

SOLAR ELECTRIC

KOSTAL



Smart  
connections.

Data sheet

PIKO IQ

IQ

# PIKO IQ: our power pack – flexible, communicative and practical

## Flexible in use

2 MPP trackers suited to the layout of almost all roofs

Extended MPP range – perfect for repowering

Available in five power classes – perfect for every home

## Smart connected

Smart Communication Board – future-proof and new functions can be added via the app

Display, data logger, system monitoring, network and control interfaces integrated as standard, WLAN Ready via external USB WLAN adapter<sup>1)</sup>

Free Solar Portal for monitoring the PV system

EEBus and Sunspec for Smart Home integration

## Smart performance

Fast, self-learning shadow management – adapts individually to the installation site

Dynamic active power control and 24-hour home-consumption measurement

## Easy to install

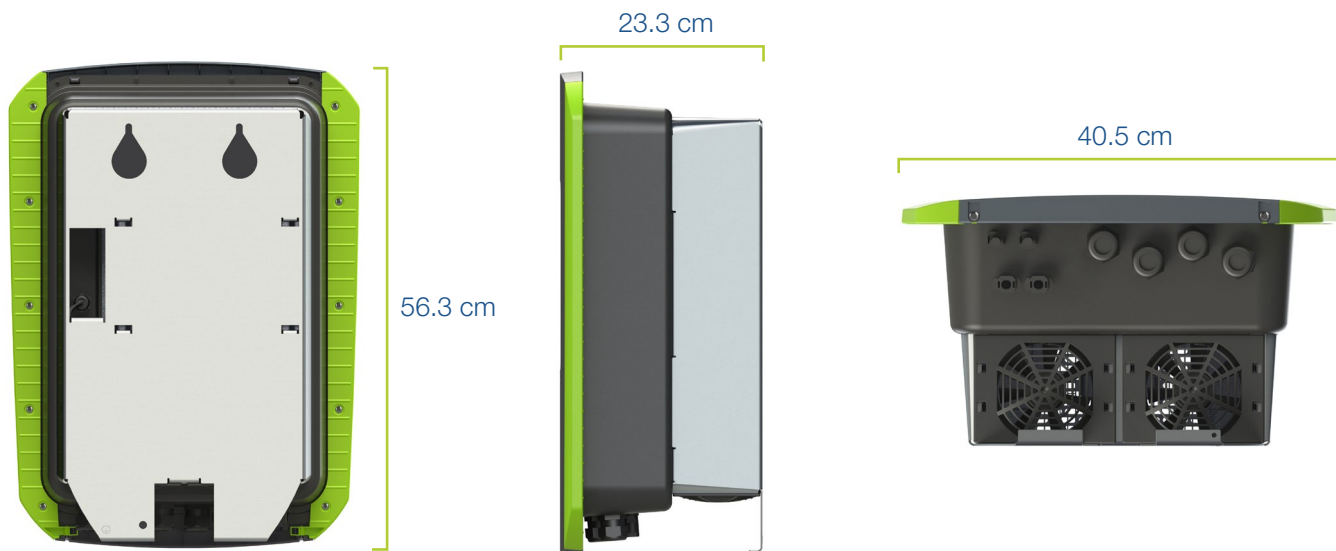
Simple device configuration using commissioning wizard

Safe installation due to clearly arranged, separate terminal compartment and protected power electronics

Auto update and remote support<sup>1)</sup>



# PIKO IQ: compact and rapidly deployable



<sup>1)</sup> Available later on via software update

## Technical data PIKO IQ

| Power class  |   | 4.2     | 5.5                     | 7.0                     | 8.5                     | 10                      |                         |
|--|---|---------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Input side (DC)  | Max. PV power ( $\cos \varphi = 1$ )  | kWp     | 4.83                    | 6.33                    | 8.05                    | 9.78                    | 11.50                   |
|  | Nominal DC power  | kW      | 4.33                    | 5.67                    | 7.22                    | 8.76                    | 10.31                   |
|  | Rated input voltage ( $U_{DC,r}$ )  | V       | 570                     |                         |                         |                         |                         |
|  | Start-up input voltage ( $U_{DCstart}$ )  | V       | 150                     |                         |                         |                         |                         |
|  | Input voltage range ( $U_{DCmin} - U_{DCmax}$ )                                     | V       | 120...1000              |                         |                         |                         |                         |
|  | MPP range at rated output in single-tracker operation ( $U_{MPPmin} - U_{MPPmax}$ ) | V       | 350...720               | 450...720               | -                       | -                       | -                       |
|  | MPP range at rated output in two-tracker operation ( $U_{MPPmin} - U_{MPPmax}$ )    | V       | 180...720 <sup>3)</sup> | 225...720 <sup>3)</sup> | 290...720 <sup>3)</sup> | 345...720 <sup>3)</sup> | 405...720 <sup>3)</sup> |
|  | MPP working voltage range ( $U_{MPPworkmin} - U_{MPPworkmax}$ )                     | V       | 120...720 <sup>3)</sup> |                         |                         |                         |                         |
|  | Max. working voltage ( $U_{DCworkmax}$ )  | V       | 900                     |                         |                         |                         |                         |
|  | Max. input current ( $I_{DCmax}$ ) per DC input                                     | A       | 13                      |                         |                         |                         |                         |
|  | Max. PV short-circuit current ( $I_{SC,PV}$ ) per DC input                          | A       | 16.25                   |                         |                         |                         |                         |
|  | Number of DC inputs   |         | 2                       |                         |                         |                         |                         |
|  | Number of independent MPP trackers  |         | 2                       |                         |                         |                         |                         |
| Output side (AC)                                       | Rated power, $\cos \varphi = 1$ ( $P_{AC,r}$ )                                      | kW      | 4.2                     | 5.5                     | 7.0                     | 8.5                     | 10                      |
|  | Max. apparent output power, $\cos \varphi_{adj}$                                    | kVA     | 4.2                     | 5.5                     | 7.0                     | 8.5                     | 10                      |
|  | Min. output voltage ( $U_{ACmin}$ )   | V       | 320                     |                         |                         |                         |                         |
|  | Max. output voltage ( $U_{ACmax}$ )   | V       | 460                     |                         |                         |                         |                         |
|  | Rated output current ( $I_{AC,r}$ )   | A       | 6.06                    | 7.94                    | 10.10                   | 12.27                   | 14.43                   |
|  | Max. output current ( $I_{ACmax}$ )   | A       | 6.74                    | 8.82                    | 11.23                   | 13.63                   | 16.04                   |
|  | Short-circuit current (peak/RMS)  | A       | 9.5/6.7                 | 12.5/8.8                | 15.9/11.2               | 19.3/13.6               | 22.8/16.1               |
|  | Grid connection   |         | 3N~, 400V, 50 Hz        |                         |                         |                         |                         |
|  | Rated frequency ( $f_r$ )   | Hz      | 50                      |                         |                         |                         |                         |
|  | Min/max grid frequency ( $f_{min}/f_{max}$ )  | Hz      | 47/52.5                 |                         |                         |                         |                         |
|  | Setting range of the power factor ( $\cos \varphi_{AC,r}$ )                         |         | 0.8...1...0.8           |                         |                         |                         |                         |
|  | Power factor for rated power ( $\cos \varphi_{AC,r}$ )                              |         | 1                       |                         |                         |                         |                         |
|  | Max. THD  | %       | 3                       |                         |                         |                         |                         |
| Standby/standby incl. 24h home-consumption measurement | W   | 4.5/7.9 |                         |                         |                         |                         |                         |
| $\eta$   | Max. efficiency   | %       | 97.1                    | 97.1                    | 97.2                    | 97.2                    | 97.2                    |
|  | European efficiency   | %       | 96.2                    | 96.2                    | 96.5                    | 96.5                    | 96.5                    |
|  | MPP adjustment efficiency   | %       | 99.9                    | 99.9                    | 99.9                    | 99.9                    | 99.9                    |

|  |  |   |                                |              |     |     |         |  |  |
|--|--|---|--------------------------------|--------------|-----|-----|---------|--|--|
|  | Power class  |   | 4.2                            | 5.5          | 7.0 | 8.5 | 10      |  |  |
| System data                                | Topology: Without galvanic isolation – transformerless                       | kWp   | ✓                              |              |     |     |         |  |  |
|  | Protection class according to IEC 60529                                      |   | 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                            |              |     |     |         |  |  |
|  | Degree of contamination  |   | 4                              |              |     |     |         |  |  |
|  | Environmental category (outdoor installation)                                |   | ✓                              |              |     |     |         |  |  |
|  | Environmental category (indoor installation)                                 |   | ✓                              |              |     |     |         |  |  |
|  | UV resistance  |   | ✓                              |              |     |     |         |  |  |
|  | AC cable diameter (min-max)  | mm  | 8...17                         |              |     |     |         |  |  |
|  | AC cable cross-section (min-max)   | mm <sup>2</sup>   | 1.5...6                        | 2.5...6      |     |     | 4...6   |  |  |
|  | DC cable cross-section (min-max)   | mm <sup>2</sup>   | 2.5...6                        |              |     |     |         |  |  |
|  | Max. fuse protection on output side  |   | B16/C16                        |              |     |     | B25/C25 |  |  |
|  | Internal operator protection according to EN 62109-2                         |   | RCOB type B                    |              |     |     |         |  |  |
|  | Independent disconnection device according to VDE 0126-1-1                   |   | ✓                              |              |     |     |         |  |  |
|  | Height/width/depth   | mm (in)   | 563/405/233 (22.17/15.94/9.17) |              |     |     |         |  |  |
|  | Weight   | kg (lb)   | 18.5 (40.76)                   | 20.5 (45.19) |     |     |         |  |  |
|  | Cooling principle – regulated fans   |   | ✓                              |              |     |     |         |  |  |
|  | Max. air throughput  | m <sup>3</sup> /h   | 184                            |              |     |     |         |  |  |
|  | Max. noise emission  | dB(A)   | 42                             | 42           | 42  | 42  | 42      |  |  |
| Ambient temperature                        | °C (°F)  | -20...60 (-4...140)   |                                |              |     |     |         |  |  |
| Max. installation altitude above sea level | m (ft)   | 2000 (6562)   |                                |              |     |     |         |  |  |
| Relative humidity                          | %  | 4...100   |                                |              |     |     |         |  |  |
| Connection technology, DC side             |  | SUNCLIX plug  |                                |              |     |     |         |  |  |
| Connection technology, AC side             |  | Spring-type terminal strip  |                                |              |     |     |         |  |  |
| Interfaces                                 | Ethernet LAN (RJ45)  |   | 1                              |              |     |     |         |  |  |
|  | Connection of energy meter for collecting energy data (Modbus RTU)           |   | 1                              |              |     |     |         |  |  |
|  | Digital inputs (e.g. for digital ripple control receiver)                    |   | 4                              |              |     |     |         |  |  |
|  | USB 2.0  |   | 1                              |              |     |     |         |  |  |
|  | Potential-free contact for self-consumption control                          |   | 1                              |              |     |     |         |  |  |
|  | Webserver (user interface)   |   | ✓                              |              |     |     |         |  |  |
|  | Warranty <sup>1)</sup>   | Years   | 5 (2)                          |              |     |     |         |  |  |
| Optional warranty extension for (years)    |  | 5/10/15   |                                |              |     |     |         |  |  |
| Directives/Certification <sup>2)</sup>     |  | CE, GS, EN 62109-1, EN 62109-2, EN 60529, IEC 61683, CEI 0-21, EN 50438*, G83/2, IEC 61727, IEC 62116, RD 1699, TOR D4, UNE 206006 IN, UNE 206007-1 IN, UNE 217001 IN, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105 |                                |              |     |     |         |  |  |

Subject to technical changes. Errors excepted. You can find current information at [www.kostal-solar-electric.com](http://www.kostal-solar-electric.com). Manufacturer: KOSTAL Industrie Elektrik GmbH, Hagen, Germany

<sup>1)</sup> 5-year warranty only after registration in the KOSTAL Solar online shop

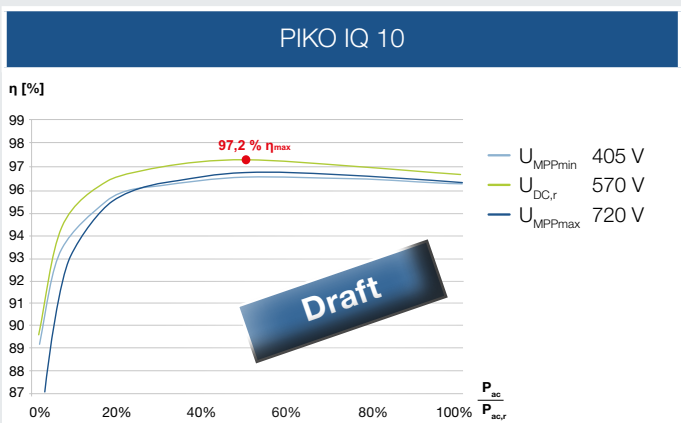
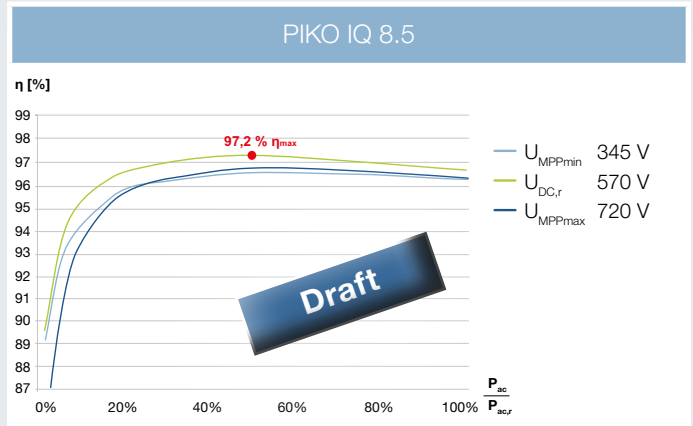
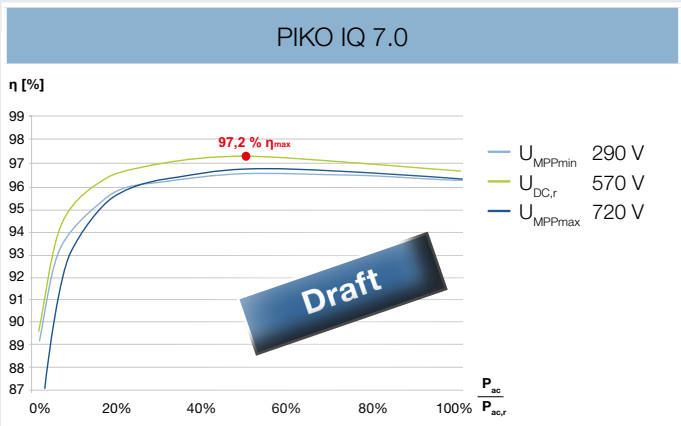
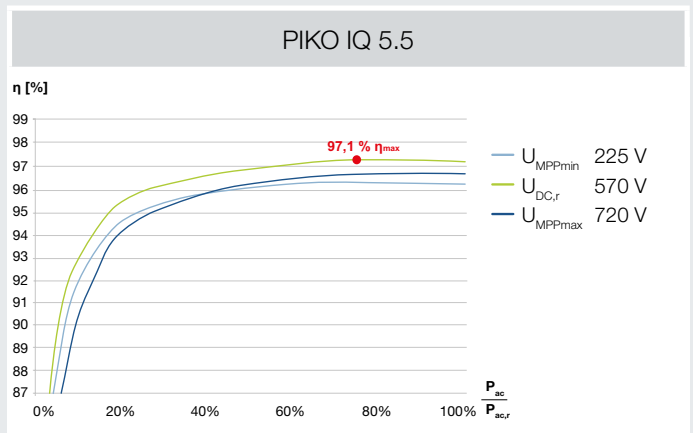
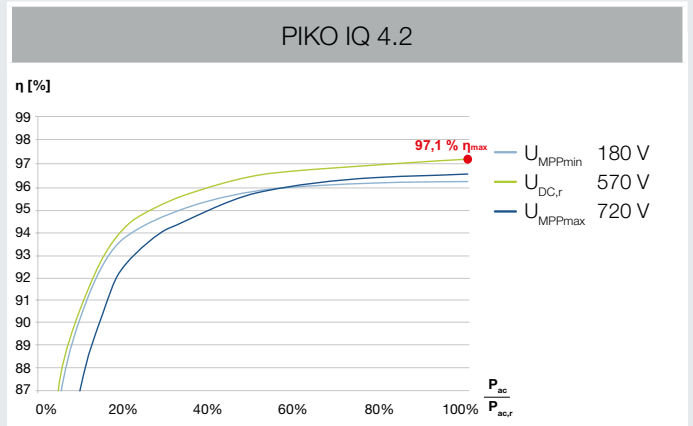
<sup>2)</sup> Does not apply to all national annexes to EN 50438

<sup>3)</sup> MPP range of 120 V...180 V (with limited current of 9.5-13 A), MPP range of 680 V...720 V (with limited current of 11 A). Detailed layout can be seen in KOSTAL (PIKO) Solar Plan.

# PIKO IQ available in 5 power classes



- 4.2
- 5.5
- 7.0
- 8.5
- 10



## Services for our products

FAQs:  
[kostal-solar-electric.com/Service\\_Support](http://kostal-solar-electric.com/Service_Support)

Product registration, warranty extension or purchase of accessories: [shop.kostal-solar-electric.com](http://shop.kostal-solar-electric.com)

Get in touch: [service@kostal-solar-electric.com](mailto:service@kostal-solar-electric.com)

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