

SPECIFICATION
S015893

3.6.2015 VR
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HALOGEN FREE INSTRUMENTATION AND TELECOMMUNICATION CABLE
FOR MARINE APPLICATIONS

LJST-HF 250 V and TEMAR THFX-C 250 V



APPLICATION	Instrumentation, telecommunication and control cable for fixed installations. Good mechanical and electrical protection. Designed to fulfill the requirements for cabling on ships.
STANDARDS	
Construction	IEC 60092-376 and IEC 60092-350
Materials	IEC 60228 (conductor), IEC 60092-360 (insulation and sheath)
Flame retardance	IEC 60332-3-22 (cat A) and IEC 60332-1-2
Halogen free properties	IEC 60754-1 and -2
Low smoke emission	IEC 61034-1 and -2
Tests	IEC 60092-376
Choice and installation	IEC 60092-352
CHARACTERISTICS	
Rated voltage	150/250 V (300 V)
Conductor temperature	Maximum +90 °C
Ambient temperature	Minimum -15 °C (Installation)
DESIGN	
Conductor	Stranded plain copper conductor 0,5 or 0,75 mm ² - max dc-resistance at +20 °C i.a.w. IEC 60092-376
Insulation	Extruded halogen free XLPE, i.a.w. IEC 60092-360 - nominal thickness see Table 1 i.a.w. IEC 60092-376
Twisted pairs	Two conductors are twisted to a pair (two pair cable to a 1x4 quad) - number identification of cores
Laying up	Pairs are laid up together - adjacent pairs are twisted together with different lay length - wrapping with suitable tape (lapped inner covering)
Armour (common screen)	Combined electrical and mechanical protection Braid of copper wires i.a.w. IEC 60092-376 - drain conductor may be under the braid i.a.w. IEC 60092-376 - additional polyester tape may be applied over the braid

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Sheath Extruded grey halogen free polyolefine, SHF1 i.a.w. IEC 60092-360
- nominal thickness i.a.w. IEC 60092-376 (see table 1)

IDENTIFICATION

Cable Marking PRYSMIAN (FI20) LJST-HF 19x2x0,75 150/250 V TEMAR THFX-C
+ IEC60092-376 +meter marking +manufacturing time


Core identification

Pair	Core a White insulation + black number	Core b Blue insulation + black number
1	1	2
2	3	4
N	2 * N - 1	2 * N

TECHNICAL DATA

Table 1. Cable dimensions LJST-HF 250 V and TEMAR THFX-C

Size nx2xmm ²	Conductor		Insulation thickness nominal (mm)	Screen		Sheath thickness nominal (mm)	Cable	
	resistance max. (Ω/km)	diameter approx. (mm)		wire dia. nominal (mm)	diameter approx. (mm)		diameter approx. (mm)	weight approx. (kg/km)
1x2x0,5	40,4	0,9	0,4	0,2	5,5	1,0	7,5	80
2x2x0,5 *)	40,4	0,9	0,4	0,2	6,5	1,0	8,5	105
4x2x0,5	40,4	0,9	0,4	0,2	10,0	1,1	12,0	190
7x2x0,5	40,4	0,9	0,4	0,2	11,5	1,2	14,0	250
8x2x0,5	40,4	0,9	0,4	0,2	12,5	1,2	15,0	270
10x2x0,5	40,4	0,9	0,4	0,3	14,0	1,3	17,0	350
12x2x0,5	40,4	0,9	0,4	0,3	15,0	1,4	18,0	380
14x2x0,5	40,4	0,9	0,4	0,3	16,0	1,4	19,0	450
19x2x0,5	40,4	0,9	0,4	0,3	18,0	1,5	21,5	570
24x2x0,5	40,4	0,9	0,4	0,3	20,0	1,6	24,0	680
37x2x0,5	40,4	0,9	0,4	0,3	24,5	1,7	28,5	950
1x2x0,75	26,0	1,1	0,5	0,2	5,5	1,0	8,0	85
2x2x0,75 *)	26,0	1,1	0,5	0,2	6,5	1,0	9,0	120
4x2x0,75	26,0	1,1	0,5	0,2	10,5	1,2	13,0	220
7x2x0,75	26,0	1,1	0,5	0,2	12,5	1,2	15,0	330
8x2x0,75	26,0	1,1	0,5	0,3	13,5	1,3	16,5	380
10x2x0,75	26,0	1,1	0,5	0,3	16,0	1,4	18,5	460
12x2x0,75	26,0	1,1	0,5	0,3	16,5	1,4	19,5	520
14x2x0,75	26,0	1,1	0,5	0,3	17,0	1,4	21,5	570
19x2x0,75	26,0	1,1	0,5	0,3	19,0	1,5	23,0	700
24x2x0,75	26,0	1,1	0,5	0,3	23,0	1,7	27,0	880
37x2x0,75	26,0	1,1	0,5	0,3	27,0	1,8	32,0	1300

*) 1x4 quad construction 

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Table 2. Electrical data LJST-HF 250 V and TEMAR THFX-C

nx2xmm ²	Conductor resistance at 20 °C max Ω/km	Insulation resistance min MΩkm	Mutual capacitance max nF/km	Capacitance unbalance max pF/500 m
nx2x0,5	40,4	1030	120	1000
nx2x0,75	26,0	1020	120	1000

Table 3. Characteristic properties LJST-HF 250 V and TEMAR THFX-C

Variable		0,5 mm ²	0,5 mm ²	
Mutual capacitance	single pair	60	60	nF/km
	multi pair	45	50	nF/km
Loop inductance		0,7	0,7	mH/km
Signal attenuation	at 800 Hz	0,8	0,6	dB
Coupling/transfer impedance	at 10 MHz	<50	<50	mΩ/m
Coupling/transfer impedance with extra Cu-laminated polyester tape under the braid	0,1...500 MHz	<10	<10	mΩ/m
Screening attenuation	up to 500 MHz	45	40	dB
Crosstalk attenuation (NEXT)	at 0,1 MHz	>70	>80	dB
Characteristic impedance multi pair types		120	115	Ω

Ordering information:

Part number	Description	GTIN no.	EL nummer
20148301	TEMAR THFX-C 1x2x0,75 250V	6410002204025	10 950 90
20149680	TEMAR THFX-C 2x2x0,75 250V	6410002204032	10 950 91
20154140	TEMAR THFX-C 4x2x0,75 250V	6410002204049	10 950 92
20149681	TEMAR THFX-C 7x2x0,75 250V	6410002204056	10 950 93
20148302	TEMAR THFX-C 8x2x0,75 250V	6410002204063	10 950 94
20155208	TEMAR THFX-C 10x2x0,75 250V	6410002204070	10 950 95
20155209	TEMAR THFX-C 12x2x0,75 250V	6410002204087	10 950 96
20155210	TEMAR THFX-C 14x2x0,75 250V	6410002204094	10 950 97
20155211	TEMAR THFX-C 19x2x0,75 250V	6410002204100	10 950 98