



Smart
connections.

Data sheet

PIKO 1.5 MP

1.5

Technical data PIKO 1.5 MP



- Single-phase feed-in
- Transformerless conversion
- Wide input voltage range
- Long life cycle thanks to effective cooling technology
- Standard integrated communication package with data logger, web server and solar
- Simple menu-guided operation and installation
- Light weight
- Convenient connection area and integrated DC switch
- Energy meters can be integrated

Input side (DC)

Max. PV power ($\cos \varphi = 1$)	kWp	1.8
Rated input voltage ($V_{DC,r}$)	V	195
Max. input voltage (V_{DCmax})	V	420
Min. input voltage (V_{DCmin})	V	75
Start-up input voltage ($V_{DCstart}$)	V	90
Max. MPP voltage (V_{MPPmax})	V	350
Min. MPP voltage for DC rated output in single tracker mode (V_{MPPmin})	V	135
Min. MPP voltage for DC rated output in two-tracker mode (V_{MPPmin})	V	–
Max. input current (I_{DCmax})	A	11.5
Max. input current with parallel connection (input DC1+DC2)	A	–
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	1.5
Max. output apparent power, $\cos \varphi, adj$	kVA	1.5
Max. output voltage (V_{ACmax})	V	276
Min. output voltage (V_{ACmin})	V	185
Rated output current	A	6.5
Max. output current (I_{ACmax})	A	12
Short-circuit current (peak / RMS)	A	27/12
Grid connection		1~, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	65
Min. grid frequency (f_{min})	Hz	45
Setting range of the power factor $\cos \varphi_{AC,r}$		0.95...1...0.95
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	<2

Device properties

Standby consumption	W	<4
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Efficiency

Max. efficiency	%	98
European efficiency	%	97.4
MPP adjustment efficiency	%	99.7

Warranty

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

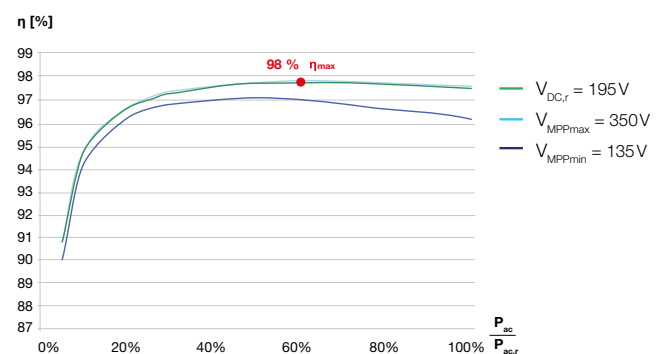
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 21
Protective class according to IEC 62103		II
Overvoltage category according to IEC 60664-1 Input side (PV generator)		II
Overvoltage category according to IEC 60664-1 Output side (grid connection)		III
Pollution Degree		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	2.5
Max. fusing on output side		B16
Operator protection (EN 62109-2)		RCMU/RCCB Typ B
Electronic disconnection device integrated		✓
Height	mm	608
Width	mm	340
Depth	mm	222
Weight	kg	8.3
Cooling principle - convection		–
Cooling principle - regulated fans		✓
Max. air throughput	m ³ /h	–
Max. noise emission	dBA	31
Ambient temperature	°C	-15...60
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity	%	0...95
Connection technology at input side - Phoenix Contact SUNCLIX		✓
Connection technology at output side - Plug Wieland RST25i3		✓

Interfaces

Ethernet (RJ45)		1
RS485 (RJ45)		2
Modbus RTU (RJ10)		1
Analogue inputs		–
PIKO BA Sensor Interface		–

Efficiency characteristics of PIKO 1.5 MP



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Smart
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Data sheet

PIKO 2.0 MP

2.0

Technical data PIKO 2.0 MP



- Single-phase feed-in
- Transformerless conversion
- Wide input voltage range
- Long life cycle thanks to effective cooling technology
- Standard integrated communication package with data logger, web server and solar
- Simple menu-guided operation and installation
- Light weight
- Convenient connection area and integrated DC switch
- Energy meters can be integrated

Input side (DC)

Max. PV power ($\cos \varphi = 1$)	kWp	2.5
Rated input voltage ($V_{DC,r}$)	V	255
Max. input voltage (V_{DCmax})	V	420
Min. input voltage (V_{DCmin})	V	75
Start-up input voltage ($V_{DCstart}$)	V	90
Max. MPP voltage (V_{MPPmax})	V	350
Min. MPP voltage for DC rated output in single tracker mode (V_{MPPmin})	V	180
Min. MPP voltage for DC rated output in two-tracker mode (V_{MPPmin})	V	–
Max. input current (I_{DCmax})	A	11.5
Max. input current with parallel connection (input DC1+DC2)	A	–
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	2.0
Max. output apparent power, $\cos \varphi, adj$	kVA	2.0
Max. output voltage (V_{ACmax})	V	276
Min. output voltage (V_{ACmin})	V	185
Rated output current	A	8.7
Max. output current (I_{ACmax})	A	12
Short-circuit current (peak / RMS)	A	27/12
Grid connection		1~, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	65
Min. grid frequency (f_{min})	Hz	45
Setting range of the power factor $\cos \varphi_{AC,r}$		0.95...1...0.95
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	<2

Device properties

Standby consumption	W	<4
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Efficiency

Max. efficiency	%	98
European efficiency	%	97.5
MPP adjustment efficiency	%	99.7

Warranty

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

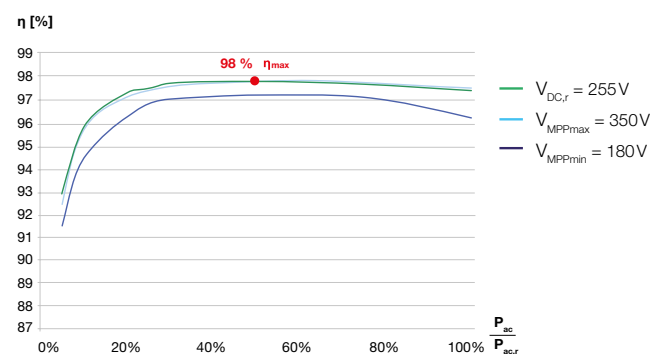
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 21
Protective class according to IEC 62103		II
Overvoltage category according to IEC 60664-1 Input side (PV generator)		II
Overvoltage category according to IEC 60664-1 Output side (grid connection)		III
Pollution Degree		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	2.5
Max. fusing on output side		B16
Operator protection (EN 62109-2)		RCMU/RCCB Typ B
Electronic disconnection device integrated		✓
Height	mm	608
Width	mm	340
Depth	mm	222
Weight	kg	8.3
Cooling principle - convection		–
Cooling principle - regulated fans		✓
Max. air throughput	m ³ /h	–
Max. noise emission	dBA	31
Ambient temperature	°C	-15...60
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity	%	0...95
Connection technology at input side - Phoenix Contact SUNCLIX		✓
Connection technology at output side - Plug Wieland RST25i3		✓

Interfaces

Ethernet (RJ45)		1
RS485 (RJ45)		2
Modbus RTU (RJ10)		1
Analogue inputs		–
PIKO BA Sensor Interface		–

Efficiency characteristics of PIKO 2.0 MP



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Data sheet

PIKO 2.5 MP

2.5

Technical data PIKO 2.5 MP



- Single-phase feed-in
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- Wide input voltage range
- Long life cycle thanks to effective cooling technology
- Standard integrated communication package with data logger, web server and solar
- Simple menu-guided operation and installation
- Light weight
- Convenient connection area and integrated DC switch
- Energy meters can be integrated

Input side (DC)

Max. PV power ($\cos \varphi = 1$)	kWp	3.1
Rated input voltage ($V_{DC,r}$)	V	320
Max. input voltage (V_{DCmax})	V	600
Min. input voltage (V_{DCmin})	V	125
Start-up input voltage ($V_{DCstart}$)	V	150
Max. MPP voltage (V_{MPPmax})	V	500
Min. MPP voltage for DC rated output in single tracker mode (V_{MPPmin})	V	225
Min. MPP voltage for DC rated output in two-tracker mode (V_{MPPmin})	V	–
Max. input current (I_{DCmax})	A	11.5
Max. input current with parallel connection (input DC1+DC2)	A	–
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	2.5
Max. output apparent power, $\cos \varphi, adj$	kVA	2.5
Max. output voltage (V_{ACmax})	V	276
Min. output voltage (V_{ACmin})	V	185
Rated output current	A	11
Max. output current (I_{ACmax})	A	14
Short-circuit current (peak / RMS)	A	42/14
Grid connection		1~, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	65
Min. grid frequency (f_{min})	Hz	45
Setting range of the power factor $\cos \varphi_{AC,r}$		0.95 ... 1 ... 0.95
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	<2

Device properties

Standby consumption	W	<4
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Efficiency

Max. efficiency	%	98
European efficiency	%	97.6
MPP adjustment efficiency	%	99.7

Warranty

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

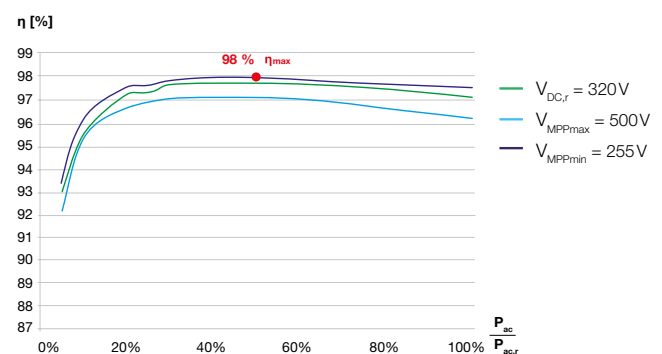
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 21
Protective class according to IEC 62103		II
Overvoltage category according to IEC 60664-1 Input side (PV generator)		II
Overvoltage category according to IEC 60664-1 Output side (grid connection)		III
Pollution Degree		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	2.5
Max. fusing on output side		B16
Operator protection (EN 62109-2)		RCMU/RCCB Typ B
Electronic disconnection device integrated		✓
Height	mm	608
Width	mm	340
Depth	mm	222
Weight	kg	9.6
Cooling principle - convection		–
Cooling principle - regulated fans		✓
Max. air throughput	m ³ /h	–
Max. noise emission	dBA	31
Ambient temperature	°C	-15...60
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity	%	0...95
Connection technology at input side - Phoenix Contact SUNCLIX		✓
Connection technology at output side - Plug Wieland RST25i3		✓

Interfaces

Ethernet (RJ45)		1
RS485 (RJ45)		2
Modbus RTU (RJ10)		1
Analogue inputs		–
PIKO BA Sensor Interface		–

Efficiency characteristics of PIKO 2.5 MP



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Data sheet

PIKO 3.0 MP

3.0

Technical data PIKO 3.0 MP



- Single-phase feed-in
- Transformerless conversion
- Wide input voltage range
- Long life cycle thanks to effective cooling technology
- Standard integrated communication package with data logger, web server and solar
- Simple menu-guided operation and installation
- Light weight
- Convenient connection area and integrated DC switch
- Energy meters can be integrated

Input side (DC)

Max. PV power ($\cos \varphi = 1$)	kWp	3.8
Rated input voltage ($V_{DC,r}$)	V	380
Max. input voltage (V_{DCmax})	V	600
Min. input voltage (V_{DCmin})	V	125
Start-up input voltage ($V_{DCstart}$)	V	150
Max. MPP voltage (V_{MPPmax})	V	500
Min. MPP voltage for DC rated output in single tracker mode (V_{MPPmin})	V	270
Min. MPP voltage for DC rated output in two-tracker mode (V_{MPPmin})	V	–
Max. input current (I_{DCmax})	A	11.5
Max. input current with parallel connection (input DC1+DC2)	A	–
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	3.0
Max. output apparent power, $\cos \varphi, adj$	kVA	3.0
Max. output voltage (V_{ACmax})	V	276
Min. output voltage (V_{ACmin})	V	185
Rated output current	A	13
Max. output current (I_{ACmax})	A	14
Short-circuit current (peak / RMS)	A	42/14
Grid connection		1~, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	65
Min. grid frequency (f_{min})	Hz	45
Setting range of the power factor $\cos \varphi_{AC,r}$		0.95 ... 1 ... 0.95
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	<2

Device properties

Standby consumption	W	<4
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Efficiency

Max. efficiency	%	98
European efficiency	%	97.7
MPP adjustment efficiency	%	99.7

Warranty

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

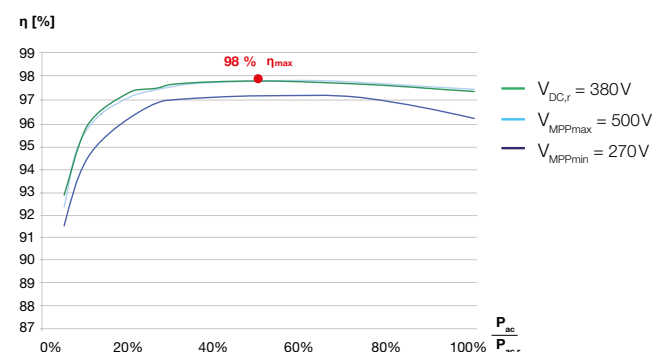
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 21
Protective class according to IEC 62103		II
Overvoltage category according to IEC 60664-1 Input side (PV generator)		II
Overvoltage category according to IEC 60664-1 Output side (grid connection)		III
Pollution Degree		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	2.5
Max. fusing on output side		B16
Operator protection (EN 62109-2)		RCMU/RCCB Typ B
Electronic disconnection device integrated		✓
Height	mm	608
Width	mm	340
Depth	mm	222
Weight	kg	9.6
Cooling principle - convection		–
Cooling principle - regulated fans		✓
Max. air throughput	m ³ /h	–
Max. noise emission	dBA	31
Ambient temperature	°C	-15...60
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity	%	0...95
Connection technology at input side - Phoenix Contact SUNCLIX		✓
Connection technology at output side - Plug Wieland RST25i3		✓

Interfaces

Ethernet (RJ45)		1
RS485 (RJ45)		2
Modbus RTU (RJ10)		1
Analogue inputs		–
PIKO BA Sensor Interface		–

Efficiency characteristics of PIKO 3.0 MP



Smart connections.

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Smart
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Data sheet

PIKO 3.6 MP

3.6

Technical data PIKO 3.6 MP



- Single-phase feed-in
- Transformerless conversion
- Wide input voltage range
- Long life cycle thanks to effective cooling technology
- Standard integrated communication package with data logger, web server and solar
- Simple menu-guided operation and installation
- Light weight
- Convenient connection area and integrated DC switch
- Energy meters can be integrated

Input side (DC)

Max. PV power ($\cos \varphi = 1$)	kWp	4.5
Rated input voltage ($V_{DC,r}$)	V	455
Max. input voltage (V_{DCmax})	V	845
Min. input voltage (V_{DCmin})	V	350
Start-up input voltage ($V_{DCstart}$)	V	350
Max. MPP voltage (V_{MPPmax})	V	700
Min. MPP voltage for DC rated output in single tracker mode (V_{MPPmin})	V	350
Min. MPP voltage for DC rated output in two-tracker mode (V_{MPPmin})	V	–
Max. input current (I_{DCmax})	A	12
Max. input current with parallel connection (input DC1+DC2)	A	–
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	3.68
Max. output apparent power, $\cos \varphi, adj$	kVA	3.68
Max. output voltage (V_{ACmax})	V	276
Min. output voltage (V_{ACmin})	V	185
Rated output current	A	16
Max. output current (I_{ACmax})	A	16
Short-circuit current (peak / RMS)	A	47/16
Grid connection		1~, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	65
Min. grid frequency (f_{min})	Hz	45
Setting range of the power factor $\cos \varphi_{AC,r}$		0.95 ... 1 ... 0.95
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	<2

Device properties

Standby consumption	W	<4
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Efficiency

Max. efficiency	%	98.6
European efficiency	%	98.3
MPP adjustment efficiency	%	99.7

Warranty

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

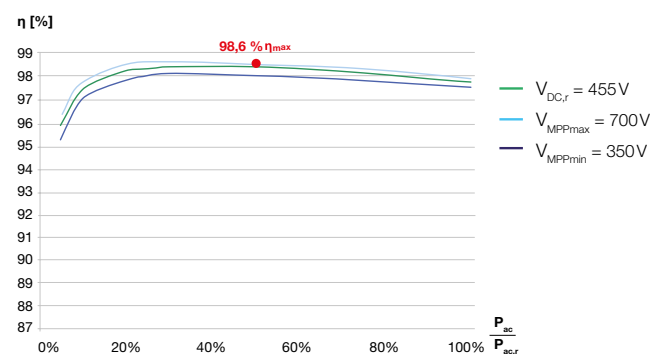
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 21
Protective class according to IEC 62103		II
Overvoltage category according to IEC 60664-1 Input side (PV generator)		II
Overvoltage category according to IEC 60664-1 Output side (grid connection)		III
Pollution Degree		3
Environmental category (outdoor installation)		–
Environmental category (interior installation)		✓
UV resistance		–
Minimum cable cross-section of AC connecting line	mm ²	4
Minimum cable cross-section of DC connecting line	mm ²	2.5
Max. fusing on output side		B20
Operator protection (EN 62109-2)		RCMU/RCCB Typ B
Electronic disconnection device integrated		✓
Height	mm	608
Width	mm	340
Depth	mm	222
Weight	kg	9.1
Cooling principle - convection		–
Cooling principle - regulated fans		✓
Max. air throughput	m ³ /h	–
Max. noise emission	dBA	31
Ambient temperature	°C	-15...60
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity	%	0...95
Connection technology at input side - Phoenix Contact SUNCLIX		✓
Connection technology at output side - Plug Wieland RST25i3		✓

Interfaces

Ethernet (RJ45)		1
RS485 (RJ45)		2
Modbus RTU (RJ10)		1
Analogue inputs		–
PIKO BA Sensor Interface		–

Efficiency characteristics of PIKO 3.6 MP



Smart connections.

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Data sheet

PIKO 4.2 MP

4.2

Technical data PIKO 4.2 MP



- Single-phase feed-in
- Transformerless conversion
- Wide input voltage range
- Long life cycle thanks to effective cooling technology
- Standard integrated communication package with data logger, web server and solar
- Simple menu-guided operation and installation
- Light weight
- Convenient connection area and integrated DC switch
- Energy meters can be integrated

Input side (DC)

Max. PV power ($\cos \varphi = 1$)	kWp	5.2
Rated input voltage ($V_{DC,r}$)	V	540
Max. input voltage (V_{DCmax})	V	845
Min. input voltage (V_{DCmin})	V	350
Start-up input voltage ($V_{DCstart}$)	V	350
Max. MPP voltage (V_{MPPmax})	V	700
Min. MPP voltage for DC rated output in single tracker mode (V_{MPPmin})	V	350
Min. MPP voltage for DC rated output in two-tracker mode (V_{MPPmin})	V	–
Max. input current (I_{DCmax})	A	12
Max. input current with parallel connection (input DC1+DC2)	A	–
Number of DC inputs		1
Number of independent MPP trackers		1

Output side (AC)

Rated output, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	4.2
Max. output apparent power, $\cos \varphi, adj$	kVA	4.2
Max. output voltage (V_{ACmax})	V	276
Min. output voltage (V_{ACmin})	V	185
Rated output current	A	18.3
Max. output current (I_{ACmax})	A	18.5
Short-circuit current (peak / RMS)	A	47/18.5
Grid connection		1~, AC, 230V
Rated frequency (f_r)	Hz	50
Max. grid frequency (f_{max})	Hz	65
Min. grid frequency (f_{min})	Hz	45
Setting range of the power factor $\cos \varphi_{AC,r}$		0.95 ... 1 ... 0.95
Power factor for rated power ($\cos \varphi_{AC,r}$)		1
Max. total harmonic distortion	%	<2

Device properties

Standby consumption	W	<4
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Efficiency

Max. efficiency	%	98.6
European efficiency	%	98.3
MPP adjustment efficiency	%	99.7

Warranty

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

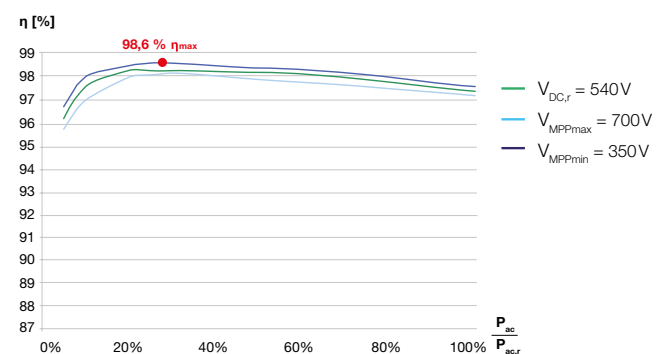
System data

Topology: Without galvanic separation - transformerless		✓
Internal protection according to IEC 60529		IP 21
Protective class according to IEC 62103		II
Overvoltage category according to IEC 60664-1 Input side (PV generator)		II
Overvoltage category according to IEC 60664-1 Output side (grid connection)		III
Pollution Degree		3
Environmental category (outdoor installation)		–
Environmental category (interior installation)		✓
UV resistance		–
Minimum cable cross-section of AC connecting line	mm ²	4
Minimum cable cross-section of DC connecting line	mm ²	2.5
Max. fusing on output side		B20
Operator protection (EN 62109-2)		RCMU/RCCB Typ B
Electronic disconnection device integrated		✓
Height	mm	608
Width	mm	340
Depth	mm	222
Weight	kg	9.1
Cooling principle - convection		–
Cooling principle - regulated fans		✓
Max. air throughput	m ³ /h	–
Max. noise emission	dBA	31
Ambient temperature	°C	-15...60
Max. installation altitude above sea level	m	2000 (6562 ft)
Relative humidity	%	0...95
Connection technology at input side - Phoenix Contact SUNCLIX		✓
Connection technology at output side - Plug Wieland RST25i3		✓

Interfaces

Ethernet (RJ45)		1
RS485 (RJ45)		2
Modbus RTU (RJ10)		1
Analogue inputs		–
PIKO BA Sensor Interface		–

Efficiency characteristics of PIKO 4.2 MP



Smart connections.

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