

## (N)3GHSSYCY 3.6/6kV and 6/10kV Cable



Eland Product Group: A7F

### APPLICATION

Flexible cable for energy supply to MV equipment in tunnelling and underground mining applications. Suitable for indoor and outdoor applications.

### CHARACTERISTICS

**Voltage Rating** U<sub>o</sub>/U  
3.6/6kV | 6/10kV

**Test Voltage**  
3.6/6kV: 11kV | 6/10kV: 17kV

**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 screen

**Control Conductor**  
Class 5 flexible stranded tinned copper

**Central Filler**  
Rubber compound on a textile polyester support

**First Inner Sheath**  
PVC (Polyvinyl Chloride)

**Monitoring Conductor**  
Copper wire

**Second Inner Sheath**  
PVC (Polyvinyl Chloride)

**Armour**  
Steel wire braid over the second inner sheath

**Outer Sheath**  
PVC (Polyvinyl Chloride)

**Sheath Colour**  
● Red

### STANDARDS

VDE 0250 Part 605, 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.



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 + CONTROL+ÜL)	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	Control Conductor					
A7F06KV1025RD	3.6/6	3+3+3+ÜL	25	25/3E	2.5ST	6.1	47.2	52.1	1125	4160
A7F06KV1035RD	3.6/6	3+3+3+ÜL	35	25/3E	2.5ST	7.2	49	54	1575	4610
A7F06KV1050RD	3.6/6	3+3+3+ÜL	50	25/3E	2.5ST	8.9	52.5	57.8	2250	5340
A7F06KV1070RD	3.6/6	3+3+3+ÜL	70	35/3E	2.5ST	10.6	56.1	61.6	3150	6410
A7F06KV1095RD	3.6/6	3+3+3+ÜL	95	50/3E	2.5ST	12.3	60.3	66.2	4275	7650
A7F06KV1120RD	3.6/6	3+3+3+ÜL	120	70/3E	2.5ST	13.8	63.8	70	5400	9040
A7F06KV1150RD	3.6/6	3+3+3+ÜL	150	70/3E	2.5ST	15.5	67.2	73.7	6750	10190
A7F10KV1025RD	6/10	3+3+3+ÜL	25	25/3E	2.5ST	6.1	47.2	52.7	1125	4200
A7F10KV1035RD	6/10	3+3+3+ÜL	35	25/3E	2.5ST	7.2	49	54.6	1575	4650
A7F10KV1050RD	6/10	3+3+3+ÜL	50	25/3E	2.5ST	8.9	52.5	58.4	2250	5380
A7F10KV1070RD	6/10	3+3+3+ÜL	70	35/3E	2.5ST	10.6	56.1	62.2	3150	6450
A7F10KV1095RD	6/10	3+3+3+ÜL	95	50/3E	2.5ST	12.3	60.3	66.8	4275	7690
A7F10KV1120RD	6/10	3+3+3+ÜL	120	70/3E	2.5ST	13.8	63.8	70.7	5400	9080
A7F10KV1150RD	6/10	3+3+3+ÜL	150	70/3E	2.5ST	15.5	67.2	74.4	6750	10230

## CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	LAYING ON THE FLOOR Amps	FREE IN AIR Amps	REELED Amps						
			1 Layer	2 Layer	3 Layer	4 Layer	5 Layer	6 Layer	7 Layer
25	139	138	105	80	64	55	50	35	29
35	172	170	130	99	79	68	62	44	36
50	216	212	162	123	99	85	77	55	44
70	265	263	200	153	123	105	95	68	55
95	319	316	241	184	147	126	114	81	66
120	371	370	282	215	172	148	134	95	77
150	428	424	323	246	198	170	154	109	89

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
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.