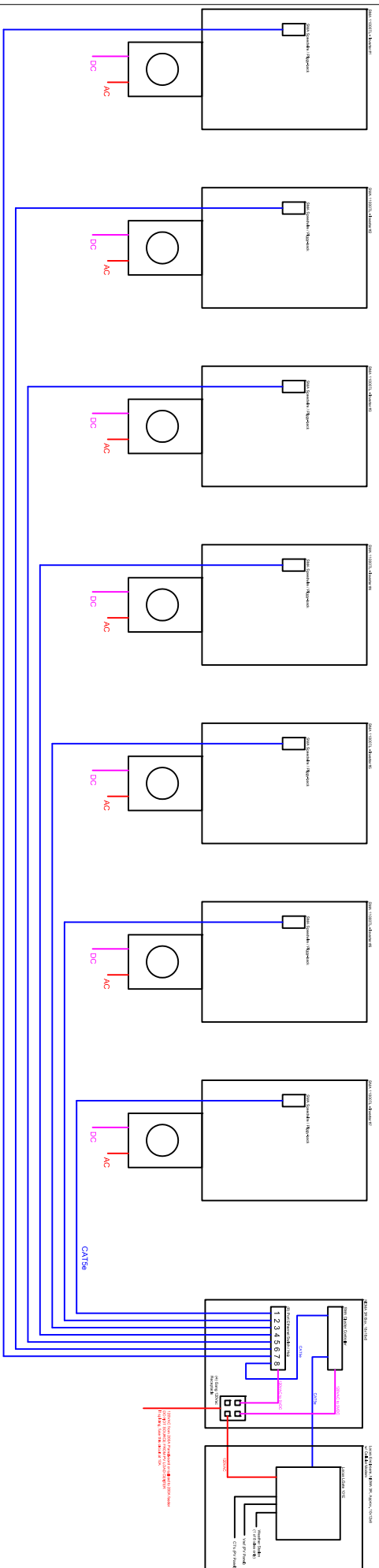
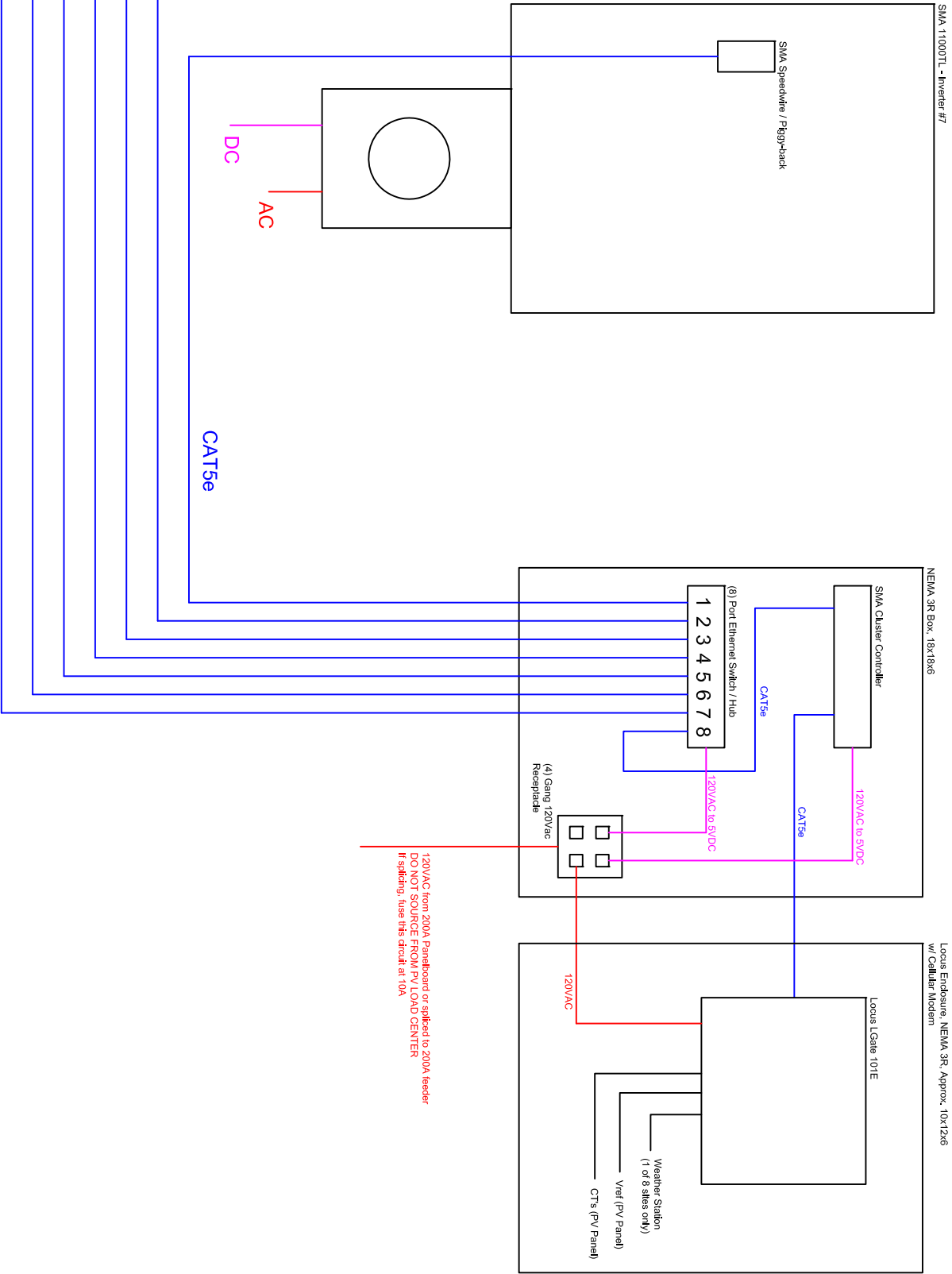






4 Product Description

4.1 SMA Speedwire/Webconnect Piggy-Back

The Speedwire/Webconnect Piggy-Back is a Speedwire communication interface with Webconnect function for inverters.

Speedwire is a wire-based type of communication based on the Ethernet standard and the communication protocol SMA Data2+. This enables inverter-optimized 10/100 Mbit data transmission between Speedwire devices in PV plants.

The Webconnect function enables direct data transmission between the inverters of a small-scale PV plant and the Internet portal Sunny Portal without any additional communication device and for a maximum of four inverters per Sunny Portal plant. For this, a Speedwire/Webconnect Piggy-Back must be installed in each of the inverters. You can access your Sunny Portal plant from any computer with an Internet connection.

The Speedwire/Webconnect Piggy-Back fulfills the following tasks:

- Set-up of a Speedwire network in small-scale and large-scale PV power plants
- Data exchange with the Internet portal Sunny Portal:
 - In small-scale PV plants via a router with Internet connection
 - In large-scale PV power plants via the Cluster Controller
- Data exchange with Sunny Explorer from software version 1.06

The Speedwire/Webconnect Piggy-Back is available as a retrofit kit.

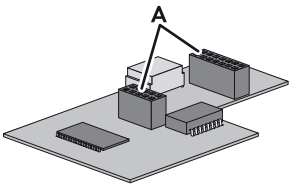


Figure 2: Design of the SMA Speedwire/Webconnect Piggy-Back

Item	Designation
A	Female connector

Label with PIC and RID for Registration of a Small-Scale PV Plant in Sunny Portal

To activate the Piggy-Back in Sunny Portal, you will need the PIC and RID numbers printed on the supplied label. After installation of the Piggy-Back, a label should be affixed on the exterior of the inverter in the vicinity of the type label. Keep the other label in a safe place for future reference.

SB 6000TL-US, SB 7000TL-US, SB 8000TL-US, SB 9000TL-US, SB 10000TL-US,
SB 11000TL-US

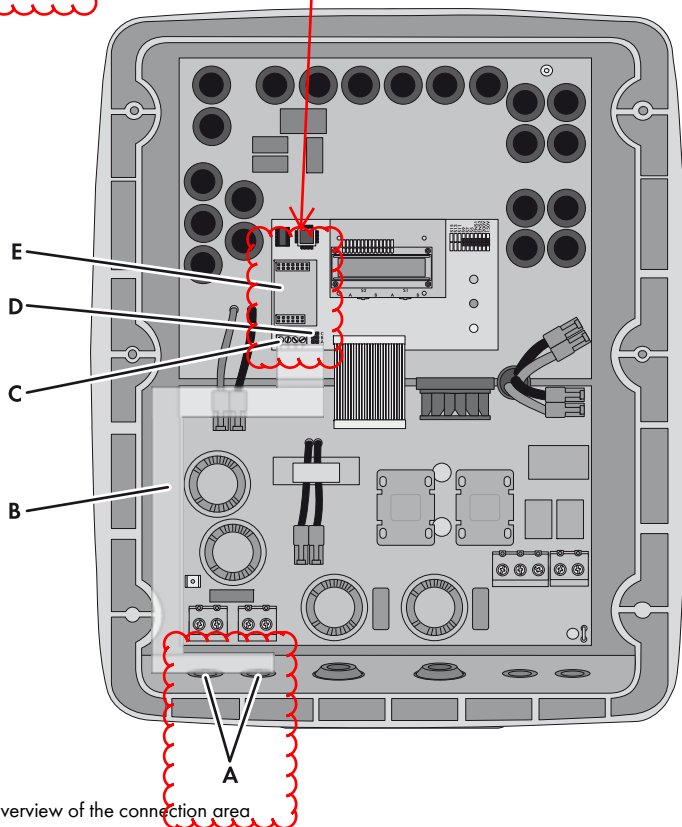


Figure 10: Overview of the connection area

Item	Designation
A	Inverter enclosure opening with filler plug
B	Cable route to communication terminal
C	Communication terminal
D	Jumper slot for communication
E	Slot for Piggy-Back

Use in Large-Scale PV Power Plants with Cluster Controller

The Speedwire network in large-scale PV power plants can be set up in a tree topology. Data exchange with Sunny Portal does not take place via the individual inverters, but centrally via the Cluster Controller (see user manual of the Cluster Controller and user manual of the Cluster Controller in Sunny Portal).

i Deactivation of the Webconnect function of inverters in large-scale PV power plants with Cluster Controller

In large-scale PV power plants with Cluster Controller, communication with Sunny Portal takes place via the Cluster Controller itself.

- For optimal operation of large-scale PV power plants with Cluster Controller, deactivate the Webconnect function of the inverters with integrated Piggy-Back (see Cluster Controller user manual).

11KW TL Inverters #1 - #7

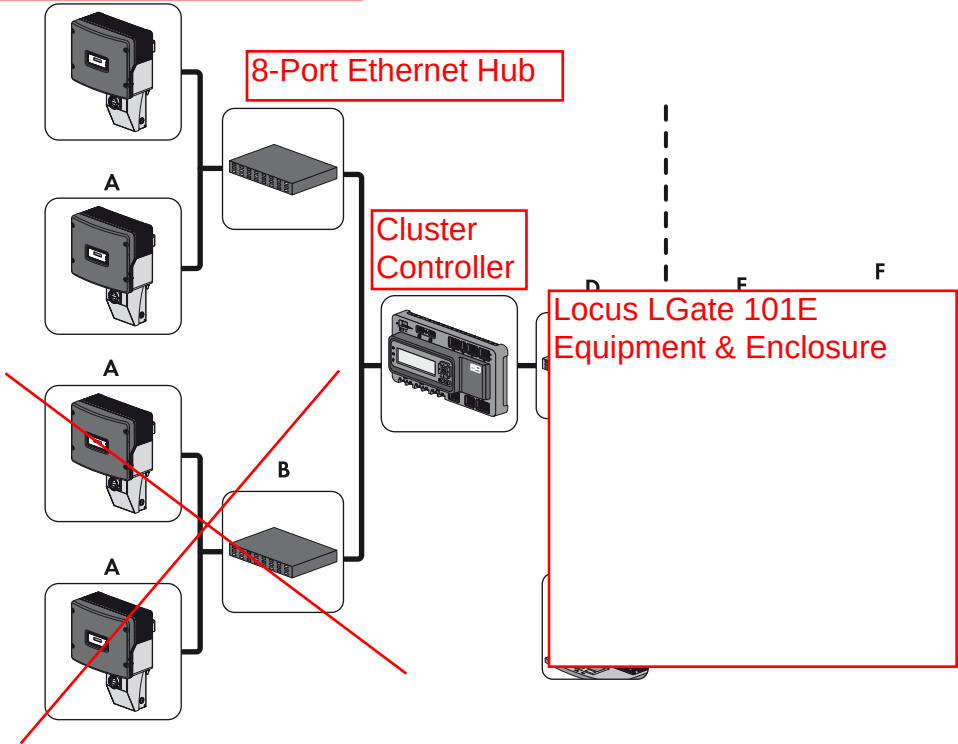


Figure 5: Large-scale PV power plant with Cluster Controller and inverters in tree topology (example)

Item	Designation
A	Inverter with Piggy-Back