



3.6/6KV Single Core Dual Wall Traction Cables

Applications

Single core power and control cable designed for protected, fixed installation inside and outside railway vehicles for connecting fixed and moving parts in direct current and alternating voltage technology, especially converter technology.



Standard

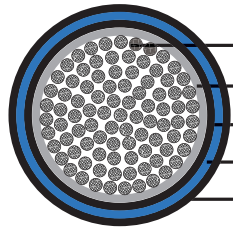
- BS 6853 -1a
- DIN 5510-1 1-4
- NFF 16-101 F0

Construction

- Conductors: Circular Class 5 stranded plain or tinned copper to BS EN 60228: 2005 / BS 6360.

- Insulation1: Electron beam crosslinkable thin wall LSZH compound.

- Insulation2: Electron beam crosslinkable thin wall LSZH compound.
- Screen(optional): Copper wire screen (for screened and sheathed cables).
- Outer Sheath(optional): Electron beam crosslinkable LSZH compound. (for screened and sheathed cables).



- Stranded Plain/Tinned Copper Conductor
- Electron Beam Crosslinkable LSZH Insulation
- Electron Beam Crosslinkable LSZH Insulation
- Optional Copper Wire Screen
- Optional Electron Beam Crosslinkable LSZH Sheath

Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm ²	1.5	2.5	4.0	6.0	10	16	25	35	50
Maximum Conductor Resistance	Ω/km	13.7	8.21	5.09	3.39	1.95	1.24	0.795	0.565	0.393
Voltage Rating	KV	3.6/6								

Nominal Conductor Cross Section	mm ²	70	95	120	150	185	240	300	400
Maximum Conductor Resistance	Ω/km	0.277	0.21	0.164	0.132	0.108	0.0817	0.0654	0.0495
Voltage Rating	KV	3.6/6							

Mechanical and Thermal Properties

- Minimum Bending Radius: 3×OD (OD<12mm); 4×OD (OD>12mm)
- Temperature Range: -40°C to +120°C

➤ **Dimensions and Weight**

FRA-DW-6SU (Usheathed)

Cable Code	No. of cores & Nominal Conductor Cross Sectional Area No. x mm ²	Nominal Diameter of Strands No./mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
FRA-DW-6SU-1G1.5	1x1.5	30/0.25	1.4	4.4	20
FRA-DW-6SU-1G2.5	1x2.5	50/0.25	1.5	4.9	50
FRA-DW-6SU-1G4	1x4.0	56/0.30	1.6	5.7	60
FRA-DW-6SU-1G6	1x6.0	84/0.30	1.7	6.3	90
FRA-DW-6SU-1G10	1x10.0	80/0.40	1.8	7.5	140
FRA-DW-6SU-1G16	1x16.0	126/0.40	2.1	9.4	210
FRA-DW-6SU-1G25	1x25.0	196/0.40	2.2	10.9	300
FRA-DW-6SU-1G35	1x35.0	276/0.40	2.4	12.5	410
FRA-DW-6SU-1G50	1x50.0	396/0.40	2.6	14.5	580
FRA-DW-6SU-1G70	1x70.0	360/0.50	2.6	16.5	770
FRA-DW-6SU-1G95	1x95.0	475/0.50	2.8	18.3	1000
FRA-DW-6SU-1G120	1x120.0	608/0.50	2.9	20.6	1260
FRA-DW-6SU-1G150	1x150.0	756/0.50	3.1	22.9	1610
FRA-DW-6SU-1G185	1x185.0	925/0.50	3.3	24.8	1920
FRA-DW-6SU-1G240	1x240.0	1221/0.50	3.4	27.8	2470
FRA-DW-6SU-1G300	1x300.0	1525/0.50	3.6	30.8	3000
FRA-DW-6SU-1G400	1x400.0	2013/0.50	3.7	36.5	4220

FRA-DW-6S-OS (Screened & Sheathed)

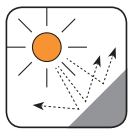
Cable Code	No. of cores & Nominal Conductor Cross Sectional Area No. x mm ²	Nominal Diameter of Strands No./mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
FRA-DW-6S-OS-1G1.5	1x1.5	30/0.25	1.4	6.6	72
FRA-DW-6S-OS-1G2.5	1x2.5	50/0.25	1.5	7.2	89
FRA-DW-6S-OS-1G4	1x4.0	56/0.30	1.6	8.2	120
FRA-DW-6S-OS-1G6	1x6.0	84/0.30	1.7	9.1	150
FRA-DW-6S-OS-1G10	1x10.0	80/0.40	1.8	10.4	220
FRA-DW-6S-OS-1G16	1x16.0	126/0.40	2.1	12.4	330
FRA-DW-6S-OS-1G25	1x25.0	196/0.40	2.2	14.3	390
FRA-DW-6S-OS-1G35	1x35.0	276/0.40	2.4	15.7	550
FRA-DW-6S-OS-1G50	1x50.0	396/0.40	2.6	17.7	740
FRA-DW-6S-OS-1G70	1x70.0	360/0.50	2.6	20.1	970
FRA-DW-6S-OS-1G95	1x95.0	475/0.50	2.8	22.0	1240
FRA-DW-6S-OS-1G120	1x120.0	608/0.50	2.9	24.7	1510
FRA-DW-6S-OS-1G150	1x150.0	756/0.50	3.1	27.1	1900
FRA-DW-6S-OS-1G185	1x185.0	925/0.50	3.3	29.1	2220
FRA-DW-6S-OS-1G240	1x240.0	1221/0.50	3.4	32.3	2830
FRA-DW-6S-OS-1G300	1x300.0	1525/0.50	3.6	35.6	3520



Impact Resistant



Highly Flexible



UV Resistant



Weather Resistant



Oil Resistant



Flame Retardant
NF C32-070-2.1(C2)
IEC 60332-1/EN 50265-2-1



Fire Retardant
NF C32-070-2.2(C1)
IEC 60332-3/EN 50266



Zero Halogen
IEC 60754-1/NF C20-454
EN 50267-2-1



Low Smoke Emission
IEC 61034/NFC20-902
EN 50268/NF C32-073



Low Corrosivity
EN 50267-2-2/NF C32-074
IEC 60754-2/NF C20-453



Low Toxicity