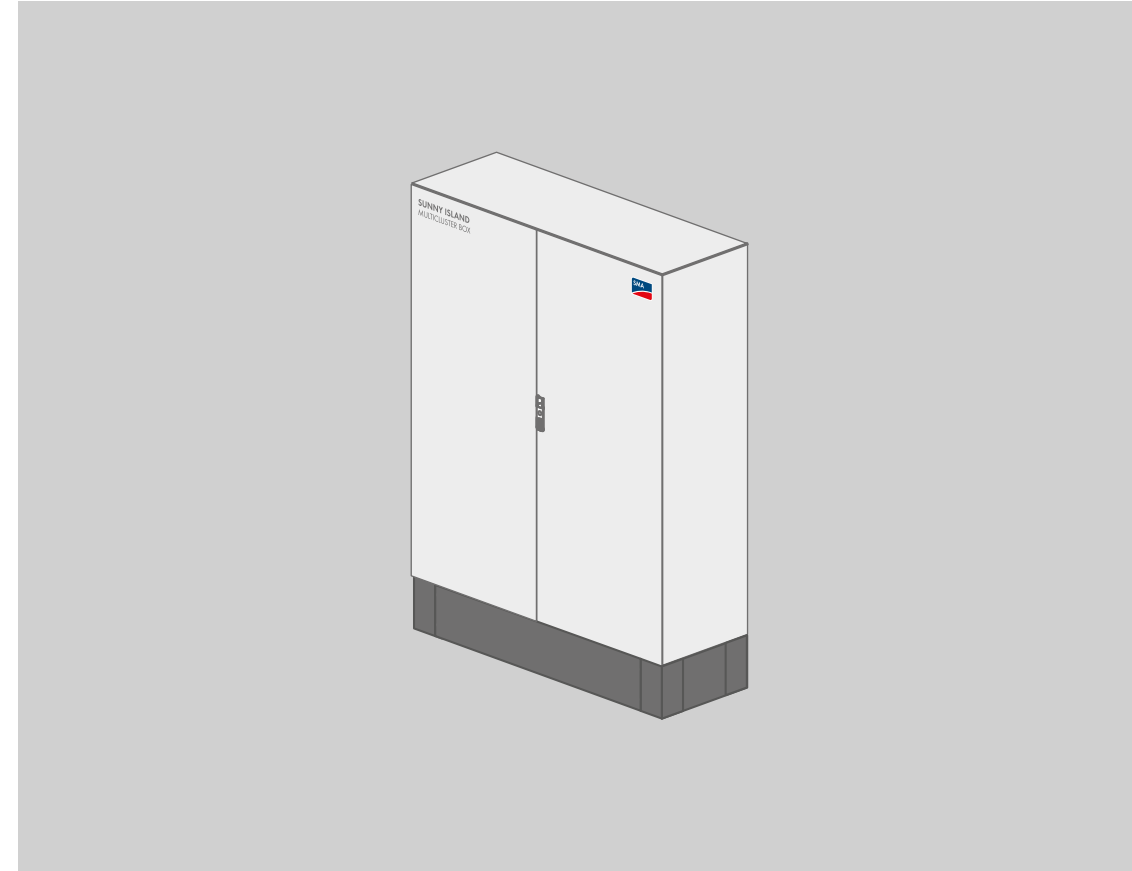


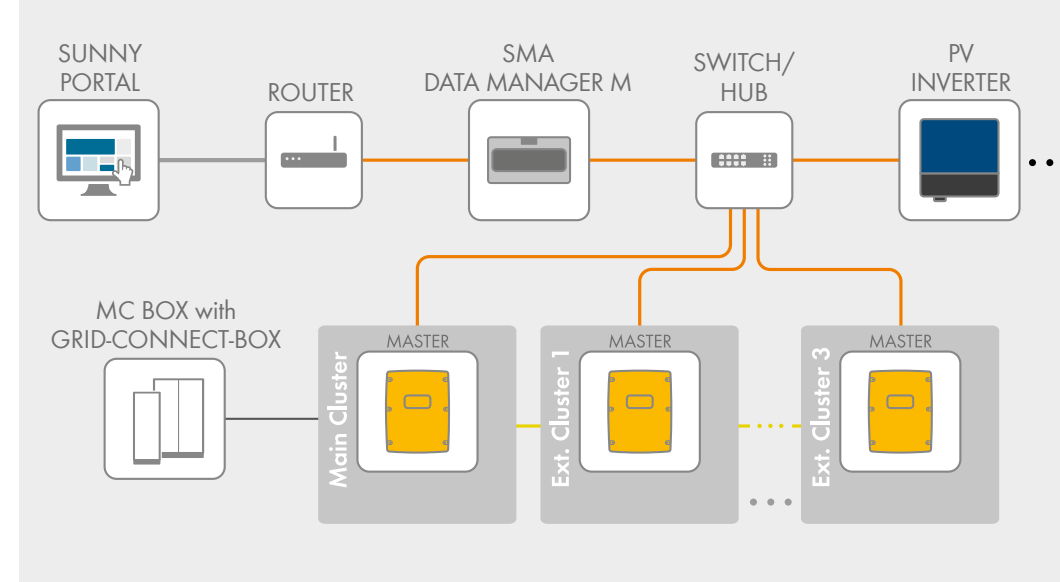
### Installation - Circuitry Overview MULTICLUSTER-BOX 12.3-20



MC-BOX-12-3-20\_1AA-en-17 | Version 1.7

ENGLISH

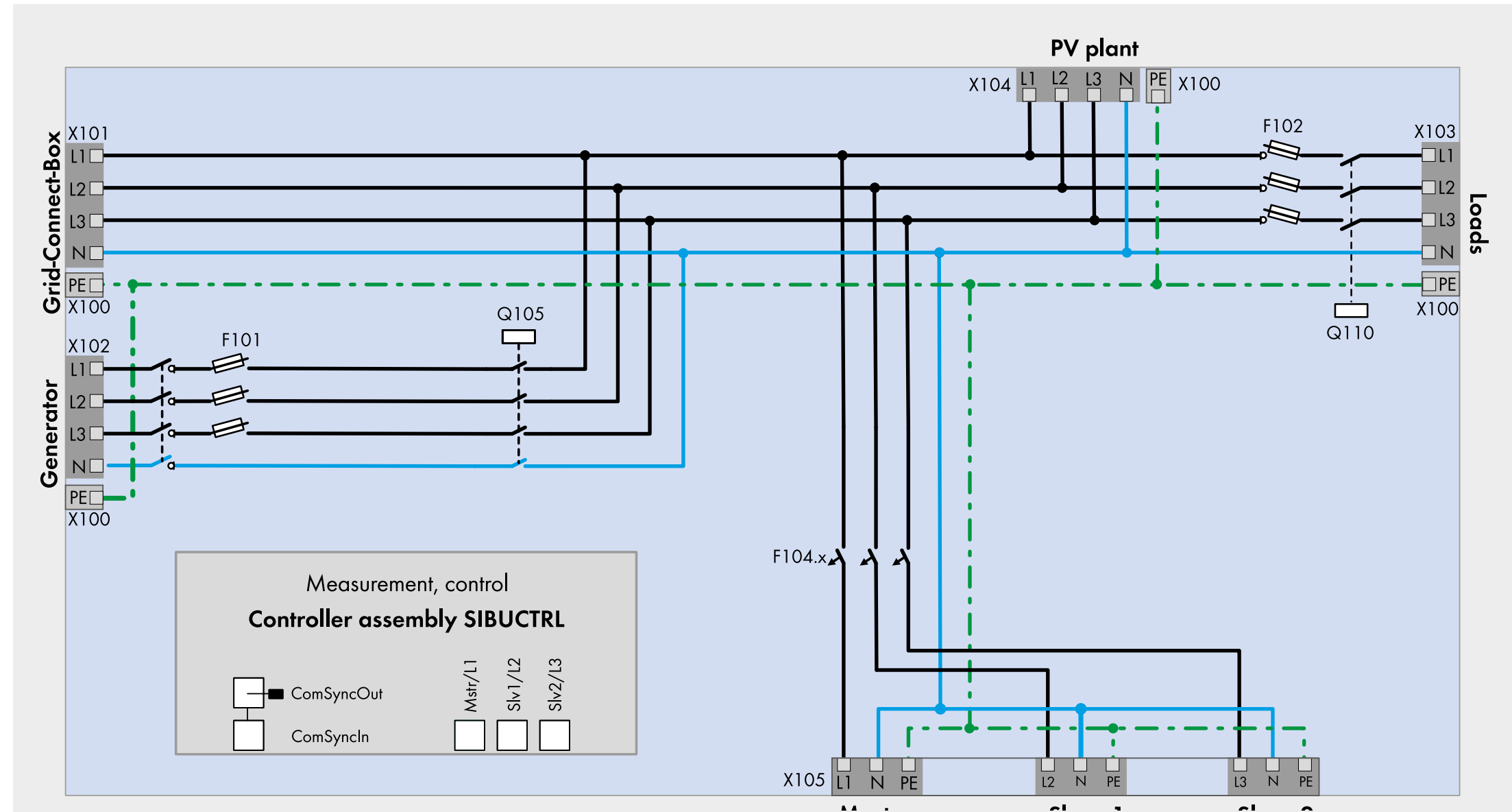
### COMMUNICATION PRINCIPLE



SMA Solar Technology AG  
Niestetal  
SMA Online Service Center:  
www.SMA-Service.com

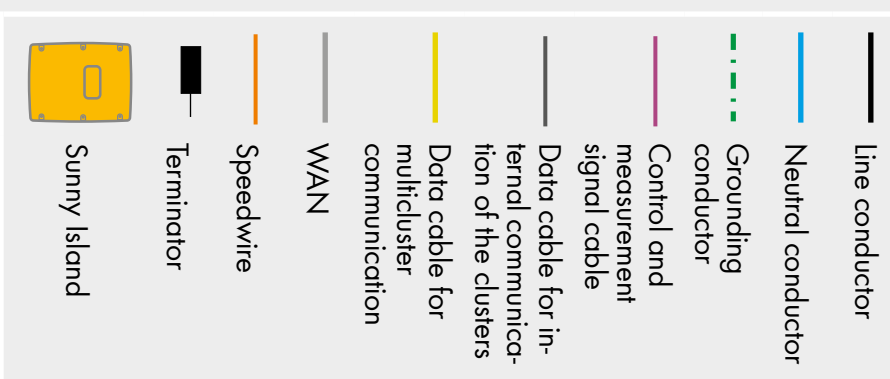
International SMA Service Line  
00800 SMA SERVICE (+800 762 7378423)

### SCHEMATIC DIAGRAM FOR MULTICLUSTER-BOX



Fuse	Fuse type	Application	Supply line from
F101	NH1 200 A	Generator	-
F102	NH1 200 A	Loads	-
F104.x	Circuit breaker C40	Sunny Island	-

### LEGEND



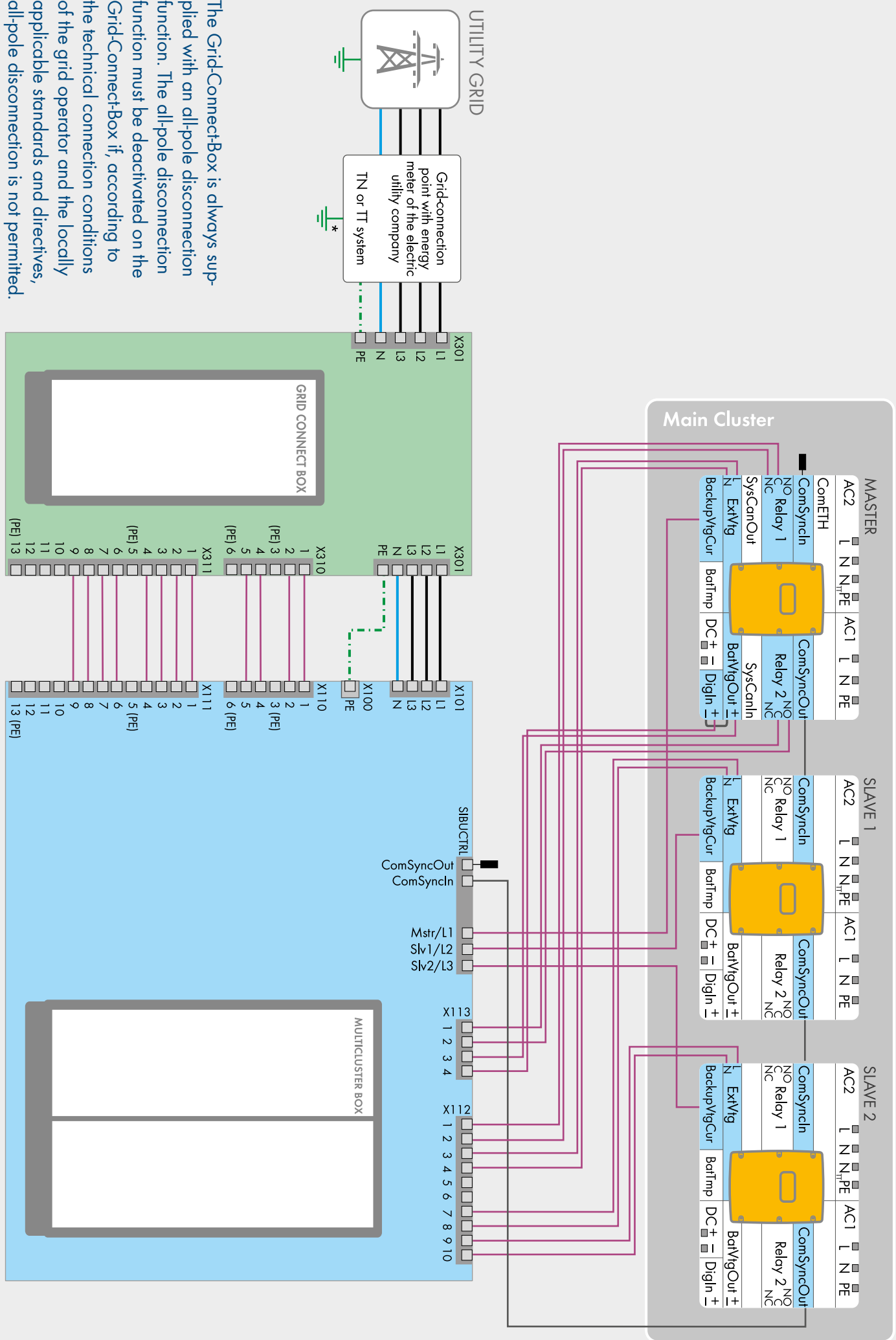
**Comment:**  
Extension cluster circuitry: see page 2

Bridge **DigIn**- and **BatVig**- on the master of the main cluster.

Data cable length max. 30 m

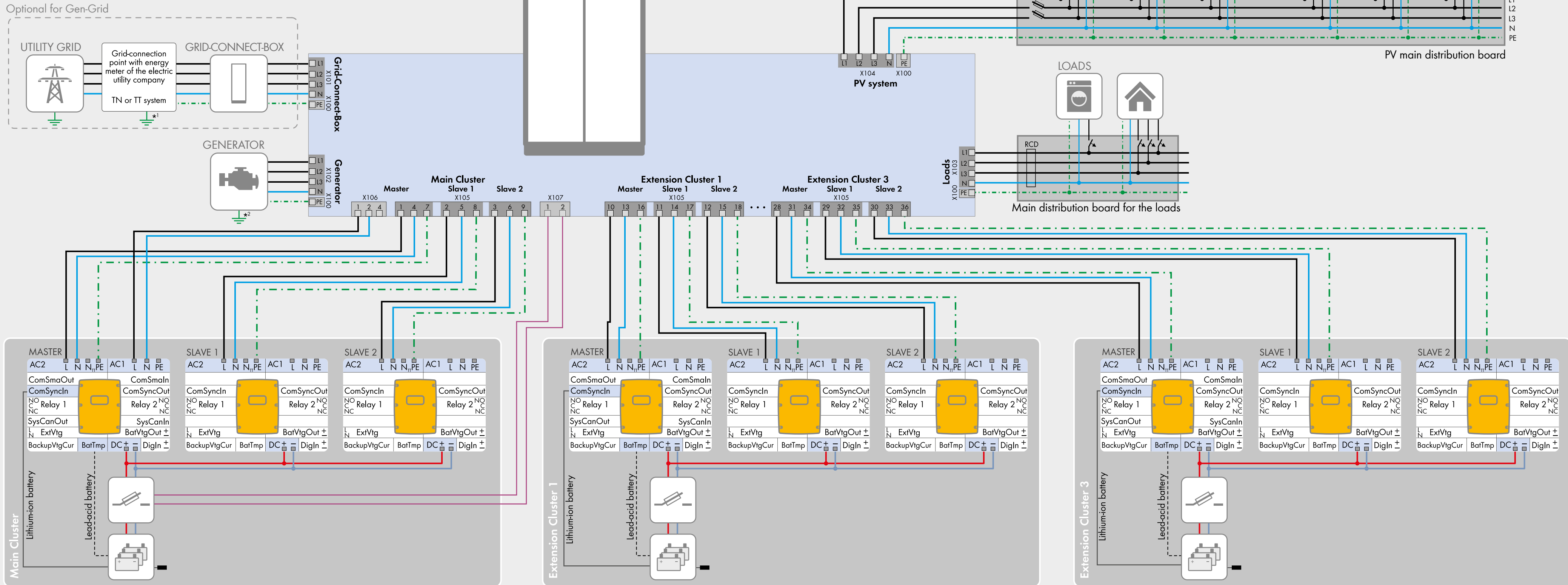
\* Ground the Multicenter system at the grid-connection point in accordance with the local standards and directives.

### CIRCUITRY OF GRID CONNECT BOX WITH MULTICLUSTER-BOX AND MAIN CLUSTER

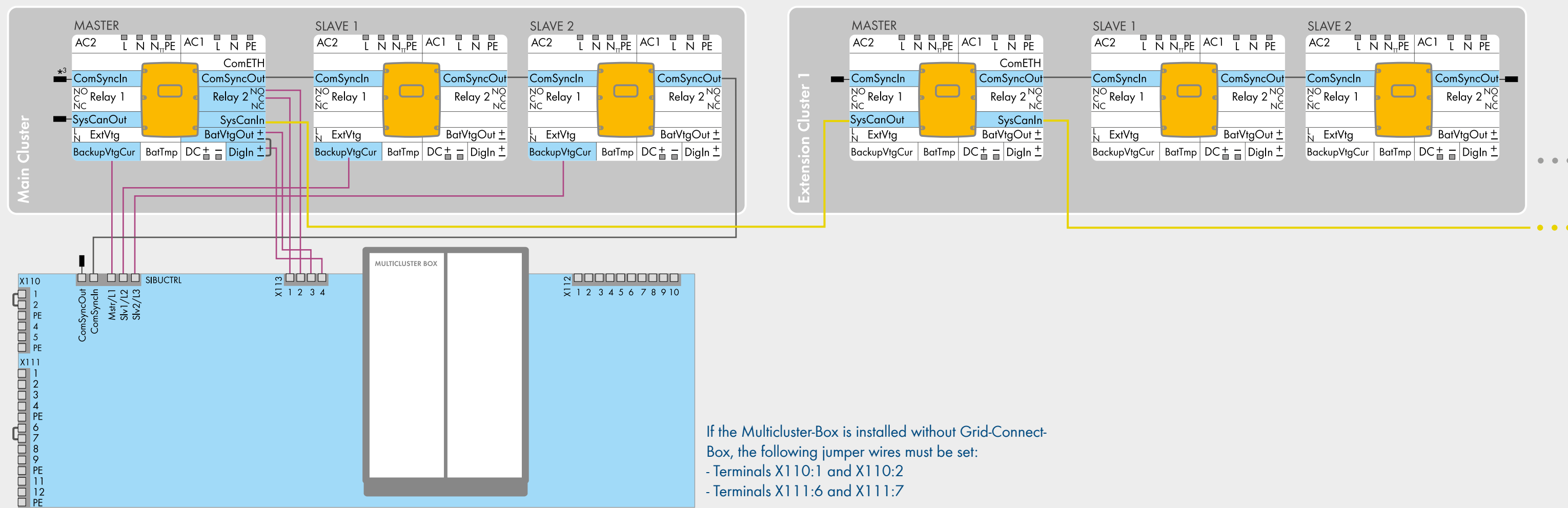


# POWER CABLE CIRCUITRY FOR SYSTEMS WITH MULTICLUSTER-BOX

If the utility grid is connected directly to the Multiclustor Box as the external energy source instead of the electricity generator, the locally applicable standards and directives must be adhered to. Further more, the utility grid must be connected to the generator input of the Multiclustor-Box in this case. When connecting the utility grid directly to the Multiclustor-Box, proceed as described below for the generator .



## DATA AND CONTROL CABLE CIRCUITRY - For systems with electricity generator or utility grid connected directly to the Multiclustor-Box



## LEGEND

- Line conductor
- Neutral conductor
- Grounding conductor
- DC+ cable
- DC- cable
- Battery temperature sensor
- Sunny Island
- PV inverters
- Control and measurement signal cable
- Data cable for internal communication of the clusters
- Data cable for multiclustor communication
- WAN
- Speedwire
- Terminator
- Battery fuse
- Battery

**Comment:** Bridge DigIn- and BatVtg- on the master of the main cluster.  
Data cable length max. 30 m

\*1 Ground the Multiclustor system at the grid-connection point in accordance with the local standards and directives.

\*2 If a generator is used, ground the multiclustor system at the generator.

\*3 If no lithium-ion batteries are connected, the terminator must be plugged in.