

Three Core Armoured Power Cable 6.35/11kV

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 6.35/11kV (12)

FAULT LEVEL: Up to 10kA for 1sec or to customer requirements

IMPULSE VOLTAGE: 95kV

TEMPERATURE RANGE:

In continuous operation Max. conductor temp 90°C.

Lowest cable temperature during installation: -10°C and below 0°C special precaution must be taken.

BENDING RADIUS:

During installation: 18 x D. When installed: 12 x D (PVC sheathed cables)

D = Overall diameter of cable

DESIGN

CONDUCTOR:

Stranded, round and compacted aluminium complying with AS/NZS 1125

SEMI-CONDUCTIVE CONDUCTOR SCREEN:

Extruded cross-linked compound

INSULATION:

XLPE complying with AS/NZS 3808

SEMI-CONDUCTIVE INSULATION SCREEN:

Extruded hand strippable cross-linked compound

METALLIC SCREEN:

Circular copper wires

INNER SHEATH:

Black PVC or PE

ARMOUR:

Galvanized steel wires complying with AS/NZS 3863

OUTER SHEATH:

Black PVC. PE, halogen free, flame retardant, termite protection in the form of nylon, double brass tape and chemical additive also available.

Other colours available on request



6.35/11kV Three Core Armoured Aluminium Conductor

Product code	Conductor size	Nominal thickness of insulation	Diameter over insulation	Number & Nominal Diameter of Screen Wires	Diameter over inner sheath (approx.)	Diameter of steel wires	Overall diameter (approx.)	Mass (approx.)	Maximum pulling tension	Minimum bending radius	
										During installation	Installed
	mm ²	mm	mm	no./mm	mm	mm	mm	kg/km	kN	mm	mm
3MV050A11HS	50	3.4	16.1	19/0.85	45.3	2.5	55.8	4680	7.5	1000	670
3MV070A11HS	70	3.4	17.9	27/0.85	49.3	2.5	60.1	5428	11	1080	720
3MV095A11HS	95	3.4	19.5	36/0.85	52.9	2.5	64.0	6172	14	1150	770
3MV120A11HS	120	3.4	21.0	40/0.85	56.3	2.5	67.5	6820	18	1220	810
3MV150A11HS	150	3.4	22.5	40/0.85	59.6	2.5	71.1	7428	23	1280	850
3MV185A11HS	185	3.4	24.3	40/0.85	63.7	2.5	75.5	8215	25	1360	910
3MV240A11HS	240	3.4	26.5	40/0.85	68.6	3.15	82.1	10223	25	1480	990
3MV300A11HS	300	3.4	28.6	40/0.85	73.3	3.15	87.2	11324	25	1570	1050
3MV400A11HS	400	3.4	31.5	40/0.85	79.8	3.15	94.1	12986	25	1690	1130

Electrical Data

Conductor size	Maximum conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz and 90°C	Insulation resistance at 20°C	Charging current per phase	Dielectric loss per phase	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
mm ²	Ω/km	Ω/km	Ω/km	MΩ.km	A/km	W/km	Ω/km	Ω/km
50	0.641	0.822	0.118	9500	0.505	12.8	1.45	0.0722
70	0.443	0.568	0.109	8300	0.580	14.7	1.09	0.0627
95	0.320	0.411	0.104	7400	0.646	16.4	0.856	0.0581
120	0.253	0.325	0.100	6800	0.708	18.0	0.744	0.0545
150	0.206	0.265	0.0971	6300	0.770	19.6	0.687	0.0515
185	0.164	0.211	0.0940	5700	0.844	21.4	0.632	0.0486
240	0.125	0.162	0.0909	5200	0.934	23.7	0.532	0.0456
300	0.100	0.130	0.0884	4700	1.02	25.9	0.496	0.0432
400	0.0778	0.102	0.0848	4200	1.14	28.9	0.455	0.0397

Current Ratings

Conductor size	Current rating at core temp. 90°C in ground	Current rating at core temp. 90°C in air	Max. short-circuit current on the conductor during 1sec at initial temp. 90°C	Short circuit current rating of the screen 1sec
mm ²	A	A	kA	kA
50	156	152	4.7	4.8
70	191	189	6.6	6.8
95	227	228	9.0	9.1
120	257	261	11.3	10.1
150	287	295	14.2	10.1
185	323	337	17.5	10.1
240	371	393	22.7	10.1
300	414	445	28.4	10.1
400	467	510	37.8	10.1