船用网线 Marine Ethernet cable

CAT 6 AFR S/FTP 4PR 23AWG/1 SHF2 (TCWB)

HF Flame Oil Cold UV Fire



应用 Application

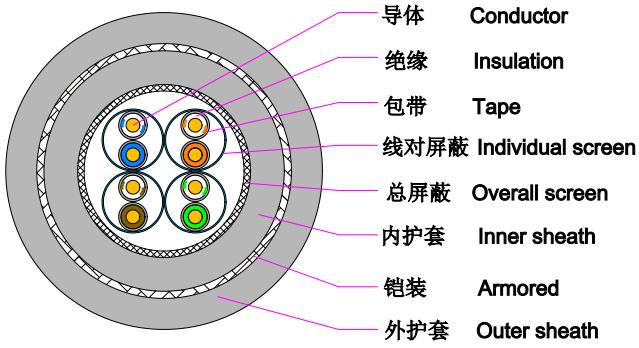
符合 IEC 61156-5 标准的高性能海上 LAN 电缆,带宽高达 250 MHz。

High performance offshore LAN cable compliant with IEC 61156-5 category 6 standards bandwidths up to 250 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，镀锡铜丝铠装，SHF2 外护套。

BC conductor, Foam PE insulation, Fire-resistant Mica tape, Foil screened pairs with an overall tinned copper braid, SHF1 inner sheath, Tinned copper wire armored , SHF2 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	镀锡铜丝铠装，覆盖率≥90%	Tinned copper wire braiding, coverage≥90%
外护套 Outer Sheath	SHF2 颜色：灰色或定制 OD：12.5 ± 0.8mm	SHF2 Color ： Grey or as customer's request OD：12.5 ± 0.8mm
印字 Marking	Hysin□MARINE□Cable□CAT6□AFR□S/FTP□4PR□23AWG/1□SHF2□TCWB□IEC60331-23□IEC60332-3-22□****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	3.83	23.0	66.3	63.3	56.0	53.0
8	5.37	24.5	61.8	58.8	49.9	46.9
10	6.00	25.0	60.3	57.3	48.0	45.0
16	7.61	25.0	57.2	54.2	43.9	40.9
20	8.53	25.0	55.8	52.8	42.0	39.0
25	9.57	24.3	54.3	51.3	40.0	37.0
31.25	10.75	23.6	52.9	49.9	38.1	35.1
62.5	15.48	21.5	48.4	45.4	32.1	29.1
100	19.92	20.1	45.3	42.3	28.0	25.0
200	29.14	18.0	40.8	37.8	22.0	19.0
250	33.02	17.3	39.3	36.3	20.0	17.0

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
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