



Smart  
connections.

## Data sheet

PIKO 8.3  
KOSTAL Inverter three-phase

# 8.3

## Inverter PIKO 8.3

- Three-phase feed-in to avoid voltage asymmetries
- Transformerless topology
- Possible parallel connection of two MPP trackers to extend the input current range
- Datalogging and diverse interfaces as standard: Ethernet, RS485, S0 input and output
- Integrated electronic DC circuit breaker
- Lead-free production according to EU Directive on RoHS



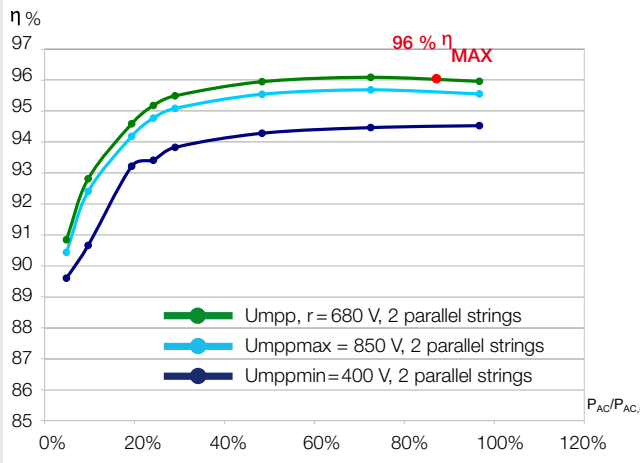
PIKO 8.3

## Technical data

### Input side (DC)

Number of DC inputs / number of MPP trackers	2/2
Max. recommended DC power	8700 W
Max. input voltage (open circuit voltage)	950 V
Min. input voltage	180 V
Start-up input voltage	180 V
Rated input voltage	680 V
Max. MPP voltage at inverter DC rated power	850 V
Min. MPP voltage $U_{mppmin}$ , at inverter DC rated power, in symmetrical multistring, two-tracker or parallel operation	400 V
Extended, lower MPP voltage range, at partial performance of the inverter	180 V ... $U_{mpp min}$
Max. percentage of DC power to be transferred in the extended MPP voltage range	approx. 70 %
Max. input current	12.5 A
Max. input current with parallel connection	25 A

### Efficiency rate characteristic curves



### Output side (AC)

Number of feed-in phases	3
Grid voltage	3/N/PE, AC, 230 V / 400 V
$U_{acmax}$ , upper voltage switch-off limit	253 V (ES), 255 V (AT), 264.5 V (BE, CH, CZ, DE, GR, LU, NL, FR, PT), 276 V (IT)
$U_{acmin}$ , lower voltage switch-off limit	184 V (AT, BE, CH, DE, GR, LU, IT, NL, FR), 195.5 V (ES, CZ, PT)
Max. output current per phase	12 A
Rated AC output	7600 W
Max. AC power	8300 W
Max. efficiency	96 %
European-standard efficiency	95.3 %
Nominal frequency	50 Hz
Min. grid frequency $f_{min}$ ; switch-off limit	47 Hz (AT, PT), 47.5 Hz (DE, CH, FR, HU, BE), 48 Hz (NL), 49 Hz (ES), 49.7 Hz (IT), 49.5 Hz (GR, CZ)
Max. grid frequency $f_{max}$ ; switch-off limit	50.2 Hz (DE, CH), 50.3 Hz (IT), 50.5 Hz (GR, CZ), 51 Hz (HU, NL, ES, AT, FR, BE, PT)
Power loss at night	< 1 W
Protection class	I
Galvanic isolation	Transformerless
Nom. reactive power factor $\cos \phi$	1
Type of grid monitoring	MSD, three-phase monitoring
Reverse polarity protection	Short circuit diode at DC side
Personal protection	Universal current sensitive residual current circuit breaker and earth fault monitoring
Operational conditions	interior + exterior
Ambient temperature	-20°... 60° C
Max. ambient temperature at P.rated	40° C
Max. humidity	0 ... 95 %
Type of cooling	Regulated ventilation
Max. sound	Ventilator 25 % -> 33dB (A) Ventilator 50 % -> 41 dB (A) Ventilator 75 % .... 100% -><46dB (A)
Ingress protection according to IEC 60529	IP 55
Connection technology at input side	MC 4
Connection technology at output side	Spring-loaded terminal strip
Dimensions (W x D x H)	520 x 230 x 450 mm <sup>3</sup>
Weight	33 kg
Disconnection device	Integrated electronic circuit breaker

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Configurable for: Deutschland, España, Portugal, France, Italia, Suisse, Belgique, Luxembourg, Nederland, Česká republika, Ελληνική Δημοκρατία

Manufacturer's Declaration of Conformity: CE marc: EMV-Directive 2004/108/EC; DIN EN 61000-3-2, EN 61000-3-3, DIN EN 61000-6-2, DIN EN 61000-6-3, Low Voltage Directive, 2006/95/EC, DIN EN 50178 MSD document of compliance: Automatic switching device with three-phase (PIKO 3.0/3.6 single-phase), grid monitoring according to DIN V VDE V, 0126-1-1:2006-02, Test principles: DIN V VDE V 0126-1-1, (VDE V 0126-1-1):2006-02 and „Independent generation systems on the low voltage grid“  
Document of compliance integrated electronic circuit breaker: IEC 60947-3:1999; DIN EN 60947-3: VDE 0660-107:2006-03, Low voltage switchgear Part 3: load switches, circuit breakers, load circuit breakers and switch fuse units; IEC 60364-7-712:2002-05; DIN VDE 0100-712:2006-06  
Producer: KOSTAL Industrie Elektrik GmbH, Hagen, Germany