

SPECIFICATION
S015894
3.6.2015 VR
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HALOGEN FREE INSTRUMENTATION AND TELECOMMUNICATION CABLE
FOR MARINE APPLICATIONS
LJT-HF 250 V and TEMAR THFX-U(c) 250 V


APPLICATION	Instrumentation, telecommunication and control cable for fixed installations. 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 annealed 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)
Screen	To improve electrical protection - aluminium laminated plastic tape, 100% optical coverage - tinned drain wires in contact with the screen - additional polyester tape may be applied over the screen

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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) LJT-HF 10x2x0,5 150/250 V TEMAR THFX-U(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 LJT-HF and TEMAR THFX-U(c)

Size nx2xmm ²	Conductor		Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Cable	
	resistance max. (Ω/km)	diameter approx. (mm)			diameter approx. (mm)	weight approx. (kg/km)
1x2x0,5	40,4	0,9	0,4	1,0	6,5	45
2x2x0,5 *)	40,4	0,9	0,4	1,0	7,0	60
4x2x0,5	40,4	0,9	0,4	1,1	10,5	110
7x2x0,5	40,4	0,9	0,4	1,1	12,0	160
8x2x0,5	40,4	0,9	0,4	1,2	13,0	180
10x2x0,5	40,4	0,9	0,4	1,2	15,0	220
14x2x0,5	40,4	0,9	0,4	1,3	16,0	280
19x2x0,5	40,4	0,9	0,4	1,3	18,0	360
24x2x0,5	40,4	0,9	0,4	1,4	21,0	480
37x2x0,5	40,4	0,9	0,4	1,6	26,0	720
1x2x0,75	26,0	1,1	0,5	1,0	7,0	55
2x2x0,75 *)	26,0	1,1	0,5	1,0	8,0	80
4x2x0,75	26,0	1,1	0,5	1,1	12,0	150
7x2x0,75	26,0	1,1	0,5	1,2	14,0	220
8x2x0,75	26,0	1,1	0,5	1,3	15,0	250
10x2x0,75	26,0	1,1	0,5	1,3	17,5	310
14x2x0,75	26,0	1,1	0,5	1,4	18,5	400
19x2x0,75	26,0	1,1	0,5	1,5	21,0	520
24x2x0,75	26,0	1,1	0,5	1,6	24,0	650
37x2x0,75	26,0	1,1	0,5	1,7	29,0	1000

*) 1x4 quad construction



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Table 2. Electrical data LJT-HF and TEMAR THFX-U(c)

nx2xmm²	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 LJT-HF and TEMAR THFX-U(c)

Variable		0,5 mm²	0,75 mm²	
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
20155366	TEMAR THFX-U(c) 1x2x0,75 250V	6410002204926	10 951 00
20155367	TEMAR THFX-U(c) 2x2x0,75 250V	6410002204940	10 951 01
20155368	TEMAR THFX-U(c) 4x2x0,75 250V	6410002204964	10 951 02
20155369	TEMAR THFX-U(c) 7x2x0,75 250V	6410002204988	10 951 03
20155370	TEMAR THFX-U(c) 8x2x0,75 250V	6410002205008	10 951 04
20155371	TEMAR THFX-U(c) 10x2x0,75 250V	6410002205022	10 951 05
20155372	TEMAR THFX-U(c) 14x2x0,75 250V	6410002205046	10 951 06
20155373	TEMAR THFX-U(c) 19x2x0,75 250V	6410002205060	10 951 07