

1. Design guidelines.

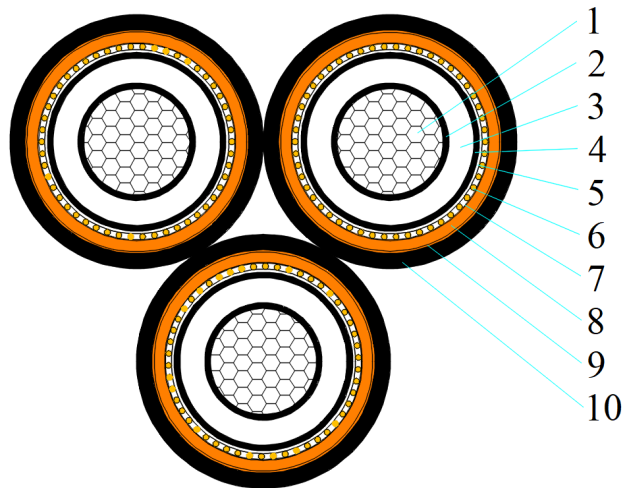
AS/NZS 1429.1	Electric cables-Polymeric insulated Part 1: For working voltages 1.9/3.3(3.6) kV up to and including 19/33(36) kV
AS/NZS 1125	Conductors in insulated electric cables and flexible cords
AS/NZS 3808	Insulating and sheathing materials for electric cables

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 - 95mm² x 3*1 Core Al(WBY)/TR-XLPE/WBT/CWS(9.2kA)/WBT/PVC/NY/HDPE(Graphite) Triplex - HCA504514PWC



1	Conductor	Class 2, circular compacted Aluminium conductor (non-conductive water-blocking yarn) A Semi-conductive tape may 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: Red, White, Blue (color tape)
Marking on cable: by printing in two diametrically opposed lines on the surface of outer sheath (one phase)
HENG TONG CABLE AUSTRALIA "YEAR" ELECTRIC CABLE 6.35/11kV
95mm ² x 3*1 core Al(WBY) TR-XLPE WBT CWS(9.2kA) WBT PVC NY HDPE(Graphite) Triplex XXXXm

5. Construction parameters.

Description	Unit	Values
Active Conductor		
Material	-	Aluminium
Nominal cross-sectional area	mm ²	95
Conductor shape	/	Circular Compacted
Approx. diameter of active conductor	mm	11.4
Conductor screen		
Min. thickness at any point	mm	0.3
Approx. diameter of conductor screen	mm	13.4
Active Insulation		
Material	-	TR-XLPE
Nominal thickness/Min. thickness at any point	mm	3.4/2.96
Approx. diameter over insulation	mm	20.2
Insulation screen		
Type	-	Hand-strippable
Min. thickness at any point	mm	0.6
Approx. diameter of insulation screen	mm	21.7
Metallic screen		
No.& Diameter of copper wires per phase	No./mm	34/1.53
Approx. diameter of metallic screen	mm	25.6
Laying up		
Direction of lay	-	Right
Diameter of laid up core	mm	25.6
Inner sheath		
Material	-	5V-90
Nominal thickness/Min. thickness at any point	mm	1.0/0.60
Approx. diameter of inner sheath	mm	30.1
Insect protection		
Material	-	Nylon 12
Min. thickness at any point	mm	0.5
Approx. diameter over Insect protection	mm	31.7
Outer sheath		
Material	-	HDPE
Nominal thickness/Min. thickness at any point	mm	2.0/1.40
Approx. diameter of outer sheath	mm	35.7
Laying up		
Direction of lay	-	Right
Approx. diameter of laid up core	mm	77.1
Max. diameter of cable	mm	81.0



**TECHNICAL DATA SHEET
HENG TONG CABLE AUSTRALIA**

Doc No.:
GD/TC/431-2023

Rev: 1

6.35/11(12) kV PWC

Date: 11/13/2023

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Description	Unit	Values
Approx. mass of cable	kg/km	5,229
Electrical data		
Max. D.C. resistance of active conductor at 20°C	Ω/km	0.320
Max. A.C. resistance of conductor at 90°C	Ω/km	0.411
Fault current carrying capacity of conductor	kA/1sec	9.0
Fault current carrying of screen	kA/1sec	8.9
Mechanical data		
Maximum pulling tension of conductor	kN	11.1
Min. bending radius during installation (one phase)	mm	950
Min. bending radius after installed (one phase)	mm	630
Min. bending radius during installation (bundled cable)	mm	1620
Min. bending radius after installed (bundled cable)	mm	1210