

Smart
connections.

Data sheet

PIKO 3.0

3.0

Technical data PIKO 3.0



- Single-phase feed-in
- Transformerless converting
- Integrated electronic DC switch
- Broad input voltage range
- Standard integrated communication package with data logger, web server, solar portal and the following interfaces: 2x Ethernet, RS485, S0, 4x analogue inputs (e.g. for ripple control receivers or PIKO Sensor)
- Integrated switch contact for self-consumption optimisation
- Smart Home-ready, EEBus 1.0-ready

Input side (DC)

Max. PV power	kWp	4.3
Rated input voltage ($U_{DC,r}$)	V	400
Max. input voltage ($U_{DC,max}$)	V	900
Min. input voltage ($U_{DC,min}$)	V	160
Start input voltage ($U_{DC,start}$)	V	180
Max. MPP voltage ($U_{MPP,max}$)	V	730
Min. MPP voltage with DC rated output in single-tracker operation ($U_{MPP,min}$)	V	270
Min. MPP voltage with DC rated output in dual-tracker or parallel operation ($U_{MPP,min}$)		-
Max. input current ($I_{DC,max}$)	A	12.5
Max. input current with parallel connection	A	-
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	3
Max. output apparent power $\cos \varphi,_{adj}$	kVA	3
Max. output voltage ($U_{AC,max}$)	V	264.5
Min. output voltage ($U_{AC,min}$)	V	184
Rated output current	A	13
Max. output current ($I_{AC,max}$)	A	13.7
Short-circuit current (peak/RMS)	A	26.4/16.9
Grid connection		1/N/PE, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	51.5
Min. grid frequency (f_{min})	Hz	47.5
Setting range of the power factor $\cos \varphi_{AC,r}$		0.9...1...0.9
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	≤ 3

Device properties

Max. total night-time consumption (own requirements standby)	W	1.7
Max. night-time consumption of communication board	W	1.6

Degree of efficiency

Max. efficiency	%	96.2
European efficiency rate	%	95.5
MPP adjustment efficiency	%	99.9

Warranty

Warranty (years)		5
Warranty extension optional (years)		10/20

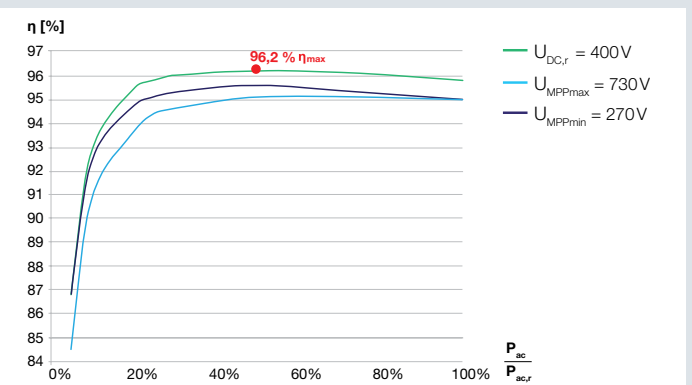
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 55
Protection class according to IEC 62103		I
Surge category according to IEC 60664-1 Input side (PV generator)		II
Surge category according to IEC 60664-1 Output side (grid connection)		III
Degree of contamination		3
Environmental category (outdoor installation)		✓
Environmental category (interior installation)		✓
UV resistance		✓
Minimum cable cross-section of AC connecting line	mm ²	2.5
Minimum cable cross-section of DC connecting line	mm ²	4
Max. fusing on output side		B16, C16
Operator protection (EN 62109-2)		RCCB type B
Electronic disconnection device integrated		✓
Height	mm	385 (15.2 in)
Width	mm	500 (19.7 in)
Depth	mm	222 (8.7 in)
Weight	kg	22 (48.5 lb)
Cooling principle - convection		✓
Cooling principle - regulated fans		-
Max. air throughput	m ³ /h	-
Max. noise emission	dBA	< 33
Ambient temperature	°C	-20...60 (-4...140 °F)
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity (non-condensing)	%	4...100
Connection technology at input side - MC 4		✓
Connection technology at output side - spring-loaded terminal strip		✓

Interfaces

Ethernet RJ45		2
RS485		1
S0		1
Analogue inputs		4

Efficiency rate characteristic curves PIKO 3.0



Smart connections.

Contact

KOSTAL Solar Electric GmbH
 Hanferstr. 6
 79108 Freiburg
 Germany
 Tel. +49 761 477 44 - 100
 Fax +49 761 477 44 - 111
 www.kostal-solar-electric.com