

Draka Norsk Kabel AS

Doc. title: Technical Data Book
Doc. no.: ST260 bfou mangetrådet.doc

Power and
Instrumentation Cables

Page 1 of 10
Rev. 00

Halogen-free, MUD resistant Offshore cables with Flexible conductors

Technical Data Book
SDRL Code:

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REV	DATE	BY	CHECK	IDC	APPROV	REMARKS

Draka Norsk Kabel AS

Doc. title: Technical Data Book

Power and

Page 2 of 10

Doc. no.: ST260 bfou mangetrådet.doc

Instrumentation Cables

Rev. 00

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TECHNICAL DATA

FOR

POWER AND INSTRUMENTATION CABLE

List of content:

DIMENSION DATA, RFOU 0,6/1 KV, FLEXIBLE TINNED COPPER CONDUCTOR.....	4
DIMENSION DATA.....	4
ELECTRICAL DATA.....	4
INSTALLATION DATA.....	4
CABLE DRAWING: RFOU 0,6/1kV, BLACK SHEATH.....	5
DIMENSION DATA, BFOU 0,6/1 KV, FLEXIBLE TINNED COPPER CONDUCTOR.....	6
DIMENSION DATA.....	6
ELECTRICAL DATA.....	6
INSTALLATION DATA.....	6
CABLE DRAWING: BFOU 0,6/1kV, BLACK SHEATH.....	7
BFOU(C) 250V, FLEXIBLE TINNED COPPER CONDUCTOR, COLLECTIVELY SCREENED.....	8
DIMENSION DATA.....	8
ELECTRICAL DATA.....	8
INSTALLATION DATA.....	8
CABLE DRAWING : BFOU (c) 250V, GREY OR BLUE SHEATH.....	9
CODE DESIGNATION	10

Draka Norsk Kabel AS

Doc. title: Technical Data Book

Power and

Page 4 of 10

Doc. no.: ST260 bfou mangetrådet.doc

Instrumentation Cables

Rev. 00

DIMENSION DATA, RFOU 0,6/1 kV, Flexible tinned copper conductor

DIMENSION DATA

Item/Stock no.	Type [mm ²]	Thickness of armour wires [mmØ]	Diameter Under braid [mm]	Diameter Overall [mm]	Weight of cable approx. [kg/km]	Copper content approx. [kg/km]
885176	12x 1,5/10	0,30	17,5±0,8	21,5±1,0	690	280

ELECTRICAL DATA

No. of cores x cross section [mm ²]	Conductor resistance [Ω/km]		Reactance [Ω/km]	Impedance [Ω/km] at 85 °C	Continous current rating at 45 °C	Short circuit [Ampere]	
	at 20 °C	at 85 °C	at 60 Hz	at 60 Hz		1 sec	0,3 sec
12x 1,5/10	13,7	17,199	0,132	17,2	9	210	383

INSTALLATION DATA

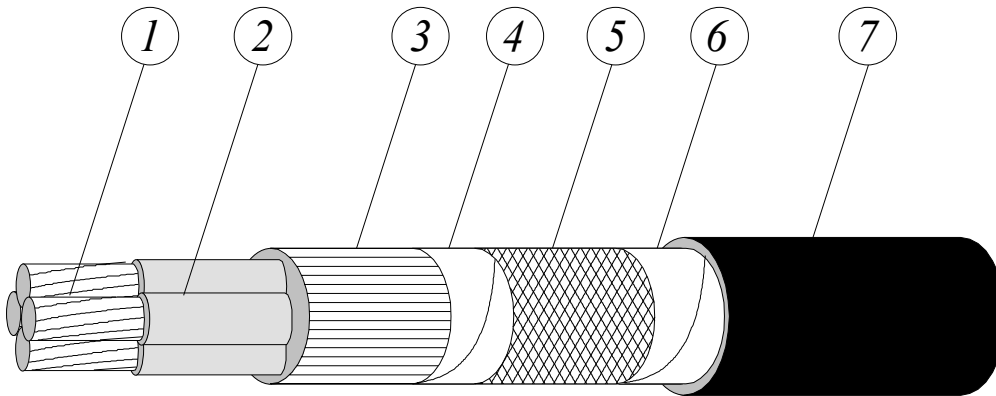
Item/Stock no.	TYPE [mm ²]	Overall Diameter [mmØ]	Minimum bending radius [mm]	Maximum pulling tension [N]
885176	12x 1,5/10	21,5±1,0	129	900

Minimum installation temperature: - 20 °C

CABLE DRAWING: RFOU 0,6/1kV, Black sheath

Construction according to IEC 60092-353
Conductor according to IEC 60228 class 5
Flame retardant i.a.w. IEC 60332-1 and IEC 60332-3 cat. A
Halogen-free i.a.w. IEC 60754-1,2
Mud resistant i.a.w. NEK 606
Maximum operating temperature 85°C
Test voltage 8,4 kV dc in 5 minutes

Flame retardant – Halogen-free - Mud resistant



Drawing for indication only

1. Conductor, circular tinned flexible copper conductor
2. Insulation, EP-rubber (R)
3. Bedding, flame retardant halogen-free thermoset compound (F)
4. PETP-tape
5. Armour, tinned copper wire braid (O)
6. PETP-tape
7. Sheath, flame retardant halogen-free mud resistant thermoset compound, (U)

Sheath marking: (example)

“meter” “year” DRAKA NORSK KABEL RFOU 0,6/1kV 2x2,5/4 mm² Flexible conductors IEC 60332-3/A “CE”

“meter” is for reference length only.

Core identification:

One core	: Grey
Two cores	: Grey - Black
Three cores	: Grey - Black - Red
Four cores	: Grey - Black - Red - Blue
5 cores and above	: Black numbers on white base.
Earth core	: Yellow/green

Draka Norsk Kabel AS

Doc. title: Technical Data Book

Power and

Page 6 of 10

Doc. no.: ST260 bfou mangetrådet.doc

Instrumentation Cables

Rev. 00

DIMENSION DATA, BFOU 0,6/1 kV, Flexible tinned copper conductor

DIMENSION DATA

Item/Stock no.	Type [mm ²]	Thickness of armour wires [mmØ]	Diameter Under braid [mm]	Diameter Overall [mm]	Weight of cable approx. [kg/km]	Copper content approx. [kg/km]
Tba	2x 2,5/4	0,20	11,0±0,8	14,0±0,8	300	93

ELECTRICAL DATA

No. of cores x cross section [mm ²]	Conductor resistance [Ω/km]		Reactance [Ω/km]	Impedance [Ω/km] at 85 °C	Continous current rating at 45 °C	Short circuit [Ampere]	
	at 20 °C	at 85 °C	at 60 Hz	at 60 Hz		1 sec	0,3 sec
2x 2,5/4	8,21	10,31	0,127	10,308	24	350	639

INSTALLATION DATA

Item/Stock no.	TYPE [mm ²]	Overall Diameter [mmØ]	Minimum bending radius [mm]	Maximum pulling tension [kp]
	2x 2,5/4	15,0±1,0	90	25,0

Minimum installation temperature: - 20 °C

Draka Norsk Kabel AS

Doc. title: Technical Data Book
Doc. no.: ST260 bfou mangetrådet.doc

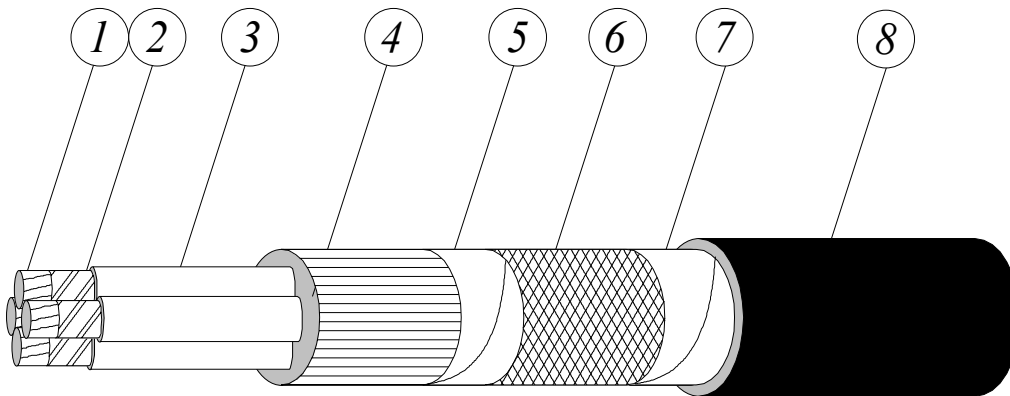
Power and
Instrumentation Cables

Page 7 of 10
Rev. 00

CABLE DRAWING: BFOU 0,6/1kV, Black sheath

Construction according to IEC 60092-353
Conductor according to IEC 60228 class 5
Flame retardant i.a.w. IEC 60332-1 and IEC 60332-3 cat. A
Fire resistant i.a.w. IEC 60331
Halogen-free i.a.w. IEC 60754-1,2
Mud resistant i.a.w. NEK 606
Maximum operating temperature 85°C
Test voltage 8,4 kV dc in 5 minutes

Fire resistant - Flame retardant – Halogen-free - Mud resistant



Drawing for indication only

1. Conductor, circular tinned flexible copper conductor
2. Mica taping
3. Insulation, EP-rubber (B)
4. Bedding, flame retardant halogen-free thermoset compound (F)
5. PETP-tape
6. Armour, tinned copper wire braid (O)
7. PETP-tape
8. Sheath, flame retardant halogen-free mud resistant thermoset compound, (U)

Sheath marking: (example)

“meter” “year” DRAKA NORSK KABEL BFOU 0,6/1kV 2x2,5/4 mm² Flexible conductors
IEC 60331 IEC 60332-3/A “CE”

“meter” is for reference length only.

Core identification:

One core	: Grey
Two cores	: Grey - Black
Three cores	: Grey - Black - Red
Four cores	: Grey - Black - Red - Blue
5 cores and above	: Black numbers on white base.
Earth core	: Yellow/green

Draka Norsk Kabel AS

Doc. title: Technical Data Book

Power and

Page 8 of 10

Doc. no.: ST260 bfou mangetrådet.doc

Instrumentation Cables

Rev. 00

BFOU(c) 250V, Flexible tinned copper conductor, Collectively screened

DIMENSION DATA

Item/Stock no.	Type [mm ²]	Thickness of armour wires [mmØ]	Diameter Under braid [mm]	Diameter Overall [mm]	Weight of cable approx. [kg/km]	Copper content approx. [kg/km]
885378 B	2 pair 0,75	0,25	12,0±0,8	15,5±0,8	350	115
885377 B	8 pair 0,75	0,25	19,0±0,8	23,0±1,0	750	235

G= grey, B= blue sheath colour

ELECTRICAL DATA

TYPE [mm ²]	Capacit. approx. [nF/km]	Induct. approx. [mH/km]	Resist. 20 deg C [Max.ohm/km]	Capacitance Unbalance pair/pair [Max pF/km]	pair/screen [Approx. pF/km]
Single pair 0,75	90	0,75	26,7	1500	3000

INSTALLATION DATA

Item/Stock no.	TYPE [mm ²]	Overall Diameter [mmØ]	Minimum bending radius [mm]	Maximum pulling tension [N]
885378 B	2 pair 0,75	15,5±1,0	93	150
885377 B	8 pair 0,75	23,0±1,5	138	600

Minimum installation temperature: - 20 °C

Draka Norsk Kabel AS

Doc. title: Technical Data Book
Doc. no.: ST260 bfou mangetrådet.doc

Power and
Instrumentation Cables

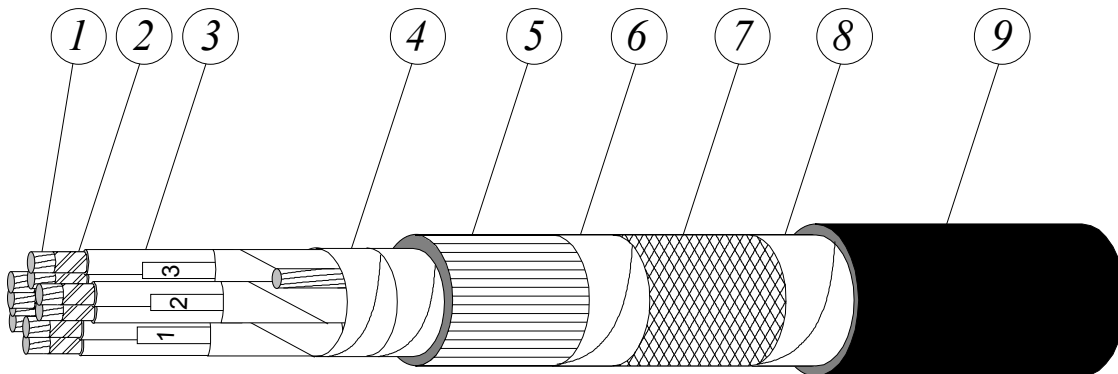
Page 9 of 10
Rev. 00

CABLE DRAWING : BFOU (c) 250V, Grey or Blue sheath

Construction according to IEC 60092-3.
Conductor according to IEC 60228 class 5
Flame retardant i.a.w. IEC 60332-1 and IEC 60332-3 Cat.A
Fire resistant i.a.w. IEC 60331
Halogen-free i.a.w. IEC 60754-1,2
Mud resistant i.a.w. NEK 606
Test voltage 3,6 kV dc for 5 minutes

Flame retardant - Fire resistant – Halogen-free - Mud resistant

Collective screen :



Cable drawing for indication only

1. Tinned flexible copper conductor
2. Mica taping
3. EPR-insulation (B)
4. Screen ,laminated Cu/PETP-tape with drain wire
5. Bedding, flame retardant halogen-free thermoplastic compound (F)
6. PETP-tape
7. Armour, tinned copper wire braid (O)
8. PETP-tape
9. Sheath, flame retardant halogen-free mud resistant thermoset compound, (U)

Core identification : Pair = Black - Light Blue
 Triple = Black - Light Blue - Brown

Pairs/triples are numbered with numbered tape or by numbers printed directly on the insulated conductors.

Sheath-marking: (example)

“meter” “year of manufacture” DRAKA NORSK KABEL BFOU(c) 250V 8 PAIR 0,75 mm² Flexible conductors
IEC 60331 IEC 60332-3/A “CE”

“meter” is for reference length only.

Pairs are twisted with differing lay lengths to reduce mutual interference.

Draka Norsk Kabel AS

Doc. title: Technical Data Book

Power and

Page 10 of 10

Doc. no.: ST260 bfou mangetrådet.doc

Instrumentation Cables

Rev. 00

CODE DESIGNATION

- EPR - Ethylene propylene rubber
- MGT - Mica glass tape
- Bedding - Halogenfree thermoset or thermoplastic compound
- HFFR-MUD - Flame retardant, halogen-free MUD resistant thermoset compound, type SHF2, i.a.w. IEC 600092-359

Materials	1.Letter: Insulation	2.Letter: Bedding/ Sheath	3.Letter: Braid/ Armour	4.Letter: Outer Sheath
EPR / MGT	B			
EPR	R			
Extruded bedding		F		
Tinned copper wire braid			O	
Outer sheath, HFFR-MUD				U

Additional abbreviation for instrumentation cables:

Individual pair/triple screened cable..... (i)

Collective pair/triple screened cable.....(c)