

SeaTex® 7

ultraflexible, low loss, stray radiation resistant
and designed for marine applications



SeaTex 7 is a very flexible low loss and halogen-free communications coaxial cable perfectly designed to use for marine and offshore applications. It is worldwide approved for ship building (DNV GL certificate) and is suitable for use on ships, oil platforms, wind turbines and the entire maritime area. The jacket of the SeaTex 7 is made of a special thermoplastic copolymer (SHF2), which ensures that the cable is highly resistant to heat, cold, oils, salt-water, UV radiation and has a long service life in harsh environmental conditions.

The design of the SeaTex 7 is based on the successful Aircell 7 coaxial cable. It has excellent attenuation values, its flexibility and its small bending radius allow installation in limited spaces. Thus SeaTex 7 combines the advantages of Aircell coaxial cables with the special requirements in marine area. The product is specified up to 6 GHz and can be used in a temperature range from -55°C to 85°C.

Key features

Diameter	7,3 ± 0,2 mm
Impedance	50 ± 2 Ω
Attenuation at 1 GHz/100 m	21,52 dB
f max	6 GHz

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-R
- Screen material according to DIN EN 13602 Cu-ETP-A
- Insulating material according to ISO 6722-1 part 5.14, class „A“, bending diameter 80 mm
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of cable jacket according to IEC 60092-376
- Flame retardant according to IEC 60332-3-22 (Cat. A)
- Flame retardant according to IEC 60332-1-2
- Oil resistant according to EN 60811-2-1 (24 hours/100°C)
- RoHS compliant (Directive 2011/65/EC)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV GL Certificate No. TAE00001JX



Technical data

Inner conductor	Stranded bare copper wire
Inner conductor Ø	1,9 mm (19 x 0,38 mm, 14 AWG)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	5,0 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	85%
Outer conductor Ø	5,7 mm
Jacket	special thermoplastic copolymer (SHF2) black
Weight	73 kg/km
Min. Bending radius	4X Ø single, 8X Ø repeated
Temperature range	-55 to +85°C Transport & fixed installation -40 to +85°C Flexible use
Pulling strength	300 N

Electrical data at 20°C

Capacity (1 kHz)	78 nF/km
Velocity factor	0,85
Screening attenuation 1 GHz	≥ 90 dB
DC-resistance Inner conductor	≤ 9,0 Ω/km
DC-resistance Outer conductor	8,7 Ω/km
Insulation resistance	≥ 10 GΩ*km
Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.)	1000 V
Max. Voltage	300 kV

	SeaTex 7	RG 213/U	RG 58/U
Capacity	78 pF/m	101 pF/m	102 pF/m
Velocity factor	0,85	0,66	0,66
Attenuation (dB/100m)			
10 MHz	2,20	2,00	5,00
100 MHz	6,28	7,00	17,00
500 MHz	14,72	17,00	39,00
1000 MHz	21,52	22,50	54,60
3000 MHz	40,88	58,50	118,00

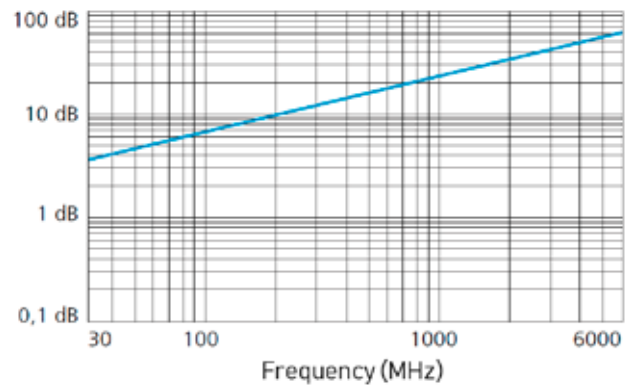
Typ. Attenuation (db/100 m at 20°C)

5 MHz	1,60	1000 MHz	21,52
10 MHz	2,20	1296 MHz	24,84
50 MHz	4,52	1500 MHz	27,08
100 MHz	6,28	1800 MHz	30,00
144 MHz	7,60	2000 MHz	31,88
200 MHz	9,04	2400 MHz	35,60
300 MHz	11,20	3000 MHz	40,88
432 MHz	13,60	4000 MHz	49,12
500 MHz	14,72	5000 MHz	57,04
800 MHz	19,00	6000 MHz	64,90

Max. Power handling (W at 40°C)

10 MHz	2.040	2400 MHz	118
100 MHz	620	3000 MHz	104
500 MHz	260	4000 MHz	89
1000 MHz	191	5000 MHz	78
2000 MHz	131	6000 MHz	70

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss

