Three Core Power Cable 6.35/11kV

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 6.35/11 (12) kV

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

IMPULSE VOLTAGE: 95kV

TEMPERATURE RANGE:
In continuous operation Max. conductor temp 90℃.
Lowest cable temperature during installation: -10℃ and
below 0℃ 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
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 Aluminium Conductor

Product code	Conductor size	Nominal thickness of insulation	Diameter over insulation	Number & Nominal Diameter of Screen Wires	Overall diameter (approx.)	Mass (approx.)	Maximum pulling tension	Minimum bending radius	
								During installation	Installed
	mm^2	mm	mm	no./mm	mm	kg/km	kN	mm	mm
3MV050A11HP	50	3.4	16.1	19/0.85	47.4	1975	7.5	850	570
3MV070A11HP	70	3.4	17.9	27/0.85	51.5	2464	11	930	620
3MV095A11HP	95	3.4	19.5	36/0.85	55.2	2996	14	990	660
3MV120A11HP	120	3.4	21.0	40/0.85	58.6	3431	18	1060	700
3MV150A11HP	150	3.4	22.5	40/0.85	62.1	3824	23	1120	750
3MV185A11HP	185	3.4	24.3	40/0.85	66.3	4343	25	1190	800
3MV240A11HP	240	3.4	26.5	40/0.85	71.3	5078	25	1280	860
3MV300A11HP	300	3.4	28.6	40/0.85	76.2	5834	25	1370	910
3MV400A11HP	400	3.4	31.5	40/0.85	82.8	6919	25	1490	990
3MV500A11HP	500	3.4	35.3	40/0.85	96.9	8084	25	1740	1160

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Electrical Data

Conductor size	Maximum conductor DC resistance at 20℃	Conductor AC resistance at 50Hz and 90℃	Inductive reactance at 50Hz and 90℃	Insulation resistance at 20℃	Charging current per phase	Dielectric loss per phase	Zero sequence resistance at 20℃	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	2.32	0.0722
70	0.443	0.568	0.109	8300	0.580	14.7	1.62	0.0627
95	0.320	0.411	0.104	7400	0.646	16.4	1.20	0.0581
120	0.253	0.325	0.100	6800	0.708	18.0	1.05	0.0545
150	0.206	0.265	0.0971	6300	0.770	19.6	1.00	0.0515
185	0.164	0.211	0.0940	5700	0.844	21.4	0.961	0.0486
240	0.125	0.162	0.0909	5200	0.934	23.7	0.922	0.0456
300	0.100	0.130	0.0884	4700	1.02	25.9	0.897	0.0432
400	0.0778	0.102	0.0848	4200	1.14	28.9	0.875	0.0397
500	0.0617	0.0822	0.0835	3700	1.29	32.9	0.859	0.0386

Current Ratings

Conductor size	Current rating at core temp. 90℃ in ground	Current rating at core temp. 90℃ in air	Max. short-circuit current on the conductor during 1sec at initial temp. 90℃	Short circuit current rating of the screen 1sec
mm^2	A	A	kA	kA
50	158	151	4.7	4.8
70	194	189	6.6	6.8
95	231	229	9.0	9.1
120	263	264	11.3	10.1
150	294	300	14.2	10.1
185	334	344	17.5	10.1
240	387	406	22.7	10.1
300	436	465	28.4	10.1
400	499	542	37.8	10.1
500	553	604	47.3	10.1