Three Core Triplex Power Cable 12.7/22kV

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 12.7/22 (24)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: 25 x CD. When installed: 15 x CD (HDPE sheathed cables)
CD = Diameter of phase cable

DESIGN
CONDUCTOR:
Stranded, round and compacted copper or 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
BINDER: Water Blocking Taped
OUTER SHEATH: HDPE, Black

12.7/22kV Triplex HDPE Sheathed Copper Conductor

Product code	Conductor size	Nominal thickness of insulation	Diameter over insulation	Number & Nominal Diameter of Screen Wires	Diameter of phase cable	Overall diameter (approx.)	Mass (approx.)	Maximum pulling tension	Minimum bending radius			
									Phase cable		Cable bundle	
									During installation	Installed	During installation	Installed
	mm²	mm	mm	no./mm	mm	mm	kg/km	kN	mm	mm	mm	mm
3MV035C22TH	35	5.5	19.1	24/1.35	26.6	57.3	3382	7.4	670	400	860	570
3MV050C22TH	50	5.5	20.3	34/1.35	28.5	61.4	4257	11	710	430	920	610
3MV070C22TH	70	5.5	22.1	30/1.70	30.9	66.5	5565	15	770	460	1000	670
3MV095C22TH	95	5.5	23.7	38/1.52	32.2	69.3	6399	20	800	480	1040	690
3MV120C22TH	120	5.5	25.2	48/1.35	33.8	72.7	7203	25	840	510	1090	730
3MV150C22TH	150	5.5	26.7	48/1.35	35.4	76.2	8092	25	880	530	1140	760
3MV185C22TH	185	5.5	28.5	48/1.35	37.3	80.3	9254	25	930	560	1200	800
3MV240C22TH	240	5.5	30.7	48/1.35	39.6	85.4	11010	25	990	590	1280	850
3MV300C22TH	300	5.5	32.8	48/1.35	41.9	90.2	12859	25	1050	630	1350	900
3MV400C22TH	400	5.5	35.7	48/1.35	45.0	96.9	15405	25	1120	670	1450	970
3MV500C22TH	500	5.5	39.5	48/1.35	49.1	105.7	19843	25	1230	740	1590	1060

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Electrical Data

Conductor size	Maximum conductor DC resistance at 20℃	Cond.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
mm²	Ω/km	Ω/km	Ω/km	MΩ.km	A/km	W/km	Ω/km	Ω/km
35	0.524	0.668	0.148	15000	0.646	32.8	1.05	0.0917
50	0.387	0.494	0.143	14000	0.710	36.1	0.756	0.0859
70	0.268	0.342	0.132	12000	0.805	40.9	0.531	0.0758
95	0.193	0.247	0.125	11000	0.888	45.1	0.458	0.0698
120	0.153	0.196	0.121	10000	0.966	49.1	0.418	0.0655
150	0.124	0.159	0.117	9200	1.04	53.0	0.389	0.0619
185	0.0991	0.128	0.113	8500	1.14	57.7	0.364	0.0583
240	0.0754	0.0978	0.109	7700	1.25	63.5	0.341	0.0546
300	0.0601	0.0788	0.105	7100	1.36	68.9	0.326	0.0517
400	0.0470	0.0628	0.101	6400	1.50	76.4	0.313	0.0475
500	0.0373	0.0512	0.0986	5700	1.70	86.3	0.304	0.0457

Current Ratings

Conductor size	Continuous current-carrying capacity, A		Fault current carrying capacity for 1 second	Short circuit current rating of the screen 1sec
	in ground	In air		
mm²			Cond. kA	kA
35	147	140	5.0	5.0
50	176	171	7.1	7.1
70	214	210	10.0	10.0
95	254	250	13.6	10.0
120	286	283	17.1	10.0
150	319	317	21.4	10.0
185	367	372	26.4	10.0
240	421	429	34.3	10.0
300	470	481	42.9	10.0
400	527	543	57.2	10.0
500	584	605	71.5	10.0