


**NEW
TYPE**

LKM-HF

Unarmoured control and instrumentation cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Bedding - separator tape	
4. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant	<input checked="" type="checkbox"/>
Fire-resistant	<input type="checkbox"/>
Halogen-free	<input checked="" type="checkbox"/>
Low smoke emission	<input checked="" type="checkbox"/>

Application: For fixed installation in most areas and on open deck in ships.
If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended..

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Minimum recommended installation temperature -15 °C

Lowest operation temperature -40 °C


Core identification: black numbers on white base

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

LKM-HF 250V	Number of conductors & cross-section n x mm²	Nominal outer diameter mm	Approximate weight kg/km	Current rating A	Min. bending radius fixed installation mm
Part number					
26365	2x0,75	6,5	50	11,3	25
26366	3x0,75	7,0	60	9,8	30
26367	4x0,75	7,5	75	8,9	30
26368	5x0,75	8,0	85	8,3	30
26369	7x0,75	8,5	110	7,4	35
26370	10x0,75	11,0	160	6,6	45
26371	12x0,75	11,5	180	6,2	45
26372	14x0,75	12,0	200	5,9	50
26373	16x0,75	13,0	235	5,6	50
26374	19x0,75	13,5	265	5,3	55
26376	24x0,75	16,0	335	4,9	65
26377	27x0,75	16,5	365	4,7	65
26378	32x0,75	17,0	415	4,5	65
26379	37x0,75	18,0	470	4,3	70

Other sizes on request.

LKSM-HF Armoured control and instrumentation cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Bedding - separator tape	
4. Armour - drain wire copper (in all sizes) - copper wire braid, coverage > 90%	IEC 60092-350
5. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant

Fire-resistant

Halogen-free

Low smoke emission

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Core identification: black numbers on white base

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

LKSM-HF 250V	Number of conductors & cross-section n x mm ²	Cross-section of screen mm ²	Nominal outer diameter mm	Approximate weight kg/km	Current rating A	Min. bending radius fixed installation mm
Part number						
26402	2x0,75	3,6	7,5	90	11,3	45
26403	3x0,75	3,6	8,0	100	9,8	50
26404	4x0,75	3,6	8,5	110	8,9	50
26405	5x0,75	4,1	9,5	140	8,3	55
26407	7x0,75	4,1	10,0	160	7,4	60
26410	10x0,75	5,1	12,5	220	6,6	70
26412	12x0,75	5,3	13,0	240	6,2	75
26414	14x0,75	5,6	13,5	265	5,9	75
26416	16x0,75	6,1	14,0	295	5,6	80
26419	19x0,75	8,7	14,5	330	5,3	85
26424	24x0,75	11,7	17,5	450	4,9	100
26427	27x0,75	11,7	17,5	480	4,7	100
26432	32x0,75	11,8	18,5	540	4,5	105
26437	37x0,75	11,9	19,5	600	4,3	115


Other sizes on request.



**NEW
TYPE**

LKAM-HF

Screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Screen - drain wire of tinned copper - aluminium polyester tape, coverage 100%	IEC 60092-350
4. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant

Fire-resistant

Halogen-free

Low smoke emission

Application: For fixed installation in most areas and on open deck in ships, especially when lightweight cables are needed. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C


Core identification: black numbers on white base

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

LKAM-HF 250V	Number of conductors & cross-section n x mm²	Nominal outer diameter mm	Approximate weight kg/km	Current rating A	Min. bending radius fixed installation mm
Part number					
26382	2x0,75	6,5	50	11,3	25
26383	3x0,75	7,0	60	9,8	30
26384	4x0,75	7,5	75	8,9	30
26385	5x0,75	8,0	85	8,3	30
26386	7x0,75	8,5	110	7,4	35
26387	10x0,75	11,0	160	6,6	45
26388	12x0,75	11,5	180	6,2	45
26389	14x0,75	12,0	200	5,9	50
26390	16x0,75	13,0	235	5,6	50
26391	19x0,75	13,5	265	5,3	55
26393	24x0,75	16,0	335	4,9	65
26394	27x0,75	16,5	365	4,7	65
26395	32x0,75	17,0	415	4,5	65
26396	37x0,75	18,0	470	4,3	70

Other sizes on request.

RFE-HF Armoured instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Bedding - filler tape	
4. Armour - drain wire copper (in all sizes) - copper wire braid, coverage > 94%	IEC 60092-350
5. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant

Fire-resistant

Halogen-free

Low smoke emission

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Electrical data:

	0,5mm ²	0,75mm ²	1,5mm ²	Unit
Loop resistance of pair, max. / +20°C	80	52	24,4	ohm/km
Pair capacitance, nom. / 800Hz	55	50	60	nF/km
Loop inductance, nom.	0,6	0,6	0,7	mH/km
Insulation resistance / +20°C	≥1500	≥1500	≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C

Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

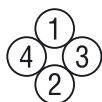
RFE-HF 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 362	1x2x0,5	7,5	85	45
20 364	2x2x0,5 Quad	8,0	100	50
20 366	4x2x0,5	11,5	170	70
20 368	7x2x0,5	14,0	245	85
20 369	8x2x0,5	14,5	270	90
20 370	10x2x0,5	17,0	350	105
20 371	12x2x0,5	17,5	390	105
20 372	14x2x0,5	18,5	440	115
20 374	19x2x0,5	21,0	545	130
20 376	24x2x0,5	23,5	665	145
20 378	37x2x0,5	28,0	930	170
20 382	1x2x0,75	7,5	95	45
20 384	2x2x0,75 Quad	9,0	125	55
20 386	4x2x0,75	12,5	215	75
20 388	7x2x0,75	15,5	330	95
20 389	8x2x0,75	16,0	375	100
20 390	10x2x0,75	18,5	440	115
20 391	12x2x0,75	19,0	490	115
20 392	14x2x0,75	20,5	565	125
20 394	19x2x0,75	23,5	715	145
20 396	24x2x0,75	26,0	860	160
20 490	1x2x1,5	10,0	140	60
20 491	2x2x1,5 Quad	11,0	190	70
20 493	4x2x1,5	17,0	375	105
20 494	7x2x1,5	20,0	545	120
20 495	8x2x1,5	21,5	625	130
20 496	10x2x1,5	24,5	760	150
20 497	12x2x1,5	25,5	855	155
20 498	14x2x1,5	27,0	960	165
20 499	19x2x1,5	31,0	1230	190
Twisted two pair cable on request:				
20 363	2x2x0,5	10,5	130	65
20 383	2x2x0,75	11,0	155	70
20 492	2x2x1,5	14,5	235	90

Core identification


Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

(Quad)cable is built up as a star quad with the following identification

1 core white
 2 core blue
 3 core white
 4 core blue



RFE-HF (i) Armoured and pair screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Pair screen - plastic coated aluminium tape and a tinned copper drain wire	
4. Bedding - filler tape	
5. Armour - drain wire copper (in all sizes) - copper wire braid, coverage > 94%	IEC 60092-350
6. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant

Fire-resistant

Halogen-free

Low smoke emission

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Electrical data:

Loop resistance of pair, max. / +20°C	52	24,4	ohm/km
Pair capacitance, nom. / 800Hz	70	90	nF/km
Loop inductance, nom.	0,6	0,7	mH/km
Insulation resistance / +20°C	≥1500	≥1500	Mohm*km.

0,75mm ²	1,5mm ²	Unit
52	24,4	ohm/km
70	90	nF/km
0,6	0,7	mH/km
≥1500	≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

RFE-HF(i) 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
22 006	1x2x0,75	8,0	95	50
22 010	2x2x0,75	11,5	170	70
22 012	4x2x0,75	13,0	240	75
22 014	7x2x0,75	15,5	375	100
22 016	8x2x0,75	16,5	420	105
22 018	10x2x0,75	19,0	520	115
22 020	12x2x0,75	20,0	585	120
22 022	14x2x0,75	21,0	650	130
22 024	19x2x0,75	24,0	835	145
22 026	24x2x0,75	27,0	1035	160
22 050	1x2x1,5	10,0	150	60
22 054	2x2x1,5	14,5	255	85
22 056	4x2x1,5	17,0	415	105
22 058	7x2x1,5	20,0	610	125
22 060	8x2x1,5	22,0	700	130
22 062	10x2x1,5	25,0	855	150
22 064	12x2x1,5	26,0	965	155
22 066	14x2x1,5	28,0	1105	165
22 068	19x2x1,5	32,0	1440	190


Core identification

Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

The pairs are also covered by a numbered tape (1, 2, 3, 4, 5....)



RFA-HF Screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Separator - separator tape	
4. Screen - drain wire tinned copper - aluminium polyestercopper tape coverage 100%	IEC 60092-350
5. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant

Fire-resistant

Halogen-free

Low smoke emission

Application: For fixed installation in most areas and on open deck in ships, especially when lightweight cables are needed. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Electrical data

	0,5mm ²	0,75mm ²	Unit
Loop resistance of pair, max. / +20°C	80	52	ohm/km
Pair capacitance, nom. / 800Hz	55	50	nF/km
Loop inductance, nom.	0,6	0,6	mH/km
Insulation resistance / +20°C	≥1500	≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

RFA-HF 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 910	1x2x0,5	6,0	45	40
20 912	2x2x0,5 Quad	7,0	65	45
20 916	4x2x0,5	10,5	120	65
20 918	7x2x0,5	12,5	175	75
20 920	8x2x0,5	13,5	200	85
20 922	10x2x0,5	15,5	245	95
20 924	12x2x0,5	16,0	280	100
20 926	14x2x0,5	17,5	315	105
20 930	19x2x0,5	20,0	410	120
20 932	24x2x0,5	22,0	515	135
20 936	37x2x0,5	27,0	745	165
20 970	1x2x0,75	6,5	55	40
20 972	2x2x0,75 Quad	7,5	80	45
20 976	4x2x0,75	11,5	150	70
20 978	7x2x0,75	14,0	225	85
20 980	8x2x0,75	15,0	260	90
20 982	10x2x0,75	17,0	320	105
20 984	12x2x0,75	18,0	365	110
20 986	14x2x0,75	19,0	415	115
20 990	19x2x0,75	22,0	555	135
20 992	24x2x0,75	24,5	680	150
Twisted pair cables on request.				
20 914	2x2x0,5	9,0	75	55
20 974	2x2x0,75	10,0	100	60

Core identification


Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

(Quad)cable is built up as a star quad with the following identification

1 core white
 2 core blue
 3 core white
 4 core blue



RFA-HF (i) Collectively and pair screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - XLPE plastic	IEC 60092-351
3. Pair screen - plastic coated aluminium tape and a tinned copper drain wire	
4. Bedding - separator tape	
5. Collective screen - drain wire tinned copper - aluminium polyester tape, coverage 100%	IEC 60092-350
6. Sheath - polyolefine plastic, SHF1 - standard colour grey, other colours on request	IEC 60092-359

Flame-retardant

Fire-resistant

Halogen-free

Low smoke emission

Application: For fixed installation in most areas and on open deck in ships, especially when lightweight cables are needed. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Electrical data

	0,5mm ²	0,75mm ²	Unit
Loop resistance of pair, max. / +20°C	80	52	ohm/km
Pair capacitance, nom.	55	70	nF/km
Loop inductance, nom.	0,6	0,6	mH/km
Insulation resistance / +20°C	≥1500	≥1500	Mohm*km

Minimum recommended installation temperature -15 °C

Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

RFA-HF(i) 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 940	2x2x0,5	9,5	95	60
20 942	4x2x0,5	11,0	145	65
20 944	7x2x0,5	13,0	220	80
20 946	8x2x0,5	14,0	245	85
20 948	10x2x0,5	16,0	305	95
20 950	12x2x0,5	16,5	350	100
20 952	14x2x0,5	17,5	395	110
20 956	19x2x0,5	20,0	520	125
20 958	24x2x0,5	22,5	655	140
21 059	2x2x0,75	10,0	115	65
21 061	4x2x0,75	12,0	180	75
21 063	7x2x0,75	14,5	275	90
21 065	8x2x0,75	15,0	310	95
21 067	10x2x0,75	17,5	380	105
21 069	12x2x0,75	18,0	440	110
21 071	14x2x0,75	19,5	520	120
21 075	19x2x0,75	22,5	680	135
21 077	24x2x0,75	25,0	840	155

Other sizes on request.

Core identification

Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....


The pairs are covered by a numbered tape (1, 2, 3, 4, 5....)



**NEW
TYPE**

LKM-FRHF

Fire-resistant unarmoured instrumentation and communication cable 250V



DESIGN:	STANDARDS: IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	IEC 60092-351
3. Bedding - separator tape	
4. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships.
If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21 series
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Core identification: black numbers on white base

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath


LKM-FRHF 250V	Number of conductors & cross-section n x mm²	Nominal outer diameter mm	Approximate weight kg/km	Current rating A	Min. bending radius fixed installation mm
Part number					
22406	2x0,75	8,5	65	11,3	35
22407	3x0,75	9,0	80	9,8	35
22408	4x0,75	10,0	110	8,9	40
22409	5x0,75	11,0	130	8,3	45
22410	7x0,75	11,5	160	7,4	45
22411	10x0,75	15,0	225	6,6	60
22412	12x0,75	15,5	255	6,2	60
22413	14x0,75	16,5	295	5,9	65
22414	16x0,75	17,5	330	5,6	70
22415	19x0,75	18,0	375	5,3	75
22417	24x0,75	21,5	475	4,9	85
22418	27x0,75	22,0	520	4,7	85
22419	32x0,75	23,0	615	4,5	90
22420	37x0,75	25,0	695	4,3	100

Other size on request.

**NEW
TYPE**

LKSM-FRHF

Fire-resistant armoured instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	EC 60092-351
3. Bedding - separator tape	
4. Armour - drain wire copper (in all sizes) - copper wire braid, coverage > 90%	IEC 60092-350
5. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21 series
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Core identification: black numbers on white base


Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

LKSM-FRHF 250V		Number of conductors & cross-section n x mm²	Cross- section of screen mm²	Nominal outer diameter mm	Approximate weight kg/km	Current rating A	Min. bending radius fixed installation mm
Part number							
22436		2x0,75	3,6	9,0	105	11,3	55
22437		3x0,75	3,9	10,0	135	9,8	60
22438		4x0,75	4,4	11,0	160	8,9	65
22439		5x0,75	4,9	11,5	185	8,3	70
22440		7x0,75	5,4	12,5	220	7,4	75
22441		10x0,75	11,6	16,0	350	6,6	95
22442		12x0,75	11,6	16,5	380	6,2	100
22443		14x0,75	11,7	17,5	415	5,9	105
22444		16x0,75	11,3	18,5	445	5,6	110
22445		19x0,75	11,9	19,5	505	5,3	115
22447		24x0,75	14,3	23,0	640	4,9	135
22448		27x0,75	14,6	23,5	685	4,7	140
22449		32x0,75	15,3	24,0	765	4,5	145
22450		37x0,75	16,7	26,0	870	4,3	155

Other size on request.

**NEW
TYPE**

LKAM-FRHF Fire-resistant screened control and instrumentation cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	IEC 60092-351
3. Screen - drain wire of tinned copper - aluminium polyester tape, coverage 100%	IEC 60092-350
4. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships, especially when lightweight cables are needed. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21 series
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Core identification: black numbers on white base


Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

LKAM-FRHF 250V		Number of conductors & cross-section n x mm²	Nominal outer diameter mm	Approximate weight kg/km	Current rating A	Min. bending radius fixed installation mm
Part number						
22466		2x0,75	8,5	70	11,3	50
22467		3x0,75	9,0	85	9,8	55
22468		4x0,75	10,0	115	8,9	60
22469		5x0,75	11,0	135	8,3	65
22470		7x0,75	11,5	165	7,4	70
22471		10x0,75	15,0	230	6,6	90
22472		12x0,75	15,5	260	6,2	95
22473		14x0,75	16,5	300	5,9	100
22474		16x0,75	17,5	340	5,6	105
22475		19x0,75	18,0	380	5,3	110
22477		24x0,75	21,5	480	4,9	130
22478		27x0,75	22,0	525	4,7	130
22479		32x0,75	23,0	620	4,5	140
22480		37x0,75	25,0	700	4,3	150

Other size on request.

RFE-FRHF

Fire-resistant armoured instrumentation and communication cable 250V



DESIGN:	STANDARDS: IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	IEC 60092-351
3. Bedding - filler tape	
4. Armour - drain wire (in all sizes) - copper wire braid, coverage > 94%	IEC 60092-350
5. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships.
If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)
Maximum conductor temperature	+ 90 °C
Flame-retardant	IEC 60332-1-2 -test for single insulated wire and cable IEC 60332-3-22 -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21
Halogen-free	IEC 60754 series
Smoke emission	IEC 61034 series

Electrical data

	0,75mm²	1,5mm²	Unit
Loop resistance of pair, max. / +20°C	52	24,4	ohm/km
Pair capacitance, nom. / 800Hz	45	55	nF/km
Loop inductance, nom.	0,6	0,7	mH/km
Insulation resistance / +20°C	≥1500	≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C

Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

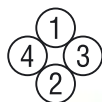
RFE-FRHF 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 520	1x2x0,75	9,5	115	60
20 522	2x2x0,75 Quad	11,0	160	70
20 526	4x2x0,75	16,5	325	100
20 528	7x2x0,75	20,0	465	120
20 530	8x2x0,75	21,0	510	130
20 532	10x2x0,75	24,5	630	150
20 534	12x2x0,75	25,5	705	155
20 536	14x2x0,75	27,0	800	165
20 538	19x2x0,75	31,0	1015	190
20 540	24x2x0,75	34,5	1245	210
20 575	1x2x1,5	10,5	155	65
20 577	2x2x1,5 Quad	12,0	220	75
20 581	4x2x1,5	18,5	430	115
20 583	7x2x1,5	22,5	650	140
20 585	8x2x1,5	24,0	715	150
20 587	10x2x1,5	27,5	875	165
20 589	12x2x1,5	29,0	1000	175
20 591	14x2x1,5	30,5	1125	185
Twisted two pair cable on request				
20 524	2x2x0,75	14,0	210	85
20 579	2x2x1,5	16,0	315	100

Core identification


Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

(Quad)cable is built up as a star quad with the following identification

1 core white
 2 core blue
 3 core white
 4 core blue



RFE-FRHF (i) Fire-resistant armoured and pair screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	IEC 60092-351
3. Pair screen - plastic coated aluminium tape and a tinned copper drain wire	
4. Bedding - filler tape	
5. Armour - drain wire copper - copper wire braid, coverage > 94%	IEC 60092-350
6. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)	
Maximum conductor temperature	+ 90 °C	
Flame-retardant	IEC 60332-1-2 IEC 60332-3-22	-test for single insulated wire and cable -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21	
Halogen-free	IEC 60754 series	
Smoke emission	IEC 61034 series	

Electrical data

	0,75mm ²	1,5mm ²	Unit
Loop resistance of pair, max. / +20°C	52	24,4	ohm/km
Pair capacitance, nom. / 800Hz	55	75	nF/km
Loop inductance, nom.	0,6	0,7	mH/km
Insulation resistance / +20°C	≥1500	≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C

Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

RFE-FRHF(i) 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 546	1x2x0,75	9,5	125	60
20 550	2x2x0,75	14,5	225	90
20 552	4x2x0,75	17,0	355	105
20 554	7x2x0,75	20,0	515	125
20 556	8x2x0,75	22,0	585	135
20 558	10x2x0,75	25,0	710	150
20 560	12x2x0,75	26,0	800	155
20 562	14x2x0,75	27,5	910	170
20 564	19x2x0,75	32,0	1175	195
20 566	24x2x0,75	35,0	1425	215
20 603	1x2x1,5	10,5	165	65
20 605	2x2x1,5	16,5	320	100
20 607	4x2x1,5	19,0	475	115
20 609	7x2x1,5	23,0	720	140
20 611	8x2x1,5	24,5	810	150
20 613	10x2x1,5	28,0	985	170
20 615	12x2x1,5	29,5	1145	180
20 617	14x2x1,5	31,5	1295	190

Core identification


Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

The pairs are also covered by a numbered tape (1, 2, 3, 4, 5....)



RFA-FRHF

Fire-resistant screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	IEC 60092-351
3. Bedding - separator tape	
4. Screen - drain wire tinned copper - aluminium polyester tape coverage 100%	IEC 60092-350
5. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)	
Maximum conductor temperature	+ 90 °C	
Flame-retardant	IEC 60332-1-2 IEC 60332-3-22	-test for single insulated wire and cable -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21	
Halogen-free	IEC 60754 series	
Smoke emission	IEC 61034 series	
For details see general information section		

Electrical data

Loop resistance of pair, max. / +20°C	52	ohm/km
Pair capacitance, nom. / 800Hz	45	nF/km
Loop inductance, nom.	0,6	mH/km
Insulation resistance / +20°C	≥1500	Mohm*km.

0,75mm ²	Unit
52	ohm/km
45	nF/km
0,6	mH/km
≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

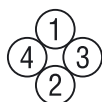
RFA-FRHF 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 635	1x2x0,75	8,5	75	55
20 637	2x2x0,75 Quad	10,0	120	60
20 641	4x2x0,75	15,5	215	95
20 643	7x2x0,75	18,5	330	115
20 645	8x2x0,75	20,0	380	120
20 647	10x2x0,75	23,0	480	140
20 649	12x2x0,75	24,0	545	145
20 651	14x2x0,75	25,5	620	155
20 655	19x2x0,75	29,5	805	180
20 657	24x2x0,75	33,5	1030	205
Twisted two pair cables on request 20 639	2x2x0,75	13,0	135	80

Core identification


Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

(Quad)cable is built up as a star quad with the following identification

1 core white
2 core blue
3 core white
4 core blue



RFA-FRHF (i) Fire-resistant collectively and pair screened instrumentation and communication cable 250V



DESIGN:	STANDARDS:
	IEC 60092-376, design
1. Conductor - stranded copper conductor	IEC 60228, class 2
2. Insulation - Mica tape - XLPE plastic	IEC 60092-351
3. Pair screen - plastic coated aluminium tape and a tinned copper drain wire	
4. Bedding - separator tape	
5. Collective screen - drain wire tinned copper - aluminium polyester tape coverage 100 %	IEC 60092-350
6. Sheath - polyolefine plastic, SHF1 - standard colour orange, other colours on request	IEC 60092-359

Flame-retardant ●

Fire-resistant ●

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas and on open deck in ships. If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	150/250V (300V)	
Maximum conductor temperature	+ 90 °C	
Flame-retardant	IEC 60332-1-2 IEC 60332-3-22	-test for single insulated wire and cable -test for bunched wires and cables, category A
Fire-resistant	IEC 60331-21	
Halogen-free	IEC 60754 series	
Smoke emission	IEC 61034 series	
For details see general information section		

Electrical data

Loop resistance of pair, max. / +20°C	52	ohm/km
Pair capacitance, nom. / 800Hz	55	nF/km
Loop inductance, nom.	0,6	mH/km
Insulation resistance / +20°C	≥1500	Mohm*km.

0,75mm ²	Unit
52	ohm/km
55	nF/km
0,6	mH/km
≥1500	Mohm*km.

Minimum recommended installation temperature -15 °C
Lowest operation temperature -40 °C

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

RFA-FRHF(i) 250V	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
Part number				
20 667	2x2x0,75	13,5	155	85
20 669	4x2x0,75	15,5	245	95
20 671	7x2x0,75	18,5	380	115
20 673	8x2x0,75	20,0	430	120
20 675	10x2x0,75	23,5	545	145
20 677	12x2x0,75	24,5	625	150
20 679	14x2x0,75	26,0	725	160
20 683	19x2x0,75	30,0	945	180
20 685	24x2x0,75	34,0	1205	205

Core identification

Each pair white - blue. Cores numbered 1, 2, 3, 4, 5....

The pairs are also covered by a numbered tape (1, 2, 3, 4, 5....)



PBS Field bus cable

60V

DESIGN:
Twisted pair cable

STANDARDS:
EN 50170

1. Conductor
- stranded copper conductor

2. Insulation
- Polyethylene / foamed polyethylene plastic

3. Pair twisting

4. Bedding
- separator tape

5. Screen
- plastic coated aluminium tape and tinned copper braid, coverage 100%

6. Sheath
- purple, polyolefine plastic

7. Outer sheath
- grey polyolefine plastic, SHF1

Flame-retardant ●

Fire-resistant ○

Halogen-free ●

Low smoke emission ●

Application: For fixed installation in most areas.
If the cable is exposed to direct sun light protective covering or cable with black outer sheath is recommended.

Main characteristics

Rated voltage	60V	
Maximum conductor temperature	+ 90 °C	
Flame-retardant	IEC 60332-1-2 IEC 60332-3-22	-test for single insulated wire and cable -test for bunched wires and cables, category A
Halogen-free	IEC 60754 series	
Smoke emission	IEC 61034 series	

Identification: Lot number, cable type, cable size, voltage, temperature, standards, production month, manufacturer's name and meter marking printed on the sheath

Core identification

Each pair green - red.

PBS

Part number	Number of conductors & cross-section n x mm ²	Nominal outer diameter mm	Approximate weight kg/km	Min. bending radius fixed installation mm
20 506	1 x 2 x 0,34	10,5	145	65



Cable for PROFIBUS DP.

The cable has been tested according to the IEC 61158 specification and testing guidelines set by PROFIBUS Center Nederland. Cable is approved as type A cable.

Compatible with the connector of Siemens (6ES7-972-0BA12 0XA0 or similar) after stripping the outer sheath.

Type A bus cable. Maximum length of each bus segment.					
Data transfer rate in kbit/s	9.6 – 93.75	187.5	500	1500	3000 – 12000
Max. segment length in m	1200	1000	400	200	100

