CU 6502 4P SHF1

Data cable, U/FTP, Category 6_A, AWG23, Euroclass Dca

500 MHz

1 Inner conductor: AWG23 Bare copper wire
2 PE insulated conductor: 1.3 mm Ø
3 Screen (pair): Alu PETP foil
4 Drain wire: Tinned copper wire
5 Outer sheath: FRNC/LS0H SHF1

Description

Electrically and mechanically improved quality Cat.6A data cable - fulfils the requirements of ISO/IEC 11801, IEC 61156-5, EN 50173-1 and prEN 50288-10-1.
Good shielding effect due to individually screened pairs.
Oil resistant, fire retardant and halogen free sheath.
Compatible with all current connecting hardware in accordance with EN 50173 and ISO/IEC 11801.
Certified by Det Norske Veritas.

Application

Data cable for structured premises cabling - designed for use in industrial areas, particularly for higher requirements in offshore and marine applications.
Oil resistant, flame retardant and zero halogen outer sheath.
For the transmission of digital and analogue voice, video and data signals.
Suitable for all ICT network applications up to class EA applications (500 MHz) in accordance with EN 50173-1 and ISO/IEC 11801.
Applicable for Power over Ethernet (PoE) / PoE+.
Supported Applications: 10Base-T, 100Base-T, 1000Base-T, 2.5GBase-T, 5GBase-T, 10GBase-T, Fieldbus

Construction

Outer sheath material	FRNC/LSZH SHF1
Outer sheath colour	grey

General properties

Installation temperature	0 °C - +50 °C
Operating temperature	-20 °C - +60 °C
Wire colour	white/blue, white/orange, white/green, white/brown, according to IEC 60189 and IEC 60708
Imprint	DATWYLER CU 6502 4P AWG23 S/FTP CAT 7 IEC SHF1 NVP79% - DNV-CP-0403 - TAE000044B - Dca-s2,d2,a1 MADE IN SWITZERLAND <Lot-number> <length marking> M
Field of application	Off-Shore / Shipbuilding

Electrical properties

Category	Cat.6_A
GBit/s	Up to 10 Gbit/s
Loop resistance at 20 °C	150 Ω/km
Operating capacity	42 pF/m
Impedance at 100 MHz, ±5Ω	100 Ω
NVP %	79
Delay skew	5 ns/100 m
Shielding	shielded
Near end unbalance attenuation LCL at 1-600 MHz	40 dB
Transfer impedance 1/10/30 MHz	< 50/100/200 mΩ/m
Coupling attenuation	55 dB
Segregation class	c

Frequency [MHz]	Category	Attenuation [dB]	NEXT [dB]	PS-NEXT [dB]	ACR-N [dB]	PS-ACR-N [dB]	ACR-F [dB]	Return Loss [dB]
1		2.1	93	90	91	88	96	26
4		3.8	93	90	89	86	96	28
10		5.9	93	90	87	84	96	30
100	5e	19	93	90	73	70	74	30
250	6	30	83	80	53	50	56	27
500	6_A	43	75	72	32	29	33	21

The performance data given are typical measured values.

Mechanical properties

Solid / Flex	Solid wire
AWG	23
Minimum bending radius (permanently installed)	28 mm
Minimum bending radius (during installation)	56 mm
Tensile strength (2x4P)	190 N
Tensile strength (4P)	95 N

Standards

Reaction to fire	EN 13501-6
Euroclass	D_{ca}
Smoke density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2, AREI-RGIE Section 4.3.3 SD
Zero halogen no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2, AREI-RGIE Section 4.3.3 SA
Flame propagation	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2, AREI-RGIE Section 4.3.3 F1
UV resistance	EN 50289-4-17-A [720h]
Cables standard	ISO/IEC 61156-5, EN 50288-10-1
Cat./Class	Cat.6_A / Class E_A
DNV standard	DNV-CP-0403
PoE	IEEE 802.3bt Type 4 (100W)

Versions

Material number	Product	Reaction to fire	Dimensions n x p x [mm (AWG)]	Outer sheath dimensions [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Packing unit	GTIN / EAN
19439202DK	CU 6502 4P U/FTP CAT6$_A$ SHF1 GR	Dca-s2,d2,a1	4 x 2 x 0.55 (AWG23)	7.2	20.0	52.7	0.178	1000 m drum	40393910022278