BFOU(I) M 150/250(300)V S3/S7/S103

Fire resistant halogenfree instrumentations cable. MUD resistant

GENERAL INFO

BFOU(I) M 150/250(300)V S3/S7/S103
Armoured Fire resistant, flame retardant halogenfree instrumentations cable. Mud resistant. Fixed installation for instrumentation, communication, control and alarm systems in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. BFOU(i) M 250V for installation in areas exposed to MUD and drilling/cleaning fluids. Meets the Oil & Mud resistance requirement in NEK TS 606:2022.

SHF2 outer sheath to IEC 60092-360 is a flame retardant halogen-free thermoset EVA rubber.

MGT/EPR/EPR/TCWB/SHF2
Offshore;Oil & Gas

CABLE DESIGN

Conductor material	Copper
Conductor surface	Tinned
Core insulation material	Mica + polymer
Drain wire	Yes
Screen over stranding element	Foil
Armouring/reinforcement	Braiding
Armouring	Yes
Armouring/reinforcement material	Copper, tinned
Material inner sheath	Halogenfree polymer
Material outer sheath	EVA rubber
Cable shape	Round

MARKING TEXT (EXAMPLE)

"meter" "year/week" DRAKA 01 Part no. BFOU(I) M 250V S3/S7/S103 16 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22 Production no.

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm **) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Color coded cores twisted together. Pairs/Triples/Quads are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple/qoad is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples/quads. Pairs/triples/qoads are identified by numbered tape or by numbers printed directly on the insulated conductors.

Core colours:
Pair: Black - Light Blue
Triple: Black - Light Blue - Brown
Quad: Black - Light Blue - Brown - Grey
Pair/Triple/Quad are identified by numbered tape or by numbers printed directly on the insulated cores.

STANDARDS APPLIED

NEK TS 606:2022	Cables for offshore installations
IEC 60092-376	Design standard
IEC 60228 Class 2 or class 5	Conductors
IEC 60092-360	Insulation and sheath
IEC 60092-350	General construction and test methods for power, control and instrumentation cables for shipboard and offshore applications
IEC 60331-1/2 and IEC 60331-21	Fire resistant properties: IEC 60331-1 & -2 (120 minutes @ 830°C), IEC 60331-21 (180 minutes @ 1000°C)
IEC 60332-1-2 and IEC 60332-3-22(Cat.A)	Flame retardant properties
IEC 60754-1 and IEC 60754-2	Halogen free properties: IEC 60754-1 (pH ≥ 4,3, Conductivity ≤ 10µS), IEC 60754-2 (< 0,5% Halogen)
IEC 61034-1, -2	Low smoke properties: IEC 61034-1, -2 (minimum 60% light transmittance)
Oil resistant IEC 60092-360	IRM 902 oil (168 hours @ 100°C)
MUD resistant (IEC 60092-360 & NEK TS 606)	IRM 903 oil (168 hours @ 100°C), Calcium Bromide Brine (56 days @ 70°C), EDC 95-11 base oil (56 days @ 70°C)
ISO 4892 part 3	UV and Ozone resistance

APPLICATION PROPERTIES

Nominal voltage U0 [V]	150
Nominal voltage U [V]	250
Test voltage [kV]	3.5
Max. conductor temperature [°C]	90
Min. outer temperature, fixed installation [°C]	-52
Max. outer temperature, fixed installation [°C]	75
Low temperature resistant (acc. EN 60811-504+505+506)	Yes
Outdoor installation	Yes
Min. outer temperature during installation [°C]	-20
Max. outer temperature during installation [°C]	50
Bending radius (rule)	8 x OD (cable overall diameter) during installation 6 x OD (cable overall diameter) fixed installed
Certified for shipboard application	Yes

PRODUCT RANGE

SAP code	Basic construction	Colour outer sheath	Conductor category	EL no.	EAN-code (GTIN)	Commodity code
20110624	1P 0.75mm²	Blue	Class 2 = stranded	1043819	7021528932010	85444921
20110623	1P 0.75mm²	Grey	Class 2 = stranded	1043820	7021528932003	85444921
20222969	1P 1.5mm² Cl5	Grey	Class 5 = flexible	20222969	7021528634006	85444921
20110639	1P 1.5mm²	Blue	Class 2 = stranded	1043859	7021528934014	85444921
20110638	1P 1.5mm²	Grey	Class 2 = stranded	1043860	7021528934007	85444921
20110867	1P 2.5mm²	Blue	Class 2 = stranded	20110867	7021528936018	85444921
20110650	1P 2.5mm²	Grey	Class 2 = stranded	1044140	7021528936001	85444921
20110635	1T 0.75mm²	Blue	Class 2 = stranded	1043919	7021528932614	85444921
20110634	1T 0.75mm²	Grey	Class 2 = stranded	1043920	7021528932607	85444921
20110648	1T 1.5mm²	Blue	Class 2 = stranded	1044169	7021528934618	85444921
20110647	1T 1.5mm²	Grey	Class 2 = stranded	1044170	7021528934601	85444921
20110869	1T 2.5mm²	Grey	Class 2 = stranded	20110869	7021528936605	85444921
20311221	1Q 0.75mm²	Blue	Class 2 = stranded	20311221	7021528932041	85444921
20110625	1Q 0.75mm²	Grey	Class 2 = stranded	20110625	7021528932034	85444921
20104969	2P 0.75mm²	Blue	Class 2 = stranded	1044019	7021528932072	85444921
20110626	2P 0.75mm²	Grey	Class 2 = stranded	1044020	7021528932065	85444921
20111213	2P 1.5mm²	Blue	Class 2 = stranded	1044061	7021528934076	85444921
20110640	2P 1.5mm²	Grey	Class 2 = stranded	1044060	7021528934069	85444921
20292819	2T 1.5mm²	Blue	Class 2 = stranded	20292819	7021528934670	85444922
20203978	2P 2.5mm²	Blue	Class 2 = stranded	20203978	7021528936070	85444921
20142038	2P 2.5mm²	Grey	Class 2 = stranded	20142038	7021528936063	85444921
20110864	2T 0.75mm²	Blue	Class 2 = stranded	1044122	7021528932676	85444922
20110636	2T 0.75mm²	Grey	Class 2 = stranded	1044121	7021528932669	85444922
20110866	2T 1.5mm²	Grey	Class 2 = stranded	1044171	7021528934663	85444922
20195593	2T 2.5mm²	Grey	Class 2 = stranded	20195593	7021528936667	85444922
20110628	4P 0.75mm²	Blue	Class 2 = stranded	1044022	7021528932195	85444922
20110627	4P 0.75mm²	Grey	Class 2 = stranded	1044021	7021528932188	85444922
20110642	4P 1.5mm²	Blue	Class 2 = stranded	1044064	7021528934199	85444922
20110641	4P 1.5mm²	Grey	Class 2 = stranded	1044063	7021528934182	85444922
20110868	4P 2.5mm²	Grey	Class 2 = stranded	20110868	7021528936186	85444922
20384535	5P 0.75mm²	Blue	Class 2 = stranded	20384535	7021528932218	85444922
20293408	5P 1.5mm²	Grey	Class 2 = stranded	20293408	7021528934205	85444922
20110865	4T 0.75mm²	Blue	Class 2 = stranded	1044124	7021528932799	85444922
20111212	4T 0.75mm²	Grey	Class 2 = stranded	1044123	7021528932782	85444922
20372943	6P 0,75mm²	Blue	Class 2 = stranded	20372943	7021528932232	85444922

PRODUCT RANGE

SAP code	Basic construction	Colour outer sheath	Conductor category	EL no.	EAN-code (GTIN)	Commodity code
20372941	6P 0,75mm²	Grey	Class 2 = stranded	20372941	7021528932225	85444922
20117428	4T 1.5mm²	Blue	Class 2 = stranded	1044174	7021528934793	85444922
20109501	4T 1.5mm²	Grey	Class 2 = stranded	1044173	7021528934786	85444922
20165927	6P 1.5mm²	Grey	Class 2 = stranded	20165927	7021528934229	85444922
20195594	4T 2.5mm²	Grey	Class 2 = stranded	20195594	7021528936780	85444922
20372942	6P 2,5mm²	Grey	Class 2 = stranded	20372942	7021528936223	85444922
20110773	8P 0.75mm²	Blue	Class 2 = stranded	1044029	7021528932317	85444922
20109496	8P 0.75mm²	Grey	Class 2 = stranded	1044028	7021528932300	85444922
20110644	8P 1.5mm²	Blue	Class 2 = stranded	1044069	7021528934311	85444922
20110643	8P 1.5mm²	Grey	Class 2 = stranded	1044068	7021528934304	85444922
20195592	8P 2.5mm²	Blue	Class 2 = stranded	20195592	7021528936315	85444922
20161616	8P 2.5mm²	Grey	Class 2 = stranded	20161616	7021528936308	85444922
20372945	6T 0,75mm²	Blue	Class 2 = stranded	20372945	7021528932836	85444922
20372944	6T 0,75mm²	Grey	Class 2 = stranded	20372944	7021528932829	85444922
20372946	6T 1,5mm²	Blue	Class 2 = stranded	20372946	7021528934830	85444922
20372947	6T 1,5mm²	Grey	Class 2 = stranded	20372947	7021528934823	85444922
20440418	10P 0.75mm²	Grey	Class 2 = stranded	20440418	7021528932348	85444922
20112240	8T 0.75mm²	Blue	Class 2 = stranded	1044129	7021528932911	85444922
20110637	8T 0.75mm²	Grey	Class 2 = stranded	1044128	7021528932904	85444922
20110630	12P 0.75mm²	Blue	Class 2 = stranded	1044031	7021528932379	85444922
20110629	12P 0.75mm²	Grey	Class 2 = stranded	1044030	7021528932362	85444922
20117424	8T 1.5mm²	Blue	Class 2 = stranded	1044178	7021528934915	85444922
20110649	8T 1.5mm²	Grey	Class 2 = stranded	1044177	7021528934908	85444922
20110646	12P 1.5mm²	Blue	Class 2 = stranded	1044071	7021528934373	85444922
20110645	12P 1.5mm²	Grey	Class 2 = stranded	1044070	7021528934366	85444922
20152769	8T 2.5mm²	Grey	Class 2 = stranded	20152769	7021528936902	85444922
20139737	12P 2.5mm²	Grey	Class 2 = stranded	20139737	7021528936360	85444922
20110632	16P 0.75mm²	Blue	Class 2 = stranded	1044034	7021528932430	85444922
20110631	16P 0.75mm²	Grey	Class 2 = stranded	1044033	7021528932423	85444922
20109498	16P 1.5mm²	Blue	Class 2 = stranded	1044074	7021528934434	85444922
20109497	16P 1.5mm²	Grey	Class 2 = stranded	1044073	7021528934427	85444922
20109504	16P 2.5mm²	Grey	Class 2 = stranded	20109504	7021528936421	85444922
20170930	12T 0.75mm²	Blue	Class 2 = stranded	1044131	7021528932973	85444922
20110878	12T 0.75mm²	Grey	Class 2 = stranded	1044130	7021528932966	85444922
20170933	12T 1.5mm²	Blue	Class 2 = stranded	1044180	7021528934977	85444922

PRODUCT RANGE

SAP code	Basic construction	Colour outer sheath	Conductor category	EL no.	EAN-code (GTIN)	Commodity code
20109502	12T 1.5mm²	Grey	Class 2 = stranded	1044179	7021528934960	85444922
20170932	16T 0.75mm²	Blue	Class 2 = stranded	20170932	7021528933031	85444922
20110774	16T 0.75mm²	Grey	Class 2 = stranded	1044132	7021528933024	85444922
20166157	24P 0.75mm²	Blue	Class 2 = stranded	1044037	7021528932492	85444922
20110633	24P 0.75mm²	Grey	Class 2 = stranded	1044036	7021528932485	85444922
20210037	24T 0.75mm²	Blue	Class 2 = stranded	20210037	7021528933093	85444922
20170929	16T 1.5mm²	Blue	Class 2 = stranded	1044182	7021528935035	85444922
20109503	16T 1.5mm²	Grey	Class 2 = stranded	1044181	7021528935028	85444922
20109499	24P 1.5mm²	Grey	Class 2 = stranded	1044076	7021528934489	85444922
20109500	24P 1.5mm²	Blue	Class 2 = stranded	20109500	7021528934496	85444922
20195595	16T 2.5mm²	Grey	Class 2 = stranded	20195595	7021528937022	85444922
20272644	32P 1.5mm²	Grey	Class 2 = stranded	20272644	7021528934540	85444922
20131938	24T 0,75mm²	Grey	Class 2 = stranded	1044138	7021528933086	85444922
20210039	24T 1,5mm²	Blue	Class 2 = stranded	20210039	7021528935097	85444922
20210038	24T 1,5mm²	Grey	Class 2 = stranded	20210038	7021528935080	85444922

DIMENSIONAL DATA PART 1

SAP code	Basic construction	Diameter conductor [mm]	Nominal thickness insulation [mm]	Nominal diameter over insulation [mm]	Nominal thickness inner sheath [mm]	Nominal diameter over inner sheath [mm]	Tolerance diameter inner sheath [±mm]
20110624	1P 0.75mm²	1.1	0.6	2.6	1.1	8	0.5
20110623	1P 0.75mm²	1.1	0.6	2.6	1.1	8	0.5
20222969	1P 1.5mm² Cl5	1.55	0.7	3.6	1.1	9.5	0.5
20110639	1P 1.5mm²	1.55	0.7	3.2	1.1	9.5	0.5
20110638	1P 1.5mm²	1.55	0.7	3.2	1.1	9.5	0.5
20110867	1P 2.5mm²	1.9	0.7	3.6	1.1	9.5	0.5
20110650	1P 2.5mm²	1.9	0.7	3.6	1.1	9.5	0.5
20110635	1T 0.75mm²	1.1	0.6	2.6	1.1	8.5	0.5
20110634	1T 0.75mm²	1.1	0.6	2.6	1.1	8.5	0.5
20110648	1T 1.5mm²	1.55	0.7	3.2	1.1	10	0.8
20110647	1T 1.5mm²	1.55	0.7	3.2	1.1	10	0.8
20110869	1T 2.5mm²	1.9	0.7	3.6	1.1	10	0.8
20311221	1Q 0.75mm²	1.1	0.6	2.6	1.1	9	0.5
20110625	1Q 0.75mm²	1.1	0.6	2.6	1.1	9	0.5
20104969	2P 0.75mm²	1.1	0.6	2.6	1.1	11.5	0.8
20110626	2P 0.75mm²	1.1	0.6	2.6	1.1	11.5	0.8
20111213	2P 1.5mm²	1.55	0.7	3.2	1.1	14	0.8
20110640	2P 1.5mm²	1.55	0.7	3.2	1.1	14	0.8
20292819	2T 1.5mm²	1.55	0.7	3.2	1.1	15	0.8
20203978	2P 2.5mm²	1.9	0.7	3.6	1.1	14	0.8
20142038	2P 2.5mm²	1.9	0.7	3.6	1.1	14	0.8
20110864	2T 0.75mm²	1.1	0.6	2.6	1.1	13	0.8
20110636	2T 0.75mm²	1.1	0.6	2.6	1.1	13	0.8
20110866	2T 1.5mm²	1.55	0.7	3.2	1.1	15	0.8
20195593	2T 2.5mm²	1.9	0.7	3.6	1.1	15.5	0.8
20110628	4P 0.75mm²	1.1	0.6	2.6	1.1	12.5	0.8
20110627	4P 0.75mm²	1.1	0.6	2.6	1.1	12.5	0.8
20110642	4P 1.5mm²	1.55	0.7	3.2	1.1	15	0.8
20110641	4P 1.5mm²	1.55	0.7	3.2	1.1	15	0.8
20110868	4P 2.5mm²	1.9	0.7	3.6	1.1	16.5	0.8

DIMENSIONAL DATA PART 1

SAP code	Basic construction	Diameter conductor [mm]	Nominal thickness insulation [mm]	Nominal diameter over insulation [mm]	Nominal thickness inner sheath [mm]	Nominal diameter over inner sheath [mm]	Tolerance diameter inner sheath [±mm]
20384535	5P 0.75mm²	1.1	0.6	2.6	1.1	13.5	0.8
20293408	5P 1.5mm²	1.55	0.7	3.2	1.1	16.5	0.8
20110865	4T 0.75mm²	1.1	0.6	2.6	1.1	14	0.8
20111212	4T 0.75mm²	1.1	0.6	2.6	1.1	14	0.8
20372943	6P 0,75mm²	1.1	0.6	2.6	1.1	15	0.8
20372941	6P 0,75mm²	1.1	0.6	2.6	1.1	15	0.8
20117428	4T 1.5mm²	1.55	0.7	3.2	1.1	16.5	0.8
20109501	4T 1.5mm²	1.55	0.7	3.2	1.1	16.5	0.8
20165927	6P 1.5mm²	1.55	0.7	3.2	1.1	18.5	0.8
20195594	4T 2.5mm²	1.9	0.7	3.6	1.1	18.5	0.8
20372942	6P 2,5mm²	1.9	0.7	3.6	1.1	20	1
20110773	8P 0.75mm²	1.1	0.6	2.6	1.1	17	0.8
20109496	8P 0.75mm²	1.1	0.6	2.6	1.1	17	0.8
20110644	8P 1.5mm²	1.55	0.7	3.2	1.1	20.5	1
20110643	8P 1.5mm²	1.55	0.7	3.2	1.1	20.5	1
20195592	8P 2.5mm²	1.9	0.7	3.6	1.1	22.5	1
20161616	8P 2.5mm²	1.9	0.7	3.6	1.1	22.5	1
20372945	6T 0,75mm²	1.1	0.6	2.6	1.1	16.5	0.8
20372944	6T 0,75mm²	1.1	0.6	2.6	1.1	16.5	0.8
20372946	6T 1,5mm²	1.55	0.7	3.2	1.1	20	1
20372947	6T 1,5mm²	1.55	0.7	3.2	1.1	20	1
20440418	10P 0.75mm²	1.1	0.6	2.6	1.1	19	0.8
20112240	8T 0.75mm²	1.1	0.6	2.6	1.1	18.5	0.8
20110637	8T 0.75mm²	1.1	0.6	2.6	1.1	18.5	0.8
20110630	12P 0.75mm²	1.1	0.6	2.6	1.1	19.5	0.8
20110629	12P 0.75mm²	1.1	0.6	2.6	1.1	19.5	0.8
20117424	8T 1.5mm²	1.55	0.7	3.2	1.1	22.5	1
20110649	8T 1.5mm²	1.55	0.7	3.2	1.1	22.5	1
20110646	12P 1.5mm²	1.55	0.7	3.2	1.1	24.5	1
20110645	12P 1.5mm²	1.55	0.7	3.2	1.1	24.5	1

DIMENSIONAL DATA PART 1

SAP code	Basic construction	Diameter conductor [mm]	Nominal thickness insulation [mm]	Nominal diameter over insulation [mm]	Nominal thickness inner sheath [mm]	Nominal diameter over inner sheath [mm]	Tolerance diameter inner sheath [±mm]
20152769	8T 2.5mm²	1.9	0.7	3.6	1.3	25	1
20139737	12P 2.5mm²	1.9	0.7	3.6	1.5	27.5	1
20110632	16P 0.75mm²	1.1	0.6	2.6	1.5	23	1
20110631	16P 0.75mm²	1.1	0.6	2.6	1.5	23	1
20109498	16P 1.5mm²	1.55	0.7	3.2	1.5	28	1
20109497	16P 1.5mm²	1.55	0.7	3.2	1.5	28	1
20109504	16P 2.5mm²	1.9	0.9	4	1.5	35	1.5
20170930	12T 0.75mm²	1.1	0.6	2.6	1.1	22	1
20110878	12T 0.75mm²	1.1	0.6	2.6	1.1	22	1
20170933	12T 1.5mm²	1.55	0.7	3.2	1.1	27	1
20109502	12T 1.5mm²	1.55	0.7	3.2	1.1	27	1
20170932	16T 0.75mm²	1.1	0.6	2.6	1.5	25.5	1
20110774	16T 0.75mm²	1.1	0.6	2.6	1.5	25.5	1
20166157	24P 0.75mm²	1.1	0.6	2.6	1.5	27.5	1
20110633	24P 0.75mm²	1.1	0.6	2.6	1.5	27.5	1
20210037	24T 0.75mm²	1.1	0.6	2.6	1.5	31	1.5
20170929	16T 1.5mm²	1.55	0.9	3.2	1.5	34	1.5
20109503	16T 1.5mm²	1.55	0.9	3.6	1.5	34	1.5
20109499	24P 1.5mm²	1.55	0.7	3.2	1.5	34.5	1.5
20109500	24P 1.5mm²	1.55	0.7	3.2	1.5	34.5	1.5
20195595	16T 2.5mm²	1.9	0.9	4	1.5	38	1.5
20272644	32P 1.5mm²	1.55	0.7	3.2	1.5	38	1.5
20131938	24T 0,75mm²	1.1	0.6	2.6	1.5	31	1.5
20210039	24T 1,5mm²	1.55	0.9	3.6	1.5	42	2
20210038	24T 1,5mm²	1.55	0.9	3.6	1.5	42	2

Conductor diameter tolerances for our Class 2 conductors are within the Lower and Upper Limits listed in IEC 60092-350 Annex D and Table D.1

DIMENSIONAL DATA CONTINUES

SAP code	Basic construction	Diameter braid wire [mm]	Mechanical cross section reinforcement [mm²]	Nominal thickness outer sheath [mm]	Nominal outer diameter [mm]	Tolerance diameter outer sheath [±mm]	Cable weight [kg/km]	Copper weight [kg/km]
20110624	1P 0.75mm²	0.2	4.5	1.1	11	0.8	235	60
20110623	1P 0.75mm²	0.2	4.5	1.1	11	0.8	235	60
20222969	1P 1.5mm² Cl5	0.2	4.5	1.2	12.5	0.8	275	82
20110639	1P 1.5mm²	0.2	4.5	1.2	12.5	0.8	285	76
20110638	1P 1.5mm²	0.2	4.5	1.2	12.5	0.8	285	76
20110867	1P 2.5mm²	0.2	5.3	1.2	12.5	0.8	300	99
20110650	1P 2.5mm²	0.2	5.3	1.2	12.5	0.8	300	99
20110635	1T 0.75mm²	0.2	4.5	1.1	11.5	0.8	260	67
20110634	1T 0.75mm²	0.2	4.5	1.1	11.5	0.8	260	67
20110648	1T 1.5mm²	0.2	5.3	1.2	13	0.8	320	96
20110647	1T 1.5mm²	0.2	5.3	1.2	13	0.8	320	96
20110869	1T 2.5mm²	0.2	6	1.2	13	0.8	340	128
20311221	1Q 0.75mm²	0.2	4.5	1.2	12.5	0.8	290	73
20110625	1Q 0.75mm²	0.2	4.5	1.2	12.5	0.8	290	73
20104969	2P 0.75mm²	0.3	10.2	1.3	15	0.8	410	132
20110626	2P 0.75mm²	0.3	10.2	1.3	15	0.8	410	132
20111213	2P 1.5mm²	0.3	11.9	1.4	17.5	0.8	530	178
20110640	2P 1.5mm²	0.3	11.9	1.4	17.5	0.8	530	178
20292819	2T 1.5mm²	0.3	11.9	1.5	19	0.8	615	206
20203978	2P 2.5mm²	0.3	11.9	1.5	18	0.8	545	213
20142038	2P 2.5mm²	0.3	11.9	1.5	18	0.8	545	213
20110864	2T 0.75mm²	0.3	10.2	1.4	16.5	0.8	470	143
20110636	2T 0.75mm²	0.3	10.2	1.4	16.5	0.8	470	143
20110866	2T 1.5mm²	0.3	11.9	1.5	19	0.8	615	206
20195593	2T 2.5mm²	0.3	13.6	1.5	19.5	0.8	650	270
20110628	4P 0.75mm²	0.3	11.9	1.4	16	0.8	490	181
20110627	4P 0.75mm²	0.3	11.9	1.4	16	0.8	490	181
20110642	4P 1.5mm²	0.3	13.6	1.5	19	0.8	655	256
20110641	4P 1.5mm²	0.3	13.6	1.5	19	0.8	655	256
20110868	4P 2.5mm²	0.3	15.3	1.6	20.5	1	790	342

DIMENSIONAL DATA CONTINUES

SAP code	Basic construction	Diameter braid wire [mm]	Mechanical cross section reinforcement [mm²]	Nominal thickness outer sheath [mm]	Nominal outer diameter [mm]	Tolerance diameter outer sheath [±mm]	Cable weight [kg/km]	Copper weight [kg/km]
20384535	5P 0.75mm²	0.3	11.9	1.4	17.5	0.8	560	196
20293408	5P 1.5mm²	0.3	15.3	1.6	20.5	1	775	304
20110865	4T 0.75mm²	0.3	11.9	1.4	17.5	0.8	570	205
20111212	4T 0.75mm²	0.3	11.9	1.4	17.5	0.8	570	205
20372943	6P 0,75mm²	0.3	13.6	1.5	19	0.8	650	231
20372941	6P 0,75mm²	0.3	13.6	1.5	19	0.8	650	231
20117428	4T 1.5mm²	0.3	15.3	1.6	20.5	1	800	326
20109501	4T 1.5mm²	0.3	15.3	1.6	20.5	0.8	800	326
20165927	6P 1.5mm²	0.3	15.3	1.6	22.5	1	880	336
20195594	4T 2.5mm²	0.3	15.3	1.6	22.5	1	955	430
20372942	6P 2,5mm²	0.3	17.8	1.7	24	1	1,080	465
20110773	8P 0.75mm²	0.3	15.3	1.6	21	1	780	278
20109496	8P 0.75mm²	0.3	15.3	1.6	21	1	780	278
20110644	8P 1.5mm²	0.3	17.8	1.7	25	1	1,070	423
20110643	8P 1.5mm²	0.3	17.8	1.7	25	1	1,070	423
20195592	8P 2.5mm²	0.3	20.4	1.8	27	1	1,310	587
20161616	8P 2.5mm²	0.3	20.4	1.8	27	1	1,310	587
20372945	6T 0,75mm²	0.3	15.3	1.6	20.5	1	790	283
20372944	6T 0,75mm²	0.3	15.3	1.6	20.5	1	790	283
20372946	6T 1,5mm²	0.3	17.8	1.7	24	1	1,095	438
20372947	6T 1,5mm²	0.3	17.8	1.7	24	1	1,095	438
20440418	10P 0.75mm²	0.3	17.8	1.7	23.5	1	920	334
20112240	8T 0.75mm²	0.3	17.8	1.7	23	1	980	352
20110637	8T 0.75mm²	0.3	17.8	1.7	23	1	980	352
20110630	12P 0.75mm²	0.3	17.8	1.7	24	1	1,015	370
20110629	12P 0.75mm²	0.3	17.8	1.7	24	1	1,015	370
20117424	8T 1.5mm²	0.3	20.4	1.8	27	1	1,355	551
20110649	8T 1.5mm²	0.3	20.4	1.8	27	1	1,355	551
20110646	12P 1.5mm²	0.3	20.4	1.9	29	1	1,425	575
20110645	12P 1.5mm²	0.3	20.4	1.9	29	1	1,425	575

DIMENSIONAL DATA CONTINUES

SAP code	Basic construction	Diameter braid wire [mm]	Mechanical cross section reinforcement [mm²]	Nominal thickness outer sheath [mm]	Nominal outer diameter [mm]	Tolerance diameter outer sheath [±mm]	Cable weight [kg/km]	Copper weight [kg/km]
20152769	8T 2.5mm²	0.3	22.9	2	29.5	1	1,700	772
20139737	12P 2.5mm²	0.3	22.9	2	32.5	1.5	1,865	811
20110632	16P 0.75mm²	0.3	20.4	1.8	27	1	1,320	462
20110631	16P 0.75mm²	0.3	20.4	1.8	27	1	1,320	462
20109498	16P 1.5mm²	0.3	22.9	2	33	1.5	1,870	727
20109497	16P 1.5mm²	0.3	22.9	2	33	1.5	1,870	727
20109504	16P 2.5mm²	0.4	36.2	2.2	40	2	2,680	1,135
20170930	12T 0.75mm²	0.3	20.4	1.8	26.5	1	1,255	467
20110878	12T 0.75mm²	0.3	20.4	1.8	26.5	1	1,255	467
20170933	12T 1.5mm²	0.3	22.9	2	31.5	1.5	1,810	759
20109502	12T 1.5mm²	0.3	22.9	2	31.5	1.5	1,810	759
20170932	16T 0.75mm²	0.3	22.9	1.9	30	1.5	1,650	582
20110774	16T 0.75mm²	0.3	22.9	1.9	30	1.5	1,650	582
20166157	24P 0.75mm²	0.4	31.7	2.1	33	1.5	1,910	706
20110633	24P 0.75mm²	0.4	31.7	2.1	33	1.5	1,910	706
20210037	24T 0.75mm²	0.4	36.2	2.2	36.5	1.5	2,370	891
20170929	16T 1.5mm²	0.4	36.2	2.2	39.5	1.5	2,750	1,061
20109503	16T 1.5mm²	0.4	36.2	2.2	39.5	1.5	2,750	1,061
20109499	24P 1.5mm²	0.4	40.7	2.3	40	2	2,755	1,147
20109500	24P 1.5mm²	0.4	40.7	2.3	40	2	2,765	1,147
20195595	16T 2.5mm²	0.4	40.7	2.4	43.5	2	3,420	1,506
20272644	32P 1.5mm²	0.4	45.2	2.5	44	2	3,400	1,442
20131938	24T 0,75mm²	0.4	36.2	2.2	36.5	1.5	2,370	891
20210039	24T 1,5mm²	0.4	45.2	2.5	48	2	3,840	1,506
20210038	24T 1,5mm²	0.4	45.2	2.5	48	2	3,840	1,506

ELECTRICAL VALUES INSTRUMENTATION CABLES

SAP code	Basic construction	Conductor resistance at 20° C [Ohm/km]	Conductor resistance at operation temperature [Ohm/km]	Nominal operation capacitance [nF/km]	Operation self inductance [mH/km]	Loop resistance [Ohm]	L/R ratio [µH/Ohm]
20110624	1P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110623	1P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20222969	1P 1.5mm² Cl5	12.9	16.45	125	0.63	25.8	36.8
20110639	1P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110638	1P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110867	1P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20110650	1P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20110635	1T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110634	1T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110648	1T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110647	1T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110869	1T 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20311221	1Q 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110625	1Q 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20104969	2P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110626	2P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20111213	2P 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20110640	2P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20292819	2T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20203978	2P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20142038	2P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20110864	2T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110636	2T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110866	2T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20195593	2T 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20110628	4P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110627	4P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110642	4P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110641	4P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110868	4P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8

ELECTRICAL VALUES INSTRUMENTATION CABLES

SAP code	Basic construction	Conductor resistance at 20° C [Ohm/km]	Conductor resistance at operation temperature [Ohm/km]	Nominal operation capacitance [nF/km]	Operation self inductance [mH/km]	Loop resistance [Ohm]	L/R ratio [µH/Ohm]
20384535	5P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20293408	5P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110865	4T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20111212	4T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20372943	6P 0,75mm²	26.3	33.54	110	0.67	52.6	12.7
20372941	6P 0,75mm²	26.3	33.54	110	0.67	52.6	12.7
20117428	4T 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20109501	4T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20165927	6P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20195594	4T 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20372942	6P 2,5mm²	8.02	10.23	145	0.59	16.04	36.8
20110773	8P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20109496	8P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110644	8P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110643	8P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20195592	8P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20161616	8P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20372945	6T 0,75mm²	26.3	33.54	110	0.67	52.6	12.7
20372944	6T 0,75mm²	26.3	33.54	110	0.67	52.6	12.7
20372946	6T 1,5mm²	12.9	16.45	125	0.63	25.8	24.4
20372947	6T 1,5mm²	12.9	16.45	125	0.63	25.8	24.4
20440418	10P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20112240	8T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110637	8T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110630	12P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110629	12P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20117424	8T 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20110649	8T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110646	12P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20110645	12P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4

ELECTRICAL VALUES INSTRUMENTATION CABLES

SAP code	Basic construction	Conductor resistance at 20° C [Ohm/km]	Conductor resistance at operation temperature [Ohm/km]	Nominal operation capacitance [nF/km]	Operation self inductance [mH/km]	Loop resistance [Ohm]	L/R ratio [µH/Ohm]
20152769	8T 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20139737	12P 2.5mm²	8.02	10.23	145	0.59	16.04	36.8
20110632	16P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110631	16P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20109498	16P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20109497	16P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20109504	16P 2.5mm²	8.02	10.23	110	0.66	16.04	41.1
20170930	12T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110878	12T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20170933	12T 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20109502	12T 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20170932	16T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110774	16T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20166157	24P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20110633	24P 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20210037	24T 0.75mm²	26.3	33.54	110	0.67	52.6	12.7
20170929	16T 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20109503	16T 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20109499	24P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20109500	24P 1.5mm²	12.9	16.45	125	0.63	25.8	24.4
20195595	16T 2.5mm²	8.02	10.23	105	0.66	16.04	41.1
20272644	32P 1.5mm²	12.9	16.45	125	0.63	25.8	36.8
20131938	24T 0,75mm²	26.3	33.54	110	0.67	52.6	12.7
20210039	24T 1,5mm²	12.9	16.45	125	0.63	25.8	38.8
20210038	24T 1,5mm²	12.9	16.45	125	0.63	25.8	36.8

Maximum operating temperature = 90°C

BENDING RADII & PULLING RECOMMENDATIONS

Minimum Bending Radius During Installation / Minimum bøyeradius under installasjon	Minimum Bending Radius Fixed Installed / Minimum bøyeradius ferdig installert	Maximum Tensile Load During Installation / Maksimum trekkraft ved installasjon	Minimum Installation Temperature / Minimum installasjons temperature
8 x D	6 x D	50 N x total cross section (mm^2) of conductors / 50 N x totalt ledertverrsnitt (mm^2)	- 20 °C

D = cable overall diameter

Maximum Tensile Load during installation shall not in any case exceed 20000N