

Wind Turbine RS-485 2x22/7 AWG SF/UTP LSZH-SHF2 MUD Resistant



Application

Offshore installations, Maritime Environment, RS-232, Fixed or portable installations, RS-422, Industrial communication, RS-485, High Noise Environments. SHF2 Compound complies to the requirements of NEK TS 606:2016 Category C MUD Resistance (Sheath Code M) and Category D Hydraulic/gear oil resistance (Sheath Code H/H-M).

Cable Design

Pair

Conductor	Stranded annealed tinned copper wire, 22awg (7/0,25mm)
Insulation	Cellular PO Ø 2,13 mm nom.
Twisting	2 insulated conductors twisted to a pair
Pair Shielding	Aluminium Foil
Identification	Orange x White

Core

Conductor	Stranded annealed tinned copper wire, 22awg (7/0,25mm)
Insulation	Cellular PO Ø 2,13 mm nom.
Identification	Blue

Lay Up

1 shielded pair + 1 core

Wind Turbine RS-485 2x22/7 AWG SF/UTP LSZH-SHF2 MUD Resistant

Overall Shield

Drain wire	Stranded annealed tinned copper wire, 24awg
Braid	Annealed tinned copper wire braid, 85% coverage

Inner Jacket

	XL-HFFR
Diameter	Ø 7,25 mm nom.
Colour	Black

Outer Jacket

	XL-HFFR SHF2 MUD Resistant
Thickness	1,20 mm nom.
Outer Diameter	Ø 9,65 mm nom.
Weight	115 kg/km

Performance

Impedance		120	Ohm
Attenuation	@ 1 MHz	1,7	dB/100m
	@ 10 MHz	5,0	dB/100m
Nom. Capacitance Conductor to Conductor		36,091	pF/m
Nom. Capacitance Conductor to Conductor & Shield		68.57	pF/m
Nom. Velocity of Propagation		78	%
Transfer Impedance			Grade 1
Coupling Attenuation			Type 1
Max. DC Resistance		55	Ohm/km @ 20°C
Nom. Outer Shield DC Resistance		9,18	Ohm/km @ 20°C
Max. Resistance Unbalance		2	%
Dielectric Strength		700	V/minute
Dielectric Strength to Shield		700	V/minute
Voltage Rating		300 (*)	V
Min. Bend Radius		6	x Ø (mm)

(*) Cable voltage rate is 300 V, however the cable is not intended to be used as power transmission cable.

Wind Turbine RS-485 2x22/7 AWG SF/UTP LSZH-SHF2 MUD Resistant

Max. Operating Temperature	+75 °C
Min. Operating Temperature	-30 °C
UV resistance	Yes
Mud Resistance	Yes

Standards

Applicable Standards	DNV-GL certified, IEC 60092-360, IEC 60092-350, IEC 60811-2-1, RoHS 3 2015/863/EU , NEK TS 606
Flamability Rating	IEC 60332-1, IEC 60332-3 , IEC 60754-1/2, IEC 61034-1/2, UL 1581 VW-1
Turbine Oil Resistance Test	
NEK TS 606:2016 Category d	
Method, tested according to IEC 60811-404 specified in IEC 60092-360	
Test duration and conditions. Clause 4.4.1 NEK TS 606:2016 Table 1	
Category d - Hydraulic / gear oil resistance	
(Temperature: 100 °C. Duration 7 days)	
Acceptance criteria: NEK TS 606:2016 Clause 4.4.1 NEK Table 1 - Category d	