

# (N)SSCHÖU - J 0.6/1kV Cable



Eland Product Group: **A7J**

## APPLICATION

Heavy duty tough rubber flexible cable for dynamic or static applications. It is suitable for installation inside or outside in dry, damp, wet and in hazardous environments. The overall screen provides a high level of electrical safety with EMC protection and makes the cable especially suitable for frequency converter controlled drives. This cable can be permanently submersed in water (fresh, salt, waste, storm, oily, sewage contaminated) to a depth of 100 metres. Suitable for indoor and outdoor applications.

## CONSTRUCTION

### Phase Conductor

Class 5 tinned copper conductor according to VDE 0295 (IEC 60228)

### Earth Conductor

Class 5 tinned copper conductor according to VDE 0295 (IEC 60228)

### Insulation

Rubber compound Type 3GI3 according to VDE 0207 Part 20

### Screen

TCWB (Tinned Copper Wire Braid)

### Inner Sheath

Rubber compound Type GM1b according to VDE 0207 Part 21

### Outer Sheath

Rubber compound Type 5GM5 according to VDE 0207 Part 21

## CABLE STANDARDS

Generally to VDE 0250 Part 812, VDE 0295, BS EN/IEC 60332-1-2, BS EN/IEC 60811-2-1



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

## CHARACTERISTICS

### Voltage Rating (U<sub>o</sub>/U)

600/1000V

### Test Voltage

3kV

### Maximum Short Circuit Temperature

+250°C

### Ambient Temperature

Fixed: -40°C to +80°C

Flexed: -25°C to +80°C

### Minimum Bending Radius

Fixed: 4 x overall diameter

Flexed: 5 x overall diameter

### Maximum Tensile Load\*

15 N/mm<sup>2</sup>

### Sheath Colour

● Yellow

### Note

\*Referred to the total phase conductors cross section

## DIMENSIONS

ELAND PART NO.	NO. OF CORES (PHASE +EARTH)	NOMINAL CROSS SECTIONAL AREA		CONDUCTOR DIAMETER mm	MINIMUM OVERALL DIAMETER mm	MAXIMUM OVERALL DIAMETER mm	SCREEN CROSS SECTION mm <sup>2</sup>	NOMINAL WEIGHT kg/km	MAXIMUM TENSILE LOAD N
		Phase Conductor	Earth Conductor						
A7J1016YW	3 + 3	16	2.5E	4.8	24.6	27.1	12	1170	720
A7J1025YW	3 + 3	25	4E	6.1	28.4	31.1	15	1650	1125
A7J1035YW	3 + 3	35	16/3E	7.2	31.9	33.6	22	2200	1575
A7J1050YW	3 + 3	50	25/3E	8.9	37.6	39.3	25	3110	2250
A7J1070YW	3 + 3	70	35/3E	10.6	41.4	44.2	30	3990	3150
A7J1095YW	3 + 3	95	50/3E	12.5	47.7	49.4	34	5080	4275
A7J1120YW	3 + 3	120	70/3E	14.2	51.6	53.4	38	6250	5400
A7J1150YW	3 + 3	150	70/3E	15.9	56.5	58.3	53	7450	6750
A7J1185YW	3 + 3	185	95/3E	17.7	62.4	64.4	59	9200	8325
A7J1240YW	3 + 3	240	120/3E	20.1	68.4	71.3	67	11700	10800

## ELECTRICAL CHARACTERISTICS

## Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	LAYING ON THE FLOOR Amps	FREE IN AIR Amps	REELED						
			1 Layer Amps	2 Layer Amps	3 Layer Amps	4 Layer Amps	5 Layer Amps	6 Layer Amps	7 Layer Amps
16	99	104	79	60	49	42	38	27	22
25	131	138	105	80	64	55	50	35	29
35	162	170	130	99	79	68	62	44	36
50	202	212	162	123	99	85	77	55	44
70	250	263	200	153	123	105	95	68	55
95	301	316	241	184	147	126	114	81	66
120	352	370	282	215	172	148	134	95	77
150	404	424	323	246	198	170	154	109	89
185	461	484	369	281	226	194	175	124	101
240	528	554	422	322	259	222	201	143	116

Ambient temperature of 30°C

## Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	POWER FACTOR			
	0.7	0.8	0.9	1
16	1.96	2.21	2.45	2.66
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
185	0.25	0.27	0.27	0.24
240	0.21	0.22	0.21	0.18

## 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