SMA PV OFFSET BOX

Automatic Night-Time Discharging of PV Modules

Certain kinds of PV modules are subject to power degradation when exposed to negative voltage to ground (polarization). The PV Offset Box maintains the performance capability of these modules even if they have inverters that cannot be grounded. If the degradation has already started, the device helps to regenerate the modules. The PV Offset Box is designed for inverters up to 1,000 V. Operation with all PV array components (PV modules, cables, inverters) has to be released by the respective manufacturer.
### Technical data

**PV array / inverter input**
- Max. PV voltage: 1000 V
- Min. MPP voltage (in feed-in operation of the inverter): 75 V
- Max. PV voltage (in offset operation): 50 V
- Min. system voltage (V) of all components: 400 V
- Min. insulation resistance: 200 kΩ
- Output voltage to ground: 400 V to 1000 V
- Max. output current: 3.3 mA

**Grid (AC)**
- Nominal AC voltage: 100 V to 240 V
- Nominal AC grid frequency: 50 Hz to 60 Hz
- Power consumption in standby operation: < 0.5 W
- Typical power consumption in operation: 3 W

**General data**
- Dimensions (W / H / D): 270 / 230 / 100 mm (10.6 / 9.0 / 3.9 inches)
- Weight: 1.4 kg (3.08 lb)
- Operating temperature range: -25 °C to +60 °C (-13 °F to +140 °F)
- Indoor / outdoor installation (IP65): ● / ●

**Features**
- PV connection (spring clamp terminal for cables up to 6 mm²): PV (-) / PVA (+) / PVB (+)
- AC-connection (spring clamp terminal for cables up to 1.5 mm²): IN: N / L / FE
  OUT: N / L / FE
- LED display: operation: green
- LED display: failure: red
- Warranty: ●
- Certificates and approvals: www.SMA-Solar.com

### Approvals

The PV OFFSET BOX has been approved by SMA for the following string inverters:

- SB 3000TL-21
- SB 3600TL-21
- SB 4000TL-21
- SB 5000TL-21
- SB 6000TL-21
- STP 8000TL-10, STP 10000TL-10, STP 12000TL-10
- STP 15000TL-10, STP 17000TL-10
- STP 5000TL-20
- STP 6000TL-20
- STP 7000TL-20
- STP 8000TL-20
- STP 9000TL-20
- STP 10000TL-20
- STP 12000TL-20
- STP 15000TLEE-10
- STP 20000TLEE-10
- SB 3500TL-JP-22
- SB 4500TL-JP-22
- STP 10000TLEE-JP-10
- STP 12000TLEE-JP-11

1 From date of manufacture 02/03/2014
2 From date of manufacture 02/10/2014

**Type designation:** PVO-N-20