SOLAR ELECTRIC

PIKO CI

Solar Inverter 30/50/60 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 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 IP65)
- Protection against overvoltage on the AC and DC side type 2
- Cost-optimised 4-wire AC connection, no neutral wire

Technical data PIKO CI

	PIKO CI		30	50	60
Input side (DC)	Max. PV power (cos φ = 1)	kWp	45	75	90
	Nominal DC power	kW	30	50	60
	Rated input voltage ($U_{DC,r}$)	V	620	620	620
	Start-up input voltage ($U_{DCstart}$)	V	250	250	250
	Max system voltage (U_{DCmax})	V	1000	1100	1100
	MPP range at rated output (U_{MPPmin} - U_{MPPmax}) [3]	V	480...800	540...800	540...800
	Working voltage range ($U_{DCworkmin}$ - $U_{DCworkmax}$) [4]	V	180...960	200...960	200...960
	Max. input current (I_{DCmax}) per MPPT [3]	A	DC1-3: 40.5 DC 4-6: 40.5	DC 2-4: 39 DC 6-8: 39 DC 10-11: 26 DC 13-14: 26	DC 2-4: 39 DC 6-8: 39 DC 9-11: 39 DC 12-14: 39
	Max. DC short-circuit current (I_{SC_PV})	A	90 (45/45)	150 (45/45/30/30)	180 (45/45/45/45)
	Max. DC current per DC terminal ($I_{Stringmax}$) [5]	A	14	18	18
	Internal DC string fuses	A	20 (10 x 38 mm, gPV)	20 (10 x 38 mm, gPV)	20 (10 x 38 mm, gPV)
	Number of DC inputs		6	10	12
	Number of independent MPP trackers		2	4	4
Output side (AC)	Rated power, cos φ = 1 ($P_{AC,r}$)	kW	30	50	60
	Nominal apparent power (S_{ACnom})	kW	30	50	60
	Max. apparent output power (S_{ACmax})	kVA	33	55	66
	Min. output voltage (U_{ACmin})	V	277	277	277
	Max. output voltage (U_{ACmax})	V	520	520	520
	Rated current (I_{nom})	A	43.3	72.2	86.6
	Max. output current (I_{ACmax})	A	48	83	92
	Short-circuit current (RMS)	A	48	83	92
	Grid connection		3N~, 230/400 V, 50 Hz		
	Rated frequency (f_r)	Hz	50		
	Grid frequency (f_{min}/f_{max})	Hz	47/53		
	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	%	98.2	98.3	98.3
	European efficiency	%	97.9	98.1	98.1
	MPP adjustment efficiency	%	99.9	99.9	99.9

	PIKO CI		30	50	60
System data	Topology: Without galvanic isolation – transformerless			✓	
	Protection class in accordance with EN 60529			IP 65	
	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	
	Degree of contamination			4	
	Environmental category (outdoor installation)			✓	
	Environmental category (indoor installation)			✓	
	UV resistance			✓	
	AC cable diameter (min-max)	mm	22...32	35...50	
	AC cable cross-section (min-max)	mm^2	10...25	35...50	35...50
	DC cable cross-section (min-max)	mm^2		4...6	
	Max. fuse protection on output side		B63 / C63	B125 / C125	B125 / C125
	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			✓	
	Height/width/depth	mm	470/555/270	710/885/285	710/855/285
	Weight	kg	41	83	83
	Cooling principle – regulated fans			✓	
	Max. air throughput	m^3/h	185	411	
	Typical noise emission	dB(A)	50	<63	
	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)		M5	M8	
Interfaces	Ethernet LAN TCP/IP (RJ45)			2	
	W-LAN			✓	
	RS485			1	
	Digital inputs			4	
	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, VDE-AR-N 4105:2018, VDE-AR-N 4110:2018, 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

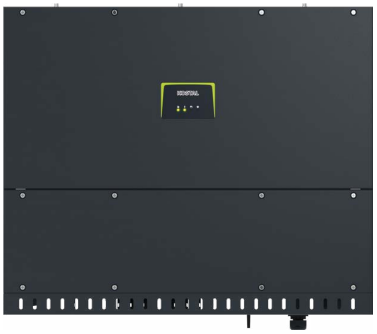
[1] Activate your free warranty (Smart Warranty) now in the KOSTAL Solar online shop (shop.kostal-solar-electric.com). This does not affect your statutory warranty. You will find more information about the service and warranty conditions in the download area for your product.
[2] Available subject to 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.
[5] Valid from item nummer: PIKO CI 30 - 10534223, PIKO CI 50 - 10534084, PIKO CI 60 - 10534085

PIKO CI - The best choice for your project

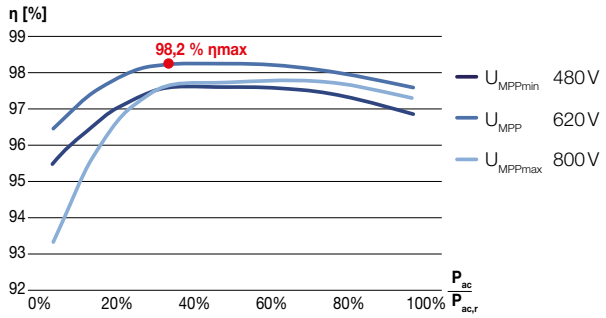
PIKO CI 30



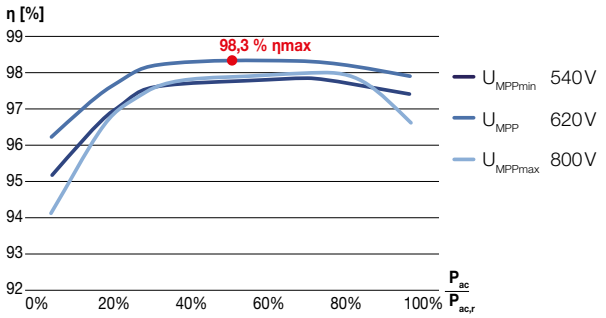
PIKO CI 50/ 60

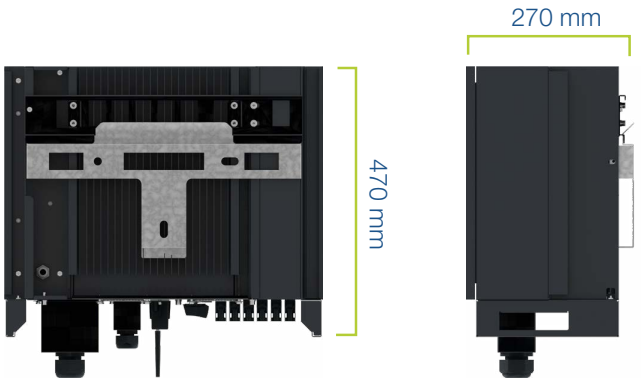


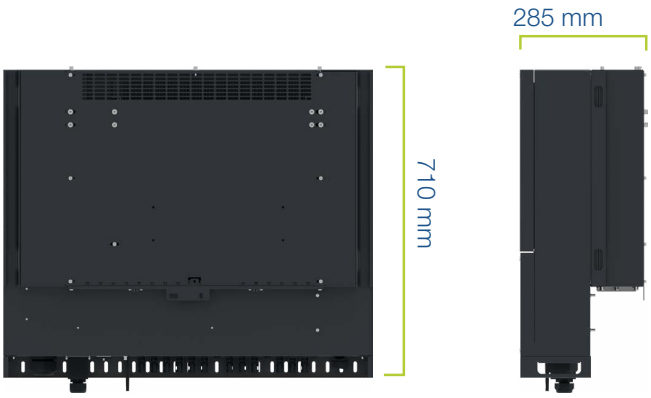
Efficiency characteristic PIKO CI 30



Efficiency characteristic PIKO CI 50 / 60











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

10/2023 - EN - 12107735 - DOC02536313 - TSubject to technical changes, errors excepted.
You can find current information at www.kostal-solar-electric.com. Manufacturer: KOSTAL Industrie Elektrik GmbH, Hagen, Germany