

SMA POWER+ INSTALLATION OVERVIEW





POWER+ PARTS LIST

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SMA Sunny Boy Inverter

Part # SBx.x-1SP-US-40



Additional Gateway

Part # 150-00000-50



Rooftop Communication Kit

Part # ROOFCOMMKIT-P1-US



TS4 FKT Field Key Tool

Part # 400-94000-10

(only required if you intend to change a TS4-R cover)

Shutdown TS4-R-S

Part # 476-00240-00



Optimization TS4-R-O

Part # 471-00252-10



SMA POWER+ ROOFTOP COMMUNICATION KIT (WHAT'S IN THE BOX)



LABELS and GUIDE



DIN RAIL, SCREWS, and ETHERNET CABLE



INSTALLATION MANUAL



GATEWAY



POWER SUPPLY



CLOUD CONNECT ADVANCE (CCA) and ANTENNA



SCREWDRIVER



INSULATING SLEEVE



SMA POWER+ ROOFTOP COMMUNICATION KIT LABELS NOTE



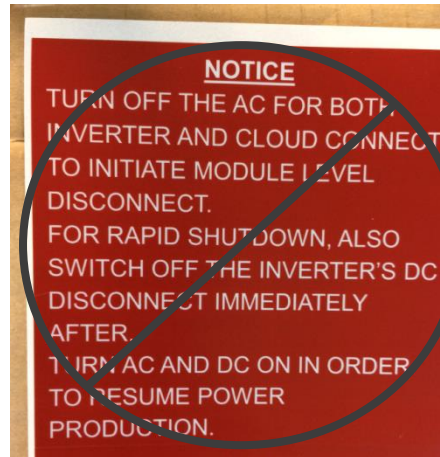
This label is NEC 2014 compliant



LABELS and GUIDE



Do not use this label



SMA POWER+ ROOFTOP COMMUNICATION KIT LABELS NOTE



Labels for NEC 2017 compliance will have to be obtained separately

For more information pertaining to NEC 2017 labeling requirements please view the poster listed below from HellermanTyton

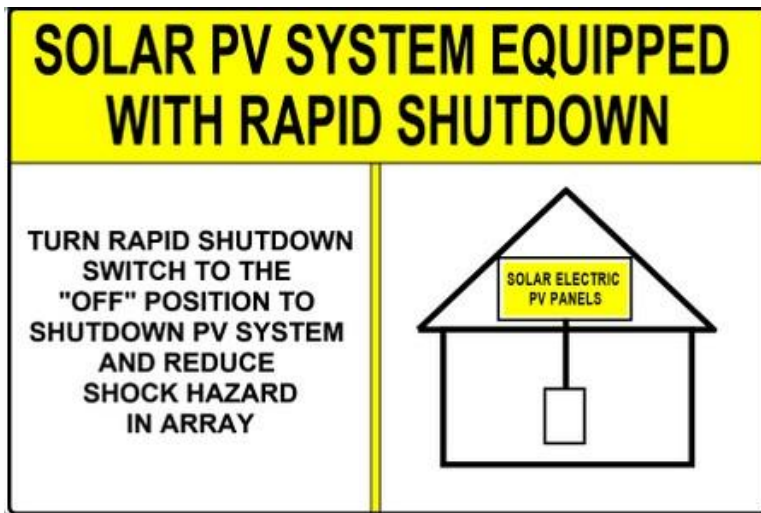
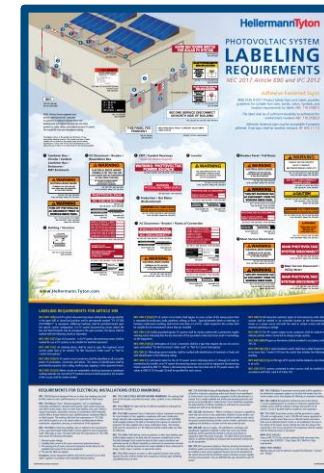


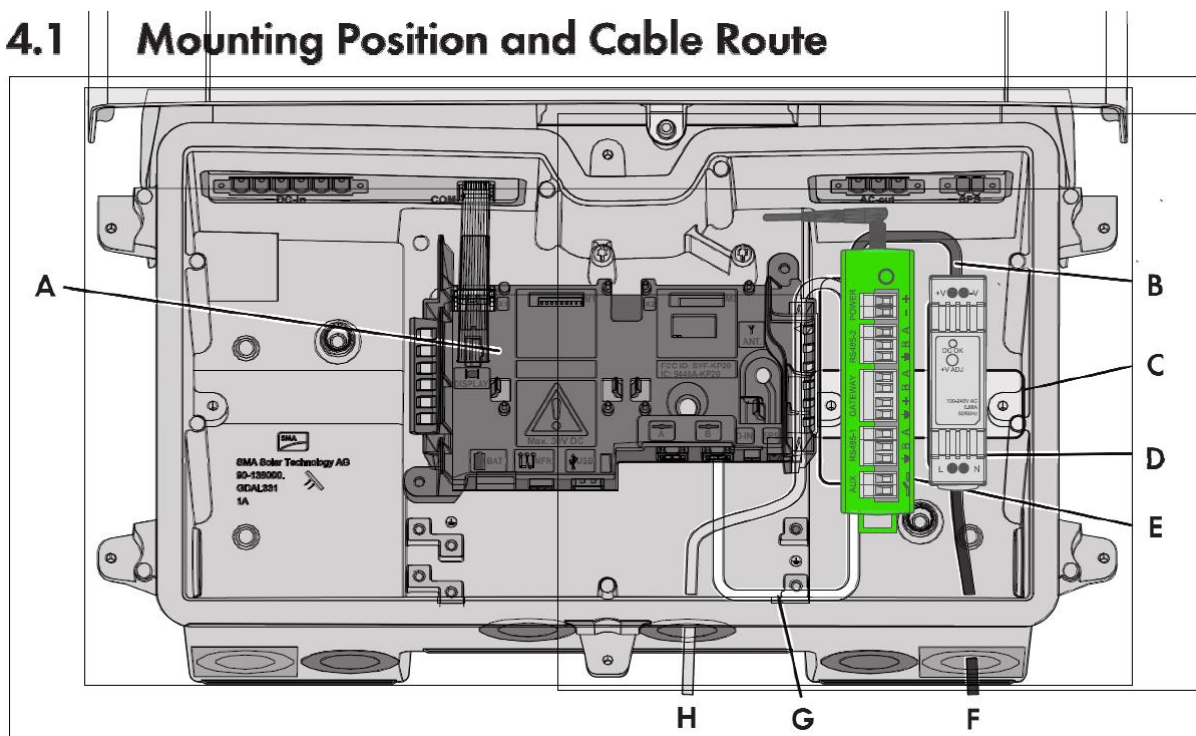
Image Source: www.HellermanTyton.com





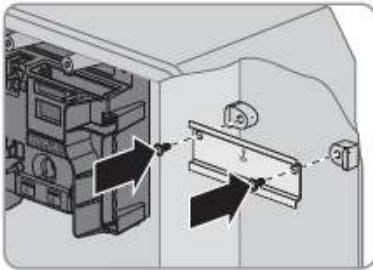
INSTALLATION OVERVIEW

4.1 Mounting Position and Cable Route



Position	Designation
A	Communication assembly
B	Cable route for connecting the output of the power supply unit and the POWER connection of the Cloud Connect Advanced.
C	Mounting position of the top-hat rail
D	Position of the power supply unit on the top-hat rail
E	Position of the Cloud Connect Advanced on the top-hat rail
F	Cable route for connecting the power supply at the input of power supply unit
G	Cable route for connecting the network cable
H	Cable route for connecting the gateways to the Cloud Connect Advanced

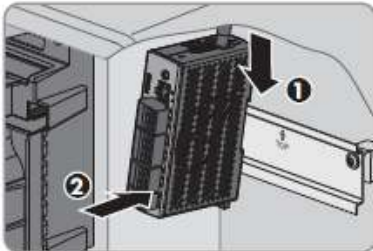
SMA POWER+ STEPS IN THE INVERTER



Install din rail

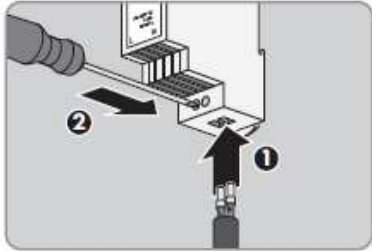


Attach antenna

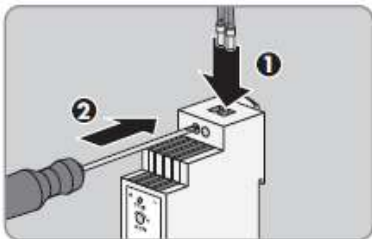


Connect CCA to din rail

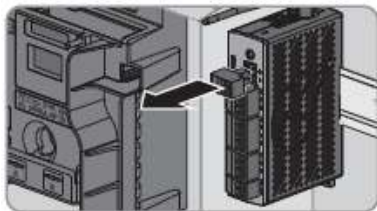
SMA POWER+ STEPS IN THE INVERTER



Connect the power supply line to the power supply unit

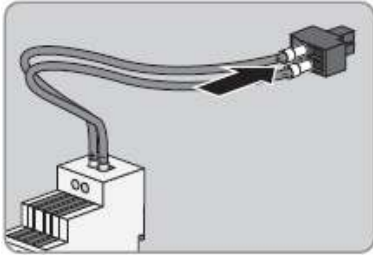


Connect the output of the power supply unit

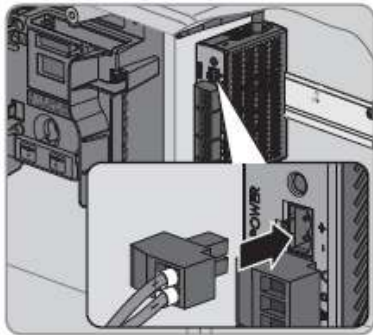


Unplug power supply terminal block from the CCA

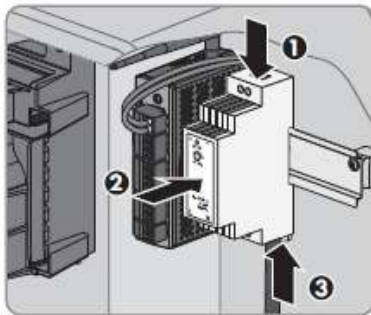
SMA POWER+ STEPS IN THE INVERTER



Connect the positive and negative conductors to the terminal block



Plug the power supply terminal block into the CCA.

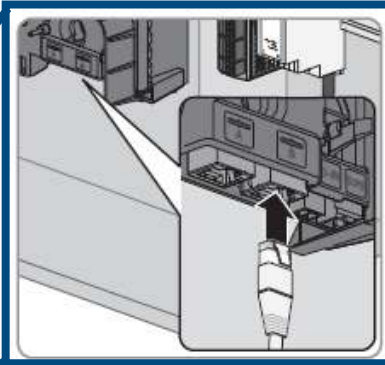
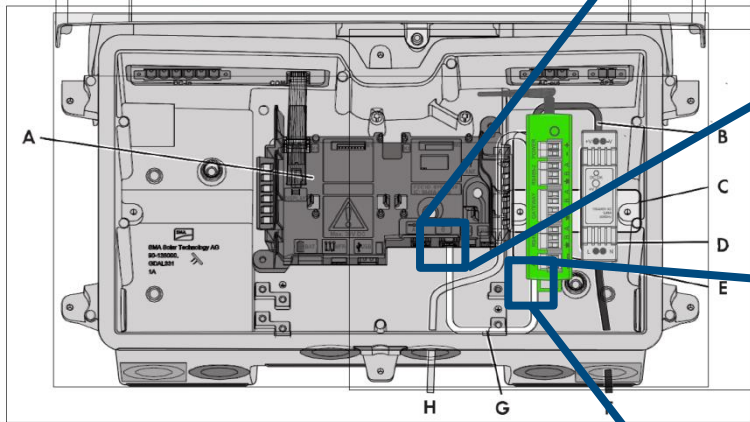


Mount the power supply unit on the din rail.

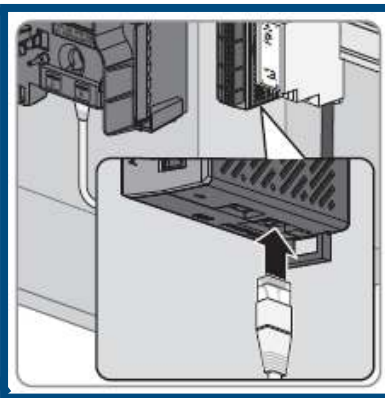
SMA POWER+ STEPS IN THE INVERTER



4.1 Mounting Position and Cable Route

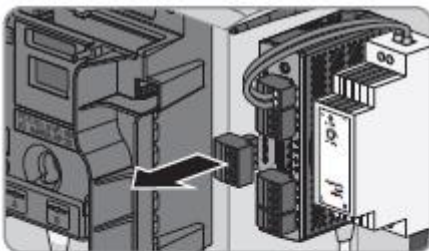


Plug one end of the network cable into the network port **B** of the communication assembly

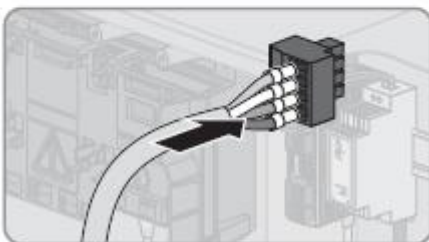


Plug the other end of the network cable into the network port at the bottom of the CCA

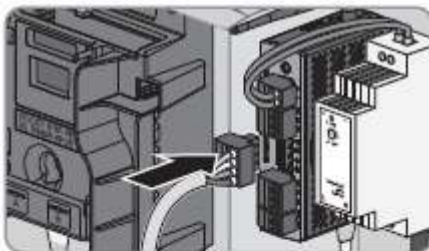
SMA POWER+ STEPS IN THE INVERTER



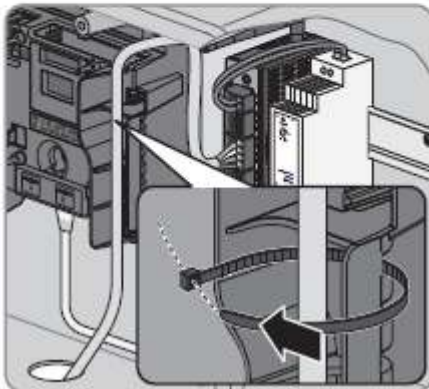
Unplug gateway terminal block from the CCA.



Connect the conductors to the terminal point of the terminal block



Plug the gateway terminal block into the CCA



Attach the conductor to the communication assembly using a zip tie.

SMA POWER+ INSTALLATION OVERVIEW



4.1 Mounting Position and Cable Route

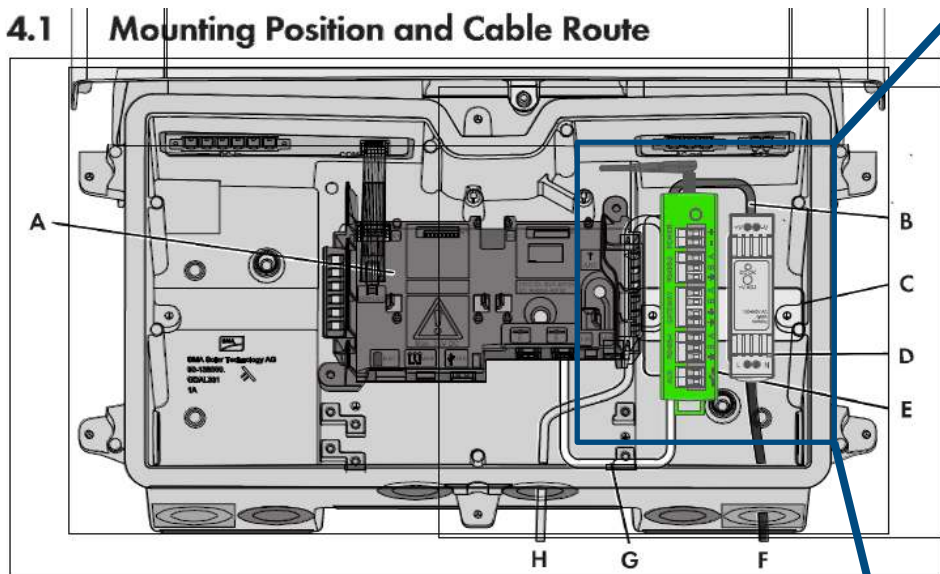
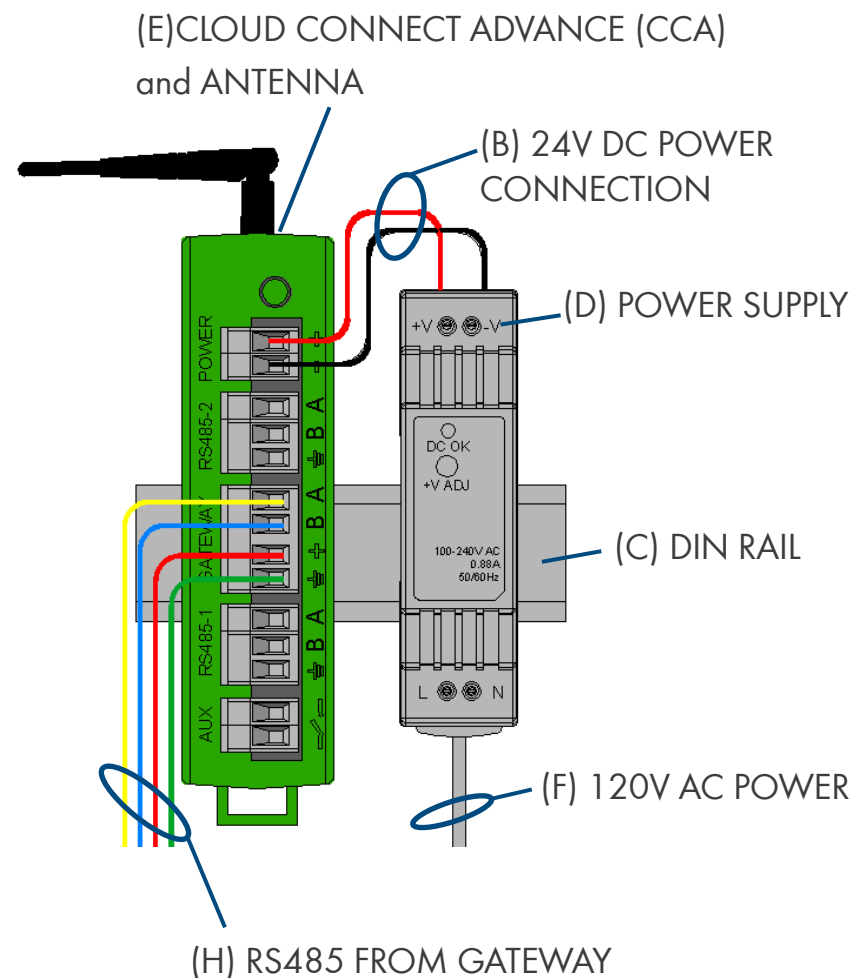
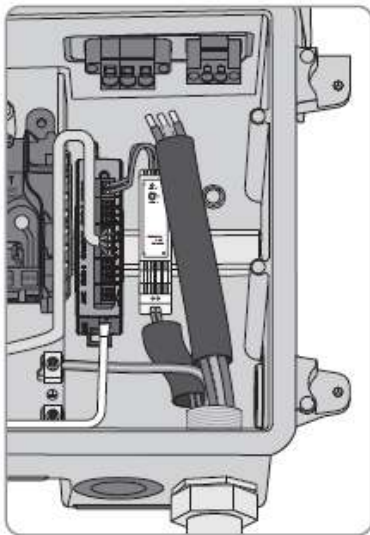


Figure 3 : Interior view of the open enclosure part of the inverter with mounting position and cable route

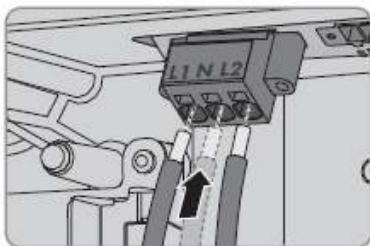
Position	Designation
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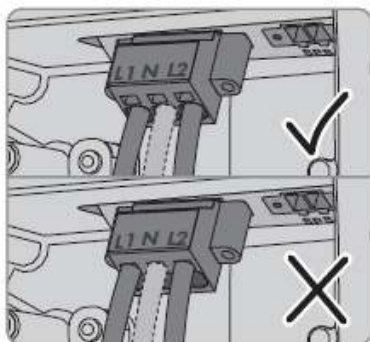
SMA POWER+ STEPS IN THE INVERTER



Place the insulating hose over the AC conductors.

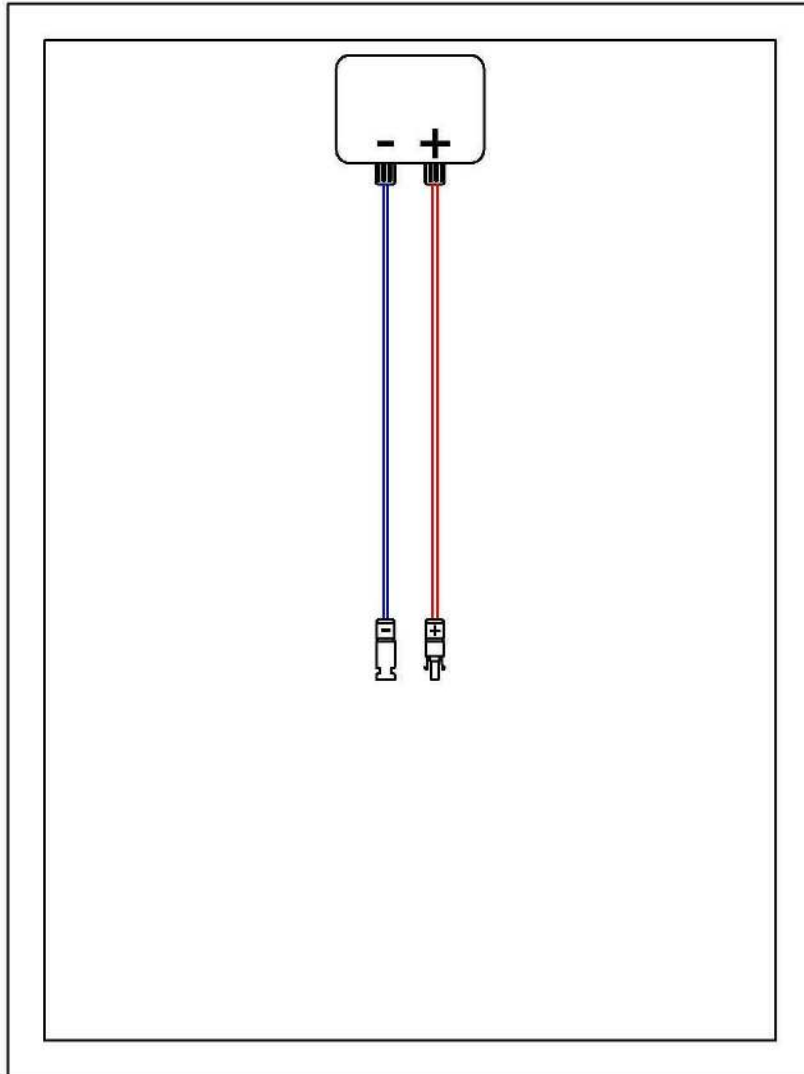


Insert a flat-blade screwdriver into the actuation shaft (rectangular opening), then insert the connector into the terminal point (round openings).

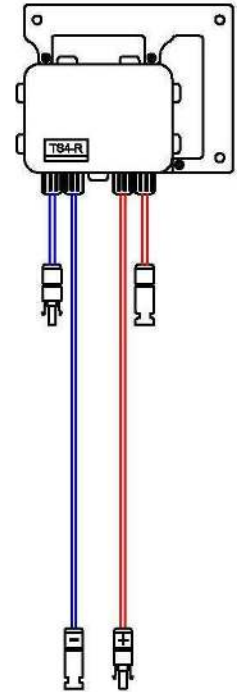


Ensure the conductors are plugged into the terminal points and not the actuation shaft!

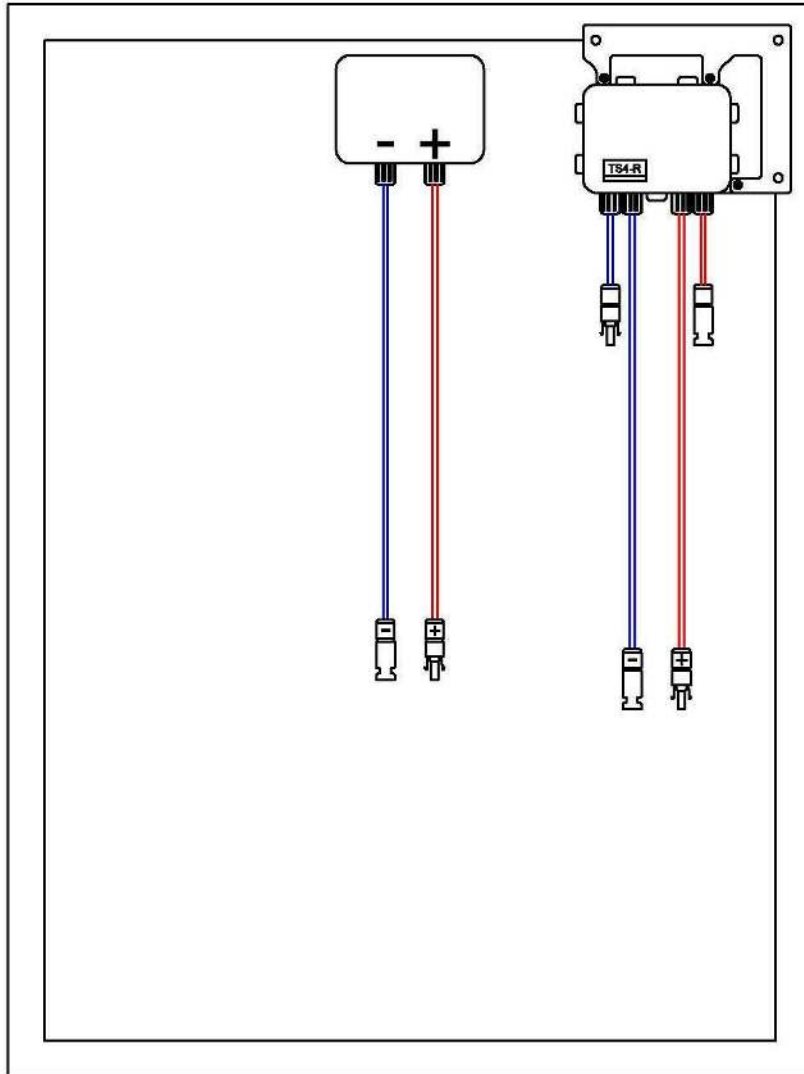
SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



Clip the SMA TS4R-S/O
to the PV Module

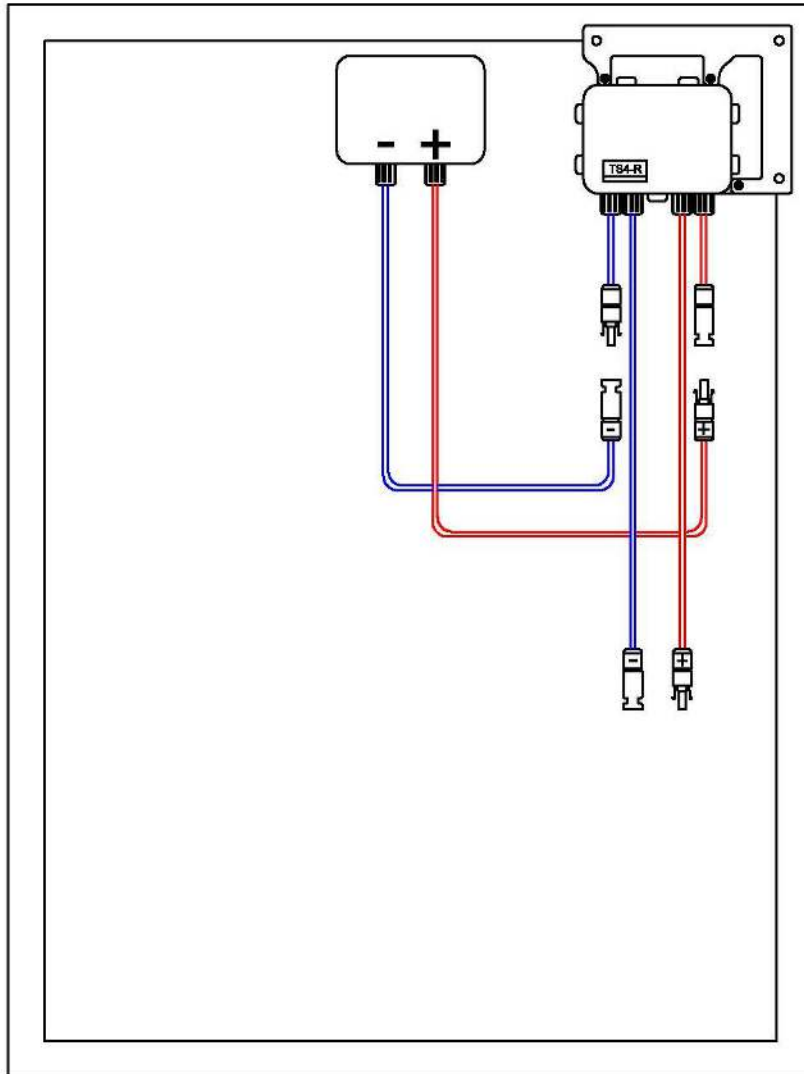


SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



Clip the SMA TS4R-S/O
to the PV Module

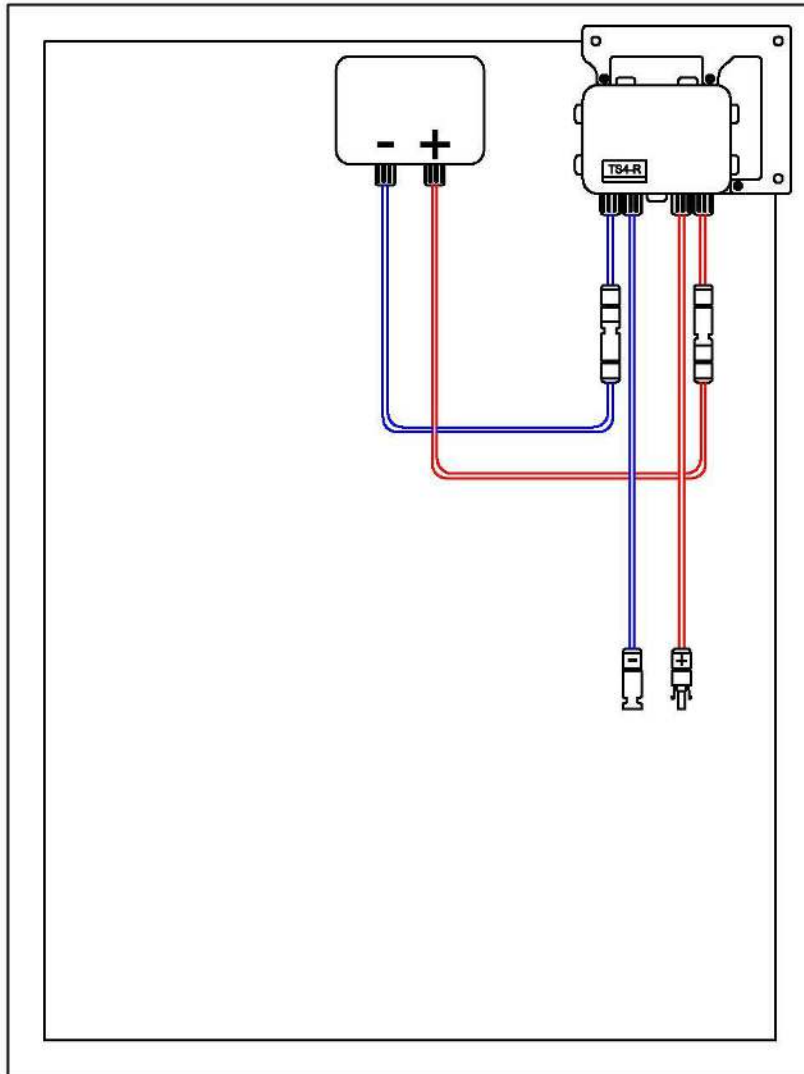
SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



Connect the Module leads to the SMA TS4R-S/O

- Connect the Female Negative module lead to the Male input of the SMA TS4R-S/O
- Connect the Male Positive module lead to the Female input of the SMA TS4R-S/O

SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



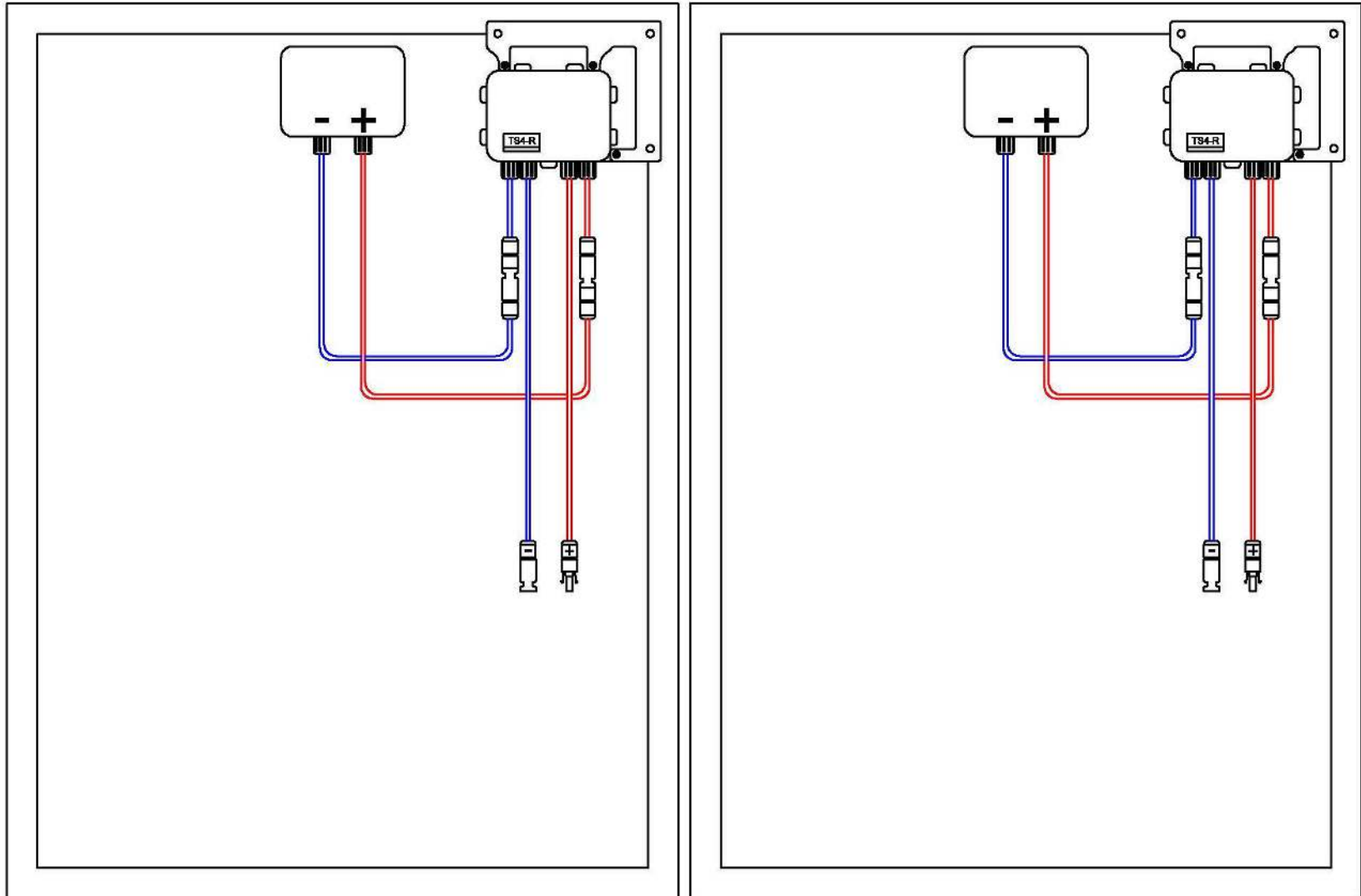
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SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



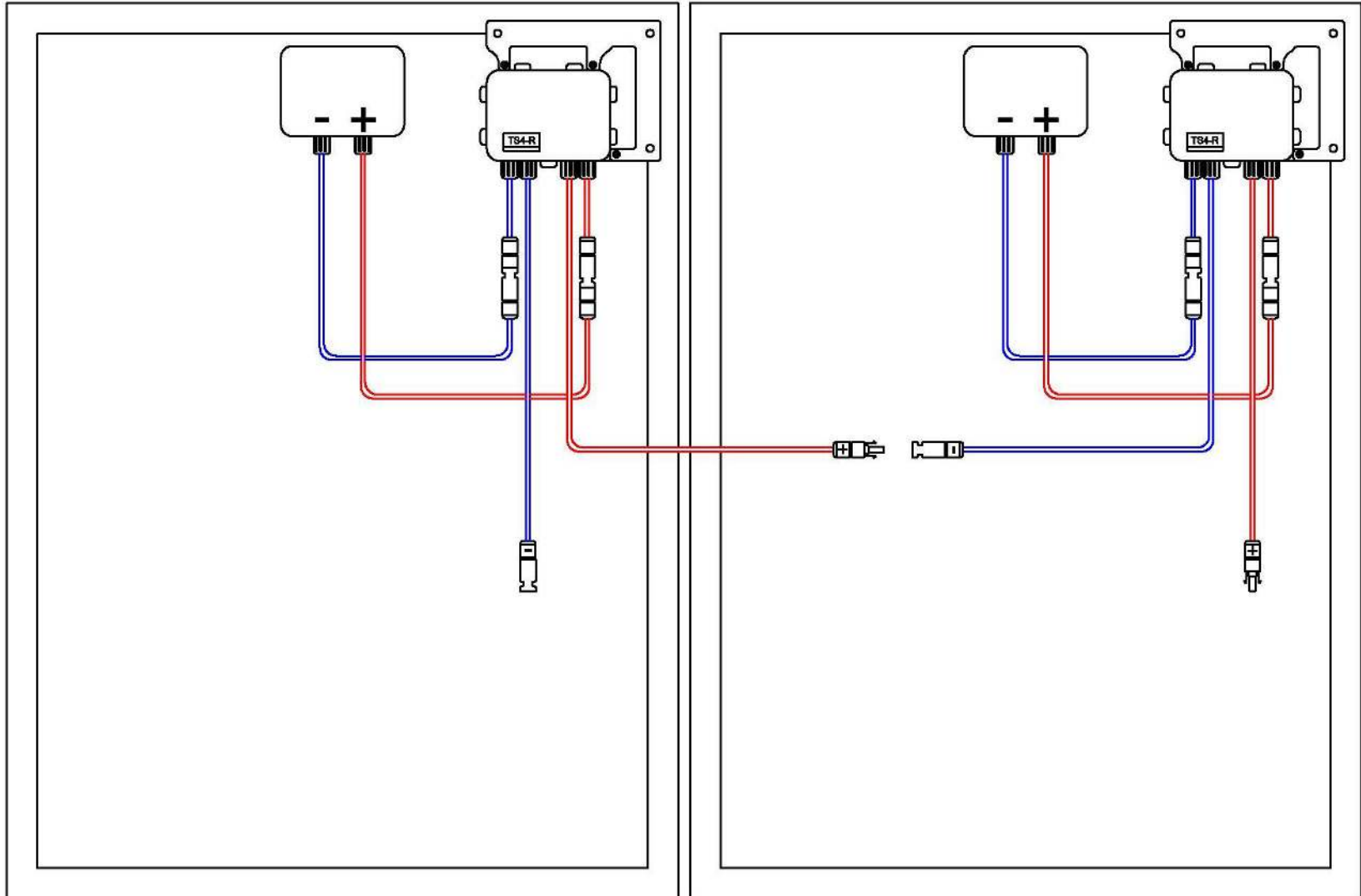
Then wire in series as normal



SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



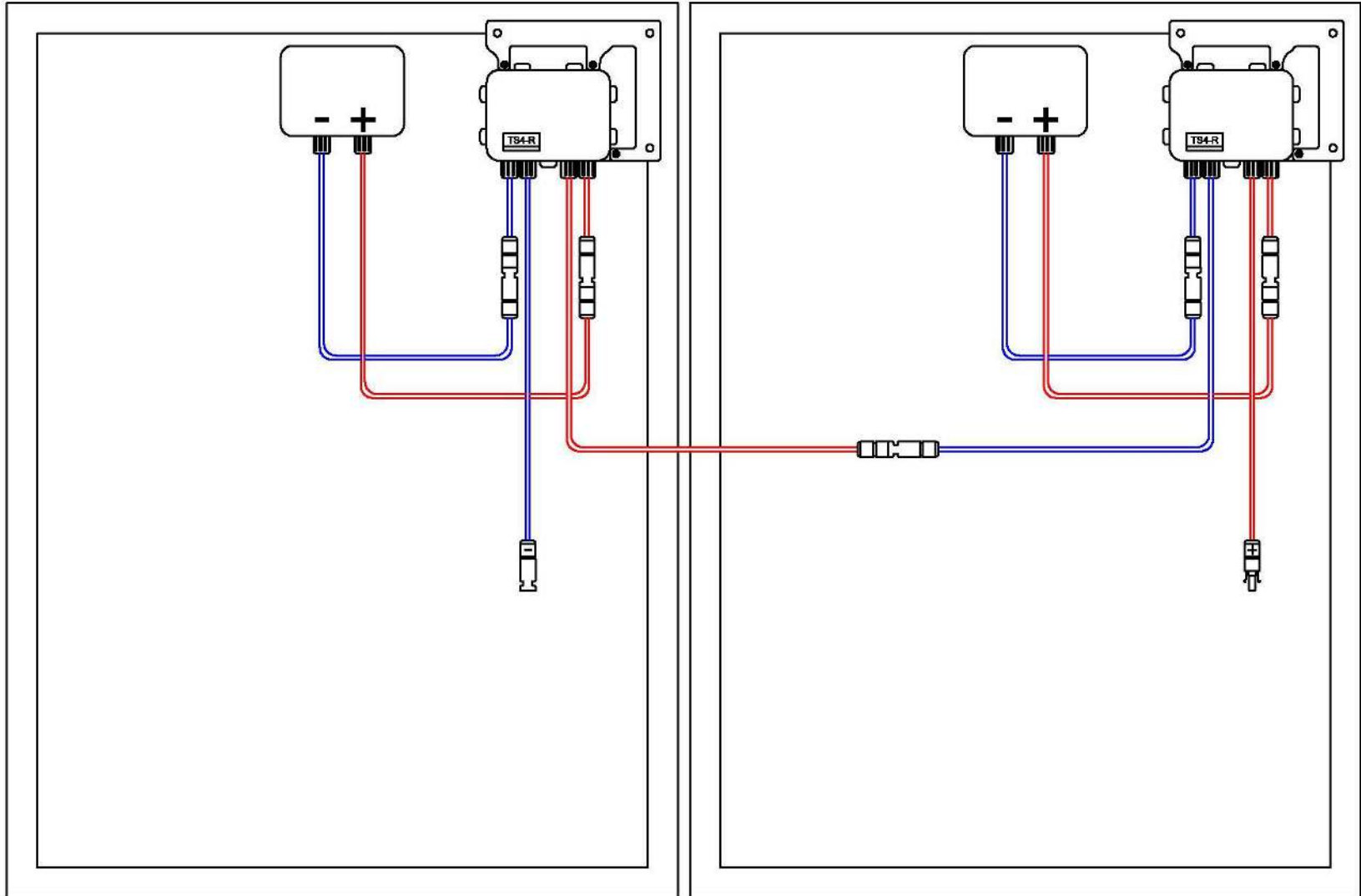
Then wire in series as normal



SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



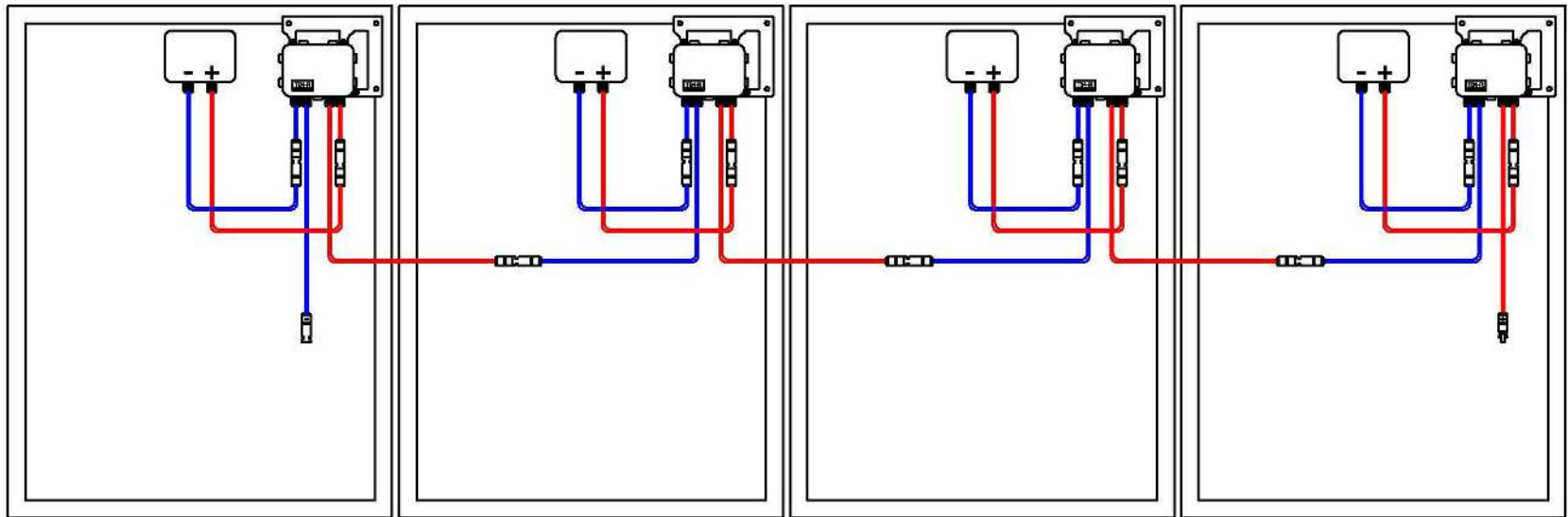
Then wire in series as normal



SMA POWER+ STEPS CONNECTING THE TS4-R DEVICE



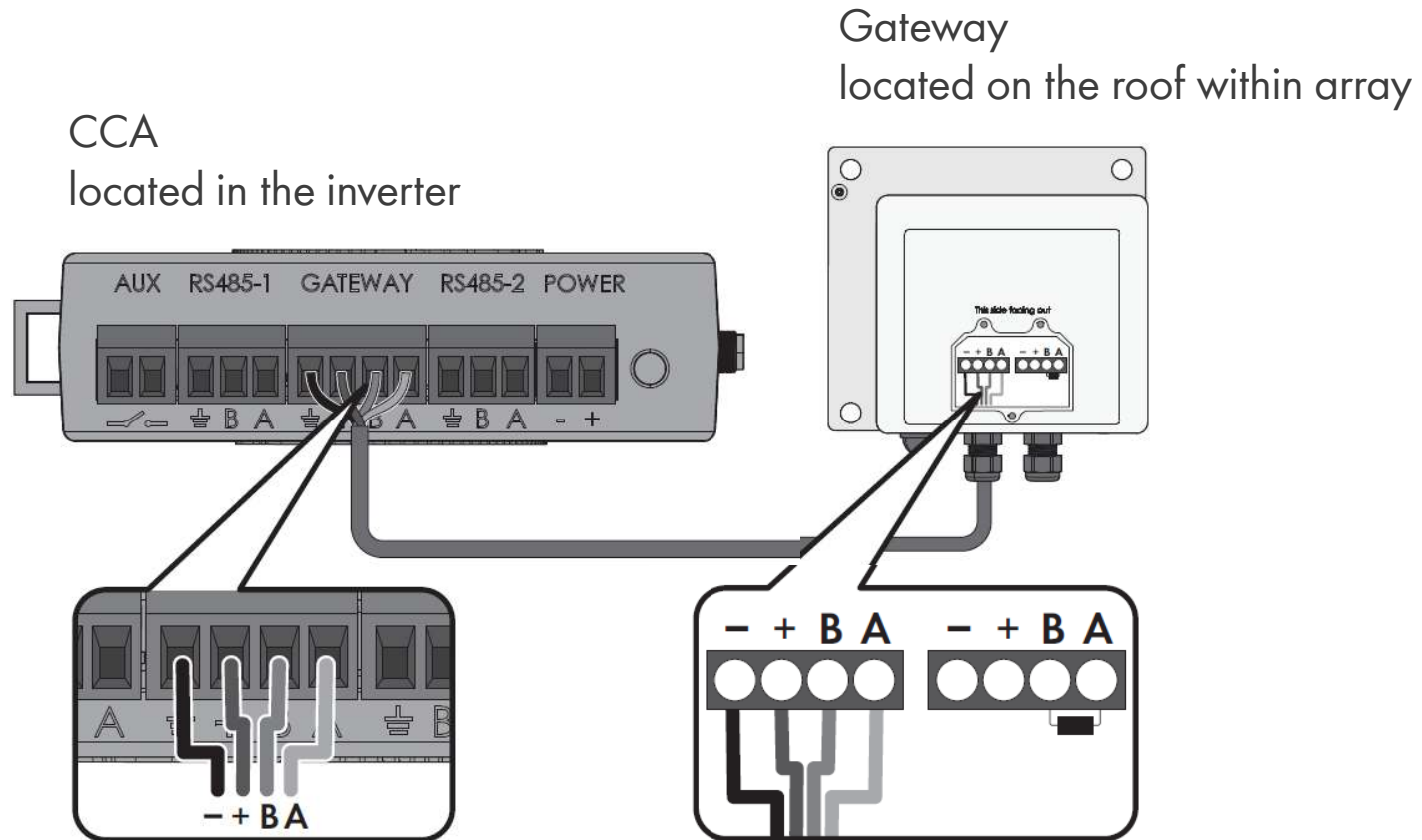
Then wire in series as normal



SMA POWER+ STEPS GATEWAY TO CCA



One CCA for up to (3) Gateways

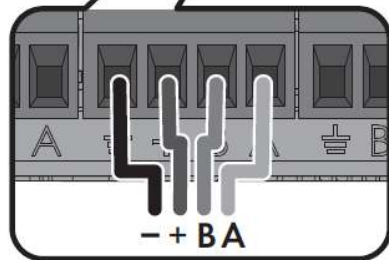
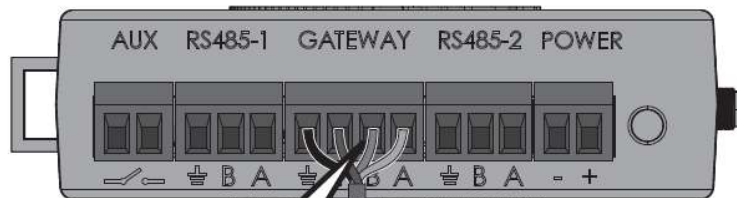


SMA POWER+ STEPS GATEWAY TO CCA

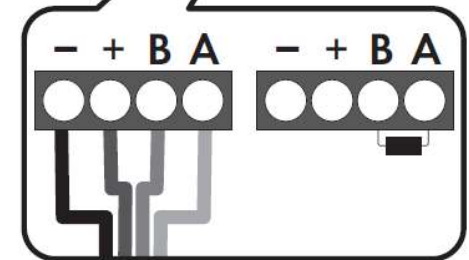
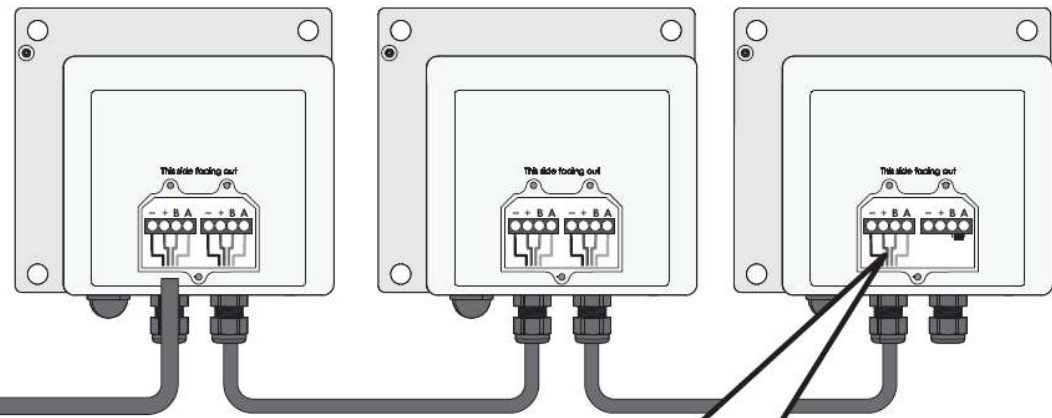


One CCA for up to (3) Gateways

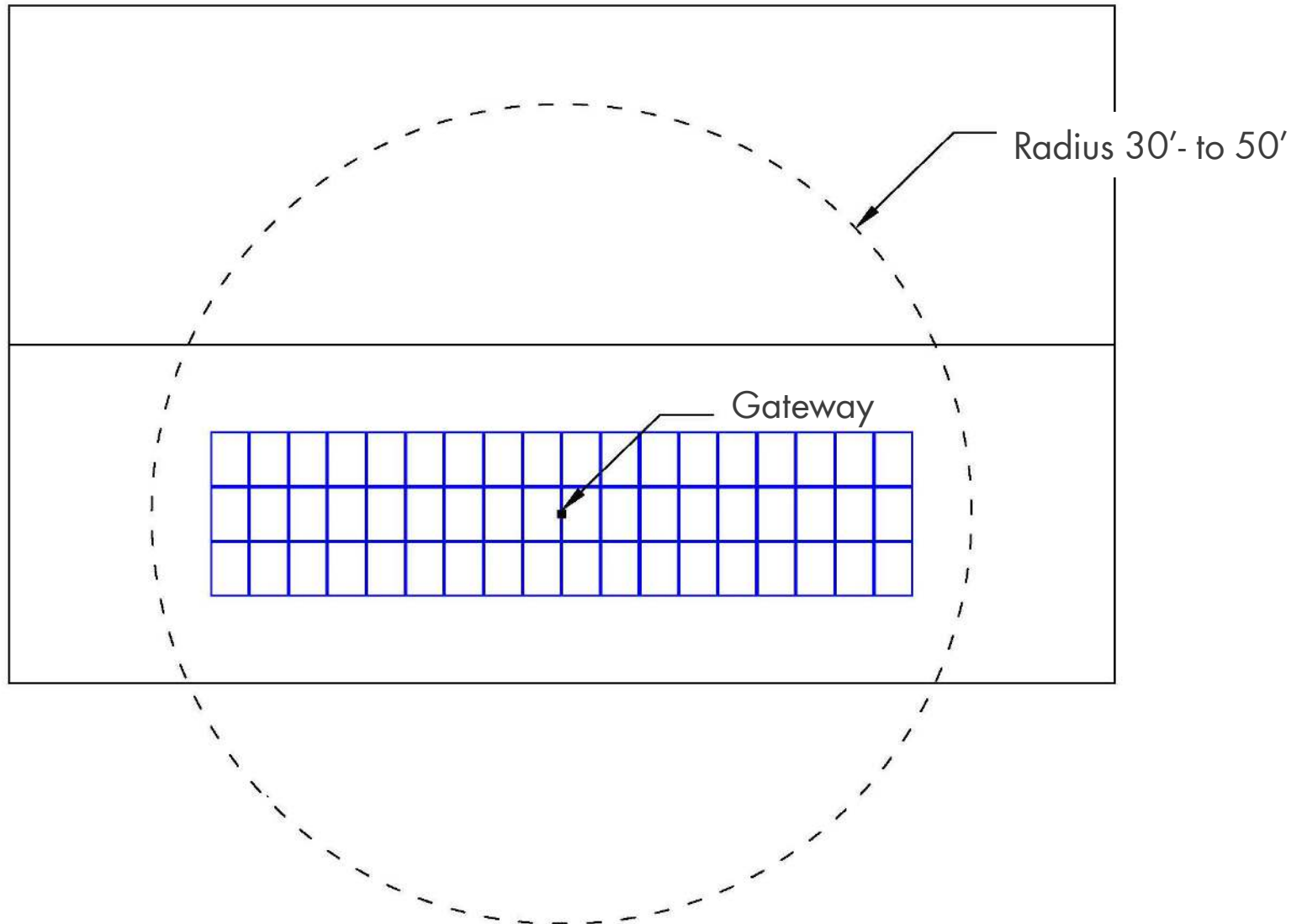
CCA
located in the inverter



Gateway(s)
located on the roof within each array



SMA POWER+ STEPS CONNECTING THE GATEWAY



ANY QUESTIONS?

