

Reelkab MSFO (N)TSCGEWOEU



*For more detailed information on Fiber, please refer to the technical page.

CABLE STRUCTURE

Conductor	Phase and earth conductor made of tinned annealed stranded copper wires Class 5 in accordance with VDE 0295 and IEC 60228
Conductor Screen	Extruded inner semiconductive rubber compound and semiconductive tape
Insulation	High grade special compound based on EPR quality at least 3GI3, in accordance with VDE 0207 - Part 20
Insulation Screen	Extruded outer semiconductive rubber compound easily stripped and semiconductive tape
Optical Fiber	Fiber core diameter: 50, 62,5, or 9 μ m ; cladding diameter: 125 μ m ; coating diameter: 250 μ m
Fiber Covering	Up to 24 cores fiber are used in PBT
Core Arrangement	A three core design, where the earth conductor is divided into two parts and placed in the spaces between the cores with fiber optic element. Left hand stranded
Inner Sheath	Special rubber compound, quality at least 5GM3, in accordance with VDE 0207 - Part 21
Reinforcement	A braid of polyester threads, reinforced and bonded with vulcanization between the sheaths, delivers high durability to the sheath system
Outer Sheath	Special rubber compound quality at least 5GM5, in accordance with VDE 0207 - Part 21

STANDARDS & MAIN CHARACTERISTICS

Standard	Based on VDE 0250-813	Flame Retardant	IEC 60332 1-2
General Requirements	VDE 0250-1	Oil Resistant	IEC 60811-4-04
Guide to Use	VDE 0298-3, VDE 0298-4	UV Resistance	BS EN 50289-4-17 / Method B
Electrical Tests	VDE 0472-501, 512, 508, 502, 503	Water Resistance	AD8
Non-electrical Tests	VDE 0472-401, 402, 602,615, 613		
Conductor Resistance	VDE 0295, IEC 60228		

OPERATING CHARACTERISTICS

Rated Voltage	3,6/6 kV / 6/10 kV / 8,7/15 kV / 12/20 kV	Min. Bending Radius	VDE 0298-3
Test Voltage	11 kV / 17 kV / 24 kV / 29 kV	Max. Tensile Load on the Conductor	20 N/mm ²
Max. Conductor Temperature	90°C	Max. Tensile Load on the Conductor	Up to 30 N/mm ² (acc. to VDE 0298 3 : 15 N mm ²)
Short Circuit Temperature	250°C (Max. 5 s)	Torsional Stress	± 25 °/m
Min. Ambient Temperature	-50°C	Min. Distance with S-Type	20 x D
Max. Current Carrying Capacity	VDE 0298-4	Directional Changes	
		Travel speed	max. 240 m/min

VISUAL AND MARKING

Sheath Color	Red	Marking	ÜNTEL Reelkab MSFO (N)TSCGEWOEU (NxS mm ²) (rated voltage) (Based on VDE 0250-813) [LOT NUMBER] [XXXX MT]
Cores	Color-coded phase identification ropes		

APPLICATION

This cable is specially designed for mobile equipment operating under high to extreme mechanical stresses with integrated fibre optics for the combined transmission of energy and data. It is engineered to withstand high travel speeds, dynamic tensile loads, multi directional changes in movement across different planes, churning effects when running over rollers, and continuous torsional stresses. It is particularly suitable for fast moving container cranes, portal cranes, stacker reclaimers, and large scale mobile industrial machinery.

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Reelkab MSFO (N)TSCGEWOEU

3,6/6 kV

CAN*	Cross-section (mm ²)	Conductor Diameter Max. (mm)	Earth Conductor Diameter Max. (mm)	Outer Sheath Diameter			Approx. Cable Weight (kg/km)	Min. Bending Radius Free moving (mm)	Permissible tensile force max. (N)	Dynamic tensile force max. (N)	Current Carrying Capacity (**) (A)	Short-circuit current (conductor) (kA)	Max. Electrical Resistance at 20 °C (ohm/km)
				Min. (mm)	Nom. (mm)	Max. (mm)							
4721.1	3x25+2x25/2+1x(6G62,5)	7,30	5,60	39,9	41,7	42,9	2.740	429	1500	2250	131	3,58	0,795
4721.2	3x35+2x25/2+1x(6G62,5)	8,80	5,60	42,0	43,8	45,0	3.152	450	2100	3150	162	5,01	0,565
4721.3	3x50+2x25/2+1x(6G62,5)	10,50	5,60	44,8	46,7	47,8	3.779	478	3000	4500	202	7,15	0,393
4721.4	3x70+2x35/2+1x(6G62,5)	12,60	6,60	49,9	52,5	53,9	4.987	539	4200	6300	250	10,01	0,277
4721.5	3x95+2x50/2+1x(6G62,5)	14,50	7,90	54,8	57,6	58,8	6.304	588	5700	8550	301	13,59	0,21
4721.6	3x120+2x70/2+1x(6G62,5)	16,40	9,50	58,2	61,1	62,2	7.588	622	7200	10800	352	17,16	0,164
4721.7	3x150+2x70/2+1x(6G62,5)	18,10	9,50	63,5	66,5	67,5	8.906	675	9000	13500	404	21,45	0,132
4721.8	3x185+2x95/2+1x(6G62,5)	20,20	11,10	67,5	72,8	73,9	10.943	739	11100	16650	461	26,46	0,108
4721.9	3x240+2x120/2+1x(6G62,5)	23,40	12,40	75,0	80,8	81,8	13.907	818	14400	21600	540	34,32	0,0817
4721.10	3x300+2x150/2+1x(6G62,5)	26,10	13,70	82,0	88,0	89,0	16.938	890	18000	27000	620	42,90	0,0654

6/10 kV

CAN*	Cross-section (mm ²)	Conductor Diameter Max. (mm)	Earth Conductor Diameter Max. (mm)	Outer Sheath Diameter			Approx. Cable Weight (kg/km)	Min. Bending Radius Free moving (mm)	Permissible tensile force max. (N)	Dynamic tensile force max. (N)	Current Carrying Capacity (**) (A)	Short-circuit current (conductor) (kA)	Max. Electrical Resistance at 20 °C (ohm/km)
				Min. (mm)	Nom. (mm)	Max. (mm)							
4722.1	3x25+2x25/2+1x(6G62,5)	7,30	5,60	40,7	42,5	43,7	2.816	437	1500	2250	131	3,58	0,795
4722.2	3x35+2x25/2+1x(6G62,5)	8,80	5,60	42,7	44,6	45,7	3.245	457	2100	3150	162	5,01	0,565
4722.3	3x50+2x25/2+1x(6G62,5)	10,50	5,60	46,1	47,9	49,1	3.918	491	3000	4500	202	7,15	0,393
4722.4	3x70+2x35/2+1x(6G62,5)	12,60	6,60	51,1	54,0	55,1	5.155	551	4200	6300	250	10,01	0,277
4722.5	3x95+2x50/2+1x(6G62,5)	14,50	7,90	56,1	58,6	60,1	6.428	601	5700	8550	301	13,59	0,21
4722.6	3x120+2x70/2+1x(6G62,5)	16,40	9,50	60,9	63,8	64,9	7.944	649	7200	10800	352	17,16	0,164
4722.7	3x150+2x70/2+1x(6G62,5)	18,10	9,50	64,8	67,1	68,8	8.998	688	9000	13500	404	21,45	0,132
4722.8	3x185+2x95/2+1x(6G62,5)	20,20	11,10	69,3	72,0	73,3	10.805	733	11100	16650	461	26,46	0,108
4722.9	3x240+2x120/2+1x(6G62,5)	23,40	12,40	76,7	79,5	80,7	13.722	807	14400	21600	540	34,32	0,0817
4722.10	3x300+2x150/2+1x(6G62,5)	26,10	13,70	84,2	88,0	89,2	16.937	892	18000	27000	620	42,90	0,0654

** Conductor temperature at 90 °C, Ambient air temperature at 30 °C

* CAN : Cable Article Number

*** Design available with 6, 12, 18 ort 24 fibers.

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8,7/15 kV

CAN*	Cross-section (mm ²)	Conductor Diameter Max. (mm)	Earth Conductor Diameter Max. (mm)	Outer Sheath Diameter			Approx. Cable Weight (kg/km)	Min. Bending Radius Free moving (mm)	Permissible tensile force max. (N)	Dynamic tensile force max. (N)	Current Carrying Capacity (**) (A)	Short-circuit current (conductor) (kA)	Max. Electrical Resistance at 20 °C (ohm/km)
				Min. (mm)	Nom. (mm)	Max. (mm)							
4723.1	3x25+2x25/2+1x(6G62,5)	7,30	5,60	43,5	45,4	46,5	3.091	465	1500	2250	139	3,58	0,795
4723.2	3x35+2x25/2+1x(6G62,5)	8,80	5,60	46,1	47,1	49,1	3.501	491	2100	3150	172	5,01	0,565
4723.3	3x50+2x25/2+1x(6G62,5)	10,50	5,60	50,5	53,1	54,5	4.490	545	3000	4500	216	7,15	0,393
4723.4	3x70+2x35/2+1x(6G62,5)	12,60	6,60	55,2	58,0	59,2	5.675	592	4200	6300	265	10,01	0,277
4723.5	3x95+2x50/2+1x(6G62,5)	14,50	7,90	60,9	63,8	64,9	7.140	649	5700	8550	319	13,59	0,21
4723.6	3x120+2x70/2+1x(6G62,5)	16,40	9,50	64,4	67,1	68,4	8.435	684	7200	10800	371	17,16	0,164
4723.7	3x150+2x70/2+1x(6G62,5)	18,10	9,50	68,8	71,3	72,8	9.662	728	9000	13500	428	21,45	0,132
4723.8	3x185+2x95/2+1x(6G62,5)	20,20	11,10	74,1	76,7	78,1	11.591	781	11100	16650	488	26,46	0,108
4723.9	3x240+2x120/2+1x(6G62,5)	23,40	12,40	80,8	83,3	84,8	14.420	848	14400	21600	574	34,32	0,0817
4723.10	3x300+2x150/2+1x(6G62,5)	26,10	13,70	87,7	91,3	92,7	17.625	927	18000	27000	660	42,90	0,0654

12/20 kV

CAN*	Cross-section (mm ²)	Conductor Diameter Max. (mm)	Earth Conductor Diameter Max. (mm)	Outer Sheath Diameter			Approx. Cable Weight (kg/km)	Min. Bending Radius Free moving (mm)	Permissible tensile force max. (N)	Dynamic tensile force max. (N)	Current Carrying Capacity (**) (A)	Short-circuit current (conductor) (kA)	Max. Electrical Resistance at 20 °C (ohm/km)
				Min. (mm)	Nom. (mm)	Max. (mm)							
4724.1	3x25+2x25/2+1x(6G62,5)	7,30	5,60	46,6	48,0	49,6	3.362	496	1500	2250	139	3,58	0,795
4724.2	3x35+2x25/2+1x(6G62,5)	8,80	5,60	50,1	52,3	54,1	4.073	541	2100	3150	172	5,01	0,565
4724.3	3x50+2x25/2+1x(6G62,5)	10,50	5,60	54,1	56,9	58,1	4.981	581	3000	4500	216	7,15	0,393
4724.4	3x70+2x35/2+1x(6G62,5)	12,60	6,60	58,2	60,5	62,2	6.020	622	4200	6300	265	10,01	0,277
4724.5	3x95+2x50/2+1x(6G62,5)	14,50	7,90	64,0	66,3	68,0	7.512	680	5700	8550	319	13,59	0,21
4724.6	3x120+2x70/2+1x(6G62,5)	16,40	9,50	68,0	70,5	72,0	8.966	720	7200	10800	371	17,16	0,164
4724.7	3x150+2x70/2+1x(6G62,5)	18,10	9,50	73,3	76,1	77,3	10.434	773	9000	13500	428	21,45	0,132
4724.8	3x185+2x95/2+1x(6G62,5)	20,20	11,10	77,2	79,7	81,2	12.157	812	11100	16650	488	26,46	0,108
4724.9	3x240+2x120/2+1x(6G62,5)	23,40	12,40	85,1	88,9	90,1	15.485	901	14400	21600	574	34,32	0,0817
4724.10	3x300+2x150/2+1x(6G62,5)	26,10	13,70	91,3	94,7	96,3	18.341	963	18000	27000	660	42,90	0,0654

** Conductor temperature at 90 °C, Ambient air temperature at 30 °C

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*** Design available with 6, 12, 18 ort 24 fibers.

