



Manufacturer's declaration

Operation of a PV system with SMA PV inverters via grid connection according to PGS controller certification (No. 21-0380_1 for VDE-AR-N 4110:2018-11 and VDE-AR-N 4120:2018-11)

With the SMA Data Manager L (EDML-10) as a PGS controller, it is possible to operate a generator on a medium-voltage grid in accordance with "VDE-AR-N 4110:2018-11" and "VDE-AR-N 4120:2018-11" (certificate number 21-0379_1).

The underlying measurements for the certificate test require a measurement at the point of interconnection for current, voltage, active power, reactive power, displacement power factor, frequency with or without voltage transformers and/or current transformers.

Measuring devices are required that can transmit their measured values via a Modbus/TCP interface (100 Mbit/s).

For the VDE-AR-N 4120 timing requirements, a measured value polling rate of less than or equal to 200 ms is required.

In principle, any Modbus/TCP compatible measuring device can be used for the point of interconnection. The Modbus polling profile required for this must then be created manually if necessary.

The table below lists the devices directly supported by Data Manager L.

Measuring device	VDE AR-N	
	4110	4120
Schneider ION 74xx/76xx/86xx/90xx	✓	✓
Janitza UMG 604/605-PRO	✓	✓
Elkor WattsOn Mark II	✓	✗
Measurelogic DTS 310	✓	✗
Manually created Modbus polling profiles	✓	✗

- ✓ Measuring device suitable for application
- ✗ Measuring device not suitable for application

The required measurement accuracy is:

Measurement accuracy, accuracy class according to IEC 61557-12, based on measured value

Voltage: +/- 0,5%

Current: +/- 0,5%

Active Power: +/- 1,0%

Reactive Power: +/- 1,0%

Power factor: +/- 1,0%

Based on IEC 62053-22 or -23 (typical):

Active energy class 1, reactive energy class 1

When using external voltage transformers and/or current transformers, the respective resulting measuring accuracy must be taken into account

Niestetal, 2021-01-22

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