

The ampacity values given by Elecon are based on the most commonly used conditions. They have been calculated using formulas as indicated in IPCEA.

<i>In Air (Three cables in one circuit)</i>	
Spacing between cables:	One diameter of cable
Ambient air temperature:	40°C
Sun and Wind:	NO
Conductor temperature:	90°
<i>In underground duct (Three cables in separate ducts)</i>	
Conductor temperature:	90°C
Ambient earth temperature:	20°C
Thermal Resistivity:	90°C cm/W
Depth:	36"
Axial spacing:	7,5 "
<i>In direct burial (Three cables in one circuit)</i>	
Conductor temperature:	90°C
Ambient earth temperature:	20°C
Thermal Resistivity:	90°C cm/W
Depth:	36"
Axial spacing:	7,5"

Ampacity correction for change in:

Conductor Temperature (Cu)

$$I' = I \sqrt{\frac{T_c - T_a}{90 - T_a}} \times \frac{324,5}{234,5 \times T_c}$$

Ambient Temperature

$$I' = I \sqrt{\frac{T_m - T_a}{T_c - T_a}}$$

Where : **I'** Current at conductor temperature Tc.
I Current at conductor temperature 90°C.
Ta Ambient Temperature
Ta' New ambient temperature.
Tc Conductor Temperature.

RECOMENDED CONFIGURATION FOR INSTALATION OF SINGLE CONDUCTOR CABLES

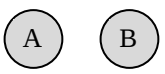
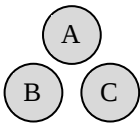
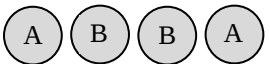
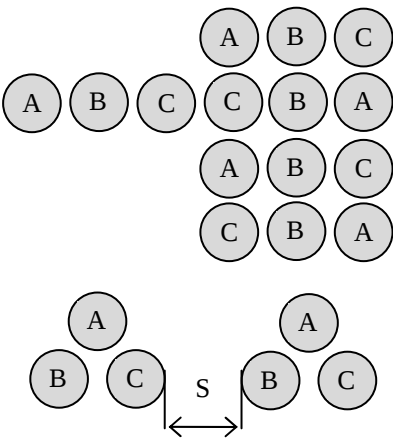
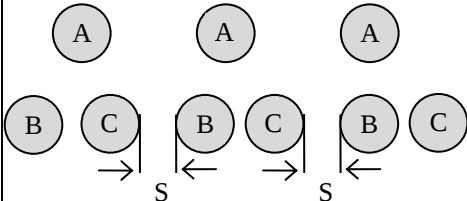
Suggested spacing:

In air: At least one cable diameter.

Earthed: 7,5 inches beetwen center of cables.

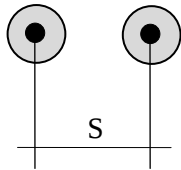
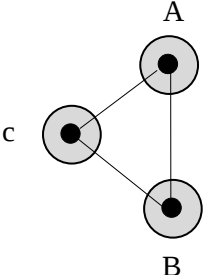
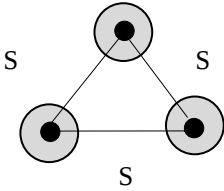
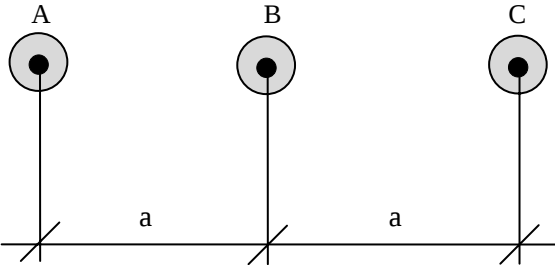
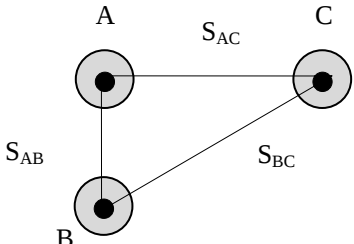
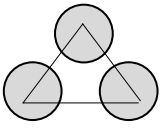
Depth of burial will be 36" up to center of cable or duct.

The deeper a cable is buried, the lower its ampacity.

	Single Phase	Three Phase
One conductor per phase		
Two conductors per phase		
Three conductors per phase	Not recomendaded	

Note: Spacing between groups to be equal to width of group.

CALCULATION OF S DISTANCE (GMD)
(GMD – GEOMETRIC MEDIUM DISTANCE)

 Two cables flat spaced	$S = \sqrt[3]{S_{AB} \times S_{BC} \times S_{CA}}$ Triangle $S_{AB} \neq S_{BC} \neq S_{CA}$ 
 Equilateral triangle	 Three cables flat spaced $S = 1,26 \times a$
 $S = 1,1235 \times S_{AB}$ Right triangle	 $S = \text{Cable diameter}$ Triplexed