

TECHNICAL DATA SHEET HENGTONG CABLE AUSTRALIA

Doc No.: GD/TC/4120001-2020 Rev: 1

6.35/11(12) kV PWC

Date: 5/18/2023 Page: 1of 3

1. Design guidelines.

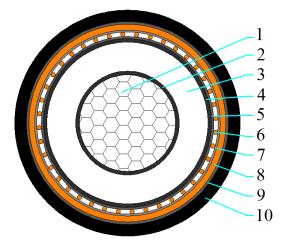
AS/NZS 1429.1	Electric cables-Polymeric insulated Part 1: For working voltages 1.9/3.3(3.6) kV up to and including 19/33(36) kV
AS/NZS 1125 Conductors in insulated electric cables and flexible cords	
AS/NZS 3808	Insulating and sheathing materials for electric cables

2. Application.

Normal use operating temperature	90°C
Max. conductor temperature during short circuit(5s)	250°C
Lowest recommended temperature during installation	0°C

3. Construction.

HCA - 630mm² x 1 core AI(WBY)/TR-XLPE/WBT/CWS(13.1kA)/WBT/PVC/NY/HDPE(Graphite) - HCA500984PWC



1	Conductor	Class 2, circular compacted Aluminium conductor (non-conductive		
	Conductor	water-blocking yarn) A Semi-conductive tape shall be applied over the conductor		
2	Conductor screen	Semi-conductive compound		
3 Insulation		TR-XLPE		
4 Insulation screen		Semi-conductive compound		
5	Bedding tape Semi-conductive water-blocking tape			
6 Metallic screen		Plain annealed copper wire screen		
7	Binder tape	Water-blocking tape		
8	Inner sheath	5V-90 Orange		
9	Insect protection Nylon 12 / Blue			
10	Outer sheath HDPE Black (with Graphite on the outer surface)			

4. Core identification and mark as listed below, or as purchase order.

Identification of core: Natural

Marking on cable: by printing in two diametrically opposed lines on the surface of outer sheath

HENGTONG CABLE AUSTRALIA "YEAR" ELECTRIC CABLE 6.35/11kV

630mm² 1 core AI(WBY) TR-XLPE WBT CWS(13.1kA) WBT PVC NY HDPE(Graphite) XXXXm



TECHNICAL DATA SHEET HENGTONG CABLE AUSTRALIA

6.35/11(12) kV PWC

Doc No.: GD/TC/4120001-2020 Rev: 1 Date: 5/18/2023 Page: 2of 3

5. Construction parameters.

Description	Unit	Values
Active Conductor		
Material	-	Aluminium
Nominal cross-sectional area	mm ²	630
Conductor shape	/	Circular Compacted
Approx. diameter of active conductor	mm	29.8
Conductor screen		
Min. thickness at any point	mm	0.3
Approx. diameter of conductor screen	mm	31.8
Active Insulation		
Material	-	TR-XLPE
Nominal thickness/Min. thickness at any point	mm	3.4/2.96
Approx. diameter over insulation	mm	38.6
Insulation screen		
Туре	-	Hand-strippable
Min. thickness at any point	mm	0.6
Approx. diameter of insulation screen	mm	40.1
Metallic screen		
No.& Diameter of copper wires per phase	No./mm	50/1.53
Approx. diameter of metallic screen	mm	44.0
Inner sheath		
Material	-	5V-90
Nominal thickness/Min. thickness at any point	mm	1.2/0.76
Approx. diameter of inner sheath	mm	48.5
Insect protection		
Material	-	Nylon 12
Min. thickness at any point	mm	0.5
Approx. diameter over Insect protection	mm	50.1
Outer sheath		
Material	-	HDPE
Nominal thickness/Min. thickness at any point	mm	2.5/1.80
Approx. diameter of outer sheath	mm	55.3
Max. diameter of cable	mm	58.1
Approx. mass of cable	kg/km	4,237
Electrical data		
Max. D.C. resistance of active conductor at 20 $^\circ\!\!\!{}^\circ\!\!\!{}^\circ\!\!\!{}^\circ$	Ω/km	0.0469
Max. A.C. resistance of conductor at 90 $^\circ\!\!\!\!^\circ$	Ω/km	0.063
Fault current carrying capacity of conductor	kA/1sec	59.5
Fault current carrying of screen	kA/1sec	13.1



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Doc No.: GD/TC/4120001-2020

Rev: 1

6 25/44/42) LV DWC

GROUP	6.35/11(12) kV PWC		Date: 5/18/2023 Page: 3of 3	
Description		Unit	Values	
Mechanical data				
Maximum pulling tension of con	kN	24.6		
Min. bending radius during insta	mm	1500		
Min. bending radius after installe	mm	1000		