Application Guide
Three Phase String Inverters Communication
Wiring Methods

Version 1.0
May 28, 2014

The technical information and cross references of this document are subjected to a continuous further development and therefore the right to any changes as may be technically or legally required is reserved.

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When the CPS three phase string inverters (CPS23kW, CPS28kW) are monitored via the RS485 communication, the unique RS485 address for each inverter can be set through the LCD interface.

Up to 31 inverters can be connected together in the RS485 communication network.

Daisy-chain topology is recommended for the RS485 network connection, as shown in figure below. The way to daisy chain properly is to connect port RS485-IN of one inverter to the port RS485-OUT of the next inverter and so on, with RJ45 connections. If you connect RS485-IN of one inverter to the RS485-IN port of the next inverter, then there is possibility of some voltage feedback through this connection which will result in faults on the inverters. The same theory applies to the RS485-OUT ports as well.

If there are multiple inverters in the RS485 networking, the selector switch S402 of the last inverter in the daisy chain should be in ON position to have the 120ohm terminal resistor enabled while keeping the selector switch S402 of other inverters in OFF position to disable the terminal resistor.

Other communication topologies, such as the star networks, are not recommended.

Detailed information on these connections can be found in the latest updated version of the install manual of these products under the Communication Connections section, please refer to that.