

Three Phase 5G Inverter AC Cable Recommendation

80 K ~ 5G



Three Phase 5G Inverter cable size (80 KW)

Ground Cable.

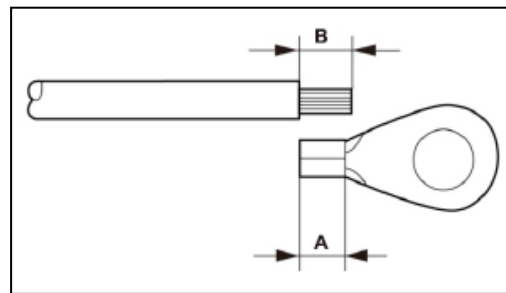
Solis recommends two Ground protections.

- 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



Important:

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

Figure 1 Suitable Length

➤ Ground Lug and cable arrangement.

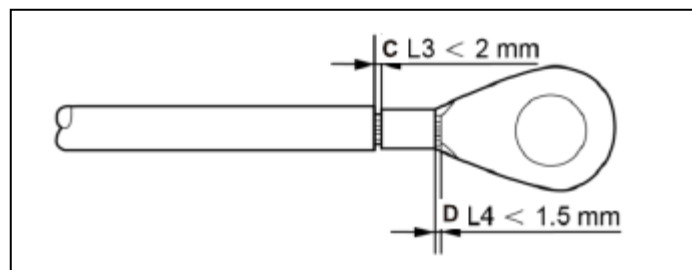


Figure 2 Strip Wire



Important:

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

Inverter Grounding Picture.

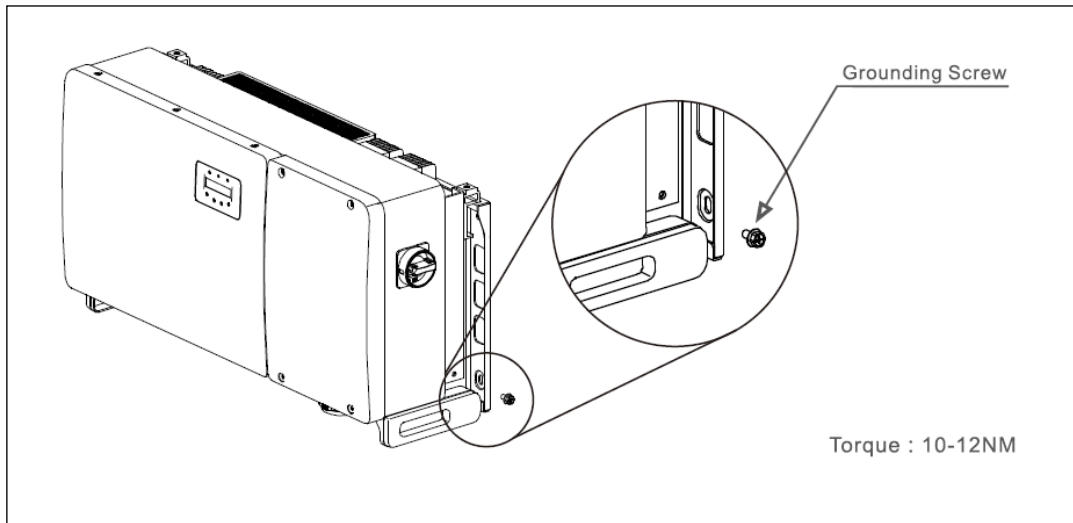


Figure 3 Fixed Cable



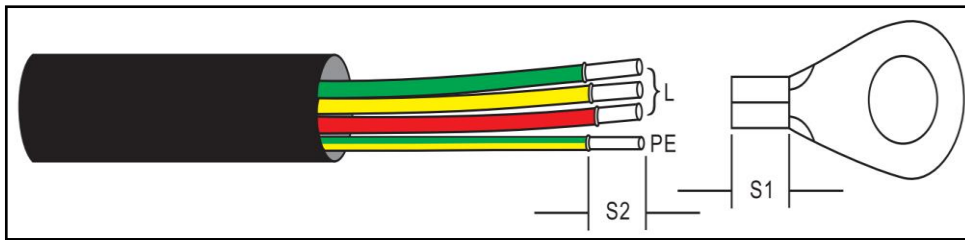
Important:

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 $50 - 185 \text{ mm}^2$ (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 AC Cable insulating jacket about 300 mm then strip the end of each wire as shown below
- Strip the insulation of the Wire of the Wire Past the Cable Crimping Area of the OT terminal.
- Then use a hydraulic crimp tool to crimp the terminal.
- The crimped portion of the terminal must be insulated with heat shrinkable tube or insulating tape.
- Leave the AC breaker disconnected to ensure it does not expose unexpectedly.



NOTE:

S2 (insulation stripping length) is 2mm-3mm longer than S1.
(OT cable terminal crimping area)

Disassemble the cover.

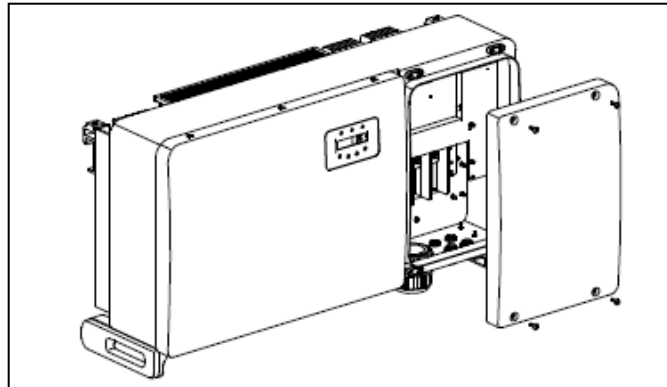


Figure 4 Disassemble the cover

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



Figure 5 Bottom View of Solis 5G -80K Model

Open the Cup Nut
for AC Cable
terminations

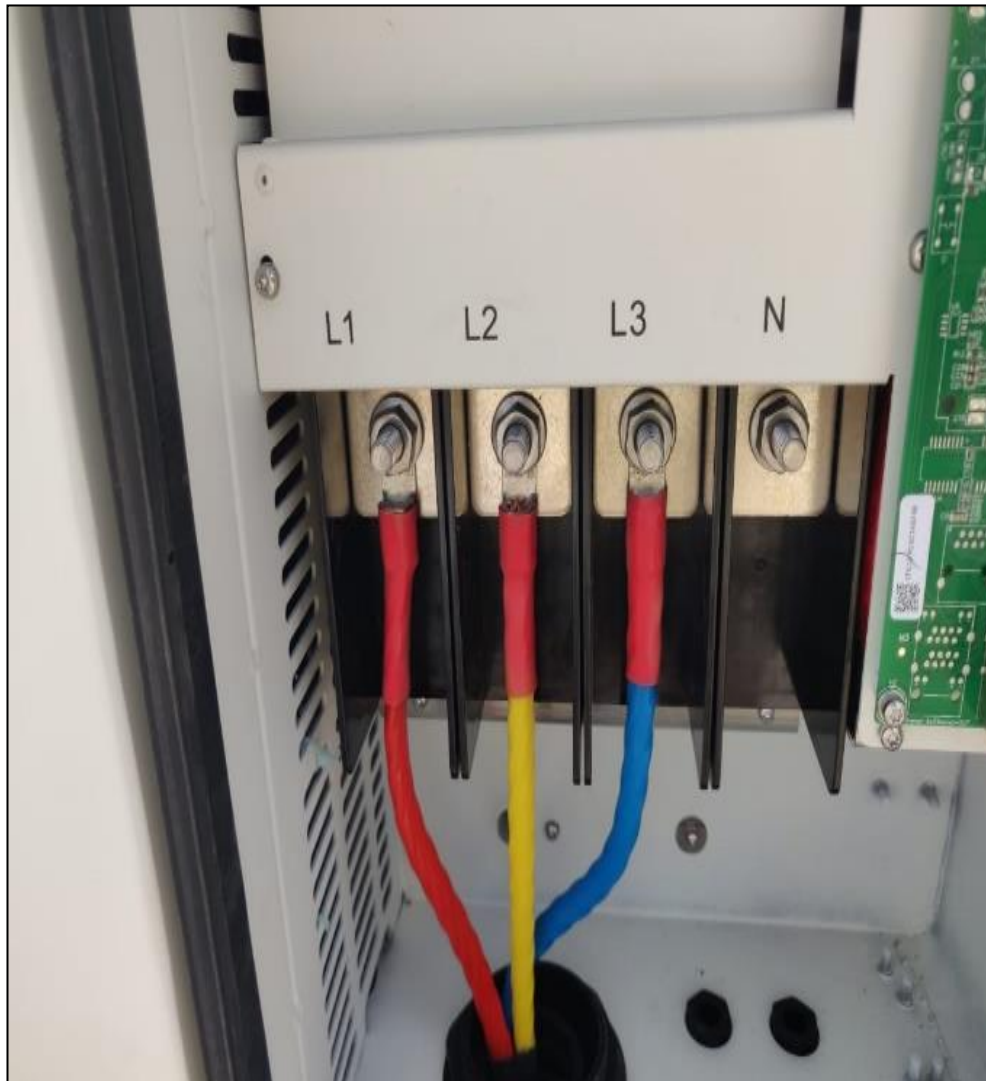


Figure 6 Front View of AC Cable Termination -Solis 80K-5G

Three Phase 5G Inverter OCPD details - 80 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 80 K is **150 A**.

Three Phase 5G Inverter cable size details - 80 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.

