

PIKO CI

Solar Inverter 30/50/60 kW



Smart
connections.

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 (>98%)
- In the event of an error, individual strings are shut down to maintain high availability
- 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)
- 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, no neutral wire

Technical data PIKO CI

Power class			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
	Input voltage range (U _{DCmin} - U _{DCmax})	V	180...1000	200...1100	200...1100
	MPP range at rated output (U _{MPPmin} - U _{MPPmax})	V	480...800	540...800	540...800
	MPP working voltage range (U _{MPPworkmin} - U _{MPPworkmax})	V	180...960	200...960	200...960
	Max. working voltage (U _{DCworkmax})	V	960	960	960
	Max. input current (I _{DCmax}) per MPPT ²⁾	A	DC1-3: 37.5 DC 4-6: 37.5	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 ²⁾	A	14	18	18
	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~, 400V, 50 Hz		
	Rated frequency (f _r)	Hz	50		
	Grid frequency (f _{min} /f _{max})	Hz	47/53		
	Setting range of the power factor (cos φ _{AC,r})		0.8...1...0.8		
	Power factor for rated power (cos φ _{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

Power class		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
	DC cable cross-section (min-max)	mm ²	4...6	
	Max. fuse protection on output side		B63 / C63	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
	Weight	kg	41	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)		M6	M8
Interfaces	Ethernet LAN TCP/IP (RJ45)		2	
	W-LAN		✓	
	RS485		1	
	Digital inputs		4	
	KOSTAL Smart Warranty / Warranty ¹⁾	Years	5 (2)	
Directives/Certification (*does not apply to all national annexes to EN 50438)			EN62109-1, EN62109-2, VDE-AR-N 4105:2018, 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	

¹⁾ KOSTAL Smart Warranty: Free of charge with registration in the KOSTAL Solar Webshop (shop.kostal-solar-electric.com). Further information on the service and warranty conditions can be found in the download area for the product.

²⁾ Valide from item nummer: PIKO CI 30 - 10523267, PIKO CI 50 - 10534084, PIKO CI 60 - 10534085

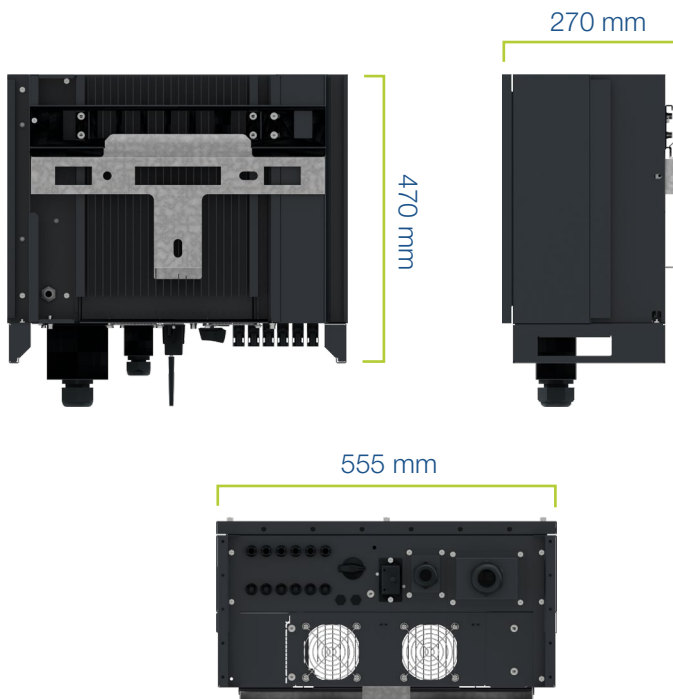
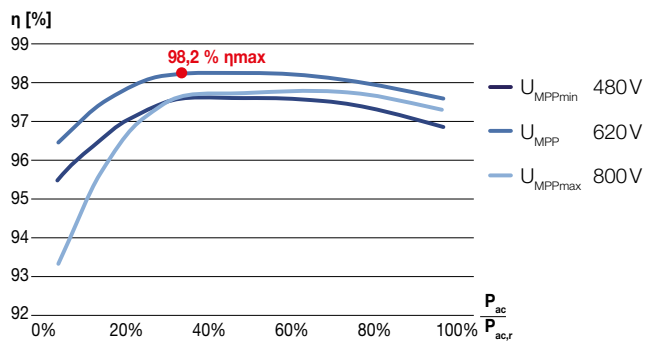
Subject to technical changes. Errors excepted. You can find current information at www.kostal-solar-electric.com. Manufacturer: KOSTAL Industrie Elektrik GmbH, Hagen, Germany

PIKO CI - The best choice for your project

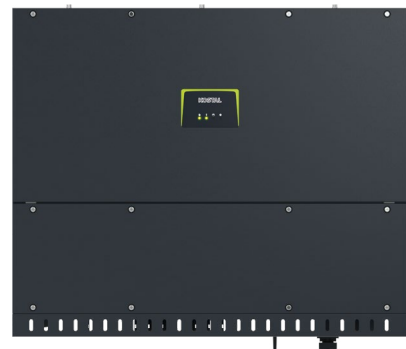
PIKO CI 30



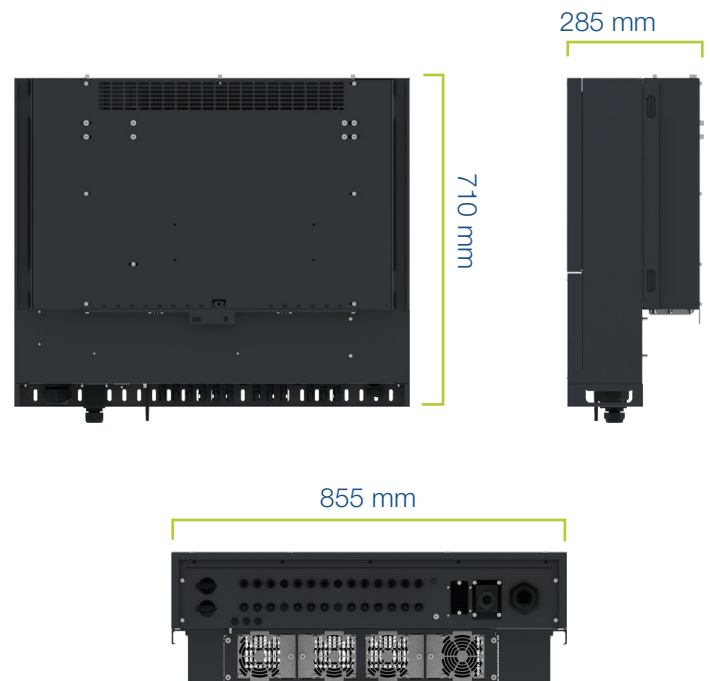
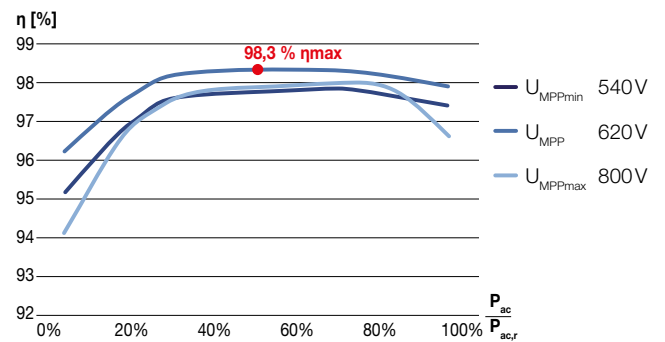
Efficiency characteristic PIKO CI 30



PIKO CI 50 / 60



Efficiency characteristic PIKO CI 50 / 60



Services for our products

FAQs: kostal-solar-electric.com/Service_Support

Product registration, KOSTAL Smart Warranty, warranty extension or purchase of accessories: shop.kostal-solar-electric.com

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