WE ARE SERVING THE INDUSTRY WITH

TEXILine Heli Twist

THE NEW AND INNOVATIVE AMOKABEL
SHIPBOARD POWER CABLE SYSTEM

amokabel
CABLE FOR LIFE

WE NOW HAVE THE PLEASURE OF INTRODUCING THE NEW CABLE SERIES

TEXILine Heli Twist

With focus on cable production in accordance with amokabel environmental profile, we now launch a brand new eco-friendly product family.

The TEXILine Heli Twist cable series reduces the conductor cross-section and thereby the weight with up to 30% compared with traditional shipboard cables. This solution also provides savings on reduced installation time and related accessories. The same advantageous electrical properties as for sheathed multiconductor cables is achieved. And the helically laid-up design safety-wise withstands the electro-mechanical forces during a short circuit.

Amokabel's unique competence again provide our customers with products for improved profitability and environmental gains.

TEXILine Heli Twist can be supplied with the following designs:

- 3-core Cu 0,6/1kV
- 3-core Cu EMC screened 0,6/1kV
- 3-core Al 0,6/1kV
- 3-core Al EMC screened 0,6/1kV
- 4-core Cu DC double insulated 1,8/3kV
- 4-core Cu DC double insulated EMC screened 1,8/3kV
- 4-core Al DC double insulated 1,8/3kV
- 4-core Al DC double insulated EMC screened 1,8/3kV

TEXILine Heli Twist Cu

APPLICATIONS:

DNV-approved shipboard 1kV power cable, suitable for fixed installations both indoors and outdoors. TEXILine Heli Twist Cu is XLPE insulated, using flexible copper conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 3 single core cables have an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.

PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	0,6/1kV

STANDARDS:

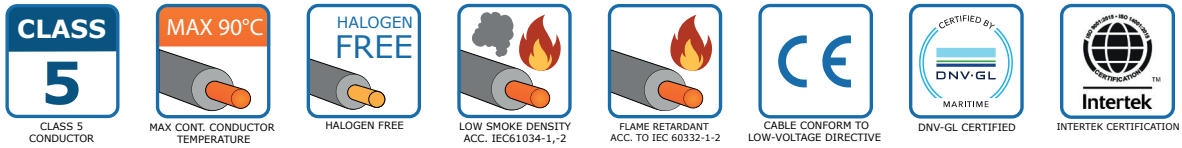
Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	3,5kV ac
RoHS Directive	Yes
Approval	TAE00002XA

Construction	
Conductor	Flexible copper conductor class 5
Insulation	XLPE
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black with number 1-3
Marking	TEXILine Heli Twist Cu AMOKABEL -size-mm^2 IEC 60092-353 - IEC 60332-3-22 - DNV 0,6/1kV -YY/WW
Minimum Bending Radius fixed installation	6xOD

Type code	Nominal outer diameter [mm]	Approx. Weight [kg/km]	Current rating @45°C*) [A]
TEXILine Heli Twist Cu 3x1x35	25,1	1191	157
TEXILine Heli Twist Cu 3x1x50	28,4	1650	196
TEXILine Heli Twist Cu 3x1x70	34,6	2298	242
TEXILine Heli Twist Cu 3x1x95	37,2	3015	293
TEXILine Heli Twist Cu 3x1x120	42,8	3803	339
TEXILine Heli Twist Cu 3x1x150	47,7	4738	389

*) Ampacities from IEC 60092-352 table B4. Installed on cable ladder with free air circulation around trefoil.

DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 should be used.



TEXILine Heli Twist Cu EMC

APPLICATIONS:

DNV-approved shipboard 1kV power cable, suitable for fixed installations both indoors and outdoors. TEXILine Heli Twist Cu EMC is XLPE insulated, using flexible copper conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 3 single core cables have a braided Cu screen and an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.

PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	0,6/1kV

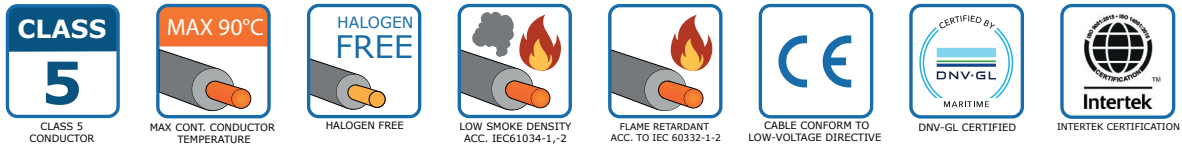
STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	3,5kV ac
RoHS Directive	Yes
Approval	TAE00002XA

Construction	
Conductor	Flexible copper conductor class 5
Insulation	XLPE
Screen	Cu wire braid and Cu/PET foil
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black with number 1-3
Marking	TEXILine Heli Twist Cu EMC AMOKABEL -size-mm^2 IEC 60092-353 - IEC 60332-3-22 - DNV 0,6/1kV -YY/WW
Minimum Bending Radius fixed installation	6xOD

Type code	Nominal outer diameter	Approx. Weight	Current rating @45°C*)
	[mm]	[kg/km]	[A]
TEXILine Heli Twist Cu EMC 3x1x35	26,9	1354	157
TEXILine Heli Twist Cu EMC 3x1x50	31,2	1933	196
TEXILine Heli Twist Cu EMC 3x1x70	37,5	2645	242
TEXILine Heli Twist Cu EMC 3x1x95	40,1	3391	293
TEXILine Heli Twist Cu EMC 3x1x120	45,5	4236	339
TEXILine Heli Twist Cu EMC 3x1x150	50,4	5221	389

*) Ampacities from IEC 60092-352 table B4. Installed on cable ladder with free air circulation around trefoil.
DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 should be used.



TEXILine Heli Twist Al

APPLICATIONS:

DNV-approved shipboard 1kV power cable, suitable for fixed installations both indoors and outdoors. TEXILine Heli Twist Al is XLPE insulated, using flexible aluminium conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 3 single core cables have an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments..

PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	0,6/1kV

STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	3,5kV
RoHS Directive	Yes
Approval	TAE00002V2

Construction	
Conductor	Flexible aluminium conductor class 5
Insulation	XLPE
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black with number 1-3
Marking	TEXILine Heli Twist Al AMOKABEL -size-mm^2 IEC 60092-353 - IEC 60332-3-22 - DNV 0,6/1kV -YY/WW
Minimum Bending Radius	6xOD

Type code	Nominal outer diameter	Approx. Weight	Current rating @45°C*)
	[mm]	[kg/km]	[A]
TEXILine Heli Twist Al 3x1x50	31,5	758	149
TEXILine Heli Twist Al 3x1x70	37,7	1045	184
TEXILine Heli Twist Al 3x1x95	41,2	1303	223
TEXILine Heli Twist Al 3x1x120	46,8	1667	258
TEXILine Heli Twist Al 3x1x150	51,7	2030	296

*) Ampacities from IEC 60092-352 table B4 derated with 0,76 for Al conductors. Installed on cable ladder with free air circulation around trefoil.

DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 derated with 0,76 for Al conductors should be used.

CLASS 5 CONDUCTOR

MAX 90°C MAX CONT. CONDUCTOR TEMPERATURE

HALOGEN FREE HALOGEN FREE

LOW SMOKE DENSITY ACC. IEC61034-1,-2

FLAME RETARDANT ACC. TO IEC 60332-1-2

CE CABLE CONFORM TO LOW-VOLTAGE DIRECTIVE

CERTIFIED BY DNV·GL MARITIME DNV-GL CERTIFIED

Intertek INTERTEK CERTIFICATION

TEXILine Heli Twist Al EMC

APPLICATIONS:

DNV-approved shipboard 1kV power cable, suitable for fixed installations both indoors and outdoors. TEXILine Heli Twist Al EMC is XLPE insulated, using flexible aluminium conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 3 single core cables have a braided Cu screen and an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.

PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	0,6/1kV

STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	3,5kV
RoHS Directive	Yes
Approval	TAE00002V2

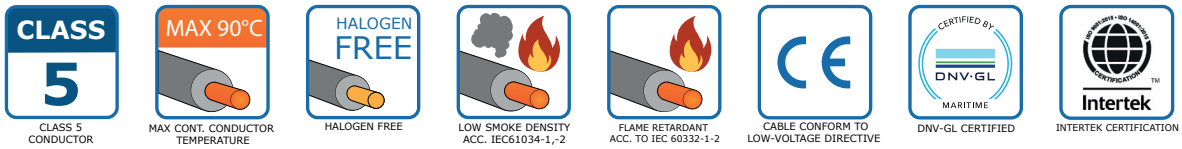
Construction

Conductor	Flexible aluminium conductor class 5
Insulation	XLPE
Screen	Cu wire braid and Cu/PET foil
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black with number 1-3
Marking	TEXILine Heli Twist Al EMC AMOKABEL -size-mm^2 IEC 60092-353 - IEC 60332-3-22 - DNV 0,6/1kV -YY/WW
Minimum Bending Radius fixed installation	6xOD

Type code	Nominal outer diameter	Approx. Weight	Current rating @45°C*)
	[mm]	[kg/km]	[A]
TEXILine Heli Twist Al EMC 3x1x50	34,0	909	149
TEXILine Heli Twist Al EMC 3x1x70	40,7	1264	184
TEXILine Heli Twist Al EMC 3x1x95	43,7	1515	223
TEXILine Heli Twist Al EMC 3x1x120	49,3	1939	258
TEXILine Heli Twist Al EMC 3x1x150	54,7	2394	296

*) Ampacities from IEC 60092-352 table B4 derated with 0,76 for Al conductors. Installed on cable ladder with free air circulation around trefoil.

DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 derated with 0,76 for Al conductors should be used.



TEXILine Heli Twist Cu DC

APPLICATIONS:

DNV-approved shipboard flexible power cable for fixed installations both indoors and outdoors, specially designed for DC installations. TEXILine Heli Twist Cu DC has flexible copper conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 4 single core cables have an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. XLPE double insulated conductors with thickness for 1,8/3kV ac where DC ripples or system specifics require higher voltage class. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.

PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	0,9/1,5kV dc 0,6/1kV ac

STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	6,5kV ac
RoHS Directive	Yes
Approval	TAE00004F9

Construction	
Conductor	Flexible copper conductor class 5
Insulation	XLPE
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black and red cores diagonally placed
Marking	TEXILine Heli Twist Cu DC AMOKABEL -size-mm^2 IEC 60092-353 - DNV 2,7/4,5kV DC - YY/WW + meter marking
Minimum Bending Radius fixed installation	6xOD

Type code	Nominal outer diameter	Approx. Weight	Current rating @45°C*)
	[mm]	[kg/km]	[A]
TEXILine Heli Twist Cu DC 4x1x35	33,8	1806	2x157
TEXILine Heli Twist Cu DC 4x1x50	36,9	2420	2x196
TEXILine Heli Twist Cu DC 4x1x70	43,5	3297	2x242
TEXILine Heli Twist Cu DC 4x1x95	46,3	4270	2x293
TEXILine Heli Twist Cu DC 4x1x120	52,1	5321	2x339
TEXILine Heli Twist Cu DC 4x1x150	56,5	6525	2x389

*) Ampacities from IEC 60092-352 table B4. Installed on cable ladder or in free air with min 2x OD between twisted cables for free air circulation.
DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 should be used.

CLASS 5 CONDUCTOR

MAX CONT. CONDUCTOR TEMPERATURE

HALOGEN FREE

LOW SMOKE DENSITY ACC. IEC61034-1,-2

FLAME RETARDANT ACC. TO IEC 60332-1-2

CABLE CONFORM TO LOW-VOLTAGE DIRECTIVE

DNV-GL CERTIFIED

INTERTEK CERTIFICATION

TEXILine Heli Twist Cu DC EMC

APPLICATIONS:

DNV-approved shipboard flexible power cable for fixed installations both indoors and outdoors, specially designed for DC installations. TEXILine Heli Twist Cu DC EMC has flexible copper conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 4 single core cables have a braided Cu screen and an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. XLPE double insulated conductors with thickness for 1,8/3kV ac where DC ripples or system specifics require higher voltage class. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.

PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	2,7/4,5kV dc 1,8/3kV ac

STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	6,5kV ac
RoHS Directive	Yes
Approval	TAE00004FB

Construction	
Conductor	Flexible copper conductor class 5
Insulation	XLPE
Screen	Cu wire braid and Cu/PET foil
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black and red cores diagonally placed
Marking	TEXILine Heli Twist Cu DC EMC AMOKABEL -size-mm^2 IEC 60092-353 - DNV 2,7/4,5kV DC - YY/WW + meter marking
Minimum Bending Radius fixed installation	6xOD

Type code	Nominal outer diameter	Approx. Weight	Current rating @45°C*)
	[mm]	[kg/km]	[A]
TEXILine Heli Twist Cu DC EMC 4x35	36,9	2210	157
TEXILine Heli Twist Cu DC EMC 4x50	40,1	2860	196
TEXILine Heli Twist Cu DCEMC 4x70	46,6	3814	242
TEXILine Heli Twist Cu DCEMC 4x95	49,5	4828	293
TEXILine Heli Twist Cu DC EMC 4x120	55,3	5961	339
TEXILine Heli Twist Cu DC EMC 4x150	59,6	7204	389

*) Ampacities from IEC 60092-352 table B4. Installed on cable ladder or in free air with min 2x OD between twisted cables for free air circulation.
DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 should be used.

CLASS 5 CONDUCTOR

MAX 90°C — MAX CONT. CONDUCTOR TEMPERATURE

HALOGEN FREE — HALOGEN FREE

LOW SMOKE DENSITY ACC. IEC61034-1,-2

FLAME RETARDANT ACC. TO IEC 60332-1-2

CE — CABLE CONFORM TO LOW-VOLTAGE DIRECTIVE

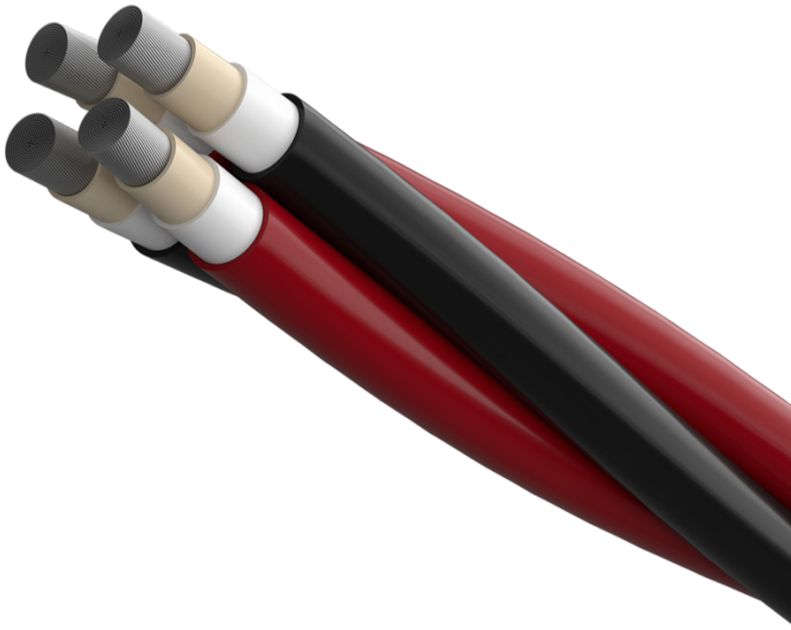
CERTIFIED BY DNV·GL MARITIME — DNV-GL CERTIFIED

Intertek — INTERTEK CERTIFICATION

TEXILine Heli Twist Al DC

APPLICATIONS:

DNV-approved shipboard flexible power cable for fixed installations both indoors and outdoors, specially designed for DC installations. TEXILine Heli Twist Al DC has flexible aluminium conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 4 single core cables have an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. XLPE double insulated conductors with thickness for 1,8/3kV ac where DC ripples or system specifics require higher voltage class. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.



PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	2,7/4,5kV dc 1,8/3kV ac

STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	6,5kV ac
RoHS Directive	Yes
Approval	TAE00004F9

Construction	
Conductor	Flexible aluminium conductor class 5
Insulation	XLPE
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black and red cores diagonally placed
Marking	TEXILine Heli Twist Al DC AMOKABEL -size-mm^2 IEC 60092-353 - DNV 2,7/4,5kV dc - YY/WW + meter marking
Minimum Bending Radius	6xOD

Type code	Nominal outer diameter [mm]	Approx. Weight [kg/km]	Current rating @45°C*) [A]
TEXILine Heli Twist Al DC 4x1x50	41,0	1256	2x149
TEXILine Heli Twist Al DC 4x1x70	44,4	1580	2x184
TEXILine Heli Twist Al DC 4x1x95	49,2	1959	2x223
TEXILine Heli Twist Al DC 4x1x120	53,1	2347	2x258
TEXILine Heli Twist Al DC 4x1x150	59,6	2897	2x296

*) Ampacities from IEC 60092-352 table B4 derated with 0,76 for Al conductors. Installed on cable ladder or in free air with min 2x OD between twisted cables for free air circulation.

DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 derated with 0,76 for Al conductors should be used.

CLASS 5 CONDUCTOR

MAX 90°C MAX CONT. CONDUCTOR TEMPERATURE

HALOGEN FREE HALOGEN FREE

LOW SMOKE DENSITY ACC. IEC61034-1,-2

FLAME RETARDANT ACC. TO IEC 60332-1-2

CE CABLE CONFORM TO LOW-VOLTAGE DIRECTIVE

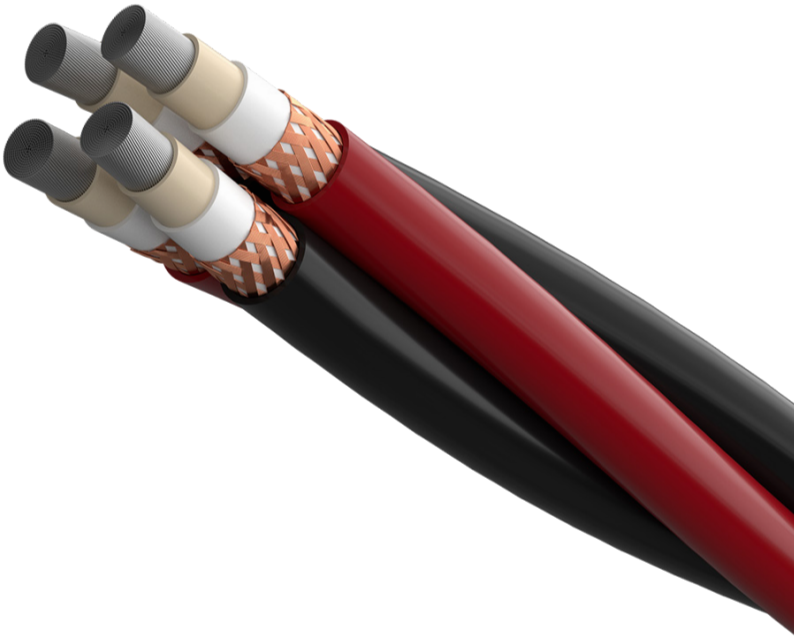
CERTIFIED BY DNV·GL MARITIME DNV-GL CERTIFIED

Intertek INTERTEK CERTIFICATION

TEXILine Heli Twist Al DC EMC

APPLICATIONS:

DNV-approved shipboard flexible power cable for fixed installations both indoors and outdoors, specially designed for DC installations. TEXILine Heli Twist Al DC EMC has flexible aluminium conductors in accordance with IEC 60228 class 5 to make installation and connection easy. Each of the 4 single core cables have a braided Cu screen and an outer sheathing before being twisted together, effective heat transfer hence higher current carrying capacity per conductor. XLPE double insulated conductors with thickness for 1,8/3kV ac where DC ripples or system specifics require higher voltage class. Suitable for narrow spaces and use under the most challenging conditions in marine and offshore environments.



PROPERTIES:

Temperature range	-30 to +90°C
Voltage rating Uo/U	2,7/4,5kV dc 1,8/3kV ac

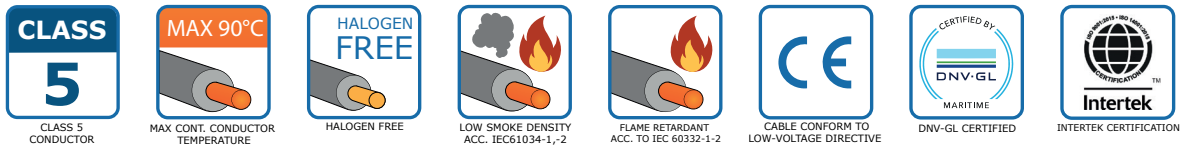
STANDARDS:

Conductor	IEC 60228-5
Construction	IEC 60092-350
Flame retardant	IEC 60332-1-2
Flame retardant	IEC 60332-3-22
Halogen free	IEC 60754-1, -2
Smoke density	IEC 61034-1, -2
Test voltage	6,5kV ac
RoHS Directive	Yes
Approval	TAE00004FA

Construction	
Conductor	Flexible aluminium conductor class 5
Insulation	XLPE
Screen	Cu wire braid and Cu/PET foil
Outer sheath	Halogen free, flame retardant SHF1 compound
Multi core identification	Black and red cores diagonally placed
Marking	TEXILine Heli Twist Al DC EMC AMOKABEL -size-mm^2 IEC 60092-353 - DNV 2,7/4,5kV dc - YY/WW + meter marking
Minimum Bending Radius fixed installation	6xOD

Type code	Nominal outer diameter [mm]	Approx. Weight [kg/km]	Current rating @45°C*) [A]
TEXILine Heli Twist Al DC EMC 4x1x50	44,2	1749	2x149
TEXILine Heli Twist Al DC EMC 4x1x70	47,6	2113	2x184
TEXILine Heli Twist Al DC EMC 4x1x95	52,4	2553	2x223
TEXILine Heli Twist Al DC EMC 4x1x120	56,2	2990	2x258
TEXILine Heli Twist Al DC EMC 4x1x150	62,8	3620	2x296

*) Ampacities from IEC 60092-352 table B4 derated with 0,76 for Al conductors. Installed on cable ladder or in free air with min 2x OD between twisted cables for free air circulation.
DNV Rules states: If bunched cables are expected to be under full continuous load simultaneously with risk of being overheated, then IEC 60092-352 Annex A table A4 derated with 0,76 for Al conductors should be used.



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amokabel
CABLE FOR LIFE

100% EGENPRODUSERT FORNYBAR ENERGI MILJØMERKET