------|------------------|
| 33000 | 1 x 35 mm ² Red | 0.644 | 0,15 | 19 | 1,750 |
| 33001 | 1 x 50 mm ² Red | 0.786 | 0,16 | 20.3 | 2,500 |
| 33002 | 1 x 70 mm ² Red | 1.094 | 0,18 | 22.3 | 3,500 |
| 33003 | 1 x 95 mm ² Red | 1.279 | 0,19 | 23.8 | 4,750 |
| 33004 | 1 x 120 mm ² Red | 1.564 | 0,21 | 25.7 | 6,000 |
| 33005 | 1 x 150 mm ² Red | 1.838 | 0,22 | 27.1 | 7,500 |
| 33006 | 1 x 185 mm ² Red | 2.249 | 0,23 | 28.9 | 9,250 |
| 33007 | 1 x 240 mm ² Red | 2.867 | 0,26 | 31.9 | 12,000 |
| 33009 | 3 x 50 mm ² Red | 3.259 | 0,36 | 45 | 7,500 |
| 33010 | 3 x 70 mm ² Red | 4.142 | 0,39 | 49 | 10,500 |
| 33011 | 3 x 95 mm ² Red | 5.301 | 0,42 | 53.1 | 14,250 |
| 33012 | 3 x 120 mm ² Red | 6.051 | 0,46 | 57 | 18,000 |
| 33013 | 3 x 150 mm ² Red | 7.525 | 0,49 | 60.7 | 22,500 |
| 33014 | 3 x 185 mm ² Red | 8.418 | 0,52 | 64.6 | 27,750 |

Marine medium voltage power cables

MarinePower Y(Z)OZmv 6/10 kV

Properties

Application:

Heavy duty, midvoltage (6/10 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 2 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than red, available on request



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 2+ = stranded flexible |
| Conductor shield | Semiconductive Compound |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 6 kV |
| Nominal voltage U | 10 kV |
| Nominal voltage U _{max} | 12 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

MarinePower Y(Z)OZmv 6/10 kV

16 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------|-------------------|---|----------------------------|------------------|
| 33099 | 1 x 25 mm ² Red | 0.601 | 0,16 | 20.1 | 1,250 |
| 33100 | 1 x 35 mm ² Red | 0.714 | 0,17 | 21 | 1,750 |
| 33101 | 1 x 50 mm ² Red | 0.866 | 0,18 | 22.3 | 2,500 |
| 33102 | 1 x 70 mm ² Red | 1.097 | 0,19 | 24 | 3,500 |
| 33103 | 1 x 95 mm ² Red | 1.379 | 0,21 | 25.8 | 4,750 |
| 33104 | 1 x 120 mm ² Red | 1.654 | 0,22 | 27.7 | 6,000 |
| 33105 | 1 x 150 mm ² Red | 1.933 | 0,23 | 28.9 | 7,500 |
| 33106 | 1 x 185 mm ² Red | 2.343 | 0,25 | 30.8 | 9,250 |
| 33107 | 1 x 240 mm ² Red | 2.971 | 0,27 | 33.5 | 12,000 |
| 33114 | 1 x 300 mm ² Red | 3.47 | 0,28 | 35.5 | 15,000 |
| 33118 | 1 x 630 mm ² Red | 7.234 | 0,38 | 47.3 | 31,500 |
| 33109 | 3 x 50 mm ² Red | 3.563 | 0,39 | 49 | 7,500 |
| 33110 | 3 x 70 mm ² Red | 4.58 | 0,43 | 53.1 | 10,500 |
| 33111 | 3 x 95 mm ² Red | 5.571 | 0,46 | 57.7 | 14,250 |
| 33112 | 3 x 120 mm ² Red | 6.634 | 0,49 | 61.2 | 18,000 |
| 33113 | 3 X 150 mm ² Red | 7.633 | 0,52 | 64.8 | 22,500 |

Marine medium voltage power cables

MarinePower Y(Z)OZmv 8,7/15 kV

Properties

Application:

Heavy duty, midvoltage (8,7/15 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 2 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than red, available on request



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 2+ = stranded flexible |
| Conductor shield | Semiconductive Compound |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 8.7 kV |
| Nominal voltage U | 15 kV |
| Nominal voltage U _{max} | 17.5 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

15 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------|-------------------|---|----------------------------|------------------|
| 33200 | 1 x 35 mm ² Red | 0.815 | 0,19 | 23.5 | 1,750 |
| 33201 | 1 x 50 mm ² Red | 0.97 | 0,2 | 24.8 | 2,500 |
| 33202 | 1 x 70 mm ² Red | 1.201 | 0,21 | 26.3 | 3,500 |
| 33203 | 1 x 95 mm ² Red | 1.494 | 0,23 | 28.2 | 4,750 |
| 33204 | 1 x 120 mm ² Red | 1.764 | 0,24 | 29.8 | 6,000 |
| 33205 | 1 x 150 mm ² Red | 2.063 | 0,25 | 31.5 | 7,500 |
| 33206 | 1 x 185 mm ² Red | 2.505 | 0,27 | 33.2 | 9,250 |
| 33207 | 1 x 240 mm ² Red | 3.256 | 0,29 | 36.5 | 12,000 |
| 33218 | 1 x 300 mm ² Red | 3.758 | 0,31 | 38.7 | 15,000 |
| 33208 | 3 x 35 mm ² Red | 3.696 | 0,41 | 51.8 | 5,250 |
| 33209 | 3 x 50 mm ² Red | 4.218 | 0,43 | 54.3 | 7,500 |
| 33210 | 3 x 70 mm ² Red | 5.05 | 0,49 | 60.7 | 10,500 |
| 33211 | 3 x 95 mm ² Red | 6.216 | 0,5 | 62.4 | 14,250 |
| 33212 | 3 x 120 mm ² Red | 7.224 | 0,54 | 66.9 | 18,000 |
| 33213 | 3 x 150 mm ² Red | 8.517 | 0,57 | 69.9 | 22,500 |

Marine medium voltage power cables

MarinePower Y(Z)OZmv 12/20 kV

Properties

Application:

Heavy duty, midvoltage (12/20 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 2 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than red, available on request



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 2+ = stranded flexible |
| Conductor shield | Semiconductive Compound |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 12 kV |
| Nominal voltage U | 20 kV |
| Nominal voltage U _{max} | 24 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

MarinePower Y(Z)OZmv 12/20 kV

14 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------|-------------------|---|----------------------------|------------------|
| 33300 | 1 x 35 mm ² Red | 0.898 | 0,2 | 25.4 | 1,750 |
| 33301 | 1 x 50 mm ² Red | 1.046 | 0,21 | 26.5 | 2,500 |
| 33302 | 1 x 70 mm ² Red | 1.309 | 0,23 | 28.5 | 3,500 |
| 33303 | 1 x 95 mm ² Red | 1.611 | 0,24 | 30.5 | 4,750 |
| 33304 | 1 x 120 mm ² Red | 1.894 | 0,26 | 32 | 6,000 |
| 33305 | 1 x 150 mm ² Red | 2.196 | 0,27 | 33.7 | 7,500 |
| 33306 | 1 x 185 mm ² Red | 2.729 | 0,29 | 36.1 | 9,250 |
| 33307 | 1 x 240 mm ² Red | 3.409 | 0,31 | 38.7 | 12,000 |
| 33320 | 1 x 400 mm ² Red | 4.832 | 0,35 | 43.9 | 20,000 |
| 33308 | 3 x 35 mm ² Red | 4.012 | 0,45 | 55.6 | 5,250 |
| 33309 | 3 x 50 mm ² Red | 4.577 | 0,48 | 59.5 | 7,500 |
| 33310 | 3 x 70 mm ² Red | 5.682 | 0,51 | 63.5 | 10,500 |
| 33311 | 3 x 95 mm ² Red | 6.687 | 0,54 | 67.6 | 14,250 |
| 33312 | 3 x 120 mm ² Red | 7.567 | 0,57 | 71 | 18,000 |

Marine medium voltage power cables

MarinePower Y(Z)OZmv 18/30 kV

Properties

Application:

Heavy duty, midvoltage (18/30 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 2 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Different colour outer sheaths, other than red, available on request



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 2+ = stranded flexible |
| Conductor shield | Semiconductive Compound |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 18 kV |
| Nominal voltage U | 30 kV |
| Nominal voltage U _{max} | 36 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

13 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------|-------------------|---|----------------------------|------------------|
| 33400 | 1 x 35 mm ² Red | 1.176 | 0,25 | 31 | 1,750 |
| 33401 | 1 x 50 mm ² Red | 1.333 | 0,26 | 32.1 | 2,500 |
| 33402 | 1 x 70 mm ² Red | 1.606 | 0,27 | 33.9 | 3,500 |
| 33403 | 1 x 95 mm ² Red | 1.916 | 0,29 | 35.8 | 4,750 |
| 33404 | 1 x 120 mm ² Red | 2.344 | 0,31 | 38.2 | 6,000 |
| 33405 | 1 x 150 mm ² Red | 2.66 | 0,32 | 39.5 | 7,500 |
| 33406 | 1 x 185 mm ² Red | 3.095 | 0,33 | 41.4 | 9,250 |
| 33407 | 1 x 240 mm ² Red | 3.618 | 0,34 | 42.8 | 12,000 |
| 33410 | 1 x 300 mm ² Red | 4.297 | 0,37 | 45.9 | 15,000 |
| 33412 | 1 x 400 mm ² Red | 5.238 | 0,39 | 49.1 | 20,000 |
| 33411 | 1 x 630 mm ² Red | 8.133 | 0,46 | 57.4 | 31,500 |
| 33408 | 3 x 35 mm ² Red | 5.446 | 0,55 | 69.1 | 5,250 |
| 33409 | 3 x 50 mm ² Red | 6.146 | 0,58 | 72.5 | 7,500 |

Marine medium voltage power cables

MarinePowerFlex Y(Z)OZmv 6/10 kV

Properties

Application:

Highly Flexible, midvoltage (6/10 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 5 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Easy installation in tight spaces due to flexibility
- Different colour outer sheaths, other than red, available on request

Core identification:

- Numbered



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 5+ = extra flexible |
| Conductor shield | Semiconductive Compound with semiconductive tape |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U0 | 6 kV |
| Nominal voltage U | 10 kV |
| Nominal voltage Umax | 12 kV |
| Minimum installation temperature | -5 °C |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

MarinePowerFlex Y(Z)OZmv 6/10 kV

14 products

| Part number | Construction | Product - Netto gewicht | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|----------------------------|--|-------------------------------|---------------------|
| 33119 | 1 x 35 mm ² Red | 0.734 | 0,18 | 22.5 | 1,750 |
| 33121 | 1 x 70 mm ² Red | 1.122 | 0,2 | 25.5 | 3,500 |
| 33122 | 1 x 95 mm ² Red | 1.407 | 0,22 | 27.7 | 4,750 |
| 33123 | 1 x 120 mm ² Red | 1.667 | 0,23 | 29.3 | 6,000 |
| 33124 | 1 x 150 mm ² Red | 1.958 | 0,25 | 31.1 | 7,500 |
| 33127 | 1 x 240 mm ² Red | 3.027 | 0,31 | 38.5 | 12,000 |
| 33128 | 3 x 16/16 mm ² Red | 2.301 | 0,35 | 43.7 | 2,400 |
| 33135 | 3 x 35 mm ² Red | 3.209 | 0,4 | 50.1 | 5,250 |
| 33129 | 3 x 50 mm ² Red | 3.819 | 0,43 | 53.3 | 7,500 |
| 33130 | 3 x 70 mm ² Red | 4.688 | 0,45 | 56.5 | 10,500 |
| 33131 | 3 x 95 mm ² Red | 5.707 | 0,49 | 61.6 | 14,250 |
| 33132 | 3 x 120 mm ² Red | 6.813 | 0,52 | 65.4 | 18,000 |
| 33133 | 3 x 150 mm ² Red | 7.821 | 0,56 | 69.5 | 22,500 |
| 33138 | 3 x 240 mm ² Red | 11.46 | 0,66 | 82.2 | 36,000 |

Marine medium voltage power cables

MarinePowerFlex Y(Z)OZmv 8,7/15 kV

Properties

Application:

Highly Flexible, midvoltage (8,7/15 kV), armoured, single core power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 5 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Easy installation in tight spaces due to flexibility
- Different colour outer sheaths, other than red, available on request

Core identification:

- Numbered



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 5+ = extra flexible |
| Conductor shield | Semiconductive Compound with semiconductive tape |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Semiconductive Compound with semiconductive tape |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 8.7 kV |
| Nominal voltage U | 15 kV |
| Nominal voltage U _{max} | 17.5 kV |
| Minimum installation temperature | -5 °C |
| Max. operating temperature | 70 °C |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

MarinePowerFlex Y(Z)OZmv 8,7/15 kV

3 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------|-------------------|---|----------------------------|------------------|
| 33230 | 1 x 35 mm ² Red | 0.868 | 0,21 | 26.2 | 2,500 |
| 33231 | 1 x 120 mm ² Red | 1.791 | 0,26 | 32.1 | 6,000 |
| 33235 | 1 x 300 mm ² Red | 3.818 | 0,34 | 42 | 15,000 |

Marine medium voltage power cables

MarinePowerFlex Y(Z)OZmv 18/30 kV

Properties

Application:

Highly Flexible, midvoltage (18/30 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 5 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Easy installation in tight spaces due to flexibility
- Different colour outer sheaths, other than red, available on request

Core identification:

- Numbered



Specifications

| | |
|--|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 5+ = extra flexible |
| Conductor shield | Semiconductive Compound with semiconductive tape |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Product dependent |
| Armouring | Yes |
| Earthscreens construction | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 18 kV |
| Nominal voltage U | 30 kV |
| Nominal voltage U _{max} | 36 kV |
| Minimum installation temperature | -5 °C |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

MarinePowerFlex Y(Z)OZmv 18/30 kV

2 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|----------------------------|-------------------|---|----------------------------|------------------|
| 33423 | 1 x 95 mm ² Red | 2.112 | 0,31 | 38.3 | 4,750 |
| 33431 | 3 x 95 mm ² Red | 8.602 | 0,67 | 84 | 14,250 |

Marine medium voltage power cables

MarinePowerFlex+ YZ0Zmv EMC 3,6/6 kV

Properties

Application:

Highly Flexible, midvoltage (3,6/6 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 5 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Different colour outer sheaths, other than red, available on request
- Symmetrical insulated ground conductors reduce induced voltage imbalances and carry common mode noise back to the drive.

Core identification:

- Numbered

Specifications

| | |
|--|---|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 5+ = extra flexible |
| Conductor shield | Semiconductive Compound with semiconductive tape |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Semicon-XLPE, semicon-swellable tape and copper tape |
| Armouring | Yes |
| Earthscreens construction | EMC-screen consists of Cu/PET-tape and tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 3.6 kV |
| Nominal voltage U | 6 kV |
| Nominal voltage U _{max} | 7.2 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |



MarinePowerFlex+ YZOZmv EMC 3,6/6 kV

2 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|---|----------------------------|------------------|
| 33136 | 3 x 120 mm ² + 3 G 25 mm ² Red | 8.115 | 0,52 | 64.7 | 18,000 |
| 33137 | 3 x 150 mm ² + 3 G 25 mm ² Red | 9.296 | 0,55 | 68.6 | 22,500 |

Marine medium voltage power cables

MarinePowerFlex+ YZOZmv EMC 6/10 kV

Properties

Application:

Highly Flexible, midvoltage (6/10 kV), armoured power cables, designed for medium voltage energy transport for fixed installation in all ship areas. The cable is compliant with the specifications of VFD manufacturers.

Characteristics:

- Class 5 conductor, with special XLPE insulation
- Excellent mechanical and EMC protection due to the tinned copper braid
- Halogen free and low smoke, flame retardant
- Different colour outer sheaths, other than red, available on request
- Symmetrical insulated ground conductors reduce induced voltage imbalances and carry common mode noise back to the drive.

Core identification:

- Numbered



Specifications

| | |
|--|---|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 5+ = extra flexible |
| Conductor shield | Semiconductive Compound with semiconductive tape |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Semicon-XLPE, semicon-swellable tape and copper tape |
| Armouring | Yes |
| Earthscreens construction | EMC-screen consists of Cu/PET-tape and tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 6 kV |
| Nominal voltage U | 10 kV |
| Nominal voltage U _{max} | 12 kV |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |

3 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|---|----------------------------|------------------|
| 33141 | 3 x 50 mm ² + 3 G 16 mm ² Red | 5,594 | 0,46 | 57.3 | 9,900 |
| 33142 | 3 x 120 mm ² + 3 G 25 mm ² Red | 8,873 | 0,56 | 69.6 | 18,000 |
| 33143 | 3 x 150 mm ² + 3 G 25 mm ² Red | 10,154 | 0,6 | 73.9 | 22,500 |

Marine medium voltage power cables

MarinePower MultiFlex YQOQmv 6/10 kV

Properties

Application:

Highly flexible, midvoltage (6/10 kV), armoured, three core power cables for applications which require continuous bending, e.g. on cable chains in dredgers or in retractable Azipod drives

Characteristics:

- Class 5 conductor, with special XLPE insulation
- Very good resistance against chemicals, UV resistant and highly abrasion resistant due to PUR outer sheath
- Halogen free and low smoke, flame retardant
- Excellent abrasion resistance
- Easy installation in tight spaces due to flexibility
- Different colour outer sheaths, other than red, available on request

Core identification:

- Numbered



Specifications

| | |
|----------------------------------|--|
| Standardization | IEC 60092-354 |
| Conductor material | Cu |
| Shape of conductor | Round |
| Conductor category | Class 5+ = extra flexible |
| Conductor shield | Semiconductive Compound with semiconductive tape |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Insulation shield | Semiconductive Compound with semiconductive tape |
| Laminated sheath | Yes |
| Core shield construction | Copper round wire + copper tape counter spiral |
| Earthscreens construction | Core screen and tinned copper braiding combination |
| Material outer sheath | Polyurethane (PUR) |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1 |
| Low smoke | IEC 61034-2 |
| Nominal voltage U ₀ | 6 kV |
| Nominal voltage U | 10 kV |
| Nominal voltage U _{max} | 12 kV |
| Minimum installation temperature | -5 °C |
| Max. operating temperature | 70 °C |
| Max. conductor temperature | 90 °C |

MarinePower MultiFlex YQOQmv 6/10 kV

2 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (m) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|----------------------------|-------------------|---|----------------------------|------------------|
| 33189 | 3 x 50 mm ² Red | 5,294 | 0,34 | 57.5 | 7,500 |
| 33191 | 3 x 95 mm ² Red | 7,465 | 0,39 | 65.4 | 14,250 |

Properties

Application:

Lightweight, armored, control, instrumentation, tele- and data cable.

Characteristics:

- Twisted pairs, triples or quads
- Perfect electrical properties and low capacitance for minimal signal loss
- Halogen-free and low smoke, flame retardant
- Extra mechanical protection and reduced EMI due to the tinned copper braided screen
- Different color outer sheaths, other than grey, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White, and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Product dependent |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Screen over stranding | Braiding |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

Communication cables

MarineCom YOZc 250 V

105 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|--|----------------------------|------------------|
| 16900 | 1 x 2 x 0,5 mm ² Grey | 0.058 | 39 | 6.6 | 15 |
| 16902 | 2 x 2 x 0,5 mm ² Grey | 0.098 | 56 | 9.4 | 30 |
| 16899 | 2 x 2 x 0,5 mm ² (Quad) Grey | 0.082 | 45 | 7.5 | 30 |
| 16903 | 4 x 2 x 0,5 mm ² Grey | 0.144 | 65 | 10.9 | 60 |
| 16904 | 6 x 2 x 0,5 mm ² Grey | 0.207 | 80 | 12.7 | 90 |
| 16905 | 7 x 2 x 0,5 mm ² Grey | 0.2 | 76 | 12.7 | 105 |
| 16906 | 8 x 2 x 0,5 mm ² Grey | 0.258 | 86 | 14.3 | 120 |
| 16907 | 10 x 2 x 0,5 mm ² Grey | 0.306 | 94 | 15.7 | 150 |
| 16908 | 12 x 2 x 0,5 mm ² Grey | 0.348 | 100 | 16.6 | 180 |
| 16909 | 14 x 2 x 0,5 mm ² Grey | 0.388 | 106 | 17.6 | 210 |
| 16919 | 10 x 3 x 0,5 mm ² Grey | 0.412 | 108 | 18 | 225 |
| 16910 | 19 x 2 x 0,5 mm ² Grey | 0.493 | 121 | 20.1 | 285 |
| 16920 | 14 x 3 x 0,5 mm ² Grey | 0.517 | 119 | 19.9 | 315 |
| 16911 | 24 x 2 x 0,5 mm ² Grey | 0.597 | 136 | 22.7 | 360 |
| 16912 | 27 x 2 x 0,5 mm ² Grey | 0.653 | 143 | 23.8 | 405 |
| 16921 | 19 x 3 x 0,5 mm ² Grey | 0.644 | 137 | 22.9 | 428 |
| 16913 | 30 x 2 x 0,5 mm ² Grey | 0.705 | 149 | 24.8 | 450 |
| 16922 | 24 x 3 x 0,5 mm ² Grey | 0.797 | 154 | 25.6 | 540 |
| 16914 | 37 x 2 x 0,5 mm ² Grey | 0.843 | 163 | 27.2 | 555 |
| 16271 | 1 x 2 x 0,75 mm ² Grey | 0.072 | 41 | 6.9 | 23 |
| 16272 | 1 x 3 x 0,75 mm ² Grey | 0.078 | 44 | 7.3 | 34 |
| 16273 | 2 x 2 x 0,75 mm ² (Quad) Grey | 0.093 | 47 | 7.8 | 45 |
| 16270 | 2 x 2 x 0,75 mm ² Grey | 0.113 | 61 | 9.9 | 45 |
| 16287 | 3 x 2 x 0,75 mm ² Grey | 0.139 | 64 | 10.7 | 68 |
| 16274 | 4 x 2 x 0,75 mm ² Grey | 0.169 | 73 | 12.5 | 90 |
| 16275 | 6 x 2 x 0,75 mm ² Grey | 0.282 | 86 | 14.8 | 135 |
| 16276 | 7 x 2 x 0,75 mm ² Grey | 0.281 | 86 | 14.6 | 158 |
| 16288 | 8 x 2 x 0,75 mm ² Grey | 0.309 | 91 | 15.2 | 180 |
| 16277 | 10 x 2 x 0,75 mm ² Grey | 0.377 | 104 | 17.3 | 225 |
| 16289 | 12 x 2 x 0,75 mm ² Grey | 0.429 | 109 | 18.5 | 270 |
| 16278 | 14 x 2 x 0,75 mm ² Grey | 0.482 | 116 | 20.2 | 315 |
| 16926 | 10 x 3 x 0,75 mm ² Grey | 0.499 | 117 | 19.5 | 338 |
| 16955 | 12 x 3 x 0,75 mm ² Grey | 0.558 | 131 | 20.5 | 473 |
| 16279 | 19 x 2 x 0,75 mm ² Grey | 0.592 | 135 | 22.5 | 428 |
| 16285 | 20 x 2 x 0,75 mm ² Grey | 0.638 | 92 | 23 | 450 |
| 16927 | 14 x 3 x 0,75 mm ² Grey | 0.63 | 131 | 21.8 | 473 |
| 16280 | 24 x 2 x 0,75 mm ² Grey | 0.756 | 150 | 24.8 | 540 |
| 16283 | 27 x 2 x 0,75 mm ² Grey | 0.812 | 157 | 26.2 | 608 |
| 16928 | 19 x 3 x 0,75 mm ² Grey | 0.811 | 149 | 24.9 | 641 |
| 16281 | 30 x 2 x 0,75 mm ² Grey | 0.883 | 165 | 27.5 | 675 |
| 16929 | 24 x 3 x 0,75 mm ² Grey | 1.002 | 167 | 27.8 | 810 |
| 16282 | 37 x 2 x 0,75 mm ² Grey | 1.053 | 181 | 30.2 | 833 |
| 16930 | 1 x 2 x 1,0 mm ² Grey | 0.076 | 45 | 7.3 | 30 |
| 16945 | 1 x 3 x 1,0 mm ² Grey | 0.088 | 46 | 7.7 | 45 |

Communication cables

MarineCom YOZc 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|---|-------------------|--|----------------------------|------------------|
| 16931 | 2 x 2 x 1,0 mm ² (Quad) Grey | 0.111 | 50 | 8.4 | 60 |
| 16932 | 2 x 2 x 1,0 mm ² Grey | 0.133 | 64 | 10.7 | 60 |
| 16933 | 4 x 2 x 1,0 mm ² Grey | 0.196 | 74 | 12.4 | 120 |
| 16936 | 8 x 2 x 1,0 mm ² Grey | 0.363 | 96 | 16 | 240 |
| 16937 | 10 x 2 x 1,0 mm ² Grey | 0.449 | 109 | 18.2 | 300 |
| 16938 | 12 x 2 x 1,0 mm ² Grey | 0.509 | 114 | 19 | 360 |
| 16939 | 14 x 2 x 1,0 mm ² Grey | 0.569 | 122 | 20.4 | 420 |
| 16949 | 10 x 3 x 1,0 mm ² Grey | 0.594 | 128 | 21.3 | 450 |
| 16940 | 19 x 2 x 1,0 mm ² Grey | 0.732 | 142 | 23.7 | 570 |
| 16950 | 14 x 3 x 1,0 mm ² Grey | 0.77 | 141 | 23.5 | 630 |
| 16941 | 24 x 2 x 1,0 mm ² Grey | 0.89 | 158 | 26.3 | 720 |
| 16942 | 27 x 2 x 1,0 mm ² Grey | 0.978 | 166 | 27.6 | 810 |
| 16951 | 19 x 3 x 1,0 mm ² Grey | 0.996 | 161 | 26.9 | 855 |
| 16943 | 30 x 2 x 1,0 mm ² Grey | 1.078 | 174 | 29 | 900 |
| 16952 | 24 x 3 x 1,0 mm ² Grey | 1.218 | 179 | 29.8 | 1,080 |
| 16944 | 37 x 2 x 1,0 mm ² Grey | 1.277 | 190 | 31.7 | 1,110 |
| 16301 | 1 x 2 x 1,5 mm ² Grey | 0.096 | 50 | 8.3 | 45 |
| 16316 | 1 x 3 x 1,5 mm ² Grey | 0.118 | 53 | 8.9 | 68 |
| 16302 | 2 x 2 x 1,5 mm ² (Quad) Grey | 0.147 | 59 | 9.9 | 90 |
| 16303 | 2 x 2 x 1,5 mm ² Grey | 0.176 | 76 | 12.6 | 90 |
| 16317 | 2 x 3 x 1,5 mm ² Grey | 0.255 | 83 | 13.9 | 135 |
| 16304 | 4 x 2 x 1,5 mm ² Grey | 0.303 | 89 | 14.9 | 180 |
| 16318 | 4 x 3 x 1,5 mm ² Grey | 0.395 | 101 | 16.9 | 270 |
| 16305 | 6 x 2 x 1,5 mm ² Grey | 0.459 | 107 | 18.3 | 270 |
| 16306 | 7 x 2 x 1,5 mm ² Grey | 0.459 | 109 | 18.5 | 315 |
| 16307 | 8 x 2 x 1,5 mm ² Grey | 0.508 | 115 | 19.2 | 360 |
| 16308 | 10 x 2 x 1,5 mm ² Grey | 0.6 | 124 | 21 | 450 |
| 16309 | 12 x 2 x 1,5 mm ² Grey | 0.701 | 139 | 23.2 | 540 |
| 16310 | 14 x 2 x 1,5 mm ² Grey | 0.79 | 148 | 24.7 | 630 |
| 16320 | 10 x 3 x 1,5 mm ² Grey | 0.843 | 153 | 25.5 | 675 |
| 16311 | 19 x 2 x 1,5 mm ² Grey | 1.023 | 171 | 28.5 | 855 |
| 16326 | 20 x 2 x 1,5 mm ² Grey | 1.078 | 174 | 29 | 855 |
| 16321 | 14 x 3 x 1,5 mm ² Grey | 1.084 | 168 | 28 | 945 |
| 16312 | 24 x 2 x 1,5 mm ² Grey | 1.263 | 190 | 31.6 | 1,080 |
| 16313 | 27 x 2 x 1,5 mm ² Grey | 1.39 | 199 | 33.2 | 1,215 |
| 16322 | 19 x 3 x 1,5 mm ² Grey | 1.414 | 193 | 32.1 | 1,283 |
| 16314 | 30 x 2 x 1,5 mm ² Grey | 1.534 | 209 | 34.9 | 1,350 |
| 16323 | 24 x 3 x 1,5 mm ² Grey | 2.183 | 215 | 35.8 | 1,620 |
| 16315 | 37 x 2 x 1,5 mm ² Grey | 2.309 | 230 | 38.3 | 1,665 |
| 16960 | 1 x 2 x 2,5 mm ² Grey | 0.125 | 56 | 9.4 | 75 |
| 16975 | 1 x 3 x 2,5 mm ² Grey | 0.156 | 59 | 10 | 113 |
| 16961 | 2 x 2 x 2,5 mm ² (Quad) Grey | 0.201 | 67 | 11.2 | 150 |
| 16962 | 2 x 2 x 2,5 mm ² Grey | 0.235 | 64 | 14.3 | 60 |
| 16976 | 2 x 3 x 2,5 mm ² Grey | 0.332 | 96 | 16 | 338 |
| 16977 | 4 x 3 x 2,5 mm ² Grey | 0.537 | 111 | 18.5 | 450 |
| 16964 | 6 x 2 x 2,5 mm ² Grey | 0.615 | 122 | 20.3 | 450 |

Communication cables

MarineCom YOZc 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------------|-------------------|--|----------------------------|------------------|
| 16965 | 7 x 2 x 2,5 mm ² Grey | 0.617 | 122 | 20.3 | 525 |
| 16966 | 8 x 2 x 2,5 mm ² Grey | 0.698 | 133 | 22.2 | 600 |
| 16967 | 10 x 2 x 2,5 mm ² Grey | 0.857 | 152 | 25.3 | 750 |
| 16978 | 7 x 3 x 2,5 mm ² Grey | 0.84 | 142 | 23.6 | 788 |
| 16968 | 12 x 2 x 2,5 mm ² Grey | 0.98 | 158 | 26.4 | 900 |
| 16969 | 14 x 2 x 2,5 mm ² Grey | 1.108 | 169 | 28.1 | 1,050 |
| 16979 | 10 x 3 x 2,5 mm ² Grey | 1.181 | 174 | 28.8 | 1,125 |
| 16970 | 19 x 2 x 2,5 mm ² Grey | 1.458 | 194 | 32.4 | 1,425 |
| 16980 | 14 x 3 x 2,5 mm ² Grey | 1.553 | 193 | 32.1 | 1,575 |
| 16971 | 24 x 2 x 2,5 mm ² Grey | 2.243 | 217 | 36.2 | 1,800 |
| 16972 | 27 x 2 x 2,5 mm ² Grey | 2.457 | 228 | 38 | 2,025 |
| 16981 | 19 x 3 x 2,5 mm ² Grey | 2.478 | 221 | 36.8 | 2,138 |
| 16973 | 30 x 2 x 2,5 mm ² Grey | 2.316 | 240 | 40 | 2,250 |
| 16982 | 24 x 3 x 2,5 mm ² Grey | 2.663 | 247 | 41.1 | 2,700 |
| 16974 | 37 x 2 x 2,5 mm ² Grey | 2.785 | 263 | 43.8 | 2,775 |

Properties

Application:

Lightweight, individual pair and overall screened, armoured, control, instrumentation, tele- and data cable.

Characteristics:

- Twisted pairs, triples or quads, individual pair and overall screening with both a stranded tinned copper drain wire
- Perfect electrical properties and low capacitance for minimal signal loss
- Halogen-free and low smoke, flame retardant
- Extra mechanical protection and reduced EMI due to the tinned copper braided screen
- Different color outer sheaths, other than grey, available on request



Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red

Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Product dependent |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Screen over stranding element | Alpet tape |
| Screen over stranding | Foil + braiding |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

Communication cables

Marine2Com YOZ2c 250 V

96 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|------------------------------------|-------------------|--|----------------------------|------------------|
| 17223 | 2 x 2 x 0,5 mm ² Grey | 0.126 | 80 | 10 | 30 |
| 17224 | 4 x 2 x 0,5 mm ² Grey | 0.185 | 94 | 11.7 | 60 |
| 17225 | 6 x 2 x 0,5 mm ² Grey | 0.307 | 116 | 14.5 | 90 |
| 17226 | 7 x 2 x 0,5 mm ² Grey | 0.272 | 111 | 13.9 | 105 |
| 17227 | 8 x 2 x 0,5 mm ² Grey | 0.334 | 122 | 15.3 | 120 |
| 17228 | 10 x 2 x 0,5 mm ² Grey | 0.406 | 138 | 17.3 | 150 |
| 17282 | 7 x 3 x 0,5 mm ² Grey | 0.373 | 130 | 16.2 | 158 |
| 17229 | 12 x 2 x 0,5 mm ² Grey | 0.466 | 145 | 18.1 | 180 |
| 17230 | 14 x 2 x 0,5 mm ² Grey | 0.516 | 155 | 19.4 | 210 |
| 17283 | 10 x 3 x 0,5 mm ² Grey | 0.51 | 158 | 19.8 | 225 |
| 17231 | 19 x 2 x 0,5 mm ² Grey | 0.656 | 176 | 22 | 285 |
| 17284 | 14 x 3 x 0,5 mm ² Grey | 0.642 | 174 | 21.7 | 315 |
| 17232 | 24 x 2 x 0,5 mm ² Grey | 0.798 | 195 | 24.4 | 360 |
| 17233 | 27 x 2 x 0,5 mm ² Grey | 0.889 | 206 | 25.8 | 405 |
| 17285 | 19 x 3 x 0,5 mm ² Grey | 0.824 | 198 | 24.7 | 428 |
| 17234 | 30 x 2 x 0,5 mm ² Grey | 0.965 | 215 | 26.9 | 450 |
| 17286 | 24 x 3 x 0,5 mm ² Grey | 1.008 | 219 | 27.4 | 540 |
| 17235 | 37 x 2 x 0,5 mm ² Grey | 1.157 | 236 | 29.5 | 555 |
| 16329 | 1 x 2 x 0,75 mm ² Grey | 0.074 | 30 | 7 | 20 |
| 16348 | 1 x 3 x 0,75 mm ² Grey | 0.085 | 60 | 7.5 | 34 |
| 16290 | 2 x 2 x 0,75 mm ² Grey | 0.144 | 87 | 10.9 | 45 |
| 16291 | 4 x 2 x 0,75 mm ² Grey | 0.217 | 102 | 12.7 | 90 |
| 17290 | 2 x 3 x 0,75 mm ² Grey | 0.171 | 94 | 11.7 | 101 |
| 17291 | 4 x 3 x 0,75 mm ² Grey | 0.293 | 115 | 14.2 | 135 |
| 16293 | 7 x 2 x 0,75 mm ² Grey | 0.351 | 126 | 15.8 | 158 |
| 17237 | 8 x 2 x 0,75 mm ² Grey | 0.392 | 130 | 16.3 | 180 |
| 16294 | 10 x 2 x 0,75 mm ² Grey | 0.476 | 152 | 19 | 225 |
| 17238 | 12 x 2 x 0,75 mm ² Grey | 0.528 | 156 | 19.5 | 270 |
| 16295 | 14 x 2 x 0,75 mm ² Grey | 0.611 | 170 | 21.3 | 315 |
| 17293 | 10 x 3 x 0,75 mm ² Grey | 0.596 | 170 | 21.3 | 338 |
| 16296 | 19 x 2 x 0,75 mm ² Grey | 0.775 | 194 | 24.2 | 428 |
| 17294 | 14 x 3 x 0,75 mm ² Grey | 0.772 | 188 | 23.3 | 473 |
| 16297 | 24 x 2 x 0,75 mm ² Grey | 0.951 | 215 | 26.9 | 540 |
| 17239 | 27 x 2 x 0,75 mm ² Grey | 1.035 | 222 | 27.8 | 608 |
| 17295 | 19 x 3 x 0,75 mm ² Grey | 0.991 | 214 | 26.8 | 641 |
| 16298 | 30 x 2 x 0,75 mm ² Grey | 1.147 | 238 | 29.7 | 675 |
| 17296 | 24 x 3 x 0,75 mm ² Grey | 1.21 | 238 | 29.7 | 810 |
| 16299 | 37 x 2 x 0,75 mm ² Grey | 1.375 | 261 | 32.4 | 833 |
| 17241 | 3 x 2 x 1,0 mm ² Grey | 0.2 | 94 | 12.3 | 68 |
| 17244 | 4 x 2 x 1,0 mm ² Grey | 0.241 | 113 | 14.1 | 120 |
| 17245 | 6 x 2 x 1,0 mm ² Grey | 0.406 | 134 | 16.8 | 180 |
| 17247 | 8 x 2 x 1,0 mm ² Grey | 0.45 | 142 | 17.8 | 240 |
| 17248 | 10 x 2 x 1,0 mm ² Grey | 0.547 | 162 | 20.2 | 300 |
| 17249 | 12 x 2 x 1,0 mm ² Grey | 0.62 | 169 | 21.1 | 360 |

Communication cables

Marine2Com YOZ2c 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------------|-------------------|--|----------------------------|------------------|
| 17250 | 14 x 2 x 1,0 mm ² Grey | 0.699 | 179 | 22.4 | 420 |
| 17303 | 10 x 3 x 1,0 mm ² Grey | 0.71 | 183 | 22.9 | 450 |
| 17251 | 19 x 2 x 1,0 mm ² Grey | 0.9 | 204 | 25.5 | 570 |
| 17304 | 14 x 3 x 1,0 mm ² Grey | 0.908 | 202 | 25.2 | 630 |
| 17252 | 24 x 2 x 1,0 mm ² Grey | 1.112 | 228 | 28.5 | 720 |
| 17253 | 27 x 2 x 1,0 mm ² Grey | 1.224 | 239 | 29.9 | 810 |
| 17305 | 19 x 3 x 1,0 mm ² Grey | 1.172 | 230 | 28.7 | 855 |
| 17254 | 30 x 2 x 1,0 mm ² Grey | 1.333 | 250 | 31.3 | 900 |
| 17256 | 24 x 3 x 1,0 mm ² Grey | 1.457 | 257 | 32.1 | 1,080 |
| 17255 | 37 x 2 x 1,0 mm ² Grey | 1.604 | 275 | 34.4 | 1,110 |
| 16347 | 1 x 2 x 1,5 mm ² Grey | 0.107 | 69 | 8.6 | 45 |
| 16333 | 2 x 2 x 1,5 mm ² Grey | 0.243 | 111 | 14.3 | 90 |
| 17310 | 2 x 3 x 1,5 mm ² Grey | 0.29 | 118 | 14.8 | 135 |
| 16335 | 4 x 2 x 1,5 mm ² Grey | 0.36 | 128 | 16 | 180 |
| 17311 | 4 x 3 x 1,5 mm ² Grey | 0.46 | 144 | 18 | 270 |
| 16334 | 6 x 2 x 1,5 mm ² Grey | 0.537 | 157 | 19.6 | 270 |
| 16336 | 7 x 2 x 1,5 mm ² Grey | 0.525 | 158 | 19.8 | 315 |
| 16337 | 8 x 2 x 1,5 mm ² Grey | 0.59 | 168 | 21 | 360 |
| 16338 | 10 x 2 x 1,5 mm ² Grey | 0.73 | 192 | 24 | 450 |
| 17312 | 7 x 3 x 1,5 mm ² Grey | 0.707 | 179 | 22.4 | 473 |
| 16339 | 12 x 2 x 1,5 mm ² Grey | 0.827 | 200 | 25 | 540 |
| 16340 | 14 x 2 x 1,5 mm ² Grey | 0.947 | 214 | 26.8 | 630 |
| 17317 | 10 x 3 x 1,5 mm ² Grey | 0.959 | 218 | 27.3 | 675 |
| 16341 | 19 x 2 x 1,5 mm ² Grey | 1.225 | 246 | 30.5 | 855 |
| 16346 | 20 x 2 x 1,5 mm ² Grey | 1.275 | 250 | 31.1 | 900 |
| 17314 | 14 x 3 x 1,5 mm ² Grey | 1.247 | 242 | 30.2 | 945 |
| 16342 | 24 x 2 x 1,5 mm ² Grey | 1.514 | 274 | 34.2 | 1,080 |
| 16343 | 27 x 2 x 1,5 mm ² Grey | 2.102 | 288 | 36 | 1,215 |
| 17315 | 19 x 3 x 1,5 mm ² Grey | 1.618 | 276 | 34.5 | 1,283 |
| 16344 | 30 x 2 x 1,5 mm ² Grey | 2.316 | 302 | 37.8 | 1,350 |
| 17316 | 24 x 3 x 1,5 mm ² Grey | 2.497 | 310 | 38.7 | 1,620 |
| 16345 | 37 x 2 x 1,5 mm ² Grey | 2.361 | 336 | 42 | 1,665 |
| 17263 | 2 x 2 x 2,5 mm ² Grey | 0.311 | 128 | 16 | 150 |
| 17276 | 4 x 2 x 2,5 mm ² Grey | 0.484 | 149 | 18.6 | 300 |
| 17320 | 2 x 3 x 2,5 mm ² Grey | 0.386 | 138 | 17.2 | 338 |
| 17321 | 4 x 3 x 2,5 mm ² Grey | 0.614 | 163 | 20.4 | 450 |
| 17265 | 6 x 2 x 2,5 mm ² Grey | 0.686 | 178 | 22.3 | 450 |
| 17266 | 7 x 2 x 2,5 mm ² Grey | 0.725 | 178 | 22.3 | 525 |
| 17267 | 8 x 2 x 2,5 mm ² Grey | 0.82 | 191 | 23.9 | 600 |
| 17268 | 10 x 2 x 2,5 mm ² Grey | 1.004 | 218 | 27.2 | 750 |
| 17322 | 7 x 3 x 2,5 mm ² Grey | 0.961 | 203 | 25.4 | 788 |
| 17269 | 12 x 2 x 2,5 mm ² Grey | 1.163 | 230 | 28.7 | 900 |
| 17270 | 14 x 2 x 2,5 mm ² Grey | 1.318 | 244 | 30.5 | 1,050 |
| 17323 | 10 x 3 x 2,5 mm ² Grey | 1.335 | 248 | 30.8 | 1,125 |
| 17271 | 19 x 2 x 2,5 mm ² Grey | 1.712 | 279 | 34.9 | 1,425 |
| 17324 | 14 x 3 x 2,5 mm ² Grey | 1.76 | 275 | 34.4 | 1,575 |

Communication cables

Marine2Com YOZ2c 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------------|-------------------|--|----------------------------|------------------|
| 17272 | 24 x 2 x 2,5 mm ² Grey | 2.273 | 314 | 39.2 | 1,800 |
| 17273 | 27 x 2 x 2,5 mm ² Grey | 2.505 | 330 | 41.2 | 2,025 |
| 17325 | 19 x 3 x 2,5 mm ² Grey | 2.447 | 317 | 39.6 | 2,138 |
| 17274 | 30 x 2 x 2,5 mm ² Grey | 2.741 | 346 | 43.2 | 2,250 |
| 17326 | 24 x 3 x 2,5 mm ² Grey | 3.032 | 354 | 44.2 | 2,700 |
| 17275 | 37 x 2 x 2,5 mm ² Grey | 3.737 | 381 | 47.6 | 2,775 |

Communication cables

MarineCom YZafc 250 V

Properties

Application:

Lightweight, screened, control, instrumentation, tele-and data cable.

Characteristics:

- Twisted pairs, triples or quads, overall screening with a stranded tinned copper drain wire
- Perfect electrical properties and low capacitance for minimal signal loss
- Halogen-free and low smoke, flame retardant
- Extreme lightweight and small diameter for applications that don't need mechanical protection
- Different color outer sheaths, other than grey, available on request

**Core identification:**

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White, and Red

Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Product dependent |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Screen over stranding | Alpet tape |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

Communication cables

MarineCom YZafc 250 V

73 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|--|-------------------|--|-----------------------------|------------------|
| 16690 | 1 x 2 x 0,5 mm ² Grey | 0.044 | 49 | 6.1 | 15 |
| 16691 | 1 x 4 x 0,5 mm ² Grey | 0.063 | 57 | 7 | 30 |
| 16692 | 2 x 2 x 0,5 mm ² Grey | 0.075 | 71 | 8.9 | 30 |
| 16693 | 4 x 2 x 0,5 mm ² Grey | 0.109 | 82 | 10.2 | 60 |
| 16694 | 6 x 2 x 0,5 mm ² Grey | 0.17 | 98 | 12.3 | 90 |
| 16695 | 7 x 2 x 0,5 mm ² Grey | 0.164 | 98 | 12.3 | 105 |
| 16696 | 8 x 2 x 0,5 mm ² Grey | 0.182 | 105 | 13.1 | 120 |
| 16697 | 10 x 2 x 0,5 mm ² Grey | 0.226 | 120 | 15 | 150 |
| 16698 | 12 x 2 x 0,5 mm ² Grey | 0.256 | 126 | 15.7 | 180 |
| 16699 | 14 x 2 x 0,5 mm ² Grey | 0.296 | 135 | 16.9 | 210 |
| 16700 | 19 x 2 x 0,5 mm ² Grey | 0.378 | 154 | 19.2 | 285 |
| 16701 | 24 x 2 x 0,5 mm ² Grey | 0.468 | 171 | 21.4 | 360 |
| 16702 | 27 x 2 x 0,5 mm ² Grey | 0.525 | 182 | 22.7 | 405 |
| 16703 | 30 x 2 x 0,5 mm ² Grey | 0.573 | 190 | 23.7 | 450 |
| 16704 | 37 x 2 x 0,5 mm ² Grey | 0.695 | 209 | 26.1 | 555 |
| 16707 | 1 x 3 x 0,75 mm ² Grey | 0.06 | 54 | 6.8 | 34 |
| 16708 | 1 x 2 x 0,75 mm ² Grey | 0.05 | 51 | 6.4 | 23 |
| 16709 | 2 x 2 x 0,75 mm ² (Quad) Grey | 0.072 | 58 | 7.3 | 45 |
| 16710 | 2 x 2 x 0,75 mm ² Grey | 0.086 | 77 | 9.6 | 45 |
| 16711 | 4 x 2 x 0,75 mm ² Grey | 0.137 | 90 | 11.3 | 90 |
| 16712 | 6 x 2 x 0,75 mm ² Grey | 0.208 | 107 | 13.4 | 135 |
| 16713 | 7 x 2 x 0,75 mm ² Grey | 0.202 | 107 | 13.4 | 158 |
| 16714 | 8 x 2 x 0,75 mm ² Grey | 0.23 | 116 | 14.5 | 180 |
| 16715 | 10 x 2 x 0,75 mm ² Grey | 0.285 | 130 | 16.3 | 225 |
| 16716 | 12 x 2 x 0,75 mm ² Grey | 0.326 | 139 | 17.4 | 270 |
| 16717 | 14 x 2 x 0,75 mm ² Grey | 0.368 | 147 | 18.4 | 315 |
| 16718 | 19 x 2 x 0,75 mm ² Grey | 0.478 | 169 | 21.1 | 428 |
| 16719 | 24 x 2 x 0,75 mm ² Grey | 0.598 | 189 | 23.6 | 540 |
| 16720 | 30 x 2 x 0,75 mm ² Grey | 0.737 | 209 | 26.1 | 675 |
| 16721 | 37 x 2 x 0,75 mm ² Grey | 0.888 | 230 | 28.8 | 833 |
| 16722 | 27 x 2 x 0,75 mm ² Grey | 0.659 | 200 | 25 | 608 |
| 16723 | 8 x 3 x 0,75 mm ² Grey | 0.323 | 96 | 16.6 | 236 |
| 16730 | 1 x 2 x 1,0 mm ² Grey | 0.057 | 54 | 6.8 | 30 |
| 16731 | 1 x 4 x 1,0 mm ² Grey | 0.089 | 63 | 8 | 60 |
| 16732 | 2 x 2 x 1,0 mm ² Grey | 0.102 | 82 | 10.2 | 60 |
| 16733 | 4 x 2 x 1,0 mm ² Grey | 0.161 | 95 | 11.9 | 120 |
| 16736 | 8 x 2 x 1,0 mm ² Grey | 0.279 | 122 | 15.3 | 240 |
| 16737 | 10 x 2 x 1,0 mm ² Grey | 0.346 | 140 | 17.5 | 300 |
| 16738 | 12 x 2 x 1,0 mm ² Grey | 0.397 | 146 | 18.3 | 360 |
| 16739 | 14 x 2 x 1,0 mm ² Grey | 0.451 | 156 | 19.5 | 420 |
| 16740 | 19 x 2 x 1,0 mm ² Grey | 0.594 | 179 | 22.4 | 570 |
| 16741 | 24 x 2 x 1,0 mm ² Grey | 0.749 | 202 | 25.2 | 720 |
| 16742 | 27 x 2 x 1,0 mm ² Grey | 0.828 | 212 | 26.5 | 810 |
| 16743 | 30 x 2 x 1,0 mm ² Grey | 0.906 | 222 | 27.7 | 900 |

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|-----------------------------------|-------------------|--|-----------------------------|------------------|
| 16744 | 37 x 2 x 1,0 mm ² Grey | 1.103 | 245 | 30.6 | 1,110 |
| 16830 | 1 x 2 x 1,5 mm ² Grey | 0.074 | 62 | 7.8 | 45 |
| 16831 | 1 x 4 x 1,5 mm ² Grey | 0.122 | 75 | 9.4 | 90 |
| 16832 | 2 x 2 x 1,5 mm ² Grey | 0.14 | 97 | 12.1 | 90 |
| 16833 | 4 x 2 x 1,5 mm ² Grey | 0.22 | 112 | 14 | 180 |
| 16834 | 6 x 2 x 1,5 mm ² Grey | 0.348 | 136 | 17 | 270 |
| 16836 | 8 x 2 x 1,5 mm ² Grey | 0.396 | 146 | 18.3 | 360 |
| 16837 | 10 x 2 x 1,5 mm ² Grey | 0.492 | 168 | 21 | 450 |
| 16838 | 12 x 2 x 1,5 mm ² Grey | 0.566 | 175 | 21.9 | 540 |
| 16839 | 14 x 2 x 1,5 mm ² Grey | 0.657 | 189 | 23.6 | 630 |
| 16840 | 19 x 2 x 1,5 mm ² Grey | 0.867 | 218 | 27.2 | 855 |
| 16841 | 24 x 2 x 1,5 mm ² Grey | 1.09 | 244 | 30.5 | 1,080 |
| 16842 | 27 x 2 x 1,5 mm ² Grey | 1.207 | 257 | 32.1 | 1,215 |
| 16843 | 30 x 2 x 1,5 mm ² Grey | 1.324 | 269 | 33.6 | 1,350 |
| 16844 | 37 x 2 x 1,5 mm ² Grey | 1.61 | 296 | 37 | 1,665 |
| 16850 | 1 x 2 x 2,5 mm ² Grey | 0.099 | 71 | 8.8 | 75 |
| 16851 | 1 x 4 x 2,5 mm ² Grey | 0.168 | 83 | 10.4 | 150 |
| 16852 | 2 x 2 x 2,5 mm ² Grey | 0.189 | 109 | 13.6 | 150 |
| 16854 | 6 x 2 x 2,5 mm ² Grey | 0.5 | 155 | 19.4 | 450 |
| 16855 | 7 x 2 x 2,5 mm ² Grey | 0.502 | 155 | 19.4 | 525 |
| 16856 | 8 x 2 x 2,5 mm ² Grey | 0.574 | 167 | 20.9 | 600 |
| 16857 | 10 x 2 x 2,5 mm ² Grey | 0.712 | 192 | 24 | 750 |
| 16858 | 12 x 2 x 2,5 mm ² Grey | 0.838 | 202 | 25.3 | 900 |
| 16859 | 14 x 2 x 2,5 mm ² Grey | 0.957 | 216 | 27 | 1,050 |
| 16860 | 19 x 2 x 2,5 mm ² Grey | 1.268 | 249 | 31.1 | 1,425 |
| 16861 | 24 x 2 x 2,5 mm ² Grey | 1.595 | 279 | 34.9 | 1,800 |
| 16862 | 27 x 2 x 2,5 mm ² Grey | 1.771 | 294 | 36.7 | 2,025 |
| 16863 | 30 x 2 x 2,5 mm ² Grey | 1.966 | 310 | 38.7 | 2,250 |
| 16864 | 37 x 2 x 2,5 mm ² Grey | 2.396 | 342 | 42.7 | 2,775 |

Communication cables

Marine2Com YZ2afc 250 V

Properties

Application:

Lightweight, individual pair and overall screened, control, instrumentation, tele- and data cable.

Characteristics:

- Twisted pairs, triples or quads, individual pair and overall screening with both a stranded tinned copper drain wire
- Perfect electrical properties and low capacitance for minimal signal loss
- Extreme lightweight and small diameter for applications that don't require mechanical protection
- Different color outer sheaths, other than grey, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Pairs |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Screen over stranding element | Alpet tape |
| Screen over stranding | Alpet tape |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

61 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|------------------------------------|-------------------|--|----------------------------|------------------|
| 16750 | 2 x 2 x 0,5 mm ² Grey | 0.093 | 76 | 9.4 | 30 |
| 16751 | 4 x 2 x 0,5 mm ² Grey | 0.142 | 87 | 10.9 | 60 |
| 16752 | 6 x 2 x 0,5 mm ² Grey | 0.217 | 106 | 13.2 | 90 |
| 16753 | 7 x 2 x 0,5 mm ² Grey | 0.218 | 106 | 13.2 | 105 |
| 16754 | 8 x 2 x 0,5 mm ² Grey | 0.252 | 114 | 14.1 | 120 |
| 16755 | 10 x 2 x 0,5 mm ² Grey | 0.302 | 129 | 16.1 | 150 |
| 16756 | 12 x 2 x 0,5 mm ² Grey | 0.358 | 136 | 16.9 | 180 |
| 16757 | 14 x 2 x 0,5 mm ² Grey | 0.403 | 145 | 18.1 | 210 |
| 16758 | 19 x 2 x 0,5 mm ² Grey | 0.531 | 166 | 20.8 | 285 |
| 16759 | 24 x 2 x 0,5 mm ² Grey | 0.659 | 186 | 23.2 | 360 |
| 16760 | 27 x 2 x 0,5 mm ² Grey | 0.729 | 195 | 24.4 | 405 |
| 16761 | 30 x 2 x 0,5 mm ² Grey | 0.81 | 206 | 25.7 | 450 |
| 16762 | 37 x 2 x 0,5 mm ² Grey | 0.972 | 225 | 28.1 | 555 |
| 16770 | 2 x 2 x 0,75 mm ² Grey | 0.106 | 82 | 10.3 | 45 |
| 16771 | 4 x 2 x 0,75 mm ² Grey | 0.173 | 97 | 12.1 | 90 |
| 16773 | 7 x 2 x 0,75 mm ² Grey | 0.263 | 117 | 14.6 | 158 |
| 16774 | 8 x 2 x 0,75 mm ² Grey | 0.292 | 122 | 15.3 | 180 |
| 16775 | 10 x 2 x 0,75 mm ² Grey | 0.364 | 142 | 17.8 | 225 |
| 16776 | 12 x 2 x 0,75 mm ² Grey | 0.416 | 146 | 18.3 | 270 |
| 16777 | 14 x 2 x 0,75 mm ² Grey | 0.49 | 161 | 20.1 | 315 |
| 16778 | 19 x 2 x 0,75 mm ² Grey | 0.639 | 184 | 23 | 428 |
| 16779 | 24 x 2 x 0,75 mm ² Grey | 0.793 | 206 | 25.7 | 540 |
| 16782 | 27 x 2 x 0,75 mm ² Grey | 0.874 | 213 | 26.6 | 608 |
| 16780 | 30 x 2 x 0,75 mm ² Grey | 0.974 | 228 | 28.5 | 675 |
| 16781 | 37 x 2 x 0,75 mm ² Grey | 1.184 | 251 | 31.4 | 833 |
| 16790 | 2 x 2 x 1,0 mm ² Grey | 0.119 | 86 | 10.8 | 60 |
| 16791 | 4 x 2 x 1,0 mm ² Grey | 0.195 | 102 | 12.8 | 120 |
| 16792 | 6 x 2 x 1,0 mm ² Grey | 0.306 | 123 | 15.4 | 180 |
| 16794 | 8 x 2 x 1,0 mm ² Grey | 0.342 | 131 | 16.4 | 240 |
| 16795 | 10 x 2 x 1,0 mm ² Grey | 0.425 | 150 | 18.8 | 300 |
| 16796 | 12 x 2 x 1,0 mm ² Grey | 0.5 | 159 | 19.9 | 360 |
| 16797 | 14 x 2 x 1,0 mm ² Grey | 0.569 | 170 | 21.2 | 420 |
| 16798 | 19 x 2 x 1,0 mm ² Grey | 0.751 | 194 | 24.3 | 570 |
| 16799 | 24 x 2 x 1,0 mm ² Grey | 0.934 | 217 | 27.1 | 720 |
| 16800 | 27 x 2 x 1,0 mm ² Grey | 1.049 | 230 | 28.7 | 810 |
| 16801 | 30 x 2 x 1,0 mm ² Grey | 1.15 | 241 | 30.1 | 900 |
| 16802 | 37 x 2 x 1,0 mm ² Grey | 1.4 | 266 | 33.2 | 1,110 |
| 16810 | 2 x 2 x 1,5 mm ² Grey | 0.16 | 103 | 12.9 | 90 |
| 16811 | 4 x 2 x 1,5 mm ² Grey | 0.263 | 122 | 15.2 | 180 |
| 16813 | 7 x 2 x 1,5 mm ² Grey | 0.412 | 147 | 18.4 | 315 |
| 16814 | 8 x 2 x 1,5 mm ² Grey | 0.471 | 158 | 19.8 | 360 |
| 16815 | 10 x 2 x 1,5 mm ² Grey | 0.592 | 182 | 22.8 | 450 |
| 16816 | 12 x 2 x 1,5 mm ² Grey | 0.683 | 190 | 23.8 | 540 |
| 16817 | 14 x 2 x 1,5 mm ² Grey | 0.779 | 203 | 25.4 | 630 |

Communication cables

Marine2Com YZ2afc 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-----------------------------------|-------------------|--|----------------------------|------------------|
| 16818 | 19 x 2 x 1,5 mm ² Grey | 1.045 | 236 | 29.5 | 855 |
| 16819 | 24 x 2 x 1,5 mm ² Grey | 1.297 | 262 | 32.8 | 1,080 |
| 16820 | 27 x 2 x 1,5 mm ² Grey | 1.456 | 278 | 34.8 | 1,215 |
| 16821 | 30 x 2 x 1,5 mm ² Grey | 1.598 | 291 | 36.4 | 1,350 |
| 16822 | 37 x 2 x 1,5 mm ² Grey | 1.947 | 322 | 40.2 | 1,665 |
| 16870 | 2 x 2 x 2,5 mm ² Grey | 0.223 | 118 | 14.8 | 150 |
| 16871 | 4 x 2 x 2,5 mm ² Grey | 0.365 | 138 | 17.2 | 300 |
| 16872 | 6 x 2 x 2,5 mm ² Grey | 0.584 | 169 | 21.1 | 450 |
| 16874 | 8 x 2 x 2,5 mm ² Grey | 0.671 | 180 | 22.5 | 600 |
| 16875 | 10 x 2 x 2,5 mm ² Grey | 0.845 | 208 | 26 | 750 |
| 16876 | 12 x 2 x 2,5 mm ² Grey | 0.983 | 218 | 27.3 | 900 |
| 16877 | 14 x 2 x 2,5 mm ² Grey | 1.138 | 234 | 29.3 | 1,050 |
| 16878 | 19 x 2 x 2,5 mm ² Grey | 1.508 | 270 | 33.7 | 1,425 |
| 16879 | 24 x 2 x 2,5 mm ² Grey | 1.897 | 302 | 37.8 | 1,800 |
| 16880 | 27 x 2 x 2,5 mm ² Grey | 2.108 | 318 | 39.8 | 2,025 |
| 16881 | 30 x 2 x 2,5 mm ² Grey | 2.34 | 336 | 42 | 2,250 |
| 16882 | 37 x 2 x 2,5 mm ² Grey | 2.854 | 370 | 46.3 | 2,775 |

Properties

Application:

Lightweight, fire-resistant, armored, control, instrumentation, tele- and data cable.

Characteristics:

- Twisted pairs, triples or quads
- Perfect electrical properties and low capacitance for minimal signal loss
- Fire-resistant according to IEC60331-1/2
- Extra mechanical protection and reduced EMI due to the tinned copper braided screen
- Different color outer sheaths, other than orange, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Product dependent |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding | Braiding |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

Communication cables

MarineCom YOZc X-FR 250 V

72 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|--|----------------------------|------------------|
| 26500 | 1 x 2 x 0,75 mm ² Orange | 0.087 | 66 | 8.2 | 23 |
| 26501 | 1 x 4 x 0,75 mm ² Orange | 0.126 | 76 | 9.5 | 45 |
| 26502 | 2 x 2 x 0,75 mm ² Orange | 0.157 | 99 | 12.3 | 45 |
| 26499 | 2 x 2 x 0,75 mm ² (Quad) Orange | 0.127 | 75 | 9.5 | 45 |
| 26503 | 4 x 2 x 0,75 mm ² Orange | 0.272 | 117 | 14.6 | 90 |
| 26505 | 7 x 2 x 0,75 mm ² Orange | 0.391 | 140 | 17.5 | 158 |
| 26507 | 10 x 2 x 0,75 mm ² Orange | 0.529 | 172 | 21.4 | 225 |
| 26508 | 12 x 2 x 0,75 mm ² Orange | 0.598 | 180 | 22.5 | 270 |
| 26509 | 14 x 2 x 0,75 mm ² Orange | 0.668 | 191 | 23.8 | 315 |
| 26510 | 19 x 2 x 0,75 mm ² Orange | 0.847 | 218 | 27.2 | 428 |
| 26511 | 24 x 2 x 0,75 mm ² Orange | 1.062 | 245 | 30.6 | 540 |
| 26526 | 1 x 2 x 1,0 mm ² Orange | 0.098 | 70 | 8.7 | 30 |
| 26541 | 1 x 3 x 1,0 mm ² Orange | 0.117 | 73 | 9.1 | 45 |
| 26527 | 2 x 2 x 1,0 mm ² (Quad) Orange | 0.146 | 81 | 10.1 | 60 |
| 26532 | 8 x 2 x 1,0 mm ² Orange | 0.484 | 158 | 19.8 | 240 |
| 26533 | 10 x 2 x 1,0 mm ² Orange | 0.593 | 180 | 22.5 | 300 |
| 26534 | 12 x 2 x 1,0 mm ² Orange | 0.682 | 190 | 23.7 | 360 |
| 26535 | 14 x 2 x 1,0 mm ² Orange | 0.766 | 202 | 25.2 | 420 |
| 26545 | 10 x 3 x 1,0 mm ² Orange | 0.821 | 208 | 26 | 450 |
| 26536 | 19 x 2 x 1,0 mm ² Orange | 0.988 | 231 | 28.9 | 570 |
| 26546 | 14 x 3 x 1,0 mm ² Orange | 1.062 | 230 | 28.8 | 630 |
| 26537 | 24 x 2 x 1,0 mm ² Orange | 1.219 | 258 | 32.2 | 720 |
| 26538 | 27 x 2 x 1,0 mm ² Orange | 1.342 | 271 | 33.9 | 810 |
| 26547 | 19 x 3 x 1,0 mm ² Orange | 1.392 | 266 | 33.2 | 855 |
| 26539 | 30 x 2 x 1,0 mm ² Orange | 1.798 | 288 | 36 | 900 |
| 26548 | 24 x 3 x 1,0 mm ² Orange | 1.831 | 298 | 37.2 | 1,080 |
| 26540 | 37 x 2 x 1,0 mm ² Orange | 1.888 | 315 | 39.4 | 1,110 |
| 26550 | 1 x 2 x 1,5 mm ² Orange | 0.122 | 78 | 9.7 | 45 |
| 26551 | 2 x 2 x 1,5 mm ² (Quad) Orange | 0.183 | 90 | 11.2 | 90 |
| 26552 | 2 x 2 x 1,5 mm ² Orange | 0.255 | 119 | 14.9 | 90 |
| 26553 | 4 x 2 x 1,5 mm ² Orange | 0.382 | 140 | 17.5 | 180 |
| 26566 | 2 x 3 x 1,5 mm ² Orange | 0.32 | 129 | 16.2 | 203 |
| 26567 | 4 x 3 x 1,5 mm ² Orange | 0.524 | 156 | 19.5 | 270 |
| 26554 | 6 x 2 x 1,5 mm ² Orange | 0.581 | 168 | 21 | 270 |
| 26525 | 7 x 2 x 1,5 mm ² Orange | 0.561 | 166 | 20.8 | 315 |
| 26555 | 8 x 2 x 1,5 mm ² Orange | 0.633 | 178 | 22.3 | 360 |
| 26556 | 10 x 2 x 1,5 mm ² Orange | 0.79 | 206 | 25.7 | 450 |
| 26568 | 7 x 3 x 1,5 mm ² Orange | 0.797 | 195 | 24.4 | 473 |
| 26557 | 12 x 2 x 1,5 mm ² Orange | 0.895 | 214 | 26.8 | 540 |
| 26558 | 14 x 2 x 1,5 mm ² Orange | 1.012 | 229 | 28.6 | 630 |
| 26569 | 10 x 3 x 1,5 mm ² Orange | 1.089 | 238 | 29.8 | 675 |
| 26559 | 19 x 2 x 1,5 mm ² Orange | 1.326 | 263 | 32.9 | 855 |
| 26570 | 14 x 3 x 1,5 mm ² Orange | 1.435 | 266 | 33.2 | 945 |
| 26560 | 24 x 2 x 1,5 mm ² Orange | 1.75 | 295 | 36.9 | 1,080 |

MarineCom YOZc X-FR 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|---|-------------------|--|----------------------------|------------------|
| 26561 | 27 x 2 x 1,5 mm ² Orange | 1.939 | 312 | 39 | 1,215 |
| 26571 | 19 x 3 x 1,5 mm ² Orange | 2.016 | 309 | 38.6 | 1,283 |
| 26562 | 30 x 2 x 1,5 mm ² Orange | 2.123 | 326 | 40.8 | 1,350 |
| 26572 | 24 x 3 x 1,5 mm ² Orange | 2.462 | 342 | 42.8 | 1,620 |
| 26563 | 37 x 2 x 1,5 mm ² Orange | 2.553 | 361 | 45.1 | 1,665 |
| 26575 | 1 x 2 x 2,5 mm ² Orange | 0.147 | 84 | 10.5 | 75 |
| 26565 | 1 x 3 x 2,5 mm ² Orange | 0.191 | 90 | 11.3 | 113 |
| 26576 | 2 x 2 x 2,5 mm ² (Quad) Orange | 0.233 | 99 | 12.3 | 150 |
| 26577 | 2 x 2 x 2,5 mm ² Orange | 0.327 | 135 | 16.8 | 150 |
| 26578 | 4 x 2 x 2,5 mm ² Orange | 0.506 | 158 | 19.7 | 450 |
| 26591 | 2 x 3 x 2,5 mm ² Orange | 0.411 | 145 | 18.1 | 338 |
| 26592 | 4 x 3 x 2,5 mm ² Orange | 0.664 | 172 | 21.5 | 450 |
| 26579 | 6 x 2 x 2,5 mm ² Orange | 0.725 | 188 | 23.5 | 450 |
| 26580 | 7 x 2 x 2,5 mm ² Orange | 0.763 | 188 | 23.5 | 450 |
| 26581 | 8 x 2 x 2,5 mm ² Orange | 0.861 | 203 | 25.4 | 600 |
| 26582 | 10 x 2 x 2,5 mm ² Orange | 1.057 | 232 | 29 | 750 |
| 26593 | 7 x 3 x 2,5 mm ² Orange | 1.075 | 220 | 27.4 | 788 |
| 26583 | 12 x 2 x 2,5 mm ² Orange | 1.224 | 244 | 30.5 | 900 |
| 26584 | 14 x 2 x 2,5 mm ² Orange | 1.386 | 261 | 32.6 | 1,050 |
| 26594 | 10 x 3 x 2,5 mm ² Orange | 1.486 | 268 | 33.3 | 1,125 |
| 26585 | 19 x 2 x 2,5 mm ² Orange | 1.948 | 303 | 37.9 | 1,425 |
| 26595 | 14 x 3 x 2,5 mm ² Orange | 2.082 | 301 | 37.6 | 1,575 |
| 26586 | 24 x 2 x 2,5 mm ² Orange | 2.402 | 338 | 42.2 | 1,800 |
| 26587 | 27 x 2 x 2,5 mm ² Orange | 2.668 | 357 | 44.6 | 2,025 |
| 26596 | 19 x 3 x 2,5 mm ² Orange | 2.727 | 346 | 43.2 | 2,138 |
| 26588 | 30 x 2 x 2,5 mm ² Orange | 2.939 | 374 | 46.7 | 2,250 |
| 26597 | 24 x 3 x 2,5 mm ² Orange | 3.37 | 385 | 48.1 | 2,700 |
| 26589 | 37 x 2 x 2,5 mm ² Orange | 3.563 | 414 | 51.7 | 2,775 |

Communication cables

Marine2Com YOZ2c X-FR 250 V

Properties

Application:

Fire resistant, lightweight, individual pair and overall screened, armoured, control, instrumentation, tele- and data cable.

Characteristics:

- Twisted pairs, triples or quads, individual pair and overall screening with both a stranded tinned copper drain wire
- Perfect electrical properties and low capacitance for minimal signal loss
- Fire-resistant according to IEC60331-1/2
- Halogen-free and low smoke
- Extra mechanical protection and reduced EMI due to the tinned copper braided screen
- Different color outer sheaths, other than orange, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Product dependent |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding element | Alpet tape |
| Screen over stranding | Foil + braiding |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

65 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------------|-------------------|--|----------------------------|------------------|
| 26600 | 1 x 2 x 0,75 mm ² Orange | 0.098 | 68 | 8.5 | 23 |
| 26601 | 1 x 4 x 0,75 mm ² Orange | 0.132 | 77 | 9.6 | 45 |
| 26602 | 2 x 2 x 0,75 mm ² Orange | 0.19 | 106 | 13.2 | 45 |
| 26603 | 4 x 2 x 0,75 mm ² Orange | 0.327 | 128 | 15.9 | 90 |
| 26604 | 6 x 2 x 0,75 mm ² Orange | 0.466 | 150 | 18.8 | 135 |
| 26605 | 7 x 2 x 0,75 mm ² Orange | 0.468 | 150 | 18.8 | 158 |
| 26608 | 12 x 2 x 0,75 mm ² Orange | 0.723 | 195 | 24.3 | 270 |
| 26610 | 19 x 2 x 0,75 mm ² Orange | 1.043 | 234 | 29.3 | 428 |
| 26611 | 24 x 2 x 0,75 mm ² Orange | 1.286 | 258 | 32.3 | 540 |
| 26616 | 1 x 4 x 1,0 mm ² Orange | 0.146 | 81 | 10.1 | 60 |
| 26621 | 8 x 2 x 1,0 mm ² Orange | 0.585 | 172 | 21.5 | 240 |
| 26622 | 10 x 2 x 1,0 mm ² Orange | 0.713 | 195 | 24.4 | 300 |
| 26628 | 12 x 2 x 1,0 mm ² Orange | 0.802 | 206 | 25.7 | 360 |
| 26624 | 14 x 2 x 1,0 mm ² Orange | 0.912 | 219 | 27.4 | 420 |
| 26704 | 10 x 3 x 1,0 mm ² Orange | 0.933 | 222 | 27.8 | 450 |
| 26625 | 19 x 2 x 1,0 mm ² Orange | 1.177 | 250 | 31.3 | 570 |
| 26705 | 14 x 3 x 1,0 mm ² Orange | 1.212 | 246 | 30.8 | 630 |
| 26626 | 24 x 2 x 1,0 mm ² Orange | 1.459 | 280 | 35 | 720 |
| 26627 | 27 x 2 x 1,0 mm ² Orange | 1.73 | 298 | 37.2 | 810 |
| 26623 | 30 x 2 x 1,0 mm ² Orange | 1.898 | 312 | 39 | 900 |
| 26707 | 24 x 3 x 1,0 mm ² Orange | 2.086 | 318 | 39.8 | 1,080 |
| 26629 | 37 x 2 x 1,0 mm ² Orange | 2.271 | 343 | 42.9 | 1,110 |
| 26630 | 1 x 2 x 1,5 mm ² Orange | 0.128 | 79 | 9.8 | 45 |
| 26631 | 1 x 4 x 1,5 mm ² Orange | 0.191 | 91 | 11.3 | 90 |
| 26632 | 2 x 2 x 1,5 mm ² Orange | 0.297 | 130 | 16.2 | 90 |
| 26711 | 2 x 3 x 1,5 mm ² Orange | 0.369 | 141 | 17.6 | 135 |
| 26633 | 4 x 2 x 1,5 mm ² Orange | 0.459 | 151 | 19 | 180 |
| 26712 | 4 x 3 x 1,5 mm ² Orange | 0.572 | 167 | 20.8 | 270 |
| 26634 | 6 x 2 x 1,5 mm ² Orange | 0.64 | 183 | 22.8 | 270 |
| 26635 | 7 x 2 x 1,5 mm ² Orange | 0.67 | 183 | 22.8 | 315 |
| 26636 | 8 x 2 x 1,5 mm ² Orange | 0.744 | 194 | 24.2 | 360 |
| 26637 | 10 x 2 x 1,5 mm ² Orange | 0.91 | 222 | 27.8 | 450 |
| 26713 | 7 x 3 x 1,5 mm ² Orange | 0.889 | 209 | 26.1 | 473 |
| 26638 | 12 x 2 x 1,5 mm ² Orange | 1.038 | 233 | 29.1 | 540 |
| 26639 | 14 x 2 x 1,5 mm ² Orange | 1.187 | 250 | 31.2 | 630 |
| 26714 | 10 x 3 x 1,5 mm ² Orange | 1.227 | 254 | 31.7 | 675 |
| 26640 | 19 x 2 x 1,5 mm ² Orange | 1.662 | 289 | 36.1 | 855 |
| 26715 | 14 x 3 x 1,5 mm ² Orange | 1.602 | 281 | 35.1 | 945 |
| 26641 | 24 x 2 x 1,5 mm ² Orange | 2.042 | 322 | 40.2 | 1,080 |
| 26642 | 27 x 2 x 1,5 mm ² Orange | 2.263 | 338 | 42.3 | 1,215 |
| 26716 | 19 x 3 x 1,5 mm ² Orange | 2.227 | 325 | 40.6 | 1,283 |
| 26643 | 30 x 2 x 1,5 mm ² Orange | 2.468 | 356 | 44.5 | 1,350 |
| 26717 | 24 x 3 x 1,5 mm ² Orange | 2.759 | 364 | 45.5 | 1,620 |
| 26644 | 37 x 2 x 1,5 mm ² Orange | 2.967 | 398 | 49.8 | 1,665 |

Communication cables

Marine2Com YOZ2c X-FR 250 V

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------------|-------------------|--|----------------------------|------------------|
| 26645 | 1 x 2 x 2,5 mm ² Orange | 0.157 | 84 | 10.6 | 75 |
| 26647 | 2 x 2 x 2,5 mm ² Orange | 0.375 | 145 | 18.1 | 150 |
| 26721 | 2 x 3 x 2,5 mm ² Orange | 0.457 | 155 | 19.4 | 225 |
| 26648 | 4 x 2 x 2,5 mm ² Orange | 0.578 | 170 | 21.1 | 300 |
| 26722 | 4 x 3 x 2,5 mm ² Orange | 0.747 | 186 | 23.3 | 450 |
| 26649 | 6 x 2 x 2,5 mm ² Orange | 0.833 | 204 | 25.5 | 450 |
| 26650 | 7 x 2 x 2,5 mm ² Orange | 0.882 | 204 | 25.5 | 525 |
| 26651 | 8 x 2 x 2,5 mm ² Orange | 0.989 | 219 | 27.4 | 600 |
| 26652 | 10 x 2 x 2,5 mm ² Orange | 1.226 | 252 | 31.5 | 750 |
| 26723 | 7 x 3 x 2,5 mm ² Orange | 1.175 | 234 | 29.2 | 788 |
| 26653 | 12 x 2 x 2,5 mm ² Orange | 1.403 | 263 | 32.9 | 900 |
| 26654 | 14 x 2 x 2,5 mm ² Orange | 1.729 | 286 | 35.7 | 1,050 |
| 26724 | 10 x 3 x 2,5 mm ² Orange | 1.794 | 290 | 36.3 | 1,125 |
| 26655 | 19 x 2 x 2,5 mm ² Orange | 2.235 | 326 | 40.8 | 1,425 |
| 26725 | 14 x 3 x 2,5 mm ² Orange | 2.306 | 322 | 40.2 | 1,575 |
| 26656 | 24 x 2 x 2,5 mm ² Orange | 2.768 | 366 | 45.7 | 1,800 |
| 26657 | 27 x 2 x 2,5 mm ² Orange | 3.061 | 385 | 48.1 | 2,025 |
| 26726 | 19 x 3 x 2,5 mm ² Orange | 3.021 | 370 | 46.2 | 2,138 |
| 26658 | 30 x 2 x 2,5 mm ² Orange | 3.383 | 405 | 50.6 | 2,250 |
| 26727 | 24 x 3 x 2,5 mm ² Orange | 3.756 | 414 | 51.7 | 2,700 |
| 26659 | 37 x 2 x 2,5 mm ² Orange | 4.061 | 445 | 55.6 | 2,775 |

Properties

Application:

Lightweight, fire resistant, screened, control, instrumentation, tele- and data cable.

Characteristics:

- Twisted pairs, triples or quads, overall screening with a stranded tinned copper drain wire
- Perfect electrical properties and low capacitance for minimal signal loss
- Fire-resistant according to IEC60331-1/2
- Different color outer sheaths, other than orange, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Product dependent |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding | Alpet tape |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |
| Test voltage | 1,500 V |

Communication cables

MarineCom YZafc X-FR 250 V

11 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--|-------------------|--|----------------------------|------------------|
| 26830 | 2 x 2 x 0,5 mm ² Orange | 0.112 | 92 | 11.5 | 30 |
| 26802 | 1 x 2 x 0,75 mm ² Orange | 0.065 | 62 | 7.7 | 225 |
| 26816 | 2 x 2 x 0,75 mm ² (Quad) Orange | 0.097 | 71 | 8.8 | 45 |
| 26801 | 2 x 2 x 0,75 mm ² Orange | 0.123 | 95 | 11.8 | 45 |
| 26803 | 4 x 2 x 0,75 mm ² Orange | 0.193 | 112 | 13.9 | 90 |
| 26805 | 7 x 2 x 0,75 mm ² Orange | 0.297 | 135 | 16.8 | 158 |
| 26807 | 10 x 2 x 0,75 mm ² Orange | 0.41 | 167 | 20.5 | 225 |
| 26809 | 14 x 2 x 0,75 mm ² Orange | 0.551 | 185 | 23.1 | 315 |
| 26810 | 19 x 2 x 0,75 mm ² Orange | 0.713 | 212 | 26.5 | 428 |
| 26811 | 24 x 2 x 0,75 mm ² Orange | 0.881 | 236 | 29.5 | 540 |
| 26845 | 1 x 2 x 1,5 mm ² Orange | 0.095 | 74 | 9.2 | 90 |

Communication cables

MarineCom YOZc X-FRSW 250 V

Properties

Application:

Lightweight, armoured, control, instrumentation, tele- and data cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP.

Characteristics:

- Twisted pairs, triples or quads
- Perfect electrical properties and low capacitance for minimal signal loss
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Extra mechanical protection and reduced EMI due to the tinned copper braided screen
- Different colour outer sheaths, other than orange, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |

Communication cables

MarineCom YOZc X-FRSW 250 V

15 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|--|-------------------|---|-----------------------------|------------------|
| 121050 | 1 x 2 x 0,75 mm ² Orange | 0.104 | 75 | 9.3 | 23 |
| 121052 | 2 x 2 x 0,75 mm ² Orange | 0.229 | 119 | 14.8 | 45 |
| 121054 | 4 x 2 x 0,75 mm ² Orange | 0.347 | 139 | 17.3 | 90 |
| 121057 | 7 x 2 x 0,75 mm ² Orange | 0.486 | 166 | 20.7 | 158 |
| 121060 | 10 x 2 x 0,75 mm ² Orange | 0.68 | 203 | 25.3 | 225 |
| 121064 | 14 x 2 x 0,75 mm ² Orange | 0.868 | 228 | 28.4 | 315 |
| 121069 | 19 x 2 x 0,75 mm ² Orange | 1.108 | 260 | 32.5 | 428 |
| 121051 | 2 x 2 x 0,75 mm ² (Quad) Orange | 0.152 | 87 | 10.8 | 45 |
| 121150 | 1 x 2 x 1,5 mm ² Orange | 0.148 | 90 | 11.2 | 45 |
| 121152 | 2 x 2 x 1,5 mm ² Orange | 0.318 | 141 | 17.6 | 90 |
| 121154 | 4 x 2 x 1,5 mm ² Orange | 0.494 | 165 | 20.6 | 180 |
| 121157 | 7 x 2 x 1,5 mm ² Orange | 0.726 | 200 | 25 | 315 |
| 121160 | 10 x 2 x 1,5 mm ² Orange | 1.016 | 245 | 30.6 | 450 |
| 121164 | 14 x 2 x 1,5 mm ² Orange | 1.311 | 276 | 34.4 | 630 |
| 121169 | 19 x 2 x 1,5 mm ² Orange | 1.828 | 322 | 40.2 | 855 |

Communication cables

Marine2Com YOZ2c X-FRSW 250 V

Properties

Application:

Lightweight, individual pair and overall screened, armoured, control, instrumentation, tele- and data cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRTp.

Characteristics:

- Twisted pairs, triples or quads, individual pair and overall screening with both a stranded tinned copper drain wire
- Cable OD ≤ 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD > 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Halogen-free and low smoke
- Extra mechanical protection and reduced EMI due to the tinned copper braided screen
- Different colour outer sheaths, other than orange, available on request

Core identification:

- Pairs: Numbered Blue and White.
- Triples: Numbered Blue, White and Red

Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding element | Alpet tape |
| Screen over stranding | Foil + braiding |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |



Communication cables

Marine2Com YOZ2c X-FRSW 250 V

8 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|--------------------------------------|-------------------|---|-----------------------------|------------------|
| 121551 | 1 x 2 x 0,75 mm ² Orange | 0.114 | 77 | 9.6 | 23 |
| 121552 | 2 x 2 x 0,75 mm ² Orange | 0.265 | 127 | 15.8 | 45 |
| 121554 | 4 x 2 x 0,75 mm ² Orange | 0.397 | 148 | 18.4 | 90 |
| 121557 | 7 x 2 x 0,75 mm ² Orange | 0.583 | 179 | 22.3 | 158 |
| 121560 | 10 x 2 x 0,75 mm ² Orange | 0.793 | 216 | 27 | 225 |
| 121564 | 14 x 2 x 0,75 mm ² Orange | 1.029 | 244 | 30.5 | 315 |
| 121652 | 2 x 2 x 1,5 mm ² Orange | 0.361 | 152 | 18.9 | 90 |
| 121654 | 4 x 2 x 1,5 mm ² Orange | 0.572 | 180 | 22.4 | 180 |

Properties

Application:

Lightweight, screened, control, instrumentation, tele- and data cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRtP.

Characteristics:

- Twisted pairs, triples or quads, overall screening with a stranded tinned copper drain wire
- Perfect electrical properties and low capacitance for minimal signal loss
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Different colour outer sheaths, other than orange, available on request

Core identification:

- Pairs & Quads: Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Material core insulation | Mica + XLHFFR |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |

Communication cables

MarineCom YZafc X-FRSW 250 V

14 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|--|-------------------|---|-----------------------------|------------------|
| 120050 | 1 x 2 x 0,75 mm ² Orange | 0.082 | 72 | 9 | 225 |
| 120051 | 2 x 2 x 0,75 mm ² (Quad) Orange | 0.117 | 81 | 10.1 | 45 |
| 120052 | 2 x 2 x 0,75 mm ² Orange | 0.155 | 112 | 13.9 | 45 |
| 120054 | 4 x 2 x 0,75 mm ² Orange | 0.247 | 130 | 16.2 | 90 |
| 120057 | 7 x 2 x 0,75 mm ² Orange | 0.376 | 159 | 19.8 | 158 |
| 120060 | 10 x 2 x 0,75 mm ² Orange | 0.534 | 194 | 24.2 | 225 |
| 120064 | 14 x 2 x 0,75 mm ² Orange | 0.713 | 220 | 27.5 | 315 |
| 120069 | 19 x 2 x 0,75 mm ² Orange | 0.918 | 253 | 31.6 | 428 |
| 120150 | 1 x 2 x 1,5 mm ² Orange | 0.112 | 84 | 10.5 | 45 |
| 120152 | 2 x 2 x 1,5 mm ² Orange | 0.226 | 134 | 16.7 | 90 |
| 120154 | 4 x 2 x 1,5 mm ² Orange | 0.383 | 158 | 19.7 | 180 |
| 120157 | 7 x 2 x 1,5 mm ² Orange | 0.581 | 192 | 23.9 | 315 |
| 120164 | 14 x 2 x 1,5 mm ² Orange | 1.122 | 268 | 33.5 | 630 |
| 120169 | 19 x 2 x 1,5 mm ² Orange | 1.478 | 310 | 38.7 | 855 |

Properties

Application:

Lightweight, individual and overall screened, control, instrumentation, tele- and data cables with enhanced characteristics to withstand the effects of fire and fire-fighting efforts (sprinklers, hose spraying, etc.) in order to ensure the continuity of essential- and critical systems, i.e. to meet the concepts of Orderly Evacuation and Abandonment - OEA and Safe Return to Port - SRTp.

Characteristics:

- Twisted pairs, triples or quads, individual and overall screening with a stranded tinned copper drain wire
- Cable OD \leq 20mm: Fire resistant according IEC 60331-2 (180 min test) + EN 50200:2015 Annex E (water spray test)
- Cable OD $>$ 20mm: Fire resistant according IEC 60331-1 (180 min test) + BS 8491: 2008 (water jet test)
- Different colour outer sheaths, other than orange, available on request

Core identification:

- Pairs : Numbered Blue and White.
- Triples: Numbered Blue, White and Red



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Pairs |
| Material core insulation | Mica + XLHFFR |
| Screen over stranding element | Alpet tape |
| Screen over stranding | Alpet tape |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Insulation integrity according to IEC 60331 | Yes |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 250 V |

Communication cables

Marine2Com YZ2afc X-FRSW 250 V

8 products

| Part number | Construction | Net weight (kg/m) | Min. bending radius after installation (mm) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|--------------------------------------|-------------------|---|-----------------------------|------------------|
| 120552 | 2 x 2 x 0,75 mm ² Orange | 0.176 | 119 | 14.8 | 45 |
| 120554 | 4 x 2 x 0,75 mm ² Orange | 0.292 | 140 | 17.4 | 90 |
| 120557 | 7 x 2 x 0,75 mm ² Orange | 0.439 | 169 | 21.1 | 158 |
| 120560 | 10 x 2 x 0,75 mm ² Orange | 0.634 | 208 | 26 | 225 |
| 120564 | 14 x 2 x 0,75 mm ² Orange | 0.835 | 235 | 29.3 | 315 |
| 120569 | 19 x 2 x 0,75 mm ² Orange | 1.101 | 272 | 33.9 | 428 |
| 120652 | 2 x 2 x 1,5 mm ² Orange | 0.252 | 144 | 17.9 | 90 |
| 120654 | 4 x 2 x 1,5 mm ² Orange | 0.428 | 170 | 21.2 | 180 |

Signal cables

MarineSignal YZs 250 V

Properties

Application:

Lightweight, unarmoured, reduced diameter cable designed for signal, control & alarm purposes in all ship areas

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen-free and low smoke, flame retardant
- Excellent abrasion resistance
- Different color outer sheaths, other than grey, available on request

Core identification:

- Numbered



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 0.25 kV |
| Test voltage | 1.5 kV |

Signal cables

MarineSignal YZs 250 V

19 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 16210 | 2 x 0,75 mm ² Grey | 0.042 | 25 | 6.3 | 23 |
| 16211 | 3 x 0,75 mm ² Grey | 0.053 | 26 | 6.6 | 34 |
| 16212 | 4 x 0,75 mm ² Grey | 0.064 | 28 | 7.1 | 45 |
| 16213 | 5 x 0,75 mm ² Grey | 0.078 | 31 | 7.7 | 56 |
| 16214 | 7 x 0,75 mm ² Grey | 0.099 | 34 | 8.6 | 79 |
| 16215 | 12 x 0,75 mm ² Grey | 0.155 | 45 | 11.2 | 135 |
| 16216 | 19 x 0,75 mm ² Grey | 0.233 | 54 | 13.5 | 214 |
| 16217 | 27 x 0,75 mm ² Grey | 0.321 | 63 | 15.8 | 304 |
| 16218 | 37 x 0,75 mm ² Grey | 0.428 | 73 | 18.2 | 416 |
| 16220 | 2 x 1,0 mm ² Grey | 0.049 | 27 | 6.7 | 30 |
| 16221 | 3 x 1,0 mm ² Grey | 0.062 | 28 | 6.9 | 45 |
| 16222 | 4 x 1,0 mm ² Grey | 0.076 | 31 | 7.7 | 60 |
| 16223 | 5 x 1,0 mm ² Grey | 0.094 | 33 | 8.2 | 75 |
| 16230 | 6 x 1,0 mm ² Grey | 0.114 | 36 | 9.1 | 90 |
| 16224 | 7 x 1,0 mm ² Grey | 0.12 | 36 | 9.1 | 105 |
| 16225 | 12 x 1,0 mm ² Grey | 0.197 | 48 | 12 | 180 |
| 16226 | 19 x 1,0 mm ² Grey | 0.293 | 59 | 14.8 | 285 |
| 16227 | 27 x 1,0 mm ² Grey | 0.403 | 69 | 17.3 | 405 |
| 16228 | 37 x 1,0 mm ² Grey | 0.538 | 80 | 20 | 555 |

Properties**Application:**

Lightweight, armoured, reduced diameter cable designed for signal, control & alarm purposes in all ship areas

Characteristics:

- Class 2 conductors
- Lightweight, reduced diameter
- Halogen-free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Excellent abrasion resistance
- Different colour outer sheaths, other than grey, available on request

Core identification:

- Numbered

**Specifications**

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 0.25 kV |
| Test voltage | 1.5 kV |

Signal cables

MarineSignal YOZs 250 V

23 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|--------------------------------|-------------------|--|----------------------------|------------------|
| 16241 | 2 x 0,75 mm ² Grey | 0.068 | 28 | 6.9 | 23 |
| 16242 | 3 x 0,75 mm ² Grey | 0.078 | 29 | 7.3 | 34 |
| 16243 | 4 x 0,75 mm ² Grey | 0.09 | 31 | 7.8 | 45 |
| 16244 | 5 x 0,75 mm ² Grey | 0.113 | 34 | 8.6 | 56 |
| 16245 | 7 x 0,75 mm ² Grey | 0.131 | 37 | 9.2 | 79 |
| 16246 | 12 x 0,75 mm ² Grey | 0.202 | 47 | 11.8 | 135 |
| 16247 | 19 x 0,75 mm ² Grey | 0.322 | 59 | 14.8 | 214 |
| 16248 | 27 x 0,75 mm ² Grey | 0.426 | 68 | 17.1 | 304 |
| 16249 | 37 x 0,75 mm ² Grey | 0.553 | 78 | 19.4 | 416 |
| 16250 | 2 x 1,0 mm ² Grey | 0.075 | 29 | 7.3 | 30 |
| 16251 | 3 x 1,0 mm ² Grey | 0.088 | 30 | 7.6 | 45 |
| 16252 | 4 x 1,0 mm ² Grey | 0.106 | 33 | 8.2 | 60 |
| 16253 | 5 x 1,0 mm ² Grey | 0.129 | 36 | 9.1 | 75 |
| 16240 | 6 x 1,0 mm ² Grey | 0.149 | 39 | 9.8 | 90 |
| 16254 | 7 x 1,0 mm ² Grey | 0.155 | 39 | 9.8 | 105 |
| 16259 | 10 x 1,0 mm ² Grey | 0.217 | 49 | 12.2 | 150 |
| 16255 | 12 x 1,0 mm ² Grey | 0.241 | 50 | 12.6 | 180 |
| 16256 | 19 x 1,0 mm ² Grey | 0.384 | 63 | 15.8 | 285 |
| 16257 | 27 x 1,0 mm ² Grey | 0.517 | 73 | 18.2 | 405 |
| 16258 | 37 x 1,0 mm ² Grey | 0.66 | 83 | 20.8 | 555 |
| 17185 | 2 x 1,5 mm ² Grey | 0.095 | 33 | 8.2 | 45 |
| 17186 | 3 x 1,5 mm ² Grey | 0.117 | 35 | 8.8 | 68 |
| 17187 | 3 G 1,5 mm ² Grey | 0.113 | 34 | 8.6 | 68 |

Signal cables

MarineSignal+ YZs 250 V

Properties

Application:

Heavy-duty, unarmoured cable designed for signal, control & alarm purposes in all ship areas

Characteristics:

- Class 2 conductors
- Extruded inner bedding for perfectly round shaped cable
- Halogen-free and low smoke, flame retardant
- Perfect abrasion resistance & suitable for heavy-duty application
- Different color outer sheaths, other than grey, available on request

Core identification:

- Numbered



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 0.25 kV |
| Test voltage | 1.5 kV |

Signal cables

MarineSignal+ YZs 250 V

7 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16231 | 2 x 0,75 mm ² Grey | 0.063 | 27 | 6.7 | 23 |
| 16232 | 3 x 0,75 mm ² Grey | 0.072 | 28 | 7 | 34 |
| 16233 | 4 x 0,75 mm ² Grey | 0.083 | 30 | 7.5 | 45 |
| 16234 | 5 x 0,75 mm ² Grey | 0.099 | 33 | 8.2 | 56 |
| 16236 | 3 x 1,0 mm ² Grey | 0.084 | 30 | 7.4 | 45 |
| 16237 | 4 x 1,0 mm ² Grey | 0.099 | 33 | 8.2 | 60 |
| 16238 | 5 x 1,0 mm ² Grey | 0.121 | 36 | 8.9 | 75 |

Properties

Application:

Heavy-duty, armoured cable designed for signal, control & alarm purposes in all ship areas

Characteristics:

- Class 2 conductors
- Extruded inner bedding for perfectly round shaped cable
- Halogen-free and low smoke, flame retardant
- Tinned copper wire braid armouring
- Perfect abrasion resistance & suitable for heavy-duty application
- Different colour outer sheaths, other than grey, available on request

Core identification:

- Numbered



Specifications

| | |
|--|--|
| Standardization | IEC 60092-350/-360/-376 |
| Conductor material | Copper |
| Shape of conductor | Round |
| Conductor category | Class 2 = stranded |
| Material core insulation | Crosslinked polyethylene (XLPE) |
| Construction outer shield | Tinned copper braiding |
| Material outer sheath | Flame Retardant Halogen Free Polyolefin Compound |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1/2 |
| Low smoke | IEC 61034-2 |
| Max. conductor temperature | 90 °C |
| Permitted cable outer temperature during assembling/handling | -20 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 70 °C |
| Transportation and storage temperature | -40 / 50 °C |
| Nominal voltage U | 0.25 kV |
| Test voltage | 1.5 kV |

Signal cables

MarineSignal+ YOZs 250 V

8 products

| Part number | Construction | Net weight (kg/m) | Min bending radius after installation (mm) | Outer diameter approx (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|--|----------------------------|------------------|
| 16261 | 2 x 0,75 mm ² Grey | 0.099 | 31 | 7.8 | 23 |
| 16262 | 3 x 0,75 mm ² Grey | 0.111 | 32 | 8.1 | 34 |
| 16263 | 4 x 0,75 mm ² Grey | 0.129 | 36 | 8.9 | 45 |
| 16264 | 5 x 0,75 mm ² Grey | 0.145 | 38 | 9.4 | 56 |
| 16265 | 2 x 1,0 mm ² Grey | 0.109 | 32 | 8.1 | 30 |
| 16266 | 3 x 1,0 mm ² Grey | 0.125 | 34 | 8.6 | 45 |
| 16267 | 4 x 1,0 mm ² Grey | 0.141 | 37 | 9.2 | 60 |
| 16268 | 5 x 1,0 mm ² Grey | 0.167 | 40 | 9.9 | 75 |

Cat 5E S/FTP Marine Approved

Properties

Application:

Twisted pair cable for carrying signals. This type of cable is used in structured cabling for computer networks such as Ethernet

Characteristics:

- Available in stranded (AWG 22/7 CAT 5) conductors
- Halogen free and low smoke, flame retardant
- Suitable for POE+ applications
- DNV certified
- Different colour outer sheaths, other than grey , available on request

Core identification:

- White/Blue, White/Orange, White/Green, White/Brown



Specifications

| | |
|--|---|
| Suitable as computer data cable | Yes |
| Standardization | BS EN 50288-2-1, ISO/IEC 11801, IEC 61156-5, UL Subject 444 |
| Conductor material | Copper |
| Conductor category | Class 2 = stranded |
| Stranding element | Pairs |
| Material core insulation | Polyethylene, foamed (foam PE) |
| Screen over stranding element | Al/Polyester foil |
| Screen over stranding | Braiding |
| Material outer sheath | LSZH |
| Flame retardant | IEC 60332-3-24 Cat. C |
| Halogen free | IEC 60754-1 / IEC 60754-2 |
| Low smoke | IEC 61034-1 & IEC 61034-2 |
| Oil resistant | IEC 60811-2-1 IRM 902/ASTM No.2 (70°C for 4 Hrs) |
| Permitted cable outer temperature during assembling/handling | -15 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 85 °C |
| Transportation and storage temperature | -40 / 85 °C |

Cat 5E S/FTP Marine Approved

3 products

| Part number | Construction | Net weight (kg/m) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|----------------------------------|-------------------|-----------------------------|------------------|
| 24025 | 4x2xAWG 24/7 HFFR-LS Black | 0.071 | 8 | 110 |
| 24026 | 4x2xAWG 24/7 HFFR-LS Grey | 0.071 | 8 | 110 |
| 24027 | 4x2xAWG 24/7 HFFR-LS Lila/Purple | 0.071 | 8 | 110 |

Cat.6A S/FTP Marine Approved

Properties

Application:

Category 6A DNV- GL marine approved LAN cables are used extensively for media distribution and entertainment system integration.

Characteristics:

- Available in stranded (AWG 23/7 CAT6A) and solid (AWG 23/1 CAT 6A) conductors
- Halogen free and low smoke, flame retardant
- DNV certified
- Suitable for use with CAT6A RJ45 Modular jack (800412)
- Different colour outer sheaths, other than grey , available on request

Core identification:

- White/Blue, White/Orange, White/Green, White/Brown



Specifications

| | |
|--|---|
| Suitable as computer data cable | Yes |
| Standardization | BS EN 50288-2-1, ISO/IEC 11801, IEC 61156-5, UL Subject 444 |
| Conductor material | Copper |
| Conductor category | Product dependent |
| Stranding element | Pairs |
| Material core insulation | Polyethylene, foamed (foam PE) |
| Screen over stranding element | Al/Polyester foil |
| Screen over stranding | Tinned copper braiding |
| Material outer sheath | LSZH |
| Flame retardant | IEC 60332-3-24 Cat. C |
| Halogen free | IEC 60754-1 / IEC 60754-2 |
| Low smoke | IEC 61034-1 & IEC 61034-2 |
| Oil resistant | IEC 60811-2-1 IRM 902/ASTM No.2 (70°C for 4 Hrs) |
| Permitted cable outer temperature during assembling/handling | -15 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 85 °C |
| Transportation and storage temperature | -40 / 85 °C |

Cat.6A S/FTP Marine Approved

2 products

| Part number | Construction | Net weight (kg/m) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|-----------------------------|------------------|
| 24031 | 4 x 2 x AWG 23/1 HFFR-LS Grey | 0.075 | 8 | 110 |
| 24032 | 4 x 2 x AWG 23/7 HFFR-LS Grey | 0.077 | 8.4 | 110 |

Cat.6A S/FTP Marine Approved Fire Resistant

Properties

Application:

Fire resistant Category 6A DNV- GL marine approved LAN cables. The cable design and structure comply with the circuit integrity performance during a fire of the relevant requirements of IEC 60331-23 and allows data transmission during the fire.

Characteristics:

- Solid (AWG 23/1 CAT 6A) conductors
- Each insulation cord is wrapped with Fire resistant mica
- Fire resistant according to IEC 60331-23 (180min) & EN 50289-4-16 (180min)
- Halogen free and low smoke, flame retardant according to IEC 60332-3-22
- DNV certified
- Suitable for use with CAT6A RJ45 Modular jack (800412)

Core identification:

- White Blue/Blue, White Orange/Orange, White Green/Green, White Brown/Brown



Specifications

| | |
|--|---|
| Suitable as computer data cable | Yes |
| Standardization | BS EN 50288-4, IEC 61156-5, UL Subject 444 |
| Conductor material | Copper |
| Conductor category | Class 1 = solid |
| Stranding element | Pairs |
| Material core insulation | Polyolefin insulation wrapped with Fire resistant Mica tape |
| Screen over stranding element | Al/Polyester foil |
| Screen over stranding | Tinned copper braiding |
| Material outer sheath | LSZH |
| Flame retardant | IEC 60332-1 / IEC 60332-3-22 Cat. A |
| Halogen free | IEC 60754-1 / IEC 60754-2 |
| Low smoke | IEC 61034-1 & IEC 61034-2 |
| Fire resistant | IEC 60331-23 |
| Circuit integrity (acc. EN50200 or EN50362) | FE 180 |
| Oil resistant | IEC 60811-2-1 IRM 902/ASTM No.2 (70°C for 4 Hrs) |
| Permitted cable outer temperature during assembling/handling | -15 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 90 °C |
| Transportation and storage temperature | -40 / 90 °C |

Cat.6A S/FTP Marine Approved Fire Resistant

1 products

| Part number | Construction | Net weight (kg/m) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|---------------------------|-------------------|-----------------------------|------------------|
| 24033 | 4x2xAWG 23/1 HFFR-LS Grey | 0.1 | 11 | 110 |

Properties

Application:

Backbone connections between servers within a data center, to provide a high-speed interconnect used for data transfer within the network

Characteristics:

- Available in stranded (AWG 22/7 CAT7) and solid (AWG 23/1 Cat 7) conductors
- Halogen free and low smoke, flame retardant
- DNV certified
- Different colour outer sheaths, other than grey , available on request

Core identification:

- White/Blue, White/Orange, White/Green, White/Brown



Specifications

| | |
|--|--|
| Suitable as computer data cable | Yes |
| Standardization | BS EN 50288-4, IEC 61156-5, UL Subject 444 |
| Conductor material | Copper |
| Conductor category | Product dependent |
| Stranding element | Pairs |
| Material core insulation | Polyethylene, foamed (foam PE) |
| Screen over stranding element | Al/Polyester foil |
| Screen over stranding | Product dependent |
| Material outer sheath | LSZH |
| Flame retardant | IEC 60332-3-24 Cat. C |
| Halogen free | IEC 60754-1 / IEC 60754-2 |
| Low smoke | IEC 61034-1 & IEC 61034-2 |
| Oil resistant | IEC 60811-2-1 IRM 902/ASTM No.2 (70°C for 4 Hrs) |
| Permitted cable outer temperature during assembling/handling | -15 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 85 °C |
| Transportation and storage temperature | -40 / 85 °C |

Cat.7 S/FTP Marine Approved

6 products

| Part number | Construction | Net weight (kg/m) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|---|-------------------|-----------------------------|------------------|
| 24015 | 4x2xAWG 22/7 HFFR-LS Black | 0.08 | 8.3 | 110 |
| 24016 | 4x2xAWG 22/7 HFFR-LS Grey | 0.08 | 8.3 | 110 |
| 24017 | 4x2xAWG 22/7 HFFR-LS Lila/Purple | 0.08 | 8.3 | 110 |
| 24020 | 4x2xAWG 23/1 HFFR-LS Black UV resistant | 0.078 | 8.1 | 110 |
| 24021 | 4x2xAWG 23 HFFR-LS Grey | 0.078 | 7.8 | 100 |
| 24022 | 4x2xAWG 23 HFFR-LS Lila/Purple | 0.078 | 8.1 | 110 |

Cat.7A S/FTP Marine Approved

Properties

Application:

Generic cabling systems. Including 10/100/1000 Base -T, 10G, ATM & Token Ring

This marine approved cable is designed to support Cat 7A Link and Channel performance. Complies with Category 7A performance up to 1000MHz

Characteristics:

- Halogen free and low smoke, flame retardant
- DNV certified
- When used with screened CAT6A RJ45 Modular jack (800412), optimal headroom to 500MHz Class EA performance is ensured
- Different colour outer sheaths, other than grey , available on request



Core identification:

- White/Blue, White/Orange, White/Green, White/Brown

Specifications

| | |
|--|--|
| Suitable as computer data cable | Yes |
| Standardization | BS EN 50288-4, IEC 61156-5, UL Subject 444 |
| Conductor material | Copper |
| Conductor category | Class 1 = solid |
| Stranding element | Pairs |
| Material core insulation | Polyethylene, foamed (foam PE) |
| Screen over stranding element | Al/Polyester foil |
| Screen over stranding | Tinned copper braiding |
| Material outer sheath | LSZH |
| Flame retardant | IEC 60332-3-24 Cat. C |
| Halogen free | IEC 60754-1 / IEC 60754-2 |
| Low smoke | IEC 61034-1 & IEC 61034-2 |
| Oil resistant | IEC 60811-2-1 IRM 902/ASTM No.2 (70°C for 4 Hrs) |
| Permitted cable outer temperature during assembling/handling | -15 / 50 °C |
| Permitted cable outer temperature after assembling without vibration | -40 / 85 °C |
| Transportation and storage temperature | -40 / 85 °C |

Cat.7A S/FTP Marine Approved

1 products

| Part number | Construction | Net weight (kg/m) | Outer diameter approx. (mm) | Tensile load (N) |
|-------------|-------------------------------|-------------------|-----------------------------|------------------|
| 24023 | 4 x 2 x AWG 23/1 HFFR-LS Grey | 0.078 | 8.3 | 110 |

Connector

MarineConnect Cat 6A

Properties

Application:

The 800412 is a CAT6A Fully Shielded toolless RJ45 modular jack answering to the CAT6A performances and supporting 10 Gbps

Characteristics:

- Toolless termination through a wiring cap equipped with a separator in order to facilitate the wire management and to reduce the unsplitting length
- Component certified according to the standard ISO11801 Am d2.2
- 360° shielding: direct contact with the cable shield thanks to an adjustable flange
- Very compact connector with a depth of 28.25mm: compatible with a big part of the faceplates and wall boxes
- Optimized printed circuit to improve high frequencies crosstalk performance
- Equipped with a translucent wire cap to allow an easy visual inspection
- Keystone type
- Two wings linked to the connector's body (no loose part) offer a simple and easy locking system
- Dust shutter (optional) available in different color (green, red, yellow, blue and white)



Specifications

| | |
|----------------------------------|-------------------------|
| Model | Bus (jack) |
| Screened | Yes |
| Category | 6A (IEC) |
| Connection type | Insulation displacement |
| Colour | Grey |
| Suitable for round cable | Yes |
| Suitable for flat cable | No |
| Suitable for litz wire conductor | Yes |
| Suitable for solid core | Yes |

Connector

MarineConnect Cat 6A

1 products

| Part number | Construction | Model | Connection type |
|-------------|----------------|------------|-------------------------|
| 800412 | FULLY SHIELDED | Bus (jack) | Insulation displacement |

OPTIMAL DATA AND INFORMATION PROVISION FROM TKF

The industry is increasingly required to provide substantiation about materials used in ships and additional information, such as country of origin, production data, safety, REACH & ROHS, etc. from products. New European guidelines, the "GUIDELINES FOR THE DEVELOPMENT OF INVENTORY OF HAZARDOUS MATERIALS" adopted by the International Maritime Organization (IMO) (reference MEPC 269-68), require detailed information about products to be able to recycle ships "green". To support our customers in this, we at TKF work hard on optimal data and information sharing. In this way we help customers with:

- Automation of the engineering process
- Information management

For more information and what we can do for you in the field of data and information provision, please contact our product manager.

Marten Carol
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T: +31 53 573 21 45

TKF product data has been optimized and meets the new European standards for supplying product/material data.



TECHNICAL PRODUCT INFORMATION

Materials

TKF uses high-quality insulation materials for all its marine cables, which allows a continuous conductor temperature of 90 °C and withstands a temporary overload temperature of 130 °C and a short-circuit temperature of 250 °C. The materials show very low dielectric losses when used in power cables and excellent transmission properties for the instrumentation and communication cables. It also has extremely low moisture absorption, and a high resistance to most chemicals. The Fire-Resistant cables have conductors fully wrapped in mica-glass tape before being insulated.

Insulation

| Cable type | Insulation material |
|---|--|
| MarineLine, MarineFlex, Marinecom | Cross-Linked Polyethylene (XLPE) according to IEC 60092-360, type HF-XLPE |
| X-FR types | Mica tape + Cross Linked Flame Retardent Polyolefine according IEC 60092-360, type HF90 |
| X-FRSW types | Special grade Mica + Cross Linked Flame Retardent Polyolefine according IEC 60092-360, type HF90 |

Sheathing

Standard, TKF marine cables have a SHF1 type, halogen-free, flame retardant, low-smoke sheath. This sheath has a very good abrasion resistance, good mechanical properties, low moisture absorption and high resistance to most chemicals. The material meets the requirements as specified in IEC 60092-360 under type SHF1 for mechanical properties, as well as the IEC 60811-2-1 for oil-resistance (ASTM oil 2, 4 hours, 70 °C). The selected sheath material makes TKF marine cables very suitable for installation and usage in areas with low temperatures.

UV-resistance

TKF marine and offshore cables have been tested and pass the requirements for UV-resistance according to ISO 4892-2, and surpass the requirements of UL 1581:1200 & HD 605.

If the cables are exposed to direct sunlight, protective covering or a black outer sheath is recommended. On request, special sheath materials can be applied (e.g. TPU or SHF2) for more extreme conditions

Armouring and Screening

All TKF's braided cables (designated with the "O" in the type designation) have tinned-copper wire braiding with a coverage of at least 90%. The tinned wires give a high corrosion resistance of the braid and offer both mechanical and EMI protection. Screened cables ("a" type designation) offer only EMI protection with alu- PET tapes in combination with a tinned copper drain wire.

TECHNICAL PRODUCT INFORMATION

International standards

The marine cables in this catalogue are designed and tested in accordance with the following standards, where applicable.

International standards

| Standard | Description |
|-------------------|--|
| IEC 60092-350 | General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications |
| IEC 60092-352 | Electrical installations in ships – choice and installation of cables for low-voltage power systems |
| IEC 60092-353 | Single and multicore non-radial field power cables with extruded solid insulation for rated voltages 1 kV and 3 kV |
| IEC 60092-354 | Single- and three-core power cables with extruded solid insulation for rated voltages 6 kV (Um = 7.2 kV) up to 30 kV (Um = 36 kV) |
| IEC 60092-360 | Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables |
| IEC 60092-376 | Cables for control and instrumentation circuits 150/250 V (300 V) |
| IEC 60228 | Conductors of insulated cables |
| IEC 60331-11 | Tests for electric cables under fire conditions - circuit integrity - apparatus - fire alone at a flame temperature of at least 750 °C |
| IEC 60331-21 | Tests for electric cables under fire conditions - circuit integrity - procedures and requirements - cables of rated voltage up to and including 0.6/1.0 kV |
| IEC 60331-1 | Tests for electric cables under fire conditions - circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830 °C for cables of rated voltage up to and including 0.6/1.0 kV and with an overall diameter exceeding 20mm |
| IEC 60331-2 | Tests for electric cables under fire conditions - circuit integrity -Part 2: Test method for fire with shock at a temperature of at least 830 °C for cables of rated voltage up to and including 0.6/1.0 kV and with an overall diameter not exceeding 20 mm |
| IEC 60332-1 | Tests on electric cables under fire conditions - Part 1: test on a single vertical insulated wire or cable |
| IEC 60332-3-22- A | Tests on electric cables under fire conditions - Part 3-22: test for vertical flame spread of vertically mounted bunched wires or cables - category A |
| IEC 60754-1 | Test on gases evolved during combustion of electric cables - determination of the of halogen acid gas |
| IEC 60754-2 | Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity |
| IEC 60811 | Common test methods for insulating and sheathing materials of electric cables |
| IEC 61034 | Measurement of smoke density of electric cables burning under defined conditions |

TECHNICAL PRODUCT INFORMATION

Installation instructions*

Bending radius - Bending Radii according to IEC 60092-352

| Voltage Rating | Cable Construction | Outer Diameter | Bending Radius | Cable Types |
|-----------------|--------------------|----------------|--------------------|---------------------|
| Up to 1.8/ 3 kV | Unarmoured | <25 mm | $R = 4 \times D^*$ | YZp, YZs |
| | Unarmoured | >25 mm | $R = 6 \times D$ | YZp, YZs |
| | Armoured/Screened | any | $R = 6 \times D$ | YOZp, YOZs, YOZc |
| | Foil screened | any | $R = 8 \times D$ | YOZ2c, YZafp, Yzafc |
| ≥ 3.6/6 kV | Single Core | any | $R = 12 \times D$ | YOZmv |
| | Triple Core | any | $R = 9 \times D$ | YZOZmv |

*6D for defined circuit integrity

Pulling Force

The cable pulling tension during installation can be estimated by means of the following formula:

$$\text{Max. Pulling Force (N)} = 15 \times \text{total cross section}$$

Pulling instructions

It is recommended to use a sleeve on the cable head when pulling the cable into cable trays to evenly distribute the pulling stress over the whole conductor area of the cable. When using lubricants to lower the friction in cable pulling a lubricant, suitable for Halogen Free cables, should be used. When installing cables in below zero temperatures, installation of the cable is greatly eased when the cable has been stored in a location with a temperature of +15 degrees for at least 24 hours. When pulling cable in winter conditions and the reels have been stored outside, please check the reels for ice buildup and layers of cable frozen together, which could cause damage to the cable when unwinding the reels.

Installation temperature

Minimum recommended installation temperature for cables of rated voltage up to 20 kV, = -20°C.

Storage



Keep the drum standing upright, using wedges in the heels of the flanges. Keep the drums away from direct sunlight.

Only drums with protection lagging may be piled flange on flange. Lower layer to be secured over full drum width.

Never lay them flat

Transport



Roll the drum in the direction used during cable reeling.

Drums may be lifted either by crane or fork-lift truck.

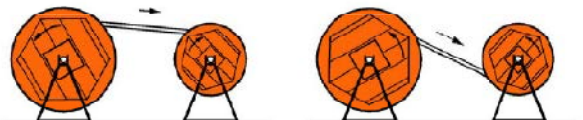
De-reeling



De-reeling in this way.

Never de-reel in this way.

Re-winding



Recommended

Not recommended

* See also: Cable drum handling transport, storage and installation recommendations for halogen-free shipboard cables

TECHNICAL PRODUCT INFORMATION

Current Rating for general installations

The current ratings are applicable for d.c. and a.c. with a nominal frequency of 50 Hz or 60 Hz and an ambient air temperature of 45° C. For higher frequencies, the current rating shall be calculated with an appropriate method (e.g. IEC 60287). For other ambient air temperatures the correction factors have to be applied. These ratings are applicable, without correction factors, for cables bunched together on cable trays, in cable conduits, pipes or trunking, unless more than six cables operate simultaneously at their full rated capacity are laid close together without free air circulating around them. In this case a correction factor of 0.85 should be applied. The tables are for general reference purposes only, and do not describe all installation methods existing in practice. For more detailed information see IEC 60092-352(2005) Annex A & B. For specific situations not covered by these standards, exact current calculations can be made by our engineering department.

Correction factors for ambient air temperatures for maximum conductor temperature of 90° C

| Air temperature | Correction factor |
|-----------------|-------------------|
| 35° C | 1.10 |
| 40° C | 1.05 |
| 45° C | 1.00 |
| 50° C | 0.94 |
| 55° C | 0.88 |
| 60° C | 0.82 |

| Air temperature | Correction factor |
|-----------------|-------------------|
| 65° C | 0.74 |
| 70° C | 0.67 |
| 75° C | 0.58 |
| 80° C | 0.47 |
| 85° C | - |
| 90° C | - |

Current Rating (A)

| Cross Section (mm2) | Number of cores loaded | | |
|---------------------|------------------------|-----|-------|
| | 1 | 2 | 3 & 4 |
| 1.5 | 23 | 20 | 16 |
| 2.5 | 40 | 26 | 21 |
| 4 | 51 | 34 | 28 |
| 6 | 52 | 44 | 36 |
| 10 | 72 | 61 | 50 |
| 16 | 96 | 82 | 67 |
| 25 | 127 | 108 | 89 |
| 35 | 157 | 133 | 110 |
| 50 | 196 | 167 | 137 |
| 70 | 242 | 206 | 169 |

| Cross Section (mm2) | Number of cores loaded | | |
|---------------------|------------------------|-----------|-----------|
| | 1 | 2 | 3 & 4 |
| 95 | 293 | 249 | 205 |
| 120 | 339 | 288 | 237 |
| 150 | 389 | 331 | 272 |
| 185 | 444 | 377 | 311 |
| 240 | 522 | 444 | 365 |
| 300 | 601 | 511 | 421 |
| | d.c. a.c. | d.c. a.c. | d.c. a.c. |
| 400 | 690 670 | 587 570 | 483 469 |
| 500 | 780 720 | 663 612 | 546 504 |
| 630 | 890 780 | 757 663 | 623 548 |

Current carrying capacities in continuous service at maximum rated conductor temperature of 90°C in A, at 45° C ambient air temperature, based on IEC 60092-352 Annex A Table B-4

For cables with >4 conductors the current rating can be calculated with the following formula:

$$I = \frac{I_1}{\sqrt[3]{n}}$$

Where I_1 = current rating for single core, n = number of cores.

TECHNICAL PRODUCT INFORMATION

| # of cores | Ampacity (A) | | |
|------------|--------------------|--------------------|------------------|
| | 1,5mm ² | 2,5mm ² | 4mm ² |
| 5 | 13 | 23 | 30 |
| 6 | 13 | 22 | 28 |
| 7 | 12 | 21 | 27 |
| 8 | 12 | 20 | 26 |
| 10 | 11 | 19 | 24 |
| 12 | 10 | 17 | 22 |
| 16 | 9 | 16 | 20 |

| # of cores | Ampacity (A) | | |
|------------|--------------------|--------------------|------------------|
| | 1,5mm ² | 2,5mm ² | 4mm ² |
| 19 | 9 | 15 | 19 |
| 24 | 8 | 14 | 18 |
| 27 | 8 | 13 | 17 |
| 30 | 7 | 13 | 16 |
| 34 | 7 | 12 | 16 |
| 37 | 7 | 12 | 15 |

Short Circuit Current

The maximum permissible short circuit current for different cables is based on the formula:

$$I_k = 143 \cdot \frac{S}{\sqrt{t}}$$

I_k = the maximum permissible short-circuit current in Ampere

S = the cross section area of the conductor in mm²

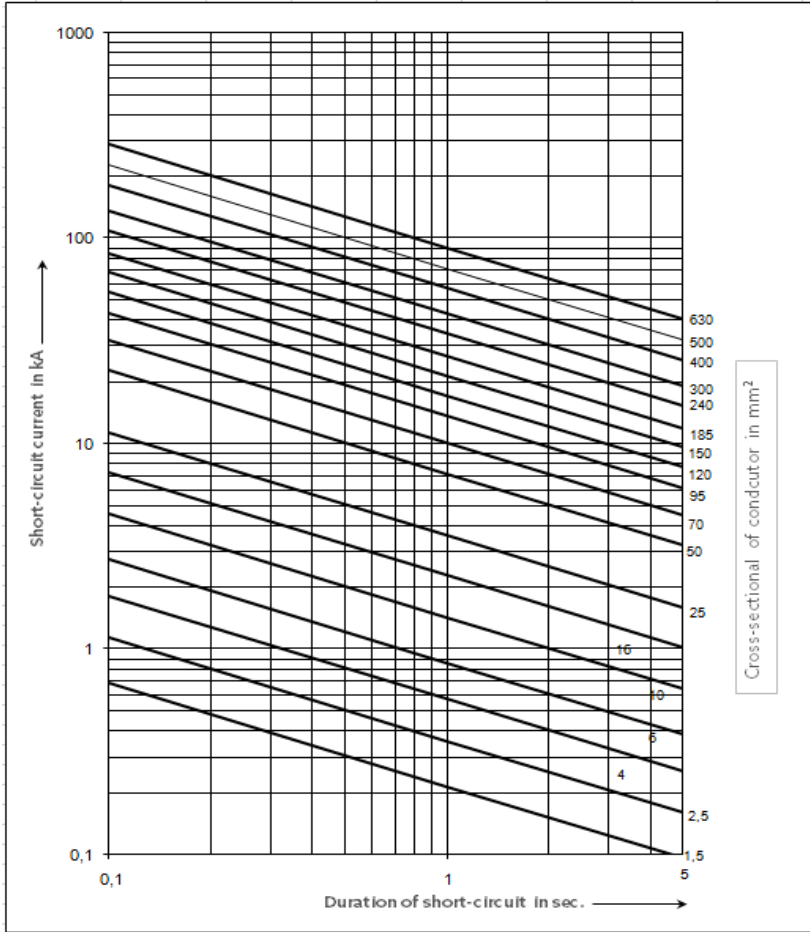
t = the duration of the short-circuit in seconds

The formula is acceptable for an increase in temperature from 90°C at the start to 250°C at the end. Further information is given in IEC 60724 and IEC 60986. In the figure the permissible short-circuit current is given in kA as a function of time (from 0.1 to 5 seconds) and as a function of the cross sectional area of the conductor

| Max Short Circuit Current in kA | Duration Short Circuit | |
|---------------------------------|------------------------|----------|
| | 0,1 Second | 1 Second |
| Cross Section (mm2) | | |
| 1 | 0,452 | 0,143 |
| 1,5 | 0,679 | 0,215 |
| 2,5 | 1,131 | 0,358 |
| 4 | 1,810 | 0,572 |
| 6 | 2,715 | 0,859 |
| 10 | 4,525 | 1,431 |
| 16 | 7,240 | 2,289 |
| 25 | 11,312 | 3,577 |
| 35 | 15,836 | 5,008 |
| 50 | 22,623 | 7,154 |
| 70 | 31,673 | 10,016 |
| 95 | 42,985 | 13,593 |
| 120 | 54,296 | 17,170 |
| 150 | 67,870 | 21,463 |
| 185 | 83,707 | 26,470 |
| 240 | 108,593 | 34,340 |
| 300 | 135,741 | 42,925 |
| 400 | 180,988 | 57,233 |
| 500 | 226,235 | 71,542 |

TECHNICAL PRODUCT INFORMATION

Duration of short-circuit current



Reactance Calculations

The reactance of cables can be calculated with the following formula:

$$2 \cdot \pi \cdot f \cdot L$$

f = frequency in Hz

L = inductance in H

TECHNICAL PRODUCT INFORMATION

Sheath Colours & Core Identification

Overview types, standards, core identification and sheath colour

| Application | Type | Standard | Core identification | Sheath |
|----------------|--|--|----------------------------|--------|
| Low voltage | MarineLine (+) Y(O)Z(af)p 0,6/1 kV | IEC 60092-350/353 HD308 S2-2001 | | Black |
| | MarineFlex Y(O)Zp & YOQp 0,6/1 kV | IEC 60092-350/353 HD308 S2-2001 | | Black |
| | MarineFlex YOZp 1,8/3 kV | IEC 60092-350/353 HD308 S2-2001 | | Black |
| | MarineLine (+) Y(O)Zp X-FR(SW) 0,6/1 kV | IEC 60331-1/2 | HD308 S2-2001 | Orange |
| Medium voltage | MarinePower Y(Z)OZmv 3,6-30 kV | IEC 60092-350/354 Coloured tape + numbers | | Red |
| | MarinePower Multiflex YQOQmv 6/10kV | IEC 60092-350/354 Coloured tape + numbers | | Red |
| Communication | Marine(2)Oom Y(O)Z(af)(2)c 250V | IEC 60092-350/376 Blue/White cores + numbers | | Grey |
| | Marine(2)Com Y(O)Z(af)(2)c X-FR(SW) 250V | IEC 60331-1/2 | Blue/White cores + numbers | Orange |
| Signal | MarineSignal (+) Y(O)Zs 250V | IEC 60092-350/-351 | Black cores + numbers | Grey |

Different sheath colours on request



Core identification




Low voltage power cables 0,6/1 kV -1,8/3kV – According to HD308 S2-2001

| Cond . | Without Yellow/Green Conductor | | | | | With Yellow/Green Conductor (G) | | | | |
|--------|--------------------------------|-------|-------|------|-------|---------------------------------|--------|-------|-------|-------|
| | N | L1/L2 | L/L2 | L3 | L3 | PE | N | L1/L2 | L/L2 | L3 |
| 1 | | | Black | | | | | | | |
| 2 | Blue | Brown | | | | | | | | |
| 3 | | Brown | Black | Grey | | Green | Yellow | Blue | Brown | |
| 4 | Blue | Brown | Black | Grey | | Green | Yellow | Blue | Brown | Black |
| 5 | Blue | Brown | Black | Grey | Black | Green | Yellow | Blue | Brown | Black |
| >5 | | | Nr. | | | Green | Yellow | | | Nr. |


- Notes
- 1) PE = protective conductor - beschermingsleiding - Schutzleiter - conducteur de protection
N = neutral conductor - nulleiding - Neutralleiter - conducteur neutre
L, L1, L2, L3 = phase conductors - faseleidingen - Phasenleiter - conducteurs de phase
 - 2) Nr. = black numbered - zwart genummerd - schwarz nummeriert - noir numéroté

Communication Cables 250 V

| Pairs (n x 2 x y mm ²) | |
|---|---|
|  |  |
| 1 | 2 |
| 3... etc. | 4... etc. |

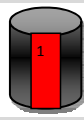
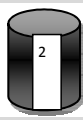
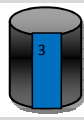
| Triples (n x 3 x y mm ²) | | |
|---|---|---|
|  |  |  |
| 1 | 2 | 3 |
| 4... etc. | 5... etc. | 6... etc. |

Signal Cables 250 V

| Multicores |
|---|
|  |
| 1 |
| 2... etc. |

Medium Voltage cables 3,6-30kV

Triple Cores (YZOZmv, YQOQmv)

| | | |
|---|--|---|
|  |  |  |
| Spiral wound red tape with number | Spiral wound white tape with number | Spiral wound blue tape with number |

WORLDWIDE CUSTOMER SERVICE

If you need assistance or want to request a quote, please contact our sales team:

| Marine & Offshore | | |
|--------------------------|-------------------------|---------------|
| Tel. +31 (0)53 573 22 55 | Fax +31 (0)53 573 21 84 | marine@tkf.eu |
| Sales Support & General | | |
| Tel. +31 (0)53 573 22 55 | Fax +31 (0)53 573 23 61 | info@tkf.eu |
| Orderintake | | |
| Tel. +31 (0)53 573 22 55 | Fax +31 (0)53 573 21 84 | order@tkf.eu |

Information about our distributors is available on our website www.tkf.eu.

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CABLE DRUM SIZES AND WEIGHTS

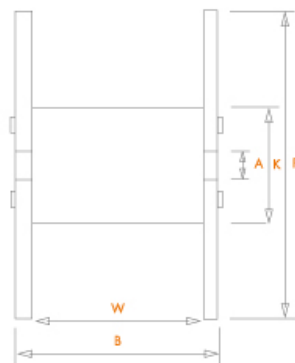
A wide range of drums with various sizes and weights is used to store and transport our cables. The most common types of drums and their sizes and weights are shown in this table.

| Flange diameter (F) mm | Core diameter (K) mm | Central hole diameter (A) mm | Largest width (B) mm | Winding width (W) mm | Empty weight Kg | Volume m ³ |
|---------------------------|-------------------------|---------------------------------|-------------------------|-------------------------|--------------------|--------------------------|
| *600 | 250 | 80 | 468 | 400 | 7,5 | 0,17 |
| *800 | 400 | 100 | 480 | 400 | 14 | 0,31 |
| 800 | 500 | 100 | 500 | 485 | 43 | 0,31 |
| *1000 | 500 | 100 | 605 | 485 | 28 | 0,31 |
| 1000 | 500 | 100 | 609 | 485 | 74 | 0,61 |
| 1200 | 600 | 100 | 724 | 600 | 108 | 1,04 |
| 1500 | 800 | 100 | 946 | 750 | 160 | 2,13 |
| 1600 | 800 | 100 | 1030 | 834 | 240 | 2,64 |
| 1800 | 900 | 100 | 1030 | 834 | 400 | 3,34 |
| 2100 | 900 | 100 | 1148 | 950 | 450 | 5,06 |
| 2250 | 1400 | 100 | 1122 | 830 | 600 | 5,68 |
| 2500 | 1450 | 100 | 1220 | 930 | 700 | 7,63 |
| 2500 | 1450 | 100 | 1458 | 1150 | 800 | 9,11 |
| 2650 | 1450 | 100 | 1488 | 1175 | 850 | 10,45 |
| 2800 | 1700 | 100 | 1520 | 1157 | 1050 | 11,92 |
| 3000 | 1600 | 100 | 1600 | 1235 | 1150 | 14,40 |

*Plastic drum

Empty drum return

To get your empty drums in the Netherlands collected quickly, please send your request to our shipping department via the website (www.tkf.eu) or by e-mail to haspels@tkf.nl. If drums have to be collected outside the Netherlands, please contact our sales staff.



- F** = Diameter flange
- K** = Diameter core
- A** = Diameter axle-hole
- B** = Largest width
- W** = Winding width



MORE INFORMATION

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