

6.35/11(12) kV PWC
1. Design guidelines.

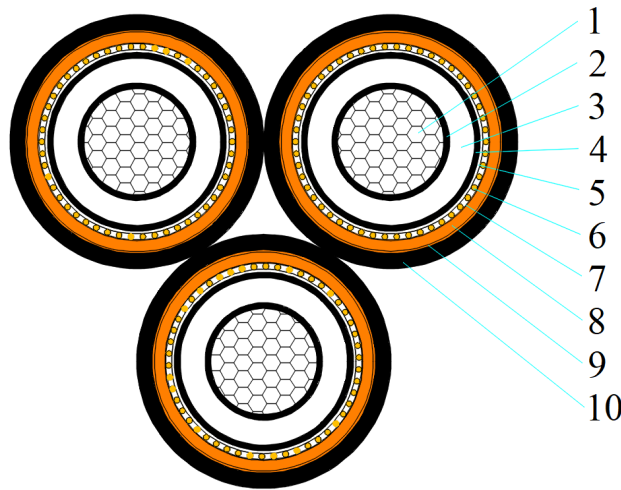
AS/NZS 1429.1	Electric cables-Polymeric insulated Part 1: For working voltages 1.9/3.3(3.6) kV up to and including 19/33(36) kV
AS/NZS 1125	Conductors in insulated electric cables and flexible cords
AS/NZS 3808	Insulating and sheathing materials for electric cables

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 - 240mm² x 3*1 Core Al(WBY)/TR-XLPE/WBT/CWS(13.1kA)/WBT/PVC/NY/HDPE(Graphite) Triplex - HCA504542PWC



1	Conductor	Class 2, circular compacted Aluminium conductor (non-conductive 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: 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
240mm ² x 3*1 core Al(WBY) TR-XLPE WBT CWS(13.1kA) WBT PVC NY HDPE(Graphite) Triplex XXXXm

5. Construction parameters.

Description	Unit	Values
Active Conductor		
Material	-	Aluminium
Nominal cross-sectional area	mm ²	240
Conductor shape	/	Circular Compacted
Approx. diameter of active conductor	mm	18.4
Conductor screen		
Min. thickness at any point	mm	0.3
Approx. diameter of conductor screen	mm	20.4
Active Insulation		
Material	-	TR-XLPE
Nominal thickness/Min. thickness at any point	mm	3.4/2.96
Approx. diameter over insulation	mm	27.2
Insulation screen		
Type	-	Hand-strippable
Min. thickness at any point	mm	0.6
Approx. diameter of insulation screen	mm	28.7
Metallic screen		
No.& Diameter of copper wires per phase	No./mm	50/1.53
Approx. diameter of metallic screen	mm	32.6
Laying up		
Direction of lay	-	Right
Diameter of laid up core	mm	32.6
Inner sheath		
Material	-	5V-90
Nominal thickness/Min. thickness at any point	mm	1.0/0.60
Approx. diameter of inner sheath	mm	37.1
Insect protection		
Material	-	Nylon 12
Min. thickness at any point	mm	0.5
Approx. diameter over Insect protection	mm	38.7
Outer sheath		
Material	-	HDPE
Nominal thickness/Min. thickness at any point	mm	2.0/1.40
Approx. diameter of outer sheath	mm	42.7
Laying up		
Direction of lay	-	Right
Approx. diameter of laid up core	mm	92.3
Max. diameter of cable	mm	96.9



**TECHNICAL DATA SHEET
HENG TONG CABLE AUSTRALIA**

Doc No.:
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Rev: 1

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Date: 11/13/2023

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Description	Unit	Values
Approx. mass of cable	kg/km	7,976
Electrical data		
Max. D.C. resistance of active conductor at 20°C	Ω/km	0.125
Max. A.C. resistance of conductor at 90°C	Ω/km	0.161
Fault current carrying capacity of conductor	kA/1sec	22.7
Fault current carrying of screen	kA/1sec	13.1
Mechanical data		
Maximum pulling tension of conductor	kN	28.1
Min. bending radius during installation (one phase)	mm	1160
Min. bending radius after installed (one phase)	mm	770
Min. bending radius during installation (bundled cable)	mm	1940
Min. bending radius after installed (bundled cable)	mm	1450