

Three Phase 5G Inverter AC cable size

100-110 K-5G



Three Phase 5G Inverter cable size (100-110 KW)

Ground Cable.

Solis recommends two Ground protections.

- a) External heat sink connection.
- b) Grid connection.

a) External heat sink Ground connection.

Cable Size : $\geq 25\text{mm}^2$.
 Cable Type : Copper-core cable.
 Lug Type : OT.
 Lug Size : M10.
 Torque : 3 N

➤ Ground Cable Stripping.

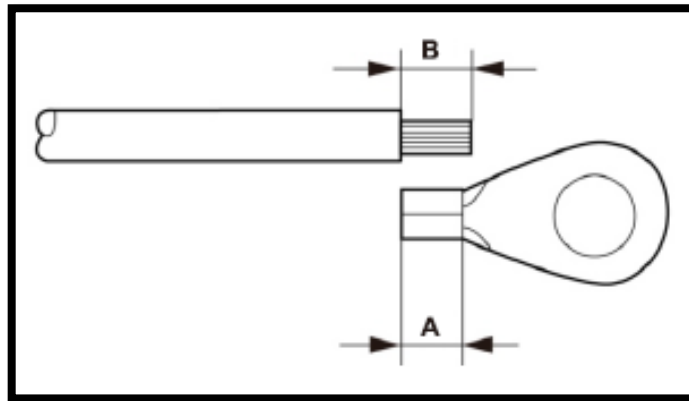


Figure 1 Suitable Length



Important.

B (insulation stripping length) is 2mm~3mm longer than A (OT cable terminal crimping area) 2mm~3mm.

➤ Ground Lug and cable arrangement.

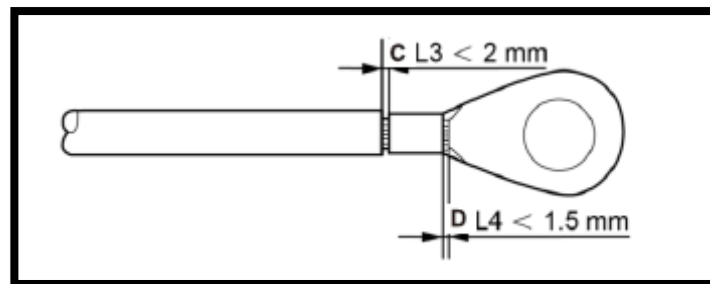


Figure 2 Strip Wire



Important:

After crimping the terminal to the wire, inspect the connection to ensure the terminal is solidly crimped to the wire.

Inverter Grounding Picture.

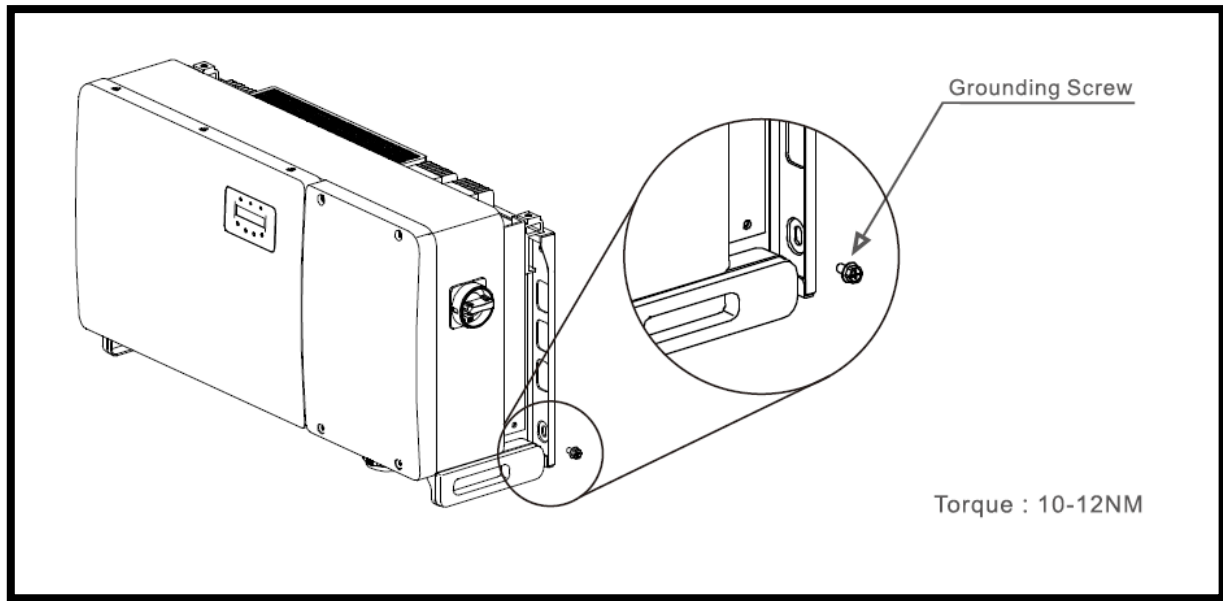


Figure 3 Fixed Cable



Important:

For improving anti-corrosion performance, after ground cable installed, apply silicone or paint is preferred to protect.

AC Termination cable.

- For all AC connections, **recommended 50- 185 mm²**
(Copper or Aluminum) **105°C** cable is required to be used.
- Please make sure the resistance of cable is lower than **1.5 ohm**.
- Since the inverter is compatible with IT grid (only 3-line wire) connection.
so N Neutral connection can be ruled out.
- But if there is tender obligation where neutral cable needs to be connected then customer can connect N line in the N port of AC connection side.

Strip the end of cable outer insulating jacket about 90 mm then strip the end of each wire about 15mm as shown in the figure.

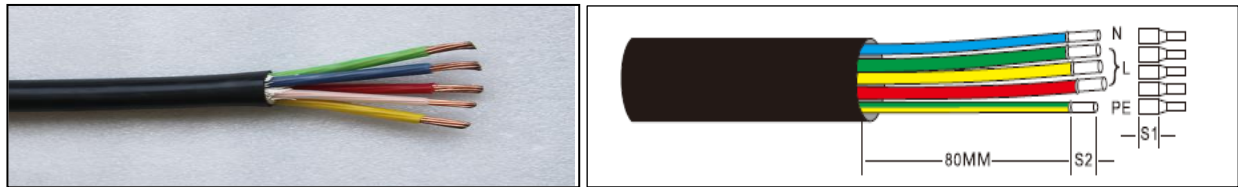


Figure 4 Example of Stripped cables



NOTE:

S2 (insulation stripping length) should be as long as S1 (AC terminal cable compression area).



Figure 5 Crimp the cables using End sleeve lugs.

Disassemble the cover.

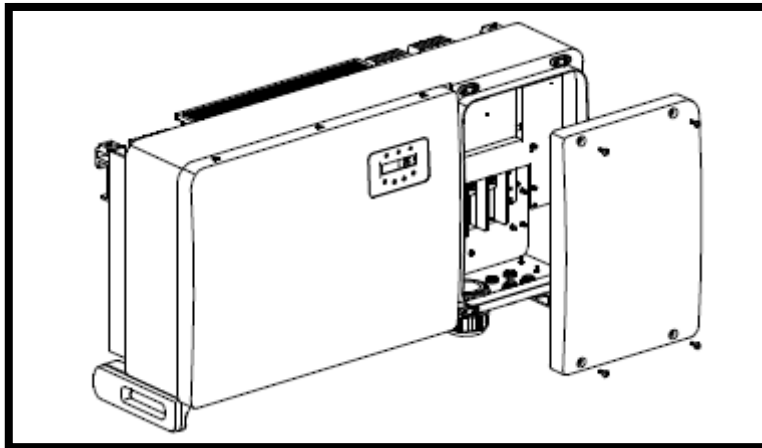


Figure 4 Disassemble the cover

Remove the 4 screws on the inverter junction box and remove the junction box cover. Insert the cable through the nut, sheath and AC terminal cover.



Figure 5 Bottom View of Solis 5G -100K / 110K Model

Open the Cup
Nut for AC Cable
terminations

Connect the terminal block in turn, using a socket wrench.
Tighten the screws on the terminal block. The torque shall be 10 Nm.

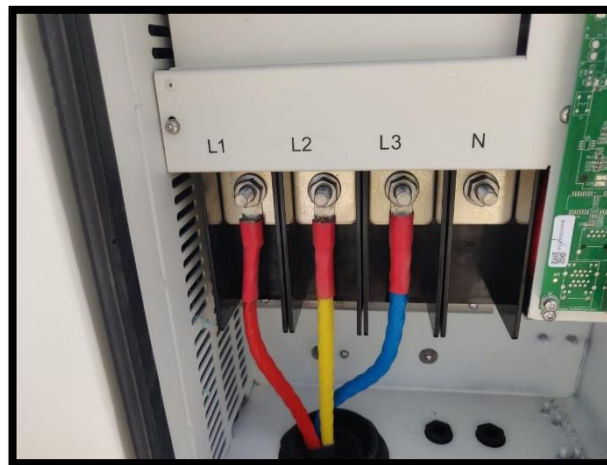


Figure 6 Front View of AC Cable Termination - Solis 5G-100K / 110K Model

Three Phase 5G Inverter OCPD details (100-110 KW)

To reduce the risk of fire, over-current protective devices (OCPD) are required for circuits connected to the Inverter. The recommended rated trip current of OCPD for 100K and 110 K is **150 A**.

Three Phase 5G Inverter cable size details (100 - 110 KW)

Serial	Item	Description
A.	Cable Size	50-185 mm ²
B.	Operation phase	3/N/PE
C.	AC Termination Pins	5 output (L1, L2, L3, N, PE)
D.	Cable Core	4 Core (Body Earthing)/5 core (AC cable earthing)
E.	Tools	M10 hexagon screwdriver (Gland plate)
F.	Termination	End sleeve type
G.	Ground cable cross section	≥25 mm ²
H.	Ground cable Termination	OT Lug
I.	Ground cable Termination Torque	3 Nm
J.	Cable type Recommended	Copper

Tools required



Allen Key 3.0 mm.



Hydraulic crimping tool for AC cable lugs.

Note:

- Bimetallic Lugs can be used if Cable used is Aluminum.



- Never use Pin type of lugs for AC connections which is not recommended.

