

Three Core Cu 12.7/22kV XLPE Insulated HD Cu Screened PVC SWA PVC

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 12.7/22 (24) kV

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

IMPULSE VOLTAGE: 95kV

TEMPERATURE RANGE:

In continuous operations Max. conductor temp 90°C

Lowest cable temperature during installation: -10°C and below 0°C special precautions 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 semi-conductive cross-linked compound

METALLIC SCREEN:

Circular copper wires

INNER SHEATH:

Black PVC

AMOUR:

Galvanised steel wires complying with AS/NZS 3863

OUTER SHEATH:

Black PVC as standard. HDPE, halogen free, flame retardant, termite protection in the form of nylon, double brass tape or chemical additive also available.





Product Code	Conductor size mm ²	Nominal insulation thickness mm	Diameter over insulation mm	Number & diameter of screen wires no./mm	Diameter over inner sheath (approx.) mm	Diameter of steel wires mm	Overall diameter (approx.) mm	Mass (approx.) kg/km	Maximum pulling tension kN	Minimum Bending Radius	
										During installation mm	Installed mm
3MV035C22HS	35	5.5	19.1	20/0.85	52.0	2.5	63.0	6200	7.4	1130	760
3MV050C22HS	50	5.5	20.3	29/0.85	54.7	2.5	65.9	7000	11	1190	790
3MV070C22HS	70	5.5	22.1	40/0.85	58.7	2.5	70.2	8200	15	1260	840
3MV095C22HS	95	5.5	23.7	40/0.85	62.3	2.5	74.0	9400	20	1330	890
3MV120C22HS	120	5.5	25.2	40/0.85	65.7	3.15	79.0	11400	25	1420	950
3MV150C22HS	150	5.5	26.7	40/0.85	69.0	3.15	82.6	12600	25	1490	990
3MV185C22HS	185	5.5	28.5	40/0.85	73.1	3.15	86.9	14200	25	1560	1040
3MV240C22HS	240	5.5	30.7	40/0.85	78.0	3.15	92.2	16500	25	1660	1110
3MV300C22HS	300	5.5	32.8	40/0.85	82.7	3.15	97.2	18800	25	1750	1170

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Electrical Data

Product Code	Conductor size mm ²	Max. conductor DC resistance at 20°C Ω/km	Conductor AC resistance at 50Hz and 90°C Ω/km	Inductive reactance at 50Hz and 90°C Ω/km	Insulation resistance at 20°C MΩ.km	Charging current per phase A/km	Dielectric loss per phase W/km	Zero sequence resistance at 20°C Ω/km	Zero sequence reactance at 50Hz Ω/km
3MV035C22HS	35	0.524	0.668	0.138	15000	0.646	32.8	1.26	0.0917
3MV050C22HS	50	0.387	0.494	0.131	14000	0.710	36.1	0.987	0.0851
3MV070C22HS	70	0.268	0.342	0.120	12000	0.805	40.9	0.751	0.0745
3MV095C22HS	95	0.193	0.247	0.115	11000	0.888	45.1	0.666	0.0691
3MV120C22HS	120	0.153	0.196	0.110	10000	0.966	49.1	0.569	0.0649
3MV150C22HS	150	0.124	0.159	0.107	9200	1.04	53.0	0.531	0.0613
3MV185C22HS	185	0.0991	0.128	0.103	8500	1.14	57.7	0.495	0.0577
3MV240C22HS	240	0.0754	0.0981	0.0991	7700	1.25	63.5	0.458	0.0541
3MV300C22HS	300	0.0601	0.0792	0.0961	7100	1.36	68.9	0.433	0.0512

Current Ratings

Conductor Size mm ²	Current rating at core temp. 90°C in ground A 	Current rating at core temp. 90°C in air A 	Max. short-circuit current on the conductor during 1sec at initial temp. 90°C kA	Short circuit current rating of the screen 1 sec. kA
35	171	167	5.0	5.1
50	201	199	7.1	7.3
70	244	246	10.0	10.1
95	290	296	13.6	10.1
120	328	339	17.1	10.1
150	365	381	21.4	10.1
185	408	431	26.4	10.1
240	465	499	34.3	10.1
300	516	560	42.9	10.1