

# PIKO CI

Solar Inverter 30/50 G2



Data sheet

## PIKO CI G2: The best choice for your project



### Smart Performance

- Maximum energy yield thanks to high certified efficiency
- The connected PV strings are monitored in pairs for optimum monitoring and service
- Integrated, certified grid service functions ensure reliable operation

### Smart Project Design

- Optimised generator design with system voltage of up to 1100 V
- Integrated KOSTAL Smart AC Switch takes the place of the external circuit breaker
- Simple DC installation at an attractive cost without any string distribution boxes
- Generator is disconnected on site by integrated DC voltage separator
- Over-assignment of up to 50% (DC to AC) permits flexible generator design

### Smart Connected

- Simple communication (daisy chain) via dual LAN interface (RJ45) with integrated switch
- Tried and tested communication via RS485 bus integrated as standard
- Compatible with many plant controllers and data loggers, so you can use the monitoring system you prefer
- Trouble-free use in direct marketing thanks integrated feed management
- Integrated data loggers back system information up at all times

### Smart Installation

- Optimum protection from dust and water for tough outdoor use (protection class IP66)
- Protection against overvoltage on the AC and DC side type 2
- Cost-optimised 4-wire AC connection, neutral wire not applicable in symmetrical grids

# PIKO CI G2: Technische Daten

| PIKO CI G2       |                                                             |     | 30                                            | 50                                                          |
|------------------|-------------------------------------------------------------|-----|-----------------------------------------------|-------------------------------------------------------------|
| Input side (DC)  | Max. PV power ( $\cos \varphi = 1$ )                        | kWp | 45                                            | 75                                                          |
|                  | Nominal DC power                                            | kW  | 30                                            | 50                                                          |
|                  | Rated input voltage ( $U_{DC,r}$ )                          | V   | 620                                           | 620                                                         |
|                  | Start-up input voltage ( $U_{DC,start}$ )                   | V   | 200                                           | 200                                                         |
|                  | Max system voltage ( $U_{DC,max}$ )                         | V   | 1100                                          | 1100                                                        |
|                  | MPP range at rated output ( $U_{MPP,min}$ )                 | V   | 420                                           | 500                                                         |
|                  | MPP range at rated output ( $U_{MPP,max}$ )                 | V   | 850                                           | 850                                                         |
|                  | Working voltage range ( $U_{DC,workmin}$ )                  | V   | 180                                           | 180                                                         |
|                  | Working voltage range ( $U_{DC,workmax}$ ) <sup>4)</sup>    | V   | 1000                                          | 1000                                                        |
|                  | Max. input current ( $I_{DC,max}$ ) per MPPT <sup>3)</sup>  | A   | 104<br>MPPT 1: 40<br>MPPT 2: 32<br>MPPT 3: 32 | 136<br>MPPT 1: 40<br>MPPT 2: 32<br>MPPT 3: 32<br>MPPT 4: 32 |
|                  | Max. DC short-circuit current ( $I_{SC,PV}$ )               | A   | 140<br>MPPT 1: 50<br>MPPT 2: 45<br>MPPT 3: 45 | 185<br>MPPT 1: 50<br>MPPT 2: 45<br>MPPT 3: 45<br>MPPT 4: 45 |
|                  | Max. DC current per DC terminal ( $I_{stringmax}$ )         | A   | 20                                            | 20                                                          |
|                  | Internal DC string fuses                                    | A   | --                                            | --                                                          |
|                  | Number of DC inputs                                         |     | 6                                             | 8                                                           |
|                  | Number of independent MPP trackers                          |     | 3                                             | 4                                                           |
| Output side (AC) | Rated power, $\cos \varphi = 1$ ( $P_{AC,r}$ )              | kW  | 30                                            | 50                                                          |
|                  | Apparent output power ( $S_{AC,nom} / S_{AC,max}$ )         | kVA | 33,4 / 33,4                                   | 55,6 / 55,6                                                 |
|                  | Min. output voltage ( $U_{AC,min}$ )                        | V   | 322                                           | 322                                                         |
|                  | Max. output voltage ( $U_{AC,max}$ )                        | V   | 520                                           | 520                                                         |
|                  | Rated AC current ( $I_{AC,r}$ )                             | A   | 43,5                                          | 72,5                                                        |
|                  | Max. output current ( $I_{AC,max}$ )                        | A   | 51                                            | 84,3                                                        |
|                  | Short-circuit current (RMS)                                 | A   | 43,5                                          | 72,5                                                        |
|                  | Grid connection                                             |     | 3N~, 230/400V, 50 Hz                          |                                                             |
|                  | Rated frequency ( $f_r$ )                                   | Hz  | 50                                            |                                                             |
|                  | Grid frequency ( $f_{min}/f_{max}$ )                        | Hz  | 45/55                                         |                                                             |
|                  | 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 (night-time consumption)                            | W   | <10                                           |                                                             |
| $\eta$           | Max. efficiency                                             | %   | 98,2                                          | 98,2                                                        |
|                  | European efficiency                                         | %   | 97,8                                          | 97,8                                                        |
|                  | MPP adjustment efficiency                                   | %   | 99,9                                          | 99,9                                                        |

| PIKO CI G2                             |                                                                                    |                                                                                                                                                                                                                                                                                                       | 30                   |  | 50                |  |
|----------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|-------------------|--|
| System data                            | Topology: Without galvanic isolation – transformerless                             |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | Protection class in accordance with EN 60529                                       |                                                                                                                                                                                                                                                                                                       | IP 66                |  |                   |  |
|                                        | Protective class in accordance with EN 62109-1                                     |                                                                                                                                                                                                                                                                                                       | I                    |  |                   |  |
|                                        | Overvoltage category in accordance with IEC 60664-1, input side (PV generator)     |                                                                                                                                                                                                                                                                                                       | II                   |  |                   |  |
|                                        | Overvoltage category in accordance with IEC 60664-1, output side (grid connection) |                                                                                                                                                                                                                                                                                                       | III                  |  |                   |  |
|                                        | DC/AC overvoltage protection                                                       |                                                                                                                                                                                                                                                                                                       | Typ 2 (austauschbar) |  |                   |  |
|                                        | Degree of contamination                                                            |                                                                                                                                                                                                                                                                                                       | 4                    |  |                   |  |
|                                        | Environmental category (outdoor installation)                                      |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | Environmental category (indoor installation)                                       |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | UV resistance                                                                      |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | AC cable diameter (min-max)                                                        | mm                                                                                                                                                                                                                                                                                                    | 25...31              |  | 32...38           |  |
|                                        | AC cable cross-section (min-max)                                                   | mm²                                                                                                                                                                                                                                                                                                   | 16...35              |  | 35...50           |  |
|                                        | DC cable cross-section (min-max)                                                   | mm²                                                                                                                                                                                                                                                                                                   | 4...6                |  |                   |  |
|                                        | Max. fuse protection on output side                                                |                                                                                                                                                                                                                                                                                                       | B63 / C63            |  | B125 / C125       |  |
|                                        | Internal operator protection in accordance with EN 62109-2                         |                                                                                                                                                                                                                                                                                                       | RCMU/RCCB Typ B      |  |                   |  |
|                                        | Automatic switching device integrated in accordance with VDE V 0126-1-1            |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | Height/width/depth                                                                 | mm                                                                                                                                                                                                                                                                                                    | 530 (707)/635/224    |  | 530 (707)/635/224 |  |
|                                        | Weight                                                                             | kg                                                                                                                                                                                                                                                                                                    | 33.1                 |  | 44.3              |  |
|                                        | Cooling principle – regulated fans                                                 |                                                                                                                                                                                                                                                                                                       | --                   |  | ✓                 |  |
|                                        | Max. air throughput                                                                | m³/h                                                                                                                                                                                                                                                                                                  | --                   |  | 152               |  |
|                                        | Typical noise emission                                                             | dB(A)                                                                                                                                                                                                                                                                                                 | <35                  |  | <50               |  |
|                                        | Ambient temperature                                                                | °C                                                                                                                                                                                                                                                                                                    | -25...60             |  |                   |  |
|                                        | Max. installation altitude above sea level                                         | m                                                                                                                                                                                                                                                                                                     | 4000                 |  |                   |  |
|                                        | Relative humidity                                                                  | %                                                                                                                                                                                                                                                                                                     | 0...100              |  |                   |  |
|                                        | Connection technology, DC side                                                     |                                                                                                                                                                                                                                                                                                       | Amphenol plug H4     |  |                   |  |
|                                        | Connection technology, AC side (bolt)                                              |                                                                                                                                                                                                                                                                                                       | M8                   |  | M8                |  |
| Interfaces                             | Ethernet LAN TCP/IP (RJ45)                                                         |                                                                                                                                                                                                                                                                                                       | 2                    |  |                   |  |
|                                        | WiFi                                                                               |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | RS485                                                                              |                                                                                                                                                                                                                                                                                                       | 2                    |  |                   |  |
|                                        | Digital inputs                                                                     |                                                                                                                                                                                                                                                                                                       | 4                    |  |                   |  |
|                                        | Bluetooth                                                                          |                                                                                                                                                                                                                                                                                                       | ✓                    |  |                   |  |
|                                        | Warranty (Smart Warranty <sup>1)</sup> )                                           | Years                                                                                                                                                                                                                                                                                                 | 5                    |  |                   |  |
|                                        | Warranty extension <sup>2)</sup>                                                   | Years                                                                                                                                                                                                                                                                                                 | 5                    |  |                   |  |
| Directives/Certification <sup>3)</sup> |                                                                                    | IEC 62109-1, IEC 62109-2, VDE-AR-N 4105, VDE-AR-N 4110, TOR Erzeuger Typ A, TOR Erzeuger Typ B, NA/EEA-NE7–CH2020, NA/EEA-NE7–CH2020, CEI 0-16, CEI 0-21, NTS631, UNE 217001 IN, UNE 217002 IN, EN 50549-1, EN 50549-2, IEC 61727/IEC62116, VFR-2019, UTE C15-712-1, IRR-DCC-MV, C10/11, DANSK ENERGI |                      |  |                   |  |

Subject to technical changes. Errors excepted. You can find current information at [www.kostal-solar-electric.com](http://www.kostal-solar-electric.com).

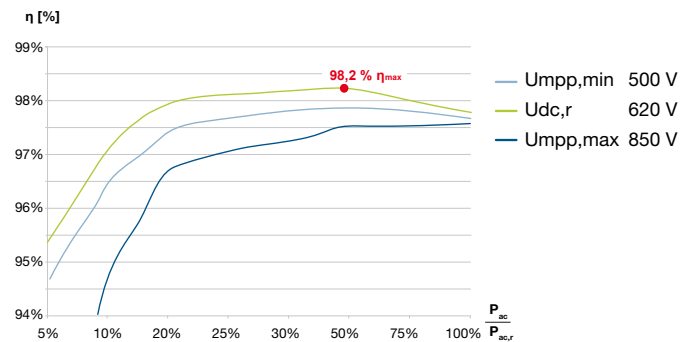
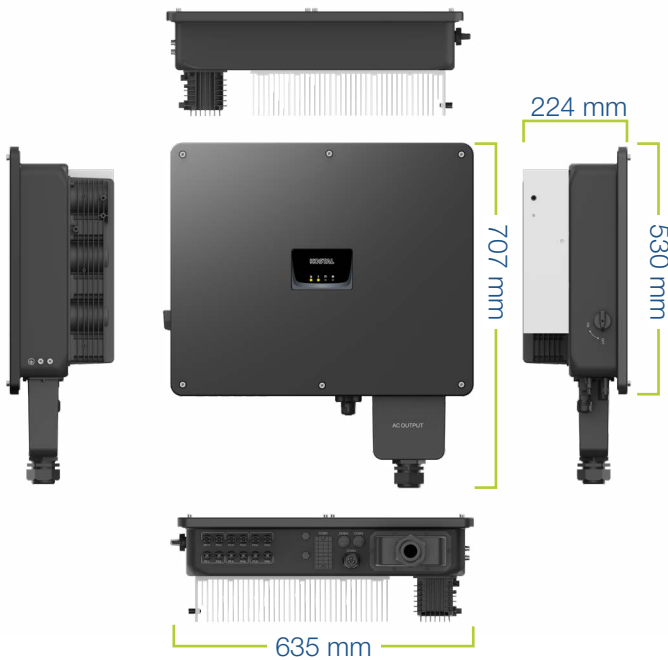
<sup>1)</sup> Activate your free warranty (Smart Warranty) now in the KOSTAL Solar online shop ([shop.kostal-solar-electric.com](http://shop.kostal-solar-electric.com)). For Smart Warranty Plus, you must also register your device in our KOSTAL Solar portal. This does not affect your statutory warranty. You will find more information about the service and warranty conditions in the download area for your product.

<sup>2)</sup> Warranty extension: can be purchased for a fee from the KOSTAL Solar webshop ([www.shop.kostal-solar-electric.com](http://www.shop.kostal-solar-electric.com))

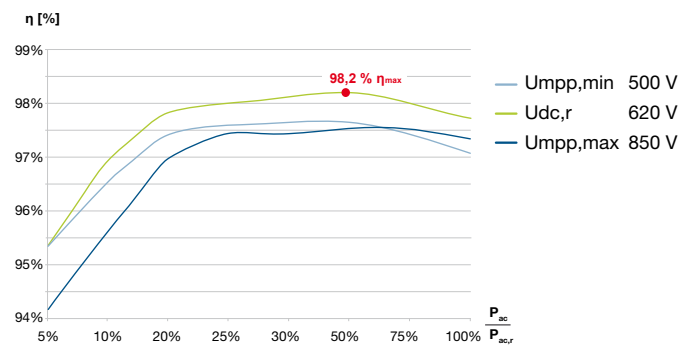
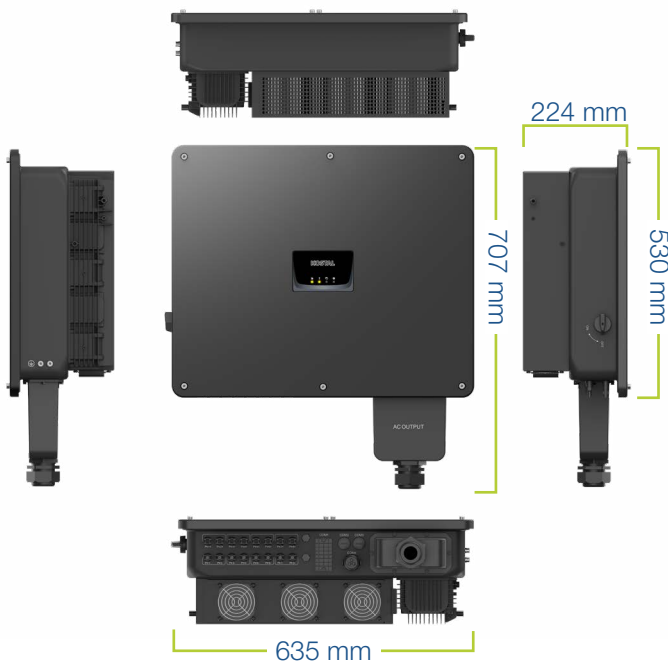
<sup>3)</sup> Information on available Directive/parameter sets can be found in the product download area in the document 'Initial commissioning - Country setting'. Directive EN50438, EN50549-1: does not apply to all national annexes

# PIKO CI G2: Compact and quickly ready for use

## PIKO CI 30 G2



## PIKO CI 50 G2



## Services for our products

Activation of the KOSTAL Smart Warranty via [shop.kostal-solar-electric.com](http://shop.kostal-solar-electric.com)  
 You can find all further information at [www.kostal-solar-electric.com](http://www.kostal-solar-electric.com)

