

## GAALSHIP® HF 250 OSA FR

Pairs/triples twisted cables for telecommunication and instrumentation, overall screened, armoured and fire resistant



ELETTROTEK KABEL® GAALSHIP® HF 250 OSA FR



### Applications:

Fire resistant instrumentation cables for fixed electrical installations aboard ships, screened against electromagnetic interferences, complying with IEC 60092-352

### Construction:

<b>Conductor:</b>	Plain annealed copper or Tinned annealed copper conductor Cl. 2, acc. to IEC 60228, DIN VDE 0295
<b>Insulation:</b>	MICA glass tape + GAALTHERM® 595
<b>Cores color:</b>	Pair: black- light blue Triple: black- light blue - brown
<b>Stranding:</b>	Core laid-up together in pairs/triples
<b>Overall screen:</b>	Aluminium/polyester tape with tinned annealed copper stranded drain wire
<b>Armour:</b>	Plain or tinned annealed copper wires braid acc. to IEC 60092-350
<b>Outer sheath:</b>	Halogen free thermoplastic compound SHF1 acc. to IEC 60092-360, thickness acc. to IEC 60092-376
<b>Marking:</b>	ELETTROTEK KABEL® GAALSHIP® HF 250 OSA FR, cross nominal section sqmm, 150/250 V, part n°, IEC 60092-376, IEC 60332-3-22, IEC 60331, production plant, batch n°, production date, CE RoHS, progressive meter marking.

### Technical data:

<b>Nominal voltage:</b>	150/250 V
<b>Temperature range:</b>	-40°C up to +90°C
<b>Installation temp.:</b>	-5°C
<b>Short circuit temperature:</b>	+250°C
<b>Min. bending radius:</b>	4 x Outer diameter

### Type Approvals/Certificates:

**RINA / RINAMIL** (Registro Italiano Navale)  
**BV** (Bureau Veritas)  
**LR** (Lloyd's Register)  
**DNV-GL** (Det Norske Veritas - Germanischer Lloyd)  
**ABS** (American Bureau of Shipping)  
**RMRS** (Russian Maritime Register of Shipping)  
 Other approvals on request

### Resistance:



**Fire resistant acc. to:**  
 IEC 60331-21  
 IEC 60331-2 (under 20 mm Ø)  
 IEC 60331-1 (over 20 mm Ø)



**Flame and fire retardant acc. to:**  
 IEC 60332-3-22 + IEC 60332-1-2



**Halogen free acc. to:**  
 IEC 60754 -1-2



**Smoke emission properties acc. to:**  
 IEC 61034 -1-2

### Features:

Sheathing and insulating materials acc. to IEC 60092-360  
 Design guidelines acc. to IEC 60092-350/376  
 Choice and installation of electric cables acc. to IEC 60092-352  
 Cold bend test at low temperatures  
 acc. to IEC 60092-350 art. 8.9 and Annex E (-40°C)  
 Cold bend impact at low temperatures  
 acc. to IEC 60092-350 art. 8.9 and Annex E (-35°C)  
 On request class 5 conductor acc. to IEC 60228

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Part no.	No. of pairs/triples x cross section n x mm <sup>2</sup>	Outer sheath color	Outer diameter ca.mm			Cable weight approx. kg/km	Max. resistance of conductors at 20°C (Ohm/km)	Current rating in open air at 45°C (A)	Short circuit rating I sec. (kA)
			Min.	Nom.	Max.				
11090CGX012M07	1 x 2 x 0,75	Orange	7,1	8,6	10,1	108	26,0	13	0,11
11090CGX022M07	2 x 2 x 0,75	Orange	8,2	9,7	11,2	133	26,0	11	0,11
11090CGX032M07	3 x 2 x 0,75	Orange	11,2	12,7	14,2	194	26,0	8	0,11
11090CGX042M07	4 x 2 x 0,75	Orange	12,9	14,4	15,9	271	26,0	7	0,11
11090CGX052M07	5 x 2 x 0,75	Orange	14	15,5	17	319	26,0	7	0,11
11090CGX062M07	6 x 2 x 0,75	Orange	15,5	17	18,5	381	26,0	7	0,11
11090CGX072M07	7 x 2 x 0,75	Orange	15	17	18,5	371	26,0	7	0,11
11090CGX082M07	8 x 2 x 0,75	Orange	17,7	19,7	21,2	447	26,0	7	0,11
11090CGX102M07	10 x 2 x 0,75	Orange	18,5	20,5	22	523	26,0	7	0,11
11090CGX122M07	12 x 2 x 0,75	Orange	19,6	22,1	24,6	572	26,0	7	0,11
11090CGX142M07	14 x 2 x 0,75	Orange	20,7	23,2	25,7	637	26,0	6	0,11
11090CGX162M07	16 x 2 x 0,75	Orange	21,9	24,4	26,9	708	26,0	6	0,11
11090CGX192M07	19 x 2 x 0,75	Orange	23,3	25,8	28,3	790	26,0	6	0,11
11090CGX242M07	24 x 2 x 0,75	Orange	26,8	29,3	31,8	991	26,0	5	0,11
11090CGX272M07	27 x 2 x 0,75	Orange	28,5	31,0	33,5	1098	26,0	5	0,11
11090CGX372M07	37 x 2 x 0,75	Orange	32,2	34,7	37,2	1354	26,0	5	0,11
11090CGX012M10	1 x 2 x 1	Orange	7,5	9	10,5	121	19,2	15	0,14
11090CGX022M10	2 x 2 x 1	Orange	8,6	10,1	11,6	151	19,2	13	0,14
11090CGX032M10	3 x 2 x 1	Orange	11,8	13,3	14,8	221	19,2	10	0,14
11090CGX042M10	4 x 2 x 1	Orange	13,6	15,1	16,6	305	19,2	9	0,14
11090CGX052M10	5 x 2 x 1	Orange	14,8	16,3	17,8	362	19,2	9	0,14
11090CGX062M10	6 x 2 x 1	Orange	16,3	17,8	19,3	434	19,2	9	0,14
11090CGX072M10	7 x 2 x 1	Orange	15,8	17,8	19,3	425	19,2	9	0,14
11090CGX082M10	8 x 2 x 1	Orange	18,7	20,7	22,2	511	19,2	9	0,14
11090CGX102M10	10 x 2 x 1	Orange	19,6	21,6	23,1	603	19,2	9	0,14
11090CGX122M10	12 x 2 x 1	Orange	20,9	23,4	25,9	662	19,2	9	0,14
11090CGX142M10	14 x 2 x 1	Orange	22,2	24,7	27,2	750	19,2	8	0,14
11090CGX162M10	16 x 2 x 1	Orange	23,5	26	28,5	837	19,2	8	0,14
11090CGX192M10	19 x 2 x 1	Orange	25	27,5	30	933	19,2	8	0,14
11090CGX242M10	24 x 2 x 1	Orange	28,7	31,2	33,7	1175	19,2	6	0,14
11090CGX272M10	27 x 2 x 1	Orange	30,5	33	35,5	1303	19,2	6	0,14
11090CGX372M10	37 x 2 x 1	Orange	34,9	37,4	39,9	1706	19,2	6	0,14
11090CGX012M15	1 x 2 x 1,5	Orange	8,4	9,9	11,4	146	12,8	20	0,21
11090CGX022M15	2 x 2 x 1,5	Orange	9,9	11,4	12,9	193	12,8	16	0,21
11090CGX032M15	3 x 2 x 1,5	Orange	14,1	15,6	17,1	317	12,8	13	0,21
11090CGX042M15	4 x 2 x 1,5	Orange	15,6	17,1	18,6	390	12,8	11	0,21
11090CGX052M15	5 x 2 x 1,5	Orange	17,1	18,6	20,1	466	12,8	11	0,21
11090CGX062M15	6 x 2 x 1,5	Orange	18,9	20,4	21,9	561	12,8	11	0,21
11090CGX072M15	7 x 2 x 1,5	Orange	18,4	20,4	21,9	551	12,8	11	0,21
11090CGX082M15	8 x 2 x 1,5	Orange	21,7	23,7	25,2	661	12,8	11	0,21
11090CGX102M15	10 x 2 x 1,5	Orange	22,9	24,9	26,4	799	12,8	11	0,21
11090CGX122M15	12 x 2 x 1,5	Orange	24,3	26,8	29,3	865	12,8	11	0,21
11090CGX142M15	14 x 2 x 1,5	Orange	25,8	28,3	30,8	984	12,8	10	0,21
11090CGX162M15	16 x 2 x 1,5	Orange	27,3	29,8	32,3	1101	12,8	10	0,21
11090CGX192M15	19 x 2 x 1,5	Orange	29	31,5	34	1234	12,8	10	0,21
11090CGX242M15	24 x 2 x 1,5	Orange	34	36,5	39	1661	12,8	8	0,21
11090CGX272M15	27 x 2 x 1,5	Orange	36,1	38,6	41,1	1841	12,8	8	0,21
11090CGX372M15	37 x 2 x 1,5	Orange	40,6	43,1	45,6	2286	12,8	8	0,21

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			Min.	Nom.	Max.				
11090CGX013M07	1 x 3 x 0,75	Orange	7,5	9,0	10,5	115	26,0	11	0,11
11090CGX033M07	3 x 3 x 0,75	Orange	13,1	14,6	16,1	281	26,0	7	0,11
11090CGX043M07	4 x 3 x 0,75	Orange	14,3	15,8	17,3	335	26,0	7	0,11
11090CGX073M07	7 x 3 x 0,75	Orange	17,3	18,8	20,8	473	26,0	7	0,11
11090CGX123M07	12 x 3 x 0,75	Orange	22,4	24,9	27,4	752	26,0	6	0,11
11090CGX013M10	1 x 3 x 1	Orange	7,9	9,4	10,9	130	19,2	13	0,14
11090CGX033M10	3 x 3 x 1	Orange	13,8	15,3	16,8	318	19,2	9	0,14
11090CGX043M10	4 x 3 x 1	Orange	15,3	16,8	18,3	391	19,2	9	0,14
11090CGX073M10	7 x 3 x 1	Orange	18,5	20,0	22	559	19,2	9	0,14
11090CGX123M10	12 x 3 x 1	Orange	23,8	26,3	28,8	877	19,2	8	0,14
11090CGX013M15	1 x 3 x 1,5	Orange	8,9	10,4	11,9	160	12,8	16	0,21
11090CGX033M15	3 x 3 x 1,5	Orange	15,9	17,4	18,9	406	12,8	11	0,21
11090CGX043M15	4 x 3 x 1,5	Orange	17,5	19,0	20,5	496	12,8	11	0,21
11090CGX073M15	7 x 3 x 1,5	Orange	21,3	22,8	24,8	732	12,8	11	0,21
11090CGX123M15	12 x 3 x 1,5	Orange	27,8	30,3	32,8	1176	12,8	10	0,21

Other dimensions and colors available on request.