



Flame retardant halogen-free medium voltage (MV) power cable. Braided

TFOI 6/10(12) kV

XLPE/EPR/TCWB/PO

Operating temperature : 90°C
 Operating Voltage : 6/10(12) kV

Application

Armoured cable for fixed installation in ships where cable protection is required. Medium Voltage power distribution. Can be installed and operated both indoors and outdoors.

Standards applied

IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-351	- Insulation
IEC 60092-359	- Sheath
IEC 60332-1	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Annealed stranded circular copper, IEC 60228 class 2
Conductor screen semiconductive		Extruded semiconductive layer
Insulation	T	Crosslinked Polyethylene, IEC 60092-351 (HFXLPE)
Insulation screen semiconductive		Extruded semiconductive layer. A copper tape is applied as a metallic screen above the insulation screen. The thickness of the copper tape is 0,1 mm.
Lay up / Shielding		Cores are laid up together. Cores are identified by White, Black or Red threads under and over the metallic screen on each conductor.
Inner covering	F	Flame retardant and halogen-free thermoplastic compound
Tape over bedding		Additional tape may be applied
Armour/screen	O	Tinned copper wire braid
Tape over armour/screen		Additional tape may be applied
Outer sheath	I	Flame retardant halogen-free thermoplastic compound, SHF1
Marking text		E.g. "meter" "year" DRAKA NORSK KABEL TFOI 6/10(12)KV 3 x 95/50 mm2 IEC 60332-3-22 ShipLine
Outer sheath colour		Red



Range and dimensions

Number of elements	Cross section core, mm ²	Cross section screen, mm ²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Bedding, mm	Diameter bedding, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	35	10	6.8	3.4	1	18.5 ± 0.8	0.3	1.5	22.5 ± 1	940	519
1	50	10	8.0	3.4	1	19.5 ± 0.8	0.3	1.5	23.5 ± 1	1070	730
1	70	10	9.6	3.4	1	21 ± 1	0.3	1.6	25.5 ± 1	1320	833
1	95	10	11.2	3.4	1	22.5 ± 1	0.3	1.7	27 ± 1	1650	1094
1	120	10	12.75	3.4	1	24.5 ± 1	0.3	1.7	28.5 ± 1	1930	1342
1	185	16	15.8	3.4	1	28 ± 1	0.3	1.8	32.5 ± 1.5	2630	1819
3	25	16	5.9	3.4	1.5	36 ± 1.5	0.3	2.1	41.5 ± 2	2700	1118
3	35	16	6.8	3.4	1.2	38 ± 1.5	0.4	2.1	43.5 ± 2	2780	1500
3	50	25	8.0	3.4	1.6	41 ± 2	0.4	2.3	47 ± 2	4140	2163
3	70	35	9.6	3.4	1.7	45 ± 2	0.4	2.4	51 ± 2.5	4800	2501
3	95	50	11.2	3.4	1.8	48.5 ± 2	0.5	2.6	55.5 ± 2.5	6070	3390
3	240	120	18.1	3.4	2	63.5 ± 3	0.6	3.3	74 ± 3.5	12620	8333

Ordering information

Part number	Description	EAN No. DNK	EL No.	KDN Part number	EAN no. KDN
838501	TFOI 6/10(12)KV 1X 35/10mm ²	7021528385014	-	-	-
838502	TFOI 6/10(12)KV 1X 50/10mm ²	7021528385021	-	-	-
838503	TFOI 6/10(12)KV 1X 70/10mm ²	7021528385038	-	-	-
838504	TFOI 6/10(12)KV 1X 95/10mm ²	7021528385045	-	-	-
838505	TFOI 6/10(12)KV 1X 120/10mm ²	7021528385052	-	-	-
838507	TFOI 6/10(12)KV 1X 185/16mm ²	7021528385076	-	-	-
838521	TFOI 6/10(12)kV 3X 25/16mm ²	7021528385212	-	-	-
838522	TFOI 6/10(12)KV 3X 35/16mm ²	7021528385229	-	-	-
838523	TFOI 6/10(12)kV 3X 50/25mm ²	7021528385236	-	-	-
838524	TFOI 6/10(12)kV 3X 70/35mm ²	7021528385243	-	-	-
838525	TFOI 6/10(12)kV 3X 95/50mm ²	7021528385250	-	-	-
838529	TFOI 6/10(12)kV 3X 240/120mm ²	7021528385298	-	-	-

Electrical values power cables

Number of elements	Cross section core, mm ²	Cross section screen, mm ²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Capacitans per phase, nF/km	Current rating IEC 60092-352, Ampere	Short circuit rating 1 second, Ampere
1	35	10	SCC	0.524	0.668	-	-	215	145	4900
1	50	10	SCC	0.387	0.493	-	-	231	180	7000
1	70	10	SCC	0.268	0.342	0.113	0.136	317	320	16800
1	95	10	SCC	0.193	0.246	0.113	0.136	317	320	16800
1	120	10	SCC	0.153	0.195	0.113	0.136	317	320	16800
1	185	16	SCC	0.0991	0.1264	0.113	0.136	317	320	16800
3	25	16	SCC	0.727	0.927	0.118	0.142	215	100	4900
3	35	16	SCC	0.524	0.668	0.118	0.142	215	100	4900
3	50	25	SCC	0.387	0.493	0.118	0.142	215	100	4900
3	70	35	SCC	0.268	0.342	0.106	0.128	266	160	9800
3	95	50	SCC	0.193	0.246	0.118	0.142	215	100	4900
3	240	120	SCC	0.0754	0.0961	0.118	0.142	215	100	4900

Ambient temperature correction factors

Ambient Temp °C	25	30	35	40	45	50	55	60	65	70	75
Rating factor	1.22	1.17	1.12	1.06	1.00	0.94	0.87	0.79	0.71	0.61	0.50

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
15 x D	9 x D	50 N /mm ²	-10°C