Prysmian Australia Pty Ltd
A.C.N. 096 594 080 A.B.N. 36 096 594 080

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CABLE DESCRIPTION

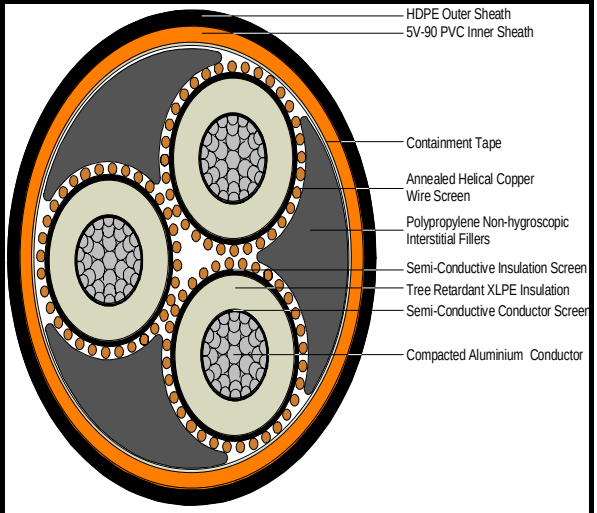
12.7/22kV 3 core 300mm² compacted aluminium conductor, Semi conductive XLPE conductor screen, Tree-retardant XLPE insulated, Semi conductive XLPE insulation Screen, 13.1kA per second plain annealed copper wire screen, Laid up, non-hygroscopic polypropylene filled and taped, 5V-90 PVC sheathed, HDPE sheathed. JEN SAP ID: 11014216

STANDARD	AS/NZS 4026-2 - MV : 2008	Reference Number	20334681

PHYSICAL CHARACTERISTICS

Conductor Diameter			
	Nominal	(mm)	20.6
Insulation Thickness (Nominal)		(mm)	5.5
Diameter over Insulation			
	Nominal	(mm)	33.0
Copper Wire Screen Construction (Nominal)		(No/mm)	52/0.85
Overall Cable Diameter			
	Nominal	(mm)	86.2
Cable Mass	Approx	(kg/km)	6,940
Minimum Bending Radius			
	During Installation	(mm)	2,150
	Installed	(mm)	1,290
Max. Pulling Tension	Stocking [f]	(kN)	10.3
	Conductor [f]	(kN)	25.0

CROSS-SECTIONAL DRAWING (NTS) [g]



ELECTRICAL CHARACTERISTICS [a]

Max. DC Resistance	@ 20˚C	(Ohm/km)	0.100
	@ 90˚C	(Ohm/km)	0.128
Max. AC Resistance @ 50Hz	@ 20˚C	(Ohm/km)	0.102
	@ 90˚C	(Ohm/km)	0.130
Inductive Reactance @ 50Hz		(Ohm/km)	0.0962
Star Inductance		(mH/km)	0.306
Capacitance per Core (Phase to Earth)		(µF/km)	0.344
Charging Current Per Phase		(A/km)	1.37
Maximum Design Stress		(kV/mm)	2.85
3 Phase Voltage Drop @ 50Hz & 90°C		(mV/A.m)	0.280
Zero Sequence Impedance @ 50Hz ($R_o + jX_o$) [c]	@ 20˚C	(Ohm/km)	0.738 + j 0.0510
	@ 90˚C	(Ohm/km)	0.941 + j 0.0510
Positive Sequence Impedance @ 50Hz ($R_1 + jX_1$)	@ 20˚C	(Ohm/km)	0.102 + j0.0962
	@ 90˚C	(Ohm/km)	0.130 + j0.0962

CONTINUOUS CURRENT RATING [b]

Unenclosed in Air	(A)	503
Buried Direct	(A)	434
Buried in Ducts	(A)	371

SHORT CIRCUIT RATING

Metallic Screen [d]	(kA/1 Sec.)	13.1
Phase Conductor [e]	(kA/1 Sec.)	28.3

[a] Values given are calculated only.

[b] Based on 40°C ambient air temperature, not exposed to direct sunlight, burial depth of 0.8m, soil temperature of 25°C and soil thermal resistivity of 1.2°C.m/W. For single core cables, these are arranged in a trefoil formation "Touching". Screens solid point bonded (ie: bonded at both ends)

[c] Zero Sequence Impedance based on current return path through metallic screen only.

[d] Screen Short Circuit rating based on 80°C - 250°C temperature rise.

[e] Phase Conductor Short Circuit rating based on 90°C - 250°C temperature rise.

[f] To avoid exceeding maximum sidewall bearing pressure (SWBP) of 1450kg/m, maximum pulling tension (T) and minimum bending radius (R) indicated above may have to be reduced and increased respectively by using the formula SWBP (kg/m) = T (kN) / [0.0098 x R (m)].

[g] Colours are for illustration only and may not necessarily reflect actual colours in final product.

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Printed: 22/05/2024

Customer Acceptance:
Name: _____
Position: _____
Company: _____
Date: _____

Prepared By:
Name: AMALINA HALIM
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Issue Date: 5/22/2024 Issue No: 1
Reason For a Re-issue: NOT APPLICABLE - FIRST ISSUE