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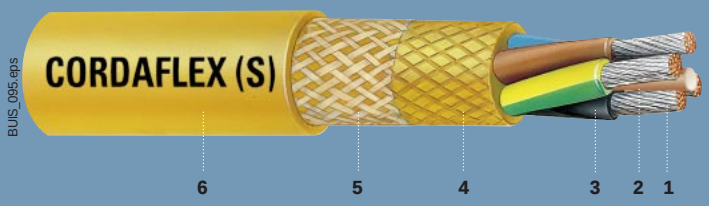
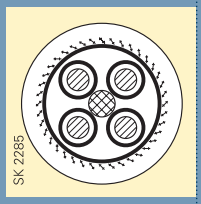
BUS_019.tif

Selection and dimensioning criteria			Refer to Section 4 for further details	→
	Type	**CORDAFLEX (S)**	Page	4/2
	Type designation	NSHTÖU	Page	4/3
	Approvals/standards	DIN VDE 0250, Part 814 UL File E 113313 MSHA P-189-3	Page	4/4
	Application (refer also to DIN VDE 0298, Part 3)	For frequently changing dynamic loads, such as reeling cables for scoops (LHDs) in underground mines, suitable for mono-spiral reels and cylindrical reels. High tensile loading as a result of the central support element and very high resistance to abrasion and tearing of the outer sheath.	Page	4/6
Electrical parameters	Rated voltage	U_0/U = 0.6/1 kV	Pages to	4/14
	Maximum permissible operating voltage in AC systems	U_0/U = 0.7/1.2 kV		4/17
	Maximum permissible operating voltage in DC systems	U_0/U = 0.9/1.8 kV		
	AC test voltage	2.5 kV		
	Current-carrying capacity	According to DIN VDE 0298, Part 4		
Thermal parameters	Ambient temperature • Fully flexible operation • Fixed installation	 - 25 °C to + 60 °C - 40 °C to + 80 °C	Pages to	4/18 4/19
	Maximum permissible operating temperature of the conductor	90 °C		
	Short-circuit temperature of the conductor	200 °C		
Mechanical parameters	Tensile load	Up to 30 N/mm²	Page	4/20
	Torsional stresses	± 25 °/m	Page	4/21
	Minimum bending radii	According to DIN VDE 0298, Part 3	Page	4/22
	Minimum distance with S-type directional changes	20 x D		
	Travel speed of the scoop	Up to 160 m/min	Page	4/23
	Additional test	Reversed bending test and roller bending test	Page	4/24
Chemical parameters	Resistance to oil	Given to DIN VDE 0473, Part 811-2-1, Para. 10	Page	4/28
	Behaviour in case of fire	Given to DIN VDE 0482, Part 265-2-1, Para. 10		
	Weather resistance	Unrestricted use outdoors and indoors, resistant to ozone and moisture		

1	Conductor
2	Support element
3	Insulation
4	Inner sheath
5	Anti-torsion braid
6	Outer sheath





Design features	Refer to Section 4 for further details		→
Type	**CORDAFLEX (S)**	Page	4/2
Conductor (refer also to DIN VDE 0295)	Electrolytic copper, tinned, very finely stranded, Class “FS”	Page	4/29
Insulation (refer also to DIN VDE 0207, Part 20)	Basic material EPR, compound type: 3GI3	Page	4/32
Core identification	Black, blue, brown, green/yellow		
Core arrangement	Cores laid-up around a Kevlar central support element length of lay 5 x D	Page	4/37
Support element	Centrally arranged Kevlar support element	Page	4/39
Inner sheath (refer also to DIN VDE 0207, Part 21)	Basic material PCP, compound type: 5GM5, colour yellow	Page	4/32
Anti-torsion braid	Reinforced braid of polyester threads in a vulcanized bond between inner and outer sheath Surface covered: approx. 25 %	Page	4/39
Outer sheath (refer also to DIN VDE 0207, Part 21)	Basic material PCP, compound type: 5GM5, colour yellow	Page	4/32
Marking	CORDAFLEX (S) NSHTÖU (number of cores) x (cross-section)	Page	4/40

CORDAFLEX (S)
LHD Cables for Scoop Operations

Selection and ordering data

Number of cores and nominal cross-section	Order No.	Conductor diameter (Max. value)	Overall diameter of cable (guidance value) (Min. value)	(Max. value)	Conductor resistance at 20 °C	Current-carrying capacity at 30 °C	Permissible short-circuit current (1s)	Approx. net weight for 1000 m	Maximum permissible tensile force
mm^2		mm	mm	mm	Ω/km	A	kA	kg	N
0.6/1 kV NSHTÖU									
4 x 16 (6 kN)	**5DH3 951**	5.6	27.5	31.5	1.240	99	1.95	1500	2400
4 x 35 (12 kN)	**5DH3 952**	8.4	37.5	42.0	0.565	162	4.27	2920	5200
4 x 50 (12 kN)	**5DH3 953**	10.3	43.0	48.0	0.393	202	6.10	3970	7100
4 x 50 (30 kN)	**5DH3 842**	10.3	42.0	44.0	0.393	202	6.10	3660	8400
4 x 70 (20 kN)	**5DH3 954**	12.0	47.0	52.0	0.277	250	8.54	5530	10100
4 x 95 (50 kN)	**5DH3 908**	14.0	53.0	58.0	0.210	301	11.59	6500	15400