船用网线 Marine Ethernet cable

CAT 5E AFR S/FTP 4PR 23AWG/1 SHF-MUD (GSWB)

HF Flame Oil Cold UV Fire MUD



应用 Application

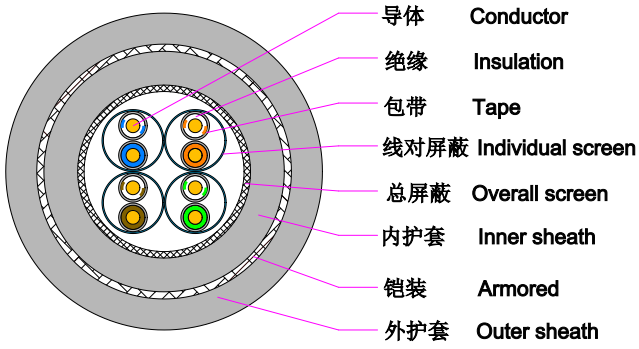
符合 IEC 61156-5 标准的高性能海上 LAN 电缆,带宽高达 100 MHz。

High performance offshore LAN cable compliant with IEC 61156-5 category 5E standards bandwidths up to 100 MHz.

铜导体，发泡 PE 绝缘，耐火云母带，铝箔对屏蔽，镀锡铜编织总屏蔽，SHF1 内护套，镀锌钢丝铠装，SHF-MUD 外护套。

BC conductor, Foam PE insulation, Fire-resistant Mica tape, Foil screened pairs with an overall tinned copper braid, SHF1 inner sheath, Galvanized steel wire armored, SHF-MUD Outer sheath.

结构 Construction



导体 Conductor	单根铜丝（23AWG/1）	Solid Bare copper wire（23AWG/1）
绝缘 Insulation	发泡 PE 颜色： 1、白/蓝，蓝 2、白/橙，橙 3、白/绿，绿 4、白/棕，棕	Foam PE Color：1、White/Blue，Blue 2、White/Orange，Orange 3、White/Green，Green 4、White/Brown，Brown
包带 Tape	耐火云母带	Fire-resistant Mica tape
线对屏蔽 Individual screen	铝箔	AL/Mylar
总屏蔽 Overall screen	镀锡铜编织，覆盖率≥60%	Tinned copper braiding, coverage≥60%
内护套 Inner Sheath	SHF1	SHF1
铠装 Armored	镀锌钢丝铠装，覆盖率≥90%	Galvanized steel wire braiding, coverage≥90%
外护套 Outer Sheath	SHF-MUD 颜色：灰色或定制 OD：12.5 ± 0.8mm	SHF-MUD Color ： Grey or as customer's request OD：12.5 ± 0.8mm
印字 Marking	Hysin□MARINE□Cable□CAT5E□AFR□S/FTP□4PR□23AWG/1□SHF-MUD□GSWB□IEC60331-23□IEC60332-3-22□NEK606□****m□xxxxxx□WW/YY 注：□ 表示空格；****m 表示计米；xxxxxx 表示批号;WW/YY 表示周数/年份 Note：□ means blank；****m means meters；xxxxxx means batch number；WW/YY means week/year	

电气性能 Electrical Characteristics（20℃）

导体直流电阻	Conductor DC resistance	≤95 Ω/km
电阻不平衡	DC Resistance Unbalance	≤2%（within a pair），≤5%（between pairs）
特性阻抗	Characteristic impedance	100±10 Ω@100MHz
介电强度	Dielectric Strength	DC 1kV for 1min（conductor to conductor, conductor to screen）
绝缘电阻	Insulation Resistance	≥5000MΩ.km（IEC 61156-5）
电容不平衡	Capacitance Unbalance（pair to ground）	≤160pF/100m at 1kHz(IEC 61156-5)
传输性能	Transmission performance	IEC 61156-5

Frequency 频率 MHz	ATT dB/100m Max. 最大	RL dB Min.最小	NEXT dB Min.最小	PSNEXT dB Min.最小	ELFEXT dB Min.最小	PSELFEXT dB Min.最小
4	4.08	23.0	56.3	53.3	52.0	49.0
8	5.78	24.5	51.8	48.8	45.9	42.9
10	6.48	25.0	50.3	47.3	44.0	41.0
16	8.26	25.0	47.2	44.2	39.9	36.9
20	9.28	25.0	45.8	42.8	38.0	35.0
25	10.43	24.3	44.3	41.3	36.0	33.0
31.25	11.73	23.6	42.9	39.9	34.1	31.1
62.5	17.00	21.5	38.4	35.4	28.1	25.1
100	21.98	20.1	35.3	32.3	24.0	21.0

其他性能 Other Characteristics

工作温度	Operating temperature	-40℃ to 90℃
安装温度	Installation temperature	-20℃ to 60℃
卤酸气体	Acid Gas Release Mounts	≤5mg/g (IEC 60754-1)
燃烧气体 PH 值	Burning Occur Gas Acidity	PH≥4.3 (IEC 60754-2)
燃烧气体导电率	Burning Occur Gas conductivity	<10 μS/mm (IEC 60754-2)
烟密度	Smoke density	≥60%（IEC 61034-2）
阻燃性	Flame resistance	IEC 60332-3-22, IEC 60332-1-2
耐火性	Fire resistance	IEC 60331-23
耐油	Oil resistance (SHF2)	IRM902, 100℃×24H
耐泥浆	MUD resistance (SHF-MUD)	NEK 606
抗紫外线	UV resistance	UL1581
护套材料性能	The jacket material performance	IEC 60092-360
最小弯曲半径	Min.Bending radius	15xOD(OD=cable diameter)
重量	Weight	200±10 kg/km

This cable meets RoHS requirements.

Prepared by: J.Zhou	Checked by: CL.Wang	Approved by: SY.Xiang