SOLAR ELECTRIC

PIKO CI

Solar Inverter 100 kW



Data sheet

PIKO CI: Smart Power – Optimised costs and high levels of safety



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 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 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 parc 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)
- Low weight for simple transport and installation
- Quick, uncomplicated, and tool-free AC and DC installation
- Protection against overvoltage on the AC and DC side
- Cost-optimised 4-wire AC connection, neutral wire not applicable in symmetrical grids

Technical data PIKO CI

	PIKO CI		100
	Power class		100
Input side (DC)	Max. PV power (cos φ = 1)	kWp	150
	Nominal DC power	kW	101.6
	Rated input voltage ($U_{DC,r}$)	V	600
	Start-up input voltage ($U_{DCstart}$)	V	250
	Max system voltage (U_{DCmax})	V	1100
	MPP range at rated output (U_{MPPmin} - U_{MPPmax}) [3]	V	540...800
	Working voltage range ($U_{DCworkmin}$ - $U_{DCworkmax}$) [4]	V	200...1000
	Max. input current (I_{DCmax}) per MPPT	A	MPPT 1-3: 40 / MPPT 4-8: 32
	Max. DC short-circuit current (I_{SC_PV})	A	375 (MPPT 1-3: 50 / MPPT 4-8: 45)
	Max. DC current per DC terminal ($I_{Stringmax}$)	A	20
	Number of DC inputs		16
	Number of independent MPP trackers		8
Output side (AC)	Rated power, cos φ = 1 ($P_{AC,r}$)	kW	100
	Apparent output power (S_{ACnom} / S_{ACmax})	kW	100 / 111
	Min. output voltage (U_{ACmin})	V	322
	Max. output voltage (U_{ACmax})	V	520
	Rated AC current ($I_{AC,r}$)	A	145
	Max. output current (I_{ACmax})	A	168.8
	Short-circuit current (RMS)	A	tbd
	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	<1
η	Max. efficiency	%	98.4
	European efficiency	%	98.2
	MPP adjustment efficiency	%	99.9

	PIKO CI		100
System data	Topology: Without galvanic isolation – transformerless		yes
	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 (exchangeable)
	Degree of contamination		4
	Environmental category (outdoor installation)		yes
	Environmental category (indoor installation)		yes
	UV resistance		yes
	AC cable diameter (min-max)	mm	24...69
	AC cable cross-section (min-max)	mm^2	Copper: 70...240 / Aluminium: 95...240
	DC cable cross-section (min-max)	mm^2	4...6
	Max. fuse protection on output side		200 A gG/gL
	Internal operator protection in accordance with EN 62109-2		RCMU/RCCB type B
	Automatic switching device integrated in accordance with VDE V 0126-1-1		yes
	Height/width/depth	mm	678/936/365
	Weight	kg	93
	Cooling principle – regulated fans		yes
	Max. air throughput	m^3/h	tbd
	Typical noise emission	dB(A)	65
	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)		M12
Interfaces	Ethernet LAN TCP/IP (RJ45)		2
	WiFi		yes
	RS485		2
	Bluetooth		yes
	Ext. disconnection		yes
	Digital inputs		4
	Communication at night		yes
	Warranty (Smart Warranty[1])	Years	5
	Warranty extension [2]	Years	5
	Directives/Certification (*does not apply to all national annexes to EN 50438		EN62109-1, EN62109-2, IEC 62920, VDE-AR-N 4105:2018, VDE V 0124-100, PO12.2, RD 244:2019, UNE 217001, EN 50549-1* -2*, CEI0-16 2019, CEI0-21 2019 >11,08kW, UK G99/1-4 LV, IRR-DCC MV 2015, IEC61727/62116

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

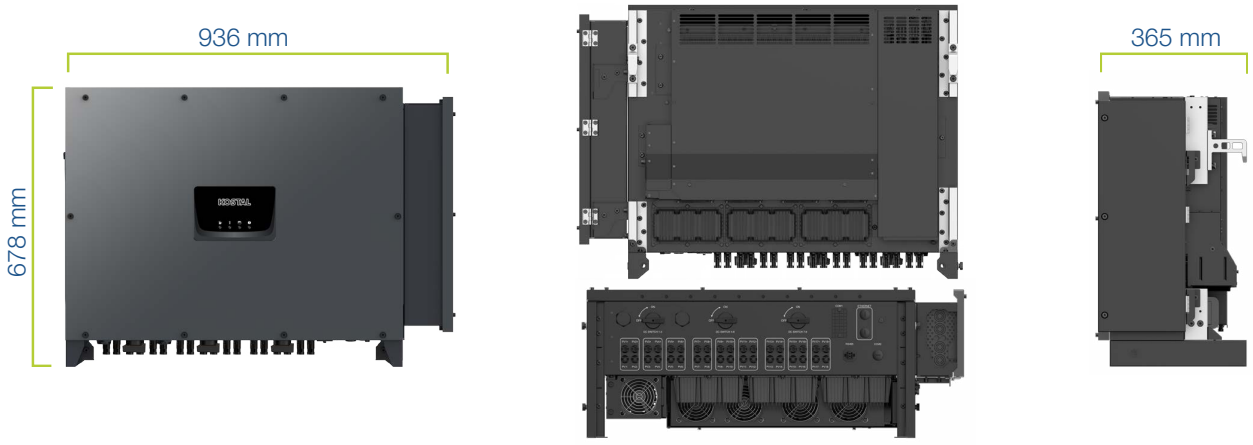
[1] Activate your free warranty (Smart Warranty) now in the KOSTAL Solar online shop (shop.kostal-solar-electric.com). This does not affect your statutory warranty. You will find more information about the service and warranty conditions in the download area for your product.

[2] Available subject to a charge from the KOSTAL Solar online shop (shop.kostal-solar-electric.com)

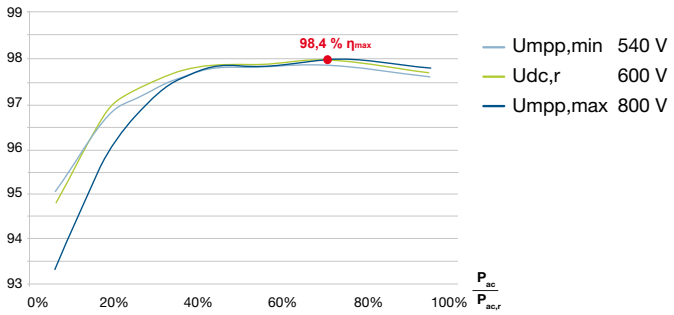
[3] MPP range at rated output: Outside the MPP range, MPP control takes place below the nominal power. Based on full occupancy of all MPP trackers.

[4] Working voltage range: No feed-in takes place outside the working voltage range.

PIKO CI - The best choice for your project



PIKO CI 100



Services for our products

Activation of the KOSTAL Smart Warranty via shop.kostal-solar-electric.com
You can find all further information at www.kostal-solar-electric.com

01/2024 - EN - DOC03181998 - Subject to technical changes, errors excepted.
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