



TEBAOFLEX CABLE

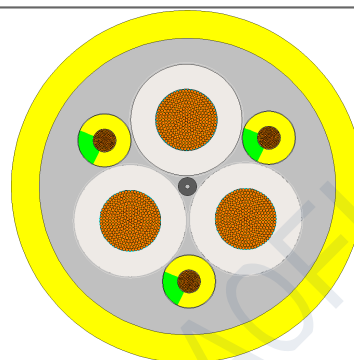
DATA SHEET

Mining&Industrial cable

(N)SHOEU

0.6/1 kV low voltage light and flexible rubber cable

Rubber-sheathed flexible cable for mining applications, conveyor belt areas, shiftable units, material handling equipment and tunneling sites under heavy mechanical stress.



APPLICATION

Suitable for indoor and outdoor use, including explosion-hazard areas, industry and agriculture. The cable is water resistant and suitable for connection of submersible pump units. In other respects, DIN VDE 0298 part 3 applies.

CONSTRUCTION

Component	Description
Conductor	Bare electrolytic copper, finely stranded class 5
Insulation	EPR-based special compound, better than 3GI3
Core identification	Light gray with black digits
Screen	For KON types, closed layer of copper wire spinning over core assembly
Inner sheath	EPR-based special compound
Outer sheath	Chlorinated rubber special compound, 5GM5, yellow

OPERATING CHARACTERISTICS

Property	Value
Rated voltage	0.6/1 kV (600/1000 V)
Max. permissible operating voltage AC	0.7/1.2 kV
Max. permissible operating voltage DC	0.9/1.8 kV
AC test voltage, main cores	3.5 kV, 5 min.
AC test voltage, control cores	2 kV
Conductor operating temperature	90 deg C
Short circuit conductor temperature	250 deg C
Water temperature	Max. 40 deg C
Fixed installation ambient temperature	-40 deg C to +90 deg C
Fully flexible operation ambient temperature	-25 deg C to +90 deg C
Max. tensile load on conductor	15 N/mm ²
Torsional stress	+/- 100 deg/m
Bending radii	According to DIN VDE 0298 part 3
Travel speed	Max. 60 m/min on rewinding with drum car

STANDARDS

Item	Standard
Construction	Based on DIN VDE 0250 part 812
Fire performance	IEC 60332-1-2
Oil resistance	IEC 60811-404
Water resistance	EN 50525-2-21

DIMENSIONS AND MECHANICAL DATA

TABLE 1

Type	Size	Conductor dia. max. (mm)	OD min. (mm)	OD max. (mm)	Weight (kg/km)	Tensile force max. (N)
(N)SHOEU-O single core	1x16	5.2	9.5	11.1	230	240
(N)SHOEU-O single core	1x25	6.4	11	12.6	335	375
(N)SHOEU-O single core	1x35	7.5	12.3	13.9	435	525
(N)SHOEU-O single core	1x50	9	14.5	16.5	615	750
(N)SHOEU-O single core	1x70	11.1	16.4	18.4	830	1050
(N)SHOEU-O single core	1x95	12.8	18.5	20.5	1060	1425
(N)SHOEU-O single core	1x120	14.5	20.4	22.4	1300	1800
(N)SHOEU-O single core	1x150	16.5	22.8	24.8	1600	2250
(N)SHOEU-O single core	1x185	17.9	24.7	27.7	2020	2775
(N)SHOEU-O single core	1x240	21.2	27.6	30.6	2548	3600
(N)SHOEU-O single core	1x300	23.6	31.6	34.6	3200	4500
(N)SHOEU-O 2 cores	2x1.5	1.6	9.8	11.4	150	45
(N)SHOEU-O 2 cores	2x2.5	2	10.7	12.3	185	75
(N)SHOEU-O 2 cores	2x4	2.4	11.9	13.5	220	120
(N)SHOEU-O 3 cores	3x2.5	2	11.1	12.7	210	113
(N)SHOEU-O 3 cores	3x4	2.4	12.1	13.7	271	180
(N)SHOEU-O 3 cores	3x6	2.9	13.2	14.8	350	270
(N)SHOEU-O 3 cores	3x10	3.9	16.1	18.1	505	450
(N)SHOEU-O 3 cores	3x16	5.2	19	21	775	720
(N)SHOEU-O 3 cores	3x25	6.4	22.9	24.9	1160	1125
(N)SHOEU-O 3 cores	3x35	7.5	24.9	27.9	1550	1575
(N)SHOEU-O 3 cores	3x50	9	29.4	32.4	2180	2250
(N)SHOEU-O 3 cores	3x70	11.1	34.8	37.8	3020	3150

DIMENSIONS AND MECHANICAL DATA

TABLE 2

Type	Size	Conductor dia. max. (mm)	OD min. (mm)	OD max. (mm)	Weight (kg/km)	Tensile force max. (N)
(N)SHOEU-O 3 cores	3x95	12.8	40.9	43.9	3810	4275
(N)SHOEU-O 3 cores	3x120	14.4	44.7	47.7	4970	5400
(N)SHOEU-O 3 cores	3x150	16.1	50	54	6290	6750
(N)SHOEU-O 3 cores	3x185	17.9	54.6	58.6	7470	8325
(N)SHOEU-J 3 cores	3x1.5	1.6	10.2	11.8	170	68
(N)SHOEU-J 3 cores	3x2.5	2	11.1	12.7	220	113
(N)SHOEU-J 3 cores	3x4	2.4	12.1	13.7	290	180
(N)SHOEU-J 3 cores	3x6	2.9	13.2	14.8	360	270
(N)SHOEU-J 4 cores	4x1.5	1.6	11	12.6	204	90
(N)SHOEU-J 4 cores	4x2.5	2	12	13.6	270	150
(N)SHOEU-J 4 cores	4x4	2.4	13	14.6	338	240
(N)SHOEU-J 4 cores	4x6	2.9	14.9	16.9	450	360
(N)SHOEU-J 4 cores	4x10	3.9	17.4	19.4	690	600
(N)SHOEU-J 4 cores	4x16	5.2	21	23	980	960
(N)SHOEU-J 4 cores	4x25	6.4	24.5	27.5	1490	1500
(N)SHOEU-J 4 cores	4x35	7.5	28.4	31.4	1870	2100
(N)SHOEU-J 4 cores	4x50	9	33.6	36.6	2570	3000
(N)SHOEU-J 4 cores	4x70	10.6	39.5	42.5	3920	4200
(N)SHOEU-J 4 cores	4x95	12.8	44.8	47.8	5040	5700
(N)SHOEU-J 4 cores	4x120	14.4	49.8	53.8	6200	7200
(N)SHOEU-J 4 cores	4x150	16.1	54.9	58.9	7578	9000
(N)SHOEU-J earth cores	3x50+3x25/3	9	29.4	32.4	2350	2250
(N)SHOEU-J earth cores	3x70+3x35/3	10.6	35.1	38.1	3220	3150

DIMENSIONS AND MECHANICAL DATA

TABLE 3

Type	Size	Conductor dia. max. (mm)	OD min. (mm)	OD max. (mm)	Weight (kg/km)	Tensile force max. (N)
(N)SHOEU-J earth cores	3x95/50	12.1	44.8	47.8	4400	4275
(N)SHOEU-J earth cores	3x95+3x50/3	12.8	40.7	43.7	4300	4275
(N)SHOEU-J earth cores	3x120+3x70/3	14.4	44.5	47.5	5370	5400
(N)SHOEU-J earth cores	3x150+3x70/3	16.5	51.6	55.6	6950	6750
(N)SHOEU-J earth cores	3x185+3x95/3	17.9	54.5	58.5	8150	8325
(N)SHOEU-J earth cores	3x240+3x120/3	20.6	62.2	66.2	10700	10800
(N)SHOEU-J earth cores	3x300+3x150/3	23.4	70.3	74.3	13300	13500
(N)SHOEU-J 5 cores	5x1.5	1.6	11.9	13.5	240	113
(N)SHOEU-J 5 cores	5x2.5	2	12.9	14.5	310	188
(N)SHOEU-J 5 cores	5x4	2.4	14.7	16.7	420	300
(N)SHOEU-J 5 cores	5x6	2.9	16.1	18.1	530	450
(N)SHOEU-J 5 cores	5x10	3.9	19	21	795	750
(N)SHOEU-J 5 cores	5x16	5.2	22.8	24.8	1180	1200
(N)SHOEU-J 5 cores	5x25	6.4	28	31	1880	1875
(N)SHOEU-J 5 cores	5x35	7.5	34.5	37.5	2650	2625
(N)SHOEU-O control	12x4	2.4	20.8	22.8	870	720
(N)SHOEU-O control	12x6	2.9	23.4	26.4	1150	1080
(N)SHOEU-J control	7x1.5	1.6	12.9	14.5	300	158
(N)SHOEU-J control	8x1.5	1.6	13.8	15.4	325	180
(N)SHOEU-J control	10x1.5	1.6	15.5	17.5	400	225
(N)SHOEU-J control	12x1.5	1.6	15.8	17.8	500	270
(N)SHOEU-J control	14x1.5	1.6	16.8	18.8	495	315
(N)SHOEU-J control	18x1.5	1.6	18.5	20.5	610	405

DIMENSIONS AND MECHANICAL DATA

TABLE 4

Type	Size	Conductor dia. max. (mm)	OD min. (mm)	OD max. (mm)	Weight (kg/km)	Tensile force max. (N)
(N)SHOEU-J control	19x1.5	1.6	18.9	20.9	650	428
(N)SHOEU-J control	24x1.5	1.6	20	22	800	540
(N)SHOEU-J control	7x2.5	2	14.9	16.9	450	263
(N)SHOEU-J control	8x2.5	2	15.8	17.8	480	300
(N)SHOEU-J control	10x2.5	2	16.4	18.4	500	375
(N)SHOEU-J control	12x2.5	2	18	20	600	450
(N)SHOEU-J control	15x2.5	2	20.7	22.7	780	563
(N)SHOEU-J control	18x2.5	2	21.2	23.2	850	675
(N)SHOEU-J control	19x2.5	2	22.3	24.3	900	713
(N)SHOEU-J control	24x2.5	2	22.8	24.8	1070	900
(N)SHOEU-J control	37x2.5	2	29	31	1600	1388
(N)SHOEU-J KON control	3x0.75/0.75KON	1.1	6.6	7.6	96	34
(N)SHOEU-J KON control	18x1.5/1.5KON	1.6	22	24	720	405
(N)SHOEU-J KON control	4x1.5/1.5KON	1.6	13	14.6	280	90
(N)SHOEU-J KON control	7x1.5/4KON	1.6	15.5	17.5	360	158
(N)SHOEU-J KON control	9x1.5/4KON	1.6	17.5	19.5	430	203
(N)SHOEU-J KON control	12x1.5/4KON	1.6	18	20	517	270
(N)SHOEU-J KON control	15x1.5/4KON	1.6	21	23	600	338
(N)SHOEU-J KON control	19x1.5/4KON	1.6	22	24	700	428
(N)SHOEU-J KON control	7x2.5/2.5KON	2	14	15.6	418	263
(N)SHOEU-J KON control	12x2.5/2.5KON	2	16	18	630	450

ELECTRICAL DATA

TABLE 1

Type	Size	Resistance at 20 deg C max. (Ohm/km)	Capacitance (uF/km)	Inductance (mH/km)	Current capacity (A)	Short circuit (kA)
(N)SHOEU-O single core	1x16	1.21	0.44	0.26	99	2.29
(N)SHOEU-O single core	1x25	0.78	0.45	0.26	131	3.58
(N)SHOEU-O single core	1x35	0.554	0.52	0.25	162	5.01
(N)SHOEU-O single core	1x50	0.386	0.54	0.25	202	7.15
(N)SHOEU-O single core	1x70	0.272	0.61	0.24	250	10.01
(N)SHOEU-O single core	1x95	0.206	0.64	0.24	301	13.59
(N)SHOEU-O single core	1x120	0.161	0.72	0.23	352	17.16
(N)SHOEU-O single core	1x150	0.129	0.72	0.23	404	21.45
(N)SHOEU-O single core	1x185	0.106	0.71	0.23	461	26.46
(N)SHOEU-O single core	1x240	0.08	0.76	0.23	540	34.32
(N)SHOEU-O single core	1x300	0.0641	0.78	0.23	620	42.9
(N)SHOEU-O 2 cores	2x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-O 2 cores	2x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-O 2 cores	2x4	4.95	0.27	0.3	41	0.57
(N)SHOEU-O 3 cores	3x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-O 3 cores	3x4	4.95	0.27	0.3	41	0.57
(N)SHOEU-O 3 cores	3x6	3.3	0.32	0.29	53	0.86
(N)SHOEU-O 3 cores	3x10	1.91	0.34	0.28	74	1.43
(N)SHOEU-O 3 cores	3x16	1.21	0.44	0.26	99	2.29
(N)SHOEU-O 3 cores	3x25	0.78	0.45	0.26	131	3.58
(N)SHOEU-O 3 cores	3x35	0.554	0.52	0.25	162	5.01
(N)SHOEU-O 3 cores	3x50	0.386	0.54	0.25	202	7.15
(N)SHOEU-O 3 cores	3x70	0.272	0.61	0.24	250	10.01

ELECTRICAL DATA

TABLE 2

Type	Size	Resistance at 20 deg C max. (Ohm/km)	Capacitance (uF/km)	Inductance (mH/km)	Current capacity (A)	Short circuit (kA)
(N)SHOEU-O 3 cores	3x95	0.206	0.64	0.24	301	13.59
(N)SHOEU-O 3 cores	3x120	0.161	0.72	0.23	352	17.16
(N)SHOEU-O 3 cores	3x150	0.129	0.72	0.23	404	21.45
(N)SHOEU-O 3 cores	3x185	0.106	0.95	0.22	461	26.46
(N)SHOEU-J 3 cores	3x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J 3 cores	3x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J 3 cores	3x4	4.95	0.27	0.31	41	0.57
(N)SHOEU-J 3 cores	3x6	3.3	0.32	0.29	53	0.86
(N)SHOEU-J 4 cores	4x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J 4 cores	4x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J 4 cores	4x4	4.95	0.27	0.3	41	0.57
(N)SHOEU-J 4 cores	4x6	3.3	0.32	0.29	53	0.86
(N)SHOEU-J 4 cores	4x10	1.91	0.34	0.28	74	1.43
(N)SHOEU-J 4 cores	4x16	1.21	0.44	0.26	99	2.29
(N)SHOEU-J 4 cores	4x25	0.78	0.45	0.26	131	3.58
(N)SHOEU-J 4 cores	4x35	0.554	0.52	0.25	162	5.01
(N)SHOEU-J 4 cores	4x50	0.386	0.54	0.25	202	7.15
(N)SHOEU-J 4 cores	4x70	0.272	0.61	0.24	250	10.01
(N)SHOEU-J 4 cores	4x95	0.206	0.64	0.24	301	13.59
(N)SHOEU-J 4 cores	4x120	0.161	0.72	0.23	352	17.16
(N)SHOEU-J 4 cores	4x150	0.129	0.72	0.23	404	21.45
(N)SHOEU-J earth cores	3x50+3x25/3	0.386	0.54	0.25	202	7.15
(N)SHOEU-J earth cores	3x70+3x35/3	0.272	0.61	0.24	250	10.01

ELECTRICAL DATA

TABLE 3

Type	Size	Resistance at 20 deg C max. (Ohm/km)	Capacitance (uF/km)	Inductance (mH/km)	Current capacity (A)	Short circuit (kA)
(N)SHOEU-J earth cores	3x95/50	0.206	0.6	0.24	301	13.59
(N)SHOEU-J earth cores	3x95+3x50/3	0.206	0.64	0.24	301	13.59
(N)SHOEU-J earth cores	3x120+3x70/3	0.161	0.72	0.23	352	17.16
(N)SHOEU-J earth cores	3x150+3x70/3	0.129	0.72	0.23	404	21.45
(N)SHOEU-J earth cores	3x185+3x95/3	0.106	0.71	0.23	461	26.46
(N)SHOEU-J earth cores	3x240+3x120/3	0.08	0.76	0.23	540	34.32
(N)SHOEU-J earth cores	3x300+3x150/3	0.064	0.78	0.23	620	42.9
(N)SHOEU-J 5 cores	5x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J 5 cores	5x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J 5 cores	5x4	4.95	0.27	0.3	41	0.57
(N)SHOEU-J 5 cores	5x6	3.3	0.32	0.29	53	0.86
(N)SHOEU-J 5 cores	5x10	1.91	0.34	0.28	74	1.43
(N)SHOEU-J 5 cores	5x16	1.21	0.44	0.26	99	2.29
(N)SHOEU-J 5 cores	5x25	0.78	0.45	0.26	131	3.58
(N)SHOEU-J 5 cores	5x35	0.554	0.46	0.25	162	5.01
(N)SHOEU-O control	12x4	4.95	0.27	0.3	41	0.57
(N)SHOEU-O control	12x6	3.3	0.32	0.29	53	0.86
(N)SHOEU-J control	7x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	8x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	10x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	12x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	14x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	18x1.5	13.3	0.21	0.33	23	0.18

ELECTRICAL DATA

TABLE 4

Type	Size	Resistance at 20 deg C max. (Ohm/km)	Capacitance (uF/km)	Inductance (mH/km)	Current capacity (A)	Short circuit (kA)
(N)SHOEU-J control	19x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	24x1.5	13.3	0.21	0.33	23	0.18
(N)SHOEU-J control	7x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	8x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	10x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	12x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	15x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	18x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	19x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	24x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J control	37x2.5	7.98	0.24	0.32	30	0.31
(N)SHOEU-J KON control	3x0.75/0.75KON	26	0.27	0.29	8	0.11
(N)SHOEU-J KON control	18x1.5/1.5KON	13.3	0.21	0.33	23	0.18
(N)SHOEU-J KON control	4x1.5/1.5KON	13.3	0.19	0.35	23	0.18
(N)SHOEU-J KON control	7x1.5/4KON	13.3	0.21	0.33	23	0.18
(N)SHOEU-J KON control	9x1.5/4KON	13.3	0.21	0.33	23	0.18
(N)SHOEU-J KON control	12x1.5/4KON	13.3	0.21	0.33	23	0.18
(N)SHOEU-J KON control	15x1.5/4KON	13.3	0.21	0.33	23	0.18
(N)SHOEU-J KON control	19x1.5/4KON	13.3	0.21	0.33	23	0.18
(N)SHOEU-J KON control	7x2.5/2.5KON	7.98	0.24	0.32	30	0.31
(N)SHOEU-J KON control	12x2.5/2.5KON	7.98	0.24	0.32	30	0.31

Current carrying capacity applies to rubber cables laid on a surface at 30 deg C ambient temperature according to VDE 0298-4. Halogen-free version with 5GM3 outer sheath is available on request.

CERTIFICATIONS



TEBAOFLEX CABLE