

RHEYFIRM®(RS)-FLAT (N)TSFLCGCWOEUS

Reeling Flat Cables with/without integrated Optical Fibers

3.6/6 (7.2) kV

6/10 (12) kV

8.7/15 (18) kV

In line with DIN VDE 0250 part 813

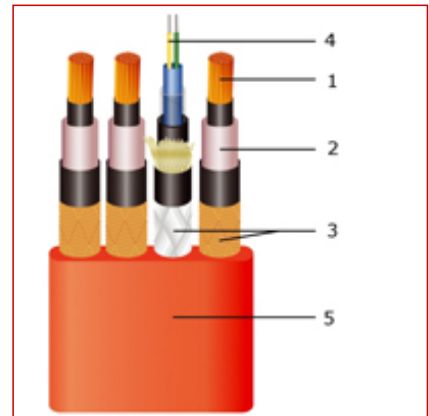
Description

Applications

Flexible flat reeling cable for data transmission and energy supply. Especially for high and extreme mechanical stress, used in Ship To Shore cranes (STS), Rail Mounted Gantry cranes (RMG) and other heavy mobile equipment.

Design

1. **Conductor**
Flexible stranded plain copper acc. to DIN EN/IEC 60228 class 5
2. **Insulation**
 - Inner semi-conductive layer
 - New special elastomeric insulation compound "RHEYCLEAN" based on EPDM, better than DIN VDE 207 part 20
 - Outer semi-conducting layer "RHEYSTRIP", easy strip (Thermostrip)
3. **Protective earth conductor**
Individually concentric mixed braid of tinned copper wires and high-tech polyamid yarn
4. **Optical Fiber**
nxE9/125 µm, nxG50/125 µm, nxG62.5/125 µm or combination of them
5. **Outer sheath**
Heavy duty chlorinated rubber compound 5GM5 acc. DIN VDE 0207 part 21



Standards

International Nexans specification

National DIN VDE 0250 part 813;
DIN VDE 0295; DIN VDE 0298;
DIN VDE 0472

Marking

e.g.:

RHEYFIRM(RS)-FLAT (N)TSFLCGCWOEUS 3x35/35+18G50/125

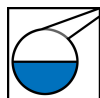
6/10 kV | NEXANS | year



Cable flexibility
Flexible



Mechanical resistance to impacts
Excellent



Chemical resistance
Oil resistant



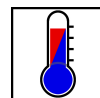
Flame retardant
IEC 60332-1-2



U.V resistance
Yes



Weather resistance
Good



Operating temperature, range
-35 .. 80 °C

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Characteristics

Construction characteristics	
Insulation	Special cross-linked elastomer
Conductor material	Plain copper
Mechanical characteristics	
Cable flexibility	Flexible
Mechanical resistance to impacts	Excellent
Usage characteristics	
Chemical resistance	Oil resistant
Flame retardant	IEC 60332-1-2
Moisture resistance	Yes
Ozone resistance	Yes
U.V resistance	Yes
Weather resistance	Good
Max. conductor temperature in service	90 °C
Short-circuit max. conductor temperature	250 °C
Operating temperature, range	-35 .. 80 °C

Mechanical properties

Height (H) of the flexible flat cable [mm]	
Bending radii acc. DIN VDE 0298-3	over 20
- fixed installation	4 x H
- free movement	5 x H
- reeling application	6 x H
Tensile stress of the conductor	static / dynamic 15 N/mm ² / 30 N/mm ²
Tests	bending test
Reeling speed	on request

Electrical properties

Nominal voltage	U ₀ /U	3.6/6 kV to 8.7/15 kV
Max. operating voltage in AC systems	U _m	1.2 x U
Max. operating voltage in DC systems	V _m	1.8 x U
Test voltage (acc. DIN VDE 0250 part 813)		11 to 24 kV in AC 27.5 to 60 kV in DC
Current-carrying capacity		acc. DIN VDE 0298-4 see PDF-File "Current-carrying capacities / Strombelastbarkeit"
Max. conductor resistance		acc. DIN EN / IEC 60228 class 5 see PDF-File "Conductors / Leiter"

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Product List

☎=Make to order, 📦=Make to stock

Part Number	Construction type	Rated Voltage U _o /U (Um)	Outer dimensions, min.	Outer dimensions, max.	Approximate weight (kg/km)	Tensile strength (N)
☎ 79070402	4x35	3.6/6 kV	24 x 77 mm	25 x 79 mm	3800	2800
☎ 79070400	3x35/35+OFE6G62,5/125	3.6/6 kV	24 x 77 mm	25 x 79 mm	3600	2100
☎ 79070239	4x50	3.6/6 kV	26 x 83 mm	27 x 85 mm	4650	4000
☎ 79070238	3x50/50+OFE6G62,5/125	3.6/6 kV	26 x 83 mm	27 x 85 mm	4500	3000
☎ 79070242	3x50/50+OFE18G62,5/125	3.6/6 kV	26 x 83 mm	27 x 85 mm	4250	3000
☎ 79070401	4x35	6/10 kV	24 x 77 mm	25 x 79 mm	3750	2800
☎ 79070404	3x35/35+OFE12G62,5/125	6/10 kV	27 x 79 mm	28 x 81 mm	3600	2100
☎ 79070403	3x35/35+OFE12G62,5/125	8.7/15 kV	27 x 79 mm	28 x 81 mm	3750	2100

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Selling delivery information

Options

- Voltage level 0.6/1 (1.2) kV on request
- Other sheath qualities and colors on request
- Including signal cores, telecommunication cores
- Pre-assembled with sealing ends upon request