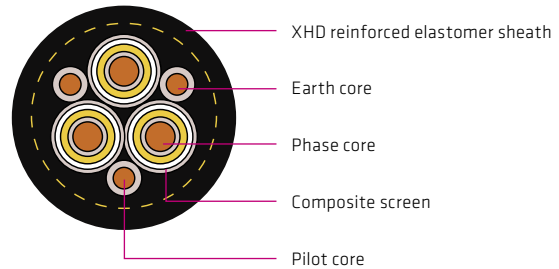


Type 450 3.3-33 kV



Cable description

Class 1 composite screened cable for general use.

Application

3.3/3.3 kV to 33/33 kV reeling cables for use with drag-lines, shovels, excavators, wharf cranes, and materials handling equipment. This cable is suitable for slow reeling and trailing applications.

Approvals

AS/NZS 2802

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

Composite screened power cores with two earth and one pilot core.

Core: Metal: tinned copper, three core plus two earths and one pilot.
Semiconductive barrier taped and elastomer screened.

Insulation: EPR (XR-EP-90) semiconductive elastomer screened.

Screen: Composite tinned annealed copper wire and polyester yarn screen, under a semiconductive tape.

Core colours: red, white, blue, braid tracers.

Earth: Two semiconductive elastomer covered tinned annealed copper wire earths disposed in the cable interstices.

Pilot: One, elastomer covered tinned annealed copper wire pilot disposed in the cable interstices.

Sheath: Extra heavy duty XHD-85-PCP, incorporating a polyaramid braid reinforcement.

Installation conditions

In free air

Mobile equipment

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Physical & electrical characteristics

Type 450 3.3-33 kV												
Voltage rating & part number	Power conductor							Screen	Earth & pilot	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 mm ² /phase	Approx area (each) mm ²	Sheath thickness mm
Type 450.3												
25-450-3	25	7.2	2.2	0.951	0.118	1.66	0.395	7.9	8	4.8	46.7	355
35-450-3	35	8.4	2.2	0.698	0.113	1.22	0.437	8.5	8	5.1	49.7	415
50-450-3	50	9.7	2.4	0.523	0.109	0.925	0.450	9.3	12	5.6	54.5	515
70-450-3	70	12.0	2.4	0.346	0.103	0.625	0.525	14	18	6.0	60.5	660
95-450-3	95	13.3	2.4	0.271	0.0986	0.500	0.563	15	25	6.3	63.9	765
120-450-3	120	15.3	2.4	0.210	0.0947	0.399	0.628	16	31	6.4	68.4	900
150-450-3	150	17.2	2.4	0.166	0.0918	0.329	0.687	17	39.5	6.6	72.8	1070
185-450-3	185	18.8	2.4	0.137	0.0896	0.284	0.741	18	50	6.7	76.5	1225
240-450-3	240	21.7	2.4	0.107	0.0867	0.239	0.833	25	60	6.9	83.3	1485
300-450-3	300	24.3	2.4	0.0851	0.0844	0.208	0.917	27	80	7.0	89.0	1800
Type 450.6												
25-450-6	25	7.2	3.0	0.951	0.124	1.66	0.309	8.8	8	5.2	51.1	410
35-450-6	35	8.4	3.0	0.698	0.118	1.23	0.340	9.3	8	5.5	54.2	470
50-450-6	50	9.7	3.0	0.523	0.113	0.927	0.375	10	12	5.9	57.8	560
70-450-6	70	12.0	3.0	0.346	0.106	0.627	0.435	15	18	6.3	63.9	710
95-450-6	95	13.3	3.0	0.271	0.102	0.502	0.465	16	25	6.4	66.8	810
120-450-6	120	15.3	3.0	0.210	0.0979	0.401	0.518	17	31	6.5	71.4	950
150-450-6	150	17.2	3.0	0.166	0.0948	0.331	0.566	18	39.5	6.6	75.5	1120
185-450-6	185	18.8	3.0	0.137	0.0923	0.286	0.608	20	50	6.8	79.3	1280
240-450-6	240	21.7	3.0	0.106	0.0893	0.240	0.682	27	60	7.0	86.2	1545
300-450-6	300	24.3	3.0	0.0850	0.0871	0.211	0.754	29	80	7.1	92.3	1875
Type 450.11												
25-450-11	25	7.2	5.0	0.951	0.136	1.66	0.217	14	8	6.3	62.3	565
35-450-11	35	8.4	5.0	0.698	0.129	1.23	0.236	15	8	6.4	65.0	625
50-450-11	50	9.7	5.0	0.523	0.123	0.931	0.258	16	12	6.5	68.1	715
70-450-11	70	12.0	5.0	0.346	0.115	0.632	0.296	17	18	6.6	73.1	855
95-450-11	95	13.3	5.0	0.271	0.111	0.507	0.317	18	25	6.7	76.1	965
120-450-11	120	15.3	5.0	0.210	0.107	0.408	0.350	20	31	6.9	80.7	1115
150-450-11	150	17.2	5.0	0.166	0.103	0.338	0.381	26	39.5	7.0	85.2	1315
185-450-11	185	18.8	5.0	0.137	0.100	0.294	0.407	27	50	7.1	89.0	1485
240-450-11	240	21.7	5.0	0.106	0.0964	0.248	0.453	30	60	7.3	95.5	1745
300-450-11	300	24.3	5.0	0.0846	0.0937	0.219	0.499	32	80	7.4	101	2080
Type 450.22												
35-450-22	35	8.4	7.6	0.698	0.142	1.23	0.178	19	8	6.8	77.2	835
50-450-22	50	9.7	7.6	0.523	0.135	0.936	0.194	20	12	6.9	80.2	930
70-450-22	70	12.0	7.6	0.346	0.127	0.638	0.219	27	18	7.0	85.6	1105
95-450-22	95	13.3	7.6	0.271	0.122	0.515	0.234	27	25	7.2	88.9	1230
120-450-22	120	15.3	7.6	0.210	0.117	0.416	0.256	29	31	7.3	93.4	1395
150-450-22	150	17.2	7.6	0.165	0.113	0.346	0.276	31	39.5	7.4	97.5	1580
185-450-22	185	18.8	7.6	0.136	0.110	0.303	0.294	32	50	7.5	101	1760
240-450-22	240	21.7	7.6	0.106	0.105	0.258	0.325	34	60	7.7	108	2035
33 kV available on request												

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