



CABLE STRUCTURE

Conductor	7 x 0,22 mm Twisted Bare Copper
Insulation	Skin/Foam/Skin PE compound
Pair Screen	Al-Pet Foil around each pair
Overall Screen	Tinned Copper Wire Braiding
Sheath	Halogen free flame retardant compound (SHF1)

TECHNICAL PROPERTIES

Overall diameter	Ø 8,70 ± 0,20 mm
Cable Weight	90 kg / km
Min. Bending radius during draw in	70 mm
Min. Bending radius permanently installed	35 mm
Max. Tensile Strength	90 N
Min. Crush Resistance	1000 N / 10 cm
Installation Temperature	0°C / +50°C
Operating Temperature	-20°C / +70°C
Standarts	IEC 61156-5, EN 50288-4-1, EN 50173-1, ISO/IEC 11801 2nd ed
Flame Retardant	IEC 60332-1-2, IEC 60332-3-24
Halogen Free	IEC 60684-2, IEC60754-1/2
Low Smoke	IEC 61034-1/2
UV Resistant	ISO 4892-2

ELECTRICAL PROPERTIES at 20°C

Max. Conductor Resistance	< 9.5 Ω / km
Max. Resistance Unbalance	< 2 %
Min. Insulation Resistance	5000 MΩ x m
Mutual Capacitance	< 56 pF / m
Capacitance Unbalance	1600 pF / km
Impedance at 100 MHz	100 ± 5 Ω
Velocity of Propagation	76%
Delay Skew	< 25 ns / 100 m
Coupling Attenuation	> 85 Db
Transfer Impedance at 1 / 10 / 30 MHz	< 10 / 10 / 30 mΩ / m
Segregation Class	D
Test Voltage	1000V
Operating Voltage	125V

APPLICATIONS

IEEE 802.3: 10Base-T, 100Base-T, 1000Base-T, 10GBase-T, IEEE 802.5 16 MB, ISDN, TPDDI, ATM Power over Ethernet (PoE) / PoE+. These cables are used in data communication networks and for the transmission of digital and analogue voice, video and signals on ships.



Nominal Transmission Characteristics at 20 °C

Frequency (MHz)	Attenuation (dB/100 m)	NEXT (dB)	PS - NEXT (dB)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ACRF (dB/100 m)	PS-ACRF (dB/100m)	Return Loss (dB)
1	2.0	104	101	99	96	101	98	24
4	3.4	104	101	97	94	98	95	30
10	4.9	101	98	95	92	98	95	32
100	17.3	100	97	82	79	84	81	34
250	28.2	95	92	63	60	70	67	27
500	42.0	95	92	56	53	61	58	24
600	44.0	88	85	45	42	59	56	22
700	53.5	84	81	30	27	52	49	20
800	55.5	83	80	28	25	50	47	19
900	57.3	80	77	23	20	49	46	18
1000	59.1	77	75	23	20	48	45	18