



Smart
connections.

Data sheet

PIKO 7.0

7.0

Technical data PIKO 7.0



- 3-phase feed-in
- Transformerless converting
- Integrated electronic DC switch
- Broad input voltage range
- Standard integrated communication package with data logger, web server, solar portal and the following interfaces: 2x Ethernet, RS485, S0, 4x analogue inputs (e.g. for ripple control receivers or PIKO Sensor)
- PIKO BA Sensor can be connected for the measurement of building consumption and for dynamic active power control
- Integrated switch contact for self-consumption optimisation
- Smart Home-ready, EEBus 1.0-ready

Input side (DC)

| | | |
|---|-----|------|
| Max. PV power ($\cos \varphi = 1$) | kWp | 7.7 |
| Rated input voltage ($V_{DC,r}$) | V | 680 |
| Max. input voltage ($V_{DC,max}$) | V | 1000 |
| Min. input voltage ($V_{DC,min}$) | V | 160 |
| Start-up input voltage ($V_{DC,start}$) | V | 180 |
| Max. MPP voltage ($V_{MPP,max}$) | V | 800 |
| Min. MPP voltage for DC rated output in single tracker mode ($V_{MPP,min}$) | V | 660 |
| Min. MPP voltage for DC rated output in two-tracker mode ($V_{MPP,min}$) | V | 330 |
| Max. input current ($I_{DC,max}$) | A | 11 |
| Max. input current with parallel connection (input DC1+DC2) | A | 22 |
| Number of DC inputs | | 2 |
| Number of independent MPP trackers | | 2 |

Output side (AC)

| | | |
|---|-----|-----------------|
| Rated output, $\cos \varphi = 1$ ($P_{AC,r}$) | kW | 7.0 |
| Max. output apparent power, $\cos \varphi, adj$ | kVA | 7.0 |
| Max. output voltage ($V_{AC,max}$) | V | 264,5 |
| Min. output voltage ($V_{AC,min}$) | V | 184 |
| Rated output current | A | 10.2 |
| Max. output current ($I_{AC,max}$) | A | 10.2 |
| Short-circuit current (peak / RMS) | A | 15.8 / 11.2 |
| Grid connection | | 3N~, AC, 400V |
| Rated frequency (f_r) | Hz | 50 |
| Max. grid frequency (f_{max}) | Hz | 51.5 |
| Min. grid frequency (f_{min}) | Hz | 47.5 |
| Setting range of the power factor $\cos \varphi_{AC,r}$ | | 0.80...1...0.80 |
| Power factor for rated power ($\cos \varphi_{AC,r}$) | | 1 |
| Max. total harmonic distortion | % | 3 |

Device properties

| | | |
|---------------------|---|-----|
| Standby consumption | W | 1,8 |
|---------------------|---|-----|

Efficiency

| | | |
|---------------------------|---|------|
| Max. efficiency | % | 97.6 |
| European efficiency | % | 96.5 |
| MPP adjustment efficiency | % | 99.9 |

Warranty

| | | |
|-------------------------------------|--|-------|
| Warranty (years) | | 5 |
| Warranty extension optional (years) | | 10/20 |

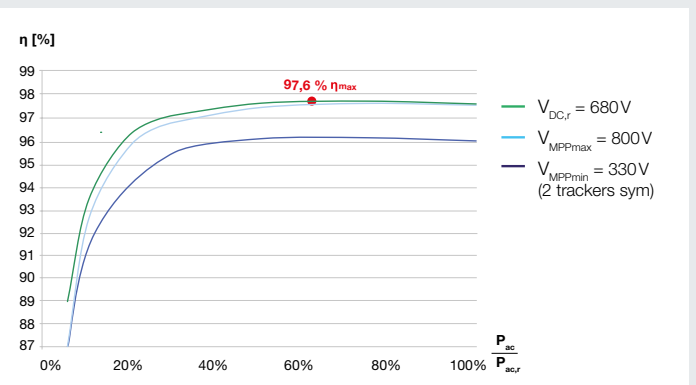
System data

| | | |
|---|-------------------|------------------------|
| Topology: Without galvanic separation - transformerless | | ✓ |
| Internal protection according to IEC 60529 housing / fan | | IP 65 / IP 55 |
| Protective class according to IEC 62103 | | I |
| Overvoltage category according to IEC 60664-1 Input side (PV generator) | | II |
| Overvoltage category according to IEC 60664-1 Output side (grid connection) | | III |
| Pollution Degree | | 4 |
| Environmental category (outdoor installation) | | ✓ |
| Environmental category (interior installation) | | ✓ |
| UV resistance | | ✓ |
| Minimum cable cross-section of AC connecting line | mm ² | 2,5 |
| Minimum cable cross-section of DC connecting line | mm ² | 4 |
| Max. fusing on output side | | B16, C16 |
| Operator protection (EN 62109-2) | | RCCB Typ B |
| Electronic disconnection device integrated | | ✓ |
| Height | mm | 385 (15.16 in) |
| Width | mm | 500 (19.69 in) |
| Depth | mm | 236 (9.29 in) |
| Weight | kg | 26.5 (58.42 lb) |
| Cooling principle - convection | | - |
| Cooling principle - regulated fans | | ✓ |
| Max. air throughput | m ³ /h | 84 |
| Noise emission | dBA | 52 |
| Ambient temperature | °C | -20...60 (-4...140 °F) |
| Max. installation altitude above sea level | m | 2000 (6562 ft) |
| Relative humidity | % | 4...100 |
| Connection technology at input side - MC 4 | | ✓ |
| Connection technology at output side - spring-loaded terminal strip | | ✓ |

Interfaces

| | | |
|--------------------------|--|---|
| Ethernet RJ45 | | 2 |
| RS485 | | 1 |
| S0 | | 1 |
| Analogue inputs | | 4 |
| PIKO BA Sensor Interface | | 1 |

Efficiency characteristics of PIKO 7.0



Smart connections.

Contact

KOSTAL Solar Electric GmbH
Hanferstr. 6
79108 Freiburg i. Br.
Germany
Tel. +49 761 477 44 - 100
Fax +49 761 477 44 - 111
www.kostal-solar-electric.com