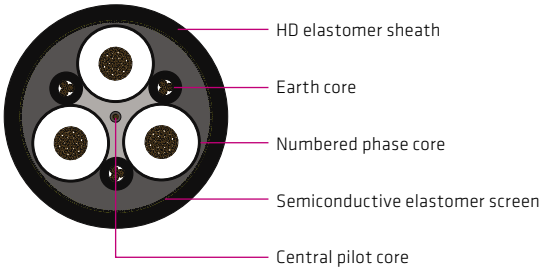
Type 241 1.1-11 kV



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. Typically, a more flexible cable for use is a semiconductive screen instead of a metal screen.

Approvals

AS/NZS 1802

Behaviour in flame and fire

Fire retardant

Temperature range

Maximum operating temperature: +90 °C
Minimum operating temperature: -25 °C

Flexibility

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 mm^2. 3 Ω/100 m for power conductors above 35 mm^2.
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

Physical & electrical characteristics

Type 241 1.1-11 kV											
	Power conductor							Earth	Cable		
Voltage rating & part number	Nominal area mm²	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) mm²	Sheath thickness mm	Nominal diameter mm	Approx mass kg/100m
Type 241.1											
6-241-1	6	3.5	1.5	4.32	0.139	7.49	0.259	1	3.8	29.9	130
10-241-1	10	4.6	1.5	2.58	0.127	4.47	0.314	1.5	3.8	32.0	155
16-241-1	16	6.2	1.6	1.58	0.116	2.74	0.379	3	3.9	35.9	200
25-241-1	25	7.2	1.6	0.951	0.110	1.66	0.432	4.5	4.2	38.9	255
35-241-1	35	8.4	1.6	0.698	0.106	1.22	0.493	6	4.4	42.0	310
50-241-1	50	9.7	1.7	0.523	0.102	0.923	0.526	8	4.9	46.3	380
70-241-1	70	12.0	1.8	0.346	0.0965	0.622	0.599	12.5	5.3	52.4	510
95-241-1	95	13.3	2.0	0.271	0.0942	0.497	0.591	12.5	5.8	57.1	605
120-241-1	120	15.3	2.1	0.210	0.0912	0.397	0.640	13.75	6.3	62.9	745
150-241-1	150	17.2	2.3	0.166	0.0896	0.327	0.652	17	6.7	68.6	910
185-241-1	185	18.8	2.5	0.137	0.0885	0.283	0.657	22	7.3	74.4	1085
240-241-1	240	21.7	2.8	0.107	0.0868	0.239	0.672	27	8.0	83.2	1370
300-241-1	300	24.3	3.0	0.0851	0.0848	0.208	0.719	35.2	8.7	90.8	1670
Type 241.3											
16-241-3	16	6.2	3.0	1.58	0.129	2.75	0.255	3	5.0	45.0	285
25-241-3	25	7.2	3.0	0.951	0.123	1.66	0.280	4.5	5.3	48.2	350
35-241-3	35	8.4	3.0	0.698	0.117	1.23	0.311	6	5.6	51.2	410
50-241-3	50	9.7	3.0	0.523	0.112	0.926	0.347	8	6.0	55.0	485
70-241-3	70	12.0	3.0	0.346	0.105	0.626	0.408	12.5	6.4	60.6	620
95-241-3	95	13.3	3.0	0.271	0.101	0.501	0.439	16	6.8	64.2	715
120-241-3	120	15.3	3.0	0.210	0.0965	0.400	0.492	20	7.2	69.3	855
150-241-3	150	17.2	3.0	0.166	0.0934	0.330	0.541	27	7.6	74.2	1030
185-241-3	185	18.8	3.0	0.137	0.0911	0.285	0.584	35.2	8.0	78.5	1190
240-241-3	240	21.7	3.0	0.107	0.0878	0.240	0.659	39.5	8.6	85.8	1450
300-241-3	300	24.3	3.0	0.0851	0.0854	0.209	0.727	50	9.1	92.3	1735
Type 241.6											
16-241-6	16	6.2	5.0	1.58	0.141	2.75	0.181	3	6.1	55.9	410
25-241-6	25	7.2	5.0	0.951	0.135	1.66	0.193	4.5	6.4	59.4	495
35-241-6	35	8.4	5.0	0.698	0.129	1.23	0.212	6	6.7	62.5	560
50-241-6	50	9.7	5.0	0.523	0.123	0.931	0.234	8	7.1	66.2	645
70-241-6	70	12.0	5.0	0.346	0.115	0.632	0.271	12.5	7.4	71.7	790
95-241-6	95	13.3	5.0	0.271	0.111	0.507	0.292	16	7.9	75.5	905
120-241-6	120	15.3	5.0	0.210	0.106	0.407	0.325	20	8.3	80.6	1065
150-241-6	150	17.2	5.0	0.166	0.102	0.337	0.354	27	8.6	85.1	1235
185-241-6	185	18.8	5.0	0.137	0.0997	0.293	0.381	35.2	9.0	89.5	1410
240-241-6	240	21.7	5.0	0.106	0.0957	0.247	0.426	39.5	9.6	96.8	1685
300-241-6	300	24.3	5.0	0.0847	0.0927	0.217	0.467	50	10.2	104	1995
Type 241.11											
25-241-11	25	7.2	7.6	0.951	0.148	1.67	0.150	4.5	7.8	73.8	720
35-241-11	35	8.4	7.6	0.698	0.141	1.23	0.163	6	8.1	76.8	800
50-241-11	50	9.7	7.6	0.523	0.135	0.936	0.178	8	8.5	80.5	895
70-241-11	70	12.0	7.6	0.346	0.126	0.638	0.204	12.5	8.9	86.1	1060
95-241-11	95	13.3	7.6	0.271	0.122	0.515	0.219	16	9.3	89.7	1180
120-241-11	120	15.3	7.6	0.210	0.116	0.416	0.241	20	9.7	94.8	1350
150-241-11	150	17.2	7.6	0.165	0.112	0.345	0.261	27	10.0	99.3	1540
185-241-11	185	18.8	7.6	0.136	0.109	0.302	0.279	32	10.4	104	1720
240-241-11	240	21.7	7.6	0.106	0.104	0.257	0.309	39.5	11.0	111	2035