



**ELAND<sup>®</sup>  
CABLES**

# (N)TSCGECEWÖU 8.7/15kV and 12/20kV ATB Cable (Ground Check Conductor)



Eland Product Group: A7HG

## APPLICATION

Flexible cable for the energy supply to heavy mobile equipment such as drag lines, shovels, dredges and drills under extreme mechanical stresses and abrasion during trailing operation in opencast mines. Special construction with additional ground check conductor. 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

### 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

Individual copper braid  
2 x copper earth conductors  
1 x copper checking earth wiring conductor

### Central Filler

Rubber compound on a textile polyester support

### Inner Sheath

Abrasion resistant 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 (IEC 60228)

Flame Retardant according to BS EN/IEC 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.



8578



FS 672069



EMS 672067



OHS 672066

## 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™.



KM 634267





## DIMENSIONS

ELAND PART NO.	VOLTAGE kV	NO. OF CORES (PHASE + EARTH + GROUND CHECK CONDUCTOR)	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>			CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	MAXIMUM TENSILE LOAD N	NOMINAL WEIGHT kg/km
			Phase Conductor	Earth Conductor	Ground Check Conductor					
A7HG15KV025YW	8.7/15	3+2+1	25	25/2	10	6.8	53.9	59.3	1125	4490
A7HG15KV035YW	8.7/15	3+2+1	35	25/2	10	7.8	55.3	60.8	1575	4920
A7HG15KV050YW	8.7/15	3+2+1	50	25/2	10	9.4	58.5	64.2	2250	5700
A7HG15KV070YW	8.7/15	3+2+1	70	35/2	10	11.2	64.2	70.5	3150	7200
A7HG15KV095YW	8.7/15	3+2+1	95	50/2	10	12.7	67.9	74.4	4257	8480
A7HG20KV025YW	12/20	3+2+1	25	25/2	10	6.8	58.2	63.9	1125	5110
A7HG20KV035YW	12/20	3+2+1	35	25/2	10	7.8	59.8	65.7	1575	5580
A7HG20KV050YW	12/20	3+2+1	50	25/2	10	9.4	64.6	70.9	2250	6550
A7HG20KV070YW	12/20	3+2+1	70	35/2	10	11.2	68.3	74.8	3150	7800

## CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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 <sup>2</sup>	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

## 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.