

applicable to life...

2MKABLO

Foundation & Development

2M KABLO was established in Istanbul - TURKEY in 1993 for low voltage cables production. The company started production of data, control, coaxial, audio-video cables at first stages and later continued with fire resistant and instrumentation cables. Today, the wide range of products are presented with the registered brands: 2MKAB (Control, Coaxial, Instrumentation, Data Cables, Power Cables, Marine and Shipboard Cables), FireKab (Fire Resistant Cables) and LOOKAB (Audio – Video Cables). 2M KABLO has been supplying to the Construction (High rise, intelligent, semi-intelligent buildings, hospitals, universities, residence projects, etc.), Oil & Gas, Petrochemical, Nuclear, Power Plant projects, Automation, Fire & Security, Satellite, Broadcasting, Staging, Audio-Video industries as well as OEM production.

Quality

2M KABLO has the certificates:

- ISO 9001:2008 from both WCS and LPCB
- OHSAS 18001:2007
- ISO 14001
- Russian GOST-R (most of the products)
- UkrSepro for Fire Resistant Cables
- Russian fire (most of the products)
- TSE and TSEK (most of the products)
- 3 fire resistant cable products from LPCB (British)
- 3 fire resistant cable products from VDE (German)
- HAR for some power cables
- Rina for marine & shipboard cables

As growth pushed 2M KABLO's manufacturing needs, the company moved to a bigger and more manufacture / shipment-efficient building with modern cable manufacturing equipment in 2012.



The 2M KABLO laboratory is equipped with modern testing equipments for essential tests which are carried out after or during the production of every cable. For each delivery, a test report is prepared for each cable, reissuing the main tests for the cables, and the reports are sent with the official documents to the customers. Since 2004, modern control methods have been carried out through an ERP programme which directly monitors and records detailed data. The system gives the opportunity to have superior and immediate control over the procurement, planning, production, sales, storing and customer relations processes and thus enables the total quality to be better. As part of the new changes, this software is being updated to: Microsoft Dynamics AX which will bring an even more accurate and integrated business management.

Product liability insurance for all products covering up to 20.000.000 Euros is part of the 2M KABLO service too. Stress on product quality and customer satisfaction; constant training and research; continuous investments in the business are the keys to 2M KABLO's success which is proved by awards from Chamber of Commerce of Istanbul and the Exporters Association in 2009, 2011 and 2012.





FM2XAAH



Applications

These halogen free screened control and communication cables are used in radio, radar and information systems for marine applications in all conditions in marine environment such as dry, wet or oily locations, and inside engine rooms. Enables proper transmission of high frequency signals while minimizing environmental electromagnetic interference.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free XLPE Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Individual separator	Polyester tape
Individual shielding	AL-Polyester Tape (with tinned copper drain wire)
Overall separator	Polyester tape
Overall Shielding	AL-Polyester Tape (with tinned copper drain wire)
Overall separator	Polyester tape
Outer sheath	Halogen Free, Flame Retardant (HFFR) (IEC 60092-359 SHF1) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 376
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN 60332 -1, IEC 60332 -3-22 (Cat A), (BS 4066 part 1 &3, EN50266-2-2)
Corrosive Gases Measurement	IEC 60754-2, BS 6425 , EN50267
Smoke Density	IEC / EN 61034, BS 7622
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV



FM2XACY

**Applications**

These PVC sheathed screened control and communication cables are used in radio, radar and information systems for marine applications in all conditions in marine environment such as dry, wet or oily locations, and inside engine rooms. Enables proper transmission of high frequency signals while minimizing environmental electromagnetic interference.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Flame Retardant XLPE (IEC 60092-351 XLPE) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Individual Separator	Polyester Tape
Individual Shielding	AL-Polyester Tape (with tinned copper drain wire)
Overall Separator	Polyester Tape
Overall Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Flame Retardant, Oil Resistant PVC (IEC 60092-359 ST2) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Oil Resistance	IEC / EN / BS 60811, ASTM No 2 oil 90 °C 168 hours (7 x 24)
Operating Temperature	- 20 °C + 90 °C
Min. Bending Radius	Fixed 12 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1300001	1 x 2 x 0.50	7.8	15	79
G1300002	1 x 4 x 0.50	8.9	24	118
G1300003	2 x 2 x 0.50	10.1	29	133
G1300004	4 x 2 x 0.50	12.9	56	206

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1300005	1 x 2 x 0.75	8.3	19	89
G1300006	1 x 4 x 0.75	9.8	34	133
G1300007	2 x 2 x 0.75	11.3	38	157
G1300008	4 x 2 x 0.75	14.2	75	216
G1300009	7 x 2 x 0.75	17.6	131	378
G1300010	10 x 2 x 0.75	21.8	186	525
G1300011	14 x 2 x 0.75	25.0	260	618
G1300012	19 x 2 x 0.75	26.5	353	883
G1300013	24 x 2 x 0.75	29.9	445	990



FM2XCY



Applications

These PVC sheathed twisted paired and overall screened control and communication cables are used in radio, radar and information systems of marine vehicles.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Flame Retardant XLPE (IEC 60092-351 XLPE) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Separator	Pairs are stranded in layers
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Flame Retardant, Oil Resistant PVC (IEC 60092-359 ST2) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Oil Resistance	IEC / EN / BS 60811, ASTM No 2 oil 90 °C 168 hours (7 x 24)
Operating Temperature	- 20 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

FM2XCY

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1600001	1 x 2 x 0.50	7.4	10	72
G1600002	1 x 4 x 0.50	8.2	20	100
G1600003	2 x 2 x 0.50	9.4	20	100
G1600004	4 x 2 x 0.50	12.3	39	173
G1600005	5 x 2 x 0.50	13.8	47	235
G1600006	6 x 2 x 0.50	14.9	57	265
G1600007	7 x 2 x 0.50	14.9	67	279
G1600008	8 x 2 x 0.50	15.7	76	305
G1600009	10 x 2 x 0.50	17.7	95	370
G1600010	12 x 2 x 0.50	18.4	114	408
G1600011	14 x 2 x 0.50	19.8	133	464
G1600012	16 x 2 x 0.50	20.8	151	508
G1600013	18 x 2 x 0.50	22.0	170	563
G1600014	19 x 2 x 0.50	22.4	180	586
G1600015	20 x 2 x 0.50	22.9	189	608
G1600016	24 x 2 x 0.50	24.8	227	704
G1600017	37 x 2 x 0.50	30.0	349	1001

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1600018	1 x 2 x 0.75	8.0	15	85
G1600019	1 x 4 x 0.75	9.0	29	123
G1600020	2 x 2 x 0.75	10.4	29	121
G1600021	4 x 2 x 0.75	14.0	57	247
G1600022	5 x 2 x 0.75	15.2	71	285
G1600023	6 x 2 x 0.75	16.6	86	331
G1600024	7 x 2 x 0.75	16.6	99	350
G1600025	8 x 2 x 0.75	17.4	114	385
G1600026	10 x 2 x 0.75	19.8	141	468
G1600027	12 x 2 x 0.75	20.7	170	522
G1600028	14 x 2 x 0.75	22.1	198	593
G1600029	16 x 2 x 0.75	23.3	227	653
G1600030	18 x 2 x 0.75	24.6	255	723
G1600031	19 x 2 x 0.75	25.1	269	753
G1600032	20 x 2 x 0.75	25.7	282	783
G1600033	24 x 2 x 0.75	27.8	340	911
G1600034	37 x 2 x 0.75	33.6	523	1303

FM2XCH**Applications**

These halogen free control and communication cables are used in radio, radar and information systems for marine applications in all conditions in marine environment such as dry, wet or oily locations, and inside engine rooms.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and /or class 5 version upon request)
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Separator	Polyester Tape
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Black or Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 375-376
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS/EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

FM2XCH

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1400001	1 x 2 x 0.50	7.4	10	73
G1400002	1 x 4 x 0.50	8.2	19	123
G1400003	2 x 2 x 0.50	9.4	19	138
G1400004	4 x 2 x 0.50	12.3	38	175
G1400005	5 x 2 x 0.50	13.8	47	237
G1400006	7 x 2 x 0.50	14.9	66	282
G1400007	8 x 2 x 0.50	15.7	76	307
G1400008	10 x 2 x 0.50	17.7	95	373
G1400009	12 x 2 x 0.50	18.4	113	412
G1400010	14 x 2 x 0.50	19.8	132	468
G1400011	16 x 2 x 0.50	20.8	151	512
G1400012	18 x 2 x 0.50	22.0	170	567
G1400013	19 x 2 x 0.50	22.4	179	590
G1400014	20 x 2 x 0.50	22.9	189	613
G1400015	24 x 2 x 0.50	24.8	226	709
G1400016	37 x 2 x 0.50	30.0	349	1008

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1400017	1 x 2 x 0.75	8.0	15	86
G1400018	1 x 4 x 0.75	9.0	29	123
G1400019	2 x 2 x 0.75	10.4	29	122
G1400020	4 x 2 x 0.75	14.0	57	249
G1400021	5 x 2 x 0.75	15.2	71	288
G1400022	6 x 2 x 0.75	16.6	85	333
G1400023	7 x 2 x 0.75	16.6	99	353
G1400024	8 x 2 x 0.75	17.4	113	388
G1400025	10 x 2 x 0.75	19.8	142	471
G1400026	12 x 2 x 0.75	20.7	170	526
G1400027	14 x 2 x 0.75	22.1	198	597
G1400028	16 x 2 x 0.75	23.3	226	658
G1400029	18 x 2 x 0.75	24.6	254	728
G1400030	19 x 2 x 0.75	25.1	269	758
G1400031	20 x 2 x 0.75	25.7	283	788
G1400032	24 x 2 x 0.75	27.8	339	917
G1400033	37 x 2 x 0.75	33.6	523	1311

FM2XACH**Applications**

These halogen free screened control and communication cables are used in radio, radar and information systems for marine applications in all conditions in marine environment such as dry, wet or oily locations, and inside engine rooms. Enables proper transmission of high frequency signals while minimizing environmental electromagnetic interference.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Individual Separator	Polyester Tape
Individual Shielding	AL-Polyester Tape (with tinned copper drain wire)
Overall Separator	Polyester Tape
Overall Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant (HFFR) (IEC 60092-359 SHF1) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 376
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1200001	1 x 2 x 0.50	7.9	10	84
G1200002	1 x 4 x 0.50	9.0	19	123
G1200003	2 x 2 x 0.50	10.2	19	138
G1200004	4 x 2 x 0.50	13.1	38	211

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1200005	1 x 2 x 0.75	8.4	14	94
G1200006	1 x 4 x 0.75	9.9	28	138
G1200007	2 x 2 x 0.75	11.4	28	162
G1200008	4 x 2 x 0.75	14.4	56	221
G1200009	7 x 2 x 0.75	17.8	98	378
G1200010	10 x 2 x 0.75	22.0	140	530
G1200011	14 x 2 x 0.75	25.2	196	623
G1200012	19 x 2 x 0.75	26.7	266	887
G1200013	24 x 2 x 0.75	30.2	336	995



FM2XAH



Applications

These halogen free control and communication cables are used in radio, radar and information systems for marine applications in all conditions in marine environment such as dry, wet or oily locations, and inside engine rooms. Enables proper transmission of high frequency signals while minimizing environmental electromagnetic interference.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and /or class 5 version upon request)
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
1.Separator	Polyester Tape (halogen Free inner sheath upon request)
Screen	AL-Polyester Tape (with tinned copper drain wire)
2. Separator	Polyester Tape
Outer Sheath	Halogen Free Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Black or Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 375-376
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

FM2XAH

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1100001	1 x 2 x 0.50	7.1	15	52	G1100017	1 x 2 x 0.75	7.6	19	64
G1100002	1 x 4 x 0.50	7.8	24	100	G1100018	1 x 4 x 0.75	8.6	34	96
G1100003	2 x 2 x 0.50	9.0	24	107	G1100019	2 x 2 x 0.75	10.0	34	88
G1100004	4 x 2 x 0.50	11.8	43	133	G1100020	4 x 2 x 0.75	13.6	62	200
G1100005	5 x 2 x 0.50	13.4	52	188	G1100021	5 x 2 x 0.75	14,8	76	229
G1100006	7 x 2 x 0.50	14.5	71	225	G1100022	6 x 2 x 0.75	16,2	90	267
G1100007	8 x 2 x 0.50	15.3	81	250	G1100023	7 x 2 x 0.75	16,1	104	285
G1100008	10 x 2 x 0.50	17.2	99	282	G1100024	8 x 2 x 0.75	17,0	118	319
G1100009	12 x 2 x 0.50	17.9	118	321	G1100025	10 x 2 x 0.75	19,3	146	368
G1100010	14 x 2 x 0.50	19.3	137	376	G1100026	12 x 2 x 0.75	20.2	175	421
G1100011	16 x 2 x 0.50	20.3	156	409	G1100027	14 x 2 x 0.75	21.7	203	484
G1100012	18 x 2 x 0.50	21.5	175	464	G1100028	16 x 2 x 0.75	22.8	231	541
G1100013	19 x 2 x 0.50	22.0	184	470	G1100029	18 x 2 x 0.75	24.1	259	607
G1100014	20 x 2 x 0.50	22.4	194	492	G1100030	19 x 2 x 0.75	24.6	274	635
G1100015	24 x 2 x 0.50	24.3	231	588	G1100031	20 x 2 x 0.75	25.2	288	649
G1100016	37 x 2 x 0.50	29.5	353	806	G1100032	24 x 2 x 0.75	27.3	344	775
					G1100033	37 x 2 x 0.75	33.1	528	1080



FMGACH



Applications

These halogen free cables are used for fixed installations in communication, radio, control and data processing facilities on ships and offshore units in allocations and on open decks.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Individual Separator	Polyester Tape
Individual Shielding	AL-Polyester Tape (with tinned copper drain wire)
Overall Separator	Polyester Tape
Overall Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant (HFFR) (IEC 60092-359 SHF1) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 376
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 12 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1700001	1 x 2 x 0.50	7.8	14	79
G1700002	1 x 4 x 0.50	8.9	24	118
G1700003	2 x 2 x 0.50	10.1	28	133
G1700004	4 x 2 x 0.50	12.9	56	206

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1700005	1 x 2 x 0.75	8.3	19	89
G1700006	1 x 4 x 0.75	9.8	33	133
G1700007	2 x 2 x 0.75	11.3	37	177
G1700008	4 x 2 x 0.75	14.2	75	236
G1700009	7 x 2 x 0.75	17.6	130	378
G1700010	10 x 2 x 0.75	21.8	186	525
G1700011	14 x 2 x 0.75	25.0	260	618
G1700012	19 x 2 x 0.75	26.5	352	883
G1700013	24 x 2 x 0.75	29.9	445	990



FMGCH



Applications

These halogen free cables are used for fixed installations in communication, radio, control and data processing facilities on ships and offshore units in alllocations and on open decks.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Separator	Polyester Tape
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant (HFFR) (IEC 60092-359 SHF1) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	DIN 89159, IEC 60092 / 376
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1800001	1 x 2 x 0.50	7.4	10	73	G1800045	4 x 2 x 1	13.8	76	234
G1800002	1 x 4 x 0.50	8.2	19	103	G1800046	5 x 2 x 1	15.2	95	230
G1800003	2 x 2 x 0.50	9.4	19	101	G1800047	6 x 2 x 1	16.5	113	319
G1800004	3 x 2 x 0.50	10.8	29	144	G1800048	7 x 2 x 1	16.5	132	319
G1800005	4 x 2 x 0.50	12.3	38	175	G1800049	8 x 2 x 1	17.6	151	389
G1800006	5 x 2 x 0.50	13.4	47	207	G1800050	10 x 2 x 1	20.0	189	488
G1800007	6 x 2 x 0.50	14.5	57	235	G1800051	12 x 2 x 1	21.1	226	559
G1800008	7 x 2 x 0.50	14.5	66	248	G1800052	14 x 2 x 1	22.4	264	628
G1800009	8 x 2 x 0.50	15.5	76	280	G1800053	16 x 2 x 1	23.6	302	693
G1800010	10 x 2 x 0.50	17.5	95	352	G1800054	18 x 2 x 1	25.0	309	771
G1800011	12 x 2 x 0.50	18.4	113	399	G1800055	19 x 2 x 1	25.6	358	804
G1800012	14 x 2 x 0.50	19.6	132	444	G1800056	20 x 2 x 1	26.2	377	837
G1800013	16 x 2 x 0.50	20.6	170	488	G1800057	24 x 2 x 1	28.3	452	978
G1800014	18 x 2 x 0.50	21.8	179	540	G1800058	28 x 2 x 1	30.6	527	1155
G1800015	19 x 2 x 0.50	22.2	189	562	G1800059	30 x 2 x 1	31.6	565	1221
G1800016	20 x 2 x 0.50	22.7	226	584	G1800060	1 x 2 x 1.5	9.3	29	118
G1800017	24 x 2 x 0.50	24.6	226	678	G1800061	1 x 4 x 1.5	10.5	57	167
G1800018	30 x 2 x 0.50	27.3	349	844	G1800062	2 x 2 x 1.5	12.3	57	161
G1800019	37 x 2 x 0.50	29.8	414	986	G1800063	3 x 2 x 1.5	12.4	85	229
G1800020	44 x 2 x 0.50	31.9	423	1124	G1800064	4 x 2 x 1.5	15.2	113	298
G1800021	60 x 2 x 0.50	36.8	565	1517	G1800065	5 x 2 x 1.5	16.8	142	357
G1800022	1 x 2 x 0.75	8.0	15	86	G1800066	6 x 2 x 1.5	18.3	170	418
G1800023	1 x 4 x 0.75	9.0	29	124	G1800067	7 x 2 x 1.5	18.3	198	453
G1800024	2 x 2 x 0.75	10.4	29	133	G1800068	12 x 2 x 1.5	23.3	339	728
G1800025	3 x 2 x 0.75	12.1	43	182	G1800069	1 x 2 x 2.5	10.4	47	150
G1800026	4 x 2 x 0.75	13.4	57	213	G1800070	12 x 2 x 2.5	26.0	565	981
G1800027	5 x 2 x 0.75	14.8	71	254	G1800071	1 x 3 x 0.50	7.8	15	85
G1800028	6 x 2 x 0.75	16.0	85	289	G1800072	1 x 3 x 0.75	8.1	22	108
G1800029	7 x 2 x 0.75	16.0	97	309	G1800073	2 x 3 x 0.50	9.7	29	129
G1800030	8 x 2 x 0.75	17.1	113	348	G1800074	3 x 3 x 0.50	12.0	43	179
G1800031	10 x 2 x 0.75	19.4	142	440	G1800075	4 x 3 x 0.50	12.8	57	210
G1800032	12 x 2 x 0.75	20.5	170	502	G1800076	5 x 3 x 0.50	13.6	71	245
G1800033	14 x 2 x 0.75	20.8	198	562	G1800077	6 x 3 x 0.50	14.5	85	278
G1800034	16 x 2 x 0.75	22.9	226	620	G1800078	6 x 3 x 0.75	19.1	127	402
G1800035	18 x 2 x 0.75	24.2	254	687	G1800079	7 x 3 x 0.50	14.5	99	298
G1800036	19 x 2 x 0.75	24.7	269	717	G1800080	8 x 3 x 0.50	15.5	113	338
G1800037	20 x 2 x 0.75	25.3	283	746	G1800081	10 x 3 x 0.50	18.1	142	432
G1800038	24 x 2 x 0.75	27.4	339	871	G1800082	12 x 3 x 0.50	19.4	170	498
G1800039	28 x 2 x 0.75	29.6	396	1030	G1800083	14 x 3 x 0.50	20.6	198	558
G1800040	37 x 2 x 0.75	33.2	523	1279	G1800084	16 x 3 x 0.50	21.7	226	617
G1800041	1 x 2 x 1	8.2	19	92	G1800085	18 x 3 x 0.50	22.9	254	687
G1800042	1 x 4 x 1	8.5	38	106	G1800086	19 x 3 x 0.50	23.4	269	715
G1800043	2 x 2 x 1	9.5	38	132	G1800087	20 x 3 x 0.50	24.0	283	808
G1800044	3 x 2 x 1	12.3	57	193	G1800088	24 x 3 x 0.50	26.0	339	870
					G1800089	30 x 3 x 0.50	28.8	424	1083
					G1800090	37 x 3 x 0.50	31.5	523	1279



M2X



Applications

These are used as fixed installation cables in various electromechanical and electronic equipments. Since it has type approval, it can be used in marine switchboards.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 5) (tinned copper and / or class 2 version upon request)
Insulation	Halogen Free, Flame Retardant, Cross Linked Compound (IEC 60092-351 HF90), Black (Other colors upon request)

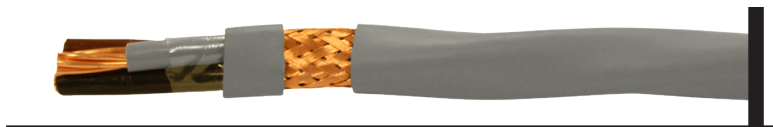
Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS/EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 4 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. CABLE WEIGHT (kg/km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. CABLE WEIGHT (kg/km)
G4000001	1 x 0.5	2.1	5	9	G4000010	1 x 25	8.4	236	238
G4000002	1 x 0.75	2.3	8	11	G4000011	1 x 35	9.6	330	323
G4000003	1 x 1	2.6	10	15	G4000012	1 x 50	11.4	473	459
G4000004	1 x 1.5	2.9	15	20	G4000013	1 x 70	13.5	658	672
G4000005	1 x 2.5	3.3	24	29	G4000014	1 x 95	15.0	892	848
G4000006	1 x 4	3.9	38	44	G4000015	1 x 120	16.9	1125	1080
G4000007	1 x 6	4.4	57	60	G4000016	1 x 150	19.0	1413	1368
G4000008	1 x 10	5.5	94	101	G4000017	1 x 185	21.6	1739	1732
G4000009	1 x 16	6.6	151	152	G4000018	1 x 240	24.3	2256	2219



M2XCY



Applications

Used as fixed installation cables in various electromechanical and electronic equipments, placed deck blow of marine vehicles. Due to its' overall screen, environmental electromagnetic interference is minimized.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free XLPE (IEC 60092-351 XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Inner Sheath	Flame Retardant PVC (IEC 60092-359)
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Flame Retardant, Oil Resistant PVC (IEC 60092-359 ST2) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Oil Resistance	IEC / EN / BS 60811, ASTM No 2 oil 90 °C 168 hours (7 x 24)
Operating Temperature	- 20 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

M2XCY

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4300001	1 x 4	7.1	39	96	G4300047	4 x 16	21.3	603	1067
G4300002	1 x 6	7.5	57	120	G4300048	4 x 25	25.8	941	1594
G4300003	1 x 10	8.9	95	170	G4300049	4 x 35	28.5	1318	2045
G4300004	1 x 16	9.6	151	232	G4300050	4 x 50	33.1	1882	2765
G4300005	1 x 25	11.5	236	342	G4300051	4 x 70	38.6	2635	3889
G4300006	1 x 35	12.5	330	438	G4300052	4 x 95	43.7	3576	5141
G4300007	1 x 50	14.7	4701	614	G4300053	4 x 120	48.1	4516	6351
G4300008	1 x 70	16.9	659	840	G4300054	4 x 150	52.8	5645	7713
G4300009	1 x 95	18.6	894	1091	G4300055	4 x 185	59.3	6962	9636
G4300010	1 x 120	20.5	1129	1353	G4300056	4 x 240	66.6	9032	12467
G4300011	1 x 150	22.5	1412	1648	G4300057	5 x 1	12.3	47	240
G4300012	1 x 185	25.0	1741	2034	G4300058	5 x 1.5	13.7	71	319
G4300013	1 x 240	27.8	2258	2622	G4300059	5 x 2.5	14.8	118	392
G4300014	2 x 1	10.2	20	166	G4300060	5 x 4	16.6	189	514
G4300015	2 x 1.5	11.0	29	196	G4300061	5 x 6	17.9	283	644
G4300016	2 x 2.5	11.8	47	235	G4300062	5 x 10	20.5	471	907
G4300017	2 x 4	12.9	76	296	G4300063	5 x 16	23.4	753	1268
G4300018	2 x 6	14.5	1134	399	G4300064	5 x 25	28.3	1176	1889
G4300019	2 x 10	16.5	1889	540	G4300065	5 x 35	31.9	1647	2476
G4300020	2 x 16	18.4	302	719	G4300066	5 x 50	36.8	2352	3378
G4300021	2 x 25	22.1	471	1052	G4300067	5 x 70	42.8	3293	4663
G4300022	2 x 35	24.5	659	1332	G4300068	6 x 1	13.0	57	268
G4300023	2 x 50	27.8	941	1746	G4300069	6 x 1.5	14.5	86	358
G4300024	2 x 70	32.5	1318	2421	G4300070	6 x 2.5	15.7	142	443
G4300025	3 x 1	10.7	29	185	G4300071	7 x 1	13.0	67	276
G4300026	3 x 1.5	11.5	44	218	G4300072	7 x 1.5	14.5	100	370
G4300027	3 x 2.5	12.3	71	267	G4300073	7 x 2.5	15.7	165	461
G4300028	3 x 4	14.1	114	376	G4300074	8 x 1	13.0	76	243
G4300029	3 x 6	15.2	170	462	G4300075	8 x 1.5	14.7	114	3340
G4300030	3 x 10	17.3	283	642	G4300076	8 x 2.5	16.3	189	444
G4300031	3 x 16	19.6	452	875	G4300077	9 x 0.5	12.3	44	202
G4300032	3 x 25	23.4	706	1294	G4300078	9 x 1	14.5	86	340
G4300033	3 x 35	25.9	988	1638	G4300079	9 x 1.5	15.6	128	378
G4300034	3 x 50	29.7	1412	2180	G4300080	9 x 2.5	17.3	212	497
G4300035	3 x 70	34.5	1976	3018	G4300081	10 x 1	14.8	95	318
G4300036	3 x 95	39.0	2682	4027	G4300082	10 x 1.5	16.0	142	389
G4300037	3 x 120	43.4	3387	5081	G4300083	10 x 2.5	17.7	236	510
G4300038	3 x 150	47.6	4234	6103	G4300084	12 x 1	15.3	114	353
G4300039	3 x 185	52.8	5222	7526	G4300085	12 x 1.5	16.7	170	443
G4300040	3 x 240	59.5	6774	9741	G4300086	12 x 2.5	18.3	283	576
G4300041	4 x 1	11.6	39	216	G4300087	14 x 1	16.0	133	391
G4300042	4 x 1.5	12.3	57	252	G4300088	14 x 1.5	18.3	198	519
G4300043	4 x 2.5	13.8	95	348	G4300089	14 x 2.5	19.3	330	691
G4300044	4 x 4	15.2	151	444	G4300090	16 x 0.5	14.9	76	280
G4300045	4 x 6	16.6	227	560	G4300091	16 x 1	16.9	151	385
G4300046	4 x 10	18.9	377	784					

M2XCY

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4300092	16 x 1.5	18.2	227	482
G4300093	16 x 2.5	20.3	377	652
G4300094	18 x 0.5	15.5	86	299
G4300095	18 x 1	17.6	170	416
G4300096	18 x 1.5	19.3	255	534
G4300097	18 x 2.5	21.3	424	714
G4300098	19 x 1	17.6	180	426
G4300099	19 x 1.5	19.3	269	548
G4300100	19 x 2.5	21.3	449	737
G4300101	20 x 1	17.6	189	437
G4300102	20 x 1.5	19.3	283	564
G4300103	20 x 2.5	21.3	471	761
G4300104	21 x 1	18.5	199	461
G4300105	21 x 1.5	20.3	297	594
G4300106	21x 2.5	22.6	494	814
G4300107	24 x 1	20.5	227	528
G4300108	24 x 1.5	22.4	340	681
G4300109	24x 2.5	25.0	565	930
G4300110	25 x 1	20.5	236	538
G4300111	25 x 1.5	22.4	353	695
G4300112	25x 2.5	25.0	588	954
G4300113	27 x 1	21.0	255	657
G4300114	27 x 1.5	22.9	382	733
G4300115	27 x 2.5	25.8	635	1009

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4300116	30 x 1	21.9	283	617
G4300117	30 x 1.5	23.7	424	789
G4300118	30 x 2.5	26.4	706	1091
G4300119	32 x 1	22.5	302	648
G4300120	32 x 1.5	24.7	452	849
G4300121	32 x 2.5	27.5	753	1167
G4300122	36 x 1	23.3	340	700
G4300123	36 x 1.5	25.6	509	917
G4300124	36 x 2.5	28.5	847	1276
G4300125	37 x 1	23.3	349	710
G4300126	37 x 1.5	25.6	523	93
G4300127	37 x 2.5	28.5	871	1298
G4300128	40 x 1	24.4	377	768
G4300129	40 x 1.5	26.6	565	994
G4300130	40 x 2.5	29.9	941	1406
G4300131	42 x 1	25.4	396	805
G4300132	42 x 1.5	27.8	593	1055
G4300133	42 x 2.5	31.0	988	1472
G4300134	48 x 1	26.9	452	899
G4300135	48 x 1.5	29.2	679	1168
G4300136	48 x 2.5	32.8	1130	1655
G4300137	60 x 1	29.0	565	1055
G4300138	60 x 1.5	31.9	847	1401



M2XCH - M2XCH (EMC)



Applications

These are used as fixed installation cables in various electromechanical and electronic equipments. By overall screen the electromagnetic interference is minimized.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Separator	Polyester Tape (halogen Free filler upon request)
Screen	Annealed copper wire braiding 90 % Cov. Rate (EMC type has tape 100 % coverage rate)
Outer Sheath	Halogen Free Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Black or Grey (RAL 7000)

Technical and Electrical Properties (20°C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

M2XCH - M2XCH (EMC)

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4100001	1 x 1	5.8	10	54
G4100002	1 x 1.5	6.1	15	63
G4100003	1 x 2.5	6.5	24	76
G4100004	1 x 4	7.1	38	97
G4100005	1 x 6	7.5	57	121
G4100006	1 x 10	8.6	95	171
G4100007	1 x 16	9.6	151	233
G4100008	1 x 25	11.5	236	343
G4100009	1 x 35	12.5	330	439
G4100010	1 x 50	14.7	471	616
G4100011	1 x 70	16.9	659	842
G4100012	1 x 95	18.6	894	1094
G4100013	1 x 120	20.5	1129	1357
G4100014	1 x 150	22.5	1412	1653
G4100015	1 x 185	25.0	1741	2040
G4100016	1 x 240	27.8	2258	2628
G4100017	1 x 300	30.6	2823	3232
G4100018	1 x 630	42.1	5927	6525
G4100019	2 x 1	8.7	19	101
G4100020	2 x 1.5	9.3	29	118
G4100021	2 x 2.5	10.1	47	145
G4100022	2 x 4	11.5	76	194
G4100023	2 x 6	12.4	113	242
G4100024	2 x 10	14.8	189	375
G4100025	2 x 16	17.0	302	517
G4100026	2 x 25	22.1	471	1049
G4100027	2 x 35	24.5	659	1328
G4100028	2 x 50	27.8	941	1740
G4100029	2 x 70	32.5	1318	2411
G4100030	2 x 95	36.7	1788	3193
G4100031	2 x 120	40.4	2258	3927
G4100032	2 x 150	44.7	2823	4806
G4100033	2 x 185	49.6	3481	5923
G4100034	2 x 240	55.7	4516	7607
G4100035	3 x 1	9.2	29	120
G4100036	3 x 1.5	9.8	43	142
G4100037	3 x 2.5	10.7	71	177
G4100038	3 x 4	12.1	113	243
G4100039	3 x 6	13.7	170	345
G4100040	3 x 10	15.7	283	486
G4100041	3 x 16	17.9	452	682

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4100042	3 x 25	23.4	706	1282
G4100043	3 x 35	25.9	988	163
G4100044	3 x 50	29.7	1412	2176
G4100045	3 x 70	34.5	1976	3011
G4100046	3 x 95	39.0	2682	4019
G4100047	3 x 120	43.4	3387	5020
G4100048	3 x 150	47.6	4234	6088
G4100049	3 x 185	52.8	5222	7507
G4100050	3 x 240	59.5	6774	9717
G4100051	3 x 400	74.8	11290	15884
G4100052	4 x 1	9.9	38	141
G4100053	4 x 1.5	10.6	57	169
G4100054	4 x 2.5	11.8	95	222
G4100055	4 x 4	13.7	151	333
G4100056	4 x 6	14.9	226	424
G4100057	4 x 10	17.2	377	611
G4100058	4 x 16	19.8	603	872
G4100059	4 x 25	25.8	941	1592
G4100060	4 x 35	28.5	1318	2053
G4100061	4 x 50	33.1	1882	2775
G4100062	4 x 70	38.6	2635	3903
G4100063	4 x 95	43.7	3575	5158
G4100064	4 x 120	48.1	4516	6372
G4100065	4 x 150	52.8	5645	7740
G4100066	4 x 185	59.3	6962	9670
G4100067	4 x 240	66.6	9032	12507
G4100068	5 x 1	10.7	47	165
G4100069	5 x 1.5	11.7	71	206
G4100070	5 x 2.5	12.7	118	265
G4100071	5 x 4	14.9	189	398
G4100072	5 x 6	16.5	283	521
G4100073	5 x 10	19.0	471	753
G4100074	5 x 16	22.0	753	1075
G4100075	5 x 25	28.3	1176	1888
G4100076	5 x 35	31.9	1647	2474
G4100077	5 x 50	36.8	2352	3376
G4100078	5 x 70	42.8	3293	4660
G4100079	5 x 95	48.4	4469	6160
G4100080	5 x 120	53.3	5645	7618
G4100081	5 x 150	59.2	7056	9360
G4100082	5 x 185	66.1	8703	11629
G4100083	5 x 240	73.9	11290	14971

M2XCH - M2XCH (EMC)

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4100084	6 x 1	14.5	85	313	G4100120	24 x 1	11.6	66	201
G4100085	6 x 1.5	15.6	127	381	G4100121	24 x 1.5	12.4	99	248
G4100086	6 x 2.5	17.3	212	500	G4100122	24x 2.5	14.2	165	362
G4100087	7 x 1	14.8	95	292	G4100123	25 x 1	13.0	76	244
G4100088	7 x 1.5	16.0	142	356	G4100124	25 x 1.5	14.7	113	342
G4100089	7 x 2.5	17.7	236	472	G4100125	25x 2.5	16.3	189	447
G4100090	8 x 1	15.3	113	318	G4100126	27 x 1	21.0	254	569
G4100091	8 x 1.5	16.7	170	401	G4100127	27 x 1.5	22.9	381	737
G4100092	8 x 2.5	18.3	283	527	G4100128	27 x 2.5	25.6	635	1015
G4100093	9 x 1	16.0	132	348	G4100129	30 x 1	21.9	283	621
G4100094	9 x 1.5	17.4	198	442	G4100130	30 x 1.5	23.7	424	794
G4100095	9 x 2.5	19.3	330	594	G4100131	30 x 2.5	26.4	706	1096
G4100096	10 x 1	16.9	151	388	G4100132	32 x 1	22.5	302	652
G4100097	10 x 1.5	18.2	226	485	G4100133	32 x 1.5	24.7	452	848
G4100098	10 x 2.5	20.3	377	657	G4100134	32 x 2.5	27.5	753	1173
G4100099	12 x 1	17.6	170	419	G4100135	36 x 1	23.3	339	705
G4100100	12 x 1.5	19.3	254	537	G4100136	36 x 1.5	25.6	508	922
G4100101	12 x 2.5	21.3	423	718	G4100137	36 x 2.5	28.5	847	1281
G4100102	14 x 1	17.6	179	429	G4100138	37 x 1	23.3	349	715
G4100103	14 x 1.5	19.3	269	551	G4100139	37 x 1.5	25.6	523	936
G4100104	14 x 2.5	21.3	447	765	G4100140	37 x 2.5	28.5	871	1304
G4100105	16 x 1	17.6	189	439	G4100141	40 x 1	24.4	377	773
G4100106	16 x 1.5	19.3	283	567	G4100142	40 x 1.5	26.6	565	1000
G4100107	16 x 2.5	21.3	471	765	G4100143	40 x 2.5	39.9	941	1413
G4100108	18 x 1	18.5	198	464	G4100144	42 x 1	25.4	396	810
G4100109	18 x 1.5	20.3	297	598	G4100145	42 x 1.5	27.8	593	1062
G4100110	18 x 2.5	22.6	494	819	G4100146	2 x 2.5	31.0	988	1478
G4100111	19 x 1	20.5	226	532	G4100147	48 x 1	26.9	452	905
G4100112	19 x 1.5	22.4	339	685	G4100148	48 x 1.5	29.2	677	1174
G4100113	19 x 2.5	25.0	565	936	G4100149	48 x 2.5	32.8	1129	1662
G4100114	20 x 1	20.5	236	541	G4100150	60 x 1	29.0	565	1063
G4100115	20 x 1.5	22.4	353	699	G4100151	60 x 1.5	31.9	847	1409
G4100116	20 x 2.5	25.0	588	959					
G4100117	21 x 1	11.6	57	194					
G4100118	21 x 1.5	12.4	85	237					
G4100119	21 x 2.5	14.2	141	343					



M2XSY



Applications

These armoured cables are used in various electromechanical and electronic equipments of marine vehicles for fixed applications.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Flame Retardant XLPE (IEC 60092-351 XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Inner Sheath	Flame Retardant PVC (IEC 60092-359)
Screen	Galvanised Steel Wire Braiding (90 % braiding Cov. Rate)
Outer Sheath	Flame Retardant, Oil Resistant PVC (IEC 60092-359 ST2) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Oil Resistance	IEC / EN / BS 60811, ASTM No 2 oil 90 °C 168 hours (7 x 24)
Operating Temperature	- 20 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

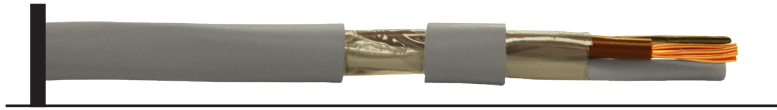
M2XSY

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4600001	1 x 4	7.0	39	94	G4600044	4 x 4	15.0	153	433
G4600002	1 x 6	7.5	58	117	G4600045	4 x 6	16.4	229	546
G4600003	1 x 10	8.5	95	166	G4600046	4 x 10	18.7	381	769
G4600004	1 x 16	9.5	153	228	G4600047	4 x 16	21.0	609	1048
G4600005	1 x 25	11.3	238	337	G4600048	4 x 25	25.5	9501	1573
G4600006	1 x 35	12.4	333	431	G4600049	4 x 35	28.2	1331	2020
G4600007	1 x 50	14.6	476	603	G4600050	4 x 50	32.8	1901	2737
G4600008	1 x 70	16.7	666	827	G4600051	4 x 70	38.2	2662	3846
G4600009	1 x 95	18.4	903	1076	G4600052	4 x 95	43.3	36112	5091
G4600010	1 x 120	20.3	1141	1335	G4600053	4 x 120	48.6	4516	6358
G4600011	1 x 150	22.3	1426	1627	G4600054	4 x 150	53.4	5645	7728
G4600012	1 x 185	24.7	1759	2010	G4600055	4 x 185	59.9	6962	9667
G4600013	1 x 240	27.5	2282	2597	G4600056	4 x 240	67.3	9032	12512
G4600014	2 x 1	10.1	20	162	G4600057	5 x 1	12.5	47	236
G4600015	2 x 1.5	10.9	29	192	G4600058	5 x 1.5	13.9	71	315
G4600016	2 x 2.5	11.6	48	230	G4600059	5 x 2.5	14.9	118	384
G4600017	2 x 4	12.6	79	291	G4600060	5 x 4	16.7	189	505
G4600018	2 x 6	14.4	115	390	G4600061	5 x 6	18.1	283	636
G4600019	2 x 10	16.3	191	529	G4600062	5 x 10	20.7	471	899
G4600020	2 x 16	18.2	305	705	G4600063	5 x 16	23.7	753	1259
G4600021	2 x 25	21.9	476	1034	G4600064	5 x 25	28.6	1776	1884
G4600022	2 x 35	24.3	666	1312	G4600065	5 x 35	32.2	1647	2472
G4600023	2 x 50	27.5	951	1721	G4600066	5 x 50	37.2	2352	3367
G4600024	2 x 70	32.2	1331	2394	G4600067	5 x 70	43.3	3293	4329
G4600025	3 x 1	10.6	29	180	G4600068	6 x 1	13.2	57	264
G4600026	3 x 1.5	11.3	44	213	G4600069	6 x 1.5	14.7	86	351
G4600027	3 x 2.5	12.2	72	261	G4600070	6 x 2.5	15.8	142	434
G4600028	3 x 4	14.0	115	365	G4600071	7 x 1	13.2	67	272
G4600029	3 x 6	15.0	172	450	G4600072	7 x 1.5	14.7	99	363
G4600030	3 x 10	17.2	286	630	G4600073	7 x 2.5	15.8	165	453
G4600031	3 x 16	19.4	457	860	G4600074	8 x 1	13.2	76	238
G4600032	3 x 25	23.2	713	1265	G4600075	8 x 1.5	14.9	114	332
G4600033	3 x 35	25.6	998	1615	G4600076	8 x 2.5	16.4	189	436
G4600034	3 x 50	29.4	1426	2156	G4600077	9 x 0.5	12.5	44	198
G4600035	3 x 70	34.1	1996	2988	G4600078	9 x 1	14.7	86	303
G4600036	3 x 95	38.6	2709	3980	G4600079	9 x 1.5	15.7	128	368
G4600037	3 x 120	43.0	3422	5033	G4600080	9 x 2.5	17.5	212	489
G4600038	3 x 150	47.1	4277	6050	G4600081	10 x 1	14.9	95	309
G4600039	3 x 185	52.3	5275	7467	G4600082	10 x 1.5	16.1	142	379
G4600040	3 x 240	58.9	6843	9669	G4600083	10 x 2.5	17.9	236	501
G4600041	4 x 1	11.4	39	210	G4600084	12 x 1	15.4	114	345
G4600042	4 x 1.5	12.1	58	247	G4600085	12 x 1.5	16.8	170	433
G4600043	4 x 2.5	13.7	95	337	G4600086	12 x 2.5	18.5	283	566
					G4600087	14 x 1	16.1	133	382
					G4600088	14 x 1.5	18.5	198	510
					G4600089	14 x 2.5	19.5	330	582
					G4600090	16 x 0.5	15.0	76	269
					G4600091	16 x 1	17.0	151	375

M2XS_Y

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4600092	16 x 1.5	18.4	227	471
G4600093	16 x 2.5	20.5	377	643
G4600094	18 x 0.5	15.6	86	289
G4600095	18 x 1	17.8	170	406
G4600096	18 x 1.5	19.5	255	523
G4600097	18 x 2.5	21.5	424	702
G4600098	19 x 1	17.8	180	416
G4600099	19 x 1.5	19.5	269	538
G4600100	19 x 2.5	21.5	449	725
G4600101	20 x 1	17.8	189	427
G4600102	20 x 1.5	19.5	283	554
G4600103	20 x 2.5	21.5	471	750
G4600104	21 x 1	18.7	198	450
G4600105	21 x 1.5	20.5	294	578
G4600106	21 x 2.5	22.9	489	795
G4600107	24 x 1	20.7	225	509
G4600108	24 x 1.5	22.7	336	662
G4600109	24 x 2.5	25.2	559	910
G4600110	25 x 1	20.7	233	519
G4600111	25 x 1.5	22.7	350	677
G4600112	25 x 2.5	25.2	582	933
G4600113	27 x 1	21.2	253	547
G4600114	27 x 1.5	23.2	378	714
G4600115	27 x 2.5	25.8	629	984

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4600116	30 x 1	22.1	280	598
G4600117	30 x 1.5	24.0	420	769
G4600118	30 x 2.5	26.6	699	1067
G4600119	32 x 1	22.8	299	630
G4600120	32 x 1.5	24.9	448	823
G4600121	32 x 2.5	27.8	746	1142
G4600122	36 x 1	23.6	336	680
G4600123	36 x 1.5	25.8	504	896
G4600124	36 x 2.5	28.8	839	1251
G4600125	37 x 1	23.6	346	689
G4600126	37 x 1.5	25.8	517	911
G4600127	37 x 2.5	28.8	862	1273
G4600128	40 x 1	24.7	373	747
G4600129	40 x 1.5	26.8	559	971
G4600130	40 x 2.5	30.2	932	1378
G4600131	42 x 1	25.6	392	784
G4600132	42 x 1.5	28.1	587	1032
G4600133	42 x 2.5	31.3	978	1444
G4600134	48 x 1	27.1	448	875
G4600135	48 x 1.5	29.5	672	1143
G4600136	48 x 2.5	33.2	1118	1627
G4600137	60 x 1	29.3	559	1030
G4600138	60 x 1.5	32.2	839	1372

M2XY**Applications**

These are used as fixed installation cables in various electromechanical and electronic equipments, placed deck blow of marine vehicles.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Flame Retardant XLPE (IEC 60092-351 XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Inner Sheath	Flame Retardant PVC (IEC 60092-359)
Outer Sheath	Flame Retardant, Oil Resistant PVC (IEC 60092-359 ST2) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Oil Resistance	IEC / EN / BS 60811, ASTM No 2 oil 90 °C 168 hours (7 x 24)
Operating Temperature	- 20 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

M2XY

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4700001	1 x 4	5.9	39	66
G4700002	1 x 6	6.4	57	87
G4700003	1 x 10	7.3	95	128
G4700004	1 x 16	8.5	151	188
G4700005	1 x 25	10.2	236	283
G4700006	1 x 35	11.5	326	377
G4700007	1 x 50	13.1	466	506
G4700008	1 x 70	15.2	652	714
G4700009	1 x 95	17.2	885	957
G4700010	1 x 120	19.1	1118	1205
G4700011	1 x 150	21.0	1397	1473
G4700012	1 x 185	23.5	1723	1839
G4700013	1 x 240	26.3	2235	2402
G4700014	2 x 1	9.1	20	118
G4700015	2 x 1.5	9.7	29	140
G4700016	2 x 2.5	10.5	47	173
G4700017	2 x 4	11.9	75	233
G4700018	2 x 6	12.9	113	292
G4700019	2 x 10	14.9	187	418
G4700020	2 x 16	17.0	299	586
G4700021	2 x 25	20.6	466	881
G4700022	2 x 35	23.0	652	1141
G4700023	2 x 50	26.3	932	1527
G4700024	2 x 70	31.1	1304	2161
G4700025	3 x 1	9.6	29	134
G4700026	3 x 1.5	10.2	43	159
G4700027	3 x 2.5	11.3	70	207
G4700028	3 x 4	12.5	113	273
G4700029	3 x 6	13.8	168	356
G4700030	3 x 10	15.7	280	512
G4700031	3 x 16	18.0	448	727
G4700032	3 x 25	22.1	699	1113
G4700033	3 x 35	24.6	978	1447
G4700034	3 x 50	28.2	1397	1946
G4700035	3 x 70	33.3	1956	2757
G4700036	3 x 95	37.2	2654	3624
G4700037	3 x 120	41.7	3353	4581
G4700038	3 x 150	46.1	4191	5628
G4700039	3 x 185	51.4	5169	6997
G4700040	3 x 240	57.9	6705	9114

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4700041	4 x 1	10.3	38	156
G4700042	4 x 1.5	11.2	57	194
G4700043	4 x 2.5	12.2	94	247
G4700044	4 x 4	13.8	150	339
G4700045	4 x 6	14.9	225	436
G4700046	4 x 10	17.3	373	440
G4700047	4 x 16	19.9	597	912
G4700048	4 x 25	24.5	932	1403
G4700049	4 x 35	27.2	1304	1832
G4700050	4 x 50	31.7	1863	2500
G4700051	4 x 70	36.8	2550	3491
G4700052	4 x 95	42.0	3539	4687
G4700053	4 x 120	46.6	4470	5938
G4700054	4 x 150	51.4	5588	7184
G4700055	4 x 185	57.7	6891	9014
G4700056	4 x 240	65.1	8940	11763
G4700057	5 x 1	11.3	47	180
G4700058	5 x 1.5	13.2	70	219
G4700059	5 x 2.5	14.9	117	282
G4700060	5 x 4	16.5	187	390
G4700061	5 x 6	19.1	280	517
G4700062	5 x 10	21.9	466	759
G4700063	5 x 16	26.6	723	1073
G4700064	5 x 25	30.3	1130	1631
G4700065	5 x 35	34.9	1581	2191
G4700066	5 x 50	37.2	2259	2955
G4700067	5 x 70	40.7	3162	4135
G4700068	6 x 1	11.9	55	201
G4700069	6 x 1.5	12.7	82	246
G4700070	6 x 2.5	14.1	136	326
G4700071	7 x 1	11.9	64	208
G4700072	7 x 1.5	12.7	95	258
G4700073	7 x 2.5	14.1	159	349
G4700074	8 x 1	12.1	73	200
G4700075	8 x 1.5	13.1	110	256
G4700076	8 x 2.5	14.7	181	353
G4700077	9 x 1	12.9	82	228
G4700078	9 x 1.5	14.2	123	297
G4700079	9 x 2.5	15.8	204	402
G4700080	10 x 1	13.2	91	223

M2XY

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4700081	10 x 1.5	14.6	136	294	G4700109	25 x 1.5	20.9	339	639
G4700082	10 x 2.5	16.4	226	409	G4700110	25x 2.5	23.4	565	902
G4700083	12 x 1	13.9	110	259	G4700111	27 x 1	19.6	245	515
G4700084	12 x 1.5	15.1	163	335	G4700112	27 x 1.5	21.6	369	687
G4700085	12 x 2.5	17.0	272	467	G4700113	27 x 2.5	24.2	610	970
G4700086	14 x 1	14.6	127	290	G4700114	30 x 1	20.3	271	561
G4700087	14 x 1.5	15.9	191	377	G4700115	30 x 1.5	22.3	407	752
G4700088	14 x 2.5	17.7	317	528	G4700116	30 x 2.5	25.0	678	1062
G4700089	16 x 1	15.3	145	324	G4700117	32 x 1	21.0	290	599
G4700090	16 x 1.5	16.9	218	431	G4700118	32 x 1.5	23.1	434	802
G4700091	16 x 2.5	18.9	362	605	G4700119	32 x 2.5	26.0	723	1134
G4700092	18 x 0.5	15.6	86	289	G4700120	36 x 1	22.2	336	682
G4700093	18 x 1	16.3	163	366	G4700121	36 x 1.5	24.5	504	913
G4700094	18 x 1.5	17.7	245	478	G4700122	36 x 2.5	27.4	839	1291
G4700095	18 x 2.5	19.9	407	671	G4700123	37 x 1	22.2	346	689
G4700096	19 x 1	16.3	173	373	G4700124	37 x 1.5	24.5	517	925
G4700097	19 x 1.5	17.7	258	488	G4700125	37 x 2.5	27.4	862	1310
G4700098	19 x 2.5	19.9	430	689	G4700126	40 x 1	23.1	373	754
G4700099	20 x 1	16.3	181	395	G4700127	40 x 1.5	25.4	559	1012
G4700100	20 x 1.5	17.7	272	518	G4700128	40 x 2.5	28.6	932	1435
G4700101	20 x 2.5	19.9	452	730	G4700129	42 x 1	24.1	392	793
G4700102	21 x 1	17.2	191	434	G4700130	42 x 1.5	26.5	587	1064
G4700103	21 x 1.5	18.9	286	577	G4700131	42 x 2.5	29.9	979	1520
G4700104	21x 2.5	21.1	475	799	G4700132	48 x 1	25.5	448	887
G4700105	24 x 1	19.1	218	474	G4700133	48 x 1.5	28.1	672	1191
G4700106	24 x 1.5	20.9	326	621	G4700134	48 x 2.5	31.6	1118	1692
G4700107	24 x 2.5	23.4	543	875	G4700135	60 x 1	27.9	559	1065
G4700108	25 x 1	19.1	226	487	G4700136	60 x 1.5	30.8	839	1436

**M2XH****Applications**

These halogen free cables are used in various electromechanical and electronic equipments of marine vehicles for fixed applications.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free, Flame Retardant XLPE (IEC 60092-351 HF XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Separator	Polyester Tape (halogen Free filler upon request)
Outer Sheath	Halogen Free Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Black or Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

M2XH

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4400001	1 x 1	4.5	10	31	G4400042	3 x 35	23.8	969	1415
G4400002	1 x 1.5	4.8	15	37	G4400043	3 x 50	27.4	1384	1902
G4400003	1 x 2.5	5.2	23	48	G4400044	3 x 70	32.3	1937	2695
G4400004	1 x 4	5.8	38	65	G4400045	3 x 95	36.1	2628	3543
G4400005	1 x 6	6.2	56	86	G4400046	3 x 120	40.4	3320	4477
G4400006	1 x 10	7.1	93	126	G4400047	3 x 150	44.8	4149	5500
G4400007	1 x 16	8.3	148	185	G4400048	3 x 185	49.8	5118	6838
G4400008	1 x 25	9.9	231	278	G4400049	3 x 240	56.2	6639	8907
G4400009	1 x 35	11.1	323	371	G4400050	4 x 1	8.7	38	95
G4400010	1 x 50	12.7	462	497	G4400051	4 x 1.5	9.4	56	120
G4400011	1 x 70	14.8	646	702	G4400052	4 x 2.5	10.4	93	160
G4400012	1 x 95	16.7	876	941	G4400053	4 x 4	11.9	148	232
G4400013	1 x 120	18.5	1107	1184	G4400054	4 x 6	13.1	222	311
G4400014	1 x 150	20.4	1384	1448	G4400055	4 x 10	15.4	369	476
G4400015	1 x 185	22.8	1706	1807	G4400056	4 x 16	18.2	603	725
G4400016	1 x 240	25.5	2213	2359	G4400057	4 x 25	24.2	941	1401
G4400017	1 x 300	29.8	2767	3074	G4400058	4 x 35	27.0	1318	1829
G4400018	2 x 1	7.4	20	59	G4400059	4 x 50	31.4	1882	2496
G4400019	2 x 1.5	8.2	28	76	G4400060	4 x 70	36.5	2635	3484
G4400020	2 x 2.5	8.9	47	98	G4400061	4 x 95	41.6	3576	4677
G4400021	2 x 4	10.1	75	134	G4400062	4 x 120	46.0	4516	5837
G4400022	2 x 6	11.2	112	181	G4400063	4 x 150	50.6	5645	7170
G4400023	2 x 10	13.0	185	264	G4400064	4 x 185	57.1	6962	8994
G4400024	2 x 16	15.1	296	386	G4400065	4 x 240	64.5	9032	11737
G4400025	2 x 25	20.0	462	860	G4400066	5 x 1	9.7	48	117
G4400026	2 x 35	22.2	646	1115	G4400067	5 x 1.5	10.5	71	148
G4400027	2 x 50	25.5	923	1490	G4400068	5 x 2.5	11.8	118	206
G4400028	2 x 70	30.2	1291	2109	G4400069	5 x 4	13.3	189	292
G4400029	2 x 95	33.8	1752	2760	G4400070	5 x 6	14.9	283	401
G4400030	2 x 120	37.5	2213	3439	G4400071	5 x 10	17.4	471	613
G4400031	2 x 150	41.9	2767	4274	G4400072	5 x 16	20.4	753	910
G4400032	2 x 185	46.5	3412	5294	G4400073	5 x 25	26.6	1177	1664
G4400033	2 x 240	52.6	4426	6907	G4400074	5 x 35	30.3	1647	2234
G4400034	3 x 1	7.9	28	74	G4400075	5 x 50	34.9	2353	3013
G4400035	3 x 1.5	8.6	43	97	G4400076	5 x 70	40.7	3293	4215
G4400036	3 x 2.5	9.5	70	128	G4400077	5 x 95	46.3	4469	5653
G4400037	3 x 4	10.9	112	184	G4400078	5 x 120	51.2	5645	7059
G4400038	3 x 6	11.9	167	244	G4400079	5 x 150	57.0	7057	8734
G4400039	3 x 10	14.0	277	371	G4400080	5 x 185	64.1	8703	10961
G4400040	3 x 16	16.2	443	547	G4400081	5 x 240	71.9	11290	14220
G4400041	3 x 25	21.4	692	1088	G4400082	6 x 1	10.4	57	137
					G4400083	6 x 1.5	11.5	86	180
					G4400084	6 x 2.5	12.6	142	244
					G4400085	7 x 1	10.4	67	144

M2XH

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4400086	7 x 1.5	11.5	99	192
G4400087	7 x 2.5	12.6	165	2612
G4400088	8 x 1	12.1	76	185
G4400089	8 x 1.5	13.1	114	238
G4400090	8 x 2.5	14.7	189	330
G4400091	9 x 1	12.9	86	209
G4400092	9 x 1.5	14.2	128	275
G4400093	9 x 2.5	15.8	212	374
G4400094	10 x 1	13.2	95	205
G4400095	10 x 1.5	14.6	142	273
G4400096	10 x 2.5	16.4	236	381
G4400097	12 x 1	13.9	114	241
G4400098	12 x 1.5	15.1	170	312
G4400099	12 x 2.5	17.0	283	440
G4400100	14 x 1	14.6	133	271
G4400101	14 x 1.5	15.9	199	354
G4400102	14 x 2.5	17.7	330	500
G4400103	16 x 1	15.3	151	305
G4400104	16 x 1.5	16.9	227	408
G4400105	16 x 2.5	18.9	377	576
G4400106	18 x 1	16.3	170	346
G4400107	18 x 1.5	17.7	255	454
G4400108	18 x 2.5	19.9	424	642
G4400109	19 x 1	16.3	160	354
G4400110	19 x 1.5	17.7	269	466
G4400111	19 x 2.5	19.9	449	661
G4400112	20 x 1	16.3	189	378
G4400113	20 x 1.5	17.7	283	495
G4400114	20 x 2.5	19.9	471	703
G4400115	21 x 1	17.2	198	414
G4400116	21 x 1.5	18.9	297	553
G4400117	21 x 2.5	21.1	494	769

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4400118	24 x 1	19.1	227	448
G4400119	24 x 1.5	20.9	340	590
G4400120	24x 2.5	23.4	565	837
G4400121	25 x 1	19.1	236	462
G4400122	25 x 1.5	20.9	353	609
G4400123	25x 2.5	23.4	588	865
G4400124	27 x 1	19.6	255	492
G4400125	27 x 1.5	21.6	382	660
G4400126	27 x 2.5	24.2	635	936
G4400127	30 x 1	20.3	283	537
G4400128	30 x 1.5	22.3	424	722
G4400129	30 x 2.5	25.0	706	1026
G4400130	32 x 1	21.0	302	571
G4400131	32 x 1.5	23.1	452	768
G4400132	32 x 2.5	26.0	753	1093
G4400133	36 x 1	22.0	340	642
G4400134	36 x 1.5	24.2	509	864
G4400135	36 x 2.5	27.1	847	1228
G4400136	37 x 1	22.0	349	649
G4400137	37 x 1.5	24.2	523	876
G4400138	37 x 2.5	27.1	871	1247
G4400139	40 x 1	22.8	377	711
G4400140	40 x 1.5	25.2	565	958
G4400141	40 x 2.5	28.3	941	1366
G4400142	42 x 1	23.8	396	745
G4400143	42 x 1.5	26.3	596	1005
G4400144	42 x 2.5	29.6	988	1445
G4400145	48 x 1	25.3	452	833
G4400146	48 x 1.5	27.8	679	1125
G4400147	48 x 2.5	31.3	1130	1606
G4400148	60 x 1	27.6	565	1028
G4400149	60 x 1.5	30.5	847	1390



MGH



Applications

This is used as fixed installation cables in various electromechanical and electronic equipments of marine vehicles.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) According to HD 308 S2 (more than 5 cores white cores / numbered)
Inner Sheath / Separator	Polyester Tape (halogen Free filler upon request)
Outer Sheath	Halogen Free, Flame Retardant (HFFR) (IEC 60092-359 SHF1) Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	DIN 89160, IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Korozif Gaz Ölçümleri	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

MGH

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G5000001	1 x 1	4.7	10	32	G5000042	3 x 240	58.1	6705	9126
G5000002	1 x 1.5	5.0	14	38	G5000043	4 x 1	10.7	37	241
G5000003	1 x 2.5	5.3	24	48	G5000044	4 x 1.5	11.6	56	253
G5000004	1 x 4	5.9	38	66	G5000045	4 x 2.5	12.6	94	291
G5000005	1 x 6	6.4	56	88	G5000046	4 x 4	14.0	149	358
G5000006	1 x 10	7.3	94	129	G5000047	4 x 6	15.3	224	498
G5000007	1 x 16	8.3	150	185	G5000048	4 x 10	17.9	373	659
G5000008	1 x 25	10.2	233	284	G5000049	4 x 16	20.3	596	933
G5000009	1 x 35	11.3	326	373	G5000050	4 x 25	24.7	932	1417
G5000010	1 x 50	13.1	466	507	G5000051	4 x 35	27.4	1304	1847
G5000011	1 x 70	15.2	652	716	G5000052	4 x 50	31.5	1863	2480
G5000012	1 x 95	17.0	885	952	G5000053	4 x 70	37.0	2608	3508
G5000013	1 x 120	18.9	1118	1199	G5000054	4 x 95	41.8	3539	4656
G5000014	1 x 150	21.0	1397	1477	G5000055	4 x 120	46.6	4470	5867
G5000015	1 x 185	23.3	1723	1832	G5000056	4 x 150	51.2	5588	7152
G5000016	1 x 240	26.1	2335	2395	G5000057	4 x 185	57.5	6891	8974
G5000017	1 x 300	28.9	2794	2975	G5000058	4 x 240	64.0	8940	11547
G5000018	1 x 400	32.2	3735	3766	G5000059	5 x 1	11.7	47	193
G5000019	2 x 1	9.5	19	129	G5000060	5 x 1.5	12.5	70	233
G5000020	2 x 1.5	10.1	28	150	G5000061	5 x 2.5	13.6	117	297
G5000021	2 x 2.5	10.9	47	185	G5000062	5 x 4	15.3	187	407
G5000022	2 x 4	12.3	75	246	G5000063	5 x 6	16.9	280	535
G5000023	2 x 6	13.3	112	306	G5000064	5 x 10	19.5	466	781
G5000024	2 x 10	15.2	187	433	G5000065	5 x 16	22.5	745	1120
G5000025	2 x 16	17.4	298	603	G5000066	5 x 25	27.2	1164	1694
G5000026	2 x 25	21.0	466	900	G5000067	6 x 1	12.4	56	218
G5000027	3 x 1	10.0	28	145	G5000068	6 x 1.5	13.3	84	266
G5000028	3 x 1.5	10.6	42	170	G5000069	6 x 2.5	14.5	140	341
G5000029	3 x 2.5	11.7	70	220	G5000070	7 x 1	12.4	86	226
G5000030	3 x 4	12.9	112	287	G5000071	7 x 1.5	13.3	98	278
G5000031	3 x 6	14.0	168	364	G5000072	7 x 2.5	14.5	163	360
G5000032	3 x 10	16.1	280	529	G5000073	8 x 1	12.2	75	206
G5000033	3 x 16	18.4	447	745	G5000074	8 x 1.5	13.5	112	270
G5000034	3 x 25	22.3	699	1124	G5000075	8 x 2.5	15.0	187	370
G5000035	3 x 35	24.8	978	1459	G5000076	9 x 1	13.1	84	235
G5000036	3 x 50	28.4	1397	1959	G5000077	9 x 1.5	14.4	126	306
G5000037	3 x 70	33.5	1956	2771	G5000078	9 x 2.5	16.1	210	421
G5000038	3 x 95	37.4	2654	3639	G5000079	10 x 0.75	13.0	70	205
G5000039	3 x 120	41.5	3353	4549	G5000080	10 x 1	13.4	94	231
G5000040	3 x 150	46.3	4191	5641	G5000081	10 x 1.5	14.8	140	303
G5000041	3 x 185	51.6	5169	7010	G5000082	10 x 2.5	16.5	233	481

MGH

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G5000083	12 x 1	13.9	112	299	G5000110	27 x 1	19.8	252	531
G5000084	12 x 1.5	15.2	168	388	G5000111	27 x 1.5	21.6	378	707
G5000085	12 x 2.5	17.1	280	551	G5000112	27 x 2.5	24.0	629	984
G5000086	14 x 1	14.8	131	334	G5000113	30 x 1	20.3	280	578
G5000087	14 x 1.5	16.0	196	443	G5000114	30 x 1.5	22.3	419	773
G5000088	14 x 2.5	18.1	326	621	G5000115	30 x 2.5	25.0	699	1090
G5000089	16 x 1	15.4	149	369	G5000116	32 x 1	21.0	298	616
G5000090	16 x 1.5	17.0	224	492	G5000117	32 x 1.5	23.1	447	824
G5000091	16 x 2.5	19.1	373	689	G5000118	32 x 2.5	26.0	745	1165
G5000092	18 x 1	16.2	168	447	G5000119	36 x 1	22.0	336	686
G5000093	18 x 1.5	17.9	252	566	G5000120	36 x 1.5	24.2	503	919
G5000094	18 x 2.5	20.1	419	767	G5000121	36 x 2.5	27.1	839	1299
G5000095	19 x 1	16.2	177	376	G5000122	37 x 1	22.0	345	694
G5000096	19 x 1.5	17.9	266	502	G5000123	37 x 1.5	24.2	517	930
G5000097	19 x 2.5	20.1	441	708	G5000124	37 x 2.5	27.1	862	1318
G5000098	20 x 1	16.2	187	398	G5000125	40 x 1	22.8	373	760
G5000099	20 x 1.5	17.9	280	533	G5000126	40 x 1.5	25.2	559	1019
G5000100	20 x 2.5	20.1	466	750	G5000127	40 x 2.5	28.3	862	1443
G5000101	21 x 1	17.3	196	446	G5000128	42 x 1	23.8	392	799
G5000102	21 x 1.5	18.9	294	584	G5000129	42 x 1.5	26.3	587	1071
G5000103	21 x 2.5	21.3	489	821	G5000130	42 x 2.5	29.4	978	1516
G5000104	24 x 1	19.1	224	479	G5000131	48 x 1	25.3	447	894
G5000105	24 x 1.5	21.1	336	639	G5000132	48 x 1.5	27.8	671	1199
G5000106	24 x 2.5	23.7	559	899	G5000133	48 x 2.5	31.5	1118	1717
G5000107	25 x 1	19.1	233	492	G5000134	60 x 1	27.8	559	1086
G5000108	25 x 1.5	21.1	350	657	G5000135	60 x 1.5	30.9	839	1474
G5000109	25 x 2.5	23.7	582	927					



MGCH, MGCH (EMC)



Applications

These are used on marine vehicles as fixed installation cables of various electromechanical and electronic equipments, where sustainable connection during fire is required. By the overall screen the electromagnetic interference is minimized. EMC version has double screen.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) According to HD 308 S2 (more than 5 cores white cores / numbered)
Inner Sheath / Separator	Polyester Tape (halogen Free filler upon request) (EMC type has Halogen Free filler)
Screen	Annealed copper wire braiding 90 % Cov. Rate (EMC type has tape 100 % coverage rate)
Outer Sheath	Halogen Free Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Black or Grey (RAL 7000)

Technical and Electrical Properties (20 °C)

Reference Standards	DIN 89159, IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

MGCH, MGCH (EMC)

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4800001	1 x 1	5.8	30	54	G4800042	3 x 120	43.7	3799	4998
G4800002	1 x 1.5	6.1	35	63	G4800043	3 x 150	48.3	4687	6117
G4800003	1 x 2.5	6.5	44	76	G4800044	3 x 185	53.6	5698	7539
G4800004	1 x 4	7.1	63	97	G4800045	3 x 240	60.1	7304	9717
G4800005	1 x 6	7.6	82	121	G4800046	3 x 300	67.2	9070	12224
G4800006	1 x 10	8.7	124	171	G4800047	3 x 400	75.6	11961	15884
G4800007	1 x 16	9.7	184	233	G4800048	4 x 1	12.1	86	230
G4800008	1 x 25	11.6	278	343	G4800049	4 x 1.5	12.8	114	267
G4800009	1 x 35	12.7	379	440	G4800050	4 x 2.5	13.8	151	328
G4800010	1 x 50	14.9	550	616	G4800051	4 x 4	15.7	259	463
G4800011	1 x 70	17.0	753	842	G4800052	4 x 6	16.9	334	572
G4800012	1 x 95	8.8	1003	1094	G4800053	4 x 10	19.3	500	797
G4800013	1 x 120	20.7	1252	1357	G4800054	4 x 16	21.9	742	1092
G4800014	1 x 150	22.8	1531	1653	G4800055	4 x 25	26.4	1123	1622
G4800015	1 x 185	25.0	1874	2027	G4800056	4 x 35	29.2	1495	2076
G4800016	1 x 240	27.9	2411	2618	G4800057	4 x 50	33.3	2108	2744
G4800017	1 x 300	30.7	2995	3217	G4800058	4 x 70	39.2	2995	3910
G4800018	1 x 400	34.0	3926	4036	G4800059	4 x 95	44.0	3975	5110
G4800019	1 x 1000	53.0	9846	10435	G4800060	4 x 120	48.4	4953	6317
G4800020	2 x 1	10.7	59	179	G4800061	4 x 150	53.6	6071	7732
G4800021	2 x 1.5	11.5	71	209	G4800062	4 x 185	59.7	7471	9585
G4800022	2 x 2.5	12.3	94	248	G4800063	4 x 240	66.7	9585	12333
G4800023	2 x 4	13.5	131	311	G4800064	5 x 1	12.9	100	255
G4800024	2 x 6	15.0	201	416	G4800065	5 x 1.5	13.7	100	299
G4800025	2 x 10	16.8	294	551	G4800066	5 x 2.5	15.3	209	410
G4800026	2 x 16	19.0	424	739	G4800067	5 x 4	16.9	289	527
G4800027	2 x 25	22.6	609	1065	G4800068	5 x 6	18.5	398	667
G4800028	2 x 50	29.5	1124	1858	G4800069	5 x 10	21.1	601	932
G4800029	2 x 70	33.3	1524	2450	G4800070	5 x 16	24.1	898	1295
G4800030	3 x 1	11.2	73	198	G4800071	5 x 25	29.0	1342	1921
G4800031	3 x 1.5	12.0	91	233	G4800072	6 x 1	13.6	113	285
G4800032	3 x 2.5	12.9	128	282	G4800073	6 x 1.5	15.0	175	377
G4800033	3 x 4	14.1	170	355	G4800074	6 x 2.5	16.2	249	462
G4800034	3 x 6	15.7	280	481	G4800075	7 x 1	13.6	122	292
G4800035	3 x 10	17.9	391	663	G4800076	7 x 1.5	15.0	189	379
G4800036	3 x 16	20.0	578	889	G4800077	7 x 2.5	16.2	272	481
G4800037	3 x 25	24.1	867	1311	G4800078	8 x 1	13.8	165	281
G4800038	3 x 35	26.5	1174	1666	G4800079	8 x 1.5	15.0	188	388
G4800039	3 x 50	30.2	1620	2197	G4800080	8 x 2.5	16.4	295	447
G4800040	3 x 70	35.2	2206	3051	G4800081	9 x 1	14.7	174	313
G4800041	3 x 95	39.6	3061	4046	G4800082	9 x 1.5	15.7	216	381

MGCH, MGCH (EMC)

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4800083	9 x 2.5	17.5	319	500
G4800084	10 x 0.75	13.2	125	207
G4800085	10 x 1	14.9	180	282
G4800086	10 x 1.5	16.1	244	346
G4800087	10 x 2.5	17.9	337	462
G4800088	12 x 1	15.4	198	306
G4800089	12 x 1.5	16.8	272	390
G4800090	12 x 2.5	18.7	400	525
G4800091	14 x 1	16.1	235	335
G4800092	14 x 1.5	17.6	300	429
G4800093	14 x 2.5	19.5	447	594
G4800094	16 x 1	17.0	253	388
G4800095	16 x 1.5	18.4	344	666
G4800096	16 x 2.5	20.7	499	666
G4800097	18 x 1	17.8	272	419
G4800098	18 x 1.5	19.5	372	537
G4800099	18 x 2.5	21.7	556	729
G4800100	19 x 1	17.8	281	429
G4800101	19 x 1.5	19.5	386	551
G4800102	19 x 2.5	21.7	581	751
G4800103	20 x 1	17.8	290	439
G4800104	20 x 1.5	19.5	400	567
G4800105	20 x 2.5	21.7	604	776
G4800106	21 x 1	18.7	316	464
G4800107	21 x 1.5	20.5	414	598
G4800108	21 x 2.5	22.9	627	819
G4800109	24 x 1	20.7	344	532
G4800110	24 x 1.5	22.7	473	685
G4800111	24 x 2.5	25.2	714	936

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4800112	25 x 1	20.7	354	541
G4800113	25 x 1.5	22.7	487	699
G4800114	25 x 2.5	25.2	738	959
G4800115	27 x 1	21.2	390	569
G4800116	27 x 1.5	23.2	533	737
G4800117	27 x 2.5	25.8	784	1015
G4800118	30 x 1	22.1	409	621
G4800119	30 x 1.5	24.2	575	806
G4800120	30 x 2.5	26.8	879	1110
G4800121	32 x 1	22.8	454	652
G4800122	32 x 1.5	24.9	603	848
G4800123	32 x 2.5	27.8	926	1173
G4800124	36 x 1	23.6	491	705
G4800125	36 x 1.5	25.8	658	922
G4800126	36 x 2.5	28.8	1019	1281
G4800127	37 x 1	23.6	500	715
G4800128	37 x 1.5	25.8	672	936
G4800129	37 x 2.5	28.8	1042	1304
G4800130	40 x 1	24.7	528	773
G4800131	40 x 1.5	27.0	740	1013
G4800132	40 x 2.5	30.2	1138	1413
G4800133	42 x 1	25.6	547	813
G4800134	42 x 1.5	28.1	768	1013
G4800135	42 x 2.5	31.3	1185	1478
G4800136	48 x 1	27.1	628	905
G4800137	48 x 1.5	29.7	740	1076
G4800138	48 x 2.5	33.2	1325	1663
G4800139	60 x 1	29.5	740	1076
G4800140	60 x 1.5	32.4	1045	1424







FireKab M2XH FE180



Applications

FireKab fire resistant marine cable is used as fixed installation cable in various electromechanical and electronic equipment of marine vessels.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Inner Sheath / Separator	Polyester Tape (halogen Free filler upon request)
Outer Sheath	Halogen Free, Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Green

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Insulation integrity	IEC 60331
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

FireKab M2XH FE180

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4500001	1 x 0.75	4.8	8	32
G4500002	1 x 1	4.9	10	35
G4500003	1 x 1.5	5.2	15	42
G4500004	1 x 2.5	5.7	24	53
G4500005	1 x 4	6.2	39	71
G4500006	1 x 6	6.8	57	93
G4500007	1 x 10	7.6	95	134
G4500008	1 x 16	8.8	151	195
G4500009	1 x 25	10.5	236	292
G4500010	1 x 35	11.7	330	386
G4500011	1 x 50	13.3	471	517
G4500012	1 x 70	15.4	659	725
G4500013	1 x 95	17.3	894	970
G4500014	1 x 120	19.2	1129	1219
G4500015	1 x 150	21.2	1412	1493
G4500016	1 x 185	23.5	1741	1857
G4500017	1 x 240	26.5	2258	2427
G4500018	1 x 300	31.4	2823	3195
G4500019	2 x 1	8.3	20	71
G4500020	2 x 1.5	8.9	29	85
G4500021	2 x 2.5	9.9	47	109
G4500022	2 x 4	11.1	76	150
G4500023	2 x 6	12.3	114	196
G4500024	2 x 10	14.2	189	289
G4500025	2 x 16	16.4	302	416
G4500026	2 x 25	21.2	471	917
G4500027	3 x 1	8.8	29	89
G4500028	3 x 1.5	9.4	44	107
G4500029	3 x 2.5	10.5	71	143
G4500030	3 x 4	11.8	114	199
G4500031	3 x 6	13.0	170	264
G4500032	3 x 10	15.1	281	395
G4500033	3 x 16	17.4	452	578
G4500034	3 x 25	22.6	706	1149
G4500035	3 x 35	25.0	988	1483
G4500036	3 x 50	28.7	1412	1910
G4500037	3 x 70	33.5	1976	2794
G4500038	3 x 95	37.7	2682	3694
G4500039	3 x 120	41.8	3387	4624
G4500040	3 x 150	46.5	4234	5692
G4500041	3 x 185	51.5	5225	7059

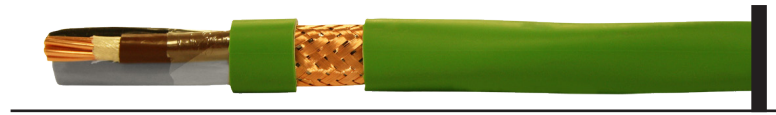
PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4500042	3 x 240	58.2	6774	9206
G4500043	4 x 1	9.6	39	108
G4500044	4 x 1.5	10.3	57	133
G4500045	4 x 2.5	11.7	95	183
G4500046	4 x 4	12.9	151	251
G4500047	4 x 6	14.5	227	343
G4500048	4 x 10	16.9	377	515
G4500049	4 x 16	19.4	603	760
G4500050	4 x 25	25.1	941	1448
G4500051	4 x 35	27.6	1318	1870
G4500052	4 x 50	32.5	1882	2581
G4500053	4 x 70	37.4	2635	3568
G4500054	4 x 95	42.2	3575	4741
G4500055	4 x 120	46.6	4516	5908
G4500056	4 x 150	52.2	5645	7340
G4500057	4 x 185	57.8	6962	9081
G4500058	4 x 240	65.5	9032	11877
G4500059	5 x 1	10.5	47	131
G4500060	5 x 1.5	11.5	71	168
G4500061	5 x 2.5	12.8	118	226
G4500062	5 x 4	14.3	189	318
G4500063	5 x 6	16.0	283	427
G4500064	5 x 10	18.5	471	641
G4500065	5 x 16	21.6	753	951
G4500066	5 x 25	27.8	1777	1736
G4500067	5 x 35	31.1	1647	2284
G4500068	5 x 50	36.0	2352	3090
G4500069	5 x 70	41.8	3293	4329
G4500070	5 x 95	47.0	4469	5729
G4500071	5 x 120	52.3	5645	7201
G4500072	5 x 150	58.0	7056	8851
G4500073	5 x 185	64.9	8703	11065
G4500074	5 x 240	72.9	11290	14366
G4500075	6 x 1	11.5	57	159
G4500076	6 x 1.5	12.3	86	198
G4500077	6 x 2.5	14.0	142	273
G4500078	7 x 1	11.5	67	167
G4500079	7 x 1.5	12.3	99	209
G4500080	7 x 2.5	14.0	165	293
G4500081	8 x 1	13.1	76	209
G4500082	8 x 1.5	14.4	114	269

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PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4500083	8 x 2.5	16.3	189	370	G4500113	24 x 2.5	26.0	565	925
G4500084	9 x 1	14.2	86	243	G4500114	25 x 1	20.9	236	520
G4500085	9 x 1.5	15.4	128	304	G4500115	25 x 1.5	22.8	353	678
G4500086	9 x 2.5	17.4	212	320	G4500116	25 x 2.5	26.0	588	954
G4500087	10 x 1	14.6	95	238	G4500117	27 x 1	21.6	255	564
G4500088	10 x 1.5	15.8	142	298	G4500118	27 x 1.5	23.3	382	723
G4500089	10 x 2.5	17.9	236	415	G4500119	27 x 2.5	26.6	636	1019
G4500090	12 x 1	15.1	114	270	G4500120	30 x 1	22.3	283	615
G4500091	12 x 1.5	16.6	170	350	G4500121	30 x 1.5	24.4	424	802
G4500092	12 x 2.5	18.6	283	480	G4500122	30 x 2.5	27.7	706	1130
G4500093	14 x 1	15.9	133	305	G4500123	32 x 1	23.1	302	655
G4500094	14 x 1.5	17.3	198	396	G4500124	32 x 1.5	25.4	452	855
G4500095	14 x 2.5	19.7	330	555	G4500125	32 x 2.5	28.8	753	1206
G4500096	16 x 1	16.9	151	351	G4500126	36 x 1	24.2	340	736
G4500097	16 x 1.5	18.3	227	447	G4500127	36 x 1.5	26.3	509	947
G4500098	16 x 2.5	20.8	377	629	G4500128	36 x 2.5	30.1	847	1354
G4500099	18 x 1	17.7	170	390	G4500129	37 x 1	24.2	349	744
G4500100	18 x 1.5	19.4	255	508	G4500130	37 x 1.5	26.3	523	960
G4500101	18 x 2.5	22.1	424	712	G4500131	37 x 2.5	30.1	871	1374
G4500102	19 x 1	17.7	180	399	G4500132	40 x 1	25.2	377	816
G4500103	19 x 1.5	19.4	269	520	G4500133	40 x 1.5	27.5	565	1066
G4500104	19 x 2.5	22.1	449	731	G4500134	40 x 2.5	31.4	941	1505
G4500105	20 x 1	17.7	189	425	G4500135	42 x 1	26.3	396	855
G4500106	20 x 1.5	19.4	283	553	G4500136	42 x 1.5	28.7	593	1117
G4500107	20 x 2.5	22.1	471	779	G4500137	42 x 2.5	32.8	988	1593
G4500108	21 x 1	18.9	198	479	G4500138	48 x 1	27.8	452	953
G4500109	21 x 1.5	20.5	297	610	G4500139	48 x 1.5	30.4	679	1246
G4500110	21 x 2.5	23.3	494	854	G4500140	48 x 2.5	34.8	1130	1781
G4500111	24 x 1	20.9	227	505	G4500141	60 x 1	30.5	565	1176
G4500112	24 x 1.5	22.8	340	658	G4500142	60 x 1.5	33.3	847	1540



FireKab MGCH FE180



Applications

FireKab fire resistant marine cables are used for fixed installations on ships and offshore-units in all locations and open deck.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) According to HD 308 S2 (more than 5 cores white cores / numbered)
Inner Sheath / Separator	Polyester Tape (halogen Free filler upon request)
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Green

Technical and Electrical Properties (20 °C)

Reference Standards	DIN 89158, IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Insulation integrity	IEC 60331
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

FireKab MGCH FE180

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4900001	1 x 1	6.1	30	59
G4900002	1 x 1.5	6.4	35	68
G4900003	1 x 2.5	6.9	44	83
G4900004	1 x 4	7.4	63	103
G4900005	1 x 6	8.0	82	128
G4900006	1 x 10	9.1	124	179
G4900007	1 x 16	10.1	184	242
G4900008	1 x 25	12.0	278	354
G4900009	1 x 35	13.0	379	448
G4900010	1 x 50	15.2	549	630
G4900011	1 x 70	17.3	753	854
G4900012	1 x 95	19.1	1002	1107
G4900013	1 x 120	21.0	1252	1370
G4900014	1 x 150	23.2	1531	1671
G4900015	1 x 185	25.3	1874	2043
G4900016	1 x 240	28.3	2411	2637
G4900017	2 x 1	11.3	65	197
G4900018	2 x 1.5	12.1	74	229
G4900019	2 x 2.5	13.1	100	275
G4900020	2 x 4	14.1	128	334
G4900021	2 x 6	14.9	214	449
G4900022	2 x 10	17.6	289	487
G4900023	2 x 16	19.8	417	779
G4900024	2 x 25	23.4	618	1112
G4900025	3 x 1	11.8	75	216
G4900026	3 x 1.5	12.6	92	251
G4900027	3 x 2.5	13.7	130	307
G4900028	3 x 4	14.8	180	383
G4900029	3 x 6	16.6	282	519
G4900030	3 x 10	18.7	413	699
G4900031	3 x 16	20.9	599	934
G4900032	3 x 25	24.8	870	1327
G4900033	3 x 35	27.2	1177	1713
G4900034	3 x 50	31.0	1624	2553
G4900035	3 x 70	35.8	2211	3101
G4900036	3 x 95	40.3	3058	4114
G4900037	3 x 120	44.3	3807	5060
G4900038	3 x 150	49.1	4695	6205
G4900039	3 x 185	54.3	5707	7629
G4900040	3 x 240	61.0	7311	9844
G4900041	4 x 0.75	12.6	75	241

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4900042	4 x 1	12.8	92	253
G4900043	4 x 1.5	13.5	111	291
G4900044	4 x 2.5	14.7	155	358
G4900045	4 x 4	16.5	253	498
G4900046	4 x 6	17.9	328	616
G4900047	4 x 10	20.3	493	845
G4900048	4 x 16	22.9	734	1145
G4900049	4 x 25	27.3	1112	1678
G4900050	4 x 35	29.9	1511	2124
G4900051	4 x 50	34.3	2095	2821
G4900052	4 x 70	40.0	2974	3985
G4900053	4 x 95	44.6	3951	5182
G4900054	4 x 120	49.1	4928	6394
G4900055	4 x 150	54.5	6091	7853
G4900056	4 x 185	60.4	7441	9679
G4900057	4 x 240	67.7	9550	12483
G4900058	5 x 1	13.7	104	282
G4900059	5 x 1.5	14.5	135	326
G4900060	5 x 2.5	16.4	263	450
G4900061	5 x 4	17.7	297	562
G4900062	5 x 6	19.6	408	715
G4900063	5 x 10	22.2	613	985
G4900064	5 x 16	25.0	910	1350
G4900065	5 x 25	30.1	1385	1991
G4900066	6 x 1	14.5	118	316
G4900067	6 x 1.5	15.9	187	411
G4900068	6 x 2.5	17.4	243	509
G4900069	7 x 1	14.5	127	324
G4900070	7 x 1.5	15.9	201	423
G4900071	7 x 2.5	17.4	266	529
G4900072	8 x 1	14.9	160	314
G4900073	8 x 1.5	15.9	215	376
G4900074	8 x 2.5	17.8	290	491
G4900075	9 x 1	15.7	187	348
G4900076	9 x 1.5	16.9	229	419
G4900077	9 x 2.5	19.0	329	550
G4900078	10 x 1	16.1	195	312
G4900079	10 x 1.5	17.3	242	378
G4900080	10 x 2.5	19.5	352	500
G4900081	12 x 1	16.6	214	340
G4900082	12 x 1.5	18.1	287	425

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PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4900083	12 x 2.5	20.4	398	567
G4900084	14 x 1	17.4	233	372
G4900085	14 x 1.5	18.9	314	467
G4900086	14 x 2.5	21.3	461	628
G4900087	16 x 1	18.4	268	413
G4900088	16 x 1.5	19.9	359	512
G4900089	16 x 2.5	22.6	508	702
G4900090	18 x 1	19.3	286	447
G4900091	18 x 1.5	21.0	387	566
G4900092	18 x 2.5	23.7	572	767
G4900093	19 x 1	19.3	296	429
G4900094	19 x 1.5	21.0	401	551
G4900095	19 x 2.5	23.7	595	789
G4900096	20 x 1	19.3	305	469
G4900097	20 x 1.5	21.0	415	596
G4900098	20 x 2.5	23.7	618	815
G4900099	21 x 1	20.3	314	494
G4900100	21 x 1.5	22.1	429	630
G4900101	21 x 2.5	24.9	642	859
G4900102	24 x 1	22.5	359	567
G4900103	24 x 1.5	24.5	488	722
G4900104	24 x 2.5	27.6	728	983
G4900105	25 x 1	22.5	368	578
G4900106	25 x 1.5	24.5	502	736
G4900107	25 x 2.5	27.6	751	1007
G4900108	27 x 1	23.0	404	605

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4900109	27 x 1.5	24.9	530	774
G4900110	27 x 2.5	28.2	807	1063
G4900111	30 x 1	24.0	432	660
G4900112	30 x 1.5	26.0	597	846
G4900113	30 x 2.5	29.4	876	1164
G4900114	32 x 1	24.8	451	694
G4900115	32 x 1.5	27.0	616	893
G4900116	32 x 2.5	30.5	948	1229
G4900117	36 x 1	25.6	488	749
G4900118	36 x 1.5	27.9	681	968
G4900119	36 x 2.5	31.6	1041	1340
G4900120	37 x 1	25.6	488	749
G4900121	37 x 1.5	27.9	681	982
G4900122	37 x 2.5	31.6	1039	1364
G4900123	40 x 1	26.8	550	821
G4900124	40 x 1.5	29.2	737	1062
G4900125	40 x 2.5	33.1	1134	1475
G4900126	42 x 1	27.9	569	860
G4900127	42 x 1.5	30.4	790	1113
G4900128	42 x 2.5	34.4	1206	1546
G4900129	48 x 1	29.5	625	959
G4900130	48 x 1.5	32.1	874	1244
G4900131	48 x 2.5	36.3	1346	1735
G4900132	60 x 1	32.2	762	1140
G4900133	60 x 1.5	35.0	1066	1490



FireKab MGH FE180



Applications

FireKab fire resistant marine cable is used as fixed installation cable in various electromechanical and electronic equipment of marine vessels.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) According to HD 308 S2 (more than 5 cores white cores / numbered)
Inner Sheath / Separator	Polyester Tape (halogen Free filler upon request)
Outer Sheath	Halogen Free, Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Green

Technical and Electrical Properties (20 °C)

Reference Standards	DIN 89160, IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Insulation integrity	IEC 60331
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

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PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G5100001	1 x 1	5.0	10	35
G5100002	1 x 1.5	5.2	14	42
G5100003	1 x 2.5	5.7	24	53
G5100004	1 x 4	6.2	38	71
G5100005	1 x 6	6.8	56	93
G5100006	1 x 10	7.7	94	134
G5100007	1 x 16	8.7	150	191
G5100008	1 x 25	10.6	233	292
G5100009	1 x 35	11.6	326	380
G5100010	1 x 50	13.5	466	517
G5100011	1 x 70	15.5	652	725
G5100012	1 x 95	17.3	885	962
G5100013	1 x 120	19.2	1118	1210
G5100014	1 x 150	21.4	1397	1493
G5100015	1 x 185	23.6	1723	1845
G5100016	1 x 240	26.5	2335	2413
G5100017	2 x 1	10.1	20	144
G5100018	2 x 1.5	10.7	29	166
G5100019	2 x 2.5	11.7	49	206
G5100020	2 x 4	12.9	75	265
G5100021	2 x 6	14.1	113	332
G5100022	2 x 10	16.0	187	462
G5100023	2 x 16	16.2	299	636
G5100024	2 x 25	21.8	466	940
G5100025	3 x 1	10.6	29	160
G5100026	3 x 1.5	11.2	43	186
G5100027	3 x 2.5	12.5	70	242
G5100028	3 x 4	13.6	113	309
G5100029	3 x 6	14.9	168	394
G5100030	3 x 10	16.9	280	557
G5100031	3 x 16	19.3	448	783
G5100032	3 x 25	23.1	699	1163
G5100033	3 x 35	25.4	978	1499
G5100034	3 x 50	29.2	1397	2008
G5100035	3 x 70	34.1	1956	2815
G5100036	3 x 95	38.1	2654	3699
G5100037	3 x 120	42.6	3353	4703
G5100038	3 x 150	47.1	4191	5722
G5100039	3 x 185	52.3	5169	7093
G5100040	3 x 240	59.0	6705	9243
G5100041	4 x 1	11.4	38	187

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G5100042	4 x 1.5	12.3	57	226
G5100043	4 x 2.5	13.5	94	287
G5100044	4 x 4	14.8	150	375
G5100045	4 x 6	16.3	225	488
G5100046	4 x 10	18.7	373	699
G5100047	4 x 16	21.3	597	978
G5100048	4 x 25	25.5	932	1464
G5100049	4 x 35	28.1	1304	1888
G5100050	4 x 50	32.5	1863	2548
G5100051	4 x 70	37.8	2608	3574
G5100052	4 x 95	42.5	3539	4720
G5100053	4 x 120	47.3	4470	5937
G5100054	4 x 150	52.2	5588	7262
G5100055	4 x 185	58.2	6891	9061
G5100056	4 x 240	64.9	8940	11684
G5100057	5 x 1	12.5	47	215
G5100058	5 x 1.5	13.3	70	255
G5100059	5 x 2.5	14.7	117	328
G5100060	5 x 4	16.1	187	436
G5100061	5 x 6	18.0	280	575
G5100062	5 x 10	20.6	466	824
G5100063	5 x 16	23.5	745	1167
G5100064	5 x 25	28.3	1165	1754
G5100065	6 x 1	13.3	57	244
G5100066	6 x 1.5	14.2	85	292
G5100067	6 x 2.5	15.6	140	379
G5100068	7 x 1	13.3	66	253
G5100069	7 x 1.5	14.2	98	305
G5100070	7 x 2.5	15.6	164	397
G5100071	8 x 1	13.3	75	236
G5100072	8 x 1.5	14.6	113	301
G5100073	8 x 2.5	16.4	187	412
G5100074	9 x 1	14.2	85	267
G5100075	9 x 1.5	15.5	127	341
G5100076	9 x 2.5	17.6	210	469
G5100077	10 x 1	14.6	94	261
G5100078	10 x 1.5	15.9	140	336
G5100079	10 x 2.5	18.1	233	465
G5100080	12 x 1	15.0	112	294
G5100081	12 x 1.5	16.5	168	381
G5100082	12 x 2.5	18.8	280	531

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PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G5100083	14 x 1	16.0	131	339	G5100108	27 x 1.5	23.6	378	779
G5100084	14 x 1.5	17.3	196	428	G5100109	27 x 2.5	26.6	629	1080
G5100085	14 x 2.5	19.9	326	608	G5100110	30 x 1	22.4	280	655
G5100086	16 x 1	16.8	150	379	G5100111	30 x 1.5	24.5	419	852
G5100087	16 x 1.5	18.5	224	490	G5100112	30 x 2.5	27.8	699	1198
G5100088	16 x 2.5	21.0	373	684	G5100113	32 x 1	23.2	299	699
G5100089	18 x 1	17.7	168	419	G5100114	32 x 1.5	25.4	448	910
G5100090	18 x 1.5	19.4	253	542	G5100115	32 x 2.5	28.9	745	1280
G5100091	18 x 2.5	22.1	419	760	G5100116	36 x 1	24.3	336	780
G5100092	19 x 1	17.7	178	427	G5100117	36 x 1.5	26.5	504	1014
G5100093	19 x 1.5	19.4	266	554	G5100118	36 x 2.5	30.2	839	1427
G5100094	19 x 2.5	22.1	443	734	G5100119	37 x 1	24.3	346	787
G5100095	20 x 1	17.7	187	453	G5100120	37 x 1.5	26.5	517	1026
G5100096	20 x 1.5	19.4	280	588	G5100121	37 x 2.5	30.2	862	1446
G5100097	20 x 2.5	22.1	466	827	G5100122	40 x 1	25.2	373	864
G5100098	21 x 1	18.9	196	510	G5100123	40 x 1.5	27.6	559	1125
G5100099	21 x 1.5	20.5	294	648	G5100124	40 x 2.5	31.5	932	1586
G5100100	21 x 2.5	23.4	489	907	G5100125	42 x 1	26.3	392	909
G5100101	24 x 1	20.9	225	543	G5100126	42 x 1.5	28.8	587	1182
G5100102	24 x 1.5	22.9	336	705	G5100127	42 x 2.5	32.8	978	1666
G5100103	24 x 2.5	26.0	559	989	G5100128	48 x 1	27.9	448	1015
G5100104	25 x 1	20.9	233	559	G5100129	48 x 1.5	30.5	672	1321
G5100105	25 x 1.5	22.9	350	726	G5100130	48 x 2.5	34.9	1118	1883
G5100106	25 x 2.5	26.0	582	1019	G5100131	60 x 1	30.8	559	1230
G5100107	27 x 1	21.6	253	601	G5100132	60 x 1.5	33.9	839	1622



FireKab M2XCH FE180



Applications

FireKab fire resistant marine cable is used on marine vehicles as fixed installation cables of various electromechanical and electronic equipments, where sustainable connection during fire is required.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) According to HD 308 S2 (from 5 cores white cores / numbered)
Inner Sheath / Separator	Polyester Tape (halogen Free filler upon request)
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Green

Technical and Electrical Properties (20 °C)

Reference Standards	DIN 8958, IEC 60092 / 353
Conductor Resistance (max.)	IEC / EN 60228
Insulation Resistance	5000 MOhm x km
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Insulation integrity	IEC 60331
Corrosive Gases Measurement	IEC 60754-2, BS/EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	0.6 / 1 (1.2) kV
Test Voltage	3.5 kV

FireKab M2XCH FE180

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4200001	1 x 1	6.1	30	59	G4200042	3 x 35	26.6	1179	1680
G4200002	1 x 1.5	6.4	35	68	G4200043	3 x 50	30.5	1630	2232
G4200003	1 x 2.5	6.9	45	83	G4200044	3 x 70	35.7	2314	3161
G4200004	1 x 4	7.4	64	103	G4200045	3 x 95	39.7	3069	4086
G4200005	1 x 6	7.9	82	128	G4200046	3 x 120	44.0	3823	5082
G4200006	1 x 10	9.0	125	179	G4200047	3 x 150	48.6	4718	6201
G4200007	1 x 16	10.0	186	226	G4200048	3 x 185	53.7	5754	7624
G4200008	1 x 25	11.9	281	354	G4200049	3 x 240	60.4	7355	9844
G4200009	1 x 35	12.8	383	448	G4200050	4 x 1	10.6	81	155
G4200010	1 x 50	15.1	555	630	G4200051	4 x 1.5	11.5	105	190
G4200011	1 x 70	17.2	761	854	G4200052	4 x 2.5	12.6	150	242
G4200012	1 x 95	19.1	1013	1116	G4200053	4 x 4	14.5	246	354
G4200013	1 x 120	20.8	1265	1370	G4200054	4 x 6	15.9	322	451
G4200014	1 x 150	22.9	1564	1671	G4200055	4 x 10	18.2	502	641
G4200015	1 x 185	25.3	1893	2056	G4200056	4 x 16	20.8	746	906
G4200016	1 x 240	28.2	2445	2650	G4200057	4 x 25	26.9	1128	1660
G4200017	1 x 300	33.3	2600	3332	G4200058	4 x 35	29.2	1532	2089
G4200018	2 x 1	9.3	56	111	G4200059	4 x 50	34.1	2123	2839
G4200019	2 x 1.5	9.9	65	129	G4200060	4 x 70	39.4	3015	3958
G4200020	2 x 2.5	11.1	89	164	G4200061	4 x 95	44.4	4004	5203
G4200021	2 x 4	12.1	122	205	G4200062	4 x 120	48.8	4992	6418
G4200022	2 x 6	13.8	19	293	G4200063	4 x 150	54.4	6170	7912
G4200023	2 x 10	15.6	292	394	G4200064	4 x 185	60.0	7533	9714
G4200024	2 x 16	17.7	405	537	G4200065	4 x 240	67.6	9666	12595
G4200025	2 x 25	22.9	625	1095	G4200066	5 x 1	11.7	96	189
G4200026	2 x 35	25.1	813	1367	G4200067	5 x 1.5	12.4	120	225
G4200027	2 x 50	28.6	1121	1797	G4200068	5 x 2.5	14.4	207	328
G4200028	2 x 70	33.1	1548	2461	G4200069	5 x 4	15.7	296	424
G4200029	2 x 95	37.4	2106	3269	G4200070	5 x 6	17.5	390	554
G4200030	2 x 120	41.0	2622	3989	G4200071	5 x 10	20.1	595	790
G4200031	2 x 150	45.7	3232	4918	G4200072	5 x 16	22.9	913	1114
G4200032	2 x 185	50.2	3936	5997	G4200073	5 x 25	29.6	1389	1970
G4200033	2 x 240	56.6	5016	7746	G4200074	5 x 35	32.8	1863	2546
G4200034	3 x 1	9.8	67	132	G4200075	5 x 50	38.1	2683	3482
G4200035	3 x 1.5	10.4	86	154	G4200076	5 x 70	44.0	3718	4788
G4200036	3 x 2.5	11.7	120	200	G4200077	5 x 95	49.2	4941	6244
G4200037	3 x 4	12.7	170	258	G4200078	5 x 120	54.5	6164	7774
G4200038	3 x 6	14.6	261	369	G4200079	5 x 150	60.2	7622	9487
G4200039	3 x 10	16.7	392	516	G4200080	5 x 185	67.0	9331	11775
G4200040	3 x 16	19.0	579	718	G4200081	5 x 240	75.1	11981	15165
G4200041	3 x 25	24.4	870	1339	G4200082	6 x 1	12.4	108	216

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PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4200083	6 x 1.5	13.9	181	295
G4200084	6 x 2.5	15.4	243	377
G4200085	7 x 1	12.4	118	224
G4200086	7 x 1.5	13.9	195	308
G4200087	7 x 2.5	15.4	267	396
G4200088	8 x 1	14.7	172	314
G4200089	8 x 1.5	15.8	215	376
G4200090	8 x 2.5	17.6	303	491
G4200091	9 x 1	15.6	187	348
G4200092	9 x 1.5	17.0	243	428
G4200093	9 x 2.5	19.0	346	560
G4200094	10 x 0.75	14.6	169	292
G4200095	10 x 1	16.0	196	346
G4200096	10 x 1.5	17.3	256	425
G4200097	10 x 2.5	19.5	370	560
G4200098	12 x 1	16.7	228	390
G4200099	12 x 1.5	17.9	303	474
G4200100	12 x 2.5	20.2	416	630
G4200101	14 x 1	17.4	247	433
G4200102	14 x 1.5	18.9	331	536
G4200103	14 x 2.5	21.1	483	703
G4200104	16 x 1	18.2	284	478
G4200105	16 x 1.5	19.9	360	595
G4200106	16 x 2.5	22.3	530	796
G4200107	18 x 1	19.3	303	534
G4200108	18 x 1.5	20.8	407	653
G4200109	18 x 2.5	23.4	595	878
G4200110	19 x 1	19.3	312	541
G4200111	19 x 1.5	20.8	422	665
G4200112	19 x 2.5	23.4	619	896
G4200113	20 x 1	19.3	322	567
G4200114	20 x 1.5	20.8	436	699
G4200115	20 x 2.5	23.4	642	945
G4200116	21 x 1	20.3	331	620

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G4200117	21 x 1.5	22.1	450	775
G4200118	21 x 2.5	24.9	666	1043
G4200119	24 x 1	22.4	379	674
G4200120	24 x 1.5	24.4	511	842
G4200121	24 x 2.5	27.5	765	1134
G4200122	25 x 1	22.4	389	688
G4200123	25 x 1.5	24.4	525	862
G4200124	25 x 2.5	27.5	788	1165
G4200125	27 x 1	22.9	426	727
G4200126	27 x 1.5	24.9	553	911
G4200127	27 x 2.5	28.1	836	1234
G4200128	30 x 1	23.7	454	783
G4200129	30 x 1.5	25.8	624	986
G4200130	30 x 2.5	29.1	934	1340
G4200131	32 x 1	24.7	473	841
G4200132	32 x 1.5	27.0	652	1083
G4200133	32 x 2.5	30.4	981	1439
G420013	36 x 1	25.6	539	919
G4200135	36 x 1.5	27.8	708	1160
G4200136	36 x 2.5	31.5	1076	1582
G4200137	37 x 1	25.6	549	928
G4200138	37 x 1.5	27.8	723	1173
G4200139	37 x 2.5	31.5	1099	1601
G4200140	40 x 1	23.6	577	1006
G4200141	40 x 1.5	28.9	765	1274
G4200142	40 x 2.5	32.9	1199	1760
G4200143	42 x 1	27.8	596	1068
G4200144	42 x 1.5	30.3	822	1350
G4200145	42 x 2.5	34.2	1246	1842
G4200146	48 x 1	29.2	680	1165
G4200147	48 x 1.5	31.8	906	1477
G4200148	48 x 2.5	36.6	1485	2131
G4200149	60 x 1	31.9	793	1408
G4200150	60 x 1.5	35.3	1203	1893



FireKab FM2XCH FE180



Applications

FireKab fire resistant twisted paired and overall screened control and communication cables are used in radio, radar and information systems of marine vehicles.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free XLPE (IEC 60092-351 HF XLPE) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Separator	Polyester Tape
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Green

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 376		
Conductor Resistance (max.)	IEC / EN 60228		
Insulation Resistance	5000 MOhm x km		
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22		
Insulation integrity	IEC 60331		
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267		
Smoke Density	TS / BS / IEC / EN 61034-1+2		
Operating Temperature	- 40 °C + 90 °C	Min. Bending Radius	Fixed 6 x Cable diameter
Operating Voltage	150 / 250 (300) V	Test Voltage	1.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1500001	1 x 2 x 0.50	8.4	40	89	G1500018	1 x 2 x 0.75	8.8	45	98
G1500002	1 x 4 x 0.50	9.2	54	123	G1500019	1 x 4 x 0.75	9.8	68	133
G1500003	2 x 2 x 0.50	10.8	55	133	G1500020	2 x 2 x 0.75	11.3	74	152
G1500004	4 x 2 x 0.50	14.4	91	243	G1500021	4 x 2 x 0.75	15.2	118	276
G1500005	5 x 2 x 0.50	15.6	108	278	G1500022	5 x 2 x 0.75	16.8	139	327
G1500006	6 x 2 x 0.50	17.1	132	322	G1500023	6 x 2 x 0.75	18.0	154	369
G1500007	7 x 2 x 0.50	17.1	143	339	G1500024	7 x 2 x 0.75	18.0	168	391
G1500008	8 x 2 x 0.50	18.0	153	371	G1500025	8 x 2 x 0.75	19.3	193	440
G1500009	10 x 2 x 0.50	20.4	200	449	G1500026	10 x 2 x 0.75	21.9	247	534
G1500010	12 x 2 x 0.50	21.3	220	497	G1500027	12 x 2 x 0.75	22.8	293	595
G1500011	14 x 2 x 0.50	22.8	256	565	G1500028	14 x 2 x 0.75	24.4	339	675
G1500012	16 x 2 x 0.50	24.2	275	631	G1500029	16 x 2 x 0.75	25.8	368	743
G1500013	18 x 2 x 0.50	25.4	311	684	G1500030	18 x 2 x 0.75	27.2	397	823
G1500014	19 x 2 x 0.50	26.0	321	712	G1500031	19 x 2 x 0.75	27.8	411	857
G1500015	20 x 2 x 0.50	26.6	332	739	G1500032	20 x 2 x 0.75	28.4	441	890
G1500016	24 x 2 x 0.50	28.7	385	856	G1500033	24 x 2 x 0.75	30.8	499	1033
G1500017	37 x 2 x 0.50	35.4	664	1315	G1500034	37 x 2 x 0.75	37.9	838	1584



FireKab FMGCH FE180



Applications

FireKab Fire resistant cable is for fixed installations in communication, radio, control, and data processing facilities on ships and offshore units in all locations, on open decks.

Cable Construction

Conductor	Plain annealed stranded copper wires (IEC / BS / EN 60228, VDE 0295 Class 2) (tinned copper and / or class 5 version upon request)
Flame Barrier	Fiber glass tape
Insulation	Halogen Free HEPR (IEC 60092-351 HF HEPR) Pair: Black / white, numbered; Quad: Black / white / red / blue, numbered
Lay-up	Pairs are stranded in layers
Separator	Polyester Tape
Screen	Annealed copper wire braiding 90 % Cov. Rate
Outer Sheath	Halogen Free, Flame Retardant Compound (HFFR) (IEC 60092-359 SHF1) Green

Technical and Electrical Properties (20 °C)

Reference Standards	IEC 60092 / 376
Conductor Resistance (max.)	IEC / EN 60228
Flame Test	IEC / EN / BS / DIN 60332-1-2 (VDE 0482-332-1-2), IEC / TS / BS / EN 60332-3-22
Insulation integrity	IEC 60331
Corrosive Gases Measurement	IEC 60754-2, BS / EN 50267
Smoke Density	TS / BS / IEC / EN 61034-1+2
Operating Temperature	- 40 °C + 90 °C
Min. Bending Radius	Fixed 8 x Cable diameter
Operating Voltage	150 / 250 (300) V
Test Voltage	1.5 kV

PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)	PART NUMBER	CORES / SIZE (mm ²)	APPROX. CABLE DIAMETER (mm)	COPPER WEIGHT (kg / km)	APPROX. CABLE WEIGHT (kg / km)
G1900001	1 x 2 x 0.50	8.2	40	85	G1900008	4 x 2 x 0.75	14.6	118	236
G1900002	1 x 4 x 0.50	9.2	54	123	G1900009	7 x 2 x 0.75	17.4	175	343
G1900003	2 x 2 x 0.50	10.8	55	133	G1900010	10 x 2 x 0.75	21.3	247	488
G1900004	4 x 2 x 0.50	13.8	91	206	G1900011	14 x 2 x 0.75	23.6	321	623
G1900005	1 x 2 x 0.75	8.6	45	94	G1900012	19 x 2 x 0.75	27.2	410	797
G1900006	1 x 4 x 0.75	9.8	68	133	G1900013	20 x 2 x 0.75	30.2	498	967
G1900007	2 x 2 x 0.75	11.3	74	152					

applicable to life...



Construction of Copper Wire Conductor According to VDE 0295 and IEC / EN 228	53
Conductor Resistance According to VDE 0295 and IEC / EN 228	54
Flame Retardant, Fire Resistance, Smoke Density, Halogen Gases, pH / Conductivity Tests	55-57
2M KABLO Drums Dimensions	58
2M KABLO Drums Loading Capacity (metre)	59-60
What are ROHS and CE ?	61

VDE 0295 Resp. From 0,50 mm² in Accordance With IEC / EN 228

Cross Section (mm ²)	Multi-Wire VDE 0295 Class 2		Fine-Wire VDE 0295 Class 5		Superfine Strands VDE 0295 Class 6		
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
0,035							
0,05		7x0,08				14x0,07	26x0,05
0,08							40x0,05
0,09						7x0,124	24x0,07
0,14			18x0,10	18x0,10	18x0,10	36x0,07	72x0,05
0,25			14x0,15	32x0,10	32x0,10	65x0,07	128x0,05
0,34		7x0,25	19x0,15	42x0,10	42x0,10	88x0,07	174x0,05
0,38		7x0,27	12x0,20	21x0,15	48x0,10	100x0,07	195x0,05
0,50	7x0,30	7x0,30	16x0,20	28x0,15	64x0,10	131x0,07	256x0,05
0,75	7x0,37	7x0,37	24x0,20	42x0,15	96x0,10	195x0,07	384x0,05
1,00	7x0,43	7x0,43	32x0,20	56x0,15	128x0,10	260x0,07	512x0,05
1,50	7x0,52	7x0,52	30x0,25	84x0,15	192x0,10	392x0,07	768x0,05
2,50	7x0,67	19x0,41	50x0,25	140x0,15	320x0,10	651x0,07	1280x0,05
4,00	7x0,85	19x0,52	56x0,30	224x0,15	512x0,10	1040x0,07	
6,00	7x1,05	19x0,64	84x0,30	192x0,20	768x0,10	1560x0,07	
10	7x1,35	49x0,51	80x0,40	320x0,20	1280x0,10	2600x0,07	
16	7x1,70	49x0,65	128x0,40	512x0,20	2048x0,10		
25	7x2,13	84x0,62	200x0,40	800x0,20	3200x0,10		
35	7x2,52	133x0,58	280x0,40	1120x0,20			
50	19x1,83	133x0,69	400x0,40	705x0,30			
70	19x2,17	189x0,69	356x0,50	990x0,30			
95	19x2,52	259x0,69	485x0,50	1340x0,30			
120	37x2,03	336x0,67	614x0,50	1690x0,30			
150	37x2,27	392x0,69	765x0,50	2123x0,30			
185	37x2,52	494x0,69	944x0,50	1470x0,40			
240	61x2,24	627x0,70	1225x0,50	1905x0,40			
300	61x2,50	790x0,70	1530x0,50	2385x0,40			
400	61x2,89		2035x0,50				
500	61x3,23		1768x0,60				

Conductor resistance about copper conductor acc. to VDE 0295 and IEC / EN 228 20 °C for 1km in.
Conductor structure is specified by max. single wire diameter and max. conductor resistance.(Ohm / km)

Cross Section (mm ²)	Tinned Copper Wire		Cross Section (mm ²)	Bare Copper Wire	
	Class 1+2	Class 5+6		Class 1+2	Class 5+6
0,14		142,0	0,14		138,0
0,25		82,0	0,25		77,8
0,34		59,0	0,34		56,0
0,50	36,70	40,1	0,50	36,00	39,0
0,75	24,80	26,7	0,75	24,50	26,0
1,00	18,20	20,00	1,00	18,10	19,50
1,50	12,20	13,70	1,50	12,10	13,30
2,50	7,56	8,21	2,50	7,41	7,98
4,00	4,70	5,09	4,00	4,61	4,95
6,00	3,11	3,39	6,00	3,08	3,30
10	1,840	1,950	10	1,830	1,910
16	1,160	1,240	16	1,150	1,210
25	0,734	0,795	25	0,727	0,780
35	0,529	0,565	35	0,524	0,554
50	0,391	0,393	50	0,387	0,386
70	0,270	0,277	70	0,2680	0,272
95	0,195	0,210	95	0,1930	0,206
120	0,154	0,164	120	0,1530	0,161
150	0,126	0,132	150	0,1240	0,129
185	0,100	0,108	185	0,0991	0,106
240	0,0762	0,0817	240	0,0754	0,0801
300	0,0607	0,0654	300	0,0601	0,0641
400	0,0475	0,0495	400	0,0470	0,0486
500	0,0369	0,0391	500	0,0366	0,0384

1.0. Vertical Flame Test For Single Cable

- 1.1. Standards: IEC 60332-1 / TS EN 60332-1
- 1.2. Test Method / Pass Criteria: The cable is fixed from both sides vertically. The flame source is applied on the cable in the position where it has 45° angle from the ground. If the original sheath is not harmed in the end of the test duration which depends on the cable diameter, the cable passes the test.



1.3. Test Duration:	Cable Diameter (mm)	Flame Application Duration (s)
	$D \leq 25$	60 + 2
$25 < D \leq 50$	120 + 2	
$50 < D \leq 75$	240 + 2	
$D > 75$	480 + 2	

2.0. Vertical Flame Test For Bunched Cable

- 2.1. Standards : IEC 60332-3-22 (CAT-A) / IEC 60332-3-23 (CAT-B) / IEC 60332-3-24 (CAT-C)

Category	A	B	C
Conductor Cross Section (mm ²)	≤ 35	≤ 35	≤ 35
Non metallic volume (l/m)	7	3.5	1.5
Maximum Width of standard sample ladder :300 mm	≥ 1	≥ 1	≥ 1
Maximum Width of wide sample ladder :300 mm	-	1	-

2.2. Test Conditions :	Touches	Touches	Touches
The other of the sample			
Flame duration (min)	40	40	40
Number of flame souces	1	1	1

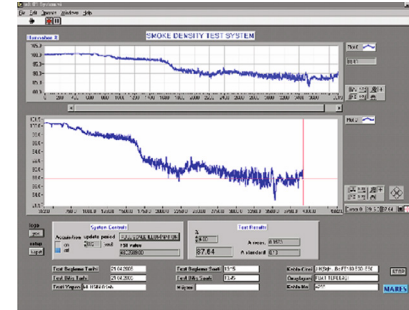


- 2.3. Test Method / Duration : Flame is applied for A and B categories during 40 min. and for C during 20 min. After the test the samples are cleaned and the length of the harmed sheath is detected and if the hamed part does not exceed 2.5 meters, the products passes the test.

3.0. Smoke Density Tests

3.1. Standards : TS EN 61034 -1 / 2 (IEC 61034)

3.2. Number of Sample :	Cable Diameter	Pieces	
	D (mm)	Cable	Bunches
	D > 40	1	-
	20 < D ≤ 40	2	-
	10 < D ≤ 20	3	-
	5 < D ≤ 10	N ₁	-
2 < D ≤ 5	-	N ₂	



$$N_1 = 45 / D$$

$$N_2 = 45 / 3D$$

For every bunch, 7 pieces must be bent and tied as 2 rounds with the width of 20D and 30D.

3.3. The flame Source : The flame source should be $1L \pm 0.01L$ alcohol whose ingredients are given below;

Ethanol : % 90 %1

Methanol : % 4 %1

Water : % 6 %1

3.4. Test Method : The cable bundle is placed inside the burning chamber compliant with the standards. When the light in the room becomes stable the alcoholic mixture is burned and the fan is run. As the smoke density increases in the room, the decreasing visibility is followed in the test is ended in 40.th minute.

3.5. Test Pass Criteria : The minimum light transmission should be 60 %.

4.0. pH and Conductivity Measurement Test

For Halogen Free Materials

4.1. Standards : TS EN 50267-2-2 / IEC 60754-2

4.2. Description / Test Method : This is used for pH and conductivity measurement of halogen free materials. The test consists of two tests which is with and without sample. The oven is set to reach 935 °C in each case the halogen gas amount is detected inside the liquid mixed with the emitted gas, with the help of certain chemicals. Samples are prepared according to the conditions in the standard and burned in the halogenmeter. The gas is collected from the pipes to the tubes. The liquid in both tubes are transferred to another container and the pH and conductivity values are tested according to the below criteria.



4.3. Test Pass Criteria : pH ≥ 4.3 / conductivity ≤ 10 μ S/mm

5.0. Halogen Acid Emission (For Non Halogen-Free Materials)

5.1. Standards : TS EN 50267-1 / TS EN 50267-2-1

5.2. Description / Test Method : The test consists of two tests which are with and without sample. The oven is set to reach 800+10 °C in 40 minutes and the sample is kept inside for 20 minutes in 800 °C. In each case the halogen gas amount is detected inside the liquid mixed with the emitted gas, with the help of certain chemicals.

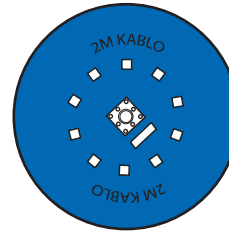
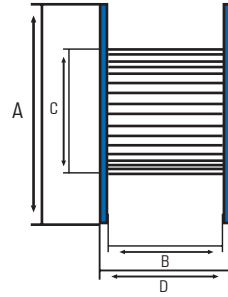
6.0. Circuit Integrity Test In Fire During 3 Hours (FE180)

6.1. Standards : TS IEC 60331-21

6.2. Test Temperature and Duration :	Temperature	TS IEC 60331-21 750 + 40 °C
	Duration	3 hours



6.3. Description / Test Method : The Purpose of this test is examining the electrical continuity of fire resistant cables in the fire. A cable sample as long as 1200 mm is connected to electricity by removing from each end the sheath or other material which covers the cores. The cable is burned as parallel and 75 mm over the burner with the temperature and duration depending on the cable's class with nominal voltage during 3 hours.



Drum Type	Dimensions (mm)				Weight (Drum-empty) (kg)	Max. Loading Capacity (kg)
	A	B	C	D		
KP-330 / 1	330	150	150	166	0.9	20
KP-330 / 2	330	250	150	266	1.0	32
KP-400 / 1	400	250	150	266	1.4	35
KP-400 / 2	400	150	150	166	1	24
KP-400 / 3	400	300	150	316	2	40
KP-440	440	250	150	266	2	60
KP-490	490	250	150	266	3	80
KP-550	550	250	200	266	4	95
KP-600 / 1	600	400	200	416	6.2	180
KP-600 / 2	600	250	200	266	5.5	120
KP-700	700	400	250	416	11	240
T- 600	600	450	300	512	15	220
T- 700	700	450	350	512	22	300
T- 750	750	450	350	512	23	350
T- 800	800	450	400	512	25	400
T- 850	850	450	400	512	30	450
T- 900	900	600	450	662	35	650
T- 1000	1000	560	500	640	40	750
T- 1100	1100	600	550	681	45	950
T- 1200	1200	750	600	831	77	1400
T- 1300	1300	700	650	782	79	1550
T- 1400	1400	800	700	900	100	2000
T- 1500	1500	800	750	920	145	2300
T- 1600	1600	900	1100	-	198	3000
T- 1800	1800	900	900	-	241	4000
T- 2000	2000	1120	1250	-	394	5000

* KP: MDF - T: Wooden

Cable Dia. (mm)	KP 330/1	KP 330/2	KP 400/1	KP 400/2	KP 400/3	KP 440	KP 490	KP 550	KP 600/1	KP 600/2	KP 700	T 600
2	2500	4200	5900	3500	7100	8300	10600	12800	25000	15500	33000	
3	1100	1800	2600	1550	3100	3700	4700	5600	11100	6900	14800	
4	630	1000	1450	890	1780	2100	2600	3200	6250	3900	8300	
5	400	670	950	570	1140	1300	1700	2050	4000	2500	5300	2600
6	280	460	660	390	790	920	1150	1400	2750	1700	3700	1900
7	200	340	480	290	580	680	860	1000	2000	1250	2700	1450
8	150	260	370	220	440	520	660	800	1550	970	2050	1150
9	120	200	290	170	350	400	510	630	1200	770	1650	930
10	100	170	230	140	280	330	420	500	1000	620	1330	780
11		140	190	110	230	270	350	420	820	510	1100	650
12		110	160	100	190	230	290	350	690	430	920	550
13			140		170	190	250	300	590	370	790	470
14								260	500	320	680	410
15								220	440	270	590	360
16								200	390	240	520	320
17											460	280
18											400	250
19											360	230
20											330	210
21												
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44												

Table: 08

2M KABLO Drums Loading Capacity (metre)

Cable Dia. (mm)	T 700	T 750	T 800	T 850	T 900	T 1000	T 1100	T 1200	T 1300	T 1400	T 1500	T 1600
2												
3												
4												
5												
6	3600	4300	4600	5400								
7	2600	3150	3400	4000	5800							
8	2000	2400	2600	3050	4450	5100						
9	1600	1900	2050	2400	3500	4000	5200					
10	1250	1500	1650	1950	2850	3200	4200					
11	1050	1250	1350	1600	2350	2700	3450	5200				
12	900	1050	1150	1350	1950	2250	2950	4350	4700			
13	760	900	950	1150	1670	1900	2500	3750	4000	5400		
14	650	780	850	1000	1450	1650	2150	3200	3500	4600	5300	
15	570	680	740	870	1250	1450	1850	2800	3000	4000	4600	4200
16	500	600	650	750	110	1250	1650	2400	2600	3500	4050	3700
17	430	520	570	660	980	110	1450	2100	2300	3100	3600	330
18	390	470	510	600	870	980	1300	1900	2100	2800	3200	2900
19	350	420	460	540	780	890	1150	1700	1850	2500	2850	2600
20	320	370	410	480	700	810	1050	1550	1700	2250	2600	2300
21	290	340	370	440	630	730	950	1400	1500	2050	2300	2100
22	260	310	340	400	580	660	850	1300	1400	1850	2100	1900
23	240	290	310	360	530	610	790	1150	1250	1700	1900	1800
24	200	270	280	330	490	560	730	1050	1150	1550	1800	1600
25	200	240	260	300	450	520	670	990	1050	1450	1650	1500
26					420	480	620	920	1000	1350	1500	1400
27					380	440	570	850	940	1250	1400	1300
28					350	400	530	790	870	1160	1300	1200
29					330	380	500	740	820	1080	1250	1100
30						350	460	700	760	1020	1160	100
31						330	430	650	720	950	1090	990
32						300	400	600	670	890	1020	900
33							380	570	630	840	970	870
34							360	540	590	790	910	800
35							340	510	560	750	860	770
36								480	530	700	810	700
37								450	500	660	770	630
38								430	470	630	730	660
39									450	600	690	620
40									430	570	650	550
41									400	540	620	540
42										520	590	560
43										490	560	500
44										470	540	490
											520	470

2M KABLO produces in compliance with the security principles of Low Voltage Directives: 73 / 23 / EEC, 93 / 68 / EEC, 2006 / 95 / EC which is published by European Union Commission.

What is ROHS?

RoHS (Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment) restricts the usage of some hazardous substances in the electrical and electronic equipments.

With this directive, limiting the use of substances which are noxious for human health and environment is aimed. The following table shows the materials mentioned in the RoHS and the values in the table shows the maximum permitted concentration depending on the weight of homogen materials.

Cd (Cadmium)	% 0.01 (100 ppm)
Hg (Mercury)	% 0.1 (1000 ppm)
Cr ⁶⁺ (Hexavalent Chromium)	% 0.1 (1000 ppm)
PBBs (Polybrominated Biphenyls)	% 0.1 (1000 ppm)
PBDEs (Polybrominated Diphenyl Ethers includes Deca-BDE)	% 0.1 (1000 ppm)
Pb (Lead)	% 0.1 (1000 ppm)

Which products are included in the ROHS Directive?

- Home appliances
- Small home appliances
- Data and communication Equipment
- Consumer electronics
- Lighting equipment (light bulbs and lamps)
- Electrical and electronic equipments (excluding the fixed industrial big equipments)
- Toys and sports products
- Medical equipment (excluding the contagious sickness touching products)
- Automatic sales machines

What is CE?

The sign CE stands for 'Conformite European' and means the product conforms to the European norms which is about human/environment health and security, consumer rights. This sign shows that when the product is used appropriately, it does not pose a threat to human life, goods security and environment. CE is not a quality certificate. It does not represent the quality of the product but it represents the security of the product. Commercially, the sign has a function of a industrial product passport which provides a free movement in the European Union member states. The sign CE may be attached to the product if it complies with all of the directives of its type.

applicable to life...





2MKAB INSTRUMENTATION CABLES

RE-Y(St)Y	RE-Y(St)YSWAY(ö) - PIMF/TIMF
RE-2Y(St)Y	RE-2Y(St)YSWAY(ö) - PIMF/TIMF
RE-2X(St)Y	RE-2X(St)YSWAY(ö) - PIMF/TIMF
RE-Y(St)Y - PIMF/TIMF	RE-Y(St)YSWBÝ(ö)
RE-2Y(St)Y - PIMF/TIMF	RE-2Y(St)YSWBÝ(ö)
RE-2X(St)Y - PIMF/TIMF	RE-2X(St)YSWBÝ(ö)
RE-Y(St)YSWAY	RE-Y(St)YSWBÝ(ö) - PIMF/TIMF
RE-2Y(St)YSWAY	RE-2Y(St)YSWBÝ(ö) - PIMF/TIMF
RE-2X(St)YSWAY	RE-2X(St)YSWBÝ(ö) - PIMF/TIMF
RE-Y(St)YSWAY - PIMF/TIMF	RE-2Y(St)H
RE-2Y(St)YSWAY - PIMF/TIMF	RE-2X(St)H
RE-2X(St)YSWAY - PIMF/TIMF	RE-2Y(St)H - PIMF/TIMF
RE-Y(St)YSWBÝ	RE-2X(St)H - PIMF/TIMF
RE-2Y(St)YSWBÝ	RE-2Y(St)HSAH
RE-2X(St)YSWBÝ	RE-2X(St)HSAH
RE-Y(St)YSWBÝ - PIMF/TIMF	RE-2Y(St)HSAH - PIMF/TIMF
RE-2Y(St)YSWBÝ - PIMF/TIMF	RE-2X(St)HSAH - PIMF/TIMF
RE-2X(St)YSWBÝ - PIMF/TIMF	RE-2Y(St)HSWBH
RE-Y(St)Y(ö)	RE-2X(St)HSWBH
RE-2Y(St)Y(ö)	RE-2Y(St)HSWBH - PIMF/TIMF
RE-2X(St)Y(ö)	RE-2X(St)HSWBH - PIMF/TIMF
RE-Y(St)Y(ö) - PIMF/TIMF	RD-Y(St)Y...Bd
RE-2Y(St)Y(ö) - PIMF/TIMF	RD-H(St)H...Bd
RE-2X(St)Y(ö) - PIMF/TIMF	RE-Y(St)Yv
RE-Y(St)YSWAY(ö)	RE-2Y(St)Yv
RE-2Y(St)YSWAY(ö)	RE-2X(St)Yv
RE-2X(St)YSWAY(ö)	



FireKab FIRE RESISTANT INSTRUMENTATION CABLES

RE-2G(St)H...CI	RE-2X(St)H - PIMF/TIMF...CI
RE-2G(St)H - PIMF/TIMF...CI	RE-3G(St)H(ö)...CI
RE-2X(St)H...CI	RE-3G(St)H(ö) - PIMF/TIMF...CI



2MKAB BUS CABLES

PROFIBUS L2	PROFIBUS PA
PROFIBUS L2 OUTDOOR	PROFIBUS PA-PIMF / SWB
PROFIBUS L2 FLEX	INSTABUS EIB-PVC
PROFIBUS CAN	INSTABUS EIB-LSZH



2MKAB COAXIAL CABLES

RG 59 F Mini - HD	RG 11 / 4 FS
RG 59 / 4 F - HD	RG 11 / 6 F White
RG 6 / 4 F - HD	RG 11 / 6 F Black (2 Green Traced)
RG 59 FA Mini	RG 11 / 6 FS
TWIN RG 59 FA Mini	RG 11 / 6 FP
RG 59 / 4 FA	RG 11 / 6 FHF
TWIN RG 59 / 4 FA	RG 11 A / U
RG 59 / 4 F	RG 12 A / U
RG 59 / 6 F	TCE2H2HH2 0.4/1.9 LSZH
RG 59 / 4 FHF	TCE2H2HH2M 4(0.4/1.9) LSZH
RG 59 / 6 FHF	TCE2H2HH2M 8(0.4/1.9) LSZH
RG 6 / 4 FA SAT-1	TCE2HH2 0.4/1.9 LSZH
4 x RG 6 / 4 FA SAT-1	TCE2HH2M 4(0.4/1.9) LSZH
RG 6 / 4 FA Cu Trishield	TCE2HH2M 8(0.4/1.9) LSZH
RG 6 / 4 FA CCS Trishield	RG 174 / U
RG 6 / 4 F White	DUAL RG 174 / U
RG 6 / 4 F Black (2 Orange Traced)	RG 213 / U
RG 6 / 4 F Black (2 Green Traced)	RG 214 / U
TWIN RG 6 / 4 F	RG 223 / U
RG 6 / 4 FP	RG 58 / U
RG 6 / 4 FHF	RG 58 A / U
RG 6 / 6 F White	RG 58 C / U
RG 6 / 6 F Black (2 Green Traced)	RG 8 / U
RG 6 / 6 FP	RG 8 A / U
RG 6 / 6 FHF	RG 8 / X
RG 11 / 4 F White	RG 59 B / U
RG 11 / 4 F Black (2 Orange Traced)	RG 62 A / U Indoor
RG 11 / 4 FA	RG 62 A / U Outdoor
RG 11 / 4 FP	RG 62 A / U SWA
RG 11 / 4 FHF	



2MKAB CONTROL CABLES

LIYY	LIH(St)H	LIY11Y
LIHH	LIY(St)Y-TP	LIYC11Y
LIYY-TP	LIH(St)H-TP	YSLY-JZ
LIHH-TP	LIY(St)CY	HSLH-JZ
LIYCY	LIH(St)CH	YSLICY-JZ
LIHCH	LIY(St)CY-TP	HSLHCH-JZ
LIYCY-TP	LIH(St)CH-TP	2M PUR-JZ (YSL11Y-JZ)
LIHCH-TP	LIYCY-CY	2M PUR C-JZ (YSL11Y-CY)
LIY(St)Y	LI2YCY-PIMF	



FireKab FIRE RESISTANT CABLES

LIHH FE180 PH90	BMK-SH FE180 PH120
LIHH-TP FE180 PH90	JE-H(St)H...Bd FE180 E30-E90 PH120
LIH(St)H FE180 PH90	JE-H(St)HSWBH...Bd FE180 PH120
LIH(St)H-TP FE180 PH90	NGF FE180 PH30 (CU/SI/OSCR/LSZH)
LIH(St)CH FE180 PH90	SIHF FE180 PH90
LIH(St)CH-TP FE180 PH90	NS07 FE180 PH90 (CU/SI/LSZH)
LIHCH FE180 PH90	DATA FE180 PH90
LIHCH-TP FE180 PH90	COAX FE180 PH90
JE-H(St)H...Bd FE180 PH120	LC 500 FE180
	SC 180 FE180



2MKAB POWER CABLES

H05V-U/R	N2XY
H07V-U/R (NYA)	N2XY-K (RV-K)
H05V-K (NYAF)	NHMH
H07V-K (NYAF)	N2XH
H03VV-F	N2XH-K (RZ1-K)
H05VV-F	NHXMH
H05V2V2-F (+90 °C)	NYRY
H03VVH2-F	NYBY
H05VV6-F	NYCY
NYM (A05VV-U/R)	NYFGBY (YVZ3V)
H05Z-K	N2XRY (SWA BS 5467)
H07Z-K	N2XRH (LSF SWA BS 6724)
H05Z-U/R	N2XBH
H07Z-U/R	N2XCH
H05Z1Z1-F	N2XCH
NYY	N2XBY
NYY-K	N2XCY



FireKab FIRE RESISTANT POWER CABLES

N2XH FE180
N2XH FE180 E30
N2XH FE180 E90



LOOKAB AUDIO / VIDEO CABLES

Unbalanced Audio Cables
Balanced Microphone Cables
Halogen Free Balanced Microphone Cables
Twincable
Balanced Installation Cables
Halogen Free Balanced Installation Cables
Star-Quad Microphone Cables
Digital AES/EBU Cables
Halogen Free Digital AES/EBU Cables
Analog Multicore Cables
Halogen Free Analog Multicore Cables
Digital Multicore AES/EBU Cables
Loudspeaker Twinax Cables
Loudspeaker Cables
Loudspeaker Coax Cables
Halogen Free Loudspeaker Twinax Cables
Fire Resistant Loudspeaker Twinax Cables
Lighting Multicore Cables
Hybrid (Line) Cables
Hybrid (DMX) Cables
Digital Video Cables
Halogen Free Digital Video Cables
Analog Video Cables
Multi Video Cables
RGB Video Data Cables
Triax Video Cables
Triflex Video Cables
Composite Cables
Alternative Composite Cables



2MKAB SOME OF OTHER PRODUCTS

CAT 5e Cables / CAT 5e Armoured Cables
RS 232-422-485 Cables, Load Cell Cables,
CCTV Cables, 2MCOM Nurse Call Cable (HFFR, PVC)
Indoor Telephone and Fire Alarm Cables
J-Y(St)Y...Lg/ J-H(St)H...Lg