

Application

NSHTOEU (NSHTOEU-J) is a heavy-duty rubber reeling and trailing cable to DIN VDE 0250-814, rated 0.6/1 kV. The fine-wire class 5 copper conductors are insulated with EPR rubber, laid up around a central element and enclosed by a rubber inner sheath, an anti-torsion braid of textile (polyester) threads and a tough polychloroprene (PCP) outer sheath. It is designed for applications with very high mechanical stress that require frequent winding and unwinding with simultaneous tensile and torsional loading: cable reeling drums, cranes, hoists, conveying and lifting equipment, port and container cranes and other mobile machinery, indoors and outdoors. The cable is oil-, ozone-, weather- and abrasion-resistant.



CONSTRUCTION

Conductor	Fine-wire stranded tinned annealed copper, class 5 to IEC/EN 60228 (VDE 0295).
Insulation	EPR rubber, compound type 3GI3 (DIN VDE 0207-20).
Inner sheath	Rubber bedding over the laid-up cores.
Anti-torsion layer	Open braid of textile (polyester) threads for torsion resistance.
Outer sheath	Polychloroprene (PCP) rubber, compound type 5GM3 (DIN VDE 0207-21), round, black; oil-, ozone- and weather-resistant.
Core identification	3-5 cores colour-coded to VDE 0293-308 (HD 308 S2); from 7 cores black with white numbers; G types with green/yellow protective conductor in the outer layer.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	0.6/1 kV.
Test voltage	2.5 kV.
Standard	DIN VDE 0250-814.
Conductor standard	IEC/EN 60228 class 5.
Flame-retardant	IEC/EN 60332-1-2.
Oil resistance	IEC/EN 60811-404.
Max. conductor temperature	+90 °C.
Permitted outer cable temperature, fixed	-40 °C to +80 °C.
Permitted outer cable temperature, moved	-25 °C to +80 °C.
Min. bending radius, fixed	6 × outer diameter.
Min. bending radius, moved (reeling)	8 × outer diameter.
Reaction to fire (CPR)	Outside the scope of EN 50575 (flexible trailing / reeling cable).

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
3 × 1.5	13.3	13.1	236
4 × 1.5	13.3	13.9	274
5 × 1.5	13.3	14.8	316
7 × 1.5	13.3	17	440
12 × 1.5	13.3	20.5	606
16 × 1.5	13.3	22	696
18 × 1.5	13.3	23.4	750
24 × 1.5	13.3	26.6	1150
30 × 1.5	13.3	27.7	1325
3 × 2.5	7.98	14.5	305
4 × 2.5	7.98	16.3	350
5 × 2.5	7.98	17.4	465
7 × 2.5	7.98	19	576
12 × 2.5	7.98	23.1	850
18 × 2.5	7.98	26.8	1181
24 × 2.5	7.98	31.2	1550
30 × 2.5	7.98	32.6	1810
40 × 2.5	7.98	37.5	3110
50 × 2.5	7.98	44.8	3200
4 × 4	4.95	17.8	510
5 × 4	4.95	19.1	635
4 × 6	3.3	19.1	650
5 × 6	3.3	21.5	800
4 × 10	1.91	23.4	1010
5 × 10	1.91	25.6	1200
4 × 16	1.21	27.1	1300
5 × 16	1.21	29.3	1700
4 × 25	0.78	33.6	2000
4 × 35	0.554	36	2610
4 × 50	0.386	41.5	3500
4 × 70	0.272	46.3	4600
4 × 95	0.206	53.7	6100
4 × 120	0.161	58.9	7200

Outer diameters are the midpoint of the leading source's published min-max diameter band; weights are nominal manufacturer values of the leading reference source; conductor resistance is the maximum per IEC/EN 60228 class 5. All values are indicative and non-binding.