

CORDAFLEX (SMK) (N)SHTOEU

Low voltage reeling cable

Application

Cordaflex (SMK) is a flexible reeling cable for high stresses. Also for applications to which DIN VDE 0168 & 0118 apply : Open cast and underground mining.

Construction

Conductor :	Electrolytic copper tinned, very finely stranded class FS
Insulation:	PROTOLON MS special compound based on high quality EPR with improved mechanical and electrical characteristics.
Core colour :	White cores with black numbers, green, yellow earth core.
Core arrangement :	Laid up in a maximum of 3 layers.
Shield for individually shielded cores & twisted & shielded pairs :	Braid screen from tinned copper wires, transfer impedance optimized at 30MHz.
Surface coverage :	Minimum 60% for shielded cores. Minimum 80% for twisted pairs.
Sheath system :	- PROTOFIRM inner sheath, high grade special compound based on PCP, colour - yellow. - Anti-torsion braid, reinforced braid made of polyester threads in a vulcanised bond between the sheath resulting in a very high strength sheath. - PROTOFIRM special outer sheath, high strength special compound with high performance characteristics to resist abrasion and also very high resistance to tearing. Based on PCP, colour - yellow.
Marking :	CORDAFLEX (SMK) (N)SHTOEU-J/O (no of cores) x (cross section)

Working Environment

Maximum operating temperature in fixed application :	-50 deg C / +80 deg C
in mobile application :	-35 deg C / +80 deg C
Maximum temp. at conductor :	+90 deg C
Short circuit temp. at conductor :	+250 deg C

Electrical Properties

Nominal voltage :	600 / 1000 V
Max op. voltage AC systems :	700 / 1200 V
Max op. voltage DC systems :	900 / 1800 V
AC test voltage :	3500 V .5 min
Current carrying capacity :	In accordance with DIN VDE 0298 part 4
Bus compatibility :	ASI-Bus, Proibus, CAN-Bus, Industrial ethernet, alternatively: fibre optics for transmitting all Bus protocols.

Additional Information

Minimum bending radius :	In accordance with VDE 0298 part 3
Tensile strength :	+ / - 50 deg/m
Operating speed :	240 m/min (please enquire for higher operating speeds)
Oil resistance :	According to VDE 0473 part 811-2-1 para. 10
Weather resistance :	Suitable for indoor & outdoor use, ozone, UV & moisture resistant



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Part No	Cross Section mm ²	Main Conductor diameter (mm)	Overall Diameter of Cable (min) mm	Overall Diameter of Cable (max) mm	Weight Kg / Km	Max Tensile Force (N)
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CORDAFLEX (SMK) (N)SHTOEU power cables

08043 0400 04 (SMK)	4 G 4	3.0	16.0	18.0	455	480
08043 0600 04 (SMK)	4 G 6	3.6	17.4	19.4	575	720
08043 1000 04 (SMK)	4 G 10	4.6	21.6	23.6	905	1200
08043 1600 04 (SMK)	4 G 16	5.6	23.7	26.7	1240	1920
08043 2500 04 (SMK)	4 G 25	7.3	28.5	31.5	1850	3000
08043 0400 05 (SMK)	5 G 4	3.0	17.4	19.4	430	600
08043 0600 05 (SMK)	5 G 6	3.6	19.0	21.0	690	900
08043 1000 05 (SMK)	5 G 10	4.6	23.4	25.4	1080	1500
08043 1600 05 (SMK)	5 G 16	5.6	26.1	29.1	1500	2400
08043 2500 05 (SMK)	5 G 25	7.3	34.7	37.7	2350	3750

CORDAFLEX (SMK) (N)SHTOEU power cables (3 power cores + 3 part earth core)

08043 3500 03 + 3x16/3 (SMK)	3 x 35 + 3x16/3	8.4 / 3.5	28.5	31.5	2160	3150
08043 5000 03 + 3x25/3 (SMK)	3 x 50 + 3x25/3	10.3 / 4.2	34.4	37.4	2850	4500
08043 7000 03 + 3x35/3 (SMK)	3 x 70 + 3x35/3	12.0 / 5.0	39.7	42.7	3920	6300
08043 9500 03 + 3x50/3 (SMK)	3 x 95 + 3x50/3	14.0 / 6.0	44.3	47.3	4960	8550
08043 1200 03 + 3x70/3 (SMK)	3 x 120 + 3x70/3	15.8 / 7.2	51.0	55.0	6630	10800
08043 1500 03 + 3x70/3 (SMK)	3 x 150 + 3x70/3	17.5 / 7.2	53.9	57.9	7560	13500
08043 1850 03 + 3x95/3 (SMK)	3 x 185 + 3x95/3	17.5 / 8.0	58.9	62.9	9310	16650
08043 2400 03 + 3x120/3 (SMK)	3 x 240 + 3x120/3	22.5 / 9.3	67.4	71.4	12200	21600

CORDAFLEX (SMK) (N)SHTOEU control cables

08043 0150 04 (SMK)	4 x 1.5	1.6	12.2	13.8	240	180
08043 0150 05 (SMK)	5 x 1.5	1.6	13.0	14.6	280	225
08043 0150 07 (SMK)	7 x 1.5	1.6	15.2	17.2	385	315
08043 0150 12 (SMK)	12 x 1.5	1.6	21.4	23.4	710	540
08043 0150 18 (SMK)	18 x 1.5	1.6	21.3	23.3	760	810
08043 0150 24 (SMK)	24 x 1.5	1.6	23.8	26.8	990	1080
08043 0150 30 (SMK)	30 x 1.5	1.6	26.6	29.6	1220	1350
08043 0150 36 (SMK)	36 x 1.5	1.6	26.5	29.5	1260	1620
08043 0150 44 (SMK)	44 x 1.5	1.6	29.5	32.5	1530	1980
08043 0150 56 (SMK)	56 x 1.5	1.6	34.9	37.9	2050	2520

We reserve the right to amend all technical details without prior notification

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	Cross Section mm ²	Main Conductor diameter (mm)	Overall Diameter of Cable (min) mm	Overall Diameter of Cable (max) mm	Weight Kg / Km	Max Tensile Force (N)
CORDAFLEX (SMK) (N)SHTOEU control cables (continued)						
08043 0250 03 (SMK)	3 x 2.5	2.0	12.7	14.3	280	225
08043 0250 04 (SMK)	4 x 2.5	2.0	13.2	14.8	305	300
08043 0250 05 (SMK)	5 x 2.5	2.0	14.2	15.8	355	375
08043 0250 07 (SMK)	7 x 2.5	2.0	16.2	18.6	510	525
08043 0250 12 (SMK)	12 x 2.5	2.0	23.4	25.4	920	900
08043 0250 18 (SMK)	18 x 2.5	2.0	23.3	25.3	1005	1350
08043 0250 24 (SMK)	24 x 2.5	2.0	26.2	29.2	1320	1800
08043 0250 30 (SMK)	30 x 2.5	2.0	29.4	32.4	1660	2250
08043 0250 36 (SMK)	36 x 2.5	2.0	29.3	32.3	1720	2700
08043 0250 44 (SMK)	44 x 2.5	2.0	34.1	37.1	2230	3300
08043 0250 56 (SMK)	56 x 2.5	2.0	40.1	43.1	2940	4200

CORDAFLEX (SMK) (N)SHTOEU-O bus cables

08043 0100 06 (3 x 2) C (SMK)	3 x (2 x 1.0) C	1.3	22.0	24.0	755	180
08043 0050 12 (6 x 2) C (SMK)	6 x (2 x 0.5) C	0.9	23.1	25.1	885	360
08043 0100 12 (6 x 2) C (SMK)	6 x (2 x 1.0) C	1.3	28.9	31.9	2170	720
08043 0100 24 (12 x 2) C (SMK)	12 x (2 x 1.0) C	1.3	38.9	40.9	510	525
08043 0100 12 C (SMK)	12 x 1.0 C	1.3	22.9	25.9	865	360

CORDAFLEX (SMK) (N)SHTOEU-J combined control cables

08043 0250 12 + 0100 12 (SMK)	12 x 2.5 + 12 x 1.0	2.0 / 1.3	26.2	29.2	1230	900
08043 0250 19 + 0100 05 (SMK)	19 x 2.5 + 5 x 1.0	2.0 / 1.3	26.2	29.2	1290	1575
08043 0250 25 + 0100 05 (SMK)	25 x 2.5 + 5 x 1.0	2.0 / 1.3	29.4	32.4	1620	2025

Special designs available on request