

**1. Design guidelines.**

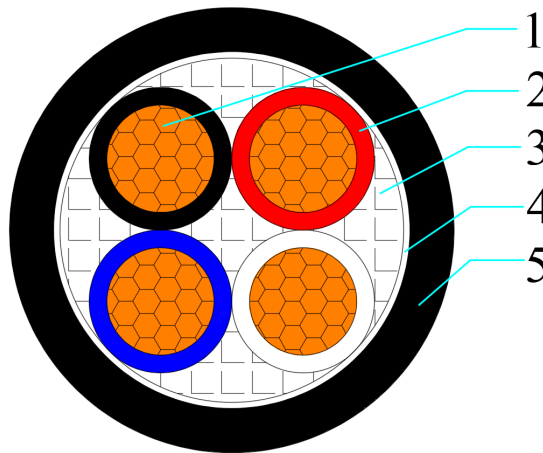
AS/NZS 5000.1	Electric cables-Polymeric insulated Part 1: For working voltages up to and including 0.6/1kV(1.2)kV
AS/NZS 1125	Conductors in insulated electric cables and flexible cords
AS/NZS 3808	Insulating and sheathing materials for electric cables

**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 - 50mm<sup>2</sup> x 4 core Cu/XLPE/PVC(Black) 1kV - HCA-QMR50x4CuXP-B-1**



1	Conductor	Class 2, plain annealed circular compacted Copper conductor
2	Insulation	X-90
3	Filler	Non-hygroscopic material
4	Binder tape	Non-hygroscopic material
5	Over sheath	5V-90 Black

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

Identification of core: Red, White, Blue, Black
Marking on cable: by printing in one line on the surface of outer sheath
HENG TONG CABLE AUSTRALIA "YEAR" ELECTRIC CABLE 0.6/1kV HPC-S
50mm <sup>2</sup> x 4 Core Cu XLPE PVC XXXXm

**5. Construction parameters.**

Description	Unit	Values
<b>Active Conductor</b>		
Material	-	Copper
Nominal cross-sectional area	mm <sup>2</sup>	50
Conductor shape	/	Circular Compacted
Approx. diameter of active conductor	mm	8.1
<b>Active Insulation</b>		
Material	-	X-90
Nominal thickness/Min. thickness at any point	mm	1.0/0.80
Approx. diameter over insulation	mm	10.3
<b>Laying up of cores</b>		
Direction of lay		Right
Diameter of laid up core	mm	25.3
<b>Oversheath</b>		
Material	-	5V-90
Nominal thickness/Min. thickness at any point	mm	1.8/1.43
Approx. diameter of oversheath	mm	28.9
<b>Max. diameter of cable</b>	mm	30.9
<b>Approx. mass of cable</b>	kg/km	2,104
<b>Electrical data</b>		
Max. D.C. resistance of active conductor at 20°C	Ω/km	0.387
Max. A.C. resistance of conductor at 90°C	Ω/km	0.4941
Fault current carrying capacity of conductor	kA/1sec	7.15
<b>Mechanical data</b>		
Maximum pulling tension of conductor	kN	13.60
Min. bending radius during installation	mm	560
Min. bending radius after installed	mm	370