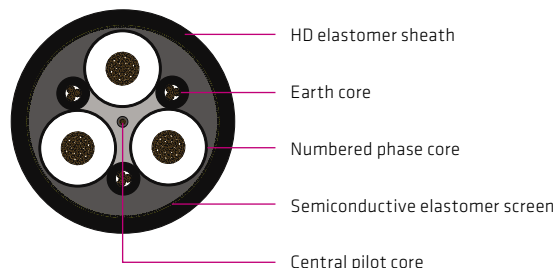


Type 241SF 1.1-11 kV



Cable description

Semiconductive screened cable for general use to AS/NZS 1802.

Application

1.1/1.1 kV to 11/11 kV general purpose cable used for continuous miners, or feeder cables to pumps. Also commonly used for monorails supplying DCBs and longwalls. Cable stranding and lay-up have been modified to provide for maximum flexibility in arduous conditions.

Type 241SF cable designed for applications requiring maximum flexibility.

Approvals

AS/NZS 1802

Behaviour in flame and fire

Fire retardant

Temperature range

Maximum operating temperature: +90 °C

Minimum operating temperature: -25 °C

Flexibility

Very flexible

Resistance to

Chemical exposure: Very good/Frequent

Mechanical impact: Heavy

Water exposure: Immersion/Temporary coverage

Solar radiation and

weather exposure: Suitable for direct exposure

Cable design

Semiconductive elastomer screened power cores, with three earth cores and one extensible pilot.

Core: Metal: tinned copper, three core three earths plus central pilot.

Conductor separator tape:
1.1/1.1 kV – polyester where necessary.
3.3 kV and above – semiconductive screen.

Insulation: EPR (R-EP-90) core with durably printed core numbers at intervals less than 300 mm, on black semiconductive insulation screen for phase identification.

Screen: Semiconductive elastomer screen.

Pilot: Single, in centre of cable.
Maximum DC resistance;
5.5 Ω/100 m for power cores to 35 mm².
3 Ω/100 m for power conductors above 35 mm².

Earth: Three semiconductive elastomer covered flexible earths, located in the interstices.

Sheath: Open weave reinforcement, under heavy duty HD-85-PCP.

Installation conditions

In free air

In duct

Mobile equipment

Machines

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Physical & electrical characteristics

Type 241SF 1.1-11 kV											
Voltage rating & part number	Power conductor							Earth	Cable		
	Nominal area mm ²	Nominal diameter mm	Insulation thickness mm	ac Resistance @ 90°C & 50Hz Ω/km	Reactance @ 50Hz Ω/km	3 phase voltage drop @ 90°C & 50Hz mV/A.m	Capacitance to earth μF/phase/km		Approx area (each) mm ²	Sheath thickness mm	Nominal diameter mm
Type 241.1 SF											
70-241-1 SF	70	12.1	1.8	0.346	0.0985	0.623	0.619	12.5	5.3	52.7	525
95-241-1 SF	95	13.6	2.0	0.271	0.0968	0.498	0.622	12.5	5.8	57.6	635
120-241-1 SF	120	15.6	2.1	0.210	0.0938	0.398	0.673	13.75	6.3	63.6	785
150-241-1 SF	150	17.5	2.3	0.166	0.0922	0.329	0.685	17	6.7	69.2	955
185-241-1 SF	185	19.0	2.5	0.137	0.0898	0.284	0.674	22	7.3	74.8	1115
240-241-1 SF	240	21.9	2.8	0.107	0.0881	0.240	0.689	27	8.0	83.7	1405
300-241-1 SF	300	24.4	3.0	0.0851	0.0862	0.210	0.736	35.7	8.7	91.2	1715
Type 241.3 SF											
70-241-3 SF	70	12.1	3.0	0.346	0.107	0.627	0.422	12.5	6.4	60.9	635
95-241-3 SF	95	13.6	3.0	0.271	0.103	0.502	0.461	16	6.8	64.8	750
120-241-3 SF	120	15.6	3.0	0.210	0.0991	0.402	0.517	20	7.2	70.0	900
150-241-3 SF	150	17.5	3.0	0.166	0.0961	0.332	0.568	27	7.6	74.8	1075
185-241-3 SF	185	19.0	3.0	0.137	0.0924	0.286	0.600	35.2	8.0	78.9	1225
240-241-3 SF	240	21.9	3.0	0.107	0.0891	0.241	0.675	39.5	8.6	86.2	1485
300-241-3 SF	300	24.4	3.0	0.0851	0.0867	0.210	0.744	50	9.1	92.7	1775
Type 241.6 SF											
70-241-6 SF	70	12.1	5.0	0.346	0.118	0.633	0.283	12.5	7.4	72.0	820
95-241-6 SF	95	13.6	5.0	0.271	0.114	0.509	0.307	16	7.9	76.1	945
120-241-6 SF	120	15.6	5.0	0.210	0.109	0.410	0.341	20	8.3	81.3	1110
150-241-6 SF	150	17.5	5.0	0.166	0.105	0.340	0.371	27	8.6	85.8	1290
185-241-6 SF	185	19.0	5.0	0.137	0.101	0.295	0.390	35.2	9.0	89.9	1445
240-241-6 SF	240	21.9	5.0	0.106	0.0971	0.249	0.436	39.5	9.6	97.2	1725
300-241-6 SF	300	24.4	5.0	0.0847	0.0941	0.219	0.478	50	10.2	104	2040
Type 241.11 SF											
70-241-11 SF	70	12.1	7.6	0.346	0.129	0.640	0.212	12.5	8.9	86.4	1090
95-241-11 SF	95	13.6	7.6	0.271	0.125	0.517	0.229	16	9.3	90.3	1225
120-241-11 SF	120	15.6	7.6	0.210	0.119	0.418	0.252	20	9.7	95.5	1405
150-241-11 SF	150	17.5	7.6	0.165	0.115	0.348	0.273	27	10.0	100.0	1600
185-241-11 SF	185	19.0	7.6	0.136	0.110	0.303	0.286	35.2	10.4	104	1765
240-241-11 SF	240	21.9	7.6	0.106	0.106	0.260	0.317	39.5	11.0	111	2080

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