

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



Eland Product Group: A7HC

APPLICATION

Flexible cable for energy supply to heavy mobile equipment such as drag lines, shovels, dredges, drills under extreme mechanical stresses and abrasion during trailing operation in opencast mines. Suitable for indoor and outdoor applications.

CHARACTERISTICS

Voltage Rating U₀/U

8.7/15kV
12/20kV

Test Voltage

8.7/15kV: 24kV
12/20kV: 29kV

Ambient Temperature

Fixed: -40°C to +80°C
Flexed: -25°C to +80°C

Maximum Short Circuit Temperature

+250°C

Minimum Bending Radius

Fixed: 6 x overall diameter
Flexed: 10 x overall diameter

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

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

Abrasion resistant rubber compound

Sheath Colour

● Yellow

STANDARDS

VDE 0250 Part 813, VDE 0295, EN 60228

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

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH)	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					
A7HC15KV1025YW	8.7/15	3+3	25	25/3	6.8	44.7	46.4	1500	2800
A7HC15KV1035YW	8.7/15	3+3	35	25/3	7.8	46.2	47.9	2100	3160
A7HC15KV1050YW	8.7/15	3+3	50	25/3	9.4	49.4	51.2	3000	3960
A7HC15KV1070YW	8.7/15	3+3	70	35/3	11.2	55	56.8	4200	5020
A7HC15KV1095YW	8.7/15	3+3	95	50/3	12.7	58.4	60.2	5700	5840
A7HC15KV1120YW	8.7/15	3+3	120	70/3	14.4	63.9	66.2	7200	7420
A7HC15KV1150YW	8.7/15	3+3	150	70/3	16.3	68.5	70.9	9000	8620
A7HC20KV1025YW	12/20	3+3	25	25/3	6.8	47.3	49	1500	3340
A7HC20KV1035YW	12/20	3+3	35	25/3	7.8	48.8	50.6	2100	3690
A7HC20KV1050YW	12/20	3+3	50	25/3	9.4	53.7	55.5	3000	4640
A7HC20KV1070YW	12/20	3+3	70	35/3	11.2	57.5	59.3	4200	5720
A7HC20KV1095YW	12/20	3+3	95	50/3	12.7	60.8	63.1	5700	6660
A7HC20KV1120YW	12/20	3+3	120	70/3	14.4	66.4	68.7	7200	8200

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
120	371	297	226	182	156	141	100	82
150	428	342	261	210	180	163	116	94

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
120	0.34	0.36	0.38	0.36
150	0.29	0.31	0.32	0.29

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.