

(N)3GHSSHCH 8.7/15kV and 12/20kV Cable



Eland Product Group: A7FL

APPLICATION

Flexible cable for energy supply to MV equipment in tunnelling and underground mining applications. Low smoke zero halogen (LSZH) sheathed version. 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: +5°C to +80°C

Minimum Bending Radius
Fixed: 6 x overall diameter
Flexed: 10 x overall diameter

CONSTRUCTION

Phase Conductor
Class 5 flexible stranded copper

Insulation
Rubber compound

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

Protective Earth Conductor
Individual copper wire screen

Control Conductor
Class 5 flexible stranded tinned copper

Central Filler
Rubber compound on a textile polyester support

First Inner Sheath
LSZH (Low Smoke Zero Halogen)

Monitoring Conductor
Copper wire screen, over the first inner sheath

Second Inner Sheath
LSZH (Low Smoke Zero Halogen)

Armour
Steel wire braid over the second inner sheath

Outer Sheath
LSZH (Low Smoke Zero Halogen)

Sheath Colour
● Black

STANDARDS

VDE 0250 Part 605, VDE 0207,

Flame Retardant according to IEC/EN 60332-1-2
Halogen Free according to IEC/EN 60754-1/2

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE 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 + CONTROL+ÜL)	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	Control Conductor					
A7FLS15KV1025BK	8.7/15	3+3+3+ÜL	25	25/3E	2.5ST	6.1	50.5	55.6	1125	4030
A7FLS15KV1035BK	8.7/15	3+3+3+ÜL	35	25/3E	2.5ST	7.2	52.3	57.6	1575	4480
A7FLS15KV1050BK	8.7/15	3+3+3+ÜL	50	25/3E	2.5ST	8.9	55.8	61.3	2250	5210
A7FLS15KV1070BK	8.7/15	3+3+3+ÜL	70	35/3E	2.5ST	10.6	59.3	65.2	3150	6230
A7FLS15KV1095BK	8.7/15	3+3+3+ÜL	95	50/3E	2.5ST	12.3	62.8	68.9	4275	7350
A7FLS15KV1120BK	8.7/15	3+3+3+ÜL	120	70/3E	2.5ST	13.8	66.2	72.6	5400	8540
A7FLS20KV1025BK	12/20	3+3+3+ÜL	25	25/3E	2.5ST	6.1	52.9	58.2	1125	4330
A7FLS20KV1035BK	12/20	3+3+3+ÜL	35	25/3E	2.5ST	7.2	54.7	60.2	1575	4780
A7FLS20KV1050BK	12/20	3+3+3+ÜL	50	25/3E	2.5ST	8.9	58.3	64	2250	5540
A7FLS20KV1070BK	12/20	3+3+3+ÜL	70	35/3E	2.5ST	10.6	61.7	67.8	3150	6570
A7FLS20KV1095BK	12/20	3+3+3+ÜL	95	50/3E	2.5ST	12.3	65.2	71.5	4275	7690
A7FLS20KV1120BK	12/20	3+3+3+ÜL	120	70/3E	2.5ST	13.8	68.7	75.3	5400	8920

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.