



NR/L2/SIGELP/27408: Enhanced Unarmoured Level II Signalling Power Supply PVC Cable



Eland Product Group: 6

APPLICATION

Signalling power distribution only (not suitable for general signalling use). Rodent-proof. For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment.

CHARACTERISTICS

Voltage Rating U_o/U
0.6/1kV

CONSTRUCTION

Conductor

Class 1 solid or Class 2, aluminium circular or sectorial-shaped
Class 2 stranded circular copper

Insulation

XLPE (Cross-Linked Polyethylene) Type GP8

Identification Tape

Longitudinally applied stating 'Property of Network Rail'[manuf] [year]'

Tape

Waterblocking tape

Rodent Protection

FGT (Fibre-Glass Tape)

Sheath

PVC (Polyvinyl Chloride) Type 9

Core Identification

2 core: ● Brown ● Black

3 core: ● Brown ● Black ● Grey

4 core: ● Brown ● Black ● Grey ● Red

Sheath Colour

● Black

Sheath Marking

[manuf] [factory ID] ELECTRIC CABLE 600/1000 V (core x CSA mm²)
PVC (Year No.) NMR WB NR/L2/SIGELP/27408 PROPERTY OF
NETWORK RAIL PADS No X/XXXXXX

For Harmonised Core colours (3 core only)

[manuf] [factory ID] ELECTRIC CABLE 600/1000 V (core x CSA mm²)
PVC (Year No.) H NMR WB NR/L2/SIGELP/27408 PROPERTY OF
NETWORK RAIL PADS No X/XXXXXX

CABLE THIRD-PARTY ACCREDITATION



Network Rail (NR) certified and PADS listed as meeting the requirements for installation on their network

Network Rail Certificate of Acceptance No: PA05/05446

CABLE STANDARDS

NR/L2/SIGELP/27408

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™.



K16E64267





DIMENSIONS

Copper Conductor

ELAND PART NO.	NO. OF CORES	CONDUCTOR CLASS	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MINIMUM BEND RADIUS mm	MAXIMUM PULLING FORCE kN	MAXIMUM DRUM LENGTH m
6/186019	2	2	10	2.0	2.4	21.9	524	88	0.98	2800
6/186020	2	2	16	2.0	2.4	23.7	662	95	1.57	2400
6/186021	2	2	25	2.0	2.4	26.2	872	158	2.45	1900
6/186022	2	2	35	2.0	2.6	28.8	1105	173	3.43	1600
6/186023	2	2	50	2.0	2.7	25.6	1334	205	4.90	1500
6/186024	2	2	70	2.0	2.9	29.4	1823	236	6.86	1000
6/186025	2	2	95	2.0	3.0	31.6	2342	253	9.31	800
6/186026	2	2	120	2.0	3.2	33.8	2884	271	11.76	700
6/186103	2	2	150	2.0	3.3	36.2	3406	290	14.70	600
6/186104	2	2	185	2.0	3.4	39.0	4179	312	18.13	500
6/186111	3	2	10	2.0	2.4	23.0	668	92	1.47	2500
6/186112	3	2	16	2.0	2.4	25.0	866	150	2.35	2100
6/186113	3	2	25	2.0	2.4	27.7	1166	167	3.68	1800
6/186114	3	2	35	2.0	2.6	30.5	1490	183	5.15	1300
6/186115	3	2	50	2.0	2.7	31.9	1929	256	7.35	1100
6/186116	3	2	70	2.0	3.1	36.0	2656	288	10.29	900
6/186117	3	2	95	2.0	3.2	39.6	3445	317	13.97	700
6/186118	3	2	120	2.0	3.4	41.6	4260	333	17.64	600
6/186106	3	2	150	2.0	3.5	45.3	5037	363	22.05	500
6/186107	3	2	185	2.0	3.6	48.3	6184	387	27.20	500
6/186147	4	2	10	2.0	2.4	25.1	813	151	1.96	2100
6/186148	4	2	16	2.0	2.4	27.3	1069	164	3.14	1800
6/186149	4	2	25	2.0	2.4	30.3	1458	182	4.90	1400
6/186150	4	2	35	2.0	2.6	33.4	1876	201	6.86	1100
6/186151	4	2	50	2.0	2.7	35.1	2448	281	9.80	900
6/186152	4	2	70	2.0	3.2	40.2	3423	322	13.72	700
6/186153	4	2	95	2.0	3.3	44.0	4450	352	18.62	600
6/186154	4	2	120	2.0	3.5	47.1	5524	377	23.52	500
6/186108	4	2	150	2.0	3.5	50.5	6502	404	24.12	600
6/186109	4	2	185	2.0	3.6	54.3	8020	435	28.30	500

Aluminium Solid Conductor

ELAND PART NO.	NO. OF CORES	CONDUCTOR CLASS	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MINIMUM BEND RADIUS mm	MAXIMUM PULLING FORCE kN	MAXIMUM DRUM LENGTH m
6/186035	2	1	16	2.0	2.4	23.1	460	185	0.80	2500
6/186036	2	1	25	2.0	2.4	25.2	556	202	1.25	2100
6/186037	2	1	35	2.0	2.6	27.6	671	221	1.74	1800
6/186038	2	1	50	2.0	2.7	25.6	791	205	2.49	2200
6/186039	2	1	70	2.0	2.9	28.2	990	226	3.49	1800
6/186040	2	1	95	2.0	3.0	30.6	1209	245	4.73	1500
6/186041	2	1	120	2.0	3.2	33.0	1422	264	5.98	1300
6/186127	3	1	16	2.0	2.4	24.3	559	195	1.20	2200
6/186128	3	1	25	2.0	2.4	26.8	692	215	1.87	1800

**Aluminium Solid Conductor**

ELAND PART NO.	NO. OF CORES	CONDUCTOR CLASS	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MINIMUM BEND RADIUS mm	MAXIMUM PULLING FORCE kN	MAXIMUM DRUM LENGTH m
6/186129	3	1	35	2.0	2.6	29.2	838	234	2.61	1500
6/186130	3	1	50	2.0	2.7	29.6	1065	237	3.74	1800
6/186131	3	1	70	2.0	3.1	33.1	1377	265	5.23	1500
6/186132	3	1	95	2.0	3.2	36.1	1693	289	7.10	1300
6/186133	3	1	120	2.0	3.4	38.9	2005	312	8.96	1000
6/186163	4	1	16	2.0	2.4	26.5	671	212	1.59	1800
6/186164	4	1	25	2.0	2.4	29.1	838	233	2.49	1500
6/186165	4	1	35	2.0	2.6	31.9	1022	256	3.49	1300
6/186166	4	1	50	2.0	2.7	32.1	1286	257	4.98	1800
6/186167	4	1	70	2.0	3.2	36.2	1695	290	6.97	1400
6/186168	4	1	95	2.0	3.3	39.8	2091	319	9.46	1100
6/186169	4	1	120	2.0	3.5	42.9	2894	344	11.95	1000

Aluminium Stranded Conductor

ELAND PART NO.	NO. OF CORES	CONDUCTOR CLASS	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL INSULATION THICKNESS mm	NOMINAL SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MINIMUM BEND RADIUS mm	MAXIMUM PULLING FORCE kN	MAXIMUM DRUM LENGTH m
6/186013	2	2	120	2.0	3.2	33.0	1416	264	5.98	1300
6/186014	2	2	150	2.0	3.3	36.3	1669	291	7.47	1000
6/186015	2	2	185	2.0	3.4	38.8	1995	311	9.21	700
6/186141	3	2	120	2.0	3.4	42.0	2019	336	8.96	1000
6/186142	3	2	150	2.0	3.5	45.4	2368	364	11.21	800
6/186143	3	2	185	2.0	3.6	48.4	2840	388	13.82	600
6/186177	4	2	120	2.0	3.5	49.0	2607	392	11.95	1000
6/186178	4	2	150	2.0	3.5	48.9	2629	392	14.94	600
6/186179	4	2	185	2.0	3.6	49.1	2708	393	18.43	500

ELECTRICAL CHARACTERISTICS**Copper Conductor**

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAX CONDUCTOR DC RESISTANCE AT 20°C ohms/km	NOMINAL CORE TO CORE CAPACITANCE µF/km ²	NOMINAL CORE TO EARTH CAPACITANCE µF/km ²	INDUCTANCE mH/km	REACTANCE ohms/km	IMPEDANCE ohms/km	ZERO SEQUENCE DATA ohms/km	SEQUENCE DATA POSITIVE / NEGATIVE ohms/km
2	10	1.83	0.12	0.11	0.39	0.111	1.70	2.38+j2.31	2.33+j0.124
2	16	1.15	0.13	0.12	0.37	0.104	1.13	1.52+j2.28	1.47+j0.117
2	25	0.727	0.17	0.16	0.35	0.098	0.73	0.98+j2.25	0.93+j0.110
2	35	0.524	0.18	0.18	0.34	0.093	0.54	0.72+j2.22	0.67+j0.105
2	50	0.387	0.20	0.19	0.32	0.086	0.40	0.54+j2.20	0.49+j0.100
2	70	0.268	0.23	0.22	0.31	0.083	0.30	0.39+j2.17	0.34+j0.097
2	95	0.193	0.26	0.24	0.30	0.080	0.23	0.30+j2.15	0.25+0.094
2	120	0.153	0.29	0.26	0.29	0.078	0.19	0.25+j2.16	0.20+j0.092
2	150	0.124	0.33	0.29	0.29	0.076	0.17	0.19+j2.11	0.14+0.090
2	185	0.0991	0.36	0.32	0.28	0.074	0.14	0.15+j2.10	0.10+j0.089



ELECTRICAL CHARACTERISTICS

Copper Conductor

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAX CONDUCTOR DC RESISTANCE AT 20°C	NOMINAL CORE TO CORE CAPACITANCE	NOMINAL CORE TO EARTH CAPACITANCE	INDUCTANCE	REACTANCE	IMPEDANCE	ZERO SEQUENCE DATA	SEQUENCE DATA POSITIVE / NEGATIVE
		ohms/km	μF/km ²	μF/km ²	mH/km	ohms/km	ohms/km	ohms/km	ohms/km
3	10	1.83	0.25	0.10	0.34	0.111	1.70	2.38+j2.31	2.31+j0.124
3	16	1.15	0.35	0.12	0.31	0.104	1.13	1.52+j2.28	1.45+j0.117
3	25	0.727	0.45	0.21	0.29	0.098	0.73	0.98+j2.25	0.91+j0.110
3	35	0.524	0.50	0.25	0.27	0.093	0.54	0.72+j2.22	0.65+j0.105
3	50	0.387	0.60	0.35	0.25	0.086	0.40	0.54+j2.20	0.47+j0.100
3	70	0.268	0.65	0.37	0.24	0.083	0.30	0.39+j2.17	0.32+j0.097
3	95	0.193	0.70	0.42	0.24	0.080	0.23	0.30+j2.15	0.23+0.094
3	120	0.153	0.75	0.46	0.23	0.078	0.19	0.25+j2.16	0.18+j0.092
3	150	0.124	0.80	0.51	0.21	0.076	0.17	0.21+j2.11	0.12+0.090
3	185	0.0991	0.85	0.54	0.20	0.074	0.14	0.18+j2.10	0.08+j0.089
4	10	1.83	0.20	0.08	0.44	0.111	1.70	2.38+j2.31	2.29+j0.124
4	16	1.15	0.30	0.11	0.40	0.104	1.13	1.52+j2.28	1.43+j0.117
4	25	0.727	0.40	0.17	0.36	0.098	0.73	0.98+j2.25	0.89+j0.110
4	35	0.524	0.45	0.20	0.34	0.093	0.54	0.72+j2.22	0.63+j0.105
4	50	0.387	0.50	0.23	0.32	0.086	0.40	0.54+j2.20	0.45+j0.100
4	70	0.268	0.55	0.30	0.31	0.083	0.30	0.39+j2.17	0.30+j0.097
4	95	0.193	0.65	0.35	0.30	0.080	0.23	0.30+j2.15	0.21+0.094
4	120	0.153	0.70	0.38	0.29	0.078	0.19	0.25+j2.16	0.16+j0.092
4	150	0.124	0.80	0.53	0.27	0.076	0.17	0.21+j2.15	0.10+0.094
4	185	0.0991	0.85	0.59	0.26	0.074	0.14	0.18+j2.16	0.06+j0.092

Aluminium Solid Conductor

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAX CONDUCTOR DC RESISTANCE AT 20°C	NOMINAL CORE TO CORE CAPACITANCE	NOMINAL CORE TO EARTH CAPACITANCE	INDUCTANCE	REACTANCE	IMPEDANCE	ZERO SEQUENCE DATA	SEQUENCE DATA POSITIVE / NEGATIVE
		ohms/km	μF/km ²	μF/km ²	mH/km	ohms/km	ohms/km	ohms/km	ohms/km
2	16	1.91	0.30	0.09	0.22	0.104	2.91	1.52+j2.28	1.47+j0.117
2	25	1.20	0.35	0.11	0.21	0.098	1.86	0.98+j2.25	0.93+j0.110
2	35	0.868	0.40	0.18	0.19	0.093	1.18	0.72+j2.22	0.67+j0.105
2	50	0.641	0.45	0.20	0.18	0.086	1.65	0.54+j2.20	0.49+j0.100
2	70	0.443	0.50	0.31	0.18	0.083	0.46	0.39+j2.17	0.34+j0.097
2	95	0.320	0.60	0.33	0.17	0.080	0.35	0.30+j2.15	0.25+0.094
2	120	0.253	0.65	0.35	0.17	0.078	0.28	0.25+j2.16	0.20+j0.092
2	150	0.206	0.70	0.41	0.16	0.076	0.18	0.19+j2.11	0.14+0.090
2	185	0.164	0.75	0.44	0.14	0.074	0.16	0.15+j2.10	0.10+j0.089
3	16	1.91	0.30	0.09	0.31	0.104	2.91	1.52+j2.28	1.47+j0.117
3	25	1.20	0.35	0.11	0.28	0.098	1.86	0.98+j2.25	0.93+j0.110
3	35	0.868	0.40	0.18	0.27	0.093	1.18	0.72+j2.22	0.67+j0.105
3	50	0.641	0.45	0.20	0.25	0.086	1.65	0.54+j2.20	0.49+j0.100
3	70	0.443	0.50	0.31	0.24	0.083	0.46	0.39+j2.17	0.34+j0.097
3	95	0.320	0.60	0.33	0.23	0.080	0.35	0.30+j2.15	0.25+0.094
3	120	0.253	0.65	0.35	0.22	0.078	0.28	0.25+j2.16	0.20+j0.092
3	150	0.206	0.70	0.41	0.21	0.076	0.18	0.19+j2.11	0.14+0.090
3	185	0.164	0.75	0.44	0.19	0.074	0.16	0.15+j2.10	0.10+j0.089

**Aluminium Solid Conductor**

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAX CONDUCTOR DC RESISTANCE AT 20°C ohms/km	NOMINAL CORE TO CORE CAPACITANCE μF/km ²	NOMINAL CORE TO EARTH CAPACITANCE μF/km ²	INDUCTANCE mH/km	REACTANCE ohms/km	IMPEDANCE ohms/km	ZERO SEQUENCE DATA ohms/km	SEQUENCE DATA POSITIVE / NEGATIVE ohms/km
4	16	1.91	0.35	0.10	0.39	0.104	2.91	1.52+j2.28	1.47+j0.117
4	25	1.20	0.40	0.18	0.36	0.098	1.86	0.98+j2.25	0.93+j0.110
4	35	0.868	0.45	0.21	0.34	0.093	1.18	0.72+j2.22	0.67+j0.105
4	50	0.641	0.50	0.32	0.31	0.086	1.65	0.54+j2.20	0.49+j0.100
4	70	0.443	0.55	0.32	0.30	0.083	0.46	0.39+j2.17	0.34+j0.097
4	95	0.320	0.65	0.36	0.29	0.080	0.35	0.30+j2.15	0.25+0.094
4	120	0.253	0.70	0.39	0.28	0.078	0.28	0.25+j2.16	0.20+j0.092
4	150	0.206	0.75	0.48	0.23	0.076	0.18	0.19+j2.11	0.14+0.090
4	185	0.164	0.80	0.51	0.21	0.074	0.16	0.15+j2.10	0.10+j0.089

Aluminium Stranded Conductor

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	MAX CONDUCTOR DC RESISTANCE AT 20°C ohms/km	NOMINAL CORE TO CORE CAPACITANCE μF/km ²	NOMINAL CORE TO EARTH CAPACITANCE μF/km ²	INDUCTANCE mH/km	REACTANCE ohms/km	IMPEDANCE ohms/km	ZERO SEQUENCE DATA ohms/km	SEQUENCE DATA POSITIVE / NEGATIVE ohms/km
2	120	0.253	0.64	0.36	0.18	0.078	0.28	0.25+j2.16	0.20+j0.092
2	150	0.206	0.69	0.42	0.16	0.076	0.18	0.19+j2.11	0.14+j0.090
2	185	0.164	0.74	0.45	0.14	0.074	0.16	0.15+j2.10	0.10+j0.089
3	120	0.253	0.64	0.36	0.23	0.078	0.28	0.25+j2.13	0.18+j0.092
3	150	0.206	0.69	0.42	0.21	0.076	0.18	0.21+j2.11	0.12+0.090
3	185	0.164	0.74	0.45	0.19	0.074	0.16	0.18+j2.10	0.08+j0.089
4	120	0.253	0.64	0.36	0.28	0.078	0.28	0.25+j2.13	0.16+j0.092
4	150	0.206	0.69	0.42	0.23	0.076	0.18	0.21+j2.11	0.10+0.090
4	185	0.164	0.74	0.45	0.21	0.074	0.16	0.18+j2.10	0.06+j0.089

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.