

(N)TSCGEWÖU 8.7/15kV and 12/20kV FO Cable



Eland Product Group: A7HF

APPLICATION

Flexible reeling cable with integrated fibre optic wires for high and extreme mechanical stresses, including torsional stress, deflection into different planes and high reeling speed. Suitable for indoor and outdoor applications.

CHARACTERISTICS

Voltage Rating U_0/U

8.7/15kV

12/20kV

Test Voltage

8.7/15kV: 24kV

12/20kV: 29kV

Minimum Bending Radius

Fixed: 6 x overall diameter

Flexed: 10 x overall diameter

Ambient Temperature

Fixed: -40°C to +80°C

Flexed: -25°C to +80°C

Maximum Working Speed

120m/min

CONSTRUCTION

Phase Conductor

Class 5 tinned copper conductor

Insulation

Rubber compound

Semi-Conductive Layers

Semi-conductive tape over the conductor and inner and outer semi-conductive rubber layer on the insulation

Earth Conductor

Class 5 tinned copper conductor

Fibre Optics

Transmission data kind 50/125 multimode, 62.5/125 multimode, 9/125 singlemode

Rubber compound over the twisted cores

Central Filler

Semi-conductive compound on a textile polyester support

Inner Sheath

Rubber compound

Anti-Torsion Braid

Polyester braid between the inner and outer sheath

Outer Sheath

Rubber compound

Sheath Colour

● Red

STANDARDS

VDE 0250 Part 813, VDE 0295, EN 60228

Flame Retardant according to IEC/EN 60332-1-2

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECIE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability



REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab[®].





DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH + FIBRE OPTICS)	NOMINAL CROSS SECTIONAL AREA mm ²		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	MAXIMUM TENSILE LOAD N	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor					
A7HF15KV1025RD	8.7/15	3 + 2 + FO	25	25/2E	6.8	52	55	1500	3680
A7HF15KV1035RD	8.7/15	3 + 2 + FO	35	25/2E	7.8	55.2	58.2	2100	4310
A7HF15KV1050RD	8.7/15	3 + 2 + FO	50	25/2E	9.4	58.4	61.4	3000	5020
A7HF15KV1070RD	8.7/15	3 + 2 + FO	70	35/2E	11.2	62.1	66	4200	6170
A7HF15KV1095RD	8.7/15	3 + 2 + FO	95	50/2E	12.7	67.2	71.2	5700	7380
A7HF20KV1025RD	12/20	3 + 2 + FO	25	25/2E	6.8	58	61	1500	4490
A7HF20KV1035RD	12/20	3 + 2 + FO	35	25/2E	7.8	59.4	62.4	2100	4830
A7HF20KV1050RD	12/20	3 + 2 + FO	50	25/2E	9.4	64.3	68.2	3000	5840
A7HF20KV1070RD	12/20	3 + 2 + FO	70	35/2E	11.2	68.1	72.1	4200	7030

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	LAYING ON THE FLOOR Amps	REELED Amps						
		1 Layer	2 Layer	3 Layer	4 Layer	5 Layer	6 Layer	7 Layer
25	139	111	85	68	58	53	38	31
35	172	138	105	84	72	65	46	38
50	216	173	132	106	91	82	58	48
70	265	212	162	130	111	101	72	58
95	319	255	195	156	134	121	86	70

Ambient temperature of 30°C

VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA mm ²	POWER FACTOR			
	0.7	0.8	0.9	1
25	1.29	1.45	1.6	1.71
35	0.95	1.06	1.16	1.23
50	0.69	0.77	0.83	0.87
70	0.51	0.56	0.6	0.61
95	0.41	0.45	0.47	0.47

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FIBRE OPTICS

FIBRE	GRADED INDEX MULTIMODE FIBRE					STEP INDEX SINGLEMODE FIBRE			
	Attenuation at 850nm dB/km	Attenuation at 1300nm dB/km	Bandwidth at 850nm MHz*km	Bandwidth at 1300nm MHz*km	Numerical Aperture	Attenuation at 1310nm dB/km	Attenuation at 1550nm dB/km	Chromatic dispersion at 1285-1300nm ps/nm km	Chromatic dispersion at 1550nm ps/nm km
50/125	≤ 2.5	≤ 0.7	≥ 200	≥ 500	0.200 ± 0.015	-	-	-	-
62.5/125	≤ 3.0	≤ 0.7	≥ 200	≥ 500	0.275 ± 0.015	-	-	-	-
9/125	-	-	-	-	-	≤ 0.35	≤ 0.24	≤ 3	≤ 18

DE-RATING FACTORS

AMBIENT TEMPERATURE	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C
DE-RATING FACTOR	1.15	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.