

Smart  
connections.

Data sheet

PIKO 36 EPC

EPC

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



## Smart Project Design

Optimised generator design with system voltage of up to 1,100 V

Integrated KOSTAL Smart AC Switch takes the place of the external circuit breaker

KOSTAL Smart DC Guard protects the generator. Loss-free and requires no maintenance. No need for string fuses.

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

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

Prepared for protection against overvoltage on the AC, DC and communication side

Cost-optimised 4-wire AC connection, no neutral wire

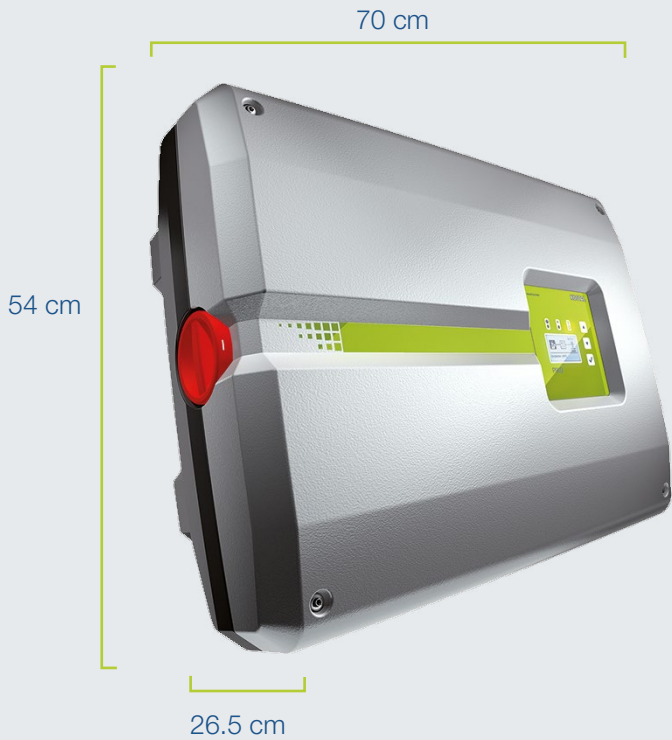
# Technical data PIKO EPC

	Power class		36
Input side (DC)	Max. PV power ( $\cos \varphi = 1$ )	kWp	54
	Nominal DC power	kW	37
	Rated input voltage ( $U_{DC,r}$ )	V	580 <sup>1</sup>
	Start-up input voltage ( $U_{DCstart}$ )	V	580 <sup>1</sup>
	Input voltage range ( $U_{DCmin} - U_{DCmax}$ )	V	560 <sup>1</sup> ...1100
	MPP range at rated output ( $U_{MPPmin} - U_{MPPmax}$ )	V	580 <sup>1</sup> ...800
	MPP working voltage range ( $U_{MPPworkmin} - U_{MPPworkmax}$ )	V	580 <sup>1</sup> ...1000
	Max. working voltage ( $U_{DCworkmax}$ )	V	1000
	Max. input current ( $I_{DCmax}$ ) per DC pair (DC1-2, DC3-4, DC5-6)	A	30
	Max. PV short-circuit current ( $I_{SC,PV}$ ) per DC pair	A	-
	Number of DC inputs		6
	Number of independent MPP trackers		1
Output side (AC)	Rated power, $\cos \varphi = 1$ ( $P_{AC,r}$ )	kW	36
	Max. apparent output power, $\cos \varphi_{adj}$	kVA	36
	Min. output voltage ( $U_{ACmin}$ )	V	320
	Max. output voltage ( $U_{ACmax}$ )	V	460
	Rated output current	A	52
	Max. output current ( $I_{ACmax}$ )	A	55
	Short-circuit current (peak/RMS)	A	82.4/58.3
	Grid connection		3~, 400V, 50 Hz
	Rated frequency ( $f_r$ )	Hz	50
	Min./max. grid frequency ( $f_{min}/f_{max}$ )	Hz	47.5/52
	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	3.7
	$\eta$	Max. efficiency	%
European efficiency		%	98.3
Californian efficiency		%	98.4
MPP adjustment efficiency		%	99.9

<sup>1</sup> 560 V at 380 V AC and 610 V at 415 V AC

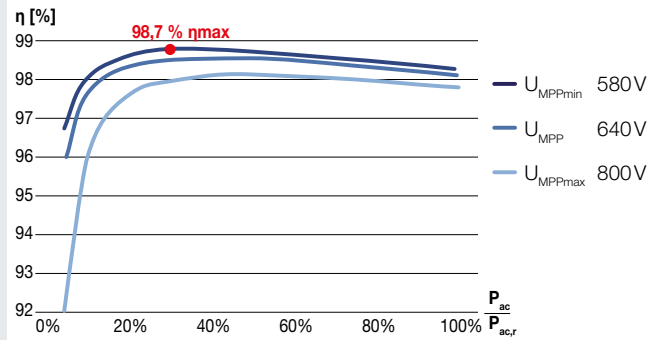
Power class		36		
Topology: Without galvanic isolation – transformerless		✓		
Protection class in accordance with IEC 60529		IP 65		
Protective class in accordance with IEC 62103		I		
Overvoltage category in accordance with IEC 60664-1, input side (PV generator)		II		
Overvoltage category in accordance with IEC 60664-1, output side (grid connection)		III		
DC/AC overvoltage protection		Optional: type 2		
LAN/RS485 overvoltage protection		Optional		
Degree of contamination		4		
Environmental category (outdoor installation)		✓		
Environmental category (indoor installation)		✓		
UV resistance		✓		
System data	AC cable diameter (min-max)	mm	16...28	
	AC cable cross-section (min-max)	mm <sup>2</sup>	16...25	
	DC cable cross-section (min-max)	mm <sup>2</sup>	4...6	
	Max. fuse protection on output side		B100 / C100	
	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		H	
	Height/width/depth	mm (in)	540/700/265 (21.26/27.56/10.43)	
	Weight	kg (lb)	51.0 (112.5)	
	Cooling principle – regulated fans		✓	
	Max. air throughput	m <sup>3</sup>	-	
	Max. noise emission	dBA	64	
	Ambient temperature	°C (°F)	-25...60 (-13...140)	
	Max. installation altitude above sea level	m (ft)	3000 (9843)	
	Relative humidity	%	4...100	
	Connection technology, DC side		SUNCLIX plug	
	Connection technology, AC side		Spring-type terminal strip	
	Interfaces	Ethernet LAN (RJ45)		2
		RS485		1
		S0		1
		Analogue inputs		4
Potential-free contact for self-consumption control			1	
Websserver (user interface)			✓	
Warranty		Years	5	
Optional warranty extension for (years)		5/10/15		
Directives/Certification		CE, GS, EN62109-1, EN62109-2, TR3, TR4, TR8, BDEW, VDE-AR-N 4105, NA/EEA, VDE 0126-1-1, CEI 0-16, C10/11, RD661, PO12.3, G59/3-2, IEC 62116, IEC 61727, EN 50438*, CLC/TS 50549-1, TSE K 191, CLC/TS 50549-2, TSE K 192, TOR D4, ERDF-PRO-RES 64E		
* Does not apply to all national annexes to EN 50438				

# PIKO EPC – The best choice for your project

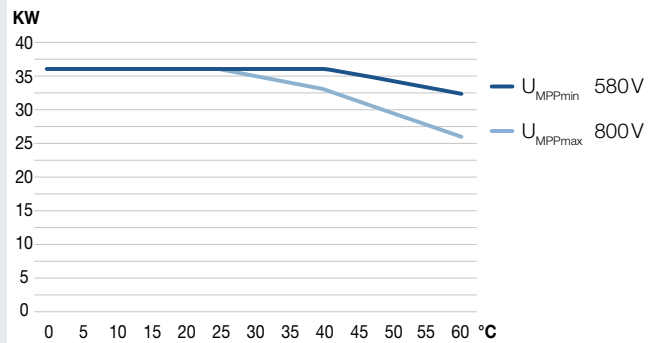


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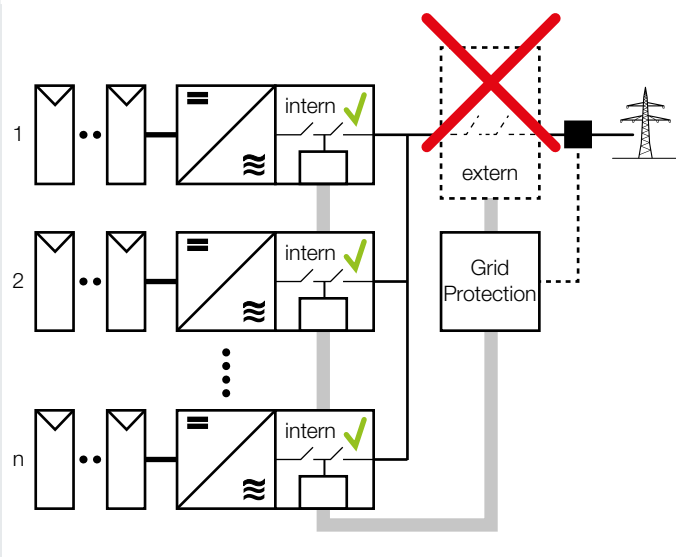
## Efficiency characteristic



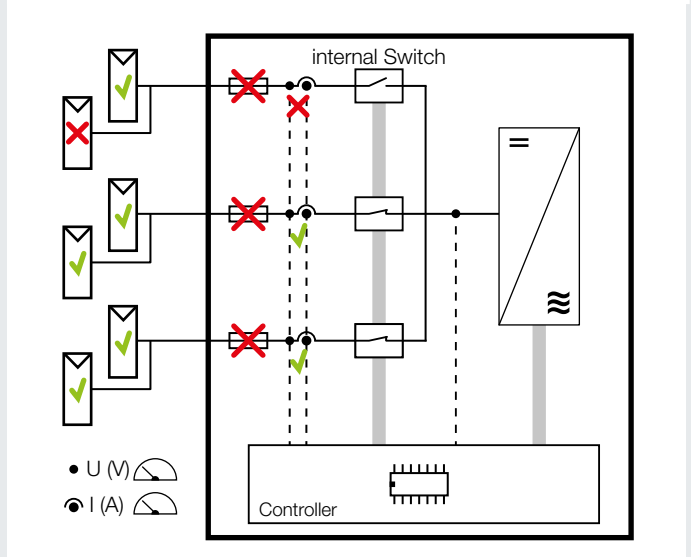
## Temperature derating



## KOSTAL Smart AC Switch



## KOSTAL Smart DC Guard



## Services for our products

FAQs: [kostal-solar-electric.com/Service\\_Support](http://kostal-solar-electric.com/Service_Support)

Product registration, warranty extension or purchase of accessories: [shop.kostal-solar-electric.com](http://shop.kostal-solar-electric.com)

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