

Three Core Armoured 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°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 copper 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, Black

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 Copper 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
3MV035C11HS	35	3.4	14.9	20/0.85	42.6	2.5	52.9	4962	7.4	950	640
3MV050C11HS	50	3.4	16.1	29/0.85	45.3	2.5	55.8	5715	11	1000	670
3MV070C11HS	70	3.4	17.9	40/0.85	49.3	2.5	60.1	6896	15	1080	720
3MV095C11HS	95	3.4	19.5	40/0.85	52.9	2.5	64.0	7987	20	1150	770
3MV120C11HS	120	3.4	21.0	40/0.85	56.3	2.5	67.5	9024	25	1220	810
3MV150C11HS	150	3.4	22.5	40/0.85	59.6	2.5	71.1	10153	25	1280	850
3MV185C11HS	185	3.4	24.3	40/0.85	63.7	2.5	75.5	11618	25	1360	910
3MV240C11HS	240	3.4	26.5	40/0.85	68.6	3.15	82.1	14698	25	1480	990
3MV300C11HS	300	3.4	28.6	40/0.85	73.3	3.15	87.2	16948	25	1570	1050
3MV400C11HS	400	3.4	31.5	40/0.85	79.8	3.15	94.1	20162	25	1670	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
35	0.524	0.668	0.125	11000	0.455	11.5	1.34	0.0781
50	0.387	0.494	0.118	9500	0.505	12.8	1.03	0.0722
70	0.268	0.342	0.109	8300	0.580	14.7	0.782	0.0627
95	0.193	0.247	0.104	7400	0.646	16.4	0.696	0.0581
120	0.153	0.196	0.100	6800	0.708	18.0	0.645	0.0545
150	0.124	0.159	0.0971	6300	0.770	19.6	0.605	0.0515
185	0.0991	0.128	0.0940	5700	0.844	21.4	0.568	0.0486
240	0.0754	0.0984	0.0909	5200	0.934	23.7	0.483	0.0456
300	0.0601	0.0796	0.0884	4700	1.02	25.9	0.457	0.0432
400	0.047	0.0638	0.0848	4200	1.14	28.9	0.425	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
35	171	164	5.0	5.1
50	201	196	7.1	7.3
70	245	242	10.0	10.1
95	291	292	13.6	10.1
120	328	334	17.1	10.1
150	366	376	21.4	10.1
185	410	427	26.4	10.1
240	466	495	34.3	10.1
300	517	556	42.9	10.1
400	574	628	57.2	10.1