



Smart
connections.

Data Sheet

PIKO-Inverter

4.2 | 5.5 | 7.0 | 8.3 | 10.1

Overview Technical Data

	PIKO 4.2	PIKO 5.5	PIKO 7.0 ¹	PIKO 8.3 ¹	PIKO 10.1 ¹
Input side (DC)					
Number of DC inputs /of MPP trackers	2/2	3/3	2/2	2/2	3/3
Max. recommended DC power	5-10% above rated AC output ²				
Max. DC input voltage (open circuit voltage)	950V				
Min. DC input voltage	180V				
Max. DC input current	9A/13A ³	9A	12,5A/25A ³		
Max. DC input current with parallel connection	13A	–	25A		
Output side (AC)					
Number of feed-in phases	3				
AC grid voltage	3/N/PE, AC, 230/400V				
Max. AC output current	6,1 A	8 A	10,2 A	12 A	14,5 A
Short-circuit current	10,2 A		21 A		
Rated AC output (cosφ = 1)	4.200W (UK: 4.000W, PT1: 3.680W, PT2: 3.450W)	5.500W (ES: 5.000W, PT: 5.000W)	7.000W	8.300W	10.000W
Max. AC apparent power (cosφ, adj)	4.200VA	5.500VA	7.000VA	8.300VA	10.000VA
Max. efficiency	96,5%	96,2%	97,0%	97,0%	97,0%
European-standard efficiency	95,4%	95,7%	96,3%	96,3%	96,4%
Rated frequency	50Hz				
Self-consumption at night	Inverter < 1 W, Communicationboard < 1,7 W				
Protection class	I				
Overvoltage category	DC: II/AC: III				
Galvanic isolation	Transformerless				
Setting range of the power factor cosφ _{AC,r}	0,9 capacitive ... 1 ... 0,9 inductive				
Type of grid monitoring	According to the countries' certificates				
Reverse polarity protection	Short circuit diode at DC side				
Personal protection	RCCB Type B 30mA				
Operational conditions, ingress protection according to IEC 60529	interior + exterior, IP 55				
Ambient temperature	-20° ... 60°C				
Max. humidity	0 ... 95%				
Type of cooling	Regulated ventilation				
Communications interfaces	Ethernet RJ45 (2x with Communicationboard 2, incl. integrated switch), RS485, S0, 4x analogue inputs				
Max. sound	< 33 dB(A)		Ventilator 25% -> 33 dB(A) Ventilator 50% -> 41 dB(A) Ventilator 75 ... 100% -> 46 dB(A)		
Connection technology at input side	MC 4				
Connection technology at output side	Spring-loaded terminal strip				
Dimensions (W x D x H)	420x211x350 mm		520x230x450 mm		
Weight	20,5kg	21,1 kg	33kg	33kg	34 kg
Disconnection device	Integrated electronic circuit breaker				
Warranty	5 years (optional 10/20 years)				

¹ This inverter is available in two versions: with or without arc detection

² depending on ambient temperature and solar radiation

³ with parallel connection of two MPP trackers

Inverter PIKO 4.2 | 5.5

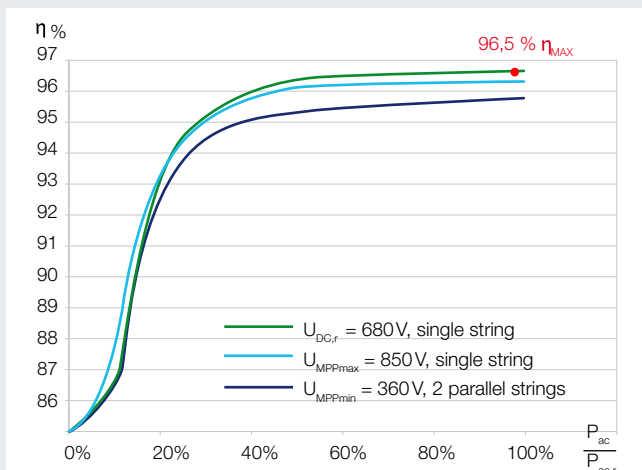
- Three-phase feed-in
- Transformerless topology
- Extension of the input current range possible (PIKO 4.2)
- Three independent MPP trackers (PIKO 5.5)
- Integrated circuit contact for self-consumption control
- Integrated electronic DC circuit breaker
- Integrated data logger and web server for system monitoring
- Various communication interfaces included as standard: Ethernet, RS485, S0, 4x analogue inputs
- Graphic display with 3-button control



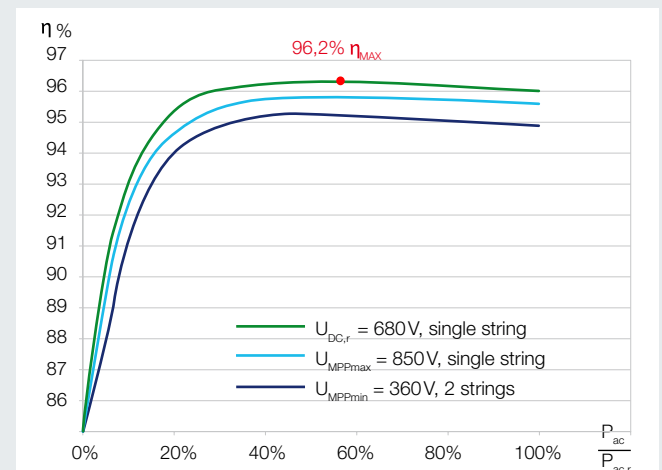
Technical Data

		PIKO 4.2	PIKO 5.5
Input side (DC)			
Number of DC inputs / number of MPP trackers		2/2	3/3
Max. input voltage (open circuit voltage)	U_{DCmax}	950V	950V
Min. DC input voltage	U_{DCmin}	180V	180V
Start-up DC input voltage	$U_{DCstart}$	180V	180V
Rated DC input voltage	$U_{DC,r}$	680V	680V
Max. MPP voltage	U_{MPPmax}	850V	850V
Min. MPP voltage in single-tracker operation	U_{MPPmin}	500V	660V
Min. MPP voltage in two-tracker or parallel operation	U_{MPPmin}	360V	360V
Max. DC input current	I_{DCmax}	9A	9A
Rated DC input current	$I_{DC,r}$	8A	8A
Max. DC input current with parallel connection	$I_{DCmax,p}$	13A	–
Output side (AC)			
Number of feed-in phases		3	3
AC grid voltage	$U_{AC,r}$	3/N/PE, AC, 230V / 400V	
Max. AC output current	I_{ACmax}	6,1A	8A
Short-circuit current	I_{sc}	10,2A	10,2A
Rated AC output ($\cos\phi = 1$)	$P_{AC,r}$	4.200W (UK: 4.000W, PT1: 3.680W, PT2: 3.450W)	5.500W (ES: 5.000W, PT: 5.000W)
Max. AC apparent power ($\cos\phi$, adj)	S_{AC}	4.200VA	5.500VA
Power factor $\cos\phi_{ACr}$		0,9 capacitive ... 1 ... 0,9 inductive	
Max. efficiency	η_{max}	96,5 %	96,2 %
European-standard efficiency	η_{EU}	95,4 %	95,7 %
Rated frequency	f_r	50Hz	50Hz

Efficiency rate characteristic curves PIKO 4.2



Efficiency rate characteristic curves PIKO 5.5



Inverter PIKO 7.0 | 8.3 | 10.1

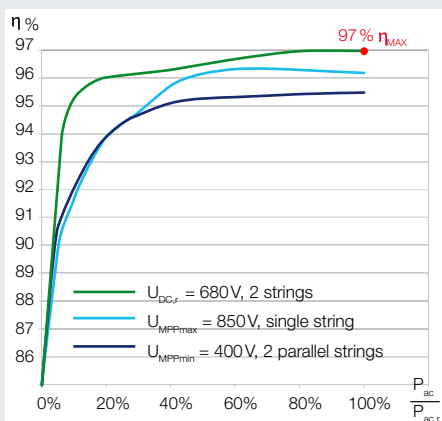
- Three-phase feed-in; Transformerless topology
- Extension of the input current range possible
- With or without arc detection
- Three independent MPP trackers (PIKO 10.1)
- Integrated circuit contact for self-consumption control
- Integrated electronic DC circuit breaker
- Integrated data logger and web server for system monitoring
- Various communication interfaces included as standard: Ethernet, RS485, S0, 4 x analogue inputs
- Graphic display with 3-button control



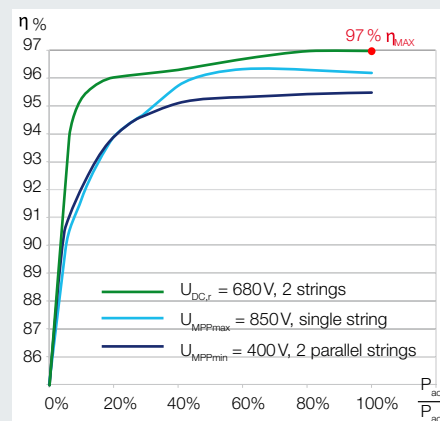
Technical Data

		PIKO 7.0	PIKO 8.3	PIKO 10.1
Input side (DC)				
Number of DC inputs / number of MPP trackers		2/2	2/2	3/3
Max. input voltage (open circuit voltage)	U_{DCmax}	950V	950V	950V
Min. DC input voltage	U_{DCmin}	180V	180V	180V
Start-up DC input voltage	$U_{DCstart}$	180V	180V	180V
Rated DC input voltage	$U_{DC,r}$	680V	680V	680V
Max. MPP voltage	U_{MPPmax}	850V	850V	850V
Min. MPP voltage in single-tracker operation	U_{MPPmin}	not recommended		
Min. MPP voltage in two-tracker or parallel operation	U_{MPPmin}	400V	400V	420V
Max. DC input current	I_{DCmax}	12,5A	12,5A	12,5A
Rated DC input current	$I_{DC,r}$	11,5A	11,5A	11,5A
Max. DC input current with parallel connection	$I_{DCmax,p}$	25A	25A	25A
Output side (AC)				
Number of feed-in phases		3	3	3
AC grid voltage	$U_{AC,r}$	3/N/PE, AC, 230V / 400V		
Max. AC output current	I_{ACmax}	10,2A	12A	14,5A
Short-circuit current	I_{sc}	21A	21A	21A
Rated AC output ($\cos\phi = 1$)	$P_{AC,r}$	7.000W	8.300W	10.000W
Max. AC apparent power ($\cos\phi, adj$)	S_{AC}	7.000VA	8.300VA	10.000VA
Power factor $\cos\phi_{ACr}$		0,9 capacitive ... 1 ... 0,9 inductive		
Max. efficiency	η_{max}	97,0%	97,0%	97,0%
European-standard efficiency	η_{EU}	96,3%	96,3%	96,4%
Rated frequency	f_r	50Hz	50Hz	50Hz

Efficiency rate characteristic curves
PIKO 7.0



Efficiency rate characteristic curves
PIKO 8.3



Efficiency rate characteristic curves
PIKO 10.1

