

# RFE-EMC-FRHF

## 250 V

Fire-resistant armoured pair instrumentation and communication cable with improved collective EMC-screening



- Flame-retardant • Halogen-free • Low smoke emission • Oil resistant (SHF2 only)

<b>CONDUCTOR</b>	Stranded copper conductor, IEC 60228 Class 2
<b>INSULATION</b>	Mica tape XLPE
<b>TWISTED PAIR</b>	Two insulated cores twisted together to form a pair
<b>CABLING/BEDDING</b>	Cabling, pairs twisted together, fillers or dummy cores included in select sizes based on product specifications to obtain symmetrical and round construction. Bedding, lapped tape.
<b>SCREEN</b>	Copper drain wire (all sizes) Copper tape, coverage 100%
<b>ARMOUR</b>	Copper wire braid, coverage > 90% Tinned copper wire braid on request Armour serves as collective screen
<b>SHEATH</b>	Polyolefine SHF1, IEC 60092-360 Thermosetting polyolefine SHF2 on request Standard colour orange, SHF2 standard colour black, other colours on request
<b>REFERENCE STANDARD</b>	IEC 60092-376

## APPLICATION

Fire-resistant armoured pair instrumentation and communication cable with improved collective EMC-screening. For fixed installation in most areas, and on open deck in ships and offshore units. If the cable is exposed to direct sunlight, protective covering or cable with black outer sheath is recommended. Specially designed cables with screen for improved screening properties to address EMI/EMC problems.

### PHYSICAL PROPERTIES:

**CORE IDENTIFICATION** Pair colours white and blue  
Pair identification with colour code and identification number

**MARINE TYPE APPROVALS** ABS, BV, DNV

### MAIN CHARACTERISTICS:

<b>RATED VOLTAGE</b>	150/250 V (300 V)
<b>FIRE PERFORMANCE</b>	IEC 60332-1-2 IEC 60332-3-22
<b>FIRE-RESISTANT</b>	IEC 60331-1/IEC 60331-2 (180 min)
<b>HALOGEN-FREE</b>	IEC 60754 series
<b>SMOKE EMISSION</b>	IEC 61034 series
<b>OIL RESISTANCE (SHF2 only)</b>	IEC 60811-404 conditions acc. to 60092-360/SHF2
<b>MIN. INSTALLATION TEMPERATURE</b>	-15 °C
<b>OPERATING TEMPERATURE</b>	-40 - 80 °C fixed installation
<b>MAX. CONDUCTOR TEMPERATURE</b>	90 °C

**ELECTRICAL PROPERTIES:**

	0.75 mm <sup>2</sup>	1.5 mm <sup>2</sup>	Unit
Loop resistance (pair, max 20 °C)	52	24.4	ohm/km
Pair capacitance (nom. 1 KHz)	45	55	nF/km
Loop inductance (nom.)	0.6	0.7	mH/km
Insulation resistance (20 °C)	≥ 1500	≥ 1500	Mohm/km

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Part number	No. of conductors x Conductor area (mm <sup>2</sup> )	Nominal outer Ø (mm)	Weight kg/km	Min. bending radius mm (fixed)
22915	1 x 2 x 0.75	9.5	120	75
22917	2 x 2 x 0.75 Quad	11.0	170	90
22918	2 x 2 x 0.75	14.0	225	115
22919	3 x 2 x 0.75	15.0	250	120
22920	4 x 2 x 0.75	16.5	300	130
22921	7 x 2 x 0.75	20.0	475	160
22922	8 x 2 x 0.75	21.5	530	170
22923	10 x 2 x 0.75	24.5	655	195
22924	12 x 2 x 0.75	25.5	720	205
22925	14 x 2 x 0.75	27.0	805	215
22926	16 x 2 x 0.75	29.0	895	230
22927	19 x 2 x 0.75	31.0	1015	245
22928	24 x 2 x 0.75	34.5	1255	275
22929	27 x 2 x 0.75	36.5	1370	290
22930	30 x 2 x 0.75	38.0	1500	305
22931	32 x 2 x 0.75	39.0	1575	315
22934	1 x 2 x 1.5	11.0	165	85
22936	2 x 2 x 1.5 Quad	12.0	225	100
22937	2 x 2 x 1.5	16.5	350	130
22938	3 x 2 x 1.5	17.5	385	140
22939	4 x 2 x 1.5	19.0	450	150
22940	7 x 2 x 1.5	23.0	680	185
22941	8 x 2 x 1.5	24.0	750	195
22942	10 x 2 x 1.5	27.5	925	220
22943	12 x 2 x 1.5	29.0	1040	230
22944	14 x 2 x 1.5	31.0	1165	245
22945	16 x 2 x 1.5	33.0	1325	265
22946	19 x 2 x 1.5	35.5	1510	280

Standard length 1000 m

SHF2 on request. Part number for SHF2 cables 4 + code from above table → 4xxxxx

Other sizes on request.