

15th
ANNIVERSARY



MARINE&SHIPBOARD CABLES



erse

ersekablo.com.tr

INTRODUCTION

Our Dear and Valuable Business Partner,

ERSE , established in 1996, is one of the leading companies of the sector.

We have been serving in the cable sector for 15 years with producing signal-control, data transmission, communication, halogen-free, fire-resistant, instrumentation, silicone and marine cables as well as producing special cables prepared in accordance with the requirements of customers.

Why Erse is a choice for the customers in many major projects in energy, infrastructure and construction sectors locally and internationally , is because we have a customer oriented approach which allows us taking quick actions with our high value added products in compliance with quality standards.

Having the principle of "ERSE quality assurance is all around in transformation and development", we have become solution partners in infrastructure, industry and construction sectors in more than 40 countries in fifteen years. We have also succeeded in contribution to the country's economy with our ongoing export activities.

Among the countries we export are England, Germany, Austria, Hungary, Romania, Bulgaria, Lithuania, Russia, Georgia, Kazakhstan, Egypt, Iraq, Jordan, Qatar, Kuwait, Portugal, Spain, France, Singapore, Malaysia, Korea, Ukraine and Belarus.

Through this period of time, we have not only offered quality products and services with our performance in providing value added services to our solution partners, acting responsibly to the environment, standing firm with regard to quality, investing in technology and people, and being transparent which we adopt as 'Corporate Management Policy', but also maintained our activities in line with our social responsibilities.

Not only growing and making profit , ERSE also considers having Research & Development investments and improving strategies which will secure the future and provide sustainable competitive advantage through a continuous development.

Certified by NQA and VDE, our quality management system is an indicator of our environmental awareness and our principle towards improving the life quality.

In addition to above, our VDE, MPA ABP, GOST-R, FIRE CERTIFICATE (RUSSIA), TURKLOYD, ABS, RINA, BV, LR, RMRS, RoHS, TSEK, and TSE, ISO 9001:2008 quality certificates stand as other supporting items of confidence towards our company and production.

We have combined all of our up-to-now experience and know-how with the technology at our modern facilities.

As ERSE, we carry out our production activities based on national and international standards in a total area of 12.000 m², 8000 m² closed. Our R&D and QC Departments are working with a constantly-improving vision in order to establish a customer satisfaction focused production-solution system and to identify customer demands rapidly.

Each stage , from raw material to final product, is supported and monitored with our ERP program within scope of total quality approach, and they are tested with appropriate devices and equipment depending on type of cable produced at our facilities.

In addition, we instantly meet requirements of customers with our unique stock capability in our logistic warehouse of 2.500 m².

We would like to thank all of our customers preferring Erse Kablo products for 15 years for their support and confidence, and hope that the catalogue we prepared will be a helpful source for our sector.

Selami SİVRİTEPE – *General Manager*

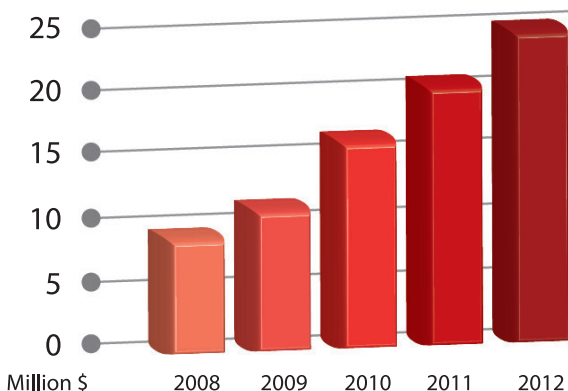
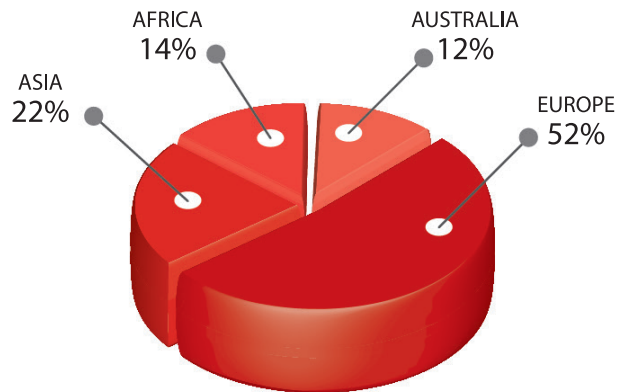
COMPANY FACTS

Year of Foundation: 1996
Principal Activities: Production of cables
Trade Names: Erse & Ervital
Area of Expertise: Electric, Marine & Instrumentation Cables
Sector: Electric industry
Products:
 -Signal & Control Cables
 -Coaxial Cables - CCTV Cables
 -Halogen Free Fire Resistant Cables
 -Fire Performance Cables
 -BS Onshore Cables
 -Instrumentation Cables for Oil and Gas
 -Silicon Insulated & Sheathed Cables
 -Marine Type Cables for Yachts & Boats
 -Halogen Free Shipbuilding Cables
 -Special Cables according to customer demand
 -Standard Fire Alarm & Security Wiring Cables
Licence Agreement: Own license
No. of Employees: 175 (12 Engineer)
Production Capacity: 400 Ton cable / Month
Design and Manufacturing Standards:
 IEC-BS-VDE-DIN-UL-EN-TSE

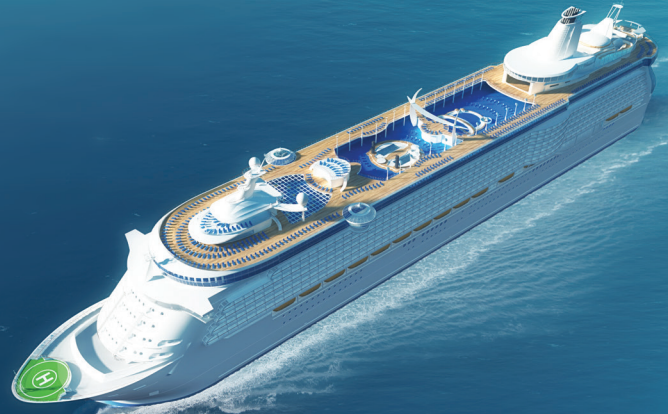
*"We aim to
 excellence
 in quality"*

EXPORT SALES

Erse Kablo products are supplied to over 50 countries; mainly to England, Germany, Belgium, Austria, Hungary, Romania, Bulgaria, Latvia, Lithuania, Russia, Georgia, Kazakhstan, Egypt, Iraq, Jordan, Qatar, Oman, Pakistan, Kuwait, Singapore, Malaysia, Australia and Brasil.



Erse Kablo as one of the main cable producers of Turkey has been growing rapidly thereby increasing her market activity and productivity throughout the years.



QUALITY POLICY

ISO 9001 Quality Assurance systems implemented by our company, which pays great importance to quality and quality continuity in all organizations, has been certified by **NQA & VDE** as of international standards as guides for its products, has certified almost all of its products by receiving **ROSH, REACH, TSE, VDE, RINA, TURK LOYD, LR, BV, ABS, RMRS, GOST & Fire Certificates**. The quality of our product is the key of consumer satisfaction and the ongoing success of our ongoing customer satisfaction and management success. Our company with its constant aim for development, efficient use of resources and environmental friendliness, customer focus and superior service understanding seeks:

- To extend the quality management system beyond the minimum requirements of ISO: 9001:2008
- To anticipate future needs of our customers and to provide production solution system based on customer satisfaction
- To develop and strength quality awareness among our employees through ongoing training, motivation and performance
- To provide highest value, quality and on time delivery at a fair price due to partnership with our suppliers

Our company has certified its respect to consumers with the "**CONSUMER PROTECTION COVENANT**". Moreover has proved its commitments to such principles by not using raw materials harmful for human health during production and has consolidated its esteem with its environment-friendly identity.

PRODUCTION

For the cable types of product range, Erse Kablo has a production line equipped with modern technology, professional team of experts in their fields in order to meet the standard and custom requests from customers. Each stage of raw material, auxiliary raw material input, the output of the final product within Erse Kablo within the framework of a total quality approach is supported and monitored by ERP program and are tested with devices appropriate to the nature of the cable. Erse Kablo makes the purchase from well known manufacturers and importers of raw materials having quality certified by accredited institutions.

RAW MATERIAL INPUT CONTROLS

Each raw material we use are checked and approved in accordance with the criteria of the Erse Kablo or the national & international standards before making acceptance procedures for goods. We consider our company values and standards for each product of which purchase has been realized, and we return each product to our suppliers if products do not comply with our specification (electrical values, packaging types and amount etc.) and negatively affect our production quality.

PROCESS CONTROLS

Every operation of our products we do follow-up of barcode system (insulation, twist, shielding, sleeving, etc. ...) and control and make tests, and by verifying the suitability we provide the transition to the next operation.

FINAL CONTROL TESTS

All tests and checks are completed for each finished cable within standards and visual checks and approved, prepared concerned test reports and make ready for transportation.

COMPLIANCE TO INTERNATIONAL STANDARDS

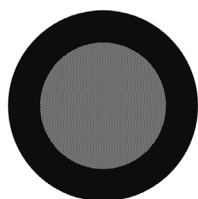
Our quality system and cable groups has international wide range of certificate (VDE, ROHS, REACH, TSE, RINA, TURK LOYD, LR, BV, ABS, RMRS, GOST & Fire Certificates etc.), all tests can be done in our laboratories as required by standards. All tests and checks are reported for each finished cables and upon request, we can present to producer or importer.





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MX**HX INSULATED FLAME RETARDANT SWITCHBOARD WIRE**

FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
HX INSULATION 105° C

**CONSTRUCTION**

- 1 - Conductor** IEC 60228 CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-360 CROSS-LINKED HFFR COMPOUND
- 3 - Insulation Colour** RAL 9005 BLACK;
OTHER COLOUR ON REQUEST

APPLICATION

For fixed wiring in switchboards, control panels and other enclosures

DESIGN STANDARDS

IEC 60092-350
IEC 60092-353
IEC 60092-360

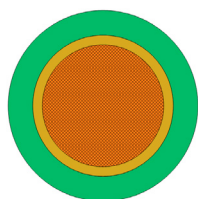
TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	3,5 kV. AC	0,6/1kV	4x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	
-40°C-+105°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)	IEC 61034-2	
TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST		
IEC 60754-2	IEC 60754-1		

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353015010	1 x 1,5	2,90	14	22	22	12
353025010	1 x 2,5	3,60	23	35	29	14
353040010	1 x 4	4,10	37	51	37	16
353060010	1 x 6	4,70	56	76	51	19
353010010	1 x 10	6,00	93	123	71	24
353016010	1 x 16	7,50	138	173	94	30
353021010	1 x 25	9,00	200	257	125	34
353035010	1 x 35	10,00	276	340	156	36
353005010	1 x 50	11,80	393	477	195	40
353070010	1 x 70	13,60	553	649	240	48
353095010	1 x 95	16,60	760	891	292	54
353012010	1 x 120	18,00	968	1111	339	67
353055010	1 x 150	20,10	1210	1287	388	62
353018010	1 x 185	22,00	1520	1732	443	89
353024010	1 x 240	26,00	2005	2280	522	105

MX-FR

HX INSULATED FIRE RESISTANT SWITCHBOARD WIRE



FLAME RETARDANT / LOW SMOKE EMISSION
WITHOUT POISONED AND CORROSIVE GASES / FIRE RESISTANT /
HX INSULATION 105°C



CONSTRUCTION

- 1 - Conductor** IEC60228 CLASS 5 TINNED
OR PLAIN COPPER
- 2 - Insulation** MICA TAPE+ IEC 60092-360
CROSS-LINKED HFFR COMPAUND
- 3 - Insulation colour** RAL 6018 GREEN ; OTHER COLOURS ON
REQUEST

APPLICATION

for fixed wiring in switchboards control panels
and other enclosures.

DESIGN STANDARDS

IEC 60092-350
IEC 60092-353
IEC 60092-360

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS 6x D
MΩxKm 500	3,5 kV. AC	0,6/1kV	

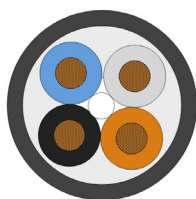
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+105°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2

HALOGEN-FREE TEST	CIRCUIT INTEGRITY (FE 180)	CIRCUIT INTEGRITY WITH SHOCK
IEC 60754-1	IEC 60331-21	IEC 60331-1 IEC 60331-2

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
357015017	1 x 1,5	3,40	14	26	22	20
357025017	1 x 2,5	4,00	23	37	29	24
357004017	1 x 4	4,60	37	58	37	28
357006017	1 x 6	5,10	56	74	51	31
357010017	1 x 10	6,40	93	124	71	38
357016017	1 x 16	7,90	138	180	94	47
357021017	1 x 25	9,60	200	265	125	58
357035017	1 x 35	10,80	276	380	156	65
357005017	1 x 50	13,10	393	495	195	79
357070017	1 x 70	14,80	553	671	240	89
357095017	1 x 95	17,20	760	912	292	103
357012017	1 x 120	19,00	968	1137	339	114
357055017	1 x 150	21,20	1210	1418	388	127
357018017	1 x 185	23,60	1520	1772	443	142
357024017	1 x 240	26,90	2005	2317	522	161

MY Y

PVC INSULATED FLAME RETARDANT UNSCREENED CABLE



FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 PVC COMPOUND
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR PVC COMPOUND
- 5 - Outer sheath** IEC 60092-359 FR PVC COMPOUND
- 6 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 36,7	3,5 kV. AC	0,6/1kV	6x D
TEMP. RANGE	INSTALLATION TEMP. (MIN)	FLAME RETARDANT TEST	
-40°C +70°C	-15°C +50°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)	

APPLICATION

As power, lighting and control cable

- Yachts and small ships
- (Suitable for all commercial marine applications)
- Dockyards, marines and harbours
- Moist, wet and dry room; open and closed places
- All kind of sea carriage

Note: Suitable for fixed installation in open deck in ships

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-353
- IEC 60092-359

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MYY**PVC INSULATED FLAME RETARDANT UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353215010	1 x 1,5	4,90	14	41	22	30
353225010	1 x 2,5	5,40	23	53	29	32
353240010	1 x 4	6,30	37	72	37	38
353260010	1 x 6	7,00	56	94	51	42
353210010	1 x 10	8,20	93	139	71	49
353216010	1 x 16	9,70	130	208	94	58
353221010	1 x 25	11,20	200	304	125	67
353235010	1 x 35	12,40	276	397	156	74
353205010	1 x 50	14,30	393	564	195	86
353270010	1 x 70	16,10	553	744	240	97
353295010	1 x 95	19,30	760	1038	292	116
353212010	1 x 120	20,90	968	1277	339	125
353255010	1 x 150	24,20	1380	1719	388	145
353218010	1 x 185	26,90	1702	2015	443	161
353224010	1 x 240	30,10	2208	2612	522	181
353215020	2 x 1,5	10,10	30	160	20	60
353215030	3 x 1,5	10,60	45	177	15	64
353215040	4 x 1,5	11,30	55	200	15	68
353215050	5 x 1,5	12,50	61	247	14	75
353215060	6 x 1,5	13,40	72	283	13	80
353215070	7 x 1,5	13,40	85	296	13	80
353215080	8 x 1,5	14,50	97	345	12	87
353215100	10 x 1,5	16,90	121	461	11	101
353215120	12 x 1,5	21,00	166	551	9	126
353215160	16 x 1,5	22,90	221	692	8	137
353215180	18 x 1,5	25,20	248	738	8	151
353215190	19 x 1,5	25,60	262	783	8	154
353215240	24 x 1,5	28,10	331	893	7	169
353215300	30 x 1,5	29,30	414	1234	7	176
353215360	36 x 1,5	32,20	497	1420	6	193
353225020	2 x 2,5	11,00	46	196	25	66
353225030	3 x 2,5	11,50	69	208	21	69
353225040	4 x 2,5	12,60	92	257	21	76
353225050	5 x 2,5	13,70	102	305	17	82
353225060	6 x 2,5	14,70	129	352	13	88
353225070	7 x 2,5	14,70	141	372	13	88
353225080	8 x 2,5	15,90	162	436	13	95
353225100	10 x 2,5	18,60	202	587	14	111
353225120	12 x 2,5	22,30	276	721	12	134
353225160	16 x 2,5	24,20	368	837	11	145
353225180	18 x 2,5	25,60	414	881	10	154
353225190	19 x 2,5	25,60	437	907	10	154

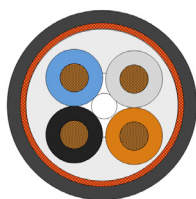
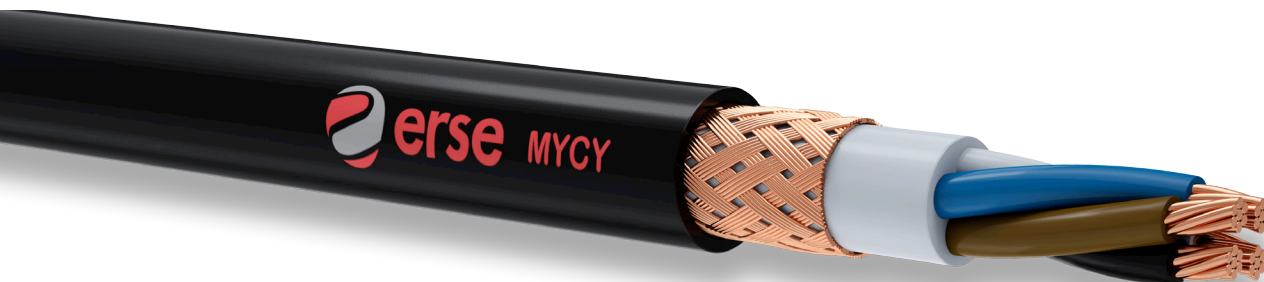
MYY**PVC INSULATED FLAME RETARDANT UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353240020	2 x 4	13,10	68	279	33	79
353240030	3 x 4	13,80	102	326	28	83
353240040	4 x 4	15,20	136	393	28	91
353260020	2 x 6	14,20	102	341	44	85
353260030	3 x 6	15,20	153	406	36	91
353260040	4 x 6	16,40	204	501	36	98
353210020	2 x 10	17,00	170	505	60	102
353210030	3 x 10	18,00	255	611	49	108
353210040	4 x 10	20,00	340	761	49	120
353216020	2 x 16	20,60	294	721	81	124
353216030	3 x 16	22,30	442	835	65	134
353216040	4 x 16	23,50	589	1070	65	141
353221020	2 x 25	24,90	460	1002	106	149
353221030	3 x 25	25,30	690	1234	87	152
353221040	4 x 25	29,30	920	1563	87	176
353235020	2 x 35	27,10	644	1345	131	163
353235030	3 x 35	29,40	966	1780	108	176
353235040	4 x 35	31,60	1288	2186	108	190
353205020	2 x 50	30,80	920	1810	156	185
353205030	3 x 50	32,20	1380	2302	135	199
353205040	4 x 50	36,50	1840	2864	135	219
353270020	2 x 70	36,40	1288	2290	205	218
353270030	3 x 70	38,80	1932	2931	165	233
353270040	4 x 70	42,30	2576	3729	165	254
353295020	2 x 95	40,20	1748	3150	243	241
353295030	3 x 95	42,90	2622	4023	202	241
353295040	4 x 95	48,10	3496	5167	202	289
353212020	2 x 120	45,70	2208	4280	276	274
353212030	3 x 120	48,20	3312	5500	234	289
353212040	4 x 120	52,60	4416	6814	234	316



MYCY

PVC INSULATED FLAME RETARDANT SCREENED CABLE



FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5
TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 PVC COMPOUND
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR PVC COMPOUND
- 5 - Screen** TINNED COPPER OR PLAIN COPPER
BRAIDING (MN.%90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 FR PVC COMPOUND
- 7 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 36,7	3,5 kV. AC	0,6/1kV	8x D
TEMP. RANGE	INSTALLATION TEMP. (MIN)	FLAME RETARDANT TEST	
-40°C-+70°C	-15°C-+50°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)	

APPLICATION

- As power, lighting and control cable
- Yachts and small ships
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 - All kind of sea carriage

Note: Suitable for fixed installation in open deck in ships

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MYCY**PVC INSULATED FLAME RETARDANT SCREENED CABLE**

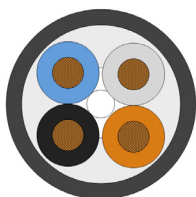
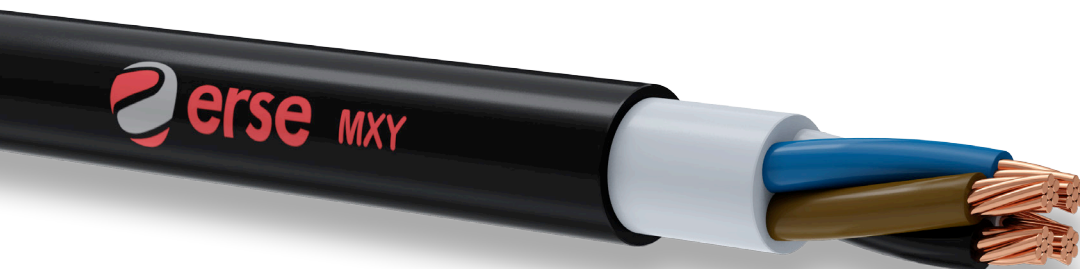
CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354015010	1 x 1,5	8,10	57	87	22	65
354025010	1 x 2,5	8,60	67	105	29	69
354040010	1 x 4	9,60	84	123	37	77
354060010	1 x 6	10,40	103	145	51	83
354010010	1 x 10	11,70	142	198	71	94
354016010	1 x 16	12,70	232	286	94	102
354021010	1 x 25	14,60	305	385	125	117
354035010	1 x 35	15,60	398	421	156	125
354005010	1 x 50	16,20	343	649	195	130
354070010	1 x 70	18,30	745	884	240	146
354095010	1 x 95	20,10	977	1153	292	161
354012010	1 x 120	21,70	1296	1483	339	174
354055010	1 x 150	24,20	1698	1926	388	194
354018010	1 x 185	26,90	2069	2367	443	215
354024010	1 x 240	30,10	2615	2943	522	241
354015020	2 x 1,5	11,30	85	275	20	90
354015030	3 x 1,5	12,20	98	317	15	98
354015040	4 x 1,5	13,60	121	349	15	109
354015050	5 x 1,5	14,50	142	367	14	116
354015060	6 x 1,5	15,60	167	386	13	125
354015070	7 x 1,5	15,60	175	435	13	125
354015080	8 x 1,5	17,40	238	531	12	139
354015100	10 x 1,5	18,70	273	587	11	149
354015120	12 x 1,5	19,80	318	675	9	158
354015160	16 x 1,5	21,50	375	915	8	172
354015180	18 x 1,5	22,80	422	967	8	182
354015190	19 x 1,5	24,00	435	1050	8	192
354015240	24 x 1,5	26,40	511	1312	7	211
354015300	30 x 1,5	27,80	613	1635	7	222
354015360	36 x 1,5	29,00	753	1835	6	232
354025020	2 x 2,5	13,40	100	310	25	107
354025030	3 x 2,5	14,20	115	357	21	113
354025040	4 x 2,5	15,40	141	415	21	123
354025050	5 x 2,5	16,40	165	490	17	131
354025060	6 x 2,5	18,10	195	530	13	145
354025070	7 x 2,5	18,10	231	570	13	145
354025080	8 x 2,5	19,40	265	637	13	155
354025100	10 x 2,5	22,50	321	711	14	180
354025120	12 x 2,5	23,60	371	860	12	189
354025160	16 x 2,5	25,80	425	1010	11	207
354025180	18 x 2,5	27,20	515	1180	10	218
354025190	19 x 2,5	27,20	547	1260	10	218

MYCY**PVC INSULATED FLAME RETARDANT SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354040020	2 x 4	14,20	115	251	33	114
354040030	3 x 4	14,80	152	340	28	118
354040040	4 x 4	15,80	189	420	28	126
354060020	2 x 6	15,00	191	365	44	120
354060030	3 x 6	16,10	243	431	36	129
354060040	4 x 6	17,60	311	521	36	141
354010020	2 x 10	17,20	315	525	60	138
354010030	3 x 10	18,50	438	631	49	148
354010040	4 x 10	19,80	521	761	49	159
354016020	2 x 16	20,80	412	721	81	166
354016030	3 x 16	22,10	536	835	65	177
354016040	4 x 16	23,70	698	1070	65	190
354021020	2 x 25	25,60	695	1002	106	205
354021030	3 x 25	27,30	821	1234	87	218
354021040	4 x 25	28,60	1080	1563	87	229
354035020	2 x 35	27,50	832	1345	131	220
354035030	3 x 35	28,20	1135	1780	108	225
354035040	4 x 35	30,90	1495	2186	108	247
354005020	2 x 50	30,00	1132	1810	156	240
354005030	3 x 50	32,80	1543	2302	135	262
354005040	4 x 50	36,00	1983	2864	135	288
354070020	2 x 70	35,80	1680	3211	205	286
354070030	3 x 70	37,90	2360	3980	165	303
354070040	4 x 70	42,50	3055	4955	165	340
354095020	2 x 95	41,60	2152	4169	243	333
354095030	3 x 95	44,20	3068	5176	202	354
354095040	4 x 95	49,80	4558	7213	202	398
354012020	2 x 120	47,10	3351	6089	276	377
354012030	3 x 120	50,20	4812	7403	234	402
354012040	4 x 120	55,30	6294	10210	234	442

MXY

XLPE INSULATED FLAME RETARDANT UNSCREENED CABLE



FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5
TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED
POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR PVC COMPOUND
- 5 - Outer sheath** IEC 60092-359 FR PVC COMPOUND
- 6 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXY**XLPE INSULATED FLAME RETARDANT UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353415010	1 x 1,5	5,20	14	38	22	31
353425010	1 x 2,5	5,50	23	50	29	34
353440010	1 x 4	6,10	37	68	37	37
353460010	1 x 6	6,60	56	89	51	40
353410010	1 x 10	7,60	93	133	71	46
353416010	1 x 16	8,60	148	189	94	52
353421010	1 x 25	10,50	231	291	125	64
353435010	1 x 35	11,90	310	403	156	73
353405010	1 x 50	13,40	443	542	195	81
353470010	1 x 70	15,40	613	739	240	93
353495010	1 x 95	17,50	858	1018	292	106
353412010	1 x 120	19,30	1075	1251	339	117
353455010	1 x 150	21,30	1300	1515	388	128
353418010	1 x 185	23,90	1648	1915	443	145
353424010	1 x 240	26,70	2135	2454	522	161
353415020	2 x 1,5	8,50	30	100	20	51
353415030	3 x 1,5	9,00	45	110	15	54
353415040	4 x 1,5	9,70	60	133	15	58
353415050	5 x 1,5	10,60	75	161	14	64
353415060	6 x 1,5	11,70	90	194	13	70
353415070	7 x 1,5	11,70	105	206	13	70
353415080	8 x 1,5	12,60	120	231	12	76
353415100	10 x 1,5	14,90	150	289	11	89
353415120	12 x 1,5	15,40	170	330	9	92
353415160	16 x 1,5	17,20	234	429	8	103
353415180	18 x 1,5	18,10	261	477	8	109
353415190	19 x 1,5	18,10	266	489	8	109
353415240	24 x 1,5	21,30	336	616	7	128
353415300	30 x 1,5	25,80	450	1065	7	155
353415360	36 x 1,5	27,90	540	1226	6	167
353425020	2 x 2,5	9,30	46	119	25	56
353425030	3 x 2,5	9,80	69	141	21	59
353425040	4 x 2,5	10,70	92	174	21	64
353425050	5 x 2,5	11,90	115	217	17	71
353425060	6 x 2,5	12,90	138	256	13	77
353425070	7 x 2,5	12,90	161	275	13	77
353425080	8 x 2,5	14,10	184	315	13	85
353425100	10 x 2,5	16,70	230	395	14	100
353425120	12 x 2,5	17,20	276	454	12	103
353425160	16 x 2,5	19,10	368	584	11	115
353425180	18 x 2,5	20,30	405	662	10	122
353425190	19 x 2,5	20,30	420	681	10	122

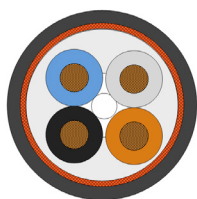
MXV**XLPE INSULATED FLAME RETARDANT UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353440020	2 x 4	10,30	70	156	33	62
353440030	3 x 4	10,90	104	188	28	65
353440040	4 x 4	12,20	139	242	28	73
353460020	2 x 6	11,70	105	210	44	70
353460030	3 x 6	12,40	157	259	36	74
353460040	4 x 6	13,60	210	327	36	82
353410020	2 x 10	13,70	178	308	60	82
353410030	3 x 10	14,80	267	396	49	89
353410040	4 x 10	16,20	356	505	49	97
353416020	2 x 16	15,90	286	448	81	95
353416030	3 x 16	17,10	429	584	65	103
353416040	4 x 16	18,80	572	753	65	113
353421020	2 x 25	19,70	444	684	106	118
353421030	3 x 25	21,10	667	882	87	127
353421040	4 x 25	23,40	893	1152	87	140
353435020	2 x 35	23,70	620	1182	131	142
353435030	3 x 35	25,40	930	1500	108	152
353435040	4 x 35	27,70	1240	1885	108	166
353405020	2 x 50	27,00	866	1582	156	162
353405030	3 x 50	28,70	1300	2002	135	172
353405040	4 x 50	32,00	1742	2589	135	192
353470020	2 x 70	31,20	1216	2155	205	187
353470030	3 x 70	33,30	1819	2749	165	200
353470040	4 x 70	36,60	2422	3491	165	220
353495020	2 x 95	35,20	1692	2861	243	211
353495030	3 x 95	37,50	2533	3679	202	225
353495040	4 x 95	42,00	3374	4765	202	252
353512020	2 x 120	39,00	2140	3561	276	234
353512030	3 x 120	42,10	3200	4649	234	253
353512040	4 x 120	46,60	4260	5943	234	280



MXCY

XLPE INSULATION FLAME RETARDANT SCREENED CABLE



FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR PVC COMPOUND
- 5 - Screen** TINNED COPPER OR PLAIN COPPER BRAIDING (MIN.%90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 FR PVC COMPOUND
- 7 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 5000	3,5 kV. AC	0,6/1kV	8x D
TEMP. RANGE	INSTALLATION TEMP. (MIN)	FLAME RETARDANT TEST	
-40°C +90°C	-15°C +50°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)	

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXCY**XLPE INSULATION FLAME RETARDANT SCREENED CABLE**

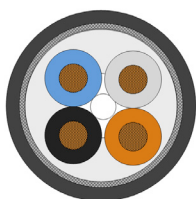
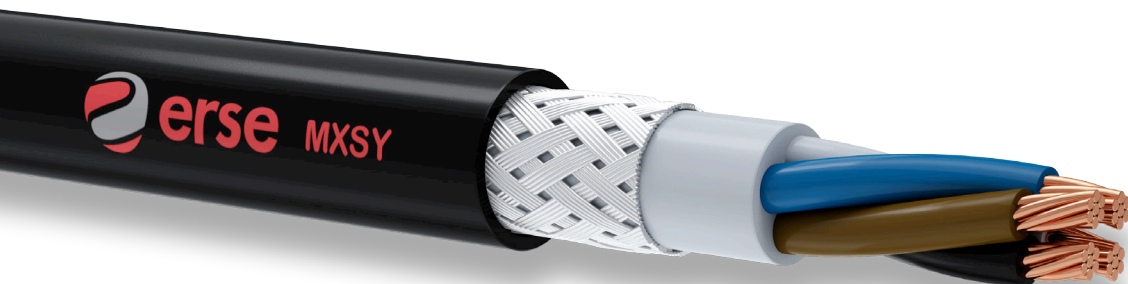
CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354215010	1 x 1,5	6,30	38	72	22	50
354225010	1 x 2,5	6,50	45	90	29	52
354240010	1 x 4	7,00	61	108	37	56
354260010	1 x 6	7,60	80	131	51	61
354210010	1 x 10	8,80	122	179	71	70
354216010	1 x 16	9,80	180	250	94	78
354221010	1 x 25	11,70	269	358	125	94
354235010	1 x 35	12,80	367	460	156	102
354205010	1 x 50	14,90	531	660	195	119
354270010	1 x 70	16,90	720	867	240	135
354295010	1 x 95	18,80	969	1144	292	150
354212010	1 x 120	20,80	1203	1412	339	166
354255010	1 x 150	22,80	1449	1699	388	182
354218010	1 x 185	25,60	1812	2116	443	204
354224010	1 x 240	28,40	2318	2676	522	226
354215020	2 x 1,5	10,60	72	194	20	85
354215030	3 x 1,5	11,50	92	225	15	92
354215040	4 x 1,5	12,10	107	260	15	97
354215050	5 x 1,5	13,50	158	331	14	108
354215060	6 x 1,5	14,60	184	384	13	117
354215070	7 x 1,5	14,60	198	397	13	117
354215080	8 x 1,5	15,50	213	435	12	124
354215100	10 x 1,5	18,00	260	566	11	144
354215120	12 x 1,5	18,50	291	620	9	148
354215160	16 x 1,5	20,50	364	753	8	164
354215180	18 x 1,5	21,40	410	820	8	171
354215190	19 x 1,5	21,40	420	841	8	171
354215240	24 x 1,5	24,80	510	1097	7	198
354215300	30 x 1,5	27,80	590	1264	7	222
354215360	36 x 1,5	29,00	729	1428	6	232
354225020	2 x 2,5	11,60	95	239	25	93
354225030	3 x 2,5	12,30	123	272	21	98
354225040	4 x 2,5	13,60	176	351	21	109
354225050	5 x 2,5	14,80	210	414	17	118
354225060	6 x 2,5	15,80	234	462	13	126
354225070	7 x 2,5	15,80	256	481	13	126
354225080	8 x 2,5	17,00	295	558	13	136
354225100	10 x 2,5	19,60	360	724	14	157
354225120	12 x 2,5	20,50	402	792	12	164
354225160	16 x 2,5	22,40	516	960	11	179
354225180	18 x 2,5	23,60	563	1052	10	189
354225190	19 x 2,5	23,60	586	1071	10	189

MXCY**XLPE INSULATION FLAME RETARDANT SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354240020	2 x 4	12,70	126	302	33	102
354240030	3 x 4	13,70	190	380	28	110
354240040	4 x 4	15,00	237	450	28	120
354260020	2 x 6	14,50	105	416	44	116
354260030	3 x 6	15,20	157	476	36	122
354260040	4 x 6	16,60	210	581	36	134
354210020	2 x 10	16,50	293	570	60	132
354210030	3 x 10	17,80	386	678	49	142
354210040	4 x 10	19,20	495	822	49	154
354216020	2 x 16	18,90	420	769	81	151
354216030	3 x 16	20,40	565	936	65	163
354216040	4 x 16	22,20	729	1154	65	178
354221020	2 x 25	23,00	607	1108	106	184
354221030	3 x 25	24,30	840	1354	87	194
354221040	4 x 25	26,80	1084	1690	87	214
354235020	2 x 35	25,60	796	1410	131	205
354235030	3 x 35	27,20	1123	1755	108	218
354235040	4 x 35	30,00	1460	2314	108	240
354205020	2 x 50	29,00	1090	1884	156	232
354205030	3 x 50	30,90	1532	2335	135	247
354205040	4 x 50	34,30	1996	2946	135	274
354270020	2 x 70	33,20	1469	2489	205	266
354270030	3 x 70	35,80	2178	3210	165	286
354270040	4 x 70	39,50	2799	4009	165	316
354295020	2 x 95	38,00	2038	3354	243	304
354295030	3 x 95	40,30	2913	4215	202	322
354295040	4 x 95	44,60	3793	5326	202	357
354212020	2 x 120	42,20	2558	4185	276	338
354212030	3 x 120	44,70	3625	5221	234	358
354212040	4 x 120	49,80	4765	6569	234	398

MXSY

XLPE INSULATED FLAME RETARDANT ARMoured CABLE



FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5
TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED
POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** PVC COMPOUND
- 5 - Screen** GALVANIZED STEEL WIRE BRAIDING
(MIN %90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 FR PVC COMPOUND
- 7 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: They have electromagnetic properties.

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXSY**XLPE INSULATED FLAME RETARDANT ARMoured CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354815010	1 x 1,5	6,30	14	65	22	50
354825010	1 x 2,5	6,50	22	82	29	52
354840010	1 x 4	7,00	34	91	37	56
354860010	1 x 6	7,60	53	119	51	61
354810010	1 x 10	8,80	90	182	71	70
354816010	1 x 16	9,80	144	246	94	78
354821010	1 x 25	11,70	222	360	125	94
354835010	1 x 35	12,80	311	466	156	102
354805010	1 x 50	14,90	434	653	195	119
354870010	1 x 70	16,90	603	869	240	135
354895010	1 x 95	18,80	849	1138	292	150
354812010	1 x 120	20,80	1065	1410	339	166
354855010	1 x 150	22,80	1290	1691	388	182
354818010	1 x 185	25,60	2125	2108	443	204
354824010	1 x 240	28,40	2700	2669	522	226
354815020	2 x 1,5	10,50	28	188	20	84
354815030	3 x 1,5	11,20	42	219	15	90
354815040	4 x 1,5	12,10	56	255	15	97
354815050	5 x 1,5	13,40	70	325	14	107
354815060	6 x 1,5	14,50	84	379	13	116
354815070	7 x 1,5	14,50	98	384	13	116
354815080	8 x 1,5	15,40	112	426	12	123
354815100	10 x 1,5	17,90	140	561	11	143
354815120	12 x 1,5	18,40	168	600	9	147
354815160	16 x 1,5	20,40	224	736	8	163
354815180	18 x 1,5	21,40	252	810	8	171
354815190	19 x 1,5	21,40	266	821	8	171
354815240	24 x 1,5	24,80	336	1075	7	198
354815300	30 x 1,5	27,80	450	1226	7	222
354815360	36 x 1,5	29,00	540	1302	6	232
354825020	2 x 2,5	11,50	44	245	25	92
354825030	3 x 2,5	12,20	69	267	21	98
354825040	4 x 2,5	13,50	88	346	21	108
354825050	5 x 2,5	14,70	110	411	17	118
354825060	6 x 2,5	15,70	132	450	13	126
354825070	7 x 2,5	15,70	154	469	13	126
354825080	8 x 2,5	16,90	176	544	13	135
354825100	10 x 2,5	19,50	220	707	14	156
354825120	12 x 2,5	20,40	264	775	12	163
354825160	16 x 2,5	22,40	352	941	11	179
354825180	18 x 2,5	23,60	396	1030	10	189
354825190	19 x 2,5	23,60	418	1049	10	189

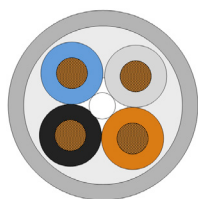
MXSY**XLPE INSULATED FLAME RETARDANT ARMoured CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354840020	2 x 4	12,70	69	295	33	102
354840030	3 x 4	13,70	103	364	28	110
354840040	4 x 4	15,00	136	441	28	120
354860020	2 x 6	14,50	106	403	44	116
354860030	3 x 6	15,20	159	464	36	122
354860040	4 x 6	16,50	211	566	36	125
354810020	2 x 10	16,50	179	555	60	132
354810030	3 x 10	17,80	268	663	49	142
354810040	4 x 10	19,20	358	804	49	154
354816020	2 x 16	18,90	287	752	81	151
354816030	3 x 16	20,30	429	918	65	162
354816040	4 x 16	22,20	572	1134	65	176
354821020	2 x 25	23,00	444	1088	106	184
354821030	3 x 25	24,30	667	1333	87	194
354821040	4 x 25	26,80	887	1666	87	214
354835020	2 x 35	25,70	620	1388	131	206
354835030	3 x 35	27,20	930	1731	108	218
354835040	4 x 35	29,90	1240	2287	108	239
354805020	2 x 50	29,20	867	1858	156	234
354805030	3 x 50	30,90	1299	2306	135	247
354805040	4 x 50	34,30	1732	2915	135	274
354870020	2 x 70	33,20	1206	2457	205	266
354870030	3 x 70	35,80	1809	3166	165	286
354870040	4 x 70	39,40	2412	3970	165	315
354895020	2 x 95	38,00	1682	3310	243	304
354895030	3 x 95	40,30	2523	4166	202	322
354895040	4 x 95	44,60	3364	5272	202	357
354812020	2 x 120	42,20	2130	4131	276	338
354812030	3 x 120	44,70	3195	5168	234	358
354812040	4 x 120	49,80	4260	6506	234	398



MXH

HALOGEN FREE, FLAME RETARDANT, UNSCREENED CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 6 - Sheath colour** RAL 9005 BLACK OR RAL7001 GREY

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXH**HALOGEN FREE, FLAME RETARDANT, UNSCREENED CABLE**

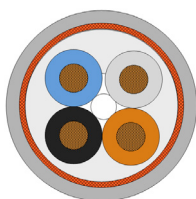
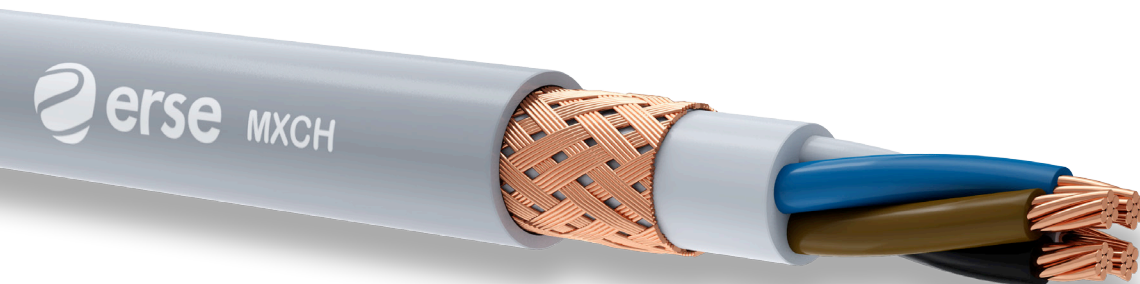
CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353615012	1 x 1,5	5,20	14	41	22	30
353625012	1 x 2,5	5,60	23	55	29	33
353640012	1 x 4	6,10	37	74	37	36
353660012	1 x 6	6,60	56	95	51	39
353610012	1 x 10	7,50	93	140	71	45
353616012	1 x 16	8,70	148	201	94	51
353625012	1 x 25	10,60	232	300	125	63
353635012	1 x 35	12,00	320	405	156	71
353605012	1 x 50	13,50	443	555	195	80
353670012	1 x 70	15,50	603	764	240	92
353695012	1 x 95	17,60	848	1018	292	105
353612012	1 x 120	19,40	1065	1260	339	116
353655012	1 x 150	21,40	1290	1524	388	128
353618012	1 x 185	24,00	1638	1927	443	143
353624012	1 x 240	26,80	2125	2469	522	160
353615022	2 x 1,5	10,00	30	143	20	60
353615032	3 x 1,5	10,50	45	165	15	63
353615042	4 x 1,5	11,20	60	194	15	67
353615052	5 x 1,5	12,10	75	226	14	73
353615062	6 x 1,5	13,10	90	264	13	78
353615072	7 x 1,5	13,10	105	272	13	78
353615082	8 x 1,5	14,10	120	323	12	85
353615102	10 x 1,5	16,40	150	449	11	98
353615122	12 x 1,5	17,10	178	479	9	103
353615142	14 x 1,5	17,60	196	508	9	106
353615162	16 x 1,5	18,90	234	583	8	113
353615182	18 x 1,5	19,80	252	628	8	119
353615192	19 x 1,5	19,80	266	644	8	119
353615242	24 x 1,5	23,00	336	864	7	138
353615272	27 x 1,5	23,60	379	930	7	141
353615362	36 x 1,5	27,90	540	1250	6	147
353625022	2 x 2,5	10,70	46	175	25	64
353625032	3 x 2,5	11,30	69	204	21	68
353625042	4 x 2,5	12,20	92	245	21	73
353625052	5 x 2,5	13,40	115	298	17	80
353625062	6 x 2,5	14,40	138	344	13	86
353625072	7 x 2,5	14,40	161	356	13	86
353625082	8 x 2,5	15,60	184	414	13	94
353625102	10 x 2,5	18,20	220	539	14	109
353625122	12 x 2,5	18,90	264	600	12	113
353625162	16 x 2,5	21,00	352	765	11	126
353625182	18 x 2,5	22,00	396	839	10	132
353625192	19 x 2,5	22,00	418	860	10	132

MXH**HALOGEN FREE, FLAME RETARDANT, UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353640022	2 x 4	11,80	70	223	33	71
353640032	3 x 4	12,60	104	275	28	76
353640042	4 x 4	13,70	139	335	28	82
353660022	2 x 6	13,20	105	296	44	79
353660032	3 x 6	13,90	157	348	36	83
353660042	4 x 6	15,30	210	436	36	92
353610022	2 x 10	15,30	178	422	60	92
353610032	3 x 10	16,30	267	520	49	98
353610042	4 x 10	17,90	356	649	49	107
353616022	2 x 16	17,60	286	592	81	106
353616032	3 x 16	18,80	429	749	65	113
353616042	4 x 16	20,50	752	936	65	123
353621022	2 x 25	21,40	444	887	106	128
353621032	3 x 25	22,70	666	1118	87	136
353621042	4 x 25	25,20	888	1430	87	151
353635022	2 x 35	23,90	620	1157	131	143
353635032	3 x 35	25,50	930	1478	108	153
353635042	4 x 35	27,80	1240	1865	108	167
353605022	2 x 50	27,20	866	1547	156	163
353605032	3 x 50	29,10	1299	1997	135	174
353605042	4 x 50	32,10	1732	2545	135	193
353670022	2 x 70	31,20	1206	2090	205	187
353670032	3 x 70	33,60	1809	2700	165	202
353670042	4 x 70	37,00	2412	3470	165	222
353695022	2 x 95	35,40	1682	2796	243	212
353695032	3 x 95	38,10	2523	3670	202	229
353695042	4 x 95	42,30	3364	4700	202	254
353612022	2 x 120	39,40	2130	3846	276	236
353612032	3 x 120	42,30	3195	4970	234	254
353612042	4 x 120	47,00	4260	6345	234	282

MXCH

HALOGEN FREE, FLAME RETARDANT, SCREENED CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5
TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED
POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Screen** TINNED COPPER OR PLAIN COPPER
BRAIDING (MIN %90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 7 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MxKkm 5000	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXCH**HALOGEN FREE, FLAME RETARDANT, SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354415012	1 x 1,5	5,80	50	72	22	47
354425012	1 x 2,5	6,20	63	84	29	50
354440012	1 x 4	6,70	77	103	37	54
354460012	1 x 6	7,30	96	132	51	59
354410012	1 x 10	8,50	133	186	71	68
354416012	1 x 16	9,50	221	252	94	77
354421012	1 x 25	11,40	290	366	125	92
354435012	1 x 35	12,60	382	469	156	101
354450012	1 x 50	14,70	526	663	195	118
354470012	1 x 70	16,70	729	879	240	134
354495012	1 x 95	18,60	958	1164	292	149
354412012	1 x 120	20,60	1252	1433	339	165
354455012	1 x 150	22,60	1664	1718	388	181
354418012	1 x 185	25,20	2029	2139	443	202
354424012	1 x 240	28,00	2551	2701	522	224
354415022	2 x 1,5	10,50	72	179	20	84
354415032	3 x 1,5	11,20	94	211	15	90
354415042	4 x 1,5	12,10	108	245	15	97
354415052	5 x 1,5	13,40	158	315	14	107
354415062	6 x 1,5	14,50	184	368	13	116
354415072	7 x 1,5	14,50	198	380	13	116
354415082	8 x 1,5	15,40	214	421	12	123
354415102	10 x 1,5	17,90	260	552	11	143
354415122	12 x 1,5	18,40	291	592	9	147
344415142	14 x 1,5	19,00	335	655	9	152
354415162	16 x 1,5	20,40	362	729	8	163
354415182	18 x 1,5	21,30	407	804	8	170
354415192	19 x 1,5	21,30	421	816	8	170
354415242	24 x 1,5	24,70	510	1061	7	197
344415272	27 x 1,5	25,60	575	1180	7	204
354415362	36 x 1,5	26,50	729	1405	6	212
354425022	2 x 2,5	11,50	95	233	25	92
354425030	3 x 2,5	12,20	117	266	21	97
354425040	4 x 2,5	13,50	176	345	21	108
354425050	5 x 2,5	14,70	210	407	17	118
354425060	6 x 2,5	15,70	234	454	13	125
354425070	7 x 2,5	15,70	256	473	13	125
354425080	8 x 2,5	16,90	294	549	13	135
354425100	10 x 2,5	19,50	359	708	14	156
354425120	12 x 2,5	20,40	402	777	12	163
354425160	16 x 2,5	22,40	508	942	11	179
354425180	18 x 2,5	23,60	571	1034	10	189
354425190	19 x 2,5	23,60	593	1053	10	189

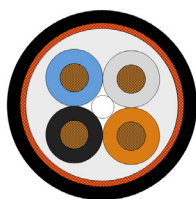
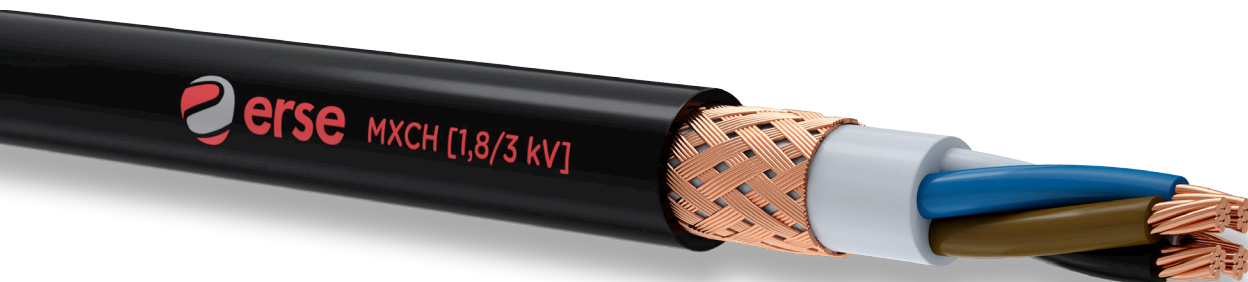
MXCH**HALOGEN FREE, FLAME RETARDANT, SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354440022	2 x 4	12,70	132	290	33	102
354440032	3 x 4	13,70	201	364	28	110
354440042	4 x 4	15,00	247	442	28	120
354460022	2 x 6	14,50	215	406	44	116
354460032	3 x 6	15,20	269	467	36	122
354460042	4 x 6	16,60	332	571	36	133
354410022	2 x 10	16,50	293	556	60	132
354410032	3 x 10	17,80	386	664	49	142
354410042	4 x 10	19,20	495	807	49	154
354416022	2 x 16	18,90	420	750	81	151
354416032	3 x 16	20,40	565	918	65	122
354416042	4 x 16	22,30	729	1133	65	178
354421022	2 x 25	23,00	607	1078	106	184
354421032	3 x 25	24,30	850	1327	87	194
354421042	4 x 25	26,80	1094	1660	87	214
354435022	2 x 35	25,70	796	1373	131	205
354435032	3 x 35	27,20	1133	1721	108	217
354435042	4 x 35	29,90	1460	2280	108	239
354450022	2 x 50	29,20	1090	1835	156	234
354450032	3 x 50	30,90	1543	2290	135	247
354450042	4 x 50	34,30	1996	2894	135	274
354470022	2 x 70	33,20	1467	2423	205	264
354470032	3 x 70	35,80	2170	3150	165	286
354470042	4 x 70	39,40	2800	3952	165	315
354495022	2 x 95	38,00	2048	3267	243	304
354495032	3 x 95	40,30	2936	4137	202	322
354495042	4 x 95	44,60	3780	5238	202	357
354412022	2 x 120	42,00	2570	4075	276	336
354412032	3 x 120	44,60	3637	5125	234	357
354412042	4 x 120	49,80	4780	6471	234	398



MXCH(1,8/3kV)

XLPE INSULATED SCREENED CABLES



FLAME RETARDANT / LOW SMOKE EMISSION / WITHOUT POISONED AND CORROSIVE GASES



CONSTRUCTION

- 1 - Conductor** IEC60228 CLASS2 PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE) IN LAYERS OF OPTIMUM PITCH
- 3 - Stranding** HFFR COMPOUND
- 4 - Inner sheath** PLAIN COPPER BRAIDING (MIN. %90 COVERAGE)
- 5 - Screen** IEC 60092-359 HFFR COMPOUND
- 6 - Outer sheath** RAL 9005 BLACK
- 7 - Sheath colour**

APPLICATION

As power, lighting and marine applications
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	6,5 kV. AC	1,8/3 kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
10x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

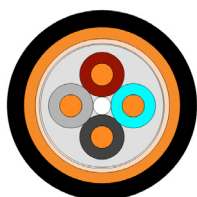
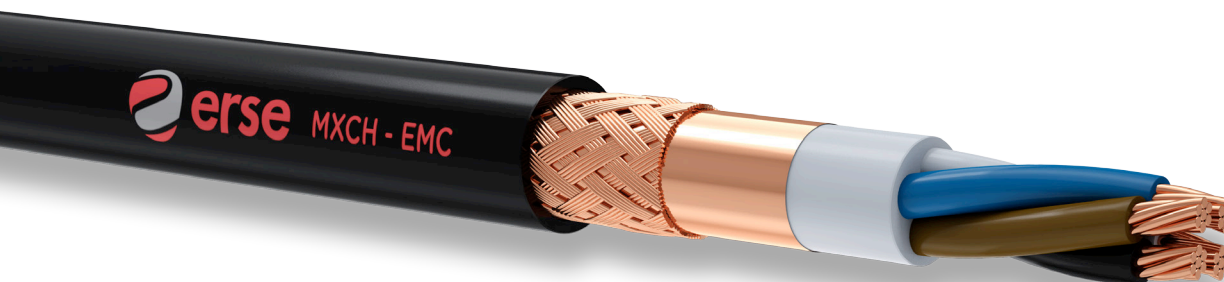
*NOTE: Upon request one core can be yellow/green colour.

MXCH(1,8/3kV)**XLPE INSULATED SCREENED CABLES**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
357410010	1 x 10	11,40	133	244	71	114
357416010	1 x 16	12,50	195	321	94	125
357421010	1 x 25	14,60	310	464	125	146
357435010	1 x 35	15,50	411	574	156	155
357405010	1 x 50	17,10	551	744	195	171
357470010	1 x 70	18,90	726	953	240	189
357495010	1 x 95	20,80	990	1242	292	208
357412010	1 x 120	22,60	1223	1512	339	226
357410020	2 x 10	22,20	335	838	60	222
357410030	3 x 10	23,60	443	971	49	236
357410040	4 x 10	26,10	552	1188	49	261
357416020	2 x 16	24,80	461	1068	81	248
357416030	3 x 16	26,40	624	1273	65	264
357416040	4 x 16	29,20	788	1567	65	292
357421020	2 x 25	27,60	640	1376	106	276
357421030	3 x 25	29,60	882	1677	87	296
357421040	4 x 25	32,50	1139	2074	87	325
357435020	2 x 35	30,20	852	1734	131	302
357435030	3 x 35	32,40	1181	2126	108	324
357435040	4 x 35	36,00	1593	2687	108	360
357405020	2 x 50	34,10	1119	2185	156	341
357405030	3 x 50	36,00	1653	2766	135	360
357405040	4 x 50	39,70	2123	3424	135	397
357470020	2 x 70	37,20	1562	2871	205	372
357470030	3 x 70	39,70	2199	3520	165	397
357470040	4 x 70	43,80	2841	4426	165	438
357495020	2 x 95	42,00	2110	3700	243	420
357495030	3 x 95	44,50	2953	4566	202	445
357495040	4 x 95	49,60	3869	5755	202	496
357412020	2 x 120	45,40	2559	4430	276	454
357412030	3 x 120	48,60	3700	5633	234	486
357412040	4 x 120	53,90	4769	7050	234	539

MXCH(EMC)

XLPE INSULATED SCREENED CABLES



FLEXIBLE / FLAME RETARDANT HYDROCARBON RESISTANT /
 LOW SMOKE EMISSION / WITHOUT POISONED AND CORROSIVE GASES /
 VERY GOOD EMC CHARACTERISTICS



CONSTRUCTION

- 1 - Conductor** IEC60228 CLASS2 PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** HFFR COMPOUND
- 5 - Screen** COPPER TAPE + PLAIN COPPER BRAIDING (MIN. %90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 7 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

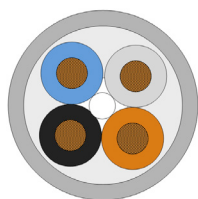
*NOTE: Upon request one core can be yellow/green colour.

MXCH(EMC)**XLPE INSULATED SCREENED CABLES**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
357510010	1 x 10	11,80	139	253	71	94
357516010	1 x 16	12,90	195	324	94	103
357521010	1 x 25	14,80	322	476	125	118
357535010	1 x 35	15,90	412	582	156	127
357505010	1 x 50	17,50	550	747	195	140
357570010	1 x 70	19,30	726	953	240	154
357595010	1 x 95	21,20	990	1245	292	169
357512010	1 x 120	23,00	1223	1515	339	184
357510020	2 x 10	22,60	423	930	60	181
357510030	3 x 10	24,10	554	1084	49	193
357510040	4 x 10	26,50	651	1289	49	212
357516020	2 x 16	25,20	560	1169	81	202
357516030	3 x 16	26,80	729	1379	65	215
357516040	4 x 16	29,60	909	1692	65	237
357521020	2 x 25	28,00	755	1495	106	224
357521030	3 x 25	30,00	1016	1814	87	240
357521040	4 x 25	33,10	1275	2226	87	264
357535020	2 x 35	30,60	974	1830	131	245
357535030	3 x 35	32,80	1312	2221	108	262
357535040	4 x 35	36,00	1740	2783	108	288
357505020	2 x 50	33,80	1257	2325	156	270
357505030	3 x 50	36,00	1800	2913	135	288
357505040	4 x 50	40,10	2286	3586	135	321
357570020	2 x 70	37,60	1715	3028	205	301
357570030	3 x 70	40,10	2361	3682	165	321
357570040	4 x 70	44,20	3024	4600	165	354
357595020	2 x 95	42,40	2283	3880	243	339
357595030	3 x 95	44,90	3137	4753	202	359
357595040	4 x 95	50,00	4071	5960	202	400
357512020	2 x 120	50,00	2819	4752	276	400
357512030	3 x 120	49,00	3899	5836	234	472
357512040	4 x 120	54,30	4995	7280	234	434

MHH

HFFR INSULATED FLAME RETARDANT, UNSCREENED CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED HFFR COMPAUND HF 90
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 6 - Sheath colour** RAL 9005 BLACK OR RAL7001 GREY

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 500	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

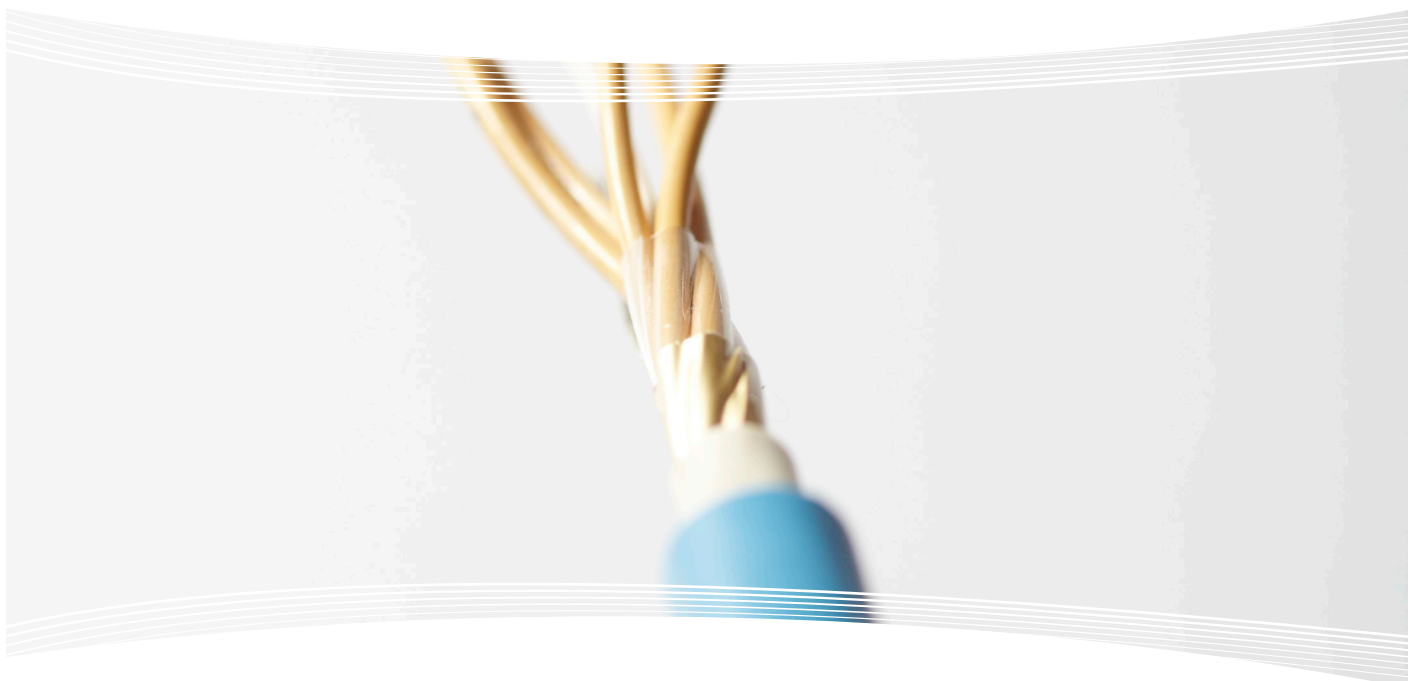
*NOTE: Upon request one core can be yellow/green colour.

HFFR INSULATED FLAME RETARDANT, UNSCREENED CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353815012	1 x 1,5	5,20	14	50	22	31
353825012	1 x 2,5	5,60	23	63	29	34
353840012	1 x 4	6,10	37	81	37	37
353860012	1 x 6	6,70	56	103	51	40
353810012	1 x 10	7,70	93	151	71	46
353816012	1 x 16	8,70	148	219	94	52
353821012	1 x 25	10,60	230	319	125	64
353835012	1 x 35	12,10	322	438	156	73
353805012	1 x 50	13,50	460	593	195	81
353870012	1 x 70	15,50	644	826	240	93
353895012	1 x 95	17,60	874	1058	292	105
353812012	1 x 120	19,40	1104	1356	339	116
353855012	1 x 150	21,40	1380	1765	388	128
353818012	1 x 185	24,10	1702	2089	443	145
353824012	1 x 240	26,90	2208	2697	522	161
353815022	2 x 1,5	10,40	30	169	20	62
353815032	3 x 1,5	11,50	45	221	15	69
353815042	4 x 1,5	12,10	60	269	15	73
353815052	5 x 1,5	12,80	69	286	14	77
353815062	6 x 1,5	13,90	83	303	13	83
353815072	7 x 1,5	13,90	97	338	13	83
353815082	8 x 1,5	16,90	110	384	12	101
353815102	10 x 1,5	17,40	138	521	11	104
353815122	12 x 1,5	17,70	166	595	9	104
353815162	16 x 1,5	19,20	221	693	8	115
353815182	18 x 1,5	20,80	248	706	8	125
353815192	19 x 1,5	20,80	262	746	8	125
353815242	24 x 1,5	24,20	331	960	7	145
353815302	30 x 1,5	25,80	414	1231	7	155
353815362	36 x 1,5	27,90	497	1325	6	167
353825022	2 x 2,5	11,20	46	201	25	67
353825032	3 x 2,5	11,60	69	256	21	70
353825042	4 x 2,5	12,80	92	273	21	77
353825052	5 x 2,5	13,90	115	349	17	83
353825062	6 x 2,5	15,10	138	379	13	91
353825072	7 x 2,5	15,10	161	397	13	91
353825082	8 x 2,5	16,70	184	485	13	100
353825102	10 x 2,5	19,10	230	562	14	115
353825122	12 x 2,5	20,50	276	653	12	123
353825162	16 x 2,5	22,50	368	813	11	135
353825182	18 x 2,5	23,20	414	876	10	139
353825192	19 x 2,5	23,20	437	903	10	139

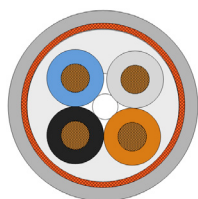
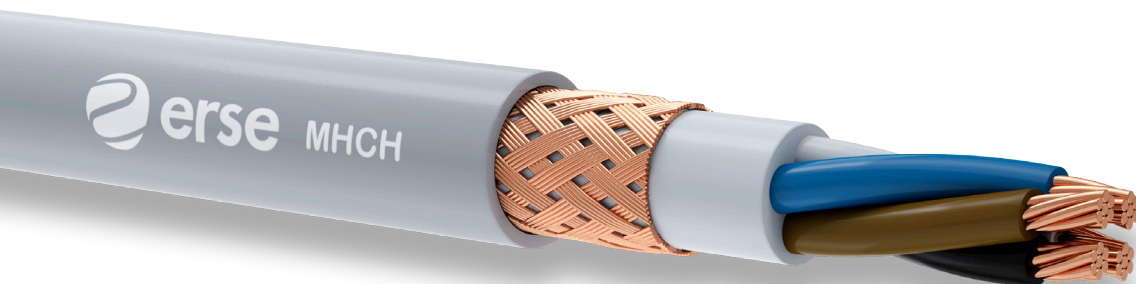
MHH**HFFR INSULATED FLAME RETARDANT, UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
353840022	2 x 4	12,20	74	261	33	73
353840032	3 x 4	13,10	110	339	28	79
353840042	4 x 4	14,30	147	402	28	86
353860022	2 x 6	13,90	110	356	44	83
353860032	3 x 6	14,50	166	419	36	87
353860042	4 x 6	16,10	221	503	36	97
353810022	2 x 10	15,90	184	518	60	95
353810032	3 x 10	16,80	276	603	49	148
353810042	4 x 10	18,20	368	665	49	109
353816022	2 x 16	18,20	294	689	81	109
353816032	3 x 16	19,70	442	829	65	118
353816042	4 x 16	21,30	589	1017	65	128
353821022	2 x 25	22,50	460	972	106	135
353821032	3 x 25	23,80	690	1190	87	143
353821042	4 x 25	26,70	920	1539	87	160
353835022	2 x 35	24,80	644	1314	131	149
353835032	3 x 35	26,70	966	1782	108	160
353835042	4 x 35	28,80	1288	2176	108	173
353805022	2 x 50	28,20	920	1823	156	169
353805032	3 x 50	30,10	1380	2386	135	181
353805042	4 x 50	33,60	1840	2881	135	202
353870022	2 x 70	32,80	1288	2397	205	197
353870032	3 x 70	34,90	1932	3020	165	209
353870042	4 x 70	38,10	2576	3814	165	229
353895022	2 x 95	36,10	1748	3187	243	217
353895032	3 x 95	38,70	2622	4190	202	232
353895042	4 x 95	43,90	3496	5098	202	263
353812022	2 x 120	41,10	2208	3894	276	247
353812032	3 x 120	43,60	3312	5001	234	262
353812042	4 x 120	48,10	4416	6483	234	289



MHCH

HFFR INSULATED FLAME RETARDANT, SCREENED CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5
TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED
HFFR COMPOUND
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Screen** TINNED COPPER OR PLAIN COPPER
BRAIDING (MIN %90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 7 - Sheath colour** RAL 9005 BLACK OR RAL 7001 GREY

APPLICATION

As power, lighting and control cable
 - Suitable for all commercial marine applications
 - Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 Note: Suitable for fixed installation in open deck in ships

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 500	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-353
- IEC 60092-359

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MHCH**HFFR INSULATED FLAME RETARDANT, SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354615012	1 x 1,5	7,80	50	90	22	62
354625012	1 x 2,5	8,20	63	106	29	65
354640012	1 x 4	9,40	77	125	37	75
354660012	1 x 6	10,00	96	149	51	80
354610012	1 x 10	11,10	133	201	71	90
354616012	1 x 16	12,10	221	294	94	97
354621012	1 x 25	13,70	290	397	125	110
354635012	1 x 35	12,80	382	498	156	113
354605012	1 x 50	14,90	526	661	195	120
354670012	1 x 70	16,90	729	907	240	135
354695012	1 x 95	18,80	958	1210	292	150
354612012	1 x 120	20,80	1252	1560	339	166
354655012	1 x 150	22,80	1664	2112	388	182
354618012	1 x 185	25,50	2029	2426	443	204
354624012	1 x 240	28,30	2551	3002	522	226
354615022	2 x 1,5	11,30	80	310	20	90
354615032	3 x 1,5	12,20	92	330	15	98
354615042	4 x 1,5	13,60	115	360	15	109
354615052	5 x 1,5	14,50	135	375	14	116
354615062	6 x 1,5	15,60	155	415	13	125
354615072	7 x 1,5	15,60	165	440	13	125
354615082	8 x 1,5	17,40	228	545	12	139
354615102	10 x 1,5	18,70	260	640	11	150
354615122	12 x 1,5	19,80	308	710	9	158
354615162	16 x 1,5	21,50	364	880	8	172
354615182	18 x 1,5	22,80	410	960	8	182
354615192	19 x 1,5	24,00	420	1010	8	192
354615242	24 x 1,5	26,40	496	1150	7	211
354615302	30 x 1,5	27,80	590	1480	7	222
354615362	36 x 1,5	29,00	729	1750	6	232
354625022	2 x 2,5	13,00	95	358	25	104
354625032	3 x 2,5	14,30	125	394	21	114
354625042	4 x 2,5	15,60	157	446	21	125
354625052	5 x 2,5	16,80	182	515	17	134
354625062	6 x 2,5	17,90	242	591	13	143
354625072	7 x 2,5	17,90	265	619	13	143
354625082	8 x 2,5	20,20	295	680	13	160
354625102	10 x 2,5	21,90	360	763	14	175
354625122	12 x 2,5	23,60	402	899	12	190
354625162	16 x 2,5	25,90	523	1061	11	207
354625182	18 x 2,5	27,00	559	1173	10	216
354625192	19 x 2,5	28,00	573	1219	10	224

MHCH**HFFR INSULATED FLAME RETARDANT, SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
354640022	2 x 4	14,20	132	459	33	114
354640032	3 x 4	14,80	169	496	28	118
354640042	4 x 4	15,80	210	571	28	126
354660022	2 x 6	15,00	172	600	44	120
354660032	3 x 6	16,10	227	623	36	129
354660042	4 x 6	17,60	332	800	36	141
354610022	2 x 10	17,20	293	890	60	138
354610032	3 x 10	18,50	386	921	49	148
354610042	4 x 10	19,80	495	1068	49	159
354616022	2 x 16	20,80	420	1061	81	166
354616032	3 x 16	22,10	565	1198	65	177
354616042	4 x 16	23,70	729	1496	65	190
354621022	2 x 25	25,60	607	1427	106	205
354621032	3 x 25	27,30	828	1559	87	218
354621042	4 x 25	28,60	1049	1709	87	229
354635022	2 x 35	27,50	796	1973	131	220
354635032	3 x 35	28,20	1100	2144	108	225
354635042	4 x 35	30,90	1460	3001	108	247
354605022	2 x 50	30,00	1090	2465	156	240
354605032	3 x 50	32,80	1510	3972	135	262
354605042	4 x 50	36,00	1930	3620	135	288
354670022	2 x 70	35,20	1420	3163	205	282
354670032	3 x 70	35,80	2096	3935	165	286
354670042	4 x 70	39,60	2720	4909	165	317
354695022	2 x 95	38,50	2065	4108	243	308
354695032	3 x 95	40,60	2860	5120	202	325
354695042	4 x 95	45,60	3780	7162	202	365
354612022	2 x 120	42,80	2498	5911	276	342
354612032	3 x 120	45,40	3560	7322	234	363
354612042	4 x 120	51,20	4630	10135	234	410

MXH-FR

HFFR INSULATED FIRE RESISTANT UNSCREENED CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS / FIRE RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** MICA TAPE + IEC 60092-351 CROSS-LINKED HFFR COMPOUND
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 6 - Sheath colour** GREEN OR ORANGE

APPLICATION

These cables are used for fixed installation on board of ships at all areas & open decks and safety circuits where in event of fire, circuit integrity is required in order to maintain a process or to safety shutdown the process.

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	3,5 kV. AC	0,6/1kV	6x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2
HALOGEN-FREE TEST	CIRCUIT INTEGRITY(FE 180)	CIRCUIT INTEGRITY WITH SHOCK	
IEC 60754-1	IEC 60331-21	IEC 60331-1 IEC 60331-2	

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXH-FR**HFFR INSULATED FIRE RESISTANT UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
352615012	1 x 1,5	5,30	14	54	22	31
352625012	1 x 2,5	5,90	23	67	29	35
352640012	1 x 4	6,50	37	86	37	38
352660012	1 x 6	7,00	56	108	51	41
352610012	1 x 10	8,00	93	150	71	47
352616012	1 x 16	9,10	148	224	94	55
352621012	1 x 25	10,90	232	323	125	65
352635012	1 x 35	12,20	320	434	156	73
352605012	1 x 50	13,90	443	598	195	83
352670012	1 x 70	15,90	613	785	240	94
352695012	1 x 95	18,50	860	1078	292	109
352612012	1 x 120	20,40	1075	1338	339	121
352655012	1 x 150	22,30	1300	1615	388	133
352618012	1 x 185	25,00	1648	2035	443	149
352624012	1 x 240	27,80	2135	2594	522	166
352615022	2 x 1,5	9,40	30	122	20	56
352615032	3 x 1,5	9,90	45	137	15	59
352615042	4 x 1,5	10,80	60	168	15	64
352615052	5 x 1,5	12,00	75	212	14	71
352615062	6 x 1,5	13,00	90	252	13	77
352615072	7 x 1,5	13,00	105	263	13	77
352615082	8 x 1,5	14,10	120	301	12	84
352615102	10 x 1,5	16,70	145	377	11	100
352615122	12 x 1,5	17,20	170	422	9	103
3526150142	14 x 1,5	18,00	194	520	9	108
352615162	16 x 1,5	19,10	234	546	8	114
352615182	18 x 1,5	20,40	261	622	8	121
352615192	19 x 1,5	20,40	275	633	8	121
352615242	24 x 1,5	24,00	348	800	7	143
352625022	2 x 2,5	10,10	46	152	25	60
352625032	3 x 2,5	10,70	69	172	21	64
352625042	4 x 2,5	11,90	92	218	21	71
352625052	5 x 2,5	13,00	115	270	17	77
352625062	6 x 2,5	14,40	138	329	13	85
352625072	7 x 2,5	14,40	158	346	13	85
352625082	8 x 2,5	15,60	184	390	13	92
352625102	10 x 2,5	18,40	230	488	14	109
352625122	12 x 2,5	19,00	270	563	12	113
352625162	16 x 2,5	21,30	368	740	11	127
352625182	18 x 2,5	22,60	405	840	10	134
352625192	19 x 2,5	22,60	427	857	10	134

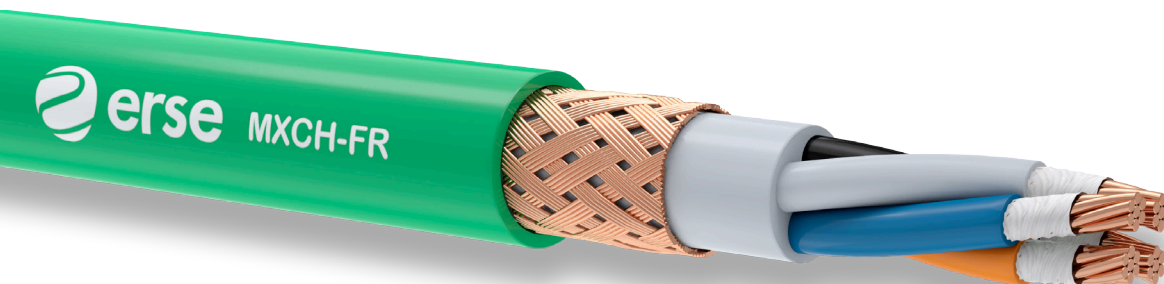
MXH-FR**HFFR INSULATED FIRE RESISTANT UNSCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
352640022	2 x 4	11,60	70	202	33	68
352640032	3 x 4	12,20	105	231	28	73
352640042	4 x 4	13,30	138	289	28	79
352660022	2 x 6	12,50	107	254	44	74
352660032	3 x 6	13,30	160	299	36	79
352660042	4 x 6	14,70	214	386	36	88
352610022	2 x 10	14,70	184	370	60	88
352610032	3 x 10	15,60	271	443	49	93
352610042	4 x 10	17,40	364	575	49	103
352616022	2 x 16	16,90	290	525	81	101
352616032	3 x 16	18,00	432	643	65	107
352616042	4 x 16	20,00	580	837	65	119
352621022	2 x 25	20,60	450	780	106	122
352621032	3 x 25	22,10	670	973	87	132
352621042	4 x 25	24,20	894	1243	87	144
352635022	2 x 35	24,60	625	1239	131	146
352635032	3 x 35	26,50	935	1600	108	158
352635042	4 x 35	29,00	1245	2013	108	173
352605022	2 x 50	28,20	871	1665	156	168
352605032	3 x 50	30,20	1300	2145	135	180
352605042	4 x 50	33,30	1738	2725	135	200
352670022	2 x 70	32,20	1210	2229	205	192
352670032	3 x 70	34,40	1812	2877	165	205
352670042	4 x 70	38,20	2415	3687	165	228
352695022	2 x 95	37,20	1688	3019	243	222
352695032	3 x 95	39,80	2526	3913	202	238
352695042	4 x 95	44,20	3368	5030	202	264
352612022	2 x 120	41,20	2135	3752	276	246
352612032	3 x 120	44,00	3199	4876	234	263
352612042	4 x 120	48,90	4265	6248	234	292



MXCH-FR

HFFR INSULATED FIRE RESISTANT SCREENED CABLE



FLAME RETARDANT / LOW SMOKE EMISSION / WITHOUT POISONED AND CORROSIVE GASES / SMALL BENDING RADIUS / FIRE RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5
TINNED OR PLAIN COPPER
- 2 - Insulation** MICA TAPE+ IEC 60092-351
CROSS-LINKED HFFR COMPOUND
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Screen** TINNED COPPER OR PLAIN COPPER
BRAIDING (MIN %90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 7 - Sheath colour** ORANGE OR GREEN

APPLICATION

These cables are used for fixed installation on board of ships at all areas & open decks and safety circuits where in event of fire, circuit integrity is required in order to maintain a process or to safety shutdown the process.

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	3,5 kV. AC	0,6/1 kV	8x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2
HALOGEN-FREE TEST	CIRCUIT INTEGRITY(FE 180)	CIRCUIT INTEGRITY WITH SHOCK	
IEC 60754-1	IEC 60331-21	IEC 60331-1	IEC 60331-2

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

NUMBER OF CROSS	CORE COLOURS
1	Black
2	Brown Blue
3*	Brown Black Grey
4*	Blue Brown Black Grey
5-36 Cores*	White insulated cores with black number imprinted

*NOTE: Upon request one core can be yellow/green colour.

MXCH-FR**HFFR INSULATED FIRE RESISTANT SCREENED CABLE**

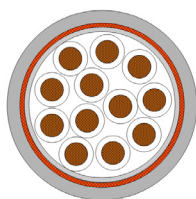
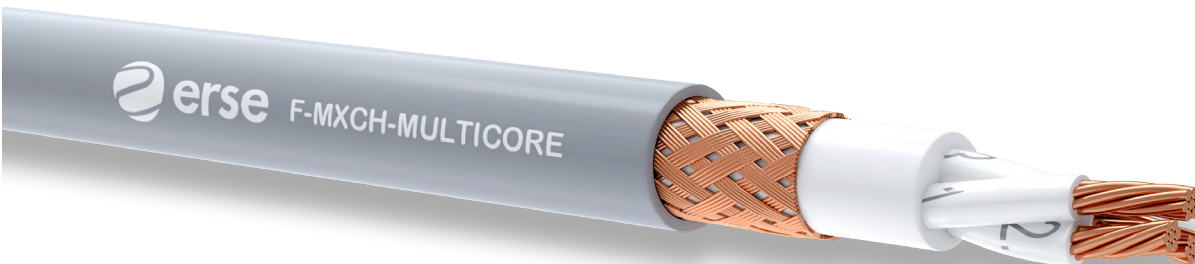
CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
352715012	1 x 1,5	6,30	44	84	22	50
352725012	1 x 2,5	6,70	52	99	29	53
352740012	1 x 4	7,30	60	110	37	58
352760012	1 x 6	7,80	89	139	51	62
352710012	1 x 10	9,00	129	188	71	71
352716012	1 x 16	10,00	182	270	94	79
352721012	1 x 25	11,90	272	375	125	94
352735012	1 x 35	13,00	364	483	156	103
352705012	1 x 50	15,20	536	699	195	121
352770012	1 x 70	17,20	729	922	240	137
352795012	1 x 95	19,70	987	1235	292	157
352712012	1 x 120	21,50	1216	1488	339	171
352755012	1 x 150	23,40	1461	1786	388	186
352718012	1 x 185	26,10	1830	2228	443	208
352724012	1 x 240	28,90	2332	2813	522	230
352715022	2 x 1,5	10,10	74	166	20	80
352715032	3 x 1,5	10,60	89	185	15	84
352715042	4 x 1,5	11,70	110	226	15	93
352715052	5 x 1,5	12,70	129	268	14	101
352715062	6 x 1,5	14,30	178	350	13	114
352715072	7 x 1,5	14,30	192	361	13	114
352715082	8 x 1,5	15,30	220	409	12	122
352715102	10 x 1,5	17,90	260	507	11	142
352715122	12 x 1,5	18,40	298	563	9	146
352715162	16 x 1,5	20,50	364	714	8	163
352715182	18 x 1,5	21,50	401	783	8	171
352715192	19 x 1,5	21,60	420	816	8	171
352715242	24 x 1,5	25,30	522	1009	7	202
352715302	30 x 1,5	26,30	590	1515	7	211
352715362	36 x 1,5	28,40	729	1750	6	228
352725022	2 x 2,5	10,90	95	210	25	87
352725032	3 x 2,5	11,80	120	230	21	93
352725042	4 x 2,5	12,70	146	275	21	101
352725052	5 x 2,5	14,30	223	385	17	114
352725062	6 x 2,5	15,50	237	438	13	123
352725072	7 x 2,5	15,50	260	454	13	123
352725082	8 x 2,5	16,90	295	526	13	134
352725102	10 x 2,5	19,70	360	648	14	157
352725122	12 x 2,5	20,40	402	722	12	162
352725162	16 x 2,5	22,70	516	919	11	181
352725182	18 x 2,5	23,80	559	1010	10	189
352725192	19 x 2,5	23,80	612	1049	10	189

MXCH-FR**HFFR INSULATED FIRE RESISTANT SCREENED CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
352740022	2 x 4	12,30	128	258	33	98
352740032	3 x 4	13,00	162	288	28	103
352740042	4 x 4	14,70	253	400	28	117
352760022	2 x 6	13,20	172	323	44	105
352760032	3 x 6	14,70	273	415	36	117
352760042	4 x 6	15,90	325	496	36	126
352710022	2 x 10	15,90	289	481	60	126
352710032	3 x 10	17,00	381	565	49	135
352710042	4 x 10	18,50	488	700	49	147
352716022	2 x 16	18,10	412	656	81	144
352716032	3 x 16	19,40	565	784	65	154
352716042	4 x 16	21,20	726	987	65	169
352721022	2 x 25	22,50	600	930	106	171
352721032	3 x 25	23,40	828	1141	87	186
352721042	4 x 25	25,80	1076	1455	87	205
352735022	2 x 35	26,40	822	1474	131	210
352735032	3 x 35	27,90	1154	1831	108	222
352735042	4 x 35	30,80	1486	2299	108	245
352705022	2 x 50	30,00	1090	1930	156	238
352705032	3 x 50	32,00	1550	2437	135	254
352705042	4 x 50	35,70	2114	3173	135	284
352770022	2 x 70	34,00	1478	2547	205	270
352770032	3 x 70	36,60	2198	3314	165	291
352770042	4 x 70	38,70	2800	3968	165	308
352795022	2 x 95	39,60	2103	3516	243	315
352795032	3 x 95	42,60	2956	4469	202	339
352795042	4 x 95	47,00	3840	5632	202	374
352712022	2 x 120	43,80	2567	4295	276	349
352712032	3 x 120	46,90	3670	5488	234	374
352712042	4 x 120	51,90	4817	7236	234	414

F-MXCH-MULTICORE

XLPE INSULATED, MULTICORE, SCREENED, INSTRUMENTATION CONTROL CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** SEPARATOR TAPE OR HFFR COMPOUND
- 5 - Screen** TINNED COPPER OR PLAIN COPPER BRAIDING (MIN %90 COVERAGE)
- 6 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 7 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 500	1,5 Kv A.C.	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8XD	-40°C+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A
HALOGEN-FREE TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
IEC 60754-1	IEC 61034-2	IEC 60754-2

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.
Note: They have electromagnetic properties.

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-376
- IEC 60092-359

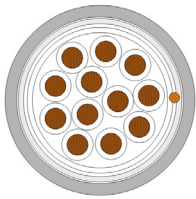
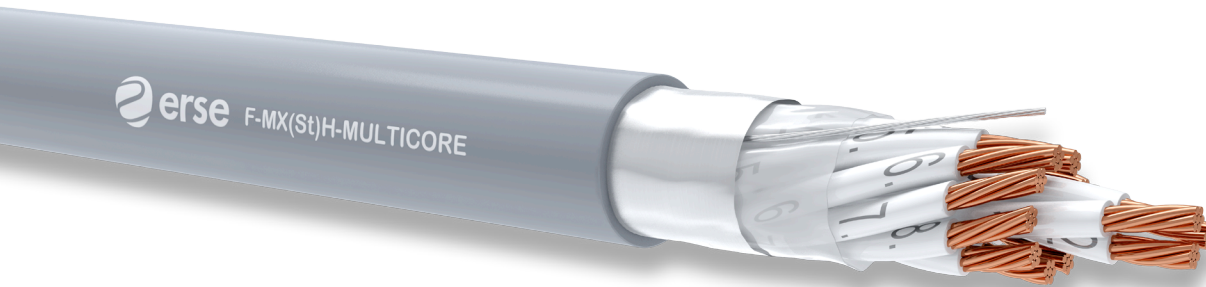
F-MXCH-MULTICORE

XLPE INSULATED, MULTICORE, SCREENED, INSTRUMENTATION CONTROL CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
350450022	2 x 0,50	7,80	40	80	62
350450032	3 x 0,50	8,20	45	83	66
350450042	4 x 0,50	9,80	50	108	78
350450052	5 x 0,50	10,10	55	120	81
350450062	6 x 0,50	10,40	60	138	83
350450072	7 x 0,50	10,40	65	144	83
350450082	8 x 0,50	11,10	70	153	89
350450102	10 x 0,50	13,00	80	182	104
350450122	12 x 0,50	13,40	90	221	107
350450162	16 x 0,50	14,00	110	249	112
350450182	18 x 0,50	15,60	120	278	125
350450192	19 x 0,50	15,60	125	280	125
350450242	24 x 0,50	18,20	150	340	146
350450302	30 x 0,50	19,20	180	400	154
350450362	36 x 0,50	20,80	210	473	166
350475022	2 x 0,75	8,00	44	90	64
350475032	3 x 0,75	8,40	95	100	67
350475042	4 x 0,75	9,00	58	112	72
350475052	5 x 0,75	10,00	65	133	80
350475062	6 x 0,75	10,70	72	154	86
350475072	7 x 0,75	10,70	79	162	86
350475082	8 x 0,75	11,50	86	172	92
350475102	10 x 0,75	13,40	100	196	107
350475122	12 x 0,75	13,80	114	235	110
350475162	16 x 0,75	15,30	142	308	122
350475182	18 x 0,75	16,10	156	332	129
350475192	19 x 0,75	16,10	163	339	129
350475242	24 x 0,75	18,80	198	415	150
350475302	30 x 0,75	20,20	240	493	162
350475362	36 x 0,75	21,50	282	580	172
350401022	2 x 1	8,50	49	100	68
350401032	3 x 1	8,90	58	116	71
350401042	4 x 1	9,50	68	125	76
350401052	5 x 1	10,60	77	150	85
350401062	6 x 1	11,40	88	150	91
350401072	7 x 1	11,40	96	187	91
350401082	8 x 1	12,10	106	204	97
350401102	10 x 1	14,10	126	231	113
350401122	12 x 1	14,80	145	279	119
350401162	16 x 1	16,30	183	360	130
350401182	18 x 1	17,10	206	396	137
350401192	19 x 1	17,10	215	408	137
350401242	24 x 1	19,80	263	500	158
350401302	30 x 1	21,20	321	598	170
350401362	36 x 1	22,50	380	709	180
350415022	2 x 1,5	9,50	63	125	76
350415032	3 x 1,5	10,80	77	145	86
350415042	4 x 1,5	11,60	92	166	93
350415052	5 x 1,5	12,60	106	195	101
350415062	6 x 1,5	13,70	120	228	110
350415072	7 x 1,5	13,70	135	245	110
350415082	8 x 1,5	14,30	151	263	114
350415102	10 x 1,5	17,00	181	325	136
350415122	12 x 1,5	17,40	208	362	139
350415162	16 x 1,5	19,40	262	460	155
350415182	18 x 1,5	20,30	290	500	162
350415192	19 x 1,5	20,30	302	515	162
350415242	24 x 1,5	23,50	375	546	188
350415302	30 x 1,5	25,00	456	781	200
350415362	36 x 1,5	27,00	543	816	216

F-MX(ST)H-MULTICORE

XLPE INSULATED, MULTICORE, SCREENED, INSTRUMENTATION CONTROL CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Colour code** WHITE INSULATED CORES WITH BLACK NUMBER IMPRINTED
- 4 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 5 - Wrapping** PES TAPE
- 6 - Overall screen** TINNED COPPER DRAIN WIRE; AL-PES TAPE
- 7 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 8 - Sheath colour** RAL 7001 GREY

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

IEC 60092-350
IEC 60092-351
IEC 60092-359
IEC 60092-376

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	RETARDANT TEST
6x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

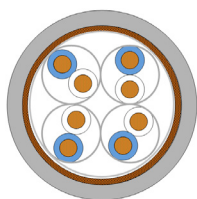
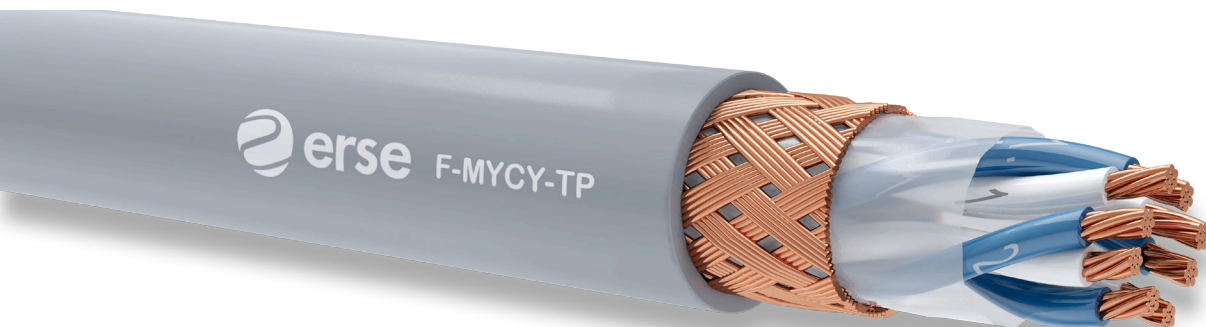
F-MX(ST)H-MULTICORE

XLPE INSULATED, MULTICORE, SCREENED, INSTRUMENTATION CONTROL CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
350750022	2 x 0,50	6,80	15	52	41
350750032	3 x 0,50	7,20	20	55	43
350750042	4 x 0,50	7,80	25	80	47
350750052	5 x 0,50	8,70	30	93	52
350750062	6 x 0,50	9,40	35	110	56
350750072	7 x 0,50	9,40	40	115	56
350750082	8 x 0,50	10,10	45	123	61
350750102	10 x 0,50	12,00	55	153	72
350750122	12 x 0,50	12,40	65	192	74
350750162	16 x 0,50	14,60	85	220	78
350750182	18 x 0,50	14,60	95	245	88
350750192	19 x 0,50	17,20	100	250	88
350750242	24 x 0,50	18,20	125	312	103
350750302	30 x 0,50	24,10	155	366	109
350750362	36 x 0,50	19,80	185	442	119
350775022	2 x 0,75	7,00	19	60	42
350775032	3 x 0,75	7,40	26	70	44
350775042	4 x 0,75	8,00	33	82	48
350775052	5 x 0,75	9,00	40	103	54
350775062	6 x 0,75	9,70	47	123	58
350775072	7 x 0,75	9,70	54	130	58
350775082	8 x 0,75	10,50	61	143	63
350775102	10 x 0,75	12,40	75	165	74
350775122	12 x 0,75	12,80	89	201	77
350775162	16 x 0,75	14,30	117	270	86
350775182	18 x 0,75	15,10	131	298	91
350775192	19 x 0,75	15,10	138	305	91
350775242	24 x 0,75	17,80	173	382	107
350775302	30 x 0,75	19,20	215	461	115
350775362	36 x 0,75	20,50	257	547	123
350701012	1 x 1	7,50	24	70	45
350701022	2 x 1	7,90	33	85	47
350701032	3 x 1	8,50	43	97	51
350701042	4 x 1	9,60	52	120	58
350701052	5 x 1	10,40	63	148	62
350701062	6 x 1	10,40	71	157	62
350701082	8 x 1	11,10	81	174	67
350701102	10 x 1	13,10	100	200	79
350701122	12 x 1	13,80	119	245	83
350701162	16 x 1	15,30	157	325	92
350701182	18 x 1	16,10	176	359	97
350701192	19 x 1	16,10	185	367	97
350701242	24 x 1	18,80	233	458	113
350701302	30 x 1	20,20	290	554	121
350701362	36 x 1	21,50	347	658	129
350715012	1 x 1,5	8,50	33	85	51
350715022	2 x 1,5	8,80	47	105	53
350715032	3 x 1,5	9,60	61	126	58
350715042	4 x 1,5	10,60	75	155	64
350715052	5 x 1,5	11,70	89	188	70
350715062	6 x 1,5	11,70	103	202	70
350715082	8 x 1,5	12,30	117	219	74
350715102	10 x 1,5	15,00	145	279	90
350715122	12 x 1,5	15,40	173	317	92
350715162	16 x 1,5	17,40	229	416	104
350715182	18 x 1,5	18,30	257	456	110
350715192	19 x 1,5	18,30	271	470	110
350715242	24 x 1,5	21,50	341	597	129
350715302	30 x 1,5	23,00	425	730	138
350715362	36 x 1,5	25,00	509	868	150

F-MYCY-TP

PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLEXIBLE / FLAME RETARDANT / SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 PVC COMPOUND
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Stranding** PAIRWISE PAIRS IN LAYERS
- 5 - Wrapping** PES TAPE
- 6 - Screen** TINNED COPPER OR PLAIN COPPER BRAIDING (MIN.%90 COVERAGE)
- 7 - Outer sheath** IEC60092-359 FR PVC COMPOUND
- 8 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 36,7	1,5 kv. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+70°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

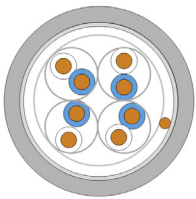
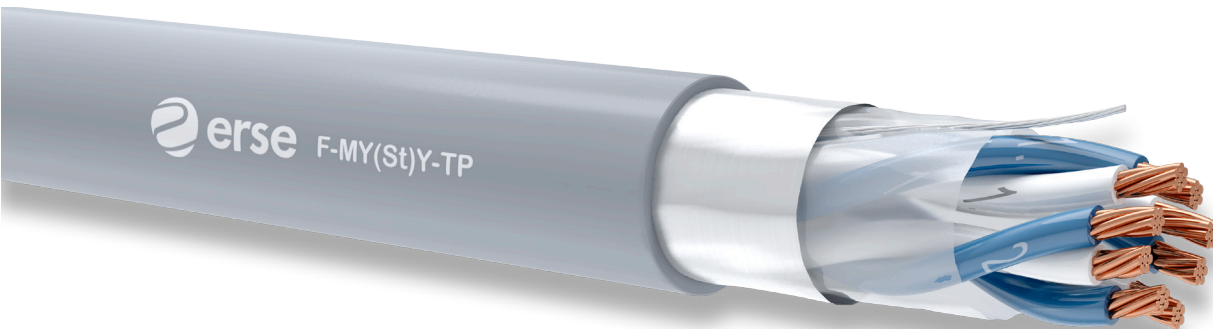
- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

F-MYCY-TP**PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
351050012	1 x 2 x 0,50	7,50	41	78	60
351050022	2 x 2 x 0,50	8,00	52	100	64
351050042	4 x 2 x 0,50	12,00	86	161	96
351050052	5 x 2 x 0,50	13,20	95	193	106
351050062	6 x 2 x 0,50	14,00	107	221	112
351050072	7 x 2 x 0,50	14,00	124	245	112
351050082	8 x 2 x 0,50	15,20	137	266	122
351050102	10 x 2 x 0,50	16,00	164	350	128
351050122	12 x 2 x 0,50	17,00	189	390	136
351050142	14 x 2 x 0,50	19,00	238	440	152
351050162	16 x 2 x 0,50	19,50	258	458	156
351050182	18 x 2 x 0,50	20,70	287	512	166
351050192	19 x 2 x 0,50	21,60	311	538	173
351050242	24 x 2 x 0,50	23,40	366	665	187
351050372	37 x 2 x 0,50	28,50	453	920	228
351075012	1 x 2 x 0,75	8,00	47	100	64
351075022	2 x 2 x 0,75	8,50	68	136	68
351075042	4 x 2 x 0,75	13,00	105	228	104
351075052	5 x 2 x 0,75	13,20	128	276	106
351075062	6 x 2 x 0,75	14,80	180	324	119
351075072	7 x 2 x 0,75	15,70	194	334	126
351075082	8 x 2 x 0,75	16,10	208	365	129
351075102	10 x 2 x 0,75	18,20	259	477	146
351075122	12 x 2 x 0,75	18,50	287	549	148
351075142	14 x 2 x 0,75	19,90	320	605	160
351075162	16 x 2 x 0,75	21,30	367	632	171
351075182	18 x 2 x 0,75	22,30	395	696	178
351075192	19 x 2 x 0,75	23,00	405	735	184
351075242	24 x 2 x 0,75	25,50	495	885	204
351075372	37 x 2 x 0,75	34,30	773	1224	275
351001012	1 x 2 x 1	8,70	52	107	70
351001022	2 x 2 x 1	9,90	75	147	79
351001042	4 x 2 x 1	13,60	124	242	108
351001052	5 x 2 x 1	15,00	191	301	120
351001062	6 x 2 x 1	16,40	210	352	131
351001082	8 x 2 x 1	17,70	259	432	142
351001102	10 x 2 x 1	19,90	308	528	159
351001122	12 x 2 x 1	20,40	357	573	163
351001162	16 x 2 x 1	23,00	446	734	184
351001182	18 x 2 x 1	24,40	482	793	195
351001192	19 x 2 x 1	26,30	507	855	210
351001242	24 x 2 x 1	28,80	629	998	230
351001302	30 x 2 x 1	31,50	698	1205	252
351001362	36 x 2 x 1	35,10	816	1352	280
351015012	1 x 2 x 1,5	9,90	59	141	79
351015022	2 x 2 x 1,5	11,20	95	208	90
351015042	4 x 2 x 1,5	16,00	182	336	128
351015052	5 x 2 x 1,5	17,50	218	410	140
351015062	6 x 2 x 1,5	19,00	249	465	152
351015082	8 x 2 x 1,5	21,50	324	590	172
351015102	10 x 2 x 1,5	23,70	385	705	190
351015122	12 x 2 x 1,5	24,80	446	789	198
351015162	16 x 2 x 1,5	27,90	567	988	223
351015182	18 x 2 x 1,5	29,30	636	1111	234
351015192	19 x 2 x 1,5	30,40	667	1166	243
351015242	24 x 2 x 1,5	34,00	818	1407	272
351015302	30 x 2 x 1,5	37,00	1008	1625	296
351015362	36 x 2 x 1,5	40,70	1211	1866	325

F-MY(ST)Y-TP

PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLEXIBLE / FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

1 - Conductor	IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
2 - Insulation	IEC 60092-351 PVC COMPOUND
3 - Colour code	BLUE- WHITE WITH NUMBERED
4 - Stranding	PAIRWISE PAIRS IN LAYERS
5 - Wrapping	PES TAPE
6 - Overall Screen	TINNED COPPER DRAIN WIRE; AL-PES TAPE
7 - Outer sheath	IEC60092-359 FR PVC COMPOUND
8 - Sheath colour	RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 36,7	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C-+70°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

IEC 60092-350
IEC 60092-351
IEC 60092-359
IEC 60092-376

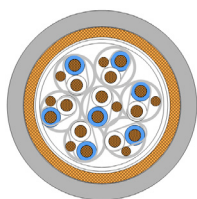
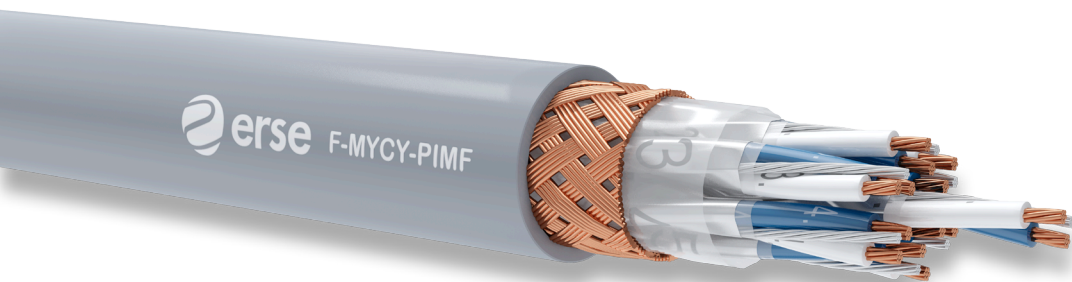
F-MY(ST)Y-TP

PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
351250012	1 x 2 x 0,50	7,10	10	55	43
351250022	2 x 2 x 0,50	7,90	20	65	47
351250032	3 x 2 x 0,50	9,10	30	100	55
351250042	4 x 2 x 0,50	10,80	40	126	65
351250052	5 x 2 x 0,50	12,00	50	152	72
351250062	6 x 2 x 0,50	12,80	60	181	77
351250082	8 x 2 x 0,50	14,00	80	212	84
351250102	10 x 2 x 0,50	15,70	100	258	94
351250122	12 x 2 x 0,50	16,00	120	282	96
351250162	16 x 2 x 0,50	18,10	160	365	106
351250182	18 x 2 x 0,50	19,20	180	423	115
351250192	19 x 2 x 0,50	20,10	190	449	121
351250242	24 x 2 x 0,50	21,70	240	529	130
351250302	30 x 2 x 0,50	23,20	300	639	139
351250362	36 x 2 x 0,50	25,90	360	711	155
351275012	1 x 2 x 0,75	7,80	16	65	47
351275022	2 x 2 x 0,75	8,70	32	97	52
351275032	3 x 2 x 0,75	11,50	48	143	69
351275042	4 x 2 x 0,75	12,50	64	180	75
351275052	5 x 2 x 0,75	13,80	80	210	83
351275062	6 x 2 x 0,75	15,10	96	231	91
351275082	8 x 2 x 0,75	16,30	128	292	98
351275102	10 x 2 x 0,75	18,60	160	355	112
351275122	12 x 2 x 0,75	18,90	192	471	113
351275162	16 x 2 x 0,75	21,70	256	553	130
351275182	18 x 2 x 0,75	22,70	288	607	136
351275192	19 x 2 x 0,75	24,10	304	641	145
351275242	24 x 2 x 0,75	26,30	384	779	158
351275302	30 x 2 x 0,75	28,90	480	889	173
351275362	36 x 2 x 0,75	30,90	600	1012	185
351201012	1 x 2 x 1	8,10	20	80	49
351201022	2 x 2 x 1	9,20	40	120	55
351201032	3 x 2 x 1	11,90	60	185	71
351201042	4 x 2 x 1	13,00	80	210	78
351201052	5 x 2 x 1	14,30	100	236	86
351201062	6 x 2 x 1	15,80	120	279	95
351201082	8 x 2 x 1	17,10	160	369	103
351201102	10 x 2 x 1	19,40	200	449	116
351201122	12 x 2 x 1	19,70	240	491	118
351201162	16 x 2 x 1	22,40	320	651	134
351201182	18 x 2 x 1	23,50	360	708	141
351201192	19 x 2 x 1	25,20	380	765	151
351201242	24 x 2 x 1	27,50	380	912	165
351201302	30 x 2 x 1	30,20	600	1089	181
351201362	36 x 2 x 1	32,60	720	1225	196
351215012	1 x 2 x 1,5	9,30	30	106	55
351215022	2 x 2 x 1,5	10,70	60	166	64
351215032	3 x 2 x 1,5	13,10	90	229	79
351215042	4 x 2 x 1,5	15,10	120	268	91
351215052	5 x 2 x 1,5	15,90	150	331	95
351215062	6 x 2 x 1,5	18,10	180	389	109
351215082	8 x 2 x 1,5	20,20	240	501	121
351215102	10 x 2 x 1,5	22,60	300	618	136
351215122	12 x 2 x 1,5	23,20	360	695	139
351215162	16 x 2 x 1,5	26,40	480	891	158
351215182	18 x 2 x 1,5	27,90	540	1015	167
351215192	19 x 2 x 1,5	30,10	570	1062	181
351215242	24 x 2 x 1,5	32,90	720	1282	197
351215302	30 x 2 x 1,5	35,20	900	1485	211
51215362	36 x 2 x 1,5	38,20	1080	1712	229

F-MYCY-PIMF

PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLEXIBLE / FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR
CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 PVC COMPOUND
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Individual screen** PES TAPE + TINNED COPPER DRAIN
WIRE + AL-PES TAPE
- 5 - Stranding** PAIRWISE SCREENED PAIRS IN LAYERS
- 6 - Wrapping** PES TAPE
- 7 - Screen** TINNED COPPER OR PLAIN COPPER
BRAIDING (MIN%90 COVERAGE)
- 8 - Outer sheath** IEC 60092-359 PVC COMPOUND
- 9 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 36,7	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+70°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

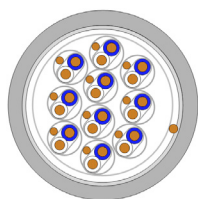
- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

F-MYCY-PIMF**PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
351150022	2 x 2 x 0,50	9,20	57	111	74
351150032	3 x 2 x 0,50	10,60	89	160	85
351150042	4 x 2 x 0,50	11,70	103	193	94
351150052	5 x 2 x 0,50	13,90	122	230	111
351150062	6 x 2 x 0,50	14,80	145	255	118
351150082	8 x 2 x 0,50	16,10	185	316	129
351150102	10 x 2 x 0,50	16,90	222	385	135
351150122	12 x 2 x 0,50	18,20	256	430	146
351150162	16 x 2 x 0,50	20,40	317	494	163
351150182	18 x 2 x 0,50	22,10	354	592	177
351150192	19 x 2 x 0,50	23,10	373	640	185
351150242	24 x 2 x 0,50	24,70	432	725	198
351150302	30 x 2 x 0,50	26,60	546	895	213
351150362	36 x 2 x 0,50	29,20	644	1010	233
351175022	2 x 2 x 0,75	10,80	81	170	86
351175032	3 x 2 x 0,75	12,50	107	217	100
351175042	4 x 2 x 0,75	14,10	132	262	113
351175052	5 x 2 x 0,75	15,80	170	313	126
351175062	6 x 2 x 0,75	17,10	196	360	137
351175082	8 x 2 x 0,75	18,30	243	421	146
351175102	10 x 2 x 0,75	20,90	288	486	167
351175122	12 x 2 x 0,75	21,40	332	628	171
351175162	16 x 2 x 0,75	23,80	416	728	190
351175182	18 x 2 x 0,75	24,80	461	803	198
351175192	19 x 2 x 0,75	26,60	490	834	213
351175242	24 x 2 x 0,75	29,10	593	1013	233
351175302	30 x 2 x 0,75	31,30	720	1163	250
351175362	36 x 2 x 0,75	33,40	879	1319	267
351101022	2 x 2 x 1	10,80	67	210	86
351101032	3 x 2 x 1	13,70	104	262	110
351101042	4 x 2 x 1	15,60	150	292	125
351101052	5 x 2 x 1	15,90	192	337	127
351101062	6 x 2 x 1	17,30	225	425	138
351101082	8 x 2 x 1	18,60	278	501	149
351101102	10 x 2 x 1	20,90	335	588	167
351101122	12 x 2 x 1	21,10	383	643	169
351101162	16 x 2 x 1	23,90	486	803	191
351101182	18 x 2 x 1	25,10	543	903	201
351101192	19 x 2 x 1	27,20	566	963	218
351101242	24 x 2 x 1	29,50	695	1130	236
351101302	30 x 2 x 1	32,60	850	1360	261
351101362	36 x 2 x 1	35,80	1000	1535	286
351115022	2 x 2 x 1,5	12,10	113	229	97
351115032	3 x 2 x 1,5	15,90	170	319	127
351115042	4 x 2 x 1,5	16,80	210	367	134
351115052	5 x 2 x 1,5	18,70	250	441	150
351115062	6 x 2 x 1,5	19,90	287	503	159
351115082	8 x 2 x 1,5	22,10	372	639	177
351115102	10 x 2 x 1,5	24,40	443	749	195
351115122	12 x 2 x 1,5	25,20	518	863	202
351115162	16 x 2 x 1,5	29,20	658	1086	234
351115182	18 x 2 x 1,5	30,90	736	1211	247
351115192	19 x 2 x 1,5	32,80	764	1266	262
351115242	24 x 2 x 1,5	35,30	943	1522	282
351115302	30 x 2 x 1,5	37,80	1159	1786	302
351115362	36 x 2 x 1,5	41,50	1397	2057	332

F-MY(ST)Y-PIMF

PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLEXIBLE / FLAME RETARDANT /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR
CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 PVC COMPOUND
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Individual screen** PES + TAPE TINNED COPPER DRAIN
WIRE AL + PES TAPE
- 5 - Stranding** PAIRWISE SCREENED PAIRS IN LAYERS
- 6 - Wrapping** PES TAPE
- 7 - Overall screen** TINNED COPPER DRAIN WIRE;
AL-PES TAPE
- 8 - Outer sheath** IEC60092-359 FR PVC COMPOUND
- 9 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 36,7	1,5 kv. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

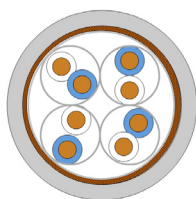
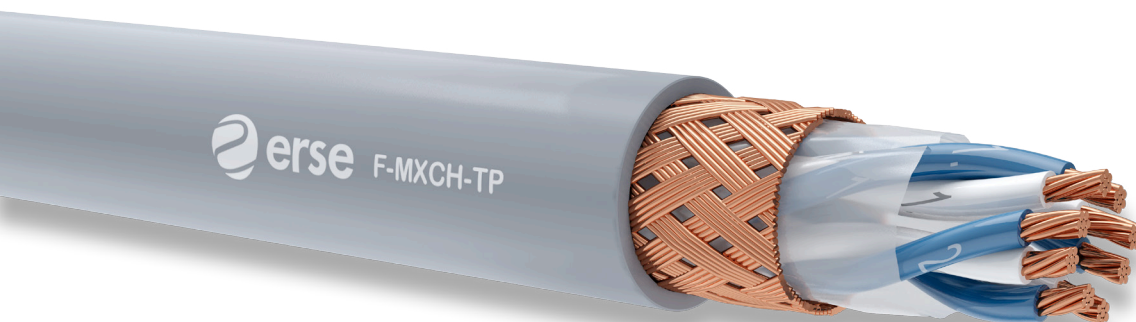
F-MY(ST)Y-PIMF

PVC INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
351350012	2 x 2 x 0,50	8,80	30	75	53
351350032	3 x 2 x 0,50	9,90	45	117	59
351350042	4 x 2 x 0,50	10,90	60	151	65
351350052	5 x 2 x 0,50	13,20	75	182	79
351350062	6 x 2 x 0,50	14,10	90	213	85
351350082	8 x 2 x 0,50	15,10	120	257	91
351350102	10 x 2 x 0,50	15,90	150	311	95
351350122	12 x 2 x 0,50	17,60	180	355	106
351350162	16 x 2 x 0,50	20,20	240	453	121
351350182	18 x 2 x 0,50	21,50	270	517	129
351350192	19 x 2 x 0,50	22,30	285	559	134
351350242	24 x 2 x 0,50	23,90	360	671	143
351350302	30 x 2 x 0,50	25,80	450	821	155
351350362	36 x 2 x 0,50	28,90	540	928	173
351375022	2 x 2 x 0,75	9,90	47	116	59
351375032	3 x 2 x 0,75	11,60	68	169	70
351375042	4 x 2 x 0,75	12,60	89	212	76
351375052	5 x 2 x 0,75	14,10	110	251	85
351375062	6 x 2 x 0,75	15,10	131	274	91
351375082	8 x 2 x 0,75	17,80	173	612	107
351375102	10 x 2 x 0,75	20,10	215	423	121
351375122	12 x 2 x 0,75	21,50	257	551	129
351375162	16 x 2 x 0,75	23,50	341	656	141
351375182	18 x 2 x 0,75	24,30	383	719	146
351375192	19 x 2 x 0,75	25,80	404	762	155
351375242	24 x 2 x 0,75	28,20	509	927	169
351375302	30 x 2 x 0,75	30,80	635	1071	185
351375362	36 x 2 x 0,75	33,50	785	1229	201
351301022	2 x 2 x 1	11,10	55	236	67
351301032	3 x 2 x 1	14,00	80	295	84
351301042	4 x 2 x 1	16,10	105	331	97
351301052	5 x 2 x 1	16,40	130	370	98
351301062	6 x 2 x 1	18,10	155	481	109
351301082	8 x 2 x 1	19,30	205	562	116
351301102	10 x 2 x 1	21,90	255	663	131
351301122	12 x 2 x 1	22,20	305	731	133
351301162	16 x 2 x 1	24,90	405	910	149
351301182	18 x 2 x 1	26,10	455	1020	157
351301192	19 x 2 x 1	27,80	480	1092	167
351301242	24 x 2 x 1	30,60	605	1285	184
351301302	30 x 2 x 1	33,80	755	1559	203
351301362	36 x 2 x 1	37,20	905	1752	223
351315022	2 x 2 x 1,5	12,10	75	178	73
351315032	3 x 2 x 1,5	16,00	110	251	96
351315042	4 x 2 x 1,5	17,00	145	294	102
351315052	5 x 2 x 1,5	18,90	180	365	113
351315062	6 x 2 x 1,5	20,20	215	425	121
351315082	8 x 2 x 1,5	22,30	295	548	134
351315102	10 x 2 x 1,5	23,80	355	671	143
351315122	12 x 2 x 1,5	25,60	425	762	154
351315162	16 x 2 x 1,5	29,60	565	980	178
351315182	18 x 2 x 1,5	30,60	635	1100	184
351315192	19 x 2 x 1,5	32,50	670	1168	195
351315242	24 x 2 x 1,5	36,30	845	1414	218
351315302	30 x 2 x 1,5	40,90	1055	1661	245
351315362	36 x 2 x 1,5	43,10	1265	1917	259

F-MXCH-TP

XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Stranding** PAIRWISE / PAIRS IN LAYERS
- 5 - Wrapping** PES TAPE
- 6 - Screen** TINNED COPPER OR PLAIN COPPER BRAIDING (MIN%90 COVERAGE)
- 7 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 8 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

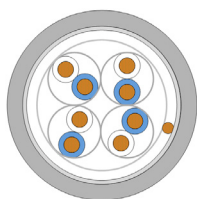
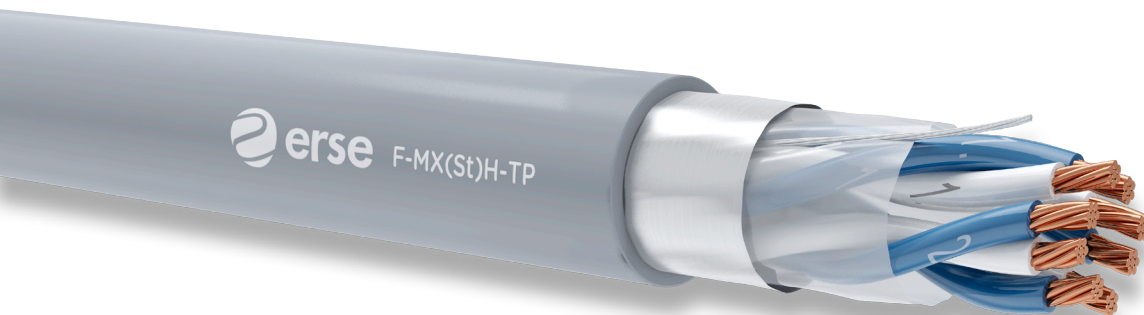
- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

F-MXCH-TP**XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
350550012	1 x 2 x 0,50	7,50	41	76	60
350550022	2 x 2 x 0,50	8,00	52	95	64
350550042	4 x 2 x 0,50	12,00	86	151	96
350550052	5 x 2 x 0,50	13,20	95	179	106
350250072	7 x 2 x 0,50	14,00	107	226	112
350250082	8 x 2 x 0,50	15,20	137	243	122
350550102	10 x 2 x 0,50	16,00	164	326	128
350550122	12 x 2 x 0,50	17,00	189	354	136
350550142	14 x 2 x 0,50	19,00	238	409	152
350550162	16 x 2 x 0,50	19,50	258	448	156
350550182	18 x 2 x 0,50	20,70	287	500	166
350550192	19 x 2 x 0,50	21,60	311	536	173
350550242	24 x 2 x 0,50	23,40	366	619	187
350550372	37 x 2 x 0,50	28,50	453	910	228
350575012	1 x 2 x 0,75	8,00	47	90	64
350575022	2 x 2 x 0,75	8,50	68	122	68
350575042	4 x 2 x 0,75	13,00	105	196	104
350575052	5 x 2 x 0,75	13,20	128	242	106
350575072	7 x 2 x 0,75	15,70	194	334	119
350575082	8 x 2 x 0,75	16,10	208	357	129
350575102	10 x 2 x 0,75	18,20	259	441	146
350575122	12 x 2 x 0,75	18,50	287	483	148
350575142	14 x 2 x 0,75	19,90	320	548	160
350575162	16 x 2 x 0,75	21,30	367	624	171
350575182	18 x 2 x 0,75	22,30	395	689	178
350575192	19 x 2 x 0,75	23,00	405	723	184
350575242	24 x 2 x 0,75	25,50	495	847	204
350575372	37 x 2 x 0,75	34,30	773	1111	275
350501012	1 x 2 x 1	8,40	52	105	67
350501022	2 x 2 x 1	9,60	75	170	77
350501042	4 x 2 x 1	13,20	124	235	106
350501052	5 x 2 x 1	14,60	191	292	117
350501062	6 x 2 x 1	15,90	210	343	127
350501082	8 x 2 x 1	17,20	259	432	138
350501102	10 x 2 x 1	19,40	308	518	155
350501122	12 x 2 x 1	19,80	357	563	158
350501162	16 x 2 x 1	22,40	446	723	179
350501182	18 x 2 x 1	23,70	482	781	190
350501192	19 x 2 x 1	25,50	507	843	204
350501242	24 x 2 x 1	27,80	629	985	222
350501302	30 x 2 x 1	30,30	698	1185	242
350501362	36 x 2 x 1	33,10	816	1330	265
350515012	1 x 2 x 1,5	9,60	58	135	77
350515022	2 x 2 x 1,5	10,80	93	198	86
350515042	4 x 2 x 1,5	15,50	180	325	124
350515052	5 x 2 x 1,5	17,10	215	395	139
350515062	6 x 2 x 1,5	18,40	246	451	147
350515082	8 x 2 x 1,5	20,50	320	575	164
350515102	10 x 2 x 1,5	22,70	380	688	182
350515122	12 x 2 x 1,5	23,60	441	771	189
350515162	16 x 2 x 1,5	26,80	562	968	214
350515182	18 x 2 x 1,5	28,10	630	1091	225
350515192	19 x 2 x 1,5	30,20	660	1145	242
350515242	24 x 2 x 1,5	32,80	810	1406	262
350515302	30 x 2 x 1,5	35,40	998	1603	283
350515362	36 x 2 x 1,5	38,70	1200	1841	310

F-MX(ST)H-TP

XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Stranding** PAIRWISE / PAIRS IN LAYERS
- 5 - Wrapping** PES TAPE
- 6 - Overall screen** TINNED COPPER DRAIN WIRE; AL-PES TAPE
- 7 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 8 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

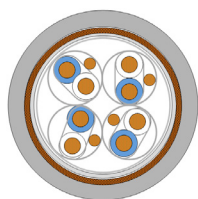
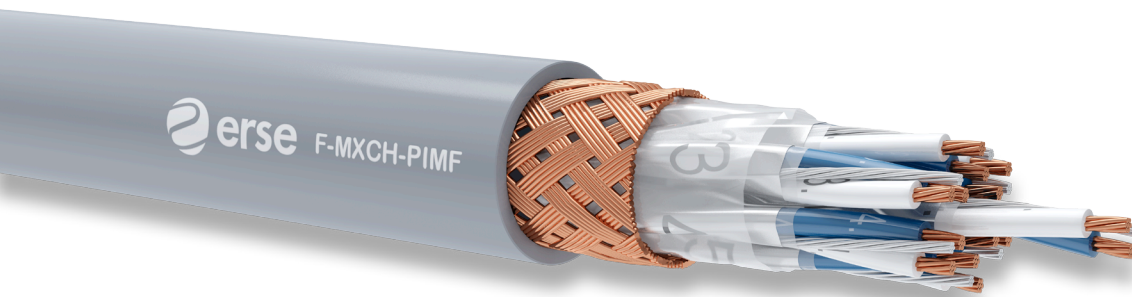
- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

F-MX(ST)H-TP**XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
350850012	1 x 2 x 0,50	6,80	10	50	41
350850022	2 x 2 x 0,50	7,60	20	60	46
350850032	3 x 2 x 0,50	8,80	30	95	53
350850042	4 x 2 x 0,50	10,40	40	120	62
350850052	5 x 2 x 0,50	11,60	50	145	70
350850062	6 x 2 x 0,50	12,40	60	170	74
350850082	8 x 2 x 0,50	13,50	80	201	81
350850102	10 x 2 x 0,50	15,20	100	245	91
350850122	12 x 2 x 0,50	15,50	120	275	93
350850162	16 x 2 x 0,50	17,60	160	350	106
350850182	18 x 2 x 0,50	18,70	180	410	112
350850192	19 x 2 x 0,50	19,50	190	435	117
350850242	24 x 2 x 0,50	21,10	240	515	127
350850302	30 x 2 x 0,50	22,60	300	625	136
350850362	36 x 2 x 0,50	25,20	360	698	151
350875012	1 x 2 x 0,75	7,60	16	60	46
350875022	2 x 2 x 0,75	8,50	32	92	51
350875032	3 x 2 x 0,75	11,20	48	138	67
350875042	4 x 2 x 0,75	12,20	64	172	73
350875052	5 x 2 x 0,75	13,50	80	203	81
350875062	6 x 2 x 0,75	14,40	96	221	86
350875082	8 x 2 x 0,75	15,90	128	286	95
350875102	10 x 2 x 0,75	18,10	160	345	109
350875122	12 x 2 x 0,75	18,30	192	460	110
350875162	16 x 2 x 0,75	21,10	256	542	127
350875182	18 x 2 x 0,75	21,90	288	596	131
350875192	19 x 2 x 0,75	23,20	304	630	139
350875242	24 x 2 x 0,75	25,40	384	768	152
350875302	30 x 2 x 0,75	27,80	480	876	167
350875362	36 x 2 x 0,75	29,60	600	996	178
350801012	1 x 2 x 1	7,80	20	75	47
350801022	2 x 2 x 1	8,80	40	112	53
350801032	3 x 2 x 1	11,60	60	176	70
350801042	4 x 2 x 1	12,60	80	198	76
350801052	5 x 2 x 1	13,80	100	225	83
350801062	6 x 2 x 1	15,20	120	268	91
350801082	8 x 2 x 1	16,50	160	357	99
350801102	10 x 2 x 1	18,80	200	435	113
350801122	12 x 2 x 1	19,10	240	478	115
350801162	16 x 2 x 1	21,60	320	638	130
350801182	18 x 2 x 1	22,70	360	690	136
350801192	19 x 2 x 1	24,20	380	752	145
350801242	24 x 2 x 1	26,40	480	893	158
350801302	30 x 2 x 1	28,10	600	1075	169
350801362	36 x 2 x 1	30,70	720	1210	184
350815012	1 x 2 x 1,5	8,80	30	97	53
350815022	2 x 2 x 1,5	10,20	60	155	61
350815032	3 x 2 x 1,5	12,50	90	218	75
350815042	4 x 2 x 1,5	14,40	120	255	86
350815052	5 x 2 x 1,5	15,30	150	320	92
350815062	6 x 2 x 1,5	17,60	180	375	106
350815082	8 x 2 x 1,5	19,50	240	485	117
350815102	10 x 2 x 1,5	21,90	300	598	131
350815122	12 x 2 x 1,5	22,40	360	680	134
350815162	16 x 2 x 1,5	25,80	480	876	155
350815182	18 x 2 x 1,5	27,10	540	991	163
350815192	19 x 2 x 1,5	28,90	570	1045	173
350815242	24 x 2 x 1,5	31,30	720	1265	188
350815302	30 x 2 x 1,5	33,70	900	1468	202
350815362	36 x 2 x 1,5	36,50	1080	1686	219

F-MXCH-PIMF

XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Individual screen** PES TAPE + TINNED COPPER DRAIN WIRE + AL-PES TAPE
- 5 - Stranding** PAIRWISE / SCREENED PAIRS IN LAYERS
- 6 - Wrapping** PES - TAPE
- 7 - Overall Screen** TINNED COPPER OR PLAIN COPPER BRAIDING (MIN %90 COVERAGE)
- 8 - Outer sheath** IEC 60092-359 HFFR
- 9 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
8x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

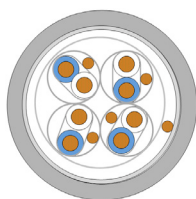
- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

F-MXCH-PIMF**XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
350650022	2 x 2 x 0,50	9,20	57	111	74
350650042	4 x 2 x 0,50	12,70	103	193	94
350650052	5 x 2 x 0,50	13,90	122	230	111
350650062	6 x 2 x 0,50	14,80	145	255	118
350650082	8 x 2 x 0,50	16,10	185	316	129
350650102	10 x 2 x 0,50	16,90	222	385	135
350650122	12 x 2 x 0,50	18,20	256	430	146
350650162	16 x 2 x 0,50	20,40	317	494	163
350650182	18 x 2 x 0,50	22,10	354	592	177
350650192	19 x 2 x 0,50	23,10	373	640	185
350650242	24 x 2 x 0,50	24,70	432	725	198
350650302	30 x 2 x 0,50	26,60	546	895	213
350650362	36 x 2 x 0,50	29,20	644	1010	233
350675022	2 x 2 x 0,75	10,80	81	170	86
350675042	4 x 2 x 0,75	14,10	132	262	113
350675052	5 x 2 x 0,75	15,80	170	313	126
350675062	6 x 2 x 0,75	17,10	196	629	137
350675082	8 x 2 x 0,75	18,30	243	421	146
350675102	10 x 2 x 0,75	20,90	288	486	167
350675122	12 x 2 x 0,75	21,40	332	628	171
350675162	16 x 2 x 0,75	23,80	416	728	190
350675182	18 x 2 x 0,75	24,80	461	803	198
350675192	19 x 2 x 0,75	26,60	490	834	213
350675242	24 x 2 x 0,75	29,10	593	1013	233
350675302	30 x 2 x 0,75	31,30	720	1163	250
350675362	36 x 2 x 0,75	33,40	879	1319	267
350601022	2 x 2 x 1	10,80	67	210	86
350601032	3 x 2 x 1	13,70	104	262	110
350601042	4 x 2 x 1	15,60	150	292	125
350601052	5 x 2 x 1	15,90	192	337	127
350601062	6 x 2 x 1	17,30	225	425	138
350601082	8 x 2 x 1	18,60	278	501	149
350601102	10 x 2 x 1	20,90	335	588	167
350601122	12 x 2 x 1	21,10	383	643	169
350601162	16 x 2 x 1	23,90	486	803	191
350601182	18 x 2 x 1	25,10	543	903	201
350601192	19 x 2 x 1	27,20	566	963	218
350601242	24 x 2 x 1	29,50	695	1130	236
350601302	30 x 2 x 1	32,60	850	1360	261
350601362	36 x 2 x 1	35,80	1000	1075	286
350615022	2 x 2 x 1,5	12,10	113	229	97
350615032	3 x 2 x 1,5	15,90	170	319	127
350615042	4 x 2 x 1,5	16,80	210	367	134
350615052	5 x 2 x 1,5	18,70	250	441	150
350615062	6 x 2 x 1,5	19,90	287	503	159
350615082	8 x 2 x 1,5	22,10	372	639	177
350615102	10 x 2 x 1,5	24,40	443	749	195
350615122	12 x 2 x 1,5	25,20	518	863	202
350615162	16 x 2 x 1,5	29,20	658	1086	234
350615182	18 x 2 x 1,5	30,90	736	1211	247
350615192	19 x 2 x 1,5	32,80	764	1266	262
350615242	24 x 2 x 1,5	35,30	943	1522	282
350615302	30 x 2 x 1,5	37,80	1159	1786	302
350615362	36 x 2 x 1,5	41,50	1397	2057	332

F-MX(ST)H-PIMF

XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 CROSS-LINKED POLYETHYLENE (XLPE)
- 3 - Colour code** BLUE - WHITE WITH NUMBERED
- 4 - Individual screen** PES TAPE + TINNED COPPER DRAIN WIRE + AL-PES TAPE
- 5 - Stranding** PAIRWISE / SCREENED PAIRS IN LAYERS
- 6 - Wrapping** PES - TAPE
- 7 - Overall screen** TINNED COPPER DRAIN WIRE; AL-PES TAPE
- 8 - Outer sheath** IEC 60092-359 HFFR
- 9 - Sheath colour** RAL 7001 GREY

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 5000	1,5 kV. AC	150/250 V (300V)
BENDING RADIUS	TEMP. RANGE	FLAME RETARDANT TEST
6x D	-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 (CAT A)
SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES	HALOGEN-FREE TEST
IEC 61034-2	IEC 60754-2	IEC 60754-1

APPLICATION

For fixed installation for instrumentation, communication, control and alarm systems in most areas and on open deck in ships.

Note: They have electromagnetic properties.

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

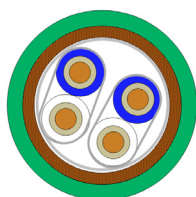
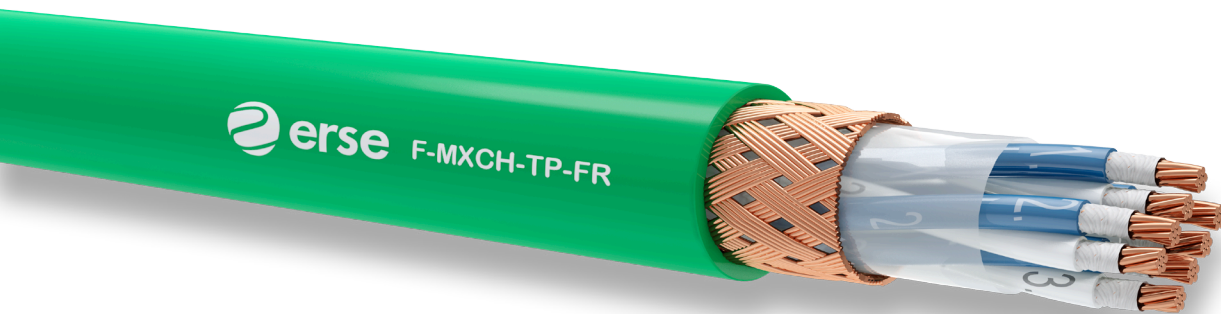
F-MX(ST)H-PIMF

XLPE INSULATED, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
350950022	2 x 2 x 0,50	8,50	30	72	51
350950032	3 x 2 x 0,50	9,60	45	113	58
350950042	4 x 2 x 0,50	10,50	60	144	63
350950052	5 x 2 x 0,50	12,80	75	175	77
350950062	6 x 2 x 0,50	13,70	90	205	83
350950082	8 x 2 x 0,50	14,60	120	246	88
350950102	10 x 2 x 0,50	15,30	150	300	92
350950122	12 x 2 x 0,50	16,60	180	343	100
350950162	16 x 2 x 0,50	19,10	240	439	115
350950182	18 x 2 x 0,50	20,30	270	505	122
350950192	19 x 2 x 0,50	21,20	285	540	127
350950242	24 x 2 x 0,50	22,80	360	655	137
350950302	30 x 2 x 0,50	24,60	450	800	147
350950362	36 x 2 x 0,50	27,40	540	905	164
350975022	2 x 2 x 0,75	9,60	47	112	58
350975032	3 x 2 x 0,75	11,10	68	163	67
350975042	4 x 2 x 0,75	12,10	89	202	73
350975052	5 x 2 x 0,75	13,60	110	239	82
350975062	6 x 2 x 0,75	14,50	131	262	87
350975082	8 x 2 x 0,75	17,10	173	333	103
350975102	10 x 2 x 0,75	19,30	215	410	116
350975122	12 x 2 x 0,75	20,40	257	536	122
350975162	16 x 2 x 0,75	22,30	341	639	134
350975182	18 x 2 x 0,75	23,20	383	704	139
350975192	19 x 2 x 0,75	24,50	404	745	147
350975242	24 x 2 x 0,75	26,70	509	909	160
350975302	30 x 2 x 0,75	29,20	635	1052	175
350975362	36 x 2 x 0,75	31,10	785	1207	1187
350901022	2 x 2 x 1	10,40	55	227	62
350901032	3 x 2 x 1	13,30	80	284	80
350901042	4 x 2 x 1	15,20	105	319	91
350901052	5 x 2 x 1	15,50	130	354	93
350901062	6 x 2 x 1	16,90	155	462	101
350901082	8 x 2 x 1	18,00	205	549	108
350901102	10 x 2 x 1	20,50	255	648	123
350901122	12 x 2 x 1	20,70	305	713	124
350901162	16 x 2 x 1	23,50	405	894	141
350901182	18 x 2 x 1	24,60	455	1004	148
350901192	19 x 2 x 1	26,50	480	1070	159
350901242	24 x 2 x 1	28,70	605	1263	172
350901302	30 x 2 x 1	31,60	755	1535	190
350901362	36 x 2 x 1	34,90	905	1725	209
350915022	2 x 2 x 1,5	11,70	75	170	70
350915032	3 x 2 x 1,5	15,50	110	240	93
350915042	4 x 2 x 1,5	16,40	145	283	98
350915052	5 x 2 x 1,5	18,30	180	353	110
350915062	6 x 2 x 1,5	19,50	215	413	117
350915082	8 x 2 x 1,5	21,60	295	534	130
350915102	10 x 2 x 1,5	23,90	355	657	143
350915122	12 x 2 x 1,5	24,80	430	749	149
350915162	16 x 2 x 1,5	28,70	565	965	172
350915182	18 x 2 x 1,5	30,40	635	1085	182
350915192	19 x 2 x 1,5	32,20	670	1149	193
350915242	24 x 2 x 1,5	34,80	845	1394	209
350915302	30 x 2 x 1,5	37,20	1055	1643	223
350915362	36 x 2 x 1,5	41,00	1265	1896	246

F-MXCH-TP-FR

FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS / FIRE RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** MICA TAPE + IEC 60092-351 CROSS-LINKED HFFR COMPOUND
- 3 - Colour code** BLUE - WHITE WITH NUMBERED
- 4 - Stranding** PAIRWISE / PAIRS IN LAYERS
- 5 - Wrapping** PES-TAPE
- 6 - Screen** TINNED COPPER OR PLAIN COPPER BRAIDING(MIN.%90 COVERAGE)
- 7 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 8 - Sheath colour** ORANGE OR GREEN

APPLICATION

These cables are used for fixed installation on board of ships at all areas & open decks and safety circuits where in event of fire, circuit integrity is required in order to maintain a process or to safety shutdown the process.

Note : They have electromagnetic properties.

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

TECHNICAL CHARACTERISTICS

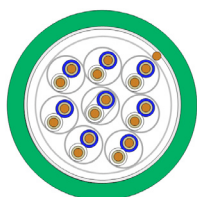
INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	1,5 kv. AC	150/250 V (300V)	8x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2
HALOGEN-FREE TEST	CIRCUIT INTEGRITY(FE180)	CIRCUIT INTEGRITY WITH SHOCK	
IEC 60754-1	IEC 60331-21	IEC 60331-1	IEC 60331-2

F-MXCH-TP-FR**FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
352050017	1 x 2 x 0,50	8,10	41	122	64
352050027	2 x 2 x 0,50	9,30	56	143	74
352050047	4 x 2 x 0,50	13,30	96	238	106
352050057	5 x 2 x 0,50	15,20	143	353	121
352050077	7 x 2 x 0,50	17,40	174	390	140
352050087	8 x 2 x 0,50	18,00	183	428	143
352050107	10 x 2 x 0,50	20,40	219	518	162
352050127	12 x 2 x 0,50	20,90	255	585	166
352050167	16 x 2 x 0,50	23,70	294	728	188
352050187	18 x 2 x 0,50	25,10	328	825	199
352050197	19 x 2 x 0,50	26,30	345	850	210
352050247	24 x 2 x 0,50	28,70	420	1019	228
352075017	1 x 2 x 0,75	8,90	51	133	71
352075027	2 x 2 x 0,75	10,10	70	165	80
352075047	4 x 2 x 0,75	15,00	152	321	119
352075057	5 x 2 x 0,75	16,70	178	400	133
352075077	7 x 2 x 0,75	18,90	217	462	151
352075087	8 x 2 x 0,75	20,00	237	524	159
352075107	10 x 2 x 0,75	22,50	284	632	178
352075127	12 x 2 x 0,75	23,00	311	696	182
352075167	16 x 2 x 0,75	26,20	403	912	208
352075187	18 x 2 x 0,75	27,70	431	1018	220
352075197	19 x 2 x 0,75	28,10	460	1070	225
352075247	24 x 2 x 0,75	31,70	567	1265	252
352001017	1 x 2 x 1	9,10	57	130	72
352001027	2 x 2 x 1	10,30	81	170	82
352001047	4 x 2 x 1	15,40	171	347	122
352001057	5 x 2 x 1	17,10	203	434	136
352001077	7 x 2 x 1	19,70	258	523	158
352001087	8 x 2 x 1	20,50	277	574	163
352001107	10 x 2 x 1	23,20	333	697	184
352001127	12 x 2 x 1	23,70	371	774	188
352001167	16 x 2 x 1	26,90	480	1012	214
352001187	18 x 2 x 1	28,50	535	1149	226
352001197	19 x 2 x 1	29,20	575	1220	235
352001247	24 x 2 x 1	32,70	684	1416	260
352015017	1 x 2 x 1,5	10,10	71	165	80
352015027	2 x 2 x 1,5	11,50	105	220	92
352015047	4 x 2 x 1,5	17,40	221	432	138
352015057	5 x 2 x 1,5	19,40	261	544	154
352015077	7 x 2 x 1,5	22,30	342	667	178
352015087	8 x 2 x 1,5	23,30	387	751	185
352015107	10 x 2 x 1,5	26,40	461	870	210
352015127	12 x 2 x 1,5	26,90	518	1014	214
352015167	16 x 2 x 1,5	31,10	665	1355	247
352015187	18 x 2 x 1,5	32,70	740	1517	260
352015197	19 x 2 x 1,5	32,90	775	1610	265
352015247	24 x 2 x 1,5	38,20	1026	1968	304

F-MX(ST)H-TP-FR

FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS / FIRE RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** MICA TAPE+ IEC 60092-351 CROSS-LINKED HFFR COMPOUND
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Stranding** PAIRWISE / PAIRS IN LAYERS
- 5 - Wrapping** PES-TAPE
- 6 - Overall screen** TINNED COPPER DRAIN WIRE; AL-PES TAPE
- 7 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 8 - Sheath colour** ORANGE OR GREEN

APPLICATION

These cables are used for fixed installation on board of ships at all areas & open decks and safety circuits where in event of fire, circuit integrity is required in order to maintain a process or to safety shutdown the process.

Note : They have electromagnetic properties.

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	1,5 kV. AC	150/250 V (300V)	6x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2
HALOGEN-FREE TEST	CIRCUIT INTEGRITY(FE 180)	CIRCUIT INTEGRITY WITH SHOCK	
IEC 60754-1	IEC 60331-21	IEC 60331-1 IEC 60331-2	

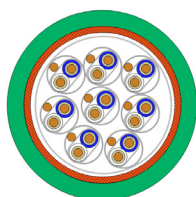
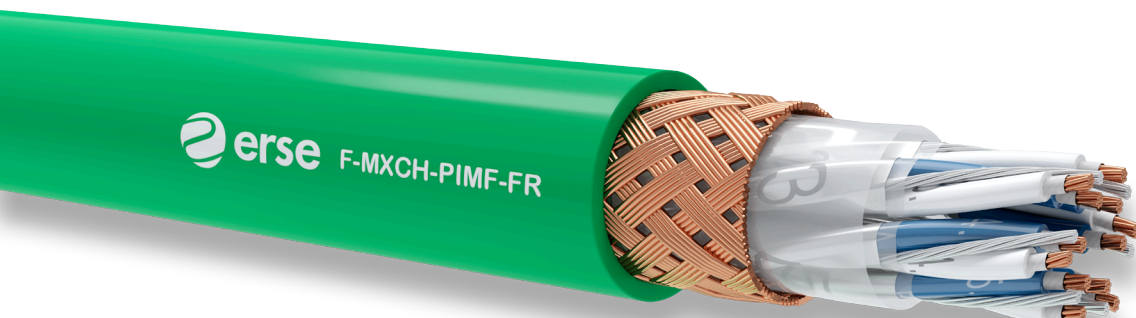
F-MX(ST)H-TP-FR

FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
352250017	1 x 2 x 0,50	7,80	15	60	47
352250027	2 x 2 x 0,50	8,60	25	70	52
352250037	3 x 2 x 0,50	9,80	35	105	59
352250047	4 x 2 x 0,50	11,40	45	130	68
352250057	5 x 2 x 0,50	12,60	55	155	76
352250067	6 x 2 x 0,50	13,40	65	160	80
352250087	8 x 2 x 0,50	14,50	85	212	87
352250107	10 x 2 x 0,50	16,20	105	256	97
352250127	12 x 2 x 0,50	16,50	125	287	99
352250167	16 x 2 x 0,50	18,60	165	363	112
352250187	18 x 2 x 0,50	19,70	185	423	118
352250197	19 x 2 x 0,50	20,50	195	446	123
352250247	24 x 2 x 0,50	22,10	245	529	133
352250307	30 x 2 x 0,50	23,60	305	639	142
352250367	36 x 2 x 0,50	26,20	365	711	157
352275017	1 x 2 x 0,75	8,60	21	75	51
352275027	2 x 2 x 0,75	9,50	33	107	57
352275037	3 x 2 x 0,75	12,20	47	153	73
352275047	4 x 2 x 0,75	13,20	61	187	79
352275057	5 x 2 x 0,75	14,50	75	218	87
352275067	6 x 2 x 0,75	15,40	89	237	92
352275087	8 x 2 x 0,75	16,90	117	302	101
352275107	10 x 2 x 0,75	19,10	145	343	115
352275127	12 x 2 x 0,75	19,30	173	478	115
352275167	16 x 2 x 0,75	22,10	229	557	132
352275187	18 x 2 x 0,75	22,90	257	615	137
352275197	19 x 2 x 0,75	24,20	271	650	145
352275247	24 x 2 x 0,75	26,40	341	785	158
352275307	30 x 2 x 0,75	28,80	425	895	173
352275367	36 x 2 x 0,75	30,60	509	1017	184
352201017	1 x 2 x 1	9,80	24	95	59
352201027	2 x 2 x 1	10,80	43	122	65
352201037	3 x 2 x 1	13,60	62	196	82
352201047	4 x 2 x 1	14,60	82	220	88
352201057	5 x 2 x 1	15,80	100	246	95
352201067	6 x 2 x 1	17,20	119	290	103
352201087	8 x 2 x 1	18,50	157	381	111
352201107	10 x 2 x 1	20,80	195	448	125
352201127	12 x 2 x 1	21,10	233	500	127
352201167	16 x 2 x 1	23,60	309	660	142
352201187	18 x 2 x 1	23,70	347	715	142
352201197	19 x 2 x 1	26,20	366	777	157
352201247	24 x 2 x 1	28,40	461	918	170
352201307	30 x 2 x 1	30,10	575	1105	181
352201367	36 x 2 x 1	32,70	689	1250	196
352215017	1 x 2 x 1,5	10,80	33	122	65
352215027	2 x 2 x 1,5	12,20	61	180	73
352215037	3 x 2 x 1,5	14,50	89	243	87
352215047	4 x 2 x 1,5	16,40	120	280	98
352215057	5 x 2 x 1,5	17,30	145	346	104
352215067	6 x 2 x 1,5	19,60	173	401	118
352215087	8 x 2 x 1,5	21,50	229	510	129
352215107	10 x 2 x 1,5	23,90	285	625	143
352215127	12 x 2 x 1,5	24,40	341	318	146
352215167	16 x 2 x 1,5	27,80	453	901	169
352215187	18 x 2 x 1,5	29,10	509	1017	175
352215197	19 x 2 x 1,5	30,90	537	1072	185
352215247	24 x 2 x 1,5	33,30	677	1295	200
352215307	30 x 2 x 1,5	35,70	845	1499	214
352215367	36 x 2 x 1,5	38,50	1013	1720	231

F-MXCH-PIMF-FR

FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION /
WITHOUT POISONED AND CORROSIVE GASES /
SMALL BENDING RADIUS / FIRE RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** MICA TAPE+ IEC 60092-351 CROSS-LINKED HFFR COMPOUND
- 3 - Colour code** BLUE- WHITE WITH NUMBERED
- 4 - Individual screen** PES TAPE TINNED COPPER DRAIN WIRE AL - PES TAPE
- 5 - Stranding** PAIRWISE / SCREENED PAIRS IN LAYERS
- 6 - Wrapping** PES - TAPE
- 7 - Screen** TINNED COPPER OR PLAIN COPPER BRAIDING (MIN.%90 COVERAGE)
- 8 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 9 - Sheath colour** ORANGE OR GREEN

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	1,5 kv. AC	150/250 V (300V)	8x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2
HALOGEN-FREE TEST	CIRCUIT INTEGRITY(FE 180)	CIRCUIT INTEGRITY WITH SHOCK	
IEC 60754-1	IEC 60331-21	IEC 60331-1 IEC 60331-2	

APPLICATION

These cables are used for fixed installation on board of ships at all areas & open decks and safety circuits where in event of fire, circuit integrity is required in order to maintain a process or to safety shutdown the process.

Note : They have electromagnetic properties.

DESIGN STANDARDS

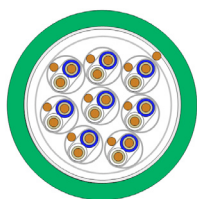
- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

F-MXCH-PIMF-FR**FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE**

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
352150027	2 x 2 x 0,50	10,20	58	142	82
352150047	4 x 2 x 0,50	14,90	105	249	120
352150057	5 x 2 x 0,50	16,50	124	344	132
352150077	7 x 2 x 0,50	18,90	147	426	151
352150087	8 x 2 x 0,50	19,90	187	459	160
352150107	10 x 2 x 0,50	22,30	225	558	178
352150127	12 x 2 x 0,50	22,80	259	636	182
352150147	14 x 2 x 0,50	23,50	320	710	188
352150197	19 x 2 x 0,50	29,10	378	940	233
352175027	2 x 2 x 0,75	14,00	83	180	112
352175047	4 x 2 x 0,75	17,00	137	350	136
352175057	5 x 2 x 0,75	19,10	175	424	153
352175077	7 x 2 x 0,75	20,00	201	519	160
352175087	8 x 2 x 0,75	22,10	248	578	177
352175107	10 x 2 x 0,75	24,60	294	700	197
352175127	12 x 2 x 0,75	26,10	338	790	209
352175147	14 x 2 x 0,75	27,70	420	910	222
352175197	19 x 2 x 0,75	31,60	499	1200	253
352175247	24 x 2 x 0,75	35,20	603	1430	282
352101027	2 x 2 x 1	14,20	77	190	114
352101047	4 x 2 x 1	18,30	161	358	147
352101057	5 x 2 x 1	20,10	203	444	161
352101077	7 x 2 x 1	22,70	237	560	182
352101087	8 x 2 x 1	23,30	290	605	187
352101107	10 x 2 x 1	26,00	349	737	208
352101127	12 x 2 x 1	26,50	399	824	212
352101147	14 x 2 x 1	28,30	499	995	226
352101197	19 x 2 x 1	32,50	581	1285	260
352115027	2 x 2 x 1,5	16,50	123	250	132
352115047	4 x 2 x 1,5	19,00	221	465	152
352115057	5 x 2 x 1,5	21,20	262	575	170
352115077	7 x 2 x 1,5	24,00	298	702	192
352115087	8 x 2 x 1,5	24,60	385	782	197
352115107	10 x 2 x 1,5	28,00	456	947	224
352115127	12 x 2 x 1,5	29,50	530	1065	236
352115147	14 x 2 x 1,5	31,50	670	1295	252
352115197	19 x 2 x 1,5	35,50	776	1645	284

F-MX(ST)H-PIMF-FR

FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE



FLAME RETARDANT / LOW SMOKE EMISSION / WITHOUT POISONED AND CORROSIVE GASES / SMALL BENDING RADIUS / FIRE RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC 60228 CLASS-2 OR CLASS 5 TINNED OR PLAIN COPPER
- 2 - Insulation** MICA TAPE+IEC 60092-351 CROSS-LINKED HFFR COMPOUND
- 3 - Colour code** BLUE - WHITE WITH NUMBERED
- 4 - Individual screen** PES TAPE TINNED COPPER DRAIN WIRE AL-PES TAPE
- 5 - Stranding** PAIRWISE / SCREENED PAIRS IN LAYERS
- 6 - Wrapping** PES-TAPE
- 7 - Overall screen** TINNED COPPER DRAIN WIRE; AL+PES TAPE
- 8 - Outer sheath** IEC 60092-359 HFFR COMPOUND
- 9 - Sheath colour** ORANGE OR GREEN

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE	BENDING RADIUS
MΩxKm 500	1,5 kv. AC	150/250 V (300V)	6x D
TEMP. RANGE	FLAME RETARDANT TEST	SMOKE DENSITY	TEST ON CORROSIVENESS OF COMBUSTION GASES
-40°C-+90°C	IEC 60332-1-2 IEC 60332-3-22 CAT A	IEC 61034-2	IEC 60754-2
HALOGEN-FREE TEST	CIRCUIT INTEGRITY(FE 180)	CIRCUIT INTEGRITY WITH SHOCK	
IEC 60754-1	IEC 60331-21	IEC 60331-1 IEC 60331-2	

APPLICATION

These cables are used for fixed installation on board of ships at all areas & open decks and safety circuits where in event of fire, circuit integrity is required in order to maintain a process or to safety shutdown the process.

Note : They have electromagnetic properties.

DESIGN STANDARDS

- IEC 60092-350
- IEC 60092-351
- IEC 60092-359
- IEC 60092-376

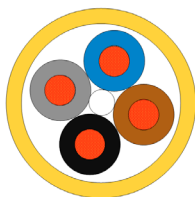
F-MX(ST)H-PIMF-FR

FIRE RESISTANT, SCREENED, INSTRUMENTATION, CONTROL & COMMUNICATION CABLE

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	STANDARD LENGTH (mt)
352350027	2 x 2 x 0,50	9,50	30	77	57
352350037	3 x 2 x 0,50	10,60	45	118	64
352350047	4 x 2 x 0,50	11,50	60	149	69
352350057	5 x 2 x 0,50	13,90	75	180	83
352350067	6 x 2 x 0,50	14,70	90	210	88
352350087	8 x 2 x 0,50	15,60	120	251	94
352350107	10 x 2 x 0,50	16,30	150	305	98
352350127	12 x 2 x 0,50	17,60	180	349	106
352350167	16 x 2 x 0,50	20,10	240	444	121
352350187	18 x 2 x 0,50	21,30	270	511	128
352350197	19 x 2 x 0,50	22,20	285	550	133
352350247	24 x 2 x 0,50	23,80	360	665	143
352350307	30 x 2 x 0,50	25,60	450	812	154
352350367	36 x 2 x 0,50	26,40	540	918	158
352375027	2 x 2 x 0,75	10,60	47	122	64
352375037	3 x 2 x 0,75	12,10	68	173	73
352375047	4 x 2 x 0,75	13,10	89	212	79
352375057	5 x 2 x 0,75	14,60	110	249	88
352375067	6 x 2 x 0,75	15,50	131	272	93
352375087	8 x 2 x 0,75	18,10	173	330	109
352375107	10 x 2 x 0,75	20,30	215	423	122
352375127	12 x 2 x 0,75	21,40	257	548	128
352375167	16 x 2 x 0,75	23,30	341	660	140
352375187	18 x 2 x 0,75	24,20	404	775	145
352375207	20 x 2 x 0,75	25,50	383	730	153
352375247	24 x 2 x 0,75	27,70	404	775	166
352375307	30 x 2 x 0,75	30,20	635	1083	181
352375367	36 x 2 x 0,75	32,10	785	1240	193
352301027	2 x 2 x 1	12,40	55	247	74
352301037	3 x 2 x 1	15,30	80	304	92
352301047	4 x 2 x 1	17,20	105	330	103
352301057	5 x 2 x 1	17,50	130	375	105
352301067	6 x 2 x 1	18,90	155	485	113
352301087	8 x 2 x 1	20,00	205	580	120
352301107	10 x 2 x 1	22,50	255	680	135
352301127	12 x 2 x 1	22,70	305	745	136
352301167	16 x 2 x 1	25,60	405	925	153
352301187	18 x 2 x 1	26,60	455	1035	160
352301197	19 x 2 x 1	28,50	480	1105	171
352301247	24 x 2 x 1	30,70	605	1295	184
352301307	30 x 2 x 1	33,60	755	1570	202
352301367	36 x 2 x 1	36,90	905	1760	221
352315017	1 x 2 x 1,5	13,70	75	201	82
352315027	2 x 2 x 1,5	17,50	110	262	105
352315047	4 x 2 x 1,5	18,40	145	313	110
352315057	5 x 2 x 1,5	30,30	180	385	182
352315067	6 x 2 x 1,5	21,50	215	445	129
352315087	8 x 2 x 1,5	23,60	295	565	142
352315107	10 x 2 x 1,5	25,90	355	690	155
352315127	12 x 2 x 1,5	26,80	410	781	161
352315167	16 x 2 x 1,5	30,70	565	997	184
352315187	18 x 2 x 1,5	32,40	635	1118	194
352315197	19 x 2 x 1,5	34,20	670	1186	205
352315247	24 x 2 x 1,5	36,80	845	1429	235
352315307	30 x 2 x 1,5	39,20	1055	1680	258
352315367	36 x 2 x 1,5	43,00	1265	1931	258

SHORE POWER CABLE

PVC INSULATED POLYURETHANE SHEATH CABLES



OIL RESISTANT / WATER RESISTANT /
FLAME & SUNLIGHT RESISTANT



CONSTRUCTION

- 1 - Conductor** IEC60228 CLASS5 TINNED OR PLAIN COPPER
- 2 - Insulation** IEC 60092-351 PVC COMPOUND
- 3 - Stranding** IN LAYERS OF OPTIMUM PITCH
- 4 - Inner sheath** PVC COMPOUND
- 5 - Outer sheath** POLYURETHANE (PUR) COMPOUND
- 6 - Sheath colour** YELLOW / BLACK / ORANGE

TECHNICAL CHARACTERISTICS

INSULATION RESISTANCE (MIN)	TEST VOLTAGE	OPERATING VOLTAGE
MΩxKm 36,7	3,5 kV. AC	0,6/1kV
BENDING RADIUS	TEMP. RANGE	
8x D	-40°C-+90°C	

APPLICATION

- As power, lighting and control cable
- Dockyards, marines and harbours
 - Moist, wet and dry room; open and closed places
 - Shore to ship power supply connection

TEST STANDARD

IEC 60502

DESIGN STANDARDS

IEC 60092-350
IEC 60092-353

NUMBER OF CROSS

CORE COLOURS

3	Brown	Black	Grey	
4	Blue	Brown	Black	Grey

SHORE POWER CABLE

XLPE INSULATED SCREEN SHIP CABLES

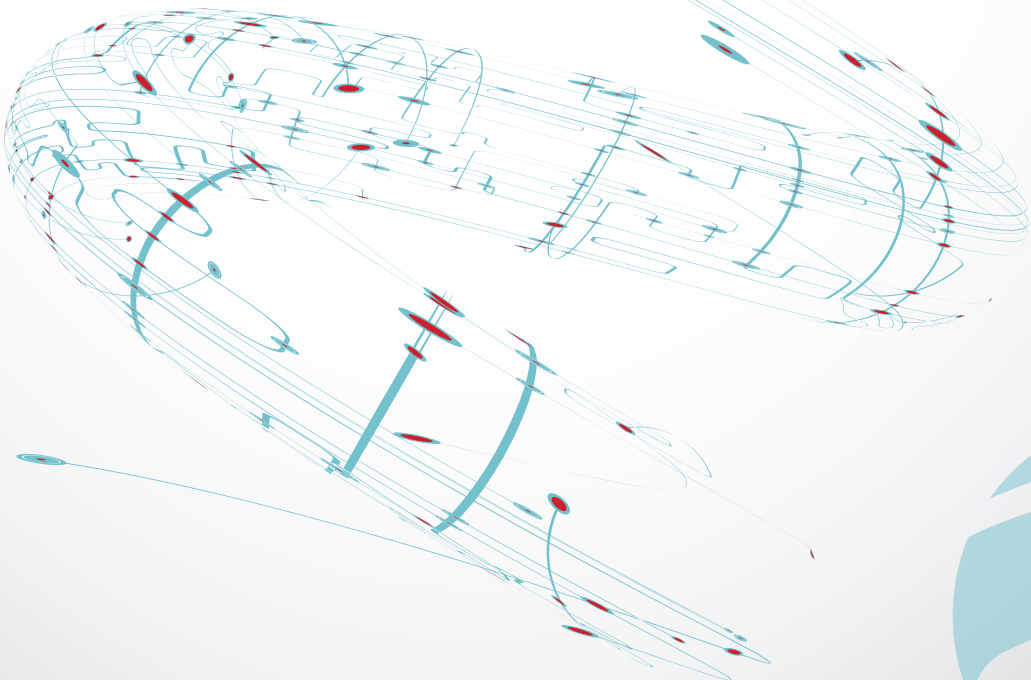
CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
356415013	1 x 1,5	4,90	14	41	22	39
356425013	1 x 2,5	5,40	23	53	29	43
356404013	1 x 4	6,30	37	72	37	50
356406013	1 x 6	7,00	56	94	51	56
356410013	1 x 10	8,20	93	139	71	66
356416013	1 x 16	9,70	130	208	94	78
356421013	1 x 25	11,20	200	204	125	90
356435013	1 x 35	12,40	276	397	156	99
356405013	1 x 50	14,30	393	564	195	114
356470013	1 x 70	16,10	553	744	240	129
356495013	1 x 95	19,30	760	1038	292	154
356412013	1 x 120	20,90	968	1277	339	167
356455013	1 x 150	24,20	1380	1719	388	193
356418013	1 x 185	26,90	1702	2015	443	215
356424013	1 x 240	30,10	2208	2612	522	241
356415023	2 x 1,5	10,10	30	160	20	81
356415033	3 x 1,5	10,60	45	177	15	85
356415043	4 x 1,5	11,40	55	200	15	91
356415053	5 x 1,5	12,50	61	247	14	100
356415063	6 x 1,5	13,40	72	283	13	107
356415073	7 x 1,5	13,40	85	296	13	107
356415083	8 x 1,5	14,50	97	345	12	116
356415103	10 x 1,5	16,90	121	461	11	135
356415123	12 x 1,5	21,00	166	551	9	168
356415163	16 x 1,5	22,90	221	692	8	183
356415183	18 x 1,5	25,20	248	738	8	201
356415193	19 x 1,5	25,60	262	783	8	205
356415243	24 x 1,5	28,10	331	893	7	225
356415303	30 x 1,5	29,30	414	1234	7	234
356415363	36 x 1,5	32,20	497	1420	6	257
356425023	2 x 2,5	11,00	46	181	25	88
356425033	3 x 2,5	11,50	69	208	21	92
356425043	4 x 2,5	12,60	92	257	21	101
356425053	5 x 2,5	13,70	102	305	17	109
356425063	6 x 2,5	14,70	129	352	13	118
356425073	7 x 2,5	14,70	141	372	13	118
356425083	8 x 2,5	15,90	162	436	13	127
356425103	10 x 2,5	18,60	202	587	14	149
356425123	12 x 2,5	22,30	276	721	12	178
356425163	16 x 2,5	24,20	368	837	11	193
356425183	18 x 2,5	25,60	414	881	10	205
356425193	19 x 2,5	25,60	437	907	10	205

SHORE POWER CABLE

PVC INSULATED POLYURETHANE SHEATH CABLES

CODE NR.	CROSS SECTION (mm ²)	OVERALL DIAMETER (mm)	COPPER WEIGHT (kg/km)	APPROX. WEIGHT (kg/km)	CURRENT RATING (A)	MIN. BENDING RADIUS (mm)
356404023	2 x 4	13,10	68	279	33	104
356404033	3 x 4	13,80	102	326	28	110
356404043	4 x 4	15,20	136	393	28	122
356406023	2 x 6	14,20	102	341	44	114
356406033	3 x 6	15,20	153	406	36	122
356406043	4 x 6	16,40	204	501	36	131
356410023	2 x 10	17,00	170	505	60	136
356410033	3 x 10	18,00	255	611	49	144
356410043	4 x 10	20,00	340	761	49	160
356416023	2 x 16	20,60	294	721	81	165
356416033	3 x 16	22,30	442	835	65	178
356416043	4 x 16	23,50	589	1070	65	188
356421023	2 x 25	24,90	460	1002	106	199
356421033	3 x 25	25,30	690	1234	87	202
356421043	4 x 25	29,30	920	1563	87	234
356435023	2 x 35	27,10	644	1345	131	217
356435033	3 x 35	29,40	966	1780	108	235
356435043	4 x 35	31,60	1288	2186	108	253
356405023	2 x 50	30,80	920	1810	156	246
356405033	3 x 50	32,20	1380	2302	135	258
356405043	4 x 50	36,50	1840	2864	135	292
356470023	2 x 70	36,40	1288	2290	205	291
356470033	3 x 70	38,80	1932	2931	165	310
356470043	4 x 70	42,30	2576	3729	165	338
356495023	2 x 95	40,20	1748	3150	243	321
356495033	3 x 95	42,90	2622	4023	202	343
356495043	4 x 95	48,10	3496	5167	202	385
356412023	2 x 120	45,70	2208	4280	276	366
356412033	3 x 120	48,20	3312	5500	234	386
356412043	4 x 120	52,60	4416	6814	234	421

TECHNICAL INFORMATION

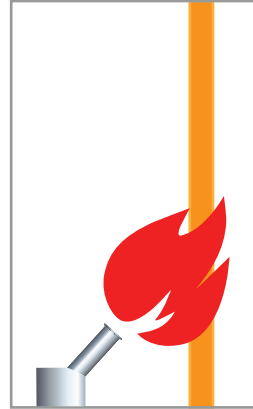


TECHNICAL INFORMATION

MARINE CABLE

1- IEC 60332-1, VDE 0482-332-1-2, EN 60332-1-2, BS EN 60332-1-2 TEST FOR RESISTANCE TO VERTICAL FLAME DIFFUSION OF A SINGLE INSULATED CONDUCTOR OR CABLE 1 KW PRE-MIXED FLAME

A sample cable of 600 mm will be fixed vertically in a metal chamber with exposed front side. A propane gas burner will be mounted in order to obtain a 45° angle with axis of the sample cable. The test time is dependent on the cable diameter. If the sample does not burn, or if the flame extinguishes on its own, the test shall be deemed as successful.

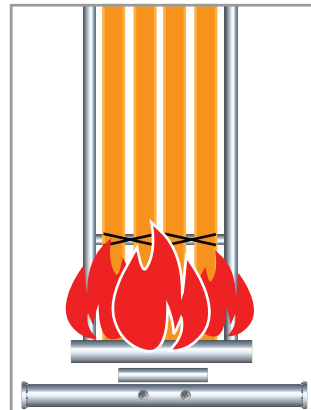


OUTER DIAMETER (mm) FLAME DURATION SEC

OUTER DIAMETER (mm)	FLAME DURATION SEC
D ≤ 25	60 ± 2
25 < D ≤ 75	120 ± 2
50 < D ≤ 75	240 ± 2
75 < D	480 ± 2

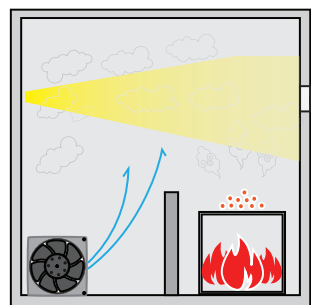
2- IEC 60332-3-22, VDE 0482-332-3-22, EN 60332-3-22, BS EN 60332-3-22 (CAT A) TEST FOR VERTICAL FLAME DIFFUSION ON VERTICALLY FIXED WIRE OR CABLE BUNDLES

The test samples are mounted on a steel ladder. The test sample shall comprise a number of test pieces of cable from the same production length, each having a minimum length of 3,5 m. The total number of test pieces in the test sample shall be that number required to provide a nominal total volume of non-metallic material of 7 l/m of test sample. The steel ladder is placed on the rear part of a test chamber having a width of 1 m, a depth of 2m and a height of 4m. The test chamber should be ventilated by an air vent. The test flame is applied on the sample cable for 40 min. The test is passed if the flames extinguish on their own and no part of the samples is damaged over a length of 2,5m.



3- IEC 61034-2, VDE 0482-1034-2, EN 61034-2, BS EN 61034-2 MEASUREMENT OF SMOKE DENSITY OF CABLES BURNT UNDER CERTAIN CONDITIONS

The volume of test chamber is 3m³. The measurement system consists of a light source (a standard 100w halogen lamp) and a selenium or silicon photo-electric cell, both installed at a height of 2,15m. A rectangular tray will be filled with alcohol. A ventilator is used to ensure the distribution of smoke. The length of the test samples is 1m. The number of test samples depends on the outer diameter. The samples should be attached horizontally above the tray which is filled with alcohol. The ventilator is started and the alcohol is ignited. Light intensity is recorded by a plotter which is connected to the photocell. The test is passed if the level of light transmission does not exceed the values given in the following table during the test.



OUTER DIAMETER (mm) NUMBER OF SAMPLE LIGHT TRANSMISSION

OUTER DIAMETER (mm)	NUMBER OF SAMPLE	LIGHT TRANSMISSION
40 < D	1	>60%
20 < D ≤ 40	2	>60%
10 < D ≤ 20	3	>60%
5 < D ≤ 10	N ₁	>60%
1 < D ≤ 5	N ₂	>60%

$$N_1 = \frac{45}{D}$$

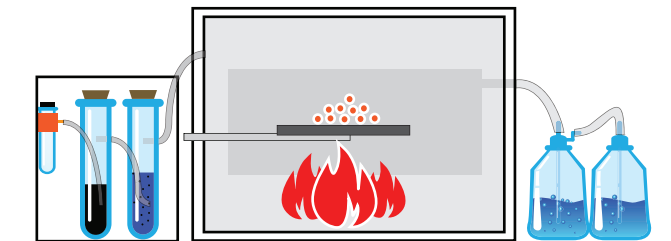
$$N_2 = \frac{45}{3D}$$

TECHNICAL INFORMATION

MARINE CABLE

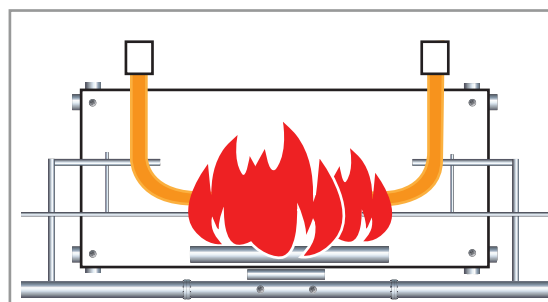
4- IEC 60754-1/2, VDE 0482-267-2/-1, 2 and 3, EN 50267-2-1/-2, 2 and 3, BS EN 50267-2-1/-2, 2 and 3 DETERMINATION OF HALOGEN ACID GAS, MEASUREMENT OF PH AND CONDUCTIVITY

This test indirectly allows measuring emission of corrosive gas by insulation and sheathing compounds. It is possible to measure small quantities of halogens during measurement of the pH-value and the conductivity. In a 500-600 mm long furnace, at least 1g of insulating or sheathing compound should be heated up to a temperature of 935 °C. Air flow will ensure that combustion gases pass through a bottle filled with purified water. The test is passed if the pH-values is higher than 4,3 and the electrical conductivity does not exceed 100 $\mu\text{S}/\text{cm}$.



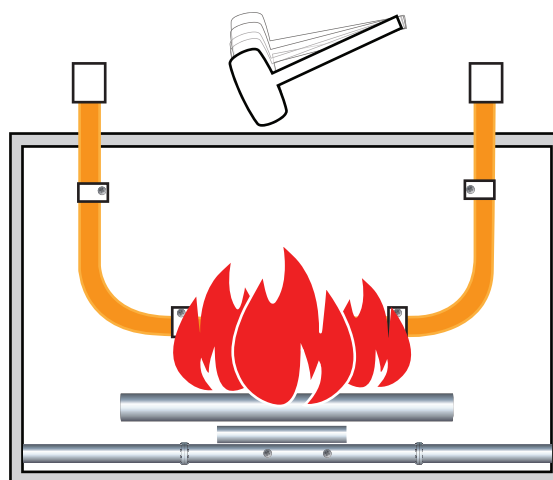
5- IEC 60331-21/23 TEST ON INSULATION INTEGRITY

This test determines insulation integrity under fire conditions. Cables which are tested according to these standards are marked as FE 180. 1,2 m long sample cable suitable for electrical connection, having outer sheath and other jackets, which are removed at both ends. The prepared sample will be fixed horizontally about 75mm above the burner. The samples will be connected (one 2 A fuse for each conductor) to a voltage source and will be tested with their rated voltage source, is slightly curled in order to prevent electrical contact. The burner is ignited and heated up to a temperature of at least 750°C by means of a thermocouple. The sample will be connected to electrical supply and placed into the flames. The sample will be tested during a period of 180. If none of the 2A fuses has blown during the test period, the test is passed.



6- IEC 60331-1/2, VDE 0482-200, BS EN 50200, BS 8404-1/-2 SPECIFICATION FOR PERFORMANCE REQUIREMENTS FOR CABLES REQUIRED TO MAINTAIN CIRCUIT INTEGRITY UNDER FIRE CONDITIONS

This test is applied to cables having resident fire retardant properties used in emergency circuits such as alarm, lighting and communication. A single piece of cable is attached to a special fibre glass wall with cable at the minimum bending radius. It is burned with the 830°C propane burner. The rated tension values of the cable are applied on the conductors during the test. Every five minutes a mechanical shock of 25 kg is applied to the wall the cable is attached to. The tension values must be preserved during the test.



TECHNICAL INFORMATION

MARINE CABLE

CORE IDENTIFICATION

CABLES WITH GREEN - YELLOW CORE

CORE NR.	CORE COLOURS				
	EARTH	POWER			
3	Green - Yellow	Blue	Brown		
4	Green - Yellow	Brown	Black	Grey	
5	Green - Yellow	Blue	Brown	Black	Grey
5-24	White insulated cores with black number imprinted, last core Green / Yellow				

CABLES ARE WITHOUT GREEN/YELLOW CORE

CORE NR.	CORE COLOURS				
1	Black				
2	Brown	Blue			
3	Brown	Black	Grey		
4	Blue	Brown	Black	Grey	
7-24	White insulated cores with black number imprinted				

CABLE DIAMETER TOLERANCES

CABLE OUTER DIAMETER (mm)	TOLERANCE	CABLE OUTER DIAMETER (mm)	TOLERANCE
1 - 10	±1	30,1 - 40	±2,5
10,1 - 20	±1,5	40,1 - 50	±3
20,1 - 30	±2	50,1 - 60	±4

TECHNICAL INFORMATION

MARINE CABLE

CONDUCTOR RESISTANCE VALUES ACCORDING TO IEC 60228

CONDUCTOR DIMENSION	POWER CABLES AND WIRES						WELDING CABLES	
	COPPER CONDUCTORS				ALUMINIUM CONDUCTORS		COPPER CONDUCTORS	
	NOMINAL CROSS SECTION (mm ²)	TINNED WIRES		PLAIN WIRES		PLAIN WIRES		PLAIN WIRES (Ω/km)
CLASS 1 (Ω/km)		CLASS 5 (Ω/km)	CLASS 1 (Ω/km)	CLASS 5 (Ω/km)	CLASS 1 (Ω/km)	CLASS 2 (Ω/km)		
0,05	-	-380,0	-	-360,0	-	-	-	-
0,08	-	-240,0	-	-230,0	-	-	-	-
0,09	-	-230,0	-	-215,0	-	-	-	-
0,14	-	-140,0	-	-138,0	-	-	-	-
0,2	-	-96,8	-	-95,0	-	-	-	-
0,25	-	-79,3	-	-7,8	-	-	-	-
0,34	-	-57,1	-	-56,0	-	-	-	-
0,5	36,7	40,1	36,0	39,0	-	-	-	-
0,75	24,8	26,7	24,5	26,0	-	-	-	-
1,0	18,2	20,0	18,1	19,5	-	-	-	-
1,5	12,2	13,7	12,1	13,3	-	-	-	-
2,5	7,56	8,21	7,41	7,98	-	-	-	-
4,0	4,70	5,09	4,61	4,95	-	-	-	-
6,0	3,11	3,39	3,08	3,3	-	-	-	-
10,0	1,84	1,5	1,83	1,91	-	-	-	-
16,0	1,16	1,24	1,15	1,21	-	1,91	1,16	1,19
25,0	0,734	0,795	0,727	0,780	1,20	1,20	0,758	0,780
35,0	0,529	0,565	0,524	0,554	0,868	0,868	0,536	0,552
50,0	0,391	0,393	0,387	0,386	0,641	0,641	0,379	0,391
70,0	0,270	0,277	0,268	0,272	0,443	0,443	0,268	0,276
95,0	0,195	0,210	0,193	0,206	0,320	0,320	0,198	0,204
120,0	0,154	0,164	0,153	0,161	0,253	0,253	0,155	0,159
150,0	0,126	0,132	0,124	0,129	0,206	0,206	0,125	0,129
185,0	0,126	0,108	0,0991	0,106	0,164	0,164	0,102	0,105
240,0	0,0762	0,0817	0,0754	0,0801	0,125	0,125	-	-
300,0	0,0607	0,0654	0,0601	0,0641	0,100	0,100	-	-
400,0	0,0475	0,0495	0,0470	0,0486	-	0,0788	-	-
500,0	0,0369	0,0391	0,0366	0,0384	-	0,0605	-	-
630,0	0,0292	0,0292	0,0283	0,0287	-	0,0469	-	-

CURRENT RATINGS

Current rating (A) at an ambient temperature of 45°C for 0,6/1kV + 90°C marine cables. Current carrying capacities in continuous service at maximum rated conductor temperature of +90°C

For continuous service: Continuous service for a cable is to be considered as a current-carrying service (with constant load)

FOR CLASS 2 CONDUCTOR CABLES

CROSS SECTION mm ²	1	2	3	4	5	7	10	12	14	16	19	24	27	37
1,5 mm ²	23	20	16	16	13	12	11	10	9	9	9	8	8	7
2,5 mm ²	30	26	21	21	17	16	14	13	12	12	11	11	10	9
4 mm ²	40	34	28	28	23	-	-	-	-	-	-	-	-	-
6 mm ²	52	44	36	36	30	-	-	-	-	-	-	-	-	-
10 mm ²	72	61	50	50	42	-	-	-	-	-	-	-	-	-
16 mm ²	96	82	67	67	56	-	-	-	-	-	-	-	-	-
25 mm ²	127	108	89	89	-	-	-	-	-	-	-	-	-	-
35 mm ²	157	133	110	110	-	-	-	-	-	-	-	-	-	-
50 mm ²	196	167	137	137	-	-	-	-	-	-	-	-	-	-
70 mm ²	242	206	169	169	-	-	-	-	-	-	-	-	-	-
95 mm ²	293	249	205	205	-	-	-	-	-	-	-	-	-	-
120 mm ²	339	288	237	237	-	-	-	-	-	-	-	-	-	-
150 mm ²	389	331	272	272	-	-	-	-	-	-	-	-	-	-
185 mm ²	444	377	311	311	-	-	-	-	-	-	-	-	-	-
240 mm ²	522	444	365	365	-	-	-	-	-	-	-	-	-	-
300 mm ²	601	511	421	421	-	-	-	-	-	-	-	-	-	-

TECHNICAL INFORMATION

MARINE CABLE

FOR CLASS 5 CONDUCTOR CABLES

CROSS SECTION	1	2	3	4	5	CROSS SECTION	1	2	3	4	5
mm²						mm²					
16 mm ²	94	80	66	66	55	120 mm ²	331	281	232	232	-
25 mm ²	123	105	86	86	-	150 mm ²	381	324	267	267	-
35 mm ²	153	130	107	107	-	185 mm ²	429	365	300	300	-
50 mm ²	196	167	137	137	-	240 mm ²	507	431	355	355	-
70 mm ²	240	204	168	168	-	300 mm ²	582	495	407	407	-
95 mm ²	284	241	199	199	-						

CORRECTION FACTORS FOR DIFFERENT AMBIENT TEMPERATURE

MAXIMUM CONDUCTOR TEMPERATURE °C	AMBIENT TEMPERATURE °C										
	35	40	45	50	55	60	65	70	75	80	85
	CORRECTION FACTORS										
60	1,29	1,15	1,0	0,82	-	-	-	-	-	-	-
75	1,15	1,08	1,0	0,91	0,82	0,71	0,58	-	-	-	-
80	1,13	1,07	1,0	0,93	0,85	0,76	0,65	0,53	-	-	-
85	1,12	1,06	1,0	0,94	0,87	0,79	0,71	0,61	0,5	-	-
90	1,1	1,05	1,0	0,94	0,88	0,82	0,77	0,67	0,58	0,47	-
95	1,1	1,05	1,0	0,95	0,89	0,84	0,77	0,71	0,63	0,55	0,45

VOLTAGE DROPS

D.C. VOLTAGE DROP

$$V \text{ drop} = 2 \times I \times L \times R$$

I = Load current (A)

L = Length of cable (km)

R = D.C. conductor resistance at max rated conductor temp. (Ω/km)

X = Reactance of the cable (Ω/km)

Cos Ø = Power factor

f = Frequency (Hz)

Z = Impedance (Ω/km)

A.C. SINGLE-PHASE VOLTAGE DROP

$$V \text{ drop} = 2 \times I \times L \times (R \cos \varnothing + X \sin \varnothing)$$

I = Conductor length (m)

A.C. PHASE VOLTAGE DROP

$$V \text{ drop} = \sqrt{3} \times I \times L \times (R \cos \varnothing + X \sin \varnothing)$$

REACTANCE :

$$X = 2 \times \pi \times f \times L \times l$$

X = Reactance (Ω/km)

L = Inductance (H/m)

a = Axial space between conductor (mm)

R = Resistance (Ω/km)

l = Conductor length (m)

d = Conductor diameter (mm)

INDUCTANCE :

$$L = 0,2 \times \left[\ln\left(\frac{2a}{d}\right) + 0,25 \right] 10^6$$

IMPEDANCE :

$$Z = \sqrt{R^2 + X^2}$$

TECHNICAL INFORMATION

MARINE CABLE

D.C. VOLTAGE DROP FOR SINGLE AND MULTI WIRES

CROSS SECTION mm ²	VDROP DC	RESISTANCE (Ω/km) 20°C	RESISTANCE (Ω/km) 45°C	RESISTANCE (Ω/km) 90°C
1,5	30,976	12,100	13,310	15,4880
2,5	18,970	7,410	8,151	9,4848
4	11,802	4,610	5,071	5,9008
6	7,885	3,080	3,388	3,9424
10	4,685	1,830	2,013	2,3424
16	2,944	1,150	1,265	1,4720
25	1,861	0,727	0,800	0,9306
35	1,341	0,524	0,576	0,6707
50	0,991	0,387	0,426	0,4954
70	0,686	0,268	0,295	0,3430
95	0,494	0,193	0,212	0,2470
120	0,392	0,153	0,168	0,1958
150	0,317	0,124	0,136	0,1587
185	0,254	0,099	0,109	0,1268
240	0,193	0,075	0,083	0,0965
300	0,154	0,060	0,066	0,0769

A.C. THREE PHASE VOLTAGE DROP

CROSS SECTION mm ²	VDROP 50Hz	VDROP 50Hz	RESISTANCE (Ω/km) 90°C	REACTANCE (Ω/km) 50Hz	REACTANCE (Ω/km) 60Hz
1,5	24,987	25,029	15,4880	0,172	0,207
2,5	15,368	15,406	9,4848	0,16	0,192
4	9,62	9,656	5,9008	0,149	0,179
6	6,475	6,508	3,9424	0,139	0,167
10	3,904	3,935	2,3424	0,13	0,156
16	2,503	2,533	1,4720	0,123	0,148
25	1,629	1,657	0,9306	0,117	0,14
35	1,208	1,234	0,6707	0,112	0,134
50	0,923	0,949	0,4954	0,109	0,13
70	0,674	0,698	0,3430	0,104	0,124
95	0,515	0,539	0,2470	0,100	0,12
120	0,43	0,453	0,1958	0,097	0,116
150	0,369	0,392	0,1587	0,096	0,115
185	0,316	0,339	0,1268	0,094	0,113
240	0,265	0,288	0,0965	0,092	0,111
300	0,233	0,255	0,0769	0,092	0,11

TECHNICAL INFORMATION

MARINE CABLE

A.C THREE PHASE VOLTAGE DROP

CROSS SECTION mm ²	VDROP 50Hz	VDROP 60Hz	RESISTANCE (Ω/km) 90°C	RESISTANCE (Ω/km) 50Hz	RESISTANCE (Ω/km) 60Hz
1,5	21,571	21,591	15,4880	0,106	0,125
2,5	13,252	13,271	9,4848	0,105	0,124
4	8,286	8,303	5,9008	0,105	0,122
6	5,572	5,590	3,9424	0,105	0,122
10	3,353	3,317	2,3424	0,103	0,121
16	2,147	2,166	1,4720	0,103	0,122
25	1,395	1,413	0,9306	0,102	0,119
35	1,032	1,053	0,6707	0,099	0,119
50	0,789	0,810	0,4954	0,099	0,119
70	0,574	0,594	0,3430	0,095	0,114
95	0,438	0,457	0,2470	0,092	0,110
120	0,364	0,383	0,1959	0,089	0,107
150	0,313	0,332	0,1587	0,090	0,108
185	0,267	0,286	0,1268	0,088	0,106
240	0,224	0,242	0,0965	0,087	0,104
300	0,200	0,219	0,0769	0,090	0,108

Note : I = 1A, L = 1Km & Rcos Ø = 0,8 were taken for a.m calculations.

ELECTRICAL CALCULATION AND FORMULAS SHORT CIRCUIT CURRENT

Calculation of max permissible short circuit current ratings for 0,6 / 1 kV + 90 °C based on following formula.

GENERAL FORMULA :
$$I_k = 226 \frac{S}{\sqrt{t}} \sqrt{\ln \frac{234+T_k}{234+T_b}}$$

I_k = Max permissible short circuit current (kA)

S = Cross section of conductor (mm²)

T = Duration of short circuit (sec)

T_k = Max rated conductor temperature at short circuit.(°C)

T_b = Max rated conductor temperature at normal conditions (°C)

FORMULA 1 :

For XLPE and HFFR insulated cables.

T_k = 250 °C & T_b = 90 °C

$$I_k = 146 \frac{S}{\sqrt{t}}$$

FORMULA 2 :

For PVC insulated cables

T_k = 150 °C & T_b = 70 °C

$$I_k = 31,66 \frac{S}{\sqrt{t}}$$

TECHNICAL INFORMATION

MARINE CABLE

SHORT CIRCUIT CURRENTS (kA) FOR XLPE & HFFR INSULATED CABLES

DURATION sn	0,2	0,5	1	2	3	10
CROSS SECTION mm ²	SHORT CIRCUIT CURRENT (kA)					
1,5	0,49	0,31	0,22	0,15	0,13	0,07
2,5	0,82	0,52	0,37	0,26	0,21	0,12
4	1,31	0,83	0,58	0,41	0,34	0,18
6	1,96	1,24	0,88	0,62	0,51	0,28
10	3,26	2,06	1,46	1,03	0,84	0,46
16	5,22	3,3	2,34	1,65	1,35	0,74
25	8,16	5,16	3,65	2,58	2,11	1,15
35	11,43	7,23	5,11	3,61	2,95	1,62
50	16,32	10,32	7,3	5,16	4,21	2,31
70	22,85	14,45	10,22	7,23	5,9	3,23
95	31,01	19,62	13,87	9,81	8,01	4,39
120	39,18	24,78	17,52	12,39	10,12	5,54
150	48,97	30,97	21,9	15,49	12,64	6,93
185	60,4	38,2	27,01	19,1	15,59	8,54
240	78,35	49,55	35,04	24,78	20,23	11,08
300	97,94	61,94	43,8	30,97	25,29	13,85

Note : Tb = 90 °C Tk = 250 °C

SHORT CIRCUIT CURRENTS (kA) FOR PVC INSULATED CABLES

DURATION sn	0,2	0,5	1	2	3	10
CROSS SECTION mm ²	SHORT CIRCUIT CURRENT (kA)					
1,5	0,11	0,07	0,05	0,03	0,03	0,01
2,5	0,18	0,11	0,08	0,06	0,05	0,02
4	0,28	0,18	0,13	0,09	0,07	0,04
6	0,42	0,27	0,19	0,13	0,11	0,06
10	0,71	0,45	0,32	0,22	0,18	0,10
16	1,13	0,72	0,51	0,36	0,29	0,16
25	1,77	1,12	0,79	0,56	0,46	0,25
35	2,47	1,56	1,11	0,78	0,64	0,35
50	3,53	2,23	1,58	1,12	0,91	0,50
70	4,95	3,13	2,21	1,56	1,28	0,70
95	6,71	4,25	3,00	2,12	1,73	0,95
120	8,48	5,36	3,79	2,68	2,19	1,20
150	10,60	6,70	4,74	3,35	2,74	1,50
185	13,07	8,27	5,85	4,13	3,38	1,85
240	16,96	10,73	7,58	5,36	4,38	2,40
300	21,20	13,41	9,48	6,70	5,47	3,00

Note : Tb = 70 °C Tk = 150 °C

TECHNICAL INFORMATION

MARINE CABLE

AWG

AMERICAN WIRE GAUGE (SOLID COPPER WIRES)

CLASS CONDUCTOR (AWG)	CROSS SECTIONAL mm ²	NORMINAL DIAMETER OF CONDUCTOR mm	NORMINAL WEIGHT kg/km	WIRE RESISTANCE Ω/Km 20 °C
40	0,0049	0,079	0,0433	3540
39	0,0062	0,089	0,0552	2780
38	0,0081	0,102	0,0720	2130
37	0,0103	0,114	0,0912	1680
36	0,0127	0,127	0,113	1360
35	0,0159	0,142	0,141	1080
34	0,0201	0,16	0,179	857
33	0,0255	0,18	0,228	675
32	0,0324	0,203	0,289	532
31	0,0401	0,226	0,357	430
30	0,0507	0,254	0,451	340
29	0,0649	0,287	0,576	266
28	0,0806	0,32	0,716	214
27	0,102	0,361	0,908	169
26	0,128	0,404	1,14	135
25	0,162	0,455	1,44	106
24	0,205	0,511	1,82	84,2
23	0,259	0,574	2,31	66,6
22	0,324	0,643	2,89	53,2
21	0,411	0,724	3,66	41,9
20	0,519	0,813	4,61	33,2
19	0,653	0,912	5,8	26,4
18	0,823	1,02	7,32	21
18	0,897	1,22	8,26	21,2
17	1,04	1,15	9,24	16,6
16	1,31	1,29	11,6	13,6
16	1,31	1,47	11,8	13,6
14	2,08	1,63	18,5	8,28
14	2,08	1,85	18,9	8,56
12	3,31	2,052	29,5	5,21
12	3,3	2,052	30,1	5,38
12	3,08	1,99	28,9	5,59
10	5,26	2,59	46,8	3,28

TECHNICAL INFORMATION

MARINE CABLE

AMERICAN WIRE GAUGE (STRANDED COPPER WIRES)

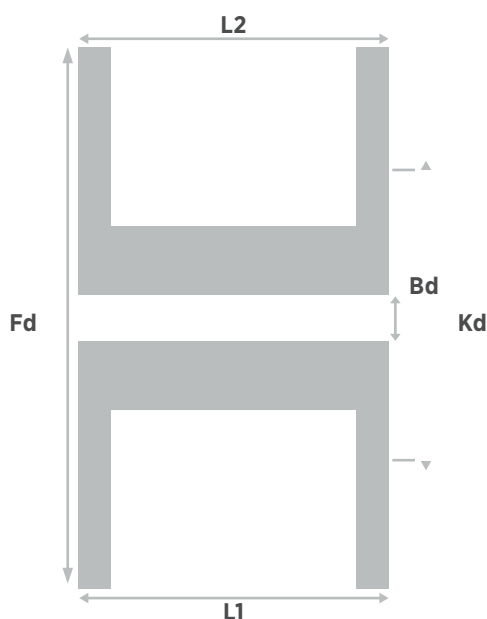
GAUGE (AWG)	STRANDING (NOM. AWG)	APPROX OD.		CROSS-SECTION mm ²	WEIGHT kg/km	WIRE RESISTANCE (ohm km) 20 °C
		INCHES	MM			
36	7 x 44	0,006	0,152	0,014	0,249	1360,6
34	7 x 42	0,075	0,191	0,022	0,397	856,0
32	7 x 40	0,0093	0,236	0,034	0,639	538,4
32	19 x 44	0,010	0,254	0,035	0,639	538,4
30	7 x 38	0,012	0,305	0,057	0,997	367,4
30	19 x 42	0,012	0,305	0,059	0,997	367,4
28	7 x 36	0,015	0,381	0,089	1,588	232,0
28	19 x 40	0,016	0,406	0,090	1,588	232,0
27	7 x 35	0,017	0,432	0,110	2,014	182,4
26	7 x 34	0,019	0,483	0,141	2,526	145,6
26	10 x 36	0,021	0,533	0,126	2,526	145,6
26	19 x 38	0,020	0,508	0,155	2,526	145,6
24	7 x 32	0,024	0,610	0,227	4,032	90,8
24	10 x 34	0,024	0,610	0,200	4,032	90,8
24	19 x 36	0,024	0,610	0,240	4,032	90,8
22	42 x 40	0,023	0,584	0,205	4,032	90,8
22	7 x 30	0,030	0,762	0,355	6,388	57,4
22	19 x 34	0,031	0,787	0,382	6,388	57,4
20	26 x 36	0,030	0,762	0,330	6,388	57,4
20	7 x 28	0,038	0,965	0,563	10,191	35,7
20	10 x 30	0,037	0,940	0,506	10,191	35,7
20	19 x 32	0,037	0,940	0,614	10,191	35,7
20	26 x 34	0,036	0,914	0,522	10,191	35,7
18	42 x 36	0,038	1,965	0,531	10,191	35,7
18	7 x 26	0,048	1,220	0,897	16,175	22,7
18	16 x 30	0,047	1,190	0,810	16,175	22,7
18	19 x 30	0,049	1,240	0,963	16,175	22,7
18	42 x 34	0,047	1,190	0,844	16,175	22,7
16	65 x 36	0,047	1,190	0,822	16,175	22,7
16	7 x 24	0,060	1,520	1,430	25,756	14,2
16	19 x 29	0,058	1,470	1,228	25,756	14,2
16	26 x 30	0,059	1,500	1,316	25,756	14,2
16	65 x 34	0,059	1,500	1,306	25,756	14,2
14	105 x 36	0,059	1,500	1,329	25,756	14,2
14	7 x 22	0,076	1,930	2,271	41,012	8,95
14	19 x 26	0,071	1,800	2,434	41,012	8,95
14	42 x 30	0,075	1,910	2,127	41,012	8,95
12	105 x 34	0,075	1,910	2,110	61,160	8,95
12	7 x 20	0,096	2,440	3,360	61,160	5,61
12	19 x 25	0,093	2,360	3,087	61,160	5,61
12	65 x 30	0,095	2,410	3,291	103,613	5,61
10	165 x 34	0,095	2,410	3,315	103,613	3,54
10	37 x 26	0,115	2,920	4,740	103,613	3,54
10	65 x 28	0,120	3,050	5,224	103,613	3,54
10	105 x 30	0,118	3,000	5,317	103,613	3,54

TECHNICAL INFORMATION

MARINE CABLE

WOODEN DRUMS (STANDARD)

DRUM CODE NUMBER	FLANGE	DRUM BARREL	BARE Bd mm	WIDTH OVERALL ALL	WIDTH FOR WINDING	LOAD BEARING CAPACITANCE MAX. mm	DRUM WEIDTHING
	fd mm	Kd mm		L1 mm	L2 mm		mm
MD-40	400	200	40	310	250	100	3
MD-50	500	250	45	350	290	150	4
MD-60	600	300	50	350	300	200	5
60	630	315	56	415	315	250	17
70	710	355	80	520	400	250	25
80	800	400	80	520	400	400	31
90	900	450	80	690	560	750	47
100	1000	500	80	710	560	900	71
120	1250	630	80	890	670	1700	144
140	1400	710	80	890	670	2000	175
160	1600	800	80	1100	850	3000	280
180	1800	1000	100	1100	840	4000	380
200	2000	1250	100	1350	1045	5000	550



- Fd:** Flange
- Kd:** Drum-Barrel Diameter
- Bd:** Bore Diameter
- L1:** Width overall
- L2:** Width For Windings



MAX. CARRYING CAPACITANCE OF DRUMS DEPEND ON OUTER DIAMETER OF CABLES

CABLE D mm	MD 40	MD 50	MD 60	60	70	80	90	100	120	140	160	180	200	
6	420	735	1070	1110	2024	2755								
7	310	540	780	840	1480	2340	2730							
8	235	430	590	640	1064	1463								
9	185	335	465	470	890	1152	2202	2866						
10	150	270	385	388	680	980	1768	2349						
11	14	230	330	315	564	760	1404	1910						
12		195	270	254	470	643	1206	1540	2727					
13	100	165	235	238	385	542	1032	1339	2265	2967				
14		140	210	190	360	454	880	1159						
15		130	185	180	300	430	749	1000	1990	2480				
16		115	160	140	239	358	632	860	1756	2205				
17			145	134	228	294	603	736	1545	1960				
18			130	102	218	280	505	705	1355	1737	2227			
19			120	96	172	228	485	599	1184	1535	2435	2830		
20				92	165	220	402	576	1139	1352				
21				90	159	210	387	485	990	1304	2172	2527		
22				65	122	167	315	468	856	1145	1930	2248	2954	
23				62	117	160	304	389	827	999	1870	2172		
24				60	113	156	294	377	709	967	1657	1927	2608	
25				58	110	150	285	365	688	839	1608	1867	2522	
26				56	80	116	226	299	668	814	1420	1650	2218	
27					78	113	220	290	567	700	1244	1450	2150	
28					76	109	215	282	550	680	1210	1410	1880	
29					73	106	209	226	462	663	1180	1370	1826	
30						103	162	220	450	564	1028	1200	1583	
31					70	76	157	214	438	550	1003	1166	1540	
32						74	153	209	428	537	866	1009	1500	
33							150	204	352	450	846	985	1289	
34						72	146	158	344	440	828	962	1257	
35							108	154	336	430	710	824	1227	
36								105	150	329	422	692	806	1040
37								103	148	265	348	678	788	1017
38									144	259	340	664	722	994
39									110	254	334	560	653	972
40									105	249	327	549	640	812
41									102	244	264	539	627	795
42										190	259	529	615	779
43									10	187	254	437	510	763
44										183	249	430	502	750
45										180	254	422	492	610
46										177	240	415	484	600
47										174	187	408	475	589
48										130	184	330	386	578
49										127	180	325	380	568
50										125	178	139	373	558
51											123	175	314	442
52											120	172	310	435
53												170	305	428
54												126	230	420
55												124	235	414
56												122	232	408
57												121	228	400
58												119	225	304
59												117	222	300
60													220	295
61													216	290
62													160	287
63													158	282
64													156	280
65													154	275
66														270
67													152	266
68													150	264

LOGISTICS

As Erse Kablo, we are providing service with the latest technology, packaging, wrapping and cutting machines warehouse of 2500 m2 located in a separate location from our factory in order to make our logistics activities more effective.

Upon request, we can provide technical information and support about the most appropriate package types and cable lengths for the needs of our clients.

We, Erse Kablo don't claim additional charges from our customers for standard packages within framework of logistics procedures.



Erse Kablo aims to make protective packaging for purchased cables facilitating and accelerating the activities of the logistics partners.

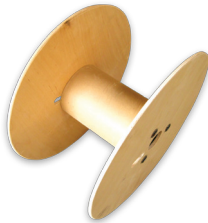


The produced cables are packed for shipment within framework of customer needs in accordance with international standards and the conditions of carriage.

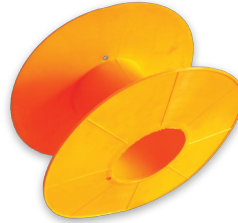
OUR PACKAGE TYPES



Wooden drums



Plywood drums



Plastic drums



Coils with shrink



Cardboard box



Pallet



Euro Pallet



Heat treatment assurance: Only heat treated drums and pallets are used in our export products.



Incoterms: The shipping is made in accordance with Incoterms rules within the framework of mutual understanding with our customers.



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