

**1. Design guidelines.**

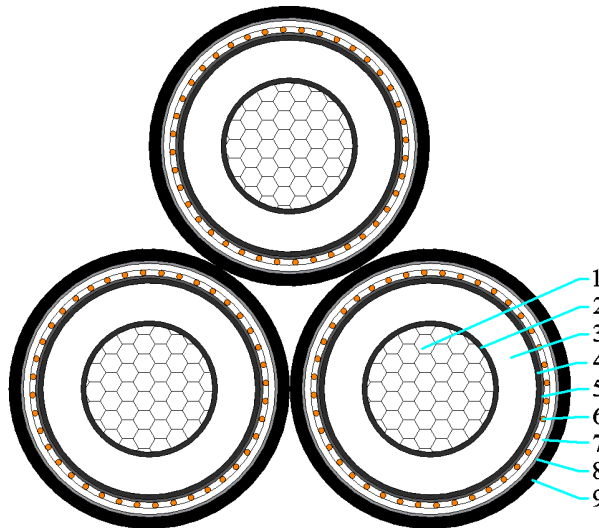
AS/NZS 1429.1	Electric cables-Polymeric insulated Part 1: For working voltages 1.9/3.3(3.6) kV up to and including 19/33(36) kV
AS/NZS 1125	Conductors in insulated electric cables and flexible cords
AS/NZS 3808	Insulating and sheathing materials for electric cables

**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 - 185mm<sup>2</sup> x 3\*1 core Al/TR-XLPE/WBT/CWS(10kA)/WBT/APL/MDPE(Graphite)(Triplex) 22kV - HCA2429934EQL**



1	Conductor	Class 2, circular compacted Aluminium 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	Water barrier	Poly-laminated Aluminium tape
9	Outer sheath	MDPE Black

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

Identification of core: Printing 1 ONE, 2 TWO, 3 THREE
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 ERGON 461 12.7/22kV 185mm <sup>2</sup> x 3*1 core Al TR-XLPE WBT CWS(10kA) WBT APL MDPE Triplex XXXXm
<i>Note: Meter mark indicates the length of each core, not completed cable.</i>

**5. Construction parameters.**

Description	Unit	Values
<b>Active Conductor</b>		
Material	-	Aluminium
Nominal cross-sectional area	mm <sup>2</sup>	185
Conductor shape	/	Circular Compacted
Approx. diameter of active conductor	mm	16.0
<b>Conductor screen</b>		
Min. thickness at any point	mm	0.3
Approx. diameter of conductor screen	mm	17.5
<b>Active Insulation</b>		
Material	-	TR-XLPE
Nominal thickness/Min. thickness at any point	mm	5.5/4.85
Approx. diameter over insulation	mm	28.5
<b>Insulation screen</b>		
Type	-	Hand-strippable
Min. thickness at any point	mm	0.6
Approx. diameter of insulation screen	mm	30.0
<b>Metallic screen</b>		
No.& Diameter of copper wires per phase	No./mm	48/1.35
Approx. diameter of metallic screen	mm	33.6
<b>Water barrier</b>		
Material		Poly laminated Al
Nominal thickness		0.30
Approx. diameter over water barrier		36.3
<b>Outer sheath</b>		
Material	-	MDPE
Nominal thickness/Min. thickness at any point	mm	2.1/1.48
Approx. diameter of outer sheath	mm	40.5
<b>Laying up</b>		
Direction of lay	-	Right
Diameter of laid up core	mm	87.5
<b>Max. diameter of cable</b>	mm	91.9
<b>Approx. mass of cable</b>	kg/km	6,290
<b>Electrical data</b>		
Max. D.C. resistance of active conductor at 20°C	Ω/km	0.164
Max. A.C. resistance of conductor at 90°C	Ω/km	0.211
Fault current carrying capacity of conductor	kA/1sec	17.5
Fault current carrying of screen	kA/1sec	10.1
<b>Mechanical data</b>		



**TECHNICAL DATA SHEET  
HENG TONG CABLE AUSTRALIA**

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**12.7/22(24) kV EQL**

<b>Description</b>	<b>Unit</b>	<b>Values</b>
Maximum pulling tension of conductor	kN	21.6
Min. bending radius during installation (one phase)	mm	1010
Min. bending radius after installed (one phase)	mm	600
Min. bending radius during installation (bundled cable)	mm	1340
Min. bending radius after installed (bundled cable)	mm	920