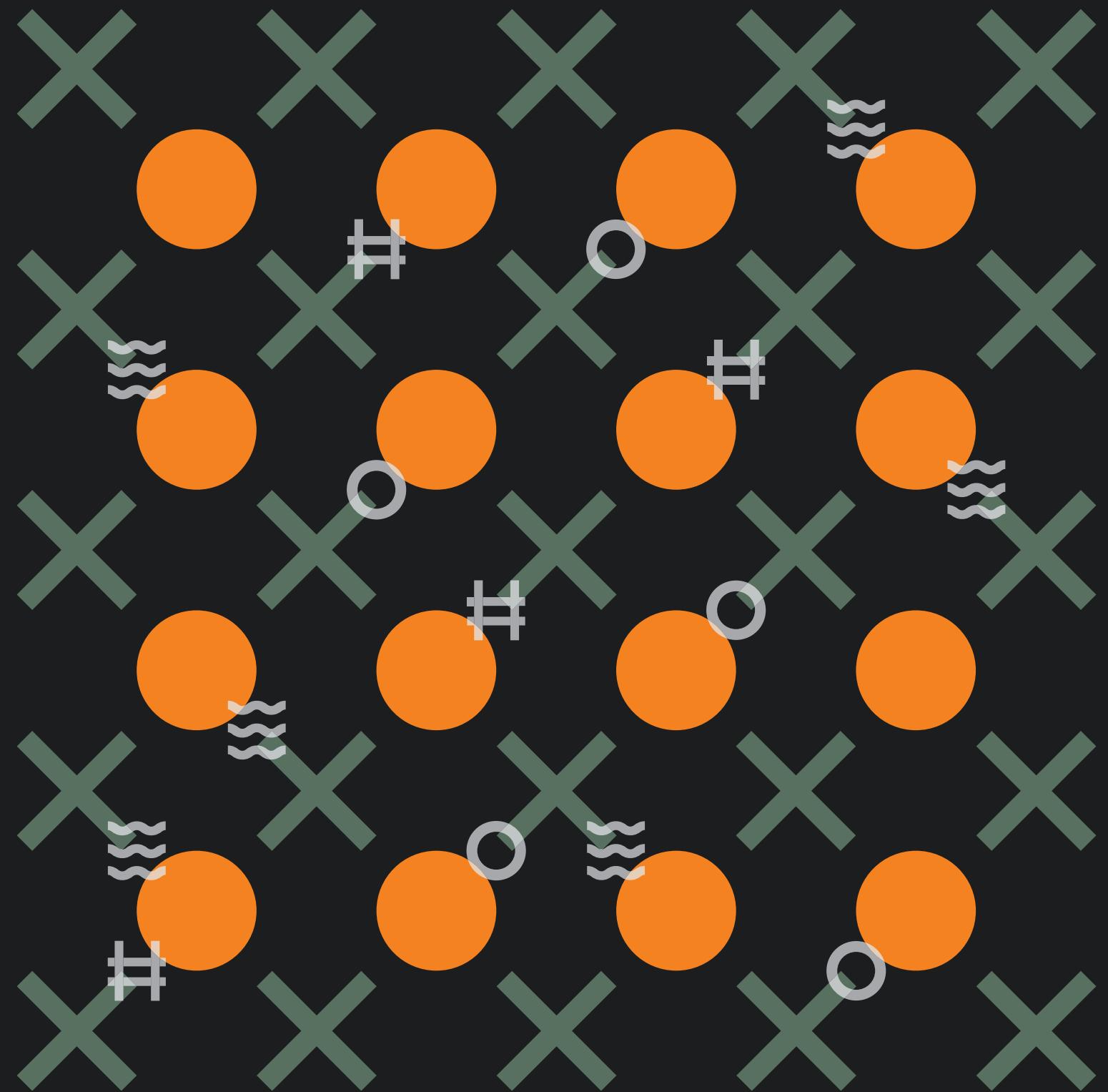


**UNIKA**  
G R O U P

DEFENCE



**GLOBALLY  
DISTRIBUTING  
THE PERFECTION  
THAT COMES  
FROM BEING  
MADE IN ITALY**



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Austria  
Belgium  
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Czech Republic  
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Japan  
Taiwan  
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## UNIKA IS THE WINNING PARTNER OF ITS CUSTOMER UNIKA E' IL PARTNER VINCENTE DEI PROPRI CLIENTI

**Unika S.p.A.**, founded in 1998, is by now a leader in Italy in the production of electrical cables supplied, to date, in several international markets.

It presents itself as an organization focused on market needs that can count on constant technological innovation in order to be of help on a wide range of applications for different industrial sectors. Its modern production facilities consist in two manufacturing plants and a logistics centre (KU Distribution), 10.000 and 4000 square meters respectively, which allow Unika to continue its daily task of production and development with great attention to customers' needs.

Thanks to the experience achieved through many years of collaboration with leading companies, Unika can now develop new products and production technologies that enable the manufacturing of cables with high chemical and mechanical performances.

The ability to meet main industry regulations and the willingness in granting requests for customization, makes Unika able to follow the evolution of the cable from the design to the production, until its warehouse storage.

Technical Staff, state-of-the-art laboratories and qualified personnel allow the continuous research and modernization which have been guiding Unika's growth.

Industrial automation, robotics, automotive, marine, offshore, railways, submersible pumps are a few areas of application in which the continuous investments have allowed the company to excel.

Unika can number among its loyal customers major market players and, by developing dedicated products over the years, contributed to their technological growth and prestige.

Unika deals successfully with global market challenges while respecting the needs of increasingly demanding and competent customers. This is possible thanks to its never ending cutting-edge attitude that nowadays market requires.



Quality System ISO 9001:2015 ISO 14001:2015 by CSQ  
certificata CSQ al sistema di qualità ISO 9001:2015 ISO 14001:2015



UNIKA Germany



KU DISTRIBUTION s.r.l. - Hub n.1



Federated Company  
Azienda Federata



Federated Company  
Azienda Federata



KU DISTRIBUTION s.r.l. - Hub n.2

**Unika S.p.A.** costituita nel 1998 è un'azienda ormai leader in Italia nella produzione di cavi elettrici che fornisce, ad oggi, in differenti mercati internazionali. Si presenta come una realtà attenta alle esigenze del mercato e in continua evoluzione tecnica con una vasta gamma d'applicazioni per differenti settori industriali. Dispone di moderni impianti produttivi dislocati in due stabilimenti di produzione ed uno dedicato alla logistica (KU Distribution) rispettivamente di 10.000 mq e 4000 mq ,che permettono ad Unika di proseguire l'impegno quotidiano di produzione e sviluppo con grande attenzione alle esigenze dei clienti.

Grazie all'esperienza ottenuta collaborando con importanti realtà internazionali è stata in grado di sviluppare nuovi prodotti e tecnologie di produzione che consentono la realizzazione di cavi ad alte prestazioni chimiche e meccaniche.

La capacità di soddisfare le principali normative di settore e la disponibilità nell'accogliere richieste di customizzazione, rende Unika in grado di seguire l'evoluzione del prodotto dalla progettazione del cavo alla produzione, fino allo stoccaggio a magazzino.

Staff Tecnico, laboratori all'avanguardia e personale qualificato , consentono una continua ricerca ed innovazione che hanno fatto da faro nel percorso di crescita aziendale: automazione, robotica, automotive, navale, off-shore, ferroviario, pompe sommerse solo per citare alcuni settori di applicazione nei quali i continui investimenti hanno permesso di primeggiare.

Unika può annoverare tra i suoi Clienti i maggiori player di mercato e grazie allo sviluppo di prodotti dedicati ha contribuito alla loro crescita tecnologica e di prestigio.

Unika affronta con successo le sfide del mercato globale rispettando le esigenze di una clientela sempre più attenta e competente, con le continue innovazioni tecnologiche che il mercato oggi impone.

**KU Distribution S.r.l.** is a company specialized in the management and distribution of cables for different industries with high technical and quality content.

In recent years the company has seen an important development in the range of products by introducing new types of cables. This evolution in its portfolio resulted in a further increase of its presence on the national and international territory.

In Mantua headquarters it is now possible to store more than 1500 pallet thanks to a mobile shelving system.

Many types and cross-sections available on our catalog are now managed on stock and can be also consulted on-line on our partners websites to provide instant visibility of availability.

The presence of more than 15,000 items linked to an innovative automatic line of cutting and packaging system, have helped meeting marketplace demands as well as enabling a quicker and quicker delivery service.

Thanks to the support of Unika Technical Staff, KU Distribution is able to satisfy the requests of cables customization and to provide support for the resulting application.

KU Distribution can rely on specialized agencies in Italy and on exclusive partners abroad who provide a widespread assistance and service for each area of competence.

### Certifications and Homologations

Unika has chosen to invest a lot of efforts to achieve national and international certifications and homologations. Such a choice lets use method and model having the objective to assure the highest quality level for Unika's cables.

#### Quality certifications

Unika has got the Quality System ISO 9001:2015 ISO 14001:2015 by CSQ  
KU has got the Quality System ISO 9001:2015.

#### Homologations

Unika tries to give at any cables the most suitable homologation and nowadays it has wide range of approved cables to meet the highest request coming from the market.

**KU Distribution S.r.l.** è un'azienda specializzata nella gestione e distribuzione di cavi ad elevato contenuto tecnologico e qualitativo per diversi settori industriali. Negli ultimi anni l'azienda ha visto un'importante evoluzione introducendo nel range di prodotti nuove tipologie di cavo che hanno consentito una ulteriore affermazione della sua presenza sul territorio nazionale ed internazionale. Nella Sede di Mantova, grazie anche ad un magazzino compattabile che consente di stoccare più di 1.500 pallet e attrezzature automatiche per la confezione, vengono oggi gestiti a magazzino molteplici tipologie e sezioni presenti sul nostro catalogo, consultabili anche on-line dai nostri partner, per garantire una visibilità immediata delle disponibilità. La presenza di oltre 15.000 articoli, l'innovazione della linea automatica del sistema di taglio e confezione, hanno consentito di soddisfare le più esigenti richieste di mercato garantendo tempi sempre più veloci di consegna.

Grazie al supporto dell'Ufficio Tecnico di Unika, KU Distribution è in grado di realizzare le richieste di customizzazione dei cavi e di fornire supporto per la conseguente applicazione.

KU Distribution dispone di agenzie specializzate nel territorio italiano e di partner esclusivi all'estero che capillarmente garantiscono l'assistenza ed il servizio ognuno per la zona di competenza.

### Omologazioni

Unika ha scelto di investire notevoli energie per conseguire certificazioni ed omologazioni nazionali ed internazionali. Questa scelta consente di utilizzare un metodo ed un modello manageriale che hanno l'obiettivo di garantire il più alto livello di qualità possibile per i cavi Unika. Questa scelta rappresenta il certificato di garanzia dei prodotti ma anche lo specchio di una azienda giovane, dinamica, flessibile e modernamente organizzata.

#### Qualità certificazioni

Unika è certificata CSQ al sistema di qualità ISO 9001:2015 ISO 14001:2015  
KU è certificata CSQ al sistema di qualità di ISO 9001:2015.

#### Omologazioni

Unika cerca di corredare ogni cavo con l'omologazione più opportuna alla situazione ed oggi dispone di un repertorio di cavi omologati tale da soddisfare le più elevate esigenze di mercato.

# Product range

The ability to meet main industry regulations and the willingness to accept the challenge of requests for customization, makes UNIKA able to follow the evolution of the cables from design to production, until warehouse storage.

UNIKA has developed and got the approval for two cable families for the Italian Navy fleets (certificates n°2/17, 4/17 and 7/17). Such cables belong to two different Navy Standards:  
NAV-80-6145-0003-14-00B000 thin wall cables for electrical and electronic interconnection  
NAV-80-6145-0005-13-00B000 instrumentation, control, power cables.

Furthermore, UNIKA has designed, manufactured and installed cables to be installed into rotating chains, feeding the gun systems developed by LEONARDO for Navy units, and other cables, for switchboard and harnessing, in compliance with the stringent Navy requirements.

## Main performances

### Defence cables:

- Max. operating temperature: 90°C (105°C for cores of thin wall cables).
- Halogen free according to IEC 60754-1, -2, -3.
- Smoke emission according to IEC 61034 ( $\geq 70\%$ ).
- Low toxicity according to EN 50305 ( $\leq 3$ )
- Flame propagation according to IEC 60332-1
- Fire propagation according to IEC 60332-3-22
- Current rating according to IEC 60092-352
- Enhanced oil and fluid resistance
- Low temperature (-40°C)
- UV resistance according to UL 758

### Naval gun cables:

- Max. operating temperature 90°C
- Halogen free according to IEC 60754-1
- Flame retardant according IEC 60332-1
- Low temperature (-40°C)
- UV resistance according to UL 758
- Max. operating temperature 90°C (105°C for single cores of thin wall cables)
- Halogen free IEC 60754-1,-2,-3

Thin wall and flexible, low smoke and toxicity, halogen free, fire retardant shipboard cables for Navy Units, rated 300/500 v			
	TYPE	DESCRIPTION	PAG.
1	<b>UNINAV - Type UC-N</b>	Single core cable, unscreened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated 300/500V	12
	<b>UNINAV - Type UC-S</b>	Single core cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated 300/500V	13
	<b>UNINAV - Type CG-N</b>	Pair cable, unscreened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/500V	14
	<b>UNINAV - Type CG-S</b>	Pair cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/500V	15
	<b>UNINAV - Type TG-S</b>	Triad cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/500V	16
	<b>UNINAV - Type FN 02</b>	Bipolar power supply cable, low toxicity, thin wall, flexible, rated 300/500V	18
	<b>UNINAV - Type FN 03</b>	Three cores power supply cable, low toxicity, thin wall, flexible, rated 300/500V	20
	<b>UNINAV - Type FN 04</b>	Four cores power supply cable, low toxicity, thin wall, flexible, rated 300/500V	22
	<b>UNINAV - Type UN-xx-N</b>	Multicore cable, low toxicity, thin wall, flexible, rated 300/500V	24
	<b>UNINAV - Type UN-xx-O</b>	Overall screened multicore cable, low toxicity, thin wall, flexible, rated 300/500V	26
	<b>UNINAV - Type UN-xx-A</b>	Multicore armoured cable, low toxicity, thin wall, flexible, rated 300/500V	32
	<b>UNINAV - Type US-xx-O</b>	Overall and single multiscreened cores cable, low toxicity, thin wall, flexible, rated 300/500V	34
	<b>UNINAV - Type US-xx-A</b>	Multi screened cores, armoured cable, low toxicity, thin wall, flexible, rated 300/500V	36
	<b>UNINAV - Type CN-xx-N</b>	Multicore cable, low toxicity, thin wall, flexible, rated 300/500V	38
	<b>UNINAV - Type CN-xx-O</b>	Multipairs, screened cable, low toxicity, thin wall, flexible, rated 300/500V	40
	<b>UNINAV - Type CN-xx-A</b>	Multipairs, armoured cable, low toxicity, thin wall, flexible, rated 300/500V	44
	<b>UNINAV - Type CS-xx-O</b>	Screened multipairs and overall screened cable, low toxicity, thin wall, flexible, rated 300/500V	46
	<b>UNINAV - Type CS-xx-A</b>	Screened multipairs and armoured cable, low toxicity, thin wall, flexible, rated 300/500V	50
	<b>UNINAV - Type TS-xx-O</b>	Overall and individually screened multitriads cable, low toxicity, thin wall, flexible, rated 300/500V	52
	<b>UNINAV - Type TS-xx-A</b>	Screened multitriads and armoured cable, low toxicity, thin wall, flexible, rated 300/500V	54

Low smoke and toxicity, halogen free, fire retardant shipboard cables for Navy Units			
	TYPE	DESCRIPTION	PAG.
2	<b>UNINAV - Type NBT and NC</b>	Unarmoured power cables rated 0,6/1 kV	58
	<b>UNINAV - Type NBTA and NGA</b>	Armoured power cables rated 0,6/1 kV	62
	<b>UNINAV - Type NVD</b>	Armoured fire resistant power cables rated 0,6/1 kV (Vessel in Distress)	66
	<b>UNINAV - Type NVFD</b>	EMC power cables rated 0,6/1 kV or 1,8/3 kV for Variable Frequency Drive applications	70
	<b>UNINAV - Type NFO</b>	Unarmoured power cables for dynamic installations rated 0,6/1 kV	72
	<b>UNINAV - Type NSC</b>	Unarmoured power cables for shore connections rated 0,6/1 kV	76
	<b>UNINAV - Type NCM</b>	Power cables rated 0,6/1 kV for Magnetic Compensation	78
	<b>UNINAV - Type NST</b>	Instrumentation cables rated 150/250 V for connection to terminal boxes	80
	<b>UNINAV - Type NVD/C and NVD/T</b>	Armoured fire resistant instrumentation cables rated 150/250 V (Vessel in Distress)	90
	<b>UNINAV - Type NMV single core</b>	Armoured, single cores, medium voltage, power cables rated 1,8/3 kV	94
	<b>UNINAV - Type NMV three cores</b>	Armoured, three cores, medium voltage, power cables rated 1,8/3 kV	95

Halogen free, flame retardant cables for special application in Navy Units			
	TYPE	DESCRIPTION	PAG.
3	<b>NAVAL GUN</b>	<b>NAVAL GUN CABLES</b>	98
		Power, control, data, signal, hybrid and coaxial cables for fixed or dynamic installation into drag chain (horizontal rotation)	



## NAV-80-6145-0003-14-00B000

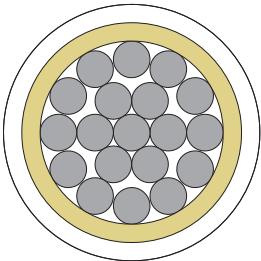
Standard for thin wall and flexible cables for electric and electronic interconnection suitable to be installed into Navy Units.

Specifica tecnica per cavi di interconnessione elettrica ed elettronica miniaturizzati e flessibili, idonei per l'impiego a bordo di unità navali militari.

<b>UNINAV - Type UG-N</b>	Single core cable, unscreened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated 300/500V	<b>12</b>
<b>UNINAV - Type UG-S</b>	Single core cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated 300/500V	<b>13</b>
<b>UNINAV - Type CG-N</b>	Pair cable, unscreened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/500V	<b>14</b>
<b>UNINAV - Type CG-S</b>	Pair cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/500V	<b>15</b>
<b>UNINAV - Type TG-S</b>	Overall screened triad cable, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/500V	<b>16</b>
<b>UNINAV - Type FN 02</b>	Bipolar power supply cable, low toxicity, thin wall, flexible, rated 300/500V	<b>18</b>
<b>UNINAV - Type FN 03</b>	Three cores power supply cable, low toxicity, thin wall, flexible, rated 300/500V	<b>20</b>
<b>UNINAV - Type FN 04</b>	Four cores power supply cable, low toxicity, thin wall, flexible, rated 300/500V	<b>22</b>
<b>UNINAV - Type UN-xx-N</b>	Multicore cable, low toxicity, thin wall, flexible, rated 300/500V	<b>24</b>
<b>UNINAV - Type UN-xx-O</b>	Overall screened multicore cable, low toxicity, thin wall, flexible, rated 300/500V	<b>26</b>
<b>UNINAV - Type UN-xx-A</b>	Multicore armoured cable, low toxicity, thin wall, flexible, rated 300/500V	<b>32</b>
<b>UNINAV - Type US-xx-O</b>	Overall and single multi screened cores cables, low toxicity, thin wall, flexible, rated 300/500V	<b>34</b>
<b>UNINAV - Type US-xx-A</b>	Multi screened cores, armoured cable, low toxicity, thin wall, flexible, rated 300/500V	<b>36</b>
<b>UNINAV - Type CN-xx-N</b>	Multicore cable, low toxicity, thin wall, flexible, rated 300/500V	<b>38</b>
<b>UNINAV - Type CN-xx-O</b>	Multipairs, screened cable, low toxicity, thin wall, flexible, rated 300/500V	<b>40</b>
<b>UNINAV - Type CN-xx-A</b>	Multipairs, armoured cable, low toxicity, thin wall, flexible, rated 300/500V	<b>44</b>
<b>UNINAV - Type CS-xx-O</b>	Screened multipairs and overall screened cable, low toxicity, thin wall, flexible, rated 300/500V	<b>46</b>
<b>UNINAV - Type CS-xx-A</b>	Screened multipairs and armoured cable, low toxicity, thin wall, flexible, rated 300/500V	<b>50</b>
<b>UNINAV - Type TS-xx-O</b>	Overall and individually screened multitriads cable, low toxicity, thin wall, flexible, rated 300/500V	<b>52</b>
<b>UNINAV - Type TS-xx-A</b>	Screened multitriads and armoured cable, low toxicity, thin wall, flexible, rated 300/500V	<b>54</b>

## UNINAV - Type UG-N

Single core cable, unscreened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated 300/ 500 V



### TECHNICAL DATA

Temperature rating: -45°C ÷ 105°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Flame retardant: according IEC 60332-1-2

#### Range of approval:

according to table 1 (cross-section 0,35 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 UG-N- "cross section" – "colour code" UNIKA(Italy) "year of production" Cert.Om.nr.02/17

Table 1 - TYPE UG-N

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M110...	0,35	1,15 ÷ 1,35	5,5
M120...	0,5	1,25 ÷ 1,45	6,5
M130...	1	1,45 ÷ 1,80	11
M140...	1,5	1,95 ÷ 2,30	19
M150...	2,5	2,50 ÷ 2,85	30

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000") (white is without last digit):

Item n°	Cross-section AWG (mm <sup>2</sup> )	Outer diameter [mm]	Cable mass [kg/km]
MX274...	26 (0,15)	0,95 ÷ 1,00	2,9
MX275...	26 (0,15)	0,85 ÷ 0,95	2,8
MX034...	24 (0,21)	0,90 ÷ 1,05	3,5
MX273...	24 (0,21)	0,90 ÷ 1,10	3,5
MX027...	22 (0,33)	1,05 ÷ 1,20	4,9
MX244...	22 (0,33)	1,05 ÷ 1,14	4,8
MX026...	20 (0,59)	1,30 ÷ 1,50	7,6
MX272...	20 (0,59)	1,30 ÷ 1,40	7,6
MX033...	18 (0,93)	1,55 ÷ 1,75	10,5
MX025...	16 (1,34)	1,80 ÷ 2,00	16,5
MX271...	16 (1,34)	1,80 ÷ 1,90	16,5
MX032...	14 (1,82)	2,15 ÷ 2,35	20,8
MX031...	12 (2,61)	2,50 ÷ 2,70	27,3

Insert the following number in the last digit of the item number, in place of ..., for different colours

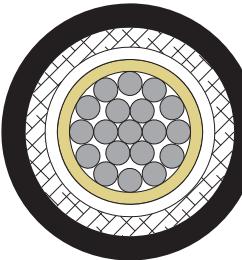
- 0: black
- 1: brown
- 2: red
- 3: orange
- 4: yellow
- 5: green
- 6: blue
- 7: violet
- 8: grey
- 9: white

DESIGNATION EXAMPLE:  
M1109 - UG-N-0,35-9  
White single core 0,35 mm<sup>2</sup>

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## UNINAV - Type UG-S

Single core cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

according to table 2 (cross-section 0,35 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white if not otherwise stated

**Screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type S2 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 UG-S- "cross section" – "colour code" UNIKA(Italy) "year of production" Cert.Om.nr.02/17

Table 2 - TYPE UG-S

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M210...	0,35	2,10 ÷ 2,40	14
M220...	0,5	2,20 ÷ 2,50	16
M230...	1	2,50 ÷ 2,85	22
M240...	1,5	3,00 ÷ 3,40	33
M250...	2,5	3,45 ÷ 3,90	45

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000") (white is without last digit):

Item n°	Cross-section AWG (mm <sup>2</sup> )	Outer diameter [mm]	Cable mass [kg/km]
MX274...	26 (0,15)	1,60 ÷ 1,80	7,6
MX041...	24 (0,21)	1,70 ÷ 1,95	8,6
MX040...	22 (0,33)	1,85 ÷ 2,10	10,7
MX245...	22 (0,33)	1,85 ÷ 2,05	10,5
MX039...	20 (0,59)	2,10 ÷ 2,35	14,5
MX038...	18 (0,93)	2,35 ÷ 2,65	18,4
MX037...	16 (1,34)	2,60 ÷ 2,90	25,8
MX036...	14 (1,82)	2,95 ÷ 3,25	31,5
MX035...	12 (2,61)	3,30 ÷ 3,65	39,6

Insert the following number in the last digit of the item number, in place of ..., for different colours of insulation

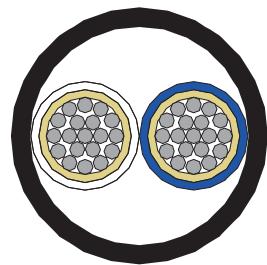
- 0: black
- 1: brown
- 2: red
- 3: orange
- 4: yellow
- 5: green
- 6: blue
- 7: violet
- 8: grey
- 9: white

DESIGNATION EXAMPLE:  
M2109 - UG-S-0,35-9  
White single core 0,35 mm<sup>2</sup> with black sheath

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## UNINAV - Type CG-N

Pair cable, unscreened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

From AWG26 up to AWG16, NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

Cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000") (white-blu is without last two digit):

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Outer diameter [mm]	Cable mass [kg/km]
MX270.....	2x26 (0,15)	1,90	5,6
MX264.....	2x24 (0,21)	2,39	11,6
MX269.....	2x24 (0,21)	2,10	6,6
MX263.....	2x22 (0,33)	2,74	15,4
MX268.....	2x22 (0,33)	2,40	9,8
MX262.....	2x20 (0,59)	3,15	16,9
MX267.....	2x20 (0,59)	3,00	15,6
MX266.....	2x18 (0,93)	3,50	21,0
MX261.....	2x16 (1,34)	4,11	35,3
MX265.....	2x16 (1,34)	4,00	34,0

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue preferential colours

**Sheath:** crosslinked compound, type S2 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 CG-N- "cross section" – "colour code1"/"colour code2" UNIKA(Italy)  
"year of production" Cert.Om.nr.02/17

Insert the following number in the last digit of the item number, in place of ..... for different colours starting from the highest digit

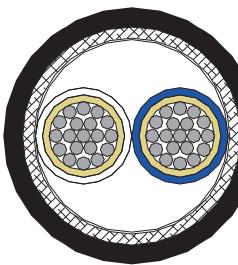
- 0: black
- 1: brown
- 2: red
- 3: orange
- 4: yellow
- 5: green
- 6: blue
- 7: violet
- 8: grey
- 9: white

DESIGNATION EXAMPLE:  
MX27096 - CG-N-0,35-9/6  
Pair white/ blue 0,35 mm<sup>2</sup>

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## UNINAV - Type CG-S

Pair cable, screened, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

according to table 3 (cross-section 0,35 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

Table 3 - TYPE CG-S

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M310...	2x0,35	3,40 ÷ 4,00	28
M320...	2x0,5	3,50 ÷ 4,15	31
M330...	2x1	4,10 ÷ 4,90	44
M340...	2x1,5	5,10 ÷ 5,90	65
M350...	2x2,5	6,10 ÷ 6,90	95
 On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000" (white-blu is without last two digit):			
Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Outer diameter [mm]	Cable mass [kg/km]
MX050.....	2x26 (0,15)	2,65 ÷ 2,95	15,8
MX259.....	2x26 (0,15)	2,75 ÷ 2,95	15,8
MX019.....	2x24 (0,21)	2,85 ÷ 3,15	17,9
MX280.....	2x24 (0,21)	3,05 ÷ 3,25	18,8
MX018.....	2x22 (0,33)	3,20 ÷ 3,45	21,4
MX279.....	2x22 (0,33)	3,40 ÷ 3,60	23,0
MX246.....	2x22 (0,33)	3,20 ÷ 3,40	21,1
MX017.....	2x20 (0,59)	3,75 ÷ 4,05	30,5
MX278.....	2x20 (0,59)	3,80 ÷ 4,00	30,0
MX043.....	2x18 (0,93)	4,20 ÷ 4,60	38,9
MX020.....	2x16 (1,34)	4,70 ÷ 5,10	54,2
MX277.....	2x16 (1,34)	4,93 ÷ 5,13	55,0
MX042.....	2x14 (1,82)	5,40 ÷ 5,85	66,4
MX051.....	2x12 (2,61)	6,10 ÷ 6,55	83,3

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue preferential colours

**Screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type S2 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 CG-S- "cross section" – "colour code1"/"colour code2" UNIKA(Italy)  
"year of production" Cert.Om.nr.02/17

Insert the following number in the last digit of the item number, in place of ..... for different colours starting from the highest digit

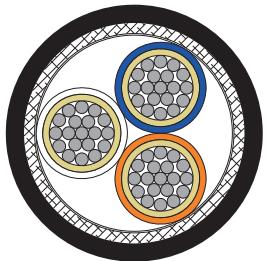
- 0: black
- 1: brown
- 2: red
- 3: orange
- 4: yellow
- 5: green
- 6: blue
- 7: violet
- 8: grey
- 9: white

DESIGNATION EXAMPLE:  
M31096 - CG-S-0,35-9/6  
Pair white/ blue 0,35 mm<sup>2</sup>

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## UNINAV – Type TG-S

Overall screened triad cable, low toxicity, thin wall, flexible, for apparatus internal wiring, rated voltage 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

according to table 4 (cross-section 0,35 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 4 - TYPE TG-S**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M410.....	3x0,35	3,50 ÷ 4,10	34
M420.....	3x0,5	3,70 ÷ 4,25	35
M430.....	3x1	4,30 ÷ 5,00	50
M440.....	3x1,5	5,20 ÷ 5,90	80
M450.....	3x2,5	6,50 ÷ 7,30	120

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000") (white-blu-orange is without last three digit):

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Outer diameter [mm]	Cable mass [kg/km]
MX052.....	3x26 (0,15)	2,80 ÷ 3,10	18,7
MX260.....	3x26 (0,15)	2,90 ÷ 3,10	18,7
MX047.....	3x24 (0,21)	3,00 ÷ 3,30	21,3
MX046.....	3x22 (0,33)	3,35 ÷ 3,65	27,1
MX045.....	3x20 (0,59)	3,90 ÷ 4,30	37,8
MX053.....	3x18 (0,93)	4,40 ÷ 4,85	48,9
MX044.....	3x16 (1,34)	5,00 ÷ 5,40	70,0
MX054.....	3x14 (1,82)	5,70 ÷ 6,20	86,1
MX055.....	3x12 (2,61)	6,40 ÷ 7,00	105,1

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white, blue and orange (preferential)

**Screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type S2 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 TG-S- "cross section" – "colour code1"/"colour code2"/"colour code3" UNIKA(Italy) "year of production" Cert. Om.nr.02/17

Insert the following number in the last digit of the item number, in place of ..... for different colours starting from the highest digit

- 0: black
- 1: brown
- 2: red
- 3: orange
- 4: yellow
- 5: green
- 6: blue
- 7: violet
- 8: grey
- 9: white

**DESIGNATION EXAMPLE:**  
M410963 - TG-S-0,35-9/6/3  
Triple white/ blue/ orange 0,35 mm<sup>2</sup>

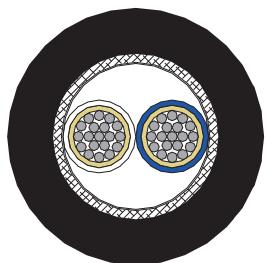
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# parole chiave our keywords

CUSTOMIZZAZIONE  
CUSTOMIZATION

# UNINAV - Type FN 02

Bipolar power supply cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 5A, 5B e 5C (cross-section 1,0 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 5A - TYPE FN 02-N**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M5100	2x1,0	5,10 ÷ 5,70	50
M5200	2x1,5	6,10 ÷ 6,70	75
M5300	2x2,5	7,20 ÷ 8,00	105

**Table 5B - TYPE FN 02-O**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M5400	2x1,0	5,70 ÷ 6,30	70
M5500	2x1,5	6,70 ÷ 7,40	100
M5600	2x2,5	7,80 ÷ 8,60	135

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue

**Inner sheath:** halogen free compound (for type FN 02-A)

**Screen:** tinned copper wire braid (for type FN 02-O)

**Armour:** aluminium wire braid (for type FN 02-A)

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 FN 02-“type”-“cross section”-UNIKA(italy) “year of production” Cert. Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
M5500 - FN 02-O-1,5  
Screened and unarmoured pair 1,5 mm<sup>2</sup>

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**Table 5C - TYPE FN 02-A**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M5700	2x1,0	7,80 ÷ 8,70	115
M5800	2x1,5	8,80 ÷ 9,80	150
M5900	2x2,5	10,00 ÷ 11,00	185

Add letter **E** to the item number for “enhanced screening effectiveness”

On request, single cores are available with cross section in AWG as follows (cable bears the marking “in compliance with NAV-80-6145-0003-14-00B000”):

### FN 02-N

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX299	2x16 (1,34)	5,20 ÷ 6,10	71
MX298	2x14 (1,82)	6,00 ÷ 6,90	88
MX058	2x12 (2,61)	6,70 ÷ 7,60	111

### FN 02-O

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX056	2x16 (1,34)	5,90 ÷ 6,70	94
MX060	2x14 (1,82)	6,50 ÷ 7,50	114
MX061	2x12 (2,61)	7,40 ÷ 8,30	139

### FN 02-OO (74 dB)

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX014	2x16 (1,34)	5,90 ÷ 6,70	94
MX015	2x12 (2,61)	8,50 ÷ 9,50	180

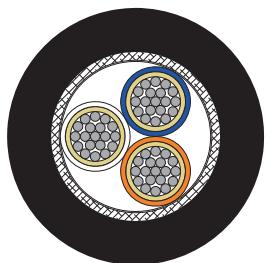
### FN 02-A

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX062	2x16 (1,34)	7,00 ÷ 8,00	130
MX063	2x14 (1,82)	8,40 ÷ 9,60	151
MX064	2x12 (2,61)	9,50 ÷ 10,40	180

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# UNINAV - Type FN 03

Three cores power supply cable, low toxicity, thin wall, flexible, rated 300/ 500 V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 6A, 6B e 6C (cross-section 1,0 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 6A - TYPE FN 03-N**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M6100	3x1,0	5,4 ÷ 6,0	65
M6200	3x1,5	6,4 ÷ 7,1	95
M6300	3x2,5	7,6 ÷ 8,5	135

**Table 6B - TYPE FN 03-O**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M6400	3x1,0	5,9 ÷ 6,6	80
M6500	3x1,5	7,0 ÷ 7,8	115
M6600	3x2,5	8,2 ÷ 9,0	165

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white, blue and orange

**Inner sheath:** halogen free compound (for type FN 03-A)

**Screen:** tinned copper wire braid (for type FN 03-O)

**Armour:** aluminium wire braid (for type FN 03-A)

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 FN 03-“type”-“cross section”-UNIKA(italy) “year of production” Cert. Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
M6500 - FN 03-O-1,5  
Screened and unarmoured triad 1,5 mm<sup>2</sup>

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

**Table 6C - TYPE FN 03-A**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M6700	3x1,0	8,0 ÷ 8,9	130
M6800	3x1,5	9,2 ÷ 10,2	175
M6900	3x2,5	10,4 ÷ 11,5	225

Add letter E to the item number for “enhanced screening effectiveness”

On request, single cores are available with cross section in AWG as follows (cable bears the marking “in compliance with NAV-80-6145-0003-14-00B000”):

**FN 03-N**

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX065	3x16 (1,34)	5,5 ÷ 6,4	86
MX066	3x14 (1,82)	6,3 ÷ 7,2	106
MX067	3x12 (2,61)	7,1 ÷ 8,0	134

**FN 03-O**

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX068	3x16 (1,34)	6,1 ÷ 7,0	110
MX069	3x14 (1,82)	7,0 ÷ 7,9	133
MX070	3x12 (2,61)	7,8 ÷ 8,7	164

**FN 03-A**

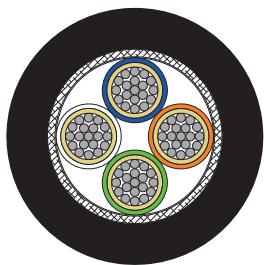
Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX071	3x16 (1,34)	8,1 ÷ 9,2	145
MX072	3x14 (1,82)	8,9 ÷ 10,1	172
MX073	3x12 (2,61)	9,6 ÷ 11,0	207

Add letter E to the item number for “enhanced screening effectiveness”

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

# UNINAV - Type FN 04

Four cores power supply cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 7A, 7B e 7C (cross-section 1,0 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 7A - TYPE FN 04-N**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M7100	4x1,0	5,8 ÷ 6,4	75
M7200	4x1,5	7,0 ÷ 7,7	120
M7300	4x2,5	8,3 ÷ 9,3	175

**Table 7B - TYPE FN 04-O**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M7400	4x1,0	6,3 ÷ 7,0	100
M7500	4x1,5	7,5 ÷ 8,3	140
M7600	4x2,5	8,9 ÷ 9,8	205

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white, blue, orange and green

**Inner sheath:** halogen free compound (for type FN 04-A)

**Screen:** tinned copper wire braid (for type FN 04-O)

**Armour:** aluminium wire braid (for type FN 04-A)

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 FN 04-“type”-“cross section”-UNIKA(Italy) “year of production” Cert. Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
M7500 - FN 04-O-1,5  
Screened and unarmoured quad 1,5 mm<sup>2</sup>

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

**Table 7C - TYPE FN 04-A**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
M7700	4x1,0	8,5 ÷ 9,4	150
M7800	4x1,5	9,8 ÷ 10,8	205
M7900	4x2,5	11,2 ÷ 12,4	270

Add letter E to the item number for “enhanced screening effectiveness”

On request, single cores are available with cross section in AWG as follows (cable bears the marking “in compliance with NAV-80-6145-0003-14-00B000”):

**FN 04-N**

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX291	4x16 (1,34)	6,0 ÷ 7,0	103
MX075	4x14 (1,82)	6,9 ÷ 7,9	128
MX076	4x12 (2,61)	7,8 ÷ 8,8	166

**FN 04-O**

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX077	4x16 (1,34)	6,6 ÷ 7,6	132
MX078	4x14 (1,82)	7,5 ÷ 8,6	161
MX079	4x12 (2,61)	8,5 ÷ 9,5	200

**FN 04-O0 (74 dB)**

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX016	4x12 (2,61)	9,5 ÷ 10,5	255

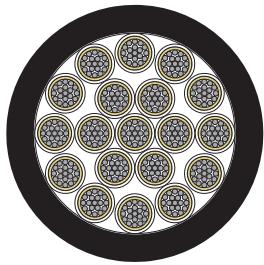
**FN 04-A**

Item n° (white)	Cross-section AWG (mm <sup>2</sup> )	Diameter [mm]	Cable mass [kg/km]
MX080	4x16 (1,34)	8,8 ÷ 10,0	170
MX081	4x14 (1,82)	9,5 ÷ 10,9	203
MX082	4x12 (2,61)	10,2 ÷ 11,8	246

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

# UNINAV - Type UN-xx-N

Multicore cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-2-22

### Range of approval:

according to table 8A, 8B e 8C (cross-section 0,35 ÷ 1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white with black numbers if not otherwise stated

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 UN "cross section"-N-"number of cores" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

**DESIGNATION EXAMPLE:**  
M8300 - UN 0,35-N-19 (nineteen cores, cross section 0,35 mm<sup>2</sup>)

Table 8A - TYPE UN 0,35-N (0,35 mm<sup>2</sup>)

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>M8030</b>	3	4,5 ÷ 5,1	35
<b>M8040</b>	4	4,8 ÷ 5,4	45
<b>M8100</b>	7	5,6 ÷ 6,2	70
<b>M8200</b>	12	7,1 ÷ 7,9	105
<b>M8300</b>	19	8,2 ÷ 9,1	150
<b>M8400</b>	37	10,7 ÷ 11,8	275

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

Table 8B - TYPE UN 0,50-N (0,50 mm<sup>2</sup>)

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>M8450</b>	5	5,6 ÷ 6,4	55
<b>M8500</b>	7	6,0 ÷ 6,6	80
<b>M8600</b>	10	7,3 ÷ 8,1	110
<b>M8700</b>	14	7,9 ÷ 8,7	140
<b>M8800</b>	19	8,7 ÷ 9,6	180
<b>M8900</b>	24	10,0 ÷ 11,0	220
<b>M8A00</b>	37	11,4 ÷ 12,6	320
<b>M8B00</b>	44	12,7 ÷ 14,0	380
<b>M8C00</b>	61	14,1 ÷ 15,6	500

Table 8C - TYPE UN 1,0-N (1,00 mm<sup>2</sup>)

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>M8D00</b>	7	6,8 ÷ 7,5	120
<b>M8E00</b>	12	8,7 ÷ 9,6	195
<b>M8F00</b>	19	10,1 ÷ 11,2	285
<b>M8G00</b>	37	13,3 ÷ 14,7	525

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000"):

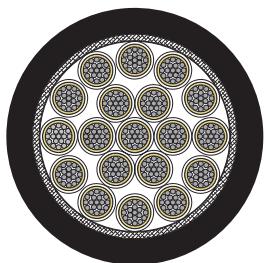
## TYPE UN 20-N (AWG 20)

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MX083</b>	7	5,7 ÷ 6,6	84
<b>MX084</b>	10	7,2 ÷ 8,1	117
<b>MX085</b>	14	7,9 ÷ 8,9	152
<b>MX086</b>	19	8,8 ÷ 9,8	197
<b>MX087</b>	24	10,4 ÷ 11,4	247
<b>MX088</b>	30	10,8 ÷ 12,0	298

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# UNINAV - Type UN-xx-O

Overall screened multicore cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 9A, 9B, 9C, 9D e 9E (cross-section 0,35 ÷ 2,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 9A - TYPE UN 0,35-O (0,35 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>M9040</b>	4	5,1 ÷ 5,8	50
<b>M9100</b>	7	6,2 ÷ 6,9	90
<b>M9150</b>	10	7,5 ÷ 8,3	115
<b>M9200</b>	12	7,6 ÷ 8,4	135
<b>M9300</b>	19	8,7 ÷ 9,6	185
<b>M9400</b>	37	11,4 ÷ 12,6	335

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white with black numbers if not otherwise stated

**Screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 UN "cross section"-O-"number of cores" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
M9300 - UN 0,35-O-19 (screened cable, nineteen cores, cross section 0,35 mm<sup>2</sup>)

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**Table 9B - TYPE UN 0,50-O (0,50 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>M9450</b>	2	5,20 ÷ 5,90	55
<b>M9500</b>	7	6,5 ÷ 7,2	100
<b>M9600</b>	10	7,8 ÷ 8,6	135
<b>M9650</b>	12	8,3 ÷ 9,2	155
<b>M9700</b>	14	8,4 ÷ 9,3	170
<b>M9800</b>	19	9,2 ÷ 10,2	210
<b>M9850</b>	20	10,2 ÷ 11,2	222
<b>M9900</b>	24	10,8 ÷ 11,9	280
<b>M9A00</b>	37	12,1 ÷ 13,4	390
<b>M9B00</b>	44	13,5 ÷ 14,9	450
<b>M9C00</b>	61	15,1 ÷ 16,7	610

**Table 9C - TYPE UN 1,0-O (1,00 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>M9D00</b>	7	7,3 ÷ 8,1	145
<b>M9E00</b>	10	8,9 ÷ 9,8	190
<b>M9E50</b>	12	9,7 ÷ 10,7	233
<b>M9F00</b>	14	9,8 ÷ 10,8	250
<b>M9G00</b>	16	10,3 ÷ 11,4	305
<b>M9H00</b>	20	11,3 ÷ 12,5	365
<b>M9J00</b>	24	12,4 ÷ 13,7	430
<b>M9K00</b>	37	14,2 ÷ 15,7	630

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**Table 9D - TYPE UN 1,5-O (1,50 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
M9K50	6	8,8 ÷ 9,7	210
M9L00	7	8,9 ÷ 9,8	215
M9L50	8	9,8 ÷ 10,8	250
M9M00	12	11,5 ÷ 12,7	360
M9N00	16	12,7 ÷ 14,0	470
M9P00	19	13,3 ÷ 14,7	540
M9Q00	24	15,6 ÷ 17,2	700
M9R00	37	17,8 ÷ 19,7	980

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000"):

**UN 24-O (AWG 24)**

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
MX316	8	5,8 ÷ 6,6	65
MX308	60	12,4 ÷ 13,7	320

**UN 22-O (AWG 22)**

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
MX308	60	13,5 ÷ 14,7	410

**UN 20-O (AWG 20)**

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
MX317	4	5,8 ÷ 6,6	70
MX092	7	6,4 ÷ 7,3	109
MX093	10	7,9 ÷ 8,8	149
MX115	14	8,5 ÷ 9,5	186
MX095	19	9,4 ÷ 10,4	236
MX096	24	10,9 ÷ 12,0	304
MX097	30	11,4 ÷ 12,6	359
MX098	37	12,6 ÷ 13,8	425

**UN 20-OO (AWG 20) - 74 dB**

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
MX008	3	5,9 ÷ 6,6	80
MX009	10	8,7 ÷ 9,5	165
MX030	14	9,5 ÷ 10,3	215
MX011	20	11,0 ÷ 11,8	290

**Table 9E - TYPE UN 2,5-O (2,50 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
M9S00	7	10,7 ÷ 11,8	310
M9T00	12	13,8 ÷ 15,3	520
M9U00	16	15,3 ÷ 16,9	670
M9V00	19	16,2 ÷ 17,9	790
M9W00	24	19,0 ÷ 21,0	990
M9X00	37	21,9 ÷ 24,2	147

Add letter **E** to the item number for "enhanced screening effectiveness"

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## UN 18-O (AWG 18)

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MX315</b>	7	8,0 ÷ 9,1	160
<b>MX110</b>	10	8,8 ÷ 9,9	189
<b>MX111</b>	14	9,4 ÷ 10,6	240

## UN 16-O (AWG 16)

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MX288</b>	2	6,6 ÷ 7,4	105
<b>MX112</b>	7	7,7 ÷ 8,9	145
<b>MX304</b>	8	9,5 ÷ 10,3	150
<b>MX282</b>	9	9,8 ÷ 11,0	245
<b>MX113</b>	12	10,1 ÷ 11,5	311
<b>MX281</b>	21	13,5 ÷ 14,7	470
<b>MX114</b>	24	13,9 ÷ 15,4	582
<b>MX314</b>	27	15,2 ÷ 17,1	650
<b>MX285</b>	37	15,9 ÷ 17,5	835

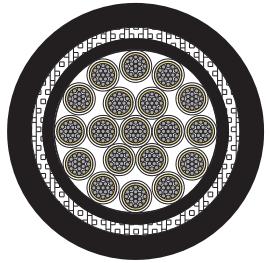
## UN 16-00 (AWG 16) - 74 dB

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MX012</b>	10	11,5 ÷ 12,4	315
<b>MX013</b>	30	16,9 ÷ 17,9	740

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## UNINAV - Type UN-xx-A

Multicore armoured cable, low toxicity, thin wall, flexible, rated 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

according to table 10A and 10B (cross-section 0,50 and 1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 10A - TYPE UN 0,50-A (0,50 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MA100</b>	7	8,7 ÷ 9,6	150
<b>MA200</b>	10	10,1 ÷ 11,2	195
<b>MA300</b>	14	10,7 ÷ 11,9	235
<b>MA400</b>	19	11,5 ÷ 12,8	280
<b>MA500</b>	24	12,9 ÷ 14,3	340
<b>MA600</b>	37	14,4 ÷ 16,0	460
<b>MA700</b>	44	15,8 ÷ 17,5	530
<b>MA800</b>	61	17,2 ÷ 19,0	675

**Table 10B - TYPE UN 1,0-A (1,00 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MA900</b>	7	9,5 ÷ 10,5	200
<b>MAA00</b>	10	11,3 ÷ 12,5	270
<b>MAB00</b>	14	11,9 ÷ 13,2	305
<b>MAC00</b>	16	12,5 ÷ 13,9	325
<b>MAD00</b>	20	13,5 ÷ 14,9	430
<b>MAE00</b>	24	14,7 ÷ 16,3	500
<b>MAF00</b>	37	16,4 ÷ 18,2	690

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### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white with black numbers if not otherwise stated

**Inner sheath:** halogen free compound

**Armour:** aluminium wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

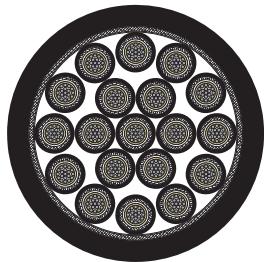
**Marking:** NAV-80-6145-0003-14-00B000 UN "cross section"-A-"number of cores" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

**DESIGNATION EXAMPLE:**  
MA400 - UN 0,50-A-19 (armoured cable, nineteen cores, cross section 0,50 mm<sup>2</sup>)

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# UNINAV - Type US-xx-O

Overall and single multiscreened cores cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 11A, 11B, 11C and 11D (cross-section 0,35 ÷ 1,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 11A - TYPE US 0,35-O (0,35 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MB100</b>	3	7,3 ÷ 8,0	100
<b>MB200</b>	7	9,2 ÷ 10,2	170
<b>MB300</b>	14	12,6 ÷ 13,9	330
<b>MB400</b>	20	14,6 ÷ 16,2	450
<b>MB500</b>	30	17,3 ÷ 19,0	650
<b>MB600</b>	40	19,4 ÷ 21,5	880

**Table 11B - TYPE US 0,50-O (0,50 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MB700</b>	3	7,5 ÷ 8,3	110
<b>MB800</b>	7	9,7 ÷ 10,7	200
<b>MB850</b>	10	12,4 ÷ 13,2	280
<b>MB900</b>	12	12,4 ÷ 13,7	330
<b>MBA00</b>	19	14,6 ÷ 16,2	500
<b>MBB00</b>	37	19,3 ÷ 21,3	850

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white if not otherwise stated

**Core screen:** tinned copper wire braid

**Core sheath:** halogen free compound, type S2 according to Standard EN 50306-1, colour black with printed white numbers for identification

**Overall screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000  
US "cross section"-0-"number of cores"  
– UNIKA(Italy) "year of production" Cert. Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
MBA00 - US 0,50-O-19 (screened cable, nineteen screened cores, cross section 0,50 mm<sup>2</sup>)

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**Table 11C - TYPE US 1,0-O (1,00 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MBC00</b>	3	8,5 ÷ 9,3	155
<b>MBD00</b>	7	10,7 ÷ 11,9	275
<b>MBE00</b>	12	13,8 ÷ 15,3	435
<b>MBF00</b>	19	16,4 ÷ 17,9	650
<b>MBG00</b>	37	22,0 ÷ 24,0	1150

**Table 11D - TYPE US 1,5-O (1,50 mm<sup>2</sup>)**

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MBH00</b>	3	9,6 ÷ 10,6	200
<b>MBJ00</b>	7	12,3 ÷ 13,5	375
<b>MBK00</b>	10	15,7 ÷ 17,3	550
<b>MBL00</b>	19	19,0 ÷ 20,9	900
<b>MBM00</b>	37	25,7 ÷ 28,2	1650

Add letter **E** to the item number for "enhanced screening effectiveness"

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000"):

## US 22-O (AWG 22)

Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MX116</b>	3	6,5 ÷ 7,3	94
<b>MX117</b>	7	8,2 ÷ 9,2	151
<b>MX118</b>	14	11,3 ÷ 12,5	274
<b>MX119</b>	20	13,2 ÷ 14,4	382
<b>MX120</b>	30	15,6 ÷ 17,0	528
<b>MX121</b>	40	23,9 ÷ 25,5	1185

## US 20-O (AWG 20)

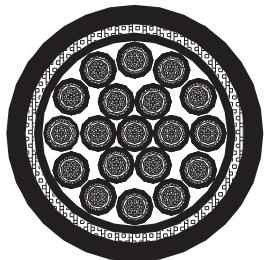
Item n° (white)	No. of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MX122</b>	7	9,2 ÷ 10,1	187
<b>MX123</b>	12	12,1 ÷ 13	354
<b>MX124</b>	19	11,3 ÷ 15,3	455

Add letter **E** to the item number for "enhanced screening effectiveness"

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# UNINAV - Type US-xx-A

Multi screened cores, armoured cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-2-22

### Range of approval:

according to table 12A and 12B (cross-section 0,5 and 1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, colour white if not otherwise stated

**Core screen:** tinned copper wire braid

**Core sheath:** halogen free compound, type S2 according to Standard EN 50306-1, colour black with printed white numbers for identification

**Inner sheath:** halogen free compound

**Armour:** aluminium wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000  
US "cross section"-A-"number of cores"  
– UNIKA(Italy) "year of production" Cert.  
Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
MC400 - US 0,50-A-19 (armoured cable,  
nineteen screened cores, cross section  
0,50 mm<sup>2</sup>)

Table 12B - TYPE US 1,0-A (1,00 mm<sup>2</sup>)

Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MC600</b>	3	10,5 ÷ 11,6	205
<b>MC700</b>	7	12,8 ÷ 14,2	340
<b>MC800</b>	12	16,1 ÷ 17,8	520
<b>MC900</b>	19	18,5 ÷ 20,5	730
<b>MAD00</b>	20	13,5 ÷ 14,9	430

Add letter **E** to the item number for "enhanced screening effectiveness"

Table 12A - TYPE US 0,50-A (0,50 mm<sup>2</sup>)

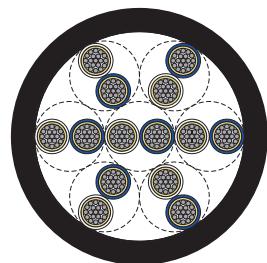
Item n°	Number of cores	Outer diameter [mm]	Cable mass [kg/km]
<b>MC100</b>	3	9,7 ÷ 10,8	170
<b>MC200</b>	7	11,8 ÷ 13,1	270
<b>MC300</b>	12	14,7 ÷ 16,3	410
<b>MC400</b>	19	16,8 ÷ 18,6	570
<b>MC500</b>	37	21,8 ÷ 24,1	980

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# UNINAV - Type CN-xx-N

Multicore cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 13A and 13B (cross-section 0,35 and 0,50 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 13A - TYPE CN 0,35-N (0,35 mm<sup>2</sup>)**

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MD100</b>	3	5,9 ÷ 6,6	70
<b>MD200</b>	7	7,9 ÷ 8,8	130
<b>MD300</b>	10	9,9 ÷ 11,0	180
<b>MD400</b>	16	11,3 ÷ 12,5	260
<b>MD500</b>	20	12,6 ÷ 14,0	315
<b>MD600</b>	30	14,8 ÷ 16,4	445
<b>MD700</b>	40	16,6 ÷ 18,4	575
<b>MD800</b>	50	18,8 ÷ 20,8	715

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue

**Pairs:** single cores are twisted into pairs. Each core is numbered for identification

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000  
CN "cross section"-N-"number of pairs"  
– UNIKA(Italy) "year of production" Cert. Om.nr.02/17

**DESIGNATION EXAMPLE:**  
MD200 - CN 0,35-N-7 (seven pairs, cross section 0,35 mm<sup>2</sup>)

**Table 13B - TYPE CN 0,50-N (0,50 mm<sup>2</sup>)**

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MD900</b>	3	6,3 ÷ 7,0	80
<b>MDA00</b>	7	8,4 ÷ 9,3	150
<b>MDB00</b>	10	10,6 ÷ 11,7	210
<b>MDC00</b>	16	12,1 ÷ 13,4	300
<b>MDD00</b>	20	13,4 ÷ 14,9	370
<b>MDE00</b>	30	15,8 ÷ 17,5	525
<b>MDF00</b>	40	17,8 ÷ 19,7	680
<b>MDG00</b>	50	20,2 ÷ 22,4	845

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000"):

## CN 22-N (AWG 22)

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX296</b>	3	6,8 ÷ 7,8	85
<b>MX135</b>	5	7,1 ÷ 8,4	93
<b>MX136</b>	10	10,2 ÷ 11,5	166
<b>MX137</b>	16	12,0 ÷ 13,1	242
<b>MX138</b>	20	13,1 ÷ 14,6	295
<b>MX139</b>	30	15,7 ÷ 17,2	422
<b>MX140</b>	40	17,4 ÷ 19,4	547

## CN 20-N (AWG 20)

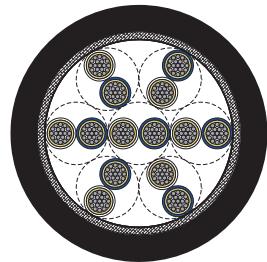
Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX155</b>	3	7,3 ÷ 8,3	95
<b>MX156</b>	16	14,0 ÷ 15,9	354

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# UNINAV - Type CN-xx-O

Multipairs, screened cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 14A, 14B, 14C and 14D (cross-section 0,35÷1,5 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue

**Pairs:** single cores are twisted into pairs. Each core is numbered for identification

**Screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 CN "cross section"-O-"number of pairs" – UNIKA(italy) "year of production" Cert.Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
ME200 - CN 0,35-O-7 (seven pairs, cross section 0,35 mm<sup>2</sup>)

Table 14A - TYPE CN 0,35-O (0,35 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
ME050	1	4,7 ÷ 5,3	47
ME070	2	6,2 ÷ 6,9	75
ME100	3	6,3 ÷ 7,0	85
ME140	4	7,7 ÷ 8,3	105
ME150	5	8,1 ÷ 8,9	130
ME200	7	8,3 ÷ 9,2	145
ME300	10	10,4 ÷ 11,4	210
ME350	12	10,8 ÷ 11,8	233
ME400	16	11,7 ÷ 13,0	305
ME450	19	12,7 ÷ 14,0	350
ME500	20	12,9 ÷ 14,2	365
ME570	27	15,0 ÷ 16,5	460
ME600	30	15,2 ÷ 16,8	530
ME700	40	16,9 ÷ 18,7	670
ME800	50	19,0 ÷ 21,0	875

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

Table 14B - TYPE CN 0,50-O (0,50 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
ME850	2	6,7 ÷ 7,4	85
ME900	3	6,8 ÷ 7,5	95
MEA00	7	8,7 ÷ 9,7	175
MEB00	10	11,0 ÷ 12,1	250
MEC00	16	12,5 ÷ 13,9	350
MED00	20	13,8 ÷ 15,2	445
MEE00	30	16,2 ÷ 17,9	620
MEF00	40	18,1 ÷ 20,0	845
MEG00	50	20,5 ÷ 22,6	1025

Table 14C - TYPE CN 1,0-O (1,00 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MEG50	1	6,1 ÷ 7,0	125
MEH00	3	8,1 ÷ 9,0	145
MEJ00	7	10,4 ÷ 11,5	265
MEK00	10	13,2 ÷ 14,6	380
MELO0	16	15,2 ÷ 16,8	565
MEM00	20	16,9 ÷ 18,7	690
MEN00	30	19,9 ÷ 22,0	1015
MEP00	40	22,5 ÷ 24,8	1320
MEQ00	50	25,4 ÷ 28,1	1645

Table 14D - TYPE CN 1,50-O (1,50 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MERO0	3	9,5 ÷ 10,5	215
MES00	7	12,2 ÷ 13,8	425
METO0	10	15,9 ÷ 17,6	620
MEU00	16	18,1 ÷ 20,0	905
MEV00	20	20,1 ÷ 22,2	1170
MEW00	30	24,2 ÷ 26,7	1690
MEX00	40	27,2 ÷ 30,1	2185
MEY00	50	30,5 ÷ 33,5	2735

Add letter E to the item number for "enhanced screening effectiveness"

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000"):

#### CN 26-0 (AWG 26)

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX128</b>	6	7,3 ÷ 8,6	108
<b>MX129</b>	18	11,0 ÷ 12,8	243
<b>MX130</b>	24	12,8 ÷ 14,7	325
<b>MX131</b>	42	17,0 ÷ 19,0	490
<b>MX132</b>	60	18,8 ÷ 21,0	680
<b>MX133</b>	77	21,3 ÷ 23,7	883

#### CN 22-0 (AWG 22)

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX294</b>	2	6,0 ÷ 6,9	72
<b>MX141</b>	3	6,7 ÷ 7,6	90
<b>MX142</b>	5	8,1 ÷ 9,0	125
<b>MX287</b>	7	8,0 ÷ 9,0	135
<b>MX143</b>	10	11,1 ÷ 12,1	224
<b>MX144</b>	16	12,8 ÷ 13,9	309
<b>MX145</b>	20	14,2 ÷ 15,6	388
<b>MX146</b>	30	16,4 ÷ 18,3	534
<b>MX147</b>	40	18,5 ÷ 20,5	674

#### CN 20-0 (AWG 20)

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX305</b>	9	12,0 ÷ 13,0	175

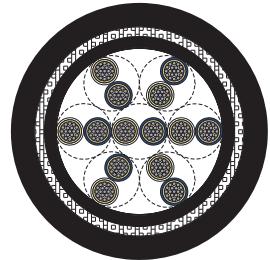
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**our keywords**

PRESenza MONDIALE  
WORLDWIDE PRESENCE

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## UNINAV - Type CN-xx-A

Multipairs, armoured cable, low toxicity, thin wall, flexible, rated 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

according to table 15A and 15B (cross-section 0,50 and 1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 15A - TYPE CN 0,50-A (0,50 mm<sup>2</sup>)**

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MF100</b>	3	9,0 ÷ 10,0	150
<b>MF200</b>	7	11,2 ÷ 12,4	245
<b>MF300</b>	10	13,5 ÷ 14,9	330
<b>MF400</b>	16	15,1 ÷ 16,7	445
<b>MF500</b>	20	16,5 ÷ 18,3	530
<b>MF600</b>	30	19,0 ÷ 21,0	720
<b>MF700</b>	40	21,1 ÷ 23,4	900
<b>MF800</b>	50	23,6 ÷ 26,1	1100

**Table 15B - TYPE CN 1,0-A (1,00 mm<sup>2</sup>)**

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MF900</b>	3	10,3 ÷ 11,4	205
<b>MFA00</b>	7	12,6 ÷ 14,0	345
<b>MFB00</b>	10	15,4 ÷ 17,1	480
<b>MFC00</b>	16	17,3 ÷ 19,2	660
<b>MFD00</b>	20	19,0 ÷ 21,0	795
<b>MFE00</b>	30	22,0 ÷ 24,4	1110
<b>MFF00</b>	40	25,7 ÷ 28,4	1450
<b>MFG00</b>	50	27,5 ÷ 30,4	1730

# parole chiave our keywords

**SVILUPPO  
DEVELOPMENT**

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue

**Pairs:** single cores are twisted into pairs. Each core is numbered for identification

**Inner sheath:** halogen free compound

**Armour:** aluminium wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

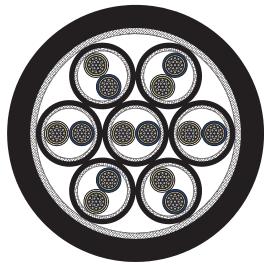
**Marking:** NAV-80-6145-0003-14-00B000 CN "cross section"-A-"number of pairs" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

**DESIGNATION EXAMPLE:**  
**MF200 - CN 0,50-A-7** (seven pairs, cross section 0,50 mm<sup>2</sup>)

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

# UNINAV - Type CS-xx-O

Screened multipairs and overall screened cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 16A, 16B, 16C, 16D and 16E (cross-section 0,35÷2,50 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue

**Pairs:** single cores are twisted into pairs.

**Screen:** tinned copper wire braid on each pair

**Pair inner sheath:** halogen free compound with pair number for identification

**Overall screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 CS "cross section"-O-"number of pairs" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
MG200 - CS 0,35-O-7 (seven pairs, cross section 0,35 mm<sup>2</sup>)

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

Table 16B - TYPE CS 0,50-O (0,50 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MG780	2	10,0 ÷ 11,0	160
MG800	3	10,1 ÷ 11,1	205
MG850	4	11,5 ÷ 12,5	254
MG900	7	13,2 ÷ 14,6	385
MGA00	12	17,5 ÷ 19,3	640
MGB00	14	18,5 ÷ 20,4	720
MGC00	19	20,8 ÷ 23,0	955
MGC50	20	22,8 ÷ 25,3	980
MGD00	30	25,9 ÷ 28,6	1430
MGE00	40	29,3 ÷ 32,4	1880

Table 16C - TYPE CS 1,0-O (1,00 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MGF00	3	11,4 ÷ 12,6	260
MGC00	7	15,0 ÷ 16,6	510
MGH00	12	19,9 ÷ 22,0	830
MGK00	14	21,1 ÷ 23,4	970
MGJ00	19	23,8 ÷ 26,3	1290
MGL00	30	29,9 ÷ 33,0	2035
MGM00	40	34,3 ÷ 38,0	2670

Table 16D - TYPE CS 1,50-O (1,50 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MGN00	3	13,6 ÷ 15,0	365
MGN50	4	16,2 ÷ 17,5	430
MGP00	7	18,0 ÷ 19,9	740
MGQ00	12	24,4 ÷ 27,0	1240
MGR00	14	25,8 ÷ 28,5	1410
MGS00	19	29,3 ÷ 32,4	1870
MGT00	30	36,7 ÷ 40,5	2890
MGU00	40	42,1 ÷ 46,5	3795

Table 16E - TYPE CS 2,5-O (2,50 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MGV00	2	16,6 ÷ 18,5	455
MCW00	3	17,7 ÷ 19,6	560

Add letter E to the item number for "enhanced screening effectiveness"

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Table 16A - TYPE CS 0,35-O (0,35 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MG050	2	10,8 ÷ 11,8	165
MG100	3	9,8 ÷ 10,8	185
MG140	4	11,5 ÷ 12,5	215
MG150	5	12,2 ÷ 13,2	255
MG200	7	12,9 ÷ 14,3	350
MG250	8	14,4 ÷ 15,4	390
MG270	10	16,5 ÷ 18,3	497
MG300	12	16,9 ÷ 18,7	585
MG400	14	17,8 ÷ 19,7	685
MG500	19	19,9 ÷ 22,0	870
MG550	20	23,0 ÷ 24,5	890
MG600	30	25,0 ÷ 27,6	1300
MG700	40	28,5 ÷ 31,5	1710

On request, single cores are available with cross section in AWG as follows (cable bears the marking "in compliance with NAV-80-6145-0003-14-00B000"):

**CS 26-O (AWG 26)**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX283</b>	4	9,7 ÷ 10,7	165

**CS 24-O (AWG 24)**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX310</b>	7	11,9 ÷ 12,9	270

**CS 22-O (AWG 22)**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX258</b>	2	8,3 ÷ 9,1	119
<b>MX292</b>	3	9,1 ÷ 10,0	155
<b>MX289</b>	7	12,4 ÷ 13,3	290
<b>MX232</b>	8	13,5 ÷ 14,5	330
<b>MX293</b>	14	17,0 ÷ 18,2	509
<b>MX169</b>	19	19,2 ÷ 20,4	675
<b>MX170</b>	30	24,5 ÷ 26,1	957
<b>MX171</b>	40	27,0 ÷ 29,0	1323

**CS 22-OO (AWG 22) - 74 dB**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX001</b>	3	9,9 ÷ 10,9	170
<b>MX002</b>	7	13,0 ÷ 14,0	310
<b>MX003</b>	10	15,8 ÷ 17,0	425
<b>MX004</b>	14	18,0 ÷ 19,2	535
<b>MX005</b>	16	19,1 ÷ 20,3	590
<b>MX006</b>	24	24,0 ÷ 25,2	880

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

**CS 20-O (AWG 20)**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX290</b>	2	9,8 ÷ 11,1	170
<b>MX185</b>	3	10,0 ÷ 11,3	216
<b>MX312</b>	5	13,2 ÷ 15,0	325
<b>MX286</b>	6	13,3 ÷ 15,1	345
<b>MX186</b>	7	13,3 ÷ 15,1	389
<b>MX284</b>	10	18,6 ÷ 20,3	560
<b>MX187</b>	12	18,8 ÷ 20,5	618
<b>MX188</b>	19	21,2 ÷ 23,4	928

**CS 20-OO (AWG 20) - 74 dB**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX007</b>	2	10,8 ÷ 12,0	180

**CS 18-O (AWG 18)**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX198</b>	3	11,6 ÷ 12,7	259
<b>MX199</b>	7	15,5 ÷ 17,0	478
<b>MX200</b>	12	20,6 ÷ 22,5	797
<b>MX201</b>	19	24,8 ÷ 26,9	1207
<b>MX202</b>	30	31,0 ÷ 33,4	1796

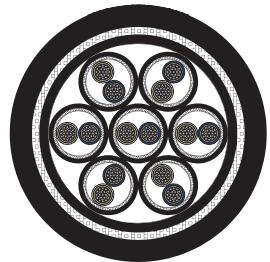
**CS 18-OO (AWG 18) - 74 dB**

Item n° (white)	No. of pairs	Outer diameter [mm]	Cable mass [kg/km]
<b>MX198</b>	3	11,6 ÷ 12,7	260

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## UNINAV - Type CS-xx-A

Screened multipairs and armoured cable, low toxicity, thin wall, flexible, rated 300/ 500V



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60333-3-22

#### Range of approval:

according to table 17A and 17B (cross-section 0,50 and 1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

### CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white and blue

**Pairs:** single cores are twisted into pairs.

**Screen:** tinned copper wire braid on each pair

**Pair inner sheath:** halogen free compound with pair number for identification

**Overall inner sheath:** halogen free compound

**Armour:** aluminium wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 CS "cross section"-A-"number of pairs" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
MH200 - CS 0,50-A-7 (seven pairs, cross section 0,5 mm<sup>2</sup>)

Table 17A - TYPE CS 0,50-A (0,50 mm<sup>2</sup>)

Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MH100	3	12,6 ÷ 14,0	275
MH200	7	15,9 ÷ 17,6	470
MH300	12	20,3 ÷ 22,5	735
MH400	19	23,6 ÷ 26,1	1040
MH500	30	29,0 ÷ 32,1	1550
MH600	40	32,5 ÷ 36,0	1975

Table 17B - TYPE CS 1,0-A (1,00 mm<sup>2</sup>)

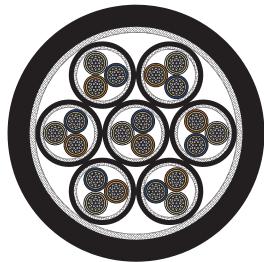
Item n°	Number of pairs	Outer diameter [mm]	Cable mass [kg/km]
MH700	3	14,1 ÷ 15,6	340
MH800	7	17,9 ÷ 19,8	610
MH900	12	23,1 ÷ 25,6	970
MHA00	19	27,0 ÷ 29,8	1400
MHB00	30	33,4 ÷ 37,0	2050

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FLEXIBILITY  
FLESSIBILITÀ

# UNINAV - Type TS-xx-O

Overall and individually screened multitriads cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60333-3-22

### Range of approval:

according to table 18A, 18B and 18C (cross-section 0,35÷1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 18A - TYPE TS 0,35-O (0,35 mm<sup>2</sup>)**

Item n°	Number of triads	Outer diameter [mm]	Cable mass [kg/km]
<b>MJ100</b>	3	10,2 ÷ 11,2	210
<b>MJ200</b>	7	13,2 ÷ 14,6	395
<b>MJ300</b>	10	16,8 ÷ 18,5	570
<b>MJ400</b>	14	18,5 ÷ 20,7	765
<b>MJ500</b>	19	20,8 ÷ 23,0	1015
<b>MJ600</b>	30	27,7 ÷ 30,6	1535

## CONSTRUCTION

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white, blue and orange

**Triads:** single cores are twisted into triads.

**Screen:** tinned copper wire braid on each triads

**Triad inner sheath:** halogen free compound with pair number for identification

**Overall screen:** tinned copper wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 TS "cross section"-O-"number of triads" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
MJ200 - TS 0,35-O-7 (seven triads, cross section 0,35 mm<sup>2</sup>)

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

**Table 18B - TYPE TS 0,50-O (0,50 mm<sup>2</sup>)**

Item n°	Number of triads	Outer diameter [mm]	Cable mass [kg/km]
<b>MJ700</b>	3	10,6 ÷ 11,7	215
<b>MJ800</b>	7	14,0 ÷ 15,5	415
<b>MJ900</b>	10	17,9 ÷ 19,8	590
<b>MJA00</b>	14	19,5 ÷ 21,5	790
<b>MJB00</b>	19	21,7 ÷ 24,0	1055
<b>MJC00</b>	30	28,8 ÷ 31,8	1690

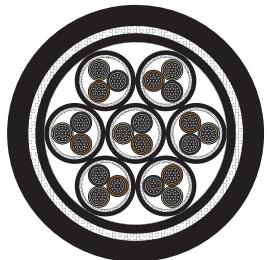
**Table 18C - TYPE TS 1,0-O (1,00 mm<sup>2</sup>)**

Item n°	Number of triads	Outer diameter [mm]	Cable mass [kg/km]
<b>MJD00</b>	3	12,2 ÷ 13,5	300
<b>MJE00</b>	7	16,3 ÷ 18,0	590
<b>MJF00</b>	10	21,7 ÷ 24,0	870
<b>MJC00</b>	14	23,1 ÷ 25,5	1175
<b>MJH00</b>	19	25,3 ÷ 27,9	1590

Add letter **E** to the item number for "enhanced screening effectiveness"

# UNINAV - Type TS-xx-A

Screened multitriads and armoured cable, low toxicity, thin wall, flexible, rated 300/ 500V



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 5 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 19A and 19B (cross-section 0,50 and 1,0 mm<sup>2</sup>) of NAV-80-6145-0003-14-00B000 (see Ministry of Defence homologation certificate n° 02/17)

**Table 19A - TYPE TS 0,50-A (0,50 mm<sup>2</sup>)**

Item n°	Number of triads	Outer diameter [mm]	Cable mass [kg/km]
MK100	3	13,2 ÷ 14,6	300
MK200	7	16,7 ÷ 18,5	520
MK300	10	20,8 ÷ 23,0	735
MK400	14	22,4 ÷ 24,8	920
MK500	19	24,8 ÷ 27,4	1170
MK600	30	31,3 ÷ 34,6	1765

**Table 19B - TYPE TS 1,0-A (1,00 mm<sup>2</sup>)**

Item n°	Number of triads	Outer diameter [mm]	Cable mass [kg/km]
MK700	3	14,7 ÷ 16,3	375
MK800	7	19,1 ÷ 21,1	715
MK900	10	24,0 ÷ 26,6	1000
MKA00	14	25,5 ÷ 28,2	1275
MKB00	19	28,3 ÷ 31,3	1635

## CONSTRUCTION

Add letter **E** to the item number for "enhanced screening effectiveness"

**Conductor:** concentric tinned copper conductor according ASTM B33

**Insulation:** double layer with special compound, white, blue and orange

**Triads:** single cores are twisted into triads.

**Screen:** tinned copper wire braid on each triads

**Pair inner sheath:** halogen free compound with pair number for identification

**Overall inner sheath:** halogen free compound

**Armour:** aluminium wire braid

**Sheath:** crosslinked compound, type EM104 according to Standard EN 50306-1, colour black if not otherwise stated

**Marking:** NAV-80-6145-0003-14-00B000 TS "cross section"-A-"number of triads" – UNIKA(Italy) "year of production" Cert.Om.nr.02/17

In case of higher screening effectiveness, the minimum value in dB shall be declared into the marking

**DESIGNATION EXAMPLE:**  
MK200 - TS 0,50-A-7 (seven triads, cross section 0,50 mm<sup>2</sup>)

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## NAV-80-6145-0005-13-00B000

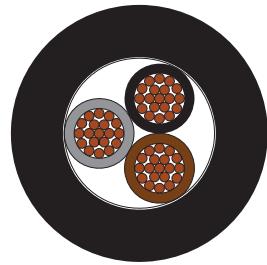
Standard for low toxicity cables, suitable to be installed into Navy Units.

Specifica tecnica per cavi elettrici atossici, idonei per l'impiego a bordo di unità navali militari.

<b>UNINAV - Type NBT and NG</b>	Unarmoured power cables rated 0,6/1 kV	58
<b>UNINAV - Type NBTA and NCA</b>	Armoured power cables rated 0,6/1 kV	62
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# UNINAV – Type NBT and NG

Unarmoured power cables rated 0,6/ 1kV



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 6 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 20A, 20B, 20C and 20D and as specified in NAV 80-6145-0005-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

## Table 20A single core

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>ML001</b>	1,5	5,2	40
<b>ML002</b>	2,5	5,6	50
<b>ML003</b>	4	6,2	70
<b>ML004</b>	6	6,7	90
<b>ML005</b>	10	7,6	140
<b>ML005Z*</b>	AWG8	7,8	145
<b>ML006</b>	16	8,8	200
<b>ML007</b>	25	10,4	300
<b>ML007Z*</b>	AWG4	10,6	315
<b>ML008</b>	35	11,8	400
<b>ML009</b>	50	13	530
<b>ML009Z*</b>	AWG1/0	14,6	630
<b>ML010</b>	70	15,3	740
<b>ML011</b>	95	17,4	1010
<b>ML012</b>	120	19	1260
<b>ML013</b>	150	21,2	1540
<b>ML014</b>	185	23,6	1940
<b>ML015</b>	240	26,6	2490
<b>ML016</b>	300	29,5	3130

## CONSTRUCTION

**Conductor:** bare copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** HEPR or XLPE according to IEC 60092-360

**Core identification:** according to HD 308 S2

**Bedding:** textile or extruded fillers. Halogen free inner sheath compound mandatory for ATEX application, to be specified in the order

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour black if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NBT-“core numbers”x“cross section”- 0,6/1 kV - Cert.Om.nr.04/17

**DESIGNATION EXAMPLE:**  
**NBT:** cable without green/yellow core  
**NG:** cable with green/yellow core  
**ML026- NBT (three cores, cross section 1,5 mm<sup>2</sup>)**

\* Conductors class 6 according to IEC 60228

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Table 20B two cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>ML017</b>	2x1,5	8,2	90
<b>ML018</b>	2x2,5	9,2	120
<b>ML019</b>	2x4	10,3	150
<b>ML020</b>	2x6	11,6	200
<b>ML021</b>	2x10	13,5	300
<b>ML022</b>	2x16	15,7	440
<b>ML023</b>	2x25	19,2	670
<b>ML024</b>	2x35	23,4	1200
<b>ML025</b>	2x50	26,3	1500
<b>ML060</b>	2x70	29,4	1980
<b>ML055</b>	2x95	35,2	2480

Table 20C three cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>ML026</b>	3x1,5	8,6	100
<b>ML027</b>	3x2,5	9,7	140
<b>ML028</b>	3x4	10,9	190
<b>ML029</b>	3x6	12,3	260
<b>ML030</b>	3x10	14,5	410
<b>ML031</b>	3x16	16,9	610
<b>ML032</b>	3x25	20,6	930
<b>ML033</b>	3x35	24,7	1500
<b>ML034</b>	3x50	28	2000
<b>ML035</b>	3x70	33,3	2830
<b>ML036</b>	3x95	37,3	3780
<b>ML037</b>	3x120	41,4	4700
<b>ML038</b>	3x150	46	5200
<b>ML039</b>	3x185	51,5	7200

Item number refers to NBT types. For NG types add letter **G** at the end of the item number.

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Table 20D four cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>ML040</b>	4x1,5	9,6	130
<b>ML041</b>	4x2,5	10,6	180
<b>ML042</b>	4x4	12,1	240
<b>ML043</b>	4x6	13,5	340
<b>ML044</b>	4x10	15,9	510
<b>ML045</b>	4x16	18,6	770
<b>ML046</b>	4x25	22,9	1180
<b>ML047</b>	4x35	27,2	1850
<b>ML048</b>	4x50	31,2	2500
<b>ML049</b>	4x70	36,7	3550
<b>ML050</b>	4x95	41,3	4780
<b>ML051</b>	4x120	46	6000
<b>ML052</b>	4x150	51	7350
<b>ML053</b>	4x185	57,6	9300

Table 20E multicore

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>ML056</b>	5x1,5	10,6	155
<b>ML054</b>	7x1,5	11,3	200
<b>ML057</b>	10x1,5	14,5	267
<b>ML059</b>	14x1,5	16,4	380
<b>ML063</b>	16x1,5	17,1	420
<b>ML061</b>	19x1,5	18,0	474
<b>ML058</b>	24x1,5	21,2	600
<b>ML062</b>	30x1,5	22,4	720
<b>ML065</b>	12x2,5	17,0	440
<b>ML066</b>	5x4	13,4	315
<b>ML064</b>	7x10	19,8	890

Item number refers to NBT types. For NG types add letter **G** at the end of the item number.

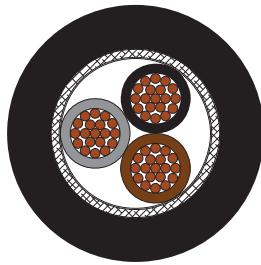
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# UNINAV – Type NBTA and NGA

Armoured power cables rated 0,6/1 kV



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 6 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

For EMC version: shielding effectiveness (basic performance): ≥ 54 dB for cables with outer diameter equal or less than 7,5 mm, otherwise ≥ 60 dB.

### Range of approval:

according to table 21A, 21B, 21C and 21D and as specified in NAV 80-6145-0005-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

## Table 21A single core

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MN001	1,5	6,2	65
MN002	2,5	6,6	80
MN003	4	7,1	100
MN004	6	7,8	125
MN005	10	8,8	180
MN006	16	9,8	240
MN007	25	11,6	350
MN008	35	12,9	470
MN009	50	15	650
MN010	70	17	890
MN011	95	18,8	1150
MN012	120	20,7	1420
MN013	150	22,8	1720
MN014	185	25,3	2120
MN015	240	28,2	2700
MN016	300	31,1	3400

## CONSTRUCTION

**Conductor:** bare copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** HEPR or XLPE according to IEC 60092-360

**Core identification:** according to HD 308 S2

**Bedding:** textile or extruded fillers. Halogen free inner sheath compound mandatory for ATEX application, to be specified in the order

**Optional:** metallic tape(s) for EMC version

**Armour:** bare copper wire braid having coverage >90%, if not otherwise stated

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour black if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NBTA - "core numbers" x "cross section" - 0,6/1 kV - Cert.Om.nr.04/17

**DESIGNATION EXAMPLE:**  
NBTA: cable without green/yellow core  
NGA: cable with green/yellow core  
MN026 - NBTA (three cores, cross section 1,50 mm<sup>2</sup>)

For enhanced EMC requirements, minimum value in dB shall be declared in the marking

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

Table 21B two cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MN017	2x1,5	9,4	130
MN018	2x2,5	10,2	160
MN019	2x4	11,6	210
MN020	2x6	12,8	280
MN021	2x10	15	430
MN022	2x16	17,3	600
MN023	2x25	20,7	820
MN024	2x35	24,6	1370
MN025	2x50	27,6	1740
MN069	2x70	31,3	2042

Table 21C three cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MN026	3x1,5	9,8	150
MN027	3x2,5	10,7	190
MN028	3x4	12,1	250
MN029	3x6	13,3	320
MN030	3x10	15,8	530
MN031	3x16	18,3	750
MN032	3x25	21,9	1100
MN033	3x35	26,2	1700
MN034	3x50	29,4	2260
MN035	3x70	34,5	3050
MN036	3x95	39,1	4100
MN037	3x120	43,2	5100
MN038	3x150	48	6200
MN039	3x185	53,5	7800

Item number refers to NBTA types. For NGA types add letter **G** at the end of the item number. Add letter **E** at the end of the item number for enhanced EMC performance.

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

Table 21D four cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MN040	4x1,5	10,6	180
MN041	4x2,5	11,7	230
MN042	4x4	13,1	300
MN043	4x6	15	450
MN044	4x10	17,5	640
MN045	4x16	20,1	960
MN046	4x25	24,2	1380
MN047	4x35	28,7	2100
MN048	4x50	32,7	2780
MN049	4x70	38,5	3970
MN050	4x95	43,3	5200
MN051	4x120	48,2	6500
MN052	4x150	53,2	7900
MN053	4x185	59,6	9900

Table 21E multicore

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MN054	7x1,5	12,4	285
MN055	10x1,5	15,9	414
MN070	12x1,5	16,4	440
MN056	14x1,5	17,2	500
MN057	19x1,5	19,1	632
MN058	24x1,5	22,4	786
MN071	25x1,5	22,5	810
MN059	30x1,5	23,8	930
MN069	6x2,5	13,6	320
MN060	7x2,5	13,6	338
MN061	10x2,5	17,6	520
MN062	14x2,5	19,1	650
MN063	19x2,5	21,2	830
MN064	24x2,5	24,9	1040
MN065	30x2,5	26,5	1230
MN066	5x4	14,3	385
MN067	5xAWG12	14	355
MN068	7x4	15,9	520
MN072	7x10	20,9	1010

Item number refers to NBTA types. For NGA types add letter **G** at the end of the item number. Add letter **E** at the end of the item number for enhanced EMC performance.

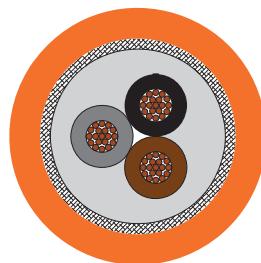
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# UNINAV - Type NVD

Armoured fire resistant power cables rated 0,6/1 kV (Vessel in Distress)



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C
High resistance to oils and fuels
Minimum bending radius: 6 x outer diameter
Halogen free: according IEC EN 60754
Fire retardant: according IEC 60332-3-22
Fire resistance: according to EN 50200/50362 (180 min), water spray according to EN50200 annex E (90 min)
<b>Range of approval:</b> according to table 22A, 22B, 22C and 22D and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

Table 22A single core

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MP001	1,5	6,8	80
MP002	2,5	7,2	100
MP003	4	7,7	110
MP004	6	8,3	140
MP005	10	9,4	200
MP006	16	10,4	270
MP007	25	12,2	380
MP008	35	13,3	470
MP009	50	15,3	660
MP010	70	17,6	900
MP011	95	19,6	1150
MP012	120	21,3	1450
MP013	150	23,4	1700
MP014	185	25,9	2100
MP015	240	28,8	2750
MP016	300	31,7	3400

## CONSTRUCTION

**Conductor:** bare copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** Silicon compound type S95 according to IEC 60092-360

**Core identification:** According to HD 308 S2 up to four cores. Black numbered starting from five cores

**Inner sheath:** Halogen free compound

**Armour:** bare copper wire braid having coverage >90%, if not otherwise stated

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour orange if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NVD -"core numbers"x"cross section"- 0,6/1 kV - Cert.0m.nr.04/17

Table 22B two cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MP017	2x1,5	11,8	220
MP018	2x2,5	12,5	260
MP019	2x4	13,5	310
MP020	2x6	15,3	430
MP021	2x10	17,4	590
MP022	2x16	19,6	780
MP023	2x25	23,4	1100
MP024	2x35	25,8	1450
MP025	2x50	28,8	1850

Table 22C three cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MP026	3x1,5	12,2	240
MP027	3x2,5	13,1	290
MP028	3x4	14,7	400
MP029	3x6	16	500
MP030	3x10	18,3	690
MP031	3x16	20,6	940
MP032	3x25	24,7	1300
MP033	3x35	27,2	1780
MP034	3x50	30,4	2270
MP035	3x70	35,6	3200
MP036	3x95	40,4	4310
MP037	3x120	44,4	4450
MP038	3x150	52	6440
MP039	3x185	54,1	8000

Add letter **G** at the end of the item number if green/yellow core is present. Add letter **E** at the end of the item number for enhanced EMC performance.

**DESIGNATION EXAMPLE:**  
NVD: cable without green/yellow core  
MP026 - NVD (three cores, cross section 1,50 mm<sup>2</sup>)

**For enhanced EMC requirements, minimum value in dB shall be declared in the marking**

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Table 22D four cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MP040</b>	4x1,5	13,1	270
<b>MP041</b>	4x2,5	14,4	370
<b>MP042</b>	4x4	15,8	470
<b>MP043</b>	4x6	17,3	600
<b>MP044</b>	4x10	19,7	840
<b>MP045</b>	4x16	22,7	1160
<b>MP046</b>	4x25	27	1710
<b>MP047</b>	4x35	29,8	2200
<b>MP048</b>	4x50	33,8	2900
<b>MP049</b>	4x70	39,6	4100
<b>MP050</b>	4x95	44,3	5400
<b>MP051</b>	4x120	49,2	6700
<b>MP052</b>	4x150	54,3	8100
<b>MP053</b>	4x185	60,6	10200

**Multicore**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MP056</b>	5x1,5	15,7	445
<b>MP054</b>	7x1,5	16,8	510
<b>MP055</b>	10x1,5	21,3	730
<b>MP058</b>	14x1,5	22,6	860
<b>MP059</b>	20x1,5	26,3	1160
<b>MP057</b>	4xAWG10	18,1	650

Add letter **G** at the end of the item number if green/yellow core is present. Add letter **E** at the end of the item number for enhanced EMC performance.

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# UNINAV – Type NVFD

EMC power cables rated 0,6/1 kV or 1,8/3 kV for Variable Frequency Drive applications



0,6/ 1 kV



1,8/ 3 kV

## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 8 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

Shielding effectiveness (basic performance): ≥ 54 dB for cables with outer diameter equal or less than 7,5 mm, otherwise ≥ 60 dB.

### Range of approval:

according to table 23A, 23B, 23C and 23D and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 07/17)

## Table 23A two cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MQ029	2x2,5	10,1	185

## CONSTRUCTION

**Conductor:** bare copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** HEPR or XLPE according to IEC 60092-360

**Core identification:** according to HD 308 S2

**Bedding:** textile or extruded fillers. Halogen free inner sheath compound mandatory for ATEX application, to be specified in the order, or when steel wire braid is required

**Shielding:** suitable metallic tape(s)

**Armour:** tinned copper wire braid having coverage >90%

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour black if not otherwise stated for 0,6/1 kV rated cables. Colour red if not otherwise stated for 1,8/3 kV rated cables.

**Marking:** NAV-80-6145-0005-13-00B000 NVFD -"core numbers"x"cross section"- 0,6/1 kV - Cert.Om.nr.07/17 or NAV-80-6145-0005-13-00B000 NVFD -"core numbers"x"cross section"- 1,8/3 kV - Cert.Om.nr.07/17

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## Table 23B three cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MQ001	3x1,5	10	155
MQ002	3x2,5	11	195
MQ003	3x4	12,5	255
MQ004	3x6	13,5	325
MQ005	3x10	16	535
MQ005Z	3xAWG8	15,3	520
MQ006	3x16	18,5	755
MQ007	3x25	22,2	1105
MQ008	3x35	26,5	1705
MQ009	3x50	29,7	2265
MQ010	3x70	35	3055
MQ011	3x95	39,5	4105
MQ012	3x120	43,5	5105
MQ013	3x150	48,5	6205
MQ014	3x185	54	7805

## Table 23C four cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MQ015	4x1,5	11	185
MQ016	4x2,5	12	235
MQ017	4x4	13,5	305
MQ018	4x6	15,3	455
MQ019	4x10	17,8	645
MQ020	4x16	20,5	965
MQ021	4x25	24,5	1385
MQ022	4x35	29	2105
MQ023	4x50	33	2785
MQ023Z	4xAWG1/0	35,3	2900
MQ024	4x70	38,8	3975
MQ025	4x95	43,5	5205
MQ026	4x120	48,5	6505
MQ027	4x150	53,5	7905
MQ028	4x185	60	9905

Add letter G at the end of the item number if green/yellow core is present.

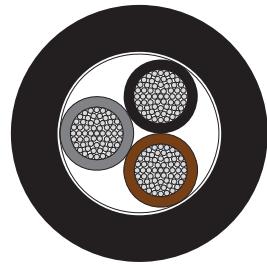
## Table 23D cable rated 1,8/3 kV

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MQ030	3x150 + 3G25	max. 54,0	7050

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# UNINAV - Type NFO

Unarmoured power cables for dynamic installations rated 0,6/1 kV



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 4 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

### Range of approval:

according to table 24A, 24B, 24C and 24D and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

## Table 24A single core

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MR001	1x1,5	5,2	40
MR002	1x2,5	5,6	50
MR003	1x4	6,2	70
MR004	1x6	6,7	90
MR005	1x10	7,6	140
MR006	1x16	8,8	200
MR007	1x25	10,4	300
MR008	1x35	11,8	400
MR009	1x50	13	530
MR010	1x70	15,3	740
MR011	1x95	17,4	1010
MR012	1x120	19	1260
MR013	1x150	21,2	1540
MR014	1x185	23,6	1940
MR015	1x240	26,6	2490
MR016	1x300	29,5	3130

## CONSTRUCTION

**Conductor:** tinned copper conductor according ASTM B33, class 6 according to IEC 60228

**Insulation:** EPR according to IEC 60092-360

**Core identification:** according to HD 308 S2

**Bedding:** textile or extruded fillers. Halogen free inner sheath compound mandatory for ATEX application, to be specified in the order, or when steel wire braid is required

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour black if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NFO - "core numbers"x"cross section"- 0,6/1 kV - Cert.Om.nr.04/17

Table 24B two cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MR017	2x1,5	8,2	90
MR018	2x2,5	9,2	120
MR019	2x4	10,3	150
MR020	2x6	11,6	200
MR021	2x10	13,5	300
MR022	2x16	15,7	440
MR023	2x25	19,2	670
MR024	2x35	23,4	1200
MR025	2x50	26,3	1500

Table 24C three cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MR026	3x1,5	8,6	100
MR027	3x2,5	9,7	140
MR028	3x4	10,9	190
MR029	3x6	12,3	260
MR030	3x10	14,5	410
MR031	3x16	16,9	610
MR032	3x25	20,6	930
MR033	3x35	24,7	1500
MR034	3x50	28	2000
MR035	3x70	33,3	2830
MR036	3x95	37,3	3780
MR037	3x120	41,4	4700
MR038	3x150	46	5200
MR039	3x185	51,5	7200

Add letter G at the end of the item number if green/yellow core is present

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Table 24D four cores

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MR040</b>	4x1,5	9,6	130
<b>MR041</b>	4x2,5	10,6	180
<b>MR042</b>	4x4	12,1	240
<b>MR043</b>	4x6	13,5	340
<b>MR044</b>	4x10	15,9	510
<b>MR045</b>	4x16	18,6	770
<b>MR046</b>	4x25	22,9	1180
<b>MR047</b>	4x35	27,2	1850
<b>MR048</b>	4x50	31,2	2500
<b>MR049</b>	4x70	36,7	3550
<b>MR050</b>	4x95	41,3	4780
<b>MR051</b>	4x120	46	6000
<b>MR052</b>	4x150	51	7350
<b>MR053</b>	4x185	57,6	9300

**Multicore**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MR054</b>	12x1	16,6	330
<b>MR055</b>	25x1	23,7	640

Add letter **G** at the end of the item number if green/yellow core is present

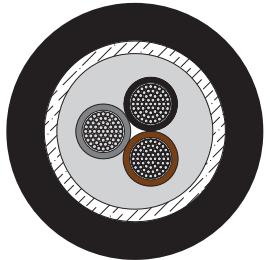
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ITALIAN EXCELLENCE**

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## UNINAV – Type NSC

Unarmoured power cables for shore connections rated 0,6/1 kV



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 4 x outer diameter (static), 6 x outer diameter (dynamic)

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

#### Range of approval:

according to table 25A and 25B as specified in  
NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation  
certificate n° 04/17)

**Table 25A single core**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MS001</b>	1x50	18,5	710
<b>MS002</b>	1x70	24	1150
<b>MS003</b>	1x95	25	1350
<b>MS004</b>	1x120	27	1600
<b>MS005</b>	1x150	30	2000
<b>MS006</b>	1x185	33,5	2500
<b>MS007</b>	1x240	35	3000
<b>MS008</b>	1x300	39	3700
<b>MS009</b>	1x400	42	4600

**Table 25B three cores**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MS010</b>	3x25	28	1500
<b>MS011</b>	3x35	30	1900
<b>MS012</b>	3x50	38,5	2750
<b>MS013</b>	3x70	47	4100
<b>MS014</b>	3x95	50	4900
<b>MS015</b>	3x120	58	6250
<b>MS016</b>	3x150	64	7700
<b>MS017</b>	3x185	68,5	9300

### CONSTRUCTION

**Conductor:** tinned copper conductor according ASTM B33, class 6 according to IEC 60228

**Separator:** polyester tape

**Insulation:** EPR according to IEC 60092-360

**Core identification:** according to HD 308 S2

**Inner sheath (for three cores):**  
Halogen free compound

**Reinforcement:** antitorsional textile braid, coverage >20%

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour black if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000  
NSC -"core numbers"x"cross section"-  
0,6/1 kV - Cert.0m.nr.04/17

Add letter **G** at the end of the item number if green/yellow core is present

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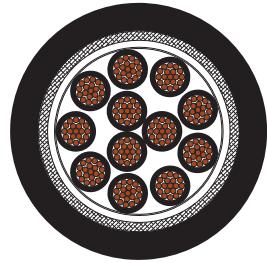
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# UNINAV – Type NCM

Power cables rated 0,6/1 kV for Magnetic Compensation



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 6 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

Shielding effectiveness (basic performance): ≥ 54 dB for cables with outer diameter equal or less than 7,5 mm, otherwise ≥ 60 dB.

### Range of approval:

according to table 26A, 26B and 26C and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

**Table 26A two cores**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MT001</b>	2x1,5	9,6	130
<b>MT002</b>	2x2,5	10,4	160
<b>MT003</b>	2x4	11,8	210
<b>MT004</b>	2x6	13	280
<b>MT005</b>	2x10	15,2	430
<b>MT006</b>	2x16	17,5	600
<b>MT007</b>	2x25	21	820

**Table 26B four cores**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MT008</b>	4x1,5	11	180
<b>MT009</b>	4x2,5	12	230
<b>MT010</b>	4x4	13,5	400
<b>MT011</b>	4x6	15,3	450
<b>MT012</b>	4x10	17,8	640
<b>MT013</b>	4x16	20,5	960
<b>MT014</b>	4x25	24,5	1380
<b>MT015</b>	4x35	29	2100
<b>MT016</b>	4x50	33	2780
<b>MT017</b>	4x70	38,8	3970

**Table 26C multi cores**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MT008</b>	4x1,5	11,0	180
<b>MT009</b>	4x2,5	12,0	230
<b>MT010</b>	4x4	13,5	400
<b>MT011</b>	4x6	15,3	450
<b>MT012</b>	4x10	17,8	640
<b>MT013</b>	4x16	20,5	960
<b>MT014</b>	4x25	24,5	1380
<b>MT015</b>	4x35	29,0	2100
<b>MT016</b>	4x50	33,0	2780
<b>MT017</b>	4x70	38,8	3970

**Table 26D multi cores**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MT018</b>	12x1,5	17,0	465
<b>MT019</b>	19x1,5	20,0	675
<b>MT020</b>	24x1,5	23,0	855
<b>MT021</b>	12x2,5	19,0	620
<b>MT022</b>	19x2,5	22,5	910
<b>MT023</b>	24x2,5	26,0	1145

## CONSTRUCTION

**Conductor:** bare copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** HEPR or XLPE according to IEC 60092-360

**Core identification:** according to HD 308 S2 and EN50334

**Inner sheath:** Halogen free compound

**Shielding:** suitable metallic tape(s)

**Armour:** tinned copper wire braid having coverage >90%

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour black if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NVFD - "core numbers"x"cross section"- 0,6/1 kV - Cert.Om.nr.04/17

For enhanced EMC requirements, minimum value in dB shall be declared in the marking

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# UNINAV – Type NST

Instrumentation cables rated 150/250 V for connection to terminal boxes



## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 6 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

Shielding effectiveness (basic performance): ≥ 54 dB for cables with outer diameter equal or less than 7,5 mm, otherwise ≥ 60 dB.

### Range of approval:

according to table 27A up to 270 and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17). The following lists do not include all the possible items

## DESIGNATION STRUCTURE:

### LL (base elements):

**UN**: single cores

**US**: single cores, individually screened

**CN**: pairs

**CS**: pairs individually screened

**TN**: triads

**TS**: triads individually screened

**yy**: conductor cross section [mm<sup>2</sup>]

**X**: overall screening type

**O**: overall screen

**A**: armouring

**N**: no screen or armour

**nn**: number of base elements

### examples:

NST 150/250 V – UN-1,5-0-07

cable with 7 single cores 1,5 mm<sup>2</sup>, overall screened

NST 150/250 V – CS-0,75-A-12

cable with 12 pairs 0,75 mm<sup>2</sup>, individually screened, armoured

## CONSTRUCTION

**Conductor**: bare copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation**: HEPR or XLPE according to IEC 60092-360

### Core identification:

Pairs: white, black with numbers 1-1, 2-2,...

Triads: white, black, red with numbers 1-1-1, 2-2-2,...

Multicores: black with numbers

**Single shielding (if any)**: 0,50 mm<sup>2</sup> drain wire, suitable polyester and metallic tape(s)

**Inner sheath (if any)**: Halogen free compound or suitable fillers

**Shielding**: suitable metallic tape(s)

**Armour (if any)**: bare copper wire braid having coverage >90%

**Sheath**: crosslinked compound, type SHF2 according to IEC 60092-360, colour grey if not otherwise stated

**Marking**: NAV-80-6145-0005-13-00B000  
NST 150/250 V - "LL"-“yy”-X-nn - Cert.  
Om.nr.04/17

For enhanced EMC requirements, minimum value in dB shall be declared in the marking. Other combinations available upon request

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Table 27A - NST UN-yy-N-nn (multi cores, unscreened, unarmoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU001</b>	7x0,50	7,6	80
<b>MU002</b>	10x0,50	9,3	115
<b>MU003</b>	19x0,50	11,3	185
<b>MU041</b>	25x0,50	13,1	220
<b>MU004</b>	30x0,50	13,9	230
<b>MU005</b>	2x0,75	6,3	60
<b>MU006</b>	3x0,75	6,7	70
<b>MU007</b>	4x0,75	7,2	80
<b>MU008</b>	7x0,75	8,8	115
<b>MU009</b>	10x0,75	11,1	160
<b>MU010</b>	14x0,75	12,0	200
<b>MU011</b>	19x0,75	13,5	260
<b>MU012</b>	24x0,75	15,8	330
<b>MU013</b>	30x0,75	16,7	400
<b>MU014</b>	37x0,75	18,2	480
<b>MU015</b>	2x1	6,6	65
<b>MU016</b>	3x1	7,0	75
<b>MU017</b>	4x1	7,8	95
<b>MU018</b>	7x1	9,1	135
<b>MU019</b>	10x1	11,6	195
<b>MU020</b>	14x1	12,6	250
<b>MU021</b>	19x1	14,1	325
<b>MU022</b>	24x1	16,6	410
<b>MU042</b>	25x1	16,6	420
<b>MU023</b>	30x1	17,6	490
<b>MU024</b>	37x1	19,2	585
<b>MU040</b>	4x1,5	8,8	116
<b>MU025</b>	7x1,5	10,8	180
<b>MU026</b>	10x1,5	13,7	260
<b>MU029</b>	12x1,5	13,9	290
<b>MU027</b>	14x1,5	14,8	335
<b>MU028</b>	19x1,5	16,7	445
<b>MU030</b>	24x1,5	19,6	565
<b>MU031</b>	30x1,5	20,9	675
<b>MU032</b>	37x1,5	22,6	825
<b>MU033</b>	7x2,5	12,1	255
<b>MU034</b>	10x2,5	15,7	360
<b>MU035</b>	14x2,5	17	490
<b>MU036</b>	19x2,5	19,1	640
<b>MU037</b>	24x2,5	22,5	820
<b>MU038</b>	30x2,5	24	995
<b>MU039</b>	37x2,5	15,9	1215

Add letter **G** at the end of the item number if green/yellow core is present

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Table 27B - NST UN-yy-A-nn (multi cores, unscreened, armoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU100</b>	7x0,50	8,4	130
<b>MU102</b>	10x0,50	10,1	170
<b>MU103</b>	19x0,50	12,1	255
<b>MU104</b>	30x0,50	15,1	350
<b>MU105</b>	2x0,75	7,2	90
<b>MU106</b>	3x0,75	7,5	100
<b>MU107</b>	4x0,75	8,3	120
<b>MU108</b>	7x0,75	9,6	160
<b>MU109</b>	10x0,75	11,9	225
<b>MU135</b>	12x0,75	12,2	240
<b>MU110</b>	14x0,75	12,8	280
<b>MU111</b>	19x0,75	14,7	385
<b>MU112</b>	24x0,75	17	480
<b>MU113</b>	30x0,75	17,9	555
<b>MU114</b>	37x0,75	19,4	650
<b>MU115</b>	2x1	7,5	90
<b>MU116</b>	3x1	7,9	115
<b>MU117</b>	4x1	8,7	130
<b>MU118</b>	7x1	10	185
<b>MU119</b>	10x1	12,5	260
<b>MU120</b>	14x1	14	325
<b>MU121</b>	19x1	15	395
<b>MU122</b>	24x1	17,9	555
<b>MU123</b>	30x1	18,8	660
<b>MU124</b>	37x1	20,4	760
<b>MU125</b>	2x1,5	9,0	90
<b>MU126</b>	4x1,5	10,1	190
<b>MU127</b>	7x1,5	11,7	250
<b>MU128</b>	10x1,5	14,5	340
<b>MU136</b>	12x1,5	14,9	370
<b>MU132</b>	14x1,5	15,6	410
<b>MU134</b>	18x1,5	17,1	500
<b>MU129</b>	19x1,5	17,3	510
<b>MU130</b>	24x1,5	20,0	610
<b>MU131</b>	30x1,5	22,1	820
<b>MU133</b>	34x1,5	22,8	840
<b>MU139</b>	37x1,5	23,8	1020
<b>MU138</b>	2x2,5	9,5	145
<b>MU137</b>	4x2,5	11,0	210

Add letter **G** at the end of the item number if green/yellow core is present

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Table 27C - NST UN-yy-OA-nn (multi cores, overall screened, armoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU640</b>	3x0,50	8,2	118
<b>MU600</b>	7x0,50	8,4	130
<b>MU601</b>	10x0,50	10,1	175
<b>MU602</b>	19x0,50	12,1	210
<b>MU603</b>	30x0,50	15,1	320
<b>MU604</b>	2x0,75	7,4	90
<b>MU605</b>	3x0,75	7,5	110
<b>MU606</b>	4x0,75	8,3	125
<b>MU607</b>	7x0,75	9,6	175
<b>MU608</b>	10x0,75	11,9	240
<b>MU641</b>	12x0,75	12,5	250
<b>MU609</b>	14x0,75	12,8	260
<b>MU610</b>	19x0,75	14,7	285
<b>MU611</b>	24x0,75	17	355
<b>MU612</b>	30x0,75	17,9	475
<b>MU613</b>	37x0,75	19,4	560
<b>MU614</b>	2x1	7,9	100
<b>MU615</b>	3x1	8,2	125
<b>MU616</b>	4x1	8,7	140
<b>MU617</b>	7x1	10	200
<b>MU618</b>	10x1	12,5	275
<b>MU619</b>	14x1	14	300
<b>MU620</b>	19x1	15,4	335
<b>MU621</b>	24x1	17,9	425
<b>MU622</b>	30x1	18,8	570
<b>MU623</b>	37x1	20,4	665
<b>MU624</b>	2x1,5	8,6	125
<b>MU625</b>	3x1,5	9	155
<b>MU626</b>	4x1,5	9,8	180
<b>MU627</b>	7x1,5	11,6	255
<b>MU628</b>	10x1,5	14,9	380
<b>MU629</b>	14x1,5	16	415
<b>MU630</b>	19x1,5	17,9	460
<b>MU631</b>	24x1,5	20,8	585
<b>MU632</b>	30x1,5	22,1	755
<b>MU633</b>	2x2,5	9,5	165
<b>MU634</b>	3x2,5	10	195
<b>MU635</b>	4x2,5	11	235
<b>MU636</b>	7x2,5	12,9	345
<b>MU637</b>	10x2,5	16,9	470
<b>MU638</b>	14x2,5	18,2	580
<b>MU639</b>	19x2,5	20,3	655

Add letter **E** at the end of the item number for enhanced EMC performance.  
Add letter **G** at the end of the item number if green/yellow core is present.

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Table 27D - NST UN-yy-O-nn (multi cores, overall screened, unarmoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MU241	3x0,50	5,7	52
MU201	7x0,50	7,6	85
MU202	10x0,50	9,3	120
MU203	19x0,50	11,3	185
MU204	30x0,50	13,9	287
MU244	48xAWG20	19,5	540
MU205	2x0,75	6,4	55
MU206	3x0,75	6,7	65
MU207	4x0,75	7,5	80
MU208	7x0,75	8,8	120
MU209	10x0,75	11,2	170
MU243	12x0,75	11,7	200
MU210	14x0,75	12	275
MU211	19x0,75	13,5	345
MU212	24x0,75	15,9	350
MU213	30x0,75	16,7	410
MU214	37x0,75	18,2	500
MU215	2x1	6,7	65
MU216	3x1	7,3	80
MU217	4x1	7,9	95
MU218	7x1	9,3	135
MU219	10x1	11,8	200
MU220	14x1	12,9	250
MU221	19x1	14,3	320
MU222	24x1	16,8	410
MU223	30x1	17,7	480
MU224	37x1	19,2	605
MU242	48x1	20,8	670
MU225	2x1,5	7,8	85
MU226	3x1,5	8,3	100
MU227	4x1,5	9	120
MU228	7x1,5	10,9	190
MU229	10x1,5	13,8	265
MU230	14x1,5	14,8	350
MU231	19x1,5	16,7	455
MU232	24x1,5	19,6	575
MU233	30x1,5	20,9	700
MU234	2x2,5	8,8	105
MU235	3x2,5	9,3	135
MU236	4x2,5	10,2	175
MU237	7x2,5	12,1	275
MU238	10x2,5	15,7	385
MU239	14x2,5	17	505
MU240	19x2,5	18,4	665

Add letter **G** at the end of the item number if green/yellow core is present.

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Table 27E - NST CN-yy-N-nn (pairs, unscreened, unarmoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MU200	1x2x0,75	6,5	61
MU351	2x2x0,75	9,4	92
MU352	14x2x0,75	18,6	412

Table 27F - NST CN-yy-O-nn (pairs, overall screened, unarmoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MU250	2x2x0,50	8	70
MU251	4x2x0,50	9,3	100
MU252	7x2x0,50	11,1	155
MU253	10x2x0,50	14,2	210
MU288	14x2x0,50	15,6	300
MU254	19x2x0,50	17,3	375
MU283	21x2x0,50	18,5	437
MU284	28x2x0,50	21,8	567
MU255	30x2x0,50	21,7	555
MU281	1x2x0,75	6,40	61
MU256	2x2x0,75	9,6	95
MU285	3x2x0,75	10,1	140
MU257	4x2x0,75	11,1	150
MU258	7x2x0,75	13,4	245
MU259	10x2x0,75	17,1	325
MU260	14x2x0,75	18,7	425
MU261	19x2x0,75	20,9	545
MU262	24x2x0,75	24,7	680
MU263	30x2x0,75	26,3	815
MU264	37x2x0,75	28,4	990
MU265	2x2x1	10	115
MU266	4x2x1	11,6	175
MU286	6x2x1	12,6	250
MU267	7x2x1	14	270
MU287	8x2x1	15,1	320
MU268	10x2x1	18,2	390
MU269	14x2x1	19,7	500
MU270	19x2x1	22,2	655
MU271	24x2x1	26,3	835
MU282	1x2x1,5	7,60	83
MU272	2x2x1,5	11,5	115
MU273	4x2x1,5	13,6	230
MU274	10x2x1,5	21,3	520
MU275	14x2x1,5	23,2	685
MU280	19x2x1,5	26,1	937
MU276	2x2x2,5	13,2	195
MU277	4x2x2,5	15,6	325
MU278	7x2x2,5	18,8	520
MU279	10x2x2,5	24,5	745

**Table 27G - NST CN-yy-OA-nn (pairs, overall screened, armoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU301</b>	2x2x0,50	8,8	125
<b>MU333</b>	3x2x0,50	9,4	135
<b>MU302</b>	4x2x0,50	10	165
<b>MU303</b>	7x2x0,50	11,9	225
<b>MU304</b>	10x2x0,50	15,4	305
<b>MU305</b>	19x2x0,50	18,5	470
<b>MU306</b>	30x2x0,50	22,9	765
<b>MU329</b>	1x2x0,75	7,30	91
<b>MU307</b>	2x2x0,75	10,3	160
<b>MU308</b>	4x2x0,75	12	220
<b>MU309</b>	7x2x0,75	14,5	305
<b>MU334</b>	8x2x0,75	16,2	375
<b>MU310</b>	10x2x0,75	17,9	445
<b>MU311</b>	14x2x0,75	19,8	580
<b>MU312</b>	19x2x0,75	22,1	730
<b>MU313</b>	2x2x1	10,8	175
<b>MU314</b>	4x2x1	12,4	250
<b>MU315</b>	7x2x1	15,2	365
<b>MU316</b>	10x2x1	19,4	545
<b>MU317</b>	14x2x1	20,9	685
<b>MU318</b>	19x2x1	23,4	860
<b>MU319</b>	24x2x1	27,5	1070
<b>MU330</b>	1x2x1,5	11,6	137
<b>MU320</b>	2x2x1,5	12,3	215
<b>MU321</b>	4x2x1,5	14,8	315
<b>MU333</b>	7x2x1,5	17,6	520
<b>MU322</b>	10x2x1,5	22,5	715
<b>MU332</b>	12x2x1,5	23,4	800
<b>MU323</b>	14x2x1,5	24,4	910
<b>MU328</b>	19x2x1,5	27,4	1135
<b>MU331</b>	30x2x1,5	38,3	2150
<b>MU324</b>	2x2x2,5	14,4	170
<b>MU325</b>	4x2x2,5	16,8	200
<b>MU326</b>	7x2x2,5	20	240
<b>MU327</b>	10x2x2,5	25,7	350

Add letter **E** at the end of the item number for enhanced EMC performance.**Table 27H - NST TN-yy-O-nn (triads, overall screened, unarmoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU700</b>	4x3x0,50	10,5	140
<b>MU701</b>	7x3x0,50	12,4	215
<b>MU702</b>	12x3x0,50	16,6	345
<b>MU703</b>	4x3x0,75	12,3	205
<b>MU704</b>	7x3x0,75	14,8	320
<b>MU705</b>	12x3x0,75	19,9	510
<b>MU706</b>	4x3x1	13,2	245
<b>MU707</b>	7x3x1	15,9	380
<b>MU708</b>	12x3x1	21,3	605

**Table 27I - NST TN-yy-OA-nn (triads, overall screened, armoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU750</b>	4x3x0,50	11,9	240
<b>MU751</b>	7x3x0,50	14,6	340
<b>MU752</b>	12x3x0,50	19,8	580
<b>MU753</b>	4x3x0,75	14,5	295
<b>MU754</b>	7x3x0,75	17,2	485
<b>MU755</b>	12x3x0,75	22,7	760
<b>MU756</b>	4x3x1	15,2	395
<b>MU757</b>	7x3x1	18,1	580
<b>MU758</b>	12x3x1	23,9	920

Add letter **E** at the end of the item number for enhanced EMC performance.**Table 27L - NST CS-yy-O-nn (individually screened pairs , overall screened, unarmoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MU431</b>	4x2x0,50	10,6	140
<b>MU430</b>	32x2x0,50	25,9	829
<b>MU410</b>	2x2x0,75	10,2	105
<b>MU411</b>	4x2x0,75	11,8	175
<b>MU412</b>	7x2x0,75	14,2	265
<b>MU413</b>	10x2x0,75	18,4	380
<b>MU429</b>	12x2x0,75	19,8	480
<b>MU414</b>	14x2x0,75	20,0	495
<b>MU415</b>	19x2x0,75	22,4	645
<b>MU416</b>	24x2x0,75	26,7	830
<b>MU417</b>	30x2x0,75	28,2	1010
<b>MU418</b>	37x2x0,75	30,7	1210
<b>MU419</b>	2x2x1	10,7	130
<b>MU420</b>	4x2x1	12,4	210
<b>MU421</b>	7x2x1	15,0	325
<b>MU432</b>	8x2x1	17,4	390
<b>MU422</b>	10x2x1	19,5	470
<b>MU423</b>	14x2x1	21,4	550
<b>MU424</b>	19x2x1	24,0	620
<b>MU425</b>	2x2x1,5	12,3	165
<b>MU426</b>	4x2x1,5	14,5	270
<b>MU427</b>	10x2x1,5	22,9	615
<b>MU428</b>	14x2x1,5	25,1	810

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Table 27M - NST CS-yy-OA-nn (individually screened pairs , overall screened, armoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MU500	2x2x0,75	11,0	180
MU501	4x2x0,75	12,8	270
MU502	7x2x0,75	15,4	360
MU521	8x2x0,75	18,0	470
MU503	10x2x0,75	19,3	605
MU504	14x2x0,75	21,2	685
MU505	19x2x0,75	23,6	845
MU506	24x2x0,75	27,9	1075
MU507	30x2x0,75	29,4	1270
MU508	37x2x0,75	31,9	1510
MU509	2x2x1	11,5	195
MU510	4x2x1	13,2	285
MU511	7x2x1	16,2	470
MU512	10x2x1	20,7	655
MU513	14x2x1	22,6	815
MU514	19x2x1	25,2	825
MU515	2x2x1,5	13,1	230
MU516	4x2x1,5	15,7	410
MU517	10x2x1,5	24,1	825
MU518	14x2x1,5	26,3	1055
MU519	19x2x1,5	30,5	1450
MU520	30x2x1,5	38,3	2180

Add letter **E** at the end of the item number for enhanced EMC performance.

Table 27N - NST TS-yy-O-nn (individually screened triads, overall screened, unarmoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MU451	4x3x0,75	13,3	220
MU452	7x3x0,75	16,0	350
MU453	12x3x0,75	21,5	580
MU454	4x3x1	14,0	275
MU455	7x3x1	16,9	435
MU456	12x3x1	22,7	415

Table 27O - NST TS-yy-OA-nn (individually screened triads, overall screened, armoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
MU471	4x3x0,75	14,5	310
MU472	7x3x0,75	17,2	500
MU473	12x3x0,75	22,7	760
MU474	4x3x1	15,2	360
MU475	7x3x1	18,1	595
MU476	12x3x1	23,9	935

Add letter **E** at the end of the item number for enhanced EMC performance.

# parole chiave our keywords

DEFENCE CABLES - UNINAV - Type NST - REV 00/2021

# TECHNOLOGIES

# UNINAV - Type NVD/C and NVD/T

Armoured fire resistant instrumentation cables rated 150/250 V (Vessel in Distress)



NVD/C



NVD/T

## TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C

High resistance to oils and fuels

Minimum bending radius: 6 x outer diameter

Halogen free: according IEC EN 60754

Fire retardant: according IEC 60332-3-22

Fire resistance: according to EN 50200/50362 (180 min), water spray according to EN50200 annex E (90 min)

Shielding effectiveness (basic performance): ≥ 54 dB for cables with outer diameter equal or less than 7,5 mm, otherwise ≥ 60 dB.

**Range of approval:** according to table 28A, 28B, 28C, 28D, 28E and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17). The following lists do not include all the possible items

## DESIGNATION STRUCTURE:

**LL** (base elements):

**UN**: single cores

**US**: single cores, individually screened

**CN**: pairs

**CS**: pairs individually screened

**TN**: triads

**TS**: triads individually screened

**yy**: conductor cross section [mm<sup>2</sup>]

**X**: overall screening type

**OA**: overall screen, armoured

**A**: armouring

**nn**: number of base elements

**examples:**

NVD/C 150/250 V – UN-1,5-OA-07

cable with 7 single cores 1,5 mm<sup>2</sup>, overall screened, armoured

NVD/C 150/250 V – CS-0,75-A-12

cable with 12 pairs 0,75 mm<sup>2</sup>, individually screened, armoured

Table 28A - NVD/C UN-yy-A-nn (multicores, unscreened, armoured)

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MY113</b>	2x0,75	9,8	170
<b>MY103</b>	7x1	12,7	325
<b>MY104</b>	10x1	15,8	470
<b>MY105</b>	14x1	16,8	565
<b>MY106</b>	19x1	18,5	705
<b>MY109</b>	24x1	21,4	815
<b>MY107</b>	30x1	22,3	985
<b>MY110</b>	2x1,5	11,2	220
<b>MY116</b>	3x1,5	11,7	240
<b>MY112</b>	4x1,5	12,7	280
<b>MY117</b>	5x1,5	13,4	330
<b>MY100</b>	7x1,5	14,8	460
<b>MY101</b>	10x1,5	18,0	605
<b>MY114</b>	14x1,5	19,4	685
<b>MY111</b>	19x1,5	21,5	880
<b>MY115</b>	20x1,5	22,6	945
<b>MY108</b>	24x1,5	24,6	1100
<b>MY102</b>	30x1,5	26,0	1290
<b>MY118</b>	3x2,5	8,15	110
<b>MY119</b>	4x2,5	14,0	435

Add letter **G** at the end of the item number if green/yellow core is present

## CONSTRUCTION

**Conductor:** bare copper conductor according ASTM B33, class 5 according to IEC 60228 (for NVD/T version, thermocouple conductors according to IEC 60584-3).

**Insulation:** Silicon compound type S95 according to IEC 60092-360

### Core identification:

Pairs: white, black with numbers 1-1, 2-2,...(white, green with numbers for NVD/T version)  
Triads: white, black, red with numbers 1-1-1, 2-2-2,...

Multicores: black with numbers

**Single shielding (if any) :** 0,50 mm<sup>2</sup> drain wire, suitable polyester and metallic tape(s)

**Inner sheath:** Halogen free compound

**Shielding:** suitable metallic tape(s)

**Armour:** bare copper wire braid having coverage >90%

**Sheath:** crosslinked compound, type SHF2 according to IEC 60092-360, colour orange if not otherwise stated, green colour for NVD/T

**Marking:** NAV-80-6145-0005-13-00B000  
NVD/C (NVD/T) 150/250 V - "LL"- "yy"-X-nn  
- Cert.0m.nr.04/17

**For enhanced EMC requirements,  
minimum value in dB shall be declared  
in the marking**

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**Table 28B - NVD/C UN-yy-OA-nn (multicores, screened, armoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MY202</b>	2x1,5	11,5	238
<b>MY206</b>	3x1,5	12,1	278
<b>MY200</b>	4x1,5	12,8	294
<b>MY205</b>	7x1,5	15,2	448
<b>MY204</b>	10x1,5	18,3	592
<b>MY203</b>	19x1,5	21,5	879
<b>MY201</b>	30x1,5	26,5	1300

Add letter **G** at the end of the item number if green/yellow core is present

**Table 28C - NVC/C CN-yy-OA-nn (pairs, overall screened, armoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MY301</b>	1x2x0,75	10,0	190
<b>MY300</b>	1x2x1,5	11,3	250
<b>MY302</b>	2x2x0,75	13,7	285
<b>MY303</b>	4x2x0,75	15,6	440
<b>MY304</b>	7x2x0,75	18,1	590
<b>MY305</b>	10x2x0,75	22,2	775
<b>MY306</b>	24x2x0,75	26,4	1325
<b>MY311</b>	30x2x1	28,0	1920
<b>MY309</b>	2x2x1,5	15,9	389
<b>MY307</b>	4x2x1,5	18,3	600
<b>MY308</b>	19x2x1,5	33,2	1860
<b>MY310</b>	30x2x1,5	30,0	2350

Add letter **E** at the end of the item number for enhanced EMC performance.

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**Table 28D - NVD/C CS-yy-OA-nn (individually screened pairs , overall screened, armoured)**

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MY500</b>	2x2x0,75	15,0	415
<b>MY502</b>	4x2x0,75	16,8	1485
<b>MY503</b>	7x2x0,75	19,7	625
<b>MY505</b>	10x2x0,75	25,1	931
<b>MY501</b>	24x2x0,75	34,5	1750
<b>MY504</b>	4x2x1,5	19,6	637
<b>MY506</b>	19x2x1,5	36,2	2038

**Table 28E - NVD/T (thermocouple cable)**

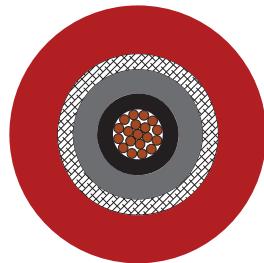
Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MY901</b>	12x(2xAWG18)	29,0	14431

Add letter **E** at the end of the item number for enhanced EMC performance.

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## UNINAV – Type NMV single core

Armoured, single cores, medium voltage, power cables rated 1,8/3 kV



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C
Minimum bending radius: 4 x outer diameter
Halogen free: according IEC EN 60754
Fire retardant: according IEC 60332-3-22
<b>Range of approval:</b> according to table 29A, and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

### CONSTRUCTION

**Conductor:** tinned copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** XLPE according to IEC 60092-360

**Core identification:** black

**Bedding:** Halogen free inner sheath compound

**Armour:** bare copper wire braid having coverage >90%

**Sheath:** Thermoplastic compound, type SHF1 according to IEC 60092-360, colour red if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NMV - 1x"cross section"- 1,8/3 kV - Cert.Om.nr.04/17

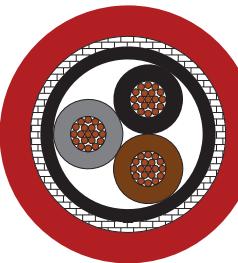
Table 29A

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MV001</b>	1x16	15,1	400
<b>MV002</b>	1x25	16,7	520
<b>MV003</b>	1x35	17,6	630
<b>MV004</b>	1x50	19,1	780
<b>MV005</b>	1x70	20,9	1010
<b>MV006</b>	1x95	23,2	1310
<b>MV007</b>	1x120	24,9	1560
<b>MV008</b>	1x150	26,4	1850
<b>MV009</b>	1x185	29,1	2260
<b>MV010</b>	1x240	31,6	2840
<b>MV011</b>	1x300	33,9	3400

The characteristics of the products, described in the data sheet, do not constitute any contractual binding. UNIKA spa reserves the right to change the specifications without any notice. Partial or total reproduction of this document is forbidden

## UNINAV – Type NMV three cores

Armoured, three cores, medium voltage, power cables rated 1,8/3 kV



### TECHNICAL DATA

Temperature rating: -40°C ÷ 90°C
Minimum bending radius: 12 x outer diameter
Halogen free: according IEC EN 60754
Fire retardant: according IEC 60332-3-22
<b>Range of approval:</b> according to table 30A, and as specified in NAV 80-6145-0003-13-00B000 (see Ministry of Defence homologation certificate n° 04/17)

Table 30A

Item n°	Cross-section [mm <sup>2</sup> ]	Outer diameter [mm]	Cable mass [kg/km]
<b>MW001</b>	3x16	28,4	1330
<b>MW002</b>	3x25	31,6	1760
<b>MW003</b>	3x35	33,7	2150
<b>MW004</b>	3x50	37,1	2700
<b>MW005</b>	3x70	41,2	3520
<b>MW006</b>	3x95	46,5	4690
<b>MW007</b>	3x120	50,8	5720
<b>MW008</b>	3x150	53,8	6710
<b>MW009</b>	3x185	59,8	8270
<b>MW010</b>	3x240	65,5	10380
<b>MW011</b>	3x300	70,9	12500
<b>MW012</b>	3x150 + 3G25	55,9	7058

### CONSTRUCTION

**Conductor:** tinned copper conductor according ASTM B33, class 5 according to IEC 60228

**Insulation:** XLPE according to IEC 60092-360

**Core identification:** brown, black, grey

**Bedding:** Halogen free inner sheath compound

**Armour:** bare copper wire braid having coverage >90%

**Sheath:** Thermoplastic compound, type SHF1 according to IEC 60092-360, colour red if not otherwise stated

**Marking:** NAV-80-6145-0005-13-00B000 NMV - 3x"cross section"- 1,8/3 kV - Cert.Om.nr.04/17

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## DEFENCE CABLE NAVAL GUN

Furthermore, UNIKA has designed, manufactured and installed cables to be installed into rotating chains, feeding the gun systems developed by LEONARDO for Navy units, and other cables, for switchboard and harnessing, in compliance with the stringent Navy requirements.

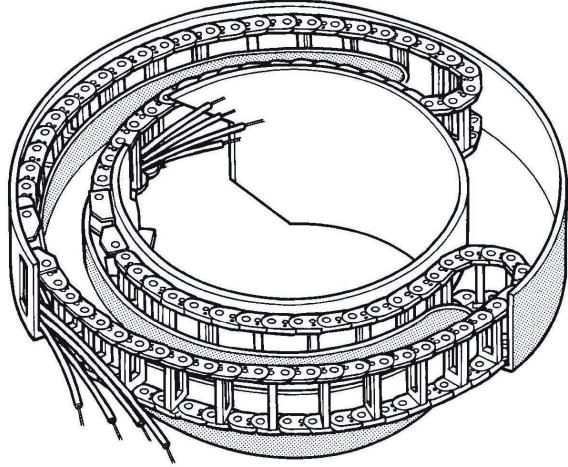
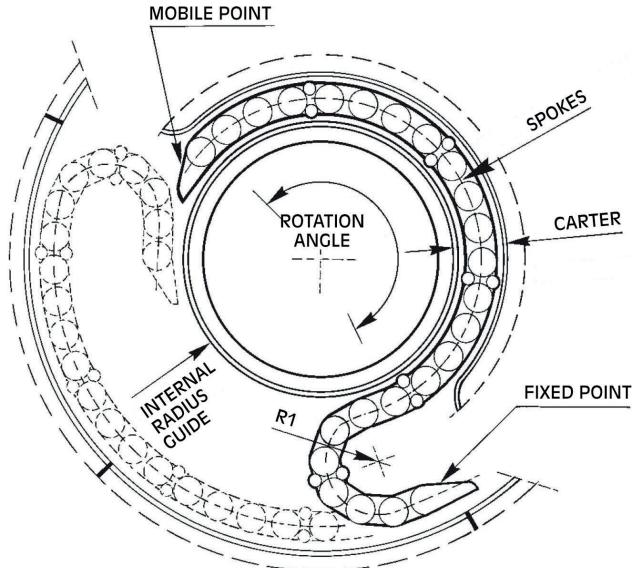
Inoltre UNIKA ha progettato, prodotto e installato i cavi da installare in catene rotanti, alimentando i sistemi di armamento sviluppati da LEONARDO per unità Navy e altri cavi, per centralini e cablaggi, in conformità con i severi requisiti della Marina.

### NAVAL GUN CABLES

Power, control, data, signal, hybrid and coaxial cables for fixed or dynamic installation into drag-chain (horizontal rotation)

# NAVAL GUN CABLES

Power, control, data, signal, hybrid and coaxial cables for fixed or dynamic installation into drag-chain (horizontal rotation).



## POWER cables, Nominal voltage 0,6/1kV, for drag chain installation

Overall screened ALU-COPPER BRAID (60 dB)

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
MTMA01	1x 12 AWG	1x4	4,0	unscreened
MTMA02	4x12 AWG	4G4	12,7	
MTMA03	3x8 AWG	3x10	16,5	
MTMA04	4x4 AWG	4G25	26,3	
MTMA06	4x1/0 AWG	4G53,5	35,0	
MTMA07	1x2/0 AWG	1x70	14,7	unscreened
MTMA10	4x2/0 AWG	4x70	38,1	
MTMA08	(3x2x16 AWG) + (2x16 AWG)	(3x2x1,31) + (2x1,31)	21,5	individual screen
MTMA09	(3x2x16 AWG) + (2x16 AWG)	(3x2x1,5) + (2x1,5)	21,5	individual screen
MTMH01	[4x8 AWG + 2x(2x16 AWG)]	4G10 + 2x(2x1,5)	22,5	Power cores 0,6/1 kV. Control cores 300V

## CHARACTERISTICS

Bending radius into drag chain: max. 10xD

Chain Rotation :  $\pm 135^\circ$  (see drawing)

Operating temperature range : -40°C to +90°C

Fire behaviour: flame retardant IEC 60332-1-2  
Halogen content IEC 60754-1

Oil resistant: IEC 60092-350 annex F, EN 50363-10-2

Standard: IEC 60092-353, IEC 60092-350, IEC 60092-360, IEC 60092-376,  
EN 50363-10-2

## CONTROL cables, Nominal voltage 300V, for drag chain installation

Overall screened ALU-COPPER BRAID (60 dB)

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
MTMB01	(3x2x16 AWG) + (2x16 AWG)	(3x2x1,5) + (2x1,5)	17,7	individual screen
MTMB02	(3x2x16 AWG)	(3x2x1,5)	11,5	
MTMB03	(7x2x16 AWG)	(7x2x1,5)	14,9	
MTMB04	(8x2x16 AWG)	(8x2x1,5)	17,0	
MTMB05	(19x2x16 AWG)	(19x2x1,5)	23,4	
MTMB06	8x(2x16 AWG)	8x(2xAWG16)	19,4	
MTMB07	30x(2x16 AWG)	30x(2xAWG16)	33,7	

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**DATA cables, Nominal voltage 300V, for drag chain installation**

Overall screened ALU-COPPER BRAID (60 dB)

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
<b>MTMC01</b>	2x(2x20 AWG)	2x(2x0,50)	8,9	
<b>MTMC02</b>	3x(2x20 AWG)	3x(2x0,50)	9,4	
<b>MTMC03</b>	4x(2x20 AWG)	4x(2x0,50)	10,3	
<b>MTMC04</b>	5x(2x20 AWG)	5x(2x0,50)	11,3	
<b>MTMC05</b>	9x(2x20 AWG)	9x(2x0,50)	14,9	
<b>MTMC06</b>	10x(2x20 AWG)	10x(2x0,50)	15,4	
<b>MTMC07</b>	14x(2x20 AWG)	14x(2x0,50)	17,3	
<b>MTMC08</b>	16x(2x20 AWG)	16x(2x0,50)	17,8	
<b>MTMC09</b>	19x(2x20 AWG)	19x(2x0,50)	19	
<b>MTMC10</b>	24x(2x20 AWG)	24x(2x0,50)	23	
<b>MTMC11</b>	30x(2x20 AWG)	30x(2x0,50)	24	
<b>MTMC16</b>	3x(2x22 AWG)	3x(2x0,34)	8,8	
<b>MTMC12</b>	7x(2x22 AWG)	7x(2x0,34)	11,3	
<b>MTMC13</b>	19x(2x22 AWG)	19x(2x0,34)	17,8	
<b>MTMC14</b>	28x(2x22 AWG)	28x(2x0,34)	22	
<b>MTMC15</b>	20x(2x24 AWG)	20x(2x0,25)	18	

**BUS cables - CAN-OPEN (Z 120Ω), nominal voltage 30V, for drag chain installation**

Overall screened ALU-COPPER BRAID (60 dB)

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
<b>MTMD01</b>	2x(2xAWG22)	2x(2x0,34)	14,5	
<b>MTMD02</b>	5x(2xAWG22)	5x(2x0,34)	18,8	

**BUS cables - LAN Ethernet Cat.5e, nominal voltage 300V, for drag chain installation**

Overall screened ALU-COPPER BRAID (60 dB)

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
<b>MTME01</b>	(4x2x26 AWG) Patch cable	(4x2x0,15)	6	

**HYBRID cables, nominal voltage 300V, for drag chain installation**

Overall screened ALU-COPPER BRAID (60 dB)

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
<b>MTMF01</b>	1xRG59+2x24 AWG	1xRG59 + 2x0,25	10,3	
<b>MTMF02</b>	2xRG59+6x24 AWG	2xRG59+6x0,25	15,5	
<b>MTMF03</b>	3xRG59+10x24 AWG	3xRG59+10x 0,25	16,4	
<b>MTMF04</b>	5x2x18 AWG(power) + 20x(2x24 AWG)(RS422)		21,3	
<b>MTMF05</b>	2x2x16 AWG + 4x(2x20 AWG)	2x2x1,5 + 4x(2x0,50)	13,2	
<b>MTMF06</b>	12x(1x8 AWG) + 3x(2x16 AWG)	12x(1x10) + 3x(2x1,5)	35,2	Power cores 0,6/1 kV
<b>MTMF07</b>	(5x RG59 B/U flex)		20,2	
<b>MTMF08</b>	Hybrid [3x Ethernet Cat.7 (4x(2xAWG26)) + Data cable (7x(2xAWG22)) ]	[3x Cat.7 (4x(2x0,15)) + (7x(2x0,34))] ]	24	
<b>MTMF09</b>	Hybrid [Can-Bus (2xAWG26) + 1x2xAWG24]	[Can-Bus (2x0,15)+1x2x0,25]	8	

**Screened control cables, nominal voltage 300V**

Double sheathed and double copper braided cable with high tensile textile braid

Code	Cable description		Nominal outer Ø [mm]	Note
	Number of cores x AWG size	Number of cores x Cross-section (mm²)		
<b>MTMJ01</b>	8x(2xAWG20)	8x(2x0,60)	25,6	
<b>MTMJ02</b>	19x(2xAWG20)	19x(2x0,60)	34,4	

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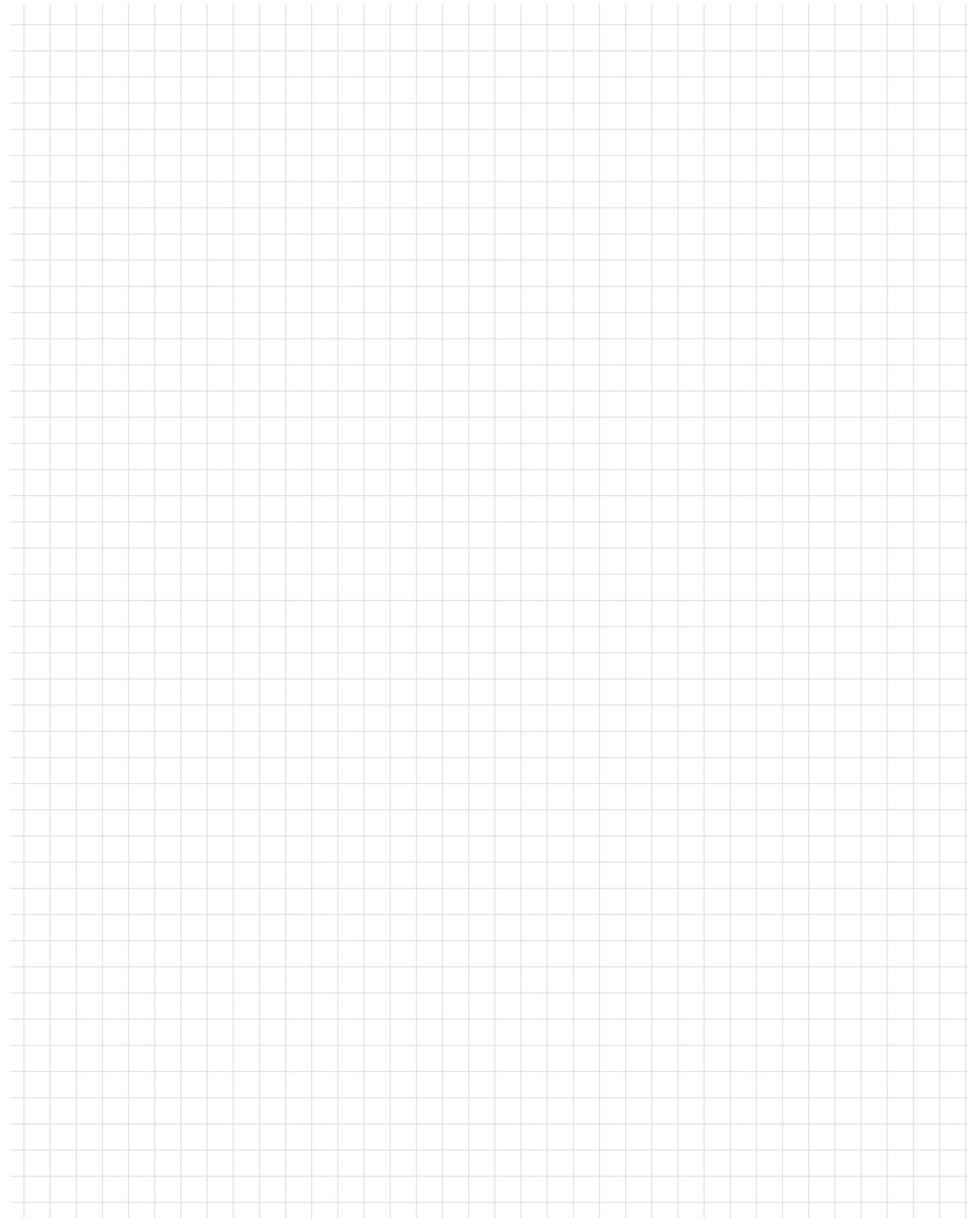
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**HYBRID cables, nominal voltage 300V, for fixed installation, low smoke, halogen-free in compliance with NAV 80-6145-0003-14-00B000**

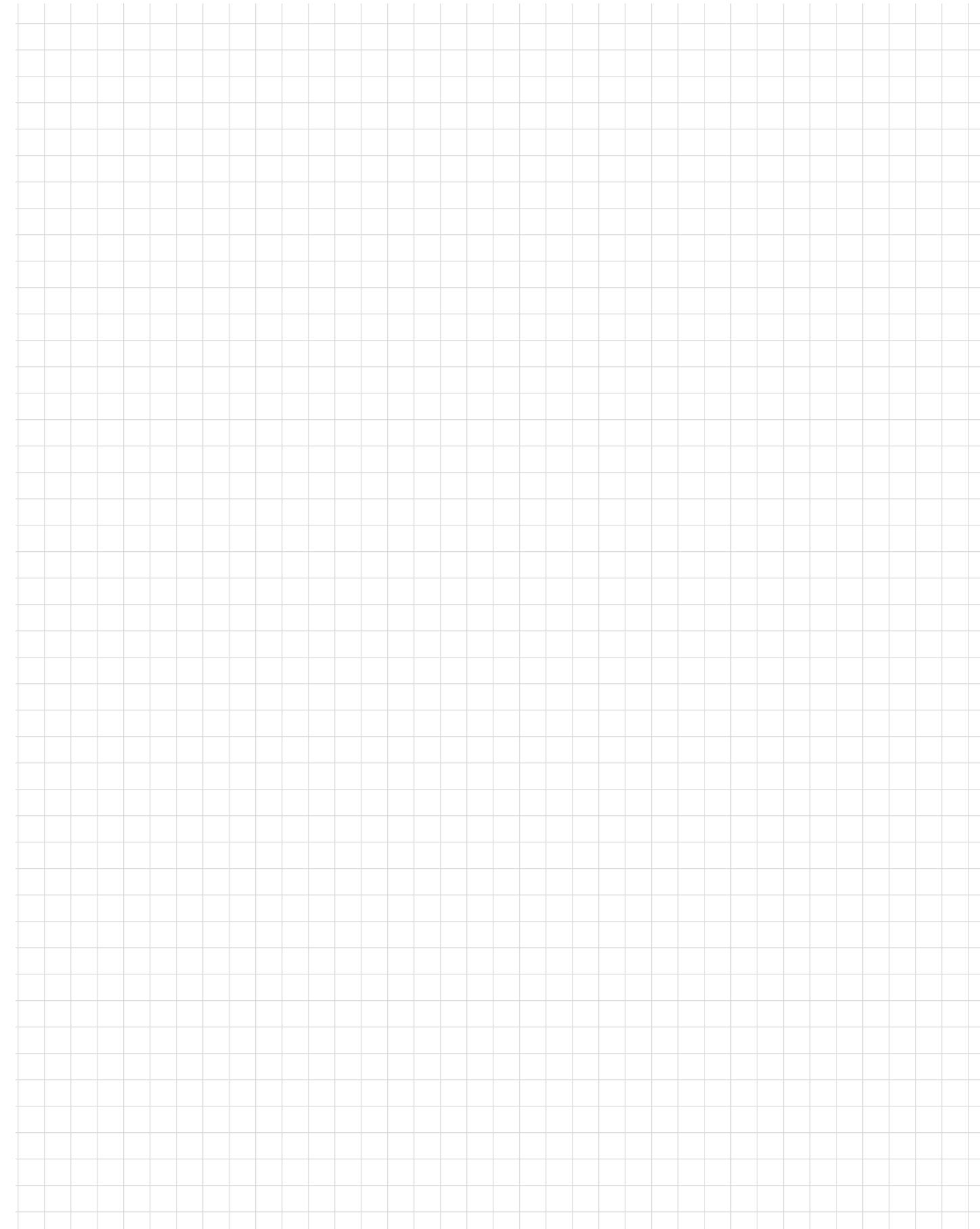
Code	Cable description	Nominal outer Ø [mm]	Note
	Number of cores x AWG size		
<b>MTMC01</b>	1xRG214/U TYPE	10,9	
<b>MTMC02</b>	TRIAX AWG 26/2,95/5/7,5	7,5	
<b>MX023A</b>	RG179	3,5	
<b>MX301</b>	Hybrid [4x(2xAWG22) + 4x(AWG22) + RG179]	13,5	
<b>MX250</b>	Hybrid [RG179 + 2x(2xAWG20)]	9,3	
<b>MX021</b>	CAN-BUS 120 ohm (2xAWG22)	7,5	(42 dB)
<b>MX022</b>	Hybrid [2xAWG24 + CAN-BUS 120 ohm (2xAWG24)]	8,0	(60 dB)
<b>MX010</b>	Ethernet cable cat. 5e 4x2xAWG24/7	6,5	
<b>MX247</b>	Hybrid [cat. 5e 4x2xAWG24 + 11x(2xAWG22)]	19,5	(74 dB)
<b>MX248</b>	Hybrid [cat. 5e 4x2xAWG24 + 14x(2xAWG20)]	27,0	(74 dB)
<b>MX249</b>	Hybrid [3 x cat. 5e 4x2xAWG24 + 7x(2xAWG22)]	22,0	
<b>MX250</b>	Hybrid [RG179 + 2x(2xAWG20)]	9,3	
<b>MX251</b>	[2x(2xAWG16) + 4x(2xAWG20)]	17,2	
<b>MX255</b>	RG59 B/U	6,15	DNV approved
<b>MX256</b>	RG58 C/U	4,95	DNV approved
<b>MX300</b>	(4x2xAWG22) + (3xAWG22) + RG179	12,0	(60 dB)
<b>MX301</b>	[4x(2xAWG22) + 4x(AWG22) + RG179]	13,5	(60 dB)
<b>MX302</b>	[6x(2xAWG16)+9x(2xAWG20) + cat.5e (1x4xAWG20)]	22,0	(60 dB)
<b>MX303</b>	[5x(2xAWG22) + 7xAWG22]	15,4	(60 dB)
<b>MX318</b>	CAN-BUS 120 ohm [2x(2xAWG20)]	15,0	
<b>MX319</b>	4 COAX LMR-240 + 10x(2xAWG22 + 8xAWG22)	26,2	(60 dB)
<b>MX320</b>	4 COAX LMR-240 + 1xAWG12 + 8xAWG20 + 2x2xAWG12 + 4x2xAWG20	24,3	(60 dB)
<b>MX321</b>	[2x(2xAWG20) + 3 CAN-BUS (2xAWG24) + 28xAWG20]	18	(60 dB)

## Note

**Note**



**Note**



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